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## Data from the 2006 International Piping Plover Census

**Data Series 426**



# **Data from the 2006 International Piping Plover Census**

By Elise Elliott-Smith and Susan M. Haig, U.S. Geological Survey, and Brandi M. Powers, U.S. Bureau of Land Management.

Data Series 426

**U.S. Department of the Interior**  
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## Conversion Factors

| <b>Multiply</b> | <b>By</b> | <b>To obtain</b> |
|-----------------|-----------|------------------|
| kilometer (km)  | 0.6214    | mile (mi)        |

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# Data from the 2006 International Piping Plover Census

By Elise Elliott-Smith and Susan M. Haig, U.S. Geological Survey, and Brandi M. Powers, U.S. Bureau of Land Management.

## Abstract

This report presents the results of the 2006 International Census of Piping Plovers (*Charadrius melodus*). Two sets of tabular data are reported: one for distribution and abundance of wintering Piping Plovers, the other for distribution and abundance of breeding Piping Plovers. The winter census resulted in the observation of 3,884 Piping Plovers at 546 sites. The breeding census resulted in the observation of 8,092 adult Piping Plovers at 1,925 sites. An appendix provides census reports for each location surveyed. This report was prepared to meet an immediate need of the U.S. Fish and Wildlife Service for census data for Piping Plovers.

## Introduction

In 2006, a comprehensive survey of Piping Plovers was conducted for the fourth time in 15 years across the shorebird's winter and breeding ranges in the United States, Canada, France (islands near Canada), Mexico, and the Caribbean. This type of census has occurred at 5-year intervals since 1991 to provide the data to assess Piping Plover population status and distribution. Management agencies use the information to assess progress toward recovery goals for this shorebird. These assessments occur because of designations of either threatened or endangered for populations of Piping Plovers in the United States and Canada.

This report was prepared to meet an immediate need of the U.S. Fish and Wildlife Service for census data for Piping Plovers.

## Methods

The 2006 International Piping Plover Census was conducted using similar and compatible methods to those used during 1991, 1996, and 2001 (Haig and Plissner, 1993; Plissner and Haig, 2000; Haig and others, 2005). The census was facilitated by the International Piping Plover Coordination Group, which is comprised of leaders or representatives of Piping Plover recovery teams in Canada and the United States. The census was led by a census coordinator (Elise Elliott-Smith, U.S. Geological Survey). Individual surveys were organized with the assistance of State, Provincial, island, and regional coordinators.

The winter census was conducted prior to the breeding census so that only birds capable of being present in the subsequent breeding census were counted. January 23 through February 6, 2006 was designated as the time period for the winter census. June 3 through 16 was designated as the time period for the breeding census for the U.S. Plains, Canadian Prairies, Great Lakes, and Atlantic Canada. June 1 through 9, 2006 was the time period for the breeding census for the U.S. Atlantic Coast in Massachusetts because this was the designated interval for an already established survey called an annual index count.

It was important to conduct each of the censuses during short time intervals to minimize recounting birds if they moved among areas. Dates also were selected based on similarity to previous census dates. An additional factor when in coastal areas was selection of winter census dates that would coincide with a period of daytime high tides, particularly on the Texas coast.

Some data collected outside the designated time interval were accepted for the winter census in order to document use in regions where Piping Plovers were rare. Because the breeding census provides a population estimate for the species, deviations from the established time periods for this census were rare. Actual dates of surveys for each location are presented in appendix 1.

## 2 2006 International Piping Plover Census Data

General guidance was given to surveyors to increase the likelihood of Piping Plover detection. Participants were advised to conduct surveys when the weather was favorable because visibility may be reduced in inclement weather for multiple reasons. When tides were involved, surveyors were advised to make their surveys at high tide because birds can be concentrated under these conditions and habitat tends to be easier to cover.

All States and Provinces except Massachusetts, New York, and two sites in Rhode Island followed the census protocol in 2006. Surveyors reported counts for a single survey and reported Piping Plover pairs as the sum of those birds actually seen together and single adults observed at a nest or with young. Massachusetts, New York, and Rhode Island reported numbers according to protocols for their annual window count, which included data from multiple surveys at some sites and inferences about pairs based on known nests. Specifically, if a nest was detected at a site, a pair was recorded as present even if no birds were seen. Aside from these States, all other census data were considered comparable across the species range.

The categories of data collected during the 2006 censuses were similar to prior census years. Information recorded included the number of birds, location, weather, tidal stage, approximate length of shoreline covered, presence or absence of leg-bands and any band combinations, and surveyor. Breeding pairs were calculated for each site by adding the

number of pairs observed to the number of individuals with chicks or nests. Surveyors also commented on habitat types surveyed and used by Piping Plovers.

This effort is called a census because of the breadth of the distribution and abundance of the species that is covered. In a strict definition, census means complete count based on prior knowledge of entire occurrence and distribution. The breeding census is as close to a complete census as will be found for any wildlife species. The authors are aware that the exact number of Piping Plovers is problematic in the winter census and that people miss birds during the survey for a variety of reasons stated in the report. However, the historical precedence for designation of the effort as a census led the authors to continue to use that term.

## Results

A grand total 3,884 Piping Plovers were recorded during the winter census. Birds were observed at 546 sites (table 1). Expanded coverage outside the United States led to the discovery of a large population of Piping Plovers in the Bahamas (417 birds or 10.7 percent of the winter total). A grand total of 8,092 adult Piping Plovers were recorded during the breeding census at 1,925 sites (table 2). Site-specific information is provided for each survey (appendix 1).

**Table 1.** Distribution and abundance of wintering Piping Plovers, 2006.

[Sites surveyed, Kilometers surveyed, and Participants: Numbers reported serve as minimum estimates. Not all censusers included this information. na, not applicable]

| State/<br>country       | Number<br>of Piping<br>Plovers | Percentage<br>of all birds<br>censused | Sites<br>surveyed | Kilometers<br>surveyed | Participants | Coordinator                     |
|-------------------------|--------------------------------|--|-------------------|------------------------|--------------|---------------------------------|
| Virginia                | 1                              | 0                                      | 21                | 194                    | 20           | R. Boettcher                    |
| North Carolina          | 84                             | 2.2                                    | 39                | 344                    | 28           | S. Cameron                      |
| South Carolina          | 100                            | 2.6                                    | 42                | 257                    | 34           | M. Bimbi, F. Sanders            |
| Georgia                 | 212                            | 5.5                                    | 13                | 160                    | 65           | B. Winn                         |
| Florida                 | 454                            | 11.7                                   | 186               | 1,224                  | 298          | P. Kelly, B. Brooks, M. Knight  |
| Atlantic <sup>1</sup>   | 133                            | 3.4                                    | 69                | 384                    | na           | na                              |
| Gulf <sup>1</sup>       | 321                            | 8.3                                    | 117               | 840                    | na           | na                              |
| Alabama                 | 29                             | 0.7                                    | 5                 | 19                     | 9            | R. Clay                         |
| Mississippi             | 78                             | 2                                      | 20                | 154                    | 25           | N. Winstead                     |
| Louisiana               | 226                            | 5.8                                    | 25                | 205                    | 11           | E. Baka                         |
| Texas                   | 2,090                          | 53.8                                   | 78                | 1,500                  | 100          | P. Glass, R. Cobb, L. Gustafson |
| Mexico                  | 76                             | 2                                      | 5                 | 89                     | 2            | A. Banda                        |
| Bahamas                 | 417                            | 10.7                                   | 66                | 128                    | 21           | S. Maddock, C. Wardle           |
| Cuba                    | 89                             | 2.3                                    | 22                | 124                    | 5            | F. Shaffer, P. Rodriguez        |
| Other Caribbean Islands | 28                             | 0.7                                    | 24                | 166                    | 27           | Multiple coordinators           |
| Grand total             | 3,884                          | 100                                    | 546               | 4,564                  | 645          |                                 |

<sup>1</sup>Regional subtotals within Florida.

**Table 2.** Census effort and coverage for the 2006 International Piping Plover breeding census.

[Sites surveyed, Kilometers surveyed, and Participants: Numbers reported serve as minimum estimates. Not all censusers included this information. na, not applicable; nr, information was not reported]

| State/province                               | Adults       | Percent of grand total | Percent of region | Breeding pairs | Sites surveyed | Linear kilometers surveyed | Participants | Coordinator             |
|--|--------------|------------------------|-------------------|----------------|----------------|----------------------------|--------------|-------------------------|
| Northern Great Plains/Prairies               | 4,662        | 57.6                   | na                | 1,879          | 933            | 5,538                      | 319          | na                      |
| Prairie Canada                               | 1,703        | 21.0                   | 36.5              | 666            | 376            | 2,358                      | 212          | P. Goossen              |
| Alberta                                      | 274          | 3.4                    | 5.8               | 114            | 71             | 454                        | 32           | D. Prescott             |
| Saskatchewan                                 | 1,420        | 17.5                   | 30.4              | 548            | 255            | 1,822                      | 158          | P. Hjertaas             |
| Manitoba                                     | 8            | 0.1                    | 0.2               | 4              | 46             | 71                         | 22           | K. Porteous             |
| Ontario (Lake of the Woods)                  | 1            | 0                      | 0                 | 0              | 4              | 11                         | na           | L. Heyens, B. Campbell  |
| U.S. Northern Great Plains                   | 2,959        | 36.6                   | 63.5              | 1,213          | 557            | 3,180                      | 107          | K. Kreil, A. Ryba       |
| Minnesota                                    | 4            | 0                      | 0.1               | 2              | 6              | 12                         | 7            | K. Haws                 |
| Montana                                      | 130          | 1.6                    | 2.8               | 46             | 74             | 599                        | 21           | L. Hanebury             |
| Montana (Missouri River) <sup>1</sup>        | 23           | 0.3                    | 0.5               | 9              | 11             | 5                          | na           | na                      |
| North Dakota                                 | 1,508        | 18.6                   | 32.3              | 646            | 261            | 1,599                      | 38           | K. Kreil, A. Ryba       |
| North Dakota (Missouri River) <sup>1</sup>   | 702          | 8.7                    | 15.1              | 282            | 114            | 364                        | na           | na                      |
| South Dakota                                 | 375          | 4.6                    | 8.0               | 171            | 93             | 232                        | 11           | C. Aron                 |
| South Dakota (Missouri River) <sup>1</sup>   | 350          | 4.3                    | 7.5               | 153            | 74             | 113                        | na           | na                      |
| Nebraska                                     | 909          | 11.2                   | 19.5              | 341            | 117            | 711                        | 26           | J. Jorgenson            |
| Nebraska (Missouri River)                    | 191          | 2.4                    | 4.1               | 73             | 30             | 15                         | na           | na                      |
| Missouri River (MT, ND, SD, NE) <sup>1</sup> | 1,266        | 15.6                   | 27.2              | 517            | 229            | 497                        | 40           | K. Cruse, G. Pavelka    |
| Iowa   | 9            | 0.1                    | 0.2               | 4              | 2              | 3                          | 1            | D. Howell               |
| Kansas                                       | 4            | 0                      | 0.1               | 2              | 1              | 1                          | 2            | D. Mulhern              |
| Colorado                                     | 20           | 0.2                    | 0.4               | 8              | 3              | 23                         | 1            | S. McClean, D. Nelson   |
| Great Lakes                                  | 110          | 1.4                    | na                | 49             | 118            | 421                        | 91           | na                      |
| Canada (Ontario)                             | 1            | 0                      | 0.9               | 0              | 40             | 148                        | 43           | L. Heyens/B. Campbell   |
| United States                                | 109          | 1.4                    | 99.1              | 49             | 78             | 273                        | 48           | J. Dingleline           |
| Michigan                                     | 101          | 1.3                    | 91.8              | 45             | 55             | 214                        | 37           | J. Dingleline           |
| Wisconsin                                    | 8            | 0.1                    | 7.2               | 4              | 8              | 30                         | nr           | S. Matteson             |
| MN/IL/IN/OH/PA/NY                            | 0            | 0                      | 0                 | 0              | 9              | 52                         | 13           | J. Dingleline, K. Haws  |
| Atlantic                                     | 3,320        | 41.0                   | na                | 1,588          | 874            | 1,937                      | 320          | na                      |
| St. Pierre and Miquelon (France)             | 8            | 0.1                    | 0.2               | 4              | 4              | 17                         | 3            | R. Etcheberry           |
| Atlantic Canada                              | 457          | 5.7                    | 13.8              | 206            | 330            | 788                        | 142          | D. Amirault-Langlais    |
| Newfoundland                                 | 48           | 0.6                    | 1.4               | 22             | 75             | 106                        | 18           | I. Schmelzer, P. Harris |
| Quebec                                       | 63           | 0.8                    | 1.9               | 22             | 15             | 124                        | 33           | F. Shaffer              |
| Prince Edward Island                         | 93           | 1.1                    | 2.8               | 44             | 80             | 198                        | 18           | T. MacDonald, J. Wadell |
| New Brunswick                                | 166          | 2.1                    | 5.0               | 79             | 63             | 228                        | 35           | J. Stewart              |
| Nova Scotia                                  | 87           | 1.1                    | 2.6               | 39             | 97             | 132                        | 38           | J. Mc.Knight            |
| U.S. Atlantic                                | 2,855        | 35.4                   | 86.0              | 1,378          | 540            | 1,132                      | 175          | A. Hecht                |
| Maine  | 71           | 0.9                    | 2.1               | 34             | 35             | 56                         | 17           | J. Jones                |
| New Hampshire                                | 6            | 0.1                    | 0.2               | 3              | 7              | 6                          | 1            | K. Murphy               |
| Massachusetts                                | 935          | 11.6                   | 28.2              | 465            | 167            | nr                         | nr           | S. Melvin               |
| Rhode Island                                 | 137          | 1.7                    | 4.1               | 63             | 23             | 34                         | 6            | W. Edwards              |
| Connecticut                                  | 68           | 0.8                    | 2.0               | 36             | 32             | 30                         | 9            | J. Victoria             |
| New York                                     | 852          | 10.5                   | 25.7              | 422            | 155            | 337                        | 62           | M. Gibbons              |
| New Jersey                                   | 209          | 2.6                    | 6.3               | 84             | 55             | 126                        | 25           | D. Jenkins              |
| Delaware                                     | 18           | 0.2                    | 0.5               | 9              | 12             | 29                         | 2            | M. Bailey               |
| Maryland                                     | 167          | 2.1                    | 5.0               | 64             | 1              | 20                         | nr           | J. Kumer                |
| Virginia                                     | 305          | 3.8                    | 9.2               | 157            | 24             | 156                        | 24           | R. Boettcher            |
| North Carolina                               | 87           | 1.1                    | 2.6               | 41             | 29             | 338                        | 29           | S. Cameron              |
| <b>Totals</b>                                |              |                        |                   |                |                |                            |              |                         |
| U.S.   | 5,923        | 73.2                   | na                | 2,640          | 1,175          | 4,585                      | 330          | na                      |
| Canada                                       | 2,161        | 26.7                   | na                | 872            | 746            | 3,294                      | 397          | na                      |
| France                                       | 8            | 0.1                    | na                | 4              | 4              | 17                         | 3            | na                      |
| <b>Grand total</b>                           | <b>8,092</b> | <b>na</b>              | <b>na</b>         | <b>3,516</b>   | <b>1,925</b>   | <b>7,896</b>               | <b>730</b>   | <b>na</b>               |

<sup>1</sup>Regional subtotals within a given State. Missouri River results by State are included in State results.

## Summary

This report presents the results of 2006 International censuses of breeding and wintering Piping Plovers. These two censuses were conducted over 12,400 kilometers of coastal, bay, river, lake, and other shoreline habitats at 2,470 sites, by more than 1,300 observers. January 23 through February 6 was designated as the time period for the winter census. June 3 through 16 was designated as the time period for the breeding census for the U.S. Plains, Canadian Prairies, Great Lakes, and Atlantic Canada. June 1 through 9, 2006 was the time period for the breeding census for the U.S. Atlantic Coast (Massachusetts). The winter census resulted in the observation of 3,884 Piping Plovers at 546 sites. The breeding census resulted in the observation of 8,092 adult Piping Plovers at 1,925 sites. Two tables in the report present location-specific information about numbers of plovers observed and survey-area metrics.

## Acknowledgments

Appreciation is extended to all those who supported the census. The U.S. Army Corps of Engineers, U.S. Geological Survey Forest and Rangeland Ecosystem Science Center (USGS FRESC), U.S. Fish and Wildlife Service (USFWS) provided financial support. Multiple partners provided support for coordination and implementation of on-the-ground surveys in individual states and provinces and in particular we would like to thank the Canadian Wildlife Service for assistance in Canada and on the winter grounds. The International Piping Plover Coordination Group was instrumental in the planning and implementation of the census. Current members of this group are Susan Haig, USGS FRESC; Diane Amirault-Langlais, Canadian Wildlife Service; Wendy Brown, USFWS; Jack Dingleline, USFWS; Paul Goossen, Canadian Wildlife Service; Anne Hecht, USFWS; and Patricia Kelly, USFWS.

In addition to current members, Karen Kreil and Adam Ryba, both USFWS worked as U.S. Northern Great Plains Coordinators during the planning and implementation of the census. The coordination group assisted in recruitment and assignment of state and provincial coordinators, and helped ensure that completed data sheets were submitted. In addition, the census would not have been possible without on-the-ground coordination of state, provincial, regional, and island coordinators. These included Federal, State, and non-governmental personnel who recruited surveyors, distributed census materials, and collated data. Cheron Ferland provided guidance and assistance throughout the planning phase of the 2006 census. Thousands of people actually conducted the surveys. The volume of data that went into this report was extraordinary and several students assisted with entering data and developing tabular summaries, including Emma Garner, Ben Ramirez, and Jana Ricken.

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# Appendix 1

## State/Provincial Summaries

Following are detailed accounts of the 2006 International Piping Plover Census for each state, province, island or island group. Accounts include a narrative prepared by the state, provincial, island, regional, or census coordinator assessing the success of the census in their area. At the bottom of each narrative is a small table with Piping Plover numbers for each census year. Each narrative is followed by a map of sites surveyed and a detailed table which includes information on each and every site surveyed during the census. Winter Census results are presented first, followed by results from each population censused on the breeding grounds. Furthermore, presentation of results generally starts with the northeast most state/province and ends in the southwest.

Since we conducted a detectability study during the 2006 Breeding Census, this information is also included in the state/provincial accounts. For provinces and states that participated in the detectability study there is a table at the end of the narrative with the name of each site included in the detectability study and a tally of how many birds were counted during the first and second surveys. It should be noted that for states/provinces that participated in the detectability study, the “high count” for each site is included in the detailed site tables following each map.

## Key to 2006 Database Variables

Results tabulated in this report represent a portion of data collected during the 2006 census. Listed below are explanations for the variables presented. Other variable were collected but there was no room to include all information in these table. For information on other variables collected, please refer to the data sheets (Appendices C and D). Contact Susan Haig, Forest and Rangeland Ecosystem Science Center, Corvallis, OR 97331; susan\_haig@usgs.gov for additional information.

### Universal Variables:

**Map #** - Reference for associated map

**Br Pairs** – Breeding pairs = Sum (paired individuals plus single birds with nest or young)

**Total Adults** – Sum (unpaired birds seen + 2\*pairs)

**Km** – Kilometers surveyed

**Site Description** –Habitat description where surveying occurred (see “Site Desc. Variables”)

**PIPL Habitat** – Habitat description where birds were observed (see ”Site Desc. Variables”)

**1991 Census** – Was site surveyed in 1991?

**1996 Census** – Was site surveyed in 1996?

**2001 Census** – Was site surveyed in 2001?

**Owner** – Site ownership

**PIPL** – Piping Plover

**SNPL** – Snowy Plover

**WIPL** – Snowy Plover

### Site Ownership Variables:

**c** – County

**f** – Federal

**m** – Municipal

**n.r.** – Not reported

**p** – Private

**s(p)** – State(Provincial)

**t** – Tribal

## Site Description Variables:

| <b>Winter Habitat Variables</b> |                                    |
|---------------------------------|------------------------------------|
| <b>Water Body:</b>              |                                    |
| I                               | Ocean                              |
| II.                             | Protected Bay, Harbor Cove, Lagoon |
| III.                            | Gulf of Mexico                     |
| IV.                             | Ocean Inlet                        |
| V.                              | Other                              |
| <b>Shoreline:</b>               |                                    |
| A.                              | Mainland                           |
| B.                              | Barrier Island                     |
| C.                              | Spoil Island                       |
| D.                              | Bar                                |
| E.                              | Other Island                       |
| F.                              | Washover Area                      |
| G.                              | Other                              |
| <b>Substrate:</b>               |                                    |
| 1.                              | Sand Beach                         |
| 2.                              | Sand Spit                          |
| 3.                              | Sand Flat                          |
| 4.                              | Sand Bar                           |
| 5.                              | Salt Flat                          |
| 6.                              | Gravel Shore                       |
| 7.                              | Oyster Reef                        |
| 8.                              | Mudflat                            |
| 9.                              | Vegetation (Algal) Mat             |
| 10.                             | Vegetated Shoreline                |
| 11.                             | Other                              |

| <b>Breeding Habitat Variables</b> |                                    |
|-----------------------------------|------------------------------------|
| <b>Water Body:</b>                |                                    |
| I                                 | Ocean                              |
| II.                               | Protected Bay, Harbor Cove, Lagoon |
| III.                              | River                              |
| IV.                               | Alkali Lake/Pond                   |
| V.                                | Natural Freshwater Lake            |
| VI.                               | Reservoir                          |
| VII.                              | Industrial Pond                    |
| VIII.                             | Other                              |
| <b>Shoreline:</b>                 |                                    |
| A.                                | Mainland                           |
| B.                                | Barrier Beach                      |
| C.                                | Barrier Island                     |

|   |                       |
|---|-----------------------|
| <b>Shoreline Con't:</b>                 |                       |
| D.                                      | Protected Shore       |
| E.                                      | Spoil Island          |
| F.                                      | River Bar             |
| G.                                      | Other Island          |
| H.                                      | Dry Lake Bed          |
| I.                                      | Other                 |
| <b>Substrate:</b>                       |                       |
| 1.                                      | Sand Beach            |
| 2.                                      | Sand Spit             |
| 3.                                      | Sand Dune             |
| 4.                                      | Overwash/Overwash Fan |
| 5.                                      | Sand Bar              |
| 6.                                      | Silt                  |
| 7.                                      | Gravel Shore          |
| 8.                                      | Gravel Bar            |
| 9.                                      | Gravel Pit            |
| 10.                                     | Alkali Mudflat        |
| 11.                                     | Coastal Mudflat       |
| 12.                                     | Vegetated Shoreline   |
| 13.                                     | Vegetated Bar         |
| 14.                                     | Vegetated Flats       |
| 15.                                     | Other                 |
| <b>Substrate (U.S. Atlantic Coast):</b> |                       |
| 1.                                      | Sand Beach            |
| 2.                                      | Sand Spit             |
| 3.                                      | Sand Dune             |
| 4.                                      | Overwash/Overwash Fan |
| 5.                                      | Blow-out/Hollow/Swale |
| 6.                                      | Sand Bar              |
| 7.                                      | Silt                  |
| 8.                                      | Gravel Shore          |
| 9.                                      | Gravel Bar            |
| 10.                                     | Gravel Pit            |
| 11.                                     | Alkali Mudflat        |
| 12.                                     | Coastal Mudflat       |
| 13.                                     | Vegetated Shoreline   |
| 14.                                     | Vegetated Bar         |
| 15.                                     | Vegetated Flats       |
| 16.                                     | Other                 |

# The 2006 International Piping Plover Winter Census in Virginia

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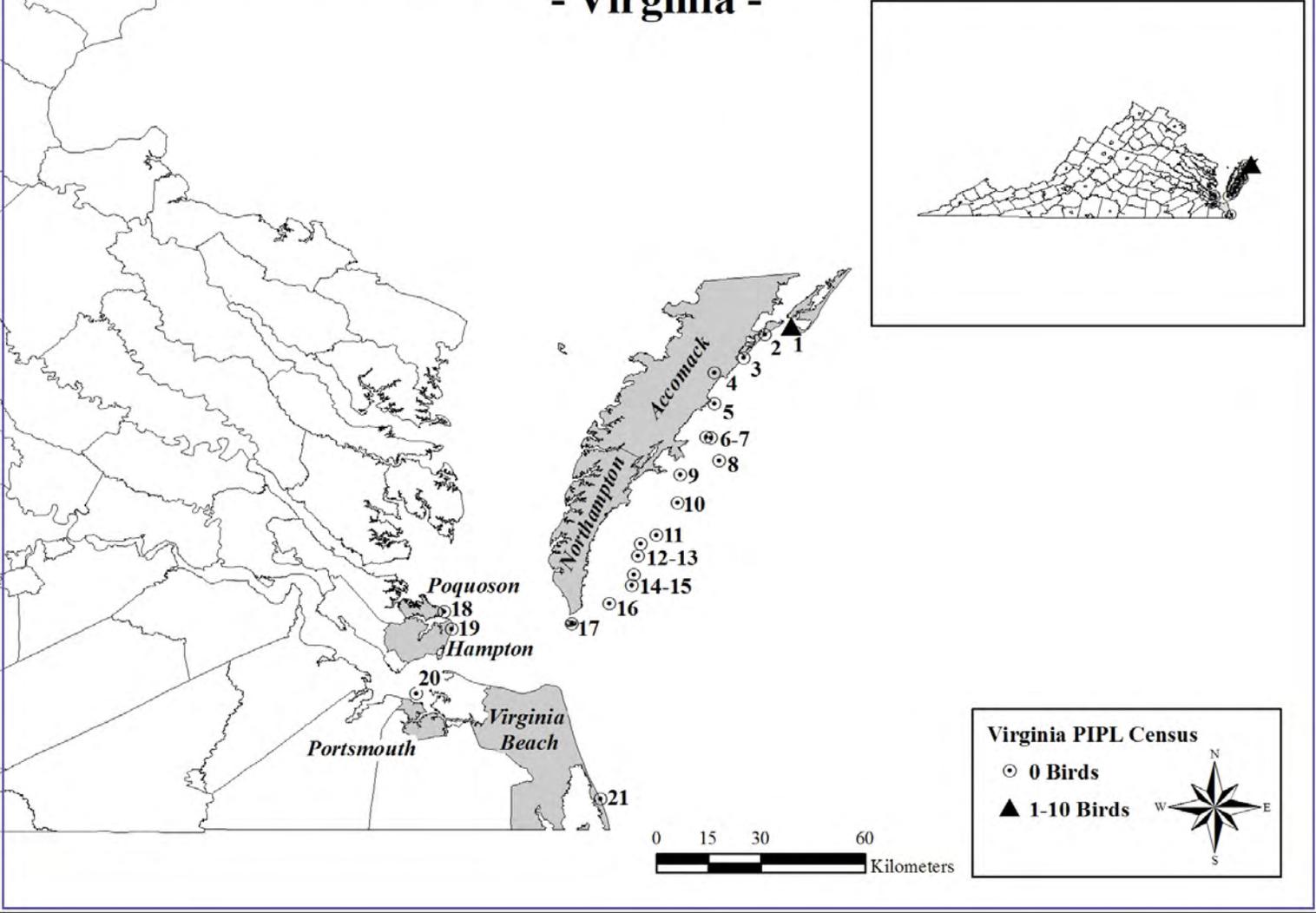
This was the first year that Virginia participated in the Winter Census, since the winter range for this species is thought to be south of Virginia. During the winter of 2006, 20 observers surveyed a total of 21 beaches. Most of the same beaches surveyed during the Breeding Census were covered during the 2006 Winter Census. However, only one Piping Plover was observed, confirming that Virginia beaches are not used extensively by this species in the winter. Interestingly, the one Piping Plover sighted was observed at the northernmost site surveyed.

## Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | -    | -    | -    | 1    |
| Snowy Plover    | -    | -    | -    | n.a. |
| Wilson's Plover | -    | -    | -    | 0    |

*Summarized by E. Elliott-Smith*

# 2006 International Piping Plover Winter Census - Virginia -



## The 2006 International Piping Plover Winter Census in Virginia

| COUNTY         | SITE NAME                                   | MAP# | DATE | TOTAL ADULTS | KM           | SITE DESCRIPTION   | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|----------------|---|------|------|--------------|--------------|--------------------|--------------|-----------|-----------|-----------|--------|
| Accomack       | Assateague Island, Chincoteague NWR portion | 1    | 1/25 | 1            | 26.7         | I II IV B 1 3      | II B 8       | No        | No        | No        | f      |
| Accomack       | Assawoman Island                            | 3    | 1/23 | 0            | 5.4          | I IV B 1 3 8 10    |              | No        | No        | No        | f      |
| Accomack       | Dawson Shoals                               | 7    | 1/24 | 0            | 0.7          | I IV E 1 4         |              | No        | No        | No        | p      |
| Accomack       | Metompkin Island                            | 4    | 1/28 | 0            | 11.0         | I II IV B 1 3 8 11 |              | No        | No        | No        | f      |
| Accomack       | North Cedar Island                          | 5    | 1/24 | 0            | 10.1         | I II IV 1 3 8 11   |              | No        | No        | No        | f      |
|                |   |      |      |              |              | I II IV B D 1 3 4  |              |           |           |           |        |
| Accomack       | Parramore Island                            | 8    | 1/27 | 0            | 14.3         | 8 10               |              | No        | No        | No        | f      |
| Accomack       | South Cedar Island                          | 6    | 1/24 | 0            | 4.4          | I II IV B 3 8 11   |              | No        | No        | No        | f/p    |
| Accomack       | Wallops Island                              | 2    | 1/23 | 0            | 5.2          | I B 1 3 8          |              | No        | No        | No        | f      |
| Hampton        | Grandview Beach                             | 19   | 1/30 | 0            | 1.6          | II G 1 2 8 11      |              | No        | No        | No        | m      |
| Northampton    | Cobb Island                                 | 11   | 2/03 | 0            | 9.5          | I IV B 1 3 10 11   |              | No        | No        | No        | p      |
| Northampton    | Fisherman Island                            | 17   | 1/27 | 0            | 8.4          | I II IV B 1 3 8    |              | No        | No        | No        | f      |
| Northampton    | Hog Island                                  | 10   | 1/27 | 0            | 14.7         | I IV B 1 3         |              | No        | No        | No        | p      |
| Northampton    | Little Cobb Island                          | 12   | 2/03 | 0            | 1.0          | I II IV B 1 3      |              | No        | No        | No        | p      |
| Northampton    | Myrtle Island <sup>1</sup>                  | 15   | 2/10 | 0            | 3.7          | I II IV B 1 3 8 11 |              | No        | No        | No        | p      |
| Northampton    | Sandy Island                                | 9    | 1/27 | 0            | 1.2          | II E 1 3 8 11      |              | No        | No        | No        | p      |
| Northampton    | Ship Shoal Island <sup>1</sup>              | 14   | 2/10 | 0            | 4.6          | I IV B 1 3 8       |              | No        | No        | No        | p      |
| Northampton    | Smith Island <sup>1</sup>                   | 16   | 2/10 | 0            | 12.5         | I IV B 1 3 8 11    |              | No        | No        | No        | p      |
|                |   |      |      |              |              | I II IV B D 1 3 4  |              |           |           |           |        |
| Northampton    | Wreck Island                                | 13   | 2/03 | 0            | 8.2          | 8 11               |              | No        | No        | No        | s(p)   |
| Poquoson       | Plum Tree Island NWR                        | 18   | 2/02 | 0            | 3.8          | II G 1 4 8 10      |              | No        | No        | No        | f      |
| Portsmouth     | Craney Island                               | 20   | 1/26 | 0            | 30.0         | V G 1 3            |              | No        | No        | No        | f      |
| Virginia Beach | Back Bay NWR & False Cape State Park        | 21   | 1/24 | 0            | 16.9         | I B 1              |              | No        | No        | No        | s(p)/f |
| <b>Total</b>   |   |      |      | <b>1</b>     | <b>193.8</b> |                    |              |           |           |           |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

## The 2006 International Wilson's Plover Winter Census in Virginia

| COUNTY            | SITE NAME                                   | MAP# | DATE | TOTAL<br>WIPL<br>ADULTS | KM           | SITE<br>DESCRIPTION | WIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|---|------|------|-------------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Accomack          | Assateague Island, Chincoteague NWR portion |      | 1/25 | 0                       | 26.7         | I II IV B 1 3       |                 | No           | No           | No           | f      |
| Accomack          | Assawoman Island                            |      | 1/23 | 0                       | 5.4          | I IV B 1 3 8 10     |                 | No           | No           | No           | f      |
| Accomack          | Dawson Shoals                               |      | 1/24 | 0                       | 0.7          | I IV E 1 4          |                 | No           | No           | No           | p      |
| Accomack          | Metompkin Island                            |      | 1/28 | 0                       | 11.0         | I II IV B 1 3 8 11  |                 | No           | No           | No           | f      |
| Accomack          | North Cedar Island                          |      | 1/24 | 0                       | 10.1         | I II IV 1 3 8 11    |                 | No           | No           | No           | f      |
|                   |   |      |      |                         |              | I II IV B D 1 3 4   |                 |              |              |              |        |
| Accomack          | Parramore Island                            |      | 1/27 | 0                       | 14.3         | 8 10                |                 | No           | No           | No           | f      |
| Accomack          | South Cedar Island                          |      | 1/24 | 0                       | 4.4          | I II IV B 3 8 11    |                 | No           | No           | No           | f/p    |
| Accomack          | Wallops Island                              |      | 1/23 | 0                       | 5.2          | I B 1 3 8           |                 | No           | No           | No           | f      |
| Hampton           | Grandview Beach                             |      | 1/30 | 0                       | 1.6          | II G 1 2 8 11       |                 | No           | No           | No           | m      |
| Northampton       | Cobb Island                                 |      | 2/03 | 0                       | 9.5          | I IV B 1 3 10 11    |                 | No           | No           | No           | p      |
| Northampton       | Fisherman Island                            |      | 1/27 | 0                       | 8.4          | I II IV B 1 3 8     |                 | No           | No           | No           | f      |
| Northampton       | Hog Island                                  |      | 1/27 | 0                       | 14.7         | I IV B 1 3          |                 | No           | No           | No           | p      |
| Northampton       | Little Cobb Island                          |      | 2/03 | 0                       | 1.0          | I II IV B 1 3       |                 | No           | No           | No           | p      |
| Northampton       | Myrtle Island <sup>1</sup>                  |      | 2/10 | 0                       | 3.7          | I II IV B 1 3 8 11  |                 | No           | No           | No           | p      |
| Northampton       | Sandy Island                                |      | 1/27 | 0                       | 1.2          | II E 1 3 8 11       |                 | No           | No           | No           | p      |
| Northampton       | Ship Shoal Island <sup>1</sup>              |      | 2/10 | 0                       | 4.6          | I IV B 1 3 8        |                 | No           | No           | No           | p      |
| Northampton       | Smith Island <sup>1</sup>                   |      | 2/10 | 0                       | 12.5         | I IV B 1 3 8 11     |                 | No           | No           | No           | p      |
|                   |   |      |      |                         |              | I II IV B D 1 3 4   |                 |              |              |              |        |
| Northampton       | Wreck Island                                |      | 2/03 | 0                       | 8.2          | 8 11                |                 | No           | No           | No           | s(p)   |
| Poquoson          | Plum Tree Island NWR                        |      | 2/02 | 0                       | 3.8          | II G 1 4 8 10       |                 | No           | No           | No           | f      |
| Portsmouth        | Craney Island                               |      | 1/26 | 0                       | 30.0         | V G 1 3             |                 | No           | No           | No           | f      |
| Virginia<br>Beach | Back Bay NWR & False Cape State Park        |      | 1/24 | 0                       | 16.9         | I B 1               |                 | No           | No           | No           | s(p)/f |
| <b>Total</b>      |   |      |      | <b>0</b>                | <b>193.8</b> |                     |                 |              |              |              |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# The 2006 International Piping Plover Winter Census in North Carolina

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The 2006 International Piping Plover Census in North Carolina was largely complete with most known sites and suitable habitats surveyed. We had a fairly experienced crew of 28 people and covered almost all suitable habitats and slightly more habitat than in 2001. This year's count of 84 birds is only slightly lower than the 2001 count of 87 birds and considerably higher than 1996 and 1991 counts of 50 and 21 birds respectively. We had very similar coverage this year as compared to 2001 although slightly fewer people participated in the count.

Overall we had favorable weather during the census window although there were a couple of days with very strong winds. Winter storms and snow can drastically reduce the number of plovers in North Carolina, however, 2006 was a mild winter, so numbers were not likely impacted. While we tried to avoid counting during high winds, a few sites were surveyed during these conditions. Because of this, it is possible that a few birds were missed at these sites. Clam Shoal was censused one day after the census window due to unfavorable weather during the window. Browns Island, a small barrier island just north of Onslow Beach, was surveyed nine days after the census window. As part of a bombing range on Camp Lejeune, Browns Island is in a restricted area and access is extremely limited.

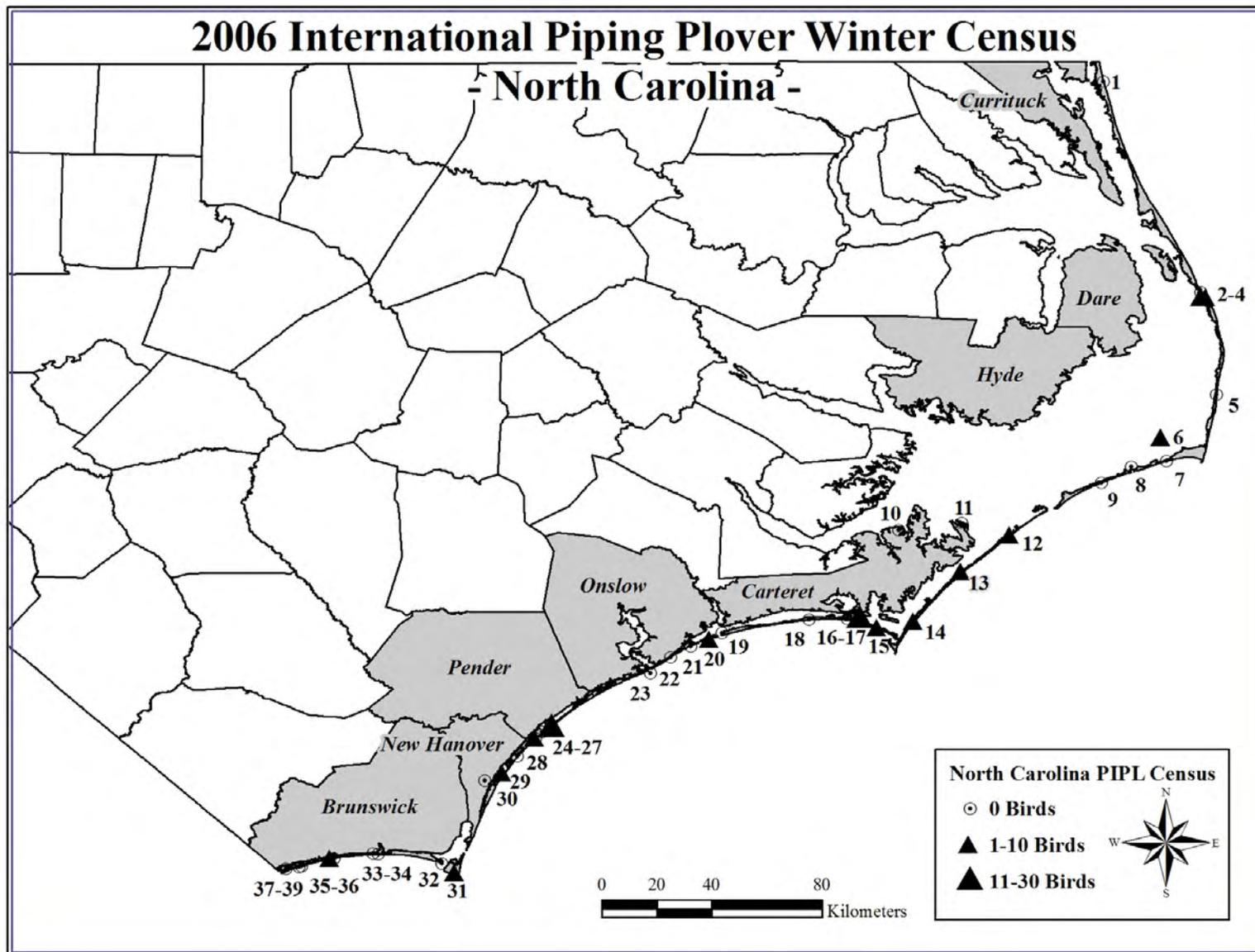
Approximately four miles along the east end of Cedar Island were missed as they were inaccessible by foot. We consider this suitable

habitat although we don't have many records of Piping Plovers using this area. There is also the possibility that Piping Plovers might be using narrow sand/mud-flats behind barrier islands or other inaccessible areas within the sounds. Many miles of narrow developed ocean facing beach were not surveyed. We very rarely see Piping Plovers in these areas and don't consider it suitable habitat. Additional sites to check are natural and dredge islands near Ocracoke Inlet including Bigfoot Island, North Rock Island and Casey Island. Depending on tides during surveys at Cape Lookout, it might be worth checking New Dump Island and New Drum Inlet shoals.

The surveys at Oregon Inlet (N. end Pea Island, Oregon Inlet islands, S. end Bodie Island) were affected by a research study being conducted by Virginia Tech. Oregon Inlet sites were being visited daily by Virginia Tech researchers and radio tagged birds followed. As a result we knew how many birds there would be and where they would be. This is the first year that Basnight Island Complex was visited and we may have missed birds at this site if it had not been for the Virginia Tech study.

## Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 21   | 50   | 87   | 84   |
| Snowy Plover    | n.a. | n.a. | n.a. | n.a. |
| Wilson's Plover | n.r. | n.r. | n.r. | 1    |

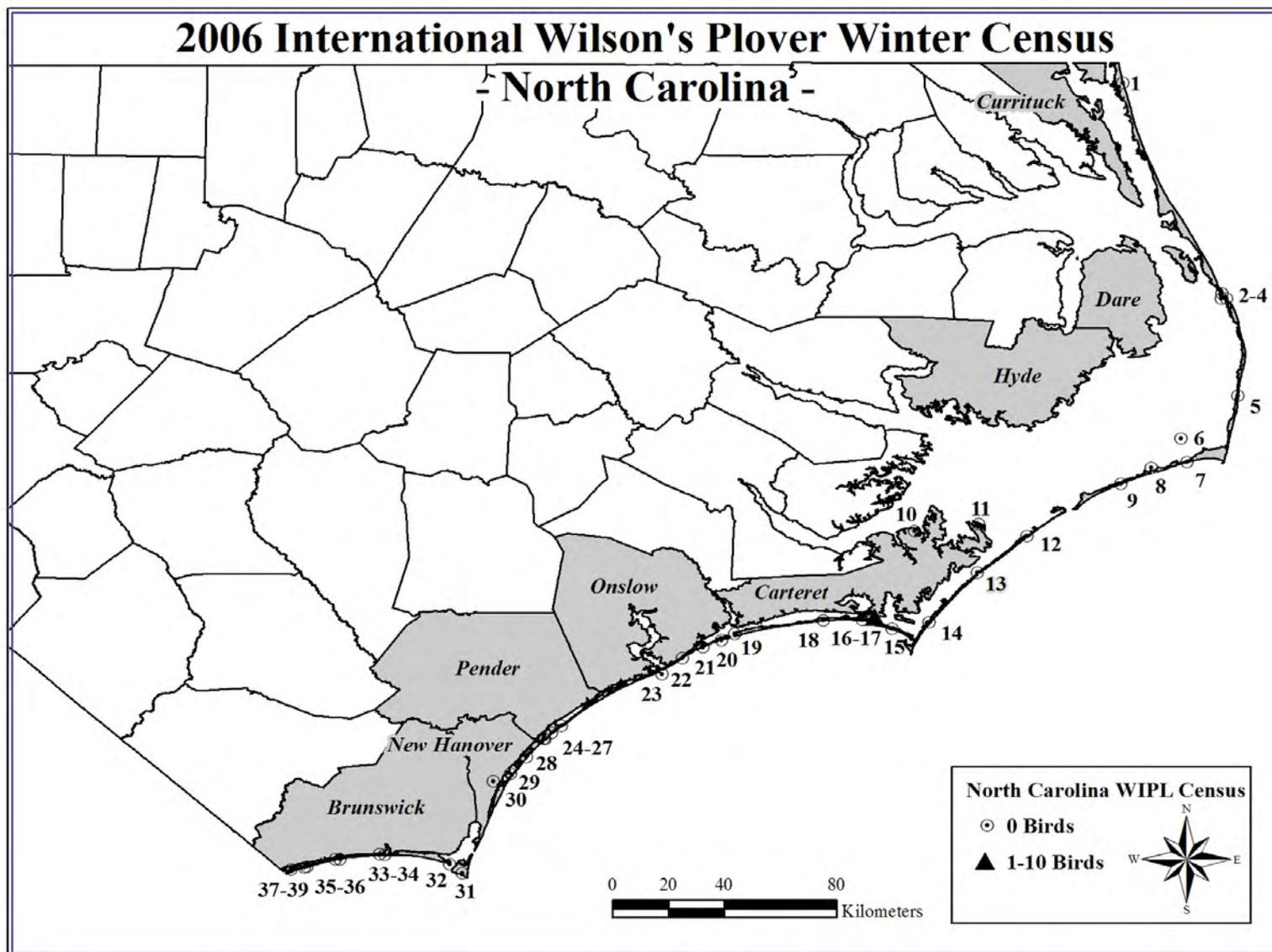


## The 2006 International Piping Plover Winter Census in North Carolina

| COUNTY              | SITE NAME   | MAP# | DATE | TOTAL ADULTS | KM   | SITE DESCRIPTION       | PIPL HABITAT    | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|---------------------|---|------|------|--------------|------|------------------------|-----------------|-----------|-----------|-----------|------|
| Brunswick           | Bald Head Island to S end of Ft. Fisher                 | 31   | 2/01 | 3            | 19.4 | I V B 1 4 8            | IV B 8          | Yes       | Yes       | Yes       | s/p  |
| Brunswick           | Fort Caswell; E end Oak Island                          | 32   | 2/01 | 0            | 2.4  | I IV B 1               |                 | Yes       | Yes       | Yes       | p    |
| Brunswick           | Holden Beach; E end (Lockwood Folly's Inlet)            | 34   | 2/01 | 0            | 1.6  | I IV B 1 3             |                 | Yes       | Yes       | Yes       | p    |
| Brunswick           | Holden Beach; W end (Shallotte Inlet)                   | 35   | 1/30 | 0            | 1.6  | I II IV B 1 3 8 11     |                 | Yes       | Yes       | Yes       | p    |
| Brunswick           | Long Beach; W end Oak Island                            | 33   | 2/01 | 0            | 1.6  | I IV B 1               |                 | Yes       | Yes       | Yes       | p    |
| Brunswick           | Ocean Isle Beach; E end                                 | 36   | 1/30 | 4            | 1.6  | I II IV B 1 2 3 8      | IV B 2          | Yes       | Yes       | Yes       | p    |
| Brunswick           | Ocean Isle Beach; W end                                 | 37   | 1/30 | 0            | 1.6  | I IV B 1 3             |                 | Yes       | Yes       | Yes       | p    |
| Brunswick           | Sunset Beach, W end and Bird Island                     | 39   | 1/30 | 0            | 3.2  | I B F 1 3              |                 | Yes       | Yes       | Yes       | s/p  |
| Brunswick           | Sunset Beach, E end (Tubbs Inlet)                       | 38   | 1/30 | 0            | 2.4  | I II IV B 1 3 4 8      |                 | Yes       | Yes       | Yes       | p    |
| Carteret            | Bogue Banks (including inlet and multiple beaches)      | 18   | 1/27 | 0            | 12.9 | I IV B 1 2 3 8         |                 | Yes       | Yes       | Yes       | s/m  |
| Carteret            | Cape Lookout N.S.; Middle Core Banks and Ophella Island | 12   | 1/27 | 4            | 4.8  | I II IV B 1 3 4 8      | II B 8          | Yes       | Yes       | Yes       | f    |
| Carteret            | Cape Lookout N.S.; Morgan Island                        | 13   | 2/01 | 0            | 1.2  | II C 1 8               |                 | No        | Yes       | Yes       | f    |
| Carteret            | Cape Lookout N.S.; N Core Banks (Portsmouth Island)     | 10   | 1/25 | 3            | 29.0 | I IV B 1 2 3 8 9       | IV B 1          | Yes       | Yes       | Yes       | f    |
| Carteret            | Cape Lookout N.S.; S Core Banks                         | 14   | 1/26 | 1            | 40.3 | I II IV B 1 2 3 8      | II B 8          | Yes       | Yes       | Yes       | f    |
| Carteret            | Cedar Island  | 11   | 2/02 | 0            | 6.5  | V A 1 9                |                 | Yes       | Yes       | Yes       | f/p  |
| Carteret            | Fort Macon SP   | 17   | 2/01 | 0            | 3.2  | I II IV B 1 2 3        |                 | Yes       | Yes       | Yes       | s(p) |
| Carteret            | Rachel Carson Estuarine Research Reserve (Bird Shoal)   | 16   | 2/01 | 18           | 3.2  | IV E 1 2 3 7 8 9       | IV E 1 2 3<br>8 | Yes       | Yes       | Yes       | s(p) |
| Carteret            | Cape Lookout N.S., Shackleford Banks                    | 15   | 2/01 | 9            | 14.5 | I II IV B 1 3 4 8      | IB 1            | Yes       | Yes       | Yes       | f    |
| Carteret/<br>Onslow | Bogue Inlet Shoals                                      | 19   | 2/01 | 0            | 1.2  | IV E 3                 |                 | No        | No        | Yes       | s/p  |
| Currituck           | Currituck National Wildlife Refuge                      | 1    | 1/30 | 0            | 17.7 | I G 1                  |                 | Yes       | Yes       | Yes       | s(p) |
| Dare                | Cape Hatteras N. S.; Rodanthe to Buxton                 | 5    | 1/23 | 0            | 40.0 | I IV B F 1 2 3 8<br>10 |                 | No        | No        | No        | f    |
| Dare                | Clam Shoal  | 6    | 2/07 | 4            | 4.0  | V E 3 9                | V E 3 9         | No        | Yes       | Yes       | f    |
| Dare                | Cape Hatteras N.S.; Bodie Island                        | 2    | 1/23 | 0            | 8.5  | I IV B F 1 2 3 8<br>10 |                 | Yes       | Yes       | Yes       | f    |
| Dare                | Oregon Inlet and multiple islands                       | 3    | 1/23 | 5            | 4.8  | II C E 1 3 8           | V E 3           | No        | No        | Yes       | s/p  |
| Dare                | Pea Island National Wildlife Refuge                     | 4    | 1/23 | 6            | 2.0  | I IV B 1 3             | IB 1            | Yes       | Yes       | Yes       | f    |
| Dare                | Cape Hatteras N.S.; Cape Point to Hateras Inlet         | 7    | 1/24 | 0            | 25.8 | I IV V B F 1 2 3<br>10 |                 | Yes       | Yes       | Yes       | f    |
| Dare/Hyde           | Dot Island and ferry channel island                     | 8    | 1/24 | 0            | 1.6  | IV C 1 3 8             |                 | Yes       | Yes       | Yes       | s(p) |

**The 2006 International Piping Plover Winter Census in North Carolina  
(Continued)**

| COUNTY       | SITE NAME  | MAP# | DATE | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION      | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------|--|------|------|-----------------|--------------|--------------------------|-----------------|--------------|--------------|--------------|------|
| Hyde         | Cape Hatteras N.S.; Ocracoke Island                      | 9    | 1/25 | 0               | 27.4         | I IV V B 1 2 3 8<br>10   |                 | Yes          | Yes          | Yes          | f    |
| New Hanover  | Carolina Beach State Park                                | 30   | 1/25 | 0               | 2.4          | I IV B D 1 4             |                 | Yes          | Yes          | Yes          | p    |
| New Hanover  | Figure Eight Island and Wrightsville Beach               | 28   | 1/25 | 0               | 6.5          | IV B 1 4 8               |                 | No           | Yes          | Yes          | m    |
| New Hanover  | Masonboro Inlet  | 29   | 1/25 | 3               | 15.7         | I II IV B E G 1 3<br>4 8 | II F 8          | Yes          | Yes          | Yes          | f    |
| Onslow       | Brown's Island, Camp Lejeune (U.S. Marine Corps<br>Base) | 21   | 2/15 | 0               | 5.7          | I IV B 1 3               |                 | No           | Yes          | No           | f    |
| Onslow       | Hammocks Beach State Park, Bear Island                   | 20   | 2/01 | 9               | 6.4          | I B 1 2 3                | I B 1           | Yes          | Yes          | Yes          | s(p) |
| Onslow       | N Topsail Beach; New River Inlet                         | 23   | 1/28 | 0               | 0.8          | I IV B F 1 3             |                 | Yes          | Yes          | Yes          | s/m  |
| Onslow       | Onslow Beach, Camp Lejeune (U.S. Marine Corps<br>Base)   | 22   | 1/01 | 0               | 11.3         | I IV B 1 3 8             |                 | No           | No           | Yes          | f    |
| Pender       | Hutaff Island  | 26   | 1/25 | 0               | 4.8          | I IV B 1                 |                 | No           | Yes          | Yes          | p    |
| Pender       | Lea Island   | 25   | 1/25 | 0               | 1.9          | I IV B 1 3               |                 | No           | Yes          | Yes          | s/p  |
| Pender       | Rich Inlet Shoals  | 27   | 1/25 | 2               | 1.6          | IV D 3                   | IV D 3          | No           | No           | No           | s(p) |
| Pender       | S Topsail Beach; New Topsail Inlet                       | 24   | 1/25 | 13              | 2.4          | IV B D 1 2 3 8           | IV D 8          | Yes          | Yes          | Yes          | s(p) |
| <b>Total</b> |  |      |      | <b>84</b>       | <b>343.7</b> |                          |                 |              |              |              |      |



## The 2006 International Wilson's Plover Winter Census in North Carolina

| COUNTY              | SITE NAME   | MAP# | DATE | TOTAL ADULTS | KM   | SITE DESCRIPTION        | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|---------------------|---|------|------|--------------|------|-------------------------|--------------|-----------|-----------|-----------|------|
| Brunswick           | Bald Head Island to S end of Ft. Fisher                 | 31   | 2/01 | 0            | 19.4 | I V B 1 4 8             |              | Yes       | Yes       | Yes       | s/p  |
| Brunswick           | Fort Caswell; E end Oak Island                          | 32   | 2/01 | 0            | 2.4  | I I V B 1               |              | Yes       | Yes       | Yes       | p    |
| Brunswick           | Holden Beach; E end (Lockwood Folly's Inlet)            | 34   | 2/01 | 0            | 1.6  | I I V B 1 3             |              | Yes       | Yes       | Yes       | p    |
| Brunswick           | Holden Beach; W end (Shallotte Inlet)                   | 35   | 1/30 | 0            | 1.6  | I I I V B 1 3 8 11      |              | Yes       | Yes       | Yes       | p    |
| Brunswick           | Long Beach; W end Oak Island                            | 33   | 2/01 | 0            | 1.6  | I I V B 1               |              | Yes       | Yes       | Yes       | p    |
| Brunswick           | Ocean Isle Beach; E end                                 | 36   | 1/30 | 0            | 1.6  | I I I V B 1 2 3 8       |              | Yes       | Yes       | Yes       | p    |
| Brunswick           | Ocean Isle Beach; W end                                 | 37   | 1/30 | 0            | 1.6  | I I V B 1 3             |              | Yes       | Yes       | Yes       | p    |
| Brunswick           | Sunset Beach, W end and Bird Island                     | 39   | 1/30 | 0            | 3.2  | I B F 1 3               |              | Yes       | Yes       | Yes       | s/p  |
| Brunswick           | Sunset Beach, E end (Tubbs Inlet)                       | 38   | 1/30 | 0            | 2.4  | I I I V B 1 3 4 8       |              | Yes       | Yes       | Yes       | p    |
| Carteret            | Bogue Banks (including inlet and multiple beaches)      | 18   | 1/27 | 0            | 12.9 | I I V B 1 2 3 8         |              | Yes       | Yes       | Yes       | s/m  |
| Carteret            | Cape Lookout N.S.; Middle Core Banks and Ophella Island | 12   | 1/27 | 0            | 4.8  | I I I V B 1 3 4 8       |              | Yes       | Yes       | Yes       | f    |
| Carteret            | Cape Lookout N.S.; Morgan Island                        | 13   | 2/01 | 0            | 1.2  | I I C 1 8               |              | No        | Yes       | Yes       | f    |
| Carteret            | Cape Lookout N.S.; N Core Banks (Portsmouth Island)     | 10   | 1/25 | 0            | 29.0 | I I V B 1 2 3 8 9       |              | Yes       | Yes       | Yes       | f    |
| Carteret            | Cape Lookout N.S.; S Core Banks                         | 14   | 1/26 | 0            | 40.3 | I I I V B 1 2 3 8       |              | Yes       | Yes       | Yes       | f    |
| Carteret            | Cedar Island  | 11   | 2/02 | 0            | 6.5  | V A 1 9                 |              | Yes       | Yes       | Yes       | f/p  |
| Carteret            | Fort Macon SP   | 17   | 2/01 | 0            | 3.2  | I I I V B 1 2 3         |              | Yes       | Yes       | Yes       | s(p) |
| Carteret            | Rachel Carson Estuarine Research Reserve (Bird Shoal)   | 16   | 2/01 | 1            | 3.2  | I V E 1 2 3 7 8 9       | I V E 8      | Yes       | Yes       | Yes       | s(p) |
| Carteret            | Cape Lookout N.S., Shackleford Banks                    | 15   | 2/01 | 0            | 14.5 | I I I V B 1 3 4 8       |              | Yes       | Yes       | Yes       | f    |
| Carteret/<br>Onslow | Bogue Inlet Shoals                                      | 19   | 2/01 | 0            | 1.2  | I V E 3                 |              | No        | No        | Yes       | s/p  |
| Currituck           | Currituck National Wildlife Refuge                      | 1    | 1/30 | 0            | 17.7 | I G 1                   |              | Yes       | Yes       | Yes       | s(p) |
| Dare                | Cape Hatteras N.S.; Rodanthe to Buxton                  | 5    | 1/23 | 0            | 40.0 | I I V B F 1 2 3 8<br>10 |              | No        | No        | No        | f    |
| Dare                | Clam Shoal  | 6    | 2/07 | 0            | 4.0  | V E 3 9                 |              | No        | Yes       | Yes       | f    |
| Dare                | Cape Hatteras N.S.; Bodie Island                        | 2    | 1/23 | 0            | 8.5  | I I V B F 1 2 3 8<br>10 |              | Yes       | Yes       | Yes       | f    |
| Dare                | Oregon Inlet and multiple islands                       | 3    | 1/23 | 0            | 4.8  | I I C E 1 3 8           |              | No        | No        | Yes       | s/p  |
| Dare                | Pea Island National Wildlife Refuge                     | 4    | 1/23 | 0            | 2.0  | I I V B 1 3             |              | Yes       | Yes       | Yes       | f    |
| Dare                | Cape Hatteras N.S.; Cape Point to Hateras Inlet         | 7    | 1/24 | 0            | 25.8 | I I V V B F 1 2 3<br>10 |              | Yes       | Yes       | Yes       | f    |
| Dare/Hyde           | Dot Island and ferry channel island                     | 8    | 1/24 | 0            | 1.6  | I V C 1 3 8             |              | Yes       | Yes       | Yes       | s(p) |

**The 2006 International Wilson's Plover Winter Census in North Carolina  
(Continued)**

| COUNTY       | SITE NAME  | MAP# | DATE | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION      | WIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------|--|------|------|-----------------|--------------|--------------------------|-----------------|--------------|--------------|--------------|------|
| Hyde         | Cape Hatteras N.S.; Ocracoke Island  | 9    | 1/25 | 0               | 27.4         | I I V V B 1 2 3 8<br>10  |                 | Yes          | Yes          | Yes          | f    |
| New Hanover  | Carolina Beach State Park  | 30   | 1/25 | 0               | 2.4          | I I V B D 1 4            |                 | Yes          | Yes          | Yes          | p    |
| New Hanover  | Figure Eight Island and Wrightsville Beach   | 28   | 1/25 | 0               | 6.5          | I V B 1 4 8              |                 | No           | Yes          | Yes          | m    |
| New Hanover  | Masonboro Inlet  | 29   | 1/25 | 0               | 15.7         | I I I V B E G 1 3<br>4 8 |                 | Yes          | Yes          | Yes          | f    |
| Onslow       | Brown's Island, Camp Lejeune (U.S. Marine<br>Corps Base)                                   | 21   | 2/15 | 0               | 5.7          | I I V B 1 3              |                 | No           | Yes          | No           | f    |
| Onslow       | Hammocks Beach State Park, Bear Island   | 20   | 2/01 | 0               | 6.4          | I B 1 2 3                |                 | Yes          | Yes          | Yes          | s(p) |
| Onslow       | N Topsail Beach; New River Inlet<br>Onslow Beach, Camp Lejeune (U.S. Marine<br>Corps Base) | 23   | 1/28 | 0               | 0.8          | I I V B F 1 3            |                 | Yes          | Yes          | Yes          | s/m  |
| Onslow       | Corps Base)  | 22   | 1/01 | 0               | 11.3         | I I V B 1 3 8            |                 | No           | No           | Yes          | f    |
| Pender       | Hutaff Island  | 26   | 1/25 | 0               | 4.8          | I I V B 1                |                 | No           | Yes          | Yes          | p    |
| Pender       | Lea Island   | 25   | 1/25 | 0               | 1.9          | I I V B 1 3              |                 | No           | Yes          | Yes          | s/p  |
| Pender       | Rich Inlet Shoals  | 27   | 1/25 | 0               | 1.6          | I V D 3                  |                 | No           | No           | No           | s(p) |
| Pender       | S Topsail Beach; New Topsail Inlet   | 24   | 1/25 | 0               | 2.4          | I V B D 1 2 3 8          |                 | Yes          | Yes          | Yes          | s(p) |
| <b>Total</b> |  |      |      | <b>1</b>        | <b>343.7</b> |                          |                 |              |              |              |      |

# The 2006 International Piping Plover Winter Census in South Carolina

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Forty-two sites were surveyed during the 2006 International Census in South Carolina. Ten sites were added since the 2001 Census in order to cover more potential Piping Plover wintering habitat. Sixteen sites (38%) contained Piping Plovers.

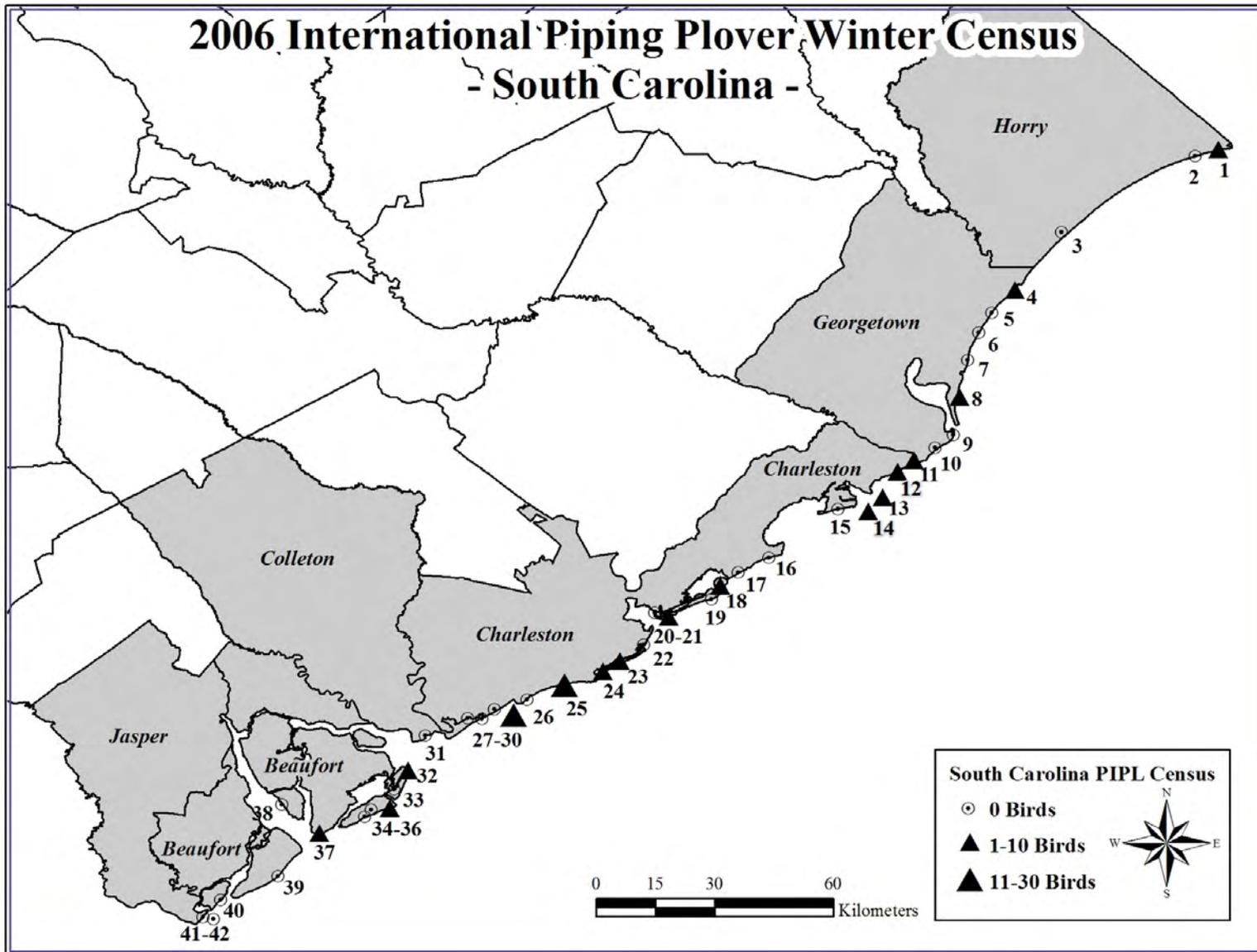
One hundred adults were counted between 23 January and 6 February. Both the 2001 and the 1996 Census detected 78 birds. It should be noted that volunteer effort and the percent of habitat covered increased for the 2006 census; therefore more birds were detected.

The top 2 sites for the 2006 Census were Deveaux Bank (N = 28) and Kiawah Island (N = 20) in Charleston County. Deveaux Bank continues to be the most important wintering site based on numbers of birds, but both sites provide essential habitat for migrating and wintering Piping Plovers.

*Summarized by M. Bimbi*

Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 51   | 78   | 78   | 100  |
| Snowy Plover    | n.a. | n.a. | n.a. | n.a. |
| Wilson's Plover | n.r. | n.r. | n.r. | 30   |



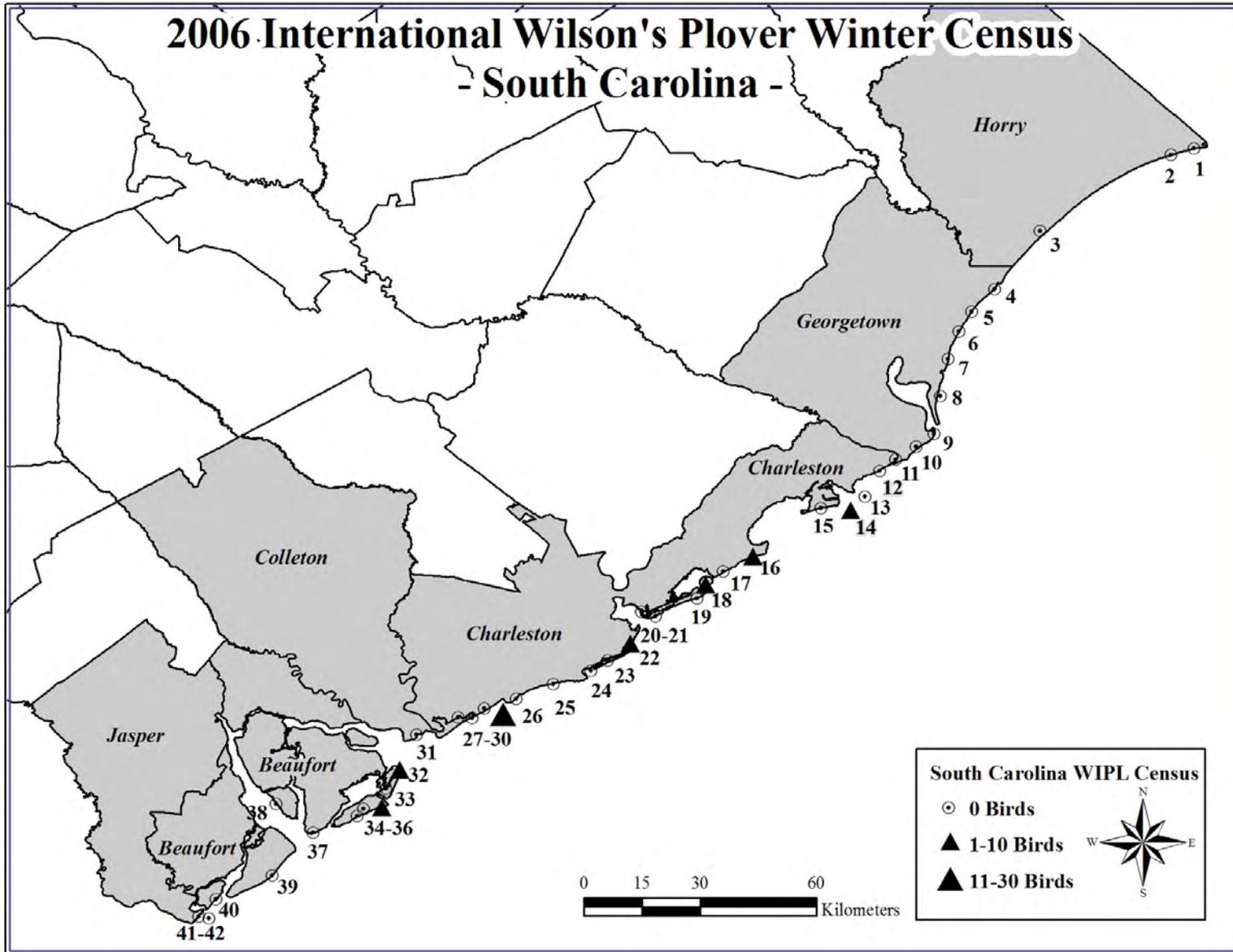
## The 2006 International Piping Plover Winter Census in South Carolina

| COUNTY     | SITE NAME                           | MAP# | DATE | TOTAL ADULTS | KM   | SITE DESCRIPTION | PIPL HABITAT       | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|------------|-------------------------------------|------|------|--------------|------|------------------|--------------------|-----------|-----------|-----------|------|
| Beaufort   | Bay Point Island to Fripp Inlet     | 37   | 2/01 | 1            | 18.9 | I IV B D 1 2 4   | I B 1              | Yes       | Yes       | Yes       | p    |
| Beaufort   | Daufuskie Island                    | 40   | 2/01 | 0            | 6.2  | I IV B D 1 2 4   |                    | Yes       | Yes       | Yes       | p    |
| Beaufort   | Fripp Island                        | 34   | 2/04 | 1            | 1.6  | I B 1 2          | I B 2              | Yes       | Yes       | Yes       | p    |
| Beaufort   | Harbor Island                       | 32   | 2/04 | 6            | 1.2  | I E 1            | I E 1              | Yes       | Yes       | Yes       | p    |
| Beaufort   | Hilton Head Island & Joyner Bank    | 39   | 2/01 | 0            | 26.6 | I IV B D 1 2 4   |                    | Yes       | Yes       | Yes       | p    |
| Beaufort   | Hunting Island                      | 33   | 1/26 | 0            | 9.7  | I II B 1 4       |                    | Yes       | Yes       | Yes       | f    |
| Beaufort   | Pritchards Island, North Beach      | 35   | 2/19 | 0            | 0.4  | I IV B 1         |                    | Yes       | Yes       | No        | s(p) |
| Beaufort   | Pritchards to Little Capers Islands | 36   | 2/06 | 0            | 9.2  | I B 1            |                    | Yes       | Yes       | No        | p    |
| Beaufort   | St. Phillips Island                 | 38   | 2/01 | 0            | 2.2  | I IV B D 1 2 4   |                    | No        | Yes       | No        | p    |
| Charleston | Bird Key Stono                      | 24   | 2/01 | 3            | 0.8  | II IV B 1 3 8    | IV B 1             | Yes       | Yes       | Yes       | s(p) |
| Charleston | Botany Bay Plantation and Island    | 28   | 2/02 | 0            | 6.0  | I IV A 1         |                    | Yes       | Yes       | No        | p    |
| Charleston | Bulls Island (Cape Romain NWR)      | 16   | 2/03 | 0            | 9.7  | I B 1            |                    | Yes       | Yes       | Yes       | f    |
| Charleston | Cape Island                         | 13   | 2/03 | 1            | 8.0  | I II IV B 1 2 3  | II B 1             | Yes       | Yes       | Yes       | f    |
| Charleston | Capers Island                       | 17   | 1/30 | 0            | 3.0  | I IV B 1         |                    | Yes       | Yes       | Yes       | s(p) |
| Charleston | Deveaux Bank                        | 27   | 2/02 | 28           | 5.7  | I II D E F 1 2 3 | I II D E 2 3       | Yes       | Yes       | Yes       | s(p) |
| Charleston | Dewees Island                       | 18   | 1/30 | 2            | 4.4  | I B 1 3          | I B 1 3            | No        | No        | Yes       | s/p  |
| Charleston | Edingsville                         | 29   | 2/02 | 0            | 1.0  | I A 1            |                    | No        | No        | No        | p    |
| Charleston | Folly Beach                         | 23   | 2/05 | 1            | 4.0  | I IV B 1         | IV B 1             | No        | No        | No        | m/c  |
| Charleston | Isle of Palms                       | 19   | 2/05 | 0            | 8.0  | I IV B 1         |                    | No        | No        | Yes       | p    |
| Charleston | Kiawah Island                       | 25   | 2/01 | 20           | 5.7  | II IV B 1 2 3    | II IV B 1 2<br>3 8 | No        | Yes       | Yes       | p    |
| Charleston | Lighthouse Island                   | 14   | 2/03 | 7            | 4.0  | I IV B 1 3       | IV B 3             | Yes       | No        | Yes       | f    |
| Charleston | Morris Island                       | 22   | 2/03 | 0            | 1.6  | I IV D E 1 2     |                    | No        | No        | No        | p    |
| Charleston | Murphy Island                       | 12   | 1/31 | 5            | 7.1  | I IV B 1 4       | IV B 1             | No        | No        | Yes       | f    |
| Charleston | Pitt St. Causeway                   | 20   | 1/27 | 0            | 0.5  | II A 2           |                    | No        | No        | No        | m    |
| Charleston | Raccoon Key                         | 15   | 2/01 | 0            | 7.0  | I II B 1 2       |                    | Yes       | No        | Yes       | f    |
| Charleston | Seabrook Island                     | 26   | 1/30 | 0            | 5.7  | I IV B 1         |                    | No        | No        | Yes       | p    |
| Charleston | Sullivan's Island                   | 21   | 1/24 | 2            | 9.0  | I B D 1 4        | I D 1              | Yes       | Yes       | No        | m    |
| Colleton   | Edisto Beach State Park             | 30   | 2/02 | 0            | 1.6  | I IV B 1         |                    | No        | Yes       | No        | s(p) |
| Colleton   | Pine Island and Otter Island        | 31   | 2/03 | 0            | 9.4  | I B 1 10         |                    | No        | Yes       | Yes       | s(p) |
| Georgetown | Cedar Island                        | 11   | 1/29 | 5            | 3.1  | I IV B 1 3 4     | I 4                | No        | No        | No        | s(p) |
| Georgetown | Debidue Beach                       | 7    | 1/23 | 0            | 6.3  | I IV A 1         |                    | No        | No        | Yes       | p    |

**The 2006 International Piping Plover Winter Census in South Carolina  
(Continued)**

| COUNTY       | SITE NAME               | MAP# | DATE | TOTAL ADULTS | KM           | SITE DESCRIPTION | PIPL HABITAT       | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------|-------------------------|------|------|--------------|--------------|------------------|--------------------|-----------|-----------|-----------|------|
| Georgetown   | Huntington Beach        | 4    | 1/30 | 7            | 4.8          | I IV B D 1 3 4   | I II IV B D<br>1 3 | Yes       | Yes       | Yes       | p    |
| Georgetown   | Litchfield Beach        | 5    | 1/24 | 0            | 6.3          | I IV A 1         |                    | Yes       | No        | Yes       | p    |
| Georgetown   | North Island            | 8    | 1/30 | 8            | 12.9         | IV B 1 2 3       | II IV B 1 2<br>3   | Yes       | Yes       | Yes       | s(p) |
| Georgetown   | Pawleys Island          | 6    | 2/02 | 0            | 6.0          | I IV B 1 4       |                    | No        | No        | Yes       | p    |
| Georgetown   | Sand Island             | 9    | 1/25 | 0            | 4.0          | I IV B 1 2 3 4   |                    | Yes       | Yes       | Yes       | s(p) |
| Georgetown   | South Island            | 10   | 1/25 | 0            | 5.5          | I IV B 1 2 3 4   |                    | Yes       | Yes       | Yes       | s(p) |
| Horry        | Cherry Grove            | 2    | 2/04 | 0            | 20.2         | I A B 1          |                    | No        | No        | No        | s/p  |
| Horry        | Myrtle Beach State Park | 3    | 1/24 | 0            | 1.6          | I A 1            |                    | No        | No        | No        | s(p) |
| Horry        | Waites Island           | 1    | 1/31 | 3            | 4.0          | I B 1 2          | I B 1              | No        | No        | Yes       | p    |
| Jasper       | Turtle Island           | 42   | 2/02 | 0            | 3.5          | I B 1 10         |                    | No        | No        | No        | s(p) |
| Jasper       | Tomkins Island          | 41   | 2/02 | 0            | 0.5          | I B 1 10         |                    | No        | No        | No        | s(p) |
| <b>Total</b> |                         |      |      | <b>100</b>   | <b>256.6</b> |                  |                    |           |           |           |      |

# 2006 International Wilson's Plover Winter Census - South Carolina -



## The 2006 International Wilson's Plover Winter Census in South Carolina

| COUNTY     | SITE NAME                           | MAP# | DATE | TOTAL ADULTS | KM   | SITE DESCRIPTION | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|------------|-------------------------------------|------|------|--------------|------|------------------|--------------|-----------|-----------|-----------|------|
| Beaufort   | Bay Point Island to Fripp Inlet     | 37   | 2/01 | 0            | 18.9 | I IV B D 1 2 4   |              | Yes       | Yes       | Yes       | p    |
| Beaufort   | Daufuskie Island                    | 40   | 2/01 | 0            | 6.2  | I IV B D 1 2 4   |              | Yes       | Yes       | Yes       | p    |
| Beaufort   | Fripp Island                        | 34   | 2/04 | 2            | 1.6  | I B 1 2          | I B 2        | Yes       | Yes       | Yes       | p    |
| Beaufort   | Harbor Island                       | 32   | 2/04 | 5            | 1.2  | I E 1            | I E 1        | Yes       | Yes       | Yes       | p    |
| Beaufort   | Hilton Head Island & Joyner Bank    | 39   | 2/01 | 0            | 26.6 | I IV B D 1 2 4   |              | Yes       | Yes       | Yes       | p    |
| Beaufort   | Hunting Island                      | 33   | 1/26 | 0            | 9.7  | I II B 1 4       |              | Yes       | Yes       | Yes       | f    |
| Beaufort   | Pritchards Island, North Beach      | 35   | 2/19 | 0            | 0.4  | I IV B 1         |              | Yes       | Yes       | No        | s(p) |
| Beaufort   | Pritchards to Little Capers Islands | 36   | 2/06 | 0            | 9.2  | I B 1            |              | Yes       | Yes       | No        | p    |
| Beaufort   | St. Phillips Island                 | 38   | 2/01 | 0            | 2.2  | I IV B D 1 2 4   |              | No        | Yes       | No        | p    |
| Charleston | Bird Key Stono                      | 24   | 2/01 | 0            | 0.8  | II IV B 1 3 8    | IV B 1       | Yes       | Yes       | Yes       | s(p) |
| Charleston | Botany Bay Plantation and Island    | 28   | 2/02 | 0            | 6.0  | I IV A 1         |              | Yes       | Yes       | No        | p    |
| Charleston | Bulls Island (Cape Romain NWR)      | 16   | 2/03 | 4            | 9.7  | I B 1            | I B 1        | Yes       | Yes       | Yes       | f    |
| Charleston | Cape Island                         | 13   | 2/03 | 0            | 8.0  | I II IV B 1 2 3  |              | Yes       | Yes       | Yes       | f    |
| Charleston | Capers Island                       | 17   | 1/30 | 0            | 3.0  | I IV B 1         |              | Yes       | Yes       | Yes       | s(p) |
| Charleston | Deveaux Bank                        | 27   | 2/02 | 11           | 5.7  | I II D E F 1 2 3 |              | Yes       | Yes       | Yes       | s(p) |
| Charleston | Dewees Island                       | 18   | 1/30 | 2            | 4.4  | I B 1 3          | I B 3        | No        | No        | Yes       | s/p  |
| Charleston | Edingsville                         | 29   | 2/02 | 0            | 1.0  | I A 1            |              | No        | No        | No        | p    |
| Charleston | Folly Beach                         | 23   | 2/05 | 0            | 4.0  | I IV B 1         |              | No        | No        | No        | m/c  |
| Charleston | Isle of Palms                       | 19   | 2/05 | 0            | 8.0  | I IV B 1         |              | No        | No        | Yes       | p    |
| Charleston | Kiawah Island                       | 25   | 2/01 | 0            | 5.7  | II IV B 1 2 3    |              | No        | Yes       | Yes       | p    |
| Charleston | Lighthouse Island                   | 14   | 2/03 | 5            | 4.0  | I IV B 1 3       | IV B 1       | Yes       | No        | Yes       | f    |
| Charleston | Morris Island                       | 22   | 2/03 | 1            | 1.6  | I IV D E 1 2     | IV D 2       | No        | No        | No        | p    |
| Charleston | Murphy Island                       | 12   | 1/31 | 0            | 7.1  | I IV B 1 4       |              | No        | No        | Yes       | f    |
| Charleston | Pitt St. Causeway                   | 20   | 1/27 | 0            | 0.5  | II A 2           |              | No        | No        | No        | m    |
| Charleston | Raccoon Key                         | 15   | 2/01 | 0            | 7.0  | I II B 1 2       |              | Yes       | No        | Yes       | f    |
| Charleston | Seabrook Island                     | 26   | 1/30 | 0            | 5.7  | I IV B 1         |              | No        | No        | Yes       | p    |
| Charleston | Sullivan's Island                   | 21   | 1/24 | 0            | 9.0  | I B D 1 4        |              | Yes       | Yes       | No        | m    |
| Colleton   | Edisto Beach State Park             | 30   | 2/02 | 0            | 1.6  | I IV B 1         |              | No        | Yes       | No        | s(p) |
| Colleton   | Pine Island and Otter Island        | 31   | 2/03 | 0            | 9.4  | I B 1 10         |              | No        | Yes       | Yes       | s(p) |
| Georgetown | Cedar Island                        | 11   | 1/29 | 0            | 3.1  | I IV B 1 3 4     |              | No        | No        | No        | s(p) |
| Georgetown | Debidue Beach                       | 7    | 1/23 | 0            | 6.3  | I IV A 1         |              | No        | No        | Yes       | p    |
| Georgetown | Huntington Beach                    | 4    | 1/30 | 0            | 4.8  | I IV B D 1 3 4   |              | Yes       | Yes       | Yes       | p    |

**The 2006 International Wilson's Plover Winter Census in North Carolina  
(Continued)**

| COUNTY       | SITE NAME               | MAP# | DATE | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION | WIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------|-------------------------|------|------|-----------------|--------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Georgetown   | Litchfield Beach        | 5    | 1/24 | 0               | 6.3          | I IV A 1            |                 | Yes          | No           | Yes          | p    |
| Georgetown   | North Island            | 8    | 1/30 | 0               | 12.9         | IV B 1 2 3          |                 | Yes          | Yes          | Yes          | s(p) |
| Georgetown   | Pawleys Island          | 6    | 2/02 | 0               | 6.0          | I IV B 1 4          |                 | No           | No           | Yes          | p    |
| Georgetown   | Sand Island             | 9    | 1/25 | 0               | 4.0          | I IV B 1 2 3 4      |                 | Yes          | Yes          | Yes          | s(p) |
| Georgetown   | South Island            | 10   | 1/25 | 0               | 5.5          | I IV B 1 2 3 4      |                 | Yes          | Yes          | Yes          | s(p) |
| Horry        | Cherry Grove            | 2    | 2/04 | 0               | 20.2         | I A B 1             |                 | No           | No           | No           | s/p  |
| Horry        | Myrtle Beach State Park | 3    | 1/24 | 0               | 1.6          | I A 1               |                 | No           | No           | No           | s(p) |
| Horry        | Waites Island           | 1    | 1/31 | 0               | 4.0          | I B 1 2             |                 | No           | No           | Yes          | p    |
| Jasper       | Turtle Island           | 42   | 2/02 | 0               | 3.5          | I B 1 10            |                 | No           | No           | No           | s(p) |
| Jasper       | Tomkins Island          | 41   | 2/02 | 0               | 0.5          | I B 1 10            |                 | No           | No           | No           | s(p) |
| <b>Total</b> |                         |      |      | <b>30</b>       | <b>256.6</b> |                     |                 |              |              |              |      |

# The 2006 International Piping Plover Winter Census in Georgia

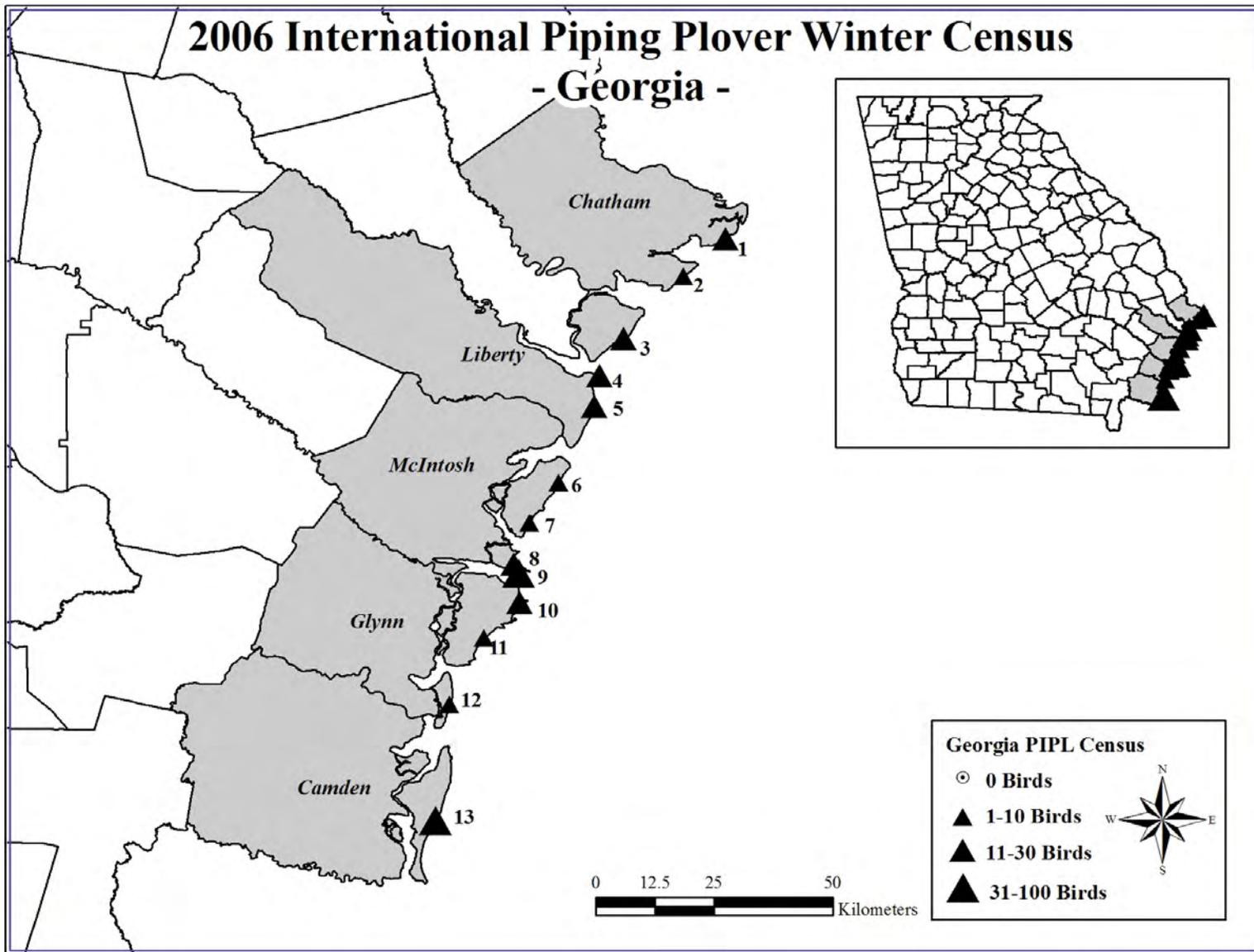
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Brunswick, GA 31520  
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As in years past, our survey was completed in one day with a target window of 2 hours on either side of high tide, for the entire 100 miles of barrier island beach. The weather was good and we were able to get boats to all of the most remote parts of our coast, including the alluvial emergent bars in the Altamaha River and St. Catherine's Sound. We had about 65 trained volunteers and government employees working with us.

We found more Piping Plovers than on any other survey effort with a total of 212 counted. The areas holding the largest number of plovers has been consistent over the years, with the beaches of Altamaha River Delta and Cumberland Island national Seashore supporting the most birds.

## Comparison of Census Numbers

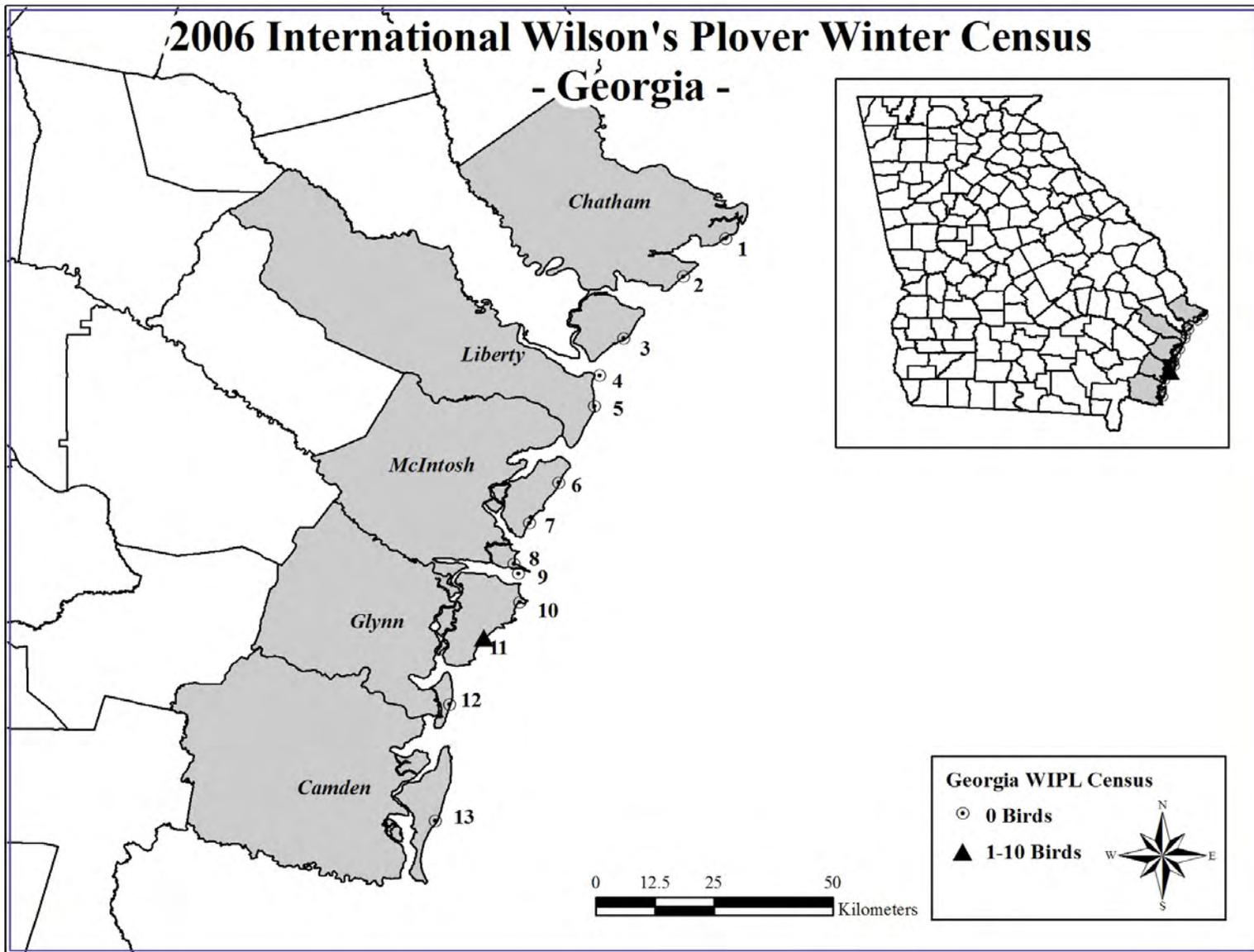
| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 37   | 124  | 111  | 212  |
| Snowy Plover    | n.a. | n.a. | n.a. | n.a. |
| Wilson's Plover | n.r. | n.r. | n.r. | 2    |



## The 2006 International Piping Plover Winter Census in Georgia

| COUNTY       | SITE NAME                           | MAP# | DATE | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------|-------------------------------------|------|------|-----------------|--------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Camden       | Cumberland Island National Seashore | 13   | 2/03 | 41              | 28.9         | I B 1               | I B 1           | Yes          | Yes          | Yes          | f    |
| Chatham      | Little Tybee Island                 | 1    | 2/03 | 13              | 8.9          | I B 1               | I B 1           | Yes          | Yes          | Yes          | s(p) |
| Chatham      | Ossabaw Island                      | 3    | 2/03 | 15              | 17.7         | I B 1               | I B 1           | Yes          | Yes          | Yes          | s(p) |
| Chatham      | Wassaw NWR                          | 2    | 2/03 | 4               | 11.7         | I B 1               | I B 1           | Yes          | Yes          | Yes          | f    |
| Glynn        | Jekyll Island                       | 12   | 2/03 | 4               | 11.6         | I B 1               | I B 1           | Yes          | Yes          | Yes          | s(p) |
| Glynn        | Little Egg Island sandbar           | 9    | 2/03 | 36              | 9.1          | I B D 1 4           | I B D 1 4       | Yes          | Yes          | Yes          | s(p) |
| Glynn        | Little St. Simons Island            | 10   | 2/03 | 26              | 10.7         | I B 1 3             | I B 1 3         | Yes          | Yes          | Yes          | p    |
| Glynn        | Sea Island                          | 11   | 2/03 | 8               | 9.0          | I B 1               | I B 1           | Yes          | Yes          | Yes          | p    |
| Liberty      | St. Catherine's Island              | 5    | 2/03 | 14              | 18.3         | I B 1               | I B 1           | Yes          | Yes          | Yes          | p    |
| Liberty      | St. Catherine's Island sandbar      | 4    | 2/03 | 16              | 1.6          | I B D 1 3 4         | I D 4           | Yes          | Yes          | Yes          | s(p) |
| McIntosh     | Blackbeard Island NWR               | 6    | 2/03 | 5               | 14.2         | I B 1               | I B 1           | Yes          | Yes          | Yes          | f    |
| McIntosh     | Sapelo Island                       | 7    | 2/03 | 1               | 9.7          | I B 1               | I B 1           | Yes          | Yes          | Yes          | s(p) |
| McIntosh     | Wolf Island NWR                     | 8    | 2/03 | 29              | 9.1          | I B D 1 4           | I B D 1 4       | Yes          | Yes          | Yes          | f    |
| <b>Total</b> |                                     |      |      | <b>212</b>      | <b>160.4</b> |                     |                 |              |              |              |      |

# 2006 International Wilson's Plover Winter Census - Georgia -



## The 2006 International Wilson's Plover Winter Census in Georgia

| COUNTY       | SITE NAME                           | MAP# | DATE | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION | WIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------|-------------------------------------|------|------|-----------------|--------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Camden       | Cumberland Island National Seashore | 13   | 2/03 | 0               | 28.9         | I B 1               |                 | Yes          | Yes          | Yes          | f    |
| Chatham      | Little Tybee Island                 | 1    | 2/03 | 0               | 8.9          | I B 1               | I B 1           | Yes          | Yes          | Yes          | s(p) |
| Chatham      | Ossabaw Island                      | 3    | 2/03 | 0               | 17.7         | I B 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Chatham      | Wassaw NWR                          | 2    | 2/03 | 0               | 11.7         | I B 1               |                 | Yes          | Yes          | Yes          | f    |
| Glynn        | Jekyll Island                       | 12   | 2/03 | 0               | 11.6         | I B 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Glynn        | Little Egg Island sandbar           | 9    | 2/03 | 0               | 9.1          | I B D 1 4           |                 | Yes          | Yes          | Yes          | s(p) |
| Glynn        | Little St. Simons Island            | 10   | 2/03 | 0               | 10.7         | I B 1 3             |                 | Yes          | Yes          | Yes          | p    |
| Glynn        | Sea Island                          | 11   | 2/03 | 2               | 9.0          | I B 1               | I B 1           | Yes          | Yes          | Yes          | p    |
| Liberty      | St. Catherine's Island              | 5    | 2/03 | 0               | 18.3         | I B 1               |                 | Yes          | Yes          | Yes          | p    |
| Liberty      | St. Catherine's Island sandbar      | 4    | 2/03 | 0               | 1.6          | I B D 1 3 4         |                 | Yes          | Yes          | Yes          | s(p) |
| McIntosh     | Blackbeard Island NWR               | 6    | 2/03 | 0               | 14.2         | I B 1               |                 | Yes          | Yes          | Yes          | f    |
| McIntosh     | Sapelo Island                       | 7    | 2/03 | 0               | 9.7          | I B 1               |                 | Yes          | Yes          | Yes          | s(p) |
| McIntosh     | Wolf Island NWR                     | 8    | 2/03 | 0               | 9.1          | I B D 1 4           |                 | Yes          | Yes          | Yes          | f    |
| <b>Total</b> |                                     |      |      | <b>2</b>        | <b>160.4</b> |                     |                 |              |              |              |      |

# The 2006 International Piping Plover Winter Census in Florida

The 2006 Census was coordinated by three individuals from the U. S. Fish and Wildlife Service, who split the Florida coast into three Census regions. The first region, northwest Florida, spans the beaches from the Alabama border to the east end of Jefferson County. The second region, north Florida, includes Gulf coast counties southeast of the panhandle region to the south end of Manatee County and from the Georgia border to south end of Brevard County. The third region, southern Florida, includes all the remaining counties in Florida south to Key West National Wildlife Refuge. The total number of Piping Plovers estimated during the 2006 Census of Florida was 454, with 321 reported on the Gulf coast and 133 on the Atlantic Coast. Additionally, 312 Snowy Plovers and 394 Wilson’s Plovers were sighted on Florida beaches during the 2006 Census.

## Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 551  | 375  | 416  | 454* |
| Snowy Plover    | n.r. | n.r. | 311  | 312  |
| Wilson’s Plover | n.r. | n.r. | n.r. | 394  |

\* Datasheets from two sites were lost; surveyors estimated that they saw 40 Piping Plovers and this number is included in the 2006 total. We have no data on wilson’s or Snowy Plovers for either site.

## Northwest Florida (panhandle)

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Seventy five participants including Federal, State, and County agencies, Audubon Chapters, and private citizen volunteers surveyed along approximately 592 km of shoreline within 9 northwest Florida counties and one Alabama county from Baldwin County (see the Alabama state table), Alabama east to Jefferson County, Florida on the Gulf of Mexico coastline. Surveyors focused on Gulf of Mexico beaches as well as bayside habitats paralleling the Gulf beaches. When accessible, interior bayside flats were surveyed.

Surveyors documented 111 Piping Plovers in northwest Florida habitats between January 26, and January 28, 2006. We conducted the majority of surveys on January 27, 2006 to reduce the possibility of double counting. The total number of Piping Plovers reported in northwest Florida along the Gulf Coast this year (111) is comparable to numbers recorded in 1991 (117) and 1996 (106) and up from 2001 (53). Given a considerable increase in areas covered and survey effort compared to previous Census years, few new sites reported Piping Plovers. Two specific locations documenting Piping Plovers that were “new to us” this Census were: bayside habitat between the town of Carrabelle to Turkey Point in Franklin County and an interior marsh flat on the bayside of Dog Island.

Census coverage of suitable habitat in northwest Florida was relatively comprehensive this year and covered most of the Florida coastline including bayside habitat that appeared large

and therefore obvious and more accessible. Additional surveys should focus on less accessible bayside and marsh flats within all the northwest Florida bays and bayous. Generally these areas are difficult to survey due to shallow waters as well as limited accessibility from land.

The 2001 Census added Snowy Plovers as a targeted species. Northwest Florida counties reported 207 Snowy Plovers in 2001. This Census reports 175 Snowy Plovers. Wilson's Plovers were added to the survey this year with only 11 documented in northwestern Florida counties.

## North Florida

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One hundred and two participants including Federal, State, and County agencies, Audubon Chapters, and other volunteers conducted surveys at 66 sites and observed approximately 225 Piping Plovers, 20 Snowy Plovers, and 194 Wilson's Plovers. Thirty nine surveys were conducted in 8 counties on the northern Gulf Coast of Florida from Taylor to Manatee County. Ninety six Piping Plovers were recorded during these surveys and 40 Piping Plovers were estimated from two sites with missing datasheets (see below). Additionally, 20 Snowy Plovers and 76 Wilson's Plovers were observed on the northern Gulf Coast. On the northern Atlantic Coast, we surveyed 27 sites in 7 counties from Nassau to Brevard County. No Snowy Plovers were found on Atlantic beaches, but we counted a total of 89 Piping Plovers and 118 Wilson's Plovers.

All sites were surveyed except for Merritt Island NWR in Brevard County (10.0km) on the Atlantic coast and Caledesi Island on the Gulf Coast. Anclote Bar and Three Rooker Island were surveyed, however the datasheets were lost. The two surveyors that covered these sites clearly recall seeing Piping Plovers at both sites and provided an estimate of Piping Plovers seen which we have included in our total. Three Rooker Bar has had the largest number of individuals at one location in past surveys. A survey one month after the Census (March 6) documented 36 individuals. This site has consistently had a large number of individuals (30-80). So our estimate of 30 birds for the Census may be a bit conservative.

There appears to be about a similar number of Piping Plovers documented in North Florida compared to previous years, and possibly more than from past surveys with the large number of Piping Plovers documented in Volusia County at Ponce Inlet and in Levy County at Cedar Key.

The North Florida Atlantic Coast survey was conducted on 2/3/06 and was a blustery/rainy day and may have affected surveys in Brevard County.

The North Florida Gulf Coast survey was conducted on 1/27/06, which was also a blustery/rainy day and may have affected counts in the Pasco/Pinellas County area.

Sites surveyed in past years that had higher numbers of individuals include in 2006:

- Nassau County (Atlantic), Little Tiger Island had 20 Piping Plovers in 2006 and 9 in 2001.
- Volusia County (Atlantic), New Smyrna Beach and Ponce de Leon Inlet had 42 in 2006 and 0 in 2001.
- Levy County (Gulf), Cedar Key area had 7 in 2006 and 0 in 2001. However, more

habitat was surveyed in the 2006 survey than in past surveys.

## **South Florida**

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One hundred and twenty-one participants including Federal, State, and County agencies, Audubon Chapters, and other volunteers surveyed 86 sites along approximately 249 miles of shoreline in 11 south Florida coastal counties from Sarasota County south to Collier County on the Gulf Coast and Indian River County south to Monroe County along the Atlantic Coast. A total of 118 Piping Plovers (74 Gulf and 44 Atlantic) were counted in south Florida between January 23, 2006, and February 6, 2006; however, the majority of the surveys were conducted on January 27th on the Gulf Coast and February 3rd on the Atlantic Coast. Additionally, 117 Snowy Plovers (all on the Gulf Coast) were recorded. Wilson's Plovers were added to the survey this year, and 187 (162 on the Gulf Coast and 25 on the Atlantic Coast) were observed.

The total number of Piping Plovers counted in south Florida along the Gulf Coast this year (74) was comparable to numbers recorded in 1991 (67) and 1996 (76) and up from 2001 (50). In 1991, Piping Plovers were located at the Charlotte Beach State Recreation Area, Marco Island, North Captiva Island, Fort Myers Beach, and Midnight Pass. In 1996, they were observed at Sand Dollar and Big Marco Pass Critical Wildlife Area, Big Marco Pass Shoals, and Fort Myers Beach. In 2001, they were only

observed at Little Estero Lagoon and Marco Island/Big Marco Pass Shoals. This year they were recorded along the Charlotte County Barrier Islands, Little Estero Lagoon Critical Wildlife Area (called "Estero Island" in the table), North Captiva Island, Cayo Costa Island, Marco Island/Big Marco Pass Shoals, and Keywadeen Island. Concentrations of Piping Plovers along the Gulf Coast included 49 at Marco Island/Big Marco Pass Shoals and 10 each at Little Estero Lagoon Critical Wildlife Area and North Captiva Island.

The total number of Piping Plovers observed in south Florida along the Atlantic Coast (44) was similar to the 1991 census results (46) but was higher than the 1996 results (15) and lower than the 2001 results (67). In 1991, Piping Plovers were located at St. Lucie Inlet, Carl Ross Key, Boca Grande Key, and Ohio Key. In 1996, they were recorded at St. Lucie Inlet, Boca Grande, and Ohio Key. In 2001, they were observed at St. Lucie Inlet Sailfish Point, Crandon Park, and Woman Key. This year they were only recorded at Boca Grande Key and Crandon Park. A total of 38 of the 44 Piping Plovers observed on the Atlantic Coast were located at Crandon Park.

Census coverage in suitable habitat in south Florida was relatively comprehensive this year and covered most of the south Florida coastline, but there were some areas where surveys were not conducted that should be included in the 2011 census. Surveys were not conducted from south of Hobe Sound National Wildlife Refuge to the Palm Beach County line or in Jonathan Dickinson State Park in Martin County because habitat was considered to be marginal; however, there was an unconfirmed historical report of a Piping Plover using inland habitat at Jonathan Dickinson. In Palm Beach County, Peanut Island Park was not surveyed due to problems with accessibility but should be included in future surveys because of a previous report that Piping Plovers had used the area. The area from

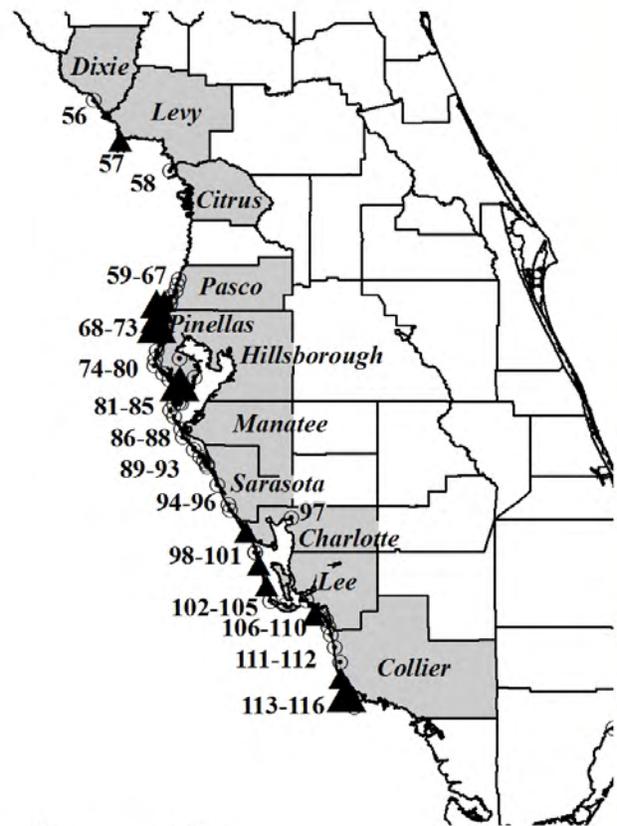
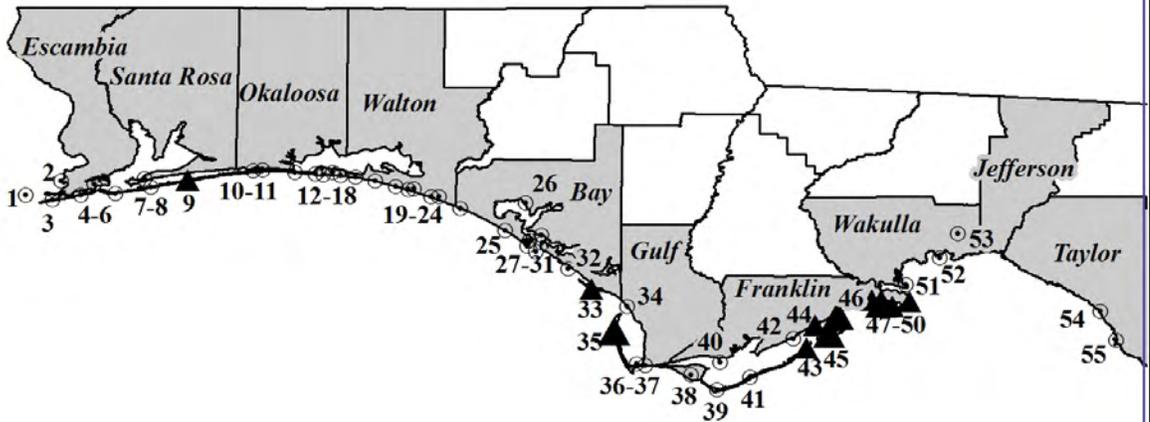
Matheson Hammock County Park south to Cutler in Dade County was not surveyed this year due to accessibility issues. No one was able to survey Carl Ross and Sandy Keys, Lake Ingram and Snake Bight (Flamingo) in Monroe County or other areas in the Everglades due to personnel time constraints and accessibility. Weather conditions prohibited censusing the Marquesas Keys.

Along the Gulf Coast, areas that were not censused this year that should be surveyed in 2011 include suitable habitat in the Ten Thousand Islands area in Collier County, Skimmer Island in Lee County, and Lemon Bay in Charlotte County. Attempts were made this year, but mechanical problems prevented censusing the Ten Thousand Islands area and windy conditions cancelled the Lemon Bay survey. Additionally, the area from Turtle Beach to Midnight Pass on Casey Key, Little Sarasota Bay, and suitable habitat within the Intercoastal Waterway in Sarasota County should be included in future censuses. Aerial photographs should be assessed to identify tidal preserve areas and un-vegetated flats that may provide suitable habitat not specifically associated with coastal beaches.

The results from this year's census may have been affected by weather conditions. The two dates when most of the surveys were conducted had high winds, and the date selected for the Atlantic Coast census experienced strong thunderstorm activity during the afternoon in addition to strong winds. Even though total numbers of Piping Plovers observed this year were comparable to results obtained in 2001, it was expected that this number would have been larger because substantially more suitable habitat was surveyed this year than in 2001. Whether this indicates a decline in the total number of Piping Plovers wintering in south Florida or is the result of poor weather conditions during the survey period or some other factor is unknown.

Because accessibility seems to be a primary limitation in surveying several important areas of Florida, especially in the southwest corner of the state in and around the Everglades area and along numerous chains of offshore islands, it may be worth considering the feasibility of using other survey methods, such as aerial surveys. The AirCam is a silent, slow-flying, open-cockpit, twin-engine plane that was developed for National Geographic wildlife studies in Africa and has been modified to conduct right whale surveys and photography in Florida. This plane may have direct application to other wildlife studies in the state, including plover surveys.

## 2006 International Piping Plover Winter Census - Gulf Florida -

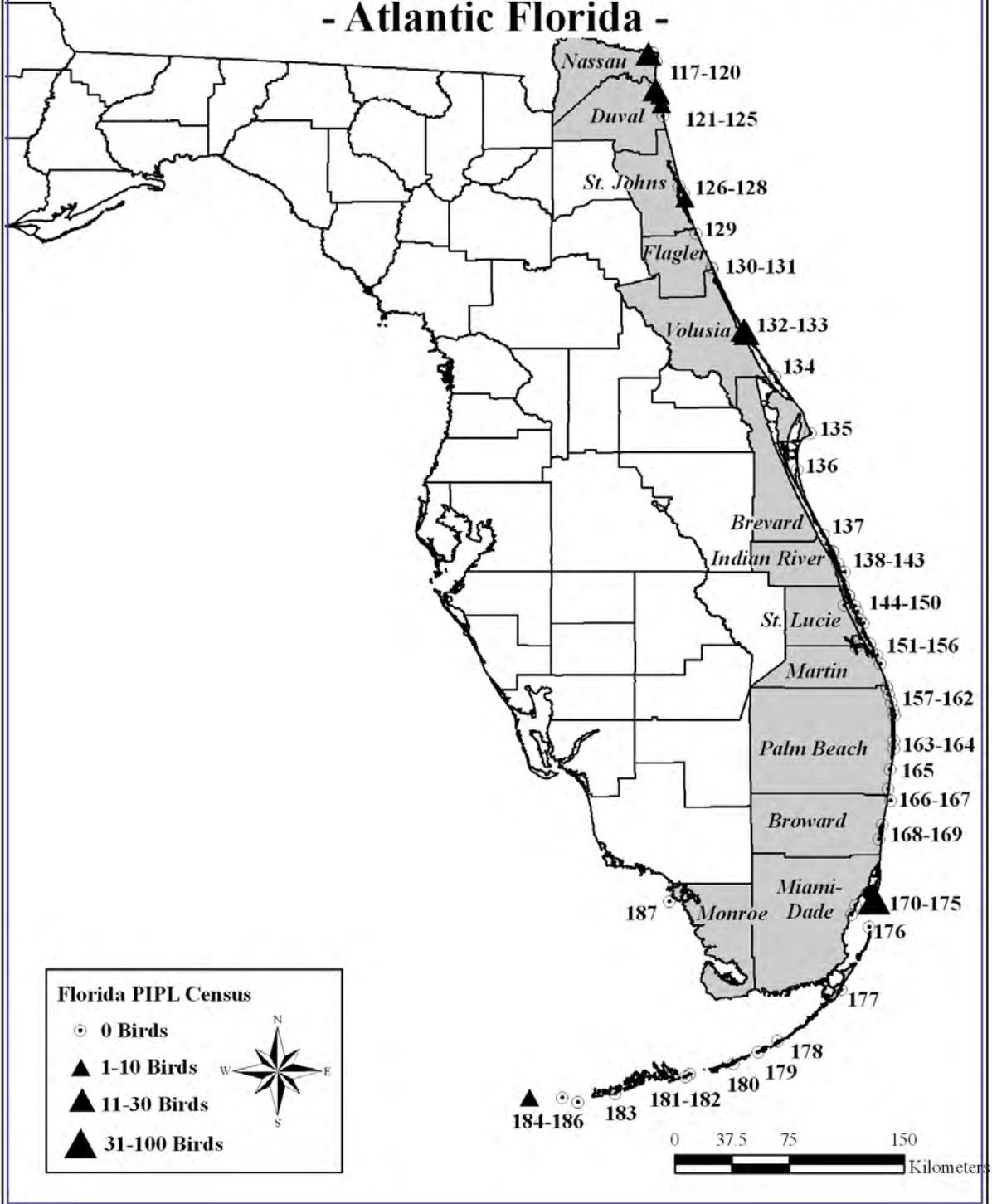


**Florida PIPL Census**

- 0 Birds
- ▲ 1-10 Birds
- ▲ 11-30 Birds
- ▲ 31-100 Birds



## 2006 International Piping Plover Winter Census - Atlantic Florida -



## The 2006 International Piping Plover Winter Census in Florida

| COUNTY                   | SITE NAME   | MAP # | DATE | TOTAL       |      | SITE DESCRIPTION    | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------|---|-------|------|-------------|------|---------------------|--------------|-----------|-----------|-----------|------|
|                          |   |       |      | PIPL ADULTS | KM   |                     |              |           |           |           |      |
| Bay                      | Camp Helen to Sunny Side Beach                    | 24    | 1/27 | 0           | 9.7  | II III A 1          |              | No        | No        | Yes       | p    |
| Bay                      | Crooked Island East                               | 32    | 1/27 | 8           | 10.8 | II III B 1 2 3 8    | III B 3      | Yes       | Yes       | Yes       | f    |
| Bay                      | Crooked Island West                               | 33    | 1/27 | 0           | 10.5 | II III B 1 2 3 8 10 |              | Yes       | Yes       | Yes       | f    |
| Bay                      | Grand Lagoon - Bay Point, Alligator Point         | 28    | 1/27 | 0           | 0.4  | II A 2 8 9          |              | Yes       | No        | Yes       | p    |
| Bay                      | Marifarms, West Bay, P.C. Florida                 | 26    | 1/26 | 0           | 0.8  | II A 3 8 10         |              | No        | No        | Yes       | s(p) |
| Bay                      | Panama City Beach (S Arnold Rd to Lookout Street) | 25    | 1/27 | 0           | 16.1 | III A 1 11          |              | No        | No        | Yes       | s(p) |
| Bay                      | Shell Island                                      | 29    | 1/27 | 0           | 6.0  | III B 1             |              | Yes       | Yes       | Yes       |      |
| Bay                      | St. Andrew Bay - Davis Pt. to Redfish Pt.         | 31    | 1/27 | 0           | 2.6  | III A 3 8           |              | No        | No        | No        | f    |
| Bay                      | St. Andrews State Recreation Area                 | 27    | 1/27 | 0           | 2.4  | II III A 1 4        |              | Yes       | Unk       | Yes       | s(p) |
| Bay                      | West Beach Drive                                  | 30    | 1/27 | 0           | 2.4  | II A 1 8            |              | No        | No        | Yes       | s(p) |
| Bay/Gulf                 | From Tyndall AFB to Port St. Joe (Highland View)  | 34    | 1/27 | 0           | 19.4 | II III A 1          |              | No        | No        | No        |      |
| Bay/Walton               | From Camp Helen SP to Deer Lake SP                | 23    | 1/28 | 0           | 8.1  | II III A 1          |              | No        | No        | yes       | s/p  |
| Brevard                  | Cape Canaveral Air Force Station                  | 135   | 2/7  | 0           | 20.8 | I B 1               |              | Yes       | Yes       | Yes       | f    |
| Brevard                  | Patrick Air Force Base                            | 136   | 2/7  | 0           | 11.8 | I B 1               |              | No        | No        | No        | f    |
| Brevard/<br>Indian River | Sebastian Inlet State Park                        | 137   | 2/3  | 0           | 5.2  | I II IV B D 1 3 8   |              | No        | No        | No        | s(p) |
| Brevard/<br>Volusia      | Canaveral National Seashore                       | 134   | 2/6  | 0           | 38.7 | I II B 1 8 10       |              | Yes       | Yes       | Yes       | f    |
| Broward                  | Broward County Northern Link to Hillsboro Inlet   | 167   | 2/5  | 0           | 5.6  | I B 1               |              | Yes       | No        | No        | m/p  |
| Broward                  | Hugh Taylor Birch State Park                      | 168   | 2/1  | 0           | 0.4  | II B 8              |              | No        | No        | No        | s(p) |
| Broward                  | John U. Lloyd Beach S.P.                          | 169   | 2/3  | 0           | 3.6  | I A 1               |              | No        | No        | Yes       | s(p) |
| Charlotte                | Barrier Island                                    | 98    | 1/27 | 3           | 14.4 | II III B 1 2 10     | III B 1      | Yes       | No        | No        | s(p) |
| Charlotte                | Charlotte Harbor (east side)                      | 97    | 1/27 | 0           | 0.4  | II D 4 9            |              | No        | No        | No        | s(p) |
| Charlotte                | Gasparilla Island                                 | 99    | 1/28 | 0           | 4.0  | III B 1             |              | Yes       | No        | No        | s(p) |
| Citrus                   | Florida Barge Canal spoil islands                 | 58    | 2/6  | 0           | 16.1 | III C 6             |              | No        | No        | Yes       | s(p) |
| Collier                  | Big Marco Pass Shoal                              | 114   | 1/27 | 49          | 3.2  | II III B 1 2 8      | III B 2      | Yes       | Yes       | Yes       | s(p) |
| Collier                  | Cape Romano                                       | 116   | 1/27 | 0           | 1.6  | III E 1 8           |              | No        | No        | No        | s(p) |
| Collier                  | Caxambas Island                                   | 115   | 1/27 | 0           | 0.8  | III E 4             |              | No        | No        | No        | s(p) |
| Collier                  | Clam Pass County Park                             | 111   | 1/27 | 0           | 6.0  | III A 1             |              | No        | No        | No        | f    |
| Collier                  | Delnor - Wiggins Pass State Park                  | 110   | 1/27 | 0           | 2.0  | III B D 1           |              | No        | No        | No        | s(p) |
| Collier                  | Keewaydin Island                                  | 113   | 1/26 | 1           | 10.8 | III B 1 2           | III B 2      | No        | No        | No        | s/p  |
| Collier                  | Naples Pier                                       | 112   | 1/27 | 0           | 4.0  | III A 1             |              | No        | No        | No        | p    |

**The 2006 International Piping Plover Winter Census in Florida  
(Continued)**

| COUNTY   | SITE NAME  | MAP # | DATE | TOTAL PIPL ADULTS | KM   | SITE DESCRIPTION         | PIPL HABITAT             | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|----------|--|-------|------|-------------------|------|--------------------------|--------------------------|-----------|-----------|-----------|--------|
| Dixie    | Shired Island- Lower Suwanee NWR                   | 56    | 1/27 | 0                 | 2.0  | III A 1                  |                          | No        | No        | No        | f      |
| Duval    | Atlantic Beach                                     | 125   | 2/3  | 0                 | 4.0  | I A 1                    |                          | No        | Yes       | Yes       | s(p)   |
| Duval    | Bird Islands - Nassau Sound - N. Lt. Talbot Island | 121   | 2/3  | 15                | 2.4  | IV B E 2 4               | 2                        | Yes       | Yes       | Yes       | s/m    |
| Duval    | Kathryn Abby Hanna Park                            | 123   | 1/3  | 0                 | 2.0  | I IV A 1                 |                          | Yes       | Yes       | Yes       | f/c    |
| Duval    | Little Talbot Island State Park                    | 122   | 2/3  | 5                 | 6.5  | I B 1 3 9 10             | I B 1 3                  | Yes       | Yes       | Yes       | s(p)   |
| Duval    | Ward's Bank (Huguenot Park)                        | 124   | 2/3  | 6                 | 2.8  | I II IV B D 1 2 3<br>4 8 | II G 8                   | Yes       | Yes       | Yes       | s/m    |
| Escambia | Big Lagoon State Park                              | 1     | 1/27 | 0                 | 1.6  | II A 1 2 10              |                          | No        | No        | Yes       | s(p)   |
| Escambia | Fort Pickens Gulf Islands N.S.                     | 6     | 1/27 | 0                 | 11.3 | II III V B 1 8 10        |                          | Yes       | Yes       | Yes       | f      |
| Escambia | Naval Air Station Pensacola, FL                    | 5     | 1/27 | 0                 | 6.5  | II IV A 1 3 4 8          |                          | No        | No        | Yes       | f      |
| Escambia | Pensacola Beach to Range Point                     | 8     | 1/27 | 0                 | 6.5  | II III B                 |                          | No        | No        | Yes       | p      |
| Escambia | Perdido Key Gulf Islands N.S.                      | 4     | 1/27 | 0                 | 11.3 | II III V B 1 8 10        |                          | No        | Yes       | Yes       | f      |
| Escambia | Perdido Key State Park                             | 3     | 1/27 | 0                 | 2.6  | III B 1                  |                          | No        | Yes       | Yes       | s(p)   |
| Escambia | Santa Rosa Gulf Islands N.S.                       | 9     | 1/27 | 5                 | 11.3 | II III B 1 3 8 10        | II B 8                   | No        | No        | Yes       | f      |
| Escambia | Tarkiln Bayou Preserve State Park                  | 2     | 1/27 | 0                 | 6.5  | II A 1 2 4 10            |                          | No        | No        | No        | s(p)   |
| Flagler  | Gamble Rogers Memorial SRA                         | 130   | 2/3  | 0                 |      | I B 1                    |                          | No        | No        | No        | s(p)   |
| Flagler  | Marineland to Washington Oaks State Park           | 129   | 2/3  | 0                 | 1.3  | I B 1                    |                          | Yes       | Yes       | No        | s(p)   |
| Franklin | Alligator Pt.                                      | 49    | 1/27 | 6                 | 6.5  | II III G 1               | III F 1                  | Yes       | No        | Yes       | p      |
| Franklin | Bald Pt. State Park                                | 50    | 1/27 | 4                 | 4.8  | II III A D 1 4 7 8       | II D 7                   | No        | Yes       | Yes       | s(p)   |
| Franklin | Carrabelle to Turkey Point                         | 44    | 1/27 | 1                 | 19.4 | III A 3                  |                          | Yes       | Yes       | Yes       | p      |
| Franklin | Dog Island   | 45    | 1/27 | 14                | 24.2 | II III B F 1 2 8<br>11   | II B 8 10<br>11          | Yes       | No        | Yes       | p      |
| Franklin | East Point to Carrabella                           | 42    | 1/27 | 0                 | 21.0 | II A 1 3                 |                          | Yes       | Yes       | Yes       | s(p)/p |
| Franklin | Gulf Cnty Line to Green Point                      | 40    | 1/27 | 0                 | 16.1 | III A 8 11               |                          | No        | No        | Yes       | p      |
| Franklin | John S. Phipps Preserve (West end of Peninsula)    | 48    | 1/27 | 17                | 4.8  | III G 1 11               | III G 1                  | Yes       | Yes       | Yes       | p      |
| Franklin | Lanark Reef  | 46    | 1/27 | 22                | 6.5  | II III B 1 2 3 4 8<br>10 | II III B 1 2<br>3 4 8 10 | Yes       | Yes       | Yes       | s/p    |
| Franklin | Little St. George Island                           | 39    | 1/27 | 0                 | 14.5 | III B 1 11               |                          | Yes       | Yes       | Yes       | s(p)   |
| Franklin | St. George Island From Govt. Cut to State Park     | 41    | 1/27 | 0                 | 14.5 | II III B 1 3 4 7 8       |                          | No        | No        | No        | p      |
| Franklin | St. George Island State Park                       | 43    | 1/27 | 4                 | 25.8 | II B 4                   |                          | Yes       | Yes       | Yes       | s(p)   |
| Franklin | St. Vincent Island                                 | 38    | 1/27 | 0                 | 37.0 | II III B 1 7 8           |                          | Yes       | Yes       | Yes       | f      |

**The 2006 International Piping Plover Winter Census in Florida  
(Continued)**

| COUNTY       | SITE NAME                                   | MAP # | DATE | TOTAL PIPL ADULTS | KM   | SITE DESCRIPTION  | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN   |
|--------------|---|-------|------|-------------------|------|-------------------|--------------|-----------|-----------|-----------|-------|
| Franklin     | Turkey Point to St. Teresa Beach            | 47    | 1/27 | 4                 | 6.5  | III A 3           |              | No        | No        | Yes       | p     |
| Gulf         | Indian Pass to Cape San Blas and Stump Hole | 37    | 1/27 | 0                 | 9.7  | n.r.              |              | Yes       | No        | Yes       | n.r.  |
| Gulf         | SE St. Joe Bay Shoreline                    | 36    | 1/27 | 0                 | 8.1  | n.r.              |              | Yes       | Yes       | Yes       | n.r.  |
| Gulf         | St. Joe Peninsula SP                        | 35    | 1/27 | 26                | 25.8 | n.r.              |              | Yes       | Yes       | Yes       | n.r.  |
| Hillsborough | Egmont Key NWR & State Park                 | 85    | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | Yes       | f/p   |
| Indian River | Indian River Co. beaches                    | 141   | 2/3  | 0                 | 9.7  | I B 1             |              | No        | Yes       | No        | s/m/p |
| Indian River | Round Island Conservation Area              | 143   | 2/2  | 0                 | 1.6  | V B 8             |              | No        | No        | No        | c     |
| Indian River | Round Island Park                           | 142   | 2/2  | 0                 | 7.3  | I B 1             |              | No        | No        | No        | s(p)  |
| Indian River | Tracking Station Access to Barber Bridge    | 140   | 2/3  | 0                 | 2.8  | I B 1             |              | Yes       | No        | No        | m     |
| Indian River | Tracking Station Park N to Wabasso Beach    | 139   | 2/6  | 0                 | 9.7  | I B 1             |              | No        | No        | No        | s(p)  |
| Indian River | Wabasso Beach to Turtle Trail               | 138   | 2/3  | 0                 | 1.6  | I B 1             |              | No        | No        | No        | m     |
| Lee          | Big Hickory Island                          | 108   | 1/28 | 0                 | 0.8  | III B 1           |              | No        | No        | No        | s/c/p |
| Lee          | Bonita & Barefoot Beaches                   | 109   | 1/27 | 0                 | 9.7  | III B 1           |              | No        | No        | No        | s(p)  |
| Lee          | Captiva Island                              | 103   | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | No        | p     |
| Lee          | Cayo Costa                                  | 101   | 1/27 | 1                 | 12.3 | II III B 1 2 3    | II B 3       | Yes       | No        | Yes       | s/p   |
| Lee          | Estero Island                               | 106   | 1/28 | 10                | 12.1 | II III B D 1 8    | II D 8       | No        | No        | Yes       | s(p)  |
| Lee          | Gasparilla Island                           | 100   | 1/27 | 0                 | 7.3  | III B 1           |              | No        | No        | No        | s/p   |
| Lee          | Lovers Key State Park                       | 107   | 1/27 | 0                 | 4.5  | II III B D 1 4 8  |              | No        | No        | No        | s(p)  |
| Lee          | N. Captiva Island                           | 102   | 1/30 | 10                | 5.5  | II III B 1 3 8 11 | II B 1 3 8   | Yes       | Yes       | No        | s/p   |
| Lee          | San Carlos Bay Flats                        | 105   | 2/2  | 0                 | 0.8  | V A 5             |              | No        | No        | No        | c     |
| Lee          | Sanibel Island                              | 104   | 1/27 | 0                 | 6.5  | III B 1           |              | Yes       | Yes       | Yes       | s(p)  |
| Levy         | Cedar Key Area                              | 57    | 1/31 | 7                 | 16.1 | III C D E 1 2 7   | III D E 1 2  | Yes       | No        | No        | f/s/p |
| Manatee      | Anna Maria Island                           | 87    | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | Yes       | s/p   |
| Manatee      | Longboat Key                                | 88    | 1/27 | 0                 | 3.2  | III B 1           |              | No        | No        | No        | m/p   |
| Manatee      | Passage Key NWR                             | 86    | 1/27 | 0                 | 0.4  | B 1 2 4           |              | Yes       | Yes       | Yes       | f     |
| Martin       | Hobe Sound NWR                              | 156   | 1/27 | 0                 | 4.0  | I B 1             |              | No        | Yes       | Yes       | f     |
| Martin       | Hutchinson Island                           | 153   | 1/27 | 0                 | 12.0 | I IV B 1 10       |              | No        | No        | No        | m/c/s |
| Martin       | St. Lucie Inlet                             | 154   | 1/27 | 0                 | 1.6  | I D 4             |              | No        | Yes       | Yes       | s(p)  |
| Martin       | St. Lucie Inlet sandbars                    | 152   | 2/3  | 0                 | 3.2  | IV 4              |              | No        | No        | No        | s(p)  |
| Martin       | St. Lucie Inlet State Park                  | 155   | 1/27 | 0                 | 5.6  | I IV B 1          |              | Yes       | Yes       | Yes       | s(p)  |

**The 2006 International Piping Plover Winter Census in Florida  
(Continued)**

| COUNTY                  | SITE NAME  | MAP # | DATE | TOTAL PIPL ADULTS | KM   | SITE DESCRIPTION | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|-------------------------|--|-------|------|-------------------|------|------------------|--------------|-----------|-----------|-----------|--------|
| Martin                  | W shore of Indian River Near Jensen Beach          | 151   | 1/27 | 0                 | 1.6  | II A 3           |              | No        | No        | No        | s(p)   |
| Miami-Dade              | Bill Baggs State Park lighthouse to Crandon Park   | 172   | 2/3  | 0                 | 3.9  | I B 1            |              | No        | No        | Yes       | s(p)   |
| Miami-Dade              | Biscayne National Park                             | 176   | 2/1  | 0                 | 2.4  | I B D 1 4 10     |              | No        | Yes       | No        | f      |
| Miami-Dade              | Crandon Park Beach                                 | 171   | 1/31 | 38                | 0.8  | I B 1 3          | I B 1 3      | Yes       | No        | Yes       | c      |
| Miami-Dade              | Derring Estate and Chicken Key                     | 175   | 2/3  | 0                 | 3.2  | II C 6 10        |              | No        | No        | No        | s(p)   |
| Miami-Dade              | Matheson Hammock                                   | 174   | 2/3  | 0                 | 0.4  | II A 10          |              | No        | No        | No        | c      |
| Miami-Dade              | Rickenbacker Causeway Shoreline                    | 170   | 2/3  | 0                 | 0.4  | II C G 6         |              | No        | No        | Yes       | c      |
| Miami-Dade              | Virginia Key Critical Wildlife Area                | 173   | 2/3  | 0                 | 2.8  | II B             |              | Yes       | Yes       | Yes       | c      |
| Monroe                  | Bahia Honda State Park                             | 182   | 2/4  | 0                 | 4.8  | I E 1            |              | Yes       | Yes       | Yes       | s(p)   |
| Monroe                  | Boca Chica Beach                                   | 183   | 2/2  | 0                 | 1.1  | I E 1            |              | No        | No        | No        | f      |
| Monroe                  | Boca Grande Key                                    | 186   | 2/3  | 6                 | 2.3  | I II E F 1 3 9   | I E 3        | Yes       | Yes       | Yes       | f      |
| Monroe                  | Curry Hammock State Park                           | 180   | 2/3  | 0                 | 0.4  | I G 11           |              | No        | No        | No        | s(p)   |
| Monroe                  | Fort Taylor Historic State Park                    | 184   | 2/3  | 0                 | 0.4  | I E 6            |              | No        | No        | No        | s(p)   |
| Monroe                  | John D. Pennekamp state Park/ Carysfort Yacht Club | 177   | 3/2  | 0                 | 30   | I B C 6 10       |              | No        | Yes       | Yes       | s(p)   |
| Monroe                  | Long Key State Park                                | 179   | 2/4  | 0                 | 0.8  | I G 1            |              | No        | Yes       | No        | s(p)   |
| Monroe                  | Lower Matecumbe                                    | 178   | 2/4  | 0                 | 1.1  | I E 1            |              | No        | No        | No        | p      |
| Monroe                  | Ohio Key   | 181   | 2/4  | 0                 | 0.3  | I II IV E 1 5 9  |              | Yes       | Yes       | Yes       | f      |
| Monroe                  | Pavilion Key                                       | 187   | 1/27 | 0                 | 2.4  | III A 1          |              | No        | No        | No        | s(p)   |
| Monroe                  | Women Key  | 185   | 2/3  | 0                 | 2.1  | I E 1            |              | No        | Yes       | Yes       | s(p)   |
| Nassau                  | Amelia Island Recreation Area                      | 120   | 2/3  | 0                 | 1.6  | I B 1 3 9 10     |              | Yes       | No        | Yes       | s(p)   |
| Nassau                  | Fernandina Beach                                   | 119   | 2/3  | 0                 | 4.7  | I B 1            |              | No        | No        | No        | m      |
| Nassau                  | Fort Clinch State Park                             | 117   | 2/3  | 0                 | 11.3 | I A 1 10         |              | Yes       | No        | Yes       | s(p)   |
| Nassau                  | Little Tiger Island                                | 118   | 2/3  | 20                | 0.4  | V E 1            | V E 1        | No        | No        | Yes       | p      |
| Okaloosa                | Destin   | 14    | 1/27 | 0                 | 4.8  | III B 1          |              | Yes       | No        | Yes       | p      |
| Okaloosa                | East Okaloosa County Shoreline                     | 16    | 1/27 | 0                 | 3.5  | III B 1          |              | No        | No        | No        | p      |
| Okaloosa                | East Pass to Norreigo Point                        | 13    | 1/27 | 0                 | 1.6  | II IV B 2        |              | Yes       | No        | Yes       | s(p)/p |
| Okaloosa                | Eglin Pkwy to Destin Bridge, Okaloosa Island       | 12    | 1/27 | 0                 | 9.7  | III B 1          |              | No        | Yes       | Yes       | f/p/c  |
| Okaloosa                | Henderson Beach State Park                         | 15    | 1/27 | 0                 | 2    | III B 1          |              | No        | No        | Yes       | s(p)   |
| Okaloosa/<br>Santa Rosa | Santa Rosa Island (W to Navarre Beach SP)          | 10    | 1/27 | 0                 | 10.5 | III B 1 3 4 10   |              | No        | Yes       | Yes       | f      |

**The 2006 International Piping Plover Winter Census in Florida  
(Continued)**

| COUNTY                  | SITE NAME  | MAP # | DATE | TOTAL<br>PIPL<br>ADULTS | KM   | SITE<br>DESCRIPTION   | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|-------------------------|--|-------|------|-------------------------|------|-----------------------|-----------------|--------------|--------------|--------------|-------|
| Okaloosa/<br>Santa Rosa | Santa Rosa Sound (Inter-coastal waterway)                        | 11    | 1/26 | 0                       | 32.3 | V A B C D 1 3 4<br>10 |                 | Yes          | No           | Yes          | f/s   |
| Palm Beach              | Lantana Park to Atlantic Dunes Park                              | 165   | 2/3  | 0                       | 14.5 | I A B 1               |                 | No           | No           | No           | s/m/p |
| Palm Beach              | Highland Beach   | 166   | 2/3  | 0                       | 6.5  | I B 1                 |                 | No           | No           | No           | s/m/p |
| Palm Beach              | Juno Beach Park to MacArthur State Park                          | 160   | 2/3  | 0                       | 6.9  | I A 1                 |                 | No           | No           | No           | m/p   |
| Palm Beach              | Jupiter Beach to Juno Beach Park                                 | 159   | 2/3  | 0                       | 5.6  | I IV A 1              |                 | No           | No           | No           | m/p   |
|                         |  |       |      |                         |      | II IV A B D 1 2 3     |                 |              |              |              |       |
| Palm Beach              | Jupiter sound, Jupiter inlet, Loxahatchee River                  | 158   | 1/27 | 0                       | 9.7  | 4                     |                 | Yes          | No           | No           | s(p)  |
| Palm Beach              | Lake Worth Beach Pier to Lantana Park                            | 164   | 2/2  | 0                       | 3.5  | I B 1                 |                 | No           | No           | No           | m     |
| Palm Beach              | MacArthur Beach State Park                                       | 161   | 2/3  | 0                       | 2.6  | I B 1                 |                 | Yes          | Yes          | Yes          | s(p)  |
| Palm Beach              | MacArthur Beach State Park to Palm Beach Shores                  | 162   | 2/3  | 0                       | 4.5  | I IV B 1              |                 | No           | No           | No           | s/m   |
| Palm Beach              | Southern Blvd. South to Lake Worth Beach                         | 163   | 2/2  | 0                       | 6.8  | I B 1                 |                 | No           | No           | No           | m     |
| Palm Beach/<br>Martin   | Jupiter Island - Jupiter Inlet through Blowing<br>Rocks Preserve | 157   | 2/4  | 0                       | 4.8  | I II IV B 1           |                 | No           | Yes          | No           | c     |
| Pasco                   | Anclote Gulf Park  | 67    | 1/27 | 0                       | 0.4  | III A 3 8             |                 | No           | No           | No           | c     |
| Pasco                   | Anclote Key sandbar <sup>1</sup>                                 | 64    | 1/27 | 10                      | 0.8  | III B 1 2             |                 | Yes          | Yes          | Yes          | s(p)  |
| Pasco                   | Anclote Key State Park   | 66    | 1/27 | 13                      | 2.4  | III B 1 2             |                 | Yes          | Yes          | Yes          | s(p)  |
| Pasco                   | Brasher Park   | 61    | 1/27 | 0                       | 0.4  | III A 8               |                 | No           | No           | No           | m     |
| Pasco                   | Green Key  | 62    | 1/27 | 0                       | 0.2  | III A 1               |                 | No           | Yes          | Yes          | c     |
| Pasco                   | Gulf Harbors Beach   | 63    | 1/27 | 0                       | 0.2  | III A 1               |                 | No           | Yes          | Yes          | p     |
| Pasco                   | Hudson Beach   | 59    | 1/27 | 0                       | 0.3  | III A 8               |                 | No           | No           | No           | s(p)  |
| Pasco                   | Sand Bay   | 65    | 1/27 | 0                       | 0.4  | III A 3 8             |                 | No           | Yes          | Yes          | s(p)  |
| Pasco                   | Werner-Boyce Salt Springs State Park                             | 60    | 1/27 | 0                       | 0.8  | III G 11              |                 | No           | No           | No           | s(p)  |
| Pinellas                | Dunedin Causeway (to Honeymoon Island)                           | 73    | 1/26 | 0                       | 0.8  | V G 1                 |                 | Yes          | Yes          | Yes          | m     |
| Pinellas                | Ft. DeSoto County Park, E beach                                  | 83    | 1/27 | 0                       | 1.6  | III B 1 4 8           |                 | Yes          | Yes          | No           | c     |
| Pinellas                | Ft. DeSoto County Park, NW Beach                                 | 82    | 1/27 | 0                       | 1.5  | III B 1               |                 | Yes          | Yes          | Yes          | c     |
| Pinellas                | Ft. DeSoto County Park, SW Beach                                 | 84    | 1/27 | 0                       | 1.6  | III B 1               |                 | No           | No           | No           | c     |
| Pinellas                | Honeymoon Island SRA (N end of island)                           | 70    | 1/23 | 35                      | 8.1  | III B 2               | III B 2         | Yes          | Yes          | Yes          | s(p)  |
| Pinellas                | Honeymoon Island State Park, Bird Observation<br>Area            | 72    | 1/26 | 3                       | 0    | III V D 8             | I D 8           | Yes          | Yes          | No           | f     |
| Pinellas                | Honeymoon Island State Park, Pet Beach                           | 71    | 1/26 | 0                       | 0.8  | III 1                 |                 | Yes          | Yes          | No           | f     |

**The 2006 International Piping Plover Winter Census in Florida  
(Continued)**

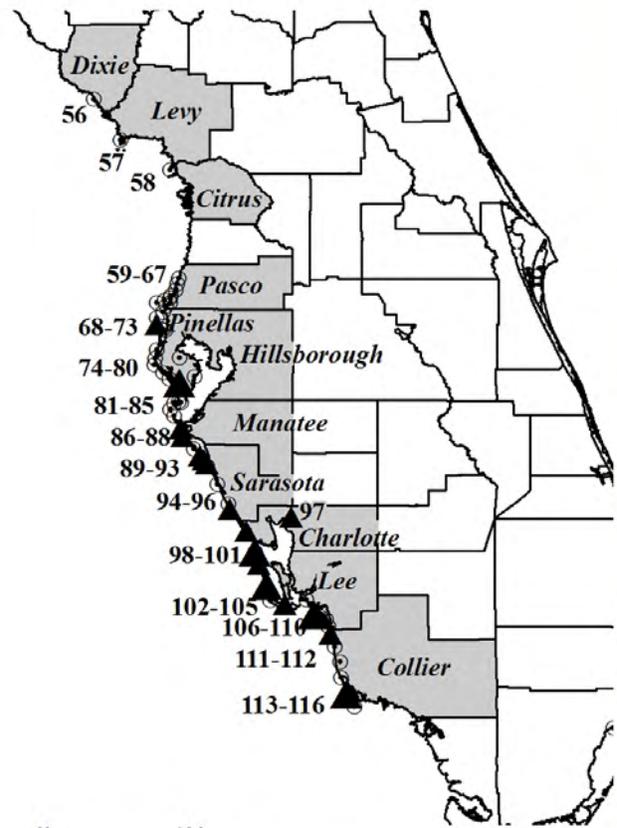
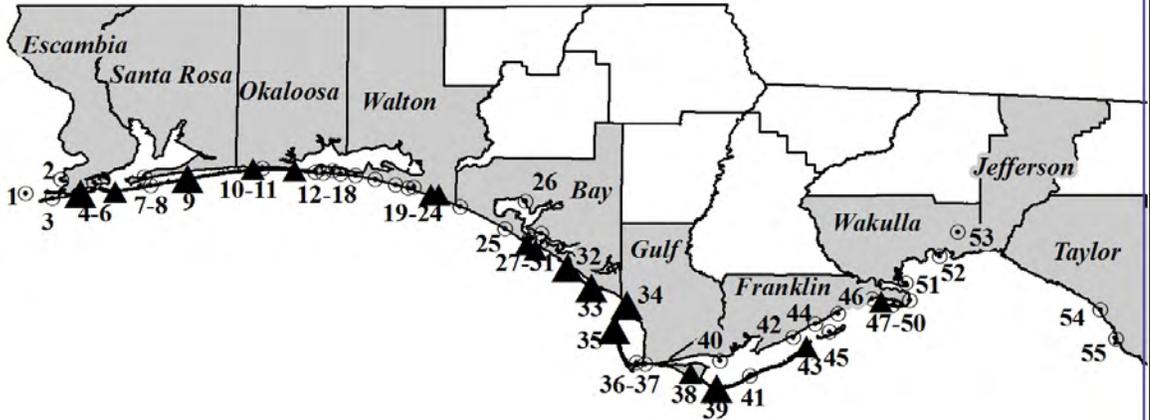
| COUNTY                 | SITE NAME   | MAP # | DATE | TOTAL<br>PIPL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|------------------------|---|-------|------|-------------------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Pinellas               | Howard County Park  | 68    | 1/27 | 4                       | 3.2  | III C G 1 8         | 1 8             | Yes          | Yes          | Yes          | c    |
| Pinellas               | Indian Rocks Beach  | 76    | 1/28 | 0                       | 4    | III A 1             |                 | No           | No           | No           | m    |
| Pinellas               | Madeira Beach/Redington Beach/North Redington Beach               | 78    | 1/27 | 0                       | 6.5  | III B 1 11          |                 | No           | No           | No           | m    |
| Pinellas               | North Clearwater beach  | 75    | 2/5  | 0                       | 3.2  | III A 1             |                 | Yes          | Yes          | Yes          | m    |
| Pinellas               | Sandy Park to Bellair Beach Morgan Dr. Park                       | 74    | 1/27 | 0                       | 4.8  | III B 1             |                 | Yes          | No           | No           | m    |
| Pinellas               | Shell Key   | 81    | 1/27 | 34                      | 13.7 | III B 1 3 4 8 10    | III B 3         | No           | Yes          | Yes          | s(p) |
| Pinellas               | St. Petersburg- North shore park area                             | 79    | 1/27 | 0                       | 0.8  | II A 1 3            |                 | No           | No           | No           | m    |
| Pinellas               | Three Rooker Bar <sup>1</sup>                                     | 69    | 1/27 | 30                      | 4    | III B 1 2           |                 | Yes          | Yes          | Yes          |      |
| Pinellas               | Treasure Island   | 80    | 1/27 | 0                       | 3.5  | III B 1             |                 | No           | No           | No           | m    |
| Pinellas               | Walsingham Road South to 173 AVE                                  | 77    | 1/27 | 0                       | 7.3  | III B 1 11          |                 | No           | No           | No           | m    |
| Santa Rosa             | Naval Live Oaks Gulf Islands N.S.                                 | 7     | 1/27 | 0                       | 6.9  | II A 1 4 8          |                 | No           | No           | Yes          | f    |
| Sarasota               | Casey Key beach   | 94    | 1/31 | 0                       | 11.3 | III B 1             |                 | No           | Yes          | No           | s(p) |
| Sarasota               | Caspersen Beach   | 95    | 1/27 | 0                       | 6.5  | III B 1             |                 | Yes          | Yes          | No           | s(p) |
| Sarasota               | Longboat Key  | 89    | 1/27 | 0                       | 6.8  | III B 1             |                 | No           | No           | No           | m/p  |
| Sarasota               | North Lido Beach  | 90    | 1/27 | 0                       | 4    | III B 1             |                 | Yes          | No           | No           | c    |
| Sarasota               | Siesta Key, Turtle Beach to Point of Rocks                        | 93    | 1/28 | 0                       | 2.4  | III B 1             |                 | No           | No           | No           | p    |
| Sarasota               | Siesta Key, N end to Point of Rocks                               | 92    | 1/27 | 0                       | 5.2  | III A B F 1 4       |                 | Yes          | No           | No           | c    |
| Sarasota               | South Lido Beach  | 91    | 1/27 | 0                       | 2.4  | II III B 1          |                 | Yes          | No           | No           |      |
| Sarasota/<br>Charlotte | Manasota Beach  | 96    | 1/27 | 0                       | 6.5  | III B 1             |                 | No           | No           | Yes          | c    |
| St. Johns              | Anastasia State Recreation Area                                   | 127   | 2/3  | 0                       | 8.1  | I II IV B 1 8       |                 | Yes          | Yes          | Yes          | s(p) |
| St. Johns              | Porpoise Point (Vilano Point)                                     | 126   | 2/3  | 0                       | 1.6  | IV A 1              |                 | No           | Yes          | Yes          | p    |
| St. Johns              | St. Augustine Beach (Matanzas Inlet)                              | 128   | 2/4  | 1                       | 16.9 |                     | IV B 1          | No           | Yes          | No           | f/c  |
| St. Lucie              | Avalon State Park   | 145   | 2/3  | 0                       | 1.6  | I A 1               |                 | No           | No           | No           | m    |
| St. Lucie              | Fort Pierce Inlet State Park                                      | 146   | 2/3  | 0                       | 0.8  | I A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| St. Lucie              | Fort Pierce Inlet State Park to Avalon State Park                 | 144   | 2/3  | 0                       | 5.6  | I A 1               |                 | Yes          | Yes          | Yes          | c    |
| St. Lucie              | S Hutchinson Island, Fredrick Douglas Park to Inlet               | 147   | 2/3  | 0                       | 6.5  | I B 1               |                 | Yes          | Yes          | No           | s(p) |
| St. Lucie              | S Hutchinson Island, Little Mud Creek N to Fredrick Douglass Park | 148   | 2/3  | 0                       | 3.7  | I B 1               |                 | Yes          | Yes          | No           | m/c  |

**The 2006 International Piping Plover Winter Census in Florida  
(Continued)**

| COUNTY                | SITE NAME   | MAP # | DATE | TOTAL PIPL ADULTS | KM            | SITE DESCRIPTION   | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|-----------------------|---|-------|------|-------------------|---------------|--------------------|--------------|-----------|-----------|-----------|--------|
| St. Lucie             | S Hutchinson Island, Little Mud Creek S to the narrows              | 149   | 2/3  | 0                 | 6.5           | I B 1              |              | Yes       | Yes       | No        | p      |
| St. Lucie             | S Hutchinson Island, S end  | 150   | 2/3  | 0                 | 6.6           | I B 1              |              | Yes       | Yes       | No        | s(p)   |
| Taylor                | Adam's Beach  | 54    | 1/27 | 0                 | 0.8           | III A 7 8          |              | No        | No        | No        | c      |
| Taylor                | Hagen's Cove  | 55    | 1/27 | 0                 | 4             | II III A 1 3 8     |              | No        | No        | Yes       | s(p)   |
| Volusia               | Disappearing Island   | 132   | 2/2  | 25                | 0.8           | 8                  | IV D 4 8     | No        | No        | No        | s(p)/c |
| Volusia               | New Smyrna Beach  | 133   | 2/3  | 17                | 4             | I IV B 1 9         | I IV B 1 9   | Yes       | Yes       | Yes       | c      |
| Volusia               | North Peninsula SRA   | 131   | 2/3  | 0                 | 4.8           | I B 1              |              | Yes       | Yes       | Yes       | s(p)   |
| Wakulla               | Mashes Is County Park   | 51    | 1/27 | 0                 | 0.8           | III E 1 3 8        |              | No        | Yes       | Yes       | c      |
| Wakulla               | St. Marks National Wildlife Refuge - Impoundments                   | 53    | 1/26 | 0                 | 23.5          | V A 8              |              | No        | No        | No        | f      |
| Wakulla/<br>Jefferson | Apalachee Bay & Oyster Bay  | 52    | 1/26 | 0                 | 11.6          | II III A D E 2 3 7 |              | No        | No        | No        | f/p/c  |
| Walton                | Camp Creek Inlet to E end Grayton Beach State Park                  | 22    | 1/26 | 0                 | 27.4          | III A 1            |              | No        | No        | Yes       | s(p)   |
| Walton                | Deer Lake State Park  | 21    | 1/27 | 0                 | 1.6           | III A 1            |              | No        | No        | No        | s(p)   |
| Walton                | E end Topsail Hill State Preserve to W end Grayton Beach State Park | 19    | 1/27 | 0                 | 10            | III V A 1 11       |              | No        | No        | Yes       | p      |
| Walton                | Grayton Beach State Park  | 20    | 1/27 | 0                 | 6.1           | III A 1            |              | No        | No        | No        | s(p)   |
| Walton                | Topsail Hill Preserve State Park                                    | 18    | 1/27 | 0                 | 5.2           | III A 1            |              | No        | No        | Yes       | s(p)   |
| Walton                | West Walton County Shoreline  | 17    | 1/27 | 0                 | 8.1           | III B 1            |              | No        | No        | Yes       | p/c    |
| <b>Total</b>          |   |       |      | <b>454</b>        | <b>1223.9</b> |                    |              |           |           |           |        |

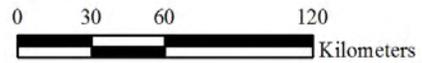
<sup>1</sup>datasheets from these sites were lost; number of Piping Plovers was estimated by surveyor but no data on wilson's or Snowy Plovers.

## 2006 International Snowy Plover Winter Census - Gulf Florida -



**Florida SNPL Census**

- 0 Birds
- ▲ 1-10 Birds
- ▲ 11-30 Birds
- ▲ 31-100 Birds



## The 2006 International Snowy Plover Winter Census in Florida

| COUNTY                   | SITE NAME   | MAP # | DATE | TOTAL SNPL ADULTS | KM   | SITE DESCRIPTION    | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------|---|-------|------|-------------------|------|---------------------|--------------|-----------|-----------|-----------|------|
| Bay                      | Camp Helen to Sunny Side Beach                    | 24    | 1/27 | 0                 | 9.7  | II III A 1          |              | No        | No        | Yes       | p    |
| Bay                      | Crooked Island East                               | 32    | 1/27 | 28                | 10.8 | II III B 1 2 3 8    | III B 3      | Yes       | Yes       | Yes       | f    |
| Bay                      | Crooked Island West                               | 33    | 1/27 | 20                | 10.5 | II III B 1 2 3 8 10 | III B 3 8    | Yes       | Yes       | Yes       | f    |
| Bay                      | Grand Lagoon - Bay Point, Alligator Point         | 28    | 1/27 | 0                 | 0.4  | II A 2 8 9          |              | Yes       | No        | Yes       | p    |
| Bay                      | Marifarms, West Bay, P.C. Florida                 | 26    | 1/26 | 0                 | 0.8  | II A 3 8 10         |              | No        | No        | Yes       | s(p) |
| Bay                      | Panama City Beach (S Arnold Rd to Lookout Street) | 25    | 1/27 | 0                 | 16.1 | III A 1 11          |              | No        | No        | Yes       | s(p) |
| Bay                      | Shell Island                                      | 29    | 1/27 | 4                 | 6.0  | III B 1             | III B 1      | Yes       | Yes       | Yes       |      |
| Bay                      | St. Andrew Bay - Davis Pt. to Redfish Pt.         | 31    | 1/27 | 0                 | 2.6  | III A 3 8           | III A 1      | No        | No        | No        | f    |
| Bay                      | St. Andrews State Recreation Area                 | 27    | 1/27 | 3                 | 2.4  | II III A 1 4        |              | Yes       | Unk       | Yes       | s(p) |
| Bay                      | West Beach Drive                                  | 30    | 1/27 | 0                 | 2.4  | II A 1 8            |              | No        | No        | Yes       | s(p) |
| Bay/Gulf                 | From Tyndall AFB to Port St. Joe (Highland View)  | 34    | 1/27 | 12                | 19.4 | II III A 1          |              | No        | No        | No        |      |
| Bay/Walton               | From Camp Helen SP to Deer Lake SP                | 23    | 1/28 | 2                 | 8.1  | II III A 1          | III A 1      | No        | No        | yes       | s/p  |
| Brevard                  | Cape Canaveral Air Force Station                  |       | 2/7  | 0                 | 20.8 | I B 1               |              | Yes       | Yes       | Yes       | f    |
| Brevard                  | Patrick Air Force Base                            |       | 2/7  | 0                 | 11.8 | I B 1               |              | No        | No        | No        | f    |
| Brevard/<br>Indian River | Sebastian Inlet State Park                        |       | 2/3  | 0                 | 5.2  | I II IV B D 1 3 8   |              | No        | No        | No        | s(p) |
| Brevard/<br>Volusia      | Canaveral National Seashore                       |       | 2/6  | 0                 | 38.7 | I II B 1 8 10       |              | Yes       | Yes       | Yes       | f    |
| Broward                  | Broward County Northern Link to Hillsboro Inlet   |       | 2/5  | 0                 | 5.6  | I B 1               |              | Yes       | No        | No        | m/p  |
| Broward                  | Hugh Taylor Birch State Park                      |       | 2/1  | 0                 | 0.4  | II B 8              |              | No        | No        | No        | s(p) |
| Broward                  | John U. Lloyd Beach S.P.                          |       | 2/3  | 0                 | 3.6  | I A 1               |              | No        | No        | Yes       | s(p) |
| Charlotte                | Barrier Island                                    | 98    | 1/27 | 2                 | 14.4 | II III B 1 2 10     | III B 1      | Yes       | No        | No        | s(p) |
| Charlotte                | Charlotte Harbor (east side)                      | 97    | 1/27 | 4                 | 0.4  | II D 4 9            | II D 4       | No        | No        | No        | s(p) |
| Charlotte                | Gasparilla Island                                 | 99    | 1/28 | 24                | 4.0  | III B 1             | III B 1      | Yes       | No        | No        | s(p) |
| Citrus                   | Florida Barge Canal spoil islands                 | 58    | 2/6  | 0                 | 16.1 | III C 6             |              | No        | No        | Yes       | s(p) |
| Collier                  | Big Marco Pass Shoal                              | 114   | 1/27 | 20                | 3.2  | II III B 1 2 8      | III B 2      | Yes       | Yes       | Yes       | s(p) |
| Collier                  | Cape Romano                                       | 116   | 1/27 | 0                 | 1.6  | III E 1 8           |              | No        | No        | No        | s(p) |
| Collier                  | Caxambas Island                                   | 115   | 1/27 | 0                 | 0.8  | III E 4             |              | No        | No        | No        | s(p) |
| Collier                  | Clam Pass County Park                             | 111   | 1/27 | 0                 | 6.0  | III A 1             |              | No        | No        | No        | f    |
| Collier                  | Delnor - Wiggins Pass State Park                  | 110   | 1/27 | 5                 | 2.0  | III B D 1           | III B 1      | No        | No        | No        | s(p) |
| Collier                  | Keewaydin Island                                  | 113   | 1/26 | 0                 | 10.8 | III B 1 2           |              | No        | No        | No        | s/p  |
| Collier                  | Naples Pier                                       | 112   | 1/27 | 0                 | 4.0  | III A 1             |              | No        | No        | No        | p    |

**The 2006 International Snowy Plover Winter Census in Florida  
(Continued)**

| COUNTY   | SITE NAME  | MAP # | DATE | TOTAL SNPL ADULTS | KM   | SITE DESCRIPTION                       | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|----------|--|-------|------|-------------------|------|--|--------------|-----------|-----------|-----------|--------|
| Dixie    | Shired Island- Lower Suwanee NWR                   | 56    | 1/27 | 0                 | 2.0  | III A 1                                |              | No        | No        | No        | f      |
| Duval    | Atlantic Beach                                     |       | 2/3  | 0                 | 4.0  | I A 1                                  |              | No        | Yes       | Yes       | s(p)   |
| Duval    | Bird Islands - Nassau Sound - N. Lt. Talbot Island |       | 2/3  | 0                 | 2.4  | IV B E 2 4                             |              | Yes       | Yes       | Yes       | s/m    |
| Duval    | Kathryn Abby Hanna Park                            |       | 1/3  | 0                 | 2.0  | I IV A 1                               |              | Yes       | Yes       | Yes       | f/c    |
| Duval    | Little Talbot Island State Park                    |       | 2/3  | 0                 | 6.5  | I B 1 3 9 10                           |              | Yes       | Yes       | Yes       | s(p)   |
| Duval    | Ward's Bank (Huguenot Park)                        |       | 2/3  | 0                 | 2.8  | I II IV B D 1 2 3<br>4 8               |              | Yes       | Yes       | Yes       | s/m    |
| Escambia | Big Lagoon State Park                              | 1     | 1/27 | 0                 | 1.6  | II A 1 2 10                            |              | No        | No        | Yes       | s(p)   |
| Escambia | Fort Pickens Gulf Islands N.S.                     | 6     | 1/27 | 10                | 11.3 | II III V B 1 8 10                      | II B 1       | Yes       | Yes       | Yes       | f      |
| Escambia | Naval Air Station Pensacola, FL                    | 5     | 1/27 | 0                 | 6.5  | II IV A 1 3 4 8                        |              | No        | No        | Yes       | f      |
| Escambia | Pensacola Beach to Range Point                     | 8     | 1/27 | 0                 | 6.5  | II III B                               |              | No        | No        | Yes       | p      |
| Escambia | Perdido Key Gulf Islands N.S.                      | 4     | 1/27 | 14                | 11.3 | II III V B 1 8 10                      | III B 1      | No        | Yes       | Yes       | f      |
| Escambia | Perdido Key State Park                             | 3     | 1/27 | 0                 | 2.6  | III B 1                                |              | No        | Yes       | Yes       | s(p)   |
| Escambia | Santa Rosa Gulf Islands N.S.                       | 9     | 1/27 | 15                | 11.3 | II III B 1 3 8 10                      | II B 8       | No        | No        | Yes       | f      |
| Escambia | Tarkiln Bayou Preserve State Park                  | 2     | 1/27 | 0                 | 6.5  | II A 1 2 4 10                          |              | No        | No        | No        | s(p)   |
| Flagler  | Gamble Rogers Memorial SRA                         |       | 2/3  | 0                 |      | I B 1                                  |              | No        | No        | No        | s(p)   |
| Flagler  | Marineland to Washington Oaks State Park           |       | 2/3  | 0                 | 1.3  | I B 1                                  |              | Yes       | Yes       | No        | s(p)   |
| Franklin | Alligator Pt.                                      | 49    | 1/27 | 0                 | 6.5  | II III G 1                             |              | Yes       | No        | Yes       | p      |
| Franklin | Bald Pt. State Park                                | 50    | 1/27 | 0                 | 4.8  | II III A D 1 4 7 8                     |              | No        | Yes       | Yes       | s(p)   |
| Franklin | Carrabelle to Turkey Point                         | 44    | 1/27 | 0                 | 19.4 | III A 3<br>II III B F 1 2 8            |              | Yes       | Yes       | Yes       | p      |
| Franklin | Dog Island   | 45    | 1/27 | 0                 | 24.2 | 11                                     |              | Yes       | No        | Yes       | p      |
| Franklin | East Point to Carrabella                           | 42    | 1/27 | 0                 | 21.0 | II A 1 3                               |              | Yes       | Yes       | Yes       | s(p)/p |
| Franklin | Gulf Cnty Line to Green Point                      | 40    | 1/27 | 0                 | 16.1 | III A 8 11                             |              | No        | No        | Yes       | p      |
| Franklin | John S. Phipps Preserve (West end of Peninsula)    | 48    | 1/27 | 7                 | 4.8  | III G 1 11<br>II III B 1 2 3 4 8<br>10 | III G 1      | Yes       | Yes       | Yes       | p      |
| Franklin | Lanark Reef  | 46    | 1/27 | 0                 | 6.5  | 10                                     |              | Yes       | Yes       | Yes       | s/p    |
| Franklin | Little St. George Island                           | 39    | 1/27 | 14                | 14.5 | III B 1 11                             |              | Yes       | Yes       | Yes       | s(p)   |
| Franklin | St. George Island From Govt. Cut to State Park     | 41    | 1/27 | 0                 | 14.5 | II III B 1 3 4 7 8                     |              | No        | No        | No        | p      |
| Franklin | St. George Island State Park                       | 43    | 1/27 | 2                 | 25.8 | II B 4                                 |              | Yes       | Yes       | Yes       | s(p)   |
| Franklin | St. Vincent Island                                 | 38    | 1/27 | 9                 | 37.0 | II III B 1 7 8                         | III B 1      | Yes       | Yes       | Yes       | f      |

**The 2006 International Snowy Plover Winter Census in Florida  
(Continued)**

| COUNTY       | SITE NAME                                   | MAP # | DATE | TOTAL SNPL ADULTS | KM   | SITE DESCRIPTION  | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN   |
|--------------|---|-------|------|-------------------|------|-------------------|--------------|-----------|-----------|-----------|-------|
| Franklin     | Turkey Point to St. Teresa Beach            | 47    | 1/27 | 0                 | 6.5  | III A 3           |              | No        | No        | Yes       | p     |
| Gulf         | Indian Pass to Cape San Blas and Stump Hole | 37    | 1/27 | 0                 | 9.7  | n.r.              |              | Yes       | No        | Yes       | n.r.  |
| Gulf         | SE St. Joe Bay Shoreline                    | 36    | 1/27 | 0                 | 8.1  | n.r.              |              | Yes       | Yes       | Yes       | n.r.  |
| Gulf         | St. Joe Peninsula SP                        | 35    | 1/27 | 14                | 25.8 | n.r.              |              | Yes       | Yes       | Yes       | n.r.  |
| Hillsborough | Egmont Key NWR & State Park                 | 85    | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | Yes       | f/p   |
| Indian River | Indian River Co. beaches                    |       | 2/3  | 0                 | 9.7  | I B 1             |              | No        | Yes       | No        | s/m/p |
| Indian River | Round Island Conservation Area              |       | 2/2  | 0                 | 1.6  | V B 8             |              | No        | No        | No        | c     |
| Indian River | Round Island Park                           |       | 2/2  | 0                 | 7.3  | I B 1             |              | No        | No        | No        | s(p)  |
| Indian River | Tracking Station Access to Barber Bridge    |       | 2/3  | 0                 | 2.8  | I B 1             |              | Yes       | No        | No        | m     |
| Indian River | Tracking Station Park N to Wabasso Beach    |       | 2/6  | 0                 | 9.7  | I B 1             |              | No        | No        | No        | s(p)  |
| Indian River | Wabasso Beach to Turtle Trail               |       | 2/3  | 0                 | 1.6  | I B 1             |              | No        | No        | No        | m     |
| Lee          | Big Hickory Island                          | 108   | 1/28 | 0                 | 0.8  | III B 1           |              | No        | No        | No        | s/c/p |
| Lee          | Bonita & Barefoot Beaches                   | 109   | 1/27 | 0                 | 9.7  | III B 1           |              | No        | No        | No        | s(p)  |
| Lee          | Captiva Island                              | 103   | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | No        | p     |
| Lee          | Cayo Costa                                  | 101   | 1/27 | 6                 | 12.3 | II III B 1 2 3    | II B 1 3     | Yes       | No        | Yes       | s/p   |
| Lee          | Estero Island                               | 106   | 1/28 | 16                | 12.1 | II III B D 1 8    | III D 1      | No        | No        | Yes       | s(p)  |
| Lee          | Gasparilla Island                           | 100   | 1/27 | 0                 | 7.3  | III B 1           |              | No        | No        | No        | s/p   |
| Lee          | Lovers Key State Park                       | 107   | 1/27 | 0                 | 4.5  | II III B D 1 4 8  |              | No        | No        | No        | s(p)  |
| Lee          | N. Captiva Island                           | 102   | 1/30 | 14                | 5.5  | II III B 1 3 8 11 | III B 1 3    | Yes       | Yes       | No        | s/p   |
| Lee          | San Carlos Bay Flats                        | 105   | 2/2  | 0                 | 0.8  | V A 5             |              | No        | No        | No        | c     |
| Lee          | Sanibel Island                              | 104   | 1/27 | 8                 | 6.5  | III B 1           | III B 1      | Yes       | Yes       | Yes       | s(p)  |
| Levy         | Cedar Key Area                              | 57    | 1/31 | 0                 | 16.1 | III C D E 1 2 7   |              | Yes       | No        | No        | f/s/p |
| Manatee      | Anna Maria Island                           | 87    | 1/27 | 2                 | 8.1  | III B 1           | III B 1      | Yes       | Yes       | Yes       | s/p   |
| Manatee      | Longboat Key                                | 88    | 1/27 | 3                 | 3.2  | III B 1           |              | No        | No        | No        | m/p   |
| Manatee      | Passage Key NWR                             | 86    | 1/27 | 0                 | 0.4  | B 1 2 4           |              | Yes       | Yes       | Yes       | f     |
| Martin       | Hobe Sound NWR                              |       | 1/27 | 0                 | 4.0  | I B 1             |              | No        | Yes       | Yes       | f     |
| Martin       | Hutchinson Island                           |       | 1/27 | 0                 | 12.0 | I IV B 1 10       |              | No        | No        | No        | m/c/s |
| Martin       | St. Lucie Inlet                             |       | 1/27 | 0                 | 1.6  | I D 4             |              | No        | Yes       | Yes       | s(p)  |
| Martin       | St. Lucie Inlet sandbars                    |       | 2/3  | 0                 | 3.2  | IV 4              |              | No        | No        | No        | s(p)  |
| Martin       | St. Lucie Inlet State Park                  |       | 1/27 | 0                 | 5.6  | I IV B 1          |              | Yes       | Yes       | Yes       | s(p)  |

**The 2006 International Snowy Plover Winter Census in Florida  
(Continued)**

| COUNTY                  | SITE NAME  | MAP # | DATE | TOTAL SNPL ADULTS | KM   | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|-------------------------|--|-------|------|-------------------|------|------------------|--------------|-----------|-----------|-----------|--------|
| Martin                  | W shore of Indian River Near Jensen Beach          |       | 1/27 | 0                 | 1.6  | II A 3           |              | No        | No        | No        | s(p)   |
| Miami-Dade              | Bill Baggs State Park lighthouse to Crandon Park   |       | 2/3  | 0                 | 3.9  | I B 1            |              | No        | No        | Yes       | s(p)   |
| Miami-Dade              | Biscayne National Park                             |       | 2/1  | 0                 | 2.4  | I B D 1 4 10     |              | No        | Yes       | No        | f      |
| Miami-Dade              | Crandon Park Beach                                 |       | 1/31 | 0                 | 0.8  | I B 1 3          |              | Yes       | No        | Yes       | c      |
| Miami-Dade              | Derring Estate and Chicken Key                     |       | 2/3  | 0                 | 3.2  | II C 6 10        |              | No        | No        | No        | s(p)   |
| Miami-Dade              | Matheson Hammock                                   |       | 2/3  | 0                 | 0.4  | II A 10          |              | No        | No        | No        | c      |
| Miami-Dade              | Rickenbacker Causeway Shoreline                    |       | 2/3  | 0                 | 0.4  | II C G 6         |              | No        | No        | Yes       | c      |
| Miami-Dade              | Virginia Key Critical Wildlife Area                |       | 2/3  | 0                 | 2.8  | II B             |              | Yes       | Yes       | Yes       | c      |
| Monroe                  | Bahia Honda State Park                             |       | 2/4  | 0                 | 4.8  | I E 1            |              | Yes       | Yes       | Yes       | s(p)   |
| Monroe                  | Boca Chica Beach                                   |       | 2/2  | 0                 | 1.1  | I E 1            |              | No        | No        | No        | f      |
| Monroe                  | Boca Grande Key                                    |       | 2/3  | 0                 | 2.3  | I II E F 1 3 9   |              | Yes       | Yes       | Yes       | f      |
| Monroe                  | Curry Hammock State Park                           |       | 2/3  | 0                 | 0.4  | I G 11           |              | No        | No        | No        | s(p)   |
| Monroe                  | Fort Taylor Historic State Park                    |       | 2/3  | 0                 | 0.4  | I E 6            |              | No        | No        | No        | s(p)   |
| Monroe                  | John D. Pennekamp state Park/ Carysfort Yacht Club |       | 3/2  | 0                 | 30   | I B C 6 10       |              | No        | Yes       | Yes       | s(p)   |
| Monroe                  | Long Key State Park                                |       | 2/4  | 0                 | 0.8  | I G 1            |              | No        | Yes       | No        | s(p)   |
| Monroe                  | Lower Matecumbe                                    |       | 2/4  | 0                 | 1.1  | I E 1            |              | No        | No        | No        | p      |
| Monroe                  | Ohio Key   |       | 2/4  | 0                 | 0.3  | I II IV E 1 5 9  |              | Yes       | Yes       | Yes       | f      |
| Monroe                  | Pavilion Key                                       |       | 1/27 | 0                 | 2.4  | III A 1          |              | No        | No        | No        | s(p)   |
| Monroe                  | Women Key  |       | 2/3  | 0                 | 2.1  | I E 1            |              | No        | Yes       | Yes       | s(p)   |
| Nassau                  | Amelia Island Recreation Area                      |       | 2/3  | 0                 | 1.6  | I B 1 3 9 10     |              | Yes       | No        | Yes       | s(p)   |
| Nassau                  | Fernandina Beach                                   |       | 2/3  | 0                 | 4.7  | I B 1            |              | No        | No        | No        | m      |
| Nassau                  | Fort Clinch State Park                             |       | 2/3  | 0                 | 11.3 | I A 1 10         |              | Yes       | No        | Yes       | s(p)   |
| Nassau                  | Little Tiger Island                                |       | 2/3  | 0                 | 0.4  | V E 1            |              | No        | No        | Yes       | p      |
| Okaloosa                | Destin   | 14    | 1/27 | 0                 | 4.8  | III B 1          |              | Yes       | No        | Yes       | p      |
| Okaloosa                | East Okaloosa County Shoreline                     | 16    | 1/27 | 0                 | 3.5  | III B 1          |              | No        | No        | No        | p      |
| Okaloosa                | East Pass to Norreigo Point                        | 13    | 1/27 | 0                 | 1.6  | II IV B 2        |              | Yes       | No        | Yes       | s(p)/p |
| Okaloosa                | Eglin Pkwy to Destin Bridge, Okaloosa Island       | 12    | 1/27 | 10                | 9.7  | III B 1          | III B 1      | No        | Yes       | Yes       | f/p/c  |
| Okaloosa                | Henderson Beach State Park                         | 15    | 1/27 | 0                 | 2    | III B 1          |              | No        | No        | Yes       | s(p)   |
| Okaloosa/<br>Santa Rosa | Santa Rosa Island (W to Navarre Beach SP)          | 10    | 1/27 | 1                 | 10.5 | III B 1 3 4 10   | III B 1      | No        | Yes       | Yes       | f      |

**The 2006 International Snowy Plover Winter Census in Florida  
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| COUNTY                  | SITE NAME  | MAP # | DATE | TOTAL SNPL ADULTS | KM   | SITE DESCRIPTION      | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN   |
|-------------------------|--|-------|------|-------------------|------|-----------------------|--------------|-----------|-----------|-----------|-------|
| Okaloosa/<br>Santa Rosa | Santa Rosa Sound (Inter-coastal waterway)                        | 11    | 1/26 | 0                 | 32.3 | V A B C D 1 3 4<br>10 |              | Yes       | No        | Yes       | f/s   |
| Palm Beach              | Gulf Stream Park to Atlantic Dunes Park                          |       | 2/3  | 0                 | 4.8  | I B 1                 |              | No        | No        | No        | s/m/p |
| Palm Beach              | Highland Beach   |       | 2/3  | 0                 | 6.5  | I B 1                 |              | No        | No        | No        | s/m/p |
| Palm Beach              | Juno Beach Park to MacArthur State Park                          |       | 2/3  | 0                 | 6.9  | I A 1                 |              | No        | No        | No        | m/p   |
| Palm Beach              | Jupiter Beach to Juno Beach Park                                 |       | 2/3  | 0                 | 5.6  | I IV A 1              |              | No        | No        | No        | m/p   |
|                         |  |       |      |                   |      | II IV A B D 1 2 3     |              |           |           |           |       |
| Palm Beach              | Jupiter sound, Jupiter inlet, Loxahatchee River                  |       | 1/27 | 0                 | 9.7  | 4                     |              | Yes       | No        | No        | s(p)  |
| Palm Beach              | Lake Worth Beach Pier to Lantana Park                            |       | 2/2  | 0                 | 3.5  | I B 1                 |              | No        | No        | No        | m     |
| Palm Beach              | MacArthur Beach State Park                                       |       | 2/3  | 0                 | 2.6  | I B 1                 |              | Yes       | Yes       | Yes       | s(p)  |
| Palm Beach              | MacArthur Beach State Park to Palm Beach Shores                  |       | 2/3  | 0                 | 4.5  | I IV B 1              |              | No        | No        | No        | s/m   |
| Palm Beach              | Southern Blvd. South to Lake Worth Beach                         |       | 2/2  | 0                 | 6.8  | I B 1                 |              | No        | No        | No        | m     |
| Palm Beach/<br>Martin   | Jupiter Island - Jupiter Inlet through Blowing<br>Rocks Preserve |       | 2/4  | 0                 | 4.8  | I II IV B 1           |              | No        | Yes       | No        | c     |
| Pasco                   | Anclote Gulf Park  | 67    | 1/27 | 0                 | 0.4  | III A 3 8             |              | No        | No        | No        | c     |
| Pasco                   | Anclote Key sandbar <sup>1</sup>                                 | 64    | 1/27 | 0                 | 0.8  | III B 1 2             |              | Yes       | Yes       | Yes       | s(p)  |
| Pasco                   | Anclote Key State Park   | 66    | 1/27 | 0                 | 2.4  | III B 1 2             |              | Yes       | Yes       | Yes       | s(p)  |
| Pasco                   | Brasher Park   | 61    | 1/27 | 0                 | 0.4  | III A 8               |              | No        | No        | No        | m     |
| Pasco                   | Green Key  | 62    | 1/27 | 0                 | 0.2  | III A 1               |              | No        | Yes       | Yes       | c     |
| Pasco                   | Gulf Harbors Beach   | 63    | 1/27 | 0                 | 0.2  | III A 1               |              | No        | Yes       | Yes       | p     |
| Pasco                   | Hudson Beach   | 59    | 1/27 | 0                 | 0.3  | III A 8               |              | No        | No        | No        | s(p)  |
| Pasco                   | Sand Bay   | 65    | 1/27 | 0                 | 0.4  | III A 3 8             |              | No        | Yes       | Yes       | s(p)  |
| Pasco                   | Werner-Boyce Salt Springs State Park                             | 60    | 1/27 | 0                 | 0.8  | III G 11              |              | No        | No        | No        | s(p)  |
| Pinellas                | Dunedin Causeway (to Honeymoon Island)                           | 73    | 1/26 | 0                 | 0.8  | V G 1                 |              | Yes       | Yes       | Yes       | m     |
| Pinellas                | Ft. DeSoto County Park, E beach                                  | 83    | 1/27 | 0                 | 1.6  | III B 1 4 8           |              | Yes       | Yes       | No        | c     |
| Pinellas                | Ft. DeSoto County Park, NW Beach                                 | 82    | 1/27 | 0                 | 1.5  | III B 1               |              | Yes       | Yes       | Yes       | c     |
| Pinellas                | Ft. DeSoto County Park, SW Beach                                 | 84    | 1/27 | 0                 | 1.6  | III B 1               |              | No        | No        | No        | c     |
| Pinellas                | Honeymoon Island SRA (N end of island)                           | 70    | 1/23 | 2                 | 8.1  | III B 2               | III B 2      | Yes       | Yes       | Yes       | s(p)  |
| Pinellas                | Honeymoon Island State Park, Bird Observation<br>Area            | 72    | 1/26 | 0                 | 0    | III V D 8             | I D 8        | Yes       | Yes       | No        | f     |
| Pinellas                | Honeymoon Island State Park, Pet Beach                           | 71    | 1/26 | 0                 | 0.8  | III 1                 |              | Yes       | Yes       | No        | f     |

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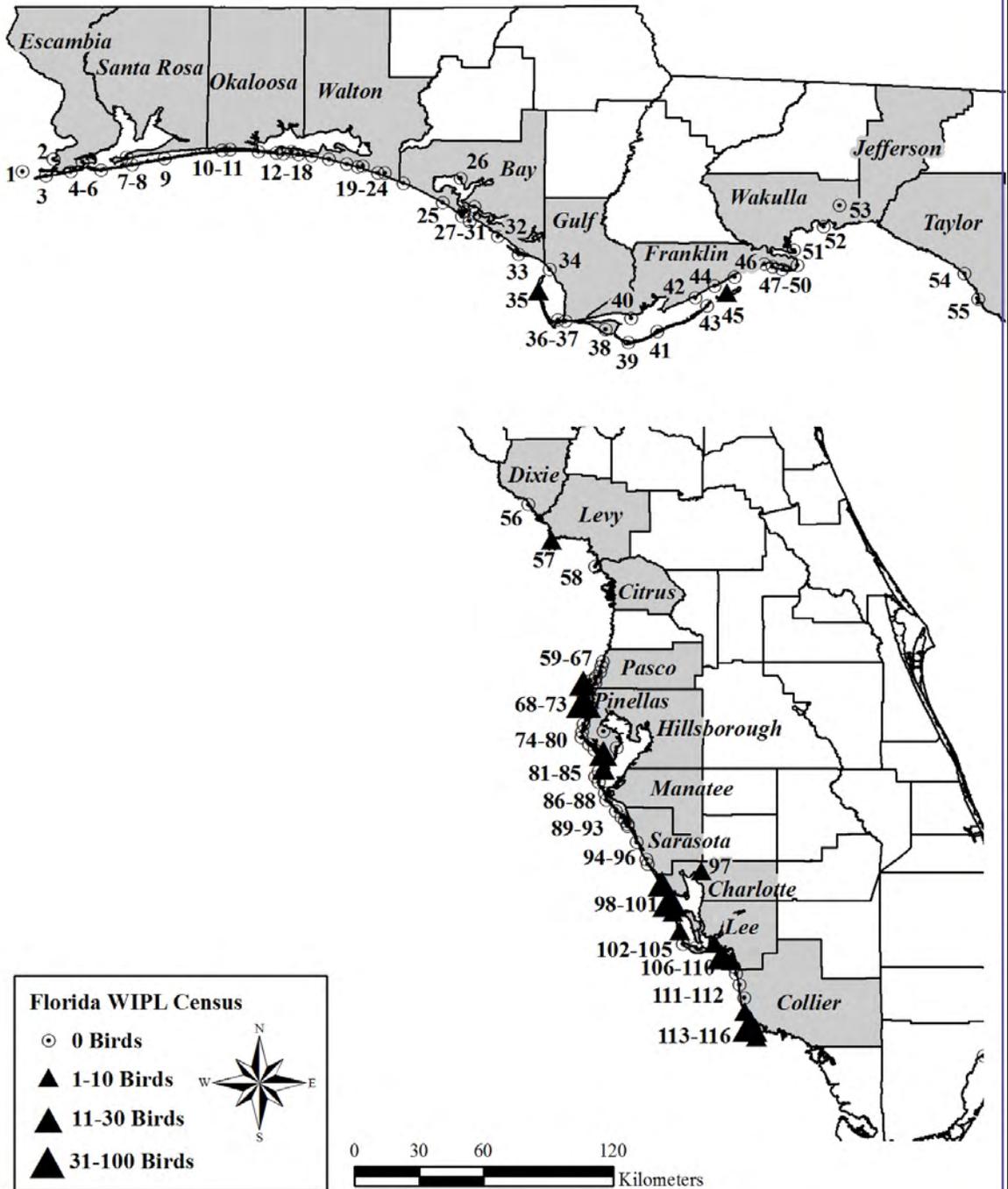
| COUNTY                 | SITE NAME   | MAP # | DATE | TOTAL SNPL ADULTS | KM   | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|------------------------|---|-------|------|-------------------|------|------------------|--------------|-----------|-----------|-----------|------|
| Pinellas               | Howard County Park  | 68    | 1/27 | 0                 | 3.2  | III C G 1 8      | 1 8          | Yes       | Yes       | Yes       | c    |
| Pinellas               | Indian Rocks Beach  | 76    | 1/28 | 0                 | 4    | III A 1          |              | No        | No        | No        | m    |
| Pinellas               | Madeira Beach/Redington Beach/North Redington Beach               | 78    | 1/27 | 0                 | 6.5  | III B 1 11       |              | No        | No        | No        | m    |
| Pinellas               | North Clearwater beach  | 75    | 2/5  | 0                 | 3.2  | III A 1          |              | Yes       | Yes       | Yes       | m    |
| Pinellas               | Sandy Park to Bellair Beach Morgan Dr. Park                       | 74    | 1/27 | 0                 | 4.8  | III B 1          |              | Yes       | No        | No        | m    |
| Pinellas               | Shell Key   | 81    | 1/27 | 13                | 13.7 | III B 1 3 4 8 10 | III B 3      | No        | Yes       | Yes       | s(p) |
| Pinellas               | St. Petersburg- North shore park area                             | 79    | 1/27 | 0                 | 0.8  | II A 1 3         |              | No        | No        | No        | m    |
| Pinellas               | Three Rooker Bar <sup>1</sup>                                     | 69    | 1/27 | 0                 | 4    | III B 1 2        |              | Yes       | Yes       | Yes       |      |
| Pinellas               | Treasure Island   | 80    | 1/27 | 0                 | 3.5  | III B 1          |              | No        | No        | No        | m    |
| Pinellas               | Walsingham Road South to 173 AVE                                  | 77    | 1/27 | 0                 | 7.3  | III B 1 11       |              | No        | No        | No        | m    |
| Santa Rosa             | Naval Live Oaks Gulf Islands N.S.                                 | 7     | 1/27 | 0                 | 6.9  | II A 1 4 8       |              | No        | No        | Yes       | f    |
| Sarasota               | Casey Key beach   | 94    | 1/31 | 0                 | 11.3 | III B 1          |              | No        | Yes       | No        | s(p) |
| Sarasota               | Caspersen Beach   | 95    | 1/27 | 0                 | 6.5  | III B 1          |              | Yes       | Yes       | No        | s(p) |
| Sarasota               | Longboat Key  | 89    | 1/27 | 0                 | 6.8  | III B 1          |              | No        | No        | No        | m/p  |
| Sarasota               | North Lido Beach  | 90    | 1/27 | 7                 | 4    | III B 1          | III B 1      | Yes       | No        | No        | c    |
| Sarasota               | Siesta Key, Turtle Beach to Point of Rocks                        | 93    | 1/28 | 0                 | 2.4  | III B 1          |              | No        | No        | No        | p    |
| Sarasota               | Siesta Key, N end to Point of Rocks                               | 92    | 1/27 | 4                 | 5.2  | III A B F 1 4    | III B 1      | Yes       | No        | No        | c    |
| Sarasota               | South Lido Beach  | 91    | 1/27 | 2                 | 2.4  | II III B 1       | III B 1      | Yes       | No        | No        |      |
| Sarasota/<br>Charlotte | Manasota Beach  | 96    | 1/27 | 5                 | 6.5  | III B 1          | III B 1      | No        | No        | Yes       | c    |
| St. Johns              | Anastasia State Recreation Area                                   |       | 2/3  | 0                 | 8.1  | I II IV B 1 8    |              | Yes       | Yes       | Yes       | s(p) |
| St. Johns              | Porpoise Point (Vilano Point)                                     |       | 2/3  | 0                 | 1.6  | IV A 1           |              | No        | Yes       | Yes       | p    |
| St. Johns              | St. Augustine Beach (Matanzas Inlet)                              |       | 2/4  | 0                 | 16.9 | IV B 1           |              | No        | Yes       | No        | f/c  |
| St. Lucie              | Avalon State Park   |       | 2/3  | 0                 | 1.6  | I A 1            |              | No        | No        | No        | m    |
| St. Lucie              | Fort Pierce Inlet State Park                                      |       | 2/3  | 0                 | 0.8  | I A 1            |              | Yes       | Yes       | Yes       | s(p) |
| St. Lucie              | Fort Pierce Inlet State Park to Avalon State Park                 |       | 2/3  | 0                 | 5.6  | I A 1            |              | Yes       | Yes       | Yes       | c    |
| St. Lucie              | S Hutchinson Island, Fredrick Douglas Park to Inlet               |       | 2/3  | 0                 | 6.5  | I B 1            |              | Yes       | Yes       | No        | s(p) |
| St. Lucie              | S Hutchinson Island, Little Mud Creek N to Fredrick Douglass Park |       | 2/3  | 0                 | 3.7  | I B 1            |              | Yes       | Yes       | No        | m/c  |

**The 2006 International Snowy Plover Winter Census in Florida  
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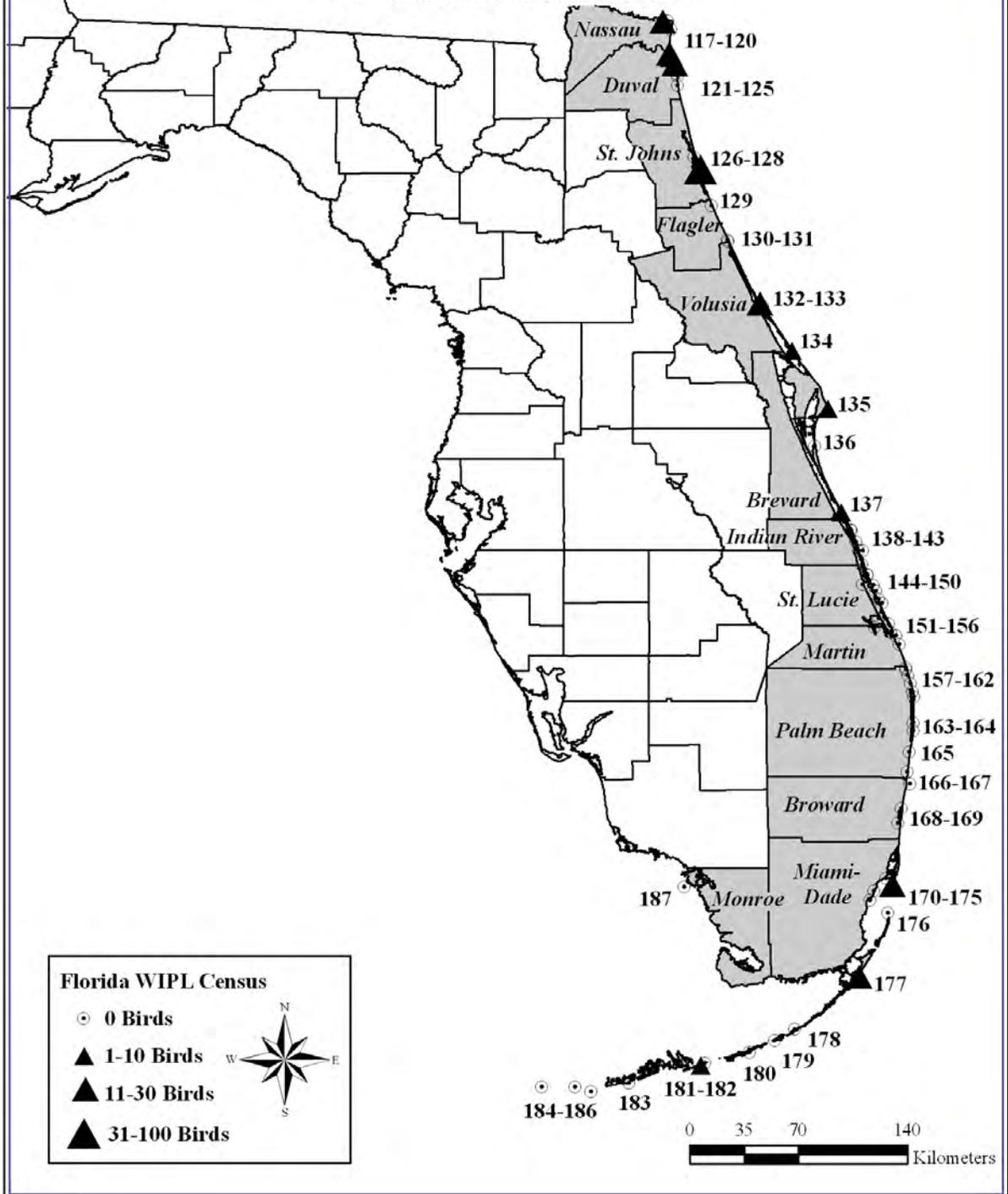
| COUNTY            | SITE NAME   | MAP # | DATE | TOTAL SNPL ADULTS | KM            | SITE DESCRIPTION        | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|-------------------|---|-------|------|-------------------|---------------|-------------------------|--------------|-----------|-----------|-----------|--------|
| St. Lucie         | S Hutchinson Island, Little Mud Creek S to the narrows              |       | 2/3  | 0                 | 6.5           | I B 1                   |              | Yes       | Yes       | No        | p      |
| St. Lucie         | S Hutchinson Island, S end  |       | 2/3  | 0                 | 6.6           | I B 1                   |              | Yes       | Yes       | No        | s(p)   |
| Taylor            | Adam's Beach  | 54    | 1/27 | 0                 | 0.8           | III A 7 8               |              | No        | No        | No        | c      |
| Taylor            | Hagen's Cove  | 55    | 1/27 | 0                 | 4             | II III A 1 3 8          |              | No        | No        | Yes       | s(p)   |
| Volusia           | Disappearing Island   |       | 2/2  | 0                 | 0.8           | I IV B C D 1 3 4 8      |              | No        | No        | No        | s(p)/c |
| Volusia           | New Smyrna Beach  |       | 2/3  | 0                 | 4             | I IV B 1 9              |              | Yes       | Yes       | Yes       | c      |
| Volusia           | North Peninsula SRA   |       | 2/3  | 0                 | 4.8           | I B 1                   |              | Yes       | Yes       | Yes       | s(p)   |
| Wakulla           | Mashes Is County Park   | 51    | 1/27 | 0                 | 0.8           | III E 1 3 8             |              | No        | Yes       | Yes       | c      |
| Wakulla           | St. Marks National Wildlife Refuge - Impoundments                   | 53    | 1/26 | 0                 | 23.5          | V A 8                   |              | No        | No        | No        | f      |
| Wakulla/Jefferson | Apalachee Bay & Oyster Bay  | 52    | 1/26 | 0                 | 11.6          | II III A D E 2 3 7 8 10 |              | No        | No        | No        | f/p/c  |
| Walton            | Camp Creek Inlet to E end Grayton Beach State Park                  | 22    | 1/26 | 10                | 27.4          | III A 1                 | III A 1      | No        | No        | Yes       | s(p)   |
| Walton            | Deer Lake State Park  | 21    | 1/27 | 0                 | 1.6           | III A 1                 |              | No        | No        | No        | s(p)   |
| Walton            | E end Topsail Hill State Preserve to W end Grayton Beach State Park | 19    | 1/27 | 0                 | 10            | III V A 1 11            |              | No        | No        | Yes       | p      |
| Walton            | Grayton Beach State Park  | 20    | 1/27 | 0                 | 6.1           | III A 1                 |              | No        | No        | No        | s(p)   |
| Walton            | Topsail Hill Preserve State Park                                    | 18    | 1/27 | 0                 | 5.2           | III A 1                 |              | No        | No        | Yes       | s(p)   |
| Walton            | West Walton County Shoreline  | 17    | 1/27 | 0                 | 8.1           | III B 1                 |              | No        | No        | Yes       | p/c    |
| <b>Total</b>      |   |       |      | <b>312</b>        | <b>1223.9</b> |                         |              |           |           |           |        |

<sup>1</sup> datasheets from these sites were lost; number of Piping Plovers was estimated by surveyor but no data on wilson's or Snowy Plovers.

## 2006 International Wilson's Plover Winter Census - Gulf Florida -



## 2006 International Wilson's Plover Winter Census - Atlantic Florida -



## The 2006 International Wilson's Plover Winter Census in Florida

| COUNTY                   | SITE NAME   | MAP # | DATE | TOTAL WIPL ADULTS | KM   | SITE DESCRIPTION    | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------|---|-------|------|-------------------|------|---------------------|--------------|-----------|-----------|-----------|------|
| Bay                      | Camp Helen to Sunny Side Beach                    | 24    | 1/27 | 0                 | 9.7  | II III A 1          |              | No        | No        | Yes       | p    |
| Bay                      | Crooked Island East                               | 32    | 1/27 | 0                 | 10.8 | II III B 1 2 3 8    |              | Yes       | Yes       | Yes       | f    |
| Bay                      | Crooked Island West                               | 33    | 1/27 | 0                 | 10.5 | II III B 1 2 3 8 10 |              | Yes       | Yes       | Yes       | f    |
| Bay                      | Grand Lagoon - Bay Point, Alligator Point         | 28    | 1/27 | 0                 | 0.4  | II A 2 8 9          |              | Yes       | No        | Yes       | p    |
| Bay                      | Marifarms, West Bay, P.C. Florida                 | 26    | 1/26 | 0                 | 0.8  | II A 3 8 10         |              | No        | No        | Yes       | s(p) |
| Bay                      | Panama City Beach (S Arnold Rd to Lookout Street) | 25    | 1/27 | 0                 | 16.1 | III A 1 11          |              | No        | No        | Yes       | s(p) |
| Bay                      | Shell Island                                      | 29    | 1/27 | 0                 | 6.0  | III B 1             |              | Yes       | Yes       | Yes       |      |
| Bay                      | St. Andrew Bay - Davis Pt. to Redfish Pt.         | 31    | 1/27 | 0                 | 2.6  | III A 3 8           |              | No        | No        | No        | f    |
| Bay                      | St. Andrews State Recreation Area                 | 27    | 1/27 | 0                 | 2.4  | II III A 1 4        |              | Yes       | Unk       | Yes       | s(p) |
| Bay                      | West Beach Drive                                  | 30    | 1/27 | 0                 | 2.4  | II A 1 8            |              | No        | No        | Yes       | s(p) |
| Bay/Gulf                 | From Tyndall AFB to Port St. Joe (Highland View)  | 34    | 1/27 | 0                 | 19.4 | II III A 1          |              | No        | No        | No        |      |
| Bay/Walton               | From Camp Helen SP to Deer Lake SP                | 23    | 1/28 | 0                 | 8.1  | II III A 1          |              | No        | No        | yes       | s/p  |
| Brevard                  | Cape Canaveral Air Force Station                  | 135   | 2/7  | 8                 | 20.8 | I B 1               | I B 1        | Yes       | Yes       | Yes       | f    |
| Brevard                  | Patrick Air Force Base                            | 136   | 2/7  | 0                 | 11.8 | I B 1               |              | No        | No        | No        | f    |
| Brevard/<br>Indian River | Sebastian Inlet State Park                        | 137   | 2/3  | 5                 | 5.2  | I II IV B D 1 3 8   | II B 8       | No        | No        | No        | s(p) |
| Brevard/<br>Volusia      | Canaveral National Seashore                       | 134   | 2/6  | 6                 | 38.7 | I II B 1 8 10       | I B 1        | Yes       | Yes       | Yes       | f    |
| Broward                  | Broward County Northern Link to Hillsboro Inlet   | 167   | 2/5  | 0                 | 5.6  | I B 1               |              | Yes       | No        | No        | m/p  |
| Broward                  | Hugh Taylor Birch State Park                      | 168   | 2/1  | 0                 | 0.4  | II B 8              |              | No        | No        | No        | s(p) |
| Broward                  | John U. Lloyd Beach S.P.                          | 169   | 2/3  | 0                 | 3.6  | I A 1               |              | No        | No        | Yes       | s(p) |
| Charlotte                | Barrier Island                                    | 98    | 1/27 | 14                | 14.4 | II III B 1 2 10     | III B 1 10   | Yes       | No        | No        | s(p) |
| Charlotte                | Charlotte Harbor (east side)                      | 97    | 1/27 | 1                 | 0.4  | II D 4 9            | II D 4       | No        | No        | No        | s(p) |
| Charlotte                | Gasparilla Island                                 | 99    | 1/28 | 36                | 4.0  | III B 1             | III B 1      | Yes       | No        | No        | s(p) |
| Citrus                   | Florida Barge Canal spoil islands                 | 58    | 2/6  | 0                 | 16.1 | III C 6             |              | No        | No        | Yes       | s(p) |
| Collier                  | Big Marco Pass Shoal                              | 114   | 1/27 | 55                | 3.2  | II III B 1 2 8      | III B 2      | Yes       | Yes       | Yes       | s(p) |
| Collier                  | Cape Romano                                       | 116   | 1/27 | 8                 | 1.6  | III E 1 8           | III E 1      | No        | No        | No        | s(p) |
| Collier                  | Caxambas Island                                   | 115   | 1/27 | 2                 | 0.8  | III E 4             | III E 4      | No        | No        | No        | s(p) |
| Collier                  | Clam Pass County Park                             | 111   | 1/27 | 0                 | 6.0  | III A 1             |              | No        | No        | No        | f    |
| Collier                  | Delnor - Wiggins Pass State Park                  | 110   | 1/27 | 0                 | 2.0  | III B D 1           |              | No        | No        | No        | s(p) |
| Collier                  | Keewaydin Island                                  | 113   | 1/26 | 3                 | 10.8 | III B 1 2           | III B 2      | No        | No        | No        | s/p  |
| Collier                  | Naples Pier                                       | 112   | 1/27 | 0                 | 4.0  | III A 1             |              | No        | No        | No        | p    |

**The 2006 International Wilson's Plover Winter Census in Florida  
(Continued)**

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|----------|--|-------|------|-------------------|------|----------------------------------|--------------|-----------|-----------|-----------|--------|
| Dixie    | Shired Island- Lower Suwanee NWR                   | 56    | 1/27 | 0                 | 2.0  | III A 1                          |              | No        | No        | No        | f      |
| Duval    | Atlantic Beach                                     | 125   | 2/3  | 0                 | 4.0  | I A 1                            |              | No        | Yes       | Yes       | s(p)   |
| Duval    | Bird Islands - Nassau Sound - N. Lt. Talbot Island | 121   | 2/3  | 2                 | 2.4  | IV B E 2 4                       |              | Yes       | Yes       | Yes       | s/m    |
| Duval    | Kathryn Abby Hanna Park                            | 123   | 1/3  | 0                 | 2.0  | I IV A 1                         |              | Yes       | Yes       | Yes       | f/c    |
| Duval    | Little Talbot Island State Park                    | 122   | 2/3  | 13                | 6.5  | I B 1 3 9 10                     | I B 3 10     | Yes       | Yes       | Yes       | s(p)   |
| Duval    | Ward's Bank (Huguenot Park)                        | 124   | 2/3  | 0                 | 2.8  | I II IV B D 1 2 3<br>4 8         |              | Yes       | Yes       | Yes       | s/m    |
| Escambia | Big Lagoon State Park                              | 1     | 1/27 | 0                 | 1.6  | II A 1 2 10                      |              | No        | No        | Yes       | s(p)   |
| Escambia | Fort Pickens Gulf Islands N.S.                     | 6     | 1/27 | 0                 | 11.3 | II III V B 1 8 10                |              | Yes       | Yes       | Yes       | f      |
| Escambia | Naval Air Station Pensacola, FL                    | 5     | 1/27 | 0                 | 6.5  | II IV A 1 3 4 8                  |              | No        | No        | Yes       | f      |
| Escambia | Pensacola Beach to Range Point                     | 8     | 1/27 | 0                 | 6.5  | II III B                         |              | No        | No        | Yes       | p      |
| Escambia | Perdido Key Gulf Islands N.S.                      | 4     | 1/27 | 0                 | 11.3 | II III V B 1 8 10                |              | No        | Yes       | Yes       | f      |
| Escambia | Perdido Key State Park                             | 3     | 1/27 | 0                 | 2.6  | III B 1                          |              | No        | Yes       | Yes       | s(p)   |
| Escambia | Santa Rosa Gulf Islands N.S.                       | 9     | 1/27 | 0                 | 11.3 | II III B 1 3 8 10                |              | No        | No        | Yes       | f      |
| Escambia | Tarkiln Bayou Preserve State Park                  | 2     | 1/27 | 0                 | 6.5  | II A 1 2 4 10                    |              | No        | No        | No        | s(p)   |
| Flagler  | Gamble Rogers Memorial SRA                         | 130   | 2/3  | 0                 |      | I B 1                            |              | No        | No        | No        | s(p)   |
| Flagler  | Marineland to Washington Oaks State Park           | 129   | 2/3  | 0                 | 1.3  | I B 1                            |              | Yes       | Yes       | No        | s(p)   |
| Franklin | Alligator Pt.                                      | 49    | 1/27 | 0                 | 6.5  | II III G 1                       |              | Yes       | No        | Yes       | p      |
| Franklin | Bald Pt. State Park                                | 50    | 1/27 | 0                 | 4.8  | II III A D 1 4 7 8               |              | No        | Yes       | Yes       | s(p)   |
| Franklin | Carrabelle to Turkey Point                         | 44    | 1/27 | 0                 | 19.4 | III A 3                          |              | Yes       | Yes       | Yes       | p      |
| Franklin | Dog Island   | 45    | 1/27 | 1                 | 24.2 | II III B F 1 2 8<br>11           | 0            | Yes       | No        | Yes       | p      |
| Franklin | East Point to Carrabella                           | 42    | 1/27 | 0                 | 21.0 | II A 1 3                         |              | Yes       | Yes       | Yes       | s(p)/p |
| Franklin | Gulf Cnty Line to Green Point                      | 40    | 1/27 | 0                 | 16.1 | III A 8 11                       |              | No        | No        | Yes       | p      |
| Franklin | John S. Phipps Preserve (West end of Peninsula)    | 48    | 1/27 | 0                 | 4.8  | III G 1 11<br>II III B 1 2 3 4 8 |              | Yes       | Yes       | Yes       | p      |
| Franklin | Lanark Reef  | 46    | 1/27 | 0                 | 6.5  | 10                               |              | Yes       | Yes       | Yes       | s/p    |
| Franklin | Little St. George Island                           | 39    | 1/27 | 0                 | 14.5 | III B 1 11                       |              | Yes       | Yes       | Yes       | s(p)   |
| Franklin | St. George Island From Govt. Cut to State Park     | 41    | 1/27 | 0                 | 14.5 | II III B 1 3 4 7 8               |              | No        | No        | No        | p      |
| Franklin | St. George Island State Park                       | 43    | 1/27 | 0                 | 25.8 | II B 4                           |              | Yes       | Yes       | Yes       | s(p)   |
| Franklin | St. Vincent Island                                 | 38    | 1/27 | 0                 | 37.0 | II III B 1 7 8                   | 0            | Yes       | Yes       | Yes       | f      |

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|--------------|---|-------|------|-------------------|------|-------------------|--------------|-----------|-----------|-----------|-------|
| Franklin     | Turkey Point to St. Teresa Beach            | 47    | 1/27 | 0                 | 6.5  | III A 3           |              | No        | No        | Yes       | p     |
| Gulf         | Indian Pass to Cape San Blas and Stump Hole | 37    | 1/27 | 0                 | 9.7  | n.r.              |              | Yes       | No        | Yes       | n.r.  |
| Gulf         | SE St. Joe Bay Shoreline                    | 36    | 1/27 | 0                 | 8.1  | n.r.              |              | Yes       | Yes       | Yes       | n.r.  |
| Gulf         | St. Joe Peninsula SP                        | 35    | 1/27 | 10                | 25.8 | n.r.              |              | Yes       | Yes       | Yes       | n.r.  |
| Hillsborough | Egmont Key NWR & State Park                 | 85    | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | Yes       | f/p   |
| Indian River | Indian River Co. beaches                    | 141   | 2/3  | 0                 | 9.7  | I B 1             |              | No        | Yes       | No        | s/m/p |
| Indian River | Round Island Conservation Area              | 143   | 2/2  | 0                 | 1.6  | V B 8             |              | No        | No        | No        | c     |
| Indian River | Round Island Park                           | 142   | 2/2  | 0                 | 7.3  | I B 1             |              | No        | No        | No        | s(p)  |
| Indian River | Tracking Station Access to Barber Bridge    | 140   | 2/3  | 0                 | 2.8  | I B 1             |              | Yes       | No        | No        | m     |
| Indian River | Tracking Station Park N to Wabasso Beach    | 139   | 2/6  | 0                 | 9.7  | I B 1             |              | No        | No        | No        | s(p)  |
| Indian River | Wabasso Beach to Turtle Trail               | 138   | 2/3  | 0                 | 1.6  | I B 1             |              | No        | No        | No        | m     |
| Lee          | Big Hickory Island                          | 108   | 1/28 | 10                | 0.8  | III B 1           | III B 1      | No        | No        | No        | s/c/p |
| Lee          | Bonita & Barefoot Beaches                   | 109   | 1/27 | 0                 | 9.7  | III B 1           |              | No        | No        | No        | s(p)  |
| Lee          | Captiva Island                              | 103   | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | No        | p     |
| Lee          | Cayo Costa                                  | 101   | 1/27 | 9                 | 12.3 | II III B 1 2 3    | II B 2       | Yes       | No        | Yes       | s/p   |
| Lee          | Estero Island                               | 106   | 1/28 | 20                | 12.1 | II III B D 1 8    | III D 1      | No        | No        | Yes       | s(p)  |
| Lee          | Gasparilla Island                           | 100   | 1/27 | 0                 | 7.3  | III B 1           |              | No        | No        | No        | s/p   |
| Lee          | Lovers Key State Park                       | 107   | 1/27 | 0                 | 4.5  | II III B D 1 4 8  |              | No        | No        | No        | s(p)  |
| Lee          | N. Captiva Island                           | 102   | 1/30 | 5                 | 5.5  | II III B 1 3 8 11 | III B 3      | Yes       | Yes       | No        | s/p   |
| Lee          | San Carlos Bay Flats                        | 105   | 2/2  | 1                 | 0.8  | V A 5             | V A 5        | No        | No        | No        | c     |
| Lee          | Sanibel Island                              | 104   | 1/27 | 0                 | 6.5  | III B 1           |              | Yes       | Yes       | Yes       | s(p)  |
| Levy         | Cedar Key Area                              | 57    | 1/31 | 2                 | 16.1 | III C D E 1 2 7   | III D 2      | Yes       | No        | No        | f/s/p |
| Manatee      | Anna Maria Island                           | 87    | 1/27 | 0                 | 8.1  | III B 1           |              | Yes       | Yes       | Yes       | s/p   |
| Manatee      | Longboat Key                                | 88    | 1/27 | 0                 | 3.2  | III B 1           |              | No        | No        | No        | m/p   |
| Manatee      | Passage Key NWR                             | 86    | 1/27 | 0                 | 0.4  | B 1 2 4           |              | Yes       | Yes       | Yes       | f     |
| Martin       | Hobe Sound NWR                              | 156   | 1/27 | 0                 | 4.0  | I B 1             |              | No        | Yes       | Yes       | f     |
| Martin       | Hutchinson Island                           | 153   | 1/27 | 0                 | 12.0 | I IV B 1 10       |              | No        | No        | No        | m/c/s |
| Martin       | St. Lucie Inlet                             | 154   | 1/27 | 0                 | 1.6  | I D 4             |              | No        | Yes       | Yes       | s(p)  |
| Martin       | St. Lucie Inlet sandbars                    | 152   | 2/3  | 0                 | 3.2  | IV 4              |              | No        | No        | No        | s(p)  |
| Martin       | St. Lucie Inlet State Park                  | 155   | 1/27 | 0                 | 5.6  | I IV B 1          |              | Yes       | Yes       | Yes       | s(p)  |

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|-------------------------|--|-------|------|-------------------|------|------------------|--------------|-----------|-----------|-----------|--------|
| Martin                  | W shore of Indian River Near Jensen Beach          | 151   | 1/27 | 0                 | 1.6  | II A 3           |              | No        | No        | No        | s(p)   |
| Martin                  | W shore of Indian River Near Jensen Beach          | 151   | 1/27 | 0                 | 1.6  | II A 3           |              | No        | No        | No        | s(p)   |
| Miami-Dade              | Bill Baggs State Park lighthouse to Crandon Park   | 172   | 2/3  | 0                 | 3.9  | I B 1            |              | No        | No        | Yes       | s(p)   |
| Miami-Dade              | Biscayne National Park                             | 176   | 2/1  | 0                 | 2.4  | I B D 1 4 10     |              | No        | Yes       | No        | f      |
| Miami-Dade              | Crandon Park Beach                                 | 171   | 1/31 | 11                | 0.8  | I B 1 3          | I B 1 3      | Yes       | No        | Yes       | c      |
| Miami-Dade              | Derring Estate and Chicken Key                     | 175   | 2/3  | 0                 | 3.2  | II C 6 10        |              | No        | No        | No        | s(p)   |
| Miami-Dade              | Matheson Hammock                                   | 174   | 2/3  | 0                 | 0.4  | II A 10          |              | No        | No        | No        | c      |
| Miami-Dade              | Rickenbacker Causeway Shoreline                    | 170   | 2/3  | 0                 | 0.4  | II C G 6         |              | No        | No        | Yes       | c      |
| Miami-Dade              | Virginia Key Critical Wildlife Area                | 173   | 2/3  | 0                 | 2.8  | II B             |              | Yes       | Yes       | Yes       | c      |
| Monroe                  | Bahia Honda State Park                             | 182   | 2/4  | 1                 | 4.8  | I E 1            | I F 1        | Yes       | Yes       | Yes       | s(p)   |
| Monroe                  | Boca Chica Beach                                   | 183   | 2/2  | 0                 | 1.1  | I E 1            |              | No        | No        | No        | f      |
| Monroe                  | Boca Grande Key                                    | 186   | 2/3  | 0                 | 2.3  | I II E F 1 3 9   |              | Yes       | Yes       | Yes       | f      |
| Monroe                  | Curry Hammock State Park                           | 180   | 2/3  | 0                 | 0.4  | I G 11           |              | No        | No        | No        | s(p)   |
| Monroe                  | Fort Taylor Historic State Park                    | 184   | 2/3  | 0                 | 0.4  | I E 6            |              | No        | No        | No        | s(p)   |
| Monroe                  | John D. Pennekamp state Park/ Carysfort Yacht Club | 177   | 3/2  | 13                | 30   | I B C 6 10       |              | No        | Yes       | Yes       | s(p)   |
| Monroe                  | Long Key State Park                                | 179   | 2/4  | 0                 | 0.8  | I G 1            |              | No        | Yes       | No        | s(p)   |
| Monroe                  | Lower Matecumbe                                    | 178   | 2/4  | 0                 | 1.1  | I E 1            |              | No        | No        | No        | p      |
| Monroe                  | Ohio Key   | 181   | 2/4  | 0                 | 0.3  | I II IV E 1 5 9  |              | Yes       | Yes       | Yes       | f      |
| Monroe                  | Pavilion Key                                       | 187   | 1/27 | 0                 | 2.4  | III A 1          |              | No        | No        | No        | s(p)   |
| Monroe                  | Women Key  | 185   | 2/3  | 0                 | 2.1  | I E 1            |              | No        | Yes       | Yes       | s(p)   |
| Nassau                  | Amelia Island Recreation Area                      | 120   | 2/3  | 11                | 1.6  | I B 1 3 9 10     |              | Yes       | No        | Yes       | s(p)   |
| Nassau                  | Fernandina Beach                                   | 119   | 2/3  | 0                 | 4.7  | I B 1            |              | No        | No        | No        | m      |
| Nassau                  | Fort Clinch State Park                             | 117   | 2/3  | 0                 | 11.3 | I A 1 10         |              | Yes       | No        | Yes       | s(p)   |
| Nassau                  | Little Tiger Island                                | 118   | 2/3  | 16                | 0.4  | V E 1            | V E 1        | No        | No        | Yes       | p      |
| Okaloosa                | Destin   | 14    | 1/27 | 0                 | 4.8  | III B 1          |              | Yes       | No        | Yes       | p      |
| Okaloosa                | East Okaloosa County Shoreline                     | 16    | 1/27 | 0                 | 3.5  | III B 1          |              | No        | No        | No        | p      |
| Okaloosa                | East Pass to Norreigo Point                        | 13    | 1/27 | 0                 | 1.6  | II IV B 2        |              | Yes       | No        | Yes       | s(p)/p |
| Okaloosa                | Eglin Pkwy to Destin Bridge, Okaloosa Island       | 12    | 1/27 | 0                 | 9.7  | III B 1          |              | No        | Yes       | Yes       | f/p/c  |
| Okaloosa                | Henderson Beach State Park                         | 15    | 1/27 | 0                 | 2    | III B 1          |              | No        | No        | Yes       | s(p)   |
| Okaloosa/<br>Santa Rosa | Santa Rosa Island (W to Navarre Beach SP)          | 10    | 1/27 | 0                 | 10.5 | III B 1 3 4 10   |              | No        | Yes       | Yes       | f      |

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|---------------------|---|-------|------|-------------------|------|------------------------|--------------|-----------|-----------|-----------|-------|
| Okaloosa/Santa Rosa | Santa Rosa Sound (Inter-coastal waterway)                     | 11    | 1/26 | 0                 | 32.3 | V A B C D 1 3 4<br>10  |              | Yes       | No        | Yes       | f/s   |
| Palm Beach          | Gulf Stream Park to Atlantic Dunes Park                       | 165   | 2/3  | 0                 | 4.8  | I B 1                  |              | No        | No        | No        | s/m/p |
| Palm Beach          | Highland Beach  | 166   | 2/3  | 0                 | 6.5  | I B 1                  |              | No        | No        | No        | s/m/p |
| Palm Beach          | Juno Beach Park to MacArthur State Park                       | 160   | 2/3  | 0                 | 6.9  | I A 1                  |              | No        | No        | No        | m/p   |
| Palm Beach          | Jupiter Beach to Juno Beach Park                              | 159   | 2/3  | 0                 | 5.6  | I V A 1                |              | No        | No        | No        | m/p   |
| Palm Beach          | Jupiter sound, Jupiter inlet, Loxahatchee River               | 158   | 1/27 | 0                 | 9.7  | II IV A B D 1 2 3<br>4 |              | Yes       | No        | No        | s(p)  |
| Palm Beach          | Lake Worth Beach Pier to Lantana Park                         | 164   | 2/2  | 0                 | 3.5  | I B 1                  |              | No        | No        | No        | m     |
| Palm Beach          | MacArthur Beach State Park                                    | 161   | 2/3  | 0                 | 2.6  | I B 1                  |              | Yes       | Yes       | Yes       | s(p)  |
| Palm Beach          | MacArthur Beach State Park to Palm Beach Shores               | 162   | 2/3  | 0                 | 4.5  | I IV B 1               |              | No        | No        | No        | s/m   |
| Palm Beach          | Southern Blvd. South to Lake Worth Beach                      | 163   | 2/2  | 0                 | 6.8  | I B 1                  |              | No        | No        | No        | m     |
| Palm Beach/Martin   | Jupiter Island - Jupiter Inlet through Blowing Rocks Preserve | 157   | 2/4  | 0                 | 4.8  | I II IV B 1            |              | No        | Yes       | No        | c     |
| Pasco               | Anclote Gulf Park   | 67    | 1/27 | 0                 | 0.4  | III A 3 8              |              | No        | No        | No        | c     |
| Pasco               | Anclote Key sandbar <sup>1</sup>                              | 64    | 1/27 | 0                 | 0.8  | III B 1 2              |              | Yes       | Yes       | Yes       | s(p)  |
| Pasco               | Anclote Key State Park  | 66    | 1/27 | 20                | 2.4  | III B 1 2              |              | Yes       | Yes       | Yes       | s(p)  |
| Pasco               | Brasher Park  | 61    | 1/27 | 0                 | 0.4  | III A 8                |              | No        | No        | No        | m     |
| Pasco               | Green Key   | 62    | 1/27 | 0                 | 0.2  | III A 1                |              | No        | Yes       | Yes       | c     |
| Pasco               | Gulf Harbors Beach  | 63    | 1/27 | 0                 | 0.2  | III A 1                |              | No        | Yes       | Yes       | p     |
| Pasco               | Hudson Beach  | 59    | 1/27 | 0                 | 0.3  | III A 8                |              | No        | No        | No        | s(p)  |
| Pasco               | Sand Bay  | 65    | 1/27 | 0                 | 0.4  | III A 3 8              |              | No        | Yes       | Yes       | s(p)  |
| Pasco               | Werner-Boyce Salt Springs State Park                          | 60    | 1/27 | 0                 | 0.8  | III G 11               |              | No        | No        | No        | s(p)  |
| Pinellas            | Dunedin Causeway (to Honeymoon Island)                        | 73    | 1/26 | 0                 | 0.8  | V G 1                  |              | Yes       | Yes       | Yes       | m     |
| Pinellas            | Ft. DeSoto County Park, E beach                               | 83    | 1/27 | 1                 | 1.6  | III B 1 4 8            | III B 4      | Yes       | Yes       | No        | c     |
| Pinellas            | Ft. DeSoto County Park, NW Beach                              | 82    | 1/27 | 1                 | 1.5  | III B 1                | III B 1      | Yes       | Yes       | Yes       | c     |
| Pinellas            | Ft. DeSoto County Park, SW Beach                              | 84    | 1/27 | 0                 | 1.6  | III B 1                |              | No        | No        | No        | c     |
| Pinellas            | Honeymoon Island SRA (N end of island)                        | 70    | 1/23 | 38                | 8.1  | III B 2                | III B 2      | Yes       | Yes       | Yes       | s(p)  |
| Pinellas            | Honeymoon Island State Park, Bird Observation Area            | 72    | 1/26 | 0                 | 0    | III V D 8              | I D 8        | Yes       | Yes       | No        | f     |
| Pinellas            | Honeymoon Island State Park, Pet Beach                        | 71    | 1/26 | 0                 | 0.8  | III 1                  |              | Yes       | Yes       | No        | f     |

**The 2006 International Wilson's Plover Winter Census in Florida  
(Continued)**

| COUNTY                 | SITE NAME   | MAP # | DATE | TOTAL WIPL ADULTS | KM   | SITE DESCRIPTION | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|------------------------|---|-------|------|-------------------|------|------------------|--------------|-----------|-----------|-----------|------|
| Pinellas               | Howard County Park  | 68    | 1/27 | 0                 | 3.2  | III C G 1 8      | 1 8          | Yes       | Yes       | Yes       | c    |
| Pinellas               | Indian Rocks Beach  | 76    | 1/28 | 0                 | 4    | III A 1          |              | No        | No        | No        | m    |
| Pinellas               | Madeira Beach/Redington Beach/North Redington Beach               | 78    | 1/27 | 0                 | 6.5  | III B 1 11       |              | No        | No        | No        | m    |
| Pinellas               | North Clearwater beach  | 75    | 2/5  | 0                 | 3.2  | III A 1          |              | Yes       | Yes       | Yes       | m    |
| Pinellas               | Sandy Park to Bellair Beach Morgan Dr. Park                       | 74    | 1/27 | 0                 | 4.8  | III B 1          |              | Yes       | No        | No        | m    |
| Pinellas               | Shell Key   | 81    | 1/27 | 14                | 13.7 | III B 1 3 4 8 10 | III B 3 8    | No        | Yes       | Yes       | s(p) |
| Pinellas               | St. Petersburg- North shore park area                             | 79    | 1/27 | 0                 | 0.8  | II A 1 3         |              | No        | No        | No        | m    |
| Pinellas               | Three Rooker Bar <sup>1</sup>                                     | 69    | 1/27 | 0                 | 4    | III B 1 2        |              | Yes       | Yes       | Yes       |      |
| Pinellas               | Treasure Island   | 80    | 1/27 | 0                 | 3.5  | III B 1          |              | No        | No        | No        | m    |
| Pinellas               | Walsingham Road South to 173 AVE                                  | 77    | 1/27 | 0                 | 7.3  | III B 1 11       |              | No        | No        | No        | m    |
| Santa Rosa             | Naval Live Oaks Gulf Islands N.S.                                 | 7     | 1/27 | 0                 | 6.9  | II A 1 4 8       |              | No        | No        | Yes       | f    |
| Sarasota               | Casey Key beach   | 94    | 1/31 | 0                 | 11.3 | III B 1          |              | No        | Yes       | No        | s(p) |
| Sarasota               | Caspersen Beach   | 95    | 1/27 | 0                 | 6.5  | III B 1          |              | Yes       | Yes       | No        | s(p) |
| Sarasota               | Longboat Key  | 89    | 1/27 | 0                 | 6.8  | III B 1          |              | No        | No        | No        | m/p  |
| Sarasota               | North Lido Beach  | 90    | 1/27 | 0                 | 4    | III B 1          |              | Yes       | No        | No        | c    |
| Sarasota               | Siesta Key, Turtle Beach to Point of Rocks                        | 93    | 1/28 | 0                 | 2.4  | III B 1          |              | No        | No        | No        | p    |
| Sarasota               | Siesta Key, N end to Point of Rocks                               | 92    | 1/27 | 0                 | 5.2  | III A B F 1 4    |              | Yes       | No        | No        | c    |
| Sarasota               | South Lido Beach  | 91    | 1/27 | 0                 | 2.4  | II III B 1       |              | Yes       | No        | No        |      |
| Sarasota/<br>Charlotte | Manasota Beach  | 96    | 1/27 | 0                 | 6.5  | III B 1          |              | No        | No        | Yes       | c    |
| St. Johns              | Anastasia State Recreation Area                                   | 127   | 2/3  | 0                 | 8.1  | I II IV B 1 8    |              | Yes       | Yes       | Yes       | s(p) |
| St. Johns              | Porpoise Point (Vilano Point)                                     | 126   | 2/3  | 0                 | 1.6  | IV A 1           |              | No        | Yes       | Yes       | p    |
| St. Johns              | St. Augustine Beach (Matanzas Inlet)                              | 128   | 2/4  | 32                | 16.9 | IV B 1           | IV B 1       | No        | Yes       | No        | f/c  |
| St. Lucie              | Avalon State Park   | 145   | 2/3  | 0                 | 1.6  | I A 1            |              | No        | No        | No        | m    |
| St. Lucie              | Fort Pierce Inlet State Park                                      | 146   | 2/3  | 0                 | 0.8  | I A 1            |              | Yes       | Yes       | Yes       | s(p) |
| St. Lucie              | Fort Pierce Inlet State Park to Avalon State Park                 | 144   | 2/3  | 0                 | 5.6  | I A 1            |              | Yes       | Yes       | Yes       | c    |
| St. Lucie              | S Hutchinson Island, Fredrick Douglas Park to Inlet               | 147   | 2/3  | 0                 | 6.5  | I B 1            |              | Yes       | Yes       | No        | s(p) |
| St. Lucie              | S Hutchinson Island, Little Mud Creek N to Fredrick Douglass Park | 148   | 2/3  | 0                 | 3.7  | I B 1            |              | Yes       | Yes       | No        | m/c  |

**The 2006 International Wilson's Plover Winter Census in Florida  
(Continued)**

| COUNTY                | SITE NAME   | MAP # | DATE | TOTAL WIPL ADULTS | KM            | SITE DESCRIPTION           | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|-----------------------|---|-------|------|-------------------|---------------|----------------------------|--------------|-----------|-----------|-----------|--------|
| St. Lucie             | S Hutchinson Island, Little Mud Creek S to the narrows              | 149   | 2/3  | 0                 | 6.5           | I B 1                      |              | Yes       | Yes       | No        | p      |
| St. Lucie             | S Hutchinson Island, S end  | 150   | 2/3  | 0                 | 6.6           | I B 1                      |              | Yes       | Yes       | No        | s(p)   |
| Taylor                | Adam's Beach  | 54    | 1/27 | 0                 | 0.8           | III A 7 8                  |              | No        | No        | No        | c      |
| Taylor                | Hagen's Cove  | 55    | 1/27 | 0                 | 4             | II III A 1 3 8             |              | No        | No        | Yes       | s(p)   |
| Volusia               | Disappearing Island   | 132   | 2/2  | 25                | 0.8           | 8                          | IV D 4 8     | No        | No        | No        | s(p)/c |
| Volusia               | New Smyrna Beach  | 133   | 2/3  | 0                 | 4             | I IV B 1 9                 |              | Yes       | Yes       | Yes       | c      |
| Volusia               | North Peninsula SRA   | 131   | 2/3  | 0                 | 4.8           | I B 1                      |              | Yes       | Yes       | Yes       | s(p)   |
| Wakulla               | Mashes Is County Park   | 51    | 1/27 | 0                 | 0.8           | III E 1 3 8                |              | No        | Yes       | Yes       | c      |
| Wakulla               | St. Marks National Wildlife Refuge - Impoundments                   | 53    | 1/26 | 0                 | 23.5          | V A 8                      |              | No        | No        | No        | f      |
| Wakulla/<br>Jefferson | Apalachee Bay & Oyster Bay  | 52    | 1/26 | 0                 | 11.6          | II III A D E 2 3 7<br>8 10 |              | No        | No        | No        | f/p/c  |
| Walton                | Camp Creek Inlet to E end Grayton Beach State Park                  | 22    | 1/26 | 0                 | 27.4          | III A 1                    |              | No        | No        | Yes       | s(p)   |
| Walton                | Deer Lake State Park  | 21    | 1/27 | 0                 | 1.6           | III A 1                    |              | No        | No        | No        | s(p)   |
| Walton                | E end Topsail Hill State Preserve to W end Grayton Beach State Park | 19    | 1/27 | 0                 | 10            | III V A 1 11               |              | No        | No        | Yes       | p      |
| Walton                | Grayton Beach State Park  | 20    | 1/27 | 0                 | 6.1           | III A 1                    |              | No        | No        | No        | s(p)   |
| Walton                | Topsail Hill Preserve State Park                                    | 18    | 1/27 | 0                 | 5.2           | III A 1                    |              | No        | No        | Yes       | s(p)   |
| Walton                | West Walton County Shoreline  | 17    | 1/27 | 0                 | 8.1           | III B 1                    |              | No        | No        | Yes       | p/c    |
| <b>Total</b>          |   |       |      | <b>394</b>        | <b>1223.9</b> |                            |              |           |           |           |        |

<sup>1</sup> datasheets from these sites were lost; number of Piping Plovers was estimated by surveyor but no data on wilson's or Snowy Plovers.

# The 2006 International Piping Plover Winter Census in Alabama

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A total of 9 surveyors surveyed 5 sites as part of the 2006 Census in Alabama. The prime sites for Piping Plovers wintering in Alabama are Little Dauphin Island and Pelican Island. Both sites were surveyed during the 2006 census with 29 Piping Plovers observed. From previous surveys on the birds in coastal Alabama, this is a typical “good” number of birds for Alabama. On a given winter’s day in Alabama you may find 20 to 40 Piping Plovers.

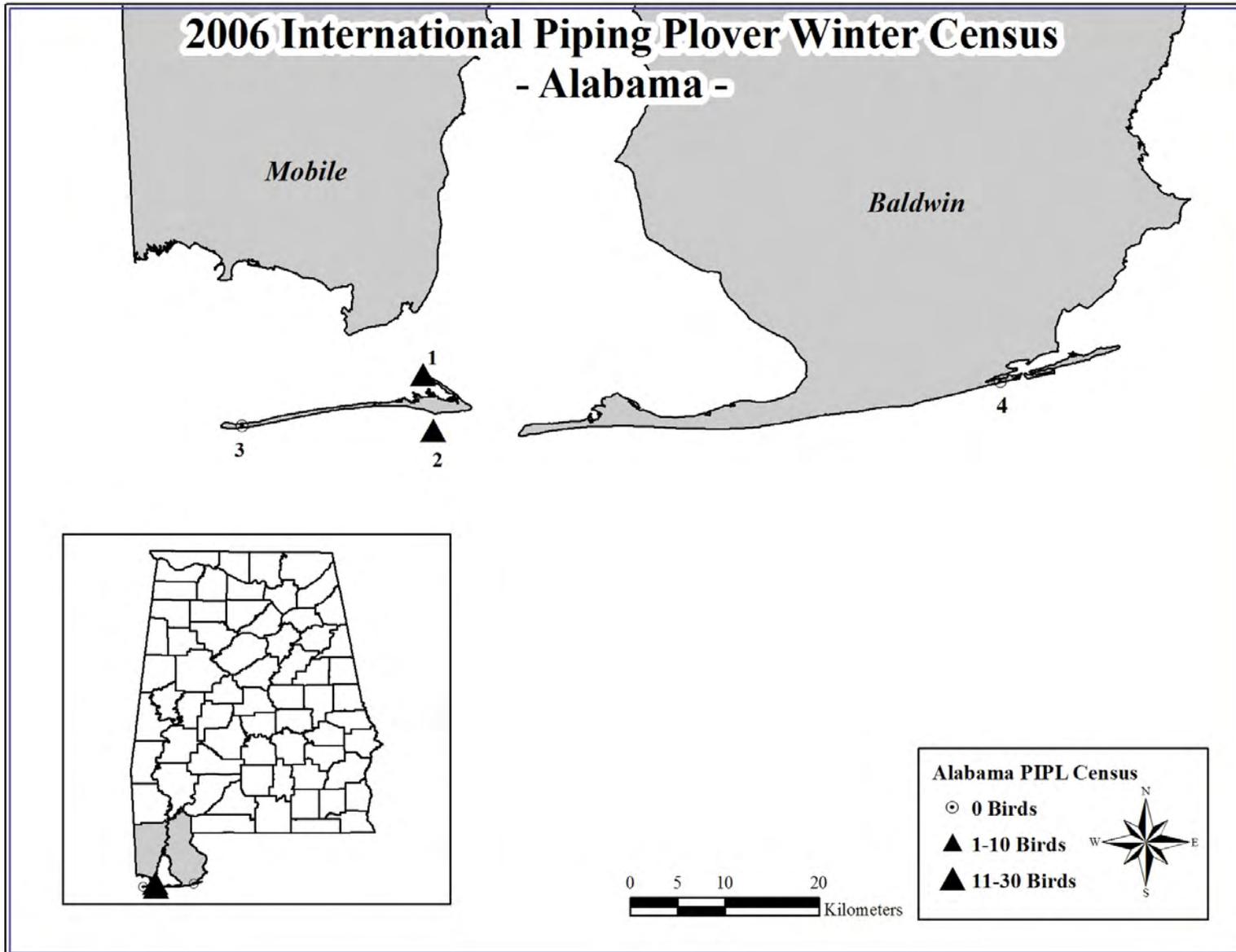
Only one survey was conducted in Baldwin County near the Florida border (by surveyors from Florida). Though other areas in Baldwin County were not surveyed in 2006, this has little effect, if any, on the total number of birds for Alabama. There are no barrier islands in Baldwin County and the Gulf beach is high impact with virtually no flats to speak of. The occasional Piping Plover is observed at the western tip of the Fort Morgan peninsula, but this is likely a bird that has made the short flight across the mouth of Mobile Bay traveling from the more favorable Mobile County sites of Little Dauphin Island and Pelican Island.

The coast of Mobile County was impacted greatly by Hurricane Katrina in August 2005. Destructive for man, Katrina had little negative impact for wintering shorebirds. In fact, the hurricane may have actually improved sites for this group of birds. Shorelines were flattened

creating more tidally flooded areas particularly on Pelican Island. The Piping Plover site on Little Dauphin Island which has seen a buildup of sand over its tidal flats may have benefited from the hurricane as well.

## Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 12   | 31   | 30   | 29   |
| Snowy Plover    | n.r. | n.r. | 0    | 6    |
| Wilson’s Plover | n.r. | n.r. | n.r. | 0    |



## The 2006 International Piping Plover Winter Census in Alabama

| COUNTY       | SITE NAME                        | MAP # | DATE | TOTAL<br>PIPL<br>ADULTS | KM          | SITE<br>DESCRIPTION        | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------|----------------------------------|-------|------|-------------------------|-------------|----------------------------|-----------------|--------------|--------------|--------------|------|
| Baldwin      | Perdido Pass, AL east to FL line | 4     | 1/27 | 0                       | 3.2         | I II III IV A D E<br>1 2 3 |                 | No           | No           | No           | s/p  |
| Mobile       | Dauphin Island, west end         | 3     | 2/05 | 0                       | 7.6         | II III V A 3               |                 | No           | Yes          | Yes          | p    |
| Mobile       | Little Dauphin Island            | 1     | 2/05 | 13                      | 1.6         | III B 3 8                  | III B 3 8       | Yes          | Yes          | Yes          | f    |
| Mobile       | Pelican Island                   | 2     | 2/05 | 16                      | 9.7         | III B 1 3 4 8              | III B 1 3       | Yes          | Yes          | Yes          | s(p) |
| <b>Total</b> |                                  |       |      | <b>29</b>               | <b>18.9</b> |                            |                 |              |              |              |      |

# 2006 International Snowy Plover Winter Census - Alabama -

*Mobile*

*Baldwin*



### The 2006 International Snowy Plover Winter Census in Alabama

| COUNTY       | SITE NAME                        | MAP # | DATE | TOTAL SNPL ADULTS | KM          | SITE DESCRIPTION           | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------|----------------------------------|-------|------|-------------------|-------------|----------------------------|--------------|-----------|-----------|-----------|------|
| Baldwin      | Perdido Pass, AL east to FL line | 4     | 1/27 | 0                 | 3.2         | I II III IV A D E<br>1 2 3 |              | No        | No        | No        | s/p  |
| Mobile       | Dauphin Island, west end         | 3     | 2/05 | 0                 | 7.6         | II III V A 3               |              | No        | Yes       | Yes       | p    |
| Mobile       | Little Dauphin Island            | 1     | 2/05 | 0                 | 1.6         | III B 3 8                  |              | Yes       | Yes       | Yes       | f    |
| Mobile       | Pelican Island                   | 2     | 2/05 | 6                 | 9.7         | III B 1 3 4 8              | III B 3      | Yes       | Yes       | Yes       | s(p) |
| <b>Total</b> |                                  |       |      | <b>6</b>          | <b>18.9</b> |                            |              |           |           |           |      |

### The 2006 International Wilson's Plover Winter Census in Alabama

| COUNTY       | SITE NAME                        | MAP # | DATE | TOTAL WIPL ADULTS | KM          | SITE DESCRIPTION           | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------|----------------------------------|-------|------|-------------------|-------------|----------------------------|--------------|-----------|-----------|-----------|------|
| Baldwin      | Perdido Pass, AL east to FL line |       | 1/27 | 0                 | 3.2         | I II III IV A D E<br>1 2 3 |              | No        | No        | No        | s/p  |
| Mobile       | Dauphin Island, west end         |       | 2/05 | 0                 | 7.6         | II III V A 3               |              | No        | Yes       | Yes       | p    |
| Mobile       | Little Dauphin Island            |       | 2/05 | 0                 | 1.6         | III B 3 8                  |              | Yes       | Yes       | Yes       | f    |
| Mobile       | Pelican Island                   |       | 2/05 | 0                 | 9.7         | III B 1 3 4 8              |              | Yes       | Yes       | Yes       | s(p) |
| <b>Total</b> |                                  |       |      | <b>0</b>          | <b>18.9</b> |                            |              |           |           |           |      |

# The 2006 International Piping Plover Winter Census in Mississippi

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Twenty-five people censused 20 sites between 25 January and 6 February. Participants included local bird watchers and biologists from 3 governmental agencies and Mississippi State University. Seventy-eight Piping Plovers, 36 Snowy Plovers and zero Wilson's Plovers were observed. Most birds (58 piping and 33 Snowy Plovers) were observed on the barrier islands on 6 February.

Most areas with suitable habitat were censused. The mainland beach from Broadwater Beach Marina to Point Cadet in Biloxi and Greenwood Island in Pascagoula were not censused due to inclement weather and access problems relating to Hurricane Katrina cleanup. Portions of the mainland beach at Belle Fontaine and between Gulfport Harbor and Broadwater Beach Marina in Biloxi were missed because of Katrina cleanup as well. The western half of Cat Island was not censused because of access and time constraints. Broadwater Beach Marina to Point Cadet has not had birds in previous censuses, and Greenwood Island has not been censused in previous censuses. However, these areas along with the other missed mainland beaches should be censused in the future because they have apparently suitable habitat. The western half of Cat Island should be censused in the future if time allows, although most of the suitable habitat is on the eastern half of the island.

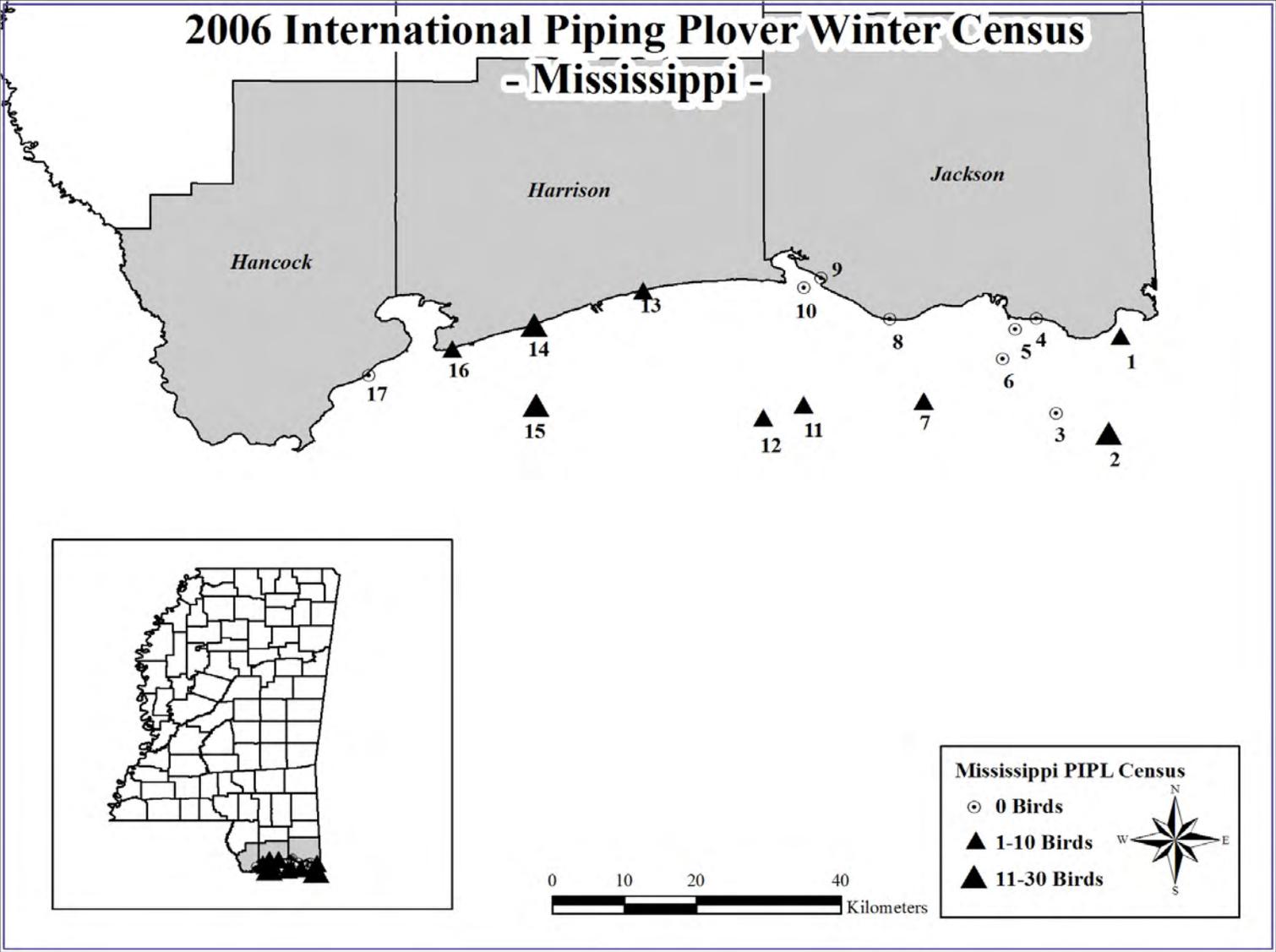
More plovers were observed during this census than in previous censuses. Fifty-nine Piping Plovers were observed in 1991, 27 in 1996 and 18 in 2001. Thirteen Snowy Plovers were observed in 2001. I believe our results adequately represent the population in Mississippi because most areas were censused, and almost all areas were thoroughly searched on foot.

Most areas used by Piping Plovers in Mississippi are protected as part of Gulf Islands National Seashore. The National Park Service removed most of the storm-related debris from the barrier islands prior to the census, so Katrina debris was not a serious problem on the islands. NOAA has a website ([http://www.ncddc.noaa.gov/Katrina/Before\\_After%20Katrina/BarrierIslands](http://www.ncddc.noaa.gov/Katrina/Before_After%20Katrina/BarrierIslands)) with before and after Katrina imagery of the barrier islands. All islands experienced some land loss, especially sandy flats along the tips. Some sandy flats were still available, and many birds were observed in this habitat type. Also, many vegetated areas on the islands converted to sandy habitat after Katrina. Although the mainland beaches do not have the same official protected status as the islands, they have relatively little human disturbance during the winter months and most were posted off limits after Katrina. Many mainland beaches have eroded and are littered with storm debris. Efforts are underway to remove debris and beach renourishment is planned. Post-Katrina development may influence future habitat suitability, however development of beach habitat may not be pronounced.

### Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 59   | 27   | 18   | 78   |
| Snowy Plover    | n.r. | n.r. | 13   | 36   |
| Wilson's Plover | n.r. | n.r. | n.r. | 0    |

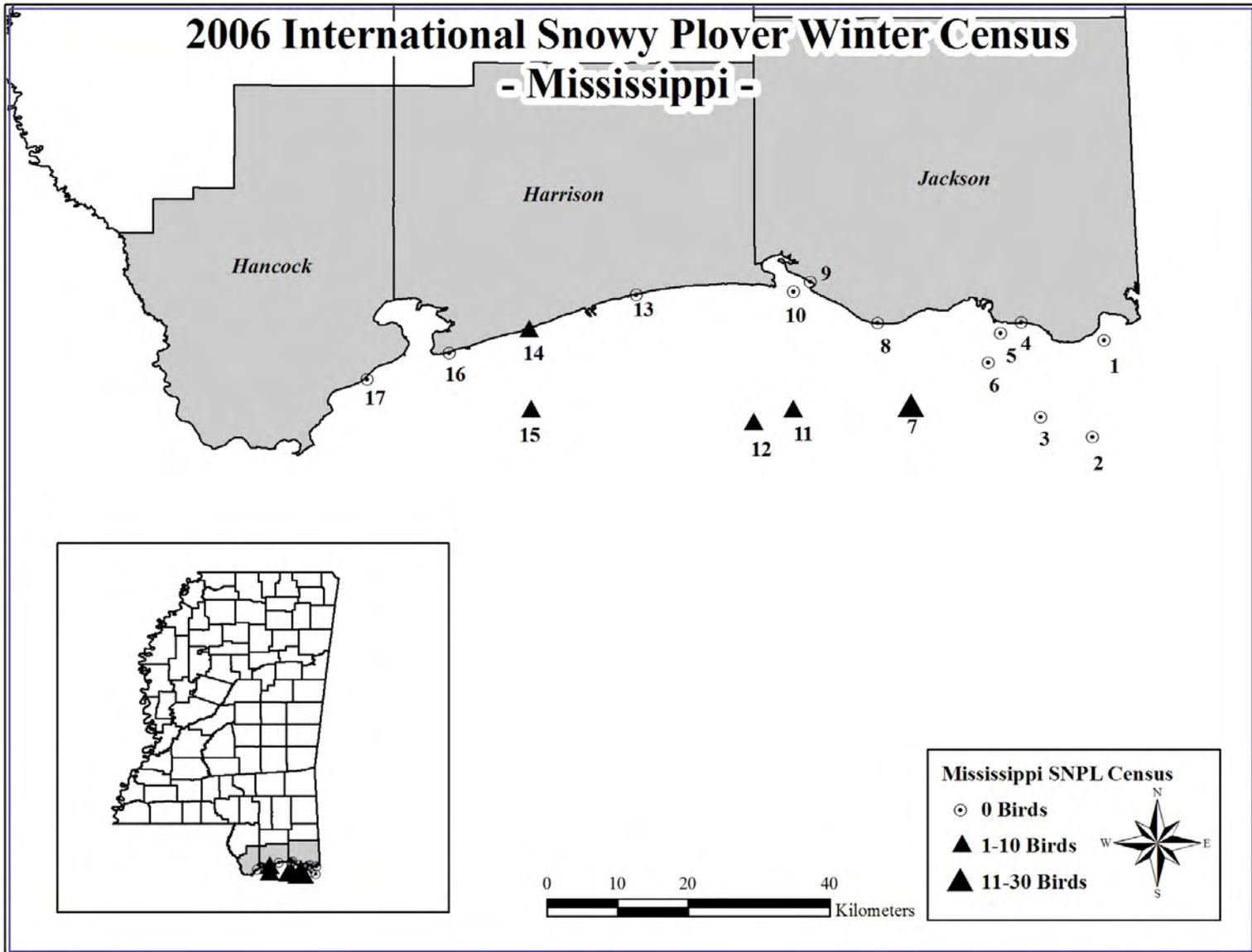
# 2006 International Piping Plover Winter Census - Mississippi -



## The 2006 International Piping Plover Winter Census in Mississippi

| COUNTY       | SITE NAME  | MAP # | DATE | TOTAL<br>PIPL<br>ADULTS | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------|--|-------|------|-------------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Hancock      | Clermont Harbor (Waveland and Bay St. Louis Piers) | 17    | 1/27 | 0                       | 16.1         | III V A 1 3 8       |                 | Yes          | Yes          | Yes          | m/c  |
| Harrison     | Cat Island   | 15    | 2/01 | 19                      | 6.0          | III B 1 3 8         | III B 3         | Yes          | Yes          | No           | f/p  |
| Harrison     | Deer Island  | 10    | 2/01 | 0                       | 3.7          | V E 1 3             |                 | Yes          | Yes          | No           | s(p) |
| Harrison     | East Ship Island                                   | 11    | 2/01 | 7                       | 4.2          | III V B 1 3         | III B 1         | Yes          | Yes          | Yes          | s(p) |
| Harrison     | Gulfport Harbor to Beauvoir Rd.                    | 13    | 2/02 | 1                       | 12.9         | V A 1 8             | V A 1           | No           | No           | No           | c    |
| Harrison     | Gulport Harbor to Pass Christian Harbor            | 14    | 1/27 | 15                      | 11.3         | III V A 1 3         | V A 3           | No           | Yes          | Yes          | s(p) |
| Harrison     | Pass Christian Harbor to Henderson Point           | 16    | 2/06 | 2                       | 2.4          | III V A 1 3         | V A 3           | No           | Yes          | Yes          | s(p) |
| Harrison     | West Ship Island                                   | 12    | 2/01 | 4                       | 13.2         | III B 1             | V B 3           | Yes          | Yes          | Yes          | s(p) |
| Jackson      | Belle Fontaine Beach                               | 8     | 1/27 | 0                       | 1.2          | III V A G 1         |                 | No           | No           | No           | c    |
| Jackson      | Grand Bay National Estuarine Research Reserve      | 1     | 1/27 | 2                       | 3.0          | II V A F 3 5        | V F 3           | No           | No           | No           | f    |
| Jackson      | Horn Island  | 7     | 2/01 | 9                       | 49.5         | III V B 1 3         | II III B 1      | Yes          | Yes          | Yes          | f    |
| Jackson      | Ocean Springs Beaches                              | 9     | 1/27 | 0                       | 4.8          | III A 1             |                 | Yes          | Yes          | Yes          | m    |
| Jackson      | Pascagoula Beach                                   | 4     | 1/27 | 0                       | 3.2          | II III V A 1 8 10   |                 | Yes          | Yes          | No           | m/p  |
| Jackson      | Petit Bois Island                                  | 2     | 2/01 | 19                      | 12.4         | III B 1 2 3         | III B 3         | Yes          | Yes          | Yes          | f    |
| Jackson      | Round Island                                       | 6     | 1/27 | 0                       | 3.0          | V B 1               |                 | Yes          | Yes          | Yes          | f    |
| Jackson      | Sand Island  | 3     | 2/01 | 0                       | 2.0          | V C 1 3             |                 | No           | No           | No           | f    |
| Jackson      | Singing River Island                               | 5     | 1/27 | 0                       | 5.0          | V C 1 3             |                 | No           | Yes          | Yes          | s(p) |
| <b>Total</b> |  |       |      | <b>78</b>               | <b>154.0</b> |                     |                 |              |              |              |      |

# 2006 International Snowy Plover Winter Census - Mississippi -



## The 2006 International Snowy Plover Winter Census in Mississippi

| COUNTY       | SITE NAME  | MAP # | DATE | TOTAL SNPL ADULTS | KM           | SITE DESCRIPTION  | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------|--|-------|------|-------------------|--------------|-------------------|--------------|-----------|-----------|-----------|------|
| Hancock      | Clermont Harbor (Waveland and Bay St. Louis Piers) | 17    | 1/27 | 0                 | 16.1         | III V A 1 3 8     |              | Yes       | Yes       | Yes       | m/c  |
| Harrison     | Cat Island   | 15    | 2/01 | 3                 | 6.0          | III B 1 3 8       | III B 3      | Yes       | Yes       | No        | f/p  |
| Harrison     | Deer Island  | 10    | 2/01 | 0                 | 3.7          | V E 1 3           |              | Yes       | Yes       | No        | s(p) |
| Harrison     | East Ship Island                                   | 11    | 2/01 | 3                 | 4.2          | III V B 1 3       | V B 3        | Yes       | Yes       | Yes       | s(p) |
| Harrison     | Gulfport Harbor to Beauvoir Rd.                    | 13    | 2/02 | 0                 | 12.9         | V A 1 8           |              | No        | No        | No        | c    |
| Harrison     | Gulport Harbor to Pass Christian Harbor            | 14    | 1/27 | 3                 | 11.3         | III V A 1 3       | V A 1        | No        | Yes       | Yes       | s(p) |
| Harrison     | Pass Christian Harbor to Henderson Point           | 16    | 2/06 | 0                 | 2.4          | III V A 1 3       |              | No        | Yes       | Yes       | s(p) |
| Harrison     | West Ship Island                                   | 12    | 2/01 | 1                 | 13.2         | III B 1           | V B 3        | Yes       | Yes       | Yes       | s(p) |
| Jackson      | Belle Fontaine Beach                               | 8     | 1/27 | 0                 | 1.2          | III V A G 1       |              | No        | No        | No        | c    |
| Jackson      | Grand Bay National Estuarine Research Reserve      | 1     | 1/27 | 0                 | 3.0          | II V A F 3 5      |              | No        | No        | No        | f    |
| Jackson      | Horn Island  | 7     | 2/01 | 26                | 49.5         | III V B 1 3       | III B 1      | Yes       | Yes       | Yes       | f    |
| Jackson      | Ocean Springs Beaches                              | 9     | 1/27 | 0                 | 4.8          | III A 1           |              | Yes       | Yes       | Yes       | m    |
| Jackson      | Pascagoula Beach                                   | 4     | 1/27 | 0                 | 3.2          | II III V A 1 8 10 |              | Yes       | Yes       | No        | m/p  |
| Jackson      | Petit Bois Island                                  | 2     | 2/01 | 0                 | 12.4         | III B 1 2 3       |              | Yes       | Yes       | Yes       | f    |
| Jackson      | Round Island                                       | 6     | 1/27 | 0                 | 3.0          | V B 1             |              | Yes       | Yes       | Yes       | f    |
| Jackson      | Sand Island  | 3     | 2/01 | 0                 | 2.0          | V C 1 3           |              | No        | No        | No        | f    |
| Jackson      | Singing River Island                               | 5     | 1/27 | 0                 | 5.0          | V C 1 3           |              | No        | Yes       | Yes       | s(p) |
| <b>Total</b> |  |       |      | <b>36</b>         | <b>154.0</b> |                   |              |           |           |           |      |

## The 2006 International Wilson's Plover Winter Census in Mississippi

| COUNTY       | SITE NAME  | MAP # | DATE | TOTAL WIPL ADULTS | KM           | SITE DESCRIPTION  | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------|--|-------|------|-------------------|--------------|-------------------|--------------|-----------|-----------|-----------|------|
| Hancock      | Clermont Harbor (Waveland and Bay St. Louis Piers) |       | 1/27 | 0                 | 16.1         | III V A 1 3 8     |              | Yes       | Yes       | Yes       | m/c  |
| Harrison     | Cat Island   |       | 2/01 | 0                 | 6.0          | III B 1 3 8       |              | Yes       | Yes       | No        | f/p  |
| Harrison     | Deer Island  |       | 2/01 | 0                 | 3.7          | V E 1 3           |              | Yes       | Yes       | No        | s(p) |
| Harrison     | East Ship Island                                   |       | 2/01 | 0                 | 4.2          | III V B 1 3       |              | Yes       | Yes       | Yes       | s(p) |
| Harrison     | Gulfport Harbor to Beauvoir Rd.                    |       | 2/02 | 0                 | 12.9         | V A 1 8           |              | No        | No        | No        | c    |
| Harrison     | Gulport Harbor to Pass Christian Harbor            |       | 1/27 | 0                 | 11.3         | III V A 1 3       |              | No        | Yes       | Yes       | s(p) |
| Harrison     | Pass Christian Harbor to Henderson Point           |       | 2/06 | 0                 | 2.4          | III V A 1 3       |              | No        | Yes       | Yes       | s(p) |
| Harrison     | West Ship Island                                   |       | 2/01 | 0                 | 13.2         | III B 1           |              | Yes       | Yes       | Yes       | s(p) |
| Jackson      | Belle Fontaine Beach                               |       | 1/27 | 0                 | 1.2          | III V A G 1       |              | No        | No        | No        | c    |
| Jackson      | Grand Bay National Estuarine Research Reserve      |       | 1/27 | 0                 | 3.0          | II V A F 3 5      |              | No        | No        | No        | f    |
| Jackson      | Horn Island  |       | 2/01 | 0                 | 49.5         | III V B 1 3       |              | Yes       | Yes       | Yes       | f    |
| Jackson      | Ocean Springs Beaches                              |       | 1/27 | 0                 | 4.8          | III A 1           |              | Yes       | Yes       | Yes       | m    |
| Jackson      | Pascagoula Beach                                   |       | 1/27 | 0                 | 3.2          | II III V A 1 8 10 |              | Yes       | Yes       | No        | m/p  |
| Jackson      | Petit Bois Island                                  |       | 2/01 | 0                 | 12.4         | III B 1 2 3       |              | Yes       | Yes       | Yes       | f    |
| Jackson      | Round Island                                       |       | 1/27 | 0                 | 3.0          | V B 1             |              | Yes       | Yes       | Yes       | f    |
| Jackson      | Sand Island  |       | 2/01 | 0                 | 2.0          | V C 1 3           |              | No        | No        | No        | f    |
| Jackson      | Singing River Island                               |       | 1/27 | 0                 | 5.0          | V C 1 3           |              | No        | Yes       | Yes       | s(p) |
| <b>Total</b> |  |       |      | <b>0</b>          | <b>154.0</b> |                   |              |           |           |           |      |

# The 2006 International Piping Plover Winter Census in Louisiana

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Eleven observers participated in the coast-wide census, compared to 23 in 2001, 36 in 1991 and 30 in 1996. Roughly 5 parties participated during the 2006 census window. The number of kilometers of coastline covered was approximately the same as in 2001 (201.7 km), although no actual mileage was recorded by the observers. It was a major challenge to organize the search parties due to the destruction of the Louisiana coastline by Hurricanes Katrina and Rita. Many would be survey participants were unable to assist with the efforts. All federal and state agency staff were directed to hurricane related issues. In spite of the Hurricanes the 2006 census by all accounts was a major success.

Numbers of Piping Plovers was nearly half of those from 2001, down to 226 birds in 2006 as compared to 511 in 2001. These numbers can be viewed confidently as all sites surveyed in 2001 were surveyed in 2006. An unnamed spoil island in LaFourche Parish that contained over 100 Piping Plovers in 2001 was lost during Hurricane Katrina and substantially affected the number of Piping Plovers detected.

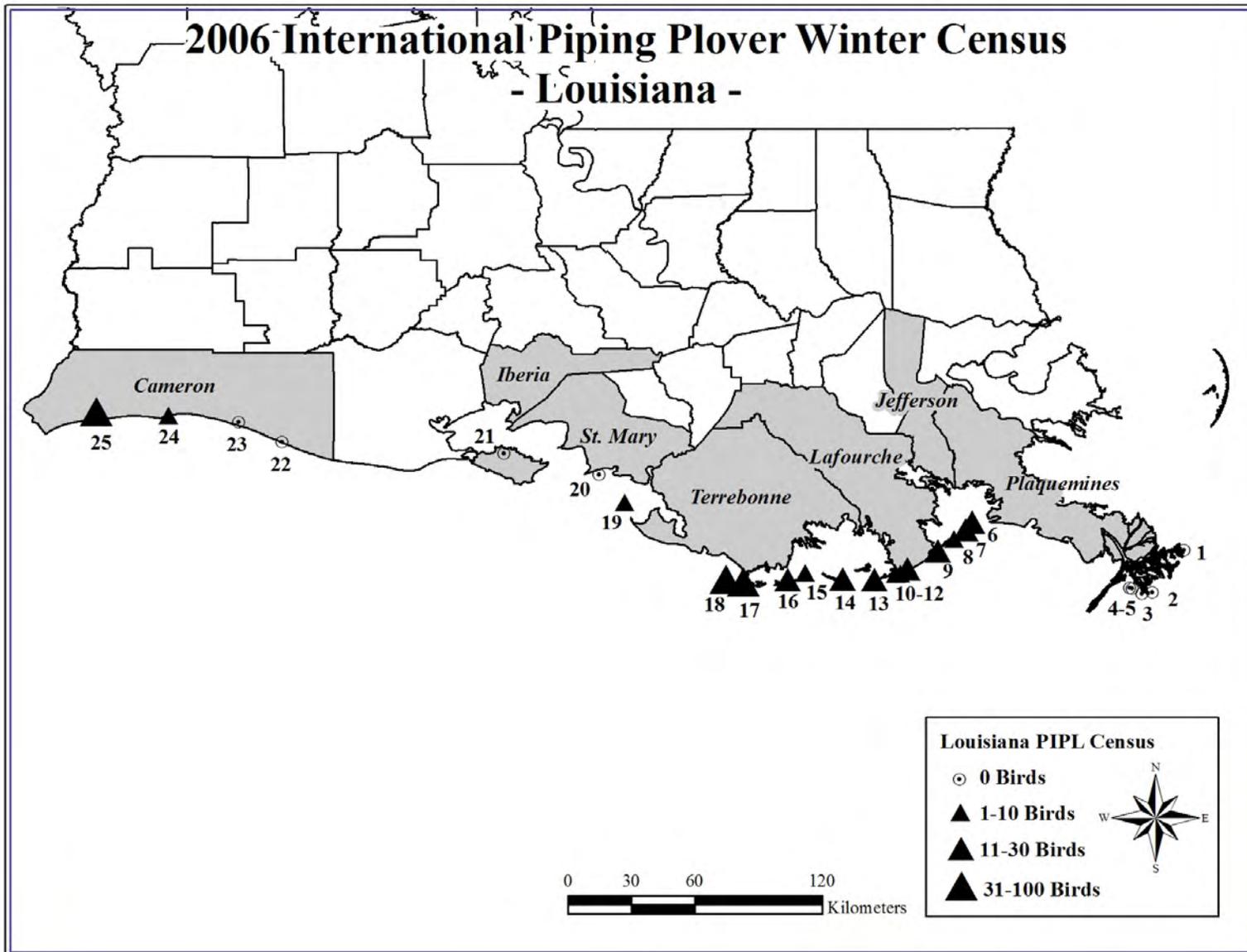
The Chandeleur Islands were not surveyed in 2006 due to logistical problems in reaching the islands. Ariel photography was used prior to the census and suggested that very little plover habitat remained after Hurricane Katrina. Over

flights of the island chain in June 2006 revealed several large cuts throughout the islands and little to no beach tidal interface. It is unlikely that any Piping Plovers utilized these islands during the winter census period. During future censuses, a concerted effort should be made to survey the islands.

Although all previous Piping Plover census sites were surveyed for Piping Plovers during 2006 no effort was made (with the exception of Marsh Island Refuge) to detect new wintering sites. Although Hurricanes Katrina and Rita destroyed many coastal islands, it is just as likely a newly emergent bare sand island was formed were Piping Plovers may have concentrated (as was the case with the unnamed island islands in LaFourche Parish). It is important during future censuses that an effort is made to locate new suitable Piping Plover wintering habitat.

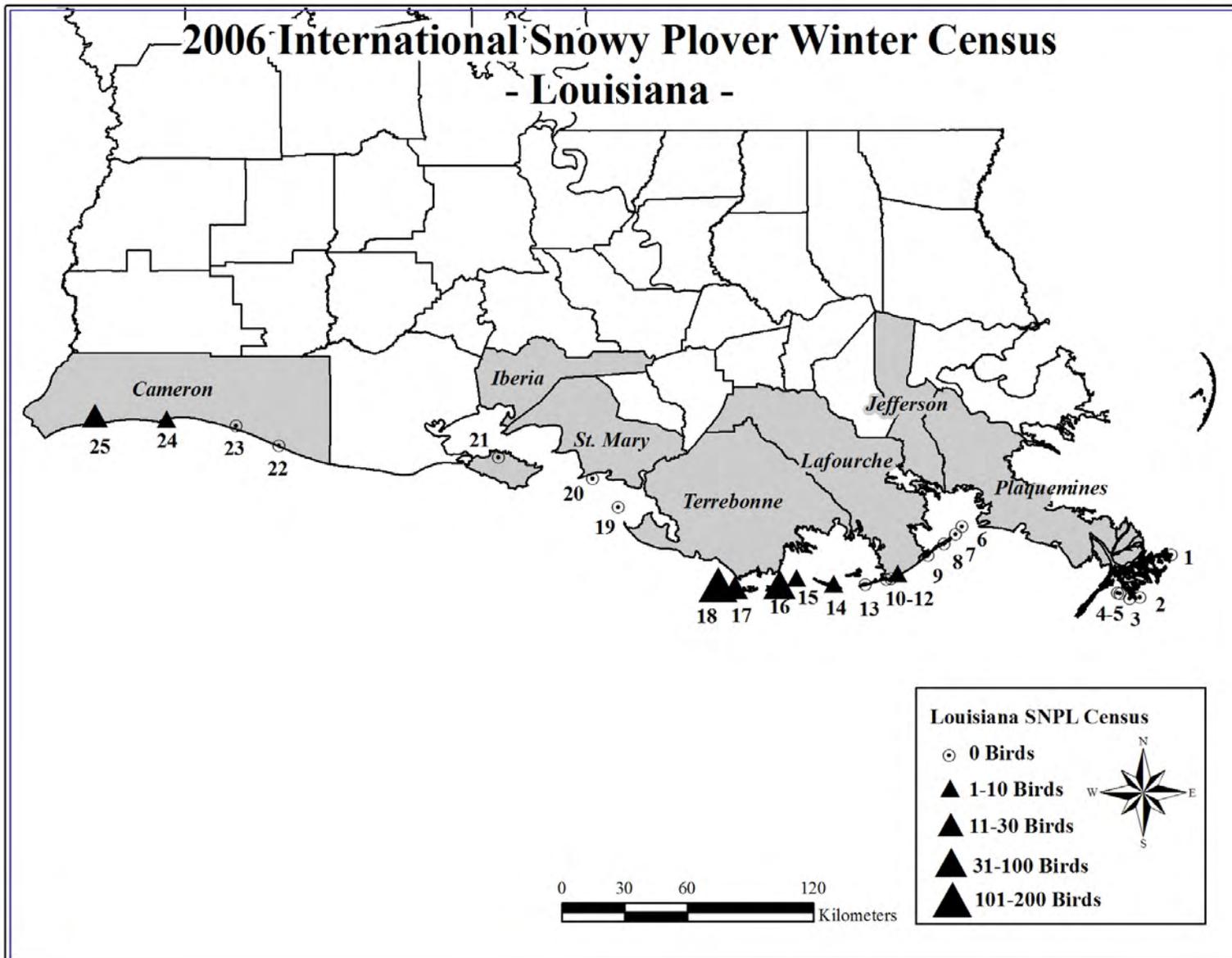
### Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 750  | 420  | 511  | 226  |
| Snowy Plover    | n.r. | n.r. | 36   | 207  |
| Wilson's Plover | n.r. | n.r. | n.r. | 63   |



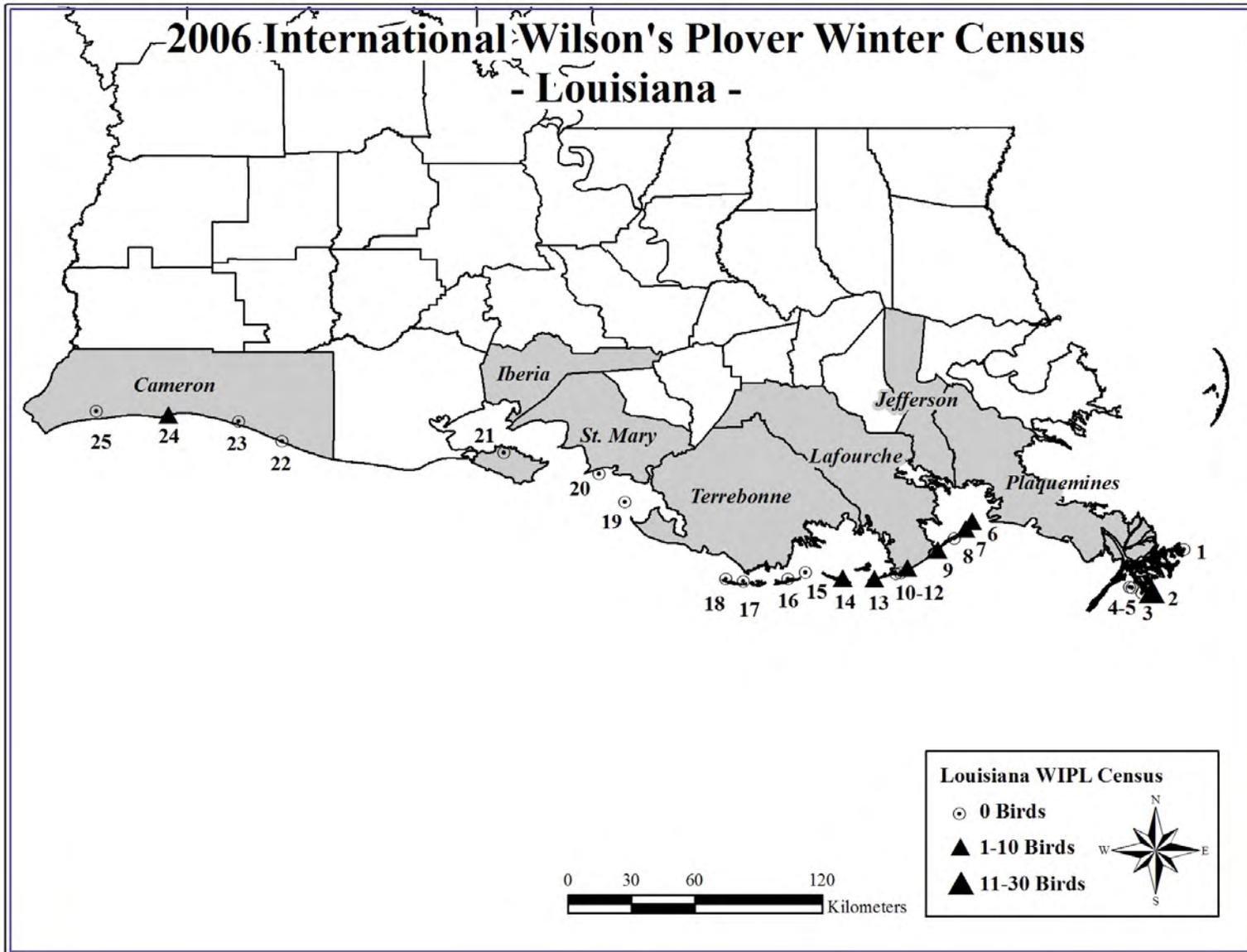
## The 2006 International Piping Plover Winter Census in Louisiana

| COUNTY                   | SITE NAME                                | MAP # | DATE | TOTAL       |              | SITE DESCRIPTION | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------|--|-------|------|-------------|--------------|------------------|--------------|-----------|-----------|-----------|------|
|                          |  |       |      | PIPL ADULTS | KM           |                  |              |           |           |           |      |
| Cameron                  | East Jetty to Rutherford Beach           | 24    | n.r. | 3           | 22.6         | III A 1          | III A 1      | Yes       | Yes       | Yes       | s(p) |
| Cameron                  | East side of Mermentau Ship Channel      | 23    | 2/03 | 0           | 0.4          | III A 2,4,8      |              | Yes       | No        | Yes       | p    |
| Cameron                  | Rockefeller Refuge, west                 | 22    | n.r. | 0           | 16.9         | III A 1          |              | Yes       | Yes       | Yes       | s(p) |
| Cameron                  | Smith Bayou to West Jetty                | 25    | 2/04 | 35          | 53.2         | III A 1          | III A F 1    | Yes       | Yes       | Yes       | s(p) |
| Iberia                   | Marsh Island Refuge                      | 21    | 1/30 | 0           | 12.9         | II E 7 11        |              | Yes       | Yes       | No        | s(p) |
| Jefferson                | Elmers Island                            | 9     | 1/31 | 15          | 11.3         | III A 1 3 8 10   | III A 1      | Yes       | Yes       | Yes       | p    |
| Jefferson                | Grand Isle                               | 8     | 2/01 | 2           | 8.0          | III B 1          | III B 1      | Yes       | Yes       | Yes       | m    |
| Jefferson                | West Grand Terre Island                  | 7     | 1/24 | 11          | 4.8          | III B 1 10       | III B 1      | No        | Yes       | Yes       | p    |
| Lafourche                | Belle Pass, west                         | 12    | 1/24 | 1           | 4.8          | III A 1 8 10     | III A 1      | No        | Yes       | Yes       | s(p) |
| Lafourche                | East Timbalier Island                    | 13    | 1/23 | 14          | 4.0          | III B 1 2 10     | III B 1      | Yes       | No        | Yes       | p    |
| Lafourche                | Fourchon Beach, east                     | 10    | 1/25 | 19          | 1.6          | III A 1 8 10     | III A 8      | Yes       | Yes       | Yes       | p    |
| Lafourche                | Fourchon Beach, west                     | 11    | 2/01 | 2           | 4.8          | III A 1          | III A 1      | Yes       | Yes       | Yes       | p    |
| Plaquemines              | East Grand Terre Island                  | 6     | 1/24 | 11          | 0.8          | III B 1 2 8 10   | III B 2      | No        | Yes       | Yes       | p    |
| Plaquemines              | Pass A L'outré                           | 1     | 2/06 | 0           | 0.8          | III D 4          |              | No        | No        | Yes       | s(p) |
| Plaquemines              | South Pass, east (Pass A L'outré WMA)    | 2     | 2/05 | 0           | 0.8          | III E 1          |              | No        | Yes       | Yes       | s(p) |
| Plaquemines              | South Pass, west #1 (Pass A L'outré WMA) | 4     | 2/06 | 0           | 0.4          | III B 1          |              | No        | No        | Yes       | s(p) |
| Plaquemines              | South Pass, west #2 (Pass A L'outré WMA) | 3     | 2/06 | 0           | 0.8          | III C E 1        |              | No        | Yes       | Yes       | s(p) |
| Plaquemines              | South Pass, west #3 (Pass A L'outré WMA) | 5     | 2/06 | 0           | 0.8          | III B E 1        |              | No        | No        | Yes       | s(p) |
| St. Mary                 | Atchafalaya Delta                        | 19    | 2/03 | 6           | 10.4         | III C 3          | III C 3      | Yes       | Yes       | Yes       | s(p) |
| St. Mary                 | Wax Lake Delta                           | 20    | 2/06 | 0           | 2.3          | III G 11         |              | No        | Yes       | Yes       | s(p) |
| Terrebonne               | Raccoon Island (Last Island)             | 18    | n.r. | 39          | 2.4          | III B 1          | III B 1      | Yes       | Yes       | Yes       | s(p) |
| Terrebonne               | Trinity Island/East Island               | 16    | n.r. | 16          | 16.1         | III B 1          | III B 1      | Yes       | Yes       | Yes       | s(p) |
| Terrebonne               | Whiskey Island (Central Isles Dernieres) | 17    | n.r. | 31          | 9.7          | III B 1          | III B 1      | No        | Yes       | Yes       | s(p) |
| Terrebonne               | Wine Island                              | 15    | 1/23 | 4           | 0.4          | III B 1 3        | III B 3      | No        | No        | Yes       | s(p) |
| Terrebonne/<br>Lafourche | West Timbalier Island                    | 14    | n.r. | 17          | 12.9         | III B 1          | III B 1 8    | Yes       | Yes       | Yes       | s(p) |
| <b>Total</b>             |  |       |      | <b>226</b>  | <b>204.8</b> |                  |              |           |           |           |      |



## The 2006 International Snowy Plover Winter Census in Louisiana

| COUNTY                   | SITE NAME                                | MAP # | DATE | TOTAL       |              | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------|--|-------|------|-------------|--------------|------------------|--------------|-----------|-----------|-----------|------|
|                          |  |       |      | SNPL ADULTS | KM           |                  |              |           |           |           |      |
| Cameron                  | East Jetty to Rutherford Beach           | 24    | n.r. | 9           | 22.6         | III A 1          | III A 1      | Yes       | Yes       | Yes       | s(p) |
| Cameron                  | East side of Mermentau Ship Channel      | 23    | 2/03 | 0           | 0.4          | III A 2,4,8      |              | Yes       | No        | Yes       | p    |
| Cameron                  | Rockefeller Refuge, west                 | 22    | n.r. | 0           | 16.9         | III A 1          |              | Yes       | Yes       | Yes       | s(p) |
| Cameron                  | Smith Bayou to West Jetty                | 25    | 2/04 | 16          | 53.2         | III A 1          | III A F 1    | Yes       | Yes       | Yes       | s(p) |
| Iberia                   | Marsh Island Refuge                      | 21    | 1/30 | 0           | 12.9         | II E 7 11        |              | Yes       | Yes       | No        | s(p) |
| Jefferson                | Elmers Island                            | 9     | 1/31 | 0           | 11.3         | III A 1 3 8 10   |              | Yes       | Yes       | Yes       | p    |
| Jefferson                | Grand Isle                               | 8     | 2/01 | 0           | 8.0          | III B 1          |              | Yes       | Yes       | Yes       | m    |
| Jefferson                | West Grand Terre Island                  | 7     | 1/24 | 0           | 4.8          | III B 1 10       |              | No        | Yes       | Yes       | p    |
| Lafourche                | Belle Pass, west                         | 12    | 1/24 | 0           | 4.8          | III A 1 8 10     |              | No        | Yes       | Yes       | s(p) |
| Lafourche                | East Timbalier Island                    | 13    | 1/23 | 0           | 4.0          | III B 1 2 10     |              | Yes       | No        | Yes       | p    |
| Lafourche                | Fourchon Beach, east                     | 10    | 1/25 | 6           | 1.6          | III A 1 8 10     |              | Yes       | Yes       | Yes       | p    |
| Lafourche                | Fourchon Beach, west                     | 11    | 2/01 | 0           | 4.8          | III A 1          |              | Yes       | Yes       | Yes       | p    |
| Plaquemines              | East Grand Terre Island                  | 6     | 1/24 | 0           | 0.8          | III B 1 2 8 10   |              | No        | Yes       | Yes       | p    |
| Plaquemines              | Pass A L'outré                           | 1     | 2/06 | 0           | 0.8          | III D 4          |              | No        | No        | Yes       | s(p) |
| Plaquemines              | South Pass, east (Pass A L'outré WMA)    | 2     | 2/05 | 0           | 0.8          | III E 1          |              | No        | Yes       | Yes       | s(p) |
| Plaquemines              | South Pass, west #1 (Pass A L'outré WMA) | 4     | 2/06 | 0           | 0.4          | III B 1          |              | No        | No        | Yes       | s(p) |
| Plaquemines              | South Pass, west #2 (Pass A L'outré WMA) | 3     | 2/06 | 0           | 0.8          | III C E 1        |              | No        | Yes       | Yes       | s(p) |
| Plaquemines              | South Pass, west #3 (Pass A L'outré WMA) | 5     | 2/06 | 0           | 0.8          | III B E 1        |              | No        | No        | Yes       | s(p) |
| St. Mary                 | Atchafalaya Delta                        | 19    | 2/03 | 0           | 10.4         | III C 3          |              | Yes       | Yes       | Yes       | s(p) |
| St. Mary                 | Wax Lake Delta                           | 20    | 2/06 | 0           | 2.3          | III G 11         |              | No        | Yes       | Yes       | s(p) |
| Terrebonne               | Raccoon Island (Last Island)             | 18    | n.r. | 108         | 2.4          | III B 1          | III B 1      | Yes       | Yes       | Yes       | s(p) |
| Terrebonne               | Trinity Island/East Island               | 16    | n.r. | 39          | 16.1         | III B 1          | III B 1      | Yes       | Yes       | Yes       | s(p) |
| Terrebonne               | Whiskey Island (Central Isles Dernieres) | 17    | n.r. | 23          | 9.7          | III B 1          | III B 1      | No        | Yes       | Yes       | s(p) |
| Terrebonne               | Wine Island                              | 15    | 1/23 | 3           | 0.4          | III B 1 3        | III B 3      | No        | No        | Yes       | s(p) |
| Terrebonne/<br>Lafourche | West Timbalier Island                    | 14    | n.r. | 3           | 12.9         | III B 1          | III B 1      | Yes       | Yes       | Yes       | s(p) |
| <b>Total</b>             |  |       |      | <b>207</b>  | <b>204.8</b> |                  |              |           |           |           |      |



## The 2006 International Wilson's Plover Winter Census in Louisiana

| COUNTY                   | SITE NAME                                | MAP # | DATE | TOTAL       |              | SITE DESCRIPTION | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------|--|-------|------|-------------|--------------|------------------|--------------|-----------|-----------|-----------|------|
|                          |  |       |      | WIPL ADULTS | KM           |                  |              |           |           |           |      |
| Cameron                  | East Jetty to Rutherford Beach           | 24    | n.r. | 2           | 22.6         | III A 1          | III A 1      | Yes       | Yes       | Yes       | s(p) |
| Cameron                  | East side of Mermentau Ship Channel      | 23    | 2/03 | 0           | 0.4          | III A 2,4,8      |              | Yes       | No        | Yes       | p    |
| Cameron                  | Rockefeller Refuge, west                 | 22    | n.r. | 0           | 16.9         | III A 1          |              | Yes       | Yes       | Yes       | s(p) |
| Cameron                  | Smith Bayou to West Jetty                | 25    | 2/04 | 0           | 53.2         | III A 1          |              | Yes       | Yes       | Yes       | s(p) |
| Iberia                   | Marsh Island Refuge                      | 21    | 1/30 | 0           | 12.9         | II E 7 11        |              | Yes       | Yes       | No        | s(p) |
| Jefferson                | Elmers Island                            | 9     | 1/31 | 1           | 11.3         | III A 1 3 8 10   | III A 1      | Yes       | Yes       | Yes       | p    |
| Jefferson                | Grand Isle                               | 8     | 2/01 | 0           | 8.0          | III B 1          |              | Yes       | Yes       | Yes       | m    |
| Jefferson                | West Grand Terre Island                  | 7     | 1/24 | 10          | 4.8          | III B 1 10       | III B 1      | No        | Yes       | Yes       | p    |
| Lafourche                | Belle Pass, west                         | 12    | 1/24 | 0           | 4.8          | III A 1 8 10     |              | No        | Yes       | Yes       | s(p) |
| Lafourche                | East Timbalier Island                    | 13    | 1/23 | 7           | 4.0          | III B 1 2 10     | III B 1      | Yes       | No        | Yes       | p    |
| Lafourche                | Fourchon Beach, east                     | 10    | 1/25 | 1           | 1.6          | III A 1 8 10     | III A 8      | Yes       | Yes       | Yes       | p    |
| Lafourche                | Fourchon Beach, west                     | 11    | 2/01 | 0           | 4.8          | III A 1          |              | Yes       | Yes       | Yes       | p    |
| Plaquemines              | East Grand Terre Island                  | 6     | 1/24 | 7           | 0.8          | III B 1 2 8 10   | III B 1      | No        | Yes       | Yes       | p    |
| Plaquemines              | Pass A L'outré                           | 1     | 2/06 | 0           | 0.8          | III D 4          |              | No        | No        | Yes       | s(p) |
| Plaquemines              | South Pass, east (Pass A L'outré WMA)    | 2     | 2/05 | 30          | 0.8          | III E 1          | III E 1      | No        | Yes       | Yes       | s(p) |
| Plaquemines              | South Pass, west #1 (Pass A L'outré WMA) | 4     | 2/06 | 0           | 0.4          | III B 1          |              | No        | No        | Yes       | s(p) |
| Plaquemines              | South Pass, west #2 (Pass A L'outré WMA) | 3     | 2/06 | 0           | 0.8          | III C E 1        |              | No        | Yes       | Yes       | s(p) |
| Plaquemines              | South Pass, west #3 (Pass A L'outré WMA) | 5     | 2/06 | 0           | 0.8          | III B E 1        |              | No        | No        | Yes       | s(p) |
| St. Mary                 | Atchafalaya Delta                        | 19    | 2/03 | 0           | 10.4         | III C 3          |              | Yes       | Yes       | Yes       | s(p) |
| St. Mary                 | Wax Lake Delta                           | 20    | 2/06 | 0           | 3.2          | III G 11         |              | No        | Yes       | Yes       | s(p) |
| Terrebonne               | Raccoon Island (Last Island)             | 18    | n.r. | 0           | 2.4          | III B 1          |              | Yes       | Yes       | Yes       | s(p) |
| Terrebonne               | Trinity Island/East Island               | 16    | n.r. | 0           | 16.1         | III B 1          |              | Yes       | Yes       | Yes       | s(p) |
| Terrebonne               | Whiskey Island (Central Isles Dernieres) | 17    | n.r. | 0           | 9.7          | III B 1          |              | No        | Yes       | Yes       | s(p) |
| Terrebonne               | Wine Island                              | 15    | 1/23 | 0           | 0.4          | III B 1 3        |              | No        | No        | Yes       | s(p) |
| Terrebonne/<br>Lafourche | West Timbalier Island                    | 14    | n.r. | 5           | 12.9         | III B 1          |              | Yes       | Yes       | Yes       | s(p) |
| <b>Total</b>             |  |       |      | <b>63</b>   | <b>204.8</b> |                  |              |           |           |           |      |

# The 2006 International Piping Plover Winter Census in Texas

As in 2001, the Texas coast was split into three Census regions. The upper Texas coast covers habitat from the Louisiana border to Matagorda County. The central Texas coast includes Calhoun to Kenedy Counties. The third region, lower Texas, includes the remaining two counties, Willacy and Cameron. The total number of Piping Plovers estimated during the 2006 Census of Texas was. Additionally, Snowy Plovers and Wilson's Plovers were sighted on Texas beaches during the 2006 Census.

## Comparison of Census Numbers

| Species         | 1991  | 1996  | 2001  | 2006  |
|-----------------|-------|-------|-------|-------|
| Piping Plover   | 1,904 | 1,333 | 1,042 | 2,090 |
| Snowy Plover    | n.r.  | n.r.  | 690   | 1,340 |
| Wilson's Plover | n.r.  | n.r.  | n.r.  | 85    |

## Upper Texas

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The upper Texas Coast was surveyed by total of 36 participants including Federal and State employees and many volunteers from non-governmental organizations. Our Piping Plover count was particularly high in 2006, with 551 birds observed compared to 120 in 2001. Snowy Plover numbers were also high, with 231

observed during the 2006 Census compared to 147 in 2001. Additionally, we recorded 17 Wilson's Plovers.

Weather was fair during the Census window, however, it was not better than during the 2001 Census window. In 2006, we had an extremely long period of sustained low winter tides. Such low tides are not ideal for surveying since it is difficult to cover the extensive habitat exposed during low tides.

An effort was made to survey some areas that had not been covered in previous Census'. However, this increased coverage does not seem to have been responsible for the increase in numbers, as "new" areas accounted for only one Piping Plover (.002% of total). Our high numbers are attributable mainly to unusually large congregations of birds at known aggregation points (i.e. 275 Piping Plovers at Bolivar Flats and 70 at San Luis Pass)

## Central Texas

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Between 23 January and 4 February, 2006, a count of wintering piping, snowy and Wilson's Plovers was undertaken along the central portion of the Texas coast as part of the 4<sup>th</sup> International Piping Plover Winter Census. The central Texas coast region, for purposes of this census, extended from the Matagorda-Calhoun County line on the north to the middle of the Land Cut in the Laguna Madre (Kenedy County) in the south. This portion of the Texas coast encompasses 4 major bays: San Antonio, Aransas, Corpus Christi and the Upper Laguna Madre, along with several secondary and tertiary bays.

Approximately 1,127 km (700 miles) of the Central coast; including bay shorelines, the margins of bay islands and the Gulf of Mexico beach, were surveyed by 57 participants over the course of the two week window. The surveys were conducted using foot travel, all-terrain vehicles, trucks, boats and airboats.

A total of 1,080 Piping Plovers, 956 Snowy Plovers and 66 Wilson's Plovers were counted in the central Texas coast region. This 2006 count of Piping Plovers exceeded the results of the previous 3 surveys (1991, 1996 and 2001) in this region. Snowy Plover numbers on the Central coast in 2006 were higher than the total count for the entire Texas coast from the 2001 census (the first year that this species was assessed). Wilson's Plovers were included in this international effort for the first time in 2006, so comparisons with previous years are not possible.

Surveys for the 3 species were undertaken at most of the important Piping Plover sites known for this region of the Texas coast. The Gulf beach of the central Texas coast was thoroughly surveyed producing a count of 97 birds. Many of the sites within the bay systems where Piping Plovers were found in previous surveys had birds in 2006, although there were a few cases where the plovers were within the same bay systems but on different areas of exposed seagrass beds than was true in previous years. In two locations plovers congregated along inlet shores; across from the north and from the south ends of Matagorda Island. This northern inlet was also where the majority of Wilson's Plovers were observed. Piping Plovers were located in large groups on the bay shore mud and sand flats of San Jose, Mustang and North Padre Islands, as well as on emergent seagrass beds, mud flats and oyster reefs within the Aransas and Corpus Christi Bay systems. A very large concentration of piping and Snowy Plovers was found foraging on exposed flats and seagrasses in two small lagoons in the Espiritu Santo Bay

between northern Matagorda Island and the mainland. This comprised the first survey of this particular area and was made possible through use of an airboat since no other craft was capable of traversing the extremely shallow water in these small embayments.

The mainland bay shores along the central Texas coast did not host many Piping Plovers this year. A small group of Piping Plovers was found near the mouth of St. Charles Bay and another group along the shore of Pt. O'Connor, but other than one or two elsewhere, this species was found on habitats in the more eastern portions of the bays or on the bay shore of the barrier islands, away from the mainland. In contrast, some Snowy Plovers were located on mainland habitats around the perimeter of Nueces Bay, in areas from which they have previously been documented nesting. A small group of Wilson's Plovers were observed on the Copano Bay shore near the town of Bayside.

The areas not covered in the 2006 census included the Laguna Madre margin of North Padre Island south of the Land Cut, Baffin Bay's shoreline, the northern bay shore of San Jose Island, Mission Bay, the north/northeastern shoreline of Copano Bay, and the mainland shoreline of San Antonio Bay. Lack of coverage was primarily due to inability to access these areas. The Laguna Madre shore at the southern end of North Padre Island is so shallow that an airboat is required to get close enough to view birds yet is so remote that carrying adequate fuel is a limitation to making the long distance round trip. Previous surveys of Baffin Bay's edges have not yielded many plovers and with the access problems and the anticipated low payoff, a decision was made not to survey this area. The northern end of San Jose Island went uncounted because the airboat used to survey the southern bay shore did not have the fuel capacity to make the entire round trip. Surveying the mainland shores on the north and northeastern sides of Copano Bay and

Mission Bay would have required an airboat but one was not available. There is no history of plover use in this area, although survey coverage of this area has never been good. Finally, the mainland shores of San Antonio Bay were not surveyed since these shorelines do not constitute good plover habitat.

The 2006 census was a fairly thorough survey effort for Piping Plovers in the central Texas coast region. Two components of the census effort probably contributed to the high numbers of plovers found this year: 1) an effort was made to census any given bay system, from Gulf beach to mainland shore, including bay islands' shorelines, in one day, in order to reduce the chance of repeat counts of birds, and 2) airboats were used to access large areas of the bay shorelines of Matagorda, San Jose, Mustang and North Padre Islands, as well as one secondary bay system that was not counted in past surveys. The survey efforts on Matagorda Island, and in Aransas, Redfish, Nueces, and Corpus Christi Bays and the Upper Laguna Madre were the most comprehensive of the 4 censuses to date. The use of airboats significantly increased the areal extent of survey coverage. It is interesting to note that the numbers of plovers located within this region this year most closely resembles the numbers found in 1991, the only other census in which airboats were used.

It is unknown whether any particular circumstance affected the higher numbers of piping and Snowy Plovers found within the Central Texas coast region this year. Speculation has arisen that some plovers may have shifted to the Texas coast after the 2005 hurricane damage to Louisiana's Chandeleur Islands, however it is not clear whether these birds would move any further south/west than the upper Texas coast. The high numbers of piping and Snowy Plovers found this year on the central coast is assumed to be a result of the extent of survey coverage. Weather conditions

during the two-week census window were fairly mild without strong, wet storms. This enhanced survey coverage within the bays since boats and airboats were not grounded by poor weather. The low water levels that are typical of Texas bay systems in winter were at play, indeed the January 2006 tides were extremely low. These low water levels exposed large areas of mud and sand flats, seagrass beds and shell reefs, increasing the amount and distribution of available habitat. The low water also increased the difficulty of reaching much of this habitat, however census participants reported covering most of the areas to which they were assigned. As was true in previous censuses, plovers were generally found in groups as opposed to scattered individuals, except along the Gulf beach. Numbers of Piping Plovers found along stretches of the Gulf beach in 2006 did not compare with the high numbers found in some other years, but the presence of plovers on the Gulf beach tends to vary on a day-to-day basis depending on the wind-driven water levels on the bay shorelines. Large numbers of Piping Plovers were found foraging with mixed flocks of other shorebirds, including Snowy Plovers. In fact, several areas with high concentrations of Piping Plovers also supported large numbers of Snowy Plovers. Wilson's Plovers were not abundant on the Central Texas coast during this January survey effort and it is assumed that this species was wintering further south and had not yet begun its northward migration at the time the census was carried out.

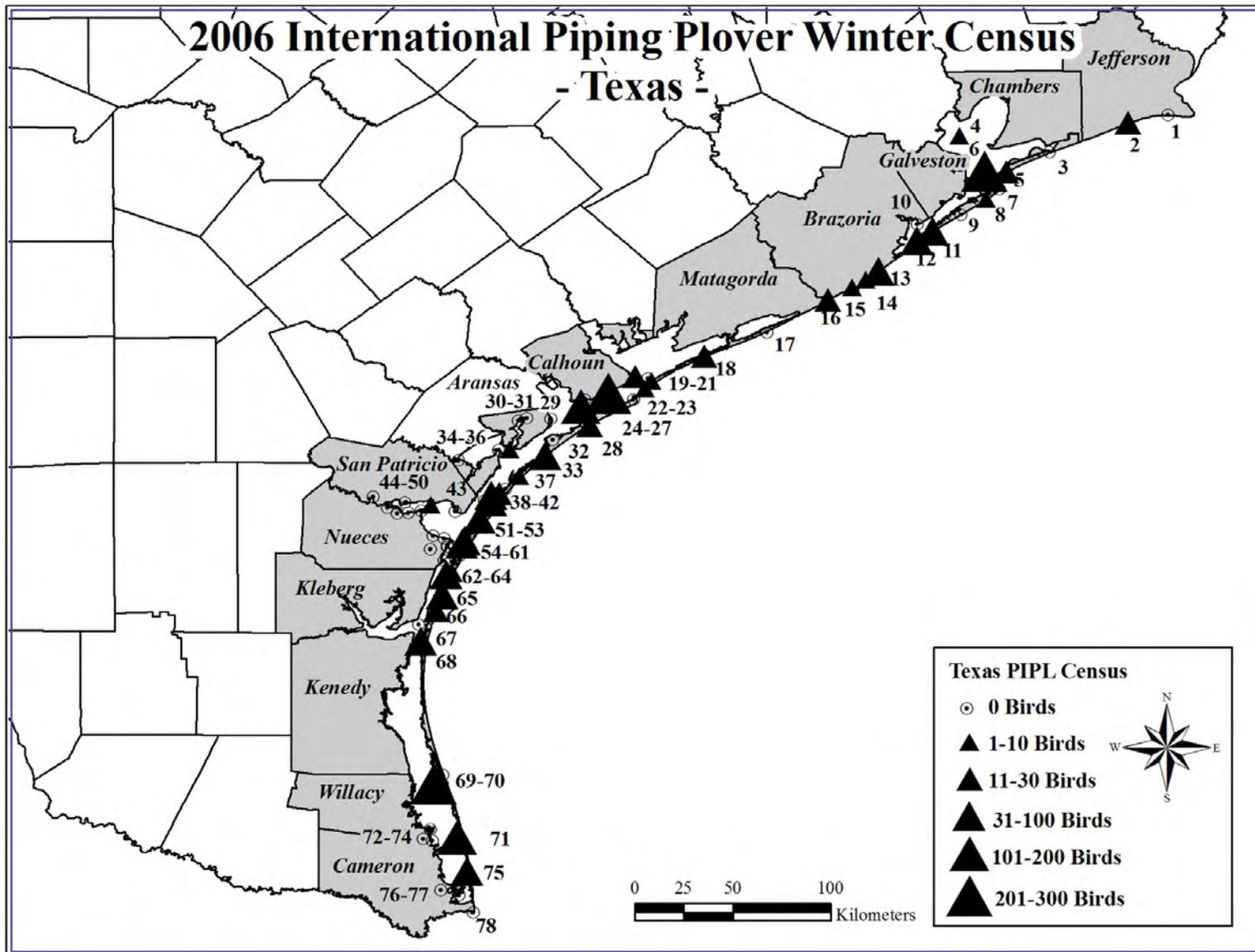
## **Lower Texas**

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The 2006 Census of the lower Texas coast was accomplished by 7 participants from U.S. Fish and Wildlife Service, The Nature Conservancy and the Canadian Wildlife Service. South Padre Island and Boca Chica Beach were surveyed in addition to mainland sites, primarily on refuge lands.

In general, weather did not seem to be a problem in 2006. However, 2006 Census numbers were a bit lower than 2001 (i.e., 459 Piping Plovers on South Padre Island in 2006 compared to 603 birds in 2001). There was some confusion regarding survey results from South Padre island because two teams surveyed similar areas on different days. Hence, our estimate for South Padre Island may be conservative. In future efforts, it would be preferable to assemble a large group of surveyors and attempt to cover South Padre Island in a single day.

*Summarized by E. Elliott-Smith*



## The 2006 International Piping Plover Winter Census in Texas

| COUNTY              | SITE NAME   | MAP # | DATE | TOTAL       |       | SITE DESCRIPTION                    | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN   |
|---------------------|---|-------|------|-------------|-------|-------------------------------------|--------------|-----------|-----------|-----------|-------|
|                     |   |       |      | PIPL ADULTS | KM    |                                     |              |           |           |           |       |
| Aransas             | Aransas Bay, Goose Island                               | 36    | 1/25 | 8           | 6.5   | II G 7 10                           | II F 7       | No        | No        | No        | f     |
| Aransas             | Copano Bay, Bayside (Aransas River Delta)               | 35    | 1/25 | 0           | 29.5  | II A C 8                            |              | No        | No        | No        | p     |
| Aransas             | Copano Bay, E shore                                     | 34    | 2/26 | 0           | 161.3 | II C 8                              |              | No        | No        | No        | f     |
| Aransas             | E Blackjack (Aransas NWR Complex)                       | 29    | 1/26 | 0           | 9.7   | II A 7 8                            |              | No        | No        | No        | s(p)  |
| Aransas             | Redfish Bay (N of causeway from Aransas Pass to Port)   | 40    | 1/25 | 42          | 30.2  | II A C D E 7 8 9<br>11              | II D E 8     | No        | No        | No        | p     |
| Aransas             | Redfish Bay (S of causeway from Aransas Pass to Port)   | 41    | 1/25 | 0           | 9.3   | II A C D 1 2 4 7<br>8               |              | No        | No        | No        | s(p)  |
| Aransas             | San Jose Island bayside                                 | 38    | 1/25 | 0           | 41.9  | II B C 7 8                          |              | Yes       | Yes       | Yes       | s/p   |
| Aransas             | San Jose Island bayside (N Pass)                        | 39    | 1/25 | 25          | 1.6   | II B 3                              | II B 3       | No        | No        | No        | s(p)  |
| Aransas             | San Jose Island (Gulf side)                             | 37    | 1/25 | 10          | 12.9  | III B 1                             | III B 1      | Yes       | Yes       | Yes       | s(p)  |
| Aransas             | Tatton Unit (Aransas NWR Complex)                       | 30    | 1/26 | 0           | 11.3  | II A 3 8 10                         |              | Yes       | Yes       | Yes       | f     |
| Aransas/<br>Calhoun | W Blackjack (Aransas NWR Complex)                       | 31    | 1/26 | 0           | 17.7  | II A 8                              |              | No        | No        | No        | s(p)  |
| Brazoria            | Follets Island  | 13    | 2/01 | 82          | 19.4  | III B 1                             | III B 1      | Yes       | Yes       | Yes       | s     |
| Brazoria            | Quintana Beach to Bryan Beach State Park                | 14    | 1/24 | 7           | 11.3  | II III B 1                          | III B 1      | Yes       | Yes       | Yes       | s     |
| Brazoria            | West Bay Mooring Area BU Site                           | 10    | 1/27 | 0           | 1.6   | II C 8                              |              | No        | No        | No        | s(p)  |
| Brazoria            | Wolf Island   | 15    | 2/09 | 7           | 8.1   | II III E 1                          | III E 1      | Yes       | Yes       | Yes       | s     |
| Calhoun             | Cedar Bayou, Matagorda Island NWR (Gulf Beach Route)    | 33    | 1/26 | 84          | 9.1   | III B 1                             | III B 1      | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island NWR Beach (J-Hook and N Western Marsh) | 27    | 1/26 | 0           | 24.2  | II III B 1 3 9 10                   |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island Inner Levee System                     | 22    | 1/26 | 0           | 11.9  | II B 5 8 9<br>II B 1 2 4 6 7 8      |              | Yes       | Yes       | No        | f     |
| Calhoun             | Matagorda Island NWR Bayside                            | 32    | 1/26 | 0           | 82.6  | 10                                  |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island NWR Gulf Beach                         | 28    | 1/26 | 29          | 40.3  | III B 1                             | III B 1      | Yes       | Yes       | Yes       | f     |
| Calhoun             | Port O'Conner Shoreline                                 | 19    | 1/23 | 15          | 0.8   | II V A 1 8                          | II V A 1 8   | Yes       | No        | Yes       | s/m/c |
| Calhoun             | Shoalwater Bay  | 24    | 1/26 | 175         | 11.3  | II C 1 3 8 10 11                    | II C 8 11    | No        | No        | No        | s(p)  |
| Calhoun             | The Lagoon/Blackberry Island                            | 26    | 1/31 | 252         | 21.0  | II C D 4 8 10<br>II A 1 2 3 4 5 7 8 | II D 4       | No        | No        | No        | s(p)  |
| Calhoun             | Welder Flats Coastal Preserve (CTX6)                    | 25    | 1/26 | 0           | 24.2  | 10                                  |              | No        | No        | Yes       | p     |
| Cameron             | Bahia Grande  | 77    | 2/06 | 0           | 16.1  | II A 3                              |              | No        | Yes       | Yes       | f     |

**The 2006 International Piping Plover Winter Census in Texas  
(Continued)**

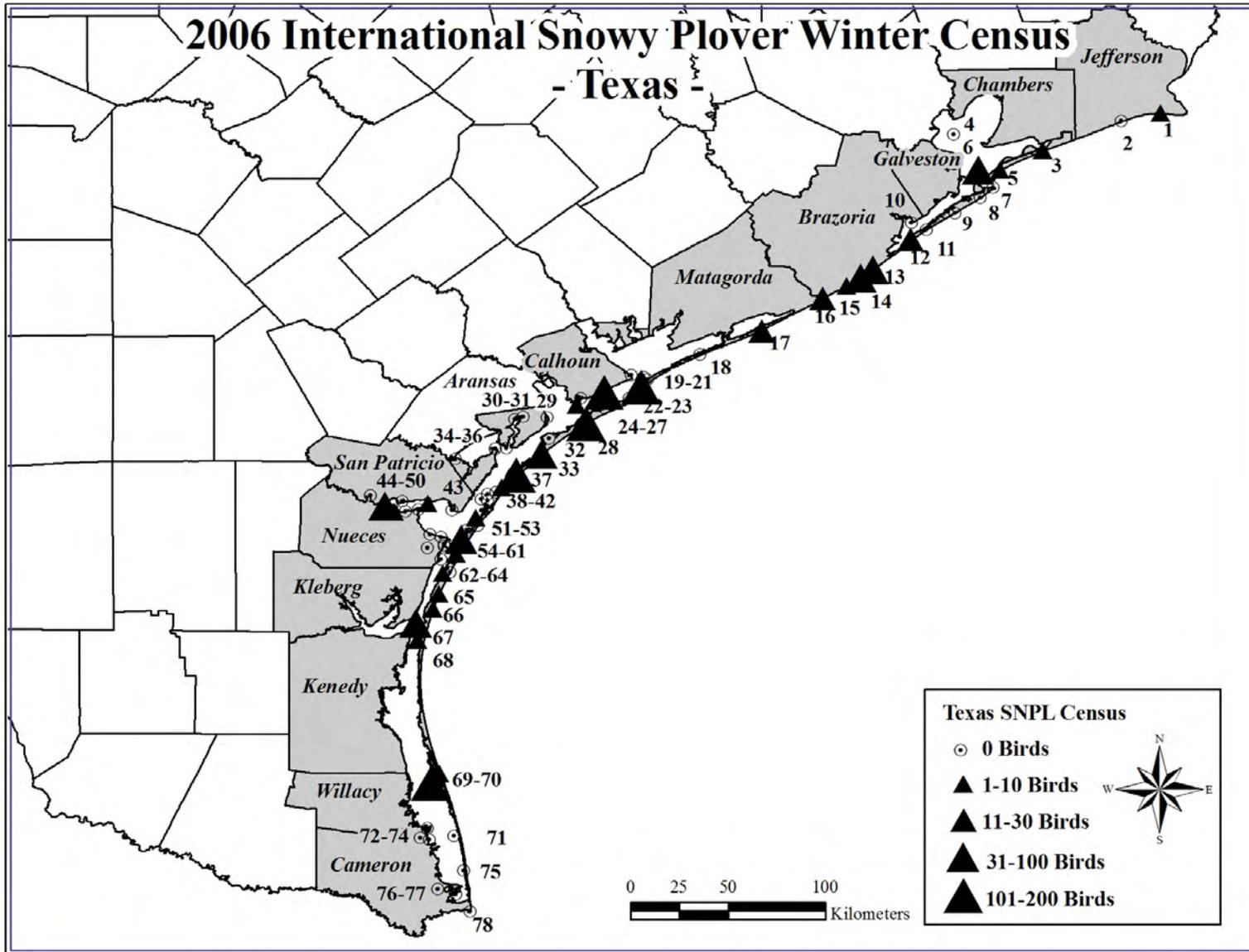
| COUNTY                         | SITE NAME   | MAP # | DATE | TOTAL PIPL ADULTS | KM    | SITE DESCRIPTION   | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------------|---|-------|------|-------------------|-------|--------------------|--------------|-----------|-----------|-----------|------|
| Cameron                        | Brownville Ship Channel Spoil Cells                                     | 76    | 2/06 | 0                 | 8.4   | V G 2              |              | Yes       | Yes       | Yes       | f    |
| Cameron                        | Buena Vista Ranch   | 74    | 2/03 | 0                 | 12.0  | II A 3 8           |              | Yes       | Yes       | Yes       | p    |
| Cameron                        | Laguna Atascosa NWR Bayside Drive                                       | 73    | 2/03 | 0                 | 9.0   | V G 8 10           |              | Yes       | Yes       | Yes       | f    |
| Cameron                        | South Bay/Boca Chica Beach  | 78    | 2/03 | 0                 | 16.1  | II III A 1 7 8     |              | Yes       | Yes       | Yes       | s/p  |
| Cameron                        | South Padre Island, middle of Laguna Madre Side                         | 71    | 1/31 | 159               | 18.0  |                    |              | Yes       | Yes       | Yes       | f    |
| Cameron                        | South Padre Island, S end on Laguna Madre Side                          | 75    | 1/30 | 64                | 20.0  |                    |              | Yes       | Yes       | Yes       | f    |
| Cameron                        | Unit 5, (Horse Island Cove) Laguna Atascosa NWR                         | 72    | 2/03 | 0                 | 7.9   | II A 3 8           |              | No        | Yes       | Yes       | f    |
| Chambers                       | Mid Bay   | 4     | 2/02 | 1                 | 1.6   | II C 2             | II C 2       | No        | No        | No        | c    |
| Galveston                      | Big Reef; Galveston Island  | 7     | 2/02 | 0                 | 2.6   | II III V B 1 3     |              | Yes       | Yes       | Yes       | m    |
| Galveston                      | Bolivar Flats   | 6     | 1/21 | 275               | 3.1   | III B 1 8          | III B 8      | Yes       | Yes       | Yes       | s/p  |
| Galveston                      | Galveston Island Beaches; end of seawall to Galveston Island State Park | 9     | 2/02 | 0                 | 9.7   | III B 1            |              | Yes       | Yes       | Yes       | s/m  |
| Galveston                      | Galveston Island Beaches; E beach to end of seawall                     | 8     | 2/02 | 3                 | 16.1  | III B 1            | III B 1      | Yes       | Yes       | Yes       | s(p) |
| Galveston                      | Galveston Island Beaches; Galveston Island State Park to San Luis Pass  | 11    | 2/02 | 41                | 14.5  | III B 1            | III B 1      | Yes       | Yes       | Yes       | s(p) |
| Galveston                      | High Island to Bolivar Flats  | 5     | 1/21 | 11                | 48.4  | III B 1            | III B 1      | Yes       | Yes       | Yes       | p    |
| Galveston                      | Rollover Pass Flats   | 3     | 2/03 | 0                 | 0.8   | II B 3 4 7         |              | Yes       | No        | No        | p    |
| Galveston                      | San Luis Pass; Galveston Island   | 12    | 2/02 | 70                | 6.5   | II III V B 1 2 3 4 | II III B 1 4 | Yes       | Yes       | Yes       | s(p) |
| Jefferson                      | McFaddin NWR to High Island   | 2     | 2/02 | 0                 | 10.0  | III A 1 8          |              | Yes       | Yes       | Yes       | s    |
| Jefferson                      | McFaddin NWR to Sabine Pass   | 1     | 2/03 | 11                | 42.7  | III A 1            | III A 1      | Yes       | Yes       | Yes       | s    |
| Kenedy                         | Padre Island National Seashore, S bayside                               | 69    | 1/31 | 0                 | 8.1   | V B F 3 5 8 9 10   |              | No        | No        | No        | f    |
| Kleberg                        | Nighthawk Bay   | 64    | 1/30 | 50                | 3.7   | II B G 3 9 10      | II B F 9     | Yes       | Yes       | Yes       | f/s  |
| Kleberg                        | Padre Island National Seashore, Gulf beach (closed area)                | 65    | 1/30 | 31                | 9.0   | III B 1            | III B 1      | No        | Yes       | Yes       | f    |
| Kleberg/<br>Kenedy             | Padre Island National Seashore (Bird Island basin to landcut)           | 68    | 1/30 | 82                | 48.4  | II B 1 3 8 9       | II B 3 8 9   | No        | No        | No        | f    |
| Kleberg/<br>Kenedy             | Upper Laguna Madre (Bird Island basin to the landcut)                   | 67    | 1/31 | 0                 | 100.0 | II C G 8           |              | No        | No        | No        | s(p) |
| Kleberg<br>/Kenedy/<br>Willacy | Padre Island National Seashore, Gulf beach (CTX7)                       | 66    | 1/30 | 17                | 96.8  | III B 1            | III B 1      | Yes       | Yes       | Yes       | f    |

**The 2006 International Piping Plover Winter Census in Texas  
(Continued)**

| COUNTY             | SITE NAME  | MAP # | DATE | TOTAL<br>PIPL<br>ADULTS | KM   | SITE<br>DESCRIPTION            | PIPL<br>HABITAT     | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------------|--|-------|------|-------------------------|------|--------------------------------|---------------------|--------------|--------------|--------------|------|
| Matagorda          | Decros Point   | 23    | 2/15 | 10                      | 12.6 | II III B 1                     | II III B 1          | Yes          | No           | Yes          | s/p  |
| Matagorda          | Matagorda Peninsula, bayside and Colorado River<br>Delta           | 21    | 2/03 | 7                       | 64.5 | II A B D F G 1 2<br>3 5 7 8 10 | I F 8               | Yes          | Yes          | Yes          | s(p) |
| Matagorda          | Matagorda Peninsula, E   | 17    | 1/31 | 0                       | 36.6 | II III G 1 8                   |                     | Yes          | Yes          | Yes          | s(p) |
| Matagorda          | Matagorda Peninsula, W   | 18    | 2/03 | 11                      |      | III B 1                        | III B 1             | Yes          | Yes          | Yes          | s(p) |
| Matagorda          | Sargent Beach  | 16    | 1/31 | 25                      | 10.5 | II III A 1 8                   | II A 8              | Yes          | Yes          | Yes          | s(p) |
| Matagorda          | Sundown Island (Matagorda Bay) (CTX26)                             | 20    | 1/25 | 0                       | 2.4  | II C 1                         |                     | No           | No           | Yes          | f    |
| Nueces             | Corpus Christi Ship Channel Inner Harbor                           | 48    | 1/26 | 0                       | 2.4  | II A G 1                       |                     | No           | No           | No           | p    |
| Nueces             | Laguna Madre, upper (GIWW north of JFK<br>Causeway) (CTX20)        | 60    | 1/26 | 0                       | 2.4  | II A 4 8 10                    |                     | Yes          | Yes          | Yes          | m/p  |
| Nueces             | Mollie Beattie   | 61    | 1/25 | 0                       | 5.8  | V F 3 7 8 9 10                 |                     | Yes          | Yes          | Yes          | s(p) |
| Nueces             | Mustang Island - Francine Cohn Preserve (mid<br>bayside)           | 53    | 1/26 | 0                       | 2.9  | II B C 5 8                     |                     | Yes          | Yes          | Yes          | s(p) |
| Nueces             | Mustang Island - N end, N bayside, Pelican and<br>Shamrock Islands | 51    | 1/26 | 34                      | 40.3 | II B C 3 8 9 11                | III B C 3 8<br>9 11 | Yes          | Yes          | Yes          | s(p) |
| Nueces             | Mustang Island - Port A to Packery (gulf side)                     | 52    | 1/26 | 0                       | 12.1 | III B 1                        |                     | Yes          | Yes          | Yes          | p    |
| Nueces             | Mustang Island State Park (S bayside and Fish<br>Pass)             | 54    | 1/26 | 76                      | 6.5  | II B 1 3 8 9 10 11             | II B 11             | No           | Yes          | Yes          | s(p) |
| Nueces             | Oso Bay shoreline, between Mud Bridge and rail<br>road tracks      | 58    | 1/26 | 0                       | 2.0  | IV A 8                         |                     | Yes          | Yes          | Yes          | s(p) |
| Nueces             | Oso Bay, upper (Mud Bridge) (CTX22)                                | 56    | 1/26 | 0                       | 12.7 | II A C 4 8                     |                     | Yes          | Yes          | Yes          | f    |
| Nueces             | Port of Corpus Christi property S of Nueces River                  | 45    | 1/26 | 0                       | 4.8  | V G 3 5 8 9                    |                     | No           | No           | No           | p    |
| Nueces             | Redfish Bay (NE part)  | 42    | 1/25 | 52                      | 25.8 | II E 2 7 8 11                  | III E 2 7 8<br>11   | Yes          | Yes          | Yes          | s(p) |
| Nueces             | Rincon Channel mudflats  | 49    | 1/26 | 0                       | 1.0  | II A 3 8                       |                     | No           | No           | Yes          | unk  |
| Nueces             | S side of JFK Causeway and Flour Bluff/Laguna<br>Madre Shoreline   | 59    | 1/30 | 0                       | 4.8  | II A 3 8 9                     |                     | Yes          | Yes          | Yes          | s/p  |
| Nueces             | Upper Laguna Madre/S end of Corpus Christi Bay                     | 55    | 1/26 | 84                      | 33.9 | II C D G 3 8 9                 | II D G 3 8          | Yes          | Yes          | Yes          | s(p) |
| Nueces             | Ward Island (CTX21)  | 57    | 1/26 | 0                       | 2.6  | II C 8 9                       |                     | Yes          | No           | Yes          | m    |
| Nueces/<br>Kleberg | Packery to PINS  | 63    | 1/31 | 3                       | 10.2 | III B 1                        | III B 1             | Yes          | Yes          | Yes          | f/s  |

**The 2006 International Piping Plover Winter Census in Texas  
(Continued)**

| COUNTY                  | SITE NAME  | MAP # | DATE | TOTAL<br>PIPL<br>ADULTS | KM            | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------------|--|-------|------|-------------------------|---------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Nueces/<br>Kleberg      | Upper Laguna Madre (islands between S Bird<br>Island and Pita Island Channel) (CTX10A) | 62    | 1/30 | 0                       | 40.3          | II A C D G 3 8      |                 | Yes          | Yes          | Yes          | s(p) |
| San Patricio            | Indian Point and Sunset Lake (CTX23)   | 50    | 1/26 | 1                       | 3.2           | II V G 1 11         | III F 1         | Yes          | Yes          | Yes          | m    |
| San Patricio            | La Quinta Channel Islands  | 43    | 1/26 | 0                       | 10.5          | II C 11             |                 | Yes          | Yes          | Yes          | s(p) |
| San Patricio            | White's Point  | 47    | 1/26 | 0                       | 4.8           | V A 8               |                 | No           | Yes          | Yes          | p    |
| San Patricio/<br>Nueces | Nueces Delta (near Allison waste water treatment<br>plant discharge) (CTX25)           | 44    | 1/26 | 0                       | 4.8           | V A 8 9             |                 | No           | No           | Yes          | p    |
| Nueces                  | Tule Lake (E of White's Point, Nueces Delta<br>mitigation site) (CTX24)                | 46    | 1/26 | 0                       | 1.6           | V A 8 9             |                 | No           | Yes          | Yes          | m    |
| Willacy                 | South Padre Island, N end flats by Port Mansfield<br>Channel                           | 70    | 2/3  | 236                     | 10.6          | II B 9              | II B 9          | Yes          | Yes          | Yes          | s(p) |
| <b>Total</b>            |  |       |      | <b>2090</b>             | <b>1499.9</b> |                     |                 |              |              |              |      |



## The 2006 International Snowy Plover Winter Census in Texas

| COUNTY              | SITE NAME   | MAP # | DATE | TOTAL SNPL ADULTS | KM    | SITE DESCRIPTION               | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN   |
|---------------------|---|-------|------|-------------------|-------|--------------------------------|--------------|-----------|-----------|-----------|-------|
| Aransas             | Aransas Bay, Goose Island                               | 36    | 1/25 | 0                 | 6.5   | II G 7 10                      |              | No        | No        | No        | f     |
| Aransas             | Copano Bay, Bayside (Aransas River Delta)               | 35    | 1/25 | 0                 | 29.5  | II A C 8                       |              | No        | No        | No        | p     |
| Aransas             | Copano Bay, E shore                                     | 34    | 2/26 | 0                 | 161.3 | II C 8                         |              | No        | No        | No        | f     |
| Aransas             | E Blackjack (Aransas NWR Complex)                       | 29    | 1/26 | 0                 | 9.7   | II A 7 8                       |              | No        | No        | No        | s(p)  |
| Aransas             | Redfish Bay (N of causeway from Aransas Pass to Port)   | 40    | 1/25 | 0                 | 30.2  | II A C D E 7 8 9<br>11         |              | No        | No        | No        | p     |
| Aransas             | Redfish Bay (S of causeway from Aransas Pass to Port)   | 41    | 1/25 | 0                 | 9.3   | II A C D 1 2 4 7<br>8          |              | No        | No        | No        | s(p)  |
| Aransas             | San Jose Island bayside                                 | 38    | 1/25 | 3                 | 41.9  | II B C 7 8                     | III B 7      | Yes       | Yes       | Yes       | s/p   |
| Aransas             | San Jose Island bayside (N Pass)                        | 39    | 1/25 | 0                 | 1.6   | II B 3                         |              | No        | No        | No        | s(p)  |
| Aransas             | San Jose Island (Gulf side)                             | 37    | 1/25 | 175               | 12.9  | III B 1                        | III B 1      | Yes       | Yes       | Yes       | s(p)  |
| Aransas             | Tatton Unit (Aransas NWR Complex)                       | 30    | 1/26 | 0                 | 11.3  | II A 3 8 10                    |              | Yes       | Yes       | Yes       | f     |
| Aransas/<br>Calhoun | W Blackjack (Aransas NWR Complex)                       | 31    | 1/26 | 0                 | 17.7  | II A 8                         |              | No        | No        | No        | s(p)  |
| Brazoria            | Follets Island  | 13    | 2/01 | 40                | 19.4  | III B 1                        | III B 1      | Yes       | Yes       | Yes       | s     |
| Brazoria            | Quintana Beach to Bryan Beach State Park                | 14    | 1/24 | 56                | 11.3  | II III B 1                     | III B 1      | Yes       | Yes       | Yes       | s     |
| Brazoria            | West Bay Mooring Area BU Site                           | 10    | 1/27 | 0                 | 1.6   | II C 8                         |              | No        | No        | No        | s(p)  |
| Brazoria            | Wolf Island   | 15    | 2/09 | 1                 | 8.1   | II III E 1                     |              | Yes       | Yes       | Yes       | s     |
| Calhoun             | Cedar Bayou, Matagorda Island NWR (Gulf Beach Route)    | 33    | 1/26 | 90                | 9.1   | III B 1                        | III B 1      | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island NWR Beach (J-Hook and N Western Marsh) | 27    | 1/26 | 0                 | 24.2  | II III B 1 3 9 10              |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island Inner Levee System                     | 22    | 1/26 | 0                 | 11.9  | II B 5 8 9<br>II B 1 2 4 6 7 8 |              | Yes       | Yes       | No        | f     |
| Calhoun             | Matagorda Island NWR Bayside                            | 32    | 1/26 | 0                 | 82.6  | 10                             |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island NWR Gulf Beach                         | 28    | 1/26 | 159               | 40.3  | III B 1                        | III B 1      | Yes       | Yes       | Yes       | f     |
| Calhoun             | Port O'Conner Shoreline                                 | 19    | 1/23 | 0                 | 0.8   | II V A 1 8                     |              | Yes       | No        | Yes       | s/m/c |
| Calhoun             | Shoalwater Bay  | 24    | 1/26 | 1                 | 11.3  | II C 1 3 8 10 11               | II C 8 11    | No        | No        | No        | s(p)  |
| Calhoun             | The Lagoon/Blackberry Island                            | 26    | 1/31 | 200               | 21.0  | II C D 4 8 10                  | II D 4       | No        | No        | No        | s(p)  |
| Calhoun             | Welder Flats Coastal Preserve (CTX6)                    | 25    | 1/26 | 0                 | 24.2  | II A 1 2 3 4 5 7 8<br>10       |              | No        | No        | Yes       | p     |
| Cameron             | Bahia Grande  | 77    | 2/06 | 0                 | 16.1  | II A 3                         |              | No        | Yes       | Yes       | f     |

**The 2006 International Snowy Plover Winter Census in Texas  
(Continued)**

| COUNTY             | SITE NAME   | MAP # | DATE | TOTAL SNPL ADULTS | KM    | SITE DESCRIPTION   | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------|---|-------|------|-------------------|-------|--------------------|--------------|-----------|-----------|-----------|------|
| Cameron            | Brownville Ship Channel Spoil Cells                                     | 76    | 2/06 | 0                 | 8.4   | V G 2              |              | Yes       | Yes       | Yes       | f    |
| Cameron            | Buena Vista Ranch   | 74    | 2/03 | 0                 | 12.0  | II A 3 8           |              | Yes       | Yes       | Yes       | p    |
| Cameron            | Laguna Atascosa NWR Bayside Drive                                       | 73    | 2/03 | 0                 | 9.0   | V G 8 10           |              | Yes       | Yes       | Yes       | f    |
| Cameron            | South Bay/Boca Chica Beach  | 78    | 2/03 | 0                 | 16.1  | II III A 1 7 8     |              | Yes       | Yes       | Yes       | s/p  |
| Cameron            | South Padre Island, middle of Laguna Madre Side                         | 71    | 1/31 | 0 <sup>1</sup>    | 18.0  |                    |              | Yes       | Yes       | Yes       | f    |
| Cameron            | South Padre Island, S end on Laguna Madre Side                          | 75    | 1/30 | 0 <sup>1</sup>    | 20.0  |                    |              | Yes       | Yes       | Yes       | f    |
| Cameron            | Unit 5, (Horse Island Cove) Laguna Atascosa NWR                         | 72    | 2/03 | 0                 | 7.9   | II A 3 8           |              | No        | Yes       | Yes       | f    |
| Chambers           | Mid Bay   | 4     | 2/02 | 0                 | 1.6   | II C 2             |              | No        | No        | No        | c    |
| Galveston          | Big Reef; Galveston Island  | 7     | 2/02 | 0                 | 2.6   | II III V B 1 3     |              | Yes       | Yes       | Yes       | m    |
| Galveston          | Bolivar Flats   | 6     | 1/21 | 72                | 3.1   | III B 1 8          | III B 8      | Yes       | Yes       | Yes       | s/p  |
| Galveston          | Galveston Island Beaches; end of seawall to Galveston Island State Park | 9     | 2/02 | 0                 | 9.7   | III B 1            |              | Yes       | Yes       | Yes       | s/m  |
| Galveston          | Galveston Island Beaches; E beach to end of seawall                     | 8     | 2/02 | 0                 | 16.1  | III B 1            |              | Yes       | Yes       | Yes       | s(p) |
| Galveston          | Galveston Island Beaches; Galveston Island State Park to San Luis Pass  | 11    | 2/02 | 6                 | 14.5  | III B 1            |              | Yes       | Yes       | Yes       | s(p) |
| Galveston          | High Island to Bolivar Flats  | 5     | 1/21 | 1                 | 48.4  | III B 1            | III B 1      | Yes       | Yes       | Yes       | p    |
| Galveston          | Rollover Pass Flats   | 3     | 2/03 | 5                 | 0.8   | II B 3 4 7         | II B 4       | Yes       | No        | No        | p    |
| Galveston          | San Luis Pass; Galveston Island   | 12    | 2/02 | 12                | 6.5   | II III V B 1 2 3 4 | II III B 1 4 | Yes       | Yes       | Yes       | s(p) |
| Jefferson          | McFaddin NWR to High Island   | 2     | 2/02 | 0                 | 10.0  | III A 1 8          |              | Yes       | Yes       | Yes       | s    |
| Jefferson          | McFaddin NWR to Sabine Pass   | 1     | 2/03 | 4                 | 42.7  | III A 1            | III A 1      | Yes       | Yes       | Yes       | s    |
| Kenedy             | Padre Island National Seashore, S bayside                               | 69    | 1/31 | 2                 | 8.1   | V B F 3 5 8 9 10   | V F 3 8 9    | No        | No        | No        | f    |
| Kleberg            | Nighthawk Bay   | 64    | 1/30 | 10                | 3.7   | II B G 3 9 10      | II B F 9     | Yes       | Yes       | Yes       | f/s  |
| Kleberg            | Padre Island National Seashore, Gulf beach (closed area)                | 65    | 1/30 | 2                 | 9.0   | III B 1            | III B 1      | No        | Yes       | Yes       | f    |
| Kleberg/<br>Kenedy | Padre Island National Seashore (Bird Island basin to landcut)           | 68    | 1/30 | 1                 | 48.4  | II B 1 3 8 9       | II B 8       | No        | No        | No        | f    |
| Kleberg/<br>Kenedy | Upper Laguna Madre (Bird Island basin to the landcut)                   | 67    | 1/31 | 45                | 100.0 | II C G 8           | III C 8      | No        | No        | No        | s(p) |
| Willacy            | Padre Island National Seashore, Gulf beach (CTX7)                       | 66    | 1/30 | 9                 | 96.8  | III B 1            | III B 1      | Yes       | Yes       | Yes       | f    |

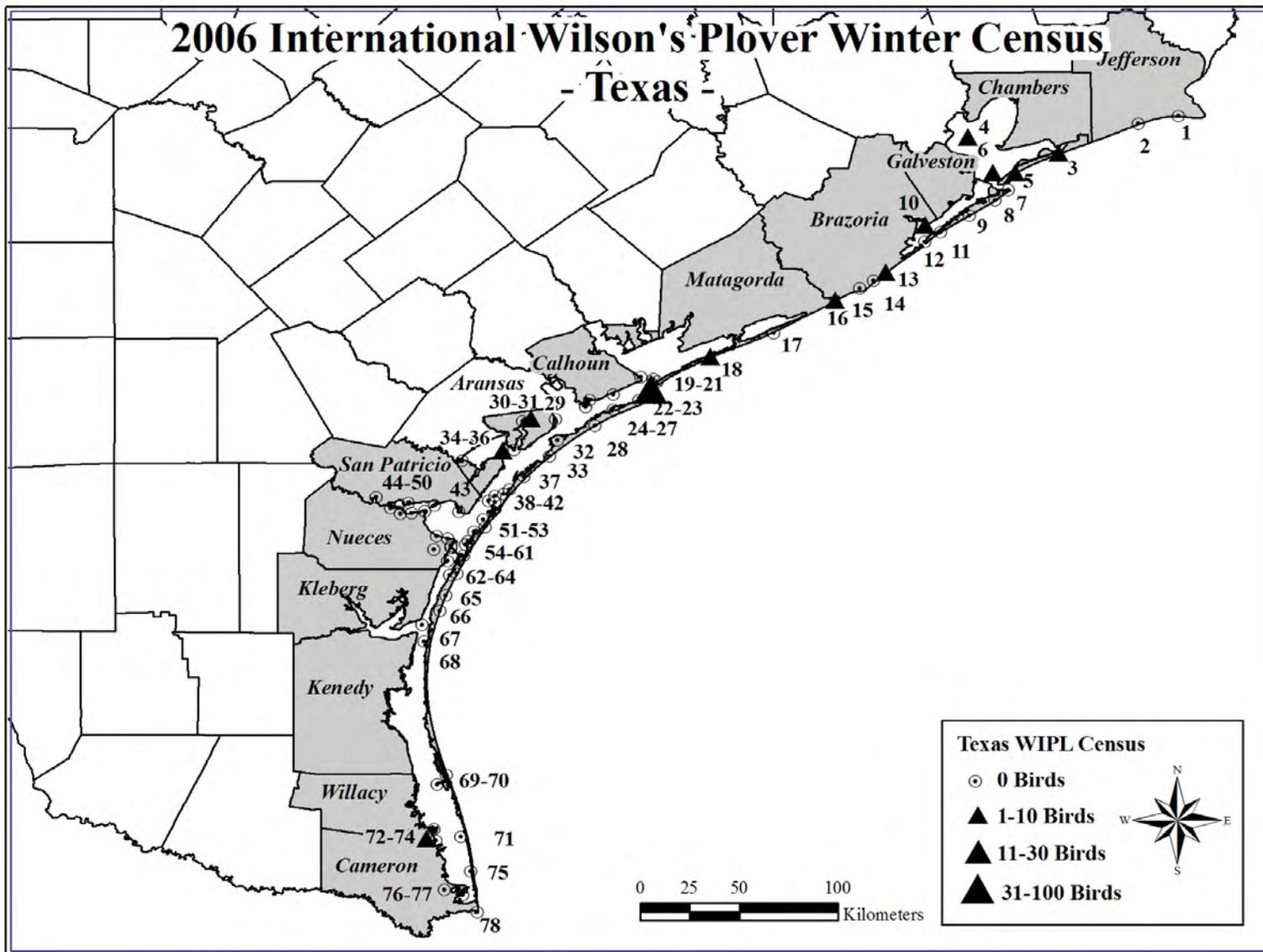
**The 2006 International Snowy Plover Winter Census in Texas  
(Continued)**

| COUNTY             | SITE NAME   | MAP # | DATE | TOTAL SNPL ADULTS | KM   | SITE DESCRIPTION               | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------|---|-------|------|-------------------|------|--------------------------------|--------------|-----------|-----------|-----------|------|
| Matagorda          | Decros Point  | 23    | 2/15 | 133               | 12.6 | II III B 1                     | II III B 1   | Yes       | No        | Yes       | s/p  |
| Matagorda          | Matagorda Peninsula, bayside and Colorado River Delta           | 21    | 2/03 | 0                 | 64.5 | II A B D F G 1 2<br>3 5 7 8 10 |              | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Matagorda Peninsula, E  | 17    | 1/31 | 20                | 36.6 | II III G 1 8                   | III F 1      | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Matagorda Peninsula, W  | 18    | 2/03 | 0                 |      | III B 1                        |              | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Sargent Beach   | 16    | 1/31 | 13                | 10.5 | II III A 1 8                   | II A 8       | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Sundown Island (Matagorda Bay) (CTX26)                          | 20    | 1/25 | 0                 | 2.4  | II C 1                         |              | No        | No        | Yes       | f    |
| Nueces             | Corpus Christi Ship Channel Inner Harbor                        | 48    | 1/26 | 0                 | 2.4  | II A G 1                       |              | No        | No        | No        | p    |
| Nueces             | Laguna Madre, upper (GIWW north of JFK Causeway) (CTX20)        | 60    | 1/26 | 0                 | 2.4  | II A 4 8 10                    |              | Yes       | Yes       | Yes       | m/p  |
| Nueces             | Mollie Beattie  | 61    | 1/25 | 4                 | 5.8  | V F 3 7 8 9 10                 | V F 3 8      | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Mustang Island - Francine Cohn Preserve (mid bayside)           | 53    | 1/26 | 0                 | 2.9  | II B C 5 8                     |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Mustang Island - N end, N bayside, Pelican and Shamrock Islands | 51    | 1/26 | 9                 | 40.3 | II B C 3 8 9 11                |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Mustang Island - Port A to Packery (gulf side)                  | 52    | 1/26 | 0                 | 12.1 | III B 1                        |              | Yes       | Yes       | Yes       | p    |
| Nueces             | Mustang Island State Park (S bayside and Fish Pass)             | 54    | 1/26 | 33                | 6.5  | II B 1 3 8 9 10 11             | II B 1       | No        | Yes       | Yes       | s(p) |
| Nueces             | Oso Bay shoreline, between Mud Bridge and rail road tracks      | 58    | 1/26 | 0                 | 2.0  | IV A 8                         |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Oso Bay, upper (Mud Bridge) (CTX22)                             | 56    | 1/26 | 0                 | 12.7 | II A C 4 8                     |              | Yes       | Yes       | Yes       | f    |
| Nueces             | Port of Corpus Christi property S of Nueces River               | 45    | 1/26 | 65                | 4.8  | V G 3 5 8 9                    | V F 3 5 8 9  | No        | No        | No        | p    |
| Nueces             | Redfish Bay (NE part)   | 42    | 1/25 | 0                 | 25.8 | II E 2 7 8 11                  |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Rincon Channel mudflats   | 49    | 1/26 | 0                 | 1.0  | II A 3 8                       |              | No        | No        | Yes       | unk  |
| Nueces             | S side of JFK Causeway and Flour Bluff/Laguna Madre Shoreline   | 59    | 1/30 | 0                 | 4.8  | II A 3 8 9                     |              | Yes       | Yes       | Yes       | s/p  |
| Nueces             | Upper Laguna Madre/S end of Corpus Christi Bay                  | 55    | 1/26 | 4                 | 33.9 | II C D G 3 8 9                 | II D 3 8     | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Ward Island (CTX21)   | 57    | 1/26 | 0                 | 2.6  | II C 8 9                       |              | Yes       | No        | Yes       | m    |
| Nueces/<br>Kleberg | Packery to PINS   | 63    | 1/31 | 0                 | 10.2 | III B 1                        |              | Yes       | Yes       | Yes       | f/s  |

**The 2006 International Snowy Plover Winter Census in Texas  
(Continued)**

| COUNTY                  | SITE NAME   | MAP # | DATE | TOTAL SNPL ADULTS | KM            | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|-------------------------|---|-------|------|-------------------|---------------|------------------|--------------|-----------|-----------|-----------|------|
| Nueces/<br>Kleberg      | Upper Laguna Madre (islands between S Bird Island and Pita Island Channel) (CTX10A) | 62    | 1/30 | 0                 | 40.3          | II A C D G 3 8   | III V F 1    | Yes       | Yes       | Yes       | s(p) |
| San Patricio            | Indian Point and Sunset Lake (CTX23)  | 50    | 1/26 | 9                 | 3.2           | II V G 1 11      | 11           | Yes       | Yes       | Yes       | m    |
| San Patricio            | La Quinta Channel Islands   | 43    | 1/26 | 0                 | 10.5          | II C 11          |              | Yes       | Yes       | Yes       | s(p) |
| San Patricio            | White's Point   | 47    | 1/26 | 0                 | 4.8           | V A 8            |              | No        | Yes       | Yes       | p    |
| San Patricio/<br>Nueces | Nueces Delta (near Allison waste water treatment plant discharge) (CTX25)           | 44    | 1/26 | 0                 | 4.8           | V A 8 9          |              | No        | No        | Yes       | p    |
| Nueces                  | Tule Lake (E of White's Point, Nueces Delta mitigation site) (CTX24)                | 46    | 1/26 | 2                 | 1.6           | V A 8 9          | V A 8        | No        | Yes       | Yes       | m    |
| Willacy                 | South Padre Island, N end flats by Port Mansfield Channel                           | 70    | 2/4  | 154               | 10.6          | II B 9           | II B 9       | Yes       | Yes       | Yes       | s(p) |
| <b>Total</b>            |   |       |      | <b>1340</b>       | <b>1499.9</b> |                  |              |           |           |           |      |

<sup>1</sup>We only received data on Piping Plovers seen at these sites so do not have information about Snowy Plover numbers



## The 2006 International Wilson's Plover Winter Census in Texas

| COUNTY              | SITE NAME   | MAP # | DATE | TOTAL       |       | SITE DESCRIPTION                    | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN   |
|---------------------|---|-------|------|-------------|-------|-------------------------------------|--------------|-----------|-----------|-----------|-------|
|                     |   |       |      | WIPL ADULTS | KM    |                                     |              |           |           |           |       |
| Aransas             | Aransas Bay, Goose Island                               | 36    | 1/25 | 0           | 6.5   | II G 7 10                           |              | No        | No        | No        | f     |
| Aransas             | Copano Bay, Bayside (Aransas River Delta)               | 35    | 1/25 | 5           | 29.5  | II A C 8                            |              | No        | No        | No        | p     |
| Aransas             | Copano Bay, E shore                                     | 34    | 2/26 | 0           | 161.3 | II C 8                              |              | No        | No        | No        | f     |
| Aransas             | E Blackjack (Aransas NWR Complex)                       | 29    | 1/26 | 0           | 9.7   | II A 7 8                            |              | No        | No        | No        | s(p)  |
| Aransas             | Redfish Bay (N of causeway from Aransas Pass to Port)   | 40    | 1/25 | 0           | 30.2  | II A C D E 7 8 9<br>11              |              | No        | No        | No        | p     |
| Aransas             | Redfish Bay (S of causeway from Aransas Pass to Port)   | 41    | 1/25 | 0           | 9.3   | II A C D 1 2 4 7<br>8               |              | No        | No        | No        | s(p)  |
| Aransas             | San Jose Island bayside                                 | 38    | 1/25 | 0           | 41.9  | II B C 7 8                          |              | Yes       | Yes       | Yes       | s/p   |
| Aransas             | San Jose Island bayside (N Pass)                        | 39    | 1/25 | 0           | 1.6   | II B 3                              |              | No        | No        | No        | s(p)  |
| Aransas             | San Jose Island (Gulf side)                             | 37    | 1/25 | 0           | 12.9  | III B 1                             |              | Yes       | Yes       | Yes       | s(p)  |
| Aransas             | Tatton Unit (Aransas NWR Complex)                       | 30    | 1/26 | 0           | 11.3  | II A 3 8 10                         |              | Yes       | Yes       | Yes       | f     |
| Aransas/<br>Calhoun | W Blackjack (Aransas NWR Complex)                       | 31    | 1/26 | 1           | 17.7  | II A 8                              | II A 8       | No        | No        | No        | s(p)  |
| Brazoria            | Follets Island  | 13    | 2/01 | 4           | 19.4  | III B 1                             | III B 1      | Yes       | Yes       | Yes       | s     |
| Brazoria            | Quintana Beach to Bryan Beach State Park                | 14    | 1/24 | 0           | 11.3  | II III B 1                          |              | Yes       | Yes       | Yes       | s     |
| Brazoria            | West Bay Mooring Area BU Site                           | 10    | 1/27 | 1           | 1.6   | II C 8                              | II C 8       | No        | No        | No        | s(p)  |
| Brazoria            | Wolf Island   | 15    | 2/09 | 0           | 8.1   | II III E 1                          |              | Yes       | Yes       | Yes       | s     |
| Calhoun             | Cedar Bayou, Matagorda Island NWR (Gulf Beach Route)    | 33    | 1/26 | 0           | 9.1   | III B 1                             |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island NWR Beach (J-Hook and N Western Marsh) | 27    | 1/26 | 0           | 24.2  | II III B 1 3 9 10                   |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island Inner Levee System                     | 22    | 1/26 | 0           | 11.9  | II B 5 8 9<br>II B 1 2 4 6 7 8      |              | Yes       | Yes       | No        | f     |
| Calhoun             | Matagorda Island NWR Bayside                            | 32    | 1/26 | 0           | 82.6  | 10                                  |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Matagorda Island NWR Gulf Beach                         | 28    | 1/26 | 0           | 40.3  | III B 1                             |              | Yes       | Yes       | Yes       | f     |
| Calhoun             | Port O'Conner Shoreline                                 | 19    | 1/23 | 0           | 0.8   | II V A 1 8                          |              | Yes       | No        | Yes       | s/m/c |
| Calhoun             | Shoalwater Bay  | 24    | 1/26 | 0           | 11.3  | II C 1 3 8 10 11                    |              | No        | No        | No        | s(p)  |
| Calhoun             | The Lagoon/Blackberry Island                            | 26    | 1/31 | 0           | 21.0  | II C D 4 8 10<br>II A 1 2 3 4 5 7 8 |              | No        | No        | No        | s(p)  |
| Calhoun             | Welder Flats Coastal Preserve (CTX6)                    | 25    | 1/26 | 0           | 24.2  | 10                                  |              | No        | No        | Yes       | p     |
| Cameron             | Bahia Grande  | 77    | 2/06 | 0           | 16.1  | II A 3                              |              | No        | Yes       | Yes       | f     |

**The 2006 International Wilson's Plover Winter Census in Texas  
(Continued)**

| COUNTY                         | SITE NAME   | MAP # | DATE | TOTAL WIPL ADULTS | KM    | SITE DESCRIPTION   | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------------------|---|-------|------|-------------------|-------|--------------------|--------------|-----------|-----------|-----------|------|
| Cameron                        | Brownville Ship Channel Spoil Cells                                     | 76    | 2/06 | 0                 | 8.4   | V G 2              |              | Yes       | Yes       | Yes       | f    |
| Cameron                        | Buena Vista Ranch   | 74    | 2/03 | 0                 | 12.0  | II A 3 8           |              | Yes       | Yes       | Yes       | p    |
| Cameron                        | Laguna Atascosa NWR Bayside Drive                                       | 73    | 2/03 | 1                 | 9.0   | V G 8 10           | V F 8        | Yes       | Yes       | Yes       | f    |
| Cameron                        | South Bay/Boca Chica Beach  | 78    | 2/03 | 0                 | 16.1  | II III A 1 7 8     |              | Yes       | Yes       | Yes       | s/p  |
| Cameron                        | South Padre Island, middle of Laguna Madre Side                         | 71    | 1/31 | 0 <sup>1</sup>    | 18.0  |                    |              | Yes       | Yes       | Yes       | f    |
| Cameron                        | South Padre Island, S end on Laguna Madre Side                          | 75    | 1/30 | 0 <sup>1</sup>    | 20.0  |                    |              | Yes       | Yes       | Yes       | f    |
| Cameron                        | Unit 5, (Horse Island Cove) Laguna Atascosa NWR                         | 72    | 2/03 | 0                 | 7.9   | II A 3 8           |              | No        | Yes       | Yes       | f    |
| Chambers                       | Mid Bay   | 4     | 2/02 | 1                 | 1.6   | II C 2             | II C 2       | No        | No        | No        | c    |
| Galveston                      | Big Reef; Galveston Island  | 7     | 2/02 | 0                 | 2.6   | II III V B 1 3     |              | Yes       | Yes       | Yes       | m    |
| Galveston                      | Bolivar Flats   | 6     | 1/21 | 4                 | 3.1   | III B 1 8          |              | Yes       | Yes       | Yes       | s/p  |
| Galveston                      | Galveston Island Beaches; end of seawall to Galveston Island State Park | 9     | 2/02 | 0                 | 9.7   | III B 1            |              | Yes       | Yes       | Yes       | s/m  |
| Galveston                      | Galveston Island Beaches; E beach to end of seawall                     | 8     | 2/02 | 0                 | 16.1  | III B 1            |              | Yes       | Yes       | Yes       | s(p) |
| Galveston                      | Galveston Island Beaches; Galveston Island State Park to San Luis Pass  | 11    | 2/02 | 0                 | 14.5  | III B 1            |              | Yes       | Yes       | Yes       | s(p) |
| Galveston                      | High Island to Bolivar Flats  | 5     | 1/21 | 1                 | 48.4  | III B 1            | III B 1      | Yes       | Yes       | Yes       | p    |
| Galveston                      | Rollover Pass Flats   | 3     | 2/03 | 1                 | 0.8   | II B 3 4 7         | II B 4       | Yes       | No        | No        | p    |
| Galveston                      | San Luis Pass; Galveston Island   | 12    | 2/02 | 0                 | 6.5   | II III V B 1 2 3 4 |              | Yes       | Yes       | Yes       | s(p) |
| Jefferson                      | McFaddin NWR to High Island   | 2     | 2/02 | 0                 | 10.0  | III A 1 8          |              | Yes       | Yes       | Yes       | s    |
| Jefferson                      | McFaddin NWR to Sabine Pass   | 1     | 2/03 | 0                 | 42.7  | III A 1            |              | Yes       | Yes       | Yes       | s    |
| Kenedy                         | Padre Island National Seashore, S bayside                               | 69    | 1/31 | 0                 | 8.1   | V B F 3 5 8 9 10   |              | No        | No        | No        | f    |
| Kleberg                        | Nighthawk Bay   | 64    | 1/30 | 0                 | 3.7   | II B G 3 9 10      |              | Yes       | Yes       | Yes       | f/s  |
| Kleberg                        | Padre Island National Seashore, Gulf beach (closed area)                | 65    | 1/30 | 0                 | 9.0   | III B 1            |              | No        | Yes       | Yes       | f    |
| Kleberg/<br>Kenedy             | Padre Island National Seashore (Bird Island basin to landcut)           | 68    | 1/30 | 0                 | 48.4  | II B 1 3 8 9       |              | No        | No        | No        | f    |
| Kleberg/<br>Kenedy             | Upper Laguna Madre (Bird Island basin to the landcut)                   | 67    | 1/31 | 0                 | 100.0 | II C G 8           |              | No        | No        | No        | s(p) |
| Kleberg<br>/Kenedy/<br>Willacy | Padre Island National Seashore, Gulf beach (CTX7)                       | 66    | 1/30 | 0                 | 96.8  | III B 1            |              | Yes       | Yes       | Yes       | f    |

**The 2006 International Wilson's Plover Winter Census in Texas  
(Continued)**

| COUNTY             | SITE NAME   | MAP # | DATE | TOTAL WIPL ADULTS | KM   | SITE DESCRIPTION               | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|--------------------|---|-------|------|-------------------|------|--------------------------------|--------------|-----------|-----------|-----------|------|
| Matagorda          | Decros Point  | 23    | 2/15 | 60                | 12.6 | II III B 1                     | II B 1       | Yes       | No        | Yes       | s/p  |
| Matagorda          | Matagorda Peninsula, bayside and Colorado River Delta           | 21    | 2/03 | 0                 | 64.5 | II A B D F G 1 2<br>3 5 7 8 10 |              | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Matagorda Peninsula, E  | 17    | 1/31 | 0                 | 36.6 | II III G 1 8                   |              | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Matagorda Peninsula, W  | 18    | 2/03 | 5                 |      | III B 1                        | III B 1      | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Sargent Beach   | 16    | 1/31 | 1                 | 10.5 | II III A 1 8                   | II A 8       | Yes       | Yes       | Yes       | s(p) |
| Matagorda          | Sundown Island (Matagorda Bay) (CTX26)                          | 20    | 1/25 | 0                 | 2.4  | II C 1                         |              | No        | No        | Yes       | f    |
| Nueces             | Corpus Christi Ship Channel Inner Harbor                        | 48    | 1/26 | 0                 | 2.4  | II A G 1                       |              | No        | No        | No        | p    |
| Nueces             | Laguna Madre, upper (GIWW north of JFK Causeway) (CTX20)        | 60    | 1/26 | 0                 | 2.4  | II A 4 8 10                    |              | Yes       | Yes       | Yes       | m/p  |
| Nueces             | Mollie Beattie  | 61    | 1/25 | 0                 | 5.8  | V F 3 7 8 9 10                 |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Mustang Island - Francine Cohn Preserve (mid bayside)           | 53    | 1/26 | 0                 | 2.9  | II B C 5 8                     |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Mustang Island - N end, N bayside, Pelican and Shamrock Islands | 51    | 1/26 | 0                 | 40.3 | II B C 3 8 9 11                |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Mustang Island - Port A to Packery (gulf side)                  | 52    | 1/26 | 0                 | 12.1 | III B 1                        |              | Yes       | Yes       | Yes       | p    |
| Nueces             | Mustang Island State Park (S bayside and Fish Pass)             | 54    | 1/26 | 0                 | 6.5  | II B 1 3 8 9 10 11             |              | No        | Yes       | Yes       | s(p) |
| Nueces             | Oso Bay shoreline, between Mud Bridge and rail road tracks      | 58    | 1/26 | 0                 | 2.0  | IV A 8                         |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Oso Bay, upper (Mud Bridge) (CTX22)                             | 56    | 1/26 | 0                 | 12.7 | II A C 4 8                     |              | Yes       | Yes       | Yes       | f    |
| Nueces             | Port of Corpus Christi property S of Nueces River               | 45    | 1/26 | 0                 | 4.8  | V G 3 5 8 9                    |              | No        | No        | No        | p    |
| Nueces             | Redfish Bay (NE part)   | 42    | 1/25 | 0                 | 25.8 | II E 2 7 8 11                  |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Rincon Channel mudflats   | 49    | 1/26 | 0                 | 1.0  | II A 3 8                       |              | No        | No        | Yes       | unk  |
| Nueces             | S side of JFK Causeway and Flour Bluff/Laguna Madre Shoreline   | 59    | 1/30 | 0                 | 4.8  | II A 3 8 9                     |              | Yes       | Yes       | Yes       | s/p  |
| Nueces             | Upper Laguna Madre/S end of Corpus Christi Bay                  | 55    | 1/26 | 0                 | 33.9 | II C D G 3 8 9                 |              | Yes       | Yes       | Yes       | s(p) |
| Nueces             | Ward Island (CTX21)   | 57    | 1/26 | 0                 | 2.6  | II C 8 9                       |              | Yes       | No        | Yes       | m    |
| Nueces/<br>Kleberg | Packery to PINS   | 63    | 1/31 | 0                 | 10.2 | III B 1                        |              | Yes       | Yes       | Yes       | f/s  |

**The 2006 International Wilson's Plover Winter Census in Texas  
(Continued)**

| <b>COUNTY</b>           | <b>SITE NAME</b>  | <b>MAP #</b> | <b>DATE</b> | <b>TOTAL WIPL ADULTS</b> | <b>KM</b>     | <b>SITE DESCRIPTION</b> | <b>WIPL HABITAT</b> | <b>91 CENSUS</b> | <b>96 CENSUS</b> | <b>01 CENSUS</b> | <b>OWN</b> |
|-------------------------|---|--------------|-------------|--------------------------|---------------|-------------------------|---------------------|------------------|------------------|------------------|------------|
| Nueces/<br>Kleberg      | Upper Laguna Madre (islands between S Bird Island and Pita Island Channel) (CTX10A) | 62           | 1/30        | 0                        | 40.3          | II A C D G 3 8          |                     | Yes              | Yes              | Yes              | s(p)       |
| San Patricio            | Indian Point and Sunset Lake (CTX23)  | 50           | 1/26        | 0                        | 3.2           | II V G 1 11             |                     | Yes              | Yes              | Yes              | m          |
| San Patricio            | La Quinta Channel Islands   | 43           | 1/26        | 0                        | 10.5          | II C 11                 |                     | Yes              | Yes              | Yes              | s(p)       |
| San Patricio            | White's Point   | 47           | 1/26        | 0                        | 4.8           | V A 8                   |                     | No               | Yes              | Yes              | p          |
| San Patricio/<br>Nueces | Nueces Delta (near Allison waste water treatment plant discharge) (CTX25)           | 44           | 1/26        | 0                        | 4.8           | V A 8 9                 |                     | No               | No               | Yes              | p          |
| Nueces                  | Tule Lake (E of White's Point, Nueces Delta mitigation site) (CTX24)                | 46           | 1/26        | 0                        | 1.6           | V A 8 9                 |                     | No               | Yes              | Yes              | m          |
| Willacy                 | South Padre Island, N end flats by Port Mansfield Channel                           | 70           | 2/3         | 0                        | 10.6          | II B 9                  |                     | Yes              | Yes              | Yes              | s(p)       |
| <b>Total</b>            |   |              |             | <b>85</b>                | <b>1499.9</b> |                         |                     |                  |                  |                  |            |

<sup>1</sup>We only received data on Piping Plovers seen at these sites so do not have information about Wilson's Plover numbers

## **2006 Censo Internacional de Chorlo Pico Corto en México**

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Las censos llevados a cabo muestran que el área de distribución del Piping Plover en el Golfo de Mexico y la Laguna Madre de Tamaulipas se evaluó de manera parcial, pero los censos realizados en las áreas evaluadas se llevaron a cabo de la manera mas efectiva posible.

Los resultados obtenidos de dichas evaluaciones son los siguientes:

Total de salidas: 6  
Total de observaciones de Piping Plovers: 76  
Total de observaciones de Snowy Plovers: 119  
Total de observaciones de Wilson's Plovers: 0

Se evaluaron 10 km de costa en la "Playa Bagdad Norte", 15 km de costa en la "Playa Bagdad Sur", y 24 km de costa en la "Barra de Boca Ciega (al Sur del Mezquital)", cubriendo los hábitat de playa de arena y las áreas de descanso 30-40 m retirado de la orilla del agua. Se evaluó también la arena en la laguna en una extensión de 15 km.

Se evaluaron alrededor de 15 km de la parte interna (islas de barrera) de los planicies de Boca ciega del lado Norte y Sur, cubriendo los distintos hábitat de estos importantes planicies. Los resultados obtenidos de dichas evaluaciones 17 observaciones de Piping Plovers en el norte y 17 en el sur. Porque las censos llevados en dos días, es posible que éstos sean repiten observaciones.

El porcentaje evaluado del área del Golfo de México frente a la Laguna Madre en Tamaulipas fue de un 45 % aproximadamente. Restando por evaluar un 55 % hacia el sur del canal de Boca Ciega hasta el Río Soto la Marina. Esto debido a la falta de los recursos para operación (ATVs).

El área evaluada en el lado interno de las islas de barrera frente a la Laguna Madre fue aproximadamente de un 10 %, restando por evaluar un 90 % principalmente por la falta de ATVs que nos impidió, en un inicio, el acceso a las áreas internas de la barra arenosa en la laguna, a diferencia de la costa del golfo que en gran parte el traslado se realizó en pick-up y una ATV (cuando estuvo disponible). Más sin embargo cabe mencionar que la parte evaluada en los planicies en el área de Boca Ciega es una de las más importantes en la distribución invernal del Piping Plover en la Laguna Madre.

Con seguridad la próxima evaluación cubrirá la superficie total de la costa del Golfo de Mexico hasta el río Soto la Marina y la parte interna de la barra arenosa en la Laguna Madre.

## **The 2006 International Piping Plover Winter Census in Mexico**

The surveys we conducted give only a partial illustration of the distribution of the Piping Plover in the Gulf of Mexico and the Laguna Madre of Tamaulipas, but the surveys were carried out in the most effective way possible given the resources available.

The results obtained from the surveys are the following:

Total sites: 6  
Total observations of Piping Plovers: 76  
Total observations of Snowy Plovers: 119  
Total observations of Wilson's Plovers: 0

As part of the 2006 Census we surveyed 10 km of coastline at “Playa Bagdad Norte”, 15 km at “Playa Bagdad Sur”, 25 km at “Playa Bagdad (Mezquital Norte)”, and 24 km at “Barra de Boca Ciega (Mezquital al Sur)”.

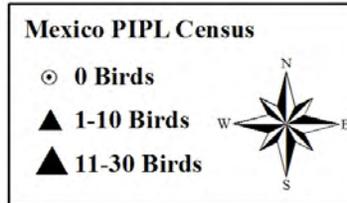
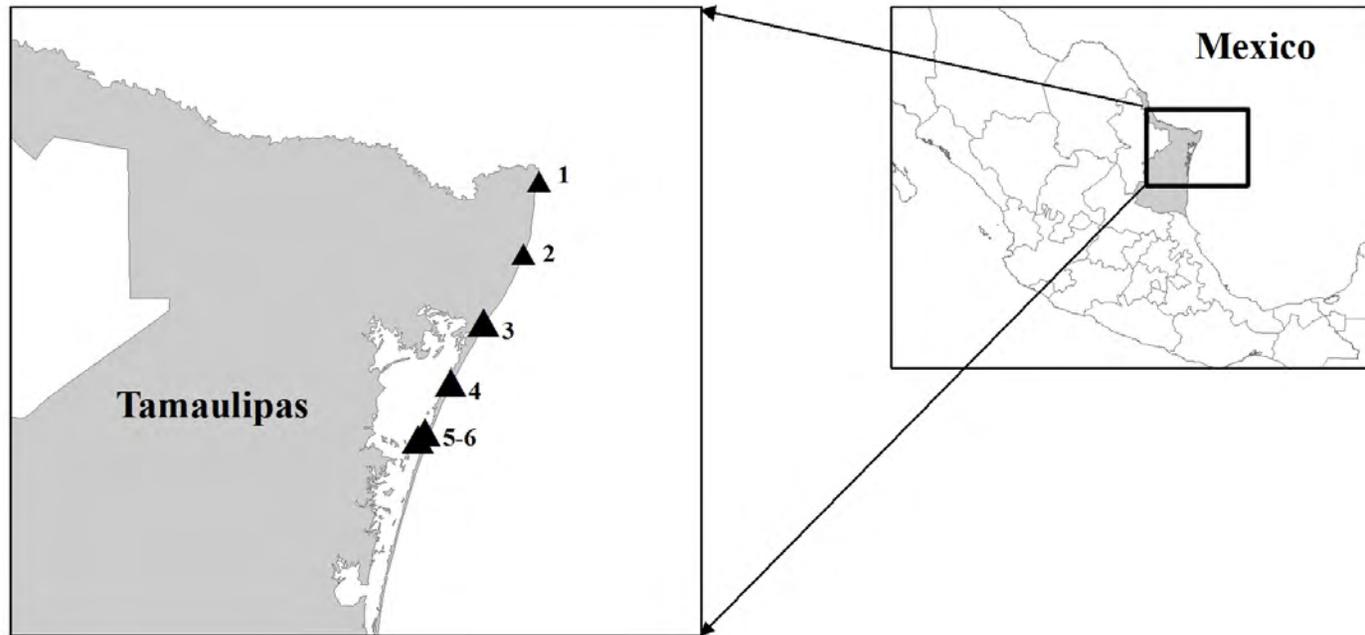
At all of these sites we covered the sandy beach habitat from the shoreline to 30-40 m inland from the waters edge. We also surveyed approximately 15 km of flats on the north and south Laguna Madre side of the split in the “Barra de Boca” bar. On each side of the split we counted 17 Piping Plovers, but because the surveys were conducted on separate days, it is possible that they are repeat observations.

Overall, in the Laguna Madre region of Tamaulipas, we covered approximately 45% of the outer beach (Gulf of Mexico) habitat. The remaining habitat which we were unable to cover (due to lack of ATV’s) includes areas south of Boca Ciega to Río Soto la Marina.

The area surveyed on the Laguna Madre side of the barrier islands was approximately 10% of the total habitat. The remaining 90% was not surveyed, also due largely to lack of ATV’s. However, the portion of the flats surveyed (at “Barra de Boca Ciega”) is one of the most important sites for wintering Piping Plover in the Laguna Madre.

With additional resources, the next census should include the entire coast of the Gulf of Mexico and Laguna Madre side from Playa Bagdad to Río Soto la Marina.

# 2006 International Piping Plover Winter Census - Mexico -

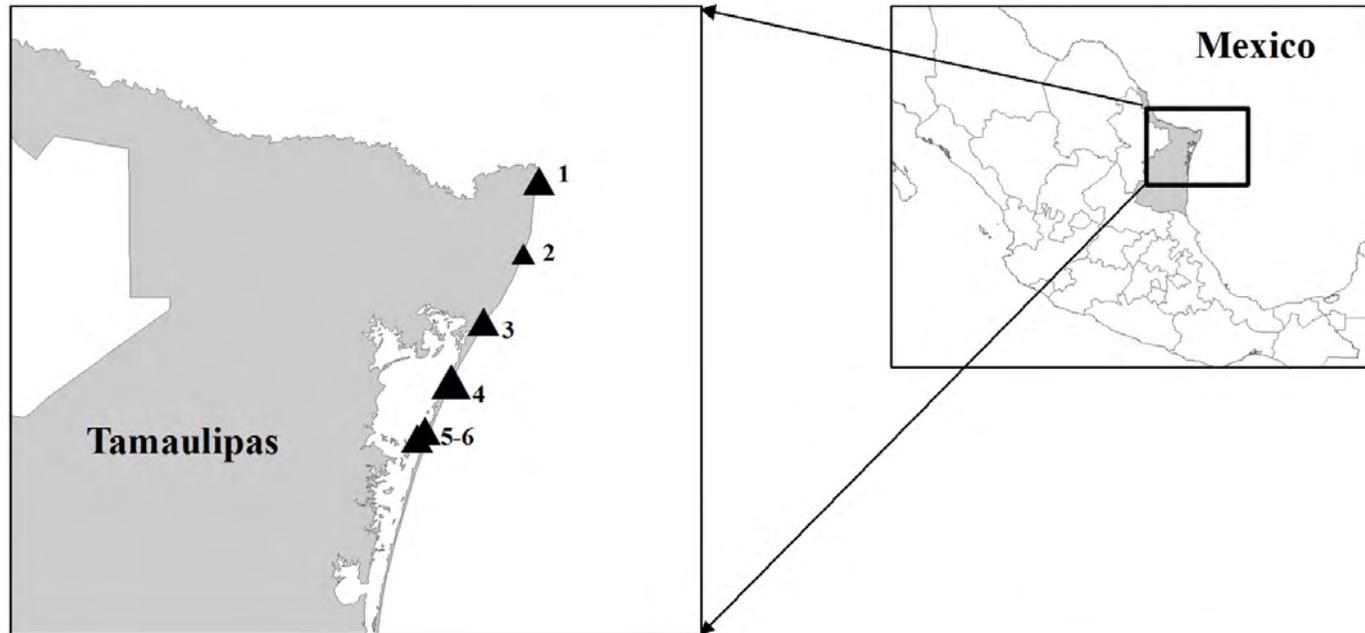


## The 2006 International Piping Plover Winter Census in Mexico

| COUNTY       | SITE NAME                                 | MAP # | DATE | TOTAL       |             | SITE DESCRIPTION | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|--------------|---|-------|------|-------------|-------------|------------------|--------------|-----------|-----------|-----------|-----|
|              |   |       |      | PIPL ADULTS | KM          |                  |              |           |           |           |     |
| Tamaulipas   | Barra Boca Ciega al Norte <sup>1</sup>    | 5     | 2/25 | 17          | 8.0         | III B 4 8        | III B 4 8    | Yes       | Yes       | No        | f   |
| Tamaulipas   | Barra Boca Ciega al Sur <sup>1</sup>      | 6     | 2/24 | 17          | 7.0         | III B 4 8        | III B 8      | Yes       | Yes       | No        | f   |
| Tamaulipas   | Playa Bagdad al Norte                     | 1     | 2/02 | 3           | 10.0        | III B 4          | III B 4      | No        | No        | No        | f   |
| Tamaulipas   | Playa Bagdad al Sur                       | 2     | 2/03 | 1           | 15.0        | III B 4          | III B 4      | No        | No        | No        | f   |
| Tamaulipas   | Puerto El Mezquital al Norte <sup>1</sup> | 3     | 2/16 | 19          | 25.0        | III B 4          | III B 4      | No        | No        | No        | f   |
| Tamaulipas   | Puerto El Mezquital al Sur <sup>1</sup>   | 4     | 2/23 | 19          | 24.0        | III B 4 8        | III B 4 8    | Yes       | No        | No        | f   |
| <b>Total</b> |   |       |      | <b>76</b>   | <b>89.0</b> |                  |              |           |           |           |     |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

## 2006 International Snowy Plover Winter Census - Mexico -



## The 2006 International Snowy Plover Winter Census in Mexico

| COUNTY       | SITE NAME                                 | MAP # | DATE | TOTAL SNPL ADULTS | KM          | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|--------------|---|-------|------|-------------------|-------------|------------------|--------------|-----------|-----------|-----------|-----|
| Tamaulipas   | Barra Boca Ciega al Norte <sup>1</sup>    | 5     | 2/25 | 19                | 8.0         | III B 4 8        | III B 4 8    | Yes       | Yes       | No        | f   |
| Tamaulipas   | Barra Boca Ciega al Sur <sup>1</sup>      | 6     | 2/24 | 12                | 7.0         | III B 4 8        | III B 8      | Yes       | Yes       | No        | f   |
| Tamaulipas   | Playa Bagdad al Norte                     | 1     | 2/02 | 30                | 10.0        | III B 4          | III B 4      | No        | No        | No        | f   |
| Tamaulipas   | Playa Bagdad al Sur                       | 2     | 2/03 | 2                 | 15.0        | III B 4          | III B 4      | No        | No        | No        | f   |
| Tamaulipas   | Puerto El Mezquital al Norte <sup>1</sup> | 3     | 2/16 | 20                | 25.0        | III B 4          | III B 4      | No        | No        | No        | f   |
| Tamaulipas   | Puerto El Mezquital al Sur <sup>1</sup>   | 4     | 2/23 | 36                | 24.0        | III B 4 8        | III B 4      | Yes       | No        | No        | f   |
| <b>Total</b> |   |       |      | <b>119</b>        | <b>89.0</b> |                  |              |           |           |           |     |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

## The 2006 International Wilson's Plover Winter Census in Mexico

| COUNTY       | SITE NAME                                 | MAP # | DATE | TOTAL WIPL ADULTS | KM          | SITE DESCRIPTION | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|--------------|---|-------|------|-------------------|-------------|------------------|--------------|-----------|-----------|-----------|-----|
| Tamaulipas   | Barra Boca Ciega al Norte <sup>1</sup>    | 5     | 2/25 | 0                 | 8.0         | III B 4 8        |              | Yes       | Yes       | No        | f   |
| Tamaulipas   | Barra Boca Ciega al Sur <sup>1</sup>      | 6     | 2/24 | 0                 | 7.0         | III B 4 8        |              | Yes       | Yes       | No        | f   |
| Tamaulipas   | Playa Bagdad al Norte                     | 1     | 2/02 | 0                 | 10.0        | III B 4          |              | No        | No        | No        | f   |
| Tamaulipas   | Playa Bagdad al Sur                       | 2     | 2/03 | 0                 | 15.0        | III B 4          |              | No        | No        | No        | f   |
| Tamaulipas   | Puerto El Mezquital al Norte <sup>1</sup> | 3     | 2/16 | 0                 | 25.0        | III B 4          |              | No        | No        | No        | f   |
| Tamaulipas   | Puerto El Mezquital al Sur <sup>1</sup>   | 4     | 2/23 | 0                 | 24.0        | III B 4 8        |              | Yes       | No        | No        | f   |
| <b>Total</b> |   |       |      | <b>0</b>          | <b>89.0</b> |                  |              |           |           |           |     |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

## **The 2006 International Piping Plover Winter Census in the Bahamas**

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The 2006 International Winter Census effort in the Bahamas was carried out between January 23, 2006, and February 6, 2006, at 50 sites. In addition, 12 sites were surveyed outside the census window but during winter (January or February) and 4 sites were surveyed in early spring (March). In total, 66 sites were surveyed by 21 observers. In addition, trainings for participants on Piping Plover survey and band identification skills were conducted in Freeport, New Providence, and Great Inagua.

Four hundred and seventeen Piping Plovers were observed during the 66 site visits. However, 17 of the total were observed during three site visits in March, 2006, and accordingly may represent migrants rather than wintering birds. These observations are included in the total because of the significance of all Piping Plover observations in the Bahamas.

Over 50% of the surveyed sites had Piping Plovers. Locations with high counts include 68 Piping Plovers at Staniard Creek, 43 at North Cargil Creek, and 38 at Mars Bay, all on Andros; 26 at Pelican Point on Grand Bahama;

24 near Sea Way Drive on Great Exuma; 19 at Conch Cay off Long Island; and 23 at South Beach on New Providence. In addition, a single individual was observed on Great Inagua, the southernmost large island in the Bahamas. Two banded Piping Plovers were reported: one individual at Discovery Bay Beach, Grand Bahama, and another west of Pelican Point on Grand Bahama. The breeding population is confirmed from the Great Lakes for one and suspected for the second. It is unknown how many of the observed Piping Plovers were scanned for the presence of color bands.

Compared to previous Census', we greatly increased our survey effort in the Bahamas. In previous years, reports from the Bahamas have been few and are often incidental. Hence, the 417 Piping Plovers observed in 2006 is much higher than previous counts but is not reflective of an increase in the wintering population. In 2001, our record of Piping Plovers from the Bahamas was only 35 birds; 25 birds were observed in 1996, and 29 in 1991.

The Bahamas represents a unique challenge for the International Census. With over 600 islands and cays, potential habitat is located over a very large area. In remote areas, there can be considerable difficulties in accessing potential habitat due to very limited transportation options and the associated high financial cost. As a result of logistical difficulties and limited coverage, there is insufficient data to determine what areas of Piping Plover habitat were missed in the 2006 census and the results are very likely an underestimate of the actual population. Nevertheless, the relatively large number of Piping Plovers observed in 2006 suggests the Bahamas is an important wintering area. In addition, based on local knowledge of habitat conditions, it is likely that additional habitat exists that has yet to be evaluated for the presence of Piping Plovers.

To understand the true importance of the Bahamas to wintering Piping Plovers, additional survey efforts are necessary. Future efforts should consider locating and accessing habitat that is similar to locations where Piping Plovers were observed during the 2006 census. Large sandflats should be one priority habitat type. An example is Conch Cay, which at low tide has over a mile of intertidal flats with small interspersed channels. Similar areas should be identified using charts and aerial photography to determine future survey sites. However, accessing the areas may be very difficult in certain instances, requiring travel by boat or float plane.

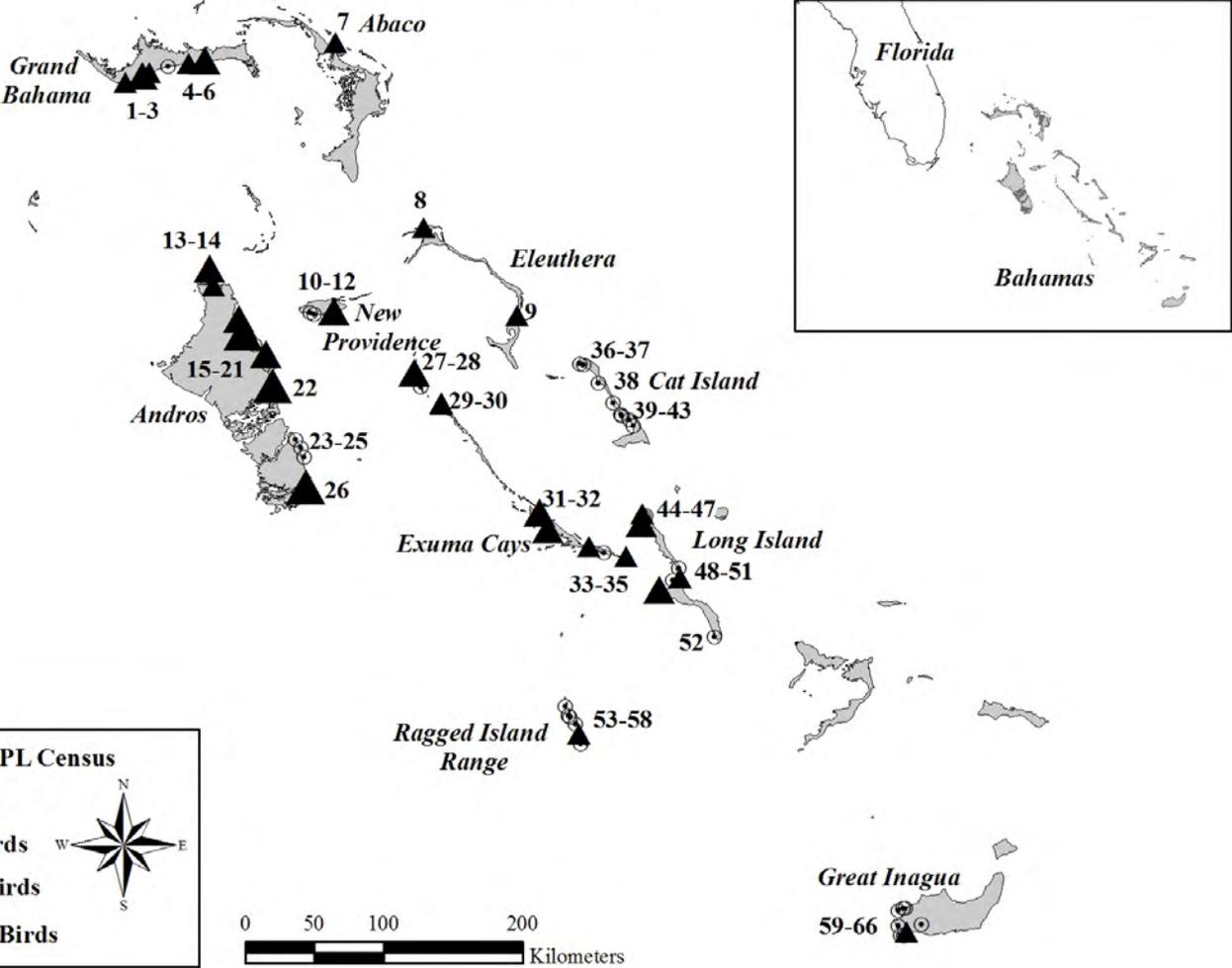
Another challenging habitat type to census will be island beaches. One example of high quality habitat is South Beach on New Providence, which had extensive intertidal flats next to the beach. Similar areas with large intertidal feeding habitat should not be that difficult to locate quickly using aerial reconnaissance; such habitat should also be high priority for surveying in future efforts. Surprisingly, there were relatively large numbers of Piping Plovers concentrated in some areas with much less expansive intertidal habitat. Thus, it may not always be possible to distinguish between low and high priority beaches based on the width of sand flats.

Care should be exercised in trying to compare habitat quality between the Bahamas and other areas of the wintering range. For example, many beach habitats located a large distance from inlets or overwash fans on the Atlantic Coast of the United States would be considered low quality due to the lack of Piping Plovers. However, similar beach habitats in the Bahamas may contain moderate or relatively large numbers of Piping Plovers. Additional surveys are necessary to understand the distribution and habitat use of Piping Plovers in the Bahamas.

It is difficult to assess threats to Piping Plovers in the Bahamas due to limited information. In some locations, habitat loss from development and human disturbance are potential threats. For example, at Discovery Beach on Grand Bahama, there was construction activity in the upland area immediately adjoining the beach where 22 Piping Plovers were observed. However, there are other areas that are remote and appear at the current time to have limited potential for high density development.

The 2006 Census was an important step forward in our knowledge of Piping Plover distribution on the wintering grounds. In only 66 surveys, 417 Piping Plovers were observed, and certain sites had relatively large numbers. Thus, the results are very promising. However, an accurate assessment of the conservation status of Piping Plovers in the Bahamas is not yet possible based on available information. It would be prudent to undertake additional, coordinated survey efforts. Providing additional support and funding to local Bahamians to undertake survey and management efforts would be very helpful in advancing conservation efforts.

# 2006 International Piping Plover Winter Census - Bahamas -



## The 2006 International Piping Plover Winter Census in the Bahamas

| ISLAND/<br>ISLAND<br>GROUP | SITE NAME                                      | MAP<br># | DATE | TOTAL          |     | SITE<br>DESCRIPTION    | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------------|--|----------|------|----------------|-----|------------------------|-----------------|--------------|--------------|--------------|------|
|                            |  |          |      | PIPL<br>ADULTS | KM  |                        |                 |              |              |              |      |
| Abaco                      | Green Turtle Cay                               | 7        | 2/1  | 9              | 1.0 | II B 3                 | II B 3          | No           | No           | Yes          | f    |
| Andros                     | Andros Town                                    | 20       | 1/27 | 11             | 0.8 | I A 1 3 10             | I E 3           | No           | No           | No           | f    |
| Andros                     | Blanket Sound                                  | 16       | 1/28 | 6              | 0.8 | I A 3 4 8 10           | I A 8           | No           | No           | No           | f    |
| Andros                     | Calabash Bay                                   | 19       | 1/28 | 0              | 0.4 | I A 1 8 10             |                 | No           | No           | No           | f    |
| Andros                     | Congo Town                                     | 23       | 2/3  | 0              | 0.8 | I A 1 10               |                 | No           | No           | No           | f    |
| Andros                     | Flats N of Staniard Creek <sup>1</sup>         | 15       | 1/9  | 18             | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Joulter's Cays <sup>1</sup>                    | 13       | 1/10 | 14             | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Kemps Bay                                      | 24       | 2/3  | 0              | 0.8 | I A 1 3 4              |                 | No           | No           | No           | n.r. |
| Andros                     | Lowe's Sound Mangrove Flats <sup>1</sup>       | 14       | 1/10 | 3              | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Mars Bay                                       | 26       | 2/3  | 38             | 0.8 | I A D 3 4 10           | I A 3           | No           | No           | No           | f    |
| Andros                     | North Cargil Creek                             | 22       | 1/27 | 43             | 0.8 | I A 1 3 8 10           | I A 8           | No           | No           | No           | f    |
| Andros                     | Small Hope Bay                                 | 18       | 1/28 | 0              | 0.8 | I A 3 4 8 10           |                 | No           | No           | No           | n.r. |
| Andros                     | Staniard Creek                                 | 17       | 1/29 | 68             | 1.2 | II IV A B E 1          | II E 3          | No           | No           | No           | f    |
| Andros                     | Summerset Creek                                | 21       | 1/27 | 0              | 0.4 | I A 3 10               |                 | No           | No           | No           | f    |
| Andros                     | The Coppice at Duncan Point                    | 25       | 2/3  | 0              | 0.4 | I A 1 10               |                 | No           | No           | No           | f    |
| Cat Island                 | Fernandez Bay                                  | 40       | 1/31 | 0              | 1.1 | I II 1 10 11           |                 | No           | No           | No           | n.r. |
| Cat Island                 | New Bight Beach - From T to Primary School     | 42       | 1/31 | 0              | 0.8 | I E 1                  |                 | No           | No           | No           | n.r. |
| Cat Island                 | New Bight Harbor                               | 41       | 1/31 | 0              | 0.6 | II E 1 10              |                 | No           | No           | No           | n.r. |
| Cat Island                 | NW Most Beach Orange Creek Point               | 36       | 1/30 | 0              | 3.3 | I E 1 11               |                 | No           | No           | No           | n.r. |
| Cat Island                 | Orange Creek, SE End                           | 37       | 1/30 | 0              | 1.4 | I II E 1 2 3 10 11     |                 | No           | No           | No           | n.r. |
| Cat Island                 | Pigeon Key                                     | 38       | 1/30 | 0              | 5.5 | I E 1 11               |                 | No           | No           | No           | n.r. |
| Cat Island                 | Pilot Harbor, New Bight                        | 43       | 1/29 | 0              | 1.1 | n.r.                   |                 | No           | No           | No           | n.r. |
| Cat Island                 | Port House                                     | 39       | 1/29 | 0              | 2.0 | II E 1 3 4 11          |                 | No           | No           | No           | n.r. |
| Eleuthera                  | Spanish Wells                                  | 8        | 1/28 | 6              | 6.0 | II E 1 3 4 10          | II E 3          | No           | No           | No           | n.r. |
| Eleuthera                  | Winding Bay, Eleuthera                         | 9        | 2/6  | 1              | 5.8 | I E 1                  | I F 1           | No           | No           | No           | f    |
| Exuma Cays                 | Careen Beach, Warderick Wells Cay <sup>1</sup> | 29       | 3/14 | 3              | 1.6 | II E 1                 | II E 1          | No           | No           | No           | s(p) |
| Exuma Cays                 | Exuma Point, Great Exuma                       | 31       | 1/23 | 14             | 0.4 | II E 4 5               | I E 3 4         | No           | No           | No           | n.r. |
| Exuma Cays                 | Hawksbill Cay <sup>1</sup>                     | 28       | 3/12 | 0              | 1.2 |                        |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Leaf Cay/White Cay <sup>1</sup>                | 35       | 2/24 | 4              | 5.6 | V B F 1 2 3 8 10<br>11 | V B 1           | No           | No           | No           | p    |
| Exuma Cays                 | Moriah Harbour City, Great Exuma               | 33       | 1/23 | 2              | 1.7 | II E 1 2 3             | I E 3           | No           | No           | No           | n.r. |

**The 2006 International Piping Plover Winter Census in the Bahamas  
(Continued)**

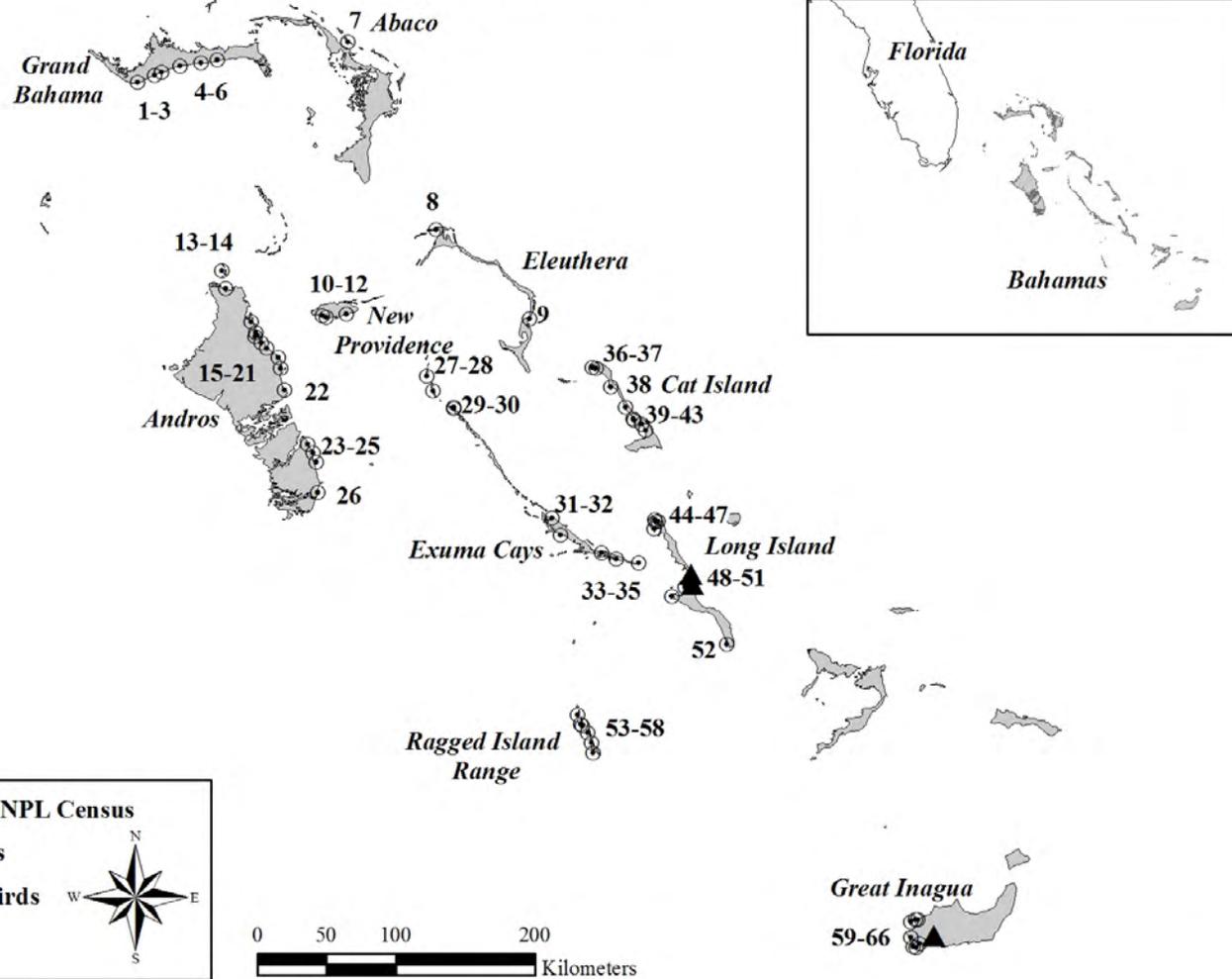
| <b>ISLAND/<br/>ISLAND<br/>GROUP</b> | <b>SITE NAME</b>                                      | <b>MAP<br/>#</b> | <b>DATE</b> | <b>TOTAL<br/>PIPL<br/>ADULTS</b> | <b>KM</b> | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|-------------------------------------|---|------------------|-------------|----------------------------------|-----------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| Exuma Cays                          | Normans Cay <sup>1</sup>                              | 27               | 3/9         | 13                               | 2.0       | I E 3                       |                         | No                   | No                   | No                   | n.r.       |
| Exuma Cays                          | Powerful Beach, Warderick Wells Cay <sup>1</sup>      | 30               | 3/26        | 1                                | 0.2       | II E 1                      | II E                    | No                   | No                   | No                   | n.r.       |
| Exuma Cays                          | Sea Way Drive, Great Exuma <sup>1</sup>               | 32               | 1/21        | 24                               | 0.2       | I E 1 11                    | I E 1 11                | No                   | No                   | No                   | n.r.       |
| Exuma Cays                          | Wolf Dames Back Landing, Little Exuma <sup>1</sup>    | 34               | 1/21        | 0                                | 1.0       | I II E 11                   |                         | No                   | No                   | No                   | n.r.       |
| Grand Bahama                        | Barbary Beach   | 3                | 2/1         | 2                                | 4.3       | I E 1 11                    | I E 1                   | No                   | No                   | No                   | n.r.       |
| Grand Bahama                        | Discovery Beach                                       | 2                | 2/1         | 22                               | 0.5       | I E 1 11                    | I E 2                   | No                   | No                   | No                   | n.r.       |
| Grand Bahama                        | Goldrock to East Point                                | 4                | 2/2         | 0                                | 1.0       | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Grand Bahama                        | Island Seas - Silver Point Beach into Jetty           | 1                | 2/1         | 7                                | 1.4       | I E 1 11                    | I E 1                   | No                   | No                   | No                   | n.r.       |
| Grand Bahama                        | Pelican Point West to Oil Terminal                    | 6                | 2/2         | 26                               | 10.1      | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Grand Bahama                        | West of Sciding Point to High Rock                    | 5                | 2/2         | 8                                | 1.4       | I E 1 6 11                  | I E 6                   | No                   | No                   | Yes                  | n.r.       |
| Great Inagua                        | Craig's Bight East & West to Crossing                 | 65               | 2/5         | 1                                | 5.0       | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Great Inagua                        | Man of War Bay  | 61               | 2/4         | 0                                | 10.0      | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Great Inagua                        | Morton Salt Ponds                                     | 66               | 2/5         | 0                                | 0.7       | V E 11                      |                         | No                   | No                   | No                   | n.r.       |
| Great Inagua                        | Red Pond West   | 59               | 2/4         | 0                                | 2.9       | V B 1                       |                         | No                   | No                   | No                   | n.r.       |
| Great Inagua                        | The Tunnel Beach                                      | 62               | 2/5         | 0                                | 1.2       | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Great Inagua                        | Vandayvill Beach                                      | 63               | 2/3         | 0                                | 2.0       | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Great Inagua                        | Vandayville to Lighthouse                             | 64               | 2/6         | 0                                | 2.5       | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Great Inagua                        | Well Road Beach                                       | 60               | 2/5         | 0                                | 2.2       | I E 1                       |                         | No                   | No                   | No                   | n.r.       |
| Long Island                         | Atlantic Coast from Pinders to Salt Pond <sup>1</sup> | 48               | 2/19        | 0                                | 6.5       | I II A 1 10 11              |                         | No                   | No                   | No                   | p          |
| Long Island                         | Cape Santa Maria Dev., Hoosie Harbor                  | 46               | 1/26        | 0                                | 0.5       | II E 1 3 11                 |                         | No                   | No                   | No                   | n.r.       |
| Long Island                         | Conch Cay (off Long Island)                           | 51               | 1/25        | 19                               | 3.7       | II E 1 5 8                  | I E 3                   | No                   | No                   | No                   | n.r.       |
| Long Island                         | Cove near C.C. Monument, Newton Cay                   | 44               | 1/26        | 9                                | 0.4       | II E 3                      | II E 3                  | No                   | No                   | No                   | n.r.       |
| Long Island                         | Duncanson Point                                       | 49               | 1/25        | 0                                | 0.6       | II B 11                     |                         | No                   | No                   | No                   | n.r.       |
| Long Island                         | Gordon's  | 52               | 1/27        | 0                                | 1.5       | I E                         |                         | No                   | No                   | No                   | n.r.       |
| Long Island                         | Joe Sound Harbor                                      | 47               | 1/26        | 11                               | 0.3       | II E 1 3                    | II E 3                  | No                   | No                   | No                   | n.r.       |
| Long Island                         | Newton Cay, W side                                    | 45               | 1/26        | 0                                | 0.6       | II E 1                      |                         | No                   | No                   | No                   | n.r.       |
| Long Island                         | Red Pond  | 50               | 1/24        | 1                                | 0.5       | V E 3                       | I E 3                   | No                   | No                   | No                   | n.r.       |
| New<br>Providence                   | Coral Harbor Goltlore                                 | 10               | 2/6         | 0                                | 0.3       | I E 1 3 11                  |                         | No                   | No                   | No                   | n.r.       |

**The 2006 International Piping Plover Winter Census in the Bahamas  
(Continued)**

| <b>ISLAND/<br/>ISLAND<br/>GROUP</b> | <b>SITE NAME</b>                       | <b>MAP<br/>#</b> | <b>DATE</b> | <b>TOTAL<br/>PIPL<br/>ADULTS</b> | <b>KM</b>    | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|-------------------------------------|--|------------------|-------------|----------------------------------|--------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| New<br>Providence                   | Local Harbor <sup>1</sup>              | 11               | 1/20        | 0                                | 0.6          | I E 11                      |                         | No                   | No                   | No                   | n.r.       |
| New<br>Providence                   | South Beach <sup>1</sup>               | 12               | 1/20        | 23                               | 0.7          | I E 1 3                     | I E 3                   | No                   | Yes                  | No                   | n.r.       |
| Ragged Island<br>Range              | Buena Vista Cay                        | 53               | 1/31        | 0                                | 3.0          | I E 3                       |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island<br>Range              | Hog Cay                                | 57               | 1/29        | 10                               | 3.0          | I E 3                       | I E 3                   | No                   | No                   | No                   | n.r.       |
| Ragged Island<br>Range              | House Bay, Racoon Cay <sup>1</sup>     | 54               | 1/21        | 0                                | 1.7          | I E 3                       |                         | No                   | No                   | No                   | s(p)       |
| Ragged Island<br>Range              | Margaret Cay, E shore                  | 56               | 1/25        | 0                                | 1.2          |                             |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island<br>Range              | Ragged Island (bay on S end)           | 58               | 1/26        | 0                                | 2.0          |                             |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island<br>Range              | Southern Pond, Racoon Cay <sup>1</sup> | 55               | 1/22        | 0                                | 0.5          | II V G 5                    |                         | No                   | No                   | No                   | n.r.       |
| <b>Total</b>                        |  |                  |             | <b>417</b>                       | <b>128.2</b> |                             |                         |                      |                      |                      |            |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# 2006 International Snowy Plover Winter Census - Bahamas -



## The 2006 International Snowy Plover Winter Census in the Bahamas

| ISLAND/<br>ISLAND<br>GROUP | SITE NAME                                      | MAP<br># | DATE | TOTAL          |     | SITE<br>DESCRIPTION    | SNPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------------|--|----------|------|----------------|-----|------------------------|-----------------|--------------|--------------|--------------|------|
|                            |  |          |      | SNPL<br>ADULTS | KM  |                        |                 |              |              |              |      |
| Abaco                      | Green Turtle Cay                               | 7        | 2/1  | 0              | 1.0 | II B 3                 |                 | No           | No           | Yes          | f    |
| Andros                     | Andros Town                                    | 20       | 1/27 | 0              | 0.8 | I A 1 3 10             |                 | No           | No           | No           | f    |
| Andros                     | Blanket Sound                                  | 16       | 1/28 | 0              | 0.8 | I A 3 4 8 10           |                 | No           | No           | No           | f    |
| Andros                     | Calabash Bay                                   | 19       | 1/28 | 0              | 0.4 | I A 1 8 10             |                 | No           | No           | No           | f    |
| Andros                     | Congo Town                                     | 23       | 2/3  | 0              | 0.8 | I A 1 10               |                 | No           | No           | No           | f    |
| Andros                     | Flats N of Staniard Creek <sup>1</sup>         | 15       | 1/9  | 0              | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Joulter's Cays <sup>1</sup>                    | 13       | 1/10 | 0              | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Kemps Bay                                      | 24       | 2/3  | 0              | 0.8 | I A 1 3 4              |                 | No           | No           | No           | n.r. |
| Andros                     | Lowe's Sound Mangrove Flats <sup>1</sup>       | 14       | 1/10 | 0              | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Mars Bay                                       | 26       | 2/3  | 0              | 0.8 | I A D 3 4 10           |                 | No           | No           | No           | f    |
| Andros                     | North Cargil Creek                             | 22       | 1/27 | 0              | 0.8 | I A 1 3 8 10           |                 | No           | No           | No           | f    |
| Andros                     | Small Hope Bay                                 | 18       | 1/28 | 0              | 0.8 | I A 3 4 8 10           |                 | No           | No           | No           | n.r. |
| Andros                     | Staniard Creek                                 | 17       | 1/29 | 0              | 1.2 | II IV A B E 1          |                 | No           | No           | No           | f    |
| Andros                     | Summerset Creek                                | 21       | 1/27 | 0              | 0.4 | I A 3 10               |                 | No           | No           | No           | f    |
| Andros                     | The Coppice at Duncan Point                    | 25       | 2/3  | 0              | 0.4 | I A 1 10               |                 | No           | No           | No           | f    |
| Cat Island                 | Fernandez Bay                                  | 40       | 1/31 | 0              | 1.1 | I II 1 10 11           |                 | No           | No           | No           | n.r. |
| Cat Island                 | New Bight Beach - From T to Primary School     | 42       | 1/31 | 0              | 0.8 | I E 1                  |                 | No           | No           | No           | n.r. |
| Cat Island                 | New Bight Harbor                               | 41       | 1/31 | 0              | 0.6 | II E 1 10              |                 | No           | No           | No           | n.r. |
| Cat Island                 | NW Most Beach Orange Creek Point               | 36       | 1/30 | 0              | 3.3 | I E 1 11               |                 | No           | No           | No           | n.r. |
| Cat Island                 | Orange Creek, SE End                           | 37       | 1/30 | 0              | 1.4 | I II E 1 2 3 10 11     |                 | No           | No           | No           | n.r. |
| Cat Island                 | Pigeon Key                                     | 38       | 1/30 | 0              | 5.5 | I E 1 11               |                 | No           | No           | No           | n.r. |
| Cat Island                 | Pilot Harbor, New Bight                        | 43       | 1/29 | 0              | 1.1 | n.r.                   |                 | No           | No           | No           | n.r. |
| Cat Island                 | Port House                                     | 39       | 1/29 | 0              | 2.0 | II E 1 3 4 11          |                 | No           | No           | No           | n.r. |
| Eleuthera                  | Spanish Wells                                  | 8        | 1/28 | 0              | 6.0 | II E 1 3 4 10          |                 | No           | No           | No           | n.r. |
| Eleuthera                  | Winding Bay, Eleuthera                         | 9        | 2/6  | 0              | 5.8 | I E 1                  |                 | No           | No           | No           | f    |
| Exuma Cays                 | Careen Beach, Warderick Wells Cay <sup>1</sup> | 29       | 3/14 | 0              | 1.6 | II E 1                 |                 | No           | No           | No           | s(p) |
| Exuma Cays                 | Exuma Point, Great Exuma                       | 31       | 1/23 | 0              | 0.4 | II E 4 5               |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Hawksbill Cay <sup>1</sup>                     | 28       | 3/12 | 0              | 1.2 |                        |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Leaf Cay/White Cay <sup>1</sup>                | 35       | 2/24 | 0              | 5.6 | V B F 1 2 3 8 10<br>11 |                 | No           | No           | No           | p    |
| Exuma Cays                 | Moriah Harbour City, Great Exuma               | 33       | 1/23 | 0              | 1.7 | II E 1 2 3             |                 | No           | No           | No           | n.r. |

**The 2006 International Snowy Plover Winter Census in the Bahamas  
(Continued)**

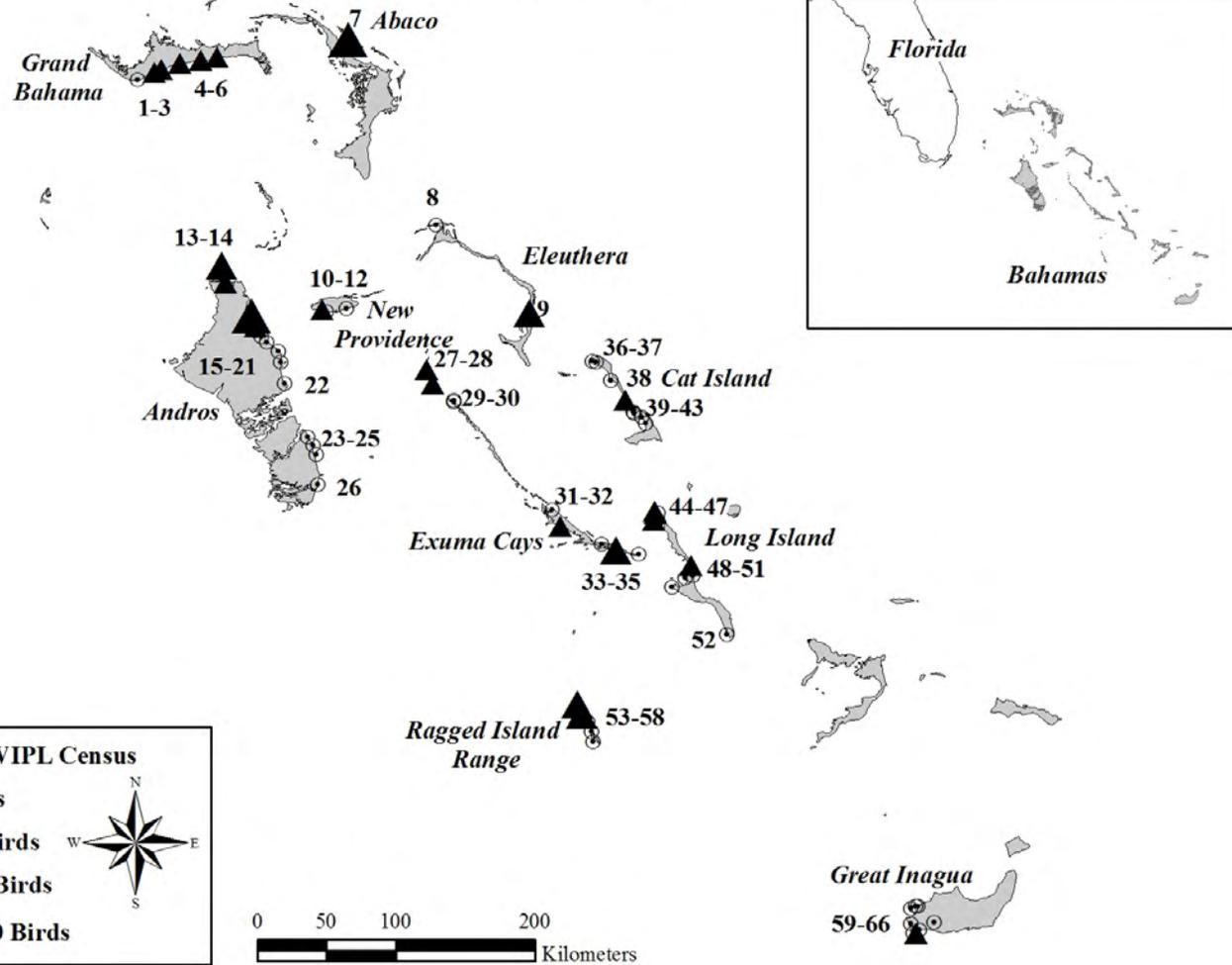
| ISLAND/<br>ISLAND<br>GROUP | SITE NAME   | MAP<br># | DATE | TOTAL          |      | SITE<br>DESCRIPTION | SNPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------------|---|----------|------|----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
|                            |   |          |      | SNPL<br>ADULTS | KM   |                     |                 |              |              |              |      |
| Exuma Cays                 | Normans Cay <sup>1</sup>                              | 27       | 3/9  | 0              | 2.0  | I E 3               |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Powerful Beach, Warderick Wells Cay <sup>1</sup>      | 30       | 3/26 | 0              | 0.2  | II E 1              |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Sea Way Drive, Great Exuma <sup>1</sup>               | 32       | 1/21 | 0              | 0.2  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Wolf Dames Back Landing, Little Exuma <sup>1</sup>    | 34       | 1/21 | 0              | 1.0  | I II E 11           |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Barbary Beach   | 3        | 2/1  | 0              | 4.3  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Discovery Beach                                       | 2        | 2/1  | 0              | 0.5  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Goldrock to East Point                                | 4        | 2/2  | 0              | 1.0  | I E 1               |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Island Seas - Silver Point Beach into Jetty           | 1        | 2/1  | 0              | 1.4  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Pelican Point West to Oil Terminal                    | 6        | 2/2  | 0              | 10.1 | I E 1               |                 | No           | No           | No           | n.r. |
| Grand Bahama               | West of Sciding Point to High Rock                    | 5        | 2/2  | 0              | 1.4  | I E 1 6 11          |                 | No           | No           | Yes          | n.r. |
| Great Inagua               | Craig's Bight East & West to Crossing                 | 65       | 2/5  | 0              | 5.0  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Man of War Bay  | 61       | 2/4  | 0              | 10.0 | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Morton Salt Ponds                                     | 66       | 2/5  | 5              | 0.7  | V E 11              |                 | No           | No           | No           | n.r. |
| Great Inagua               | Red Pond West   | 59       | 2/4  | 0              | 2.9  | V B 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | The Tunnel Beach                                      | 62       | 2/5  | 0              | 1.2  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Vandayvill Beach                                      | 63       | 2/3  | 0              | 2.0  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Vandayville to Lighthouse                             | 64       | 2/6  | 0              | 2.5  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Well Road Beach                                       | 60       | 2/5  | 0              | 2.2  | I E 1               |                 | No           | No           | No           | n.r. |
| Long Island                | Atlantic Coast from Pinders to Salt Pond <sup>1</sup> | 48       | 2/19 | 6              | 6.5  | I II A 1 10 11      | II A 1          | No           | No           | No           | p    |
| Long Island                | Cape Santa Maria Dev., Hoosie Harbor                  | 46       | 1/26 | 0              | 0.5  | II E 1 3 11         |                 | No           | No           | No           | n.r. |
| Long Island                | Conch Cay (off Long Island)                           | 51       | 1/25 | 0              | 3.7  | II E 1 5 8          |                 | No           | No           | No           | n.r. |
| Long Island                | Cove near C.C. Monument, Newton Cay                   | 44       | 1/26 | 0              | 0.4  | II E 3              |                 | No           | No           | No           | n.r. |
| Long Island                | Duncanson Point                                       | 49       | 1/25 | 0              | 0.6  | II B 11             |                 | No           | No           | No           | n.r. |
| Long Island                | Gordon's  | 52       | 1/27 | 0              | 1.5  | I E                 |                 | No           | No           | No           | n.r. |
| Long Island                | Joe Sound Harbor                                      | 47       | 1/26 | 0              | 0.3  | II E 1 3            |                 | No           | No           | No           | n.r. |
| Long Island                | Newton Cay, W side                                    | 45       | 1/26 | 0              | 0.6  | II E 1              |                 | No           | No           | No           | n.r. |
| Long Island                | Red Pond  | 50       | 1/24 | 2              | 0.5  | V E 3               | I E 3           | No           | No           | No           | n.r. |
| New<br>Providence          | Coral Harbor Goltlore                                 | 10       | 2/6  | 0              | 0.3  | I E 1 3 11          |                 | No           | No           | No           | n.r. |

**The 2006 International Snowy Plover Winter Census in the Bahamas  
(Continued)**

| <b>ISLAND/<br/>ISLAND<br/>GROUP</b> | <b>SITE NAME</b>                       | <b>MAP<br/>#</b> | <b>DATE</b> | <b>TOTAL<br/>SNPL<br/>ADULTS</b> | <b>KM</b>    | <b>SITE<br/>DESCRIPTION</b> | <b>SNPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|-------------------------------------|--|------------------|-------------|----------------------------------|--------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| New Providence                      | Local Harbor <sup>1</sup>              | 11               | 1/20        | 0                                | 0.6          | I E 11                      |                         | No                   | No                   | No                   | n.r.       |
| New Providence                      | South Beach <sup>1</sup>               | 12               | 1/20        | 0                                | 0.7          | I E 1 3                     |                         | No                   | Yes                  | No                   | n.r.       |
| Ragged Island Range                 | Buena Vista Cay                        | 53               | 1/31        | 0                                | 3.0          | I E 3                       |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | Hog Cay                                | 57               | 1/29        | 0                                | 3.0          | I E 3                       |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | House Bay, Racoon Cay <sup>1</sup>     | 54               | 1/21        | 0                                | 1.7          | I E 3                       |                         | No                   | No                   | No                   | s(p)       |
| Ragged Island Range                 | Margaret Cay, E shore                  | 56               | 1/25        | 0                                | 1.2          |                             |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | Ragged Island (bay on S end)           | 58               | 1/26        | 0                                | 2.0          |                             |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | Southern Pond, Racoon Cay <sup>1</sup> | 55               | 1/22        | 0                                | 0.5          | II V G 5                    |                         | No                   | No                   | No                   | n.r.       |
| <b>Total</b>                        |  |                  |             | <b>13</b>                        | <b>128.2</b> |                             |                         |                      |                      |                      |            |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

## 2006 International Wilson's Plover Winter Census - Bahamas -



## The 2006 International Wilson's Plover Winter Census in the Bahamas

| ISLAND/<br>ISLAND<br>GROUP | SITE NAME                                      | MAP<br># | DATE | TOTAL          |     | SITE<br>DESCRIPTION    | WIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------------|--|----------|------|----------------|-----|------------------------|-----------------|--------------|--------------|--------------|------|
|                            |  |          |      | WIPL<br>ADULTS | KM  |                        |                 |              |              |              |      |
| Abaco                      | Green Turtle Cay                               | 7        | 2/1  | 35             | 1.0 | II B 3                 | II B 3          | No           | No           | Yes          | f    |
| Andros                     | Andros Town                                    | 20       | 1/27 | 0              | 0.8 | I A 1 3 10             |                 | No           | No           | No           | f    |
| Andros                     | Blanket Sound                                  | 16       | 1/28 | 3              | 0.8 | I A 3 4 8 10           |                 | No           | No           | No           | f    |
| Andros                     | Calabash Bay                                   | 19       | 1/28 | 0              | 0.4 | I A 1 8 10             |                 | No           | No           | No           | f    |
| Andros                     | Congo Town                                     | 23       | 2/3  | 0              | 0.8 | I A 1 10               |                 | No           | No           | No           | f    |
| Andros                     | Flats N of Staniard Creek <sup>1</sup>         | 15       | 1/9  | 38             | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Joulter's Cays <sup>1</sup>                    | 13       | 1/10 | 17             | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Kemps Bay                                      | 24       | 2/3  | 0              | 0.8 | I A 1 3 4              |                 | No           | No           | No           | n.r. |
| Andros                     | Lowe's Sound Mangrove Flats <sup>1</sup>       | 14       | 1/10 | 0              | 1.6 |                        |                 | No           | No           | No           | n.r. |
| Andros                     | Mars Bay                                       | 26       | 2/3  | 0              | 0.8 | I A D 3 4 10           |                 | No           | No           | No           | f    |
| Andros                     | North Cargil Creek                             | 22       | 1/27 | 0              | 0.8 | I A 1 3 8 10           |                 | No           | No           | No           | f    |
| Andros                     | Small Hope Bay                                 | 18       | 1/28 | 0              | 0.8 | I A 3 4 8 10           |                 | No           | No           | No           | n.r. |
| Andros                     | Staniard Creek                                 | 17       | 1/29 | 0              | 1.2 | II IV A B E 1          |                 | No           | No           | No           | f    |
| Andros                     | Summerset Creek                                | 21       | 1/27 | 0              | 0.4 | I A 3 10               |                 | No           | No           | No           | f    |
| Andros                     | The Coppice at Duncan Point                    | 25       | 2/3  | 0              | 0.4 | I A 1 10               |                 | No           | No           | No           | f    |
| Cat Island                 | Fernandez Bay                                  | 40       | 1/31 | 0              | 1.1 | I II 1 10 11           |                 | No           | No           | No           | n.r. |
| Cat Island                 | New Bight Beach - From T to Primary School     | 42       | 1/31 | 0              | 0.8 | I E 1                  |                 | No           | No           | No           | n.r. |
| Cat Island                 | New Bight Harbor                               | 41       | 1/31 | 0              | 0.6 | II E 1 10              |                 | No           | No           | No           | n.r. |
| Cat Island                 | NW Most Beach Orange Creek Point               | 36       | 1/30 | 0              | 3.3 | I E 1 11               |                 | No           | No           | No           | n.r. |
| Cat Island                 | Orange Creek, SE End                           | 37       | 1/30 | 0              | 1.4 | I II E 1 2 3 10 11     |                 | No           | No           | No           | n.r. |
| Cat Island                 | Pigeon Key                                     | 38       | 1/30 | 0              | 5.5 | I E 1 11               |                 | No           | No           | No           | n.r. |
| Cat Island                 | Pilot Harbor, New Bight                        | 43       | 1/29 | 0              | 1.1 | n.r.                   |                 | No           | No           | No           | n.r. |
| Cat Island                 | Port House                                     | 39       | 1/29 | 1              | 2.0 | II E 1 3 4 11          | II E 1          | No           | No           | No           | n.r. |
| Eleuthera                  | Spanish Wells                                  | 8        | 1/28 | 0              | 6.0 | II E 1 3 4 10          |                 | No           | No           | No           | n.r. |
| Eleuthera                  | Winding Bay, Eleuthera                         | 9        | 2/6  | 13             | 5.8 | I E 1                  | I E 1           | No           | No           | No           | f    |
| Exuma Cays                 | Careen Beach, Warderick Wells Cay <sup>1</sup> | 29       | 3/14 | 0              | 1.6 | II E 1                 |                 | No           | No           | No           | s(p) |
| Exuma Cays                 | Exuma Point, Great Exuma                       | 31       | 1/23 | 0              | 0.4 | II E 4 5               |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Hawksbill Cay <sup>1</sup>                     | 28       | 3/12 | 3              | 1.2 |                        |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Leaf Cay/White Cay <sup>1</sup>                | 35       | 2/24 | 0              | 5.6 | V B F 1 2 3 8 10<br>11 |                 | No           | No           | No           | p    |
| Exuma Cays                 | Moriah Harbour City, Great Exuma               | 33       | 1/23 | 0              | 1.7 | II E 1 2 3             |                 | No           | No           | No           | n.r. |

**The 2006 International Wilsons Plover Winter Census in the Bahamas  
(Continued)**

| ISLAND/<br>ISLAND<br>GROUP | SITE NAME   | MAP<br># | DATE | TOTAL<br>WIPL<br>ADULTS | KM   | SITE<br>DESCRIPTION | WIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------------|---|----------|------|-------------------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Exuma Cays                 | Normans Cay <sup>1</sup>                              | 27       | 3/9  | 2                       | 2.0  | I E 3               |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Powerful Beach, Warderick Wells Cay <sup>1</sup>      | 30       | 3/26 | 0                       | 0.2  | II E 1              |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Sea Way Drive, Great Exuma <sup>1</sup>               | 32       | 1/21 | 1                       | 0.2  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Exuma Cays                 | Wolf Dames Back Landing, Little Exuma <sup>1</sup>    | 34       | 1/21 | 13                      | 1.0  | I II E 11           |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Barbary Beach   | 3        | 2/1  | 4                       | 4.3  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Discovery Beach                                       | 2        | 2/1  | 2                       | 0.5  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Goldrock to East Point                                | 4        | 2/2  | 2                       | 1.0  | I E 1               |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Island Seas - Silver Point Beach into Jetty           | 1        | 2/1  | 0                       | 1.4  | I E 1 11            |                 | No           | No           | No           | n.r. |
| Grand Bahama               | Pelican Point West to Oil Terminal                    | 6        | 2/2  | 5                       | 10.1 | I E 1               |                 | No           | No           | No           | n.r. |
| Grand Bahama               | West of Sciding Point to High Rock                    | 5        | 2/2  | 7                       | 1.4  | I E 1 6 11          |                 | No           | No           | Yes          | n.r. |
| Great Inagua               | Craig's Bight East & West to Crossing                 | 65       | 2/5  | 0                       | 5.0  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Man of War Bay  | 61       | 2/4  | 0                       | 10.0 | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Morton Salt Ponds                                     | 66       | 2/5  | 0                       | 0.7  | V E 11              |                 | No           | No           | No           | n.r. |
| Great Inagua               | Red Pond West   | 59       | 2/4  | 0                       | 2.9  | V B 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | The Tunnel Beach                                      | 62       | 2/5  | 0                       | 1.2  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Vandayvill Beach                                      | 63       | 2/3  | 2                       | 2.0  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Vandayville to Lighthouse                             | 64       | 2/6  | 0                       | 2.5  | I E 1               |                 | No           | No           | No           | n.r. |
| Great Inagua               | Well Road Beach                                       | 60       | 2/5  | 0                       | 2.2  | I E 1               |                 | No           | No           | No           | n.r. |
| Long Island                | Atlantic Coast from Pinders to Salt Pond <sup>1</sup> | 48       | 2/19 | 4                       | 6.5  | I II A 1 10 11      | I A 11          | No           | No           | No           | p    |
| Long Island                | Cape Santa Maria Dev., Hoosie Harbor                  | 46       | 1/26 | 5                       | 0.5  | II E 1 3 11         | II E 3          | No           | No           | No           | n.r. |
| Long Island                | Conch Cay (off Long Island)                           | 51       | 1/25 | 0                       | 3.7  | II E 1 5 8          |                 | No           | No           | No           | n.r. |
| Long Island                | Cove near C.C. Monument, Newton Cay                   | 44       | 1/26 | 7                       | 0.4  | II E 3              | II E 10         | No           | No           | No           | n.r. |
| Long Island                | Duncanson Point                                       | 49       | 1/25 | 0                       | 0.6  | II B 11             |                 | No           | No           | No           | n.r. |
| Long Island                | Gordon's  | 52       | 1/27 | 0                       | 1.5  | I E                 |                 | No           | No           | No           | n.r. |
| Long Island                | Joe Sound Harbor                                      | 47       | 1/26 | 3                       | 0.3  | II E 1 3            | II E 3          | No           | No           | No           | n.r. |
| Long Island                | Newton Cay, W side                                    | 45       | 1/26 | 0                       | 0.6  | II E 1              |                 | No           | No           | No           | n.r. |
| Long Island                | Red Pond  | 50       | 1/24 | 0                       | 0.5  | V E 3               |                 | No           | No           | No           | n.r. |
| New<br>Providence          | Coral Harbor Goltlore                                 | 10       | 2/6  | 9                       | 0.3  | I E 1 3 11          | I E 2           | No           | No           | No           | n.r. |

**The 2006 International Wilson's Plover Winter Census in the Bahamas  
(Continued)**

| <b>ISLAND/<br/>ISLAND<br/>GROUP</b> | <b>SITE NAME</b>                       | <b>MAP<br/>#</b> | <b>DATE</b> | <b>TOTAL<br/>WIPL<br/>ADULTS</b> | <b>KM</b>    | <b>SITE<br/>DESCRIPTION</b> | <b>WIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|-------------------------------------|--|------------------|-------------|----------------------------------|--------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| New Providence                      | Local Harbor <sup>1</sup>              | 11               | 1/20        | 0                                | 0.6          | I E 11                      |                         | No                   | No                   | No                   | n.r.       |
| New Providence                      | South Beach <sup>1</sup>               | 12               | 1/20        | 0                                | 0.7          | I E 1 3                     |                         | No                   | Yes                  | No                   | n.r.       |
| Ragged Island Range                 | Buena Vista Cay                        | 53               | 1/31        | 15                               | 3.0          | I E 3                       | I E 3                   | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | Hog Cay                                | 57               | 1/29        | 0                                | 3.0          | I E 3                       |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | House Bay, Racoon Cay <sup>1</sup>     | 54               | 1/21        | 2                                | 1.7          | I E 3                       | I E 3                   | No                   | No                   | No                   | s(p)       |
| Ragged Island Range                 | Margaret Cay, E shore                  | 56               | 1/25        | 0                                | 1.2          |                             |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | Ragged Island (bay on S end)           | 58               | 1/26        | 0                                | 2.0          |                             |                         | No                   | No                   | No                   | n.r.       |
| Ragged Island Range                 | Southern Pond, Racoon Cay <sup>1</sup> | 55               | 1/22        | 25                               | 0.5          | II V G 5                    | II F 5                  | No                   | No                   | No                   | n.r.       |
| <b>Total</b>                        |  |                  |             | <b>218</b>                       | <b>128.2</b> |                             |                         |                      |                      |                      |            |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# The 2006 International Piping Plover Winter Census in the Cuba

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Because of the time it took to obtain work permits and visas for Cuba, the Piping Plover survey was held from February 14 to March 5, 2006. In all, 89 plovers were counted, or 34 more than in 2001. The research effort was greater in 2006 than in the 2001 survey, with 123.6 km of beaches covered versus 105.4 km in 2001.

All of the beaches where Piping Plovers were sighted in 2001 were surveyed again in 2006, except for the beach on Meganó Grande Cay. On Hicacos Peninsula and Guillermo Cay, there were no sightings of Piping Plovers in 2006, whereas there were some in 2001. The construction of hotel complexes has caused disturbance to Piping Plover habitat in these areas.

In general, the Piping Plovers sighted on these beaches at high tide were resting, whereas those sighted at low tide were feeding on the extensive sand flats. The cays featuring these two types of habitat, located close together, are the ones typically frequented by this species.

Of the 89 Piping Plovers sighted, 4 were banded, 82 were not, and for 3 birds this determination could not be made. Three of the banded birds were likely banded in eastern Canada, whereas the fourth was banded in Cuba.

In the future, other beaches could be inventoried in Cuba in order to have a complete picture of the wintering population. There are nearly 1,500 cays in the archipelagos of Sabana and Camagüey. Since only the most accessible ones were inventoried, there are a number of other beaches in these archipelagos that could be surveyed, including those located on Mono, Blancos, Frágoso and Lanzanillo Kays. On the main island of Cuba, some beaches in Las Tunas province may constitute potential habitat. There are also some beaches to the west of Havana, specifically those on Levisa and Jutías Kays that appear to offer suitable habitat. South of the main island are the Jardines de la Reina and Los Canarreos archipelagos, which may have potential for the species. The sighting of one Piping Plover in 2006 on Largo Cay proves that these archipelagos offer potential as wintering grounds for the species. Unfortunately they are not very accessible.

Tourism is still expanding in Cuba. On a visit to the Hicacos Peninsula, no birds were found during the survey, whereas some were counted in 2001. The place that Piping Plovers used to frequent has been altered substantially and hotel complexes are under construction.

## Wilson's Plover

Since Wilson's Plovers appear to use rocky coastal areas to a greater extent, we no doubt surveyed only a small part of the habitat available for this species. The Wilson's Plover population that winters in Cuba is definitely a lot larger than what our results (only 57 individuals) show.

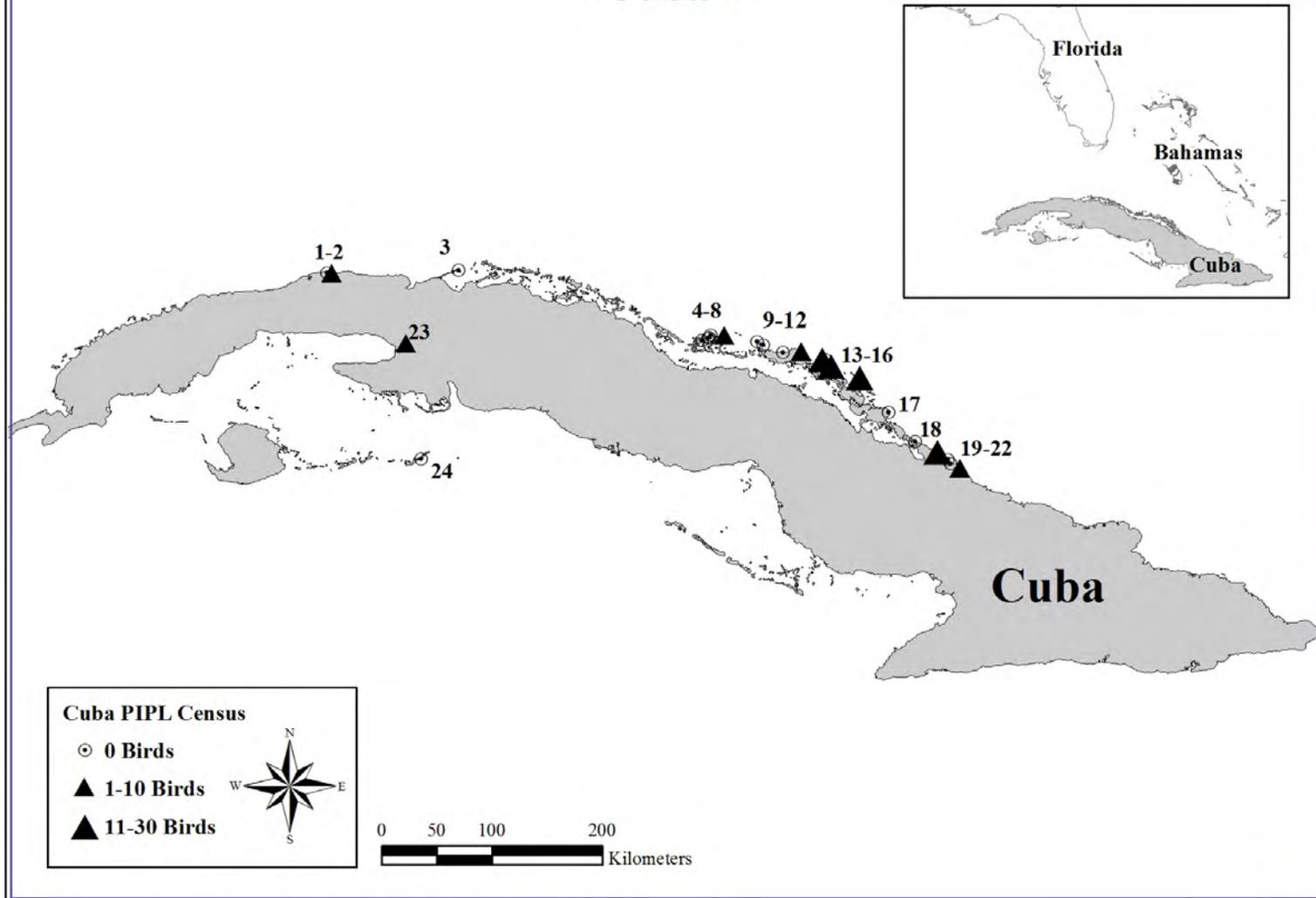
### Snowy Plover

With regard to the Snowy Plover, we were unable to survey the Las Salinas de Bidos site, which is where 88% of the 2001 sightings in Cuba were made. This species is undoubtedly rare in Cuba in the winter. However, if it were possible to survey all of the salt pans in Cuba, more of these birds would definitely be counted.

### **Comparison of Census Numbers**

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 11   | 64   | 55   | 89   |
| Snowy Plover    | n.r. | n.r. | 16   | 0    |
| Wilson's Plover | n.r. | n.r. | n.r. | 57   |

# 2006 International Piping Plover Winter Census - Cuba -



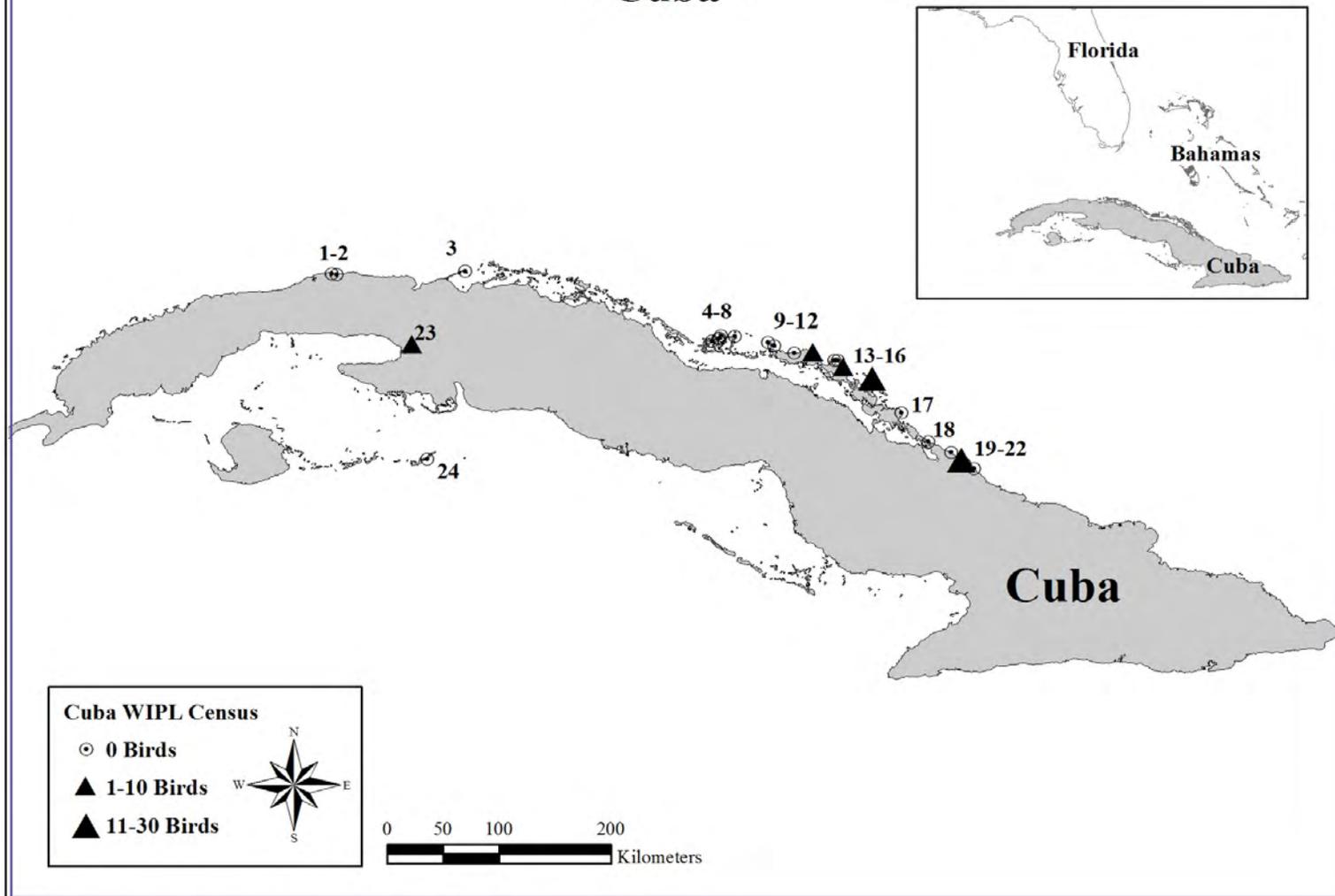
## The 2006 International Piping Plover Winter Census in Cuba

| COUNTY           | SITE NAME                            | MAP # | DATE | TOTAL       |              | SITE DESCRIPTION | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|------------------|--------------------------------------|-------|------|-------------|--------------|------------------|--------------|-----------|-----------|-----------|-----|
|                  |                                      |       |      | PIPL ADULTS | KM           |                  |              |           |           |           |     |
| Camaguey         | Pedraplain / Cayo Anton              | 15    | 2/19 | 17          | 1.1          | I E 11           | I E 11       | No        | No        | Yes       | f   |
| Camaguey         | Playa Bonita / Cayo Sabinal          | 21    | 2/21 | 0           | 1.5          | I E 1            |              | No        | No        | Yes       | f   |
| Camaguey         | Playa Cruz/Cayo Cruz                 | 16    | 2/22 | 19          | 3.5          | I E 1            | I E 1        | No        | No        | Yes       | f   |
| Camaguey         | Playa el Faro/ Cayo Sabinal          | 20    | 2/21 | 0           | 6.8          | I E 1            |              | No        | No        | No        | f   |
| Camaguey         | Playa Guarda Frontera / Cayo Sabinal | 18    | 2/21 | 0           | 3.1          | I E 1            |              | No        | No        | No        | f   |
| Camaguey         | Playa Las Calaveras / Cayo Romano    | 17    | 2/23 | 0           | 8.7          | I E 1            |              | No        | No        | No        | f   |
| Camaguey         | Playa Los Lirios/Cayo Paredón Grande | 13    | 2/25 | 18          | 3.8          | II E 1           | I E 3        | Yes       | Yes       | Yes       | f   |
| Camaguey         | Playa Los Pinos/Cayo Sabinal         | 19    | 2/21 | 14          | 7.8          | I E 1            | I E 1        | No        | No        | Yes       | f   |
| Camaguey         | Playa Los pinos/Cayo Paredon Grande  | 14    | 2/25 | 0           | 6.3          | I E 1            |              |           |           |           | f   |
| Camaguey         | Playa Santa Lucia                    | 22    | 2/22 | 6           | 14.2         | I A 1            | I A 1        | No        | No        | No        | f   |
| Ciego de Avila   | Playa El Paso/Cayo Guillermo         | 10    | 2/26 | 0           | 3.8          | I E 1            |              | No        | No        | Yes       | f   |
| Ciego de Avila   | Playa Las Coloradas/Cayo Coco        | 12    | 2/26 | 9           | 2.5          | I E 1            | I E 1        | No        | Yes       | Yes       | f   |
| Ciego de Avila   | Playa Pilar/Cayo Guillermo           | 9     | 2/26 | 0           | 1.8          | I E 1            |              | No        | No        | Yes       | f   |
| Ciego de Avila   | Uva Caleta/ Cayo Coco                | 11    | 2/26 | 0           | 0.7          | I E 1            |              | No        | Yes       | Yes       | f   |
| Ciudad de Habana | Habana del Este                      | 2     | 2/14 | 2           | 7.8          | I A 1            | I A 1        | No        | Yes       | Yes       | f   |
| Ciudad de Habana | Plage Bacuranao                      | 1     | 2/14 | 0           | 0.3          | I A 1            |              | No        | No        | No        | f   |
| Mantanzas        | Peninsula de Hicacos                 | 3     | 2/15 | 0           | 8.7          | I A 1            |              | No        | Yes       | Yes       | f   |
| Pinar del Rio    | Playa Larga/Cayo Largo               | 24    | 3/02 | 0           | 14.4         | I E 1            |              | No        | No        | No        | f   |
| Pinar del Rio    | Playa Paraiso/ Cayo Largo            | 23    | 3/03 | 1           | 8.2          | I E 1            | I E 1        | No        | No        | No        | f   |
| Villa Clara      | Playa Al Final/Cayo Santa Maria      | 8     | 2/17 | 3           | 3.1          | I E 1            | I E 3        | No        | Yes       | Yes       | f   |
| Villa Clara      | Playa Ensenachos #1/Cayo Ensenachos  | 6     | 2/18 | 0           | 1.4          | IV E 1           |              | No        | No        | Yes       | f   |
| Villa Clara      | Playa Ensenachos #2/Cayo Ensenachos  | 5     | 2/18 | 0           | 1.3          | IV E 1           |              | No        | No        | Yes       | f   |
| Villa Clara      | Playa Estrella/Cayo Santa Maria      | 7     | 2/17 | 0           | 11.0         | I E 1            |              | No        | Yes       | Yes       | f   |
| Villa Clara      | Playa La Bruja / Cayo La Bruya       | 4     | 2/17 | 0           | 2.0          | IV E 1           |              | No        | No        | Yes       | f   |
| <b>Total</b>     |                                      |       |      | <b>89</b>   | <b>123.6</b> |                  |              |           |           |           |     |

## The 2006 International Snowy Plover Winter Census in Cuba

| COUNTY           | SITE NAME                            | MAP # | DATE | TOTAL       |              | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|------------------|--------------------------------------|-------|------|-------------|--------------|------------------|--------------|-----------|-----------|-----------|-----|
|                  |                                      |       |      | SNPL ADULTS | KM           |                  |              |           |           |           |     |
| Camaguey         | Pedraplain / Cayo Anton              | 15    | 2/19 | 0           | 1.1          | IE 11            |              | No        | No        | Yes       | f   |
| Camaguey         | Playa Bonita / Cayo Sabinal          | 21    | 2/21 | 0           | 1.5          | IE 1             |              | No        | No        | Yes       | f   |
| Camaguey         | Playa Cruz/Cayo Cruz                 | 16    | 2/22 | 0           | 3.5          | IE 1             |              | No        | No        | Yes       | f   |
| Camaguey         | Playa el Faro/ Cayo Sabinal          | 20    | 2/21 | 0           | 6.8          | IE 1             |              | No        | No        | No        | f   |
| Camaguey         | Playa Guarda Frontera / Cayo Sabinal | 18    | 2/21 | 0           | 3.1          | IE 1             |              | No        | No        | No        | f   |
| Camaguey         | Playa Las Calaveras / Cayo Romano    | 17    | 2/23 | 0           | 8.7          | IE 1             |              | No        | No        | No        | f   |
| Camaguey         | Playa Los Lirios/Cayo Paredón Grande | 13    | 2/25 | 0           | 3.8          | II E 1           |              | Yes       | Yes       | Yes       | f   |
| Camaguey         | Playa Los Pinos/Cayo Sabinal         | 19    | 2/21 | 0           | 7.8          | IE 1             |              | No        | No        | Yes       | f   |
| Camaguey         | Playa Los pinos/Cayo Paredon Grande  | 14    | 2/25 | 0           | 6.3          | IE 1             |              |           |           |           | f   |
| Camaguey         | Playa Santa Lucia                    | 22    | 2/22 | 0           | 14.2         | IA 1             |              | No        | No        | No        | f   |
| Ciego de Avila   | Playa El Paso/Cayo Guillermo         | 10    | 2/26 | 0           | 3.8          | IE 1             |              | No        | No        | Yes       | f   |
| Ciego de Avila   | Playa Las Coloradas/Cayo Coco        | 12    | 2/26 | 0           | 2.5          | IE 1             |              | No        | Yes       | Yes       | f   |
| Ciego de Avila   | Playa Pilar/Cayo Guillermo           | 9     | 2/26 | 0           | 1.8          | IE 1             |              | No        | No        | Yes       | f   |
| Ciego de Avila   | Uva Caleta/ Cayo Coco                | 11    | 2/26 | 0           | 0.7          | IE 1             |              | No        | Yes       | Yes       | f   |
| Cuidad de Habana | Habana del Este                      | 2     | 2/14 | 0           | 7.8          | IA 1             |              | No        | Yes       | Yes       | f   |
| Cuidad de Habana | Plage Bacuranao                      | 1     | 2/14 | 0           | 0.3          | IA 1             |              | No        | No        | No        | f   |
| Mantanzas        | Peninsula de Hicacos                 | 3     | 2/15 | 0           | 8.7          | IA 1             |              | No        | Yes       | Yes       | f   |
| Pinar del Rio    | Playa Larga/Cayo Largo               | 24    | 3/02 | 0           | 14.4         | IE 1             |              | No        | No        | No        | f   |
| Pinar del Rio    | Playa Paraiso/ Cayo Largo            | 23    | 3/03 | 0           | 8.2          | IE 1             |              | No        | No        | No        | f   |
| Villa Clara      | Playa Al Final/Cayo Santa Maria      | 8     | 2/17 | 0           | 3.1          | IE 1             |              | No        | Yes       | Yes       | f   |
| Villa Clara      | Playa Ensenachos #1/Cayo Ensenachos  | 6     | 2/18 | 0           | 1.4          | IV E 1           |              | No        | No        | Yes       | f   |
| Villa Clara      | Playa Ensenachos #2/Cayo Ensenachos  | 5     | 2/18 | 0           | 1.3          | IV E 1           |              | No        | No        | Yes       | f   |
| Villa Clara      | Playa Estrella/Cayo Santa Maria      | 7     | 2/17 | 0           | 11.0         | IE 1             |              | No        | Yes       | Yes       | f   |
| Villa Clara      | Playa La Bruja / Cayo La Bruya       | 4     | 2/17 | 0           | 2.0          | IV E 1           |              | No        | No        | Yes       | f   |
| <b>Total</b>     |                                      |       |      | <b>0</b>    | <b>123.6</b> |                  |              |           |           |           |     |

# 2006 International Wilson's Plover Winter Census - Cuba -



## The 2006 International Wilson's Plover Winter Census in Cuba

| COUNTY           | SITE NAME                            | MAP # | DATE | TOTAL       |              | SITE DESCRIPTION | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|------------------|--------------------------------------|-------|------|-------------|--------------|------------------|--------------|-----------|-----------|-----------|-----|
|                  |                                      |       |      | WIPL ADULTS | KM           |                  |              |           |           |           |     |
| Camaguey         | Pedraplain / Cayo Anton              | 15    | 2/19 | 9           | 1.1          | I E 11           | I E 11       | No        | No        | Yes       | f   |
| Camaguey         | Playa Bonita / Cayo Sabinal          | 21    | 2/21 | 0           | 1.5          | I E 1            |              | No        | No        | Yes       | f   |
| Camaguey         | Playa Cruz/Cayo Cruz                 | 16    | 2/22 | 27          | 3.5          | I E 1            | I E 11       | No        | No        | Yes       | f   |
| Camaguey         | Playa el Faro/ Cayo Sabinal          | 20    | 2/21 | 13          | 6.8          | I E 1            | I E 11       | No        | No        | No        | f   |
| Camaguey         | Playa Guarda Frontera / Cayo Sabinal | 18    | 2/21 | 0           | 3.1          | I E 1            |              | No        | No        | No        | f   |
| Camaguey         | Playa Las Calaveras / Cayo Romano    | 17    | 2/23 | 0           | 8.7          | I E 1            |              | No        | No        | No        | f   |
| Camaguey         | Playa Los Lirios/Cayo Paredón Grande | 13    | 2/25 | 0           | 3.8          | II E 1           |              | Yes       | Yes       | Yes       | f   |
| Camaguey         | Playa Los Pinos/Cayo Sabinal         | 19    | 2/21 | 0           | 7.8          | I E 1            |              | No        | No        | Yes       | f   |
| Camaguey         | Playa Los pinos/Cayo Paredon Grande  | 14    | 2/25 | 0           | 6.3          | I E 1            |              |           |           |           | f   |
| Camaguey         | Playa Santa Lucia                    | 22    | 2/22 | 0           | 14.2         | I A 1            |              | No        | No        | No        | f   |
| Ciego de Avila   | Playa El Paso/Cayo Guillermo         | 10    | 2/26 | 0           | 3.8          | I E 1            |              | No        | No        | Yes       | f   |
| Ciego de Avila   | Playa Las Coloradas/Cayo Coco        | 12    | 2/26 | 2           | 2.5          | I E 1            | I E 1        | No        | Yes       | Yes       | f   |
| Ciego de Avila   | Playa Pilar/Cayo Guillermo           | 9     | 2/26 | 0           | 1.8          | I E 1            |              | No        | No        | Yes       | f   |
| Ciego de Avila   | Uva Caleta/ Cayo Coco                | 11    | 2/26 | 0           | 0.7          | I E 1            |              | No        | Yes       | Yes       | f   |
| Cuidad de Habana | Habana del Este                      | 2     | 2/14 | 0           | 7.8          | I A 1            |              | No        | Yes       | Yes       | f   |
| Cuidad de Habana | Plage Bacuranao                      | 1     | 2/14 | 0           | 0.3          | I A 1            |              | No        | No        | No        | f   |
| Mantanzas        | Peninsula de Hicacos                 | 3     | 2/15 | 0           | 8.7          | I A 1            |              | No        | Yes       | Yes       | f   |
| Pinar del Rio    | Playa Larga/Cayo Largo               | 24    | 3/02 | 0           | 14.4         | I E 1            |              | No        | No        | No        | f   |
| Pinar del Rio    | Playa Paraiso/ Cayo Largo            | 23    | 3/03 | 6           | 8.2          | I E 1            | I E 1        | No        | No        | No        | f   |
| Villa Clara      | Playa Al Final/Cayo Santa Maria      | 8     | 2/17 | 0           | 3.1          | I E 1            |              | No        | Yes       | Yes       | f   |
| Villa Clara      | Playa Ensenachos #1/Cayo Ensenachos  | 6     | 2/18 | 0           | 1.4          | IV E 1           |              | No        | No        | Yes       | f   |
| Villa Clara      | Playa Ensenachos #2/Cayo Ensenachos  | 5     | 2/18 | 0           | 1.3          | IV E 1           |              | No        | No        | Yes       | f   |
| Villa Clara      | Playa Estrella/Cayo Santa Maria      | 7     | 2/17 | 0           | 11.0         | I E 1            |              | No        | Yes       | Yes       | f   |
| Villa Clara      | Playa La Bruja / Cayo La Bruya       | 4     | 2/17 | 0           | 2.0          | IV E 1           |              | No        | No        | Yes       | f   |
| <b>Total</b>     |                                      |       |      | <b>57</b>   | <b>123.6</b> |                  |              |           |           |           |     |

# The 2006 International Piping Plover Winter Census in Puerto Rico

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The 2006 International Piping Plover Census was conducted at 6 sites in Puerto Rico including one site where Piping Plovers were reported in 2001.

The censuses were carried out by 15 participants, most of whom are members of the "Red Limicola" (Puerto Rican Shorebird Network). They conduct regular monthly surveys at particular sites in Puerto Rico.

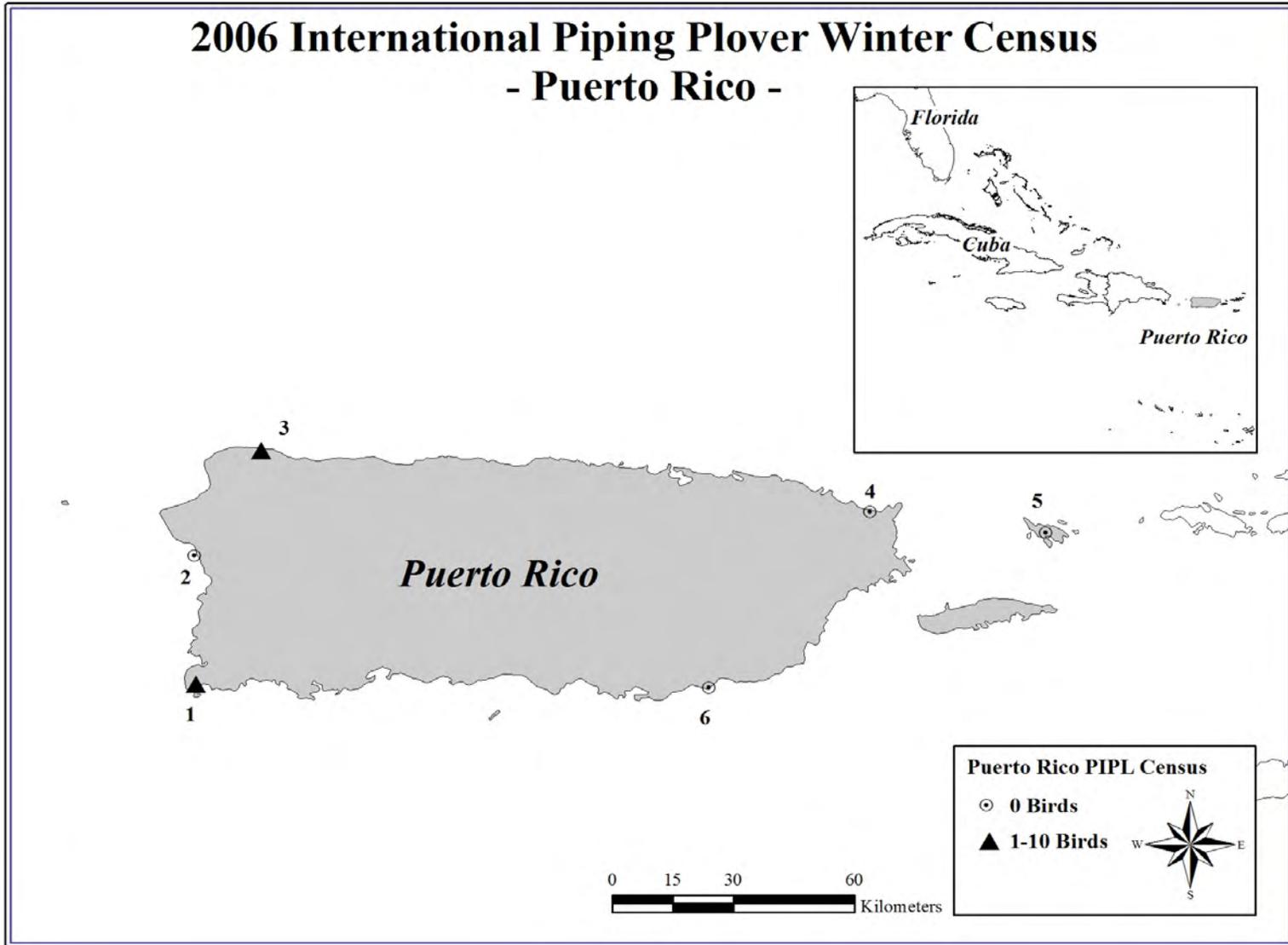
No Piping Plovers and relatively few snowy and wilson's were found during the census window. However, in some instances weather was unfavorable. Hence, to document the presence in 2006 of Piping Plovers at sites where they are usually found, our results include Piping Plover observations from two surveys during the winter, but outside the Census window. Despite, including a couple of surveys outside the Census window, we only have record of a single Snowy Plover. It is very unusual not to find Snowy Plovers at Cabo Roja, where 17 were observed during the 2001 Census. However, neither of the two winter surveys at Cabo Roja in 2006 detected Snowy Plovers.

Comparison of Census Numbers

| Species         | 1991 | 1996 | 2001 | 2006 |
|-----------------|------|------|------|------|
| Piping Plover   | 0    | 0    | 6    | 2    |
| Snowy Plover    | n.r. | n.r. | 17   | 1    |
| Wilson's Plover | n.r. | n.r. | n.r. | 63   |

*Summarized by E. Elliott-Smith*

# 2006 International Piping Plover Winter Census - Puerto Rico -

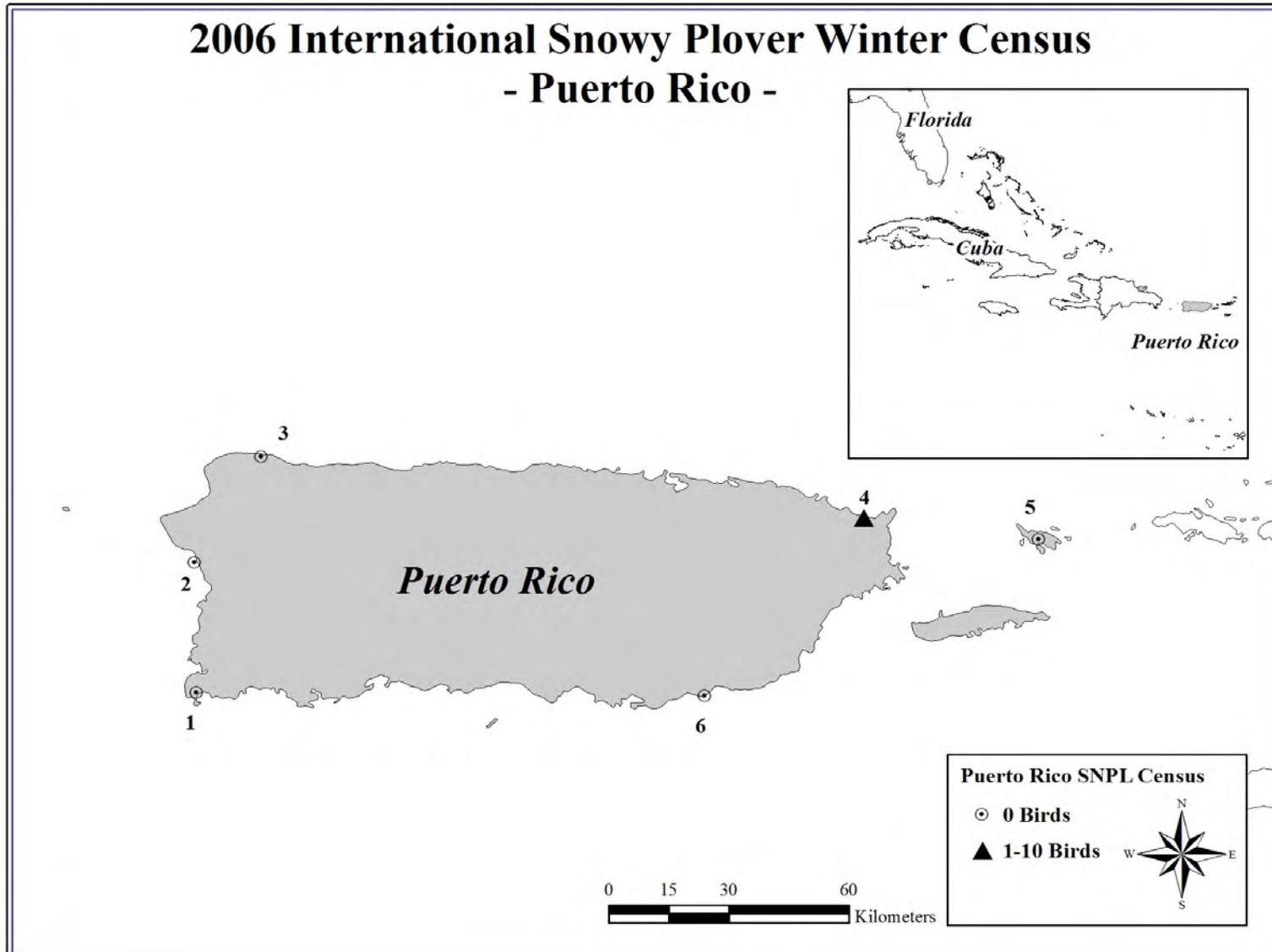


## The 2006 International Piping Plover Winter Census in Puerto Rico

| COUNTY       | SITE NAME   | MAP # | DATE  | TOTAL<br>PIPL<br>ADULTS | KM          | SITE<br>DESCRIPTION        | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|--------------|---|-------|-------|-------------------------|-------------|----------------------------|-----------------|--------------|--------------|--------------|--------|
| Anasco       | Beach by mouth of Anasco River <sup>1</sup>                                     | 2     | 1/24  | 0                       | 0.5         | I A 2                      |                 | No           | No           | No           | s(p)/p |
| Arroyo       | Cangrejos Beach, Punta Figuras, Punta Guilarte and<br>Palmas Beach <sup>1</sup> | 6     | 1/21  | 0                       | 4.0         | I A 1                      |                 | No           | No           | No           | m      |
| Cabo Rojo    | Cabo Rojo Salt Flats <sup>1</sup>   | 1     | 12/31 | 1                       | 5.0         | II E 5 8 9                 |                 | Yes          | Yes          | Yes          | f      |
| Isabela      | Beaches of Isabela, Sardinera to Golondrinas <sup>1</sup>                       | 3     | 2/25  | 1                       | 3.0         | I 1                        |                 | No           | No           | No           | s(p)/p |
| Luquillo     | San Miguel  | 4     | 2/5   | 0                       | 3.2         | I F 1                      |                 | No           | No           | No           | p      |
| Multiple     | Culebra Island <sup>1</sup>   | 5     | 1/14  | 0                       | 11.0        | I II A B E 1 5 6 7<br>8 10 |                 | No           | No           | Yes          | s(p)/f |
| <b>Total</b> |   |       |       | <b>2</b>                | <b>20.5</b> |                            |                 |              |              |              |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

## 2006 International Snowy Plover Winter Census - Puerto Rico -

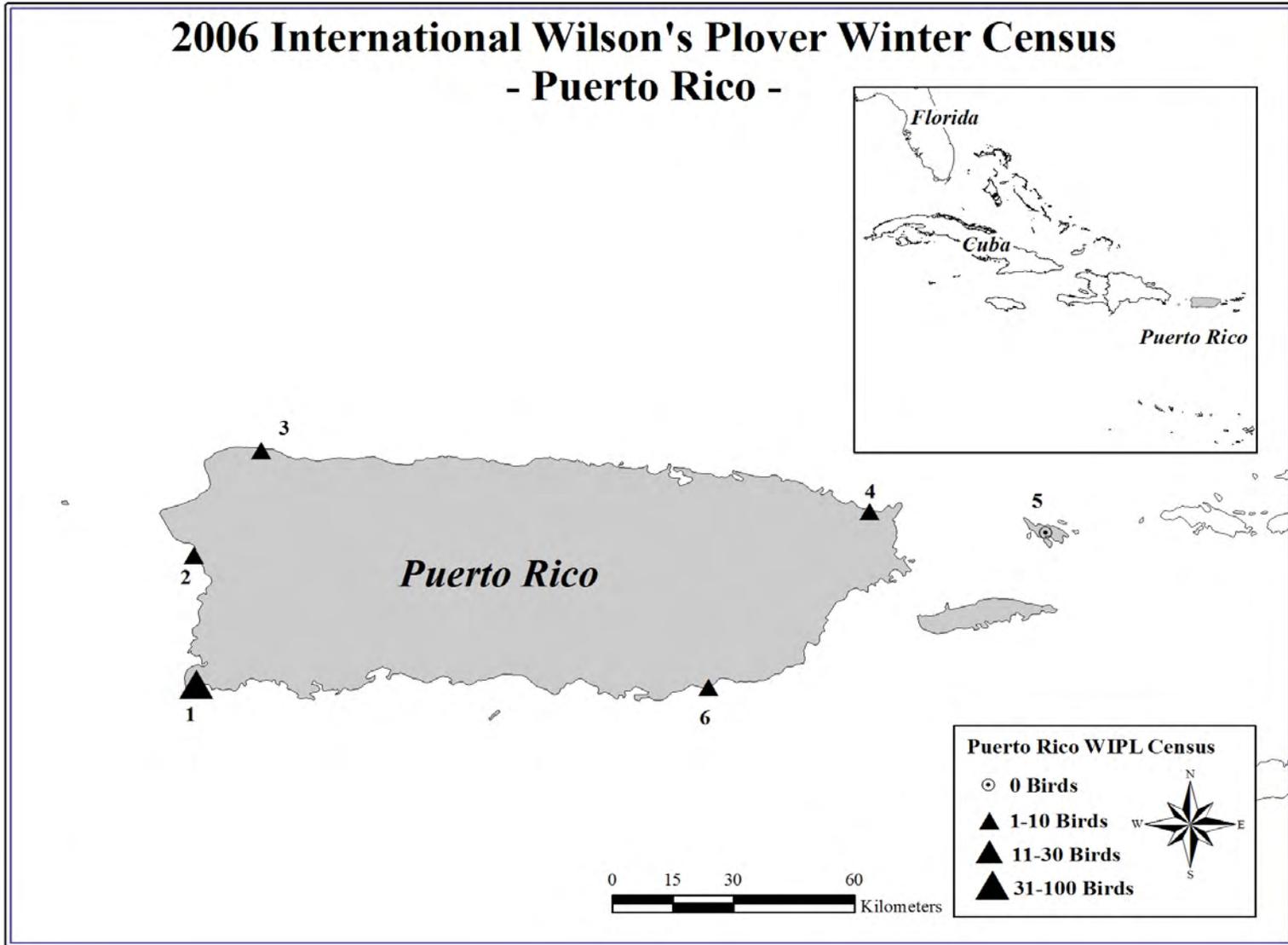


## The 2006 International Snowy Plover Winter Census in Puerto Rico

| COUNTY       | SITE NAME  | MAP # | DATE  | TOTAL SNPL ADULTS | KM          | SITE DESCRIPTION           | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|--------------|--|-------|-------|-------------------|-------------|----------------------------|--------------|-----------|-----------|-----------|--------|
| Anasco       | Beach by mouth of Anasco River <sup>1</sup>                                  | 2     | 1/24  | 0                 | 0.5         | I A 2                      |              | No        | No        | No        | s(p)/p |
| Arroyo       | Cangrejos Beach, Punta Figuras, Punta Guilarte and Palmas Beach <sup>1</sup> | 6     | 1/21  | 0                 | 4.0         | I A 1                      |              | No        | No        | No        | m      |
| Cabo Rojo    | Cabo Rojo Salt Flats <sup>1</sup>  | 1     | 12/31 | 0                 | 5.0         | II E 5 8 9                 |              | Yes       | Yes       | Yes       | f      |
| Isabela      | Beaches of Isabela, Sardinera to Golondrinas <sup>1</sup>                    | 3     | 2/25  | 0                 | 3.0         | I 1                        |              | No        | No        | No        | s(p)/p |
| Luquillo     | San Miguel   | 4     | 2/5   | 1                 | 3.2         | I F 1                      | I F 1        | No        | No        | No        | p      |
| Multiple     | Culebra Island <sup>1</sup>  | 5     | 1/14  | 0                 | 11.0        | I II A B E 1 5 6 7<br>8 10 |              | No        | No        | Yes       | s(p)/f |
| <b>Total</b> |  |       |       | <b>1</b>          | <b>20.5</b> |                            |              |           |           |           |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# 2006 International Wilson's Plover Winter Census - Puerto Rico -



## The 2006 International Wilson's Plover Winter Census in Puerto Rico

| COUNTY       | SITE NAME  | MAP # | DATE  | TOTAL WIPL ADULTS | KM          | SITE DESCRIPTION           | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|--------------|--|-------|-------|-------------------|-------------|----------------------------|--------------|-----------|-----------|-----------|--------|
| Anasco       | Beach by mouth of Anasco River <sup>1</sup>                                  | 2     | 1/24  | 7                 | 0.5         | I A 2                      | I A 2        | No        | No        | No        | s(p)/p |
| Arroyo       | Cangrejos Beach, Punta Figuras, Punta Guilarte and Palmas Beach <sup>1</sup> | 6     | 1/21  | 1                 | 4.0         | I A 1                      |              | No        | No        | No        | m      |
| Cabo Rojo    | Cabo Rojo Salt Flats <sup>1</sup>  | 1     | 12/31 | 45                | 5.0         | II E 5 8 9                 | II E 5       | Yes       | Yes       | Yes       | f      |
| Isabela      | Beaches of Isabela, Sardinera to Golondrinas <sup>1</sup>                    | 3     | 2/25  | 9                 | 3.0         | I 1                        | I F 1        | No        | No        | No        | s(p)/p |
| Luquillo     | San Miguel   | 4     | 2/5   | 1                 | 3.2         | I F 1                      | I F 1        | No        | No        | No        | p      |
| Multiple     | Culebra Island <sup>1</sup>  | 5     | 1/14  | 0                 | 11.0        | I II A B E 1 5 6 7<br>8 10 |              | No        | No        | Yes       | s(p)/f |
| <b>Total</b> |  |       |       | <b>63</b>         | <b>20.5</b> |                            |              |           |           |           |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

## **The 2006 International Piping Plover Winter Census at other islands in the Greater Antilles, West Indies**

Although previous Census' have included surveys of Puerto Rico and Cuba, data from other islands in the Caribbean has been sparse. In 2006, we attempted to contact biologists and birders throughout the Caribbean to inquire about potential Piping Plover habitat, historic records, and coordinate surveys where possible. Our effort focused on the Greater Antilles islands in the northern Caribbean as we assumed that they would have greatest potential for hosting wintering Piping Plovers. Following, are the reports from our communications as well as the results from surveys that were conducted. These communications and results are ordered from north to south and east to west.

### **Turks and Caicos**

Dr M.W. Pienkowski  
Chairman, UK Overseas Territories  
Conservation Forum  
102 Broadway, Peterborough PE1 4DG,  
UK  
pienkowski@cix.co.uk

I have been trying to do some routine bird counts as often as possible during my visits, which take place 3 or 4 times a year.

Piping Plovers are not frequent, so the most likely total would be zero. I try to count a reasonable proportion of the old salt-pans on Grand Turk and Salt Cay. These cover a relatively restricted area, are mainly accessible and birds generally occur at fairly high densities (although recent cruise-liner dock activities and higher water levels following frequent tropical storms have probably affected this negatively).

The Caicos Islands hold (with the exception of most of the recently developed Providenciales and some adjacent islands) a much more natural transition between land and sea. This is one of its outstanding biological features, as such transitions are now of course rather rare. As a consequence, although there are fine beaches, more of the birds are thinly scattered over a non-linear shore and other areas. These include shifting banks, extensive shallows over soft substrate without enough depth for a boat, islands usually inaccessible in anything other than the calmest seas (because of shallow coral reefs - it took us several years to get the first scientific team on to one of these, actually the largest uninhabited island in the Caribbean), ponds surrounded by dense prickly scrub involving hard machete work to get to, etc. That is why we do not have regular counts. It would be great to conduct comprehensive surveys with the assistance of a boat but this would be a major expedition requiring many days. Turks and Caicos may be rather small but getting about in the natural areas is slow and difficult. (For the location of Turks and Caicos, see map for the Dominican Republic).

Some habitat on Grand Turk was surveyed as part of the 1991 Census but no Piping Plovers were recorded (Haig and Plissner 1992).

### **The Cayman Islands**

Patricia Bradley  
PO Box 2394GT  
Grand Cayman  
Cayman Islands  
West Indies  
pebrad@candw.ky

Very comprehensive surveys were conducted on all three Cayman Islands during the 2006 Census. Unfortunately, there were a series of Nor'westers throughout Jan and into Feb which greatly reduced the numbers of migrants and

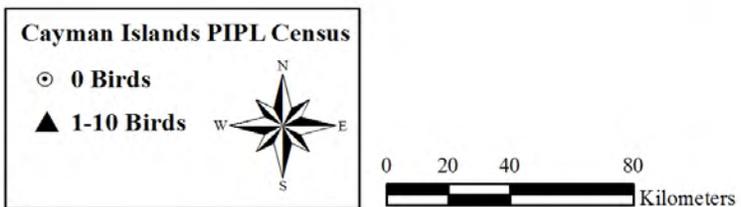
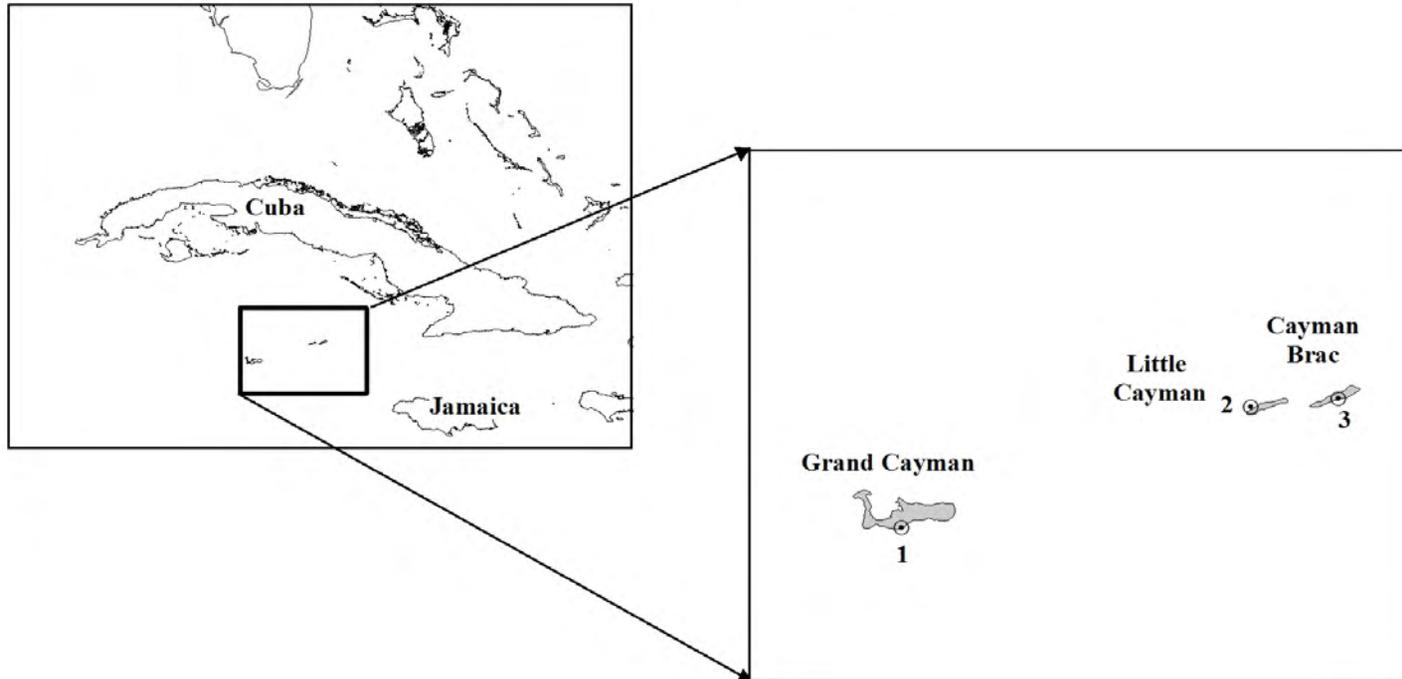
overwintering shorebirds. This likely explains why there were no Wilson's Plovers observed. Despite the proximity of the Cayman Islands to Cuba and the presence of Piping Plovers on that island, there are no records of Piping Plovers on any of the Cayman Islands. In 25 years of monitoring, there is only one Snowy Plover record. However, Wilson's Plovers commonly winter in the Cayman Islands in small numbers.

Some Cayman Island habitat was covered as part of the 1991 Census but no Piping Plovers were recorded (Haig and Plissner 1992).

## **Jamaica**

Unfortunately we were unable to coordinate any surveys on Jamaica during the 2006 Census. It is unlikely that piping or Snowy Plovers winter here but Wilson's Plovers have been observed. Some potential habitat in Jamaica was surveyed during the 1991 and 1996 Census but no Piping Plovers were seen (Haig and Plissner 1992, Plissner and Haig 1997). In the future, it might be useful to conduct surveys at Parottee Pond, Pedro Pond, Old Harbour Bay, and Yallahs Pond on the south coast and Mountain Spring Pond on the north (Bandon Hay, pers. comm.)

## 2006 International Piping Plover Winter Census - Cayman Islands -



### The 2006 International Piping Plover Winter Census in the Cayman Islands

| ISLAND                            | SITE NAME     | MAP # | DATE | TOTAL PIPL ADULTS | KM          | SITE DESCRIPTION | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|-----------------------------------|---------------|-------|------|-------------------|-------------|------------------|--------------|-----------|-----------|-----------|-----|
| Cayman Brac                       | Entire Island | 3     | 1/31 | 0                 | 29.0        | II A 1 5 8       |              | No        | No        | No        | f   |
| Grand Cayman                      | Entire Island | 1     | 2/05 | 0                 | 32.3        | II A 1 3 5 8     |              | No        | No        | No        | f   |
| Little Cayman Island <sup>1</sup> | Entire Island | 2     | 1/22 | 0                 | 32.3        | II A B D 1 5 8   |              | No        | No        | No        | f   |
| <b>Total</b>                      |               |       |      | <b>0</b>          | <b>93.6</b> |                  |              |           |           |           |     |

### The 2006 International Snowy Plover Winter Census in the Cayman Islands

| ISLAND                            | SITE NAME     | MAP # | DATE | TOTAL SNPL ADULTS | KM          | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|-----------------------------------|---------------|-------|------|-------------------|-------------|------------------|--------------|-----------|-----------|-----------|-----|
| Cayman Brac                       | Entire Island | 3     | 1/31 | 0                 | 29.0        | II A 1 5 8       |              | No        | No        | No        | f   |
| Grand Cayman                      | Entire Island | 1     | 2/05 | 0                 | 32.3        | II A 1 3 5 8     |              | No        | No        | No        | f   |
| Little Cayman Island <sup>1</sup> | Entire Island | 2     | 1/22 | 0                 | 32.3        | II A B D 1 5 8   |              | No        | No        | No        | f   |
| <b>Total</b>                      |               |       |      | <b>0</b>          | <b>93.6</b> |                  |              |           |           |           |     |

### The 2006 International Wilson's Plover Winter Census in the Cayman Islands

| ISLAND                            | SITE NAME     | MAP # | DATE | TOTAL WIPL ADULTS | KM          | SITE DESCRIPTION | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN |
|-----------------------------------|---------------|-------|------|-------------------|-------------|------------------|--------------|-----------|-----------|-----------|-----|
| Cayman Brac                       | Entire Island | 3     | 1/31 | 0                 | 29.0        | II A 1 5 8       |              | No        | No        | No        | f   |
| Grand Cayman                      | Entire Island | 1     | 2/05 | 0                 | 32.3        | II A 1 3 5 8     |              | No        | No        | No        | f   |
| Little Cayman Island <sup>1</sup> | Entire Island | 2     | 1/22 | 0                 | 32.3        | II A B D 1 5 8   |              | No        | No        | No        | f   |
| <b>Total</b>                      |               |       |      | <b>0</b>          | <b>93.6</b> |                  |              |           |           |           |     |

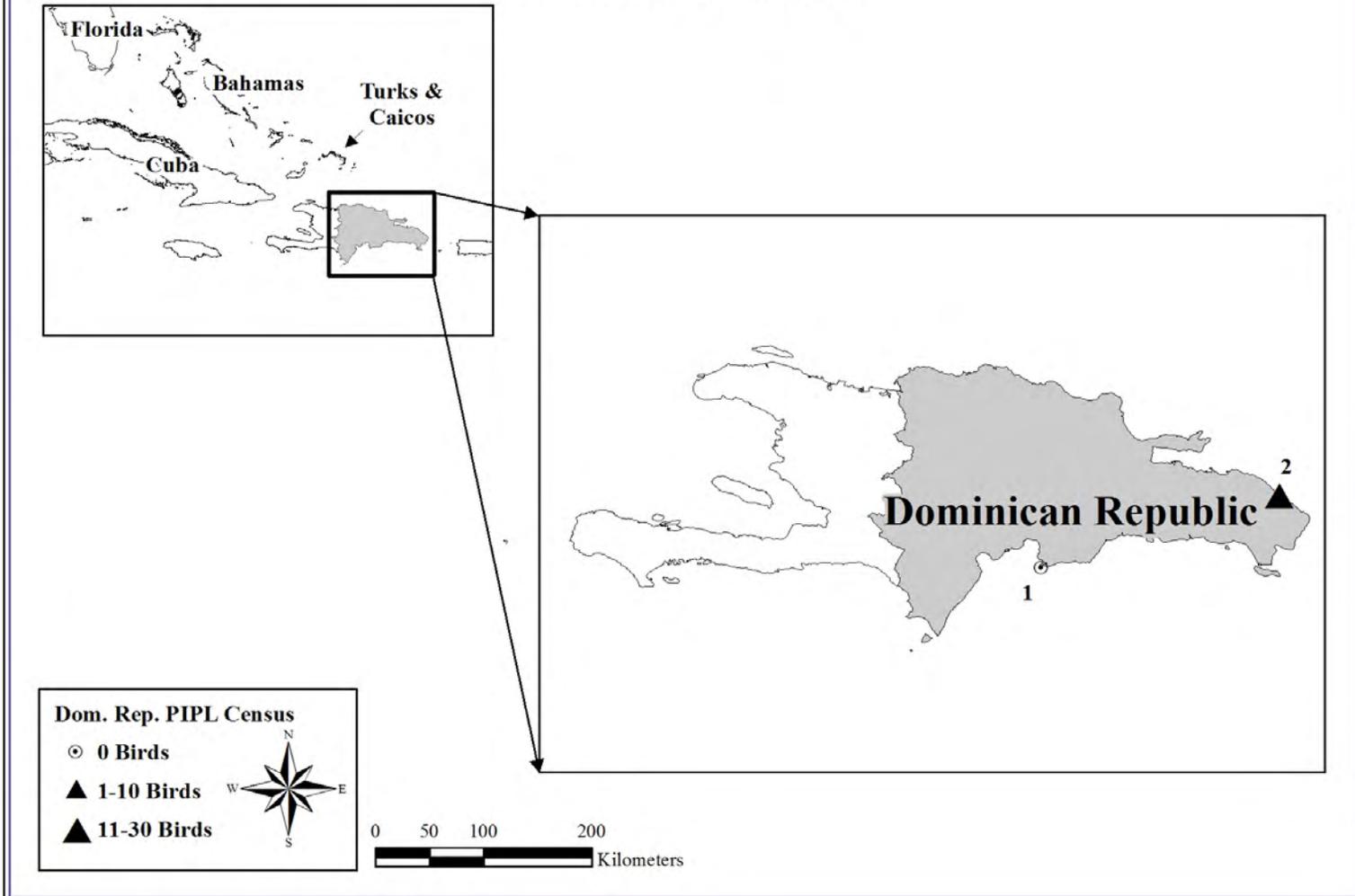
<sup>1</sup>Please note that this survey was conducted outside the Census window.

# **The Dominican Republic**

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Sociedad Ornitologica Hispaniola  
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Colonial  
Santo Domingo, Dominican Republic  
809-686-0882  
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One site was surveyed during the 2006 Census, where a Piping Plover was reported in 2000 (Ferland and Haig 2002). No Piping Plovers were observed at this site in 2006 but both Wilson's and Snowy Plovers were found. This site consists of large salt flats which attract many birds. We later received a report of 12 Piping Plovers on an eastern beach in March (Paul Cook pers. comm.), and this report was verified through photos. The birds were located on an 11 km stretch of undeveloped coast just north of the Breezes Resort, which was the furthest north in a string of resorts. The birds were observed using the pure sand beach which was about 100 m wide and backed by swamp habitat. Another hotel was in the process of being built at the time of this report so it is uncertain whether any undisturbed habitat will remain.

## 2006 International Piping Plover Winter Census - Dominican Republic -

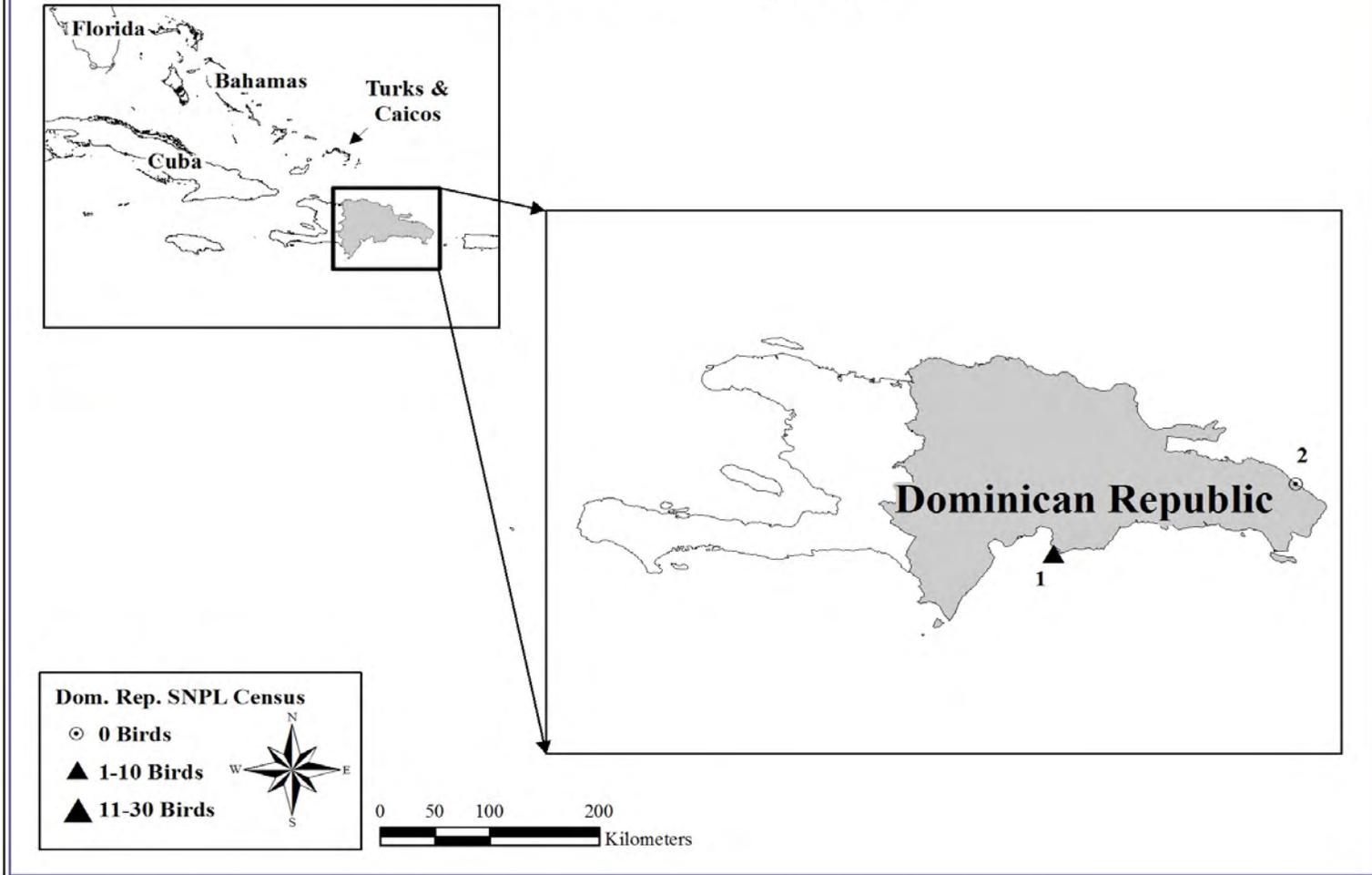


## The 2006 International Piping Plover Winter Census in the Dominican Republic

| COUNTY        | SITE NAME                   | MAP # | DATE | TOTAL<br>PIPL<br>ADULTS | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|---------------|-----------------------------|-------|------|-------------------------|-------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Peravia       | Salinas de Bani             | 1     | 2/4  | 0                       | 1.6         | II A 3 8            |                 | No           | No           | Yes          | f/p  |
| La Altagracia | Breezes Resort <sup>1</sup> | 2     | 3/20 | 12                      | 11.3        | II A 1              | II A 1          | No           | No           | No           | n.r. |
| <b>Total</b>  |                             |       |      | <b>12</b>               | <b>12.9</b> |                     |                 |              |              |              |      |

<sup>1</sup>Please note that this survey was conducted outside the Census window.

## 2006 International Snowy Plover Winter Census - Dominican Republic -

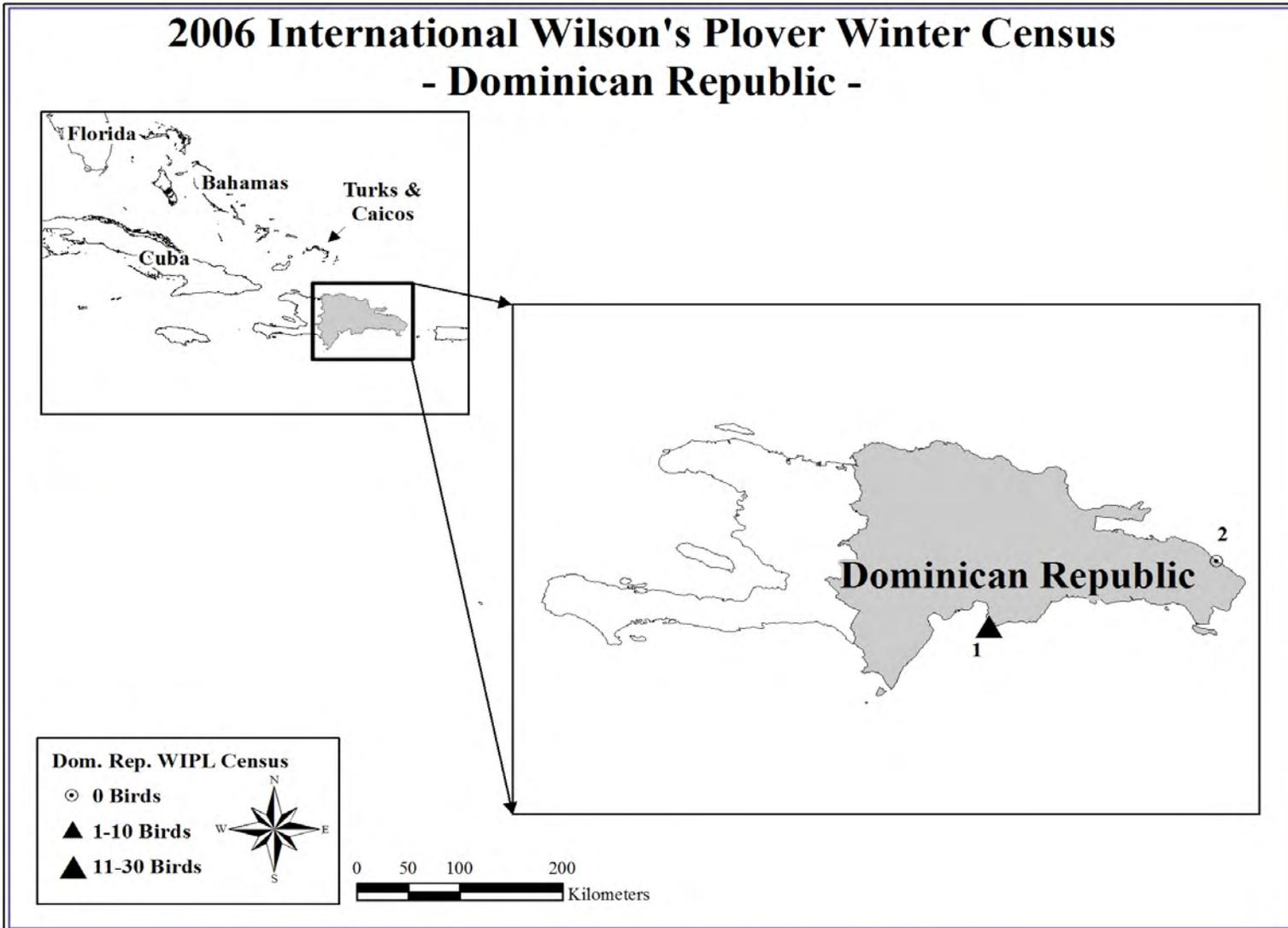


## The 2006 International Snowy Plover Winter Census in the Dominican Republic

| COUNTY        | SITE NAME                   | MAP # | DATE | TOTAL SNPL ADULTS | KM          | SITE DESCRIPTION | SNPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|---------------|-----------------------------|-------|------|-------------------|-------------|------------------|--------------|-----------|-----------|-----------|------|
| Peravia       | Salinas de Bani             | 1     | 2/4  | 6                 | 1.6         | II A 3 8         | II A 8       | No        | No        | Yes       | f/p  |
| La Altagracia | Breezes Resort <sup>1</sup> | 2     | 3/20 | 0                 | 11.3        | II A 1           |              | No        | No        | No        | n.r. |
| <b>Total</b>  |                             |       |      | <b>6</b>          | <b>12.9</b> |                  |              |           |           |           |      |

<sup>1</sup>Please note that this survey was conducted outside the Census window.

## 2006 International Wilson's Plover Winter Census - Dominican Republic -



## The 2006 International Wilson's Plover Winter Census in the Dominican Republic

| COUNTY        | SITE NAME                   | MAP # | DATE | TOTAL WIPL ADULTS | KM          | SITE DESCRIPTION | WIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN  |
|---------------|-----------------------------|-------|------|-------------------|-------------|------------------|--------------|-----------|-----------|-----------|------|
| Peravia       | Salinas de Bani             | 1     | 2/4  | 12                | 1.6         | II A 3 8         | II A 3 8     | No        | No        | Yes       | f/p  |
| La Altagracia | Breezes Resort <sup>1</sup> | 2     | 3/20 | 0                 | 11.3        | II A 1           |              | No        | No        | No        | n.r. |
| <b>Total</b>  |                             |       |      | <b>12</b>         | <b>12.9</b> |                  |              |           |           |           |      |

<sup>1</sup>Please note that this survey was conducted outside the Census window.

## **The 2006 International Piping Plover Winter Census in the Lesser Antilles, West Indies**

Following, are the reports from our communications as well as results from surveys conducted in the Lesser Antilles. These communications and results are also ordered from north to south and east to west.

### **The Virgin Islands St. Croix**

Claudia D. Lombard  
U.S. Fish and Wildlife Service  
Federal Building  
3013 Estate Golden Rock  
Christiansted, VI 00820

Unfortunately we were unable to coordinate surveys on all the Virgin Islands, but three surveys were conducted on St. Croix. These sites were the most likely to support plovers as they were characterized by salt and sand flats. Wilson's Plovers were observed during these surveys but no Snowy Plovers or Piping Plovers were recorded. There is one historic record of a Piping Plover on St. Croix after a hurricane in 1989 (Plissner and Haig 1997)

### **St. Martin**

Adam Brown  
Environmental Protection in the Caribbean  
Inc. (EPIC)  
200 Dr. MLK Jr. Blvd, Riviera Beach  
Florida 33404  
abrown@prbo.org

Comprehensive surveys of coastal and saline pond habitat were conducted on both the Netherlands and French portions of St. Martin. Only about 15 % of potential habitat was missed

(in Simpson Bay Lagoon) because it is privately owned and we were not granted access. No Piping Plovers were observed and although there are usually 10 pairs of Snowy Plovers on the island, none were observed during the 2006 Census. This is likely due to an exceptionally rainy hurricane season and winter leading to deep water ponds where there are usually salt pans. Wilson's Plovers were seen during the 2006 Census but their numbers were much lower than observed in previous years.

### **St. Kitts and Nevis**

Ken Porteus (Manitoba Coordinator) reported that his daughter searched for Piping Plovers on both islands during February 2006 but none were seen.

### **Barbuda and Antigua**

Dr. John L. Confer  
Ithaca College  
651 Hammond Hill Rd.  
Brooktondale, NY 14817  
607-274-3978  
confer@ithaca.edu

Joseph Prosper  
prosperj@myway.com

Multiple surveys were conducted by Dr. Confer and two of his students during the winter of 2006 outside the Census window. Coverage of Antigua was limited but the coverage on Barbuda was much more complete and the beaches appeared less developed and more suitable for shorebirds. Surveys involved lengthy walks on both the less storm-prone Caribbean side of the island and the more exposed Atlantic Ocean side. Additionally, the inner beaches of an extensive lagoon were covered. Nonetheless, the shoreline of Barbuda is very extensive and some potential habitat may have been missed. No plovers were seen during

any of these surveys in early January but Wilson's Plovers were observed during an earlier trip in late November.

Antigua local, Joseph Prosper, reported Piping Plovers on two Antigua beaches in May 2006 and Wilson's Plovers were also observed on a third beach where they appeared to be nesting on a sand bar.

## **Guadeloupe**

No surveys were conducted on Guadeloupe during the 2006 Census. There was one report of a Piping Plover on this island in 1999 (Ferland and Haig 2002).

## **Dominica**

We did not conduct any surveys on the island because our communications suggested that it would be a very unlikely spot for wintering Piping Plovers. Dominica local, Dr. Neils Larson reported that he spoke with the most knowledgeable person on the island, and he was not even sure that Piping Plovers had even been observed on the island. They do not have any salt ponds or similar shorebird habitat, and the only species that stays for any significant time is the resident spotted sandpiper.

## **Martinique**

No surveys were conducted on Martinique during the 2006 Census. There was one report of two Piping Plovers on this island in 1997 (Ferland and Haig 2002).

## **Barbados**

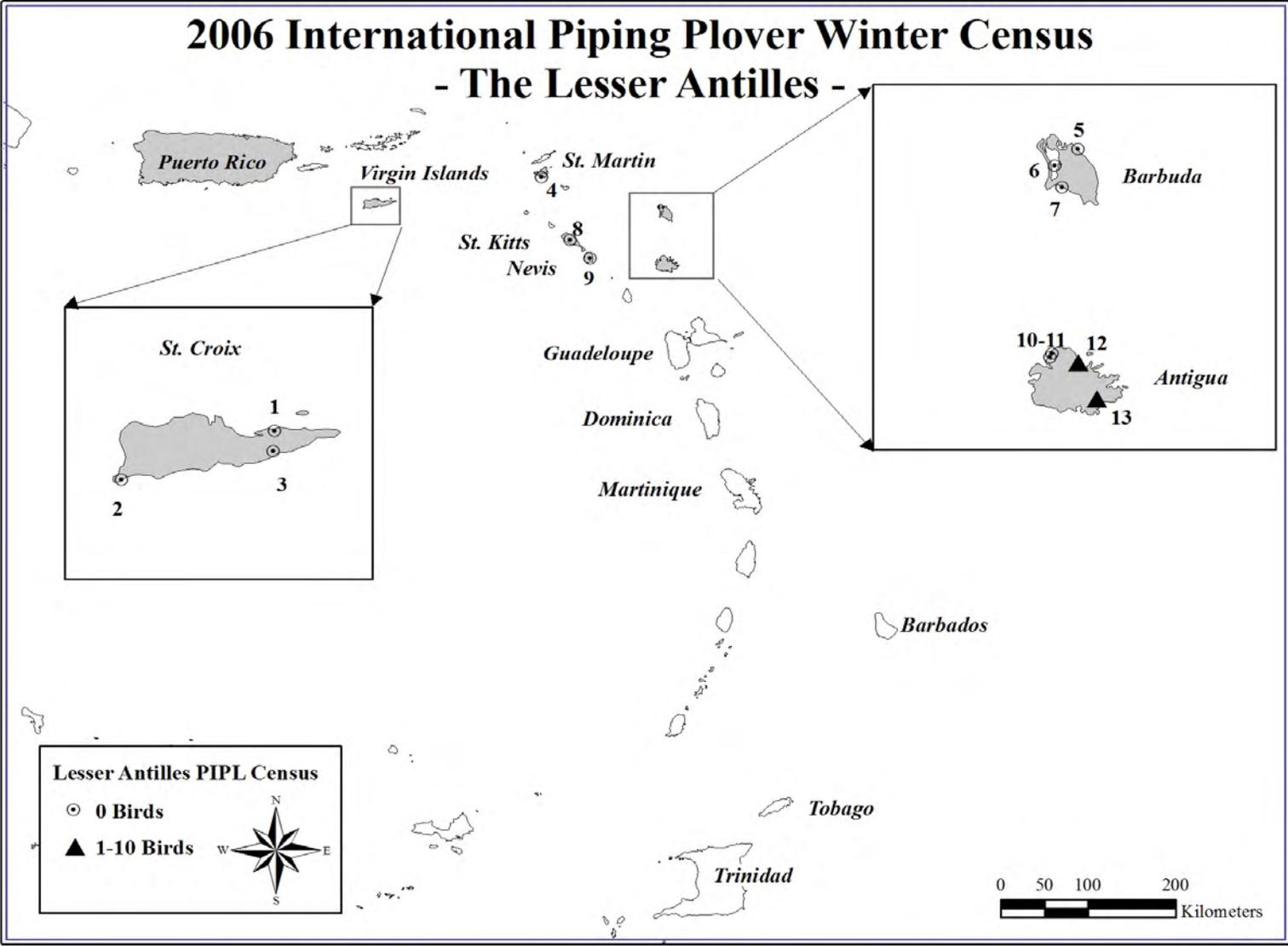
No surveys were conducted on the island because communications suggested that it would be a very unlikely spot for wintering Piping Plovers. Dr. Paul Buckley reports that

there is a single record of a Piping Plover on Barbados from September 1957 (Buckley et al. 2006).

## **Trinidad and Tobago**

We did not conduct any surveys on the island because our communications suggested that it would be a very unlikely spot for wintering Piping Plovers. Martyn Kenefick (Honorary Secretary of the Trinidad and Tobago Rare Birds Committee) reports: Piping Plovers have never been recorded on Trinidad or Tobago. There is only one record of a Snowy Plover in Tobago, from August 1968. Wilson's Plovers are annual fall migrants here but almost all records are in August and Sept. In recent years, there have been no over-wintering records.

# 2006 International Piping Plover Winter Census - The Lesser Antilles -



## The 2006 International Piping Plover Winter Census in the Lesser Antilles Islands

| ISLAND       | SITE NAME                                 | MAP# | DATE | TOTAL<br>PIPL<br>ADULTS | KM          | SITE<br>DESCRIPTION  | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|--------------|---|------|------|-------------------------|-------------|----------------------|-----------------|--------------|--------------|--------------|--------|
| Antigua      | Christian Cove <sup>1</sup>               | 13   | 5/22 | 4                       | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| Antigua      | Dickenson Bay <sup>1</sup>                | 11   | 1/11 | 0                       | 3.2         | I A 1                |                 | No           | No           | No           | f      |
| Antigua      | Fitches Creek <sup>1</sup>                | 12   | 5/22 | 10                      | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| Antigua      | McKinnans Pond <sup>1</sup>               | 10   | 1/11 | 0                       | 4.8         | II A 8 11            |                 | No           | No           | No           | f      |
| Barbuda      | Codrington Town Docks lagoon <sup>1</sup> | 6    | 1/7  | 0                       | 6.5         | II A D 10 11         |                 | No           | No           | No           | f      |
| Barbuda      | The River Landing <sup>1</sup>            | 7    | 1/9  | 0                       | 3.2         | I IV V A 1           |                 | No           | No           | No           | f      |
| Barbuda      | Two Feet Bay <sup>1</sup>                 | 5    | 1/7  | 0                       | 3.2         | I V A 1 11           |                 | No           | No           | No           | f      |
| Nevis        | Nevis <sup>2</sup>                        | 9    |      | 0                       | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| St. Croix    | Great Pond (SE coast)                     | 3    | 2/3  | 0                       | 1.6         | II A 5 8             |                 | No           | No           | No           | s(p)   |
| St. Croix    | Sandy Point NWR (SW coast)                | 2    | 2/5  | 0                       | 0.8         | I II A 1 5 8 10      |                 | No           | No           | No           | f      |
| St. Croix    | Southgate Pone (NE coast)                 | 1    | 2/3  | 0                       | 0.8         | II A 5 8             |                 | No           | No           | No           | s(p)/p |
| St. Kitts    | St. Kitts <sup>2</sup>                    | 8    |      | 0                       | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| St. Martin   | Multiple locations                        | 4    | 1/28 | 0                       | 15.0        | I II A C 1 3 4 5 7 8 |                 | No           | No           | No           | f      |
| <b>Total</b> |   |      |      | <b>14</b>               | <b>39.1</b> |                      |                 |              |              |              |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

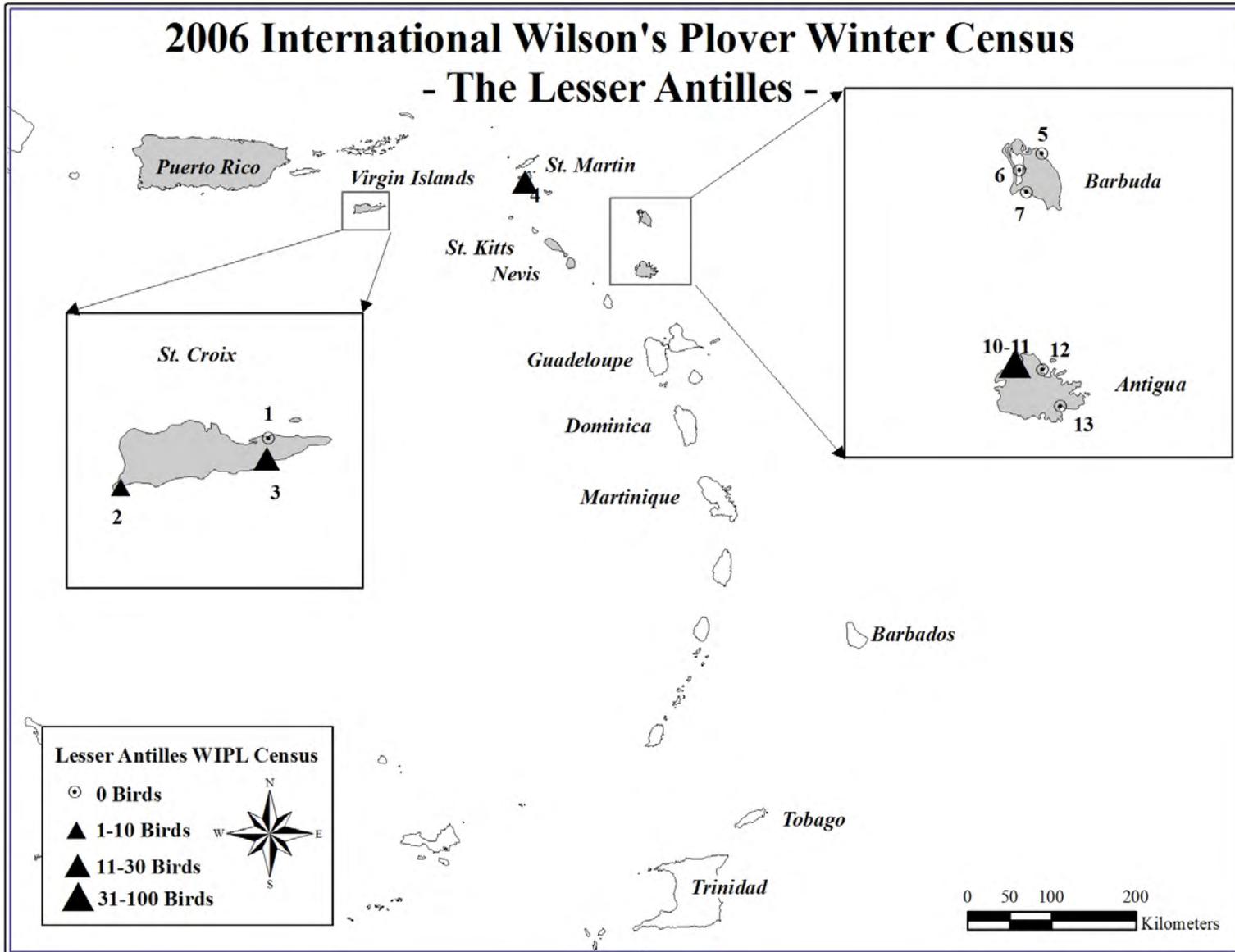
<sup>2</sup>No exact date, but surveys were conducted in February, 2006.

## The 2006 International Snowy Plover Winter Census in the Lesser Antilles Islands

| ISLAND       | SITE NAME                                 | MAP# | DATE | TOTAL<br>SNPL<br>ADULTS | KM          | SITE<br>DESCRIPTION  | SNPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|--------------|---|------|------|-------------------------|-------------|----------------------|-----------------|--------------|--------------|--------------|--------|
| Antigua      | Christian Cove <sup>1</sup>               | 13   | 5/22 | 0                       | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| Antigua      | Dickenson Bay <sup>1</sup>                | 11   | 1/11 | 0                       | 3.2         | I A 1                |                 | No           | No           | No           | f      |
| Antigua      | Fitches Creek <sup>1</sup>                | 12   | 5/22 | 0                       | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| Antigua      | McKinnans Pond <sup>1</sup>               | 10   | 1/11 | 0                       | 4.8         | II A 8 11            |                 | No           | No           | No           | f      |
| Barbuda      | Codrington Town Docks lagoon <sup>1</sup> | 6    | 1/7  | 0                       | 6.5         | II A D 10 11         |                 | No           | No           | No           | f      |
| Barbuda      | The River Landing <sup>1</sup>            | 7    | 1/9  | 0                       | 3.2         | I IV V A 1           |                 | No           | No           | No           | f      |
| Barbuda      | Two Feet Bay <sup>1</sup>                 | 5    | 1/7  | 0                       | 3.2         | I V A 1 11           |                 | No           | No           | No           | f      |
| St. Croix    | Great Pond (SE coast)                     | 3    | 2/3  | 0                       | 1.6         | II A 5 8             |                 | No           | No           | No           | s(p)   |
| St. Croix    | Sandy Point NWR (SW coast)                | 2    | 2/5  | 0                       | 0.8         | I II A 1 5 8 10      |                 | No           | No           | No           | f      |
| St. Croix    | Southgate Pone (NE coast)                 | 1    | 2/3  | 0                       | 0.8         | II A 5 8             |                 | No           | No           | No           | s(p)/p |
| St. Martin   | Multiple locations                        | 4    | 1/28 | 0                       | 15.0        | I II A C 1 3 4 5 7 8 |                 | No           | No           | No           | f      |
| <b>Total</b> |   |      |      | <b>0</b>                | <b>39.1</b> |                      |                 |              |              |              |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# 2006 International Wilson's Plover Winter Census - The Lesser Antilles -



## The 2006 International Wilson's Plover Winter Census in the Lesser Antilles Islands

| ISLAND       | SITE NAME                                 | MAP# | DATE | TOTAL<br>WIPL<br>ADULTS | KM          | SITE<br>DESCRIPTION  | WIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|--------------|---|------|------|-------------------------|-------------|----------------------|-----------------|--------------|--------------|--------------|--------|
| Antigua      | Christian Cove <sup>1</sup>               | 13   | 5/22 | 0                       | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| Antigua      | Dickenson Bay <sup>1</sup>                | 11   | 1/11 | 0                       | 3.2         | I A 1                |                 | No           | No           | No           | f      |
| Antigua      | Fitches Creek <sup>1</sup>                | 12   | 5/22 | 0                       | n.r.        |                      |                 | No           | No           | No           | n.r.   |
| Antigua      | McKinnans Pond <sup>1</sup>               | 10   | 5/22 | 36                      | 4.8         | II A 8 11            |                 | No           | No           | No           | f      |
| Barbuda      | Codrington Town Docks lagoon <sup>1</sup> | 6    | 1/7  | 0                       | 6.5         | II A D 10 11         |                 | No           | No           | No           | f      |
| Barbuda      | The River Landing <sup>1</sup>            | 7    | 1/9  | 0                       | 3.2         | I IV V A 1           |                 | No           | No           | No           | f      |
| Barbuda      | Two Feet Bay <sup>1</sup>                 | 5    | 1/7  | 0                       | 3.2         | I V A 1 11           |                 | No           | No           | No           | f      |
| St. Croix    | Great Pond (SE coast)                     | 3    | 2/3  | 11                      | 1.6         | II A 5 8             |                 | No           | No           | No           | s(p)   |
| St. Croix    | Sandy Point NWR (SW coast)                | 2    | 2/5  | 2                       | 0.8         | I II A 1 5 8 10      |                 | No           | No           | No           | f      |
| St. Croix    | Southgate Pone (NE coast)                 | 1    | 2/3  | 0                       | 0.8         | II A 5 8             |                 | No           | No           | No           | s(p)/p |
| St. Martin   | Multiple locations                        | 4    | 1/28 | 17                      | 15.0        | I II A C 1 3 4 5 7 8 |                 | No           | No           | No           | f      |
| <b>Total</b> |   |      |      | <b>66</b>               | <b>39.1</b> |                      |                 |              |              |              |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# The 2006 International Piping Plover Breeding Census in St. Pierre and Miquelon, France

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Four sites have been routinely censused during the three previous International Censuses. Of these four sites, three were covered during the census window in 2006. The three sites censused represent the extent of known suitable habitat for Piping Plovers on the islands of Saint-Pierre-et-Miquelon. One previously censused site, Dune de Miquelon, was not visited this year since Piping Plovers have never been observed at the site and the habitat is therefore not considered suitable. There are no additional sites which are thought to possess suitable habitat for Piping Plovers in the archipelago.

During the 2006 census window, four pairs were observed in suitable nesting habitat at two of the sites visited. These numbers represent a slight decrease in comparison to the nine Piping Plovers observed in 2001. The eight individuals counted represent higher numbers than observed in 1991 (four individuals) and in 1996 (six individuals).

We believe that the number of Piping Plovers observed accurately represents the population of Saint-Pierre-et-Miquelon. Surveys conducted after the census window (early July) support the fact that four nesting pairs were present on the beaches northeast of Gully of Grand Barachois and Gully of Grand Barachois.

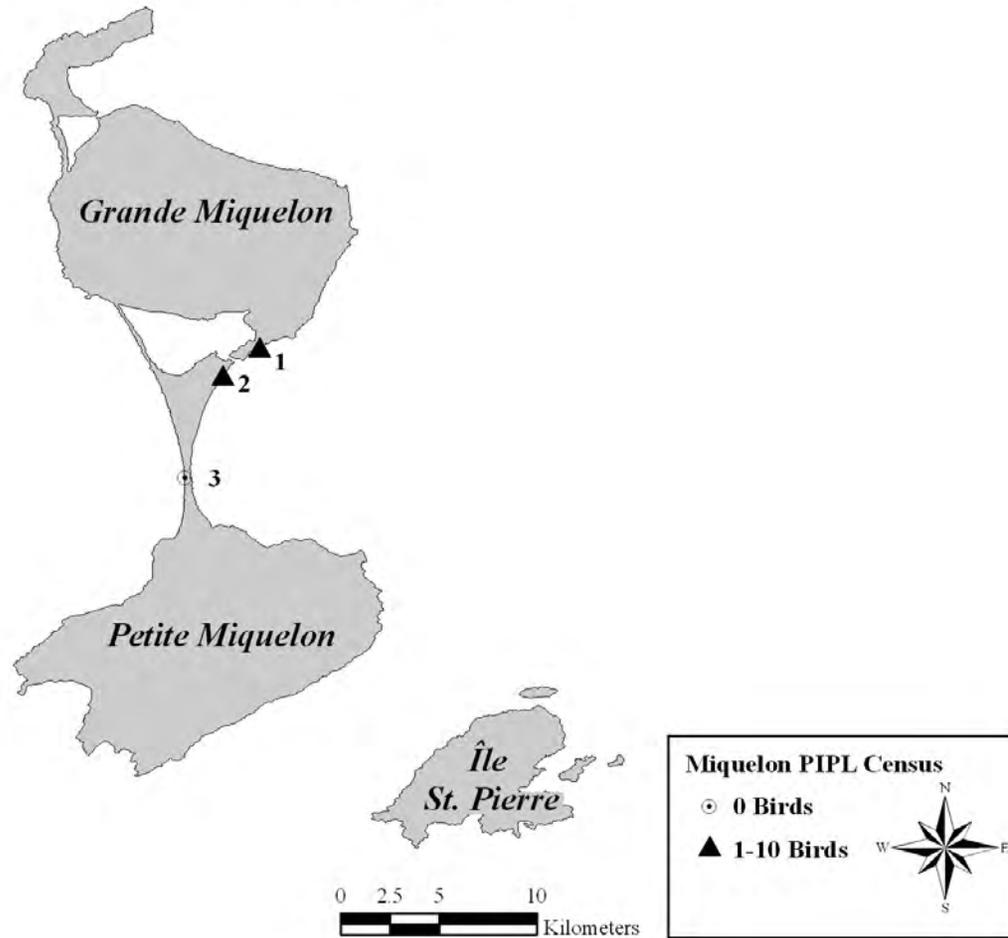
There continues to be concern for plovers related to human disturbance and impacts of predators for the Gully of Grand Barachois beach. This beach is regularly impacted by off-road vehicles, motorbikes and pedestrians with dogs. No plovers nested on the west side of the Isthmus of Langlade this year, despite the fact that the habitat remains suitable. The beach Northeast of the Gully of Grand Barachois has been occupied since 2001, providing a relatively inaccessible nesting area with little human disturbance.

## Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006 |
|--------------|------|------|------|------|
| Total Adults | 4    | 6    | 9    | 8    |

<sup>†</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

## 2006 International Piping Plover Breeding Census - St. Pierre and Miquelon-



## The 2006 International Piping Plover Breeding Census in St. Pierre and Miquelon

| SITE NAME                             | MAP# | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWNER |
|---------------------------------------|------|------|-------------|-----------------|-------------|---------------------|-----------------|--------------|--------------|--------------|-------|
| Gully of Grand Barachois              | 2    | 6/15 | 2           | 4               | 12.0        | I A 1 3 7           | I A 1 7         | Yes          | Yes          | Yes          | s(p)  |
| Northeast of Gully of Grand Barachois | 1    | 6/13 | 2           | 4               | 5.0         | I A 1 7             | I A 1 7         | Yes          | Yes          | Yes          | s(p)  |
| West Side of Isthme de Langlade       | 3    | 6/15 | 0           | 0               | n.r.        | I A 1 7             |                 | Yes          | Yes          | Yes          | s(p)  |
| <b>Total</b>                          |      |      | <b>4</b>    | <b>8</b>        | <b>17.0</b> |                     |                 |              |              |              |       |

# **The 2006 International Piping Plover Breeding Census in Newfoundland**

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This years Census overall went well. A total of 75 sites were visited, up from 43 in 2001. Three of these sites were visited twice since they were included in the detectability study. Two of the five sites selected for the detectability study were only visited once since habitat was poor to marginal. A total of 18 participants observed a total 48 adult Piping Plovers during the Census in Newfoundland which is an increase from the 39 birds observed in 2001. Key Piping Plover areas continue to be on the southwest coast of Newfoundland. One new beach (Big Barasway – Seal Cove) was found to have Piping Plovers during the Census. This is the first known and recorded sighting for this area. Habitat on this

beach has been and is suitable for nesting plovers and since it is only a short distance north of known Piping Plover beaches on the island of St. Pierre, it is not overly surprising that we found birds there.

Having visited 75 sites, we feel that all suitable Piping Plover habitat was for the most part covered. There are a couple of areas to be mapped for the next Census in 2011 and a couple of areas which we will not likely survey again due to poor habitat. However, we do not feel that the Census total of 48 adult birds adequately represents the total number of birds in Newfoundland and Labrador during the 2006 breeding season. Detection is a problem which is exacerbated by the vegetation cover on some beaches. Additionally, some birds arrive late and so would not be counted in the Census window. Hence, we believe the total number of adult Piping Plovers in Newfoundland and Labrador during the 2006 breeding season to be 63.

Piping Plovers in Newfoundland face similar threats as they do elsewhere, and this contributes to low numbers and poor productivity. Some of the main threats include human disturbance (i.e., ATV's, garbage on beaches, unleashed pets), predators (i.e., foxes, mink, gulls, dogs), flooding due to extreme high tides, etc.

The most valuable information that has become apparent from this years Census, is that birds are moving to new sites, while habitat in other areas has deteriorated. Given that new beaches are being found during the Census, we believe the International Census is indeed a valuable way to track this species and thus it aids conservation efforts.

### Comparison of Census Numbers

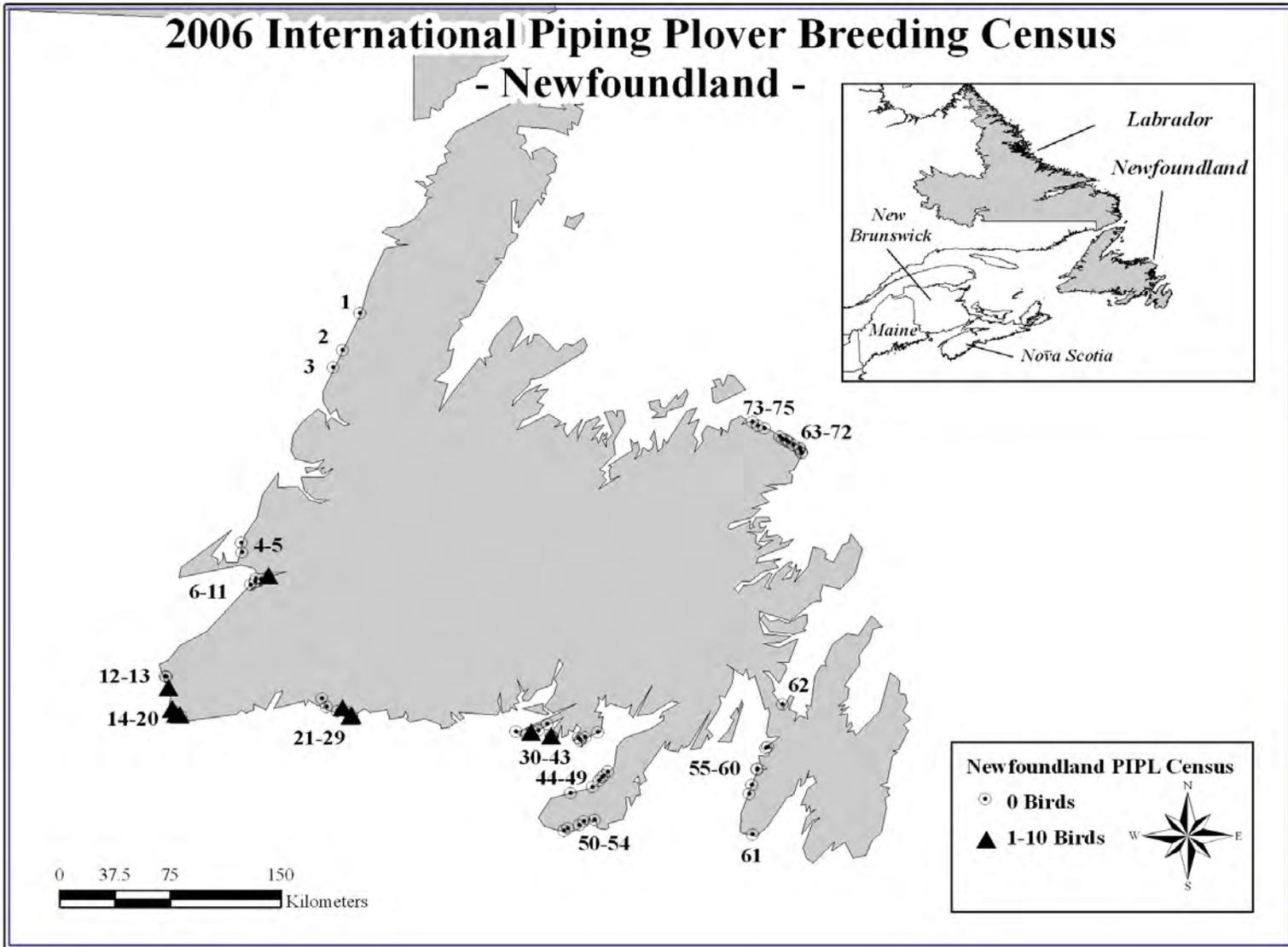
|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 7    | 27   | 39   | 48 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study

| Sites Included    | First Count | Second Count |
|-------------------|-------------|--------------|
| Flat Bay          | 0           | 0            |
| Lumsden Head West | 0           | 0            |
| Sandy Point       | 0           | 0            |

# 2006 International Piping Plover Breeding Census - Newfoundland -



## The 2006 International Piping Plover Breeding Census in Newfoundland

| SITE NAME   | MAP# | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWNER |
|---|------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|-------|
| 1st Beach, Grand Bay West                         | 20   | 6/07 | 0           | 0               | 0.5 | I II D 1            |                 | No           | Yes          | Yes          | m     |
| 2nd Beach, Grand Bay West                         | 19   | 6/07 | 2           | 4               | 1.8 | I A 1               | I II A D 1 3    | No           | Yes          | Yes          | s(p)  |
| Banting Memorial Park                             | 74   | 6/14 | 0           | 0               | 1.6 | I A B 1             |                 | No           | No           | No           | s(p)  |
| Beck Bay  | 30   | 6/04 | 0           | 0               | 1.0 | I II D 1 12         |                 | No           | No           | No           | s(p)  |
| Bellevue Beach                                    | 62   | 6/03 | 0           | 0               | 3.5 | I II A D 1 7 12     |                 | No           | No           | No           | s(p)  |
| Big Barachois                                     | 17   | 6/16 | 0           | 0               | 0.5 | I A 1               |                 | No           | Yes          | Yes          | s(p)  |
| Big Barasway                                      | 24   | 6/08 | 3           | 9               | 7.3 | I II B D 1 3        | I B 1           | No           | No           | No           | s(p)  |
| Big Barasway- Seal Cove                           | 31   | 6/04 | 0           | 1               | 1.3 | I II A B I 1 7 12   | II B 1          | Yes          | Yes          | Yes          | s(p)  |
| Big Seal Cove- Ship Harbour                       | 55   | 6/15 | 0           | 0               | 0.3 | I II A D 8 15       |                 | No           | No           | No           | s(p)  |
| Black Island Cove                                 | 37   | 6/07 | 0           | 0               | 0.3 | I II A D 1 7 12     |                 | No           | No           | No           | m     |
| Boxey Harbour                                     | 41   | 6/06 | 0           | 0               | 0.3 | I II A D I 1 6 7 12 |                 | No           | No           | No           | m     |
| Cape Freels 1                                     | 63   | 6/16 | 0           | 0               | 1.8 | I A B 1             |                 | Yes          | Yes          | Yes          | s(p)  |
| Cape Freels 2                                     | 64   | 6/16 | 0           | 0               | 2.2 | I A B 1             |                 | Yes          | Yes          | Yes          | s(p)  |
| Cape Freels 3                                     | 65   | 6/16 | 0           | 0               | 0.7 | I B 1               |                 | Yes          | Yes          | Yes          | s(p)  |
| Cape Freels 4                                     | 66   | 6/16 | 0           | 0               | 0.9 | I A B 1             |                 | Yes          | Yes          | Yes          | s(p)  |
| Cape Ray Beach, J.T. Cheeseman<br>Provincial Park | 15   | 6/13 | 2           | 6               | 2.8 | I II A B 1 2 3      | I II A B 1      | No           | Yes          | Yes          | s(p)  |
| Chappie Cove- Deadmans Bight                      | 38   | 6/07 | 0           | 0               | 1.0 | I II A D 1 7 12     |                 | No           | No           | No           | m     |
| Connoire Bay North West Arm Sandbar               | 21   | 6/03 | 0           | 0               | 0.8 | I A 1 2             |                 | No           | Yes          | No           | s(p)  |
| Cowlest Beach                                     | 23   | 6/03 | 0           | 0               | 0.4 | I A 1               |                 | No           | No           | No           | s(p)  |
| Crow Head West Beach                              | 25   | 6/03 | 0           | 0               | 0.8 | I A 1               |                 | No           | No           | Yes          | s(p)  |
| Deadman's Bay                                     | 72   | 6/16 | 0           | 0               | 3.1 | n.r.                |                 | Yes          | Yes          | Yes          | n.r.  |
| East of Coombs Cove                               | 39   | 6/06 | 0           | 0               | 0.5 | I II A D 1 7 12     |                 | No           | No           | No           | s(p)  |
| Eastern Cove- Dog Cove                            | 34   | 6/04 | 0           | 0               | 0.5 | I II A D 1          |                 | No           | No           | No           | s(p)  |
| Flat Bay  | 7    | 6/13 | 0           | 0               | 7.8 | I II B 1 7          |                 | No           | No           | Yes          | s(p)  |
| Fox Island River                                  | 4    | 6/16 | 0           | 0               | 1.3 | I A 1               |                 | No           | No           | Yes          | s(p)  |
| Frenchman's Cove East                             | 45   | 6/5  | 0           | 0               | 2.5 | n.r.                |                 | No           | No           | Yes          | s(p)  |
| Frenchman's Cove West                             | 46   | 6/6  | 0           | 0               | 2.3 | n.r.                |                 | No           | No           | Yes          | s(p)  |
| Frenchman's Cove 3 (White Point)                  | 47   | 6/6  | 0           | 0               | 1.7 | n.r.                |                 | No           | No           | Yes          | s(p)  |
| Garnish Beach                                     | 44   | 6/06 | 0           | 0               | 1.2 | I II A B 7          |                 | No           | No           | Yes          | s(p)  |
| Gooseberry Cove Beach                             | 60   | 6/15 | 0           | 0               | 0.2 | I II A D 1 7        |                 | No           | No           | No           | s(p)  |
| Grand Beach                                       | 48   | 6/6  | 0           | 0               | 3.7 | n.r.                |                 | No           | No           | Yes          | s(p)  |

**The 2006 International Piping Plover Breeding Census in Newfoundland  
(Continued)**

| SITE NAME  | MAP# | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION   | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWNER |
|--|------|------|-------------|-----------------|-----|-----------------------|-----------------|--------------|--------------|--------------|-------|
| Great Barasway                                   | 59   | 6/14 | 0           | 0               | 1.0 | I A 7                 |                 | No           | No           | No           | s(p)  |
| Green Point (Pointe Verte)                       | 57   | 6/15 | 0           | 0               | 0.6 | I A 1 7 15            |                 | No           | No           | No           | s(p)  |
| L'anse au Loup                                   | 49   | 6/6  | 0           | 0               | 2.3 | n.r.                  |                 | No           | No           | Yes          | s(p)  |
| Lansley Bank Cove                                | 53   | 6/07 | 0           | 0               | 0.2 | I A B 1               |                 | No           | No           | No           | s(p)  |
| Little Barasway                                  | 33   | 6/04 | 0           | 0               | 0.9 | I II VIII A 1 7       |                 | No           | No           | No           | s(p)  |
| Little Codroy / St. Andrew's Gut                 | 14   | 6/15 | 1           | 4               | 2.0 | I A 1 7               | I A 7           | Yes          | No           | Yes          | s(p)  |
| Little Lawn                                      | 54   | 6/07 | 0           | 0               | 0.6 | I B 7                 |                 | No           | No           | No           | s(p)  |
| Lumsden  | 68   | 6/14 | 0           | 0               | 1.0 | n.r.                  |                 | Yes          | No           | No           |       |
| Lumsden Head East                                | 69   | 6/14 | 0           | 0               | 1.8 | I A 1                 |                 | Yes          | Yes          | Yes          | s(p)  |
| Lumsden Head West                                | 70   | 6/13 | 0           | 0               | 1.8 | n.r.                  |                 | Yes          | Yes          | Yes          |       |
| Millville Beach, Grand Codroy Provincial<br>Park | 12   | 6/15 | 0           | 0               | 1.3 | I B 1 3 15            |                 | Yes          | Yes          | Yes          | s(p)  |
| Musgrave Harbour                                 | 75   | 6/14 | 0           | 0               | 3.9 | I A 1                 |                 | Yes          | Yes          | Yes          | s(p)  |
| Osmond Beach                                     | 16   | 6/14 | 1           | 3               | 0.4 | I A 1                 | I A 1           | No           | Unk          | Yes          | n.r.  |
| Partridge Cove                                   | 42   | 6/05 | 0           | 0               | 0.5 | I II VIII A B D 6 7 8 |                 | No           | No           | No           | m     |
| Pennybeck  | 71   | 6/16 | 0           | 0               | 1.1 | n.r.                  |                 | No           | No           | No           | n.r.  |
| Point au Gaul                                    | 50   | 6/07 | 0           | 0               | 2.4 | I A B 1 7             |                 | No           | No           | No           | s(p)  |
| Point au Mal                                     | 5    | 6/16 | 0           | 0               | 2.5 | I A 1                 |                 | No           | No           | Yes          | s(p)  |
| Point Lance Beach                                | 61   | 6/14 | 0           | 0               | 1.3 | I II A 1 3 7          |                 | No           | No           | No           | s(p)  |
| Point Verde                                      | 58   | 6/14 | 0           | 0               | 0.4 | I A 1 7               |                 | No           | No           | No           | s(p)  |
| Portland Creek                                   | 1    | 6/13 | 0           | 0               | 2.3 | I A 1 3               |                 | No           | No           | No           | s(p)  |
| Rocky Barachois (Bottles Barachois)              | 18   | 6/07 | 1           | 3               | 1.0 | I II A 1              | I A 1 3         | No           | Yes          | Yes          | s(p)  |
| Salt Water Cove                                  | 32   | 6/08 | 0           | 0               | 0.2 | I A 7                 |                 | No           | No           | Yes          | s(p)  |
| Salt Water Cove- St. Johns Bay                   | 40   | 6/06 | 0           | 0               | 0.8 | I II A D 1 3 7 12     |                 | No           | No           | No           | m     |
| Sandbanks Park, 1st Beach                        | 29   | 6/04 | 0           | 0               | 0.5 | I A 1 13              |                 | No           | No           | No           | s(p)  |
| Sandbanks Park, 2nd Beach                        | 28   | 6/04 | 3           | 4               | 0.7 | I A 1 3 12            |                 | No           | No           | No           | s(p)  |
| Sandbanks Park, 3rd Beach                        | 27   | 6/04 | 4           | 6               | 0.8 | I A 1 13              |                 | No           | No           | No           | s(p)  |
| Sandbanks Park, 4th Beach                        | 26   | 6/04 | 3           | 4               | 1.2 | I A D 1               |                 | No           | No           | No           | s(p)  |
| Sandy Cove                                       | 52   | 6/07 | 0           | 0               | 0.5 | I A B 1               |                 | No           | No           | Yes          | s(p)  |
| Sandy Point                                      | 6    | 6/06 | 0           | 0               | 2.0 | I A 1                 |                 | Yes          | Yes          | Yes          | s(p)  |

**The 2006 International Piping Plover Breeding Census in Newfoundland  
(Continued)**

| <b>SITE NAME</b>                                | <b>MAP#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b>    | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWNER</b> |
|---|-------------|-------------|---------------------|-------------------------|--------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|--------------|
| Sandy Point (east - lighthouse end)             | 9           | 6/06        | 0                   | 0                       | n.r.         | I II C 1 8                  |                         | Yes                  | Yes                  | Yes                  | s(p)         |
| Sandy Point (west)                              | 8           | 6/07        | 0                   | 0                       | 0.5          | I II B 1 8                  |                         | Yes                  | Yes                  | Yes                  | s(p)         |
| Searston Beach                                  | 13          | 6/15        | 0                   | 0                       | 0.5          | I A 1                       |                         | No                   | Yes                  | Yes                  | s(p)         |
| Shallow Bay                                     | 2           | 6/08        | 0                   | 0                       | 5.0          | II D 1 3                    |                         | Yes                  | Yes                  | Yes                  | f            |
| Shalloway Bay                                   | 73          | 6/15        | 0                   | 0                       | 1.1          | I A 1                       |                         | No                   | Yes                  | Yes                  | s(p)         |
| Ship Harbour Point                              | 56          | 6/15        | 0                   | 0                       | 1.0          | I A 6                       |                         | No                   | No                   | No                   | s(p)         |
| Short Sand Beach                                | 36          | 6/12        | 1                   | 2                       | 0.5          | I II A 1 3                  | II A 3                  | No                   | Yes                  | Yes                  | s(p)         |
| St. Jacques Harbour                             | 43          | 6/05        | 0                   | 0                       | 0.5          | I II A D 7                  |                         | No                   | No                   | No                   | m            |
| Stephenville Crossing                           | 10          | 6/12        | 1                   | 2                       | 1.0          | I A 1                       | I A 1                   | Yes                  | Yes                  | Yes                  | s(p)         |
| Stephenville Crossing - south side of<br>bridge | 11          | 6/12        | 0                   | 0                       | 1.3          | I A 1                       |                         | Yes                  | Yes                  | Yes                  | s(p)         |
| Taylor's Bay                                    | 51          | 6/07        | 0                   | 0                       | 0.3          | I B 1                       |                         | no                   | No                   | No                   | s(p)         |
| Western Brook Beach                             | 3           | 6/06        | 0                   | 0                       | 1.3          | I A 1 2 3                   |                         | Yes                  | Yes                  | Yes                  | f            |
| Western Cove                                    | 35          | 6/07        | 0                   | 0                       | 1.0          | I II A D 1 7 12             |                         | No                   | No                   | No                   | m            |
| Windmill Bight                                  | 67          | 6/16        | 0                   | 0                       | 0.6          | n.r.                        |                         | No                   | No                   | Yes                  | p            |
| Wreck Island Beach                              | 22          | 6/03        | 0                   | 0                       | 0.3          | I A B D 1                   |                         | No                   | No                   | Yes                  | s(p)         |
| <b>Total</b>                                    |             |             | <b>22</b>           | <b>48</b>               | <b>105.5</b> |                             |                         |                      |                      |                      |              |

## **Recensement International du Pluvier Siffleur au Québec, en 2006**

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En 2006, contrairement aux inventaires précédents, les plages de la Gaspésie et de la Côte-Nord n'ont pas été recensées. Toutefois, compte tenu qu'aucun oiseau n'y avait été vu en 1991, 1996 et 2001, il est permis de croire que l'absence de recensement en 2006 dans ces régions n'a pas affecté le résultat final du décompte pour le Québec.

L'inventaire s'est déroulé au cours d'une seule journée, soit le 10 juin 2006. Toutes les plages des Îles-de-la-Madeleine ont été recensées, à l'exception des plages de l'île Brion, de l'îlot C et de l'îlot B; l'habitat de ces deux dernières îles artificielles n'est maintenant plus adéquat pour le Pluvier siffleur. Au total, 63 Pluviers siffleurs (22 couples et 19 individus seuls) ont été dénombrés sur les 124 km de plages parcourus par 33 participants. Deux plages totalisent 55,5 % des oiseaux observés. Il s'agit des plages de la dune du Sud et de l'Hôpital. Au cours de cette journée, l'éclosion des œufs de deux nids a été constatée, ce qui constitue la date d'éclosion la plus hâtive observée au Québec.

Le nombre d'oiseaux dénombrés est inférieur aux résultats des inventaires de 1991, 1996 et 2001. Toutefois, il est important de mentionner que la comparaison avec les inventaires précédents est inadéquate car en 2006, les données rapportées sont celles d'une seule journée d'inventaire alors que les résultats rapportés lors des inventaires de 1991, 1996 et

2001 étaient une compilation des données sur l'ensemble de la saison de reproduction. Telles que présentées en 2006, les données du Québec respectent davantage le protocole établie par le USGS et sont ainsi davantage comparables à celles des autres régions où se déroule l'Inventaire international du Pluvier siffleur.

Dans le cadre des travaux de protection des nids de Pluviers siffleurs menés par le Service canadien de la faune et l'organisme Attention Fragiles, une recherche active est faite pour trouver tous les nids afin de les protéger à l'aide de clôtures et d'enclos. Ce travail a permis de trouver 47 nids, dont 6 ont été considérés comme des nids de remplacement. Nous estimons donc que 41 couples se sont reproduits aux Îles-de-la-Madeleine en 2006. Ce nombre de couples est sans doute plus représentatif de la population nicheuse de Pluvier siffleur au Québec en 2006 que celui obtenu lors d'une seule journée d'inventaire.

## **The 2006 International Piping Plover Breeding Census in Quebec**

In 2006, (and contrary to previous counts), Gaspésie and North Shore beaches were not included in the census. However, given the fact that no bird had been seen there in years 1991, 1996 and 2001, the absence of a 2006 census in these areas is unlikely to have affected the final Quebec count.

The inventory took place on one day only, namely 10 June 2006. All beaches on the Îles-de-la-Madeleine were included in the census, with the exception of beaches on l'île Brion, l'îlot C and l'îlot B; habitat on these latter two artificial islands is now inadequate for the Piping Plover. In total, 63 Piping Plovers (22 pairs and 19 individual birds) were counted on the 124 km stretch of beach shoreline covered by 33 participants. A total of 55.5% of the birds

were observed on two beaches - namely, on Dune du Sud and Plage de l'Hopital. During the day of the count, egg hatchings in two nests were noted - the earliest hatching date ever observed in Quebec.

The number of birds counted is less than the inventories of 1991, 1996 and 2001. However, it is important to mention that the comparison with the preceding inventories is inadequate because in 2006, the data gathered is from just one day of inventory whereas the results reported at the time of the 1991, 1996 and 2001 inventories were a compilation of the data collected throughout the breeding season. As presented in 2006, the Quebec data fully respects the protocol established by the USGS and is therefore quite comparable with other areas where the international inventory of the Piping Plover is taking place.

Within the framework of Piping Plover nest protection carried out by the *Canadian Wildlife Service* and the *Attention Fragîles* organization, an active search is made to find all nests in order to protect them by site reporting. This work has resulted in the discovery of 47 nests, including 6 considered as replacement nests. We therefore estimate that 41 pairs reproduced on the Îles-de-la-Madeleine in 2006. This number of pairs is undoubtedly more representative of the Piping Plover population niche in Quebec in 2006 than that obtained at the time of the one-day-only inventory.

In each of the years that an international inventory has been effected (1991, 1996, 2001 and 2006), we also have the results of the inventories carried out during the one-day-only census as well as those done throughout the entire nesting season and which involved searching for nests.

Results for inventories counted on a one-day-only census in the years 1991, 1996, 2001 and 2006 are 61, 87, 55 and 63 individual birds,

respectively, whereas for the same years, calculated results from all nest searches are 76, 104, 70 and 82 individuals. Comparing these two methods shows that an inventory undertaken on a one-day-only basis detects, on average, 79.8% ( $\pm 2.9\%$ ) of the birds counted during the entire nesting season.

**Comparaison de Nombres du Recensement/  
Comparison of Census Numbers**

|              |                 |                 |                 |                 |
|--------------|-----------------|-----------------|-----------------|-----------------|
|              | 1991            | 1996            | 2001            | 2006            |
| Total Adults | 61 <sup>2</sup> | 87 <sup>2</sup> | 55 <sup>2</sup> | 63 <sup>1</sup> |

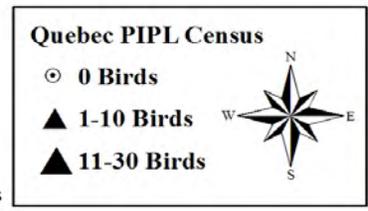
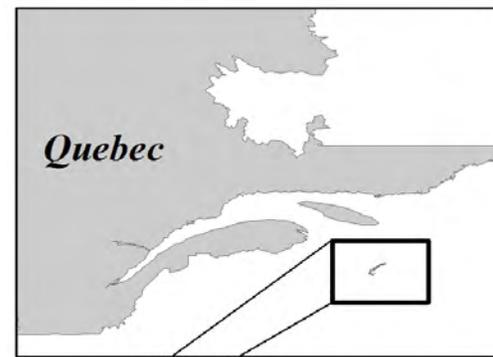
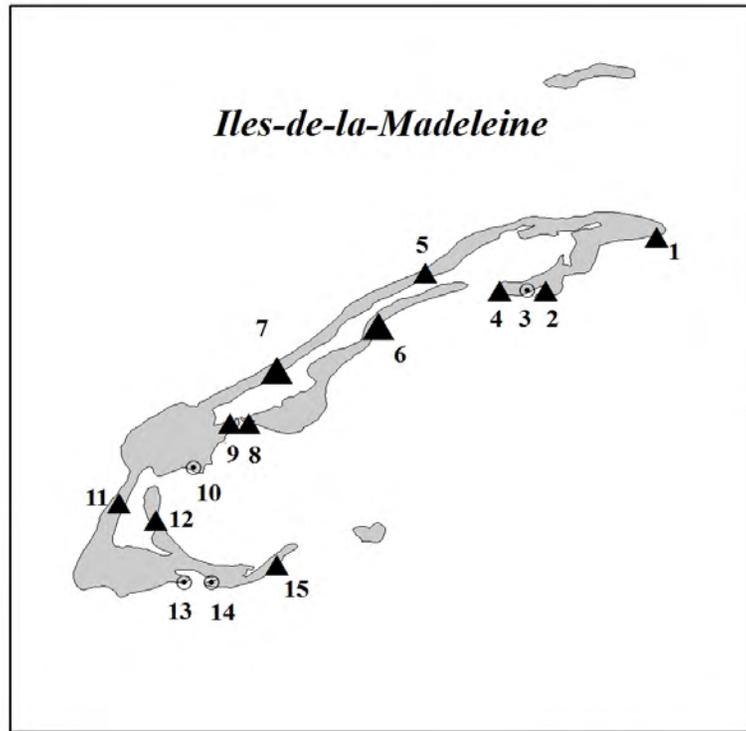
<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

<sup>2</sup>These totals differ slightly from numbers reported in previous Census reports. They represent totals from a single count.

**Etude de Détectabilité/  
Detectability Study**

| Sites Included   | First Count | Second Count |
|------------------|-------------|--------------|
| Pointe de l'Est  | 5           | 5            |
| Procul-Bourgeois | 0           | 0            |

# 2006 International Piping Plover Breeding Census - Quebec -



## The 2006 International Piping Plover Breeding Census in Quebec

| COUNTY/<br>REGION    | SITE NAME                     | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|----------------------|-------------------------------|----------|------|-------------|-----------------|--------------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Îles-de-la-Madeleine | Bassin aux Huitres (Est)      | 2        | 6/10 | 1           | 4               | 1.7          | I G 1               | I G 1           | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Bassin aux Huitres (Ouest)    | 3        | 6/10 | 0           | 0               | 0.6          | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Dune du Bassin                | 13       | 6/10 | 0           | 0               | 3.2          | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Dune du Nord                  | 5        | 6/10 | 0           | 1               | 16.4         | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Dune du Sud                   | 6        | 6/10 | 8           | 18              | 19.9         | I B G 1             |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | La Digue                      | 8        | 6/10 | 0           | 1               | 2.1          | I II G 1            |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | La Pointe                     | 9        | 6/10 | 0           | 1               | 1.5          | I II G 1            |                 | Yes          | Yes          | Yes          | s(p)/p |
| Îles-de-la-Madeleine | Plage de l'Hôpital            | 7        | 6/10 | 6           | 17              | 17.5         | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Plage de l'Ouest              | 11       | 6/10 | 2           | 7               | 11.0         | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Plage du Havre                | 14       | 6/10 | 0           | 0               | 4.4          | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Plage Martinique-Havre Aubert | 12       | 6/10 | 0           | 1               | 12.6         | I II G 1            |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Pointe de la Grande-Entrée    | 4        | 6/10 | 1           | 2               | 0.8          | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Pointe de l'Est               | 1        | 6/10 | 2           | 5               | 19.5         | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Procul-Bourgeois              | 10       | 6/10 | 0           | 0               | 0.8          | I G 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Îles-de-la-Madeleine | Sandy Hook                    | 15       | 6/10 | 2           | 6               | 12.2         | I B G 1             |                 | Yes          | Yes          | Yes          | s(p)   |
| <b>Total</b>         |                               |          |      | <b>22</b>   | <b>63</b>       | <b>124.2</b> |                     |                 |              |              |              |        |

# The 2006 International Piping Plover Breeding Census in Nova Scotia

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We assessed 132 sites for inclusion in the 2006 Census; 29 of which were deemed unsuitable habitat for Piping Plovers. Four sites were missed this year due to weather and inaccessibility: Grahams Cove/Ferry Road, Fish Island, Inner (The Cape), and Ratcliffe Hills (The Cape). In all, 99 sites were surveyed by 38 individuals during the Census period and plovers were observed at 27 of these sites.

Results from a regional banding study indicate that plovers in southern NS are reproductively isolated from plovers in northern NS and thus, Census results have been analyzed separately for these regions. The number of adults in northern NS has increased significantly since the 2001 Census (16 adults in 2001 and 28-31 adults in 2006). Little density change was observed at occupied sites and the increase in plover numbers in the north occurred mainly at new sites (nine occupied sites in 2006 compared to four in 2001). The number of adults in southern NS has shown a substantial decline (77 adults in 2001 down to 55-56 in 2006). During the first International Census in 1991, plovers were found at 30 sites in Southern NS and this year, plovers were found at 18 sites; a further loss of two sites since 2001. A redistribution of birds has been observed in southern NS: seven sites with plovers in 2001 no longer had plovers in 2006 (-19 adults since 2001) and five previously unoccupied sites gained plovers (+8 adults since 2001) this year. A decline in birds

occurred not only due to a complete loss of plovers at the seven sites but also owing to a decline in the number of birds at sites occupied in both years.

Productivity has been relatively high at sites in northern NS for quite some time and immigration may also contribute to the observed increase. Of four birds captured in northern NS this year, two were previously captured in Prince Edward Island. Plover numbers began to decline in the south in 2003 and have shown no recovery. With the exception of 2005 when productivity was above 2 chicks fledged per pair, productivity estimates for the south have been consistently below 1.5 chicks fledged per pair since 2001. Reports to date indicate that 2006 will be yet another poor productivity year. Cool temperatures, tidal flooding, and predation take a heavy toll on eggs and young.

We feel that the results adequately reflect the actual population in Nova Scotia for the following reasons: The results reported during the NS Census are consistent with numbers received from staff and volunteers who undertake reproductive monitoring at many of the surveyed sites, there were no adverse weather or disturbance factors to influence results, and survey techniques were consistent. Our only concern was that one site known to have breeding plovers in previous Censuses was missed this year.

### Comparison of Census Numbers

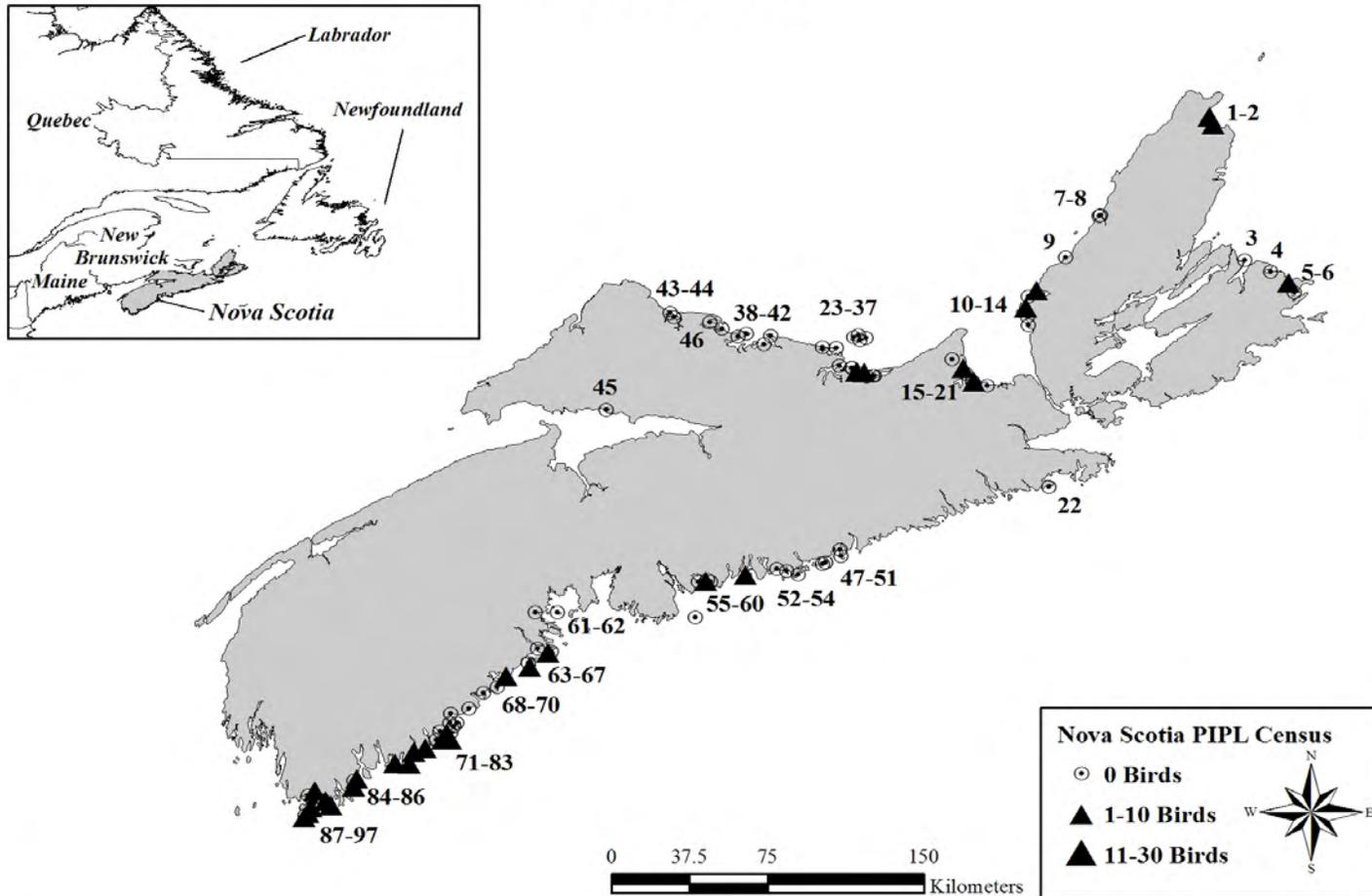
|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 113  | 79   | 93   | 86 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study

| Sites Included               | First Count | Second Count |
|------------------------------|-------------|--------------|
| Captains Pond and Monks Head | 0           | 0            |
| Pomquet                      | 9           | 7            |
| South Lakevale (Cribbons)    | 0           | 0            |
| West Pugwash                 | 0           | 0            |
| Taylor Head Bay              | 0           | 0            |
| Colindale                    | 0           | 0            |
| South West Mabou             | 2           | 2            |
| Kings Head                   | 0           | 0            |
| Black Point                  | 1           | 0            |
| Goose (Indian) Point         | 0           | 0            |
| Johnstons Pond               | 3           | 3            |
| North Harbour                | 0           | 1            |

## 2006 International Piping Plover Breeding Census - Nova Scotia -



## The 2006 International Piping Plover Breeding Census in Nova Scotia

| COUNTY/<br>REGION | SITE NAME                                     | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Antigonish        | Bayfield Beach                                | 15       | 6/12 | 0           | 0               | 0.8  | I A 1 7             |                 | Yes          | Yes          | Yes          | s(p) |
| Antigonish        | Captain's Pond & Monk's Pond<br>(Monk's Head) | 18       | 6/13 | 0           | 0               | 1.8  | I A 1 3             |                 | Yes          | Yes          | Yes          | p    |
| Antigonish        | Dunn's Beach                                  | 19       | 6/13 | 0           | 0               | 2.8  | I A 1 3             |                 | Yes          | Yes          | Yes          | s(p) |
| Antigonish        | Mahoney's Beach                               | 20       | 6/15 | 3           | 6               | 1.1  | I B 1 7             |                 | Yes          | Yes          | Yes          | p    |
| Antigonish        | Ogdens Pond Beach                             | 16       | 6/12 | 0           | 0               | 0.7  | I B 1 7             |                 | Yes          | Yes          | Yes          | p    |
| Antigonish        | Pomquet Beach Park                            | 17       | 6/6  | 4           | 9               | 7.6  | I B C 1 3 7         | I B 1           | Yes          | Yes          | Yes          | s(p) |
| Antigonish        | South Lakevale                                | 21       | 6/11 | 0           | 0               | 1.8  | I A B 1 7           |                 | Yes          | Yes          | Yes          | p    |
| Cape Breton       | Dominion (Lingan) Beach                       | 4        | 6/15 | 0           | 0               | 2.0  | I I I B 1 8         |                 | Yes          | Yes          | Yes          | s(p) |
| Cape Breton       | Glace Bay Bar                                 | 5        | 6/16 | 1           | 2               | 2.0  | I I I B 1 3 8       | I B 8           | Yes          | Yes          | Yes          | s(p) |
| Cape Breton       | Port Morien Beach                             | 6        | 6/15 | 0           | 0               | 0.5  | I I B 1 8           |                 | No           | No           | No           | s(p) |
| Cape Breton       | South Bar Beach                               | 3        | 6/16 | 0           | 0               | 1.0  | I I B 1 2 8         |                 | Yes          | Yes          | Yes          | p    |
| Colchester        | Sand Point - Five Islands                     | 45       | 6/7  | 0           | 0               | 0.8  | I I A 7 1 1         |                 | No           | Yes          | Yes          | s(p) |
| Cumberland        | Cameron Beach                                 | 44       | 6/7  | 0           | 0               | 0.6  | I B 7 1 1           |                 | Yes          | Yes          | Yes          | s(p) |
| Cumberland        | Hortons Point (Beach)                         | 42       | 6/7  | 0           | 0               | n.r. | I A 2 3 6 1 3       |                 | Yes          | Yes          | Yes          | p    |
| Cumberland        | Long Point (Beach)                            | 40       | 6/7  | 0           | 0               | 0.3  | I I I A F 1 5 8 1 1 |                 | Yes          | Yes          | Yes          | p    |
| Cumberland        | Oak Island Beach                              | 46       | 6/16 | 0           | 0               | 2.4  | I G 1 3 1 4         |                 | Yes          | Yes          | Yes          | p    |
| Cumberland        | Treen Point (Malagash Mines)                  | 41       | 6/7  | 0           | 0               | 1.0  | I A I 1 3 7         |                 | Yes          | Yes          | Yes          | s(p) |
| Cumberland        | West Pugwash Beach                            | 43       | 6/9  | 0           | 0               | 1.3  | I C 1 2 1 2         |                 | Yes          | Yes          | Yes          | p    |
| Guysborough       | Tor Bay Provincial Park Beach                 | 22       | 6/12 | 0           | 0               | 0.6  | I A 1               |                 | No           | Yes          | Yes          | s(p) |
| Halifax           | Baltee Island (Romkey's Point)                | 49       | 6/6  | 0           | 0               | 0.3  | I G 1 7 1 5         |                 | Yes          | No           | Yes          | s(p) |
| Halifax           | Bull Beach                                    | 47       | 6/8  | 0           | 0               | 0.3  | I A 1 7             |                 | No           | Yes          | Yes          | s(p) |
| Halifax           | Clam Harbour Beach                            | 53       | 6/13 | 0           | 0               | 1.5  | I A 1 1 3           |                 | Yes          | Yes          | Yes          | s(p) |
| Halifax           | Conrad's Beach (East & West)                  | 56       | 6/16 | 0           | 1               | 2.0  | I I I A D 1 8 1 2   | I A 1           | Yes          | Yes          | Yes          | s(p) |
| Halifax           | Lawrencetown Beach                            | 57       | 6/16 | 0           | 0               | 1.0  | I A 1 7             |                 | No           | Yes          | Yes          | s(p) |
| Halifax           | Little Harbor (the sandbar)                   | 52       | 6/12 | 0           | 0               | 1.0  | I A 1 1 3           |                 | Yes          | No           | Yes          | p    |
| Halifax           | Mangher's Beach, McNabs<br>Island             | 60       | 6/14 | 0           | 0               | 1.4  | I I G 1 7           |                 | Yes          | Yes          | Yes          | s(p) |
| Halifax           | Martinique Beach                              | 55       | 6/7  | 2           | 4               | 3.0  | I B 1 3 1 2         | I B 1 4         | Yes          | Yes          | Yes          | s(p) |
| Halifax           | Rainbow Haven Beach (Cole<br>Harbour)         | 59       | 6/14 | 0           | 0               | 1.8  | I I B 1             |                 | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census in Nova Scotia  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                           | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|-------------------------------------|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Halifax           | Sandy Cove & Eastern Sandy Cove     | 50       | 6/6  | 0           | 0               | 0.3 | I III IV 1 15       |                 | Yes          | No           | Yes          | p    |
| Halifax           | Sandy Cove West                     | 51       | 6/6  | 0           | 0               | 0.3 | I II A G 1 15       |                 | Yes          | No           | Yes          | p    |
| Halifax           | Stoney Beach (Lawrencetown Head)    | 58       | 6/16 | 0           | 0               | 0.8 | I D 1 2 7           |                 | Yes          | Yes          | Yes          | s(p) |
| Halifax           | Taylor Head Beach                   | 48       | 6/7  | 0           | 0               | 0.7 | I A 1 3 12          |                 | Yes          | Yes          | Yes          | s(p) |
| Halifax           | West Marsh/Seapool Beach            | 54       | 6/12 | 0           | 0               | 0.5 | I A 1 3 13          |                 | Yes          | Yes          | Yes          | p    |
| Inverness         | Belle Cote Beach                    | 7        | 6/11 | 0           | 0               | 1.7 | I A 7               |                 | No           | No           | No           | s(p) |
| Inverness         | Big Rory's Point/Emerson Point      | 14       | 6/12 | 0           | 0               | 0.8 | I A B 1 7           |                 | Yes          | Yes          | Yes          | p    |
| Inverness         | Colindale Beach                     | 11       | 6/5  | 0           | 0               | 0.6 | I A 1 7             |                 | Yes          | Yes          | Yes          | s(p) |
| Inverness         | Inverness Beach                     | 9        | 6/12 | 0           | 0               | 3.5 | I A 1 7             |                 | No           | No           | No           | p    |
| Inverness         | Little Judique Harbour              | 13       | 6/6  | 0           | 0               | 0.6 | I A 1 7             |                 | Yes          | Yes          | Yes          | p    |
| Inverness         | Margaree Harbour Beach              | 8        | 6/11 | 0           | 0               | 0.5 | I A 1               |                 | No           | No           | No           | s(p) |
| Inverness         | Shipping Point                      | 12       | 6/6  | 2           | 4               | 1.9 | I A 1 12            | I A 7           | Yes          | Yes          | Yes          | s(p) |
| Inverness         | South West Mabou Beach              | 10       | 6/5  | 1           | 2               | 1.7 | I A 1               | I A 7           | No           | No           | Yes          | s(p) |
| Lunenburg         | Cape Bay Beach                      | 67       | 6/6  | 2           | 4               | 2.0 | I III 1 7           | II G 1 7        | Yes          | Yes          | Yes          | m    |
| Lunenburg         | Cherry Hill Beach                   | 68       | 6/10 | 2           | 4               | 2.0 | I B 1 2 3 7         |                 | Yes          | Yes          | Yes          | s(p) |
| Lunenburg         | Hirtle's Beach                      | 63       | 6/7  | 1           | 2               | 1.0 | I A 1 7             | I A 1           | Yes          | Yes          | Yes          | m    |
| Lunenburg         | Kingsburg Beach                     | 64       | 6/7  | 0           | 0               | 0.6 | I A 1 7             |                 | No           | Yes          | Yes          | p    |
| Lunenburg         | Mason's Island Beach                | 61       | 6/6  | 0           | 0               | 0.3 | II 1 7              |                 | Yes          | Yes          | Yes          | p    |
| Lunenburg         | Oxner's Beach                       | 65       | 6/5  | 0           | 0               | 1.0 | II A 1 7            |                 | No           | No           | Yes          | p    |
| Lunenburg         | Rafuse Island                       | 62       | 6/6  | 0           | 0               | 0.5 | I G 1               |                 | Yes          | Yes          | Yes          | p    |
| Lunenburg         | The Creek (Cape LeHave Island)      | 66       | 6/6  | 0           | 0               | 1.5 | I II G 1 7          |                 | Yes          | Yes          | Yes          | m    |
| Pictou            | Big Merigomish Island Beach         | 36       | 6/14 | 0           | 0               | 4.9 | I B 1 7             |                 | Yes          | Yes          | Yes          | s/p  |
| Pictou            | Bowen Island                        | 32       | 6/8  | 0           | 0               | 0.9 | II C 1              |                 | Yes          | Yes          | Yes          | p    |
| Pictou            | Cape John, Megs Cove                | 38       | 6/8  | 0           | 0               | 0.7 | I A 1 7 12          |                 | No           | No           | Yes          | p    |
| Pictou            | Caribou Island, Caribou Reef        | 28       | 6/15 | 0           | 0               | 0.7 | I G 1 7             |                 | Yes          | Yes          | Yes          | p    |
| Pictou            | Chance Harbour Beach                | 30       | 6/7  | 0           | 0               | 1.6 | I II A 1            |                 | No           | Yes          | Yes          | p    |
| Pictou            | James Beach and Little Harbour Spit | 33       | 6/8  | 1           | 2               | 1.0 | II B 2              |                 | Yes          | Yes          | Yes          | p    |

**The 2006 International Piping Plover Breeding Census in Nova Scotia  
(Continued)**

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|---|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Pictou            | Kings Head (Chisholm Beach)                           | 34       | 6/8  | 0           | 0               | 1.2  | II B 1 8 12         |                 | Yes          | Yes          | Yes          | p      |
| Pictou            | Melmerby Beach  | 35       | 6/12 | 1           | 3               | 2.5  | I B 1               | I B 1           | Yes          | Yes          | Yes          | s/p    |
| Pictou            | Murray Beach, Rushtons Park                           | 39       | 6/9  | 0           | 0               | 0.7  | I A 1 7 12          |                 | Yes          | Yes          | Yes          | s/p    |
| Pictou            | Pictou Bar Spit (Pictou Landing,<br>Lighthouse Beach) | 29       | 6/12 | 0           | 0               | 1.5  | I B 2 14            |                 | Yes          | Yes          | Yes          | s(p)   |
| Pictou            | Pictou Island (East end)                              | 23       | 6/6  | 0           | 0               | 1.0  | I G 1 7             |                 | No           | No           | Yes          | p      |
| Pictou            | Pictou Island John Dans Cove                          | 24       | 6/6  | 0           | 0               | 0.6  | I G 1 15            |                 | No           | No           | Yes          | p      |
| Pictou            | Pictou Island, North Shore Beach                      | 25       | 6/6  | 0           | 0               | 1.1  | I G 1 7             |                 | No           | No           | Yes          | p      |
| Pictou            | Roger Point, Pictou Island                            | 26       | 6/6  | 0           | 0               | 1.6  | I G 1               |                 | No           | No           | Yes          | p      |
| Pictou            | Savage Point, Big Merigomish<br>Island                | 37       | 6/14 | 0           | 0               | 0.6  | I B 7               |                 | Yes          | Yes          | Yes          | p      |
| Pictou            | Sinclair's Island                                     | 31       | 6/7  | 0           | 0               |      | I A D 1 2           |                 | Yes          | Yes          | Yes          | p      |
| Pictou            | Waterside Beach                                       | 27       | 6/15 | 0           | 0               | 0.6  | I A 7 12 14         |                 | No           | No           | Yes          | s(p)   |
| Queens            | Back Beach, Port Mouton Island                        | 73       | 6/14 | 0           | 0               | 1.0  | II G 1              |                 | Yes          | Yes          | Yes          | p      |
| Queens            | Beach Meadows Beach                                   | 70       | 6/12 | 0           | 0               | 1.0  | I A 1 7             |                 | Yes          | Yes          | Yes          | m/p    |
| Queens            | Carter's/Wobamkek Beach                               | 74       | 6/14 | 0           | 0               | 1.6  | I A 1 3 7           |                 | Yes          | Yes          | Yes          | p      |
| Queens            | Cranberry Pond  | 75       | 6/14 | 0           | 0               | 1.0  | II B 1              |                 | Yes          | Yes          | No           | p      |
| Queens            | Gull Island Beach                                     | 71       | 6/14 | 0           | 0               | n.r. | I G 5               |                 | Yes          | Yes          | No           | n.r.   |
| Queens            | Little Port Joli Beach                                | 76       | 6/10 | 0           | 0               | 2.3  | I II B 1 2 11       |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Port Joli, Goose Haven Beach                          | 78       | 6/12 | 0           | 0               | 0.2  | II B 1              |                 | Yes          | Yes          | Yes          | p      |
| Queens            | Ragged Harbour Beach                                  | 69       | 6/12 | 0           | 0               | 0.3  | I A I 1 7           |                 | Yes          | Yes          | Yes          | m      |
| Queens            | Sandy Bay Beach                                       | 79       | 6/14 | 0           | 0               | 2.0  | I A 1 3 7           |                 | Yes          | Yes          | Yes          | s(p)   |
| Queens            | St. Catherine's Beach                                 | 77       | 6/16 | 5           | 12              | 3.3  | I II B 1 2 3 7 11   |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Summerville Beach                                     | 72       | 6/12 | 0           | 0               | 1.3  | II 1                |                 | Yes          | Yes          | Yes          | s(p)/p |
| Shelburne         | Black Point Beach                                     | 82       | 6/12 | 0           | 1               | 2.0  | I B 1 7 15          | I B 1           | Yes          | Yes          | Yes          | p      |
| Shelburne         | Bull's Head   | 93       | 6/14 | 0           | 0               | 0.2  | I A 1 3             |                 | No           | Yes          | No           | p      |
| Shelburne         | Burk's Point  | 88       | 6/6  | 1           | 2               | 1.1  | I B 1 3 7           | I B 1 7         | Yes          | Yes          | Yes          | p      |
| Shelburne         | Clam Point  | 92       | 6/13 | 0           | 0               | 1.8  | I A 1 3 7           |                 | Yes          | Yes          | Yes          | s(p)   |
| Shelburne         | Crescent Beach  | 83       | 6/5  | 1           | 2               | 0.8  | I A 1 3 7           | I B 7           | Yes          | Yes          | Yes          | m/p    |

**The 2006 International Piping Plover Breeding Census in Nova Scotia  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                      | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS       | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--------------------------------|----------|------|-------------|-----------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Shelburne         | Crow Neck (Baccaro)            | 87       | 6/6  | 3           | 6                     | 1.6          | I B 1 3 7           | I B 1 7         | Yes          | Yes          | Yes          | s/p  |
| Shelburne         | Daniels Head/Southside         | 95       | 6/13 | 1           | 2                     | 2.7          | I A 1 3 7 15        | I A 15          | Yes          | Yes          | Yes          | s/p  |
| Shelburne         | Fox Bar Beach                  | 84       | 6/5  | 1           | 2                     | 1.1          | I A 1 3             | I B 7           | Yes          | Yes          | Yes          | p    |
| Shelburne         | Goose Point                    | 89       | 6/6  | 0           | 0                     | 0.6          | I B 1 3 7           |                 | Yes          | Yes          | Yes          | p    |
| Shelburne         | Hawk Point                     | 97       | 6/13 | 1           | 2                     | 1.5          | I A 1 3 7 11        | I B 1           | Yes          | Yes          | Yes          | s(p) |
| Shelburne         | Johnston's Pond Beach          | 80       | 6/6  | 1           | 3                     | 0.8          | I B 1 3 7 11        | I B 7 11        | Yes          | Yes          | Yes          | s/p  |
| Shelburne         | Louis Head Beach               | 81       | 6/14 | 1           | 2                     | 1.9          | I A 1 3             | I A 1           | Yes          | Yes          | Yes          | p    |
| Shelburne         | North East Point Beach         | 91       | 6/7  | 0           | 0                     | 0.6          | I A I 1 2 3         |                 | Yes          | Yes          | Yes          | s(p) |
| Shelburne         | Red Head Beach                 | 86       | 6/5  | 1           | 2                     | 1.5          | I A 1 3 7           |                 | Yes          | Yes          | Yes          | p    |
| Shelburne         | Round Bay                      | 85       | 6/5  | 0           | 0                     | 1.7          | I A 1 3 7           |                 | Yes          | Yes          | Yes          | f/s  |
| Shelburne         | Sand Hills Beach (Sabim Beach) | 90       | 6/6  | 1           | 3                     | 2.3          | I A I 1 2 3 11      | I I 1           | Yes          | Yes          | Yes          | s(p) |
| Shelburne         | Stoney Island                  | 94       | 6/12 | 1           | 2                     | 0.9          | I A 1 3 7           | I A 7           | Yes          | Yes          | Yes          | s(p) |
| Shelburne         | The Hawk Beach & Hawk Point    | 96       | 6/13 | 0           | 0                     | 0.9          | I A 1 3 7           |                 | Yes          | Yes          | Yes          | s(p) |
| Victoria          | North Harbour Beach            | 1        | 6/13 | 0           | 1                     | 5.1          | I A B 1 7           | I A B 1         | Yes          | Yes          | Yes          | p    |
| Victoria          | South Harbour Beach            | 2        | 6/7  | 1           | 2                     | 3.6          | I A 1 7 12          |                 | Yes          | Yes          | Yes          | p    |
| <b>Total</b>      |                                |          |      | <b>39</b>   | <b>87<sup>1</sup></b> | <b>132.1</b> |                     |                 |              |              |              |      |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census on Prince Edward Island

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The Prince Edward Island section of the 2006 International Piping Plover Breeding Census was conducted between 3 June and 16 June. A total of 86 beaches were visited during the Census period (or just outside) and 80 were found to have habitat and were surveyed by 18 trained volunteers and staff. Surveyors found a total of 95 adult Piping Plovers across the Island from western Prince County to extreme eastern Kings County. Sixty-eight plovers, or 72% of the provincial population, were recorded outside the PEINP, and 27 plovers (28%) were recorded inside the Park.

All known Piping Plover sites were censused, and lists were compiled from previous year's lists. No additional areas were identified for census in future years. Census coordinators feel the 2006 census results adequately represent the actual population. The 2006 Census showed a substantial increase in adult plovers returning to PEI. The 2005 Index Count recorded only 60 plovers and 75 plovers were recorded for the year end results. The numbers are still a little lower than the last International Census (2001) where 112 plovers were counted.

Protection of plovers outside the PEINP has continued with all nesting areas protected by signage and symbolic fencing (except difficult to access off-shore islands). Additionally, there is regular monitoring by volunteers and staff and use of exclosures where monitoring by

volunteers can be maintained at required levels. Productivity and effort is monitored at all nests (except off-shore islands). Protection of plovers inside the PEINP remains high, with closed areas, enforcement, education, daily monitoring, use of exclosures and the protection of the National Park designation.

Disturbance to nesting plovers includes humans, both pedestrian and vehicular, as well as loose dogs. Enforcement of existing legislation is difficult on beaches outside the PEINP. Factors affecting population numbers include predation of eggs and chicks, weather and human disturbance.

## Comparison of Census Numbers

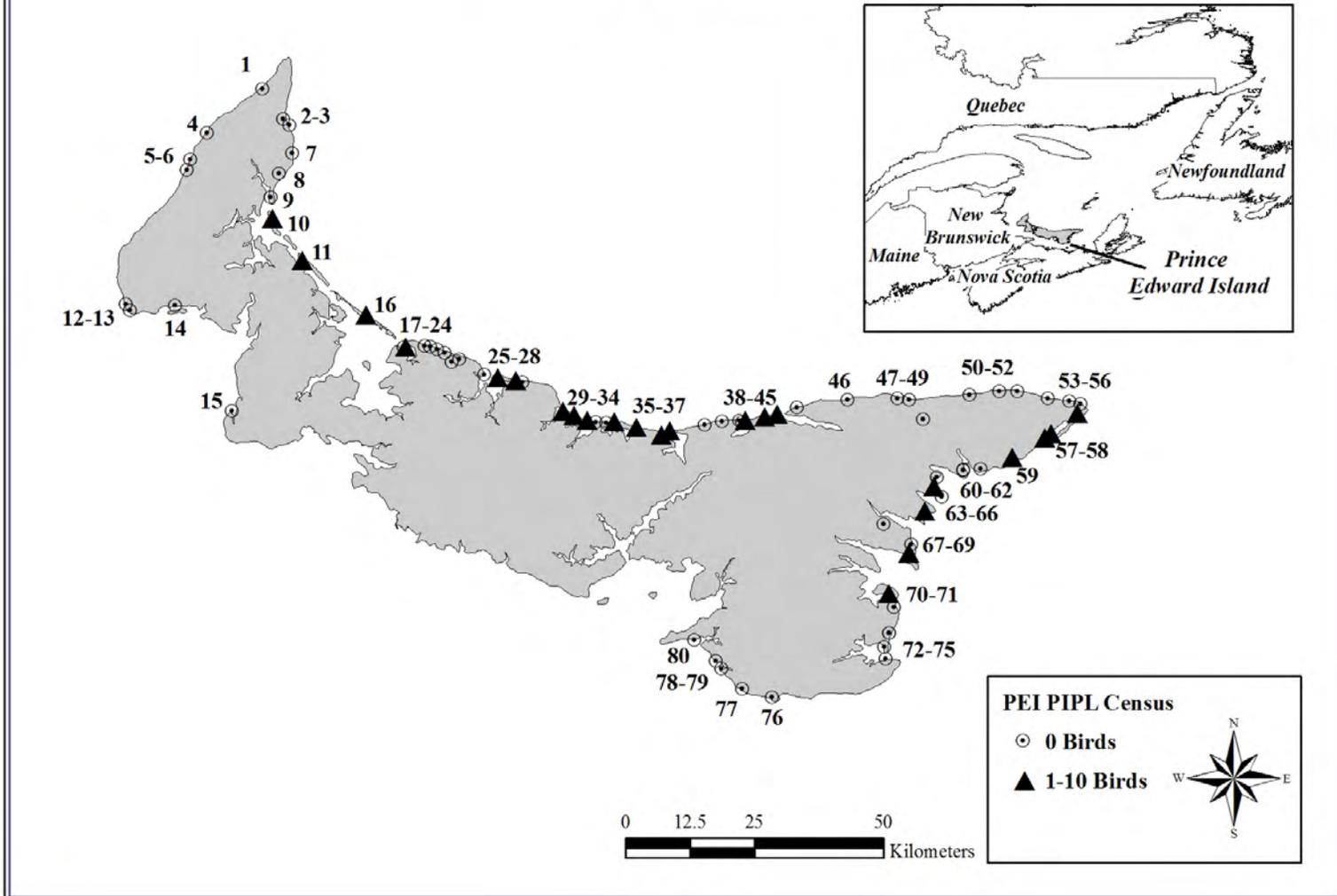
|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 110  | 66   | 112  | 93 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

## Detectability Study

| Sites Included         | First Count | Second Count |
|------------------------|-------------|--------------|
| Black Pond             | 5           | 4            |
| Cross River (big pond) | 0           | 0            |
| East Lake              | 0           | 0            |
| Eglington Cove         | 5           | 3            |
| Grahams Pond           | 0           | 0            |
| Norris Pond            | 0           | 0            |
| North Lake             | 0           | 0            |
| St. Margaret's         | 0           | 0            |
| Feehan's Point         | 0           | 0            |
| Tracadie Sandbar       | 0           | 2            |

## 2006 International Piping Plover Breeding Census - Prince Edward Island -



## The 2006 International Piping Plover Breeding Census on Prince Edward Island

| COUNTY/<br>REGION | SITE NAME                              | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Kings             | Basin Head (Bothwell)                  | 58       | 6/09 | 1           | 2               | 3.5 | I A 1 3             | I A             | Yes          | Yes          | Yes          | s(p) |
| Kings             | Beach Point                            | 75       | 6/15 | 0           | 0               | 0.8 | I II B 1 2          |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Black Pond                             | 59       | 6/09 | 2           | 5               | 2.3 | I A 1 3 5           | I A             | Yes          | No           | Yes          | s(p) |
| Kings             | Boughton Bay (Old Ferry Spit)          | 67       | 6/09 | 0           | 0               | 1.5 | I A 2 15            |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Boughton Island                        | 69       | 6/09 | 1           | 2               | 3.5 | I II A 1 2          | I A 2           | Yes          | Yes          | Yes          | s(p) |
| Kings             | Cable Head                             | 46       | 6/09 | 0           | 0               | 0.8 | I A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Campbells Cove                         | 52       | 6/07 | 0           | 0               | 1.0 | I A 1               |                 | No           | No           | Yes          | s(p) |
| Kings             | Canavoy (Savage Harbor East)           | 42       | 6/07 | 1           | 3               | 3.0 | I A 1 3             | I A             | Yes          | Yes          | Yes          | s(p) |
| Kings             | Condots Pond                           | 72       | 6/16 | 0           | 0               | 2.2 | I A 1               |                 | No           | No           | Yes          | s(p) |
| Kings             | Cow River                              | 47       | 6/9  | 0           | 0               | 0.3 | I A 1 15            |                 | No           | Yes          | Yes          | s(p) |
| Kings             | Cross River (Big Pond)                 | 50       | 6/13 | 0           | 0               | 0.5 | I A 1               |                 | Yes          | Yes          | Yes          | n.r. |
| Kings             | Diligent Pond                          | 56       | 6/9  | 1           | 2               | 1.3 | I II A 1 3          | I II A          | Yes          | Yes          | Yes          | s(p) |
| Kings             | East Lake                              | 54       | 6/13 | 0           | 0               | 2.0 | I II A 1            |                 | No           | Yes          | Yes          | s(p) |
| Kings             | East Point                             | 55       | 6/7  | 0           | 0               | 1.0 | I A 1               |                 | No           | No           | Yes          | p    |
| Kings             | Eglington Cove                         | 64       | 6/9  | 2           | 5               | 1.0 | I A 1               | I A             | Yes          | Yes          | Yes          | s(p) |
| Kings             | Fortune Beach                          | 63       | 6/9  | 0           | 0               | 1.0 | I A 1               |                 | No           | No           | Yes          | p    |
| Kings             | Grahams Pond                           | 73       | 6/16 | 0           | 0               | 0.8 | I A 1               |                 | No           | No           | Yes          | s(p) |
| Kings             | Greenwich Peninsula/ Schooner<br>PEINP | 45       | 6/15 | 0           | 0               | 8.0 | I II B D 1 2 3      |                 | Yes          | Yes          | Yes          | f    |
| Kings             | Howe Bay                               | 65       | 6/9  | 0           | 0               | 1.5 | I II A 1 2          |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Lake Run (Saint Peter's)               | 43       | 6/6  | 1           | 3               | 1.5 | I II A 1            | I A 1           | Yes          | Yes          | Yes          | s(p) |
| Kings             | Launching Point                        | 68       | 6/9  | 0           | 0               | 0.8 | I A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Naufrage                               | 48       | 6/7  | 0           | 0               | 1.0 | I A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Norris Pond                            | 60       | 6/14 | 0           | 0               | 0.5 | I A 1               |                 | No           | No           | Yes          | s(p) |
| Kings             | North Lake                             | 53       | 6/13 | 0           | 0               | 0.8 | I A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Panmure Island                         | 70       | 6/05 | 1           | 2               | 2.5 | I A 1               | I A 1           | Yes          | Yes          | Yes          | s(p) |
| Kings             | Pigots Pond                            | 40       | 6/07 | 0           | 0               | 0.8 | I A 1 15            |                 | No           | No           | Yes          | s(p) |
| Kings             | Poverty Beach                          | 74       | 6/15 | 0           | 0               | 1.2 | I II A 1 2          |                 | Yes          | Yes          | Yes          | s(p) |
| Kings             | Priest Pond                            | 51       | 6/07 | 0           | 0               | 0.8 | I A B 1 15          |                 | Yes          | Yes          | Yes          | p    |
| Kings             | Saint Peter's Harbour                  | 44       | 6/12 | 4           | 8               | 2.5 | I A E 1 3 5         | I A D           | Yes          | Yes          | Yes          | s(p) |
| Kings             | Savage Harbor West                     | 41       | 6/07 | 0           | 0               | 0.3 | I A 15              |                 | Yes          | Yes          | Yes          | p    |

**The 2006 International Piping Plover Breeding Census on Prince Edward Island  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|--------------------------|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Kings             | Sheep Pond               | 61       | 6/05 | 0           | 0               | 0.8  | I A 1               |                 | No           | No           | Yes          | s(p)   |
| Kings             | Souris Causeway          | 62       | 6/09 | 0           | 0               | 1.0  | I A 1 5             |                 | Yes          | Yes          | Yes          | s(p)   |
| Kings             | South Lake               | 57       | 6/09 | 2           | 4               | 5.0  | I A I 1 2 3         | II 2            | Yes          | Yes          | Yes          | s(p)   |
| Kings             | Spry Cove/ Sally's beach | 66       | 6/09 | 1           | 2               | 2.5  | I A B 1 3           | II B 1          | Yes          | Yes          | Yes          | s(p)   |
| Kings             | St. Margaret's           | 49       | 6/13 | 0           | 0               | 1.0  | I A 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Kings             | Steele's Pond            | 71       | 6/06 | 0           | 0               | 0.8  | I A 1               |                 | No           | No           | Yes          | s(p)   |
|                   |                          |          |      |             |                 |      | I II A B 1 3 4 7    |                 |              |              |              |        |
| Prince            | Black Pond West          | 4        | 6/13 | 0           | 0               | 1.0  | 15                  |                 | Yes          | No           | Yes          | s(p)   |
| Prince            | Cabot Provincial Park    | 17       | 6/06 | 0           | 0               | 1.5  | I A 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Cascumpec Sand Hills     | 10       | 6/13 | 1           | 2               | 1.5  | I C 1               | I C 1           | Yes          | Yes          | Yes          | f      |
| Prince            | Cedar Dunes Park         | 13       | 6/16 | 0           | 0               | 1.0  | I A 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Cedar Dunes West         | 12       | 6/15 | 0           | 0               | 2.0  | I A 1               |                 | Yes          | Yes          | Yes          | s(p)/p |
| Prince            | Conway Island            | 11       | 6/13 | 4           | 8               | 12.0 | I C 1 3             | I C             | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Darnley Point            | 18       | 6/06 | 3           | 6               | 2.0  | I A 2               | I A 1 14        | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Foley's Pond (The Gap)   | 8        | 6/11 | 0           | 0               | 2.0  | VIII A 1            |                 | Yes          | No           | Yes          | p      |
| Prince            | Hog Island               | 16       | 6/13 | 2           | 4               | 11.0 | I 1 2 11            | I G 1 2         | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Indian Point Sand Hills  | 14       | 6/15 | 0           | 0               | 7.0  | I II B C 1 3 5      |                 | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Jacques Cartier East     | 9        | 6/11 | 0           | 0               | 11.0 | VIII A B 1 2 3      |                 | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Kildare Capes            | 7        | 6/11 | 0           | 0               | 3.0  | VIII A 1            |                 | Yes          | Yes          | Yes          | p      |
| Prince            | Little Miminegash        | 6        | 6/13 | 0           | 0               | 1.5  | I II A B 1 3 7      |                 | Yes          | No           | Yes          | s(p)   |
| Prince            | Maximeville              | 15       | 6/15 | 0           | 0               | 2.0  | I A D 1             |                 | Yes          | No           | Yes          | s(p)   |
| Prince            | Miminegash Pond          | 5        | 6/13 | 0           | 0               | 1.0  | I II A B 1 3 15     |                 | Yes          | Yes          | Yes          | s(p)   |
| Prince            | Morrisons Pond           | 19       | 6/10 | 0           | 0               | 3.0  | VIII A 1 3          |                 | No           | Yes          | Yes          | p      |
| Prince            | Nail Pond                | 1        | 6/13 | 0           | 0               | 2.5  | I II A 1 3 6        |                 | Yes          | No           | Yes          | s(p)   |
| Prince            | Round Pond               | 3        | 6/11 | 0           | 0               | 4.0  | VIII A 1            |                 | Yes          | No           | Yes          | p      |
| Prince            | Tignish Shore            | 2        | 6/11 | 0           | 0               | 2.0  | VIII A 1            |                 | Yes          | Yes          | Yes          | s(p)/p |
| Queens            | Adams Cottages           | 20       | 6/10 | 0           | 0               | 2.0  | VIII A 1 3          |                 | No           | No           | Yes          | p      |
| Queens            | Adams Pond               | 21       | 6/10 | 0           | 0               | 3.0  | VIII A 1 3          |                 | No           | Yes          | Yes          | p      |
| Queens            | Bell Point               | 77       | 6/05 | 0           | 0               | 1.5  | I A 1               |                 | Yes          | Yes          | Yes          | p      |
| Queens            | Blooming Point PEINP     | 37       | 6/15 | 3           | 6               | 11.0 | I II A B D 1 3 4    |                 | Yes          | Yes          | Yes          | f      |

**The 2006 International Piping Plover Breeding Census on Prince Edward Island  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                                   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS       | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|---|----------|------|-------------|-----------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Queens            | Brackley Main PEINP                         | 32       | 6/14 | 0           | 0                     | 1.1          | I A 1 3             |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Brandors Pond                               | 22       | 6/10 | 0           | 0                     | 2.0          | VIII A 1 3          |                 | No           | Yes          | Yes          | p      |
| Queens            | Campbells Pond                              | 24       | 6/10 | 0           | 0                     | 1.5          | VIII A 1 3          |                 | No           | Yes          | Yes          | p      |
| Queens            | Cavendish Campground PEINP                  | 27       | 6/14 | 1           | 2                     | 2.0          | I A 1 3             |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Cavendish Main                              | 28       | 6/14 | 0           | 0                     | 1.0          | I A                 |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Cavendish Sandspit                          | 26       | 6/14 | 5           | 10                    | 4.7          | I II B 1 2 3 4 11   |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Cousin's Pond                               | 23       | 6/15 | 0           | 0                     | 0.5          | I A 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Queens            | Covehead Harbor West                        | 34       | 6/14 | 1           | 2                     | 3.5          | I II A 1 2 3        |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Deroche Pond                                | 38       | 6/16 | 0           | 0                     | 5.0          | I A 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Queens            | Feehan's Point                              | 39       | 6/07 | 0           | 0                     | 2.0          | I A 1               |                 | No           | No           | Yes          | s(p)   |
| Queens            | Gascoigne Cove East                         | 78       | 6/05 | 0           | 0                     | 1.0          | I B 2               |                 | Yes          | Yes          | Yes          | s(p)   |
| Queens            | Gascoigne Cove West                         | 79       | 6/05 | 0           | 0                     | 2.0          | I A 1               |                 | Yes          | Yes          | Yes          | s(p)   |
| Queens            | North Rustico Sandbar                       | 29       | 6/06 | 4           | 8                     | 1.0          | I G 4               | I II G 1 11     | Yes          | Yes          | Yes          | s(p)   |
| Queens            | Pond Point                                  | 80       | 6/05 | 0           | 0                     | 1.0          | I II A B 2          |                 | No           | Yes          | Yes          | p      |
| Queens            | Robinson's Island Sandspit                  | 30       | 6/14 | 1           | 2                     | 3.0          | I II B D 1 2        |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Rustico Causeway                            | 31       | 6/14 | 0           | 2                     | 2.0          | I A I 1 2 4         |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Shaw's Beach                                | 33       | 6/14 | 0           | 0                     | 2.0          | I A 1 3             |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Tracadie Beach to Covehead Harbor<br>(East) | 35       | 6/14 | 1           | 3                     | 8.8          | I A 1 3             |                 | Yes          | Yes          | Yes          | f      |
| Queens            | Tracadie Sandbar                            | 36       | 6/16 | 1           | 2                     | 1.5          | II D 5              |                 | Yes          | Yes          | Yes          | s(p)   |
| Queens            | Wood Islands                                | 76       | 6/05 | 0           | 0                     | 3.0          | I II B 2            |                 | Yes          | Yes          | Yes          | s(p)/p |
| Queens            | Yankee Beach                                | 25       | 6/14 | 0           | 0                     | 1.5          | I A 1               |                 | Yes          | No           | Yes          | s      |
| <b>Total</b>      |   |          |      | <b>44</b>   | <b>95<sup>1</sup></b> | <b>198.4</b> |                     |                 |              |              |              |        |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in New Brunswick

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All known suitable Piping Plover habitat was censused in New Brunswick during the window count with the exception of South Richibucto Dune (North Barrier Island). Sixty beaches were surveyed including two large beaches that were split into five sites (63 sites total). Over 220 km of shoreline was covered by 35 participants. Two beaches, Miscou Centre (Miscou Island) and St-Marie St-Raphaël were surveyed for the first time during an international census. No unidentified suitable habitat has been detected and there is likely no remaining undiscovered potential habitat for Piping Plovers New Brunswick.

Four sites were selected for the detectability study in New Brunswick and all sites were surveyed twice during the census window. There were more Piping Plovers (n=2, 3) detected at two sites during the second survey. This increase could partially be explained by plover movement, as two of the birds detected during the second surveys were singles and an extra pair detected had just initiated a nest.

Seven sites surveyed during the 2001 census were re-evaluated and thought to be unsuitable for nesting Piping Plovers due to habitat degradation caused by coastal erosion, beach succession or the presence of large gull colonies. For these reasons, Crab Island, Egg Island, Huckleberry Island, Little Huckleberry

Island, Sheldrake Island, Île Pokesudie and Neguac Spit North were not surveyed for breeding Piping Plovers.

A total of 166 adults were counted during the 2006 International Census (not including the detectability results). This is similar to the 2001 population estimate of 167 adults, and a considerable increase (17%) from the 1996 count of 146 birds. Compared to the 1991 census results, Piping Plover population has experienced a decrease of 16%, when 203 adults were counted.

These results are most likely a slight underestimate of the Piping Plover population in New Brunswick, as South Richibucto Dune (North Barrier Island) was not surveyed during the census window. This site has consistently had one to two breeding pairs per year. A site visit was conducted on July 25, and one breeding pair was discovered with three young. It is thought that this pair had been established during the International Census window. All remaining potential habitat in the province was surveyed during the census window despite several days of high winds and inclement weather resulting in some survey delays.

Excessive all-terrain vehicle (ATV) use of beaches was noted throughout the province during the census. There were at least two cases in which ATV traffic had come inches from crushing Piping Plover nests. This could be related to delays in funding that resulted in a later initiation in guardian program efforts in comparison to other years. The delay in educational efforts, as well as symbolic fencing and signage installation on beaches may have played a role in these increased levels of disturbance.

Natural ecological processes such as beach erosion and sediment deposition continuously modify habitat parameters of Piping Plover breeding beaches in New Brunswick. While

seven beaches were re-evaluated and found to be unsuitable for Piping Plovers in 2006, ten sites experienced increased use by Piping Plovers. In previous years, Escuminac beach has experienced a great deal of ATV traffic; however in recent years a breach has formed preventing vehicle traffic from accessing sections of the beach. As a result, Piping Plover use of this site and nesting success is increasing. After a decade of monitoring potential habitat, one pair of Piping Plovers was observed at Grand Lac beach for the first time during the 2006 census.

Other threats continue to impact Piping Plovers and their distribution in New Brunswick, including human disturbance and coastal development for residential and industrial purposes. The construction of a fish plant on a sand dune at St-Marie St-Raphaël has resulted in Piping Plovers abandoning the site. Other factors impacting the Piping Plovers in New Brunswick include egg and chick depredation and nest flooding.

**Comparison of Census Numbers**

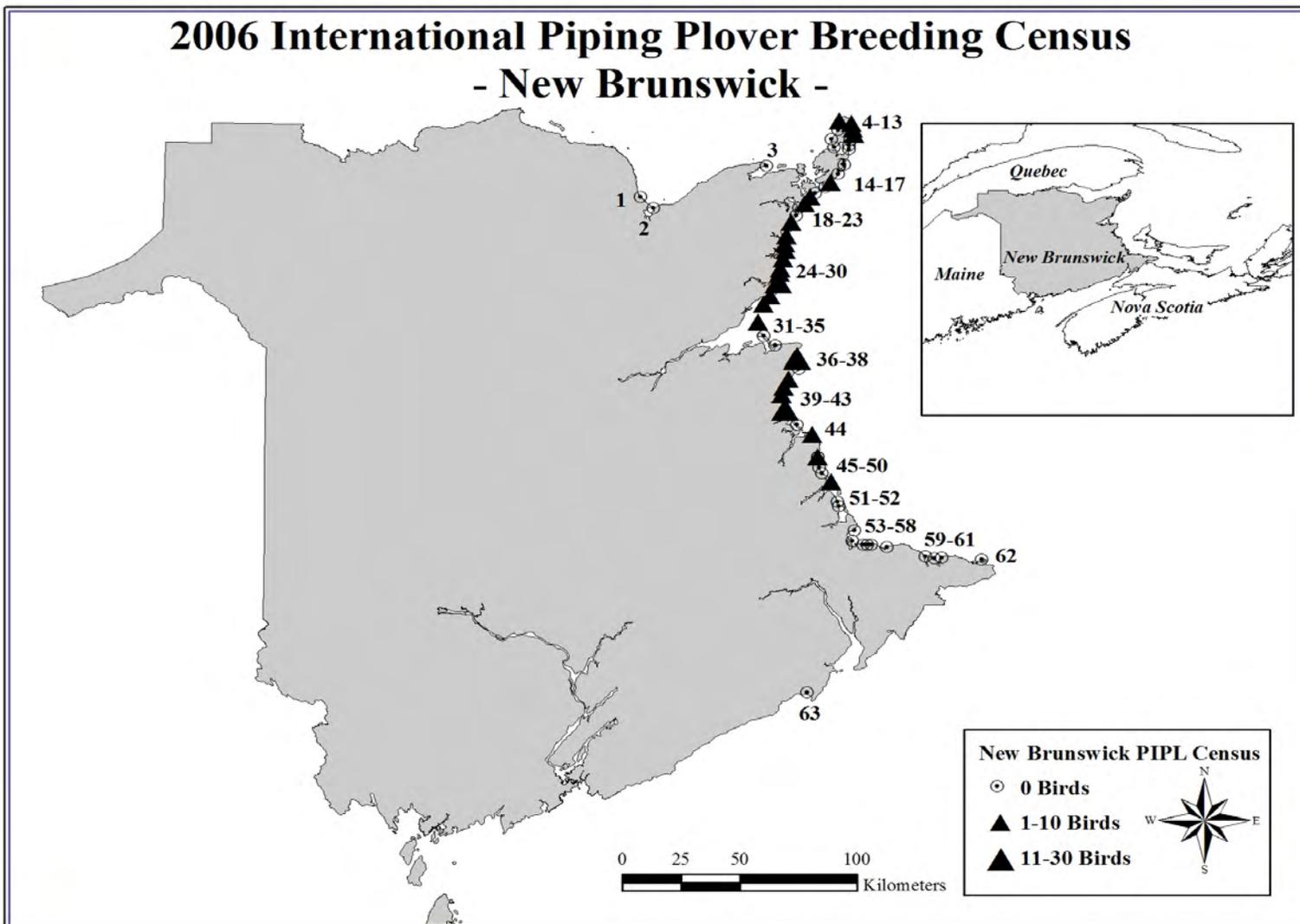
|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 203  | 146  | 167  | 166 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

**Detectability Study**

| Sites Included                                 | First Count | Second Count |
|--|-------------|--------------|
| Escuminac Beaches                              | 13          | 14           |
| Escuminac Beaches – South Section              | 0           | 2            |
| Pointe Sapin Dune, Kouchibouguac National Park | 4           | 4            |
| Quai de Saint Edouard                          | 0           | 0            |
| Cedar Road Spit                                | 8           | 10           |

## 2006 International Piping Plover Breeding Census - New Brunswick -



## The 2006 International Piping Plover Breeding Census in New Brunswick

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION  | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|---|----------|------|-------------|-----------------|-----|----------------------|-----------------|--------------|--------------|--------------|--------|
| Albert            | Waterside Beach   | 63       | 6/06 | 0           | 0               | 3.0 | I A 1                |                 | Yes          | Yes          | Yes          | p      |
| Gloucester        | Baie-de-Petit-Pokemouche                                | 19       | 6/04 | 3           | 6               | 1.9 | I A 1 3 7 12         | I A 1 7         | Yes          | Yes          | Yes          | p      |
| Gloucester        | Beresford Beach   | 1        | 6/06 | 0           | 0               | 2.5 | I B 1                |                 | No           | Yes          | Yes          | p      |
| Gloucester        | Cap Bateau  | 14       | 6/14 | 0           | 0               | 1.0 | I A 1 12             |                 | Yes          | Yes          | Yes          | s(p)/p |
| Gloucester        | Carron Point  | 2        | 6/16 | 0           | 0               | 1.5 | I B 1                |                 | No           | Yes          | Yes          | p      |
| Gloucester        | Chiasson Office   | 17       | 6/09 | 0           | 0               | 2.0 | I A 1                |                 | Yes          | Yes          | Yes          | f/p    |
| Gloucester        | Dune de Maisonette/Pointe de<br>Maisonette              | 3        | 6/06 | 0           | 0               | 0.5 | I II A B 1 2 3       |                 | Yes          | Yes          | Yes          | m      |
| Gloucester        | Ecole-La-Vague  | 18       | 6/08 | 0           | 0               | 2.0 | I II A 1             |                 | No           | Yes          | Yes          | f/m/p  |
| Gloucester        | Grand Lac (Lameque)                                     | 16       | 6/09 | 1           | 2               | 2.1 | I II A 1 12          | D 1             | No           | No           | Yes          | s(p)   |
| Gloucester        | Grand Passage (Pokemouche North)                        | 20       | 6/10 | 3           | 7               | 4.0 | I II A 1 12          |                 | Yes          | Yes          | Yes          | p      |
| Gloucester        | Grande Plaine, Miscou Isalnd ( ward<br>raod north)      | 7        | 6/10 | 1           | 2               | 4.0 | I A 1 12             |                 | Yes          | Yes          | Yes          | p      |
| Gloucester        | Green Point (Pointe Verte)                              | 23       | 6/13 | 3           | 6               | 6.0 | I A 1 12             |                 | Yes          | Yes          | Yes          | f      |
| Gloucester        | Middle Miscou, Miscou Island                            | 9        | 6/14 | 3           | 6               | 2.8 | I A B 1 2 5 11<br>12 |                 | Yes          | Yes          | Yes          | s/p    |
| Gloucester        | Miscou Beach, Miscou island<br>(MacGregor's maal Bay)   | 8        | 6/03 | 2           | 4               | 1.9 | I A 1 2 3 12         | I B 2           | Yes          | Yes          | Yes          | s/p    |
| Gloucester        | Miscou Centre Beach (stewarts<br>Beach)                 | 5        | 6/07 | 0           | 0               | 6.8 | I B 1                |                 | Yes          | Yes          | Yes          | n.r.   |
| Gloucester        | Miscou Harbor South, Marks Point<br>South Miscou Island | 4        | 6/03 | 0           | 0               | 1.3 | I II A 1 7           |                 | Yes          | Yes          | Yes          | s/p    |
| Gloucester        | Pigeon Hill   | 12       | 6/14 | 0           | 0               | 3.5 | I II C 1 2           |                 | No           | Yes          | Yes          | s(p)   |
| Gloucester        | Pigeon Hill beach (plage de pigeon<br>hill)             | 13       | 6/14 | 0           | 0               | 3.0 | I A 1 12             |                 | Yes          | Yes          | Yes          | p      |
| Gloucester        | Plover Ground North                                     | 21       | 6/04 | 0           | 0               | 3.2 | I II A 1 3 7 11      |                 | Yes          | Yes          | Yes          | p      |
| Gloucester        | Plover Ground South                                     | 22       | 6/04 | 0           | 0               | 1.7 | I A 1 12             |                 | Yes          | Yes          | Yes          | p      |
| Gloucester        | Pointe-a-Bouleau  | 25       | 6/16 | 3           | 6               | 4.0 | I B C 3              |                 | Yes          | Yes          | Yes          | p      |
| Gloucester        | Ruisseau Cheniere (Miscou Island)                       | 6        | 6/07 | 0           | 0               | 8.0 | I G 1                |                 | Yes          | Yes          | Yes          | n.r.   |
| Gloucester        | St. Raphael, St. Marie.                                 | 15       | 6/09 | 0           | 0               | 2.0 | I A 1 12             |                 | No           | No           | No           | p      |
| Gloucester        | Tracadie Dune   | 24       | 6/11 | 5           | 10              | 5.0 | I C 3                |                 | Yes          | Yes          | Yes          | s/p    |
| Gloucester        | Val Comeau  | 26       | 6/06 | 0           | 1               | 4.7 | I V A 1 3            | I V A 1         | Yes          | Yes          | Yes          | s/p    |

**The 2006 International Piping Plover Breeding Census in New Brunswick  
(Continued)**

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|---|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Gloucester        | Wilson Point North (Miscou)   | 10       | 6/07 | 2           | 5               | 4.1  | I II A 1 2 3 4      | I A B 1 2       | Yes          | Yes          | Yes          | s/p    |
| Gloucester        | Wilson Point South (Miscou)   | 11       | 6/07 | 0           | 0               | 2.3  | I II A B 1 2        |                 | Yes          | Yes          | Yes          | f/s    |
| Kent              | Bar de Cocagne  | 51       | 6/13 | 0           | 0               | 1.9  | I B                 |                 | Yes          | Yes          | Yes          | p      |
| Kent              | Bouctouche Dune   | 50       | 6/07 | 4           | 8               | 12.0 | I VIII A 2          | D 1 2 3 4       | Yes          | Yes          | Yes          | p      |
| Kent              | Chockpish Centre  | 45       | 6/12 | 2           | 4               | 1.8  | I A 1               | I A 1           | No           | No           | No           | p      |
| Kent              | Chockpish North   | 46       | 6/12 | 0           | 0               | 1.0  | I A 1               |                 | No           | No           | No           | p      |
| Kent              | Chockpish South   | 47       | 6/12 | 0           | 0               | 1.0  | I II A 1 15         |                 | No           | No           | Yes          | p      |
| Kent              | Cocagne Island  | 52       | 6/12 | 0           | 0               | 12.0 | I II B G 1 2 5      |                 | No           | No           | No           | p      |
| Kent              | Cote-Sainte-Anne  | 48       | 6/09 | 0           | 0               | 5.2  | I VIII A 1          |                 | No           | No           | No           | p      |
| Kent              | Escuminac Beaches   | 36       | 6/15 | 7           | 14              | 12.0 | I VIII A 1          |                 | No           | Yes          | Yes          | s(p)/p |
| Kent              | Escuminac Beaches- South<br>Section                                   | 37       | 6/15 | 0           | 2               | 3.0  | I B 1               | I B 1 4         | Yes          | Yes          | Yes          | s(p)/p |
| Kent              | North Kouchibouguac Dune  | 41       | 6/06 | 3           | 7               | 3.1  | I I 1 2 15          |                 | Yes          | Yes          | Yes          | f      |
| Kent              | North Richibucto Dune   | 43       | 6/13 | 0           | 0               | 16.4 | I C 1               |                 | Yes          | Yes          | Yes          | f      |
| Kent              | Pointe Sapin Beach  | 38       | 6/14 | 0           | 0               | 3.0  | I A 1 4             |                 | No           | Yes          | Yes          | f/s/p  |
| Kent              | Pointe-Sapin Dune   | 39       | 6/05 | 2           | 4               | 1.3  | I A 1 15            |                 | Yes          | Yes          | Yes          | f      |
| Kent              | Portage River Dune,<br>Kouchibouguac National Park                    | 40       | 6/11 | 3           | 7               | 2.0  | I A 1               |                 | Yes          | Yes          | Yes          | f      |
| Kent              | Quai de St. Edouard   | 49       | 6/09 | 0           | 0               | 1.5  | I VIII A 1          |                 | No           | No           | Yes          | n.r    |
| Kent              | South Kouchibouguac Dune  | 42       | 6/12 | 5           | 13              | 2.5  | I C 1 15            |                 | Yes          | Yes          | Yes          | f      |
| Kent              | South Richibucto Beach  | 44       | 6/16 | 2           | 4               | 6.9  | I B 1 2             | I B 8           | Yes          | Yes          | Yes          | p      |
| Northumberland    | Blacklands Sandspit (Crab<br>Island, Swinging Point, Neguac<br>North) | 31       | 6/14 | 1           | 3               | 3.0  | I C 3 4             |                 | Yes          | Yes          | Yes          | s(p)   |
| Northumberland    | Cedar Road Beach South  | 28       | 6/05 | 2           | 7               | 4.5  | I A B 1 3 15        | I II B C 1 4    | Yes          | Yes          | Yes          | s(p)/p |
| Northumberland    | Cedar Road Spit   | 29       | 6/15 | 5           | 10              | 4.0  | I C 2               |                 | Yes          | Yes          | Yes          | p      |
| Northumberland    | Dune de Neguac, Neguac Beach  | 32       | 6/15 | 3           | 5               | 7.6  | C 1 3               | I G 1           | Yes          | Yes          | Yes          | s(p)/p |
| Northumberland    | Fox Island  | 34       | 6/15 | 0           | 0               | 6.0  | I C 1               |                 | Yes          | Yes          | Yes          | p      |
| Northumberland    | Pointe a Barreau  | 27       | 6/05 | 1           | 2               | 2.6  | I V A 1 3 4         | I V A 1         | Yes          | Yes          | Yes          | p      |

**The 2006 International Piping Plover Breeding Census in New Brunswick  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                             | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|-------------------|---------------------------------------|----------|------|-------------|------------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Northumberland    | Portage Island National Wildlife Area | 33       | 6/15 | 1           | 2                      | 5.7          | I B G 1             | I G 1           | Yes          | Yes          | Yes          | f   |
| Northumberland    | Preston Beach                         | 35       | 6/13 | 0           | 0                      | 3.1          | I B 1               |                 | Yes          | Yes          | Yes          | p   |
| Northumberland    | Tabusintac Dune                       | 30       | 6/07 | 12          | 24                     | 7.0          | I C 2               |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Cadman Beach                          | 61       | 6/14 | 0           | 0                      | 2.5          | II B 1 3            |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Cap Bimet West                        | 56       | 6/07 | 0           | 0                      | 1.5          | I A 1 3             |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Cap Brule East                        | 55       | 6/12 | 0           | 0                      | 1.0          | I 1                 |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Cape Jourimain National Wildlife Area | 62       | 6/13 | 0           | 0                      | 2.0          | II B G 1 3 7 15     |                 | No           | No           | Yes          | f   |
| Westmorland       | Johnston Point                        | 60       | 6/14 | 0           | 0                      | 1.3          | II A B 1 2 3        |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Landry East                           | 58       | 6/12 | 0           | 0                      | 0.5          | I A 1               |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Little Cape                           | 59       | 6/12 | 0           | 0                      | 1.0          | I A 1               |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Petit Barachois                       | 57       | 6/12 | 0           | 0                      | 0.0          | I A 1               |                 | Yes          | Yes          | Yes          | p   |
| Westmorland       | Pointe Grande-Digue                   | 53       | 6/07 | 0           | 0                      | 1.0          | I A                 |                 | Yes          | Yes          | No           | n.r |
| Westmorland       | Shediac Island                        | 54       | 6/12 | 0           | 0                      | 2.0          | I G 1 2             |                 | No           | No           | Yes          | m/p |
| <b>Total</b>      |                                       |          |      | <b>79</b>   | <b>171<sup>1</sup></b> | <b>227.7</b> |                     |                 |              |              |              |     |

<sup>1</sup>This total is the “high count”; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in Maine

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The 2006 International Piping Plover Census in Maine was conducted by 17 participants on June 13 and 14, 2006. Weather on those days was favorable and we observed a total of 71 adult Piping Plovers.

Our coverage of potential Piping Plover habitat during the 2006 International Piping Plover Census was very comprehensive. We were able to survey habitat covered in 2001 and additionally, we surveyed some sand beaches on near-shore islands. These islands are likely visited occasionally by foraging plovers but are not used for nesting.

Detectability was likely a problem at some of our sites. At one site, Ogunquit Beach, a single pair was seen during the 2006 Census, but there was likely a second pair at the site because we also had a nest down the beach which we do not think was associated with the pair observed. At another site, Scarborough Beach, two pairs and a fifth adult were observed. Since the single adult performed a broken wing display, there were likely 6 total birds at that site instead of 5. On the other hand, there may have been a couple of instances where birds were double counted. On two occasions, (at Laudholm and Richmond Island) we watched single birds foraging but believe they were nesting at different sites (Crescent Surf and Breakwater Beach, respectively); at Richmond Island we observed the single adult foraging for 30

minutes and then watched as it flew towards Breakwater Beach. Since we were not surveying the sites simultaneously and the birds were not marked, it is impossible to say if they were counted twice.

## Comparison of Census Numbers

|              | 1991 | 1996 | 2001            | 2006            |
|--------------|------|------|-----------------|-----------------|
| Total Adults | 38   | 114  | 96 <sup>2</sup> | 71 <sup>1</sup> |

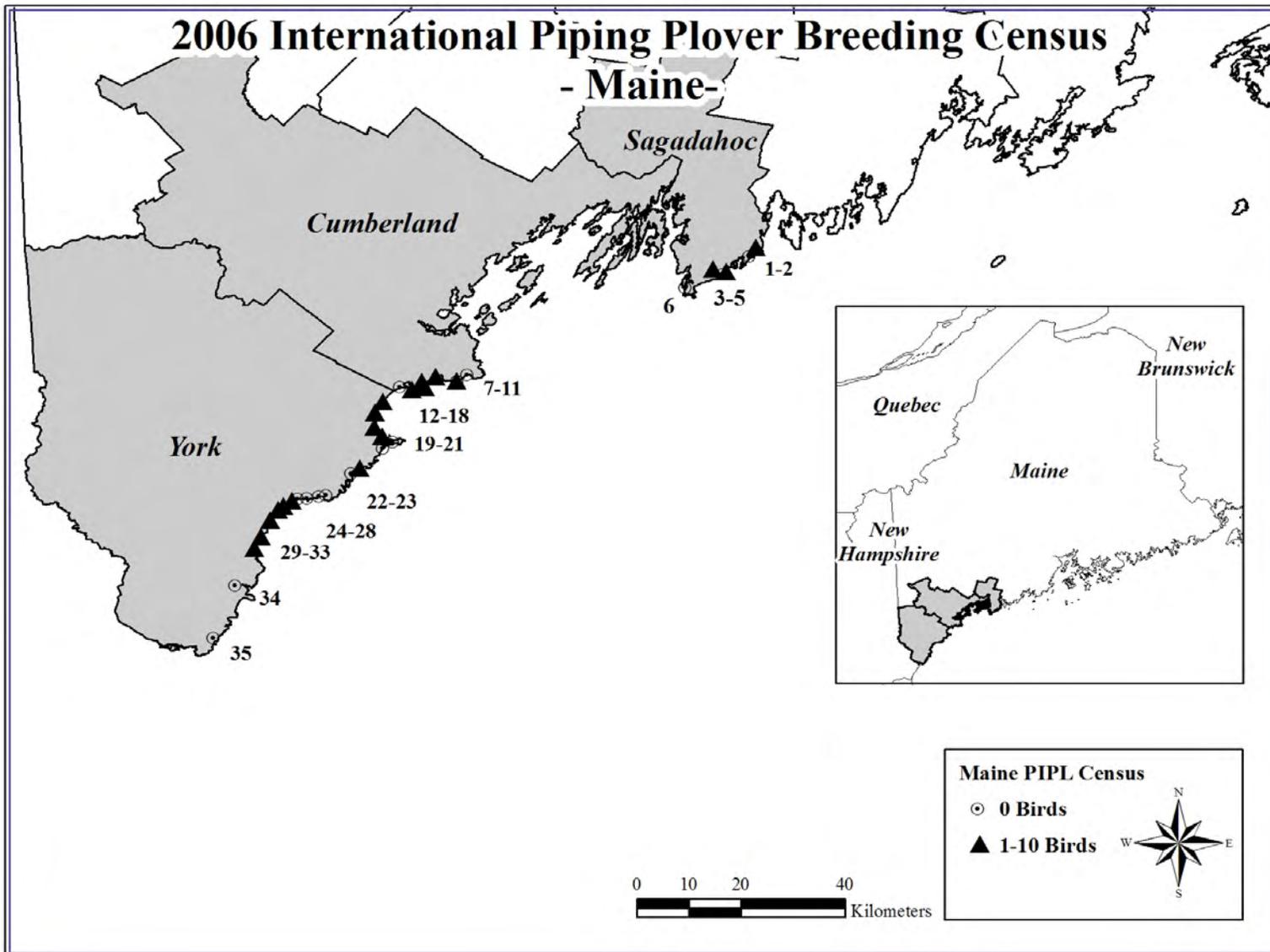
<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

<sup>2</sup>This total included results from multiple surveys within the window and two surveys conducted outside the window. The single-survey pair count in 2001 was 38.

## Detectability Study

| Sites Included | First Count | Second Count |
|----------------|-------------|--------------|
| Parsons Beach  | 0           | 0            |

*Summarized by E. Elliott-Smith*



## The 2006 International Piping Plover Breeding Census in Maine

| COUNTY/<br>REGION | SITE NAME                     | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION      | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|-------------------------------|----------|------|-------------|-----------------|------|--------------------------|-----------------|--------------|--------------|--------------|------|
| Cumberland        | Breakwater Beach / Ram Island | 8        | 6/14 | 2           | 4               | 1.2  | I A 1 2 3 5 13           | I A 1 13        | No           | Yes          | Yes          | p    |
| Cumberland        | Crescent Beach State Park     | 7        | 6/14 | 0           | 0               | 1.3  | I A 1 3                  |                 | No           | No           | Yes          | s(p) |
| Cumberland        | Hanson House / Ram Island     | 9        | 6/14 | 0           | 0               | 2.3  | I A 1 3                  |                 | No           | Yes          | Yes          | p    |
| Cumberland        | Higgins Beach                 | 12       | 6/13 | 4           | 8               | 1.6  | I I I I A D 1 2<br>12 13 | II BDI 2        | No           | Yes          | Yes          | s/p  |
| Cumberland        | Nano's Beach / Ram Island     | 10       | 6/14 | 1           | 2               | 0.4  | I A 1 3 13               | I A 1 13        | No           | Yes          | Yes          | p    |
| Cumberland        | Pine Point                    | 15       | 6/13 | 0           | 0               | 2.2  | I A 1                    |                 | Yes          | Yes          | Yes          | p    |
| Cumberland        | Richmond Island               | 11       | 6/14 | 0           | 1               | 0.5  | I I 1 3 6 13             | I G 1           | No           | No           | No           | p    |
| Cumberland        | Scarborough Beach             | 13       | 6/13 | 2           | 5               | 2.3  | I A 1 3                  | I A 1           | No           | Yes          | Yes          | s/p  |
| Cumberland        | Western beach and Ferry       | 14       | 6/13 | 1           | 2               | 1.2  | I A 1 3                  |                 | No           | Yes          | Yes          | s(p) |
| Sagadahoc         | Head Beach, Hermit Island     | 6        | 6/13 | 0           | 0               | 0.3  | I B 1 12                 |                 | No           | No           | Yes          | p    |
| Sagadahoc         | Hunnewell Beach               | 3        | 6/13 | 0           | 0               | 1.8  | I A 1                    |                 | Yes          | Yes          | Yes          | p    |
| Sagadahoc         | Indian Point                  | 2        | 6/13 | 0           | 0               | 0.3  | III A 1 3                |                 | No           | No           | Yes          | p    |
| Sagadahoc         | Popham Beach State Park       | 4        | 6/13 | 1           | 2               | 1.8  | I A 1 2                  | I A 1           | Yes          | Yes          | Yes          | s(p) |
| Sagadahoc         | Reid State Park               | 1        | 6/13 | 3           | 5               | 2.4  | I III A B 1 2 3          | I B1            | Yes          | Yes          | Yes          | s(p) |
| Sagadahoc         | Seawall Beach                 | 5        | 6/13 | 1           | 2               | 2.0  | I A B 1 2 3 16           | I A 2           | Yes          | Yes          | Yes          | p    |
| York              | Colony Beach                  | 24       | 6/13 | 0           | 0               | 0.1  | I A 1                    |                 | No           | No           | Yes          | m/p  |
| York              | Crescent Surf                 | 28       | 6/13 | 3           | 8               | 0.8  |                          |                 | Yes          | Yes          | Yes          | f/p  |
| York              | Drakes Island                 | 30       | 6/13 | 1           | 2               | 0.9  | I B 1 3 14               | I A B3          | No           | Yes          | Yes          | p    |
| York              | Ferry Beach                   | 18       | 6/13 | 1           | 1               | 1.3  | I A 1                    | I A 1           | No           | Yes          | Yes          | s/p  |
| York              | Fortunes Rock Beach           | 21       | 6/13 | 0           | 0               | 3.2  | I A 1 13                 |                 | No           | Yes          | Yes          | m    |
| York              | Goochs                        | 25       | 6/13 | 0           | 0               | 0.4  | I A 1                    |                 | No           | Yes          | Yes          | m    |
| York              | Goose Rocks Beach             | 22       | 6/13 | 5           | 10              | 2.9  | I II B 1 2               | I V B2          | Yes          | Yes          | Yes          | m/p  |
| York              | Goosefare Brook               | 17       | 6/13 | 1           | 2               | 0.3  | III A 1                  | III A 1         | No           | Yes          | Yes          | f    |
| York              | Hattie's Beach                | 20       | 6/13 | 0           | 0               | 0.2  | I A 1 14                 |                 | No           | No           | Yes          | s(p) |
| York              | Hills Beach                   | 19       | 6/13 | 1           | 2               | 13.7 | I A 1 14                 | I A 1           | No           | No           | Yes          | p    |
| York              | Kennebunk Beach               | 26       | 6/13 | 0           | 0               | 0.3  | I A 1                    |                 | No           | Yes          | Yes          | m    |
| York              | Laudholm                      | 29       | 6/13 | 0           | 1               | 0.8  | III B 1                  |                 | Yes          | Yes          | Yes          | s(p) |
| York              | Marshall Point/Batson River   | 23       | 6/13 | 0           | 0               | 0.3  | II A 1                   |                 | No           | Yes          | Yes          | f    |
| York              | Moody Beach                   | 32       | 6/13 | 1           | 2               | 1.2  | I A 1                    |                 | No           | Yes          | Yes          | p    |
| York              | Ocean Park/ Old Orched beach  | 16       | 6/13 | 1           | 2               | 3.3  | I A 1                    | I A 1           | No           | Yes          | Yes          | m    |

**The 2006 International Piping Plover Breeding Census in Maine  
(Continued)**

| <b>COUNTY/<br/>REGION</b> | <b>SITE NAME</b>                  | <b>MAP<br/>#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b>   | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|---------------------------|-----------------------------------|------------------|-------------|---------------------|-------------------------|-------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| York                      | Ogunquit                          | 33               | 6/13        | 1                   | 2                       | 2.3         | I A 1 3                     | I A B1                  | No                   | Yes                  | Yes                  | m          |
| York                      | Parsons Beach                     | 27               | 6/13        | 0                   | 0                       | 0.8         | I III B F 2 3               |                         | No                   | Yes                  | Yes                  | p          |
| York                      | Seapoint and Crescent Beaches     | 35               | 6/13        | 0                   | 0                       | 0.5         | I A 1 7                     |                         | No                   | Yes                  | Yes                  | m          |
| York                      | short sands beach ( cape Neddick) | 34               | 6/13        | 0                   | 0                       | 0.3         | I A 1                       |                         | No                   | No                   | No                   | p          |
| York                      | Wells Beach                       | 31               | 6/13        | 4                   | 8                       | 1.2         | I II A 1 2 6                | I A 1                   | No                   | Yes                  | Yes                  | m          |
| <b>Total</b>              |                                   |                  |             | <b>34</b>           | <b>71</b>               | <b>56.4</b> |                             |                         |                      |                      |                      |            |

# The 2006 International Piping Plover Breeding Census in New Hampshire

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Surveys were conducted on 9 June at the two known breeding sites, as part of the 2006 International Piping Plover Census in New Hampshire. A total of 6 adults were observed during these surveys. Five additional state park beaches were checked the same day but there were no signs of Piping Plovers.

## Comparison of Census Numbers

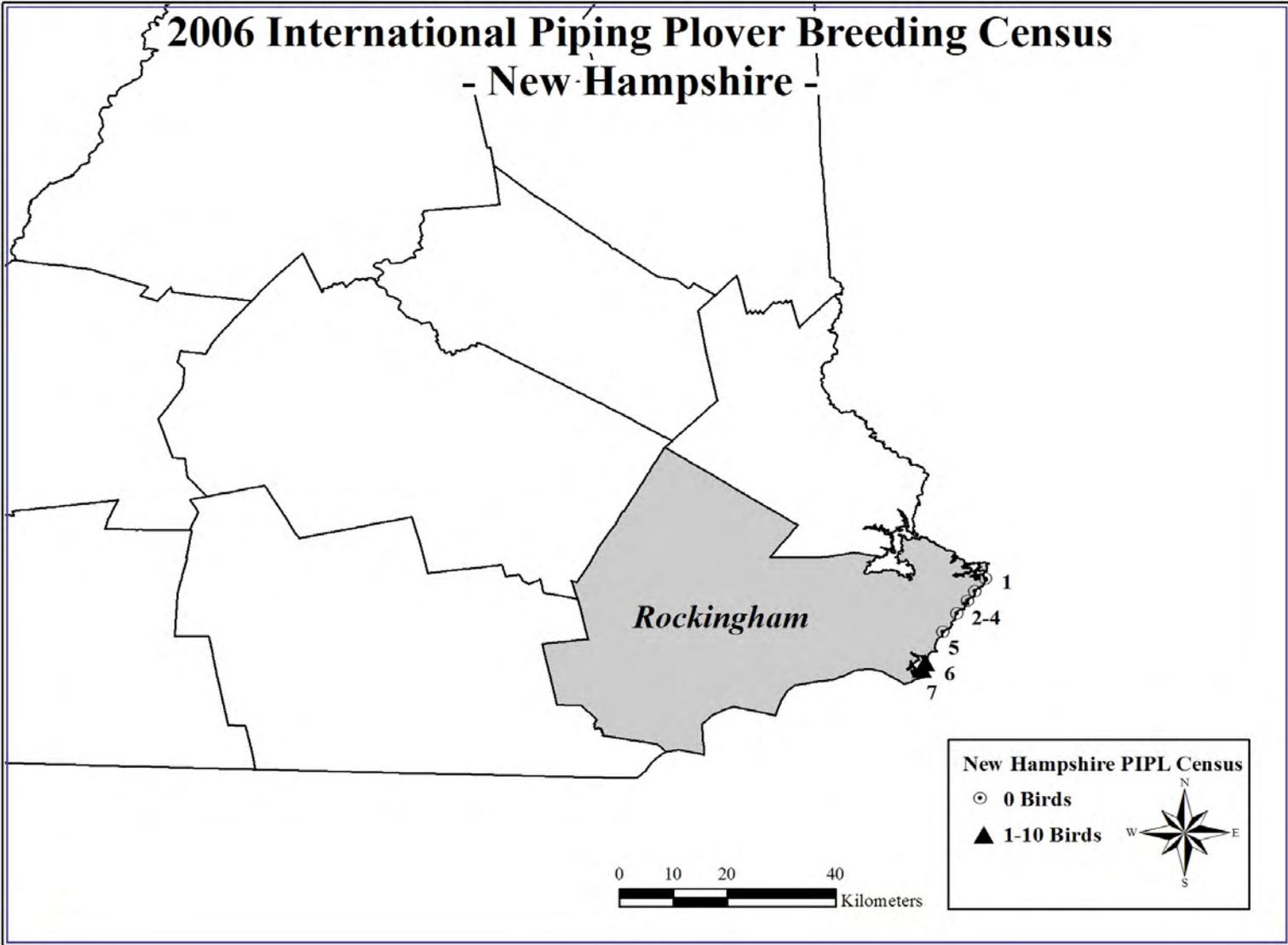
|              | 1991 | 1996 | 2001 | 2006           |
|--------------|------|------|------|----------------|
| Total Adults | n.a. | n.a. | 14   | 6 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

## Detectability Study

| Sites Included | First Count | Second Count |
|----------------|-------------|--------------|
| Seabrook Beach | 2           | 1            |

*Summarized by E. Elliott-Smith*



## The 2006 International Piping Plover Breeding Census in New Hampshire

| COUNTY/<br>REGION | SITE NAME                | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM         | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--------------------------|----------|------|-------------|-----------------|------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Rockingham        | Hampton Beach State Park | 6        | 6/8  | 2           | 4               | 4.0        | I A 1 3 13          | I A 3 13        | No           | No           | Yes          | s(p) |
| Rockingham        | Jenness Beach State Park | 4        | 6/9  | 0           | 0               | n.r.       |                     |                 | No           | No           | No           | s(p) |
| Rockingham        | North Hampton State Park | 5        | 6/9  | 0           | 0               | n.r.       |                     |                 | No           | No           | No           | s(p) |
| Rockingham        | Odiorne Point State Park | 1        | 6/9  | 0           | 0               | n.r.       |                     |                 | No           | No           | No           | s(p) |
| Rockingham        | Rye Harbor State Park    | 3        | 6/9  | 0           | 0               | n.r.       |                     |                 | No           | No           | No           | s(p) |
| Rockingham        | Seabrook Beach           | 7        | 6/6  | 1           | 2               | 2.4        | I I I A D 1 3 13    | I A 1           | No           | No           | Yes          | m    |
| Rockingham        | Wallis Sands State Park  | 2        | 6/9  | 0           | 0               | n.r.       |                     |                 | No           | No           | No           | s(p) |
| <b>Total</b>      |                          |          |      | <b>3</b>    | <b>6</b>        | <b>6.4</b> |                     |                 |              |              |              |      |

# The 2006 International Piping Plover Breeding Census in Massachusetts

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Following are results from the Massachusetts Index Count (Melvin 2007). The Index Count was conducted during the period from 1-9 June 2006. During this window, one or more surveys were conducted at each of the sites listed. We do not have results from individual surveys. This differs from how the 2006 International Piping Plover Census was conducted in most other states, but conforms to how data was reported from Massachusetts for previous International Census Reports.

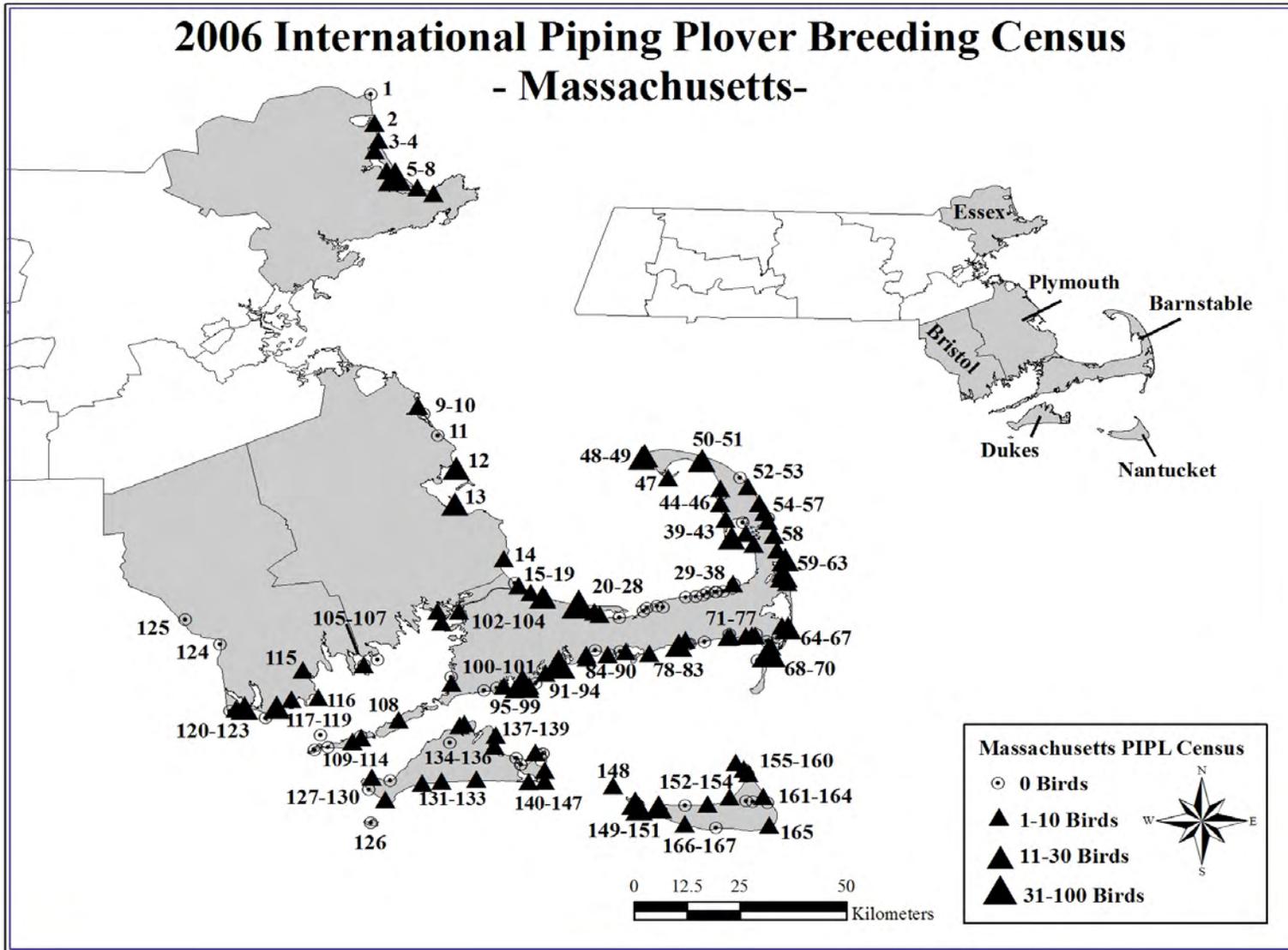
## Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 293  | 877  | 962  | 935 <sup>1</sup> |

<sup>1</sup>This total is based on one or more surveys conducted at each site from June 1-9. It is comparable to other totals reported in this table, but differs from all other states and provinces where totals are based on a single survey.

*Summarized by E. Elliott-Smith*

## 2006 International Piping Plover Breeding Census - Massachusetts-



## The 2006 International Piping Plover Breeding Census in Massachusetts

| COUNTY/<br>REGION | SITE NAME                      | MAP<br># | BR<br>PAIRS | TOTAL<br>ADULTS | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--------------------------------|----------|-------------|-----------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Barnstable        | Acapesketch Beach              | 99       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Ballston Beach                 | 53       | 2           | 4               | n.r.                | n.r.            | Yes          | Yes          | Yes          | f    |
| Barnstable        | Bank St./Market Beach/Wychmere | 77       | 4           | 8               | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Barnstable        | Black Beach                    | 101      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Barnstable        | Bone Hill Road                 | 24       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |
| Barnstable        | Cahoon Hollow                  | 55       | 1           | 2               | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Barnstable        | Chapin Beach                   | 26       | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Barnstable        | Coast Guard Beach              | 60       | 14          | 28              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Cockle Cove/Ridgevale beach    | 72       | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | M    |
| Barnstable        | Craigville Beach               | 88       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Crosby's Landing Beach         | 38       | 3           | 6               | n.r.                | n.r.            | No           | No           | Yes          | n.r. |
| Barnstable        | Dowse's Beach                  | 89       | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | n.r. |
| Barnstable        | Duck Harbor/Bound brook        | 43       | 3           | 6               | n.r.                | n.r.            | No           | No           | Yes          | n.r. |
| Barnstable        | East Sandwich Beach            | 18       | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |
| Barnstable        | Ellis Launching Beach          | 36       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Barnstable        | Forest Beach                   | 74       | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | M    |
| Barnstable        | Glendon Beach                  | 79       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Gray's Beach                   | 25       | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Barnstable        | Great Island, Yarmouth         | 21       | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Barnstable        | Haigis Beach                   | 80       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Harding Beach                  | 73       | 2           | 4               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | Harding Beach Point            | 68       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Harding Beach Shores           | 71       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | High Head/Head of the Meadow   | 50       | 7           | 14              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Howes St./Corporation Beach    | 28       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | P    |
| Barnstable        | Indian Neck                    | 41       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Barnstable        | Jeremy Point/Great Island      | 42       | 9           | 18              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Kalmus Park                    | 84       | 5           | 10              | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | Lecount Hollow                 | 57       | 1           | 2               | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Barnstable        | Lieutenant's Island            | 40       | 2           | 4               | n.r.                | n.r.            | No           | No           | Yes          | n.r. |
| Barnstable        | Linell Landing Beach           | 37       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |

**The 2006 International Piping Plover Breeding Census in Massachusetts  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                              | MAP<br># | BR<br>PAIRS | TOTAL<br>ADULTS | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|-------------|-----------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Barnstable        | Long Beach                             | 90       | 4           | 8               | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |
| Barnstable        | Long Point/Wood End                    | 47       | 5           | 10              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Longnook Beach                         | 52       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Barnstable        | Marconi Beach and Station              | 58       | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Mashnee Dike                           | 103      | 1           | 2               | n.r.                | n.r.            | No           | No           | Yes          | F    |
| Barnstable        | Mayflower Beach/Town Landings          | 27       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | M    |
| Barnstable        | Menauhant                              | 98       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Minimoy Island                         | 70       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Miramar Beach (Swan River)             | 81       | 1           | 2               | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Barnstable        | Morris Island Dredge Spoil             | 66       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Nauset Beach, Chatham                  | 64       | 12          | 24              | n.r.                | n.r.            | No           | Yes          | Yes          | M    |
| Barnstable        | Nauset Beach, Orleans                  | 63       | 2           | 4               | n.r.                | n.r.            | No           | Yes          | Yes          | n.r. |
| Barnstable        | Nauset Light Beach                     | 59       | 1           | 2               | n.r.                | n.r.            | No           | No           | No           | Nr   |
| Barnstable        | Nauset Spit (Heights)                  | 61       | 14          | 28              | n.r.                | n.r.            | Yes          | Yes          | Yes          | f/m  |
| Barnstable        | New Island                             | 62       | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | New Seabury                            | 94       | 2           | 4               | n.r.                | n.r.            | No           | Yes          | Yes          | n.r. |
| Barnstable        | Newcomb Hollow, Wellfleet              | 54       | 1           | 2               | n.r.                | n.r.            | No           | No           | No           | Nr   |
| Barnstable        | North Monomoy Island                   | 67       | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Paine's Creek                          | 31       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | M    |
| Barnstable        | Pamet Harbor, South                    | 45       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | M    |
| Barnstable        | Pamet Harbor-North/Corn Hill Beach     | 46       | 5           | 10              | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | Pilgrim Beach/Beach Point              | 51       | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Barnstable        | Point of Rocks                         | 35       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Popponeset Spit                        | 92       | 4           | 8               | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |
| Barnstable        | Quivett Neck/Coles Pond/Crowes Pasture | 30       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | M    |
| Barnstable        | Race Point/ South Beach                | 48       | 11          | 22              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Race Point/North Beach                 | 49       | 13          | 26              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Red River Beach                        | 78       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |
| Barnstable        | Robbins Hill Beach                     | 33       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Barnstable        | Rock Landing/Maushop Village           | 93       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | P    |

**The 2006 International Piping Plover Breeding Census in Massachusetts  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                  | MAP<br># | BR<br>PAIRS | TOTAL<br>ADULTS | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|----------------------------|----------|-------------|-----------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Barnstable        | Ryder Beach                | 44       | 1           | 2               | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Barnstable        | Sagamore Beach             | 15       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | P    |
| Barnstable        | Saint's Landing            | 32       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Sampson Island - Dead Neck | 91       | 23          | 46              | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Barnstable        | Sandy Neck                 | 20       | 22          | 44              | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | Saquatucket Bluffs         | 75       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Scorton (Neck) Creek       | 22       | 4           | 8               | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r. |
| Barnstable        | Scorton Shores             | 23       | 3           | 6               | n.r.                | n.r.            | No           | No           | Yes          | P    |
| Barnstable        | Scusset Beach State Park   | 16       | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | s(p) |
| Barnstable        | Sea St./Keyes Beach        | 85       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Seagull Beach/Radio City   | 83       | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | Sesuit Beach               | 29       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | M    |
| Barnstable        | Sippewisset                | 100      | 2           | 4               | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Barnstable        | So. Sunken Meadow Spit     | 39       | 3           | 6               | n.r.                | n.r.            | No           | No           | Yes          | n.r. |
| Barnstable        | South Beach                | 97       | 47          | 94              | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | South Cape Beach           | 95       | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | South Momomoy Island       | 69       | 21          | 42              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Barnstable        | Springhill Beach           | 19       | 9           | 18              | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |
| Barnstable        | Squaw Is. Road             | 86       | 0           | 0               | n.r.                |                 | No           | No           | No           | N    |
| Barnstable        | Squaw Island               | 87       | 3           | 6               | n.r.                | n.r.            | No           | Yes          | Yes          | P    |
| Barnstable        | Tern Island                | 65       | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Barnstable        | Town Beach                 | 76       | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Barnstable        | Town Neck Beach            | 17       | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | Washburn Island            | 96       | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Barnstable        | West Dennis Beach          | 82       | 6           | 12              | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Barnstable        | White Crest Beach          | 56       | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Barnstable        | Wings Island               | 34       | 0           | 0               | n.r.                |                 | No           | No           | Yes          | P    |
| Bristol           | Acoaxet                    | 121      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Bristol           | Allens Harbor              | 124      | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Bristol           | Bay Point                  | 125      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M    |

**The 2006 International Piping Plover Breeding Census in Massachusetts  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                              | MAP<br># | BR<br>PAIRS | TOTAL<br>ADULTS | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|--|----------|-------------|-----------------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Bristol           | Cockeast Pond                          | 122      | 0           | 1               | n.r.                | n.r.            | Yes          | Yes          | Yes          | P      |
| Bristol           | Demarest Lloyd State Park              | 117      | 4           | 8               | n.r.                | n.r.            | No           | Yes          | Yes          | s(p)   |
| Bristol           | Gooseberry Neck                        | 119      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | s(p)   |
| Bristol           | Horseneck Beach                        | 120      | 9           | 18              | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)/m |
| Bristol           | Little Beach/Barney's Joy              | 118      | 13          | 26              | n.r.                | n.r.            | Yes          | No           | Yes          | P      |
| Bristol           | Richmond Pond                          | 123      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | P      |
| Bristol           | Round Hill                             | 116      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Bristol           | Salters Pond                           | 115      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r.   |
| Bristol           | Stony Point Dike                       | 102      | 2           | 4               | n.r.                | n.r.            | No           | Yes          | Yes          | M      |
| Bristol           | West Island                            | 106      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)   |
| Bristol           | Winsegansett Heights                   | 107      | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r.   |
| Dukes             | Arruda's Point/The Jetties             | 144      | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r.   |
| Dukes             | Cape Pogue Elbow/The Narrows           | 146      | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | n.r.   |
| Dukes             | Chappaquiddick Beach                   | 145      | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | n.r.   |
| Dukes             | Chilmark Pond                          | 131      | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | m/p    |
| Dukes             | Cuttyhunk Island                       | 113      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M      |
| Dukes             | Dogfish Bar                            | 129      | 4           | 8               | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)/p |
| Dukes             | Eastville Point Beach                  | 137      | 1           | 2               | n.r.                | n.r.            | No           | No           | Yes          | M      |
| Dukes             | Edgartown Great Pond/Job's Neck        | 133      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | P      |
| Dukes             | Eel Pond/Little Beach/Lighthouse Beach | 143      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | m/p    |
| Dukes             | Great Rock Bight Preserve              | 130      | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r.   |
| Dukes             | Harthaven Beach                        | 138      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | P      |
| Dukes             | Leland/East Beaches                    | 142      | 4           | 8               | n.r.                | n.r.            | No           | Yes          | Yes          | n.r.   |
| Dukes             | Little Neck                            | 147      | 0           | 0               | n.r.                |                 | Yes          | No           | Yes          | M      |
| Dukes             | Long Beach/Squibnocket                 | 127      | 2           | 4               | n.r.                | n.r.            | Yes          | No           | Yes          | P      |
| Dukes             | Moshup Trail Beach/Philbin Beach       | 128      | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | m/p    |
| Dukes             | Nashawena Island-Canapitsit            | 112      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | n.r.   |
| Dukes             | Nashawena Island-Quicks Hole           | 111      | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Dukes             | Naushon Island                         | 108      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Dukes             | Nomans Land                            | 126      | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r.   |

**The 2006 International Piping Plover Breeding Census in Massachusetts  
(Continued)**

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | BR<br>PAIRS | TOTAL<br>ADULTS | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|-------------|-----------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Dukes             | Norton Point Beach                                 | 140      | 4           | 8               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Dukes             | Pasque Island-Quicks Hole                          | 109      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Dukes             | Pasque Island-Robinson's Hole                      | 110      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Dukes             | Penikese Island                                    | 114      | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |
| Dukes             | Sepiessa Point Reservation                         | 134      | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |
| Dukes             | Sylvia State Beach                                 | 139      | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Dukes             | Tashmoo  | 135      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Dukes             | Tisbury Great Pond/Black Pt. Pond/Quansoo/Long Pt. | 132      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Dukes             | Wasque   | 141      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Dukes             | Wilfred's Point/Mink Meadows Beach                 | 136      | 2           | 4               | n.r.                | n.r.            | No           | Yes          | Yes          | P    |
| Essex             | Coffin's Beach                                     | 7        | 0           | 0               | n.r.                |                 | No           | No           | No           | n.r. |
| Essex             | Crane Beach  | 6        | 19          | 40              | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Essex             | North Salisbury Beach                              | 1        | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |
| Essex             | Parker River NWR                                   | 4        | 5           | 10              | n.r.                | n.r.            | Yes          | Yes          | Yes          | F    |
| Essex             | Plum Island town beaches/Newburyport/Newbury       | 3        | 2           | 4               | n.r.                | n.r.            | No           | Yes          | Yes          | n.r. |
| Essex             | Sandy Point State Reservation                      | 5        | 4           | 8               | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Essex             | South Salisbury Beach                              | 2        | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |
| Essex             | Wingaersheek Beach                                 | 8        | 0           | 0               | n.r.                |                 | No           | Yes          | Yes          | P    |
| Nantucket         | Coatue   | 154      | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | P    |
| Nantucket         | Coskata Inlet/The Haulover                         | 157      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | n.r. |
| Nantucket         | Coskata-East Beach                                 | 158      | 3           | 6               | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r. |
| Nantucket         | Coskata-Inner Trail                                | 159      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | n.r. |
| Nantucket         | Coskata-West Beach                                 | 160      | 0           | 0               | n.r.                |                 | Yes          | Yes          | Yes          | n.r. |
| Nantucket         | Dionis Beach                                       | 152      | 0           | 0               | n.r.                |                 | No           | No           | Yes          | n.r. |
| Nantucket         | Eel Point  | 151      | 9           | 18              | n.r.                | n.r.            | No           | Yes          | Yes          | P    |
| Nantucket         | Great Point  | 155      | 2           | 5               | n.r.                | n.r.            | Yes          | No           | Yes          | P    |
| Nantucket         | Hummock Pond                                       | 167      | 1           | 2               | n.r.                | n.r.            | No           | Yes          | Yes          | P    |
| Nantucket         | Jetties Beach                                      | 153      | 3           | 6               | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Nantucket         | Low Beach/Tom Nevers                               | 165      | 1           | 2               | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Nantucket         | Muskeget Island                                    | 148      | 4           | 8               | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |

**The 2006 International Piping Plover Breeding Census in Massachusetts  
(Continued)**

| <b>COUNTY/<br/>REGION</b> | <b>SITE NAME</b>           | <b>MAP<br/>#</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|---------------------------|----------------------------|------------------|---------------------|-------------------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| Nantucket                 | Quaise Point               | 164              | 0                   | 0                       | n.r.                        |                         | No                   | Yes                  | Yes                  | n.r.       |
| Nantucket                 | Quidnet/Sesachacha Pond    | 162              | 0                   | 0                       | n.r.                        |                         | No                   | Yes                  | Yes                  | M          |
| Nantucket                 | Ram Island (Polpis Harbor) | 163              | 0                   | 0                       | n.r.                        |                         | No                   | No                   | No                   | n.r.       |
| Nantucket                 | Smith Point                | 150              | 6                   | 12                      | n.r.                        | n.r.                    | Yes                  | Yes                  | Yes                  | M          |
| Nantucket                 | Squam Pond                 | 161              | 1                   | 2                       | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | P          |
| Nantucket                 | Surfside                   | 166              | 0                   | 0                       | n.r.                        |                         | Yes                  | No                   | Yes                  | M          |
| Nantucket                 | The Galls                  | 156              | 1                   | 3                       | n.r.                        | n.r.                    | Yes                  | No                   | Yes                  | M          |
| Nantucket                 | Tuckernuck Island          | 149              | 7                   | 14                      | n.r.                        | n.r.                    | Yes                  | Yes                  | Yes                  | P          |
| Plymouth                  | Duxbury Beach              | 12               | 14                  | 28                      | n.r.                        | n.r.                    | Yes                  | Yes                  | Yes                  | P          |
| Plymouth                  | Ellisville                 | 14               | 4                   | 8                       | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | n.r.       |
| Plymouth                  | Fourth Cliff               | 10               | 0                   | 0                       | n.r.                        |                         | Yes                  | Yes                  | Yes                  | F          |
| Plymouth                  | Little Harbor Beach        | 104              | 1                   | 2                       | n.r.                        | n.r.                    | Yes                  | No                   | Yes                  | n.r.       |
| Plymouth                  | Plymouth Beach             | 13               | 10                  | 20                      | n.r.                        | n.r.                    | Yes                  | Yes                  | Yes                  | M          |
| Plymouth                  | Ram Island                 | 105              | 0                   | 0                       | n.r.                        |                         | No                   | No                   | No                   | n.r.       |
| Plymouth                  | Rexhame Beach              | 11               | 0                   | 0                       | n.r.                        |                         | No                   | No                   | Yes                  | C          |
| Plymouth                  | Third Cliff                | 9                | 4                   | 8                       | n.r.                        | n.r.                    | Yes                  | Yes                  | Yes                  | C          |
| <b>Total</b>              |                            |                  | <b>465</b>          | <b>935</b>              |                             |                         |                      |                      |                      |            |

# The 2006 International Piping Plover Breeding Census in Rhode Island

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The 2006 International Piping Plover Census in Rhode Island was accomplished by 4 surveyors from the U.S. Fish and Wildlife Service, one volunteer, and surveyors from The Nature Conservancy, who counted 137 adult Piping Plovers during the Census window. We surveyed sites with known Piping Plover breeding pairs or that have had a history of breeding pairs within the past three years. Our census covers the majority of nesting habitat of coastal Rhode Island and adequately represents the population of breeding plovers. Census numbers were up from 107 birds in 2005 and have also increased since the 2001 Census. The factors that affected Piping Plover populations most in southern Rhode Island in 2006 were predation and nest overwash.

## Comparison of Census Numbers

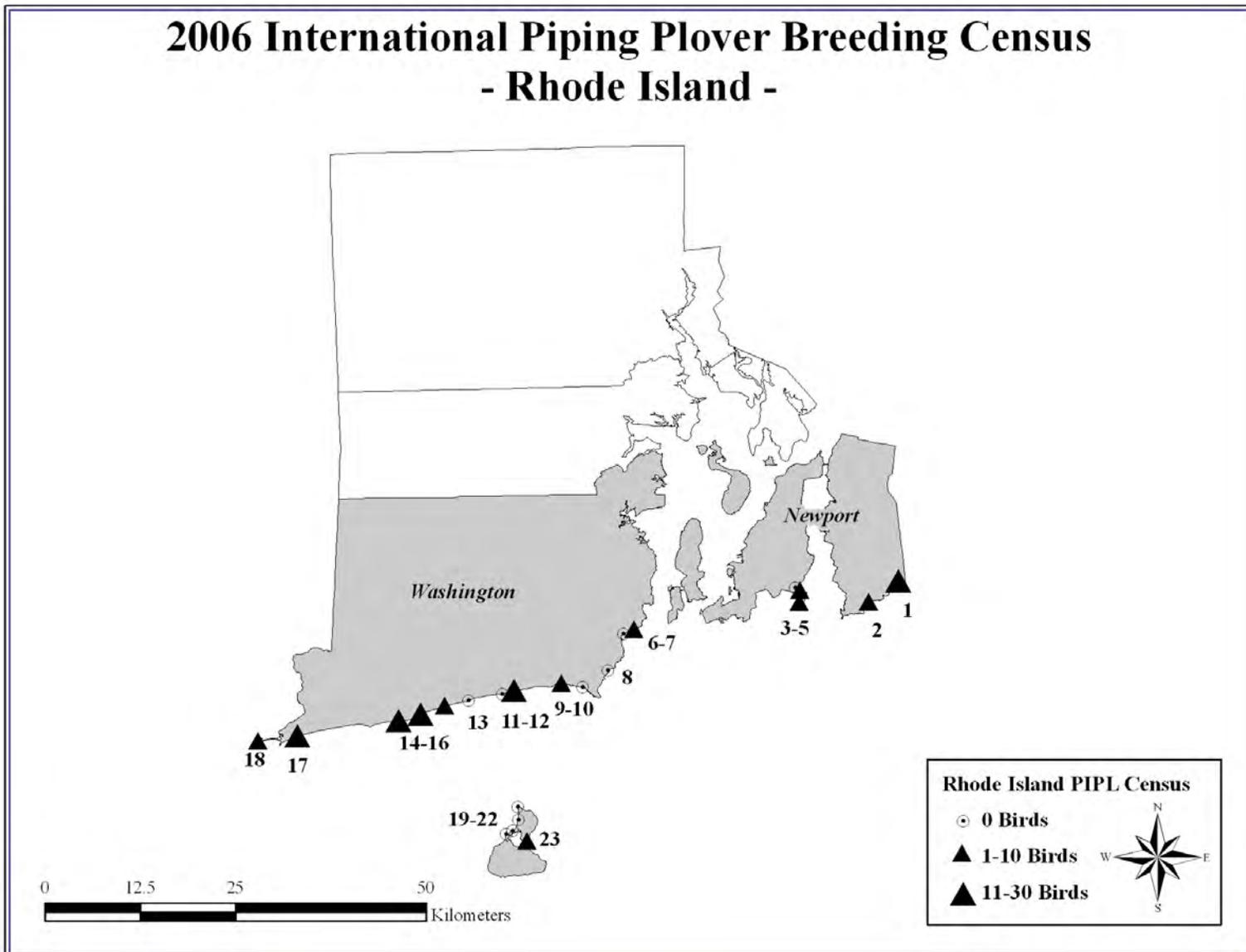
|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 47   | 91   | 93   | 137 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

## Detectability Study

| Sites Included              | First Count | Second Count |
|-----------------------------|-------------|--------------|
| East Beach (Maschaug Beach) | 28          | 30           |

## 2006 International Piping Plover Breeding Census - Rhode Island -



## The 2006 International Piping Plover Breeding Census in Rhode Island

| COUNTY/<br>REGION | SITE NAME                                     | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---|----------|------|-------------|------------------------|-------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Newport           | Briggs Beach                                  | 2        | 6/01 | 4           | 9                      | n.r.        | n.r.                | n.r.            | Yes          | Yes          | Yes          | p    |
| Newport           | Norman Bird Sanctuary                         | 3        | 6/01 | 0           | 0                      | n.r.        | I A 1               |                 | No           | No           | No           | p    |
| Newport           | Sachuest Point National Wildlife<br>Refuge    | 5        | 6/01 | 2           | 4                      | 1.1         | I A 1               | n.r.            | No           | No           | No           | f    |
| Newport           | Third Beach                                   | 4        | 6/01 | 2           | 4                      | 1.3         | I A 1               | n.r.            | No           | No           | No           | m    |
| Newport           | Quicksand Pond                                | 1        | 6/01 | 9           | 19                     | n.r.        | n.r.                | n.r.            | Yes          | Yes          | Yes          | p    |
| Washington        | Block Island - Beane Point                    | 21       | 6/05 | 0           | 0                      | 1.9         | I G 1               |                 | No           | No           | Yes          | f    |
| Washington        | Block Island - Coast Guard Beach              | 22       | 6/05 | 0           | 0                      | 0.5         | I G 1               |                 | Yes          | No           | Yes          | f/p  |
| Washington        | Block Island - Sandy Point/Cow<br>Cove        | 19       | 6/05 | 0           | 0                      | 1.3         |                     |                 | Yes          | Yes          | Yes          | f/m  |
| Washington        | Block Island - Surf beach to<br>Mansion beach | 23       | 6/05 | 0           | 1                      | 3.2         | I G 1               | n.r.            | No           | No           | Yes          | p    |
| Washington        | Block Island - West Beach                     | 20       | 6/05 | 0           | 0                      | 2.7         | I G 1               |                 | No           | No           | Yes          | m    |
| Washington        | Charlestown State Beach                       | 13       | 6/04 | 0           | 0                      | 1.2         | I A 1               |                 | No           | No           | Yes          | s(p) |
| Washington        | East Beach (Maschaug Beach)                   | 17       | 6/04 | 14          | 30                     | 3.1         | I B 1 4             | n.r.            | Yes          | Yes          | Yes          | p    |
| Washington        | East Matunuck State Beach                     | 10       | 6/01 | 1           | 2                      | 1.2         | I A 1               | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Washington        | Green Hill                                    | 12       | 6/04 | 0           | 0                      | 0.3         | I A 1               |                 | No           | Yes          | Yes          | p    |
| Washington        | Napatree Point                                | 18       | 6/05 | 1           | 5                      | 2.1         | I A D 2             | n.r.            | Yes          | Yes          | Yes          | p    |
| Washington        | Narragasset Town Beach                        | 7        | 6/01 | 0           | 0                      | 0.3         | I A 1               |                 | No           | No           | No           | p    |
| Washington        | Narrow River                                  | 6        | 6/01 | 1           | 3                      | 1.1         | I A 1               | n.r.            | No           | No           | Yes          | P    |
| Washington        | Ninigret Conservation Area                    | 15       | 6/09 | 9           | 18                     | 1.0         | I B 1 4             | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Washington        | Ninigret National Wildlife Refuge             | 14       | 6/09 | 1           | 2                      | 3.9         | I B 1 4             | n.r.            | No           | Yes          | Yes          | f    |
| Washington        | Quonochontaug Beach                           | 16       | 6/02 | 8           | 16                     | 2.9         | I B 1 4             | n.r.            | Yes          | Yes          | Yes          | p    |
| Washington        | Roger Wheeler State Park                      | 9        | 6/04 | 0           | 0                      | 1.4         | I A 1               |                 | No           | No           | No           | s(p) |
| Washington        | Scarborough State Beach                       | 8        | 6/04 | 0           | 0                      | 1.0         | I A 1               |                 | No           | No           | No           | s(p) |
| Washington        | Trustum Pond National Wildlife<br>Refuge      | 11       | 6/02 | 11          | 26                     | 2.8         | I B 1 4             | n.r.            | Yes          | Yes          | Yes          | f    |
| <b>Total</b>      |   |          |      | <b>63</b>   | <b>139<sup>1</sup></b> | <b>34.3</b> |                     |                 |              |              |              |      |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in Connecticut

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The 2006 International Piping Plover Census in Connecticut was conducted by 9 participants. Weather was generally good during the census period and we observed a total of 68 birds. This number is higher than the 2001 Census total, but coverage was similar. Double surveys at two sites were reported for the detectability survey and illustrate that there is some variability in the number of plovers observed on each visit. Overall, it seems that the 2006 Census total slightly underestimated the Connecticut Piping Plover population. Our end of the season estimate was 37 pairs for the Connecticut coast.

## Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 67   | 42   | 45   | 68 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

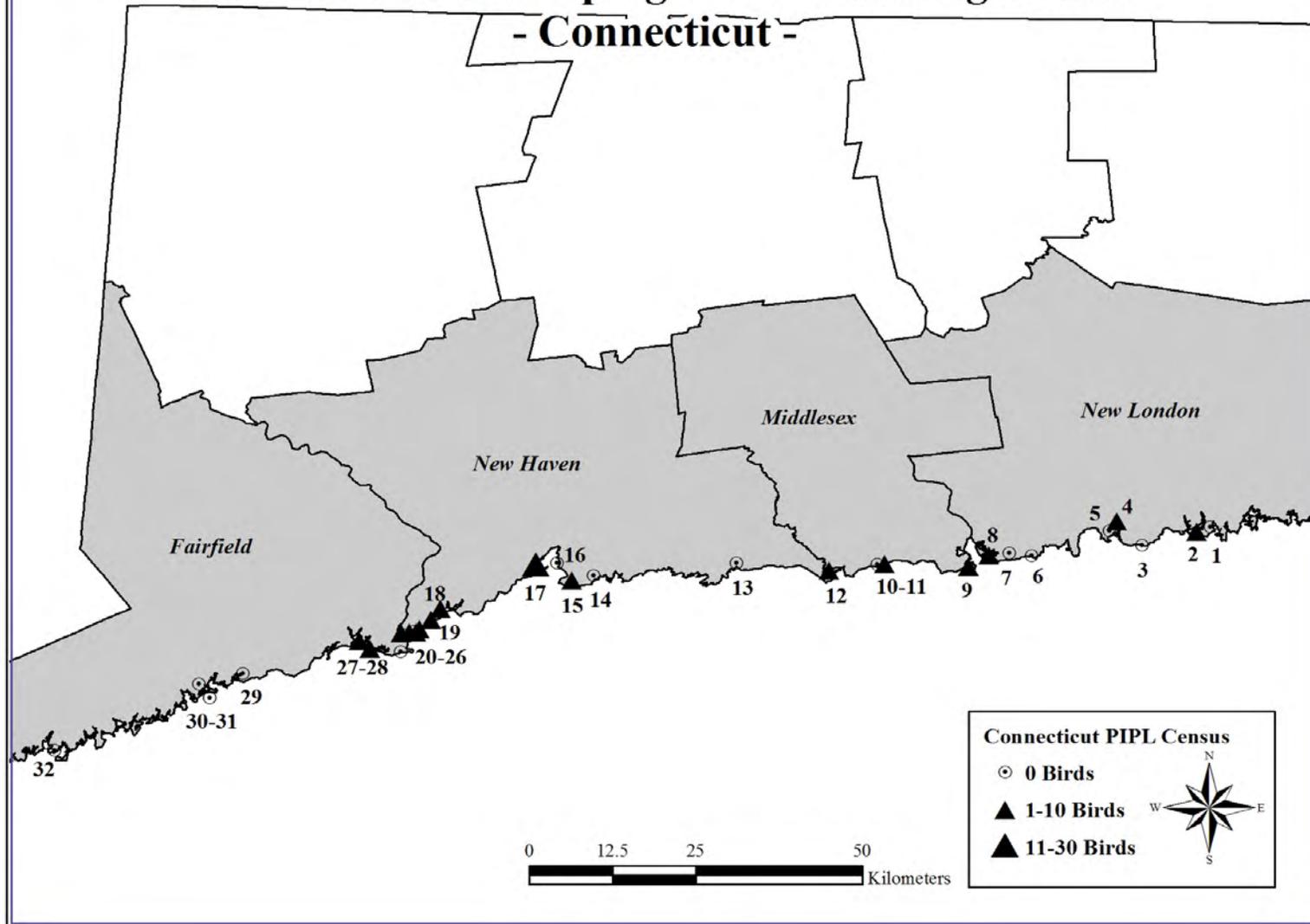
## Detectability Study

| Sites Included          | First Count | Second Count |
|-------------------------|-------------|--------------|
| East Broadway           | 4           | 2            |
| Sandy Point/Morse Point | 13          | 5            |

*Summarized by E. Elliott-Smith*

# 2006 International Piping Plover Breeding Census

- Connecticut -



## The 2006 International Piping Plover Breeding Census in Connecticut

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Fairfield         | Cockenoe Island  | 30       | 6/9  | 0           | 0               | 1.6 |                     | I G 1 6 9       | Yes          | Yes          | Yes          | m    |
| Fairfield         | Driftwood Point <sup>1</sup>                               | 31       | 6/16 | 0           | 0               | 0.4 | II                  | 12              | No           | Yes          | Yes          | p    |
| Fairfield         | Long Beach   | 28       | 6/5  | 4           | 8               | 1.6 | I A 1 3 13          | I A 1           | Yes          | Yes          | Yes          | m    |
| Fairfield         | Pleasure Beach   | 27       | 6/5  | 1           | 2               | 1.6 | I A 1 3             | I A 1           | Yes          | Yes          | Yes          | m    |
| Fairfield         | Russian Beach  | 26       | 6/2  | 0           | 0               | 0.8 | I A 1 13            |                 | No           | No           | Yes          | p    |
| Fairfield         | Sand Island/Pelican Island                                 | 32       | 6/8  | 0           | 0               | 1.6 | II 6                |                 | No           | No           | Yes          | m    |
| Fairfield         | Sherwood Island  | 29       | 6/8  | 0           | 0               | 1.6 | I A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Fairfield         | Short Beach  | 25       | 6/2  | 0           | 0               | 1.2 | I A 1               |                 | Yes          | Yes          | Yes          | m    |
| Middlesex         | Fenwick Point/Lynde Point                                  | 9        | 6/6  | 1           | 2               | 0.4 | I A 13              | I A 1           | Yes          | No           | Yes          | p    |
| Middlesex         | Menunketesuck Island                                       | 11       | 6/5  | 0           | 0               | 0.8 | I G 9               |                 | Yes          | Yes          | Yes          | f    |
| Middlesex         | Westbrook Private Beach                                    | 10       | 6/5  | 1           | 2               | 0.4 | I A 1               | I A 1           | No           | No           | No           | p    |
| New Haven         | Cedar Beach  | 21       | 6/6  | 1           | 2               | 0.4 | I A 1               | I A 1           | No           | No           | No           | p    |
| New Haven         | East Broadway  | 18       | 6/1  | 2           | 4               | 0.4 | I A 1 13            | I A 1           | No           | No           | Yes          | p    |
| New Haven         | Grass Island   | 13       | 6/6  | 0           | 0               | 0.8 | I A 13              |                 | Yes          | No           | Yes          | p    |
| New Haven         | Hammonasset Beach State Park                               | 12       | 6/5  | 2           | 5               | 2.0 | I A 13              | I C 3           | Yes          | Yes          | Yes          | s(p) |
| New Haven         | Kelsey Island  | 14       | 6/6  | 0           | 0               | 0.4 | I G 1               |                 | Yes          | Yes          | Yes          | p    |
| New Haven         | Laurel Beach   | 20       | 6/6  | 1           | 2               | 0.4 | I A 1               | I A 1           | No           | No           | No           | p    |
| New Haven         | Milford Point (Connecticut<br>Audubon Society (CAS) Beach) | 22       | 6/6  | 0           | 0               | 0.4 | I A 1 13            |                 | Yes          | Yes          | Yes          | s/m  |
| New Haven         | Milford Point (USFWS Refuge,<br>S.B. McKinney Unit)        | 23       | 6/6  | 1           | 2               | 0.8 | III A 1 8 13        | I A 1           | Yes          | Yes          | Yes          | f    |
| New Haven         | Milford Point Sandbar                                      | 24       | 6/1  | 3           | 6               | 0.8 | III I 6             | II 6            | No           | No           | Yes          | s/p  |
| New Haven         | Nathan Hale Park   | 16       | 6/9  | 0           | 0               | 0.8 | I A 1 8             |                 | No           | No           | Yes          | m    |
| New Haven         | Sandy Point/Morse Point                                    | 17       | 6/1  | 8           | 13              | 1.2 | I A 1 2 6 13        | I A 6           | Yes          | Yes          | Yes          | m    |
| New Haven         | Silver Sands Beach Club                                    | 15       | 6/13 | 1           | 2               | 1.2 | I A 1               | I A 1           | No           | No           | Yes          | p    |
| New Haven         | Silver Sands Beach State Park <sup>1</sup>                 | 19       | 6/1  | 1           | 2               | 0.8 | I A 1 13            | I A 1           | No           | No           | No           | s(p) |
| New London        | Bluff Point Coastal Reserve                                | 2        | 6/8  | 1           | 2               | 1.6 | I A C 1 3           | I C 1           | Yes          | Yes          | Yes          | s(p) |
| New London        | Griswold Point   | 8        | 6/7  | 4           | 8               | 1.6 | I C I 1             |                 | Yes          | Yes          | Yes          | p    |
| New London        | Harkness Memorial State<br>Park/Goshen Cove                | 4        | 6/8  | 4           | 6               | 0.8 | I A 1 13            | I A 13          | Yes          | Yes          | Yes          | s(p) |
| New London        | Hatchett's Point   | 6        | 6/8  | 0           | 0               | 0.4 | I A 1 13            |                 | Yes          | Yes          | Yes          | p    |
| New London        | Jordan Cove  | 5        | 6/8  | 0           | 0               | 0.8 | I A 1 6             |                 | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census in Connecticut  
(Continued)**

| <b>COUNTY/<br/>REGION</b> | <b>SITE NAME</b>     | <b>MAP<br/>#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b>   | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|---------------------------|----------------------|------------------|-------------|---------------------|-------------------------|-------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| New London                | Mile Creek Beach     | 7                | 6/8         | 0                   | 0                       | 0.8         | I A 1                       |                         | Yes                  | Yes                  | Yes                  | p          |
| New London                | Mumford Cove         | 1                | 6/8         | 0                   | 0                       | 0.8         | I A 1                       |                         | Yes                  | Yes                  | Yes                  | p          |
| New London                | Waterford Town Beach | 3                | 6/8         | 0                   | 0                       | 0.8         | I A 1 13                    |                         | No                   | No                   | No                   | m          |
| <b>Total</b>              |                      |                  |             | <b>36</b>           | <b>68</b>               | <b>30.0</b> |                             |                         |                      |                      |                      |            |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# The 2006 International Piping Plover Breeding Census in New York

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The 2006 International Piping Plover Census of New York was conducted by over 60 participants that covered over 300 km of shoreline during the Census window. Total Piping Plovers observed increased from 624 in the 2001 International Census to 860 in 2006. Some of the sites that had been surveyed in previous Census' were not covered in 2006; these sites did not have Piping Plovers previously and the likelihood of finding birds there in 2006 was low (i.e., Fire Island Pines, Fishers Island, Quintuck Creek). In addition to sites covered in 2001, we were able to cover a few potentially suitable sites that were missed during the 2001 Piping Plover Census and were found to have a total of 10 birds during the 2006 surveys. Overall, the coverage of suitable habitat during the 2006 Census was very comprehensive.

Similar to Massachusetts, counts for some sites may have been based on multiple surveys within the Census period. Although the total number of birds counted during the 2006 Census was high relative to the 2001 number and relative to most other states, comprehensive monitoring suggests that it is an underestimate of New York's Piping Plover population.

One noteworthy observation during the 2006 International Census, was a pair of birds on

Orchard Beach in the Bronx and the subsequent discovery of a three-egg nest. This beach is the only mainland beach in New York where Piping Plovers were found during this or any other Census. Piping Plovers in New York are generally restricted to Long Island and there is only one previous Census record of birds elsewhere; this record was of four birds in Fishers Island during the 1991 International Census.

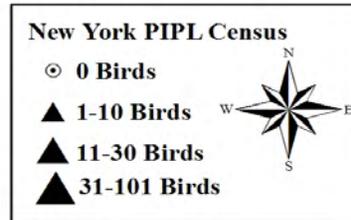
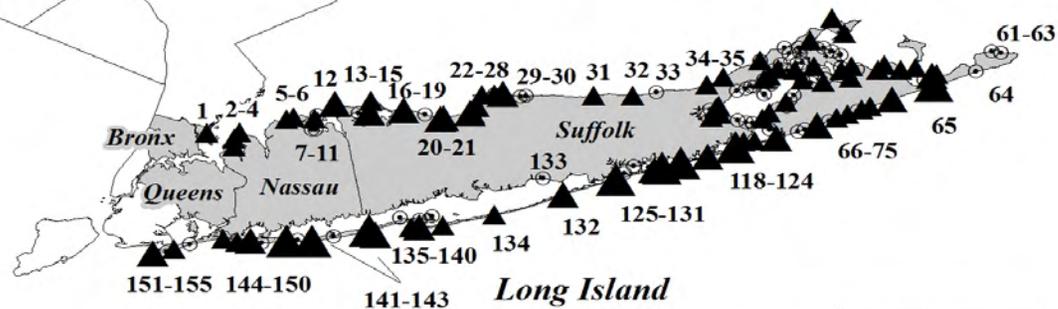
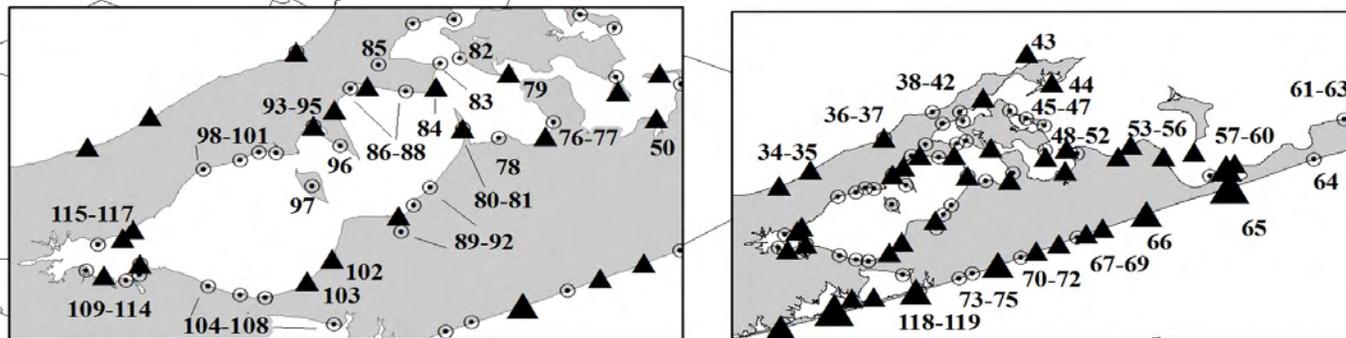
## Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 338  | 493  | 624  | 852 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

*Summarized by E. Elliott-Smith*

## 2006 International Piping Plover Breeding Census - New York -



## The 2006 International Piping Plover Breeding Census in New York

| COUNTY/<br>REGION | SITE NAME                            | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--------------------------------------|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Bronx             | Orchard Beach                        | 1        | n.r. | 1           | 2               | n.r. | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Nassau            | Beekman Beach                        | 11       | 6/06 | 0           | 0               | 0.7  | n.r.                |                 | No           | No           | No           | n.r. |
| Nassau            | Centre Island - North Side           | 7        | 6/06 | 0           | 0               | 0.9  | n.r.                |                 | No           | No           | No           | n.r. |
| Nassau            | Centre Island Beach                  | 8        | 6/01 | 1           | 2               | 2.0  | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Nassau            | Centre Island Creek                  | 9        | n.r. | 1           | 2               | n.r. | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Nassau            | Frost Creek                          | 5        | 6/06 | 2           | 4               | 1.4  | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Nassau            | Half Moon Beach                      | 3        | 6/01 | 3           | 6               | 1.0  | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Nassau            | Jones Beach West                     | 144      | 6/02 | 21          | 42              | 7.7  | n.r.                | n.r.            | No           | Yes          | Yes          | s(p) |
| Nassau            | Long Beach Island Atlantic Beach     | 149      | n.r. | 5           | 10              | 1.3  | n.r.                | n.r.            | No           | Yes          | Yes          | s(p) |
| Nassau            | Long Beach Island Lido Beach         | 146      | 6/01 | 19          | 38              | 1.8  | n.r.                | n.r.            | No           | Yes          | Yes          | m/p  |
| Nassau            | Long Beach Island Long Beach         | 147      | 6/07 | 0           | 0               | 4.2  | n.r.                |                 | No           | Yes          | Yes          | s(p) |
| Nassau            | Long Beach Island Point Lookout      | 145      | 6/06 | 0           | 0               | 1.0  | n.r.                |                 | No           | Yes          | Yes          | s(p) |
| Nassau            | Plum Point                           | 2        | 6/01 | 1           | 2               | 0.4  | n.r.                | n.r.            | Yes          | Yes          | No           | n.r. |
| Nassau            | Prospect Point                       | 4        | 6/01 | 3           | 6               | 0.4  | n.r.                | n.r.            | No           | No           | Yes          | P    |
| Nassau            | Roosevelt Beach                      | 10       | 6/06 | 0           | 0               | 0.5  | n.r.                |                 | No           | No           | No           | n.r. |
| Nassau            | Stehli Beach                         | 6        | 6/06 | 1           | 2               | 1.3  | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Nassau            | Zacks Bay                            | 143      | 6/08 | 0           | 0               | 0.8  | n.r.                |                 | Yes          | Yes          | No           | n.r. |
| Queens            | Arverne by the Sea                   | 148      | n.r. | 14          | 28              | 1.6  | n.r.                | n.r.            | No           | Yes          | Yes          | M    |
| Queens            | Breezy Point (Cooperative Area)      | 154      | 6/09 | 8           | 16              | 1.7  | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Queens            | Breezy Point (Park Service property) | 155      | n.r. | 15          | 30              | 4.0  | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r. |
| Queens            | Far Rockaway                         | 150      | n.r. | 2           | 4               | n.r. | n.r.                | n.r.            | No           | No           | Yes          | M    |
| Queens            | Fort Tilden Beach                    | 153      | n.r. | 0           | 0               | n.r. | n.r.                |                 | No           | No           | No           | n.r. |
| Queens            | Jacob Riis Beach                     | 152      | n.r. | 2           | 4               | 1.6  | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r. |
| Queens            | Rockaway Beach                       | 151      | n.r. | 0           | 0               | 6.5  | n.r.                |                 | Yes          | Yes          | Yes          | n.r. |
| Suffolk           | Accabonac Harbor                     | 55       | 6/09 | 1           | 2               | 4.0  | n.r.                | n.r.            | No           | Yes          | Yes          | M    |
| Suffolk           | Alewife Brook                        | 52       | 6/01 | 0           | 0               | 0.5  | n.r.                |                 | No           | No           | No           | n.r. |
| Suffolk           | Angel Shores                         | 86       | 6/05 | 0           | 0               | 0.5  | n.r.                |                 | Yes          | No           | No           | n.r. |
| Suffolk           | Asharoken Beach                      | 16       | n.r. | 4           | 8               | 3.2  | n.r.                | n.r.            | No           | Yes          | Yes          | P    |
| Suffolk           | Asharoken Beach (Private)            | 17       | n.r. | 4           | 8               | n.r. | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Suffolk           | Atlantic Double Dunes                | 66       | 9/08 | 9           | 18              | 6.5  | n.r.                | n.r.            | No           | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census in New York  
(Continued)**

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|---|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Suffolk           | Birch Creek   | 113      | 6/05 | 1           | 2               | n.r. | n.r.                | n.r.            | No           | No           | Yes          | M      |
| Suffolk           | Callahans Beach                                     | 19       | 6/04 | 0           | 0               | 1.6  | n.r.                |                 | No           | No           | No           | n.r.   |
| Suffolk           | Canoe Place Beach (West of<br>Shinnecock Canal)     | 107      | 6/07 | 0           | 0               | 0.3  | n.r.                |                 | No           | No           | No           | n.r.   |
| Suffolk           | Captree island                                      | 136      | 6/06 | 0           | 0               | 7.0  | n.r.                |                 | No           | No           | No           | n.r.   |
| Suffolk           | Cedar Beach Point                                   | 84       | 6/06 | 2           | 4               | 1.2  | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)/m |
| Suffolk           | Cedar Beach to Mount Sanai                          | 30       | 6/08 | 0           | 0               | 2.0  | n.r.                |                 | No           | No           | Yes          | m/p    |
| Suffolk           | Cedar Point   | 51       | 6/01 | 3           | 6               | 3.2  | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Suffolk           | Cherry Point  | 57       | n.r. | 0           | 0               | n.r. | n.r.                |                 | No           | No           | No           | n.r.   |
| Suffolk           | Conkling Point                                      | 40       | 6/01 | 0           | 0               | 0.8  | n.r.                |                 | Yes          | Yes          | Yes          | P      |
| Suffolk           | Corey Creek Mouth                                   | 87       | 6/05 | 1           | 2               | 0.8  | n.r.                | n.r.            | Yes          | No           | Yes          | m/p    |
| Suffolk           | Cow Yard Beach                                      | 111      | 6/05 | 0           | 0               | n.r. | n.r.                |                 | No           | No           | Yes          | M      |
| Suffolk           | Crab Creek  | 82       | 6/01 | 0           | 0               | 1.3  | n.r.                |                 | Yes          | Yes          | Yes          | P      |
| Suffolk           | Crab Meadow Beach                                   | 18       | n.r. | 6           | 12              | 1.6  | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Suffolk           | Cutchogue Harbor                                    | 94       | 6/08 | 1           | 2               | 1.0  | n.r.                | n.r.            | No           | Yes          | Yes          | P      |
| Suffolk           | Cutchogue Harbor (TNC Preserve)                     | 95       | 6/08 | 0           | 0               | n.r. | n.r.                |                 | No           | No           | No           | P      |
| Suffolk           | Downs Creek   | 99       | 6/09 | 0           | 0               | 0.2  | n.r.                |                 | Yes          | Yes          | Yes          | n.r.   |
| Suffolk           | East Hampton Beach                                  | 67       | 6/05 | 3           | 6               | 3.2  | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p    |
| Suffolk           | East Inlet Island                                   | 128      | 6/14 | 0           | 0               | 1.2  | n.r.                |                 | No           | No           | No           | n.r.   |
| Suffolk           | Eatons Neck Point                                   | 15       | n.r. | 2           | 4               | 3.2  | n.r.                | n.r.            | Yes          | Yes          | Yes          | P      |
| Suffolk           | Fairfield Pond Lane Beach                           | 70       | 6/07 | 3           | 6               | 2.6  | n.r.                | n.r.            | No           | Yes          | Yes          | n.r.   |
| Suffolk           | Fire Island Democrat Point                          | 137      | 6/09 | 13          | 26              | 4.8  | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)   |
| Suffolk           | Fire Island East (aka Smith Point)                  | 131      | 6/08 | 16          | 32              | 16.1 | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Suffolk           | Fire Island Lighthouse (FINS)                       | 139      | 6/04 | 1           | 3               | 1.6  | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r.   |
| Suffolk           | Fire Island Lighthouse (Robert<br>Moses State Park) | 135      | 6/08 | 1           | 2               | 12.9 | n.r.                | n.r.            | No           | Yes          | Yes          | s(p)   |
| Suffolk           | Fire Island Sunken Forest                           | 134      | 6/04 | 0           | 1               | 2.4  | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r.   |
| Suffolk           | Fire Island Wilderness                              | 132      | 6/08 | 15          | 30              | n.r. | n.r.                | n.r.            | Yes          | Yes          | Yes          | P      |
| Suffolk           | Fish Cove   | 92       | 6/08 | 0           | 0               | 0.3  | n.r.                |                 | No           | Yes          | No           | n.r.   |
| Suffolk           | Flax Pond Beach                                     | 25       | 6/08 | 1           | 2               | 3.2  | n.r.                | n.r.            | No           | Yes          | Yes          | s(p)/p |

**The 2006 International Piping Plover Breeding Census in New York  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                           | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|-------------------------------------|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Suffolk           | Fresh Pond                          | 89       | 6/08 | 0           | 0               | 0.3  | n.r.                |                 | No           | Yes          | Yes          | M    |
| Suffolk           | Fresh Pond Landing                  | 32       | 6/01 | 1           | 2               | 1.6  | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r. |
| Suffolk           | Gardiners Island (Cartwright Point) | 56       | n.r. | 1           | 2               | n.r. | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Suffolk           | Georgica Pond                       | 68       | 6/06 | 1           | 2               | 1.6  | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |
| Suffolk           | Gibson Beach                        | 48       | 6/08 | 0           | 0               | n.r. | n.r.                |                 | Yes          | Yes          | Yes          | n.r. |
| Suffolk           | Gin Lane Beach                      | 75       | 6/06 | 0           | 0               | 2.1  | n.r.                |                 | No           | Yes          | Yes          | s(p) |
| Suffolk           | Goff Point                          | 60       | 6/02 | 4           | 8               | 4.8  | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Suffolk           | Goldsmith Inlet                     | 36       | 6/02 | 0           | 2               | 4.8  | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |
| Suffolk           | Goldsmith Inlet (Private)           | 37       | 6/02 | 0           | 0               | n.r. | n.r.                |                 | No           | No           | No           | n.r. |
| Suffolk           | Goose Creek Flanders Bay            | 114      | 6/05 | 0           | 0               | 0.8  | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Suffolk           | Goose Creek Southold Bay            | 85       | 6/05 | 0           | 0               | n.r. | n.r.                |                 | No           | No           | Yes          | n.r. |
| Suffolk           | Gull Pond West                      | 42       | 6/01 | 1           | 2               | 0.5  | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Suffolk           | Hallocks Pond                       | 34       | 6/01 | 1           | 2               | 1.6  | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Suffolk           | Hashamomuck Beach                   | 38       | 6/02 | 0           | 0               | 0.8  | n.r.                |                 | No           | No           | No           | n.r. |
| Suffolk           | Hicks Island                        | 58       | 6/02 | 6           | 12              | 2.4  | n.r.                | n.r.            | Yes          | Yes          | No           | s(p) |
| Suffolk           | James Creek                         | 101      | 6/09 | 0           | 0               | 0.4  | n.r.                |                 | No           | No           | No           | n.r. |
| Suffolk           | Jamesport Town Beach                | 115      | 6/01 | 2           | 4               | 1.2  | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Suffolk           | Jessup Neck (Clam Island)           | 80       | 6/07 | 0           | 0               | 2.4  | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Suffolk           | Jessup Neck (USFWS property)        | 81       | 6/08 | 4           | 8               | 4.8  | n.r.                | n.r.            | No           | Yes          | Yes          | F    |
| Suffolk           | Jones Beach East (lot 9)            | 142      | 6/02 | 7           | 14              | n.r. | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Suffolk           | Jones Beach Island East             | 141      | 6/06 | 21          | 42              | 5.7  | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Suffolk           | Kimogener Point                     | 98       | 6/09 | 0           | 0               | 0.3  | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Suffolk           | Lazy Point                          | 59       | n.r. | 0           | 0               | 0.8  | n.r.                |                 | No           | Yes          | Yes          | M    |
| Suffolk           | Lionhead Beach                      | 54       | 6/09 | 1           | 2               | 2.8  | n.r.                | n.r.            | Yes          | Yes          | Yes          | m/p  |
| Suffolk           | Little Creek                        | 93       | 6/01 | 1           | 2               | 0.8  | n.r.                | n.r.            | No           | Yes          | Yes          | n.r. |
| Suffolk           | Little Hog Neck                     | 96       | 6/06 | 0           | 0               | 0.8  | n.r.                |                 | No           | Yes          | Yes          | P    |
| Suffolk           | Lloyd Neck East Beach               | 13       | 6/08 | 2           | 4               | 1.6  | n.r.                | n.r.            | No           | Yes          | Yes          | M    |
| Suffolk           | Lloyd Point                         | 12       | 6/08 | 7           | 14              | 2.4  | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Suffolk           | Long Beach Peninsula                | 22       | 6/08 | 5           | 11              | 11.3 | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |

**The 2006 International Piping Plover Breeding Census in New York  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                                 | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|---|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Suffolk           | Long Beach Sag Harbor                     | 77       | 6/08 | 1           | 2               | 1.6  | n.r.                | n.r.            | No           | Yes          | Yes          | n.r.   |
| Suffolk           | Lower Beach                               | 46       | 6/02 | 0           | 0               | 0.8  | n.r.                |                 | No           | Yes          | Yes          | M      |
| Suffolk           | Marratooka Point                          | 100      | 6/09 | 0           | 0               | 0.5  | n.r.                |                 | Yes          | Yes          | Yes          | P      |
| Suffolk           | Mashomack Point                           | 49       | 6/08 | 1           | 2               | 5.0  | n.r.                | n.r.            | Yes          | Yes          | Yes          | P      |
| Suffolk           | Mattituck Inlet                           | 35       | 6/08 | 2           | 4               | 3.2  | n.r.                | n.r.            | No           | Yes          | Yes          | m/p    |
| Suffolk           | Meschutt Beach (County Park)              | 105      | 6/13 | 0           | 0               | 2.1  | n.r.                |                 | No           | Yes          | Yes          | M      |
| Suffolk           | Meschutt Beach (Private)                  | 106      | 6/07 | 0           | 0               | 2.1  | n.r.                |                 | Yes          | Yes          | Yes          | P      |
| Suffolk           | Miamogue Point                            | 116      | 6/01 | 1           | 2               | 0.8  | n.r.                | n.r.            | No           | Yes          | Yes          | P      |
| Suffolk           | Middle Pond Inlet                         | 104      | 6/02 | 0           | 0               | 0.3  | n.r.                |                 | Yes          | Yes          | Yes          | s(p)   |
| Suffolk           | Mill Creek                                | 112      | 6/05 | 0           | 0               | 0.8  | n.r.                |                 | No           | No           | Yes          | M      |
| Suffolk           | Montauk Beach                             | 64       | 6/08 | 0           | 0               | 4.0  | n.r.                |                 | No           | Yes          | Yes          | M      |
| Suffolk           | Mount Misery Point                        | 28       | 6/09 | 6           | 14              | 3.2  | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Suffolk           | Napeague Beach                            | 65       | 6/05 | 22          | 44              | 10.5 | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)/m |
| Suffolk           | Nazeras Island                            | 140      | 6/09 | 0           | 0               | 0.9  | n.r.                |                 | No           | No           | No           | n.r.   |
| Suffolk           | New Made Island                           | 130      | 6/14 | 0           | 0               | 0.8  | n.r.                |                 | No           | No           | No           | n.r.   |
| Suffolk           | Northwest Creek Mouth                     | 50       | 6/01 | 1           | 2               | 2.4  | n.r.                | n.r.            | No           | Yes          | Yes          | M      |
| Suffolk           | Oak Beach                                 | 138      | 6/07 | 0           | 0               | 3.6  | n.r.                |                 | No           | Yes          | Yes          | s(p)/m |
| Suffolk           | Old Field Beach (Suffolk County<br>Parks) | 26       | 6/09 | 4           | 8               | n.r. | n.r.                | n.r.            | Yes          | Yes          | Yes          | M      |
| Suffolk           | Old Field Beach (Village Property)        | 27       | 6/08 | 0           | 0               | n.r. | n.r.                |                 | Yes          | Yes          | Yes          | M      |
| Suffolk           | Old Town Road Beach                       | 74       | 6/06 | 0           | 0               | 0.8  | n.r.                |                 | No           | Yes          | Yes          | M      |
| Suffolk           | Orient Beach                              | 44       | n.r. | 1           | 2               | 11.3 | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)   |
| Suffolk           | Oyster Pond (County Park)                 | 62       | 6/01 | 0           | 0               | 2.4  | n.r.                |                 | Yes          | Yes          | Yes          | s(p)   |
| Suffolk           | Oyster Pond (MSP)                         | 63       | 6/09 | 0           | 0               | 2.4  | n.r.                |                 | Yes          | Yes          | Yes          | s(p)   |
| Suffolk           | Paradise Beach Point                      | 83       | 6/05 | 0           | 0               | 0.8  | n.r.                |                 | Yes          | Yes          | No           | P      |
| Suffolk           | Pine Neck                                 | 78       | 6/06 | 0           | 0               | 0.6  | n.r.                |                 | Yes          | Yes          | Yes          | n.r.   |
| Suffolk           | Pipes Cove                                | 41       | 6/01 | 0           | 0               | n.r. | n.r.                |                 | No           | No           | Yes          | P      |
| Suffolk           | Plum Island                               | 43       | 6/09 | 1           | 2               | 0.8  | n.r.                | n.r.            | No           | No           | Yes          | F      |
| Suffolk           | Port of Egypt                             | 39       | 6/01 | 0           | 0               | 0.2  | n.r.                |                 | No           | Yes          | Yes          | P      |
| Suffolk           | Red Cedar Point                           | 109      | 6/07 | 1           | 2               | 0.5  | n.r.                | n.r.            | Yes          | Yes          | Yes          | s(p)   |

**The 2006 International Piping Plover Breeding Census in New York  
(Continued)**

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Suffolk           | Red Creek Pond                                   | 110      | 6/07 | 0           | 0               | 0.8  | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Suffolk           | Reel Point                                       | 47       | 6/06 | 0           | 0               | 1.2  | n.r.                |                 | No           | Yes          | No           | P    |
| Suffolk           | Reeves Park                                      | 33       | 6/05 | 0           | 0               | 1.3  | n.r.                |                 | No           | No           | No           | n.r. |
| Suffolk           | Richmond Creek                                   | 88       | 6/05 | 0           | 0               | 0.5  | n.r.                |                 | Yes          | Yes          | Yes          | M    |
| Suffolk           | Robins Island                                    | 97       | 6/08 | 0           | 0               | 1.6  | n.r.                |                 | Yes          | Yes          | No           | P    |
| Suffolk           | Roe Avenue Patchogue                             | 133      | 6/08 | 0           | 0               | 0.2  | n.r.                |                 | Yes          | Yes          | Yes          | m/p  |
| Suffolk           | Sagaponack Pond                                  | 71       | 6/07 | 1           | 2               | 2.7  | n.r.                | n.r.            | No           | Yes          | Yes          | n.r. |
| Suffolk           | Sammys Beach Peninsula                           | 53       | 6/07 | 4           | 8               | 1.6  | n.r.                | n.r.            | No           | Yes          | Yes          | m/p  |
| Suffolk           | Sams Creek                                       | 72       | 6/09 | 0           | 0               | 0.8  | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Suffolk           | Sand City  | 14       | 6/02 | 7           | 14              | 1.6  | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Suffolk           | Sebonac Creek                                    | 102      | 6/01 | 2           | 4               | 2.4  | n.r.                | n.r.            | No           | Yes          | Yes          | n.r. |
| Suffolk           | Sebonac Neck                                     | 103      | 6/08 | 2           | 6               | 2.4  | n.r.                | n.r.            | Yes          | Yes          | Yes          | P    |
| Suffolk           | Shagwong Point                                   | 61       | 6/01 | 1           | 2               | 2.8  | n.r.                | n.r.            | No           | No           | Yes          | M    |
| Suffolk           | Shell Beach                                      | 79       | 6/01 | 1           | 2               | 2.0  | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Suffolk           | Short Beach                                      | 21       | 6/02 | 6           | 12              | 2.4  | n.r.                | n.r.            | Yes          | Yes          | Yes          | M    |
| Suffolk           | Short Beach Sag Harbor                           | 76       | 6/08 | 0           | 0               | 0.4  | n.r.                |                 | No           | No           | No           | n.r. |
| Suffolk           | Simmons Point                                    | 117      | 6/01 | 0           | 0               | 1.1  | n.r.                |                 | No           | Yes          | Yes          | P    |
| Suffolk           | Southampton Beach (Shnecock to East County Park) | 118      | 6/07 | 0           | 0               | 7.5  | n.r.                |                 | Yes          | Yes          | Yes          | C    |
| Suffolk           | Southampton Beach (Southampton Village)          | 119      | 6/06 | 6           | 12              | n.r. | n.r.                | n.r.            | Yes          | Yes          | Yes          | n.r. |
| Suffolk           | Squire Pond                                      | 108      | 6/07 | 0           | 0               | 1.2  | n.r.                |                 | No           | Yes          | Yes          | n.r. |
| Suffolk           | Sunken Meadow                                    | 20       | 6/04 | 6           | 14              | 1.2  | n.r.                | n.r.            | No           | Yes          | Yes          | s(p) |
| Suffolk           | Terrel River                                     | 129      | 6/09 | 0           | 0               | 0.2  | n.r.                |                 | No           | No           | Yes          | M    |
| Suffolk           | Towd Neck  | 91       | 6/05 | 1           | 2               | 2.3  | n.r.                | n.r.            | No           | Yes          | Yes          | s(p) |
| Suffolk           | Upper Beach                                      | 45       | 6/09 | 0           | 0               | 2.0  | n.r.                |                 | No           | Yes          | Yes          | F    |
| Suffolk           | Wading River Beach                               | 31       | 6/06 | 1           | 2               | 1.6  | n.r.                | n.r.            | No           | Yes          | Yes          | m/p  |
| Suffolk           | Wainscott Pond                                   | 69       | n.r. | 0           | 0               | 0.8  | n.r.                |                 | No           | Yes          | Yes          | m/p  |
| Suffolk           | Warner Island West Island                        | 120      | 6/15 | 0           | 1               | 0.4  | n.r.                | n.r.            | No           | No           | No           | n.r. |
| Suffolk           | Warner Islands East Island                       | 121      | 6/15 | 1           | 2               | 1.0  | n.r.                | n.r.            | No           | No           | No           | n.r. |

**The 2006 International Piping Plover Breeding Census in New York  
(Continued)**

| <b>COUNTY/<br/>REGION</b> | <b>SITE NAME</b>  | <b>MAP<br/>#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b>    | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|---------------------------|---|------------------|-------------|---------------------|-------------------------|--------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| Suffolk                   | Watermill Beach   | 73               | 6/09        | 6                   | 12                      | 4.7          | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | P          |
| Suffolk                   | West Meadow Beach                                       | 24               | 6/08        | 1                   | 2                       | 2.0          | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | M          |
| Suffolk                   | Westhampton Island Hampton Beach                        | 124              | 6/05        | 10                  | 20                      | 6.0          | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | P          |
| Suffolk                   | Westhampton Island Tiana Beach (Private)                | 122              | 6/03        | 6                   | 12                      | 7.7          | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | P          |
| Suffolk                   | Westhampton Island Tiana Beach (Shinnecock W. Cty Park) | 123              | 6/07        | 17                  | 34                      | 7.7          | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | M          |
| Suffolk                   | Westhampton Island West (Cupsogue County Park)          | 127              | 6/06        | 7                   | 14                      | 5.0          | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | C          |
| Suffolk                   | Westhampton Island West (Village of Westhampton Dunes)  | 126              | n.r.        | 19                  | 38                      | n.r.         | n.r.                        | n.r.                    | Yes                  | Yes                  | Yes                  | M          |
| Suffolk                   | Westhampton Island Westhampton Beach                    | 125              | 6/05        | 22                  | 44                      | 6.1          | n.r.                        | n.r.                    | Yes                  | Yes                  | Yes                  | P          |
| Suffolk                   | Whites Beach  | 29               | 6/08        | 0                   | 0                       | 0.7          | n.r.                        |                         | No                   | No                   | No                   | n.r.       |
| Suffolk                   | Wooley Pond   | 90               | 6/05        | 0                   | 0                       | 0.5          | n.r.                        |                         | No                   | Yes                  | Yes                  | P          |
| Suffolk                   | Youngs Island   | 23               | 6/08        | 1                   | 2                       | 4.8          | n.r.                        | n.r.                    | No                   | Yes                  | Yes                  | M          |
| <b>Total</b>              |   |                  |             | <b>420</b>          | <b>852</b>              | <b>336.8</b> |                             |                         |                      |                      |                      |            |

# The 2006 International Piping Plover Breeding Census in New Jersey

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Todd Pover  
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A total of 209 adult Piping Plovers were counted in New Jersey during the 1-9 June Census period using International Census methodology (provided by USGS). This represents an 8% decrease from the 2001 Census total of 228 adult Piping Plovers.

Of the 209 adults observed during the 2006 survey, 84 pairs were recorded according to the survey protocol for determining pairs. As a result of intensive monitoring at New Jersey breeding sites (on average at least 3 visits to each site per week), we know that the strict parameters for determining pairs during the International Census greatly underestimates the actual number of pairs present in the area during the Census period. Based on intensive monitoring, we believe that there were 102 pairs in New Jersey at the time of the Census.

A total of 55 sites were surveyed during the Census period. Piping Plovers were present at 22 (40%) of the sites that were surveyed. All known (active) nesting sites were surveyed. In addition, surveys were conducted at any sites where Piping Plovers have nested since being federally listed in 1986, any new suitable habitat resulting from beach replenishment projects or natural forces, and areas in close proximity to major nesting sites (even if they have not historically had birds present). No Piping Plovers were found during the Census, except at sites where we already knew them to be present, based on our regular monitoring. At one site (Strathmere Natural Area) plovers were not detected during the Census although they were known to be present and began laying eggs at the site two days after the Census period ended.

The majority of the sites surveyed in New Jersey were along the Atlantic Ocean beach strand, although a small number of sites along the Raritan Bay and the Delaware Bay were also surveyed. The Raritan Bay sites (8) had not been surveyed in any previous International Piping Plover Census.

Six sites were surveyed twice during the Census period as part of the detectability study. Of those sites, 4 had Piping Plovers present. In the cases where birds were present, the number of birds varied slightly between the two surveys. Specifically, one less bird was found at each of the sites during the second survey. In reporting the total number of adults surveyed during the Census period, the results of the first survey were used.

## Comparison of Census Numbers

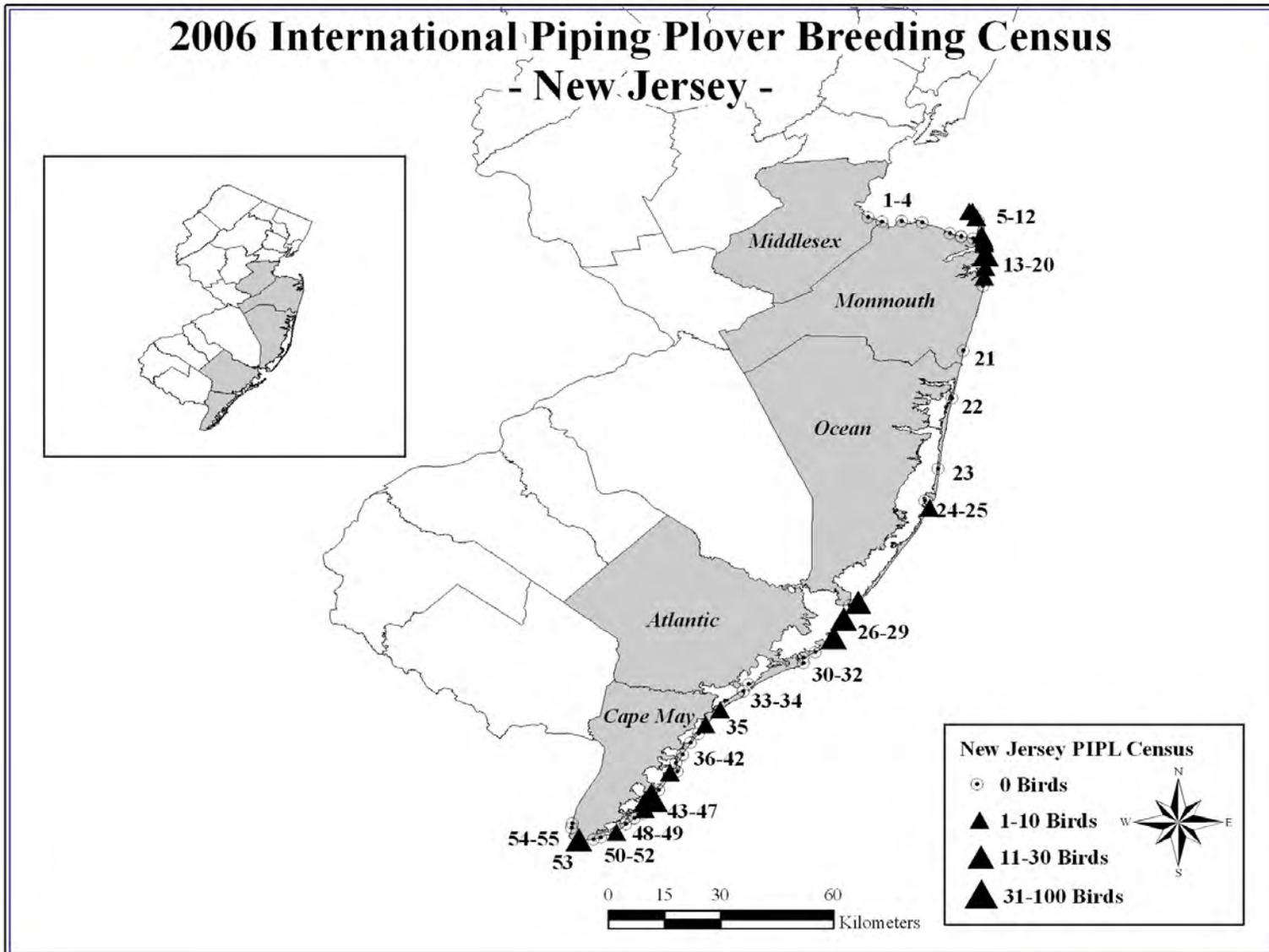
|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 280  | 209  | 228  | 209 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

**Detectability Study**

| Sites Included                          | First Count | Second Count |
|---|-------------|--------------|
| North Brigantine Natural Area           | 15          | 14           |
| Ocean City Center (18th St. - 59th St.) | 9           | 8            |
| Wildwood Crest                          | 0           | 0            |
| Sea Isle City North, 30th to 1st        | 0           | 0            |
| Critical Zone - Sandy Hook NRA          | 7           | 6            |
| Hidden - Sandy Hook                     | 5           | 4            |

# 2006 International Piping Plover Breeding Census - New Jersey -



## The 2006 International Piping Plover Breeding Census in New Jersey

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION       | PIPL<br>HABITAT     | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---|----------|------|-------------|-----------------|-----|---------------------------|---------------------|--------------|--------------|--------------|------|
| Atlantic          | Atlantic City - Inlet                                   | 32       | 6/5  | 0           | 0               | 0.6 | I C 1 1 3                 |                     | No           | No           | No           | m    |
| Atlantic          | Brigantine Beach South                                  | 30       | 6/7  | 0           | 0               | 6.4 | I C 1 3 1 3               |                     | Yes          | Yes          | Yes          | m    |
| Atlantic          | Brigantine Cove   | 31       | 6/7  | 0           | 0               | 0.6 | I C 1                     |                     | Yes          | Yes          | Yes          | m    |
| Atlantic          | Little Beach Unit- Forsythe NWR                         | 28       | 6/14 | 8           | 20              | 3.3 | I C 1 4 1 5 1 6           | I C 1 4 1 5         | Yes          | Yes          | Yes          | f    |
| Atlantic          | North Brigantine Natural Area                           | 29       | 6/8  | 6           | 15              | 5.4 | I C 1 4 1 3               | C 1 4               | Yes          | Yes          | Yes          | s(p) |
| Atlantic          | Seaview Harbor Marina                                   | 33       | 6/2  | 0           | 0               | 0.5 | I C 1 3 1 3               |                     | No           | No           | No           | p    |
| Cape May          | 2 Mile Beach  | 50       | 6/1  | 1           | 2               | 1.9 | I C 1 4                   | I C 1 4             | Yes          | Yes          | Yes          | f    |
| Cape May          | Avalon (north), 30th St. to<br>Townsend's Inlet         | 41       | 6/6  | 0           | 0               | 2.4 | I B 1 3                   |                     | Yes          | Yes          | Yes          | m    |
| Cape May          | Avalon Dunes (32nd St. - 60th St.)                      | 42       | 6/6  | 2           | 5               | 2.5 | I B 3 1 3                 | I B 3               | Yes          | Yes          | Yes          | m    |
| Cape May          | Cape May City   | 52       | 6/8  | 0           | 0               | 4.1 | I B 1 3 1 3               |                     | Yes          | Yes          | Yes          | m    |
| Cape May          | Cape May Meadows (Migratory<br>Bird Refuge)             | 53       | 6/8  | 6           | 13              | 2.4 | I VIII A B 1 3 1 3        | I B 1 1 3           | Yes          | Yes          | Yes          | s(p) |
| Cape May          | Champagne Island - Hereford Inlet                       | 45       | 6/4  | 1           | 4               | 0.5 | I II A G 1 3 1 3          | II G 1 3            | No           | No           | No           | m    |
| Cape May          | Corson's Inlet State Park                               | 35       | 6/5  | 2           | 4               | 2.2 | I VIII C 1 3 1 3          | I C 1               | Yes          | Yes          | Yes          | s(p) |
| Cape May          | Ferry Beach   | 55       | 6/8  | 0           | 0               | 1.7 | I B 1 3 1 3               |                     | No           | No           | Yes          | m    |
| Cape May          | Higbee Beach/Sunset Beach                               | 54       | 6/8  | 0           | 0               | 4.4 | I B 1 3 1 3               |                     | Yes          | Yes          | Yes          | s/m  |
| Cape May          | North Wildwood-Hereford Inlet                           | 46       | 6/4  | 2           | 6               | 0.8 | I VIII C 1 3 1 3          | I VIII C 1 3        | Yes          | Yes          | Yes          | m    |
| Cape May          | North Wildwood Ocean Front                              | 47       | 6/7  | 0           | 0               | 2.1 |                           |                     |              |              |              |      |
| Cape May          | Ocean City Center (18th St. - 59th<br>St.)              | 35       | 6/5  | 3           | 9               | 7.5 | I C 1 3 1 3               | I C 1 3             | Yes          | Yes          | Yes          | m    |
| Cape May          | Ocean City North  | 34       | 6/2  | 0           | 0               | 1.0 | I C 1 3                   |                     | Yes          | Yes          | Yes          | m    |
| Cape May          | Sea Isle City North, 30th to 1st                        | 38       | 6/4  | 0           | 0               | 3.4 | I C 1 3 1 3               |                     | Yes          | Yes          | Yes          | m    |
| Cape May          | Sea Isle City South                                     | 39       | 6/7  | 0           | 0               | 4.3 | I C 1 3 1 3               |                     | Yes          | Yes          | Yes          | m    |
| Cape May          | Stone Harbor (center), 104th St. to<br>70th St., Avalon | 43       | 6/6  | 0           | 0               | 3.8 | I C 1 3 1 3               |                     | Yes          | Yes          | Yes          | m    |
| Cape May          | Stone Harbor Point                                      | 44       | 6/6  | 10          | 34              | 1.0 | I II VIII C 1 3 1 2<br>13 | I II VIII C 1<br>12 | Yes          | Yes          | Yes          | m    |
| Cape May          | Strathmere/Whale Beach                                  | 37       | 6/4  | 0           | 0               | 2.9 | I C 1 3 1 3               |                     | Yes          | Yes          | Yes          | s/m  |
| Cape May          | Townsend's Inlet  | 40       | 6/7  | 0           | 0               | 0.6 | I C 1 1 3 1 3             |                     | Yes          | Yes          | Yes          | m    |
| Cape May          | USCG-Training Center/Poverty                            | 51       | 6/3  | 0           | 0               | 1.8 | I B 1 3 1 3               |                     | Yes          | Yes          | Yes          | f    |
| Cape May          | Wildwood  | 48       | 6/7  | 0           | 0               | 2.6 | I C 1 3 1 3               |                     | No           | No           | No           | m    |

**The 2006 International Piping Plover Breeding Census in New Jersey  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT   | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|-----------------------------|----------|------|-------------|-----------------|--------------|---------------------|-------------------|--------------|--------------|--------------|------|
| Cape May          | Wildwood Crest              | 49       | 6/7  | 0           | 0               | 2.6          | I C 1 3 13          |                   | No           | No           | No           | m    |
| Middlesex         | Laurence Harbor             | 1        | 6/09 | 0           | 0               | 2.2          | II A 1 3 13         |                   | No           | No           | No           | m    |
| Monmouth          | Atlantic Highlands          | 8        | 6/09 | 0           | 0               | 0.5          | II A 1 3            |                   | No           | No           | No           | m    |
| Monmouth          | Cliffwood                   | 2        | 6/09 | 0           | 0               | 0.9          | II A 1 3 13         |                   | No           | No           | No           | m    |
| Monmouth          | Critical Zone - Sandy Hook  | 13       | 6/07 | 3           | 7               | 0.5          | I B I 1 3 13        | I B1 3            | Yes          | Yes          | Yes          | f    |
| Monmouth          | Earle-east                  | 5        | 6/09 | 0           | 0               | 1.3          | II A 1 3            |                   | No           | No           | No           | m    |
| Monmouth          | Earle-west                  | 6        | 6/09 | 0           | 0               | 0.3          | II A 1 3 13         |                   | No           | No           | No           | m    |
| Monmouth          | Fee - Sandy Hook            | 14       | 6/07 | 4           | 8               | 0.4          | I B 1               | I B1 3            | No           | No           | Yes          | f    |
| Monmouth          | Hidden - Sandy Hook         | 15       | 6/07 | 2           | 5               | 0.6          | I B 1 3             | I B1              | No           | No           | Yes          | f    |
| Monmouth          | Keansburg                   | 4        | 6/09 | 0           | 0               | 3.4          | II A 1 3            |                   | No           | No           | No           | m    |
| Monmouth          | Leonardo                    | 7        | 6/08 | 0           | 0               | 0.9          | II A 1 3            |                   | No           | No           | No           | m    |
| Monmouth          | Long Branch                 | 20       | 6/05 | 0           | 0               | 3.9          | I A 1               |                   | No           | No           | Yes          | m    |
| Monmouth          | Monmouth Beach              | 18       | 6/08 | 2           | 4               | 2.6          | I A 1 3 13          | I A 1             | No           | Yes          | Yes          | m    |
| Monmouth          | North Beach - Sandy Hook    | 9        | 6/07 | 4           | 8               | 1.7          | I B 1 3 4 13        | I B1 3            | Yes          | Yes          | Yes          | f    |
| Monmouth          | North Gunnison - Sandy Hook | 11       | 6/07 | 4           | 8               | 0.7          | I B 1 3 13          | I B1 3            | Yes          | Yes          | Yes          | f    |
| Monmouth          | Sea Bright                  | 17       | 6/08 | 5           | 11              | 5.5          | I A 1 3 13          | I A 1             | No           | Yes          | Yes          | m    |
| Monmouth          | Sea Girt                    | 21       | 6/05 | 0           | 0               | 1.4          | I A 1 3 15          |                   | No           | Yes          | Yes          | m    |
| Monmouth          | Seven Presidents Park       | 19       | 6/06 | 2           | 2               | 1.3          | I A 1 3 15          | I A 1             | No           | Yes          | Yes          | m    |
| Monmouth          | South Fee – Sandy Hook      | 16       | 6/07 | 1           | 2               | 0.2          | I B 1 1 3           | I B1              | No           | No           | Yes          | f    |
| Monmouth          | South Gunnison - Sandy Hook | 12       | 6/07 | 0           | 0               | 1.1          | I B 1 3 4 13        |                   | Yes          | Yes          | Yes          | f    |
| Monmouth          | Union Beach                 | 3        | 6/09 | 0           | 0               | 1.0          | II A 1 3 13         |                   | No           | No           | No           | m    |
| Monmouth          | USCG - Sandy Hook           | 10       | 6/07 | 4           | 8               | 0.6          | I B 1 3 13          | I B1 3            | Yes          | Yes          | Yes          | f    |
| Ocean             | Barnegat Light              | 25       | 6/04 | 3           | 5               | 2.0          | I C 1 3 13          |                   | Yes          | Yes          | Yes          | s/m  |
| Ocean             | High Bar Harbor             | 24       | 6/01 | 0           | 0               | 1.4          | II C D 2 13         |                   | No           | No           | No           | s(p) |
| Ocean             | Holgate Unit - Forsythe NWR | 26       | 6/13 | 9           | 29              | 3.5          | I C 1 2 4 15 16     | I B1 2 3 15<br>16 | Yes          | Yes          | Yes          | f    |
| Ocean             | Island Beach State Park     | 23       | 6/07 | 0           | 0               | 10.5         | I VIII C 1 2 3 13   |                   | Yes          | Yes          | Yes          | s(p) |
| Ocean             | Mantoloking                 | 22       | 6/09 | 0           | 0               | 3.5          | I C 1 3 13          |                   | Yes          | Yes          | Yes          | m    |
| Ocean             | Tucker's Island             | 27       | 6/13 | 0           | 0               | 0.3          | II G 6 12           |                   | Yes          | Yes          | No           | n.r. |
| <b>Total</b>      |                             |          |      | <b>84</b>   | <b>209</b>      | <b>125.5</b> |                     |                   |              |              |              |      |

# **The 2006 International Piping Plover Breeding Census in Delaware**

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The 2006 International Piping Plover Census in Delaware was conducted by 2 participants from the Delaware Natural Heritage and Endangered Species Program who surveyed 12 sites and counted 18 Piping Plovers. The number of plovers observed has risen slowly but steadily since previous censuses.

There are two Piping Plover nesting sites currently known for the state of Delaware. Both of these sites are located within the boundaries of Cape Henlopen State Park. Plovers have not nested elsewhere in Delaware since 2002. Along with the suitable habitat at Cape Henlopen State Park, parts of the potential habitat at the 2002 site (Delaware Seashore State Park – Key Box Road to Tower Road) are symbolically fenced by the end of March. Fencing stays in place throughout the plover breeding season.

All state owned ocean beach properties as well as one on the southern Delaware Bayshore (Beach Plum Island Nature Preserve) were surveyed periodically from April to June. Piping Plovers are not usually observed further north on the Delaware Bay from this point. Additionally, two municipally owned ocean beaches were surveyed in 2006. These beaches are not typically surveyed due to lack of nesting habitat. However, these beaches were replenished in winter of 2006 and could now

support beach-nesting birds. No nesting was observed at the nourished beaches in 2006.

Virtually all of the ocean beaches not censused during the June Piping Plover Census are built up with housing and other construction right up to the primary dune. The beach in front of the primary dune in these areas is heavily used by the public and affords no suitable nesting habitat. The inland bays in Delaware south of Cape Henlopen State Park lack the open, sandy beaches that make for suitable nesting habitat for Piping Plovers. Hence, all known suitable habitat for Piping Plovers was censused in 2006. Although various uncensused beaches will continue to be spot-checked, it is unlikely that large areas of suitable habitat have gone unnoticed.

As is the case with most rare or threatened wildlife, habitat loss and degradation is likely the strongest limiting factor on Piping Plover numbers in Delaware. As noted above, beaches not in state ownership are highly developed. Also, of the state-owned beaches, Only Cape Henlopen and Beach Plum Island have both open water front beaches and protected back beaches or mudflats that are available to nesting plovers. This mix of both kinds of beach seems to contribute to a mosaic of nesting and feeding opportunities that are crucial to the successful rearing of chicks in the Mid-Atlantic area. In areas where there does seem to be the requisite mix of habitats, predators may be playing a role in limiting the increase of Piping Plover numbers in Delaware.

As the lead agency in monitoring and protecting Piping Plovers in Delaware, the Natural Heritage and Endangered Species Program will continue to work to increase Piping Plover productivity and overall numbers in our state. We greatly appreciate the support of federal agencies in this effort and also look forward to contributing to future Piping Plover Censuses. We feel that range wide censuses do help to

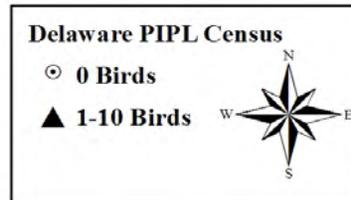
give the conservation community as a whole a needed yardstick to gauge how the species is responding to protection efforts.

### **Comparison of Census Numbers**

|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 4    | 8    | 10   | 18 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

# 2006 International Piping Plover Breeding Census - Delaware -



## The 2006 International Piping Plover Breeding Census in Delaware

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM          | SITE<br>DESCRIPTION      | PIPL<br>HABITAT    | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|-------------|--------------------------|--------------------|--------------|--------------|--------------|------|
| Sussex            | Beach Plum Island Nature Preserve                                  | 1        | 6/07 | 0           | 0               | 3.2         | II B 1 5                 |                    | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Cape Henlopen S.P. (Gordon's Pond to Herring Point)                | 4        | 6/01 | 4           | 8               | 2.4         | I VIII A 1 4 16          | D 4 16             | No           | Yes          | Yes          | s(p) |
| Sussex            | Cape Henlopen S.P. (Herring Point to Ocean Side Point Crossing)    | 3        | 6/08 | 0           | 0               | 3.2         | I A 1                    |                    | No           | Yes          | Yes          | s(p) |
| Sussex            | Cape Henlopen S.P. (Ocean Side Point Crossing to Fishing Pier)     | 2        | 6/08 | 5           | 10              | 2.7         | I II A D 1 3 4 5 6<br>12 | I II A D 3<br>4 12 | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Delaware Seashore S.P. (3R's Road to Indian River Inlet)           | 11       | 6/09 | 0           | 0               | 1.6         | I A 1                    |                    | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Delaware Seashore S.P. (Conquest Road to Coast Guard Station)      | 9        | 6/09 | 0           | 0               | 1.9         | I A 1 4                  |                    | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Delaware Seashore S.P. (Indian River Inlet to Coast Guard Station) | 10       | 6/04 | 0           | 0               | 2.7         | I A 1 5                  |                    | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Delaware Seashore S.P. (Key Box Road to Conquest Road)             | 8        | 6/08 | 0           | 0               | 1.6         | I A 1 4                  |                    | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Delaware Seashore S.P. (Tower Road to Key Box Road)                | 7        | 6/01 | 0           | 0               | 1.8         | I A 1 4                  |                    | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Dewey Beach  | 6        | 6/01 | 0           | 0               | 1.5         | I A 1                    |                    | No           | No           | No           | m    |
| Sussex            | Fenwick Island S.P. (bathhouse to York Beach)                      | 12       | 6/09 | 0           | 0               | 4.2         | I A 1                    |                    | Yes          | Yes          | Yes          | s(p) |
| Sussex            | Rehoboth Beach   | 5        | 6/04 | 0           | 0               | 1.8         | I A 1                    |                    | No           | Yes          | Yes          | m    |
| <b>Total</b>      |  |          |      | <b>9</b>    | <b>18</b>       | <b>28.6</b> |                          |                    |              |              |              |      |

# The 2006 International Piping Plover Breeding Census in Maryland

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Assateague Island was the only known breeding site for Piping Plover within the state of Maryland during the 2006 breeding season.

The density of nesting plovers, along with their overlapping forage and avoidance behaviors, do not permit a timely, systematic census of nesting pairs. However, a population census was conducted along the length of Assateague Island, Maryland during the census window. In addition, monitoring of plover breeding activity before and after the census permitted observers to estimate the number of pairs with nests or broods during that time period.

The census in Maryland occurred on 6-7 June. A total of 167 adult Piping Plovers were observed by census staff.

The possibility exists that some remote or obscure habitat may have harbored additional birds that were not observed or counted, but there is also a possibility that as census observers proceeded along the island, some counted plovers may have flown in front of the observers resulting in double counts. Irregularities may also occur due to migrants.

The Maryland population breeds at a high density along one section of island. Nests are often placed in close proximity to each other. Some nesting birds are difficult to observe due

to an encroachment of vegetation throughout the habitat. Birds also often move long distances and commingle on foraging habitat. It is not possible to differentiate "breeding pairs" during the Census in Maryland, so we settle on documented nesting pairs. Based on consistent monitoring methods, it is estimated that the Maryland plover population consisted of approximately 64 nesting pairs. This estimate assumes that all nests were found, and that any re-nesting activity was correctly identified and was between the same bonded birds. These assumptions are consistent with historic methodologies, but are subject to increasing error since the ability to observe plovers has dropped.

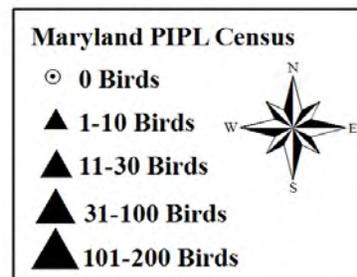
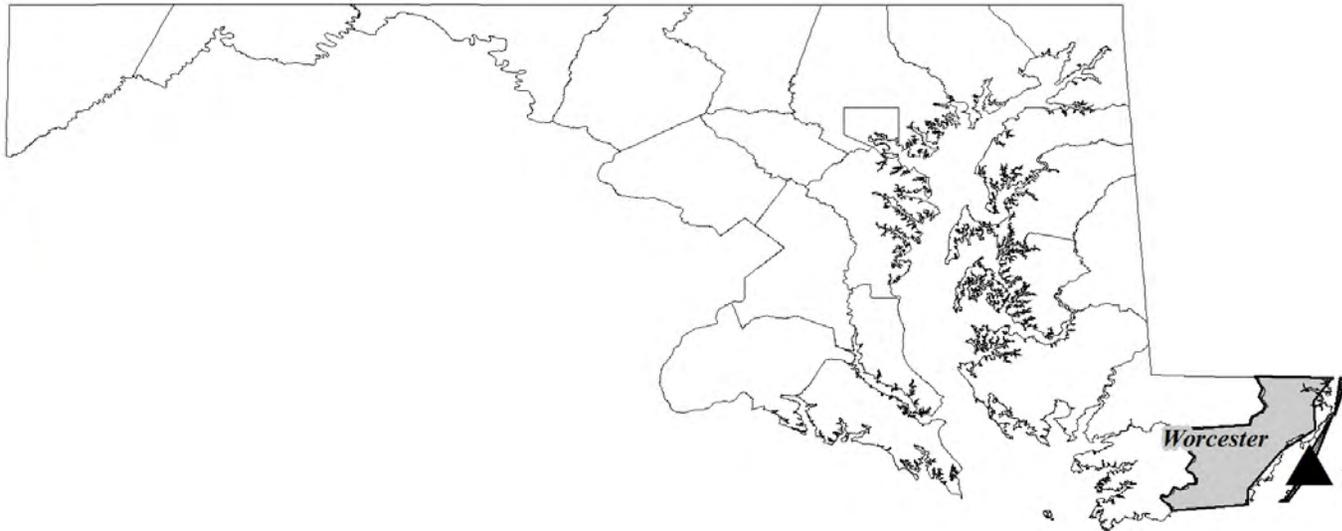
With the degradation of habitat (due to lack of overwash which is an essential element of habitat here) there has been a number of non-breeding birds hanging out here during the breeding season. How to handle their count has been unanswered. They are counted during the census, since they share foraging habitat with the breeding birds. In addition, some of the breeding birds are in dense vegetation unlike any other plover breeding site, and they are very difficult to observe during a census, even with line transects and observers spaced 50 meters apart.

## Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 35   | 155  | 112  | 167 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

## 2006 International Piping Plover Breeding Census - Maryland -



## The 2006 International Piping Plover Breeding Census in Maryland

| COUNTY/<br>REGION | SITE NAME                              | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|-------------------|--|----------|------|-------------|-----------------|-------------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Worcester         | Assateague Island National<br>Seashore | 1        | 6/06 | 64          | 167             | 20.0        | I B 1 1 1           | I B 1 1 1       | Yes          | Yes          | Yes          | f   |
| <b>Total</b>      |  |          |      | <b>64</b>   | <b>167</b>      | <b>20.0</b> |                     |                 |              |              |              |     |

# The 2006 International Piping Plover Breeding Census in Virginia

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The 2006 census was a thorough effort, covering 100% of known Piping Plover sites and 100% of known suitable habitat. No attempt was made to survey unknown areas that may contain suitable habitat on the western shore of the Chesapeake Bay largely because no breeding activity has been recorded at known western shore sites (i.e., Craney Island and Grandview Beach) since 1997. Moreover, Plum Tree Island NWR, located north of Grandview Beach, which has been surveyed annually since 2001 has had no breeding pair occurrences indicating that plovers no longer breed west of Virginia's Eastern Shore. Wise Point, a stretch of beach owned and managed by Eastern Shore of Virginia NWR on the lower eastern shore of the Chesapeake Bay, has been surveyed annually for Piping Plovers since 2002 and represents the only new site added to the 2006 breeding census.

During the 1991 census, a total of 270 individuals were counted on 14/18 sites surveyed. In 1996, the total number of individuals observed on 12/20 sites dropped to 155, a 43% decrease from 1991 (assuming uniform coverage of individual sites between years). In 2001, a total of 198 individuals were counted on 6/21 sites surveyed, which represents a 28% increase over the 1996 total and a 27% decrease from the 1991 total. In 2006, the census resulted in a total of 305 adults observed at 12/21 sites surveyed, the highest

number of individuals counted during a census year. Of the 21 sites censused in 2006, four were not covered in 1991; Dawson Shoals (.74 km in length), Little Cobb Island (.97 km in length), Wise Point (2.7 km) and Plum Tree Island NWR (3.8 km in length). Wise Point and Plum Tree Island NWR were not surveyed in 1996 and Wise Point was the only site not surveyed in 2001. For purposes of this report, the number and treatment of aforementioned census sites varied slightly among the four census years. In 1991, 1996, 2001, and 2006, Assateague Island's Wild Beach, Wash Flats, Overwash, and Hook were considered one site as were the north and south halves of Metompkin Island even though in some years they were surveyed on separate days. In 1991, 1996 and 2001, Cedar Sandbar and Cedar Island were deemed as two separate sites even though in 2001 they formed one barrier island, and Back Bay National Wildlife Refuge and False Cape State Park were reported as two individual sites despite the fact that they encompass a contiguous stretch of mainland beach. In this report, we consider Cedar Sandbar and Cedar Island as one site and refer to it as it North Cedar Island and renamed the section of Cedar Island south of an existing breach as South Cedar Island and consider it a separate site. Moreover, we combined Back Bay National Wildlife Refuge and False Cape State Park into one site and added the Wise Point site, which was not covered in any of the previous censuses.

From 1986-2003, Virginia's breeding population remained relatively stable with an annual average of approximately 100 pairs. In the 2004 the number of pairs increased to 152 and in 2005 the number rose to 192 pairs (both totals represent end-of-season estimates). Although this year's statewide end-of-season pair total is still pending, census results suggest that it will be very close to last year's total. Because Piping Plovers are known to breed at one year of age and exhibit high site fidelity to the region from which they originated, these

annual population increases may be the result of several years of high productivity (i.e., 1.93 chicks per pair in 2003, 2.23 chicks per pair in 2004 and 1.52 chicks per pair in 2005).

The northern barrier islands (Assateague – Cedar Islands) continue to support the majority of Virginia’s breeding population while the occurrence of breeding plovers on the southern barrier islands has fluctuated over time. From 1986 – 1996, the number of breeding pairs on the southern islands ranged from 13 to 30. From 1997 – 2003, the numbers dropped to less than 10 pairs. Reasons for the decline may have included a decrease in suitable nesting habitat because of beach erosion and encroaching vegetation, less foraging habitat relative to the northern islands, and high densities of mammalian predators (primarily raccoons) on some of the islands such as Parramore, Hog and Smith Islands. The number of breeding pairs on the lower islands started to increase (11 pairs in 2004, 23 pairs in 2005 and approximately 36 pairs in 2006) after Hurricane Isabel struck the mid-Atlantic coast in the fall of 2003. The storm scoured many of the barrier islands and created washovers and shellflats that afforded plover broods unimpeded access to backside foraging areas. The increase in suitable habitat along with on-going mammalian predator management efforts and a spike in the breeding population following several years of high productivity may have contributed to the increase in breeding activity on the lower islands.

I believe the census results adequately reflect the actual Piping Plover population in Virginia for reasons stated above.

Some of the known factors affecting Piping Plovers in Virginia include nest/chick depredation by raccoons, foxes, gulls and other avian species; loss of nests as a result of ocean overwash during years with severe storms; and varying degrees of human disturbance,

especially at sites on the western shore of the Chesapeake Bay where breeding activity has been nonexistent since 1997. The level of human disturbance on Virginia’s barrier islands remains minimal compared to major plover breeding areas in other states, as such it is difficult to determine the overall impact human disturbance has on the state’s breeding population.

**Comparison of Census Numbers**

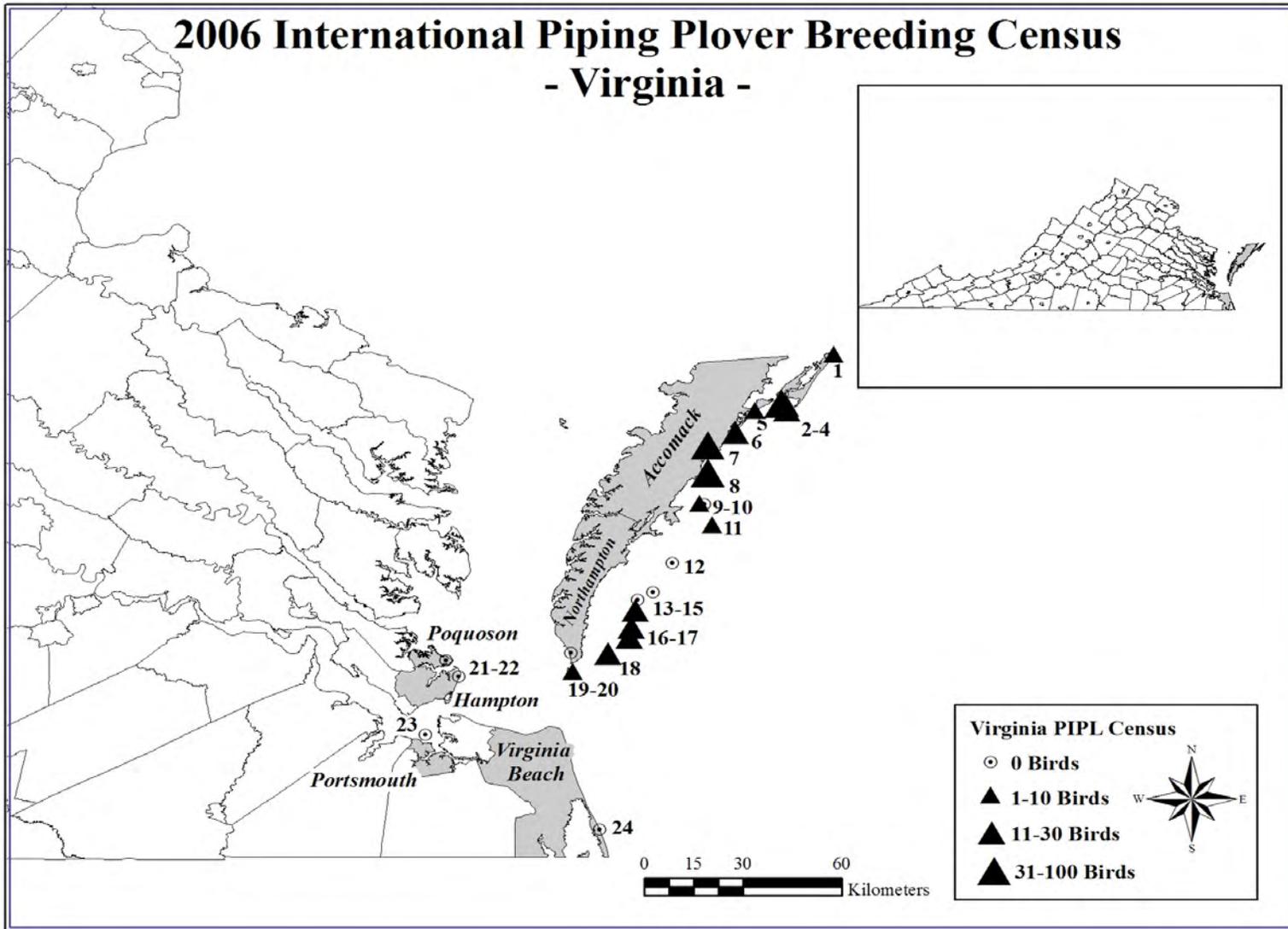
|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 270  | 155  | 198  | 305 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

**Detectability Study**

| Sites Included                | First Count | Second Count |
|-------------------------------|-------------|--------------|
| Hook, Assateague Island       | 35          | 37           |
| Overwash, Assateague Island   | 11          | 13           |
| Parramore                     | 2           | 0            |
| Wild Beach, Assateague Island | 3           | 5            |

# 2006 International Piping Plover Breeding Census - Virginia -



## The 2006 International Piping Plover Breeding Census in Virginia

| COUNTY/<br>REGION | SITE NAME                               | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM           | SITE<br>DESCRIPTION                          | PIPL<br>HABITAT             | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN      |
|-------------------|---|----------|------|-------------|------------------------|--------------|--|-----------------------------|--------------|--------------|--------------|----------|
| Accomack          | Assawoman                               | 6        | 6/5  | 17          | 25                     | 8.1          | IC 1 3 4 5 12 15                             |                             | Yes          | Yes          | Yes          | f        |
| Accomack          | Dawson Shoals                           | 9        | 6/7  | 0           | 0                      | 1.2          | II 15 16                                     |                             | No           | Yes          | Yes          | p        |
| Accomack          | Hook, Assateague Island                 | 3        | 6/8  | 19          | 37                     | 3.6          | IBC 1 2 3 12 15                              |                             | Yes          | Yes          | Yes          | f        |
| Accomack          | Metompkin Island                        | 7        | 6/8  | 38          | 85                     | 17.7         | IC 1 3 4 5 12 15                             | IC 1 3 4 5<br>12 13 15      | Yes          | Yes          | Yes          | f/p      |
| Accomack          | North Cedar Island                      | 8        | 6/8  | 27          | 54                     | 16.3         | IC 1 3 4 5 12 13 15                          | IC 1 3 4 5<br>12 13 15      | Yes          | Yes          | Yes          | s(p)/f/p |
| Accomack          | North Wash Flats, Assateague<br>Island  | 4        | 6/3  | 8           | 16                     | 2.8          | IC 16  |                             | Yes          | Yes          | Yes          | f        |
| Accomack          | Overwash, Assateague Island             | 2        | 6/8  | 7           | 13                     | 3.6          | II B C 1 3 4 5 15                            |                             | Yes          | Yes          | Yes          | f        |
| Accomack          | Parramore Island                        | 11       | 6/7  | 1           | 2                      | 23.1         | IC 1 2 3 4 13 15                             | IC 4<br>IC 1 3 4 5<br>12 15 | Yes          | Yes          | Yes          | p        |
| Accomack          | South Cedar Island                      | 10       | 6/5  | 2           | 4                      | 4.4          | IC 1 3 4 5 12 15                             | 12 15                       | Yes          | Yes          | Yes          | f/p      |
| Accomack          | Wallops Island                          | 5        | 6/8  | 1           | 4                      | 3.1          | IC 1   |                             | Yes          | Yes          | Yes          | f        |
| Accomack          | Wild Beach, Assateague Island           | 1        | 6/9  | 4           | 5                      | 10.9         | IBC 1 3 5 13                                 |                             | Yes          | Yes          | Yes          | f        |
| Hampton           | Grandview Beach                         | 22       | 6/8  | 0           | 0                      | 3.0          | II III A 1 4                                 |                             | Yes          | Yes          | Yes          | m        |
| Northampton       | Cobb Island                             | 13       | 6/7  | 0           | 0                      | 15.3         | IC 1 3 4 5 13 15                             |                             | Yes          | Yes          | Yes          | p        |
| Northampton       | Fisherman Island                        | 19       | 6/8  | 1           | 3                      | 9.5          | II C 1 2 3 5                                 | IC 5 12                     | No           | No           | Yes          | f        |
| Northampton       | Hog Island                              | 12       | 6/9  | 0           | 0                      | 23.7         | IC 1 3 4 5 13 15                             |                             | Yes          | Yes          | Yes          | p        |
| Northampton       | Little Cobb Island                      | 14       | 6/7  | 0           | 0                      | 1.0          | IC 1 3 4 5 13 15                             |                             | Yes          | Yes          | Yes          | p        |
| Northampton       | Myrtle Island                           | 17       | 6/1  | 6           | 12                     | 3.7          | IC 1 4 13 15 16                              | IC 1 4 16                   | Yes          | Yes          | Yes          | p        |
| Northampton       | Ship Shoal Island                       | 16       | 6/1  | 10          | 15                     | 4.6          | IC 1 2 4 5 12 15 16                          | IC 5 12 16                  | Yes          | Yes          | Yes          | p        |
| Northampton       | Smith Island                            | 18       | 6/1  | 10          | 23                     | 1.3          | IC 1 4 13 15 16                              | IC 1 4 16                   | Yes          | Yes          | Yes          | p        |
| Northampton       | Wise Point                              | 20       | 6/9  | 0           | 0                      | 2.7          | II A 1 2 3<br>IC 1 2 3 4 5 12 13<br>14 15 16 |                             | No           | No           | No           | s(p)/f   |
| Northampton       | Wreck Island                            | 15       | 6/4  | 6           | 13                     | 9.2          | 14 15 16                                     | IC 2 4                      | Yes          | Yes          | Yes          | s(p)     |
| Poquoson          | Plum Tree Island NWR                    | 21       | 6/7  | 0           | 0                      | 4.0          | II III A D 1 4                               |                             | No           | No           | Yes          | f        |
| Portsmouth        | Craney Island                           | 23       | 6/1  | 0           | 0                      | 16.0         | VIII E 1 16                                  |                             | Yes          | Yes          | Yes          | f        |
| Virginia<br>Beach | Back Bay NWR & False Cape<br>State Park | 24       | 6/6  | 0           | 0                      | 10.5         | IB 1 3                                       |                             | Yes          | Yes          | Yes          | s(p)/f   |
| <b>Total</b>      |   |          |      | <b>157</b>  | <b>311<sup>1</sup></b> | <b>155.6</b> |  |                             |              |              |              |          |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

## **The 2006 International Piping Plover Breeding Census in North Carolina**

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The 2006 International Breeding Piping Plover Census in North Carolina was largely complete with all known sites and most suitable habitats surveyed. A total of approximately 352 km of shoreline was surveyed by 29 participants during the census window.

Carolina Beach has been surveyed in past years, but was missed this year. I do not believe any nesting plover were overlooked at this site as there have been no known breeding attempts by Piping Plovers at Carolina Beach. Furthermore the site is unsuitable for nesting because of the high level of recreational activity including beach driving. Two sites were surveyed outside of the census window in mid-June. Figure Eight Island was surveyed on June 13<sup>th</sup> and Currituck NWR was surveyed on June 22<sup>nd</sup>. Brown's Island was surveyed for the first time during the census window this year. Brown's Island is part of Camp Lejeune Marine Base and is difficult to access. While no Piping Plovers were found at the site this year, suitable habitat exists and every effort should be made to survey the site in future years.

Numbers are up considerably from the 2001 International Census and also up from earlier census years. A total of 87 birds were counted during the window; an increase of over 80% from the 2001 tally of 48 birds. North Carolina had been experiencing a population decline

since the late 1990s, but in 2005 the population began to increase. The increase is due in part to changes in habitat and predator populations as a result of Hurricane Isabel which struck North Carolina's coast in 2003. Since then, we have gained recruits from neighboring states and reproductive success on our beaches has increased.

Results from the census window count slightly underestimate the actual breeding population in NC. I believe our final season count of 96 birds (46 pairs) more accurately reflects North Carolina's population. The census window may be a bit early for North Carolina. North Carolina plovers appear to initiate nesting later than states to the north and we almost always count additional pairs after the census window.

Availability of habitat (both gains and losses), predation and human disturbance are the most important factors impacting Piping Plover numbers in North Carolina. In 2003 Hurricane Isabel created new foraging and nesting habitat on portions of Cape Lookout and Cape Hatteras National Seashores. This has undoubtedly contributed to the increase in numbers we've witnessed in recent years. At the same time, plovers continue to be absent from former nesting areas in the northern and southern most counties in North Carolina. In southern counties there has been a loss of habitat to development and associated beach stabilization. In recent years this has occurred on almost all accreting inlet spits. Beaches in northernmost Currituck County have become very vegetated and now have extremely high levels of human disturbance including ORV traffic. Human disturbance and increased predation has greatly reduced the quality of habitat at many nesting sites in North Carolina. Mammalian predators are the biggest concern, but avian predators and ghost crabs also take eggs and chicks.

### Comparison of Census Numbers

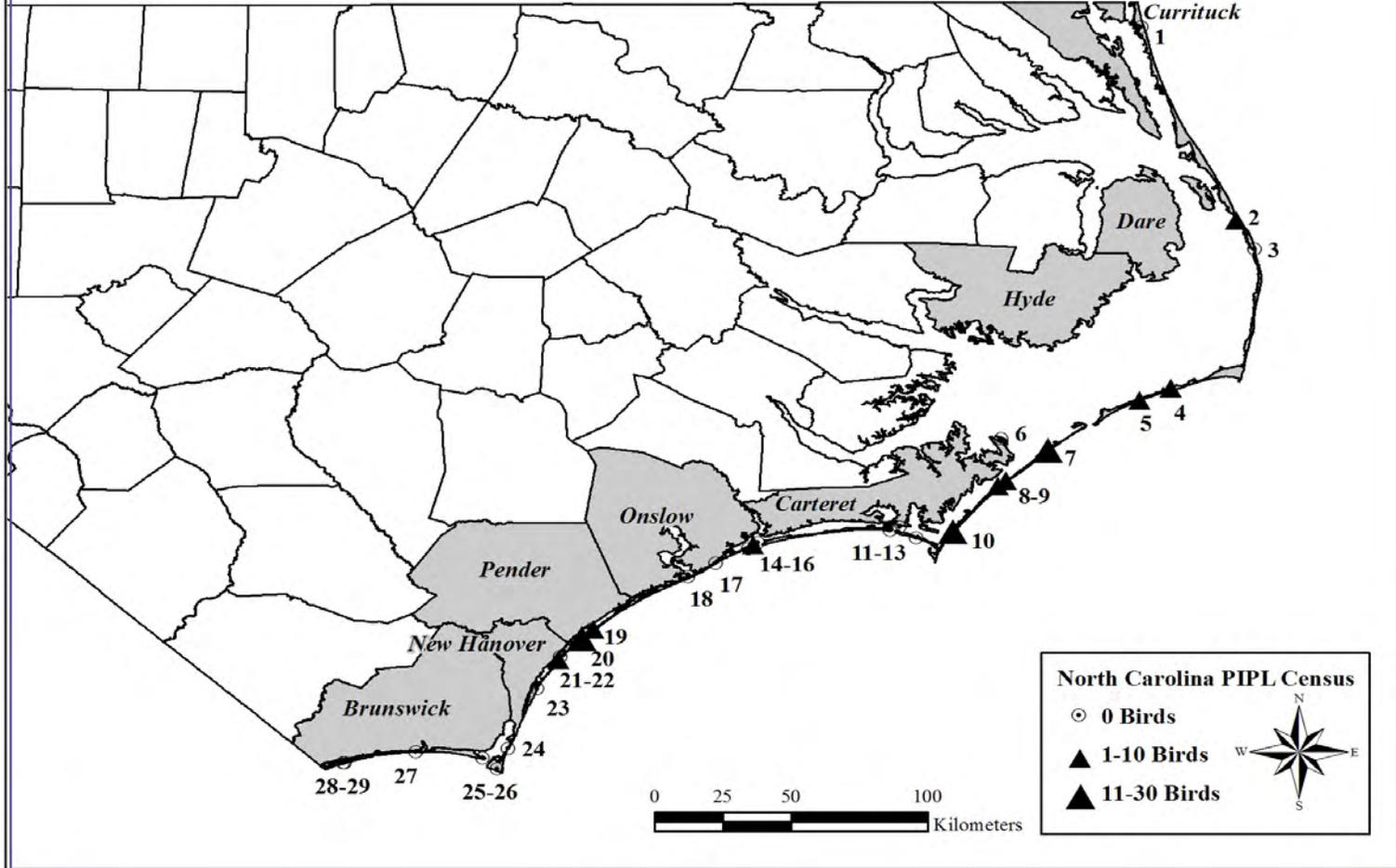
|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 86   | 73   | 48   | 87 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study

| Sites Included                          | First Count | Second Count |
|---|-------------|--------------|
| Fort Macon State Park                   | 0           | 0            |
| North Core Banks<br>(Portsmouth Island) | 14          | 16           |

## 2006 International Piping Plover Breeding Census - North Carolina -



## The 2006 International Piping Plover Breeding Census in North Carolina

| COUNTY/<br>REGION   | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION         | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|---------------------|--|----------|------|-------------|-----------------|------|-----------------------------|-----------------|--------------|--------------|--------------|-------|
| Brunswick           | Bald Head Island   | 25       | 6/7  | 0           | 0               | 9.7  | I III C 1 3 4 6             |                 | Yes          | Yes          | Yes          | s/p   |
| Brunswick           | Bird Island & Sunset Beach                                     | 28       | 6/6  | 0           | 0               | 4.4  | I II VIII C D 1             |                 | Yes          | Yes          | Yes          | p     |
| Brunswick           | Holden Beach   | 27       | 6/6  | 0           | 0               | 2.8  | I II VIII C 1               |                 | Yes          | Yes          | Yes          | p     |
| Brunswick           | Oak Island (Long Beach)  | 26       | 6/6  | 0           | 0               | 3.2  | I VIII C 1                  |                 | Yes          | Yes          | Yes          | p     |
| Brunswick           | Ocean Isle Beach   | 29       | 6/6  | 0           | 0               | 2.4  | I II VIII C D 1             |                 | Yes          | Yes          | Yes          | p     |
| Carteret            | Cape Lookout N.S.; Middle Core Banks (north of New Drum Inlet) | 8        | 6/1  | 4           | 8               | 4.8  | I II C 1 3 4 12             | II C 4 12       | Yes          | Yes          | Yes          | f     |
| Carteret            | Cape Lookout N.S.; N Core Banks (Portsmouth Island)            | 7        | 6/12 | 8           | 16              | 30.6 | I II C 1 3 4 12             | I C 4           | Yes          | Yes          | Yes          | f     |
| Carteret            | Cape Lookout N.S.; Ophelia Island                              | 9        | 6/1  | 2           | 4               | 1.2  | I II C 1 3 4 12             | I II C 4 12     | Yes          | Yes          | Yes          | f     |
| Carteret            | Cape Lookout N.S.; S Core Banks                                | 10       | 6/6  | 15          | 30              | 38.7 | I II C 1 3 4 6 12           | I II C 4        | Yes          | Yes          | Yes          | f     |
| Carteret            | Cape Lookout N.S.; Shackleford Banks                           | 11       | 6/1  | 0           | 0               | 14.5 | I II C 1 2 3 12             |                 | Yes          | Yes          | Yes          | f     |
| Carteret            | Cedar Island NWR   | 6        | 6/6  | 0           | 0               | 11.3 | II D 1                      |                 | Yes          | No           | Yes          | f/p   |
| Carteret            | Fort Macon State Park  | 13       | 6/2  | 0           | 0               | 3.2  | I II C 1                    |                 | Yes          | Yes          | Yes          | s(p)  |
| Carteret            | Rachel Carson Estuarine Research Reserve (Bird Shoal)          | 12       | 6/9  | 0           | 0               | 6.5  | II B E G 1 2 3 4<br>6 12 15 |                 | Yes          | Yes          | Yes          | s(p)  |
| Carteret/<br>Onslow | Bogue Inlet Island Complex (including emerald Isle- west end)  | 14       | 6/1  | 0           | 0               | 4.0  | I II VIII C 1 6             |                 | Yes          | Yes          | Yes          | s/p   |
| Currituck           | Noth of Corolla  | 1        | 6/22 | 0           | 0               | 12.9 | I B 1 3 4 5                 |                 | Yes          | Yes          | Yes          | f/s/p |
| Dare                | Cape Hatteras N.S.; Cape Point to Hatteras Inlet               | 4        | 6/9  | 3           | 6               | 27.4 | I VIII C 1 3                |                 | Yes          | Yes          | Yes          | f     |
| Dare                | Cape Hatteras N.S.; Bodie Island and Rodanthe to Buxton        | 2        | 6/4  | 0           | 1               | 48.5 | I II C 1 2 4 12             | II C 4          | Yes          | Yes          | Yes          | f     |
| Dare                | Pea Island NWR   | 3        | 6/6  | 0           | 0               | 20.2 | I II C 1 2 3 4              |                 | Yes          | Yes          | Yes          | f     |
| Hyde                | Cape Hatteras N.S.; Ocracoke Island                            | 5        | 6/9  | 1           | 5               | 27.4 | I II B C 1 2 4 12           | II C 12         | Yes          | Yes          | Yes          | f     |
| New<br>Hanover      | Figure Eight Island  | 21       | 6/13 | 0           | 0               | 8.9  | I II C 1 6 12               |                 | Yes          | Yes          | Yes          | f/p   |
| New<br>Hanover      | Fort Fisher SRA  | 24       | 6/7  | 0           | 0               | 9.7  | I II C 1 4 5 12             |                 | Yes          | Yes          | Yes          | s/p   |
| New<br>Hanover      | Masonboro Island   | 23       | 6/9  | 0           | 0               | 12.8 | I II C 1 3 4 6 12           |                 | Yes          | Yes          | Yes          | s(p)  |

## The 2006 International Piping Plover Breeding Census in North Carolina (Continued)

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS       | KM           | SITE<br>DESCRIPTION                  | PIPL<br>HABITAT   | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|-------------------|---|----------|------|-------------|-----------------------|--------------|--------------------------------------|-------------------|--------------|--------------|--------------|-------|
| New<br>Hanover    | Wrightsville Beach  | 22       | 6/7  | 0           | 1                     | 2.4          | I II C 1 3 12                        | I C 1             | No           | Yes          | Yes          | s/m/p |
| Onslow            | Hammocks Beach State Park; E<br>end Bear Island                 | 15       | 6/1  | 1           | 3                     | 0.8          | I II C 1                             | I C 1             | Yes          | Yes          | Yes          | s(p)  |
| Onslow            | Hammocks Beach State Park;<br>ocean front and W end Bear Island | 16       | 6/7  | 0           | 0                     | 5.6          | I C 1                                |                   | Yes          | Yes          | Yes          | s(p)  |
| Onslow            | Onslow Beach & Brown's Island;<br>Camp Lejune Marine Corps Base | 17       | 6/6  | 0           | 0                     | 17.7         | I C 1 2 4 12 16<br>I II C 1 3 4 5 12 |                   | No           | No           | No           | f     |
| Pender            | Lea & Hutaff Islands  | 20       | 6/7  | 5           | 11                    | 3.9          | 13 15                                | I C 1 4           | Yes          | Yes          | Yes          | m     |
| Pender            | N Topsail Beach; New River Inlet                                | 18       | 6/2  | 0           | 0                     | 0.8          | I VIII C 1                           |                   | Yes          | Yes          | Yes          | p     |
| Pender            | S Topsail Beach; New Topsail<br>Inlet                           | 19       | 6/2  | 2           | 4                     | 2.0          | I II VIII C D 1 4<br>5               | II VIII C<br>D1 5 | Yes          | Yes          | Yes          | p     |
| <b>Total</b>      |   |          |      | <b>41</b>   | <b>89<sup>1</sup></b> | <b>338.3</b> |                                      |                   |              |              |              |       |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# **The 2006 International Piping Plover Breeding Census at Great Lakes sites in Michigan, Wisconsin, Illinois, Indiana, Ohio, Pennsylvania, and New York**

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The 2006 International Piping Plover Breeding Census in the U.S. Great Lakes was completed during the 3 June to 16 June census period. Surveys of known and/or potential breeding habitat for the Great Lakes population of the Piping Plover (*Charadrius melodus*) covered a seven state area that included Michigan, Wisconsin, Illinois, Indiana, Ohio, Pennsylvania and New York. A total of 70 coastal sites were visited one or more times, including 55 sites in Michigan. Some areas were reported as a single site in 2006 but were broken down into two or more sites in 2001; hence, although the number of sites reported in 2001 was greater, we surveyed more shoreline in 2006. Sites selected for survey in Michigan and Wisconsin were based primarily on the results of the 2001 International Piping Plover Breeding Census. These sites included nearly all of the currently known breeding locations in the U.S. Great Lakes. Some sites surveyed in 2001 were not

included in the 2006 census due to lack of access, or the current lack of habitat. Alternately, a small number of new sites were added to the effort in 2006 as a result of recent observations of Piping Plover presence.

Census locations selected for survey in the other five Great Lakes states were based primarily on designated critical habitat areas (USFWS May 7, 2001). These sites are generally considered the best potential Piping Plover habitat outside their current range in Michigan and Wisconsin.

A total of 45 pairs of Piping Plovers were observed in the U.S. Great Lakes during the census period. The 45 breeding pairs recorded in 2006 represent a 55% increase from the 2001 survey results of 29 breeding pairs. Of these 45 pairs, 4 were recorded in Wisconsin, with the remainder in Michigan. No observations of Piping Plovers were recorded for the other five states.

The number of Piping Plovers tallied for 2006 International Breeding Census varied significantly, however, from the number recorded during the annual monitoring program in the Great Lakes. Annual monitoring efforts reported a total of 53 breeding pairs. This tally is the result of intense survey efforts and nearly daily monitoring of active breeding locations. The discrepancy in the number of Piping Plovers counted in 2006 may have been due to weather conditions during the census period or movement patterns of birds. As many of the observers who participated in the International Census, were the same as those employed for the seasonal monitoring program, observer bias is not a likely cause of the discrepancy.

Water levels in the Great Lakes over the past few years continue to be below long-term averages. Although this provides for expanded shoreline areas and, therefore, greater amounts of potential Piping Plover nesting habitat, continually low lake levels are resulting in

vegetative changes which may reduce plover breeding habitat quality. Management at some of these sites may be necessary in the future to maintain optimal nesting conditions.

**Comparison of Census Numbers - Michigan**

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 39   | 47   | 65   | 101 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

**Detectability Study - Michigan**

| Sites Included  | First Count | Second Count |
|---|-------------|--------------|
| Sturgeon Point  | 0           | 0            |
| Grand Marais (East Bay)                               | 4           | 4            |
| Big Charity Island                                    | 0           | 0            |
| Platte Point/Mouth of Platte River <sup>1</sup>       | 8           | 9            |
| Fisherman's Island State Park                         | 0           | 0            |
| North Point   | 0           | 0            |
| Bliss Township Beach                                  | 0           | 1            |
| Cross Villiage Central                                | 0           | 0            |
| Cross Villiage North                                  | 3           | 2            |
| Cross Villiage South                                  | 0           | 0            |
| Sturgeon Bay, Wilderness State Park                   | 5           | 4            |
| Temperance Island, Wilderness State Park              | 0           | 0            |
| Thorn Swift Nature Preserve                           | 0           | 0            |
| Waugoshance Island, Wilderness State Park             | 0           | 0            |
| Waugoshance Point, Wilderness State Park <sup>1</sup> | 2           | 2            |
| Au Sable River Mouth/Lake Huron Beach                 | 0           | 0            |
| Dimmick's Point, North Manitou Island                 | 27          | 26           |
| Donner's Point, North Manitou Island                  | 0           | 0            |
| Leelanau State Park                                   | 0           | 0            |
| South Manitou Island                                  | 0           | 0            |
| Muskegon South - City Beach                           | 0           | 0            |

**Detectability Study – Michigan con't**

| Sites Included              | First Count | Second Count |
|-----------------------------|-------------|--------------|
| Muskegon State Park (North) | 0           | 0            |
| Ottawa Beach and Macatawa   | 0           | 0            |

<sup>1</sup>This site was not officially selected for the detectability study.

**Comparison of Census Numbers - Wisconsin**

|              | 1991 | 1996 | 2001 | 2006           |
|--------------|------|------|------|----------------|
| Total Adults | 1    | 0    | 6    | 8 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

**Detectability Study - Wisconsin**

| Sites Included              | First Count | Second Count |
|-----------------------------|-------------|--------------|
| Wisconsin Point             | 0           | 0            |
| Point Beach                 | 0           | 0            |
| Seagull Bar (Marinette)     | 0           | 0            |
| Harrington Beach State Park | 0           | 0            |
| Kohler-Andrae State Park    | 0           | 0            |

**Comparison of Census Numbers – Other States**

|              | 1991 | 1996 | 2001 | 2006 |
|--------------|------|------|------|------|
| Total Adults | n.a. | n.a. | 0    | 0    |

**Detectability Study – Other States**

| Sites Included                          | First Count | Second Count |
|---|-------------|--------------|
| Illinois Critical Habitat Units (all 5) | 0           | 0            |
| Indiana Dunes Natinal Lakeshore         | 0           | 0            |



## The 2006 International Piping Plover Breeding Census in Michigan

| COUNTY/<br>REGION | SITE NAME                                    | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION                 | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|--|----------|------|-------------|-----------------|------|-------------------------------------|-----------------|--------------|--------------|--------------|--------|
| Alcoma            | Harrisville State Park                       | 52       | 6/06 | 0           | 0               | 0.8  | V VIII A 1                          |                 | Yes          | Yes          | Yes          | s(p)   |
| Alcoma            | Sturgeon Point                               | 51       | 6/06 | 0           | 0               | 1.6  | V VIII A 1 15                       |                 | Yes          | Yes          | Yes          | s(p)   |
| Alger             | 12 Mile Beach to Beaver Creek                | 2        | 6/11 | 0           | 0               | 8.1  | V A 1 7                             |                 | No           | Yes          | Yes          | n.r.   |
| Alger             | Au Train River Mouth                         | 1        | 6/11 | 0           | 0               | 3.2  | V A 1 3 7                           |                 | No           | No           | Yes          | n.r.   |
| Alger             | Grand Marais (East Bay)                      | 5        | n.r. | 2           | 4               | 3.2  | n.r.                                | n.r.            | Yes          | Yes          | Yes          | p      |
| Alger             | Grand Marais (West Bay)                      | 4        | n.r. | 0           | 0               | 2.4  | n.r.                                | n.r.            | Yes          | Yes          | Yes          | f/p    |
| Alger             | Hurricane River to 12 Mile Beach<br>CG       | 3        | 6/11 | 0           | 0               | 4.0  | V A 1 7                             |                 | No           | Yes          | Yes          | n.r.   |
| Arenac            | Big Charity Island                           | 54       | n.r. | 0           | 0               | n.r. | n.r.                                |                 | No           | Yes          | Yes          | f/p    |
| Arenac            | Little Charity Island                        | 55       | 6/06 | 0           | 0               | 1.0  | V G 3 8 12                          |                 | No           | Yes          | No           | f      |
| Benzie            | Elberta Beach                                | 38       | 6/12 | 0           | 0               | 1.6  | 1                                   |                 | No           | Yes          | Yes          | m      |
| Benzie            | Platte Point/Mouth of Platte River           | 36       | 6/14 | 4           | 9               | 13.7 | II V A D 1                          | V D 1           | Yes          | Yes          | Yes          | f      |
| Benzie            | Point Betsie                                 | 37       | 6/12 | 0           | 0               | 2.4  | V A 1 7                             |                 | No           | Yes          | Yes          | p      |
| Berrian           | New Buffalo Harbor                           | 44       | 6/11 | 0           | 0               | 1.2  | II V A 1                            |                 | No           | Yes          | Yes          | m      |
| Charlevoix        | Bonner's Bluff/Landing, Beaver<br>Island     | 15       | 6/12 | 0           | 0               | 1.0  | V VIII I 1 3 7                      |                 | No           | Yes          | Yes          | s(p)/p |
| Charlevoix        | Donegal Bay/McCauley Point,<br>Beaver Island | 14       | 6/09 | 0           | 0               | 3.2  | V I 1 2 3 7 12 15                   |                 | Yes          | Yes          | Yes          | s(p)/p |
| Charlevoix        | Fisherman's Island State Park                | 30       | 6/07 | 0           | 0               | 1.4  | V VIII A 1 12                       |                 | Yes          | Yes          | Yes          | s(p)   |
| Charlevoix        | High Island (NE spit and W side)             | 12       | n.r. | 1           | 2               | 2.6  | V G 1 2 7                           |                 | Yes          | Yes          | Yes          | s(p)   |
| Charlevoix        | McFaddin Pt./Green's bay, Beaver<br>Island   | 16       | 6/12 | 0           | 0               | 2.2  | V VIII I 1 2 3 15                   |                 | Yes          | Yes          | Yes          | s(p)/p |
| Charlevoix        | North Point                                  | 29       | 6/07 | 0           | 0               | 1.0  | V A 1 7                             |                 | Yes          | Yes          | Yes          | s(p)/p |
| Charlevoix        | Point Lookout, Beaver Island                 | 13       | 6/09 | 0           | 0               | 1.0  | V VIII I 1 3                        |                 | No           | Yes          | Yes          | p      |
| Cheboygan         | Cheboygan State Park                         | 47       | 6/05 | 0           | 0               | 0.2  | II V VIII A 1 12<br>V VIII A 1 2 10 |                 | Yes          | Yes          | Yes          | s(p)   |
| Cheboygan         | Grass Bay                                    | 48       | 6/05 | 0           | 0               | 6.5  | 11                                  |                 | No           | Yes          | Yes          | s(p)/p |
| Chippewa          | De Tour Beach                                | 46       | 6/15 | 0           | 2               | 3.2  | V A 1 8 12                          | V A 1 12        | No           | Yes          | Yes          | s(p)   |
| Chippewa          | De Tour Township                             | 45       | 6/15 | 0           | 0               | 3.2  | V A 1 8 12                          |                 | No           | Yes          | Yes          | p      |
| Chippewa          | Vermilion Beach & Weatherhogs                | 8        | 6/01 | 0           | 0               | 2.0  | V VIII A 1                          |                 | Yes          | Yes          | Yes          | p      |
| Delta             | Indian Point, E side                         | 9        | 6/07 | 2           | 4               | 3.6  | A 1 11 12                           | 1               | No           | No           | No           | f/p    |
| Emmet             | Bliss Township Beach                         | 23       | 6/10 | 0           | 1               | 2.7  | V A 1                               | V A 1           | No           | No           | Yes          | s(p)/m |

**The 2006 International Piping Plover Breeding Census in Michigan  
(Continued)**

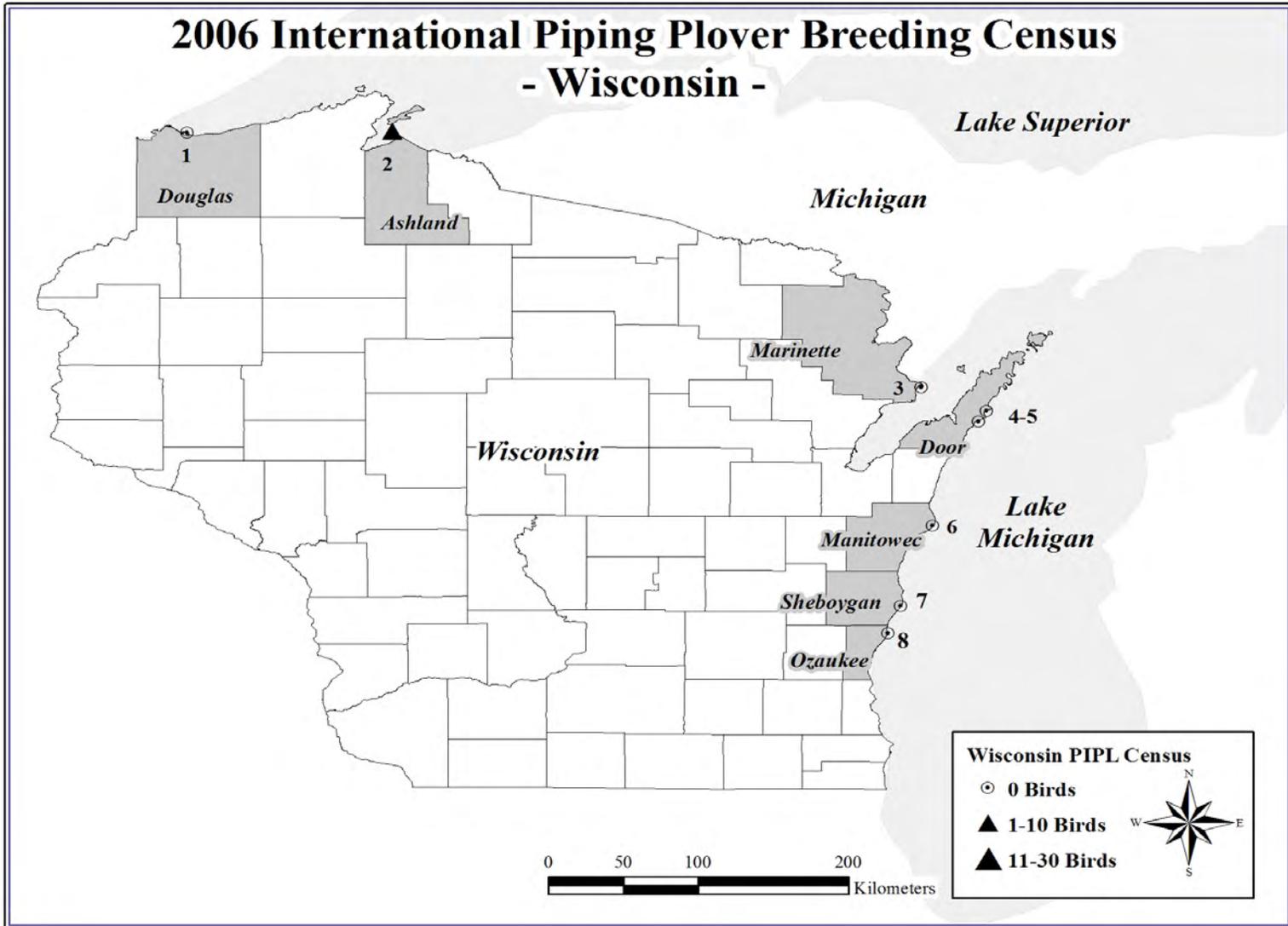
| COUNTY/<br>REGION | SITE NAME                                    | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION             | PIPL<br>HABITAT         | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|------|---------------------------------|-------------------------|--------------|--------------|--------------|------|
| Emmet             | Cross Village Central                        | 25       | 6/09 | 0           | 0               | 2.7  | V A 1                           |                         | Yes          | Yes          | Yes          | p    |
| Emmet             | Cross Village North                          | 24       | 6/05 | 1           | 3               | 1.8  | V A 1                           |                         | Yes          | Yes          | Yes          | p    |
| Emmet             | Cross Village South                          | 26       | 6/09 | 0           | 0               | 3.2  | V A 1                           |                         | Yes          | Yes          | Yes          | p    |
| Emmet             | Petoskey State Park                          | 28       | 6/05 | 0           | 0               | 0.8  | V A D 1 3 8 15                  |                         | No           | Yes          | Yes          | s(p) |
| Emmet             | Sturgeon Bay, Wilderness State<br>Park       | 22       | 6/05 | 2           | 5               | 4.0  | VIII A 1 3 12                   |                         | Yes          | Yes          | Yes          | s(p) |
| Emmet             | Temperance Island                            | 20       | 6/08 | 0           | 0               | 4.8  | V A 7                           |                         | No           | Yes          | Yes          | s(p) |
| Emmet             | Thorn Swift Nature Preserve                  | 27       | 6/09 | 0           | 0               | 0.4  | V A 1 7                         |                         | No           | Yes          | Yes          | p    |
| Emmet             | Waugoshance Island, Wilderness<br>State Park | 19       | 6/10 | 0           | 0               | 1.6  | V C 6 7 11                      |                         | Yes          | No           | Yes          | s(p) |
| Emmet             | Waugoshance Point, Wilderness<br>State Park  | 21       | 6/08 | 1           | 2               | 11.3 | V A 7                           |                         | Yes          | Yes          | Yes          | s(p) |
| Iosco             | Au Sable River Mouth/Lake<br>Huron Beach     | 53       | 6/06 | 0           | 0               | 2.4  | V VIII A 1                      |                         | No           | Yes          | Yes          | s(p) |
| Leelanau          | Dimmick's Point (North Manitou<br>Island)    | 32       | 6/07 | 12          | 27              | 3.2  | II V I 1 8 15                   | V G 1 8                 | Yes          | Yes          | Yes          | f    |
| Leelanau          | Donnor's Point                               | 33       | 6/06 | 0           | 0               | 2.4  | II V I 1 15                     |                         | No           | Yes          | Yes          | f    |
| Leelanau          | Leelanau State Park                          | 31       | 6/18 | 0           | 0               | 12.9 | V I 1 2 3                       |                         | Yes          | Yes          | Yes          | s(p) |
| Leelanau          | Sleeping Bear Point/ Glen Haven              | 35       | 6/09 | 6           | 10              | 11.3 | V A D 1 3                       |                         | No           | No           | No           | f    |
| Leelanau          | South Manitou Island                         | 34       | 6/12 | 0           | 0               | 11.3 | V G 1                           |                         | Yes          | Yes          | Yes          | f    |
| Luce              | Deer Park                                    | 7        | 6/14 | 0           | 0               | 8.1  | V A 1 7                         |                         | Yes          | Yes          | Yes          | s(p) |
| Luce              | Lake Superior State Forest<br>Campground     | 6        | 6/14 | 0           | 0               | 8.1  | V A 1 7                         |                         | No           | Yes          | Yes          | s(p) |
| Mackinac          | Brevort River Mouth                          | 17       | 6/15 | 2           | 4               | 7.3  | V A 1 2                         | V A 2                   | No           | No           | No           | f    |
| Mackinac          | Pt. Aux Chenes                               | 18       | 6/14 | 5           | 11              | 3.2  | V A C 1 5 7<br>V VIII A 1 3 4 7 | V A C 1 5<br>V VIII A 1 | Yes          | Yes          | Yes          | f/p  |
| Mason             | Ludington State Park                         | 40       | 6/11 | 6           | 17              | 14.5 | 12 15                           | 3 7 12 15               | Yes          | Yes          | Yes          | s(p) |
| Mason             | Nordhouse Dunes Wilderness                   | 39       | 6/12 | 1           | 2               | 8.1  | V A 1 3 11                      | V A 1                   | No           | No           | No           | f    |
| Muskegan          | Muskegan South - City Beach                  | 42       | 6/10 | 0           | 0               | 2.4  | V A 1                           |                         | Yes          | No           | Yes          | m    |
| Muskegan          | Muskegon State Park (North)                  | 41       | 6/10 | 0           | 0               | 4.0  | V A 1                           |                         | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census in Michigan  
(Continued)**

| <b>COUNTY/<br/>REGION</b> | <b>SITE NAME</b>            | <b>MAP<br/>#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b>    | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|---------------------------|-----------------------------|------------------|-------------|---------------------|-------------------------|--------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| Ottawa/<br>Allegan        | Ottawa Beach & Macatawa     | 43               | 6/13        | 0                   | 0                       | 2.8          | V A 1                       |                         | Yes                  | Yes                  | Yes                  | s(p)       |
| Presque Isle              | Black Point/Thompson Harbor | 50               | 6/12        | 0                   | 0                       | 1.6          | V VIII A 7                  |                         | No                   | Yes                  | Yes                  | s(p)       |
| Presque Isle              | Hofft State Park            | 49               | 6/05        | 0                   | 0                       | 3.2          | V VIII A 1 14               |                         | No                   | No                   | Yes                  | s(p)       |
| Schoolcraft               | Manistique River Mouth      | 10               | 6/07        | 0                   | 0                       | 0.6          | V A 1 13                    |                         | Yes                  | Yes                  | Yes                  | s(p)       |
| Schoolcraft               | Seul Choix Point            | 11               | 6/07        | 0                   | 0                       | 0.8          | V A 15                      |                         | No                   | Yes                  | Yes                  | p          |
| <b>Total</b>              |                             |                  |             | <b>41</b>           | <b>103<sup>1</sup></b>  | <b>214.4</b> |                             |                         |                      |                      |                      |            |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site. In addition to the sites specifically selected for the detectability study, we received data from two surveys at Platte Point/Mouth of Platte River and report the higher number of birds seen (9 birds vs. 8 seen on 6/6)

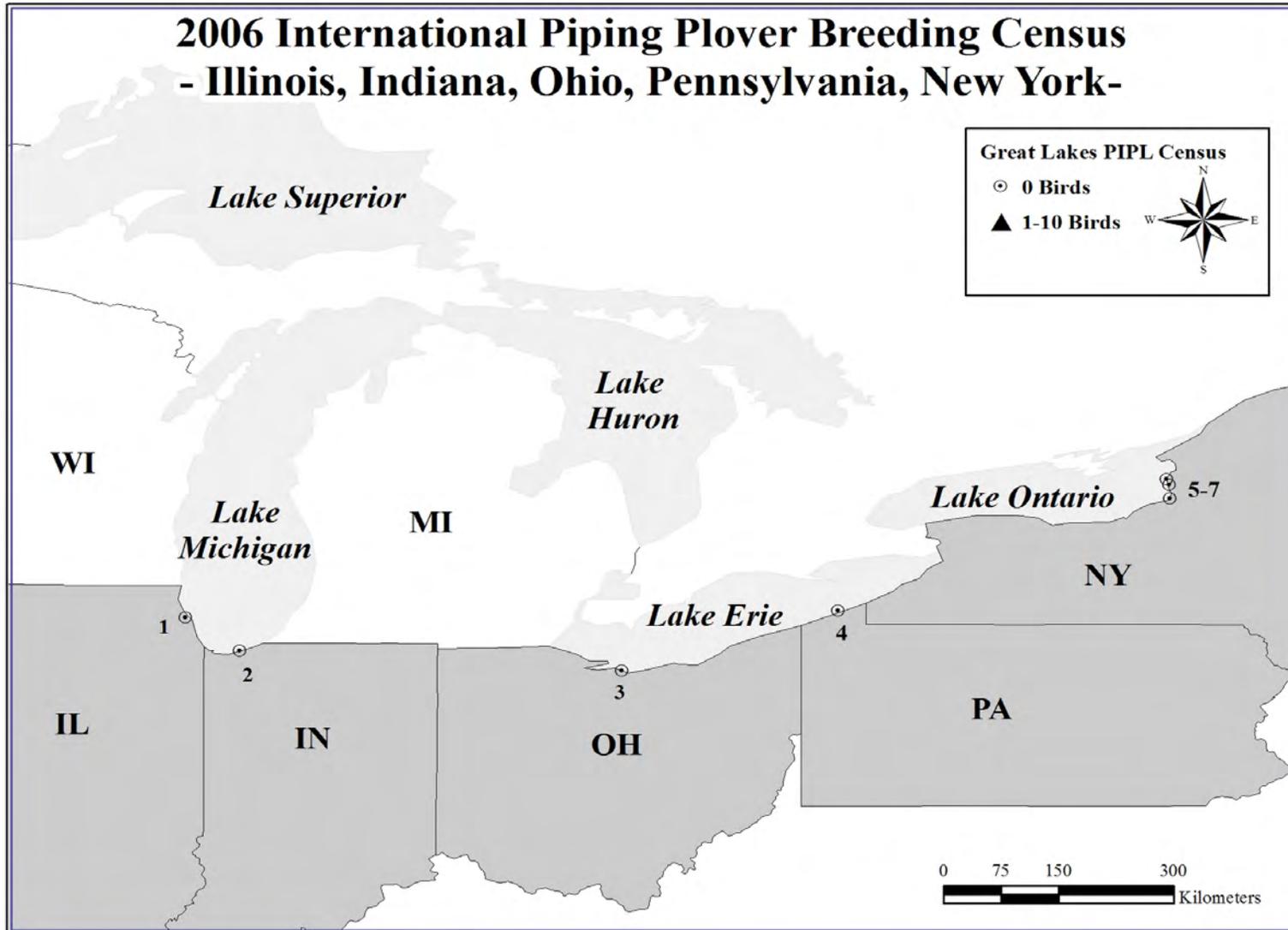
## 2006 International Piping Plover Breeding Census - Wisconsin -



## The 2006 International Piping Plover Breeding Census in Wisconsin

| COUNTY/<br>REGION | SITE NAME                   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|-----------------------------|----------|------|-------------|-----------------|-------------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Ashland           | Long Island (sand cut)      | 2        | n.r. | 4           | 8               | 9.7         | n.r.                | n.r.            | Yes          | Yes          | Yes          | f      |
| Door              | Lilly Bay                   | 5        | n.r. | 0           | 0               | 1.6         | n.r.                |                 | Yes          | Yes          | Yes          | s(p)/p |
| Door              | Whitefish Dunes State Park  | 4        | n.r. | 0           | 0               | 1.6         | n.r.                |                 | Yes          | Yes          | Yes          | s(p)/p |
| Douglas           | Wisconsin Point             | 1        | n.r. | 0           | 0               | 6.0         | n.r.                |                 | Yes          | Yes          | Yes          | m      |
| Manitowoc         | Point Beach                 | 6        | n.r. | 0           | 0               | 3.7         | n.r.                |                 | Yes          | Yes          | Yes          | s(p)   |
| Marinette         | Seagull Bar (Marinette)     | 3        | 6/12 | 0           | 0               | 2.1         | V A 1 7 12          |                 | Yes          | Yes          | Yes          | s(p)/m |
| Ozaukee           | Harrington Beach State Park | 8        | n.r. | 0           | 0               | 1.6         | n.r.                |                 | Yes          | Yes          | Yes          | s(p)   |
| Sheboygan         | Kohler-Andrae State Park    | 7        | n.r. | 0           | 0               | 3.2         | n.r.                |                 | Yes          | Yes          | Yes          | s(p)   |
| <b>Total</b>      |                             |          |      | <b>4</b>    | <b>8</b>        | <b>29.6</b> |                     |                 |              |              |              |        |

# 2006 International Piping Plover Breeding Census - Illinois, Indiana, Ohio, Pennsylvania, New York-



**The 2006 International Piping Plover Breeding Census at other Great Lakes sites in  
Illinois, Indiana, Ohio, Pennsylvania, and New York**

| <b>STATE</b> | <b>SITE NAME</b>                             | <b>MAP<br/>#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b>   | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|--------------|--|------------------|-------------|---------------------|-------------------------|-------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| IL           | Illinois Critical Habitat Units (all 5)      | 1                | 6/08        | 0                   | 0                       | 14.9        | V A I 1 3 12                |                         | No                   | No                   | Yes                  | s(p)       |
| IN           | Indiana Dunes Natinal Lakeshore              | 2                | 6/06        | 0                   | 0                       | 3.2         | V A 1                       |                         | No                   | No                   | Yes                  | f/s(p)     |
| NY           | Eastern Lake Ontario Dune System -<br>Zone 1 | 7                | 6/07        | 0                   | 0                       | 8.9         | V A                         |                         | No                   | No                   | Yes                  | s(p)/p     |
| NY           | Eastern Lake Ontario Dune System -<br>Zone 2 | 6                | 6/07        | 0                   | 0                       | 6.5         | V A B 1 7                   |                         | No                   | No                   | Yes                  | s(p)/p     |
| NY           | Eastern Lake Ontario Dune System -<br>Zone 3 | 5                | 6/13        | 0                   | 0                       | 8.9         | II V A B 1 7                |                         | No                   | No                   | Yes                  | s(p)/p     |
| OH           | Sheldon Marsh State Nature Preserve          | 3                | 6/03        | 0                   | 0                       | 2.0         | VIII B 1 2 12               |                         | No                   | No                   | Yes                  | s(p)       |
| PA           | Presque Isle State Park                      | 4                | 6/11        | 0                   | 0                       | 6.0         | V B 1 2 3 7 14              |                         | No                   | No                   | Yes                  | s(p)       |
| <b>Total</b> |  |                  |             | <b>0</b>            | <b>0</b>                | <b>18.1</b> |                             |                         |                      |                      |                      |            |

# The 2006 International Piping Plover Breeding Census in Ontario

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An intensive survey of former breeding locations of the Piping Plover in Ontario was conducted during 2006 as part of the International Piping Plover Census. Former and potential breeding locations along the Great Lakes shorelines (Lakes Superior, Huron, Erie, Ontario) and Lake of the Woods, Ontario, were surveyed as part of this census. Only two sites in Lake Huron did not get censused in 2006 (Horseshoe Bay-Great Duck Island and West Duck Island-N.E. Shore) because of their remote location in the Lake Huron. These two sites remain as a priority for future surveys given their proximity to the growing Michigan population of Piping Plovers.

Forty-five locations within Ontario were censused during 2006 (41 sites on the Ontario Great Lakes and 4 sites on Lake of the Woods – Figure 1) compared to 37 sites during the 2001 survey, 17 sites during the 1996 survey, and three sites during the 1991 survey. All of these locations were surveyed on foot with some locations requiring the use of a boat to access offshore islands.

Despite our intensive effort, Piping Plovers were located at only two of the 45 sites censused. One adult was observed at Windy Point on 31 May and one banded adult was observed at Presqu'ile Provincial Park on 29-30 May on Lake Ontario. The band combination from the Presqu'ile plover was determined to be that of a fledgling bird banded in Michigan. We also sited a single Piping Plover on a repeat visit to Windy Point on 20 July. Lastly, we also observed a single adult at Wasaga Beach Provincial Park on 3 May but this observation is not included in the Census tally because it was a month prior to the Census window and at a time when many birds are still migrating.

An examination of the individual site survey forms suggests that weather conditions were not a factor in locating plovers during the survey window. All of the 45 sites were surveyed during relatively stable weather conditions. Water levels on Lake of the Woods and on the Ontario Great Lakes were well below normal during 2006 resulting in greater availability of potential nesting habitat.

Plover census volunteers were quite disappointed with the census results for Ontario. Wasaga Beach Provincial Park staff were hopeful that an attempted nesting of a pair of plovers at the park in 2005 would result in another attempt in 2006. The Michigan population of Piping Plovers continues to do well and the best hope for the Ontario Great Lakes is for this growing population to re-colonize former breeding locations in Ontario. Given the intensive census effort in 2006 in Ontario, it would have been difficult for a breeding pair of plovers to go undetected. It is however, encouraging for Ontario to report two individual sightings of plovers from the Great Lakes and two from Lake of the Woods during the breeding season. Ontario remains optimistic that a breeding pair will establish itself at one of the former breeding sites.

### Comparison of Census Numbers

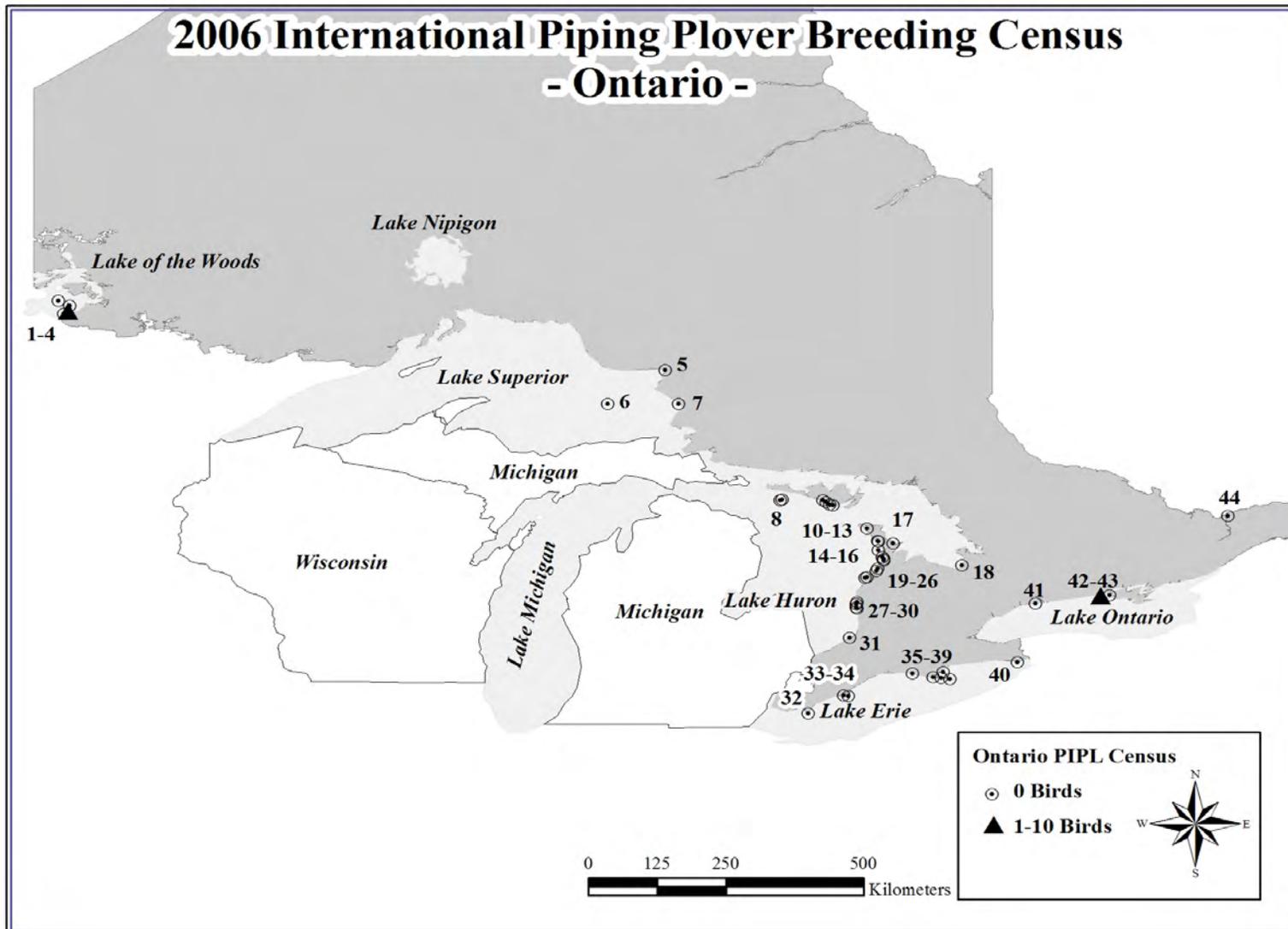
|              | 1991 | 1996 | 2001 | 2006           |
|--------------|------|------|------|----------------|
| Total Adults | 5    | 4    | 2    | 2 <sup>1</sup> |

<sup>1</sup>These birds were seen just prior to the official Census period

### Detectability Study

| Sites Included                                   | First Count | Second Count |
|--|-------------|--------------|
| Agawa Bay  | 0           | 0            |
| Carter Bay                                       | 0           | 0            |
| Driftwood Beach,<br>Michipicoten Post Prov. Park | 0           | 0            |
| Long Point, Courtright<br>Ridge E                | 0           | 0            |
| Long Point, Courtright<br>Ridge W                | 0           | 0            |
| Point Abino (west side)                          | 0           | 0            |
| Providence Bay                                   | 0           | 0            |
| South Beach, Rondeau Prov.<br>Park               | 0           | 0            |
| Timber Bay                                       | 0           | 0            |

# 2006 International Piping Plover Breeding Census - Ontario -



## The 2006 International Piping Plover Breeding Census in Ontario

| Lake       | SITE NAME                              | MAP # | DATE | BR PAIRS | TOTAL ADULTS | KM   | SITE DESCRIPTION   | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN      |
|------------|--|-------|------|----------|--------------|------|--------------------|--------------|-----------|-----------|-----------|----------|
| Lake Erie  | Erieau Beach                           | 33    | 6/15 | 0        | 0            | 1.0  | V A 1 7            |              | No        | No        | No        | m        |
| Lake Erie  | Hahn Woods to Hastings Drive           | 36    | 6/15 | 0        | 0            | 3.8  | V A B 1 2 12       |              | No        | No        | Yes       | s(p)/f/p |
| Lake Erie  | Long Point, Courtright Ridge E         | 39    | 6/14 | 0        | 0            | 22.0 | V A B 1 2 7 12     |              | Yes       | Yes       | Yes       | s(p)/f   |
| Lake Erie  | Long Point, Courtright Ridge W         | 37    | 6/12 | 0        | 0            | 6.0  | V A 1 2 3          |              | Yes       | Yes       | Yes       | f/p      |
| Lake Erie  | Point Albino (West Side)               | 40    | 6/11 | 0        | 0            | 1.8  | V A 1              |              | No        | No        | Yes       | p        |
| Lake Erie  | Point Pelee National Park              | 32    | 6/16 | 0        | 0            | 11.0 | V A B 1            |              | No        | No        | No        | f        |
| Lake Erie  | Port Burwell Provincial Park           | 35    | 6/14 | 0        | 0            | 2.0  | V A 1              |              | No        | No        | No        | s(p)     |
| Lake Erie  | South Beach, Rondeau Prov. Park        | 34    | n.r. | 0        | 0            | 5.0  | V A 1              |              | No        | No        | Yes       | s(p)     |
| Lake Erie  | Turkey Point Beach                     | 38    | 6/16 | 0        | 0            | 4.0  | II V A 1 2         |              | No        | No        | No        | s(p)     |
| Lake Huron | Baie du Dore                           | 26    | 6/11 | 0        | 0            | 1.0  | A 1                |              | No        | No        | Yes       | m        |
| Lake Huron | Carter Bay                             | 12    | 6/8  | 0        | 0            | 0.9  | III V G 1 3 15     |              | No        | No        | Yes       | s(p)     |
| Lake Huron | Chief's Point                          | 20    | 6/12 | 0        | 0            | 6.0  | A 1                |              | No        | No        | Yes       | m        |
| Lake Huron | Desert Point, Great Duck Island        | 9     | 6/7  | 0        | 0            | 1.2  | V G 1 3 7          |              | No        | Yes       | Yes       | p        |
| Lake Huron | Dorcas Bay, Singing Sands              | 14    | 6/7  | 0        | 0            | 2.0  | A 1                |              | No        | No        | Yes       | f        |
| Lake Huron | Golf Course Road N to Point Farms Park | 29    | 6/16 | 0        | 0            | 1.8  | V A 1 7            |              |           |           | Yes       | s(p)/p   |
| Lake Huron | Golf Course Road S to Sunset Beach     | 30    | 6/16 | 0        | 0            | 1.3  | V A 1 7 12         |              | No        | No        | Yes       | p        |
| Lake Huron | Hope Bay                               | 17    | 6/8  | 0        | 0            | 2.0  | A 1                |              | No        | No        | Yes       | m        |
| Lake Huron | Inverhuron Provincial Park             | 25    | 6/13 | 0        | 0            | 3.8  | V E 1 15           |              | No        | No        | No        | s(p)     |
| Lake Huron | Michael's Bay                          | 13    | 6/8  | 0        | 0            | 0.8  | II V G 1 12        |              | No        | No        | Yes       | s(p)     |
| Lake Huron | Miramichi Bay                          | 8     | 6/11 | 0        | 0            | 2.0  | II V G 1           |              | No        | No        | Yes       | m        |
| Lake Huron | Myles Bay                              | 15    | 6/13 | 0        | 0            | 2.0  | V A 1              |              | No        | No        | Yes       | s(p)     |
| Lake Huron | Pinery Beach                           | 31    | 6/9  | 0        | 0            | 10.0 | V A 1              |              | No        | No        | No        | s(p)     |
| Lake Huron | Port Albert N to Mid Huron Beach Road  | 27    | 6/15 | 0        | 0            | 3.3  | IV A 1             |              | No        | No        | Yes       | p        |
| Lake Huron | Port Albert S to Brindley Beach Road   | 28    | 6/15 | 0        | 0            | 5.5  | V A 3 7 12         |              | No        | No        | Yes       | p        |
| Lake Huron | Port Elgin                             | 24    | 6/10 | 0        | 0            | 6.0  | V A 1              |              | No        | No        | Yes       | m        |
| Lake Huron | Providence Bay                         | 10    | 6/6  | 0        | 0            | 0.4  | II V VIII G 1 3 12 |              | No        | No        | Yes       | m/p      |
| Lake Huron | Red Bay/Howdenvale                     | 19    | 6/16 | 0        | 0            | 3.0  | A 1                |              | No        | No        | Yes       | m        |

**The 2006 International Piping Plover Breeding Census in Ontario  
(Continued)**

| Lake              | SITE NAME  | MAP # | DATE | BR PAIRS | TOTAL ADULTS | KM           | SITE DESCRIPTION     | PIPL HABITAT | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|-------------------|--|-------|------|----------|--------------|--------------|----------------------|--------------|-----------|-----------|-----------|--------|
| Lake Huron        | Sauble Beach North                                       | 21    | 6/14 | 0        | 0            | 3.0          | V A 1                |              | No        | No        | Yes       | m      |
| Lake Huron        | Sauble Beach South                                       | 22    | 6/14 | 0        | 0            | 3.0          | V A 1                |              | No        | No        | Yes       | m      |
| Lake Huron        | Southampton  | 23    | 6/10 | 0        | 0            | 5.0          | A 1                  |              | No        | No        | Yes       | m      |
| Lake Huron        | Stokes Bay   | 16    | 6/13 | 0        | 0            | 3.0          | A 1                  |              | No        | No        | Yes       | m      |
| Lake Huron        | Timber Bay   | 11    | 6/6  | 0        | 0            | 1.0          | V VIII D G 1 3<br>15 |              | No        | No        | Yes       | p      |
| Lake Huron        | Wasaga Beach Prov. Park                                  | 18    | 6/9  | 0        | 0            | 2.5          | V A D 1 2 3          |              | No        | No        | Yes       | s(p)   |
| Lake of the Woods | Big Island - Oshie Bay                                   | 1     | 6/9  | 0        | 0            | 2.0          | V G 1                |              | Yes       | Yes       | Yes       | s(p)   |
| Lake of the Woods | Bigsby Island - Deep Bay                                 | 2     | 6/9  | 0        | 0            | 0.5          | V B 8                |              | Yes       | Yes       | Yes       | s(p)   |
| Lake of the Woods | Sable Islands Prov. Nature Preserve                      | 3     | 6/10 | 0        | 0            | 6.0          | V C 1 3 5            |              | Yes       | Yes       | Yes       | s(p)   |
| Lake of the Woods | Windy Point <sup>1</sup>                                 | 4     | 5/30 | 0        | 1            | 2.0          | B 1                  |              | Yes       | Yes       | Yes       | p      |
| Lake Ontario      | Darlington Prov. Park / Oshawa Second Marsh <sup>2</sup> | 41    | 6/5  | 0        | 0            | 3.4          | V A B 1 7 12         |              | No        | No        | No        | s(p)/m |
| Lake Ontario      | Presquile Provincial Park <sup>1</sup>                   | 42    | 5/29 | 0        | 1            | 2.0          | II A 1               |              |           |           |           | s(p)   |
| Lake Ontario      | Wellers Bay National Wildlife Area                       | 43    | 6/14 | 0        | 0            | 3.5          | V B 6                |              | No        | No        | No        | f      |
| Lake Superior     | Agawa Bay  | 7     | 6/16 | 0        | 0            | 3.0          | V A 1 3 7 8          |              | Yes       | No        | Yes       | s(p)   |
| Lake Superior     | Caribou Island   | 6     | 6/13 | 0        | 0            | 4.7          | V G 1 2 3 15         |              | Yes       | No        | Yes       | p      |
| Lake Superior     | Driftwood Beach, Michipicoten Post Provincial Park       | 5     | 6/11 | 0        | 0            | 2.0          | VI VIII A 1 7 8      |              | No        | No        | Yes       | s(p)   |
| Ottawa River      | Kitchissippi Lookout                                     | 44    | 6/15 | 0        | 0            | 2.0          | III A 1 12           |              | No        | No        | No        | f      |
| <b>Total</b>      |  |       |      | <b>0</b> | <b>2</b>     | <b>158.1</b> |                      |              |           |           |           |        |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

<sup>2</sup>Please note that coordinator reports this as two separate sites.

# The 2006 International Piping Plover Breeding Census in Minnesota

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Although we have quite a bit of available habitat, historical searches have shown that in recent years, breeding has been confined to Lake of the Woods. We did sample all of the known nesting sites on the lake, although every mile of sandy beach was not checked. Census numbers were lower than previously, but we know that our population in the state is declining, and may possibly disappear in the future. I believe that the results adequately represent the actual population in the state, plus or minus 2 pairs. Factors affecting plovers the most in our region are erosion, disappearance of critical portions of the primary nesting site (i.e., Pine and Curry Island on Lake of the Woods), and the urbanized character of the Duluth nesting sites.

## Comparison of Census Numbers

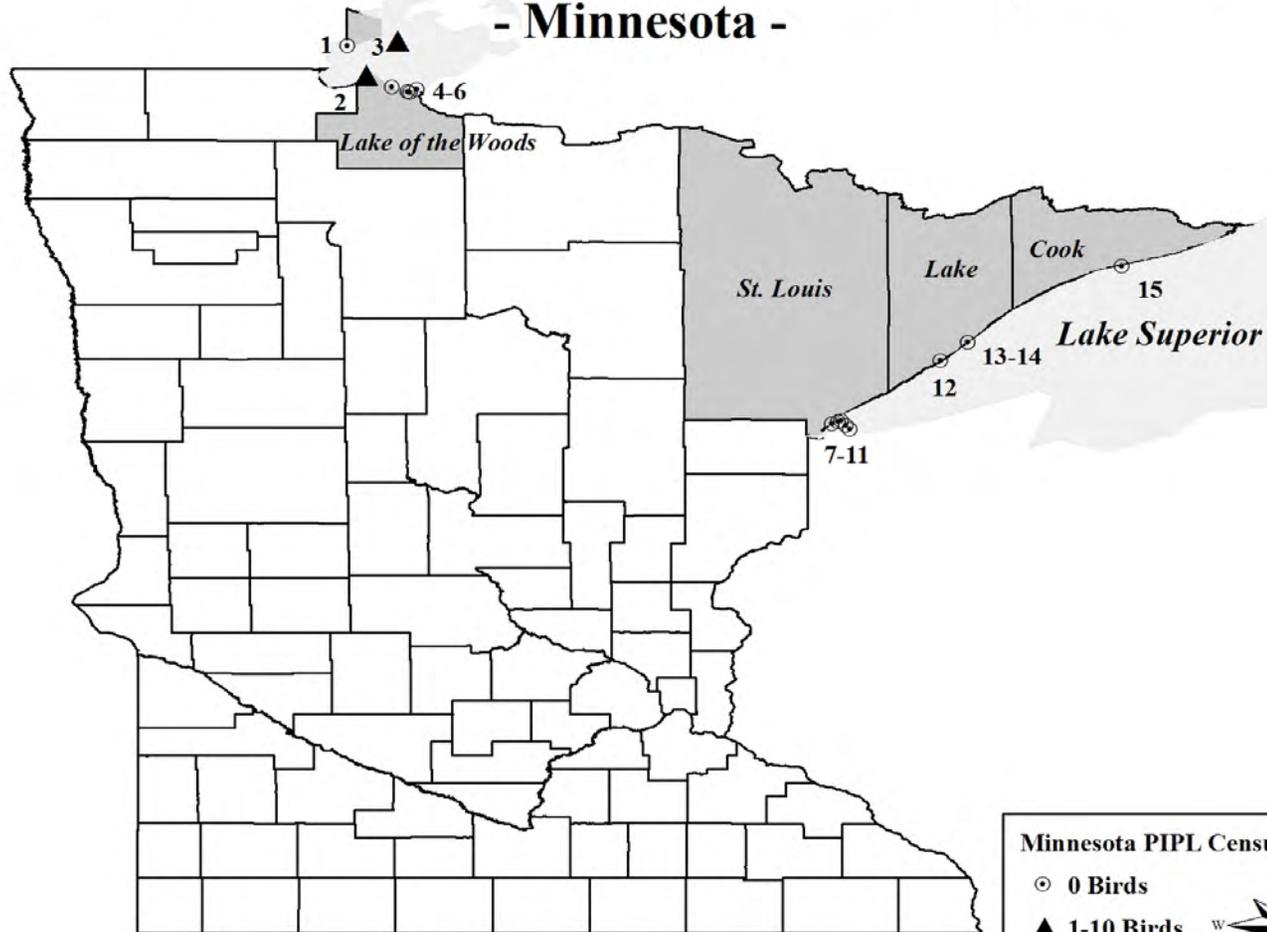
|              | 1991 | 1996 | 2001 | 2006           |
|--------------|------|------|------|----------------|
| Total Adults | 13   | 10   | 7    | 4 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

## Detectability Study

| Sites Included | First Count | Second Count |
|----------------|-------------|--------------|
| Morris Point   | 0           | 0            |

# 2006 International Piping Plover Breeding Census - Minnesota -



**Minnesota PIPL Census**

- 0 Birds
- ▲ 1-10 Birds

## The 2006 International Piping Plover Breeding Census in Minnesota

| COUNTY/<br>REGION    | SITE NAME                              | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------|--|----------|------|-------------|-----------------|-------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Cook                 | Grand Marais                           | 15       | 6/14 | 0           | 0               | 0.8         | 7                   |                 | No           | No           | No           | n.r. |
| Lake                 | Beaver Bay, river mouth                | 14       | 6/13 | 0           | 0               | 0.4         | III F 11            |                 | No           | No           | No           | p    |
| Lake                 | Beaver Bay, Cove Point                 | 13       | 6/13 | 0           | 0               | 0.4         | V A 1 15            |                 | No           | Yes          | No           | p    |
| Lake                 | Goosberry Falls river outlet           | 12       | 6/13 | 0           | 0               | 0.5         | III V A 7           |                 | No           | No           | No           | s(p) |
| Lake of<br>the Woods | Garden Island State Recreation<br>Area | 3        | 6/21 | 1           | 2               | 0.9         | V G 7               |                 | No           | Unk          | No           | s(p) |
| Lake of<br>the Woods | Morris Point                           | 5        | 6/12 | 0           | 0               | 1.5         | V A B 2             |                 | Yes          | Yes          | Yes          | s(p) |
| Lake of<br>the Woods | Pine and Curry Island                  | 6        | 6/12 | 0           | 0               | 6.1         | V C 3               |                 | Yes          | Yes          | Yes          | s(p) |
| Lake of<br>the Woods | Rocky Point                            | 2        | 6/12 | 1           | 2               | 1.2         | V A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Lake of<br>the Woods | Stoney Point                           | 1        | 6/12 | 0           | 0               | 0.6         | V A G 1 2           |                 | No           | Unk          | No           | p    |
| Lake of the<br>Woods | Zippel Bay                             | 4        | 6/6  | 0           | 0               | 1.3         | V B 6               |                 | Yes          | Yes          | Yes          | s(p) |
| St. Louis            | Duluth Port Terminal                   | 8        | 6/7  | 0           | 0               | n.r.        | III VIII I 15       |                 | No           | No           | No           | p    |
| St. Louis            | Duluth T49 R14 Section 8               | 7        | 6/7  | 0           | 0               | 2.1         | III VIII I 15       |                 | Yes          | No           | No           | n.r. |
| St. Louis            | Hearding Island                        | 9        | 6/7  | 0           | 0               | 1.0         | V E 1               |                 | No           | No           | No           | s(p) |
| St. Louis            | MN Point (Canal Park)                  | 10       | 6/7  | 0           | 0               | n.r.        | 16                  |                 | No           | No           | No           | n.r. |
| St. Louis            | MN Point (end of peninsula)            | 11       | 6/7  | 0           | 0               | 6.1         | V I 1               |                 | No           | No           | No           | n.r. |
| <b>Total</b>         |  |          |      | <b>2</b>    | <b>4</b>        | <b>22.9</b> |                     |                 |              |              |              |      |

# The 2006 International Piping Plover Breeding Census in Manitoba

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This has been a disappointing year for Piping Plovers in Manitoba, whereby only four adult pairs have been located within the province. This is a 50% reduction from the 2001 International Census. In an effort to find new potential nesting areas within the province, an extended habitat suitability survey was conducted in 2005. One hundred and ninety two sites were identified as having potential suitable plover habitat based on GIS analysis, historical records and aerial reconnaissance flights. Of these, 82 were visited and assessed. From these results, 46 sites were chosen for the 2006 International Census based on the potential for suitable nesting habitat and ease of surveyor accessibility.

Over previous censuses, traditional nesting sites like the Gull Bay, Clandeboye Bay, West Shoal Lake, Grand Marais, Hecla Island and Grand Beach could always be relied on to accommodate at least one pair of nesting plovers. This year marks the first time that only one site was home to these birds. Grand Beach had the only observed sighting of Piping Plovers in 2006. The absence of the birds from the other sites is disturbing in that extirpation of this species from Manitoba is now becoming a possibility. Since the first International Census in 1991, the population has declined 90% from 80 birds to the current count of 8 adults.

A possible explanation for the poor showing of birds this year maybe attributed to the fact that the last three seasons were plagued with above normal water levels limiting available suitable habitat for the plovers. Lake Manitoba, Lake Winnipeg, Lake Winnipegosis and West Shoal Lake all reported above normal water levels in 2006. Increased human activity, gulls and vegetation encroachment, also may have played a role in the absence of plovers from some of our traditional sites this year.

Although it is possible that a few birds may have been missed during the census, I feel the numbers accurately reflect the state of the birds in this province. Loss of suitable habitat in Manitoba continues to be a limiting factor in the disappearance of the plovers, especially since the loss of the prime nesting site at West Shoal Lake. This lake used to be home in excess of sixty plovers until the flooding of the lake in 1997. Since then, the lake continues to expand each year leaving little hope that it will return to condition that originally attracted the birds to the area.

The four pairs that bred at Grand Beach this summer were very successful in that they were able to raise a total of thirteen fledged chicks. With the support of the guardianship program and the help of the Grand Beach Park staff, Grand Beach should continue to attract four or five breeding pairs of Piping Plovers in future seasons. As far as the other sites in Manitoba are concerned, the water levels will need to return to normal or below normal water levels so that more suitable beach habitat is exposed for the birds to use.

## Comparison of Census Numbers

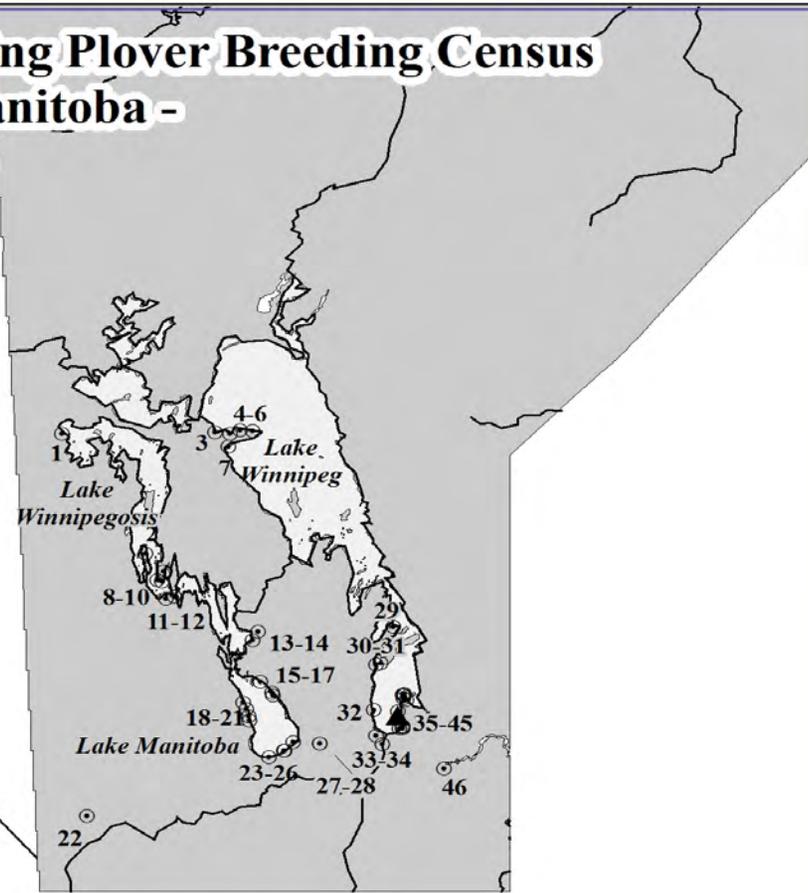
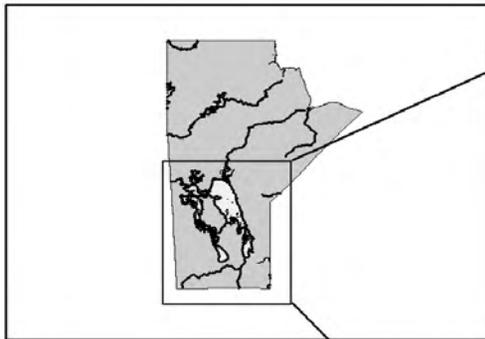
|              | 1991 | 1996 | 2001 | 2006           |
|--------------|------|------|------|----------------|
| Total Adults | 80   | 60   | 16   | 8 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### **Detectability Study**

| Sites Included   | First Count | Second Count |
|------------------|-------------|--------------|
| Twin Lakes Beach | 0           | 0            |
| Albert Beach     | 0           | 0            |
| Sandy Bay Point  | 0           | 0            |

# 2006 International Piping Plover Breeding Census - Manitoba -



**Manitoba PIPL Census**

- 0 Birds
- ▲ 1-10 Birds
- ▲ 11-30 Birds



## The 2006 International Piping Plover Breeding Census in Manitoba

| LAKE/<br>REGION      | SITE NAME                          | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------|------------------------------------|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Lake Manitoba        | Big Sandy Point                    | 18       | 6/06 | 0           | 0               | 3.0 | V A 1 8 9           |                 | Yes          | Yes          | No           | p    |
| Lake Manitoba        | Clandeboye Bay                     | 24       | 6/08 | 0           | 0               | 1.0 | V A 1 7             |                 | Yes          | Yes          | Yes          | s(p) |
| Lake Manitoba        | Delta Beach                        | 23       | 6/15 | 0           | 0               | 1.0 | V A 1               |                 | No           | Yes          | No           | n.r. |
| Lake Manitoba        | Elm Point                          | 15       | 6/08 | 0           | 0               | 1.0 | V A 15              |                 | No           | No           | No           | n.r. |
| Lake Manitoba        | Hall's Beach                       | 21       | 6/06 | 0           | 0               | 0.1 | V A 1               |                 | No           | No           | No           | p    |
| Lake Manitoba        | Hall's Pasture                     | 19       | 6/06 | 0           | 0               | 1.5 | V A 1 8 13          |                 | No           | No           | No           | p    |
| Lake Manitoba        | Hollywood Beach                    | 20       | 6/06 | 0           | 0               | 0.5 | V A 1 12            |                 | Yes          | Yes          | Yes          | m    |
| Lake Manitoba        | Lundar Beach Provincial<br>Park    | 17       | 6/08 | 0           | 0               | 1.9 | V A 1 7 15          |                 | No           | No           | No           | n.r. |
| Lake Manitoba        | Lundar Beach South<br>Section      | 16       | 6/08 | 0           | 0               | 0.6 | V A 1               |                 | Yes          | No           | No           | n.r. |
| Lake Manitoba        | Silver Bay                         | 14       | 6/08 | 0           | 0               | 0.4 | V A 1 7 15          |                 | No           | No           | No           | n.r. |
| Lake Manitoba        | Stoney Beach                       | 25       | 6/03 | 0           | 0               | 2.0 | V A B 1             |                 | No           | Yes          | No           | n.r. |
| Lake Manitoba        | Twin Lakes Beach                   | 26       | 6/06 | 0           | 0               | 3.0 | V A 1 7             |                 | Yes          | Yes          | Yes          | s(p) |
| Lake Manitoba        | Watchorn Provincial Park           | 13       | 6/08 | 0           | 0               | 0.3 | V A                 |                 | No           | No           | No           | n.r. |
| Lake of<br>the Woods | Buffalo Point                      | 46       | 6/26 | 0           | 0               | 0.5 | II V A 1 6 11<br>15 |                 | No           | No           | No           | n.r. |
| Lake Winnipeg        | Albert Beach                       | 39       | 6/14 | 0           | 0               | 2.0 | V A 1 7             |                 | No           | No           | Yes          | m    |
| Lake Winnipeg        | Beaconia Beach                     | 44       | 6/14 | 0           | 0               | 1.5 | V A 1 7             |                 | No           | No           | Yes          | m    |
| Lake Winnipeg        | Chalet Beach                       | 33       | 6/13 | 0           | 0               | 1.0 | V A 1               |                 | No           | No           | No           | n.r. |
| Lake Winnipeg        | Elk Island                         | 35       | 6/22 | 0           | 0               | 5.0 | V G 1 7             |                 | No           | No           | Yes          | s(p) |
| Lake Winnipeg        | Grand Beach                        | 41       | 6/10 | 4           | 8               | 3.0 | II V A I 1 15       | n.r.            | Yes          | Yes          | Yes          | s(p) |
| Lake Winnipeg        | Grand Marais Spit                  | 43       | 6/10 | 0           | 0               | 1.5 | V B 1 2 7           |                 | No           | Yes          | No           | s(p) |
| Lake Winnipeg        | Hecla Island Sand Spit             | 31       | 6/14 | 0           | 0               | 0.2 | V I 2               |                 | Yes          | Yes          | Yes          | s(p) |
| Lake Winnipeg        | Hillside Beach                     | 37       | 6/14 | 0           | 0               | 3.0 | V A 1 7             |                 | No           | No           | Yes          | m    |
| Lake Winnipeg        | Island Beach                       | 42       | 6/14 | 0           | 0               | 0.7 | V A 1 7             |                 | No           | No           | No           | n.r. |
| Lake Winnipeg        | Longpoint - Hole in the<br>Wall    | 4        | 6/14 | 0           | 0               | 2.5 | V A 7               |                 | No           | No           | No           | s(p) |
| Lake Winnipeg        | Longpoint - Little Moose<br>Lake   | 6        | 6/14 | 0           | 0               | 3.5 | V A 7               |                 | No           | No           | No           | s(p) |
| Lake Winnipeg        | Longpoint - Sturgeon<br>Skin Point | 5        | 6/14 | 0           | 0               | 3.5 | V A 7               |                 | No           | No           | No           | s(p) |

**The 2006 International Piping Plover Breeding Census in Manitoba  
(Continued)**

| LAKE/<br>REGION      | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|----------------------|--|----------|------|-------------|-----------------|-------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Lake Winnipeg        | Longpoint-<br>Saskachayweow Bar                          | 3        | 6/14 | 0           | 0               | 3.5         | V A 7               |                 | No           | No           | No           | s(p) |
| Lake Winnipeg        | North Gull Bay Spit                                      | 7        | 5/29 | 0           | 0               | 4.0         | V A 1 2 7           |                 | Yes          | Yes          | No           | n.r. |
| Lake Winnipeg        | Patricia Beach   | 45       | 6/14 | 0           | 0               | 1.6         | V A 1 7             |                 | Yes          | Yes          | Yes          | s(p) |
| Lake Winnipeg        | Red River Delta (West)<br>Riverton Sandbar &<br>Sandspit | 34       | 6/11 | 0           | 0               | 4.0         | V A B 1 12          |                 | No           | No           | No           | s(p) |
| Lake Winnipeg        | Sandy Bay  | 30       | 6/03 | 0           | 0               | 1.7         | V I 14 15           |                 | Yes          | Yes          | Yes          | s(p) |
| Lake Winnipeg        | Stevens Island   | 36       | 6/14 | 0           | 0               | 2.0         | II V A 1 7          |                 | No           | No           | Yes          | m    |
| Lake Winnipeg        | Victoria Beach   | 40       | 6/10 | 0           | 0               | 2.0         | V C 2 7             |                 | No           | Yes          | No           | s(p) |
| Lake Winnipeg        | Wells Harbour  | 38       | 6/14 | 0           | 0               | 1.0         | V A 1               |                 | Yes          | Yes          | Yes          | s(p) |
| Lake Winnipeg        | Willow Island  | 29       | 6/13 | 0           | 0               | 0.5         | II V A 1            |                 | No           | No           | No           | n.r. |
| Lake Winnipeg        | Overflowing River Salt<br>Flat Ecological Reserve        | 32       | 6/04 | 0           | 0               | 0.5         | V A 1 12            |                 | No           | Yes          | Yes          | s(p) |
| Lake<br>Winnepegosis | Robinson Bay on Red<br>Deer Point                        | 1        | 6/16 | 0           | 0               | 1.0         | V A 5 8 10          |                 | No           | No           | No           | s(p) |
| Lake<br>Winnepegosis | Salt Point 1 Location                                    | 2        | 6/15 | 0           | 0               | 0.2         | II V 1 7            |                 | No           | No           | No           | n.r. |
| Lake<br>Winnepegosis | Salt Point 2 location                                    | 9        | 6/14 | 0           | 0               | 0.5         | V A 15              |                 | No           | Yes          | No           | n.r. |
| Lake<br>Winnepegosis | Salt Point 3 location                                    | 10       | 6/14 | 0           | 0               | 1.0         | V A 15              |                 | No           | Yes          | No           | n.r. |
| Lawrence Lake        | Lawrence Lake  | 8        | 6/14 | 0           | 0               | 0.1         | IV A 10             |                 | No           | Yes          | No           | n.r. |
| Oak Lake             | Oak Lake   | 11       | 6/14 | 0           | 0               | 0.0         | IV A 10             |                 | No           | No           | No           | n.r. |
| Salt Lake            | Salt Lake  | 22       | 6/13 | 0           | 0               | 0.3         | V A 1 7             |                 | Yes          | Yes          | Yes          | s(p) |
| Shoal Lakes          | Salt Lake  | 12       | 6/14 | 0           | 0               | 1.6         | IV A D 10           |                 | No           | No           | No           | p    |
| Shoal Lakes          | West Shoal Lake (S end)<br>West Shoal Lake<br>(W point)  | 27       | 6/06 | 0           | 0               | 1.0         | IV A 15             |                 | Yes          | Yes          | Yes          | s(p) |
| Shoal Lakes          |  | 28       | 6/06 | 0           | 0               | 0.3         | IV A 15             |                 | Yes          | Yes          | Yes          | s(p) |
| <b>Total</b>         |  |          |      | <b>4</b>    | <b>8</b>        | <b>71.0</b> |                     |                 |              |              |              |      |

# The 2006 International Piping Plover Breeding Census in Saskatchewan

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A total of 1420 Piping Plovers were counted in Saskatchewan in 2006, including at least 548 breeding pairs. This is the highest number since surveys began and represents a large increase from 2001. Piping Plovers were counted at 69 sites with numbers of birds at each occupied basin ranging from 1 to 253 (Lake Chaplin; 281 birds including detectability survey at that site).

Of the 321 sites assigned for surveying, we visited about 90%. A total of 255 sites were surveyed but many of the sites without birds were found to have marginal or unsuitable habitat. Additional lakes (about 40) were visited but not surveyed because habitat was unsuitable. Of the sites missed, most were small or unlikely to have had any suitable habitat during the 2006 Census period. Hence, much greater than 90% of the total Piping Plover habitat in the province was surveyed. Of the sites found to have Piping Plovers during previous censuses, only a few were missed in 2006 and numbers of birds recorded at these sites during previous censuses was small ( $\leq 5$  birds). Only two sites with recent records of Piping Plovers were completely missed. The first is Grant Lake (UTM 370 484) which had one plover during the 2001 Census. The second is Allan Potash Mine, which had 6 adults in 2005. However, a mine employee reported that water levels were very high at Allan Potash in 2006, so there was little if any suitable habitat. Also, we were unable to gain access to a small

unnamed site in the Missouri Coteau (UTM 702 290) which had a single pair in 2001; this site appeared to have habitat and we attempted to look for Piping Plovers using a spotting scope but none were seen. Hence, it is unlikely that many birds were missed at sites that we were unable to survey.

In addition to sites surveyed previously, we attempted to survey 21 new sites. Of these sites, 14 were found to have potential habitat. However, no Piping Plovers were observed during our surveys of new sites. Indeed, similar to previous censuses, 52% of Piping Plovers observed during the 2006 Census were from four basins (Chaplin Lake, Big Quill Lake, Lake Diefenbaker, and Old Wives Lake).

Unusual weather may have affected some of the 2006 Census results. We started the season with peculiar conditions. The South, including the Missouri Coteau, was mostly dry until the 8-10 June rains, with many small basins having very little if any habitat when surveyed prior to the rain. Piping Plover counts suggest that breeding populations at these basins were not stable until at least a few days after the rains. For instance, Unnamed, UTM 717 067 had no birds on 3 June but 16 adults on 13 June, and UTM 842 003 had no birds on 5 June but 5 on 15 June. Numbers fluctuated at other basins immediately after the rains (11-15 June) and some flocking behavior was observed. In addition to creating new habitat, the rains also may have caused flooding in some basins as numbers at a few sites dropped after the rains. Unfortunately, the 2006 Census dates span the period prior to and immediately after the rains and many surveys were conducted outside the Census window; hence, some surveys were conducted before the rains and some after. Since most of the South was not resurveyed after Piping Plover populations stabilized, it is difficult to determine the accuracy of the 2006 Piping Plover count for this province. Additionally, one of the assumptions of the detectability study is that the

true number of birds at a site is the same for both surveys; this assumption was likely invalid for multiple Saskatchewan sites included in the detectability study.

While drought may have been a problem during the beginning of the 2006 Census in the South, the opposite problem was apparent in the northern part of the range. For the second year in a row, increased precipitation in the north resulted in high water levels. Many sites that were suitable in previous years were inundated in 2006, so they offered little if any Piping Plover habitat (i.e., Blaine Lake, Lizard Lake, NW of Van Scoy, Radisson Lake, Basin Lake, Bruno Lake, Lake Charron, Lenore Lake, Lucien Lake, Muskiki Lake, Shannon Lake, Waldsea Lake, Chisholm Lake, Ear Lake, Houchen Lake, Jay Lake, Wells Lake, etc.).

Cattle and disturbance by people were two of the most commonly recorded threats to Piping Plover. Drought and flooding, predation, and other agricultural activities also have negative impacts on Piping Plovers and their habitat in Saskatchewan. In addition to posing a threat to plovers, human disturbance may have affected the 2006 Census results in some areas. Many visitors and dogs were present during the 4 June census of Coteau Beach, Lake Diefenbaker. Similarly there were a few ATV tracks in Hitchcock Bay, and even an ATV racing a motorcycle on the beach during a survey of that site.

### Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006              |
|--------------|------|------|------|-------------------|
| Total Adults | 180  | 276  | 150  | 1420 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study

| Sites Included                       | First Count | Second Count |
|--------------------------------------|-------------|--------------|
| Big Quill Lake (W side) <sup>1</sup> | 58          | 74           |

### Detectability Study - Continued

| Sites Included                                      | First Count | Second Count |
|---|-------------|--------------|
| Big Quill Lake (E side) <sup>1</sup>                | 28          | 30           |
| Colt Lake   | 0           | 0            |
| Usinneskaw Lake                                     | 0           | 0            |
| Agnellice Lake <sup>2</sup><br>(UTM 660 300)        | 0           | 0            |
| Bead Lake <sup>2</sup>                              | 0           | 0            |
| Bliss Lake  | 18          | 26           |
| Burn Lake <sup>1</sup>                              | 8           | 20           |
| Chaplin Lake (Zone 5) <sup>3</sup>                  | 81          | 109          |
| Coal Mine Lake <sup>1</sup>                         | 8           | 13           |
| Coteau Pots (UTM 300 345) <sup>2</sup>              | 0           | 0            |
| Dryboro Lake  | 29          | 8            |
| East Coteau Lake                                    | 23          | 44           |
| Frederick Lake<br>(UTM 435 425)                     | 21          | 19           |
| Green Lake <sup>2</sup>                             | 0           | 2            |
| Ratcliffe South <sup>2</sup>                        | 0           | 0            |
| Ritchie Lake <sup>2</sup>                           | 3           | 0            |
| Salt Lake (UTM 215 590) <sup>2</sup>                | 0           | 2            |
| Scottie Lake (UTM 800 220) <sup>2</sup>             | 0           | 0            |
| Shoe Lake <sup>1</sup>                              | 25          | 17           |
| Unnamed, UTM 295 375 <sup>2</sup>                   | 0           | 0            |
| Unnamed, UTM 304 706 <sup>2</sup>                   | 5           | 2            |
| Unnamed, UTM 310 378                                | 0           | 0            |
| Unnamed, UTM 430 164<br>("Skull Lake") <sup>2</sup> | 14          | 8            |
| Unnamed, UTM 540 279<br>(Butterfly Lake)            | 12          | 39           |
| Unnamed, UTM 571 267 <sup>2</sup>                   | 0           | 0            |
| Unnamed, UTM 590 248 <sup>2</sup>                   | 0           | 0            |
| Unnamed, UTM 650 075 <sup>1</sup>                   | 0           | 4            |
| Unnamed, UTM 717 067                                | 0           | 16           |
| Unnamed, UTM 735 128 <sup>4</sup>                   | 1           | 0            |
| Unnamed, UTM 738 085 <sup>2</sup>                   | 3           | 3            |
| Unnamed, UTM 770 230 <sup>2</sup>                   | 0           | 0            |
| Unnamed, UTM 831 160 <sup>2</sup>                   | 0           | 0            |
| Unnamed, UTM 832 010 <sup>1</sup>                   | 2           | 0            |
| Unnamed, UTM 840 020 <sup>1</sup>                   | 10          | 9            |
| Unnamed, UTM 842 003                                | 0           | 5            |
| Unnamed, UTM 842 027                                | 1           | 4            |
| Unnamed, UTM 846 992 <sup>1</sup>                   | 11          | 15           |
| Unnamed, UTM 849 167 <sup>2</sup>                   | 1           | 0            |

### Detectability Study - Continued

| Sites Included                         | First Count | Second Count |
|--|-------------|--------------|
| Unnamed, UTM 856 984 <sup>1</sup>      | 0           | 0            |
| Unnamed, UTM 860 985 <sup>1</sup>      | 0           | 0            |
| Bruno Lake                             | 0           | 0            |
| Elkona Lake                            | 1           | 0            |
| Unnamed, UTM 665 130                   | 0           | 0            |
| Unnamed, UTM 670 165                   | 0           | 0            |
| Landis Lake                            | 0           | 0            |
| Little Tramping Lake                   | 0           | 0            |
| Lydden Lake                            | 0           | 0            |
| Peter Pond Lake/Sandy Point            | 6           | 0            |
| Reflex lake E                          | 2           | 0            |
| Seagram Lake W                         | 4           | 7            |
| Ibsen Lake <sup>2</sup>                | 0           | 0            |
| Soda Lake                              | 0           | 0            |
| Coteau Beach (Lake Dief) <sup>5</sup>  | 5           | 2            |
| Hitchcock Bay (Lake Dief) <sup>5</sup> | 10          | 3            |
| Prairie Lake (Lake Dief) <sup>6</sup>  | 6           | 5            |
| South Elbow (Lake Dief) <sup>5</sup>   | 12          | 18           |
| NW of Blucher (UTM 155 642)            | 4           | 6            |
| Notukeu Lake                           | 6           | 2            |
| Success Lake                           | 0           | 0            |

<sup>1</sup>These sites were not randomly selected as part of the Census detectability study. They were surveyed twice as part of a separate study conducted by Cherri Gratto-Trevor, but we include the data here for informational purposes.

<sup>2</sup>Replicate survey was conducted first (outside of Census window) so second survey was used to calculate official total.

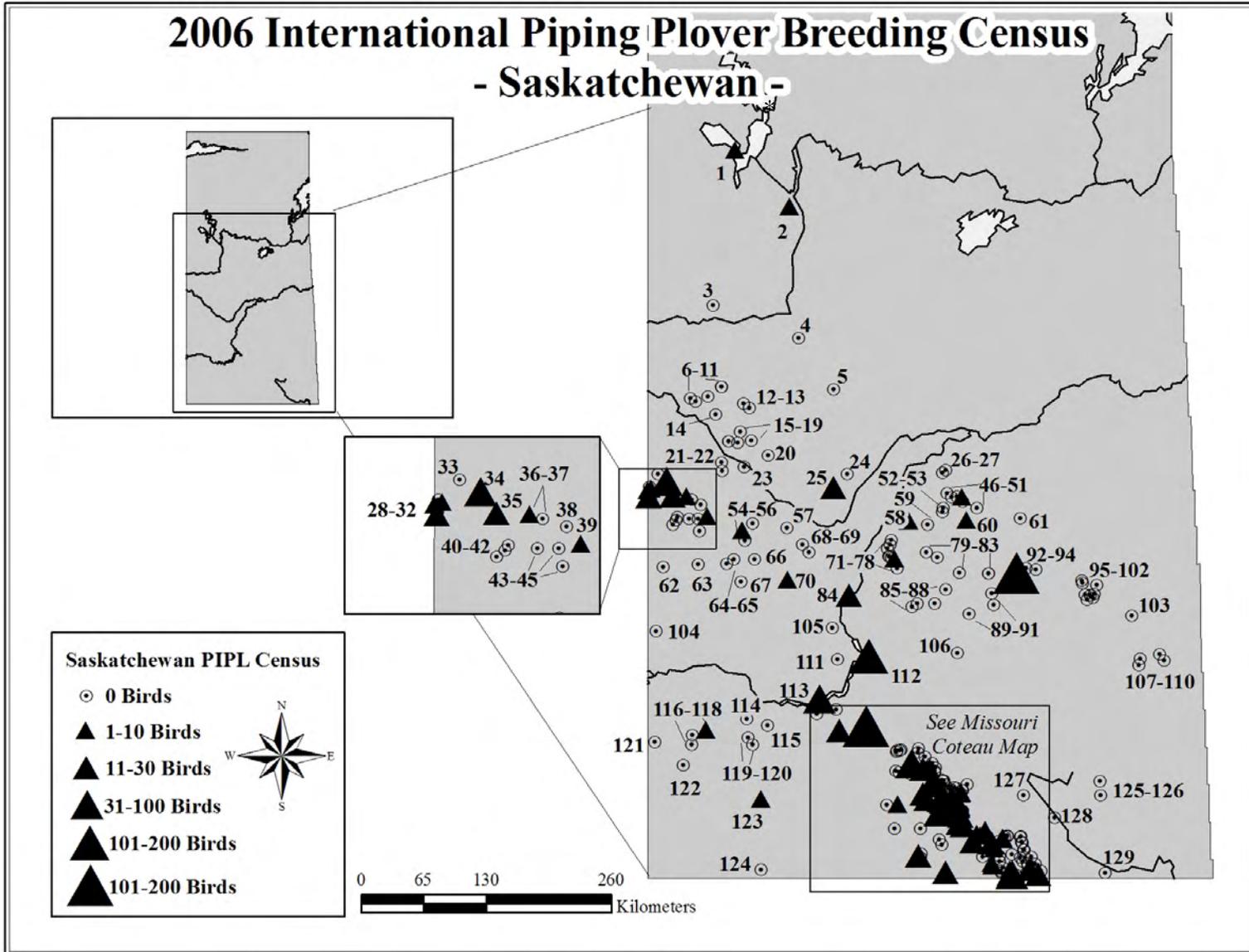
<sup>3</sup>Only a portion of this site (Zone 5) was included in the detectability study

<sup>4</sup>Both surveys conducted outside of Census period. Second count included in official total since it is closer to census dates.

<sup>5</sup>This is one of three sections of "Lake Dief. (Riverhurst to Arms)" that was surveyed twice as part of the detectability study.

<sup>6</sup>This is a section of "Lake Dief (Sask. Landing to Riverhurst)" that was surveyed twice.

## 2006 International Piping Plover Breeding Census - Saskatchewan -

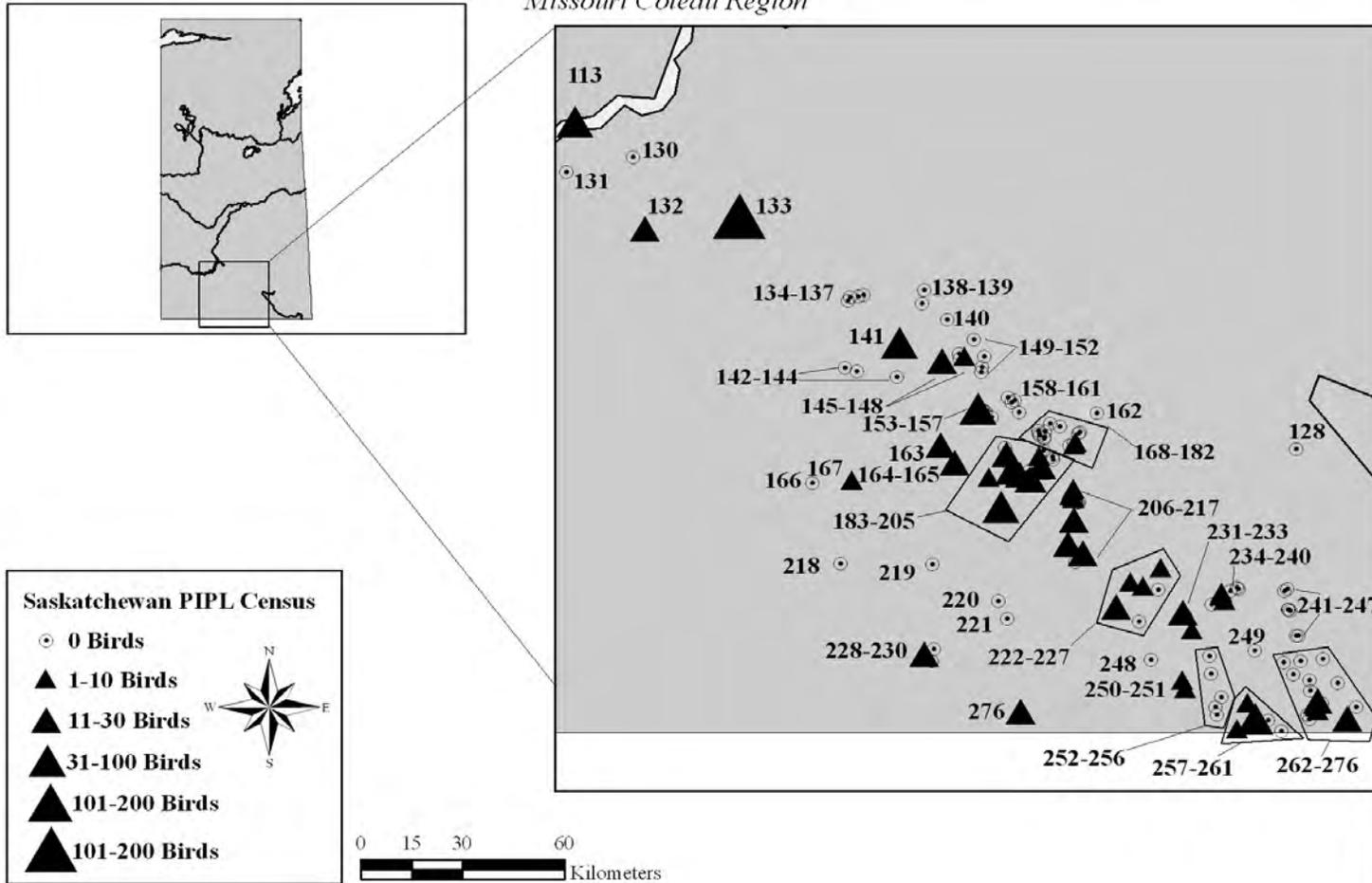


\*Please note that some sites on the map were visited but not officially surveyed (refer to table).

# 2006 International Piping Plover Breeding Census

## - Saskatchewan\* -

Missouri Coteau Region



\*Please note that some sites on the map were visited but not officially surveyed (refer to table).

## The 2006 International Piping Plover Breeding Census in Saskatchewan

| COUNTY/REGION           | SITE NAME                       | MAP # | DATE <sup>1</sup> | BR PAIRS | TOTAL ADULTS | KM   | SITE DESCRIPTION | PIPL HABITAT     | 91 CENSUS | 96 CENSUS | 01 CENSUS | OWN    |
|-------------------------|---------------------------------|-------|-------------------|----------|--------------|------|------------------|------------------|-----------|-----------|-----------|--------|
| Big Quill/Last Mountain | Big Quill Lake                  | 92    | 6/3               | 81       | 222          | 80.0 | IV A 10 15       | IV A 10 12<br>15 | Yes       | Yes       | Yes       | f      |
| Big Quill/Last Mountain | Bitter Lake <sup>2</sup>        | 101   |                   |          |              |      |                  |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Borrow Pit                      | 82    | 6/6               | 0        | 0            | n.r. | VIII A 7         |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Bultel Lake                     | 86    | 6/3               | 0        | 0            | 4.0  | IV D 10          |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Colt Lake                       | 91    | 6/5               | 0        | 0            | n.r. | IV V A 7 10      |                  | Yes       | Yes       | Yes       | f      |
| Big Quill/Last Mountain | Devil's Lake                    | 87    | 6/4               | 0        | 0            | 12.0 | IV D 10          |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Echo Lake <sup>2</sup>          | 98    |                   |          |              |      |                  |                  | Yes       | Yes       | Yes       | m      |
| Big Quill/Last Mountain | Horseshoe Lake                  | 85    | 6/3               | 0        | 0            | 5.0  | V D 12 15        |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Jansen Lake                     | 83    | 6/3               | 0        | 0            | n.r. | IV I 10          |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Kutawagan Lake Complex          | 90    | 6/16              | 0        | 0            | n.r. | IV V A 6 7       |                  | Yes       | Yes       | Yes       | f      |
| Big Quill/Last Mountain | Lac du Chemin                   | 89    | 6/6               | 0        | 0            | n.r. | IV A 10          |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Last Mountain Lake              | 106   | 6/11              | 0        | 0            | 25.0 | V A 1 2 6        |                  | Yes       | Yes       | Yes       | s/p    |
| Big Quill/Last Mountain | Little Manitou Lake             | 88    | 6/5               | 0        | 0            | 18.3 | IV A 7 10        |                  | Yes       | Yes       | Yes       | s(p)/p |
| Big Quill/Last Mountain | Little Quill Lake               | 94    | 6/6               | 0        | 0            | n.r. | IV V A 1 7       |                  | Yes       | Yes       | Yes       | s(p)   |
| Big Quill/Last Mountain | Lovering Lake East <sup>2</sup> |       |                   |          |              |      |                  |                  | Yes       | Yes       | Yes       | m      |
| Big Quill/Last Mountain | Margo Lake                      | 95    | 6/3               | 0        | 0            | n.r. | V A 1 7 15       |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Mud Lake (Middle Quill Lake)    | 93    | 6/16              | 0        | 0            | 13.0 | IV A 6 10 12     |                  | Yes       | Yes       | No        | s(p)   |
| Big Quill/Last Mountain | Newburn Lake <sup>2</sup>       | 100   |                   |          |              |      |                  |                  | Yes       | Yes       | Yes       | m      |
| Big Quill/Last Mountain | Salt Lake <sup>2</sup>          | 102   |                   |          |              |      |                  |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Silver Lake <sup>2</sup>        | 99    |                   |          |              |      |                  |                  | Yes       | Yes       | Yes       | p      |
| Big Quill/Last Mountain | Stonewall Lake                  | 97    | 6/13              | 0        | 0            | 0.5  | IV A 1           |                  | Yes       | Yes       | Yes       | n.r.   |
| Big Quill/Last Mountain | Unnamed, UTM 832 482            | 81    | 6/3               | 0        | 0            | 6.0  | IV D 10          |                  | Yes       | Yes       | Yes       | n.r.   |
| Big Quill/Last Mountain | Usinneskaw Lake                 | 96    | 6/13              | 0        | 0            | n.r. | V A 1 15         |                  | Yes       | Yes       | Yes       | p      |
| Missouri Coteau         | Agnellice Lake                  | 160   | 6/13              | 0        | 0            | 3.0  | IV 7 10          |                  | Yes       | Yes       | Yes       | p      |
| Missouri Coteau         | Alkali Lake (UTM 500 280)       | 261   | 6/10              | 0        | 0            | 1.5  | IV A 6 10        |                  | Yes       | Yes       | Yes       | s/p    |
| Missouri Coteau         | Alma Lake                       | 266   | 6/11              | 0        | 0            | 2.0  | V A 15           |                  | Yes       | No        | No        | p      |
| Missouri Coteau         | Bead Lake <sup>3</sup>          | 225   | 5/30              | 0        | 0            | 2.5  | IV A 10          |                  | Yes       | Yes       | Yes       | p      |

**The 2006 International Piping Plover Breeding Census in Saskatchewan  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                               | MAP<br># | DATE <sup>1</sup> | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---|----------|-------------------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Missouri Coteau   | Beaubien Lake <sup>2</sup>              | 267      |                   |             |                 |      |                     |                 | Yes          | No           | No           | p    |
| Missouri Coteau   | Big Muddy Lake (Lower)                  | 251      | 6/7               | 2           | 5               | 20.0 | IV 15               |                 | Yes          | Yes          | Yes          | s(p) |
| Missouri Coteau   | Big Muddy Lake (Upper)                  | 250      | 6/13              | 2           | 7               | 60.0 | IV 10               |                 | Yes          | Yes          | Yes          | s(p) |
| Missouri Coteau   | Bliss Lake                              | 184      | 6/15              | 7           | 26              | 11   | n.r.                |                 | Yes          | Yes          | Yes          | n.r. |
| Missouri Coteau   | Bonneau Lake <sup>2</sup>               | 220      |                   |             |                 |      |                     |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Bowden Lake <sup>2</sup>                | 245      |                   |             |                 |      |                     |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Burn Lake                               | 198      | 6/14              | 10          | 20              | 7.0  | IV 7                | IV 7            | Yes          | Yes          | Yes          | f    |
|                   |   |          |                   |             |                 |      |                     | IV D 7 8        |              |              |              |      |
| Missouri Coteau   | Channel Lake                            | 215      | 6/6               | 7           | 21              | 6.4  | IV D 7 10           | 10              | Yes          | Yes          | Yes          | p    |
|                   |   |          |                   |             |                 |      | IV VI VIII A 12     | IV A 10 12      |              |              |              |      |
| Missouri Coteau   | Chaplin Lake                            | 133      | 6/14              | 79          | 281             | 50.0 | 15                  | 15              | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Coal Mine Lake                          | 226      | 6/16              | 3           | 13              | 8.0  | IV H 7 8 10         | IV H 7          | Yes          | Yes          | Yes          | s(p) |
| Missouri Coteau   | Cookson Reservoir                       | 277      | 6/6               | 5           | 16              | 45.0 | VI I 1 7            | VI A 7          | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Coteau Pots (UTM 300 342) <sup>2</sup>  |          |                   |             |                 |      |                     |                 | Yes          | Yes          | Yes          | n.r. |
| Missouri Coteau   | Coteau Pots (UTM 300 345) <sup>3</sup>  | 255      | 5/28              | 0           | 0               | 0.8  | IV A 7 10           |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Coteau Pots (UTM 300 350) <sup>2</sup>  |          |                   |             |                 |      |                     |                 | Yes          | Yes          | Yes          | n.r. |
| Missouri Coteau   | Dryboro Lake                            | 195      | 6/11              | 6           | 29              | 6.0  | IV 6 7 8 10         | IV 7 8          | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Dunkirk Lake (UTM 490 432) <sup>3</sup> | 147      | 6/24              | 0           | 0               | 1.3  | A 15                |                 | Yes          | No           | Yes          | p    |
| Missouri Coteau   | East Coteau Lake                        | 258      | 6/15              | 21          | 44              | 8.0  | IV A 7 10           | IV A 7          | Yes          | Yes          | Yes          | s/p  |
| Missouri Coteau   | Edna Lake                               | 224      | 6/6               | 0           | 2               | 6.0  | IV D 10             |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Elsie Lake                              | 237      | 6/12              | 0           | 2               | 3.2  | IV A 7 12           | IV A 7          | Yes          | Yes          | Yes          | s(p) |
| Missouri Coteau   | Fife Lake                               | 228      | 6/7               | 10          | 27              | 16.0 | VIII A 7 8          |                 | Yes          | Yes          | Yes          | s(p) |
|                   | Frederick Lake<br>(UTM 435 425)         | 145      | 6/4               | 3           | 21              | 17.0 | IV A I 7 10         | IV A I 7 10     | Yes          | Yes          | Yes          | s/p  |
| Missouri Coteau   | Green Lake                              | 222      | 6/7               | 1           | 2               | 2.1  | IV D 7              | IV D 7          | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Handsome Lake <sup>2</sup>              |          | 5/25              |             |                 |      |                     |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Horizon Lake                            | 216      | 6/6               | 3           | 14              | 10.0 | IV D 10             |                 | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Howe Pond (UTM 556 388) <sup>3</sup>    | 152      | 6/23              | 0           | 0               | 1.0  | IV 1 6 7            |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Jim Creek Lake                          | 257      | 6/11              | 0           | 1               | 12.0 | IV I                |                 | No           | Yes          | Yes          | f    |
| Missouri Coteau   | Karl Lake                               | 244      | 6/12              | 0           | 0               | 1.6  | IV A 7 10 12        |                 | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census in Saskatchewan  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                               | MAP<br># | DATE <sup>1</sup> | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION     | PIPL<br>HABITAT     | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|-------------------|---|----------|-------------------|-------------|-----------------|------|-------------------------|---------------------|--------------|--------------|--------------|-------|
| Missouri Coteau   | Lake of the Rivers (E Side)             | 164      | 6/4               | 4           | 16              | 22.0 | IV I 7                  | IV I 7 10           | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Lake of the Rivers (W Side)             | 165      | 6/5               | 1           | 7               | 22.0 | IV I 7 12 15            | IV I 7 10           | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Little Coteau Lake                      | 259      | 6/15              | 0           | 0               | n.r. | IV A 6 10 14            |                     | Yes          | Yes          | Yes          | m     |
| Missouri Coteau   | Lonetree Lake                           | 260      | 6/5               | 1           | 3               | 7.0  | IV D I 7 10 15          |                     | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | MacDonaugh Lake                         | 236      | 6/13              | 0           | 0               | 2.4  | IV A 10 12              |                     | Yes          | Yes          | Yes          | s(p)  |
| Missouri Coteau   | Mackenzie Lake <sup>2</sup>             | 234      |                   |             |                 |      |                         |                     | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Marjorie Lake                           | 239      | 6/5               | 1           | 3               | 3.8  | IV I 10                 |                     | Yes          | No           | Yes          | p     |
| Missouri Coteau   | Mather Lake <sup>2</sup>                | 264      |                   |             |                 |      |                         |                     | Yes          | Yes          | No           | p     |
| Missouri Coteau   | McGrath Lake                            | 231      | 6/7               | 5           | 12              | 4.0  | IV D 7                  | IV D 7              | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | McGrath Lake South                      | 232      | 6/7               | 0           | 0               | 4.0  | IV D 7 10 12            |                     | Yes          | No           | Yes          | n.r.  |
| Missouri Coteau   | Montague Lake                           | 219      | 6/8               | 0           | 0               | 10.0 | VIII H 10               |                     | Yes          | Yes          | Yes          | s/p   |
| Missouri Coteau   | N of Bliss Lake<br>(UTM 630 155)        | 183      | 6/13              | 0           | 0               | 2.0  | IV A 6 7                |                     | Yes          | No           | Yes          | p     |
| Missouri Coteau   | North Pond (UTM 395 500) <sup>3</sup>   | 230      | 5/29              | 0           | 0               | 0.8  | IV A 10                 |                     | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Old Wives Lake                          | 141      | 6/6               | 32          | 86              | 70.0 | IV I 1 6 7 8 10<br>12   | IV I 6 7 8<br>10 12 | Yes          | Yes          | Yes          | f/s/p |
| Missouri Coteau   | Oro Lake                                | 185      | 6/6               | 0           | 0               | 4.2  | V A 7 15                |                     | Yes          | Yes          | Yes          | s/m/p |
| Missouri Coteau   | Overland Lake <sup>2</sup>              | 274      |                   |             |                 |      |                         |                     | Yes          | Yes          | No           | p     |
| Missouri Coteau   | Payn Lake <sup>2</sup>                  | 272      |                   |             |                 |      |                         |                     | No           | Yes          | No           | p     |
| Missouri Coteau   | Ratcliffe South <sup>2</sup>            | 275      |                   |             |                 |      |                         |                     | Yes          | No           | No           | p     |
| Missouri Coteau   | Reed Lake                               | 132      | 6/3               | 8           | 21              | 22.4 | IV D 1 5 6 7 8<br>10 14 |                     | Yes          | Yes          | Yes          | s/m/p |
| Missouri Coteau   | Ritchie Lake <sup>2</sup>               | 223      | 5/29              | 1           | 3               | 5.8  | IV A 7                  | IV A 7 10           | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Rivard Lake                             | 221      | 6/6               | 0           | 0               | 6.4  | IV A 6 8 10             |                     | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Salt Lake (UTM 215 590)                 | 233      | 6/14              | 0           | 2               | 9.8  | IV D 7 12               | IV D 7              | Yes          | Yes          | Yes          | f     |
| Missouri Coteau   | Salt Lake (UTM 288 035)                 | 131      | 6/3               | 0           | 0               | 2.0  | IV VIII D 1 6 7<br>15   |                     | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Sandoff Lake                            | 269      | 6/7               | 4           | 15              | 9.0  | IV A 7 10               | IV A 7 10           | Yes          | Yes          | Yes          | s/p   |
| Missouri Coteau   | Scottie Lake (UTM 800 220) <sup>3</sup> | 169      | 6/1               | 0           | 0               | 3.0  | VIII A 15               |                     | Yes          | No           | Yes          | p     |

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| COUNTY/<br>REGION | SITE NAME                              | MAP<br># | DATE <sup>1</sup> | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT  | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|-------------------|--|----------|-------------------|-------------|-----------------|------|---------------------|------------------|--------------|--------------|--------------|-------|
| Missouri Coteau   | Shoe Lake                              | 190      | 6/3               | 9           | 25              | 12.8 | IV H 6 10           | IV H 1 6         | Yes          | Yes          | Yes          | f/s/p |
| Missouri Coteau   | Skyeta Lake (UTM 735 197)              | 170      | 6/7               | 0           | 0               | 11.0 | IV A 15             |                  | Yes          | No           | Yes          | s(p)  |
| Missouri Coteau   | Stiles Lake                            | 240      | 6/5               | 0           | 0               | 3.0  | IV 10               |                  | Yes          | No           | Yes          | p     |
| Missouri Coteau   | Twelve Mile Lake                       | 218      | 6/5               | 0           | 0               | 38.7 | IV I 7 10 12 14     |                  | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 028 055                   | 166      | 6/14              | 0           | 0               | n.r. | VI 14               |                  | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 050 625                   | 227      | 6/5               | 0           | 0               | 1.5  | IV A 7              |                  | Yes          | Yes          | No           | p     |
| Missouri Coteau   | Unnamed, UTM 085 495 <sup>2</sup>      | 248      | 6/5               |             |                 |      | IV A 14             |                  | No           | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 135 405 <sup>3</sup>      | 142      | 6/19              | 0           | 0               | 1.0  | V I 12              |                  | Yes          | No           | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 148 612 <sup>3</sup>      | 134      | 6/22              | 0           | 0               | n.r. | n.r.                |                  | Yes          | No           | No           | s(p)  |
| Missouri Coteau   | Unnamed, UTM 150 065                   | 167      | 6/14              | 1           | 2               | 2.0  | IV D I 7            | IV D             | Yes          | No           | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 155 623 <sup>3</sup>      | 135      | 6/22              | 0           | 0               | 0.4  | n.r.                |                  | Yes          | No           | Yes          | n.r.  |
| Missouri Coteau   | Unnamed, UTM 170 394 <sup>3</sup>      | 143      | 6/19              | 0           | 0               | 1.0  | V I 12              |                  | Yes          | No           | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 180 625                   | 136      | 6/5               | 0           | 0               | 0.7  | V A 15              |                  | Yes          | No           | No           | p     |
| Missouri Coteau   | Unnamed, UTM 195 630                   | 137      | 6/5               | 0           | 0               | 1.0  | IV A 1 7 10         |                  | Yes          | No           | No           | p     |
| Missouri Coteau   | Unnamed, UTM 272 510 <sup>2</sup>      | 252      |                   |             |                 |      |                     |                  | No           | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 275 456 <sup>2</sup>      | 253      |                   |             |                 |      |                     |                  | No           | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 295 330 <sup>2</sup>      | 256      |                   |             |                 |      |                     |                  | No           | Yes          | Yes          | n.r.  |
| Missouri Coteau   | Unnamed, UTM 295 375                   | 144      | 6/13              | 0           | 0               | 0.2  | IV A 6 7 10         |                  | No           | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 304 706 <sup>3</sup>      | 238      | 5/31              | 1           | 5               | 3.9  | IV A 7 10           | IV A 7 10        | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 310 378                   | 254      | 6/7               | 0           | 0               | 1.5  | IV I 10             |                  | No           | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 360 717 <sup>2</sup>      | 235      |                   |             |                 |      |                     |                  | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 375 604 <sup>3</sup>      | 139      | 6/22              | 0           | 0               | 1.6  | n.r.                |                  | Yes          | No           | Yes          | n.r.  |
| Missouri Coteau   | Unnamed, UTM 382 645 <sup>3</sup>      | 138      | 6/22              | 0           | 0               | 0.8  | n.r.                |                  | Yes          | No           | Yes          | n.r.  |
| Missouri Coteau   | Unnamed, UTM 400 535 <sup>3</sup>      | 229      | 5/29              | 0           | 0               | 1.3  | n.r.                |                  | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 414 530                   | 249      | 6/14              | 0           | 0               | 3.0  | IV A 7 10           |                  | Yes          | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 430 164<br>("Skull Lake") | 163      | 6/2               | 6           | 14              | 6.0  | IV VIII A 1 7 10    | VIII A 1 7<br>10 | No           | Yes          | Yes          | p     |
| Missouri Coteau   | Unnamed, UTM 455 552 <sup>3</sup>      | 140      | 6/23              | 0           | 0               | 1.0  | IV 1 3 6 7 8        |                  | No           | Yes          | Yes          | n.r.  |
| Missouri Coteau   | Unnamed, UTM 488 445 <sup>2</sup>      |          |                   |             |                 |      |                     |                  | Yes          | No           | Yes          | p     |

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| COUNTY/<br>REGION | SITE NAME                                | MAP<br># | DATE <sup>1</sup> | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION  | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|-------------------|-------------|-----------------|------|----------------------|-----------------|--------------|--------------|--------------|------|
| Missouri Coteau   | Unnamed, UTM 493 073                     | 130      | 6/3               | 0           | 0               | 2.5  | IV D G 1 6 7 8<br>15 |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 500 450                     | 146      | 6/6               | 0           | 0               | 4.0  | IV A 6 7 10 12       |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 503 440                     | 148      | 6/6               | 1           | 2               | 2.4  | IV A                 | IV A D 7<br>10  | Yes          | Yes          | Yes          | s/p  |
| Missouri Coteau   | Unnamed, UTM 503 713                     | 242      | 6/4               | 0           | 0               | 1.0  | IV I 10              |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 505 486                     | 262      | 6/14              | 0           | 0               | 8.1  | n.r.                 |                 | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 512 718                     | 241      | 6/4               | 0           | 0               | 4.0  | IV 11                |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 514 656                     | 243      | 6/12              | 0           | 0               | 0.8  | IV A 7 10 12         |                 | Yes          | Yes          | Yes          | s(p) |
| Missouri Coteau   | Unnamed, UTM 534 490                     | 149      | 6/6               | 0           | 0               | 2.0  | IV 6 7 12 15         |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 535 455                     | 265      | 6/11              | 0           | 0               | 3.0  | V A 6 7              |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 540 279<br>(Butterfly Lake) | 153      | 6/14              | 9           | 39              | 4.0  | IV H I 8 10          | IV H I 10       | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 543 575 <sup>2</sup>        | 246      |                   |             |                 |      |                      |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 550 575 <sup>2</sup>        | 247      |                   |             |                 |      |                      |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 560 273                     | 154      | 6/6               | 0           | 0               | 3.7  | IV A 1 7 10          |                 | Yes          | Yes          | Yes          | s(p) |
| Missouri Coteau   | Unnamed, UTM 560 404 <sup>3</sup>        | 151      | 6/23              | 0           | 0               | 1.0  | IV VIII 15           |                 | Yes          | No           | Yes          | n.r. |
| Missouri Coteau   | Unnamed, UTM 565 273                     | 155      | 6/6               | 0           | 0               | 1.4  | IV A I 7 10          |                 | Yes          | Yes          | Yes          | s(p) |
| Missouri Coteau   | Unnamed, UTM 567 435 <sup>3</sup>        | 150      | 6/23              | 0           | 0               | 11.0 | IV 12                |                 | Yes          | No           | Yes          | n.r. |
| Missouri Coteau   | Unnamed, UTM 571 267                     | 156      | 6/13              | 0           | 0               | 3.0  | IV A 6 7             |                 | Yes          | No           | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 578 063 <sup>3</sup>        | 204      | 6/23              | 1           | 4               | 6.0  | IV 1 6 7 8 10        | IV A 6 7        | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 590 248                     | 157      | 6/13              | 0           | 0               | 1.0  | IV A 6 7             |                 | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 591 408                     | 268      | 6/10              | 0           | 0               | 0.4  | V A 6 10             |                 | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 613 345                     | 271      | 6/7               | 0           | 1               | 2.0  | IV A 7 10            | IV A 7 10       | Yes          | Yes          | Yes          | s/p  |
| Missouri Coteau   | Unnamed, UTM 613 353                     | 273      | 6/7               | 0           | 0               | 0.5  | IV A 7 10            |                 | Yes          | Yes          | Yes          | s/p  |
| Missouri Coteau   | Unnamed, UTM 628 368                     | 270      | 6/10              | 0           | 0               | 0.8  | V A 6 10             |                 | No           | Yes          | No           | p    |
| Missouri Coteau   | Unnamed, UTM 640 309                     | 158      | 6/14              | 0           | 0               | 1.0  | IV A 7               |                 | Yes          | No           | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 646 096                     | 189      | 6/5               | 0           | 0               | 2.0  | n.r.                 |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 650 075                     | 196      | 6/14              | 2           | 4               | 0.5  | IV 7                 | IV 7            | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 650 295                     | 159      | 6/14              | 0           | 0               | 1.2  | IV A                 |                 | Yes          | Yes          | Yes          | p    |

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|-------------------|--|----------|-------------------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Missouri Coteau   | Unnamed, UTM 662 075<br>(adj. to Burn Lake) <sup>3</sup> | 197      | 6/19              | 0           | 1               | 0.5 | IV A 10 14          |                 | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 673 266                                     | 161      | 6/14              | 0           | 0               | 0.5 | IV A                |                 | Yes          | No           | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 684 062 <sup>3</sup>                        | 199      | 6/19              | 1           | 2               | 3.2 | IV A 8              |                 | Yes          | No           | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 691 060 <sup>3</sup>                        | 200      | 6/19              | 0           | 0               | 1.2 | IV A 7              |                 | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 700 080 <sup>3</sup>                        | 194      | 6/19              | 0           | 0               | 0.5 | IV A 7              |                 | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 705 056                                     | 201      | 6/3               | 10          | 28              | 4.5 | IV A 7 8 10         | IV A 7 8<br>10  | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 714 054                                     | 203      | 6/3               | 0           | 2               | 1.0 | IV A 7 10           | IV A 7 10       | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 717 067                                     | 202      | 6/12              | 6           | 16              | 4.0 | IV 7 8              | IV 7 8          | Yes          | Yes          | Yes          | f/p  |
| Missouri Coteau   | Unnamed, UTM 725 075                                     | 193      | 6/3               | 0           | 0               | 1.0 | IV A 10             |                 | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 733 205                                     | 171      | 6/14              | 0           | 0               | 2.0 | IV 10 14            |                 | Yes          | No           | Yes          | n.r. |
| Missouri Coteau   | Unnamed, UTM 735 128 <sup>3</sup>                        | 189      | 5/27              | 0           | 1               | 1.1 | IV A 7 10           | IV A 10         | Yes          | No           | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 737 191                                     | 174      | 6/7               | 0           | 0               | 1.5 | IV A 10             |                 | Yes          | No           | Yes          | s/p  |
| Missouri Coteau   | Unnamed, UTM 738 085                                     | 191      | 6/13              | 1           | 3               | 0.1 | IV A 10             |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 739 075                                     | 192      | 6/13              | 0           | 0               | 0.1 | IV A 10             |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 740 181                                     | 175      | 6/7               | 0           | 0               | 2.3 | IV A 7 10           |                 | Yes          | No           | Yes          | s/p  |
| Missouri Coteau   | Unnamed, UTM 740 187                                     | 176      | 6/7               | 0           | 0               | 2.6 | IV A 7 10           |                 | Yes          | No           | Yes          | s/p  |
| Missouri Coteau   | Unnamed, UTM 752 204                                     | 177      | 6/13              | 0           | 0               | 0.4 |                     |                 | Yes          | No           | Yes          | n.r. |
| Missouri Coteau   | Unnamed, UTM 770 230                                     | 168      | 6/13              | 0           | 0               | 2.2 | IV A 7 10           |                 | Yes          | No           | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 775 125 <sup>3</sup>                        | 186      | 6/19              | 0           | 0               | 3.2 | IV V A 7 10         |                 | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 776 116 <sup>3</sup>                        | 187      | 6/19              | 0           | 0               | 3.2 | IV V A 7 10         |                 | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 831 160 <sup>3</sup>                        | 178      | 6/1               | 0           | 0               | 3.0 | VIII A 15           |                 | Yes          | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 832 010                                     | 208      | 6/12              | 1           | 2               | 1.0 | IV I 6 7            | IV I 6          | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 840 020                                     | 207      | 6/12              | 2           | 10              | 3.5 | IV 6 7              | IV 6 7          | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 841 995                                     | 210      | 6/5               | 2           | 4               | 3.0 | IV D 6 7            | IV H 8 10       | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 842 003                                     | 209      | 6/15              | 0           | 5               | 0.5 | IV H 7 10           | IV H 7 10       | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 842 027                                     | 206      | 6/15              | 2           | 4               | 1.5 | IV 6 7              | IV 7            | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 842 162                                     | 179      | 6/7               | 2           | 4               | 2.5 | IV A 7 10           | IV A 7          | Yes          | Yes          | Yes          | p    |

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|-------------------|-----------------------------------|----------|-------------------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Missouri Coteau   | Unnamed, UTM 845 167              | 180      | 6/16              | 0           | 0               | 0.5  | IV A 10             |                 | No           | Yes          | Yes          | n.r. |
| Missouri Coteau   | Unnamed, UTM 846 992              | 214      | 6/15              | 5           | 15              | 3.5  | IV 7                |                 | Yes          | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 847 800 <sup>2</sup> | 217      |                   |             |                 |      |                     |                 | No           | Yes          | No           | m    |
| Missouri Coteau   | Unnamed, UTM 848 171              | 181      | 6/16              | 0           | 2               | 0.5  | IV A 1 6 7          | IV A 6          | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 849 167 <sup>3</sup> | 182      | 5/27              | 1           | 1               | 0.7  | IV A 7 10           | IV A 7          | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 851 988              | 211      | 6/5               | 0           | 0               | 1.2  | IV D 7 12           |                 | No           | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 856 984              | 212      | 6/12              | 0           | 0               | 0.5  | IV H 7 10           |                 | No           | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 857 197              | 172      | 6/16              | 0           | 0               | 1.5  | IV A 7              |                 | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Unnamed, UTM 860 985              | 213      | 6/12              | 0           | 0               | 1.0  | IV H 7 10           |                 | No           | Yes          | Yes          | f    |
| Missouri Coteau   | Unnamed, UTM 863 200              | 173      | 6/16              | 0           | 0               | 2.0  | IV A 1 6            |                 | Yes          | Yes          | Yes          | n.r. |
| Missouri Coteau   | Unnamed, UTM 915 261              | 162      | 6/14              | 0           | 0               | 1.3  | IV A 12             |                 | No           | Yes          | Yes          | p    |
| Missouri Coteau   | Wellington Lake                   | 263      | 6/10              | 0           | 0               | 3.0  | V A 7               |                 | Yes          | Yes          | No           | p    |
| Missouri Coteau   | West Coteau Lake                  | 276      | 6/14              | 5           | 15              | 18.7 | n.r.                |                 | Yes          | Yes          | Yes          | p    |
|                   |                                   |          |                   |             |                 |      |                     | IV I 1 7 10     |              |              |              |      |
| Missouri Coteau   | Willow Bunch Lake                 | 205      | 6/6               | 30          | 66              | 49.9 | IV I 1 7 10 12 14   | 14              | Yes          | Yes          | Yes          | p    |
| North Central     | Blaine Lake North                 | 24       | 6/6               | 0           | 0               | 9.0  | IV A                |                 | Yes          | Yes          | Yes          | p    |
| North Central     | Green Lake                        | 4        | 6/13              | 0           | 0               | 0.9  | V A 1 7 8 9 13      |                 | Yes          | Yes          | Yes          | s(p) |
| North Central     | Lizard Lake                       | 57       | 6/10              | 0           | 0               | 6.0  | V D 12              |                 | Yes          | Yes          | Yes          | p    |
| North Central     | NW of Van Scoy Lake               | 68       | 6/15              | 0           | 0               | 12.0 | IV I 12             |                 | Yes          | Yes          | No           | p    |
| North Central     | Pekakumew Lake                    | 5        | 6/10              | 0           | 0               | 5.0  | IV A 1 7 10         |                 | No           | No           | No           | n.r. |
| North Central     | Radisson Lake <sup>2</sup>        |          |                   |             |                 |      |                     |                 | Yes          | Yes          | Yes          | p    |
| North Central     | Redberry Lake                     | 25       | 6/6               | 8           | 19              | 25.0 | IV A 1 7 10 12      |                 | Yes          | Yes          | Yes          | s/p  |
| North Central     | Van Scoy Lake                     | 69       | 6/15              | 0           | 0               | 10.0 | IV I 12             |                 | Yes          | Yes          | Yes          | p    |
| Northeast         | Basin Lake                        | 48       | 6/6               | 0           | 0               | n.r. | IV A 10             |                 | Yes          | Yes          | Yes          | s(p) |
| Northeast         | Bruno Lake                        | 47       | 6/13              | 0           | 0               | 4.8  | V I 6               |                 | No           | Yes          | Yes          | p    |
| Northeast         | Buffer lake                       | 58       | 6/4               | 2           | 4               | 23.0 | IV A 10             | IV A 10         | Yes          | Yes          | Yes          | p    |
| Northeast         | Elkona Lake                       | 49       | 6/4               | 0           | 1               | 5.0  | IV A 10             | IV A 10         | Yes          | Yes          | Yes          | p    |
| Northeast         | Houghton Lake                     | 60       | 6/3               | 0           | 1               | 0.3  | V A 10              | IV A 10         | Yes          | Yes          | Yes          | f/p  |
| Northeast         | Jumping Lake (big)                | 26       | 6/13              | 0           | 0               | 4.8  | V 12                |                 | Yes          | Yes          | Yes          | n.r. |
| Northeast         | Jumping Lake (small) <sup>2</sup> | 27       |                   |             |                 |      |                     |                 | Yes          | Yes          | Yes          | p    |

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|-------------------|---|----------|-------------------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Northeast         | Lake Charron  | 61       | 6/12              | 0           | 0               | 10.0 | V A 1 6 7 8 12      |                 | Yes          | Yes          | Yes          | s(p) |
| Northeast         | Lenore Lake <sup>3</sup>                                  | 51       | 6/19              | 0           | 0               | n.r. | V A 1 2 5 6 7       |                 | Yes          | Yes          | Yes          | p    |
| Northeast         | Lucien Lake <sup>2</sup>                                  |          |                   |             |                 |      |                     |                 | No           | Yes          | Yes          | m/p  |
| Northeast         | Middle Lake   | 50       | 6/16              | 0           | 0               | n.r. | IV A 10             |                 | Yes          | Yes          | Yes          | p    |
| Northeast         | Muskiki Lake  | 59       | 6/5               | 0           | 0               | n.r. | V A 15              |                 | Yes          | Yes          | Yes          | f/p  |
| Northeast         | Shannon Lake  | 46       | 6/12              | 0           | 0               | 10.0 | V A 6 7 12 14       |                 | No           | Yes          | Yes          | p    |
| Northeast         | Unnamed, UTM 665 130 <sup>3</sup>                         | 53       | 6/17              | 0           | 0               | 1.6  | IV A 10 15          |                 | Yes          | Yes          | Yes          | p    |
| Northeast         | Unnamed, UTM 670 165 <sup>3</sup>                         | 52       | 6/17              | 0           | 0               | n.r. | IV A 8 15           |                 | No           | Yes          | Yes          | p    |
| Northeast         | Waldsea <sup>2</sup>                                      |          |                   |             |                 |      |                     |                 | Yes          | Yes          | No           | n.r. |
| Northwest         | Aroma Lake  | 55       | 6/6               | 3           | 7               | 8.0  | IV D 1 7 8 10       | IV D 8 10       | Yes          | Yes          | Yes          | p    |
| Northwest         | Atton Lake  | 22       | 6/8               | 0           | 0               | 4.8  | V A B 1 3 12 14     |                 | No           | Yes          | No           | m    |
| Northwest         | Belliveau Lake  | 7        | 6/9               | 0           | 0               | n.r. | IV A 7 8 10 15      |                 | No           | No           | Yes          | p    |
| Northwest         | Birch Lake  | 20       | 6/7               | 0           | 0               | 1.0  | IV A 7 15           |                 | No           | No           | No           | p    |
| Northwest         | Blackfoot Lake (UTM 595 880) <sup>3</sup>                 | 18       | 6/2               | 0           | 0               | n.r. | IV A 10             |                 | No           | Yes          | No           | p    |
| Northwest         | Brightsand Beach (Regional Park)                          | 10       | 6/6               | 0           | 0               | 2.0  | V A 1 5 7 12        |                 | No           | No           | No           | m    |
| Northwest         | Brightsand Lake, McFellar's Beach<br>(S end) <sup>4</sup> | 11       | 6/6               | 0           | 0               | 4.0  | V A 7 8 12 14 15    |                 | No           | No           | No           | p    |
| Northwest         | Chisholm Lake   | 40       | 6/16              | 0           | 0               | 2.0  | IV A 12             |                 | No           | Yes          | Yes          | p    |
| Northwest         | Ear Lake <sup>3</sup>                                     | 45       | 6/28              | 0           | 0               | 6.0  | n.r.                |                 | Yes          | Yes          | Yes          | p    |
| Northwest         | Ferron Lake <sup>34</sup>                                 | 15       | 6/2               | 0           | 0               | 2.0  | IV A 7              |                 | No           | No           | No           | p    |
| Northwest         | Freshwater Lake N   | 31       | 6/5               | 0           | 2               | 4.2  | IV H 7              | IV H 7          | No           | Yes          | Yes          | s(p) |
| Northwest         | Freshwater Lake S   | 32       | 6/5               | 3           | 18              | 3.9  | IV H 7              | IV I 7          | No           | Yes          | Yes          | s(p) |
| Northwest         | Houchen Lake  | 38       | 6/7               | 0           | 0               | 2.3  | V A 12              |                 | No           | No           | Yes          | p    |
| Northwest         | Jackfish Lake <sup>3</sup>                                | 19       | 6/2               | 0           | 0               | 1.0  | V A I 1 15          |                 | No           | No           | No           | m/p  |
| Northwest         | Jay Lake <sup>3</sup>                                     | 44       | 6/30              | 0           | 0               | n.r. | n.r.                |                 | Yes          | Yes          | No           | p    |
| Northwest         | Jones Lake (SW of Keppel Lake) <sup>3</sup>               | 54       | 6/22              | 0           | 0               | 0.3  | V A                 |                 | No           | No           | Yes          | n.r. |
| Northwest         | Keppel Lake <sup>2</sup>                                  |          |                   |             |                 |      |                     |                 | Yes          | Yes          | Yes          | n.r. |
| Northwest         | Killsquaw Lakes   | 39       | 6/7               | 1           | 2               | 14.0 | IV A D H 1 2 5 7    | IV D 2          | Yes          | Yes          | Yes          | p    |
| Northwest         | Lac Des Isles   | 3        | 6/11              | 0           | 0               | 7.3  | V A 1 7             |                 | Yes          | Yes          | Yes          | s(p) |
| Northwest         | Lac Ile-a-La-Crosse <sup>3</sup>                          | 2        | 6/23              | 1           | 2               | 0.8  | V D 2               | V D 2           | Yes          | Yes          | Yes          | m    |

**The 2006 International Piping Plover Breeding Census in Saskatchewan  
(Continued)**

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE <sup>1</sup> | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION      | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN      |
|-------------------|---|----------|-------------------|-------------|-----------------|------|--------------------------|-----------------|--------------|--------------|--------------|----------|
| Northwest         | Lambert Lake                                      | 21       | 6/14              | 0           | 0               | 5.6  | IV A 10 15               |                 | Yes          | Yes          | Yes          | n.r.     |
| Northwest         | Landis Lake                                       | 56       | 6/9               | 0           | 0               | 4.0  | IV I 13                  |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Little Manitou Lake                               | 35       | 6/15              | 6           | 13              | 18.3 | IV A 1 15                | IV A 1          | No           | No           | Yes          | s(p)     |
| Northwest         | Little Tramping Lake                              | 64       | 6/10              | 0           | 0               | 2.0  | V I 12 15                |                 | No           | Yes          | Yes          | p        |
| Northwest         | Lydden Lake                                       | 66       | 6/9               | 0           | 0               | 10.0 | V D 14 15                |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Maiden Lake                                       | 13       | 6/3               | 0           | 0               | 3.2  | IV A 12                  |                 | No           | No           | No           | p        |
| Northwest         | Manitou Lake                                      | 34       | 6/7               | 17          | 57              | 75.0 | n.r.                     |                 | Yes          | Yes          | Yes          | s(p)/m/p |
| Northwest         | Peck Lake <sup>2</sup>                            |          |                   |             |                 |      |                          |                 | Yes          | Yes          | No           | n.r.     |
| Northwest         | Peter Pond Lake, sandy<br>point <sup>3</sup>      | 1        | 6/23              | 3           | 6               | 6.6  | V A 2                    | V A 2           | Yes          | Yes          | Yes          | s(p)     |
| Northwest         | Peterson's Farm<br>(Brightsand Lake) <sup>4</sup> | 9        | 6/5               | 0           | 0               | 2.0  | V A 7 14 15              |                 | No           | No           | No           | p        |
| Northwest         | Picnic Lake <sup>2</sup>                          |          |                   |             |                 |      |                          |                 | No           | No           | Yes          | p        |
| Northwest         | Ray's Lake  | 6        | 6/9               | 0           | 0               | 2.0  | IV V VIII A 5 8<br>10 15 |                 | No           | No           | Yes          | p        |
| Northwest         | Reed Lake NW                                      | 43       | 6/30              | 0           | 0               | n.r. | n.r.                     |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Reflex Lake E                                     | 30       | 6/13              | 1           | 2               | 11.8 | IV A 1 3 15              | IV A 1          | Yes          | Yes          | Yes          | s(p)/p   |
| Northwest         | Reflex lake W                                     | 29       | 6/6               | 3           | 8               | 10.7 | IV H 7 10                |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Russell Lake <sup>3</sup>                         | 17       | 6/2               | 0           | 0               | 1.0  | IV A 2 7 15              |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Schopfer Slough                                   | 28       | 6/12              | 0           | 0               | 4.1  | IV A 7 12                |                 | No           | Yes          | Yes          | p        |
| Northwest         | SE of Russel Lake<br>(UTM 639 968)                | 16       | 6/2               | 0           | 0               | 0.2  | IV VIII A I 7            |                 | No           | No           | No           | p        |
| Northwest         | Seagram Lake E                                    | 37       | 6/7               | 0           | 0               | 4.6  | V A 12                   |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Seagram Lake W <sup>3</sup>                       | 36       | 6/23              | 1           | 7               | 9.6  | IV A 1 7 10              | IV A 1 7        | Yes          | Yes          | Yes          | p        |
| Northwest         | Spruce Lake                                       | 8        | 6/9               | 0           | 0               | n.r. | V A 12 14                |                 | No           | No           | No           | p        |
| Northwest         | Stony Lake  | 12       | 6/5               | 0           | 0               | 0.4  | IV A 7 12 15             |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Sunny Lake  | 23       | 6/16              | 0           | 0               | 4.5  | IV A 12                  |                 | No           | Yes          | Yes          | p        |
| Northwest         | Thompson Lakes <sup>4</sup>                       | 14       | 6/3               | 0           | 0               | n.r. | IV A 2 10 11             |                 | No           | No           | No           | p        |
| Northwest         | Tramping Lake                                     | 65       | 6/5               | 0           | 0               | 0.5  | V I 5 8 12 15            |                 | Yes          | Yes          | Yes          | p        |
| Northwest         | Wells Lake  | 33       | 6/9               | 0           | 0               | 11.0 | n.r.                     |                 | No           | Yes          | Yes          | s(p)     |

**The 2006 International Piping Plover Breeding Census in Saskatchewan  
(Continued)**

| COUNTY/<br>REGION  | SITE NAME   | MAP<br># | DATE <sup>1</sup> | BR<br>PAIRS | TOTAL<br>ADULTS | KM    | SITE<br>DESCRIPTION | PIPL<br>HABITAT  | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN      |
|--------------------|---|----------|-------------------|-------------|-----------------|-------|---------------------|------------------|--------------|--------------|--------------|----------|
| Northwest          | West of Spruce Lake<br>(UTM 262 344) <sup>2</sup> |          |                   |             |                 |       |                     |                  | No           | No           | Yes          | p        |
| Northwest          | Winterhaldt Lake                                  | 41       | 6/16              | 0           | 0               | 1.5   | IV A 12             |                  | No           | Yes          | Yes          | p        |
| Northwest          | Zoller Lake                                       | 42       | 6/16              | 0           | 0               | 3.0   | IV B 12             |                  | No           | Yes          | Yes          | p        |
| Regina Plains      | Boundary Dam Reservoir                            | 129      | 6/7               | 0           | 0               | 2.2   | VI A 1 7            |                  | Yes          | Yes          | No           | s(p)     |
| Regina Plains      | Crescent Lake                                     | 109      | 6/7               | 0           | 0               | 10.0  | V A 15              |                  | Yes          | Yes          | Yes          | n.r.     |
| Regina Plains      | Good Spirits Lake <sup>2</sup>                    |          |                   |             |                 |       |                     |                  | Yes          | Yes          | Yes          | s(p)     |
| Regina Plains      | Horseshoe Lake                                    | 103      | 6/6               | 0           | 0               | 2.0   | V VIII A 1          |                  | Yes          | Yes          | Yes          | p        |
| Regina Plains      | Ibsen Lake <sup>3</sup>                           | 127      | 5/31              | 0           | 0               | 7.2   | V A 12              |                  | Yes          | Yes          | Yes          | p        |
| Regina Plains      | Leech Lake  | 107      | 6/7               | 0           | 0               | 12.0  | I A 15              |                  | Yes          | Yes          | Yes          | n.r.     |
| Regina Plains      | Moose Mountain Lake                               | 125      | 6/15              | 0           | 0               | 14.0  | VIII C I 15         |                  | Yes          | Yes          | Yes          | s(p)     |
| Regina Plains      | Nickle Lake                                       | 128      | 6/5               | 0           | 0               | n.r.  | VII I 15            |                  | Yes          | Yes          | Yes          | s/m      |
| Regina Plains      | Potts Lake  | 110      | 6/3               | 0           | 0               | n.r.  | n.r.                |                  | No           | No           | No           | n.r.     |
| Regina Plains      | Rock Lake   | 126      | 6/13              | 0           | 0               | 4.0   | V A 1 15            |                  | Yes          | Yes          | Yes          | p        |
| Regina Plains      | Soda Lake   | 108      | 6/12              | 0           | 0               | 3.0   | IV A 15             |                  | Yes          | Yes          | Yes          | n.r.     |
| S. Saskatchewan R. | Lake Dief (Sask. Landing<br>to Riverhurst)        | 113      | 6/3               | 21          | 42              | 97.0  | III VI A 1 7 12     | VI A 1 6 7<br>12 | Yes          | No           | Yes          | s(p)/m/p |
| S. Saskatchewan R. | Lake Dief. (Riverhurst to<br>Arms)                | 112      | 6/3               | 71          | 168             | 113.0 | n.r.                |                  | Yes          | Yes          | Yes          | s(p)     |
| S. Saskatchewan R. | S. Saskatchewan R.,<br>middle                     | 84       | 6/4               | 3           | 18              | 105.9 | n.r.                |                  | Yes          | Yes          | Yes          | s(p)/f/p |
| Saskatoon SE       | Bradwell Reservoir                                | 78       | 6/10              | 0           | 0               | 0.5   | VII I 7 15          |                  | Yes          | Yes          | Yes          | m        |
| Saskatoon SE       | Burke Lake  | 72       | 6/5               | 0           | 0               | 1.7   | IV I 12             |                  | Yes          | Yes          | Yes          | p        |
| Saskatoon SE       | Esker Slough<br>(UTM 124 657)                     | 76       | 6/3               | 0           | 0               | n.r.  | VIII D 15           |                  | Yes          | Yes          | Yes          | p        |
| Saskatoon SE       | Meacham S and E                                   | 79       | 6/6               | 0           | 0               | n.r.  | n.r.                |                  | Yes          | Yes          | Yes          | p        |
| Saskatoon SE       | Meacham SE<br>(UTM 603 647)                       | 80       | 6/10              | 0           | 0               | 0.5   | VIII D I 7          |                  | Yes          | Yes          | Yes          | p        |
| Saskatoon SE       | NW of Blucher<br>(UTM 097 670)                    | 74       | 6/3               | 0           | 0               | 2.0   | VIII D 15           |                  | Yes          | Yes          | No           | p        |
| Saskatoon SE       | NW of Blucher<br>(UTM 103 667)                    | 75       | 6/3               | 0           | 0               | n.r.  | VIII D 15           |                  | Yes          | Yes          | No           | p        |

## The 2006 International Piping Plover Breeding Census in Saskatchewan (Continued)

| COUNTY/<br>REGION | SITE NAME                           | MAP<br># | DATE <sup>1</sup> | BR<br>PAIRS | TOTAL<br>ADULTS         | KM            | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|-------------------|-------------------------------------|----------|-------------------|-------------|-------------------------|---------------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Saskatoon SE      | NW of Blucher (UTM 155 642)         | 77       | 6/15              | 3           | 6                       | 4.8           | VIII D 7            |                 | Yes          | Yes          | Yes          | p      |
| Saskatoon SE      | Patience Lake                       | 73       | 6/14              | 0           | 0                       | 10.0          | IV I 10 12          |                 | Yes          | Yes          | Yes          | p      |
| Saskatoon SE      | Porter Lake <sup>3</sup>            | 71       | 7/5               | 0           | 0                       | 4.0           | IV I 12             |                 | Yes          | Yes          | Yes          | s/p    |
| Southwest         | Antelope Lake                       | 120      | 6/7               | 0           | 0                       | 13.5          | IV D 1 8 10         |                 | Yes          | Yes          | No           | p      |
| Southwest         | Bigstick Lake, N&W sides            | 118      | 6/15              | 0           | 0                       | 1.0           | IV H 14             |                 | Yes          | Yes          | No           | f/s/p  |
| Southwest         | Freefight Lake                      | 116      | 6/6               | 2           | 7                       | 6.0           | IV A 1 2 7 8        | IV A 1 7        | Yes          | Yes          | Yes          | s(p)   |
| Southwest         | Ingebrigt Lake                      | 117      | 6/6               | 0           | 0                       | 11.2          | IV A 10             |                 | Yes          | Yes          | Yes          | s/p    |
| Southwest         | Lonetree Lake                       | 124      | 6/5               | 0           | 0                       | n.r.          | IV D I 7 10 15      |                 | Yes          | Yes          | Yes          | p      |
| Southwest         | MacLaren Lake                       | 121      | 6/5               | 0           | 0                       | 2.0           | V A 1 12            |                 | Yes          | Yes          | Yes          | m/p    |
| Southwest         | N of Antelope Lake<br>(UTM 818 790) | 119      | 6/6               | 0           | 0                       | 8.0           | IV A 10             |                 | No           | Yes          | No           | s(p)/p |
| Southwest         | Notukeu Lake                        | 123      | 6/6               | 3           | 6                       | 9.6           | IV A 1 5 7 8 10     | IV A 5 6        | Yes          | Yes          | Yes          | p      |
| Southwest         | S of Tenaille Lake<br>(UTM 110 467) | 122      | 6/5               | 0           | 0                       | 10.0          | IV A 1 7            |                 | Yes          | Yes          | No           | s/p    |
| Southwest         | Snakehole Lake                      | 114      | 6/4               | 0           | 0                       | 1.0           | IV A D 10           |                 | Yes          | Yes          | Yes          | p      |
| Southwest         | Success Lake                        | 115      | 6/5               | 0           | 0                       | 5.0           | IV A 10             |                 | No           | Yes          | Yes          | p      |
| West              | Alsask Reservoir                    | 104      | 6/7               | 0           | 0                       | 1.0           | IV A 10             |                 | Yes          | Yes          | Yes          | p      |
| West              | Luck Lake                           | 111      | 6/8               | 0           | 0                       | 1.6           | IV I 13             |                 | No           | No           | Yes          | n.r.   |
| West              | Opuntia Lake                        | 67       | 6/5               | 0           | 0                       | 1.3           | V I 12              |                 | Yes          | Yes          | No           | f      |
| West              | Plover Lake                         | 62       | 6/7               | 0           | 0                       | 6.4           | IV A 12 14          |                 | Yes          | Yes          | No           | p      |
| West              | Stockwell Lake                      | 105      | 6/6               | 0           | 0                       | 0.2           | V I 12              |                 | Yes          | Yes          | Yes          | f      |
| West              | Valley Center (UTM 025 454)         | 70       | n.r.              | 1           | 2                       | 4.0           | IV I 10             |                 | Yes          | Yes          | Yes          | m      |
| West              | Zella Lake                          | 63       | 6/5               | 0           | 0                       | 0.3           | IV VIII I 12        |                 | Yes          | Yes          | Yes          | p      |
| <b>Total</b>      |                                     |          |                   | <b>548</b>  | <b>1596<sup>5</sup></b> | <b>1821.8</b> |                     |                 |              |              |              |        |

<sup>1</sup> At some large sites surveys spanned multiple days. We report the date surveys were initiated.

<sup>2</sup> These sites had no habitat and were not surveyed but are in this table to document they were checked during or near the Census period. Some sites were also included on maps.

<sup>3</sup> Please note that these surveys were conducted outside the Census window.

<sup>4</sup> Locations mapped include some uncertainty ( $\pm$  10-20 km).

<sup>5</sup> This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in Alberta

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Virtually all known Piping Plover sites and habitats were visited in Alberta during the 2006 International Census. A total of 32 observers participated in the survey contributing approximately 350 person-hours of survey effort. These observers covered at least 450 km of shoreline by foot, boat, vehicle, or all-terrain vehicle at 71 lakes in Alberta. All sites that were covered in previous international censuses that had suitable habitat were visited. Fifty six lakes surveyed in 2001 were not surveyed this year because the habitat there was known to be currently unsuitable. Eleven lakes that were not surveyed in 2001 were included in the 2006 census because Piping Plovers had been observed there at some time over the last four years or they were deemed to have suitable habitat. Overall, at least 95% of the known historical and potentially suitable habitat was surveyed in Alberta during the 2006 census.

Breeding populations of Piping Plovers in Alberta increased from 180 to 276 individuals between 1991 and 1996, although this increase was at least partly attributable to a large increase in the number of lakes surveyed (48 to 103). A substantial decline was observed between 1996 and 2001, from 276 to 150 individuals with similar survey efforts (115 lakes surveyed). In 2006, 274 birds were observed in Alberta (71 lakes surveyed), indicating that populations in Alberta have rebounded to similar levels found

in 1996 and show an 83% increase since 2001. This may be due, in part, to implementation of Alberta's Piping Plover Recovery Plan initiated in 2002. This has resulted in habitat protection and improvement at several lakes as well as a nest predator exclosure program which has dramatically increased nesting success of plovers where implemented.

Results from the 2006 survey adequately represent the actual population within Alberta. Since the 2001 International census, breeding pair and brood surveys have been completed on between 33 and 44 lakes each year. This has led to new populations being discovered on five Alberta lakes and results in habitat suitability being monitored at many historical sites. It is unlikely that many lakes with substantial plover populations were missed during the 2006 survey. The observed population of 274 individuals is likely an underestimate since some birds observed as singles may have had a mate. Further, because most nests in Alberta are initiated by about May 15th, some failed breeders may move away from breeding areas by mid-June.

Habitat conditions in Alberta differ greatly from year to year, depending on precipitation. Water levels are highly variable on most lakes, and vegetation encroachment can limit the availability of suitable habitat. In 2006, water levels were relatively high, and beach widths were fairly narrow. Despite this, more plovers were found in Alberta than in any year since 1996.

Even if suitable habitat is present, land use (recreation, grazing, industrial activity) can reduce habitat quality in some areas. However, extensive management over the past few years has alleviated this problem to some extent. In addition, use of predator exclosures at key plover lakes has resulted in large gains in productivity. Management of habitat and nests has no doubt contributed to higher populations

of plovers in Alberta since the last international census.

### **Comparison of Census Numbers**

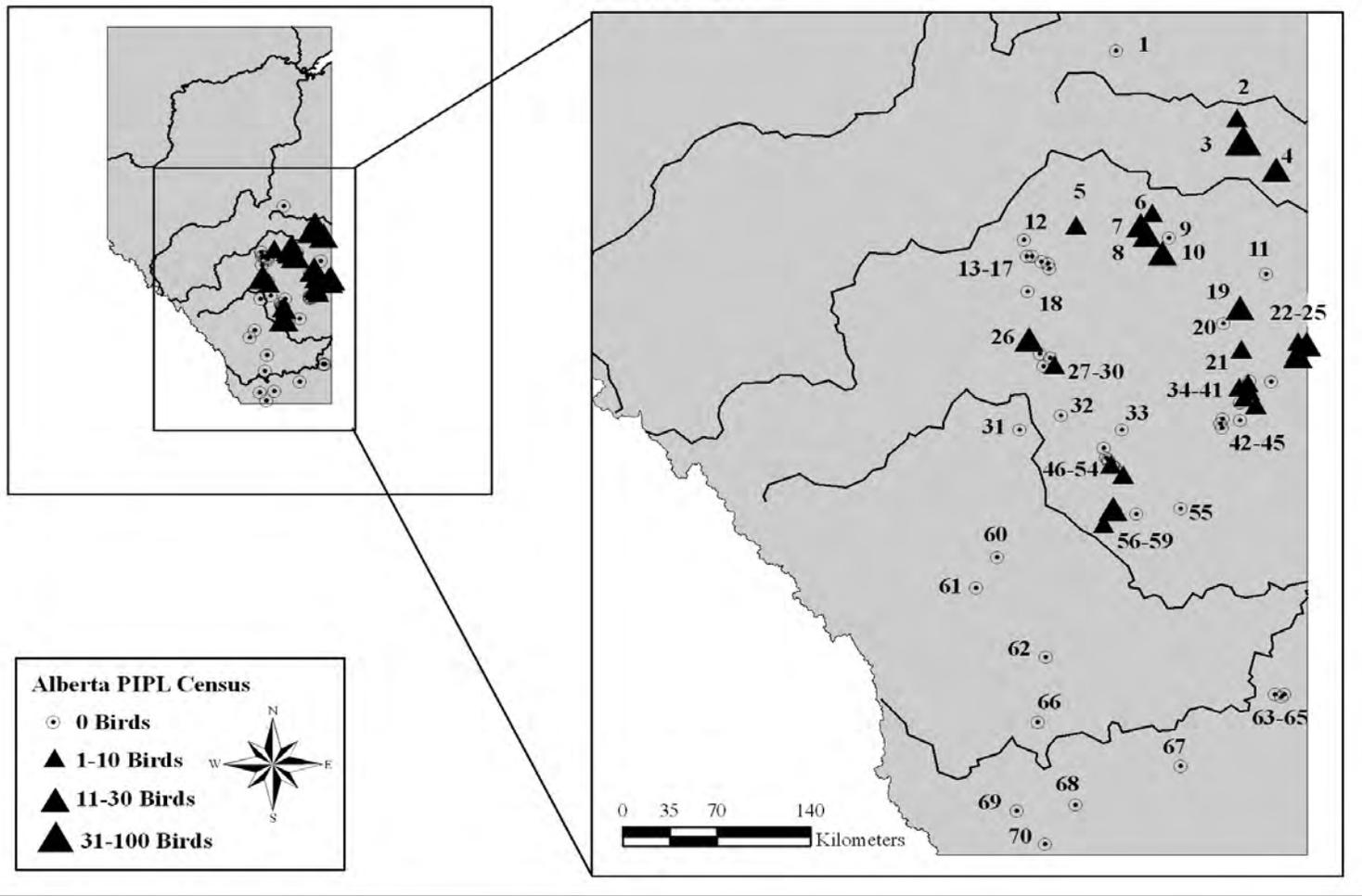
|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 180  | 276  | 150  | 274 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### **Detectability Study**

| Sites Included          | First Count | Second Count |
|-------------------------|-------------|--------------|
| Rockeling Bay           | 0           | 0            |
| Shanks Lake             | 0           | 0            |
| Birch Lake, North Basin | 0           | 0            |

## 2006 International Piping Plover Breeding Census - Alberta -



## The 2006 International Piping Plover Breeding Census in Alberta

| COUNTY/<br>REGION           | SITE NAME                                 | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION   | PIPL<br>HABITAT  | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN      |
|-----------------------------|---|----------|------|-------------|-----------------|------|-----------------------|------------------|--------------|--------------|--------------|----------|
| Beaver                      | Beaverhill Lake                           | 5        | 6/16 | 3           | 8               | 16.0 | IV A 1 5 6 7 10<br>14 |                  | No           | Yes          | Yes          | s(p)     |
| Bonnyville                  | Frog Lake                                 | 4        | 6/09 | 4           | 12              | 46.0 | IV H 7                |                  | No           | Yes          | Yes          | federal  |
| Bonnyville                  | Muriel Lake                               | 3        | 6/10 | 18          | 46              | 10.0 | V H 1 7 8             | V H 1 8          | No           | Yes          | Yes          | s(p)/m/p |
| Camrose                     | Bittern Lake                              | 18       | 6/06 | 0           | 0               | 5.0  | IV A 7 10             |                  | No           | Yes          | Yes          | s(p)/p   |
| Camrose                     | Buffalo Lake                              | 30       | 6/13 | 0           | 0               | 20.0 |                       |                  | Yes          | Yes          | Yes          | s(p)/m/p |
| Camrose                     | Miquelon Lake #1 <sup>1</sup>             | 17       | 6/01 | 0           | 0               | 2.0  | V 1 2 6 12 15         |                  | No           | Yes          | Yes          | p        |
| Camrose                     | Miquelon Lake #2 <sup>1</sup>             | 16       | 5/25 | 0           | 0               | 2.0  | IV A D G 6 7          |                  | Yes          | Yes          | Yes          | s(p)     |
| Camrose                     | Miquelon Lake #3 (Main lake) <sup>1</sup> | 15       | 5/25 | 0           | 0               | 7.0  | IV A D G 1 6 7<br>12  |                  | Yes          | Yes          | Yes          | s(p)/p   |
| Camrose                     | Red Deer Lake <sup>1</sup>                | 26       | 6/18 | 8           | 16              | 7.0  | IV A D 6 7            | IV A 7           | No           | Yes          | Yes          | s(p)/p   |
| Camrose                     | Rockeling Bay                             | 28       | 6/05 | 0           | 0               | 3.5  | IV A D 6 7 12         |                  | Yes          | Yes          | Yes          | s(p)     |
| Camrose                     | Sittingstone Lake North and<br>South      | 27       | 6/06 | 0           | 0               | 8.0  | IV D 7                |                  | No           | No           | Yes          | s(p)     |
| Cardston                    | Shanks Lake <sup>1</sup>                  | 70       | 6/02 | 0           | 0               | 2.4  | V VIII A 1 7 8<br>10  |                  | No           | Yes          | Yes          | s(p)/p   |
| Cardston                    | St. Mary Reservoir                        | 69       | 6/09 | 0           | 0               | n.r. | VII                   |                  | No           | Yes          | Yes          | s(p)     |
| Cypress (MD)                | Chappice Lake <sup>1</sup>                | 63       | 6/19 | 0           | 0               | 5.6  | IV A 7 10 14          |                  | Yes          | Yes          | Yes          | s(p)     |
| Cypress (MD)                | Rutherford Lake                           | 64       | 6/20 | 0           | 0               | 3.2  | IV A 7 10 12          |                  | Yes          | Yes          | Yes          | s(p)/p   |
| Cypress (MD)                | Sam Lake                                  | 65       | 6/19 | 0           | 0               | 5.6  | IV A 7 10 12          |                  | Yes          | Yes          | Yes          | s(p)     |
| Forty-Mile                  | Chin Coulee                               | 67       | 6/09 | 0           | 0               | n.r. | VIE I                 |                  | No           | No           | No           | n.r.     |
| Leduc                       | Joseph Lake                               | 13       | 6/15 | 0           | 0               | 11.0 | IV A 1 6 7 12         |                  | No           | No           | Yes          | s(p)/m/p |
| Leduc/<br>Camrose           | Oliver Lake <sup>1</sup>                  | 14       | 5/26 | 0           | 0               | 3.5  | IV A D G 6 7          |                  | No           | No           | No           | s(p)/p   |
| Lethbridge                  | Keho Lake <sup>1</sup>                    | 66       | 6/20 | 0           | 0               | n.r. | VI D 12               |                  | Yes          | Yes          | Yes          | s(p)/p   |
| Minburn                     | Akasu Lake <sup>1</sup>                   | 7        | 6/02 | 5           | 12              | 10.5 | IV A G 7 10 12        |                  | Yes          | Yes          | Yes          | s(p)     |
| Minburn                     | Birch Lake, Main Basin                    | 10       | 6/13 | 12          | 22              | 7.0  | IV A G 7 10           | IV A G 7 8<br>10 | No           | Yes          | Yes          | s(p)     |
| Minburn                     | Birch Lake, North Basin                   | 9        | 6/13 | 0           | 0               | 3.0  | IV A G 7 10           |                  | No           | Yes          | Yes          | m        |
| Minburn                     | Junction Lake                             | 8        | 6/05 | 7           | 14              | 6.2  | IV A 1 7 10           | IV A 7 10        | No           | Yes          | Yes          | s(p)     |
| Paintearth/<br>Stettler/SA2 | Sullivan Lake                             | 33       | 6/07 | 0           | 0               | 20.0 | IV A D 6 12           |                  | No           | Yes          | Yes          | s(p)/p   |

**The 2006 International Piping Plover Breeding Census in Alberta  
(Continued)**

| COUNTY/<br>REGION  | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN    |
|--------------------|---|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|--------|
| Provost (MD)       | Clark Lake <sup>1</sup>                               | 2        | 6/01 | 1           | 9               | 1.5  | IV H 7              | IV H 7          | No           | No           | No           | n.r.   |
| Provost (MD)       | Hansman Lake  | 34       | 6/16 | 0           | 0               | 0.9  | IV I 12             |                 | No           | No           | Yes          | m      |
| Provost (MD)       | Horseshoe Lake  | 36       | 6/07 | 3           | 8               | 11.0 | IV H 7 10           | IV H 7          | Yes          | Yes          | Yes          | p      |
| Provost (MD)       | McLaren (formerly unnamed SE<br>on Captain Eyre Lake) | 38       | 6/04 | 3           | 6               | 4.5  | IV H 7              | IV H 7          | No           | Yes          | Yes          | n.r.   |
| Provost (MD)       | Metiskow Lake   | 35       | 6/16 | 0           | 0               | 2.5  | IV 7                |                 | Yes          | Yes          | Yes          | m      |
| Provost (MD)       | Piper Lake  | 37       | 6/04 | 2           | 6               | 1.4  | IV H 7              | IV H 7          | Yes          | Yes          | Yes          | p      |
| Provost (MD)       | Sunken Lake   | 40       | 6/07 | 3           | 7               | 1.2  | IV H 7              |                 | Yes          | Yes          | Yes          | p      |
| Provost (MD)       | West Lake   | 39       | 6/08 | 0           | 0               | 4.3  | IV A 7              |                 | No           | No           | No           | p      |
| Provost/Wainwright | Killarney Lake  | 24       | 6/08 | 9           | 27              | 11.2 | IV H 7              | IV H 7          | Yes          | Yes          | Yes          | s(p)   |
| Red Deer           | Goosequill Lake <sup>1</sup>                          | 31       | 5/06 | 0           | 0               | 8.8  | IV I 15             |                 | Yes          | Yes          | Yes          | s(p)/p |
| Rockyview<br>(MD)  | Dalemead Lake (Langdon<br>reservoir)                  | 61       | 6/06 | 0           | 0               | 10.4 | VI D 6              |                 | No           | No           | No           | s(p)/p |
| Special Areas 1    | Chain Lake 2  | 50       | 6/04 | 0           | 0               | n.r. | VIII I 12           |                 | No           | No           | Yes          | s(p)/p |
| Special Areas 2    | Chain Lake 3A   | 51       | 6/04 | 0           | 0               | 2.5  | IV H 10             |                 | Yes          | Yes          | Yes          | s(p)/p |
| Special Areas 2    | Chain Lake 5  | 49       | 6/04 | 0           | 0               | 0.0  | VIII I 14           |                 | No           | Yes          | Yes          | p      |
| Special Areas 2    | Chain Lake 6 <sup>1</sup>                             | 48       | 6/18 | 0           | 0               | 5.0  | VIII I 14           |                 | Yes          | Yes          | Yes          | p      |
| Special Areas 2    | Coleman Lake  | 56       | 6/12 | 0           | 0               | 12.0 | IV A D 6 7          |                 | No           | No           | Yes          | s(p)   |
| Special Areas 2    | Dowling Lake <sup>1</sup>                             | 54       | 6/02 | 3           | 8               | 33.0 | IV H 7 10 12        | IV H 7          | Yes          | Yes          | Yes          | s(p)/p |
| Special Areas 2    | Handhills Lake  | 58       | 6/03 | 8           | 17              | 13.0 | IV H 7 10           | IV H 7          | Yes          | Yes          | Yes          | p      |
| Special Areas 2    | Littlefish Lake                                       | 59       | 6/05 | 2           | 4               | 6.0  | IV H 1 7            | IV H 1 7        | Yes          | Yes          | Yes          | s(p)   |
| Special Areas 2    | Pearl Lake (Chain Lake 1)                             | 1        | 6/05 | 0           | 0               | 6.0  | IV H 10             |                 | Yes          | Yes          | Yes          | s(p)/p |
| Special Areas 2    | Plover Lake   | 55       | 6/19 | 0           | 0               | 0.0  | IV I 15             |                 | No           | Yes          | Yes          | m      |
| Special Areas 2    | Unnamed Lake (0.5km S of<br>Handhills)                | 57       | 6/03 | 0           | 0               | 1.0  | IV H 7              |                 | No           | No           | Yes          | m      |
| Special Areas 4    | Foster Lake   | 41       | 6/14 | 1           | 2               | 6.7  | IV A 1 7 12         | IV A 7          | No           | No           | Yes          | s(p)/p |
| Special Areas 4    | Gooseberry Lake                                       | 42       | 6/08 | 0           | 0               | 10.0 | IV A 1 10 12        |                 | Yes          | Yes          | Yes          | s(p)/p |
| Special Areas 4    | Neutral Hills A <sup>1</sup>                          | 45       | 6/19 | 0           | 0               | 4.6  | IV A 6 10 12        |                 | Yes          | Yes          | Yes          | s(p)/p |
| Special Areas 4    | Neutral Hills B1 & B2 <sup>1</sup>                    | 44       | 6/19 | 0           | 0               | 19.8 | IV A 6 10 12        |                 | Yes          | Yes          | Yes          | s(p)/p |
| Special Areas 4    | Neutral Hills C1 <sup>1</sup>                         | 43       | 6/19 | 0           | 0               | n.r. | IV A                |                 | Yes          | Yes          | Yes          | p      |

**The 2006 International Piping Plover Breeding Census in Alberta  
(Continued)**

| COUNTY/<br>REGION            | SITE NAME                    | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN     |
|------------------------------|------------------------------|----------|------|-------------|-----------------|--------------|---------------------|-----------------|--------------|--------------|--------------|---------|
| Starland                     | Chain Lake 7 <sup>1</sup>    | 47       | 6/18 | 0           | 0               | 4.0          | IV H 10             |                 | Yes          | Yes          | Yes          | s(p)/p  |
| Starland                     | Clear Lake - Chain Lake 3    | 52       | 6/04 | 0           | 0               | 3.4          | IV H 10             |                 | Yes          | Yes          | Yes          | s(p)/p  |
| Starland/ Special<br>Areas 2 | Chain Lake 4                 | 53       | 6/04 | 2           | 7               | 11.0         | IV H 7 10           | IV H 7          | Yes          | Yes          | Yes          | s(p)/p  |
| Stettler                     | Lowden Lake                  | 32       | 6/07 | 0           | 0               | 7.5          | IV A D 6 12         |                 | Yes          | Yes          | Yes          | s(p)/p  |
| Stettler                     | Spiers Lake                  | 46       | 6/07 | 0           | 0               | 4.0          | IV A D 6 7          | IV D 7          | Yes          | Yes          | Yes          | f/p     |
| Stettler                     | Rider Lake                   | 29       | 6/06 | 0           | 1               | 4.0          | IV A D G 6 7 10     | IV D 7          | Yes          | Yes          | Yes          | s(p)/p  |
| Strathcona                   | Cooking Lake                 | 12       | 6/15 | 0           | 0               | 2.2          | IV G 1 2 5          |                 | No           | No           | No           | s(p)    |
| Two Hills                    | Plain Lake                   | 6        | 6/14 | 0           | 1               | 4.5          | IV A 12             | IV A 8          | No           | No           | Yes          | s(p)/p  |
| Vermilion River              | Albert Lake                  | 11       | 6/12 | 0           | 0               | 2.0          | IV A 7 10           |                 | Yes          | Yes          | Yes          | s(p)/p  |
| Vulcan                       | McGregor Lake                | 62       | n.r  | 0           | 0               | n.r.         | n.r.                |                 | No           | Yes          | Yes          | s(p)    |
| Wainwright (MD)              | Baxter Lake                  | 19       | 6/07 | 10          | 15              | 4.0          | IV A G 7 10         |                 | Yes          | Yes          | Yes          | s(p)    |
| Wainwright (MD)              | Border Lake                  | 21       | 6/07 | 0           | 1               | 1.5          | IV A 1 12           | IV A 12         | No           | No           | No           | federal |
| Wainwright (MD)              | Cipher Lake <sup>1</sup>     | 22       | 5/31 | 1           | 2               | .2           | IV H 7              | IV H 7          | Yes          | Yes          | Yes          | m       |
| Wainwright (MD)              | Mott Lake                    | 20       | 6/07 | 0           | 0               | 5.0          | IV A 1 12           |                 | No           | No           | No           | federal |
| Wainwright (MD)              | NW of Killarney <sup>1</sup> | 25       | 6/28 | 3           | 6               | 4.0          |                     |                 | No           | Yes          | Yes          | m       |
| Wainwright (MD)              | Reflex Lake                  | 23       | 6/06 | 6           | 17              | 10.7         | IV H 7 10           |                 | Yes          | Yes          | Yes          | p       |
| Warner                       | Milk River Ridge Reservoir   | 68       | 6/09 | 0           | 0               | 2.0          | VI A 1 7            |                 | No           | No           | No           | n.r.    |
| Wheatland                    | Dawson Lake                  | 60       | 6/06 | 0           | 0               | 2.4          | V D 6 10            |                 | No           | No           | No           | p       |
| <b>Total</b>                 |                              |          |      | <b>114</b>  | <b>274</b>      | <b>454.2</b> |                     |                 |              |              |              |         |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

# The 2006 International Piping Plover Breeding Census at sites on the Missouri River (MT, ND, SD, NE)

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The area of survey was the Missouri River from Fort Peck Lake in eastern Montana to Ponca State Park in northeastern Nebraska. Not all of the river and reservoirs between these two boundaries were surveyed as some areas lack habitat.

Of historic and known Piping Plover habitat along the Missouri River and reservoirs only one area was missed during the census. This was the northern part of the Snake Creek Embankment on the east side of Lake Sakakawea, North Dakota. Due to a misunderstanding between two survey crews, each thought the other would survey the site. Neither surveyed the site. As the site immediately west of this site had one Piping Plover and the site immediately south of the site had five Piping Plovers and given that this area contained limited amounts of habitat, it is believed that few plovers were missed. Overall, the Piping Plover adult census for the Missouri River was 1,266.

In comparison to previous International Piping Plover Census results, 2006 represents a record number of Piping Plovers on the Missouri River.

In 1991 625 plovers were counted, in 1996 the census was 187 and in 2001 the number was 1,048. This would represent a 21% (1266/1048) increase in Piping Plover numbers from 2001 to 2006. However, as a part of the U.S. Fish & Wildlife Service’s 2001 Biological Opinion on the Missouri River, the Corps of Engineers is required to conduct an annual census for Piping Plovers on the Missouri River. A comparison with the 2005 results tells a different story. In 2005 a record number of 1,764 Piping Plover adults were counted on the Missouri River. This represents a 28% decline in plover numbers compared to 2006. What follows is a segment by segment comparison between 2005 and 2006.

| Segment                    | 2005 | 2006 | Percent Change |
|----------------------------|------|------|----------------|
| Fort Peck Lake             | 26   | 18   | -31            |
| Missouri below Fort Peck   | 2    | 5    | +150           |
| Lake Sakakawea             | 746  | 427  | -43            |
| Missouri below Garrison    | 220  | 170  | -23            |
| Lake Oahe                  | 364  | 314  | -13            |
| Missouri below Ft. Randall | 42   | 37   | -12            |
| Lewis & Clark Lake         | 24   | 3    | -88            |
| Missouri below Gavins Pt.  | 340  | 292  | -14            |
| Total                      | 1764 | 1266 | -28            |

As the table shows, Piping Plover numbers decreased in seven of the eight segments. Lake Sakakawea had the largest decrease with a decline of 319 adults. The Missouri below Garrison Dam, Lake Oahe and the Missouri below Gavins Point Dam also saw substantial declines in adult numbers with 50, 50 and 48 respectively.

This Census represents the first time in nine years that Piping Plover numbers declined on the Missouri River from one year to the next.

However 2006's 1,266 adults compares favorably to the average annual count of 777 adults for 1993 through 2005. (1993 was the first year a complete census of the Missouri River was completed.)

I believe the 2006 census of the Missouri River adequately represents Piping Plover numbers for the river. From previous years censuses the historical nesting areas on the river were well known and weekly surveys conducted during May 2006 prior to the adult census gave the crews an idea of where the plovers were located. The quality of the crews also provided for accurate counts. Each crew had at least one person with two years experience and several crews had members with five to ten years of experience.

Without question, habitat quality and quantity are the primary factors affecting Piping Plover numbers on the Missouri River. Both the quality and quantity of habitat have been declining on the Missouri River, especially on Lake Sakakawea. Drought in the northern Great Plains and diminished snowpack in the northern Rockies have caused the lake levels for Fort Peck Lake, Lake Sakakawea and Lake Oahe to decline throughout the several past years. This has created substantial shoreline beach habitat for the plovers on Lakes Sakakawea and Oahe. In 2006 however, Lake Sakakawea began the nesting season six feet higher than in 2005. The inundation of shoreline habitat plus the loss of habitat due to vegetation encroachment greatly reduced the amount of habitat available on the lake and probably was responsible for the substantial reduction in adult numbers on the lake. The decline in adult numbers on the Missouri below Garrison Dam and Lake Oahe cannot be attributed to any specific cause, but vegetation encroachment probably reduced the amount of habitat available to the plovers. On the Missouri River below Fort Randall and Gavins Point Dams, increased releases to support navigation on the lower Missouri River

decreased the amount of habitat available during the census compared to 2005.

### Comparison of Census Numbers - Overall

|              | 1991 | 1996 | 2001 | 2006               |
|--------------|------|------|------|--------------------|
| Total Adults | 625  | 185  | 476  | 1,266 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Comparison of Census Numbers - Montana

|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 26   | 24   | 7    | 23 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study - Montana

| Sites Included             | First Count | Second Count |
|----------------------------|-------------|--------------|
| Missouri River Mile 1637.0 | 0           | 0            |

### Comparison of Census Numbers – N Dakota

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 307  | 125  | 643  | 702 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study – North Dakota

| Sites Included                                  | First Count | Second Count |
|---|-------------|--------------|
| Missouri River Mile 1381.0                      | 2           | 2            |
| Missouri River Mile 1380.0 (Rerag Island)       | 7           | 5            |
| Missouri River Mile 1377.3 (Sara's Island)      | 0           | 0            |
| Missouri River Mile 1356.4                      | 0           | 0            |
| Missouri River Mile 1341.3 (Wilton Island)      | 0           | 0            |
| Missouri River Mile 1334.3 (North Double Ditch) | 8           | 6            |
| Missouri River Mile 1328.2 (Sundown Acres)      | 1           | 2            |

**Detectability Study – North Dakota con't**

| Sites Included                                  | First Count | Second Count |
|---|-------------|--------------|
| Lake Oahe (Double Hook) RM 1301.7               | 5           | 4            |
| Lake Oahe (Little Joe Flats) RM 1294.1          | 0           | 0            |
| Lake Oahe (Mclean Island) RM 1291.7             | 8           | 6            |
| Lake Oahe (Fort Rice) RM 1275                   | 0           | 0            |
| Lake Oahe (Porcupine Hill Island) RM 1248.9     | 0           | 0            |
| Lake Sakakawea- Tobacco Garden Bay              | 20          | 14           |
| Lake Sakakawea- Charlson Flats                  | 0           | 0            |
| Lake Sakakawea- White Earth Bay                 | 4           | 2            |
| Lake Sakakawea- Antelope Creek                  | 3           | 4            |
| Lake Sakakawea- Beacon Island                   | 3           | 4            |
| Lake Sakakawea- Rodeo Island East <sup>1</sup>  | 0           | 0            |
| Lake Sakakawea- Fox Island                      | 5           | 9            |
| Lake Sakakawea- Shell Creek Bay                 | 0           | 0            |
| Lake Sakakawea- Gull Island                     | 5           | 8            |
| Lake Sakakawea- Van Hook North                  | 0           | 0            |
| Lake Sakakawea- Van Hook SE                     | 0           | 0            |
| Lake Sakakawea- Sheepshead Island               | 26          | 45           |
| Lake Sakakawea- Deepwater Bay East <sup>2</sup> | 2           | 2            |
| Lake Sakakawea- Arikara Bay                     | 10          | 12           |
| Lake Sakakawea- Ruona Bay                       | 1           | 0            |
| Lake Sakakawea- Nishu Bay                       | 2           | 0            |
| Lake Sakakawea- Beaver Creek Bay                | 4           | 1            |
| Lake Sakakawea- Renner Bay <sup>3</sup>         | 0           | 0            |

| Sites Included                                 | First Count | Second Count |
|--|-------------|--------------|
| Lake Sakakawea- Douglas East Arm               | 1           | 0            |
| Lake Sakakawea- Douglas Creek Bay <sup>4</sup> | 0           | 0            |
| Lake Sakakawea- De Trobriand Bay <sup>5</sup>  | 0           | 0            |
| Lake Sakakawea- Steinke Bay                    | 3           | 0            |
| Lake Sakakawea- West TottenWest <sup>6</sup>   | 5           | 3            |
| Lake Sakakawea- Mallard Island NE              | 15          | 8            |
| Lake Sakakawea- Mallard Island South           | 0           | 0            |

<sup>1</sup>Only east side was included in detectability survey and no birds were seen there on either survey.

<sup>2</sup>Only a portion of this site (2 and 3) was included in the detectability study and 2 birds were seen in this portion on both surveys.

<sup>3</sup>Only a portion of this site (pt #4) was included in the detectability study and no birds were seen there on either survey.

<sup>4</sup>Only portions of this site (islands # 1 and 3) were included in detectability survey and no birds were seen there on either survey.

<sup>5</sup>Only a portion of this site was included in the detectability study and no birds were seen there on either survey.

<sup>6</sup>Only a portion of this site (5 and 7) was included in the detectability study.

**Comparison of Census Numbers – Nebraska**

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 0    | 9    | 8    | 191 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

**Detectability Study – Nebraska**

| Sites Included            | First Count | Second Count |
|---------------------------|-------------|--------------|
| Missouri River Mile 799.0 | 2           | 5            |
| Missouri River Mile 781.5 | 6           | 8            |

### Comparison of Census Numbers – S Dakota

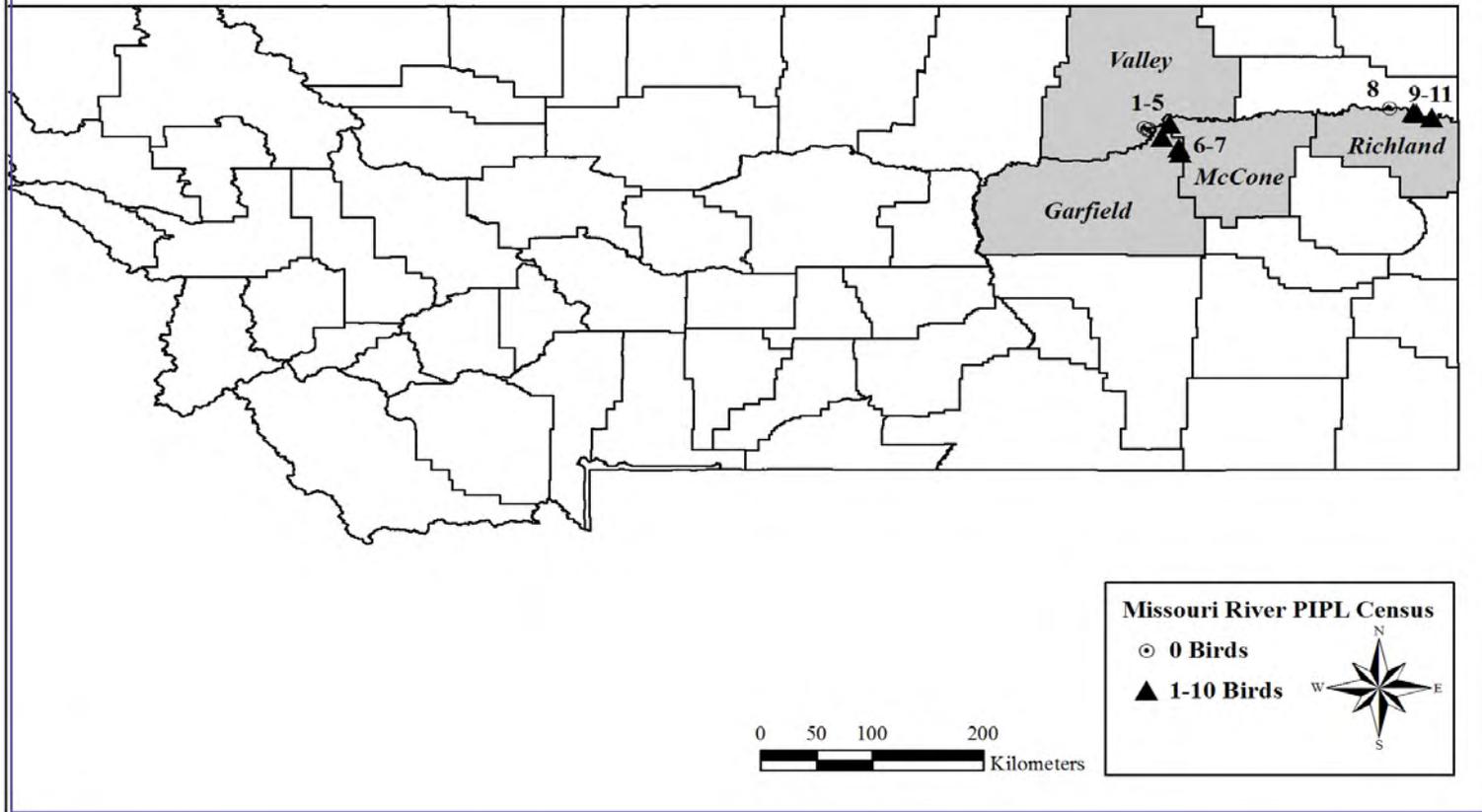
|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 292  | 29   | 390  | 350 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study – South Dakota

| Sites Included                                      | First Count | Second Count |
|---|-------------|--------------|
| Missouri River Mile 790.9                           | 1           | 1            |
| Missouri River Mile 773.0                           | 1           | 0            |
| Missouri River Mile 768.0                           | 4           | 4            |
| Lake Oahe (Demery Island) RM 1231.3                 | 0           | 0            |
| Lake Oahe (Kenel Flats-North) RM 1230.5             | 19          | 13           |
| Lake Oahe (Kenel South) RM 1229                     | 19          | 24           |
| Lake Oahe (Le Compte Creek) RM 1188.5               | 0           | 0            |
| Lake Oahe (Blue Blanket) RM 1189                    | 0           | 0            |
| Lake Oahe (Swift Bird South) RM 1159                | 18          | 20           |
| Lake Oahe (Cheyenne River - Fish Gut Creek) RM 1110 | 0           | 0            |
| Lake Oahe (Little Bend-West) RM 1111                | 0           | 1            |
| Lake Oahe (Dry Creek) RM 1091                       | 0           | 0            |
| Lake Oahe (Plum Creek) RM 1090                      | 0           | 0            |
| Lake Oahe (Cow Creek) RM 1089                       | 6           | 6            |
| Missouri River Mile 842 (The Complex)               | 0           | 0            |

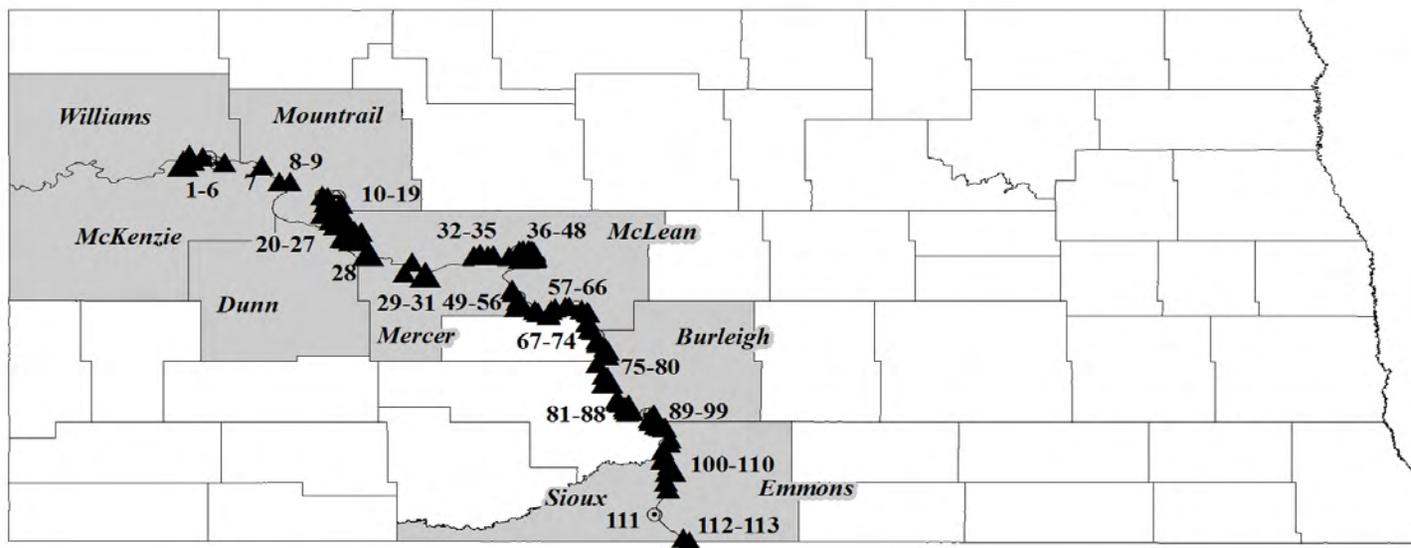
## 2006 International Piping Plover Breeding Census - Missouri River (Montana) -



## The 2006 International Piping Plover Breeding Census on the Missouri River in Montana

| COUNTY/<br>REGION | SITE NAME                                      | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM         | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Garfield          | Haxby Point SE                                 | 4        | 6/9  | 1           | 2               | 0.5        | VI A 15             | VIA 15          | Yes          | Yes          | Yes          | f    |
| Garfield          | Rock Creek Bay                                 | 7        | 6/9  | 1           | 2               | 0.2        | VI A 7              | VIA 7           | Yes          | Yes          | Yes          | f    |
| Garfield          | Rock Creek Bay North                           | 6        | 6/9  | 2           | 4               | 0.5        | VI A 7              | VIA 7           | Yes          | Yes          | Yes          | f    |
| McCone            | Bear Creek Bay                                 | 5        | 6/6  | 1           | 2               | 0.3        | VI A I 7            | VII 7           | Yes          | Yes          | Yes          | f    |
| Richland          | Below Culbertson Missouri River<br>Mile 1607.0 | 11       | 6/7  | 0           | 1               | 0.6        | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Richland          | Below Culbertson Missouri River<br>Mile 1614.8 | 10       | 6/7  | 1           | 3               | 0.3        | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Richland          | Missouri River Mile 1615.5                     | 9        | 6/8  | 0           | 1               | 1.0        | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Richland          | Missouri River Mile 1637.0                     | 8        | 6/8  | 0           | 0               | 0.8        | III A F 5           |                 | Yes          | Yes          | Yes          | s/p  |
| Valley            | Duck Creek Bay                                 | 1        | 6/6  | 1           | 3               | 0.4        | VI G 8 15           | VI G 8          | Yes          | Yes          | Yes          | f    |
| Valley            | Skunk Coulee Bay North 1                       | 2        | 6/6  | 1           | 3               | 0.2        | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f    |
| Valley            | Skunk Coulee Bay North 2                       | 3        | 6/6  | 1           | 2               | 0.6        | VI I 7              | VII 7           | Yes          | Yes          | Yes          | f    |
| <b>Total</b>      |  |          |      | <b>9</b>    | <b>23</b>       | <b>5.4</b> |                     |                 |              |              |              |      |

## 2006 International Piping Plover Breeding Census - Missouri River (North Dakota) -



**North Dakota PIPL Census**

- 0 Birds
- ▲ 1-10 Birds
- ▲ 11-30 Birds
- ▲ 31-100 Birds



## The 2006 International Piping Plover Breeding Census on the Missouri River in North Dakota

| COUNTY/<br>REGION | SITE NAME                                     | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Burleigh          | Lake Oahe (Apple Creek)<br>RM 1300.5          | 88       | 6/7  | 1           | 2               | 0.2 | III VI F 5 13       | III F 5         | Yes          | Yes          | Yes          | f    |
| Burleigh          | Lake Oahe (Castillo's Corner-Huff)<br>RM 1288 | 94       | 6/8  | 2           | 4               | 1.2 | III F 5 12          | VI F 5          | Yes          | Yes          | Yes          | f    |
| Burleigh          | Lake Oahe (Double Hook)<br>RM 1301.7          | 87       | 6/7  | 2           | 5               | 1.6 | III VI F 1 2 13     | III F 1 2       | Yes          | Yes          | Yes          | f    |
| Burleigh          | Lake Oahe (Huff Island-North)<br>RM 1289.3    | 93       | 6/8  | 0           | 1               | 1.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | f    |
| Burleigh          | Lake Oahe (Jace Island) RM 1291.9             | 91       | 6/7  | 4           | 8               | 2.9 | III VI F 5          | III F 5         | Yes          | Yes          | Yes          | f    |
| Burleigh          | Lake Oahe (Little Heart Island)<br>RM 1302.5  | 86       | 6/7  | 0           | 1               | 0.4 | III VI F 2 5 13     | III F 2         | Yes          | Yes          | Yes          | f    |
| Burleigh          | Lake Oahe (Little Joe Flats)<br>RM 1294.1     | 89       | 6/15 | 0           | 0               | 1.2 | III VI F 5          |                 | Yes          | Yes          | Yes          | f    |
| Burleigh          | Lake Oahe (McClean Island)<br>RM 1291.7       | 92       | 6/7  | 2           | 8               | 2.4 | III VI F 5 13       | III F 5         | Yes          | No           | Yes          | f    |
| Burleigh          | Lake Oahe (Rifle Range Island)<br>RM 1293     | 90       | 6/7  | 0           | 0               | 1.2 | III VI F 5 13       |                 | No           | Yes          | Yes          | f    |
| Burleigh          | Missouri River Mile 1304<br>(Mary's Bend)     | 85       | 6/7  | 5           | 9               | 2.8 | III F 2 5 13        | III F 2 5 13    | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1306<br>(Sibley Island)   | 84       | 6/15 | 1           | 2               | 0.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1308.9<br>(Eagle's Nest)  | 83       | 6/7  | 5           | 10              | 2.1 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1310 (Tressel)            | 82       | 6/7  | 3           | 4               | 0.8 | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1310.4<br>(Barracles)     | 81       | 6/7  | 1           | 4               | 1.2 | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1319.5<br>(Heskett)       | 80       | 6/6  | 6           | 12              | 1.6 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1322<br>(Hoge Island)     | 79       | 6/14 | 1           | 1               | 0.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1328.2<br>(Sundown Acres) | 78       | 6/14 | 1           | 2               | 0.8 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census on the Missouri River in North Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Burleigh          | Missouri River Mile 1332<br>(Cadillac Ranch)       | 77       | 6/6  | 2           | 4               | 0.2 | III F 5 13          | III F 5         | No           | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1334.3<br>(North Double Ditch) | 76       | 6/6  | 4           | 8               | 1.9 | III F 5 13          | III F 5         | No           | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1336<br>(Twin Buttes)          | 75       | 6/6  | 4           | 9               | 3.6 | III F 5 13          | III F 5         | No           | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1338.3<br>(Golf Ball Island)   | 74       | 6/6  | 1           | 1               | 1.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1339<br>(Highlines)            | 73       | 6/6  | 0           | 4               | 2.4 | III F 5 13          | III F 5         | No           | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1339.8<br>(Overlook)           | 72       | 6/6  | 0           | 2               | 1.6 | III F 5 13          | III F 5         | No           | Yes          | Yes          | s(p) |
| Burleigh          | Missouri River Mile 1341.3<br>(Wilton Island)      | 71       | 6/6  | 0           | 0               | 0.8 | III F 5 13          |                 | Yes          | Yes          | Yes          | s(p) |
| Dunn              | Lake Sakakawea- Independence<br>Point              | 20       | 6/12 | 0           | 4               | 9.7 | VI A 1 7 12         | VI A 7          | No           | Yes          | Yes          | f    |
| Dunn              | Lake Sakakawea- Ruona Bay                          | 27       | 6/12 | 0           | 1               | 3.2 | VI A 12             | VI A 12         | No           | Yes          | Yes          | f    |
| Emmons            | Lake Oahe (Barrels) RM 1284.3                      | 97       | 6/8  | 4           | 9               | 3.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | f    |
| Emmons            | Lake Oahe (Benoff Island)<br>RM 1283.8             | 98       | 6/8  | 1           | 1               | 0.2 | III F 5             | III F 5         | Yes          | No           | Yes          | f    |
| Emmons            | Lake Oahe (Cyclone Bar)<br>RM 1278.2               | 100      | 6/8  | 1           | 1               | 1.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | f    |
| Emmons            | Lake Oahe (Fire Island) RM 1285                    | 96       | 6/8  | 5           | 10              | 1.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | f    |
| Emmons            | Lake Oahe (Glencoe) RM 1283                        | 99       | 6/8  | 1           | 4               | 1.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | f    |
| Emmons            | Lake Oahe (Gravel Pit) RM 1265.6                   | 107      | 6/12 | 1           | 3               | 0.4 | III VI F 5          | VI F 5          | Yes          | No           | Yes          | f    |
| Emmons            | Lake Oahe (OJ Flats) RM 1266.2                     | 106      | 6/12 | 3           | 5               | 0.8 | VI F 5              | VI F 5          | Yes          | No           | Yes          | f    |
| Emmons            | Lake Oahe (Sheer Island) RM 1276                   | 101      | 6/12 | 1           | 2               | 0.2 | VI F 5              | VI F 5          | Yes          | No           | Yes          | f    |
| Emmons            | Lake Oahe (Silo Island) RM 1286                    | 95       | 6/8  | 3           | 6               | 2.0 | III F 2 5           | III F 2 5       | Yes          | No           | Yes          | f    |
| Emmons            | Lake Oahe (SSD) RM 1264.6                          | 108      | 6/12 | 6           | 12              | 0.4 | VI F G 5            | VI F 5          | Yes          | Yes          | Yes          | f    |
| Emmons            | Lake Oahe (State Line WPA- north)                  | 113      | 6/13 | 5           | 9               | 8.1 | VI A 1              | VI A 1          | Yes          | No           | Yes          | f    |
| Emmons            | Lake Oahe (State Line) RM 1234                     | 112      | 6/9  | 2           | 4               | 2.4 | VI A 7              | VI A 7          | Yes          | No           | Yes          | f    |
| McKenzie          | Lake Sakakawea- Antelope Creek                     | 8        | 6/22 | 2           | 4               | 4.8 | VI A 1 7 12         | VI A 7          | Yes          | No           | Yes          | f    |

**The 2006 International Piping Plover Breeding Census on the Missouri River in North Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|-------------------|--|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|-----|
| McKenzie          | Lake Sakakawea- Beacon Point                     | 6        | 6/15 | 1           | 5               | 6.5  | VI A 1 12           | VI A 1          | Yes          | Yes          | Yes          | f   |
| McKenzie          | Lake Sakakawea- Charlson Flats<br>(1502 RM)      | 5        | 6/13 | 0           | 0               | 2.4  | VI A 12             |                 | No           | No           | Yes          | f   |
| McKenzie          | Lake Sakakawea- Tobacco Gardens<br>Bay           | 1        | 6/7  | 9           | 20              | 2.4  | VI A 1              | VI A 1          | No           | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Arikara Bay                      | 25       | 6/15 | 3           | 12              | 4.8  | VI A 1 6 7          | VI A 6 7        | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Arikara South                    | 26       | 6/6  | 5           | 14              | 3.2  | VI A 1 6 7 12       | VI A 1 6 7      | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- De Trobiand Bay                  | 36       | 6/6  | 2           | 9               | 13.2 | VI A 1 12           | VI A 1          | No           | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Deepwater Bay<br>East            | 23       | 6/5  | 2           | 8               | 11.3 | VI A 1 6 7 12       | VI A 1 6 7      | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Deepwater Bay<br>West            | 22       | 6/5  | 4           | 9               | 6.5  | VI A 1 7 12         | VI A 1 7        | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Deepwater Island                 | 24       | 6/6  | 6           | 13              | 0.8  | VI G 7 8            | VI G 7          | No           | No           | No           | f   |
| McLean            | Lake Sakakawea- Douglas Creek<br>Bay             | 32       | 6/6  | 1           | 7               | 1.6  | VI A 12 14          | VI A 12 14      | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Douglas East<br>Arm              | 33       | 6/13 | 0           | 1               | 3.2  | VI A 7 12           | VI A 12         | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- East Bible Camp<br>Bay           | 34       | 6/13 | 2           | 5               | 4.0  | VI A 7 15           | VI A 7          | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Garrison Cabin<br>Site           | 35       | 6/13 | 1           | 1               | 0.8  | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Good Bear Bay to<br>Bay of Italy | 28       | 6/13 | 7           | 12              | 19.4 | VI A 1 7            | VI A 1 7        | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Mallard Island                   | 42       | 6/15 | 2           | 3               | 8.1  | VI A 1 7            | VI A 7          | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Mallard Island<br>NE             | 43       | 6/7  | 6           | 15              | 3.2  | VI G 1 7 12         | VI G 1 7        | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Mallard Island<br>South          | 47       | 6/14 | 0           | 0               | 6.5  | VI A 7 8            |                 | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Nishu Bay/Island                 | 30       | 6/13 | 0           | 2               | 5.6  | VI G 12             | VI G 12         | Yes          | Yes          | Yes          | f   |
| McLean            | Lake Sakakawea- Seven Sisters                    | 40       | 6/7  | 13          | 29              | 1.6  | VI G 7              | VI G 7          | No           | No           | No           | f   |
| McLean            | Lake Sakakawea- Sheep's Head<br>Island           | 21       | 6/15 | 20          | 45              | 4.8  | VI G 6 7            | VI A G 6 7      | No           | Yes          | Yes          | f   |

**The 2006 International Piping Plover Breeding Census on the Missouri River in North Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| McLean            | Lake Sakakawea- Shell Village<br>Island                    | 19       | 6/5  | 28          | 87              | 10.0 | VIG 1 3 6 12 15     | VIG 1 6<br>15   | No           | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- Snake Creek<br>Embankment                  | 46       | 6/5  | 2           | 5               | 1.6  | VI A D 7 12 15      | VI D 7          | Yes          | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- Steinke Bay                                | 38       | 6/6  | 2           | 3               | 19.4 | VI A G 1 7 12       | VIG 7           | Yes          | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- Steinke Bay<br>Island                      | 39       | 6/7  | 8           | 15              | 9.7  | VIG 1 7 12 15       | VIG 1 7<br>15   | Yes          | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- Steinke Bay<br>Peninsula                   | 37       | 6/16 | 0           | 0               | 0.8  | VI A 7 12           |                 | Yes          | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- Van Hook SW                                | 18       | 6/7  | 2           | 12              | 10.5 | VI A 7 12 15        | VI A 7          | No           | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- West Totten East                           | 45       | 6/8  | 0           | 1               | 5.6  | VI A 1 7 12 15      | VIG 1           | Yes          | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- West Totten<br>Islands                     | 44       | 6/7  | 6           | 14              | 1.6  | VI A 7 12 15        | VIG 7           | No           | No           | No           | f    |
| McLean            | Lake Sakakawea- West Totten West                           | 41       | 6/12 | 6           | 13              | 3.2  | VI A G 1 7 15       | VI A G 1 7      | Yes          | Yes          | Yes          | f    |
| McLean            | Lake Sakakawea- Wolf Creek                                 | 48       | 6/14 | 0           | 0               | 8.1  | VI A 12             |                 | Yes          | Yes          | Yes          | f    |
| McLean            | Missouri River Mile 1344<br>(Carlisle Island)              | 70       | 6/5  | 0           | 1               | 1.2  | III F 5             | III F 5         | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1345 (Sanger)                          | 69       | 6/5  | 3           | 6               | 0.2  | III F 5 13          | III F 5         | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1347.5<br>(Cross Ranch Island)         | 68       | 6/5  | 4           | 8               | 0.8  | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1348.3<br>(Painted Woods Creek Island) | 67       | 6/5  | 2           | 4               | 3.2  | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1351<br>(Tweetum Island)               | 66       | 6/5  | 1           | 5               | 1.2  | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1352.5<br>(Bardello Island)            | 65       | 6/5  | 2           | 7               | 0.3  | III F 5 13          | III F 5         | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1353.7<br>(Washburn Island)            | 64       | 6/5  | 1           | 2               | 2.4  | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1356.4                                 | 63       | 6/4  | 0           | 0               | 0.3  | III F 5 6 13        |                 | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1357.3                                 | 62       | 6/4  | 0           | 4               | 0.3  | III F 5 6 13        | III F 6         | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1358                                   | 61       | 6/4  | 3           | 10              | 0.1  | III F 3 5 6 13      | III F 5 6       | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1361                                   | 60       | 6/4  | 0           | 2               | 0.2  | III F 5 6 13        | III F 5         | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census on the Missouri River in North Dakota  
(Continued)**

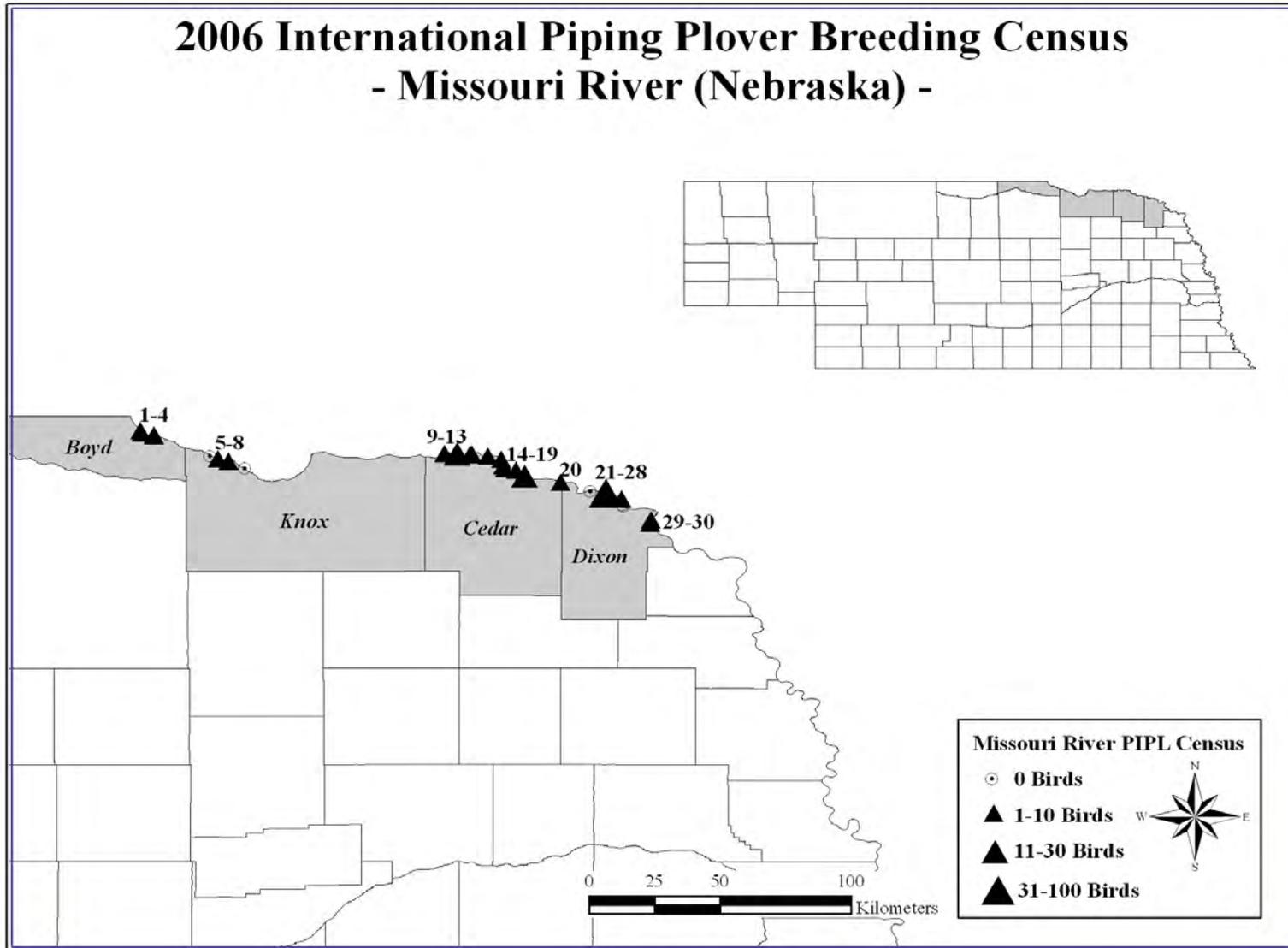
| COUNTY/<br>REGION | SITE NAME                                      | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT    | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|------|---------------------|--------------------|--------------|--------------|--------------|------|
| McLean            | Missouri River Mile 1362.4                     | 59       | 6/4  | 1           | 3               | 0.2  | III A 1 6 12        | III A 1 6          | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1364.5<br>(Cow Bar)        | 58       | 6/4  | 2           | 7               | 0.3  | III F 1 3 6         | III F I 1          | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1365.0                     | 57       | 6/4  | 0           | 4               | 0.2  | III F 3 5 6         | III F 6            | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1367.5                     | 56       | 6/4  | 2           | 9               | 0.3  | III F 5 6 13        | III F 5 6 13       | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1369.0                     | 55       | 6/3  | 0           | 1               | 0.1  | III A 3 5 12 15     | III A 12           | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1370.0                     | 54       | 6/3  | 0           | 0               | 0.1  | III F 5 6           |                    | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1374<br>(Honey Hole)       | 53       | 6/3  | 2           | 15              | 0.5  | III F 5 6 13        | III F 5 6 13       | No           | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1376.0                     | 52       | 6/3  | 0           | 2               | 0.3  | III G 6             | III G 7            | No           | No           | Yes          | s(p) |
| McLean            | Missouri River Mile 1377.3<br>(Sara's Island)  | 51       | 6/13 | 0           | 0               | 0.3  | III F 8 12 13       |                    | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1380<br>(Rerag Island)     | 50       | 6/3  | 2           | 7               | 0.3  | III F 5 6 13        | III F 6 13         | Yes          | Yes          | Yes          | s(p) |
| McLean            | Missouri River Mile 1381                       | 49       | 6/13 | 1           | 2               | 0.8  | III F 5 6 13        | III F 5            | No           | No           | Yes          | s(p) |
| Mercer            | Lake Sakakawea- Beaver Creek Bay               | 29       | 6/16 | 1           | 4               | 32.3 | VI A 1 7            | VI A 7<br>VI A 6 7 | Yes          | Yes          | Yes          | f    |
| Mercer            | Lake Sakakawea- Renner Bay                     | 31       | 6/8  | 9           | 19              | 6.5  | VI A 6 7 12         | 12                 | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- Beacon Island                  | 9        | 6/22 | 2           | 4               | 2.4  | VI G 1 8 13 14      | VI G 8             | Yes          | No           | Yes          | f    |
| Mountrail         | Lake Sakakawea- Fox Island                     | 15       | 6/14 | 3           | 9               | 3.2  | VI G 1 7 12         | VI B 1             | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- Gull Island                    | 11       | 6/20 | 3           | 8               | 3.2  | VI A 1 7 12         | VI A 1             | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- Rodeo Island<br>(Van Hook Arm) | 10       | 6/13 | 0           | 1               | 1.6  | VI A 1 7 12         | VI A 7             | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- Shell Creek Bay                | 13       | 6/6  | 0           | 0               | 5.5  | VI A 12             |                    | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- Van Hook Arm                   | 14       | 6/6  | 0           | 0               | 6    | VI A 12             |                    | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- Van Hook Arm<br>East           | 16       | 6/6  | 4           | 6               | 2.4  | VI A 12             |                    | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- Van Hook North                 | 12       | 6/6  | 0           | 0               | 8.9  | VI A 6 12           |                    | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lake Sakakawea- White Earth Bay                | 7        | 6/16 | 2           | 4               | 1.6  | VI A 1 8 12         | VI A 1             | Yes          | No           | Yes          | f    |

**The 2006 International Piping Plover Breeding Census on the Missouri River in North Dakota  
(Continued)**

| COUNTY/<br>REGION    | SITE NAME                                      | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|----------------------|--|----------|------|-------------|------------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Mountrail/<br>Mclean | Lake Sakakawea- Van Hook SE                    | 17       | 6/15 | 0           | 0                      | 2.4          | VI A 7              |                 | Yes          | Yes          | Yes          | f   |
| Sioux                | Lake Oahe (Beaver Bay)<br>RM 1255.8            | 110      | 6/12 | 1           | 2                      | 0.2          | VI A 12             | VI A 12         | No           | No           | No           | f   |
| Sioux                | Lake Oahe (Cannonball Island)<br>RM 1268.5     | 104      | 6/12 | 0           | 1                      | 0.2          | VI F 5              | VI F 5          | Yes          | Yes          | Yes          | f   |
| Sioux                | Lake Oahe (Casino) RM 1258.7                   | 109      | 6/12 | 0           | 1                      | 1.6          | VI A 5 12           | VI A 12         | No           | No           | No           | f   |
| Sioux                | Lake Oahe (Fort Rice) RM 1275                  | 102      | 6/12 | 0           | 0                      | n.r.         | VI A 12             |                 | Yes          | No           | Yes          | f   |
| Sioux                | Lake Oahe (Porcupine Hill Island)<br>RM 1248.9 | 111      | 6/16 | 0           | 0                      | 0.2          | VI A 12             |                 | Yes          | No           | Yes          | f   |
| Sioux                | Lake Oahe (Reagan Reach)<br>RM 1268            | 105      | 6/12 | 0           | 1                      | 0.8          | VI F 5              | VI F 5          | Yes          | Yes          | Yes          | f   |
| Sioux                | Lake Oahe (South Rice) RM 1273.3               | 103      | 6/12 | 1           | 5                      | 1.6          | VI F 5              | VI F 5          | Yes          | No           | Yes          | f   |
| Williams             | Lake Sakakawea- Hofflund<br>(RM 1505)          | 3        | 6/9  | 2           | 5                      | 5.7          | VI A 7              | VI A 7          | No           | No           | Yes          | f   |
| Williams             | Lake Sakakawea- Little Egypt<br>(RM 1507)      | 4        | 6/9  | 0           | 0                      | 1.6          | VI A 7              |                 | No           | Yes          | Yes          | f   |
| Williams             | Lake Sakakawea- Red Mike                       | 2        | 6/12 | 10          | 28                     | 6.5          | VI A 1              | VI A 1          | No           | No           | Yes          | f   |
| <b>Total</b>         |  |          |      | <b>282</b>  | <b>733<sup>1</sup></b> | <b>363.5</b> |                     |                 |              |              |              |     |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# 2006 International Piping Plover Breeding Census - Missouri River (Nebraska) -



## The 2006 International Piping Plover Breeding Census on the Missouri River in Nebraska

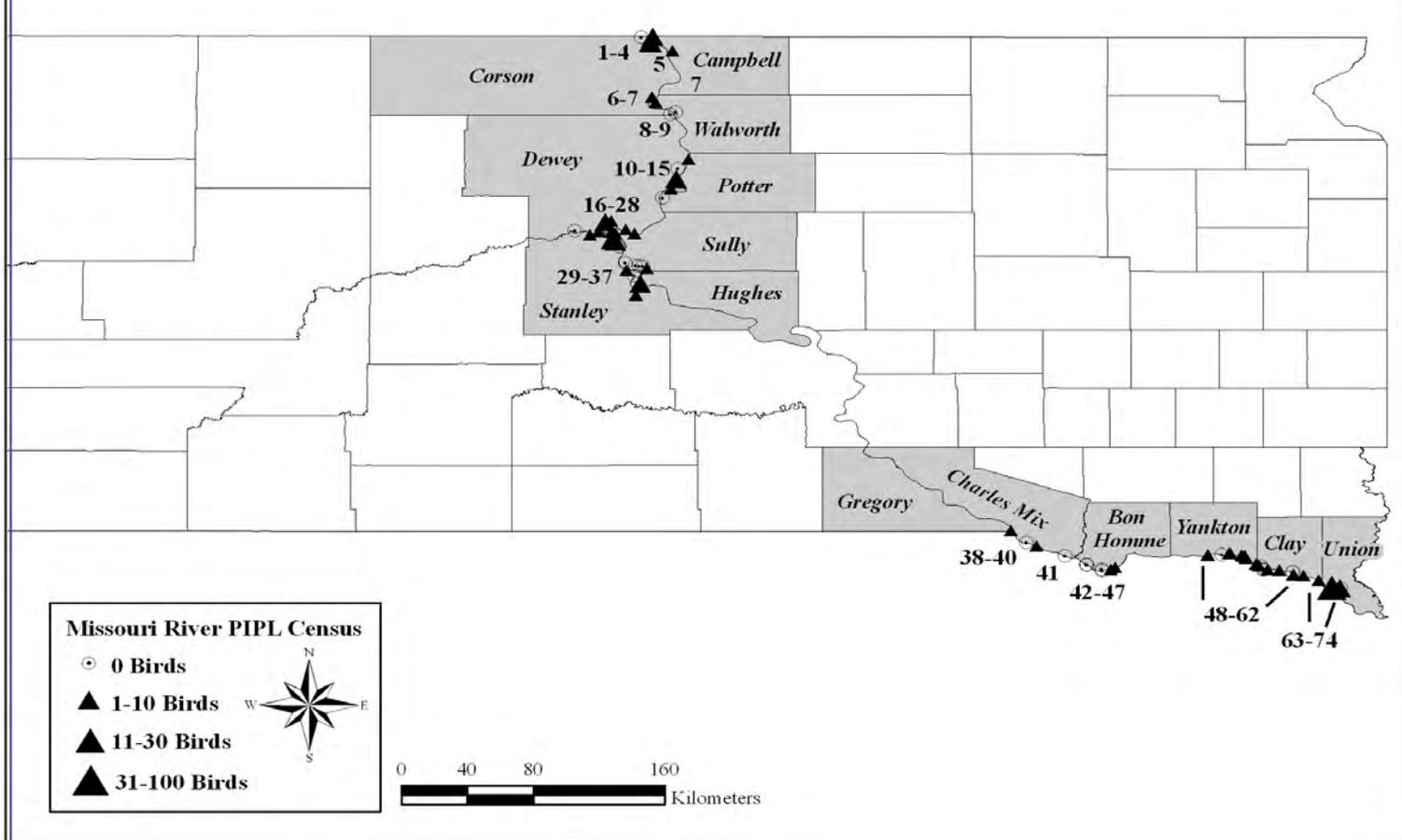
| COUNTY/<br>REGION | SITE NAME                 | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---------------------------|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Boyd              | Missouri River Mile 866.5 | 4        | 6/5  | 3           | 5               | 1.0 | D 4                 | D 10            | Yes          | Yes          | Yes          | p    |
| Boyd              | Missouri River Mile 866.9 | 3        | 6/5  | 2           | 3               | 0.2 | D 4                 | D 10            | Yes          | Yes          | Yes          | p    |
| Boyd              | Missouri River Mile 869.5 | 2        | 6/5  | 3           | 10              | 0.5 | VI A 1              | III F 5 13      | Yes          | Yes          | Yes          | p    |
| Boyd              | Missouri River Mile 870.2 | 1        | 6/5  | 3           | 5               | 0.2 | III F 3 5 13        | III F 5 13      | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 781.5 | 20       | 6/13 | 3           | 8               | 1.0 | III F 13            | III F 13        | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 788.5 | 19       | 6/5  | 7           | 25              | 1.6 | III F 13            | III F 13        | Yes          | Yes          | Yes          | f/p  |
| Cedar             | Missouri River Mile 791.5 | 18       | 6/9  | 3           | 6               | 0.1 | III F 5 13          |                 | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 793.3 | 17       | 6/9  | 3           | 6               | 0.2 | III F 3 5 13        |                 | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 793.6 | 16       | 6/9  | 1           | 6               | 0.6 | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 795.5 | 15       | 6/9  | 1           | 2               | 0.2 | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 799.0 | 14       | 6/19 | 1           | 5               | 0.5 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 802.1 | 13       | 6/7  | 0           | 2               | 0.3 | III F 6             | III F 6         | No           | No           | No           | p    |
| Cedar             | Missouri River Mile 802.5 | 12       | 6/7  | 2           | 4               | 0.1 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Cedar             | Missouri River Mile 804.5 | 11       | 6/07 | 7           | 16              | 1.3 | III F 5 8 13        | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Cedar             | Missouri River Mile 804.6 | 10       | 6/7  | 3           | 7               | 0.2 | III F 8 13          |                 | No           | No           | No           | p    |
| Cedar             | Missouri River Mile 807.4 | 9        | 6/7  | 3           | 6               | 0.3 | III F 8             | III F 8         | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 754.5 | 30       | 6/8  | 1           | 2               | 0.3 | III F 5             | III F 5         | No           | No           | No           | n.r  |
| Dixon             | Missouri River Mile 755   | 29       | 6/8  | 2           | 4               | 0.5 | III F 5             | III F 5         | No           | No           | No           | n.r  |
| Dixon             | Missouri River Mile 764.2 | 27       | 6/8  | 0           | 0               | 0.1 | III F 5             |                 | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 764.5 | 28       | 6/8  | 0           | 0               | 0.3 | III F 5             |                 | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 769.9 | 25       | 6/6  | 0           | 6               | 0.5 | III A 12            | III A 12        | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 770   | 23       | 6/6  | 13          | 36              | 1.2 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 770.1 | 24       | 6/5  | 2           | 5               | 0.3 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 770.2 | 22       | 6/5  | 3           | 15              | 0.4 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 774.5 | 21       | 6/6  | 0           | 0               | 0.4 | III F 5             |                 | Yes          | Yes          | Yes          | p    |
| Dixon             | Missouri River Mile 781   | 26       | 6/5  | 1           | 2               | 1.5 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Knox              | Missouri River Mile 848.0 | 8        | 6/6  | 0           | 0               | 0.2 | III F 3 13          |                 | Yes          | Yes          | Yes          | p    |
|                   |                           |          |      |             |                 |     | III F 3 5 6 13 14   |                 |              |              |              |      |
| Knox              | Missouri River Mile 851.7 | 7        | 6/6  | 4           | 8               | 1.1 | 15                  | III F 5 13      | Yes          | Yes          | Yes          | p    |
| Knox              | Missouri River Mile 854.0 | 6        | 6/6  | 1           | 2               | 0.2 | III F 5 13          | III F 5         | Yes          | Yes          | Yes          | p    |

**The 2006 International Piping Plover Breeding Census on the Missouri River in Nebraska  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                 | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|-------------------|---------------------------|----------|------|-------------|------------------------|-------------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Knox              | Missouri River Mile 855.5 | 5        | 6/6  | 0           | 0                      | 0.3         | III F 3 5 13        |                 | Yes          | Yes          | Yes          | p   |
| <b>Total</b>      |                           |          |      | <b>73</b>   | <b>196<sup>1</sup></b> | <b>15.2</b> |                     |                 |              |              |              |     |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

## 2006 International Piping Plover Breeding Census - Missouri River (South Dakota) -



## The 2006 International Piping Plover Breeding Census on the Missouri River in South Dakota

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Bon Homme         | Lewis & Clark Lake, Missouri<br>RM 839                     | 47       | 6/7  | 1           | 1               | 0.4 | III F 3 5 13        | III F 5         | Yes          | Yes          | Yes          | f    |
| Bon Homme         | Lewis & Clark Lake, Missouri<br>RM 841.8                   | 44       | 6/7  | 0           | 0               | 0.3 | III F 3 5 13        |                 | Yes          | Yes          | Yes          | f    |
| Bon Homme         | Missouri River Mile 847.0                                  | 42       | 6/6  | 0           | 0               | 0.3 | III F 3 13          |                 | Yes          | Yes          | Yes          | s(p) |
| Bon Homme         | Missouri River Mile 847.3                                  | 43       | 6/6  | 0           | 0               | 0.2 | III F 3 13          |                 | Yes          | Yes          | Yes          | s(p) |
| Bon Homme         | Lewis & Clark Lake, Missouri<br>RM 838.8 (Sand Fly Island) | 46       | 6/7  | 1           | 2               | 0.6 | III F 3 5 13        | III F 5         | Yes          | Yes          | Yes          | f    |
| Bon Homme         | Lewis & Clark Lake, Missouri<br>RM 842 (The Complex)       | 45       | 6/7  | 0           | 0               | 0.8 | III F 3 5 13        |                 | Yes          | Yes          | Yes          | f    |
| Campbell          | Lake Oahe<br>(State Line WPA- south)                       | 4        | 6/13 | 5           | 12              | 8.1 | VI A 1              | VI A 1          | Yes          | Yes          | Yes          | f    |
| Campbell          | Lake Oahe (Vanderlaan)                                     | 5        | 6/16 | 2           | 4               | 1.6 | VI A 1              | VI A 1          | Yes          | Yes          | Yes          | f    |
| Charles Mix       | Missouri River Mile 854.7                                  | 41       | 6/6  | 0           | 0               | 0.3 | III F 3 5 13        |                 | Yes          | Yes          | Yes          | s(p) |
| Charles Mix       | Missouri River Mile 863.7                                  | 40       | 6/5  | 1           | 2               | 0.2 | III F 5 6 13        | III F 5 13      | Yes          | Yes          | Yes          | s(p) |
| Charles Mix       | Missouri River Mile 866.8                                  | 39       | 6/5  | 0           | 0               | 0.1 | III F 13            |                 | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 768                                    | 69       | 6/6  | 2           | 4               | 0.2 | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 773                                    | 68       | 6/6  | 0           | 1               | 0.2 | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 777.5                                  | 67       | 6/6  | 1           | 2               | 0.1 | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 777.7                                  | 66       | 6/6  | 1           | 1               | 0.1 | III F 13            | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 778                                    | 64       | 6/6  | 0           | 0               | 0.1 | III F 13            |                 | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 778.5                                  | 65       | 6/6  | 0           | 0               | 0.1 | III F 13            |                 | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 782.5                                  | 63       | 6/5  | 1           | 4               | 0.5 | III F 13            | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 783                                    | 59       | 6/5  | 0           | 0               | 0.0 | III F 5             |                 | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 784.5                                  | 60       | 6/5  | 0           | 0               | 0.7 | III F               |                 | No           | No           | No           | s(p) |
| Clay              | Missouri River Mile 785                                    | 61       | 6/5  | 0           | 0               | 1.0 | III F 5             |                 | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 785.9                                  | 62       | 6/5  | 0           | 1               | 1.0 | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Clay              | Missouri River Mile 789.6                                  | 58       | 6/5  | 2           | 6               | 0.1 | III F 13            | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Corson            | Lake Oahe (Demery Island)<br>RM 1231.3                     | 1        | 6/9  | 0           | 0               | 0.5 | VI A 12             |                 | Yes          | Yes          | Yes          | f    |
| Corson            | Lake Oahe (Kenel Flats- North)<br>RM 1230.5                | 2        | 6/9  | 10          | 19              | 6.5 | VI A 1              | VI A 1          | Yes          | Yes          | Yes          | f    |

**The 2006 International Piping Plover Breeding Census on the Missouri River in South Dakota  
(Continued)**

| <b>COUNTY/<br/>REGION</b> | <b>SITE NAME</b>                                       | <b>MAP<br/>#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b> | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|---------------------------|--|------------------|-------------|---------------------|-------------------------|-----------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| Corson                    | Lake Oahe (Kenel South) RM 1229                        | 3                | 6/14        | 11                  | 24                      | 1.6       | VI A 12                     | VI A 12                 | Yes                  | Yes                  | Yes                  | f          |
| Corson                    | Lake Oahe (Le Compte Creek)<br>RM 1188.5               | 8                | 6/15        | 0                   | 0                       | 0.3       | VI A 12                     |                         | Yes                  | Yes                  | Yes                  | f          |
| Corson                    | Lake Oahe (N. Railroad Grande)<br>RM 1200              | 6                | 6/5         | 1                   | 2                       | 0.8       | VI A 1                      | VI A 1                  | Yes                  | Yes                  | Yes                  | f          |
| Corson                    | Lake Oahe (S. Railroad Grande)<br>RM 1199              | 7                | 6/5         | 1                   | 2                       | 1.6       | VI A 1                      | VI A 1                  | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Bush's Landing)<br>RM 1123.5                | 22               | 6/6         | 2                   | 4                       | 4.0       | VI A 7                      | VI A 7                  | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Charlie Creek)<br>RM 1114                   | 19               | 6/5         | 7                   | 15                      | 4.8       | VI A 15                     | VI A 15                 | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Cheyenne River - Fish<br>Gut Creek) RM 1110 | 16               | 6/5         | 0                   | 0                       | 1.6       | VIA 14                      |                         | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Cheyenne River- NE)<br>RM 1110              | 18               | 6/5         | 3                   | 6                       | 3.2       | VI A 15                     | VI A 15                 | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Forest City)                                | 14               | 6/7         | 4                   | 8                       | 4.8       | VI A 6 7 15                 | VI A 7                  | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (No Heart Creek)<br>RM 1117                  | 21               | 6/6         | 2                   | 4                       | 4.8       | VI A 15                     |                         | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Swift Bird South)<br>RM 1159                | 12               | 6/13        | 10                  | 20                      | 4.8       | VI A 15                     | VI A 15                 | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Swift Bird Bay)<br>RM 1160                  | 13               | 6/7         | 1                   | 2                       | 3.2       | VI A 15                     |                         | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Swiftbird North)<br>RM 1161                 | 11               | 6/7         | 0                   | 0                       | 2.4       | VI A 15                     |                         | Yes                  | Yes                  | Yes                  | f          |
| Dewey                     | Lake Oahe (Tall Prairie Chicken<br>Creek) RM 1115      | 20               | 6/6         | 2                   | 5                       | 1.6       | VI A 15                     | VI A 15                 | Yes                  | Yes                  | Yes                  | f          |
| Gregory                   | Missouri River Mile 875                                | 38               | 6/6         | 1                   | 2                       | 0.2       | III F 5 13                  | III F 5                 | Yes                  | Yes                  | Yes                  | s(p)       |
| Hughes                    | Lake Oahe (Peoria Flats) RM 1083                       | 36               | 6/6         | 6                   | 13                      | 4.8       | VI A 5 7 15                 | VI A 5 7<br>15          | Yes                  | Yes                  | Yes                  | f          |
| Potter                    | Lake Oahe (N. Steamboat Creek)<br>RM 1167              | 10               | 6/6         | 1                   | 2                       |           | VI A 15                     |                         | Yes                  | No                   | Yes                  | f          |

**The 2006 International Piping Plover Breeding Census on the Missouri River in South Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                                       | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM  | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---|----------|------|-------------|-----------------|-----|---------------------|-----------------|--------------|--------------|--------------|------|
| Potter            | Lake Oahe (Stove Creek)<br>RM 1143.5            | 15       | 6/7  | 0           | 0               | 2.4 | VI A 6              |                 | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (Agency Creek)<br>RM 1102             | 28       | 6/8  | 0           | 0               | 3.2 | VI A 6              |                 | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (Chantier North)<br>RM 1085           | 35       | 6/9  | 0           | 0               | 0.4 | VI A 8              |                 | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (Mission Point)<br>RM 1103            | 37       | 1/8  | 5           | 10              | 0.8 | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (North Mission 1)<br>RM 1106          | 25       | 6/8  | 9           | 17              | 1.6 | VI A 7 12           | VI A 7          | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (North Mission 2)<br>RM 1106          | 26       | 6/8  | 8           | 16              | 0.8 | VI A 7 12           | VI A 7 12       | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (North Mission 3)<br>RM 1106          | 27       | 6/08 | 7           | 15              | 2.4 | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (Snake Creek South)<br>RM 1093        | 34       | 6/09 | 1           | 2               | 0.2 | VIA 6               | VI A 6          | Yes          | Yes          | Yes          | f    |
| Stanley           | Lake Oahe (South Cheyenne River<br>Arm) RM 1110 | 17       | 6/05 | 1           | 2               | 4.8 | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f    |
| Sully             | Lake Oahe (Cow Creek) RM 1089                   | 33       | 6/16 | 3           | 6               | 2.4 | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f    |
| Sully             | Lake Oahe (Dry Creek) RM 1091                   | 30       | 6/09 | 0           | 0               | 1.5 | VI A 7              |                 | Yes          | Yes          | Yes          | f    |
| Sully             | Lake Oahe (Little Bend- East)<br>RM 1111        | 24       | 6/06 | 3           | 6               | 2.4 | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f    |
| Sully             | Lake Oahe (Little Bend- West)<br>RM 1111        | 23       | 6/12 | 0           | 1               | 1.2 | VI A 15             | VI A 15         | Yes          | Yes          | Yes          | f    |
| Sully             | Lake Oahe (Okobojo Point)<br>RM 1089.5          | 32       | 6/09 | 0           | 0               | 3.2 | VI A 7              |                 | Yes          | Yes          | Yes          | f    |
| Sully             | Lake Oahe (Plum Creek) RM 1090                  | 31       | 6/09 | 0           | 0               | 1.6 | VI A 6 7            |                 | Yes          | Yes          | Yes          | f    |
| Sully             | Lake Oahe (Sully Flats) RM 1095                 | 29       | 6/09 | 0           | 0               | 5.6 | VI A 7              |                 | Yes          | Yes          | Yes          | f    |
| Union             | Missouri River Mile 756.6                       | 74       | 6/08 | 1           | 2               | 0.6 | III F 13            | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Union             | Missouri River Mile 759.2                       | 72       | 6/08 | 2           | 21              | 0.6 | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census on the Missouri River in South Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                        | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|----------------------------------|----------|------|-------------|------------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Union             | Missouri River Mile 759.5        | 73       | 6/08 | 0           | 0                      | 0.3          | III F 5             |                 | Yes          | Yes          | Yes          | s(p) |
| Union             | Missouri River Mile 761.3        | 70       | 6/08 | 22          | 55                     | 1.0          | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Union             | Missouri River Mile 763.7        | 71       | 6/08 | 0           | 2                      | 0.3          | III F 5             | III F 5         | No           | No           | No           | s(p) |
| Walworth          | Lake Oahe (Blue Blanket) RM 1189 | 9        | 6/10 | 0           | 0                      | 4.0          | VI A 12             |                 | Yes          | Yes          | Yes          | f    |
| Yankton           | Missouri River Mile 795.9        | 55       | 6/16 | 0           | 5                      | 0.1          | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 790.9        | 57       | 6/09 | 0           | 1                      | 0.1          | III F 4             |                 | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 795.3        | 56       | 6/09 | 1           | 4                      | 0.1          | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 796.7        | 54       | 6/09 | 1           | 2                      | 0.2          | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 797.5        | 53       | 6/09 | 1           | 2                      | 0.2          | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 801.1        | 52       | 6/09 | 3           | 6                      | 0.3          | III F 5             | III F 5         | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 801.3        | 51       | 6/07 | 2           | 5                      | 0.3          | III F 5 13          | III F 13        | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 803.4        | 50       | 6/07 | 0           | 0                      | 0.3          | III F 5             |                 | Yes          | Yes          | Yes          | s(p) |
| Yankton           | Missouri River Mile 807.6        | 49       | 6/07 | 1           | 2                      | 0.4          | III A 1 12          | III A 12        | No           | No           | No           | p    |
| Yankton           | Missouri River Mile 808.2        | 48       | 6/07 | 3           | 8                      | 0.4          | III F 9 13          | III F 13        | No           | No           | No           | s(p) |
| <b>Total</b>      |                                  |          |      | <b>153</b>  | <b>358<sup>1</sup></b> | <b>112.8</b> |                     |                 |              |              |              |      |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

## The 2006 International Piping Plover Breeding Census in Montana (off-Missouri River)

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The 2006 International Piping Plover Census of Montana sites (off-Missouri River) was accomplished with the help of 21 observers from the U.S. Fish and Wildlife Service, Bureau of Land Management, Bureau of Reclamation, Montana Fish, Wildlife, and Parks, and others. Coverage of Montana sites was comprehensive; most of the sites surveyed in previous years were covered in 2006 in addition to a few new sites. In total, 63 sites were surveyed and 108 Piping Plovers were counted off the Missouri River (130 total).

In general, weather during the Census was good but a few surveys were conducted during strong winds. Water was high at a couple of sites this year, including the Yellow River, which left little exposed habitat. A few other sites were entirely dry and vegetation encroachment was a problem.

Overall numbers were a bit lower than previous Census years and Piping Plovers were confined to Sheridan County except at Missouri River sites. Generally, Piping Plovers are more abundant in Sheridan County in the northeastern corner of the state, but are also found at a few sites to the west. Neslon Reservoir in Phillips County (northcentral Montana) supported small numbers of birds during all previous Census years but none were found there during the 2006 Census. Alkali Lake in Pondera County

(northwestern Montana) had Piping Plovers during the 1991 and 1996 Census but we were not able to survey that site this year.

### Comparison of Census Numbers<sup>1</sup>

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 308  | 153  | 137  | 130 <sup>2</sup> |

<sup>1</sup>Missouri River data are included in all totals.

<sup>2</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study

| Sites Included                 | First Count | Second Count |
|--------------------------------|-------------|--------------|
| Yellowstone River <sup>1</sup> | 0           | 0            |
| Bennett Lake                   | 0           | 0            |
| Clear Lake                     | 0           | 0            |
| Erickson WPA                   | 0           | 0            |
| Ferguson WPA                   | 0           | 1            |
| Justice Lake                   | 2           | 0            |
| Katy's Lake                    | 3           | 2            |
| State Line WPA                 | 0           | 0            |
| Hamm's Reservoir               | 0           | 0            |

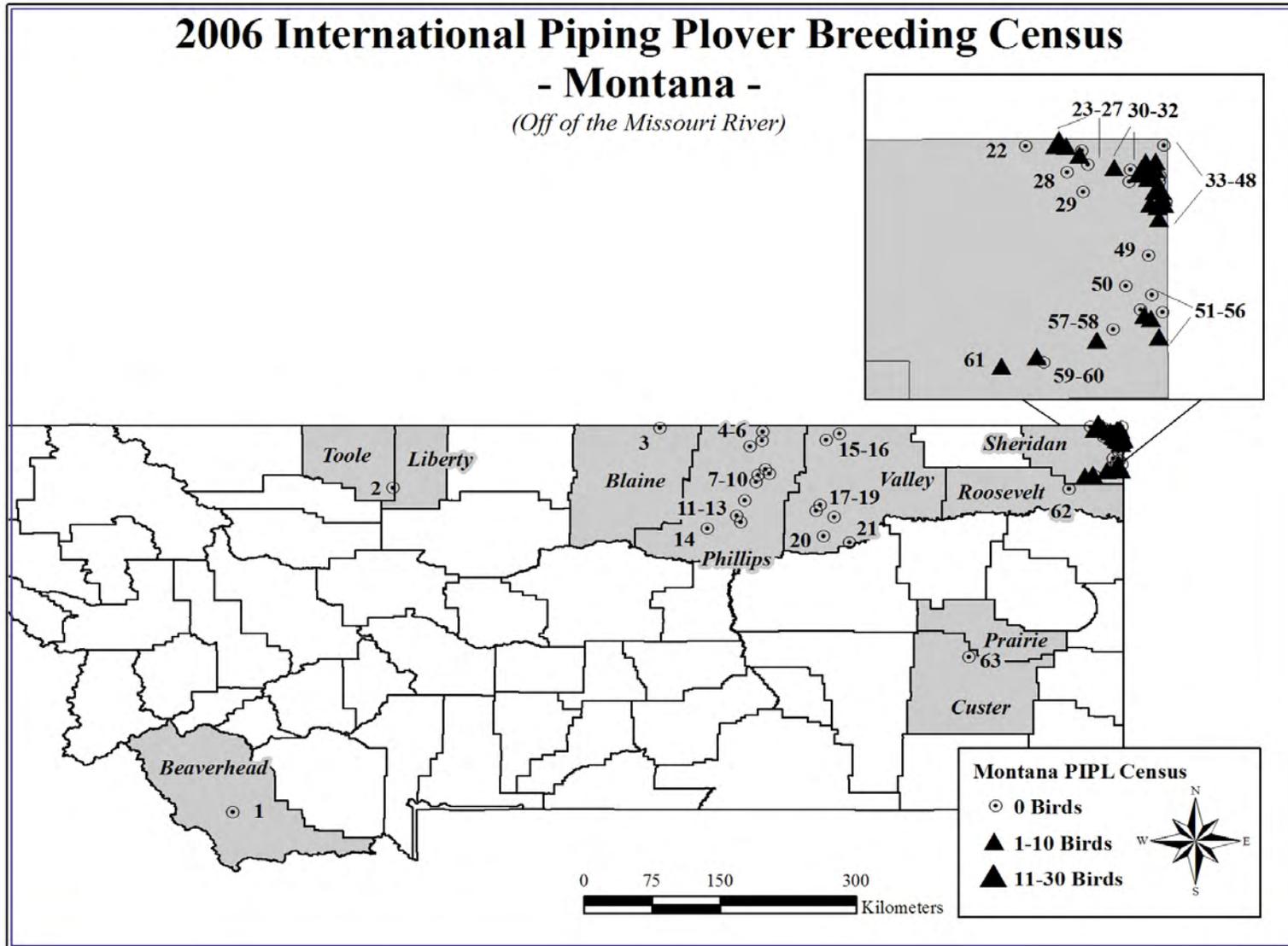
<sup>1</sup>A second survey was conducted at transects 2, 3, and 5 as part of the detectability study.

*Summarized by E. Elliott-Smith*

# 2006 International Piping Plover Breeding Census

## - Montana -

(Off of the Missouri River)



## The 2006 International Piping Plover Breeding Census in Montana

| COUNTY/<br>REGION                      | SITE NAME               | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM    | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|--|-------------------------|----------|------|-------------|-----------------|-------|---------------------|-----------------|--------------|--------------|--------------|-------|
| Beaverhead                             | Clark Canyon Reservoir  | 1        | n.r. | 0           | 0               | 27.0  | VI A 8              |                 | Yes          | No           | Yes          | f/s   |
| Blaine                                 | Alkali Lake             | 3        | 6/7  | 0           | 0               | 4.9   | IV H 10             |                 | Yes          | Yes          | Yes          | f     |
| Custer/Prairie/<br>Dawson/<br>Richland | Lower Yellowstone River | 63       | 6/12 | 0           | 0               | 197.0 | III 15              |                 | Yes          | Yes          | Yes          | f/s/p |
| Liberty/Toole                          | Tiber Reservoir         | 2        | 6/14 | 0           | 0               | 20.0  | VI A 1 7            |                 | Yes          | Yes          | Yes          | m     |
| Phillips                               | Bennett Lake            | 11       | 6/7  | 0           | 0               | 1.8   | V H 1 6 7 12        |                 | Yes          | Yes          | Yes          | f/p   |
| Phillips                               | Bowdoin NWR             | 10       | 6/15 | 0           | 0               | 3.2   | IV D E H 1 7 10     |                 | Yes          | Yes          | Yes          | f     |
| Phillips                               | Dibbler Reservoir       | 6        | 6/14 | 0           | 0               | 1.6   | VI A 6 7 10 12      |                 | Yes          | Yes          | Yes          | f     |
| Phillips                               | Erphit Lake             | 9        | 6/13 | 0           | 0               | 2.9   | IV A 6 7 10 12      |                 | No           | No           | No           | p     |
| Phillips                               | Hewitt Lake NWR         | 8        | 6/14 | 0           | 0               | 1.6   | IV H 10             |                 | Yes          | Yes          | Yes          | f     |
| Phillips                               | Nelson Reservoir        | 7        | 6/14 | 0           | 0               | 8.0   | VI D E              |                 | Yes          | Yes          | Yes          | f     |
| Phillips                               | Pea Lake                | 4        | 6/9  | 0           | 0               | 0.4   | V H 12 14           |                 | Yes          | Yes          | Yes          | f     |
| Phillips                               | Spencer Reservoir       | 12       | 6/16 | 0           | 0               | 1.6   | VI A 6              |                 | Yes          | Yes          | Yes          | f/p   |
| Phillips                               | Veseth Reservoir        | 14       | 6/16 | 0           | 0               | 0.8   | VI A 6 7            |                 | No           | No           | No           | f/p   |
| Phillips                               | Whitcomb Lake           | 13       | 6/16 | 0           | 0               | 1.8   | IV A 6 7 12         |                 | Yes          | Yes          | Yes          | f     |
| Phillips                               | Whitewater Lake         | 5        | 6/9  | 0           | 0               | 0.2   | V H 2 6 7           |                 | Yes          | Yes          | Yes          | f     |
| Roosevelt                              | Johnson Lake WPA        | 62       | 6/19 | 0           | 0               | 3.2   | IV A 10             |                 | Yes          | Yes          | Yes          | n.r.  |
| Sheridan                               | Anderson Lake           | 34       | 6/12 | 1           | 2               | 10.6  | IV A H 7 10         | IV A 10         | Yes          | Yes          | Yes          | s/p   |
| Sheridan                               | Berger Pond WPA         | 57       | 6/6  | 0           | 0               | 5.9   | VIII A 1            |                 | Yes          | Yes          | Yes          | f/p   |
| Sheridan                               | Big Slough WPA          | 49       | 6/14 | 0           | 0               | 7.9   | IV A 1 7            |                 | Yes          | Yes          | Yes          | f/s/p |
| Sheridan                               | Brush Lake              | 52       | 6/11 | 0           | 0               | 4.1   | IV A 1              |                 | Yes          | Yes          | Yes          | p     |
| Sheridan                               | Chandler & Valpone WPA  | 22       | 6/16 | 0           | 0               | 0.0   | V A 12              |                 | Yes          | Yes          | Yes          | f/p   |
| Sheridan                               | Clear Lake              | 50       | 6/11 | 0           | 0               | 4.8   | V A 1               |                 | Yes          | Yes          | Yes          | p     |
| Sheridan                               | Deep Lake               | 60       | 6/6  | 1           | 4               | 3.1   | IV A 1              | IV A 1          | Yes          | Yes          | Yes          | f     |
| Sheridan                               | Dog Leg WPA             | 35       | 6/7  | 0           | 1               | 2.8   | IV A 10             | IV A 10         | Yes          | Yes          | Yes          | f/p   |
| Sheridan                               | Erickson WPA            | 53       | 6/11 | 0           | 0               | 2.7   | IV A 10             |                 | Yes          | Yes          | Yes          | f     |
| Sheridan                               | Ferguson WPA            | 31       | 6/19 | 0           | 1               | 4.5   | IV A 10             | IV A 10         | Yes          | Yes          | Yes          | f/p   |
| Sheridan                               | Flat Lake               | 38       | 6/13 | 6           | 15              | 13.6  | IV A 7 10           | IV A 7          | Yes          | Yes          | Yes          | s/p   |
| Sheridan                               | Gaffney Lake            | 59       | 6/6  | 0           | 0               | 19.9  | V A 1               |                 | Yes          | Yes          | Yes          | f/p   |
| Sheridan                               | Galloway's Lake         | 26       | 6/7  | 3           | 7               | 5.4   | IV A 7              | IV H 7 8        | Yes          | Yes          | Yes          | p     |
| Sheridan                               | Gjesdal East WPA        | 36       | 6/16 | 1           | 2               | 3.5   | IV A 7 10           | IV A 7          | No           | Yes          | Yes          | f/p   |

**The 2006 International Piping Plover Breeding Census in Montana  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                       | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT     | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|-------------------|---------------------------------|----------|------|-------------|-----------------|------|---------------------|---------------------|--------------|--------------|--------------|-----|
| Sheridan          | Goose Lake                      | 48       | 6/16 | 2           | 6               | 25.8 | IV A 10             | IV A 10             | Yes          | Yes          | Yes          | f/p |
| Sheridan          | Haugen Lutnes DSL               | 32       | 6/16 | 0           | 0               | 1.6  | IV A 7 10           |                     | No           | Yes          | Yes          | s/p |
| Sheridan          | Justice Slough                  | 56       | 6/15 | 0           | 2               | 1.0  | IV A 10             | IV A 10             | Yes          | Yes          | Yes          | p   |
| Sheridan          | Katy's Lake, Medicine Lake NWR  | 58       | 6/15 | 1           | 3               | 6.6  | IV A 7              | IV A 7              | Yes          | Yes          | Yes          | f/s |
| Sheridan          | Lake North of Espen WPA         | 30       | 6/7  | 1           | 1               | 8.1  | IV H 10             | IV H 10             | Yes          | Yes          | Yes          | s/p |
| Sheridan          | Lake North of Stateline WPA     | 39       | 6/5  | 0           | 0               | 1.8  | IV A 10             |                     | Yes          | Yes          | Yes          | f/p |
| Sheridan          | Lake SE of Parry WPA            | 55       | 6/14 | 1           | 3               | 1.5  | IV A 7              | IV A 7              | Yes          | Yes          | Yes          | p   |
| Sheridan          | Lake SE of Salt                 | 24       | 6/5  | 0           | 1               | 7.2  | IV A 10             | IV A 10             | Yes          | Yes          | Yes          | p   |
| Sheridan          | Lone Tree Lake                  | 27       | 6/16 | 0           | 0               | 1.6  | IV A 10             |                     | Yes          | Yes          | Yes          | s/p |
| Sheridan          | Marsh Wetland                   | 28       | 6/7  | 0           | 0               | n.r. | IV A 7 10           |                     | Yes          | Yes          | Yes          | p   |
| Sheridan          | Medicine Lake                   | 61       | 6/15 | 1           | 2               | 77.1 | V A 1               | V A 1               | Yes          | Yes          | Yes          | f   |
| Sheridan          | Melby WPA                       | 51       | 6/19 | 0           | 0               | 3.2  | IV A 12             |                     | Yes          | Yes          | Yes          | f   |
| Sheridan          | Murphy Wetland (Upper Goose)    | 44       | 6/12 | 1           | 2               | 1.6  | IV A 10             | IV A 10             | Yes          | Yes          | Yes          | p   |
| Sheridan          | Nordhagen Wetland (Upper Goose) | 46       | 6/12 | 0           | 1               | 1.0  | IV A 10             | IV A 10             | Yes          | Yes          | Yes          | p   |
| Sheridan          | North Lake                      | 41       | 6/16 | 6           | 18              | 9.1  | IV A 7 10           |                     | Yes          | Yes          | Yes          | p   |
| Sheridan          | Northeast WPA                   | 33       | 6/16 | 0           | 0               | 4.3  | VIII A G 7          |                     | No           | Yes          | Yes          | f/p |
| Sheridan          | Parry WPA                       | 54       | 6/14 | 2           | 5               | 8.1  | IV A 7              | IV A 7              | Yes          | Yes          | Yes          | f/p |
| Sheridan          | Peterson Lake                   | 29       | 6/16 | 0           | 0               | 5.8  | IV A 7              |                     | No           | No           | No           | p   |
| Sheridan          | Rabenberg Wetland (Upper Goose) | 43       | 6/12 | 0           | 0               | 0.8  | IV H 1 7            |                     | Yes          | Yes          | Yes          | p   |
| Sheridan          | Salt Lake                       | 23       | 6/5  | 3           | 13              | 12.8 | IV A 10             | IV A 10             | Yes          | Yes          | Yes          | s/p |
| Sheridan          | Smith Wetland (Upper Goose)     | 45       | 6/12 | 0           | 0               | 1.0  | IV A 10             |                     | Yes          | Yes          | Yes          | p   |
| Sheridan          | State Line WPA                  | 40       | 6/16 | 0           | 0               | 1.6  | IV A 10             |                     | Yes          | Yes          | Yes          | f   |
| Sheridan          | Throntveit Lake                 | 37       | 6/11 | 5           | 11              | 16.3 | IV A 1 7            | IV D 7              | No           | Yes          | Yes          | p   |
| Sheridan          | Upper Goose Lake                | 42       | 6/12 | 0           | 3               | 1.0  | IV A 10             | IV A 10<br>IV A H 1 | Yes          | Yes          | Yes          | p   |
| Sheridan          | West Goose Lake                 | 47       | 6/12 | 2           | 5               | 9.3  | IV A F 1 10         | 10                  | Yes          | Yes          | Yes          | s/p |
| Sheridan          | Widgeon Slough WPA              | 25       | 6/5  | 0           | 0               | 3.4  | IV A 10             |                     | Yes          | Yes          | Yes          | f/p |
| Valley            | Chambers Coulee Reservoir       | 16       | 6/15 | 0           | 0               | 2.4  | VI 12               |                     | No           | Yes          | Yes          | f   |
| Valley            | Flat Reservoir                  | 21       | 6/16 | 0           | 0               | 2.4  | VI 7 12             |                     | Yes          | Yes          | Yes          | f   |
| Valley            | Grub Reservoir                  | 19       | 6/14 | 0           | 0               | 3.2  | VI 7 12             |                     | Yes          | Yes          | Yes          | f   |

**The 2006 International Piping Plover Breeding Census in Montana  
(Continued)**

| COUNTY/<br>REGION                  | SITE NAME                    | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM           | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|------------------------------------|------------------------------|----------|------|-------------|------------------------|--------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Valley                             | Hamm's Reservoir             | 18       | 6/13 | 0           | 0                      | 1.6          | VI 13 15            |                 | Yes          | Yes          | Yes          | f    |
| Valley                             | Ichpair Slough (Lake Grable) | 15       | 6/16 | 0           | 0                      | n.r.         | n.r.                |                 | Yes          | Yes          | Yes          | n.r. |
| Valley                             | Valley Reservoir             | 20       | 6/16 | 0           | 0                      | 0.8          | VI 12               |                 | Yes          | Yes          | Yes          | f/p  |
| Valley                             | VR-2 Reservoir               | 17       | 6/14 | 0           | 0                      | 6.5          | VII 15              |                 | Yes          | Yes          | Yes          | f    |
| <i>Off-Missouri River Subtotal</i> |                              |          |      | 37          | 108 <sup>1</sup>       | 593.3        |                     |                 |              |              |              |      |
| <i>Missouri River Subtotal</i>     |                              |          |      | 9           | 23                     | 5.4          |                     |                 |              |              |              |      |
| <b>Total</b>                       |                              |          |      | <b>46</b>   | <b>131<sup>1</sup></b> | <b>598.7</b> |                     |                 |              |              |              |      |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in North Dakota (off-Missouri River)

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In North Dakota, most of the known breeding sites were surveyed with the exception of some sites we were not able to gain access to on private properties. We were able to cover about 95% of the known breeding sites.

Areas missed included Hapet Lake in Divide County, Turkey Island WPA in McIntosh County, Hertz Lake and Stony Slough in Burleigh County.

The census for the inland lakes of North Dakota recorded 337 more adults in 2006 (806 adults) than in 2001 (469 adults). On the Missouri River, 59 more adults were seen in 2006 (702 adults) than in 2001 (643 adults). Overall, there were 1508 adults seen in North Dakota in 2006 compared with 1112 adults seen in 2001 (396 more adults).

I believe the numbers are a good index to the population, however I do not believe every bird is always accounted for 100% of the time. The

adults appear to forage at places other than their main nesting territory and not all of the birds seem to be nesting. This may lead to very loose territories and birds moving around a lot. Other factors could include failed nesting attempts causing birds to leave the area before the census is even completed.

I believe wetland conditions would be one of the major factors driving the plover number in North Dakota. We had low water levels to begin the breeding season within many areas of North Dakota. Water levels on the Missouri River were higher this year because of a spring rise that was conducted by the Army Corps of Engineers which may have influenced the birds in establishing territories on some alkali lakes in the surrounding areas.

## Comparison of Census Numbers<sup>1</sup>

|              | 1991 | 1996 | 2001 | 2006              |
|--------------|------|------|------|-------------------|
| Total Adults | 992  | 1004 | 1112 | 1508 <sup>2</sup> |

<sup>1</sup>Missouri River data are included in all totals.

<sup>2</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

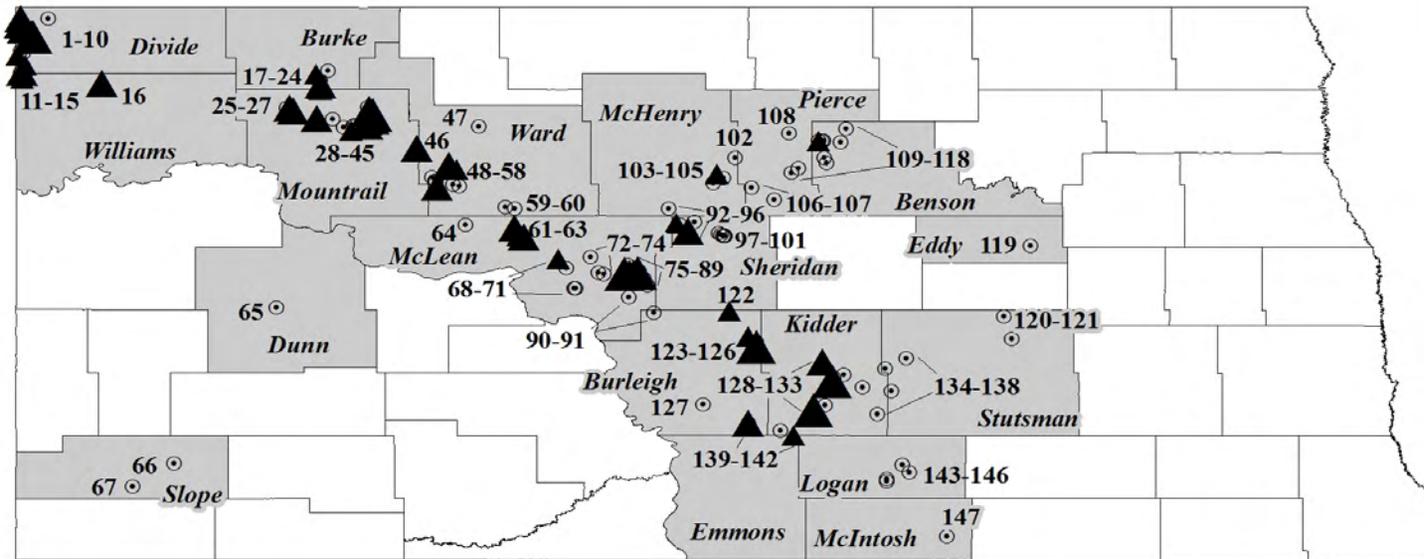
## Detectability Study

| Sites Included                   | First Count | Second Count |
|----------------------------------|-------------|--------------|
| Horseshoe Lake                   | 0           | 0            |
| Long Lake WPA                    | 0           | 0            |
| Lostwood NWR - Saltmarsh Wetland | 0           | 0            |
| No Name 01 (Divide Co.)          | 4           | 2            |
| Baltzer WPA                      | 0           | 0            |
| Eberle Lake                      | 0           | 0            |
| Bromley Lake                     | 0           | 0            |
| Blue Lake                        | 0           | 0            |
| Cherry Lake                      | 0           | 0            |
| Fisher Lake (Laibs Marsh)        | 0           | 0            |
| Mud Lake                         | 0           | 0            |
| Pelican Lake                     | 30          | 42           |
| Tractor Lake                     | 5           | 6            |
| Stessman Marsh                   | 0           | 0            |

**Detectability Study – Continued**

| Sites Included    | First Count | Second Count |
|-------------------|-------------|--------------|
| Palermo Lake SW   | 1           | 0            |
| Piping Plover WPA | 18          | 18           |
| Kandt Lake        | 0           | 0            |
| Moesner Lake      | 0           | 0            |
| Danielson WPA     | 0           | 0            |
| LGFR Pond         | 0           | 0            |
| Appam Lake        | 16          | 22           |

# 2006 International Piping Plover Breeding Census - North Dakota - (Off of the Missouri River)



**North Dakota PIPL Census**

- 0 Birds
- ▲ 1-10 Birds
- ▲ 11-30 Birds
- ▲ 31-100 Birds



## The 2006 International Piping Plover Breeding Census in North Dakota

| COUNTY/<br>REGION   | SITE NAME                           | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM    | SITE<br>DESCRIPTION | PIPL<br>HABITAT        | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|---------------------|-------------------------------------|----------|------|-------------|-----------------|-------|---------------------|------------------------|--------------|--------------|--------------|-------|
| Benson              | Cranberry Lake                      | 111      | 6/13 | 0           | 0               | 1.6   | IV D 1 15           |                        | Yes          | Yes          | No           | f/p   |
| Benson              | Duchscher Lake                      | 115      | 6/12 | 0           | 0               | 1.8   | IV A 7 10 13        |                        | No           | Yes          | Yes          | p     |
| Benson              | Horseshoe Lake                      | 118      | 6/12 | 0           | 0               | 5.6   | IV A 1 10           |                        | Yes          | Yes          | Yes          | f/s/p |
| Benson              | Long Lake WPA                       | 116      | 6/19 | 0           | 0               | 9.5   | IV A 1 7 10         |                        | Yes          | Yes          | Yes          | f/s/p |
| Benson              | Pfeifer Lake                        | 113      | 6/15 | 0           | 0               | 5.0   | IV A 7 10 12        |                        | Yes          | Yes          | Yes          | f/p   |
| Benson              | Shively WPA                         | 114      | 6/06 | 2           | 5               | 3.2   | IV A 1 7 10         | IV A 7                 | Yes          | Yes          | Yes          | f/p   |
| Benson              | Simon WPA                           | 112      | 6/15 | 0           | 0               | 5.3   | IV A G 7 10         |                        | Yes          | Yes          | No           | f/p   |
| Benson              | Volk WPA                            | 117      | 6/12 | 0           | 0               | 1.9   | IV A 10 15          |                        | Yes          | Yes          | Yes          | f     |
| Burke               | Lostwood NWR - Knudson Slough       | 19       | 6/12 | 0           | 0               | 3.7   | IV A 10             |                        | Yes          | Yes          | Yes          | f     |
|                     | Lostwood NWR - School               |          |      |             |                 |       |                     |                        |              |              |              |       |
| Burke               | Section Lake                        | 20       | 6/12 | 0           | 0               | 4.2   | IV A 10             |                        | No           | No           | Yes          | f     |
| Burke               | Lostwood NWR - Thompson Lake        | 17       | 6/12 | 0           | 0               | 4.8   | IV A 10             |                        | No           | No           | No           | f     |
|                     | Lostwood NWR - Upper                |          |      |             |                 |       |                     |                        |              |              |              |       |
| Burke               | Lostwood Lake                       | 21       | 6/12 | 5           | 12              | 10.6  | IV A 10             | IV A 10                | Yes          | Yes          | Yes          | f     |
| Burke/<br>Mountrail | Lostwood NWR - Phalarope<br>Wetland | 23       | 6/12 | 1           | 2               | 3.0   | IV A 7 10           | IV A 10                | Yes          | Yes          | Yes          | f     |
| Burke/<br>Mountrail | Lostwood NWR - Saltmarsh<br>Wetland | 22       | 6/15 | 0           | 0               | 1.9   | IV A 10             |                        | Yes          | Yes          | Yes          | f     |
| Burleigh            | Hysterical 02                       | 91       | 6/13 | 0           | 0               | n.r.  | V A 12              |                        | No           | Yes          | Yes          | p     |
| Burleigh            | Lake Arena                          | 126      | 6/7  | 15          | 32              | 19.4  | IV D G 7 14         | IV D 7                 | Yes          | Yes          | Yes          | f/s/p |
| Burleigh            | Long Lake Pool                      | 139      | 6/13 | 0           | 0               | 36.2  | IV D 8 12 13        |                        | Yes          | Yes          | Yes          | f     |
| Burleigh            | Mckenzie Slough                     | 127      | 6/9  | 0           | 0               | 2.4   | V I 15              |                        | No           | No           | No           | f     |
| Burleigh            | Rachel Hoff                         | 123      | 6/5  | 0           | 0               | 8.7   | IV D 7              |                        | Yes          | Yes          | Yes          | f/p   |
| Burleigh            | Rath WPA                            | 124      | 6/6  | 3           | 7               | 15.7  | IV D 7              | IV D 7                 | Yes          | Yes          | Yes          | f/p   |
| Burleigh            | Salt Lake                           | 122      | 6/07 | 1           | 2               | 12.9  | IV D 7              | IV D 8                 | No           | Yes          | Yes          | p     |
| Burleigh            | Trusty                              | 125      | 6/5  | 0           | 0               | 6.4   | IV D 7              |                        | Yes          | Yes          | Yes          | f/p   |
| Burleigh/<br>Kidder | Long Lake NWR                       | 140      | 6/12 | 7           | 14              | 107.5 | IV D 7 10           | IV D 7 10<br>IV A 7 10 | Yes          | Yes          | Yes          | f/p   |
| Divide              | Camp Lake                           | 11       | 6/15 | 4           | 8               | 16.7  | IV A 7 10 12        | 12                     | No           | Yes          | Yes          | s/p   |
| Divide              | Daneville Lake                      | 8        | 6/6  | 0           | 0               | 6.8   | IV A 10             |                        | No           | Yes          | Yes          | p     |
| Divide              | Daneville Lake SE                   | 9        | 6/6  | 0           | 0               | 11.1  | IV A 7 10           |                        | No           | Yes          | Yes          | p     |

**The 2006 International Piping Plover Breeding Census in North Dakota  
(Continued)**

| COUNTY/<br>REGION   | SITE NAME            | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION    | PIPL<br>HABITAT        | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|---------------------|----------------------|----------|------|-------------|-----------------|------|------------------------|------------------------|--------------|--------------|--------------|-------|
| Divide              | Johnson WPA          | 10       | 6/13 | 2           | 5               | 4.1  | IV A 7 10              | IV A 7                 | No           | Yes          | Yes          | f/p   |
| Divide              | Kreil Wetland        | 5        | 6/13 | 0           | 1               | 4.0  | IV A 7                 |                        | Yes          | Yes          | Yes          | p     |
| Divide              | McCone Lake          | 2        | 6/12 | 6           | 19              | 8.3  | IV A 7 8 10            | IV A 7 10              | No           | Yes          | Yes          | p     |
| Divide              | Miller Lake          | 6        | 6/7  | 16          | 43              | 23.6 | IV A G 7 8 10 12<br>14 | IV A G 7 8<br>10 12 14 | Yes          | Yes          | Yes          | f/p   |
| Divide              | Mine Pond            | 13       | 6/14 | 0           | 0               | 0.5  | IV A 7                 |                        | No           | No           | No           | p     |
| Divide              | No Name 01           | 4        | 6/7  | 2           | 4               | 9.3  | IV A 7 12              |                        | No           | Yes          | Yes          | p     |
| Divide              | North Lake           | 7        | 6/13 | 1           | 3               | 8.6  | IV A G 7 10            | IV A G 7               | Yes          | Yes          | Yes          | p     |
| Divide              | Radar WPA            | 1        | 6/12 | 0           | 0               | 9.6  | IV A 7 10              |                        | No           | No           | Yes          | f/p   |
| Divide              | Round/Westby Lake    | 3        | 6/12 | 4           | 10              | 11.8 | IV A 7 10              |                        | Yes          | Yes          | Yes          | f/s/p |
| Divide/<br>Williams | Africa Lake          | 14       | 6/14 | 5           | 11              | 16.0 | IV A 7 10              | IV A 7 10              | No           | Yes          | Yes          | p     |
| Dunn                | Lake Ilo NWR         | 65       | 6/14 | 0           | 0               | 0.8  | VID G 12               |                        | Yes          | Yes          | Yes          | f     |
| Eddy                | Lake Coe             | 119      | 6/12 | 0           | 0               | 2.1  | IV A I 6               |                        | Yes          | Yes          | Yes          | s(p)  |
| Emmons              | Sisco-Fallgatter WPA | 142      | 6/08 | 4           | 7               | 9.2  | IV D 1                 | IV D 1                 | No           | Yes          | Yes          | f/p   |
| Kidder              | Big Muddy Lake       | 131      | 6/12 | 26          | 54              | 21.7 | IV D 1 2 7             | IV D 1 2 7             | Yes          | Yes          | Yes          | f/p   |
| Kidder              | Dewald Slough        | 132      | 6/08 | 0           | 0               | 3.2  | V I 15                 |                        | No           | No           | No           | f/p   |
| Kidder              | Horsehead Lake       | 128      | 6/05 | 12          | 30              | 29.0 | IV D 7 8               | IV D 7                 | Yes          | Yes          | Yes          | s/p   |
| Kidder              | Lake Etta            | 133      | 6/13 | 41          | 85              | 24.0 | IV D 1 6               | IV D 1 2 6             | No           | No           | Yes          | f/p   |
| Kidder              | Lake George          | 138      | 6/06 | 0           | 0               | 10.4 | IV D 15                |                        | No           | Yes          | Yes          | f     |
| Kidder              | McPhail WMA          | 136      | 6/12 | 0           | 0               | 7.2  | IV D 12                |                        | No           | No           | Yes          | p     |
| Kidder              | Mud Lake South       | 141      | 6/14 | 0           | 0               | 3.5  | IV D 10                |                        | No           | No           | Yes          | p     |
| Kidder              | Sibley Lake          | 129      | 6/12 | 0           | 0               | 10.3 | IV D 7                 |                        | Yes          | Yes          | Yes          | p     |
| Kidder              | Spring Lake          | 130      | 6/07 | 0           | 0               | 10.7 | IV D 7                 |                        | Yes          | Yes          | Yes          | f/s/p |
| Logan               | Baltzer WPA          | 145      | 6/07 | 0           | 0               | 4.0  | IV H 10                |                        | Yes          | Yes          | Yes          | f/p   |
| Logan               | Eberle Lake          | 143      | 6/12 | 0           | 0               | 4.2  | IV H 10                |                        | Yes          | Yes          | Yes          | p     |
| Logan               | Logan County WMA     | 146      | 6/07 | 0           | 0               | 5.2  | IV H 10                |                        | Yes          | Yes          | Yes          | s/p   |
| Logan               | Schweigert WPA       | 144      | 6/07 | 0           | 0               | 14.7 | IV H 10                |                        | Yes          | Yes          | Yes          | f/p   |
| McHenry             | Bromley Lake         | 103      | 6/19 | 0           | 0               | 9.0  | IV A 1 10              |                        | Yes          | Yes          | Yes          | f/p   |
| McHenry             | Crooked Lake         | 105      | 6/06 | 0           | 0               | 2.4  | IV A 1 7 10            |                        | Yes          | Yes          | Yes          | f/p   |

**The 2006 International Piping Plover Breeding Census in North Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                     | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|-------------------|-------------------------------|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|-------|
| McHenry           | Lake Lemer                    | 104      | 6/12 | 0           | 3               | 13.0 | IV A G 1 10         | IV G            | Yes          | Yes          | Yes          | f/p   |
| McHenry           | Smokey Lake <sup>1</sup>      | 102      | 7/07 | 0           | 0               | 4.0  | IV I 1 7            |                 | No           | No           | Yes          | f/p   |
| McHenry           | Spichke WPA                   | 92       | 6/16 | 0           | 0               | 2.4  | IV A 1              |                 | Yes          | Yes          | Yes          | f/p   |
| McIntosh          | McIntosh 02                   | 147      | 6/08 | 0           | 0               | 6.9  | IV H 7              |                 | Yes          | Yes          | Yes          | p     |
| McLean            | Amoeba Lake                   | 77       | 6/07 | 1           | 3               | 0.9  | IV 7                |                 | Yes          | Yes          | Yes          | p     |
|                   |                               |          |      |             |                 |      | IV D G 1 2 5 6 7    |                 |              |              |              |       |
| McLean            | Audubon Refuge (Lake Audobon) | 68       | 6/05 | 1           | 5               | 40.3 | 8 12                | VI D G 2 7      | Yes          | Yes          | Yes          | f     |
| McLean            | Blue Lake                     | 85       | 6/12 | 0           | 0               | 8.7  | IV I 1 8 10         |                 | Yes          | Yes          | Yes          | f/s/p |
| McLean            | Bluehill WPA                  | 64       | 6/12 | 0           | 0               | 10.5 | IV I 12             |                 | Yes          | Yes          | Yes          | f/p   |
| McLean            | Cherry Lake                   | 74       | 6/07 | 0           | 0               | 9.0  | IV I 12             |                 | No           | Yes          | Yes          | f/p   |
| McLean            | Crystal Lake                  | 61       | 6/06 | 5           | 12              | 6.7  | IV H 1 2 7          | IV H 7 12       | Yes          | Yes          | Yes          | f/p   |
| McLean            | Day Lake                      | 86       | 6/07 | 0           | 0               | 1.4  | V 12 15             |                 | No           | No           | No           | n.r.  |
| McLean            | Elbow Lake                    | 81       | 6/07 | 8           | 19              | 2.5  | IV 7                |                 | Yes          | Yes          | Yes          | p     |
| McLean            | Engel Lake                    | 63       | 6/06 | 9           | 20              | 6.0  | IV I 1 2 7 10 12    | IV H 12 13      | No           | Yes          | Yes          | p     |
| McLean            | Fischer Lake (Koenig Lake)    | 90       | 6/06 | 0           | 0               | 3.7  | IV I 10             |                 | No           | Yes          | Yes          | f/p   |
| McLean            | Fisher Lake (Laibs Marsh)     | 75       | 6/06 | 0           | 0               | 4.8  | IV I 10 12          |                 |              |              |              |       |
| McLean            | Fox Lake                      | 82       | 6/07 | 0           | 0               | 0.8  | V 12                |                 | No           | No           | No           | p     |
| McLean            | Gaub WPA                      | 89       | 6/07 | 0           | 0               | 2.0  | IV A 12             |                 | Yes          | Yes          | Yes          | f/p   |
| McLean            | Lake Nettie                   | 72       | 6/13 | 0           | 0               | 7.9  | IV A 12             |                 | Yes          | Yes          | Yes          | f/p   |
| McLean            | Lake Williams                 | 76       | 6/07 | 17          | 36              | 14.6 | IV 7                |                 | Yes          | Yes          | Yes          | f/s/p |
| McLean            | McGinnis WPA                  | 62       | 6/03 | 3           | 6               | 4.0  | IV H 10             | IV H 10         | No           | No           | Yes          | p     |
| McLean            | Mud Lake                      | 78       | 6/02 | 0           | 0               | n.r. | IV 7                |                 | Yes          | Yes          | No           | p     |
| McLean            | Paramecium Lake               | 79       | 6/07 | 1           | 2               | 0.7  | IV 7                |                 | Yes          | Yes          | Yes          | p     |
| McLean            | Pelican Lake                  | 83       | 6/07 | 19          | 42              | 11.8 | IV A 7              |                 | Yes          | Yes          | Yes          | p     |
| McLean            | Peterson Lake                 | 84       | 6/07 | 12          | 27              | 12.9 | IV 7                |                 | Yes          | Yes          | Yes          | p     |
| McLean            | Reclaimed Wetland R-23-2      | 70       | 6/14 | 0           | 0               | 0.5  | VIII H 6            |                 | No           | No           | Yes          | p     |
| McLean            | Reclaimed Wetland R-23-3      | 71       | 6/14 | 0           | 0               | 0.4  | VIII H 6            |                 | No           | No           | Yes          | p     |
| McLean            | Spot Lake                     | 87       | 6/07 | 1           | 4               | 3.5  | IV H 7              |                 | Yes          | Yes          | Yes          | p     |
| McLean            | Stessman Marsh                | 69       | 6/05 | 0           | 0               | 5.2  | VI D 12 15          |                 | Yes          | Yes          | Yes          | f     |
| McLean            | Tractor Lake                  | 80       | 6/14 | 3           | 6               | 2.7  | IV 7                |                 | Yes          | Yes          | Yes          | s/p   |

**The 2006 International Piping Plover Breeding Census in North Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                                | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|-------------------|--|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|-------|
| McLean            | Turtle Lake                              | 73       | 6/13 | 0           | 0               | 24.0 | VII 12              |                 | Yes          | Yes          | Yes          | f/p   |
| McLean            | Unnamed Wetland                          | 88       | 6/08 | 0           | 0               | 0.4  | VI 15               |                 | No           | No           | No           | p     |
| Mountrail         | Lostwood District - USA 01               | 35       | 6/5  | 0           | 1               | 4.9  | IV A 10             | IV A 10         | Yes          | Yes          | Yes          | p     |
| Mountrail         | Lostwood NWR - Bieri Wetland             | 36       | 6/3  | 0           | 0               | 1.4  | IV H 7              |                 | Yes          | Yes          | Yes          | p     |
| Mountrail         | Lostwood NWR - BLM 01                    | 30       | 6/12 | 0           | 0               | 3.3  | IV H 7              |                 | No           | Yes          | Yes          | f/p   |
| Mountrail         | Lostwood NWR –<br>Cottonwood Lake East   | 27       | 6/5  | 5           | 11              | 8.8  | IV H 7              | IV A 10         | Yes          | Yes          | Yes          | f/s/p |
| Mountrail         | Lostwood NWR –<br>Cottonwood Lake West   | 26       | 6/7  | 7           | 14              | 15.9 | IV H 7              | IV A 10         | Yes          | Yes          | Yes          | f/p   |
| Mountrail         | Lostwood NWR - Goettle Wetland           | 42       | 6/6  | 3           | 6               | 1.2  | IV H 7              | IV A 10         | No           | No           | No           | p     |
| Mountrail         | Lostwood NWR –<br>Halvorson WPA North    | 32       | 6/3  | 0           | 0               | 9.2  | IV H 7              |                 | Yes          | Yes          | Yes          | f/p   |
| Mountrail         | Lostwood NWR –<br>Halvorson WPA South    | 33       | 6/3  | 0           | 0               | 3.1  | IV H 7              |                 | Yes          | Yes          | No           | p     |
| Mountrail         | Lostwood NWR –<br>Little Cottonwood Lake | 25       | 6/5  | 0           | 0               | 1.7  | IV H 7              |                 | No           | No           | No           | p     |
| Mountrail         | Lostwood NWR –<br>Lower Lostwood Lake    | 18       | 6/12 | 1           | 3               | 9.9  | IV H 7              | VI A 10         | Yes          | Yes          | Yes          | f     |
| Mountrail         | Lostwood NWR - ND 02                     | 29       | 6/5  | 0           | 0               | 9.6  | IV H 7              |                 | Yes          | No           | Yes          | f/s/p |
| Mountrail         | Lostwood NWR - Palermo Lake              | 43       | 6/3  | 0           | 3               | 6.2  | IV H 7              | IV A 10         | Yes          | Yes          | Yes          | p     |
| Mountrail         | Lostwood NWR –<br>Palermo Lake SW        | 31       | 6/5  | 0           | 1               | 8.0  | IV A 7 10           | IV A 10         | Yes          | Yes          | Yes          | f/p   |
| Mountrail         | Lostwood NWR –<br>Piping Plover Wetland  | 24       | 6/12 | 4           | 8               | 1.0  | IV A 10             | IV A 10         | Yes          | Yes          | Yes          | f     |
| Mountrail         | Lostwood NWR –<br>Piping Plover WPA      | 34       | 6/12 | 9           | 18              | 3.2  | IV H 7              | IV A 10         | Yes          | Yes          | Yes          | f/p   |
| Mountrail         | Lostwood NWR - Rued Wetland              | 44       | 6/6  | 0           | 0               | 0.5  | IV A 10             |                 | Yes          | Yes          | Yes          | p     |
| Mountrail         | Lostwood NWR - US1 F & G                 | 46       | 6/5  | 8           | 17              | 9.6  | IV A 10             |                 | Yes          | Yes          | Yes          | f/p   |
| Mountrail         | Lostwood NWR - Redmond Lake              | 41       | 6/6  | 11          | 30              | 14.0 | IV H 7              |                 | Yes          | Yes          | Yes          | s/p   |
| Mountrail         | Lostwood NWR –<br>Redmond Lake East      | 39       | 6/6  | 4           | 10              | 2.6  | IV A 7 10           |                 | Yes          | Yes          | Yes          | s/p   |

**The 2006 International Piping Plover Breeding Census in North Dakota  
(Continued)**

| COUNTY/<br>REGION | SITE NAME                            | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|--------------------------------------|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Mountrail         | Lostwood NWR –<br>Redmond Lake North | 45       | 6/6  | 1           | 2               | 5.6  | IV A 10             |                 | Yes          | Yes          | Yes          | p    |
| Mountrail         | Lostwood NWR –<br>Redmond Lake SE    | 38       | 6/6  | 17          | 35              | 8.4  | IV A 10             |                 | Yes          | Yes          | Yes          | f/p  |
| Mountrail         | Lostwood NWR –<br>Redmond Lake South | 40       | 6/6  | 4           | 8               | 9.5  | IV A 10             |                 | Yes          | Yes          | Yes          | f/p  |
| Mountrail         | Lostwood NWR - USA 01 SE             | 37       | 5/6  | 0           | 0               | 0.6  | IV A 10             |                 | Yes          | Yes          | Yes          | f    |
| Mountrail         | Lostwood NWR - White Lake            | 28       | 6/13 | 15          | 30              | 25.5 | IV A 10             | IV A 10         | Yes          | Yes          | Yes          | p    |
| Pierce            | Little Antelope Lake                 | 107      | 6/13 | 0           | 0               | 8.1  | IV A 1              |                 | Yes          | Yes          | Yes          | p    |
| Pierce            | Meyer WPA                            | 108      | 6/06 | 0           | 0               | 7.2  | IV A 1              |                 | Yes          | Yes          | Yes          | f/p  |
| Pierce            | Orrin Lake                           | 106      | 6/13 | 0           | 0               | 3.2  | IV A 1              |                 | Yes          | Yes          | Yes          | p    |
| Pierce            | Petrified Lake                       | 110      | 6/07 | 0           | 0               | n.r. | IV A 1              |                 | Yes          | Yes          | Yes          | p    |
| Pierce            | Sandhill Crane WPA                   | 109      | 6/07 | 0           | 0               | n.r. | IV A 1              |                 | Yes          | Yes          | Yes          | f/p  |
| Sheridan          | Kandt Lake                           | 95       | 6/15 | 0           | 0               | 6.9  | IV A 1 10           |                 | Yes          | Yes          | Yes          | p    |
| Sheridan          | Krueger Lake                         | 96       | 6/07 | 7           | 18              | 15.5 | IV H 10             | IV H 10         | Yes          | Yes          | Yes          | f/p  |
| Sheridan          | Lonetree WMA- Avocet Lake            | 97       | 6/03 | 0           | 0               | 0.0  | VI A 1 12           |                 | Yes          | Yes          | Yes          | s(p) |
| Sheridan          | Lonetree WMA- Gadwall Lake           | 99       | 6/03 | 0           | 0               | 0.0  | VI A 12 15          |                 | Yes          | Yes          | Yes          | s(p) |
| Sheridan          | Lonetree WMA- New Lake               | 98       | 6/04 | 0           | 0               | 5.5  | VI A 1 12           |                 | Yes          | Yes          | Yes          | s(p) |
| Sheridan          | Lonetree WMA- Other Lake             | 100      | 6/03 | 0           | 0               | 0.0  | VI A 12             |                 | Yes          | Yes          | Yes          | s(p) |
| Sheridan          | Lonetree WMA- Plover Pond            | 101      | 6/03 | 0           | 0               | 1.3  | IV A 1 10           |                 | Yes          | Yes          | Yes          | s(p) |
| Sheridan          | Moesner Lake                         | 94       | 6/13 | 0           | 0               | 9.7  | IV B 1              |                 | Yes          | Yes          | Yes          | p    |
| Sheridan          | Strasburg WPA                        | 93       | 6/03 | 1           | 3               | 0.5  | IV A 7              | IV A 7          | No           | Yes          | Yes          | f/p  |
| Slope             | Stewart Lake NWR                     | 67       | 6/14 | 0           | 0               | 11.3 | VI D 12             |                 | Yes          | Yes          | Yes          | f    |
| Slope             | White Lake NWR                       | 66       | 6/14 | 0           | 0               | 8.1  | VI D 12             |                 | Yes          | Yes          | Yes          | f    |
| Stutsman          | Arrowwood NWR –<br>Arrowwood Lake    | 120      | 6/12 | 0           | 0               | 6.5  | VI VIII A 6         |                 | Yes          | No           | No           | f    |
| Stutsman          | Arrowwood NWR - Jim Lake             | 121      | 6/12 | 0           | 0               | 43.6 | VI VIII A G 6 7     |                 | Yes          | No           | No           | f    |
| Stutsman          | Chase Lake NWR                       | 135      | 6/14 | 0           | 0               | 18.5 | IV A G 1 6 7        |                 | Yes          | Yes          | Yes          | f    |
| Stutsman          | Mud Lake WPA                         | 134      | 6/12 | 0           | 0               | 12.1 | IV VIII A 6 7       |                 | Yes          | Yes          | Yes          | f/s  |
| Stutsman          | Stink Lake 01                        | 137      | 6/14 | 0           | 0               | 11.0 | IV VIII A 6         |                 | Yes          | Yes          | Yes          | s(p) |

**The 2006 International Piping Plover Breeding Census in North Dakota  
(Continued)**

| COUNTY/<br>REGION                  | SITE NAME        | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS         | KM            | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|------------------------------------|------------------|----------|------|-------------|-------------------------|---------------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Ward                               | Danielson WPA    | 60       | 6/8  | 0           | 0                       | 10.3          | VI A 12             |                 | No           | Yes          | Yes          | f   |
| Ward                               | Foss Lake        | 59       | 6/13 | 0           | 0                       | 3.2           | IV A 10 12          |                 | No           | Yes          | Yes          | p   |
| Ward                               | Galusha WPA      | 54       | 6/3  | 0           | 0                       | 4.5           | IV H 10             |                 | No           | Yes          | Yes          | f/p |
| Ward                               | LGFR Pond        | 57       | 6/11 | 0           | 0                       | 20.1          | IV I 10 12          |                 | Yes          | Yes          | Yes          | p   |
| Ward                               | Middle Lake      | 51       | 6/6  | 0           | 2                       | 7.2           | IV H 10             | IV H 10         | Yes          | Yes          | Yes          | p   |
| Ward                               | One Legged Lake  | 50       | 6/13 | 0           | 0                       | 2.4           | IV H 10             |                 | Yes          | Yes          | Yes          | p   |
| Ward                               | Orlien WPA       | 56       | 6/7  | 7           | 17                      | 7.4           | IV H 1 7 10         | IV H 7 10<br>12 | No           | Yes          | Yes          | f/p |
| Ward                               | Roberts Lake     | 58       | 6/11 | 0           | 0                       | 3.0           | IV H 10             |                 | Yes          | Yes          | Yes          | p   |
| Ward                               | Schaefer Lake    | 48       | 6/6  | 10          | 21                      | 10.4          | IV H 7 10 12        | IV H 7 12       | Yes          | Yes          | Yes          | p   |
| Ward                               | Simonson Lake    | 52       | 6/15 | 1           | 3                       | 2.7           | IV I 1 2 7 10       | IV I 7          | Yes          | Yes          | Yes          | p   |
| Ward                               | Upper Souris NWR | 47       | 6/14 | 0           | 0                       | n.r.          | VI A 1 7            |                 | No           | Yes          | Yes          | f   |
| Ward                               | Ward 01          | 55       | 6/13 | 0           | 0                       | 2.6           | IV H 10             |                 | Yes          | Yes          | Yes          | p   |
| Ward                               | Weltikol WPA     | 53       | 6/7  | 0           | 0                       | 6.5           | IV I 10             |                 | No           | Yes          | Yes          | f/p |
| Ward                               | Wheeler Wetland  | 49       | 6/6  | 1           | 2                       | 2.2           | IV H 10             | IV H 10         | Yes          | Yes          | Yes          | p   |
| Williams                           | Appam Lake       | 16       | 6/16 | 11          | 22                      | 16.4          | IV A G 7 10         | IV A 7 10       | Yes          | Yes          | Yes          | f/p |
| Williams                           | Stink Lake 02    | 12       | 6/5  | 0           | 0                       | 4.7           | IV A 7 10           |                 | No           | Yes          | Yes          | p   |
| Williams                           | Twin Lake        | 15       | 6/6  | 0           | 1                       | 14.0          | IV A 7 10           |                 | No           | Yes          | Yes          | f/p |
| <i>Off-Missouri River Subtotal</i> |                  |          |      | 364         | 825 <sup>2</sup>        | 1235.3        |                     |                 |              |              |              |     |
| <i>Missouri River Subtotal</i>     |                  |          |      | 282         | 733 <sup>2</sup>        | 363.5         |                     |                 |              |              |              |     |
| <b>Total</b>                       |                  |          |      | <b>646</b>  | <b>1558<sup>2</sup></b> | <b>1598.8</b> |                     |                 |              |              |              |     |

<sup>1</sup>Please note that these surveys were conducted outside the Census window.

<sup>2</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in South Dakota (off-Missouri River)

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Piping Plovers were observed at four sites off the Missouri River during the 2006 census. Four plovers were observed on an alkali wetland on private land, and nineteen birds were observed on a reservoir that under normal water conditions is connected to Lake Oahe (Missouri River). Because of the current drought, this reservoir is currently separated from Lake Oahe by more than 4 miles (6.4 km). An additional two birds were observed in late May; one was on Belle Fourche Reservoir, and the second was seen on an unknown pond in Shannon County. There was a second sighting of two plovers at the Shannon County pond in mid-July. This is the first time that Piping Plovers have been observed in South Dakota off of the Missouri River since 1991.

All of the off-Missouri River sites surveyed in 1996 and 2001 were surveyed again in the 2006 survey effort. The amount of habitat available for nesting varied widely, with some lakes completely full, while others had shoreline available. There are a great many lakes in South Dakota with the potential for Piping Plover nesting, many of them on private land, which were not censused in this effort. It is not possible to determine how many of these may be used by Piping Plovers. While much of the state is in a severe drought, some of the alkali wetlands surveyed were full, with no appropriate shoreline for nesting plovers.

Others were completely dry, also not providing the appropriate conditions for nesting and brood rearing.

## Comparison of Census Numbers<sup>1</sup>

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 295  | 29   | 390  | 375 <sup>2</sup> |

<sup>1</sup>Missouri River data are included in all totals.

<sup>2</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

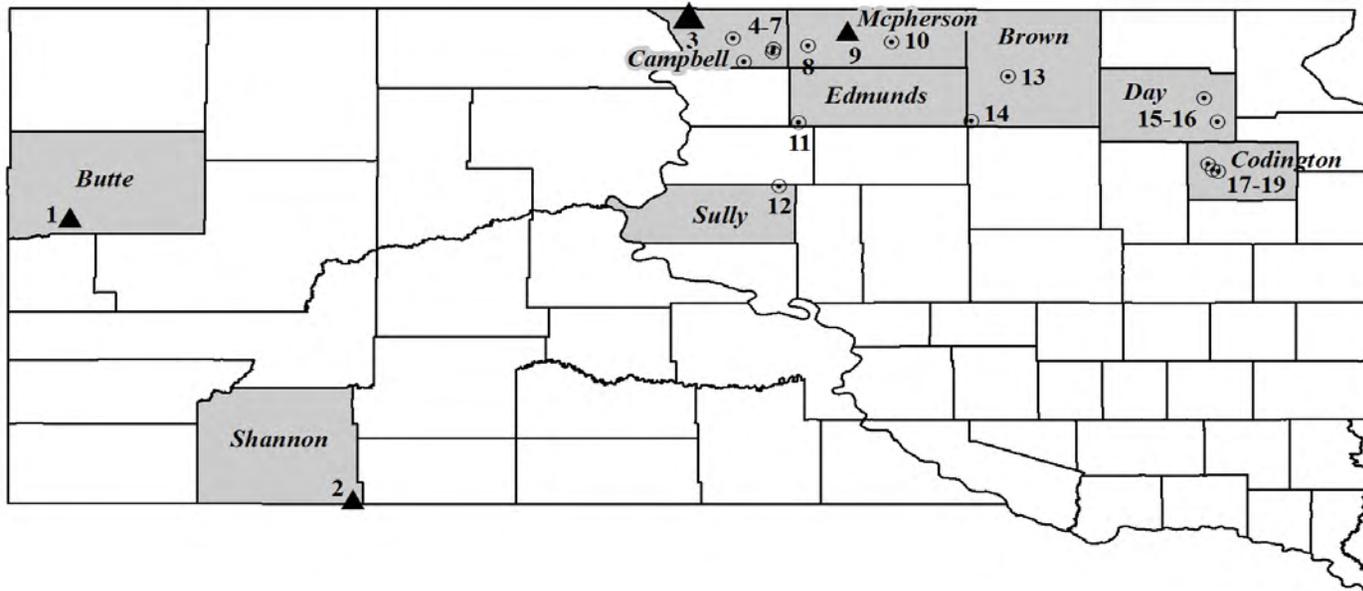
## Detectability Study

| Sites Included        | First Count | Second Count |
|-----------------------|-------------|--------------|
| Melhoff Island WPA    | 0           | 0            |
| Lake Nicholson        | 0           | 0            |
| Salt Lake (Brown Co.) | 0           | 0            |
| Goetz WPA             | 0           | 0            |

# 2006 International Piping Plover Breeding Census

## - South Dakota -

(Off of the Missouri River)



**South Dakota PIPL Census**

- 0 Birds
- ▲ 1-10 Birds
- ▲ 11-30 Birds

## The 2006 International Piping Plover Breeding Census in South Dakota

| COUNTY/<br>REGION               | SITE NAME                                   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS        | KM           | SITE<br>DESCRIPTION       | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN   |
|---------------------------------|---|----------|------|-------------|------------------------|--------------|---------------------------|-----------------|--------------|--------------|--------------|-------|
| Brown                           | Proud Waterfowl Production Area             | 13       | 6/6  | 0           | 0                      | 4.8          | IV A 7 11                 |                 | Yes          | Yes          | Yes          | f     |
| Brown                           | Salt Lake                                   | 14       | 6/13 | 0           | 0                      | 4.8          | IV A 11                   |                 | Yes          | Yes          | Yes          | p     |
| Butte                           | Belle Fourche Reservoir <sup>1</sup>        | 1        | 5/25 | 0           | 1                      | 0.8          | VI A G                    | VIA 6           | No           | No           | No           | n.r.  |
| Campbell                        | Goetz Waterfowl Production Area             | 6        | 6/7  | 0           | 0                      | 2.4          | IV A 7                    |                 | Yes          | Yes          | Yes          | f     |
| Campbell                        | Hwy. 10                                     | 4        | 6/7  | 0           | 0                      | 3.6          | IV I 7                    |                 | Yes          | Yes          | Yes          | p     |
| Campbell                        | Pocasse NWR                                 | 3        | 6/7  | 9           | 19                     | 7.0          | VI A 7                    | VIA 6           | Yes          | Yes          | Yes          | s(p)  |
| Campbell                        | Salt Lake                                   | 5        | 6/5  | 0           | 0                      | 15.0         | IV                        |                 | Yes          | Yes          | Yes          | s(p)  |
| Campbell                        | West Flat Lake                              | 7        | 6/5  | 0           | 0                      | 5.0          | V 7                       |                 | Yes          | Yes          | Yes          | f     |
| Codington                       | Horsehoe Lake                               | 19       | 6/6  | 0           | 0                      | 2.4          | IV A 1 8 13               |                 | Yes          | Yes          | Yes          | f/s/p |
| Codington                       | Lake Nicholson                              | 17       | 6/14 | 0           | 0                      | 6.5          | IV A 1 8                  |                 | Yes          | Yes          | Yes          | s/p   |
| Codington                       | Medicine Lake                               | 18       | 6/5  | 0           | 0                      | 1.6          | IV A 8 13 16              |                 | No           | No           | No           | p     |
| Day                             | Bitter Lake                                 | 16       | 6/13 | 0           | 0                      | 28.4         | IV A I 1 7 13 16          |                 | Yes          | Yes          | Yes          | s/p   |
| Day                             | Waubay Lake                                 | 15       | 6/7  | 0           | 0                      | 19.4         | IV A I 1 8 13             |                 | Yes          | Yes          | No           | f/s/p |
| Edmunds                         | Alkali Lake                                 | 11       | 6/5  | 0           | 0                      | 3.3          | IV E I                    |                 | Yes          | Yes          | Yes          | f     |
| McPherson                       | Kempf Waterfowl Production Area             | 10       | 6/7  | 0           | 0                      | 4.8          | VI 8 13                   |                 | Yes          | Yes          | Yes          | f     |
| McPherson                       | Melhoff Island Waterfowl<br>Production Area | 8        | 6/7  | 0           | 0                      | 1.3          | IV I 8<br>IV A G I 2 8 13 |                 | Yes          | Yes          | Yes          | f     |
| McPherson                       | Unnamed Alkali Wetland                      | 9        | 6/12 | 2           | 4                      | 1.2          | 14 15                     | IV A 8          | No           | No           | No           | p     |
| Sully                           | Stone Lake / NE Sully GPA                   | 12       | 6/5  | 0           | 0                      | 6.8          | VI 7                      |                 | Yes          | Yes          | Yes          | s(p)  |
| Shannon                         | Unknown Pond <sup>1</sup>                   | 2        | 5/27 | 0           | 1                      | 0.2          | IV A 11                   | IV A 10         | No           | No           | No           | n.r.  |
| <i>Off-Missouri River Total</i> |   |          |      | 11          | 25                     | 119.3        |                           |                 |              |              |              |       |
| <i>Missouri River Subtotal</i>  |   |          |      | 160         | 358 <sup>2</sup>       | 112.8        |                           |                 |              |              |              |       |
| <b>Total</b>                    |   |          |      | <b>171</b>  | <b>383<sup>2</sup></b> | <b>232.1</b> |                           |                 |              |              |              |       |

<sup>1</sup>Please note that these surveys were conducted outside the Census Window.

<sup>2</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in Iowa

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All of the known sites for Piping Plovers were censused. The north pond at Council Bluffs was not surveyed due to construction activities; amounting to about 60% of the available habitat at this site. The 2006 numbers are similar to 2001 numbers, but with so few pairs and such restricted habitat, it is difficult to determine what represents a meaningful change. The results do represent the actual population in Iowa. The lack of suitable nesting habitat along the Missouri and inland rivers is probably the factor that most limits growth of the Piping Plover population.

## Comparison of Census Numbers

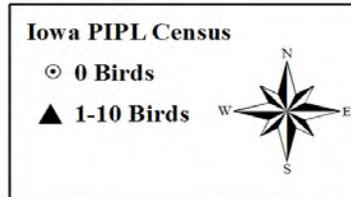
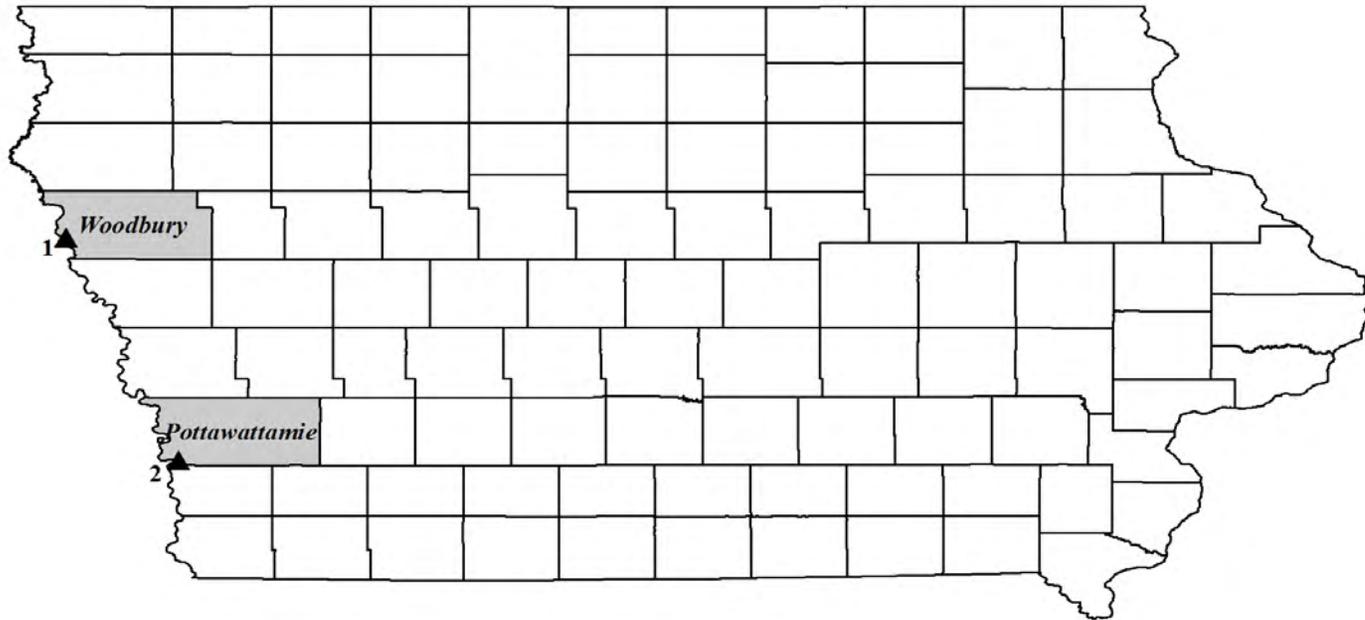
|              | 1991 | 1996 | 2001 | 2006           |
|--------------|------|------|------|----------------|
| Total Adults | 13   | 14   | 11   | 9 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

## Detectability Study

| Sites Included                 | First Count | Second Count |
|--------------------------------|-------------|--------------|
| MidAmerican Energy, Neal North | 4           | 4            |

# 2006 International Piping Plover Breeding Census - Iowa -



## The 2006 International Piping Plover Breeding Census in Iowa

| COUNTY/<br>REGION | SITE NAME                      | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM         | SITE<br>DESCRIPTION | PIPL<br>HABITAT  | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN     |
|-------------------|--------------------------------|----------|------|-------------|-----------------|------------|---------------------|------------------|--------------|--------------|--------------|---------|
| Pottawatomie      | MidAmerican Energy Plant       | 2        | 6/9  | 2           | 4               | 0.6        | VII D I 14 15       | VII D I 14<br>15 | Yes          | Yes          | Yes          | Private |
| Woodbury          | MidAmerican Energy, Neal North | 1        | 6/8  | 2           | 5               | 2.7        | VII D I 14 15       | VII D I 14<br>15 | Yes          | Yes          | Yes          | Private |
| <b>Total</b>      |                                |          |      | <b>4</b>    | <b>9</b>        | <b>3.3</b> |                     |                  |              |              |              |         |

## **The 2006 International Piping Plover Breeding Census in Nebraska (off-Missouri River)**

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Long-term drought conditions greatly affected the 2006 International Piping Plover Census in Nebraska both by limiting habitat and access at certain sites and by concentrating and increasing birds elsewhere. The 2006 survey was conducted in a similar fashion to earlier IPPCs. All surveys were conducted 5-19 June.

Survey participants included personnel from the Nebraska Game and Parks Commission, U.S. Fish and Wildlife Service, Nebraska Public Power District, Central Nebraska Public Power and Irrigation District, the Tern and Plover Conservation Partnership, National Park Service, and several volunteers. A total of 423 kilometers of river were surveyed by airboat, 132 kilometers by canoe. A total of 61 sand and gravel pits and one large reservoir were surveyed. Two other large reservoirs (Lake Minatare and Calamus Reservoir) were monitored but not formally surveyed because it was determined that both lacked suitable habitat.

In 2006, 718 adult Piping Plovers were counted in Nebraska. This total reverses the trend of decreases recorded during previous International Piping Plover Censuses and represents increases of 133% from 2001 (308 adults), 96% from 1996 (366), and 80% (398) from 1991. The overall increase is likely both the result of an actual increase of birds at certain sites and better coverage at others.

The most notable increase in birds was at Lake McConaughy, Keith County, where 358 adults were counted. Lake McConaughy has consistently been at record or near record low water levels for the past several years as the result of long-term drought, exposing large expanses of suitable habitat. The reservoir, whose water is primarily used for irrigation, was markedly lower in 2006 than during the previous three IPPCs when 60, 69, and 73 adults were recorded in 1991, 1996, and 2001 respectively. It was not until 1978 that Piping Plover were even recorded at this western Nebraska reservoir and the previous high count was 143 in 1993 (Sharpe et al. 2001).

Plover numbers were also higher on the Niobrara River. The 204 total tallied this year is notably higher than previous years when 79, 107, and 87 were recorded in 1991, 1996, and 2001, respectively. Away from the Niobrara, on the Platte, Elkhorn, and Loup Rivers, only 27 adults were counted. Furthermore, 78% (562) of all plovers recorded in Nebraska during the 2006 Census were recorded on the Niobrara River and at Lake McConaughy.

Low water levels have positively affected Piping Plover numbers at Lake McConaughy, but the impacts of low water flows on bird numbers on the central Platte River have been negative. In fact, this year's scheduled airboat surveys for almost all of the central Platte were cancelled because of a lack of water. Only 2 adults were tallied on the 29 km stretch that was surveyed. Previous Censuses yielded totals of 46 in 1991, 25 in 1996, and 4 in 2001. Numbers recorded at sand and gravel pits that are associated with and often located adjacent to rivers, such as the Platte, appear to have remained relatively stable with 129 adults recorded this year.

In Nebraska, it appears that the vast majority of suitable Piping Plover habitat was surveyed. A

number of areas that possess very limited or marginal habitat were not included in the survey. These sites have generally been surveyed in the past and it has been determined that there is a low likelihood of birds occupying them. They include some isolated sandpits and minor river systems, such as the Little Blue River. It is believed that inclusion of these areas would have had minimal impact on totals recorded during the 2006 Census.

While it serves as a useful baseline, it is difficult to know whether the survey results represent the actual number of birds in Nebraska. While this year's effort to determine detection probability is a positive step forward, there is perhaps the need to standardize other portions of the survey so that long-term inferences can be made from the data. This may be difficult, given Nebraska's varied habitat types and the various methods (e.g. airboat, foot, canoe) used to survey areas. Standardization of some aspects would be useful, however, particularly when there are personnel changes.

All survey participants deserve a great deal of credit for the effort and time that they put into the 2006 survey. Participants include: Kari Andresen, Diane Beachly, Mark Czaplewski, Kathy DeLara, Leslie Farnham, Kristy Hajny, Robert Harms, Michael Hart, Renae Held, Jim Jenniges, Joel Jorgensen, Justin King, Elizabeth Murray, Sean O'Brien, Mark Peyton, Dan Roberts, Soren Rundquist, Matt Schwartz, Robin Smith, Dugan Smith, Martha Tacha, Chris Thody, Gareth Welke, Erica Wilson, Gabriel Wilson, and Stephen Wilson.

### Comparison of Census Numbers<sup>1</sup>

|              | 1991 | 1996 | 2001 | 2006             |
|--------------|------|------|------|------------------|
| Total Adults | 398  | 375  | 308  | 909 <sup>2</sup> |

<sup>1</sup>Missouri River data are included in all totals.

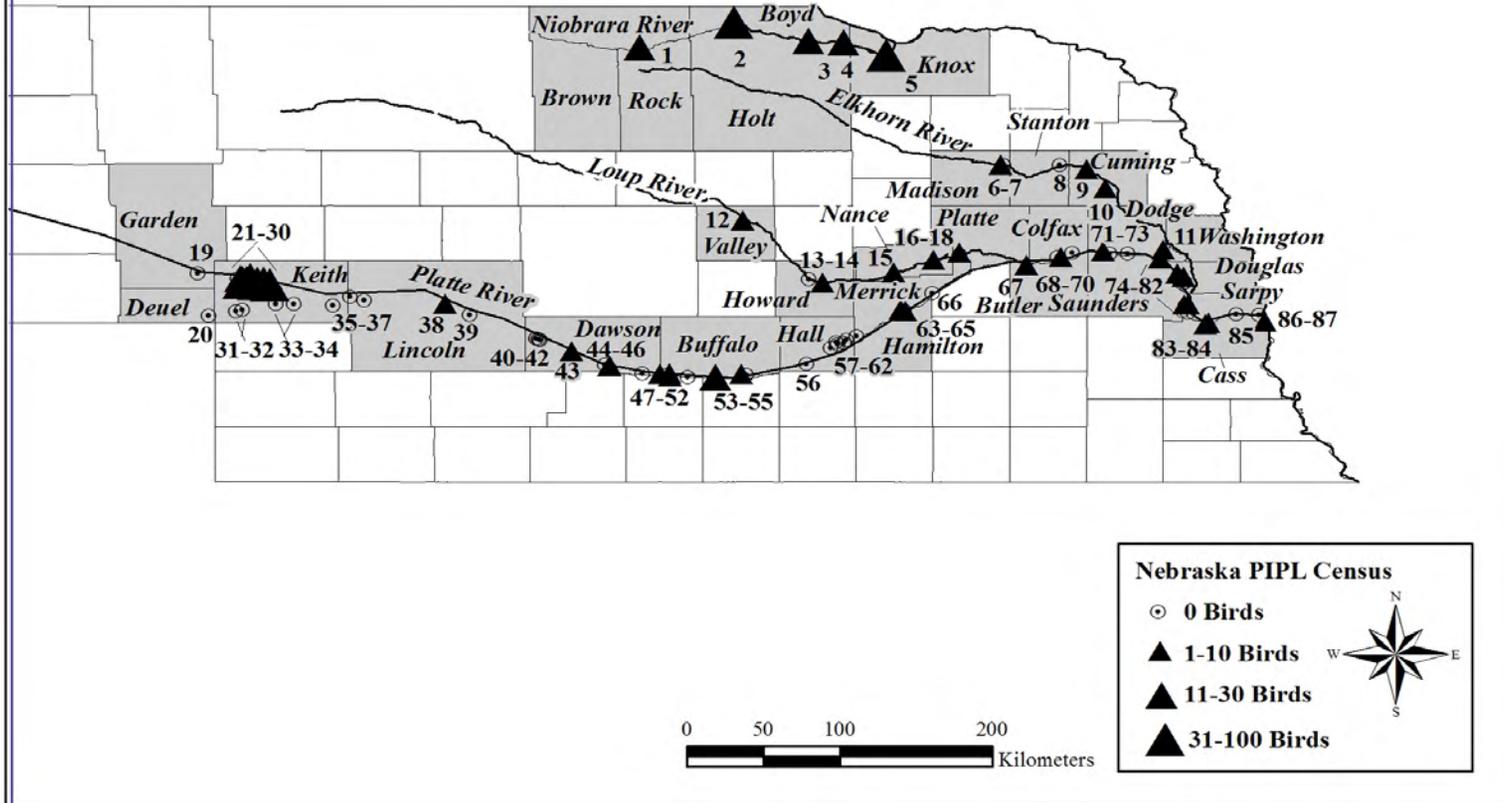
<sup>2</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

### Detectability Study

| Sites Included  | First Count | Second Count |
|---|-------------|--------------|
| Central Platte River, Sandy Channels/Johnson Pit              | 6           | 6            |
| Central Platte (RM 230-235)                                   | 2           | 2            |
| Lower Platte River, Cullom (New Pit)                          | 0           | 0            |
| Lower Platte River, Plattsmouth Pit <sup>1</sup>              | 0           | 0            |
| Lower Platte River, Arps East Pit                             | 0           | 0            |
| Lower Platte River, Arps West Pit                             | 0           | 0            |
| Lower Platte River, Lux S&G <sup>1</sup>                      | 6           | 6            |
| Lower Platte River, Western Fremont Pit <sup>1</sup>          | 6           | 5            |
| Lower Platte River, Ginger Cove Pit (Valley #11) <sup>1</sup> | 3           | 3            |
| Lower Platte River, Mallard Pit at Valley <sup>1</sup>        | 1           | 2            |
| Central Platte River, Central S&G, Grand Island               | 0           | 0            |
| North Platte River, Lake McConaughy, Dam to Vans E            | 127         | 107          |
| North Platte River, Lake McConaughy, Cedar View to W end      | 0           | 0            |
| North Platte River, Lake McConaughy, S side Vans to W end     | 3           | 33           |
| Elkhorn River, Central S&G Norfolk #92                        | 2           | 2            |
| Elkhorn River, Pilger S&G, Norfolk Pit                        | 0           | 0            |
| Central Platte River, Grigsby Pit                             | 7           | 4            |
| Lower Platte River, Dolezal Pit East                          | 0           | 0            |

<sup>1</sup>Replicate survey was conducted first (outside of Census window) so second survey was used to calculate official state total.

# 2006 International Piping Plover Breeding Census - Nebraska - (Off of the Missouri River)



## The 2006 International Piping Plover Breeding Census in Nebraska

| COUNTY/<br>REGION        | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|--------------------------|--|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Boyd/Holt                | Niobrara River, Spencer Dam to Redbird Bridge                | 3        | 6/12 | 10          | 21              | 8.8  | III F 5             |                 | Yes          | Yes          | Yes          | p    |
| Boyd/Holt/<br>Knox       | Niobrara River, Pischelville to Highway 12                   | 5        | 6/14 | 26          | 54              | 12.5 | III F 5             | III F 5         | Yes          | Yes          | Yes          | n.r. |
| Boyd/Holt/<br>Knox       | Niobrara River, Redbird Bridge to Pischelville Bridge        | 4        | 6/15 | 10          | 23              | 9.3  | III F 5             |                 | Yes          | Yes          | Yes          | p    |
| Brown/Rock/<br>Keya Paha | Niobrara River, Norden Dam to Hwy 137 Bridge                 | 1        | 6/13 | 5           | 11              | 49.8 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Brown/Rock/<br>Keya Paha | Niobrara River, Spencer Dam to hwy 137                       | 2        | 6/13 | 32          | 95              | 64.4 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Buffalo                  | Central Platte River, Broadfoot's North of Minden - (Newark) | 54       | 6/14 | 0           | 4               | 2.7  | VII I 1 9 12        | VII I 1 9<br>12 | No           | Yes          | Yes          | p    |
| Buffalo                  | Central Platte River, Broadfoot's West (Kearney South)       | 53       | 6/14 | 1           | 11              | 3.9  | VII I 1 10 13       | VII I 1 9<br>12 | Yes          | Yes          | Yes          | p    |
| Buffalo                  | Central Platte River, Elm Creek-Paulson/Bluehole Sandpit     | 50       | 6/14 | 5           | 7               | 2.0  | VII I 2 9           | VII I 2         | Yes          | Yes          | Yes          | p    |
| Buffalo                  | Central Platte River, Mid-Nebraska Aggregate-Minden          | 55       | 6/14 | 0           | 0               | 0.3  | VII I 1             |                 | Yes          | Yes          | Yes          | p    |
| Buffalo                  | Central Platte River, Sandy Channels/Johnson Pit             | 51       | 6/15 | 3           | 6               | 1.0  | VII I 2             | VII I 2         | No           | Yes          | Yes          | p    |
| Buffalo                  | Central Platte River, T&F Elm Creek                          | 49       | 6/15 | 0           | 0               | 0.4  | VII I 2 10          |                 | No           | No           | No           | p    |
| Buffalo                  | Wells Pit  | 52       | 6/15 | 0           | 0               | 0.8  |                     |                 | No           | No           | No           | p    |
| Buffalo/<br>Dawson       | Central Platte River (RM 229-247)                            | 48       | 6/9  | 0           | 2               | 29.0 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Butler                   | Lower Platte River, Bellwood Central S&G                     | 67       | 6/12 | 0           | 4               | n.r. | VII A 9             | VII A 9         | No           | No           | No           | p    |
| Cass                     | Lower Platte River, Cullom (New Pit)                         | 85       | 6/19 | 0           | 0               | n.r. | VII A 9             |                 | Yes          | Yes          | Yes          | p    |
| Cass/Sarpy               | Lower Platte River, Plattsmouth Pit                          | 86       | 6/19 | 0           | 0               | 1.0  | VII A 9             |                 | Yes          | Yes          | Yes          | p    |
| Cass/Sarpy               | Lower Platte River, Plattsmouth to Salt Creek Mouth          | 87       | 6/12 | 0           | 2               | 41.9 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Colfax                   | Lower Platte River, Arps East Pit                            | 70       | 6/12 | 0           | 0               | n.r. | VII A 9             |                 | Yes          | Yes          | Yes          | p    |

**The 2006 International Piping Plover Breeding Census in Nebraska  
(Continued)**

| COUNTY/<br>REGION | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|-------------------|--|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Colfax            | Lower Platte River, Arps Pit                     | 69       | 6/12 | 0           | 10              | n.r. | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | p   |
| Colfax            | Lower Platte River, Arps West Pit                | 68       | 6/12 | 0           | 0               | n.r. | VII A 10            |                 | Yes          | Yes          | Yes          | p   |
| Cuming            | Elkhorn River, West Point (Stalp)                | 10       | 6/5  | 0           | 9               | n.r. | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | p   |
| Dawson            | Central Platte River, Lexington Sandpit          | 45       | 6/15 | 2           | 7               | 0.5  | VII A I 2 0         | VII I 2         | No           | No           | Yes          | p   |
| Dawson            | Central Platte River, Overton S&G, Overton Pit   | 47       | 6/15 | 0           | 0               | 0.5  | VII I 2 9           |                 | Yes          | Yes          | Yes          | p   |
| Dawson            | Central Platte River, Paulsen Pit - Lexington    | 46       | 6/15 | 1           | 1               | 0.5  | VII I 2 10          | VII I 2         | Yes          | Yes          | Yes          | p   |
| Dawson            | Upper Platte River, Kirkpatrick's Sanpit         | 41       | 6/8  | 0           | 0               | 3.2  | VIII E 1            |                 | Yes          | Yes          | Yes          | p   |
| Dawson            | Upper Platte River, Koch's South - Cozad Pit     | 43       | 6/7  | 3           | 6               | n.r. | VIII E 1            |                 | Yes          | Yes          | Yes          | p   |
| Dawson            | Upper Platte River, Overton S&G, Lexington Pit   | 44       | 6/15 | 0           | 0               | 0.8  | VIII                |                 | Yes          | Yes          | Yes          | p   |
| Dawson            | Upper Platte River, Potter Pond                  | 40       | 6/8  | 0           | 0               | n.r. | VIII E 2            |                 | Yes          | Yes          | Yes          | p   |
| Dawson            | Upper Platte River, Willow Island Sandpitt       | 42       | 6/7  | 0           | 0               | n.r. | VIII E 1            |                 | No           | Yes          | No           | p   |
| Deuel             | South Platte River, Big Springs Gravel pit       | 20       | 6/3  | 0           | 0               | n.r. | n.r.                |                 | No           | Yes          | Yes          | p   |
| Dodge             | Elkhorn River, Lyman - Richey Fremont Pit (#47)  | 11       | 6/13 | 0           | 1               | 0.2  | VII A 9             | VII A 9         | No           | No           | Yes          | p   |
| Dodge             | Lower Platte River, Lux S&G                      | 71       | 6/12 | 1           | 6               | 0.2  | VII A 9             | VII A 9         | No           | Yes          | Yes          | p   |
| Dodge             | Lower Platte River, Western Fremont Pit          | 74       | 6/1  | 0           | 6               | 0.8  | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | p   |
| Douglas           | Lower Platte River, All Spec (Venice Pit)        | 78       | 6/14 | 0           | 0               | n.r. | VII A 9             |                 | No           | No           | Yes          | p   |
| Douglas           | Lower Platte River, Ginger Cove Pit (Valley #11) | 75       | 6/14 | 0           | 3               | 0.9  | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | p   |

**The 2006 International Piping Plover Breeding Census in Nebraska  
(Continued)**

| COUNTY/<br>REGION            | SITE NAME  | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|------------------------------|--|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Douglas                      | Lower Platte River, Lyman- Richey S&G (Waterloo #40 Pit)       | 77       | 6/14 | 0           | 0               | n.r. | VII A 9             |                 | No           | Yes          | Yes          | p   |
| Douglas                      | Lower Platte River, Mallard Pit at Valley                      | 76       | 6/14 | 1           | 2               | 0.6  | VII A 9             | VII A 9         | No           | Yes          | Yes          | p   |
| Garden                       | North Platte River, Lewellen Gravel Pit                        | 19       | 6/14 | 0           | 0               | 0.8  | VII A 9             |                 | No           | Yes          | Yes          | p   |
| Hall                         | Central Platte River, Central S&G, Grand Island                | 61       | 6/14 | 0           | 0               | 1.4  | VII I 1 9           |                 | No           | No           | Yes          | p   |
| Hall                         | Central Platte River, Hooker Bros. S&G, Grand Island (South)   | 59       | 6/12 | 0           | 0               | 1.4  | VII A I 1 9         |                 | No           | Yes          | Yes          | p   |
| Hall                         | Central Platte River, Hooker Bros. S&G, Grand Island (West)    | 58       | 6/12 | 0           | 0               | 1.0  | VII A I 1 9         |                 | Yes          | Yes          | Yes          | p   |
| Hall                         | Central Platte River, Island S&G, Grand Island                 | 60       | 6/12 | 0           | 0               | 0.8  | VII A I 1 9         |                 | No           | Yes          | Yes          | p   |
| Hall                         | Central Platte River, Lilley's in Prosser                      | 56       | 6/14 | 0           | 0               | 1.0  | VIII I 1            |                 | No           | No           | Yes          | p   |
| Hall                         | Deweese- Alda  | 57       | 6/14 | 0           | 0               | 0.8  | VII I 1             |                 | No           | No           | No           | p   |
| Hamilton                     | Central Platte River, Mowitz Pit                               | 65       | 6/8  | 0           | 6               | n.r. | VII A 9             | VII A 9         | No           | No           | No           | p   |
| Howard                       | North Loup River, St. Paul Pit                                 | 14       | 6/5  | 0           | 10              | 0.8  | VII A 9             | VII A 9         | No           | Yes          | Yes          | p   |
| Howard                       | North Loup River, Tri-County S&G                               | 13       | 6/5  | 0           | 0               | 0.5  | VII A 9             |                 | No           | Yes          | Yes          | p   |
| Howard/<br>Nance/<br>Merrick | Loup River, Loup Diversion to North Loup Mouth                 | 15       | 6/6  | 3           | 6               | 54.8 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p   |
| Keith                        | North Platte River, Lake McConaughy, Arthur Bay to Sandy Beach | 21       | 6/12 | 10          | 32              | 6.4  | VI A 1              | VI A            | Yes          | Yes          | Yes          | p   |
| Keith                        | North Platte River, Lake McConaughy, Cedar Vue to W end        | 22       | 6/5  | 0           | 0               | 6.4  | VI A                |                 | Yes          | Yes          | Yes          | p   |
| Keith                        | North Platte River, Lake McConaughy, Dam to Arthur Bay         | 23       | 6/5  | 30          | 63              | 6.4  | VI A 12             | VI A            | Yes          | Yes          | Yes          | p   |
| Keith                        | North Platte River, Lake McConaughy, Dam to Vans E             | 24       | 6/5  | 48          | 127             | 16.1 | VI A                | VI A            | Yes          | Yes          | Yes          | p   |

**The 2006 International Piping Plover Breeding Census in Nebraska  
(Continued)**

| COUNTY/<br>REGION | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM   | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|---|----------|------|-------------|-----------------|------|---------------------|-----------------|--------------|--------------|--------------|------|
| Keith             | North Platte River, Lake<br>McConaughy, Lemoyne to Spring<br>Park   | 25       | 6/13 | 27          | 52              | 8.0  | VI A 12             | VI A            | Yes          | Yes          | Yes          | p    |
| Keith             | North Platte River, Lake<br>McConaughy, S Dam to Ogallala<br>Beach  | 26       | 6/7  | 0           | 0               | 11.3 | VI A                |                 | Yes          | Yes          | Yes          | p    |
| Keith             | North Platte River, Lake<br>McConaughy, S side Vans to W end        | 27       | 6/7  | 16          | 33              | 5.3  | VI A 1 12           | VI A            | Yes          | Yes          | Yes          | p    |
| Keith             | North Platte River, Lake<br>McConaughy, Sandy Beach to<br>Lemoyne   | 28       | 6/12 | 13          | 31              | 6.4  | VI A 12             | VI A            | Yes          | Yes          | Yes          | p    |
| Keith             | North Platte River, Lake<br>McConaughy, Spring Park to Cedar<br>Vue | 29       | 6/13 | 13          | 25              | 8.0  | VI A 12             | VI A            | Yes          | Yes          | Yes          | p    |
| Keith             | North Platte River, Lake<br>McConaughy, Spring Park to<br>Sandpit   | 30       | 6/13 | 7           | 25              | 5.6  | VI A 12             | VI A            | Yes          | Yes          | Yes          | p    |
| Keith             | South Platte River, Anderson S&G,<br>Paxton Pit                     | 35       | 6/8  | 0           | 0               | 0.3  | VII A 9             |                 | No           | No           | Yes          | p    |
| Keith             | South Platte River, Anderson S&G,<br>Roscoe Pit                     | 34       | 6/8  | 0           | 0               | 0.3  | VII A 9             |                 | No           | Yes          | Yes          | p    |
| Keith             | South Platte River, Brule Sand Pit                                  | 32       | 6/3  | 0           | 0               | n.r. | VII A 9             |                 | No           | Yes          | Yes          | p    |
| Keith             | South Platte River, Brule to Roscoe                                 | 31       | 6/3  | 0           | 0               | 24.1 | III F 5             |                 | No           | Yes          | Yes          | p    |
| Keith             | South Platte River, Ogallala Ready<br>Mix/Paulson's S&G             | 33       | 6/6  | 0           | 0               | 0.3  | VII A 9             |                 | No           | No           | Yes          | p    |
| Lincoln           | South Platte River, Sutherland Pit<br>(Anderson S&G)                | 37       | 6/8  | 0           | 0               | 0.4  | VII A 9             |                 | No           | Yes          | Yes          | p    |
| Lincoln           | South Platte River, Whitney S&G,<br>Sutherland Pit                  | 36       | 6/8  | 0           | 0               | 0.4  | VII A 9             |                 | No           | No           | Yes          | p    |
| Lincoln           | Upper Platte River, Lexington<br>Bridge to N. Platte Diversion      | 38       | 6/8  | 1           | 2               | 1.6  | III E 2             |                 | Yes          | Yes          | Yes          | s(p) |
| Lincoln           | Upper Platte River, Maxwell Pit                                     | 39       | 6/8  | 0           | 0               | 0.2  | VIII E 2            |                 | Yes          | Yes          | Yes          | p    |

**The 2006 International Piping Plover Breeding Census in Nebraska  
(Continued)**

| COUNTY/<br>REGION                                   | SITE NAME   | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM    | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|---|---|----------|------|-------------|-----------------|-------|---------------------|-----------------|--------------|--------------|--------------|------|
| Madison   | Elkhorn River, Central S&G<br>Norfolk #92                         | 6        | 6/5  | 1           | 2               | 1.4   | VII A 9             | VII A 9         | No           | Yes          | Yes          | p    |
| Madison   | Elkhorn River, Pilger S&G,<br>Norfolk Pit                         | 7        | 6/5  | 0           | 0               | 1.2   | VII A 9             |                 | Yes          | Yes          | Yes          | p    |
| Merrick   | Central Platte River, Clarks Pit                                  | 66       | 6/12 | 0           | 0               | n.r.  | VII A 9             |                 | No           | No           | No           | p    |
| Merrick   | Central Platte River, Grigsby Pit                                 | 63       | 6/6  | 0           | 7               | 0.6   | VII A 9             | VII A 9         | No           | No           | Yes          | p    |
| Merrick   | Central Platte River, Hamilton<br>County S&G                      | 64       | 6/6  | 0           | 0               | n.r.  | VII A 9             |                 | No           | No           | No           | p    |
| Merrick   | Central Platte River, Hooker<br>Bros. S&G, Grand Island (East)    | 62       | 6/12 | 0           | 0               | 1.6   | VII I 1 9           |                 | No           | No           | No           | p    |
| Nance   | Loup River, Loup Diversion  | 16       | 6/6  | 0           | 4               | 1.6   | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | p    |
| Platte  | Loup River, Central S&G,<br>Genoa Pit                             | 17       | 6/6  | 0           | 9               | 1.6   | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | s/p  |
| Platte  | Loup River, Stempek Pit   | 18       | 6/6  | 0           | 0               | 0.1   | VII A 9             |                 | No           | No           | Yes          | p    |
| Sarpy   | Lower Platte River, Linoma<br>Beach Pit                           | 82       | 6/14 | 0           | 0               | n.r.  | VII A 9             |                 | No           | No           | No           | p    |
| Sarpy   | Lower Platte River, Western<br>S&G at Louisville Pit              | 84       | 6/13 | 0           | 4               | 0.4   | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | p    |
| Sarpy/Saunders/<br>Dodge/Colflax/<br>Douglas/Platte | Lower Platte River, Elkhorn<br>River Mouth to Loup River<br>Mouth | 81       | 6/12 | 0           | 8               | 112.6 | III F 5             | III F 5         | Yes          | Yes          | Yes          | p    |
| Saunders  | Lower Platte River, Bluff Pit                                     | 73       | 6/12 | 0           | 0               | 0.2   | VII A 9             |                 | Yes          | Yes          | Yes          | s/p  |
| Saunders  | Lower Platte River, Dolezal Pit<br>East                           | 72       | 6/12 | 0           | 0               | 0.5   | VII A 9             |                 | No           | No           | Yes          | p    |
| Saunders  | Lower Platte River, Lyman-<br>Richey S&G, Western Ashland<br>Pit  | 80       | 6/13 | 0           | 0               | 2.0   | VII A 9             |                 | No           | No           | Yes          | p    |
| Saunders/Sarpy/<br>Cass                             | Lower Platte River, Salt Creek<br>Mouth to Elkhorn River Mouth    | 83       | 6/12 | 0           | 4               | 11.3  | III F 5             | III F 5         | Yes          | Yes          | Yes          | n.r. |
| Saunders  | Lower Platte River, Western<br>North Pit (Big Sandy)              | 79       | 6/12 | 0           | 3               | 4.0   | VII A 9             | VII A 9         | Yes          | Yes          | Yes          | p    |
| Stanton   | Elkhorn River, Pilger S&G,<br>Pilger Pit                          | 8        | 6/19 | 0           | 0               | 0.8   | VII A 9             |                 | Yes          | Yes          | Yes          | p    |

**The 2006 International Piping Plover Breeding Census in Nebraska  
(Continued)**

| <b>COUNTY/<br/>REGION</b>                                 | <b>SITE NAME</b>                                      | <b>MAP<br/>#</b> | <b>DATE</b> | <b>BR<br/>PAIRS</b> | <b>TOTAL<br/>ADULTS</b> | <b>KM</b>    | <b>SITE<br/>DESCRIPTION</b> | <b>PIPL<br/>HABITAT</b> | <b>91<br/>CENSUS</b> | <b>96<br/>CENSUS</b> | <b>01<br/>CENSUS</b> | <b>OWN</b> |
|---|---|------------------|-------------|---------------------|-------------------------|--------------|-----------------------------|-------------------------|----------------------|----------------------|----------------------|------------|
| Valley  | North Loup River, Ulrich S&G<br>(East)                | 12               | 6/8         | 0                   | 2                       | 0.5          | VII A 9                     | VII A 9                 | Yes                  | Yes                  | Yes                  | p          |
| Washington/<br>Douglas/Sarpy/<br>Stanton/Dodge/<br>Cuming | Elkhorn River, Mouth to N<br>Fork Elkhorn River Mouth | 9                | 6/5         | 0                   | 3                       | 148.4        | III F 5                     | III F 5                 | Yes                  | Yes                  | Yes                  | s/p        |
| <i>Off-Missouri River Subtotal</i>                        |   |                  |             | 268                 | 749 <sup>1</sup>        | 695.6        |                             |                         |                      |                      |                      |            |
| <i>Missouri River Subtotal</i>                            |   |                  |             | 66                  | 196 <sup>1</sup>        | 15.2         |                             |                         |                      |                      |                      |            |
| <b>Total</b>  |   |                  |             | <b>334</b>          | <b>945<sup>1</sup></b>  | <b>710.8</b> |                             |                         |                      |                      |                      |            |

<sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

# The 2006 International Piping Plover Breeding Census in Colorado

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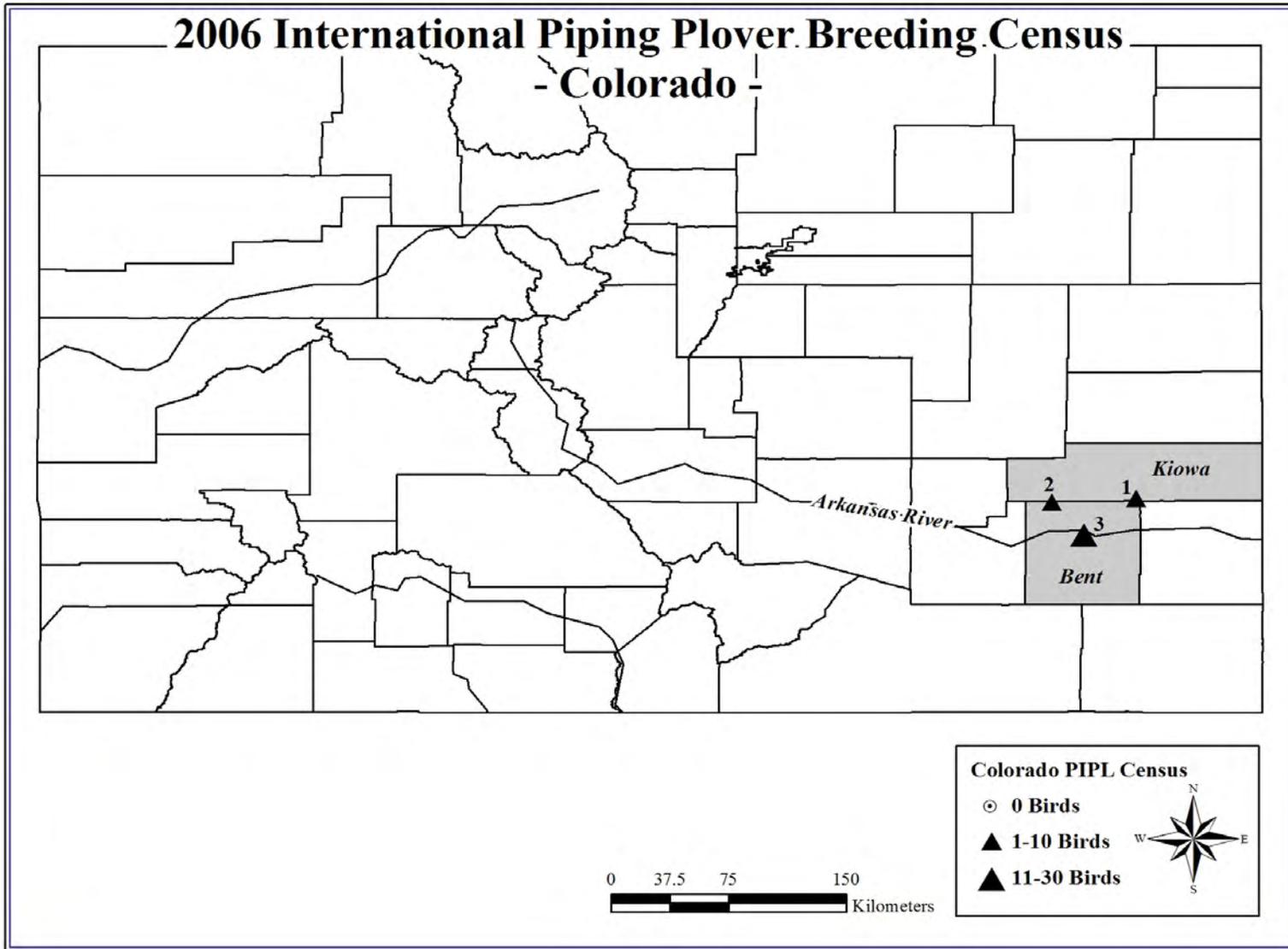
Only three sites were surveyed as part of the 2006 International Census. Many of the sites that were surveyed in previous years as part of the International Census were not covered this year, but most of them did not have plovers previously. Two of the three sites where Piping Plovers were found in 2001 were surveyed this year and found to have birds. Nee Noshe Reservoir had one pair in 2001 but was not surveyed this year. However, Nee Grande Reservoir had one breeding pair in 2006. This site has been surveyed during every International Census but has not had birds since 1991. Despite the reduced effort, more birds were recorded in 2006 than during any previous International Census

## Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006            |
|--------------|------|------|------|-----------------|
| Total Adults | 13   | 14   | 13   | 20 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

*Summarized by E. Elliott-Smith*



## The 2006 International Piping Plover Breeding Census in Colorado

| COUNTY/<br>REGION | SITE NAME                         | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM          | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN  |
|-------------------|-----------------------------------|----------|------|-------------|-----------------|-------------|---------------------|-----------------|--------------|--------------|--------------|------|
| Bent              | John Martin Reservoir             | 3        | 6/06 | 6           | 15              | 9.7         | VI A 7              | VI A 7          | Yes          | Yes          | Yes          | f/p  |
| Bent/Kiowa        | Adobe Creek Reservoir             | 2        | 6/05 | 1           | 3               | 0.8         | VI A 6 15           | VI A 6 15       | Yes          | Yes          | Yes          | s(p) |
| Kiowa             | Nee Grande Reservoir <sup>1</sup> | 1        | 5/21 | 1           | 2               | 12.9        | VI A 10             | VI A 10         | Yes          | Yes          | Yes          | f/p  |
| <b>Total</b>      |                                   |          |      | <b>8</b>    | <b>20</b>       | <b>23.4</b> |                     |                 |              |              |              |      |

<sup>1</sup>Please note that this site was surveyed outside the Census window.

# The 2006 International Piping Plover Breeding Census in Kansas

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As in 2001, one site along the Kansas River was surveyed as part of the International Census. In 2001, 3 birds were observed at this site, whereas there were two pairs in 2006. Both of the pairs had active nests during the 2006 International Census. In 2001, it was reported that there were a half a dozen potential Piping Plover breeding sites depending on the water level of the Kansas River; however, other sites were not surveyed in 2006.

One of the birds observed at this site in 2006 was a banded individual from South Dakota that had been raised in captivity. It has attempted to nest at this site for the past four years.

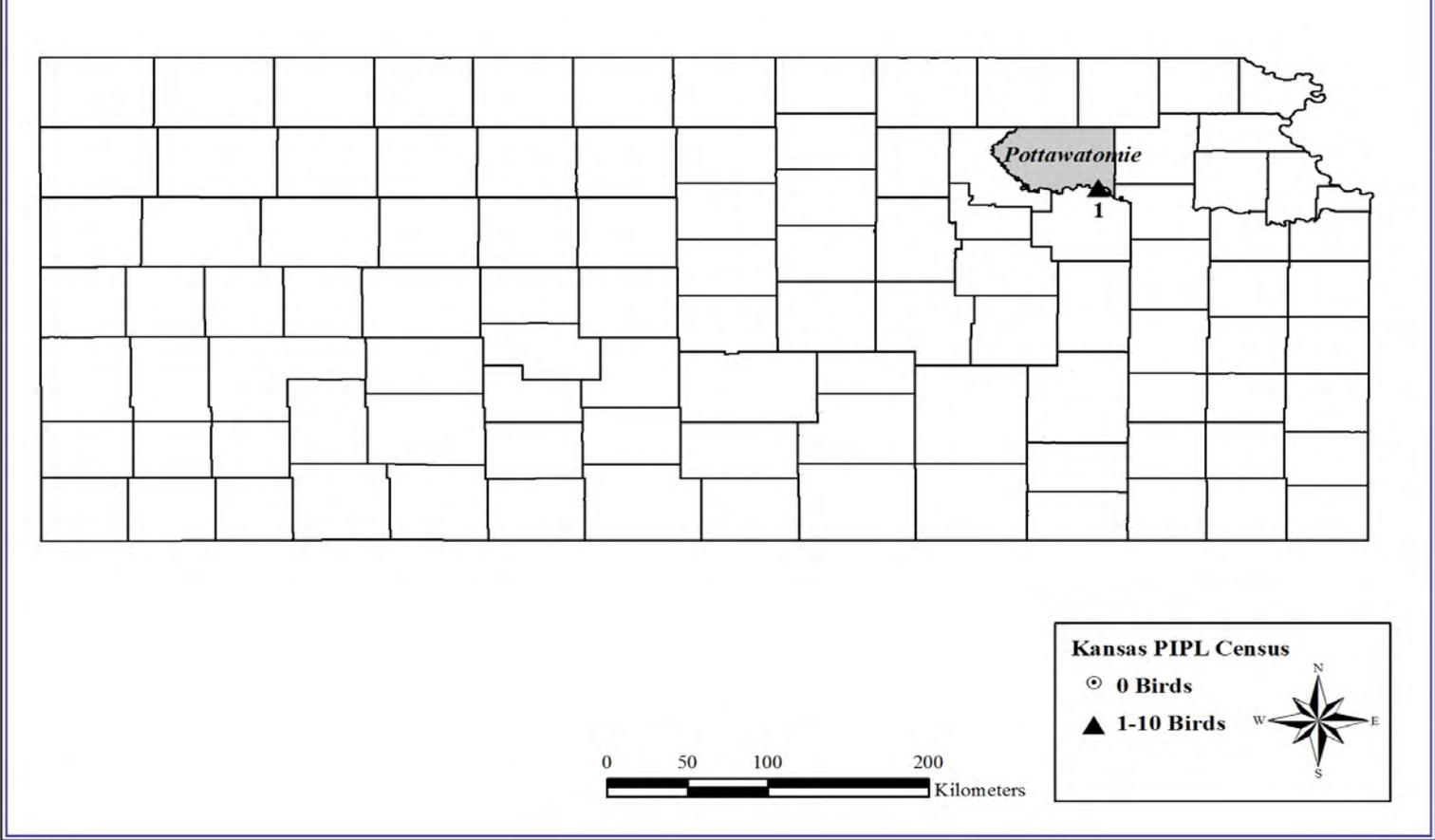
## Comparison of Census Numbers

|              | 1991 | 1996 | 2001 | 2006           |
|--------------|------|------|------|----------------|
| Total Adults | n.a. | 1    | 3    | 4 <sup>1</sup> |

<sup>1</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.

*Summarized by E. Elliott-Smith*

# 2006 International Piping Plover Breeding Census - Kansas -



## The 2006 International Piping Plover Breeding Census in Kansas

| COUNTY/<br>REGION | SITE NAME     | MAP<br># | DATE | BR<br>PAIRS | TOTAL<br>ADULTS | KM         | SITE<br>DESCRIPTION | PIPL<br>HABITAT | 91<br>CENSUS | 96<br>CENSUS | 01<br>CENSUS | OWN |
|-------------------|---------------|----------|------|-------------|-----------------|------------|---------------------|-----------------|--------------|--------------|--------------|-----|
| Pottawatomie      | Belvue Colony | 1        | 6/05 | 2           | 4               | 1.2        | III A F 1 12        | III A F 1<br>12 | No           | No           | Yes          | p   |
| <b>Total</b>      |               |          |      | <b>2</b>    | <b>4</b>        | <b>1.2</b> |                     |                 |              |              |              |     |

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