



# National Wildlife Refuge Visitor Survey 2010/2011: Individual Refuge Results for Ten Thousand Islands National Wildlife Refuge

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*The 10,000 Marsh Trail is unique. It's secluded with a feeling of untouched wilderness, but is easy to get to; it's a pleasant surprise to be able to view such an area so easily, besides the fact of being able to view a natural marsh in Florida. People are amazed when I take them there. How beautiful this place is to visit; quiet and natural.—Survey comment from visitor to Ten Thousand Islands National Wildlife Refuge.*



Ten Thousand Islands National Wildlife Refuge. Photo credit: Steve Hillebrand, U.S. Fish and Wildlife Service.

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## Introduction

The National Wildlife Refuge System (Refuge System), established in 1903 and managed by the U.S. Fish and Wildlife Service (Service), is the leading network of protected lands and waters in the world dedicated to the conservation of fish, wildlife and their habitats. There are 556 national wildlife refuges (NWRs) and 38 wetland management districts nationwide, including possessions and territories in the Pacific and Caribbean, encompassing more than 150 million acres. The mission of the Refuge System is to “administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” Part of achieving this mission is the goal “to foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high-quality, and compatible wildlife-dependent public use” (Clark, 2001). The Refuge System attracts more than 45 million visitors annually, including 25 million people per year to observe and photograph wildlife, over 9 million to hunt and fish, and more than 10 million to participate in educational and interpretation programs (Uniack, 1999; U.S. Fish and Wildlife Service, 2007). Understanding visitors and characterizing their experiences on national wildlife refuges are critical elements of managing these lands and meeting the goals of the Refuge System.

The Service contracted with the U.S. Geological Survey (USGS) to conduct a national survey of visitors regarding their experiences on national wildlife refuges. The survey was conducted to better understand visitor needs and experiences and to design programs and facilities that respond to those needs. The survey results will inform Service performance planning, budget, and communications goals. Results will also inform Comprehensive Conservation Plan (CCPs), Visitor Services, and Transportation Planning processes.

## Organization of Results

These results are for Ten Thousand Islands NWR (this refuge) and are part of USGS Data Series 643 (Sexton and others, 2011). All refuges participating in the 2010/2011 surveying effort will receive individual refuge results specific to the visitors to that refuge. Each set of results is organized by the following categories:

- **Introduction:** An overview of the Refuge System and the goals of the national surveying effort.
- **Methods:** The procedures for the national surveying effort, including selecting refuges, developing the survey instrument, contacting visitors, and guidance for interpreting the results.
- **Refuge Description:** A brief description of the refuge location, acreage, purpose, recreational activities, and visitation statistics, including a map (where available) and refuge website link.
- **Sampling at This Refuge:** The sampling periods, locations, and response rate for this refuge.
- **Selected Survey Results:** Key findings for this refuge, including:
  - Visitor and Trip Characteristics
  - Visitor Spending in the Local Communities
  - Visitors Opinions about This Refuge
  - Visitor Opinions about National Wildlife Refuge System Topics
- **Conclusion**
- **References**
- **Survey Frequencies (Appendix A):** The survey instrument with the frequency results for this refuge.
- **Visitor Comments (Appendix B):** The verbatim responses to the open-ended survey questions for this refuge.

## **Methods**

### **Selecting Participating Refuges**

The national visitor survey was conducted from July 2010 – November 2011 on 53 refuges across the Refuge System (table 1). Based on the Refuge System’s 2008 Refuge Annual Performance Plan (RAPP; U.S. Fish and Wildlife Service, 2011, written comm.), 192 refuges with a minimum visitation of 25,000 were considered. This criterion was the median visitation across the Refuge System and the minimum visitation necessary to ensure that the surveying would be logistically feasible onsite. Visitors were sampled on 35 randomly selected refuges and 18 other refuges that were selected by Service Regional Offices to respond to priority refuge planning processes.

### **Developing the Survey Instrument**

USGS researchers developed the survey in consultation with the Service Headquarters Office, managers, planners, and visitor services professionals. The survey was peer-reviewed by academic and government researchers and was further pre-tested with eight Refuge System Friends Group representatives from each region to ensure readability and overall clarity. The survey and associated methodology were approved by the Office of Management and Budget (OMB control #: 1018-0145; expiration date: 6/30/2013).

### **Contacting Visitors**

Refuge staff identified two separate 15-day sampling periods and one or more locations that best reflected the diversity of use and specific visitation patterns of each participating refuge. Sampling periods and locations were identified by refuge staff and submitted to USGS via an internal website that included a customized mapping tool. A standardized sampling schedule was created for all refuges that included eight randomly selected sampling shifts during each of the two sampling periods. Sampling shifts were three- to five-hour randomly selected time bands that were stratified across AM and PM, as well as weekend and weekdays. Any necessary customizations were made, in coordination with refuge staff, to the standardized schedule to accommodate the identified sampling locations and to address specific spatial and temporal patterns of visitation.

Twenty visitors (18 years or older) per sampling shift were systematically selected, for a total of 320 willing participants per refuge—160 per sampling period—to ensure an adequate sample of completed surveys. When necessary, shifts were moved, added, or extended to alleviate logistical limitations (for example, weather or low visitation at a particular site) in an effort to reach target numbers.

**Table 1.** Participating refuges in the 2010/2011 national wildlife refuge visitor survey.

<b>Pacific Region (R1)</b>	
Kilauea Point National Wildlife Refuge (HI)	William L. Finley National Wildlife Refuge (OR)
Deer Flat National Wildlife Refuge (ID)	McNary National Wildlife Refuge (WA)
Cape Meares National Wildlife Refuge (OR)	Turnbull National Wildlife Refuge (WA)
Malheur National Wildlife Refuge (OR)	
<b>Southwest Region (R2)</b>	
Bitter Lake National Wildlife Refuge (NM)	Aransas National Wildlife Refuge (TX)
Bosque del Apache National Wildlife Refuge (NM)	San Bernard/ Brazoria National Wildlife Refuge (TX)
Wichita Mountains Wildlife Refuge (OK)	
<b>Great Lakes-Big Rivers Region (R3)</b>	
Desoto National Wildlife Refuge (IA)	McGregor District, Upper Mississippi River National Wildlife and Fish Refuge – (IA/WI)
Neal Smith National Wildlife Refuge (IA)	
Muscatatuck National Wildlife Refuge (IN)	Big Muddy National Fish and Wildlife Refuge (MO)
Rice Lake National Wildlife Refuge (MN)	Horicon National Wildlife Refuge (WI)
Tamarac National Wildlife Refuge (MN)	Necedah National Wildlife Refuge (WI)
<b>Southeast Region (R4)</b>	
Wheeler National Wildlife Refuge (AL)	Banks Lake National Wildlife Refuge (GA)
Big Lake National Wildlife Refuge (AR)	Noxubee National Wildlife Refuge (MS)
Pond Creek National Wildlife Refuge (AR)	Cabo Rojo National Wildlife Refuge (Puerto Rico)
Merritt Island National Wildlife Refuge (FL)	Pea Island National Wildlife Refuge (NC)
St. Marks National Wildlife Refuge (FL)	Cape Romain National Wildlife Refuge (SC)
Ten Thousand Islands National Wildlife Refuge (FL)	Reelfoot National Wildlife Refuge (TN)
<b>Northeast Region (R5)</b>	
Stewart B. McKinney National Wildlife Refuge (CT)	Moosehorn National Wildlife Refuge (ME)
Bombay Hook National Wildlife Refuge (DE)	Great Swamp National Wildlife Refuge (NJ)
Monomoy National Wildlife Refuge (MA)	Montezuma National Wildlife Refuge (NY)
Parker River National Wildlife Refuge (MA)	Wertheim National Wildlife Refuge (NY)
Patuxent Research Refuge (MD)	Occoquan Bay/ Elizabeth Hartwell Mason Neck National Wildlife Refuge (VA)
<b>Mountain-Prairie Region (R6)</b>	
Monte Vista National Wildlife Refuge (CO)	Sand Lake National Wildlife Refuge (SD)
Quivira National Wildlife Refuge (KS)	National Elk Refuge (WY)
Charles M. Russell National Wildlife Refuge (MT)	
<b>Alaska Region (R7)</b>	
Alaska Maritime National Wildlife Refuge (AK)	Kenai National Wildlife Refuge (AK)
<b>California and Nevada Region (R8)</b>	
Lower Klamath/Tule Lake National Wildlife Refuge (CA)	Ruby Lake National Wildlife Refuge (NV)
Sonny Bono Salton Sea National Wildlife Refuge (CA)	

Refuge staff and/or volunteers (survey recruiters) contacted visitors on-site following a protocol provided by USGS to ensure a diverse sample. Instructions included contacting visitors across the entire sampling shift (for example, every  $n^{\text{th}}$  visitor for dense visitation, as often as possible for sparse visitation), and only one person per group. Visitors were informed of the survey effort, given a token incentive (for example, a small magnet, temporary tattoo), and asked to participate. Willing participants provided their name, mailing address, and preference for language (English or Spanish) and survey mode (mail or online). Survey recruiters also were instructed to record any refusals and then proceed with the sampling protocol.

Visitors were mailed a postcard within 10 days of the initial on-site contact thanking them for agreeing to participate in the survey and inviting them to complete the survey online. Those visitors choosing not to complete the survey online were sent a paper copy a week later. Two additional contacts were made by mail during the next seven weeks following a modified Tailored Design Method (Dillman, 2007): 1) a reminder postcard one week after the first survey, and 2) a second paper survey two weeks after the reminder postcard. Each mailing included instructions for completing the survey online and a postage paid envelope for returning the paper version of the survey. Those visitors indicating a preference for Spanish were sent Spanish versions of all correspondence (including the survey). Finally, a short survey of six questions was sent to nonrespondents four weeks after the second survey mailing to determine any differences between respondents and nonrespondents at the national level. Online survey data were exported and paper survey data were entered using a standardized survey codebook and data entry procedure. All survey data were analyzed by using SPSS v.18 statistical analysis software.

## Interpreting the Results

The extent to which these results accurately represent the total population of visitors to this refuge is dependent on 1) an adequate sample size of those visitors and 2) the representativeness of that sample. The adequacy of the sample size for this refuge is quantified as the margin of error. The composition of the sample is dependent on the ability of the standardized sampling protocol for this study to account for the spatial and temporal patterns of visitor use specific to each refuge. Spatially, the geographical layout and public use infrastructure varies widely across refuges. Some refuges only can be accessed through a single entrance, while others have multiple unmonitored access points across large expanses of land and water. As a result, the degree to which sampling locations effectively captured spatial patterns of visitor use will likely vary from refuge to refuge. Temporally, the two 15-day sampling periods may not have effectively captured all of the predominant visitor uses/activities on some refuges during the course of a year. Therefore, certain survey measures such as visitors' self-reported "primary activity during their visit" may reflect a seasonality bias.

Herein, the sample of visitors who responded to the survey are referred to simply as "visitors." However, when interpreting the results for Ten Thousand Islands NWR, any potential spatial and temporal sampling limitations specific to this refuge need to be considered when generalizing the results to the total population of visitors. For example, a refuge that sampled during a special event (for example, birding festival) held during the spring may have contacted a higher percentage of visitors who traveled greater than 50 miles to get to the refuge than the actual number of these people who would have visited throughout the calendar year (that is, oversampling of nonlocals). In contrast, another refuge may not have enough nonlocal visitors in the sample to adequately represent the beliefs and opinions of that group type. If the sample for a specific group type (for example, nonlocals, hunters, those visitors who paid a fee) is too low ( $n < 30$ ), a warning is included. Additionally, the term "*this* visit" is used to reference the visit on which people were contacted to participate in the survey, which may or may not have been their most recent refuge visit.

## Refuge Description for Ten Thousand Islands National Wildlife Refuge

Established in 1996, Ten Thousand Islands NWR protects mangrove habitats and preserves a rich diversity of native wildlife. Ten Thousand Islands is part of the largest expanse of mangrove forest in North America and has a mixture of freshwater and saltwater habitat surrounding the numerous islands (or keys). Covering over 35,000 acres, the refuge is home to around 200 species of fish, 189 species of birds. In addition, raccoons, river otters, bottle-nosed dolphins, manatees, bald eagles and sea turtles are major draws to the Ten Thousand Islands.

Visitors come to Ten Thousand Islands NWR for fishing, hunting, wildlife observation and photography. The refuge attracts around 125,000 annual visitors (based on 2008 RAPP database; U.S. Fish and Wildlife Service, 2011, written comm.). Waterfowl hunting is allowed in the northern part of the refuge on about 4,000 acres. In 2009, the refuge opened a canoe launch, parking lot and boardwalk to the “Marsh Trail.” The opening of the new parking lot was especially significant because it provided safe access to the refuge by land. Prior to the new parking lot, the refuge was accessible almost exclusively by water due to a lack of safe parking. In the winter, manatees concentrate adjacent to the refuge at Port of the Islands. Figure 1 below displays a map of the refuge. For more information, please visit <http://www.fws.gov/floridapanther/TenThousandIslands/>

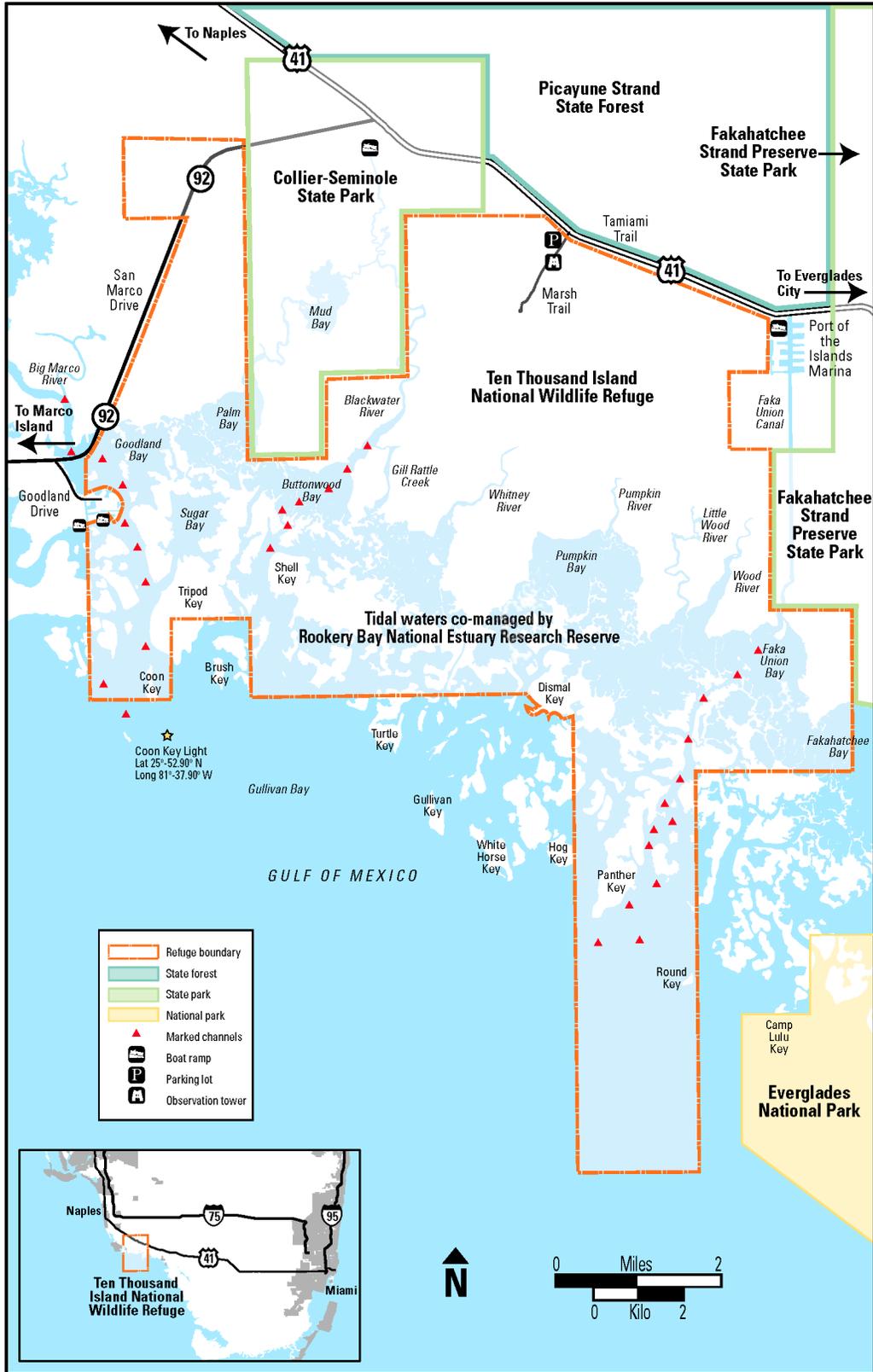


Figure 1. Map of Ten Thousand Islands NWR, courtesy of U.S. Fish and Wildlife Service.

## Sampling at Ten Thousand Islands National Wildlife Refuge

A total of 303 visitors agreed to participate in the survey during the two sampling periods at the identified locations at Ten Thousand Islands NWR (table 2). In all, 219 visitors completed the survey for a 74% response rate and  $\pm 5\%$  margin of error at the 95% confidence level.<sup>1</sup>

**Table 2.** Sampling and response rate summary for Ten Thousand Islands NWR.

Sampling period	Dates	Locations	Total contacts	Undeliverable addresses	Completed surveys	Response rate
1	2/26/11 to 3/12/11	Collier County Marina Calusa Island Marina Port of the Islands Marina	158	3	106	68%
2	3/26/11 to 4/09/11	Marsh Trail Parking Lot	145	4	113	80%
<b>Total</b>			<b>303</b>	<b>7</b>	<b>219</b>	<b>74%</b>

## Selected Survey Results

### Visitor and Trip Characteristics

*A solid understanding of refuge visitors and details about their trips to refuges can inform communication outreach efforts, inform visitor services and transportation planning, forecast use, and gauge demand for services and facilities.*

### Familiarity with the Refuge System

While we did not ask visitors to identify the mission of the National Wildlife Refuge System or the U.S. Fish and Wildlife Service, visitors to Ten Thousand Islands NWR reported that before participating in the survey, they were aware of the role of the U.S. Fish and Wildlife Service in managing national wildlife refuges (78%) and that the Refuge System has the mission of conserving, managing, and restoring fish, wildlife, plants and their habitat (86%). Positive responses to these questions concerning the management and mission of the Refuge System do not indicate the degree to which these visitors understand the day-to-day management practices of individual refuges, only that visitors feel they have a basic knowledge of who manages refuges and why. Compared to other public lands, many visitors feel that refuges provide a unique recreation experience (84%; see Appendix B for visitor comments on “What Makes National Wildlife

<sup>1</sup> The margin of error (or confidence interval) is the error associated with the results related to the sample and population size. A margin of error of  $\pm 5\%$ , for example, means if 55% of the sample answered a survey question in a certain way, then 50–60% of the entire population would have answered that way. The margin of error is calculated with an 80/20 response distribution, assuming that for any given dichotomous choice question, approximately 80% of respondents selected one choice and 20% selected the other (Salant and Dillman, 1994).

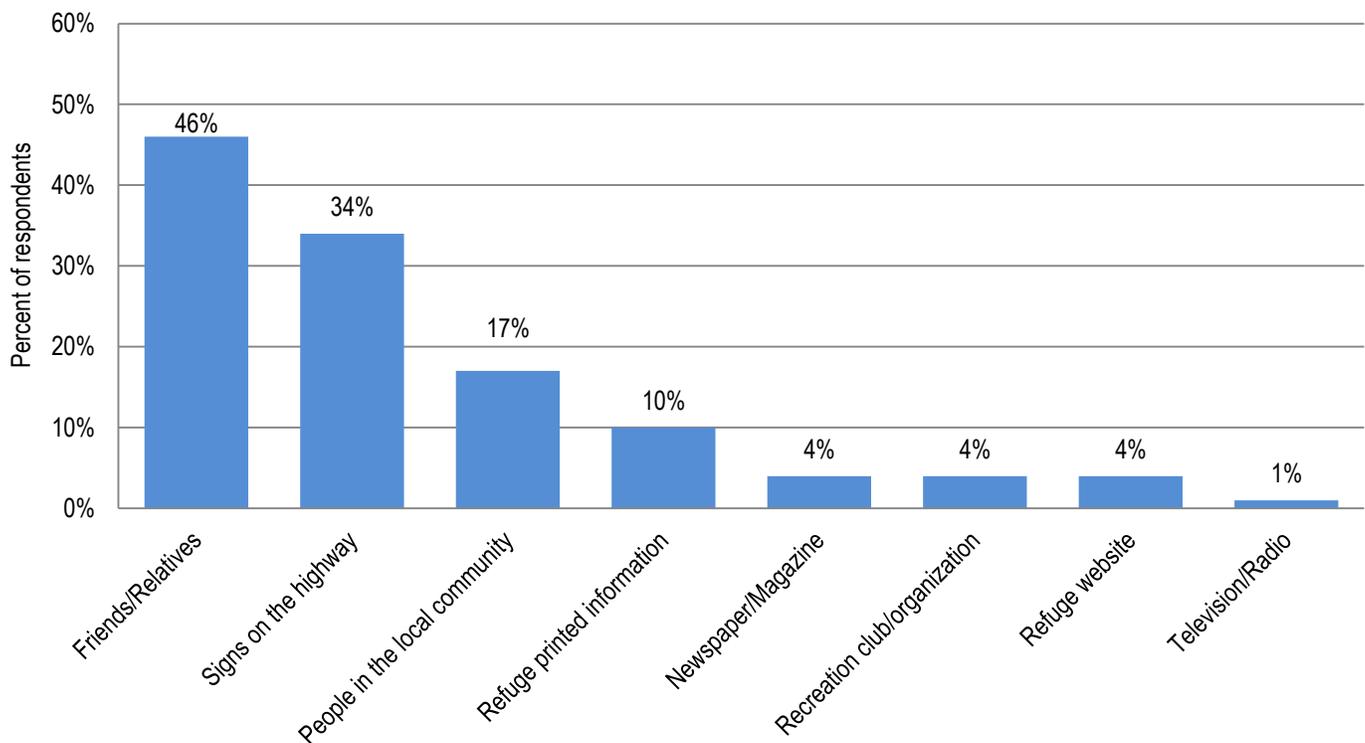
Refuges Unique?"); however, reasons for why visitors find refuges unique are varied and may not directly correspond to their understanding of the mission of the Refuge System. Most visitors to Ten Thousand Islands NWR had been to at least one other National Wildlife Refuge in the past year (69%), with an average of 7 visits to other refuges during the past 12 months.

### Visiting This Refuge

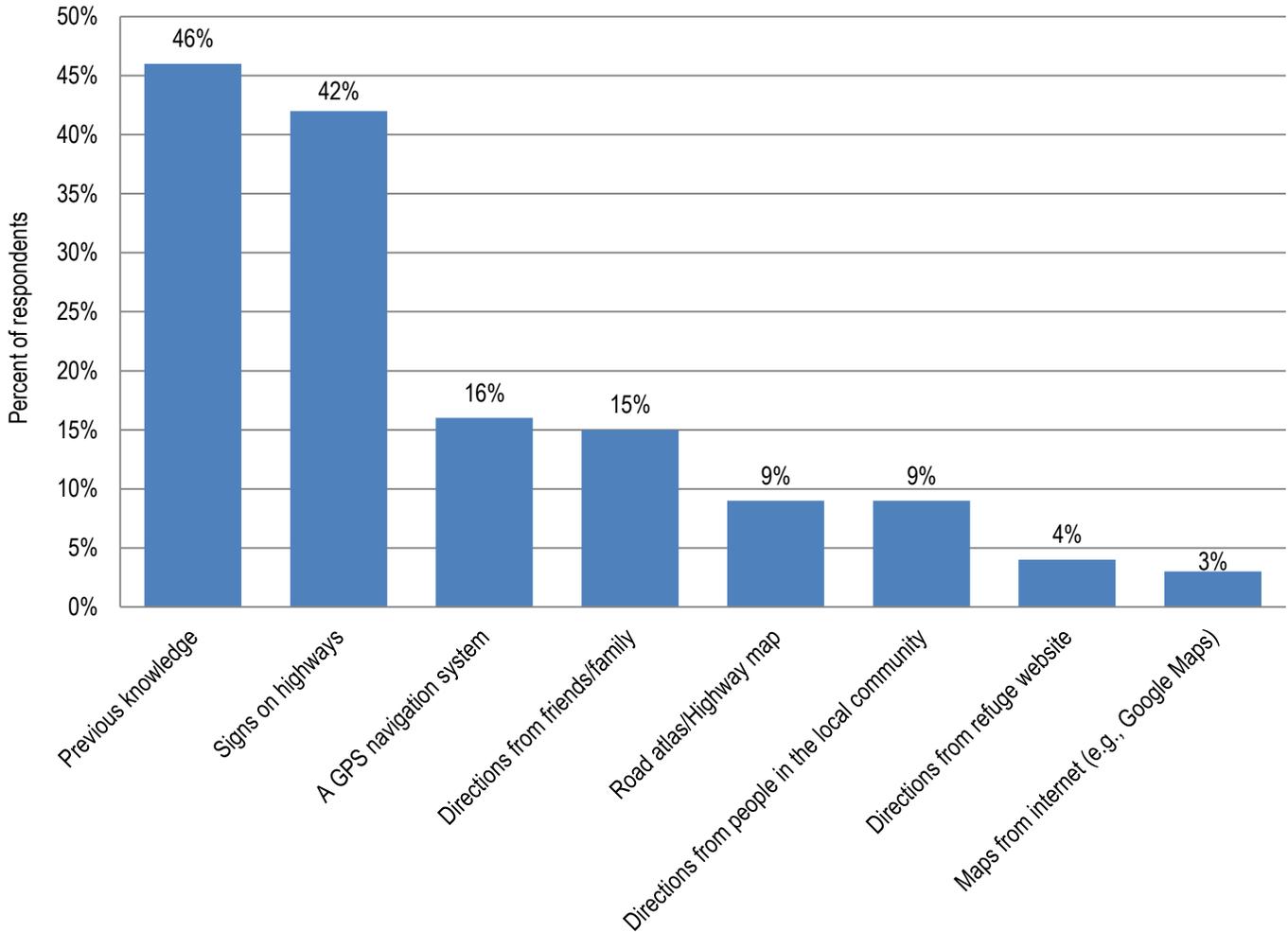
Some surveyed visitors (38%) had only been to Ten Thousand Islands NWR once in the past 12 months, while others had been multiple times (62%). These repeat visitors went to the refuge an average of 19 times during that same 12-month period. Visitors used the refuge during only one season (52%), during multiple seasons (31%), and year-round (17%).

Most visitors first learned about the refuge from friends/relatives (46%), signs on the highway (34%), or people in the local community (17%; fig. 2). Key information sources used by visitors to find their way to this refuge include previous knowledge (46%) and signs on highways (42%; fig. 3).

More than half of visitors (58%) lived in the local area (within 50 miles of the refuge), whereas 42% were nonlocal visitors. For most local visitors, Ten Thousand Islands NWR was the primary purpose or sole destination of their trip (64%; table 3). For most nonlocal visitors, the refuge was an incidental or spur-of-the-moment stop on a trip taken for other purposes (41%). Local visitors reported that they traveled an average of 20 miles to get to the refuge, while nonlocal visitors traveled an average of 500 miles. Figure 4 shows the residence of visitors travelling to the refuge. About 60% of visitors travelling to Ten Thousand Islands NWR were from Florida



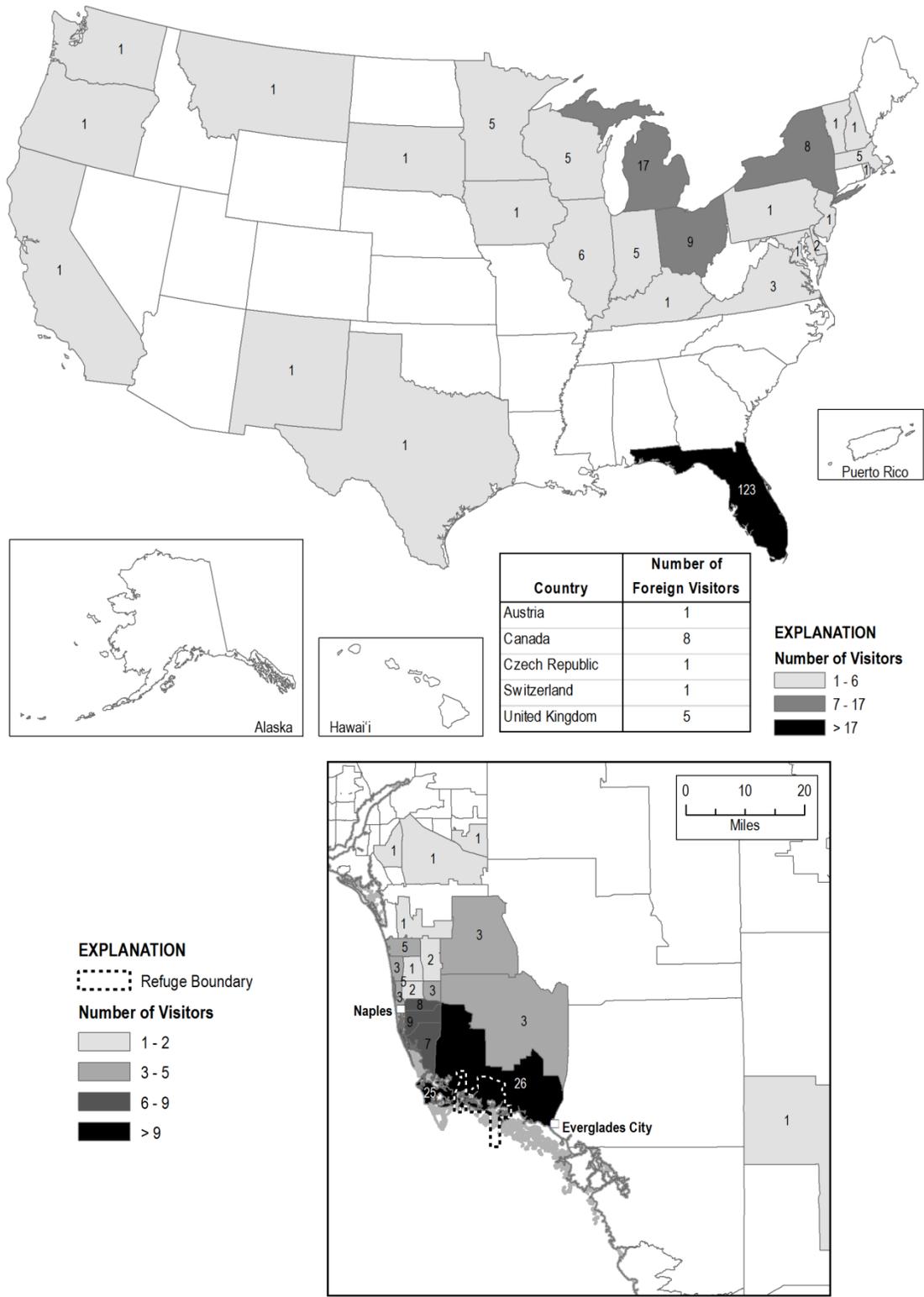
**Figure 2.** How visitors first learned or heard about Ten Thousand Islands NWR (n = 207).



**Figure 3.** Resources used by visitors to find their way to Ten Thousand Islands NWR during *this* visit (n = 216).

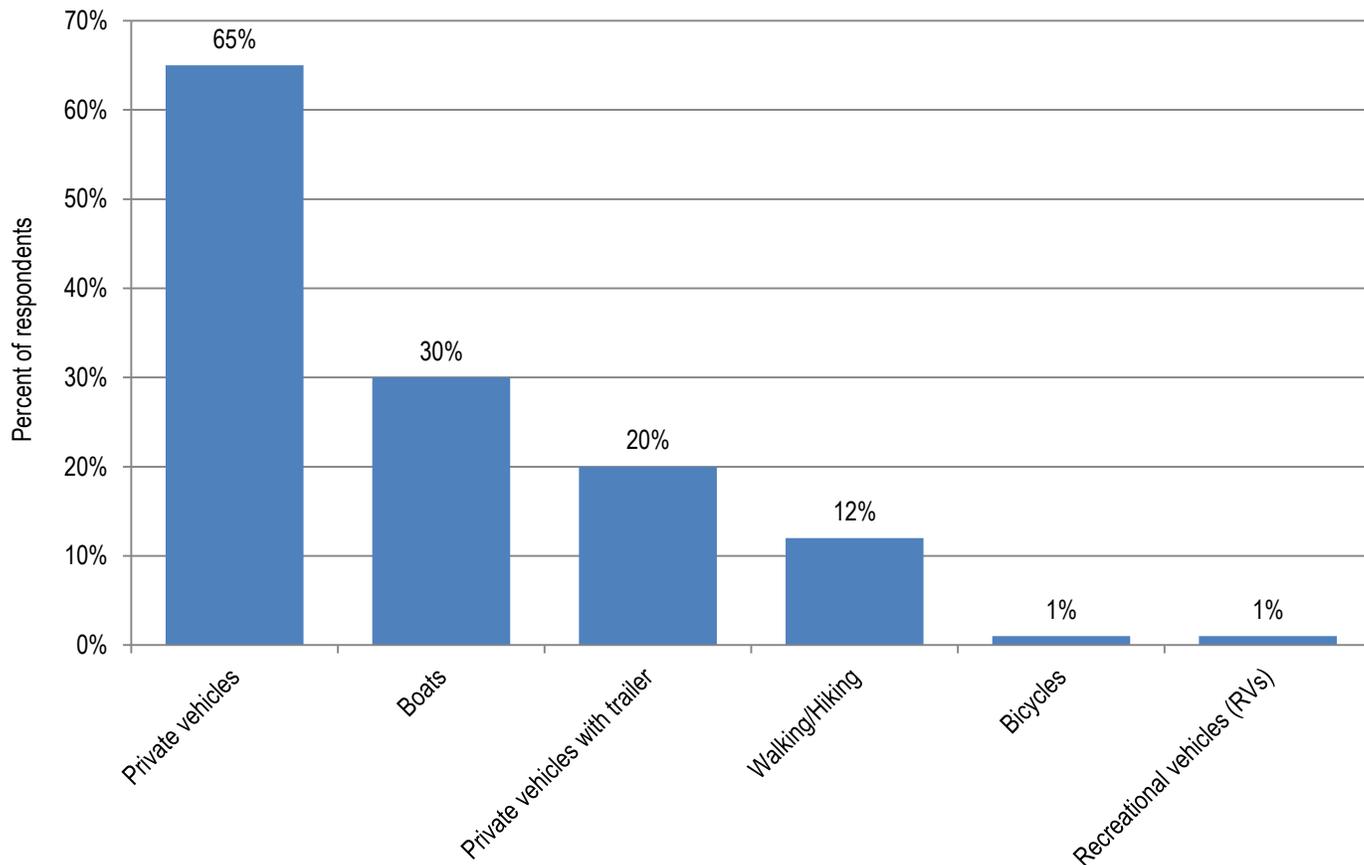
**Table 3.** Influence of Ten Thousand Islands NWR on visitors' decision to take *this* trip.

Visitors	Visiting this refuge was...		
	the primary reason for trip	one of many equally important reasons for trip	an incidental stop
Nonlocal	29%	30%	41%
Local	64%	18%	18%
Total	49%	23%	28%



**Figure 4.** Number of visitors travelling to Ten Thousand Islands NWR by residence. Top map shows residence by state and bottom map shows residence by zip codes near the refuge (n = 219).

Surveyed visitors reported that they spent an average of 4 hours at Ten Thousand Islands NWR during one day there (a day visit is assumed to be 8 hours). However, the most frequently reported length of visit during one day was actually 8 hours (26%). The key modes of transportation used by visitors to travel around the refuge were private vehicles (65%), boats (30%), and private vehicles with trailer (20%; fig. 5). More than half of visitors indicated they were part of a group on their visit to this refuge (55%), travelling primarily with family and friends (table 4).

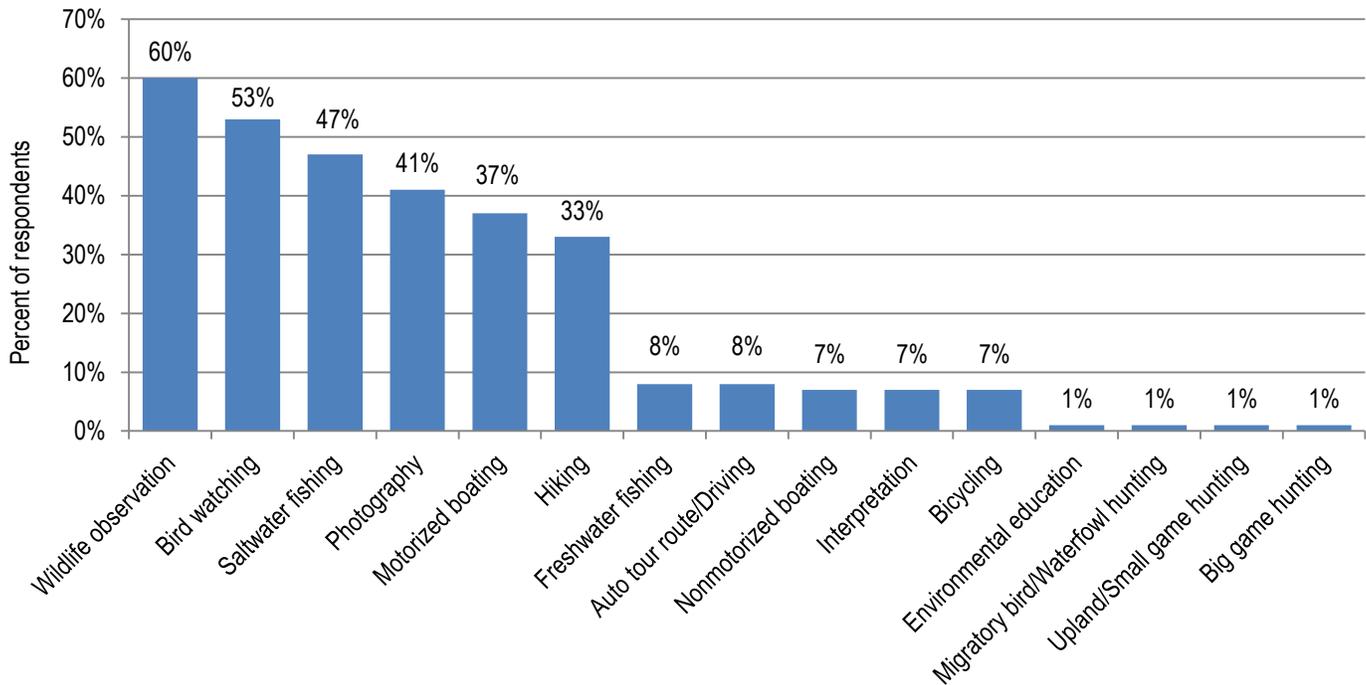


**Figure 5.** Modes of transportation used by visitors to Ten Thousand Islands NWR during *this* visit (n = 218).

**Table 4.** Type and size of groups visiting Ten Thousand Islands NWR (for those who indicated they were part of a group, n = 119).

Group type	Percent (of those traveling in a group)	Average group size		
		Number of adults	Number of children	Total group size
Family/Friends	90%	3	0	3
Commercial tour group	1%	3	0	3
Organized club/School group	5%	20	1	21
Other group type	4%	3	0	3

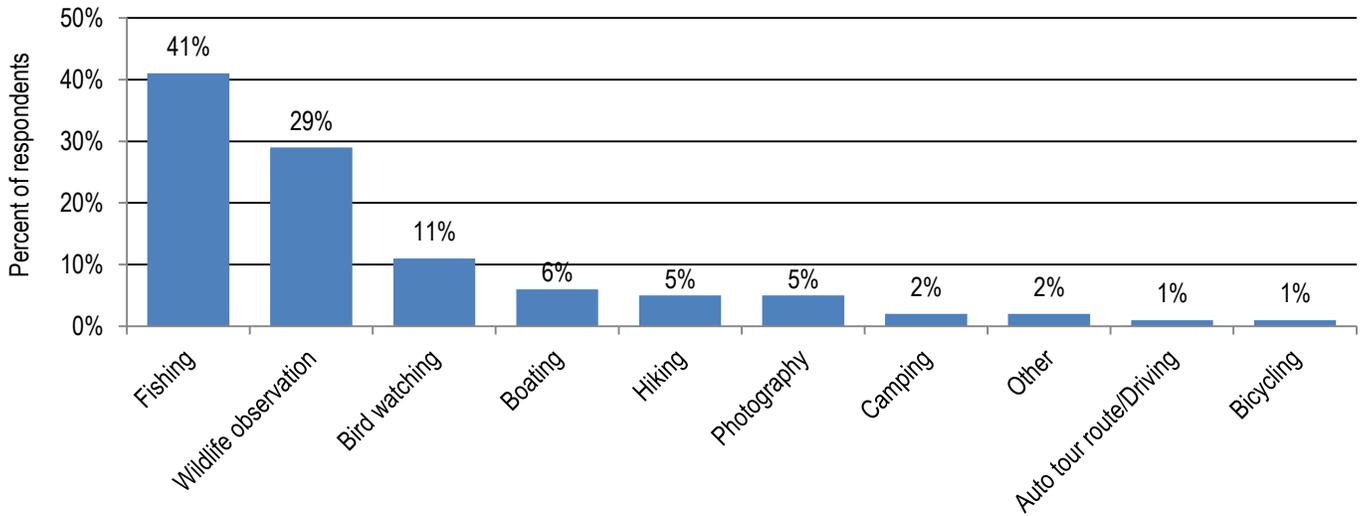
Surveyed visitors participated in a variety of refuge activities during the past 12 months (fig. 6); the top three activities reported were wildlife observation (60%), bird watching (53%), and saltwater fishing (47%). The primary reasons for their most recent visit included fishing (41%), wildlife observation (29%), and bird watching (11%; fig. 7). The visitor center was used by 16% of visitors, mostly to ask information of staff/volunteers (60%), stop to use the facilities (51%), and view the exhibits (49%; fig. 8). Ten Thousand Islands NWR does not have a visitor center; however, there are three visitor centers nearby to which visitors could have been referencing when they answered this question: Big Cypress National Preserve, Everglades National Park, or Rookery Bay National Estuarine Research Reserve.



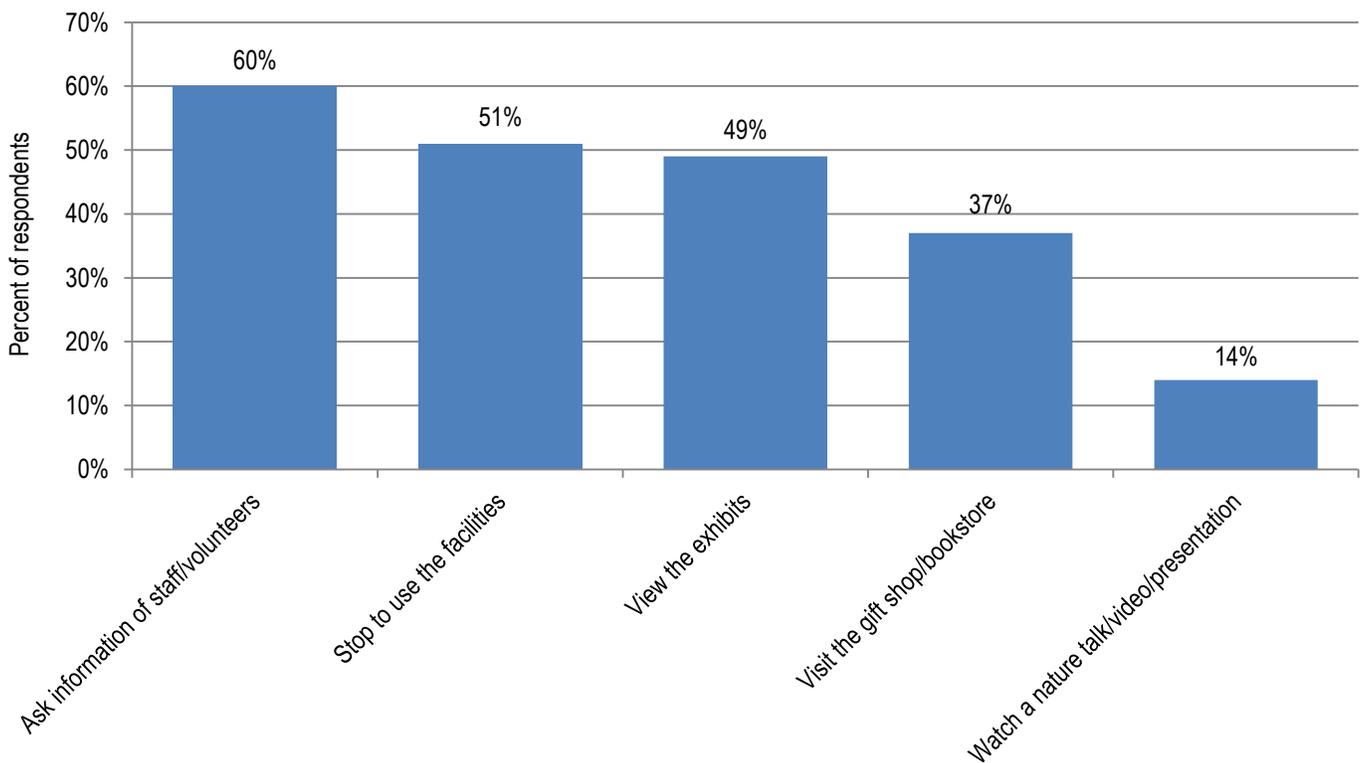
**Figure 6.** Activities in which visitors participated during the past 12 months at Ten Thousand Islands NWR (n = 215). See Appendix B for a listing of “other” activities.

### Visitor Characteristics

Nearly all (91%) surveyed visitors to Ten Thousand Islands NWR indicated that they were citizens or permanent residents of the United States. Only those visitors 18 years or older were sampled. Visitors were a mix of 64% male with an average age of 59 years and 36% female with an average age of 58 years. Visitors, on average, reported they had 16 years of formal education (college or technical school). The median level of income was \$75,000–\$99,000. See Appendix A for more demographic information. In comparison, the 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation found that participants in wildlife watching and hunting on public land were 55% male and 45% female with an average age of 46 years, an average level of education of 14 years (associate degree or two years of college), and a median income of \$50,000–\$74,999 (Harris, 2011, personal communication). Compared to the U.S. population, these 2006 survey participants are more likely to be male, older, and have higher education and income levels (U.S. Department of the Interior and U.S. Department of Commerce, 2007).



**Figure 7.** The primary activity in which visitors participated during *this* visit to Ten Thousand Islands NWR (n = 200). See Appendix B for a listing of “other” activities.



**Figure 8.** Use of the visitor center at Ten Thousand Islands NWR (for those visitors who indicated they used the visitor center, n = 35).

## Visitor Spending in Local Communities

*Tourists usually buy a wide range of goods and services while visiting an area. Major expenditure categories include lodging, food, supplies, and gasoline. Spending associated with refuge visitation can generate considerable economic benefits for the local communities near a refuge. For example, more than 34.8 million visits were made to national wildlife refuges in fiscal year 2006; these visits generated \$1.7 billion in sales, almost 27,000 jobs, and \$542.8 million in employment income in regional economies (Carver and Caudill, 2007). Information on the amount and types of visitor expenditures can illustrate the economic importance of refuge visitor activities to local communities. Visitor expenditure information also can be used to analyze the economic impact of proposed refuge management alternatives.*

A region (and its economy) is typically defined as all counties within 50 miles of a travel destination (Stynes, 2008). Visitors that live within the local 50-mile area of a refuge typically have different spending patterns than those that travel from longer distances. During the two sampling periods, 58% of surveyed visitors to Ten Thousand Islands NWR indicated that they live within the local area. Nonlocal visitors (42%) stayed in the local area, on average, for 8 days. Table 5 shows summary statistics for local and nonlocal visitor expenditures in the local communities and at the refuge, with expenditures reported on a per person per day basis. During the two sampling periods, nonlocal visitors spent an average of \$116 per person per day and local visitors spent an average of \$74 per person per day in the local area. Several factors should be considered when estimating the economic importance of refuge visitor spending in the local communities. These include the amount of time spent at the refuge, influence of refuge on decision to take this trip, and the representativeness of primary activities of the sample of surveyed visitors compared to the general population. Controlling for these factors is beyond the scope of the summary statistics presented in this report. Detailed refuge-level visitor spending profiles which do consider these factors will be developed during the next phase of analysis.

**Table 5.** Total visitor expenditures in local communities and Ten Thousand Islands NWR expressed in dollars per person per day.

Visitors	n <sup>1</sup>	Median	Mean	Standard deviation	Minimum	Maximum
Nonlocal	80	\$64	\$116	\$149	\$0	\$633
Local	87	\$43	\$74	\$100	\$0	\$580

<sup>1</sup>n = number of visitors who answered both locality *and* expenditure questions.

Note: For each respondent, reported expenditures were divided by the number of persons in their group that shared expenses in order to determine the spending per person per trip. This was then divided by the number of days spent in the local area to determine the spending per person per day for each respondent. For respondents who reported spending less than one full day, trip length was set equal to one day. These visitor spending estimates are appropriate for the sampling periods selected by refuge staff (see table 2 for sampling period dates and figure 7 for the primary visitor activities). They may not be representative of the total population of visitors to this refuge.

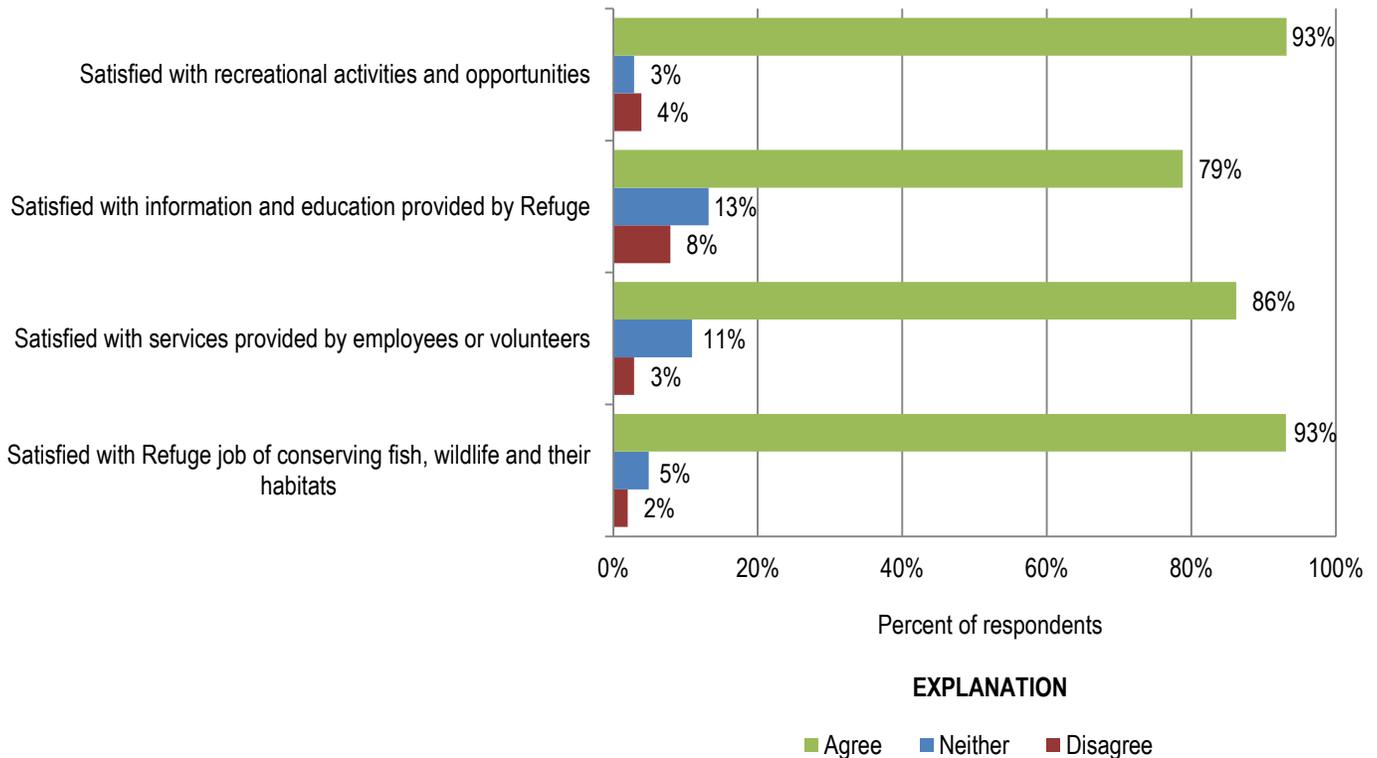
## Visitor Opinions about This Refuge

National wildlife refuges provide visitors with a variety of services, facilities, and wildlife-dependent recreational opportunities. Understanding visitors' perceptions of their refuge experience is a key component of the Refuge System mission as it pertains to providing high-quality wildlife-dependent recreational opportunities. Having a baseline understanding of visitor experience can inform management decisions to better balance visitors' expectations with the Refuge System mission. Recent studies in outdoor recreation have included an emphasis on declining participation in traditional activities such as hunting and an increasing need to connect the next generation to nature and wildlife. These factors highlight the importance of current refuge visitors as a key constituency in wildlife conservation. A better understanding is increasingly needed to better manage the visitor experience and to address the challenges of the future.

Surveyed visitors' overall satisfaction with the services, facilities, and recreational opportunities provided at Ten Thousand Islands NWR were as follows (fig. 9):

- 93% were satisfied with the recreational activities and opportunities,
- 79% were satisfied with the information and education about the refuge and its resources,
- 86% were satisfied with the services provided by employees or volunteers, and
- 93% were satisfied with the refuge's job of conserving fish, wildlife and their habitats.

Although 22% (n = 48) of visitors indicated they paid a fee to enter Ten Thousand Islands NWR, the refuge does not have an entrance fee. It may be that these visitors were referencing a fishing license or Snook permit fee.



**Figure 9.** Overall satisfaction with Ten Thousand Islands NWR during *this* visit (n ≥ 174).

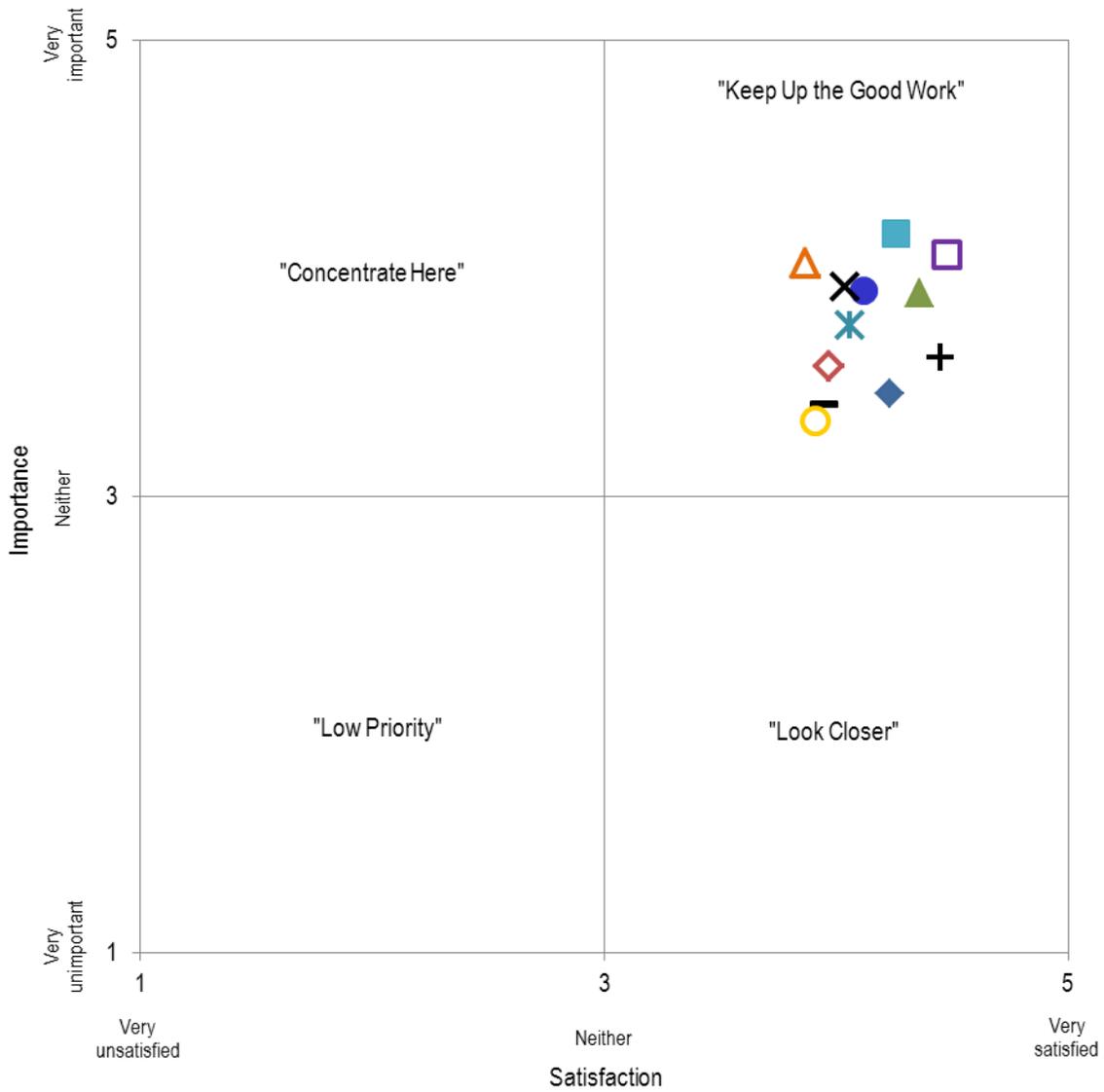
## Importance/Satisfaction Ratings

*Comparing the importance and satisfaction ratings for visitor services provided by refuges can help to identify how well the services are meeting visitor expectations. The importance-performance framework presented in this section is a tool that includes the importance of an attribute to visitors in relation to their satisfaction with that attribute. Drawn from marketing research, this tool has been applied to outdoor recreation and visitation settings (Martilla and James, 1977; Tarrant and Smith, 2002). Results for the attributes of interest are segmented into one of four quadrants (modified for this national study):*

- Keep Up the Good Work = high importance/high satisfaction;
- Concentrate Here = high importance/low satisfaction;
- Low Priority = low importance/low satisfaction; and
- Look Closer = low importance/high satisfaction.

*Graphically plotting visitors' importance and satisfaction ratings for different services, facilities, and recreational opportunities provides a simple and intuitive visualization of these survey measures. However, this tool is not without its drawbacks. One is the potential for variation among visitors regarding their expectations and levels of importance (Vaske et al., 1996; Bruyere et al., 2002; Wade and Eagles, 2003), and certain services or recreational opportunities may be more or less important for different segments of the visitor population. For example, hunters may place more importance on hunting opportunities and amenities such as blinds, while school group leaders may place more importance on educational/informational displays than would other visitors. This potential for highly varied importance ratings needs to be considered when viewing the average results of this analysis of visitors to Ten Thousand Islands NWR. This consideration is especially important when reviewing the attributes that fall into the "Look Closer" quadrant. In some cases, these attributes may represent specialized recreational activities in which a small subset of visitors participate (for example, hunting, kayaking) or facilities and services that only some visitors experience (for example, exhibits about the refuge). For these visitors, the average importance of (and potentially the satisfaction with) the attribute may be much higher than it would be for the overall population of visitors.*

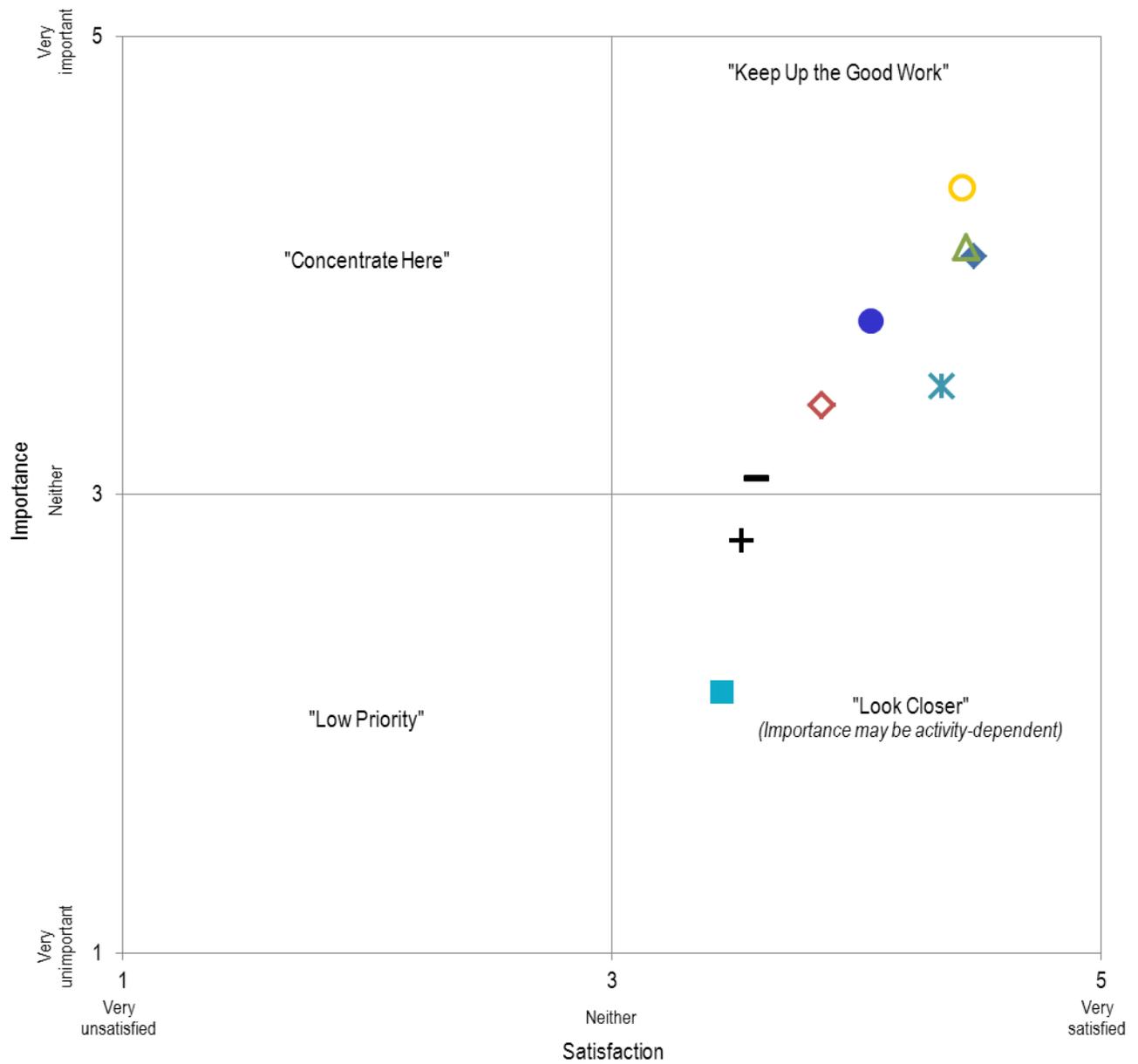
Figures 10-12 depict surveyed visitors' importance-satisfaction results for refuge services and facilities, recreational opportunities, and transportation-related features at Ten Thousand Islands NWR, respectively. All refuge services and facilities fell in the "Keep Up the Good Work" quadrant (fig. 10). Nearly all refuge recreational opportunities fell in the "Keep Up the Good Work" quadrant except volunteer and hunting opportunities, which fell into the "Look Closer" quadrant (fig. 11). The average importance of volunteer and hunting opportunities in the "Look Closer" quadrant may be higher among visitors who have participated in these activities during the past 12 months; however, it is not known how many visitors in the sample volunteered at the refuge and there were not enough individuals who hunted in the sample to evaluate the responses of those visitors. All transportation-related features fell in the "Keep Up the Good Work" quadrant (fig. 12).



**EXPLANATION**

- ◆ Availability of employees/volunteers
- ▲ Knowledgeable employees/volunteers
- Signs with rules/regulations
- ◇ Exhibits about this Refuge
- Visitor Center
- ▲ Well-maintained restrooms
- ✚ Courteous/welcoming employees/volunteers
- ✱ Informational kiosks/displays about this Refuge
- ✕ Printed information about this Refuge
- Environmental education programs/activities
- Convenient hours/days of operation
- Wildlife observation structures

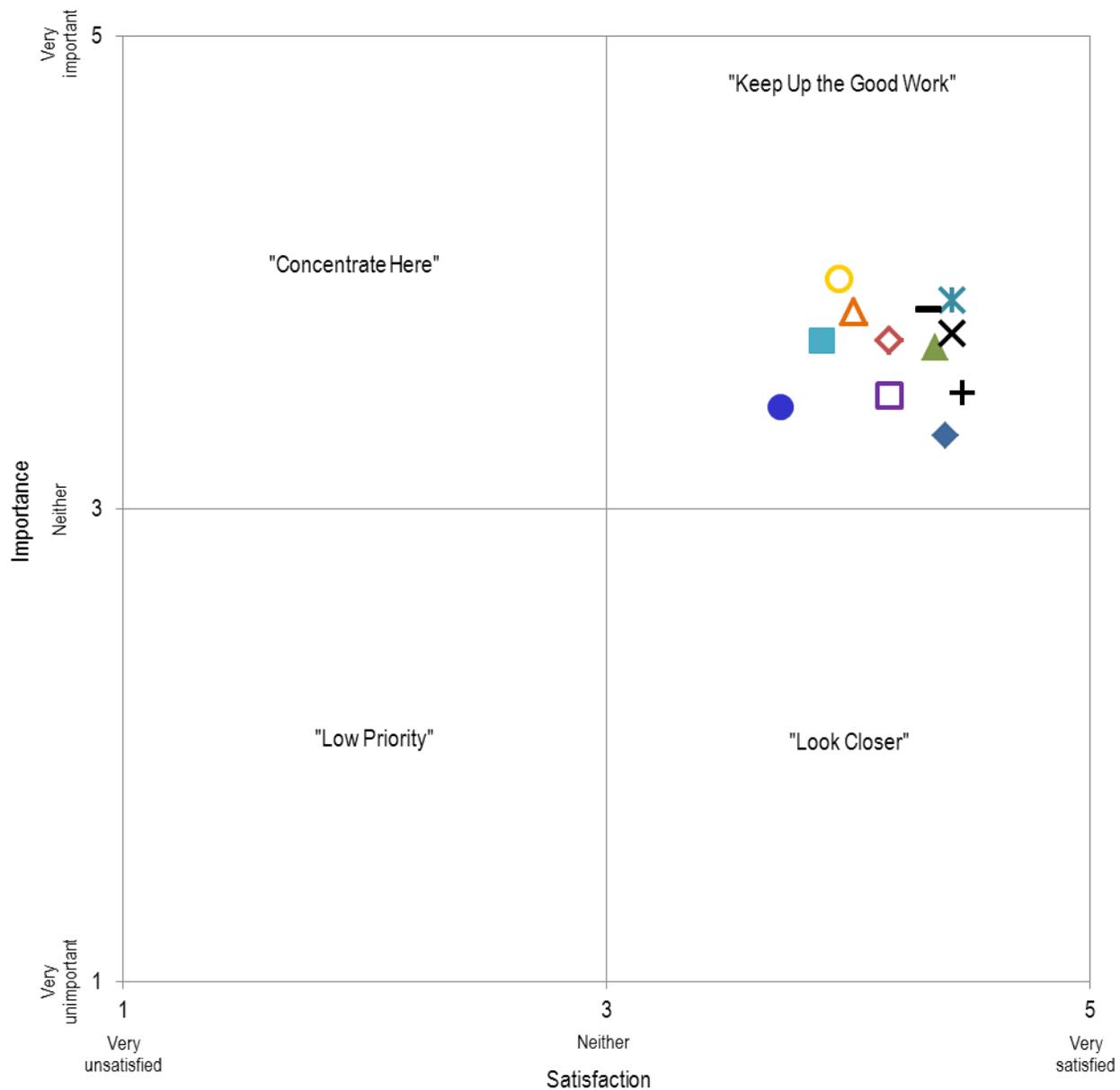
**Figure 10.** Importance-satisfaction ratings of services and facilities provided at Ten Thousand Islands NWR.



**EXPLANATION**

- ◆ Bird watching opportunities
- Wildlife viewing opportunities
- ▲ Photography opportunities
- Hunting opportunities
- ✕ Fishing opportunities
- Hiking opportunities
- ◇ Kayak/Canoe opportunities
- Bicycling opportunities
- ✚ Volunteer opportunities

**Figure 11.** Importance-satisfaction ratings of recreational opportunities provided at Ten Thousand Islands NWR.



**EXPLANATION**

- ◆ Condition of roads
- ⊕ Condition of parking areas
- ▲ Condition of bridges
- ✕ Condition of trails/boardwalks
- ⊗ Number of parking places
- Number of pullovers
- ◇ Safety of driving conditions
- Safety of Refuge entrances
- Directional signs on highways
- Directional signs on Refuge
- △ Directional signs on trails
- Disabled access

**Figure 12.** Importance-satisfaction ratings of transportation-related features at Ten Thousand Islands NWR.

## Visitor Opinions about National Wildlife Refuge System Topics

*One goal of this national visitor survey was to identify visitor trends across the Refuge System to more effectively manage refuges and provide visitor services. Two important issues to the Refuge System are transportation on refuges and communicating with visitors about climate change. The results to these questions will be most meaningful when they are evaluated in aggregate (data from all participating refuges together). However, basic results for Ten Thousand Islands NWR are reported here.*

### Alternative Transportation and the National Wildlife Refuge System

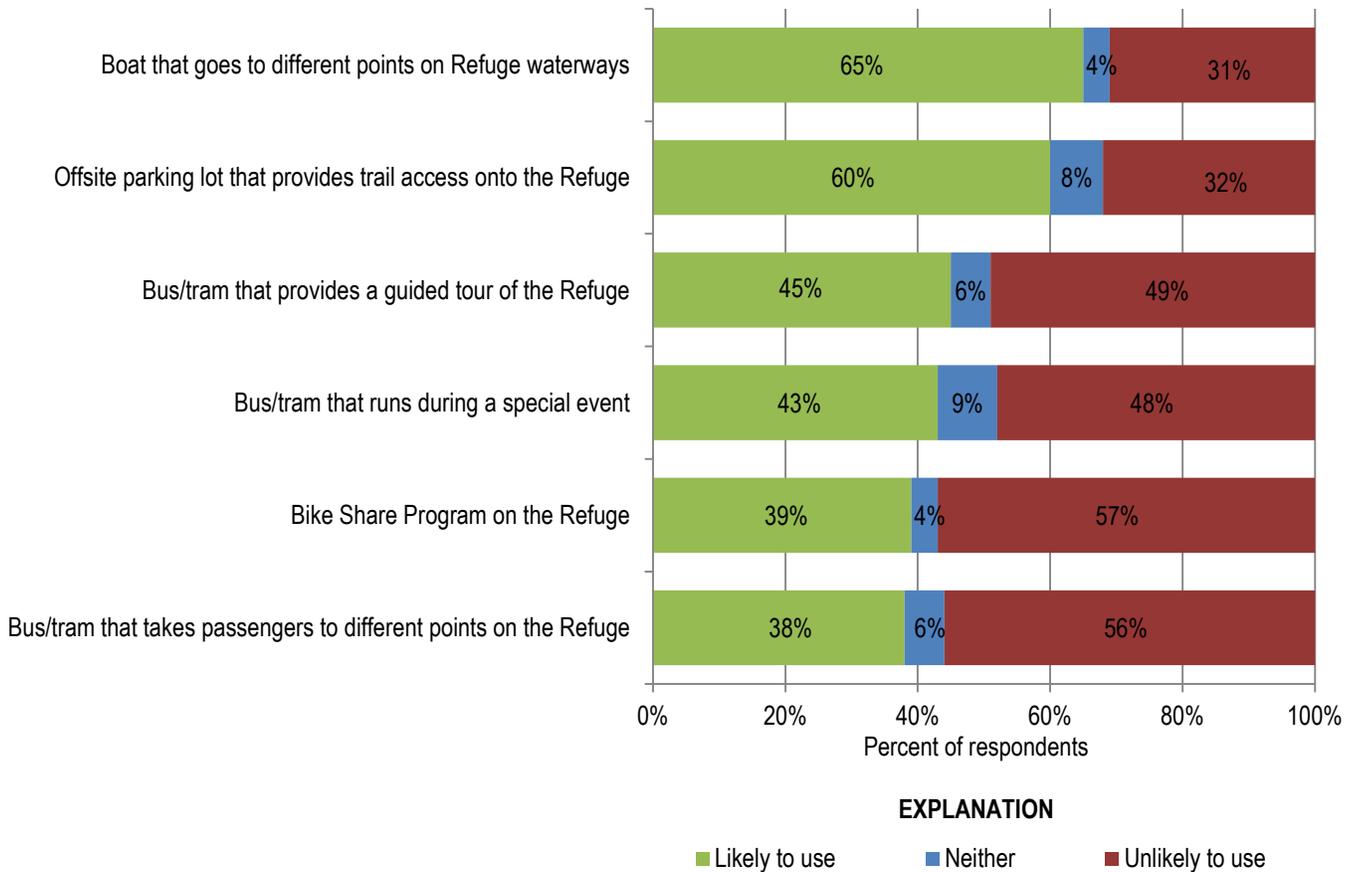
*Visitors use a variety of transportation means to access and enjoy national wildlife refuges. While many visitors arrive at the refuge in a private vehicle, alternatives such as buses, trams, watercraft, and bicycles are increasingly becoming a part of the visitor experience. Previous research has identified a growing need for transportation alternatives within the Refuge System (Krechmer et al., 2001); however, less is known about how visitors perceive and use these new transportation options. An understanding of visitors' likelihood of using certain alternative transportation options can help in future planning efforts. Visitors were asked their likelihood of using alternative transportation options at national wildlife refuges in the future.*

Of the six Refuge System-wide alternative transportation options listed on the survey, the majority of Ten Thousand Islands NWR visitors who were surveyed were likely to use the following options at national wildlife refuges in the future (fig. 13):

- a boat that goes to different points on Refuge waterways; and
- an offsite parking lot that provides trail access.

The majority of visitors were *not* likely to use a bike share program or a bus/tram that takes passengers to different points on national wildlife refuges in the future (fig. 13).

When asked about using alternative transportation at Ten Thousand Islands NWR specifically, 32% of visitors indicated they were unsure whether it would enhance their experience; however, some visitors thought alternative transportation would enhance their experience (14%) and others thought it would not (54%).



**Figure 13.** Visitors’ likelihood of using alternative transportation options at national wildlife refuges in the future (n ≥ 205).

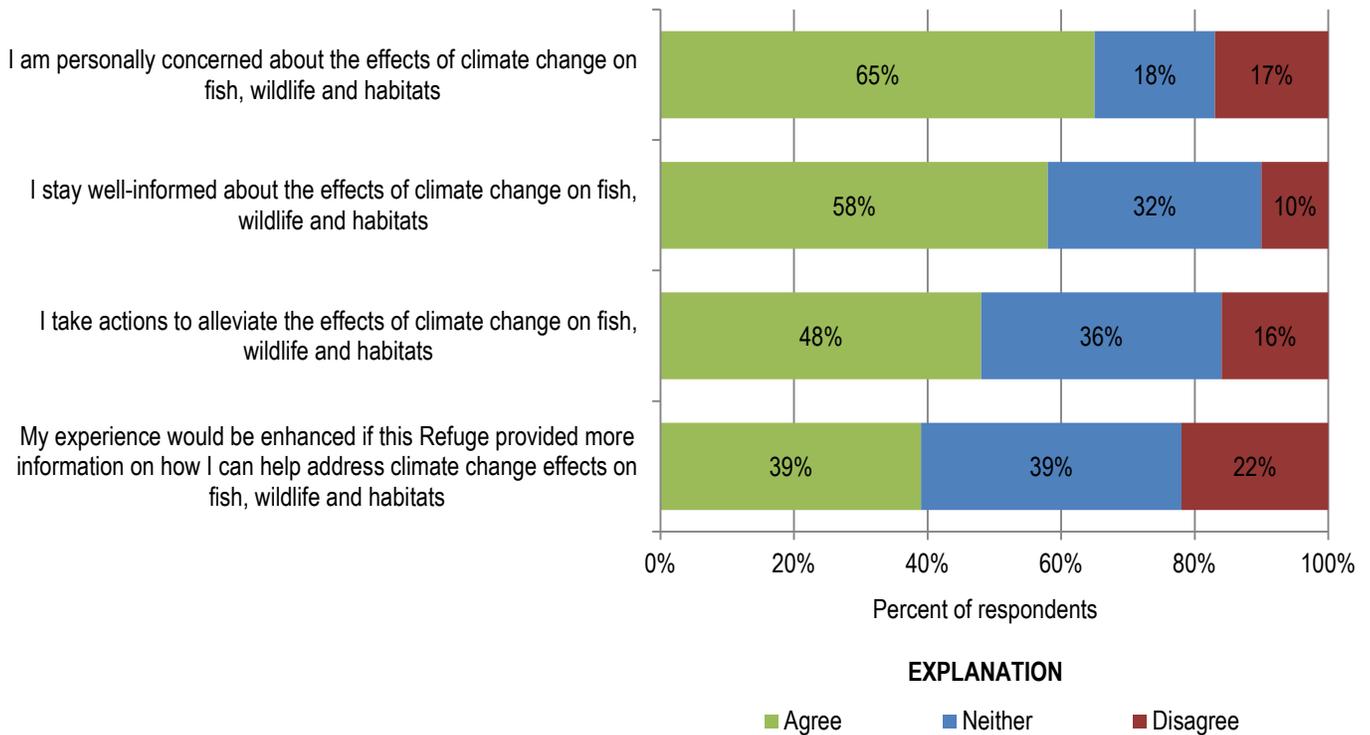
### Climate Change and the National Wildlife Refuge System

*Climate change represents a growing concern for the management of national wildlife refuges. The Service’s climate change strategy, titled “Rising to the Urgent Challenge,” establishes a basic framework for the agency to work within a larger conservation community to help ensure wildlife, plant, and habitat sustainability (U.S. Fish and Wildlife Service, 2010). To support the guiding principles of the strategy, refuges will be exploring options for more effective engagement with visitors on this topic. The national visitor survey collected information about visitors’ level of personal involvement in climate change related to fish, wildlife and their habitats and visitors’ beliefs regarding this topic. Items draw from the “Six Americas” framework for understanding public sentiment toward climate change (Leiserowitz, Maibach, and Roser-Renouf, 2008) and from literature on climate change message frames (for example, Nisbet, 2009). Such information provides a baseline for understanding visitor perceptions of climate change in the context of fish and wildlife conservation that can further inform related communication and outreach strategies.*

Factors that influence how individuals think about climate change include their basic beliefs, levels of involvement, policy preferences, and behaviors related to this topic. Results presented below provide baseline information on visitors’ levels of involvement with the topic of climate change related to fish,

wildlife and their habitats. The majority of surveyed visitors to Ten Thousand Islands NWR agreed with the following statements (fig. 14):

- “I am personally concerned about the effects of climate change on fish, wildlife and habitats;” and
- “I stay well-informed about the effects of climate change.”



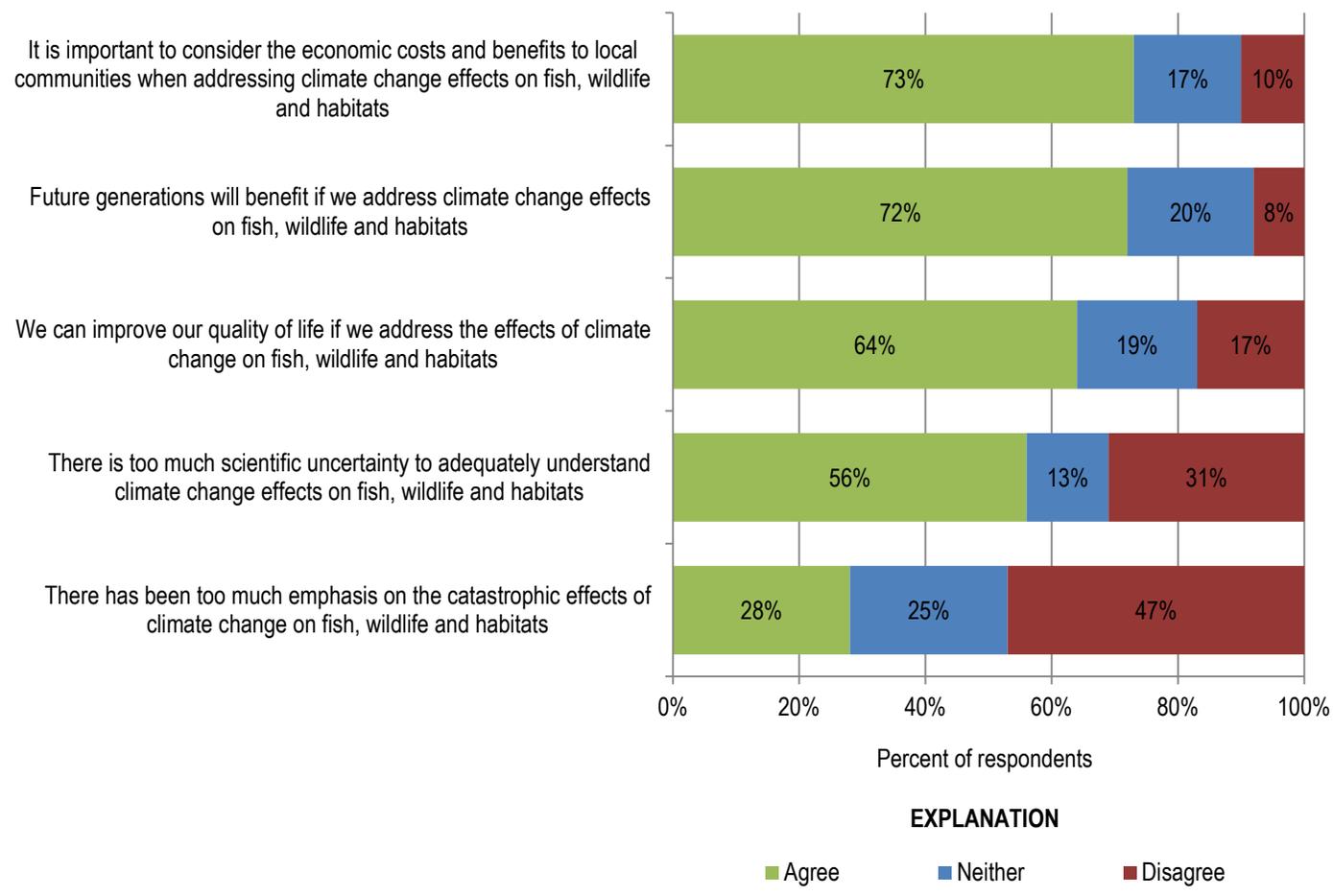
**Figure 14.** Visitors’ personal involvement with climate change related to fish, wildlife and their habitats (n ≥ 196).

These results are most useful when coupled with responses to belief statements about the effects of climate change on fish, wildlife and their habitats, because such beliefs may be used to develop message frames (or ways to communicate) about climate change with a broad coalition of visitors. Framing science-based findings will not alter the overall message, but rather place the issue in a context in which different audience groupings can relate. The need to mitigate impacts of climate change on Refuges could be framed as a quality-of-life issue (for example, preserving the ability to enjoy fish, wildlife, plants, and their habitat) or an economic issue (for example, maintaining tourist revenues, supporting economic growth through new jobs/technology).

For Ten Thousand Islands NWR, the majority of visitors believed the following regarding climate change related to fish, wildlife and their habitats (fig. 15):

- “It is important to consider the economic costs and benefits to local communities when addressing climate change effects;”
- “Future generations will benefit if we address climate change effects;”
- “We can improve our quality of life if we address the effects of climate change;” and
- “There is too much scientific uncertainty to adequately understand climate change effects.”

Such information suggests that certain beliefs resonate with a greater number of visitors than other beliefs do. This information is important to note because some visitors (39%) indicated that their experience would be enhanced if Ten Thousand Islands NWR provided information about how they could help address the effects of climate change on fish, wildlife, and their habitats (fig. 14), and framing the information in a way that resonates most with visitors may result in a more engaged public who support strategies aimed at alleviating climate change pressures. Data will be analyzed further at the aggregate, or national level, to inform the development of a comprehensive communication strategy about climate change.



**Figure 15.** Visitors’ beliefs about the effects of climate change on fish, wildlife and their habitats (n ≥ 197).

## Conclusion

These individual refuge results provide a summary of trip characteristics and experiences of a sample of visitors to Ten Thousand Islands NWR during 2010–2011. These data can be used to inform decision-making efforts related to the refuge, such as Comprehensive Conservation Plan implementation, visitor services management, and transportation planning and management. For example, when modifying (either minimizing or enhancing) visitor facilities, services, or recreational opportunities, a solid understanding of visitors' trip and activity characteristics, their satisfaction with existing offerings, and opinions regarding refuge fees is helpful. This information can help to gauge demand for refuge opportunities and inform both implementation and communication strategies. Similarly, an awareness of visitors' satisfaction ratings with refuge offerings can help determine if any potential areas of concern need to be investigated further. As another example of the utility of these results, community relations may be improved or bolstered through an understanding of the value of the refuge to visitors, whether that value is attributed to an appreciation of the refuge's uniqueness, enjoyment of its recreational opportunities, or spending contributions of nonlocal visitors to the local economy. Such data about visitors and their experiences, in conjunction with an understanding of biophysical data on the refuge, can ensure that management decisions are consistent with the Refuge System mission while fostering a continued public interest in these special places.

Individual refuge results are available for downloading at <http://pubs.usgs.gov/ds/643/> as part of USGS Data Series 643 (Sexton and others, 2011). For additional information about this project, contact the USGS researchers at [national\\_visitor\\_survey@usgs.gov](mailto:national_visitor_survey@usgs.gov) or 970.226.9205.

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# National Wildlife Refuge Visitor Survey



**PLEASE READ THIS FIRST:**

Thank you for visiting a National Wildlife Refuge and for agreeing to participate in this study! We hope that you had an enjoyable experience. The U.S. Fish and Wildlife Service and the U.S. Geological Survey would like to learn more about National Wildlife Refuge visitors in order to improve the management of the area and enhance visitor opportunities.

**If you have recently visited more than one National Wildlife Refuge or made more than one visit to the same Refuge, please respond regarding only the Refuge and the visit when you were asked to participate in this survey. Any question that uses the phrase “this Refuge” refers to the Refuge and visit when you were contacted.**

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**SECTION 1. Your visit to this Refuge**

---

1. Including your most recent visit, which activities have you participated in during the past 12 months at this Refuge?  
(Please mark **all that apply.**)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> 1% Big game hunting                 | <input type="checkbox"/> 33% Hiking  | <input type="checkbox"/> 1% Environmental education (for example, classrooms or labs, tours) |
| <input type="checkbox"/> 1% Upland/Small-game hunting        | <input type="checkbox"/> 7% Bicycling  | <input type="checkbox"/> 0% Special event ( <i>please specify</i> )<br><u>See Appendix B</u> |
| <input type="checkbox"/> 1% Migratory bird/Waterfowl hunting | <input type="checkbox"/> 8% Auto tour route/Driving                                | <input type="checkbox"/> 3% Other ( <i>please specify</i> )<br><u>See Appendix B</u>         |
| <input type="checkbox"/> 60% Wildlife observation            | <input type="checkbox"/> 37% Motorized boating                                     | <input type="checkbox"/> 0% Other ( <i>please specify</i> )<br><u>See Appendix B</u>         |
| <input type="checkbox"/> 53% Bird watching                   | <input type="checkbox"/> 7% Nonmotorized boating (including canoes/kayaks)         |  |
| <input type="checkbox"/> 8% Freshwater fishing               | <input type="checkbox"/> 7% Interpretation (for example, exhibits, kiosks, videos) |  |
| <input type="checkbox"/> 47% Saltwater fishing               |  |  |
| <input type="checkbox"/> 41% Photography                     |  |  |

2. Which of the activities above was the **primary** purpose of your visit to this Refuge?  
(Please write **only one activity** on the line.)   See report for categorized results; see Appendix B for miscellaneous responses

3. Did you go to a Visitor Center at this Refuge?

- 84% No
- 16% Yes → If yes, what did you do there? (Please mark **all that apply.**)
- |  |   |
|--|---|
| <input type="checkbox"/> 37% Visit the gift shop or bookstore    | <input type="checkbox"/> 14% Watch a nature talk/video/presentation                               |
| <input type="checkbox"/> 49% View the exhibits                   | <input type="checkbox"/> 51% Stopped to use the facilities (for example, get water, use restroom) |
| <input type="checkbox"/> 60% Ask information of staff/volunteers | <input type="checkbox"/> 14% Other ( <i>please specify</i> ) <u>See Appendix B</u>                |

4. Which of the following best describes your visit to this Refuge? (*Please mark **only one.***)

Nonlocal	Local	Total	
29%	64%	49%	It was the primary purpose or sole destination of my trip.
30%	18%	23%	It was one of many equally important reasons or destinations for my trip.
41%	18%	28%	It was just an incidental or spur-of-the-moment stop on a trip taken for other purposes or to other destinations.

5. Approximately how many **miles** did you travel to get to this Refuge?

**Nonlocal**   500   number of miles

**Local**   20   number of miles

6. How much time did you spend at this Refuge on your visit?

See Report for Results

7. Were you part of a group on your visit to this Refuge?

45% No (*skip to question #9*)

55% Yes → What **type of group** were you with on your visit? (*Please mark **only one.***)

90% Family and/or friends

5% Organized club or school group

1% Commercial tour group

4% Other (*please specify*) See Appendix B

8. How many people were in your group, including yourself? (*Please answer each category.*)

  3   number 18 years and over

  0   number 17 years and under

9. How did you **first learn or hear about** this Refuge? (*Please mark **all that apply.***)

46% Friends or relatives

4% Refuge website

34% Signs on highway

1% Other website (*please specify*) See Appendix B

4% Recreation club or organization

1% Television or radio

17% People in the local community

4% Newspaper or magazine

10% Refuge printed information (brochure, map)

9% Other (*please specify*) See Appendix B

10. During which seasons have you visited this Refuge in the last 12 months? (*Please mark **all that apply.***)

88% Spring  
(March-May)

18% Summer  
(June-August)

33% Fall  
(September-November)

57% Winter  
(December-February)

11. How many times have you visited...

...this Refuge (including this visit) in the last 12 months?   12   number of visits

...other National Wildlife Refuges in the last 12 months?   5   number of visits

**SECTION 2. Transportation and access at this Refuge**

1. What **forms of transportation** did you use on your visit to this Refuge? (*Please mark **all that apply.***)

- |                              |   |                              |                                  |                              |                                       |
|------------------------------|---|------------------------------|----------------------------------|------------------------------|---------------------------------------|
| <input type="checkbox"/> 65% | Private vehicle without a trailer                             | <input type="checkbox"/> 0%  | Refuge shuttle bus or tram       | <input type="checkbox"/> 1%  | Bicycle                               |
| <input type="checkbox"/> 20% | Private vehicle with a trailer<br>(for boat, camper or other) | <input type="checkbox"/> 0%  | Motorcycle                       | <input type="checkbox"/> 12% | Walk/Hike                             |
| <input type="checkbox"/> 0%  | Commercial tour bus   | <input type="checkbox"/> 0%  | ATV or off-road vehicle          | <input type="checkbox"/> 1%  | Other ( <i>please specify below</i> ) |
| <input type="checkbox"/> 1%  | Recreational vehicle (RV)                                     | <input type="checkbox"/> 30% | Boat                             | <u>See Appendix B</u>        |                                       |
|                              |   | <input type="checkbox"/> 0%  | Wheelchair or other mobility aid |                              |                                       |

2. Which of the following did you use to find your way to this Refuge? (*Please mark **all that apply.***)

- |                              |  |                              |   |
|------------------------------|--|------------------------------|---|
| <input type="checkbox"/> 42% | Signs on highways  | <input type="checkbox"/> 4%  | Directions from Refuge website                        |
| <input type="checkbox"/> 16% | A GPS navigation system  | <input type="checkbox"/> 9%  | Directions from people in community near this Refuge  |
| <input type="checkbox"/> 9%  | A road atlas or highway map                                      | <input type="checkbox"/> 15% | Directions from friends or family                     |
| <input type="checkbox"/> 3%  | Maps from the Internet (for example,<br>MapQuest or Google Maps) | <input type="checkbox"/> 46% | Previous knowledge/I have been to this Refuge before  |
|                              |  | <input type="checkbox"/> 5%  | Other ( <i>please specify</i> ) <u>See Appendix B</u> |

3. Below are different alternative transportation options that could be offered at some National Wildlife Refuges in the future. Considering the different Refuges you may have visited, please tell us **how likely you would be to use each transportation option.** (*Please circle one number for each statement.*)

How likely would you be to use...	Very Unlikely	Somewhat Unlikely	Neither	Somewhat Likely	Very Likely
...a bus or tram that takes passengers to different points on the Refuge (such as the Visitor Center)?	<input type="checkbox"/> 44%	<input type="checkbox"/> 12%	<input type="checkbox"/> 6%	<input type="checkbox"/> 24%	<input type="checkbox"/> 14%
...a bike that was offered through a Bike Share Program for use while on the Refuge?	<input type="checkbox"/> 42%	<input type="checkbox"/> 15%	<input type="checkbox"/> 4%	<input type="checkbox"/> 23%	<input type="checkbox"/> 16%
...a bus or tram that provides a guided tour of the Refuge with information about the Refuge and its resources?	<input type="checkbox"/> 34%	<input type="checkbox"/> 15%	<input type="checkbox"/> 6%	<input type="checkbox"/> 23%	<input type="checkbox"/> 22%
...a boat that goes to different points on Refuge waterways?	<input type="checkbox"/> 25%	<input type="checkbox"/> 7%	<input type="checkbox"/> 3%	<input type="checkbox"/> 31%	<input type="checkbox"/> 34%
...a bus or tram that runs during a special event (such as an evening tour of wildlife or weekend festival)?	<input type="checkbox"/> 36%	<input type="checkbox"/> 11%	<input type="checkbox"/> 9%	<input type="checkbox"/> 27%	<input type="checkbox"/> 15%
...an offsite parking lot that provides trail access for walking/hiking onto the Refuge?	<input type="checkbox"/> 24%	<input type="checkbox"/> 7%	<input type="checkbox"/> 8%	<input type="checkbox"/> 27%	<input type="checkbox"/> 34%
...some other alternative transportation option? ( <i>please specify</i> ) <u>See Appendix B</u>	<input type="checkbox"/> 11%	<input type="checkbox"/> 0%	<input type="checkbox"/> 0%	<input type="checkbox"/> 11%	<input type="checkbox"/> 78%

4. If alternative transportation were offered at *this* Refuge, would it enhance your experience?

- 14% Yes       54% No       32% Not Sure

5. For each of the following transportation-related features, first, **rate how important** each feature is to you when visiting this Refuge; then **rate how satisfied** you are with the way this Refuge is managing each feature. *If this Refuge does not offer a specific transportation-related feature, please rate how important it is to you and then circle NA "Not Applicable" under the Satisfaction column.*

Importance						Satisfaction					
Circle one for each item.						Circle one for each item.					
Very Unimportant	Somewhat Unimportant	Neither	Somewhat Important	Very Important		Very Unsatisfied	Somewhat Unsatisfied	Neither	Somewhat Satisfied	Very Satisfied	Not Applicable
13%	17%	15%	38%	18%	Surface conditions of roads	6%	2%	7%	17%	68%	NA
12%	12%	12%	45%	20%	Surface conditions of parking areas	7%	1%	4%	14%	73%	NA
12%	5%	18%	32%	33%	Condition of bridges	6%	1%	11%	16%	66%	NA
11%	8%	13%	33%	35%	Condition of trails and boardwalks	4%	3%	9%	15%	69%	NA
10%	5%	8%	43%	34%	Number of places for parking	5%	3%	6%	15%	70%	NA
12%	9%	25%	33%	22%	Number of places to pull over along Refuge roads	5%	7%	29%	28%	30%	NA
12%	3%	22%	27%	36%	Safety of driving conditions on Refuge roads	7%	3%	14%	21%	56%	NA
11%	3%	16%	31%	39%	Safety of Refuge road entrances/exits	6%	2%	11%	17%	65%	NA
8%	5%	14%	31%	43%	Signs on highways directing you to the Refuge	6%	9%	13%	24%	47%	NA
8%	6%	22%	34%	30%	Signs directing you around the Refuge roads	3%	7%	26%	25%	38%	NA
8%	6%	20%	27%	39%	Signs directing you on trails	2%	6%	21%	29%	42%	NA
13%	7%	27%	25%	28%	Access for people with physical disabilities or who have difficulty walking	1%	4%	23%	21%	51%	NA

6. If you have any comments about transportation-related items at this Refuge, please write them on the lines below.

See Appendix B

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**SECTION 3. Your expenses related to your Refuge visit**

1. Do you live in the local area (within approximately 50 miles of this Refuge)?

58% Yes

42% No → How much time did you spend **in local communities** on this trip?

  2   number of hours      OR        13   number of days

2. Please record the amount that **you and other members of your group** with whom you shared expenses (for example, other family members, traveling companions) spent in the local 50-mile area during **your most recent visit** to this Refuge. *(Please enter the amount spent to the nearest dollar in each category below. Enter 0 (zero) if you did not spend any money in a particular category.)*

Categories	<u>Amount Spent in Local Communities &amp; at this Refuge</u> <i>(within 50 miles of this Refuge)</i>
Motel, bed & breakfast, cabin, etc.	
Camping	
Restaurants & bars	
Groceries	
Gasoline and oil	
Local transportation (bus, shuttle, rental car, etc.)	
Refuge entrance fee	
Recreation guide fees (hunting, fishing, wildlife viewing, etc.)	
Equipment rental (canoe, bicycle, kayak, etc.)	
Sporting good purchases	
Souvenirs/clothing and other retail	
Other <i>(please specify)</i> _____	

See Report for Results

3. Including yourself, how many people in your group shared these trip expenses?

  2   number of people sharing expenses

4. As you know, some of the costs of travel such as gasoline, hotels, and airline tickets often increase. If your total trip costs were to increase, what is the maximum extra amount you would pay and still visit this Refuge? (*Please circle the highest dollar amount.*)

\$0	\$10	\$20	\$35	\$50	\$75	\$100	\$125	\$150	\$200	\$250
12%	14%	14%	8%	20%	2%	13%	1%	1%	4%	11%

5. If you or a member of your group paid a fee or used a pass to enter this Refuge, how appropriate was the fee? (*Please mark **only one.***)

0%	Far too low	4%	Too low	88%	About right	6%	Too high	2%	Far too high	78%	Did not pay a fee (skip to Section 4)
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6. Please indicate whether you disagree or agree with the following statement. (*Please mark **only one.***)

**The value of the recreation opportunities and services I experienced at this Refuge was at least equal to the fee I paid.**

2%	Strongly disagree	2%	Disagree	11%	Neither agree or disagree	57%	Agree	28%	Strongly agree
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#### SECTION 4. Your experience at this Refuge

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1. Considering your visit to this Refuge, please indicate the extent to which you disagree or agree with each statement. (*Please circle one number for each statement.*)

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Not Applicable
Overall, I am satisfied with the recreational activities and opportunities provided by this Refuge.	1%	2%	3%	45%	48%	NA
Overall, I am satisfied with the information and education provided by this Refuge about its resources.	1%	7%	13%	40%	39%	NA
Overall, I am satisfied with the services provided by employees or volunteers at this Refuge.	1%	2%	11%	34%	52%	NA
This Refuge does a good job of conserving fish, wildlife and their habitats.	0%	1%	5%	33%	60%	NA

2. For each of the following services, facilities, and activities, first, **rate how important** each item is to you when visiting this Refuge; then, **rate how satisfied** you are with the way this Refuge is managing each item.  
*If this Refuge does not offer a specific service, facility, or activity, please rate how important it is to you and then circle NA “Not Applicable” under the Satisfaction column.*

Importance					Refuge Services, Facilities, and Activities	Satisfaction					
Circle one for each item.						Circle one for each item.					
Very Unimportant	Somewhat Unimportant	Neither	Somewhat Important	Very Important		Very Unsatisfied	Somewhat Unsatisfied	Neither	Somewhat Satisfied	Very Satisfied	Not Applicable
10%	8%	24%	41%	16%	Availability of employees or volunteers	3%	5%	13%	24%	55%	NA
14%	6%	17%	31%	32%	Courteous and welcoming employees or volunteers	3%	1%	11%	17%	67%	NA
11%	1%	17%	32%	39%	Knowledgeable employees or volunteers	3%	4%	11%	18%	64%	NA
6%	5%	11%	45%	33%	Printed information about this Refuge and its resources (for example, maps and brochures)	4%	8%	13%	32%	43%	NA
7%	6%	16%	46%	24%	Informational kiosks/displays about this Refuge and its resources	2%	4%	22%	29%	43%	NA
7%	3%	14%	42%	33%	Signs with rules/regulations for this Refuge	4%	3%	17%	27%	48%	NA
9%	6%	25%	42%	19%	Exhibits about this Refuge and its resources	2%	3%	28%	31%	36%	NA
8%	11%	30%	33%	17%	Environmental education programs or activities	0%	2%	36%	25%	36%	NA
12%	10%	26%	37%	15%	Visitor Center	3%	4%	33%	21%	40%	NA
5%	2%	11%	39%	44%	Convenient hours and days of operation	5%	4%	9%	24%	58%	NA
9%	1%	13%	34%	44%	Well-maintained restrooms	12%	2%	18%	25%	44%	NA
6%	5%	9%	37%	43%	Wildlife observation structures (decks, blinds)	2%	2%	11%	17%	68%	NA
6%	3%	17%	32%	43%	Bird-watching opportunities	1%	1%	10%	24%	64%	NA
2%	1%	7%	42%	48%	Opportunities to observe wildlife other than birds	2%	1%	7%	33%	58%	NA
6%	2%	13%	36%	43%	Opportunities to photograph wildlife and scenery	1%	1%	10%	31%	58%	NA
55%	4%	25%	7%	10%	Hunting opportunities	3%	7%	57%	7%	26%	NA
27%	3%	13%	8%	48%	Fishing opportunities	2%	2%	20%	14%	63%	NA
12%	4%	17%	30%	37%	Trail hiking opportunities	2%	4%	19%	34%	40%	NA
16%	10%	21%	26%	28%	Water trail opportunities for canoeing or kayaking	1%	6%	36%	19%	37%	NA
22%	8%	25%	31%	14%	Bicycling opportunities	2%	4%	47%	24%	22%	NA
25%	7%	39%	23%	7%	Volunteer opportunities	5%	1%	56%	14%	25%	NA

3. If you have any comments about the services, facilities, and activities at this Refuge, please write them on the lines below.

See Appendix B

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**SECTION 5. Your opinions regarding National Wildlife Refuges and the resources they conserve**

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1. Before you were contacted to participate in this survey, were you aware that National Wildlife Refuges...

...are managed by the U. S. Fish and Wildlife Service?  78% Yes  22% No

...have the primary mission of conserving, managing, and restoring fish, wildlife, plants and their habitat?  86% Yes  14% No

2. Compared to other public lands you have visited, do you think Refuges provide a unique recreation experience?

84% Yes  16% No

3. If you answered "Yes" to Question 2, please briefly describe what makes Refuges unique. \_\_\_\_\_

See Appendix B

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4. There has been a lot of talk about climate change recently. We would like to know what you think about climate change as it relates to fish, wildlife and their habitats. To what extent do you disagree or agree with each statement below? (Please circle one number for each statement.)

Statements about climate change	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
I am personally concerned about the effects of climate change on fish, wildlife and their habitats.	11%	6%	18%	36%	29%
We can improve our quality of life if we address the effects of climate change on fish, wildlife and their habitats.	11%	6%	19%	35%	29%
There is too much scientific uncertainty to adequately understand how climate change will impact fish, wildlife and their habitats.	15%	16%	13%	35%	21%
I stay well-informed about the effects of climate change on fish, wildlife and their habitats.	4%	6%	32%	41%	18%
It is important to consider the economic costs and benefits to local communities when addressing the effects of climate change on fish, wildlife and their habitats.	4%	7%	17%	49%	24%
I take actions to alleviate the effects of climate change on fish, wildlife and their habitats.	7%	9%	36%	34%	14%
There has been too much emphasis on the catastrophic effects of climate change on fish, wildlife and their habitats.	21%	26%	24%	18%	11%
Future generations will benefit if we address the effects of climate change on fish, wildlife and their habitats.	6%	3%	20%	35%	37%
My experience at this Refuge would be enhanced if this Refuge provided more information about how I can help address the effects of climate change on fish, wildlife and their habitats.	11%	11%	40%	30%	9%

## SECTION 6. A Little about You

**\*\* Please tell us a little bit about yourself. Your answers to these questions will help further characterize visitors to National Wildlife Refuges. Answers are not linked to any individual taking this survey. \*\***

1. Are you a citizen or permanent resident of the United States?

91% Yes  9% No → If not, what is your home country? See Figure 4 in Report

2. Are you?  64% Male  36% Female

3. In what year were you born? 1952 (YYYY)

4. What is your highest year of formal schooling? *(Please circle one number.)*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+
(elementary)					(junior high or middle school)			(high school)				(college or technical school)				(graduate or professional school)			
0%					14%				50%				35%						

5. What ethnicity do you consider yourself?  1% Hispanic or Latino  99% Not Hispanic or Latino

6. From what racial origin(s) do you consider yourself? *(Please mark **all that apply.**)*

- 4% American Indian or Alaska Native  0% Black or African American  98% White  
 0% Asian  0% Native Hawaiian or Pacific Islander

7. How many members of your household contribute to paying the household expenses? 2 persons

8. Including these members, what was your approximate household income from all sources (before taxes) last year?

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> 2% Less than \$10,000  | <input checked="" type="checkbox"/> 8% \$35,000 - \$49,999  | <input checked="" type="checkbox"/> 21% \$100,000 - \$149,999 |
| <input checked="" type="checkbox"/> 2% \$10,000 - \$24,999 | <input checked="" type="checkbox"/> 21% \$50,000 - \$74,999 | <input checked="" type="checkbox"/> 10% \$150,000 - \$199,999 |
| <input checked="" type="checkbox"/> 5% \$25,000 - \$34,999 | <input checked="" type="checkbox"/> 15% \$75,000 - \$99,999 | <input checked="" type="checkbox"/> 17% \$200,000 or more     |

9. How many outdoor recreation trips did you take in the last 12 months (for activities such as hunting, fishing, wildlife viewing, etc.)?

28 number of trips

**Thank you for completing the survey.**

**There is space on the next page for any additional comments you may have regarding your visit to this Refuge.**

See Appendix B for Comments

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## Appendix B: Visitor Comments to Open-Ended Survey Questions for Ten Thousand Islands National Wildlife Refuge

### Survey Section 1

Question 1: "Including your most recent visit, which activities have you participated in during the past 12 months at this Refuge?"

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Other Activity	Frequency
Camping	3
Looking for alligators	1
NPS boat tour out of Everglades City	1
Sightseeing	1
Swimming	1
Total	7

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2 <sup>nd</sup> Other Activity	Frequency
Picnicking	1

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Question 2: "Which of the activities above was the primary purpose of your visit to this Refuge?"  
*Primary activities are categorized in the main report; the table below lists the "other" miscellaneous primary activities listed by survey respondents.*

NA

Question 3: "Did you go to a Visitor Center at this Refuge?"; If Yes, "What did you do there?"

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Other Visitor Center Activity	Frequency
Bait	2
Blue Goose Stamp	1
Enjoyed	1
Passport Stamp	1
Total	5

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Question 7: "Were you part of a group on your visit to this Refuge?"; If Yes, "What type of group were you with on your visit?"

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Other Group Type	Frequency
Charter fishing guide	1
Fishing chantal	1
Fishing guide	2
Total	4

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Question 9: "How did you first learn or hear about this Refuge?"

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Other Website	Frequency
Facebook	1
Houseboat vendor website	1
nps.gov	1
Total	3

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Other Ways Heard about This Refuge	Frequency
An event at the conservancy last year.	1
Bird watching in Florida information.	1
Blue Goose Book	1
Did not know it was a refuge.	1
Fishing	1
Fishing friends	1
Fishing guide selected site.	1
Florida Birding Trails leaflet	1
Four cars by the sign.	1
It was on my way while traveling towards the Big Cypress.	1
Looking for marina	1
National Park Service Visitors Center	1
Other Visitors Center's recommendation.	1
Printed literature	1
Spoke to US Wildlife/Fisheries staff at Comfort Inn, Tollcase Blvd, Naples FL ("Lotte" we think her name was).	1
Tourist information/map	1
Travel book	1
Volunteers' set up at Calusa Marina.	1
We have a boat at Calusa Marina.	1
Total	19

## Survey Section 2

Question 1: "What forms of transportation did you use on your visit to this Refuge?"

Other Forms of Transportation	Frequency
Boat with a guide	1
Kayak	1
Total	2

Question 2: "Which of the following did you use to find your way to this Refuge?"

Other Ways Found This Refuge	Frequency
Aerial map at Rookery Bay Preserve Visitors Center	1
Chamber of Commerce	1
Gave better directions to newcomers.	1
Guide	2
Guidebook	1
Passenger	1
Spoke to US Wildlife/Fisheries staff at Comfort Inn, Tollcase Blvd, Naples FL ("Lotte" we think her name was).	1
USGS maps	1
Total	9

Question 5: "Below are different alternative transportation options that could be offered at some National Wildlife Refuges in the future...please tell us how likely you would be to use each transportation option."

Other Transportation Option Likely to Use	Frequency
Airboat	1
ATV or golf cart	1
Boat	2

Canoe or kayak rental	1
Canoe rentals	1
Car	1
Car towing boat on trailer.	1
I have my own boat that I use primarily for fishing.	1
Just keep off the land and leave it for the true outdoorsmen and women.	1
Kayak	2
Kayaks/Canoes	1
More boat ramps and canoe/kayak launch sites.	1
My boat	1
My own car or boat	1
Private automobile	1
Swamp buggy and/or airboat	1
Truck, RV, boat	1
Total	19

Question 6: "If you have any comments about transportation-related items at this Refuge, please write them on the lines below."

Comments on Transportation-related Items at This Refuge (n = 24)

Bad road to and from. Safety of driving on roads.

Boat ramps and paving are very important to me.

Build a boat ramp! Good source of income.

Came by boat.

Could do with a few more sign posts on Tamiami Trail advising of the refuge. Possibly a mile or so from it. We came across a sign post almost at the refuge entrance and, as Tamiami is a fairly "fast" road, you could do with more warning/indication.

Entering the parking lot from the east is very hazardous, because there is no sign indicating the parking lot is imminent. There should be a sign

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before the curve in the westbound lane of US-41. Also, lower speed limits would help.

Highway 41 has two lanes with limited passing even though you can see in most places forever. 60 MPH is the speed limit and you have people driving 45 MPH and stopping along the road to look at every alligator and bird, which creates very dangerous situations. Some genius built the parking area right on a curve, so people pull out into traffic, causing more unsafe conditions. Flori-duh!

I didn't even know I was in a wildlife refuge. I launch my boat out of Goodland and fish in a 20 mile radius around that area, at least wherever I can get my boat to.

I really go to walk, so road conditions are not vital at 10,000 Islands. At MI NWR, the Blacktop Drive is great, so I'm glad they keep that road in good condition.

In the past, this refuge was not accessible to individuals without a boat; it was great to be able to park and hike a trail in the refuge.

It would be great if at least one boardwalk out across the landscape near the one and only road/trail could be built.

My typical access is boat ramps that provide access to the area but are not provided by the refuge.

Noted about parking in a number of places: If parked up, can't go in!

Please ban personal watercraft "jet skis" from this and all refuges in the U.S.!

Sign by highway needs improvement.

Signage on the highway before the parking area could be improved. There is little warning and this is a busy highway. Volunteer Patsy was very informative about birds and wildlife. Nice new trails and observation deck.

This appeared to be a new area, and it needed signage on US-41. We only found it because someone told us exactly where to find it after leaving another place in the Everglades.

This refuge had a parking lot and a one mile short walk one way in and out.

This was a small refuge; most concerns wouldn't be applicable there.

Though I understand the rationale behind ADA compliance, many hikers, including myself, prefer unpaved foot paths over paved walkways. Please leave options open for hikers who are able to go "back-country," away from asphalt!

Trails were gravel which was fine for walking. There were no boardwalks through wet areas which would have been nice.

Used a public marina to boat to access the refuge.

We accessed the refuge by boat.

Went fishing in private boat.

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## Survey Section 4

Question 6: "If you have any comments about services, facilities, and activities at this Refuge, please write them on the lines below."

Comments on Services, Facilities, and Activities at This Refuge (n = 63)

A couple years ago, someone thought it necessary to cut down mangroves at POI so signs could be put up telling people not to disturb the vegetation! More Flori-duh!

A restroom and trash container is badly needed at this refuge. The nearest restroom is many miles away and it is inconvenient and inappropriate to use the "bushes" for toileting.

A very relaxing place.

Again, hotel trips on jet skis disrupt all activities, animal as well as human.

Bathrooms need to be open longer.

Enjoyed fishing.

Facility is newer, very clean, and staff are very helpful. Use this facility for access to waterways, islands. One of my favorite boating/fishing areas. Love the seclusion.

Fishing was the only event.

Great place.

I am so impressed, especially by the knowledge of people in charge and giving the tour, that I take all my visitors to it.

I did not use the services, facilities, or activities, only the boat ramp, so I can't circle a number for importance or satisfaction.

I don't remember seeing a sign at the entrance display that indicated length of trails.

I feel hunting, fishing and hiking opportunities are the fundamental basis for the refuge system to exist. It is the sportsmen and women who spend the most dollars in support of the system.

I have never seen any facilities at this site.

I like Ten Thousand Islands National Wildlife Refuge the way it is. There is enough there for those who want it, but not so much that it attracts huge crowds and detracts from the wilderness or wildlife experience.

I only came here to fish and view nature. It's a very beautiful place. I will come again in the future.

I was given this survey by mistake. I do not use any facilities or even know the boundaries in which this Refuge is. I just fish in the water. If you charge people for facilities that our taxes are supposed to be covering, then I think it is wrong.

I wish there were public restrooms. I would also be interested in kayak rentals.

I would like another small observation tower to see over the mangroves further down the trail. I heard ducks, but couldn't see them, and you can't open or cut mangroves!

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I would like more information available onsite about canoe and kayak access and trails.

I'm very satisfied with facilities, staff, etc. I had an enjoyable visit and will return in the future.

It is very nice. Please don't mess it up!

It was a county boat ramp. Clean, good ramp, good docks, clean bathrooms, and bait was inexpensive.

Just went fishing.

Launched at Port of Islands. Did not know there was information about the refuge there.

Leave it exactly as it is!

Many good views from the road, but it is built up with scrub plants and one cannot see, except from the platform or a break or two. It would be nice to have the scrubs taken down.

Marvelous area for boating, fishing, wildlife observation, etc. Do not change a thing!

Need restrooms.

No trash receptacles anywhere and no one (apparent) to police the road or parking lot.

On our camping trip, we met a very nice Park Ranger. He was very polite.

Other than the main trail, which we birded, there was really not much there, but a nice parking lot.

Restrooms and store closes at 2pm - much too early.

Restrooms are needed, as there are no toilet facilities. Trash receptacles are needed in the parking area.

Restrooms would have been appreciated.

The facilities at Port of the Islands are not even open until 5pm some days and that is of great disappointment because it is quite a drive to find another place to purchase goods. Also, fuel is not available for boats very late. Parking at this facility is also very expensive for overnight.

The observation tower is superb. It allows a great view of the drought-stricken area and made us realize how dry it really is.

The park personnel were extremely informative and helpful. The people made our visit a success and an experience we will repeat.

The paved road to the tower is great for wheelchairs. I just wish they would pave further down the dirt road.

The refuge I visited was 10,000 Islands Marsh Trail. I came across it as I was traveling to the Big Cypress in Florida. I visited it a few times and enjoyed it very much. What I enjoyed most was how the refuge was laid out - it still seems to be managed for the plants and animals that live there. I wish they had a nice photo blind. Otherwise, it was excellent!

The sea grasses (Turtle Grass) that carpeted the bottom of bays surrounding the outer islands in the 1940s-1960s from Marco to the Keys have disappeared. The ecology of this region is in shambles. I have failed to get action from the ENP personnel.

The Ten Thousand Island Marsh Trail is an environmental gem, a beautiful, pristine, well-kept living exhibit that is well managed. The

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observation deck is wonderful with access to nature.

The volunteer on the trail was an excellent resource and representative for the refuge. She explained that the water was usually there in the winter and we missed when the birds were visible from the observation tower by being there in April. Thanks for putting up the trail and tower.

The volunteer we met was very pleasant and helpful. The office for this refuge was extremely hard to find. We don't want to drive miles and miles away to get our Blue Goose Passport Stamp. Can you put a stamper in the parking area of each refuge?

The volunteers were great!

The volunteers were just lovely and very helpful. They also gave me some good advice about looking after my sunburn!

The volunteers were very friendly and helpful, although there wasn't much information to be collected.

There are many kayaking trails in the Ten Thousand Islands, but not many places where one may rent a kayak.

This area was out in the middle of nowhere. A port-a-potty would have been nice.

This is a new area, so some of the listed facilities/activities are not available yet.

This site has an interesting history and that information could be part of the interpretation materials. The viewing scopes (at both levels) were most helpful.

This was a major bird watching area. It would have been great to have some bird identification charts posted close to the observation tower or some individual bird pictures spaced along the trail.

To be fair, this refuge access point is designed with minimal information and physical routes for visitors, and that's fine for what it is. But even a slightly greater investment in information and a boardwalk is desirable.

Very helpful.

Very small, but nice park.

Volunteers were great!

Water opportunities are not available all the year (such as during the dry season).

Waverunner was a problem.

We just took a short walk on the only trail in the small part of the refuge; we probably shouldn't have agreed to do this survey since we didn't avail ourselves in any other opportunities in the rest of the refuge. Another year when we visit Florida, we'll explore the refuge more fully.

We walk this well maintained path daily for exercise. We have since we bought a good camera and take pictures of wildlife and birds regularly. It would be nice if there were restrooms at this stop.

Would like to see the store and marina open longer. It is always closed when we come in from the water.

Would love to experience better fishing. In favor of more catch and release if it would improve the fishing.

You must patrol and stop all waverunners in the refuge. They are destroying the area. Captain Ron tours are responsible for this environmental mess. He is ruining all opportunities for fishing, bird watching, etc.

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## Survey Section 5

Question 3: "If you answered "Yes" to Question 2, please briefly describe what makes Refuges unique."

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Comments on What Makes Refuges Unique? (n = 135)

A "no brainer." It includes the Ten Thousand Islands; therefore, the answer is...the geography!

A laid-back atmosphere.

A special haven for wildlife!

Access to scenic areas, and able to view wildlife. Boating, canoeing, and kayaking opportunities, education, and information on wildlife.

Allows people to get closer to natural communities.

As a birdwatcher, we enjoy the refuge to hike and see birds. Refuges are not as well-known as the National Parks. Ding Darling was over-run with people on the drive, but we could find peace and quiet on the trails. Something for everyone.

Clean, well kept, and a great observation area.

Conservation of the natural world.

Conveniences.

Everglades.

Everything you can see and do.

Florida is becoming so developed that it is refreshing to visit wild areas and see the wildlife.

Good educational opportunities. I have taken class groups to visit before.

Good fishing.

Good management, and open to the public.

Good to excellent fishing opportunities from a kayak.

Good vistas to view wildlife.

Great boating, wildlife, and fishing.

Great viewing opportunity at the tower. Very few other visitors. Easily traveled by foot. Lots of birds and alligators to see.

Have visited refuges all over Florida and Alaska, and some in between. My favorite way to get outdoors. Seems people who visit these types of areas are more respectful of nature and the environment. Always do my part to pick up, clean up, and leave nothing behind. It seems that most refuge visitors do the same.

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Having our natural setting of waterways and beaches kept natural and undisturbed is great.

I am a visitor from the UK and appreciate any wildlife conservation and opportunities to visit such refuges.

I have been on some of the trails and they are very well done.

I have never in 20 years seen any real things done for the fishing other than closing seasons when deemed necessary. I do a lot of catch and release. I really believe our National Parks should become artificial lures only. I am also against closing areas for nonmotorized boating only.

I like a refuge that is accessible, but still slightly primitive, in that it provides a wilderness experience. If things get too "fancied up" it becomes like Disney World and less of a real environment for wildlife and birds.

I liked the natural aspect of the refuge as well as the length of the trail for walking. I loved the observation decks.

I truly enjoy visiting refuges, because I can observe animals and birds in their natural habitat.

I was very impressed with the facilities considering there was no entry or parking fee. This would not have happened in England. You are making important wildlife accessible to all. Thank you.

I've been to many National Parks, Monuments, and Forests (of which only the last is USDA and allows fishing and hunting). Each place is unique in its own way, but what I really appreciated most about the refuges is their existence and their mission of conserving wildlife and nature. They also seem more "low key" than National Parks, which is nice. In our three week tour of western and southern Florida and the Keys, refuges seemed to be (along with the NPS and Everglades) the major bulwark against rampant development.

In a limited space, the entire spectrum of wildlife and vegetation are available to observe.

In this case, an excellent opportunity to observe local and migratory animal species along an old tram way.

It has a diverse population of plants and animals, and we have the opportunity to see them in their natural habitat.

It has the advantage of providing the protection and use that I want.

It is a large expanse of land devoted to habitat preservation. The size alone allows species to keep their reproductive population at a viable level.

It is a well managed resource unique to any other part/park in the world. Visitors all pull together to keep it in good shape by following rules and minimizing impact on the resources.

It is in the Everglades area of Florida.

It is natural, preserved land that you can find nowhere else.

It's a good way to observe wildlife, hunt, and fish.

It's a one of a kind experience; people that have never been there are always amazed by its beauty! It never gets old.

It's part of the Everglades experience, and that land is unique and must be preserved and managed.

It's Ten Thousand Islands! One of the few remote places where you can go without being burdened by park fees and stupid rules that are meant to deal with crowds.

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It's the top of the Ten Thousand Islands, and there is a lot to explore.

It's unspoiled, undeveloped beauty that is still close to "civilization" and therefore accessible to any type of boating activity with relative ease.

Keeping islands and water ways original.

Keeping it as a wilderness area.

Keeping it open for fishing.

Less amenities for people, because the priority is on habitat and wildlife!

Location.

Makes a great effort to keep nature natural.

More remote.

More untouched natural life and habitat.

Most have educational programs, are well-maintained, and protect nature while letting the public enjoy them in a safe manner.

Natural settings saved for the future.

Nature in the wild is great - particularly for visitors from western Europe like us.

Observation tower, trails, and no hunting.

Observing wildlife in their natural habitat. The kids love seeing alligators in the wild! Me too!

Opportunity to see different wildlife, fish, and vegetation from my home in Virginia.

Opportunity to view a wide variety of wildlife.

Preservation of wetland areas and management of the same habitat and wildlife preservation/conservation.

Preservation of wildlife, maintained viewing areas, and hiking in nature.

Preserve the natural environment.

Pristine conditions of land and water.

Protected areas with opportunities to get off the highway and explore.

Protection and promotion of our wildlife and fisheries.

Protects wetlands for birds and animals.

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Provides public access to a segment of the environment that would otherwise be covered with roads, houses, and boat marinas.

Quiet, no garbage or trash visible, and a real natural experience.

Reflects the local habitat for that specific area.

Refuges are unique because there are often few people and wonderful wildlife viewing opportunities.

Refuges conserve the resources and make them available, as they otherwise would not be.

Saving places for wildlife that may not otherwise survive without the refuges.

See nature in its true environment.

See wildlife in its natural setting.

Shelling and lunch on the many islands.

Solitude, serene.

Ten Thousand Islands are fantastic. I wish the fishing was better.

Ten Thousand Islands are unique.

Ten Thousand Islands!

Terrain like nowhere else.

The 10,000 Marsh Trail is unique. It's secluded with a feeling of untouched wilderness, but is easy to get to; it's a pleasant surprise to be able to view such an area so easily. Besides the fact of being able to view a natural marsh in Florida. People are amazed when I take them there. How beautiful this place is to visit; quiet and natural.

The diverse wildlife and beauty.

The emphasis is on wildlife, which is the way it should be.

The Everglades and surrounding areas are unique to this part of the United States.

The Everglades are a unique landscape.

The fact there is this refuge right at our back door is awesome. Was not aware how much in area is under refuge status. Waiting to go back when there is water.

The federal government has more money to buy land.

The fishing, boating, and wildlife are great.

The Mangrove Forest.

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The natural environment.

The nice viewing areas set up.

The observation tower overlooking ponds with alligators and marsh birds was excellent.

The opportunity for wildlife observation in a native habitat.

The opportunity to observe wildlife. Protected, informative, and relaxing.

The reason they were created is unique.

The refuge program provides the best opportunities to observe as well as harvest fish and wildlife. Although these opportunities may exist on other public lands, the quality of the lands purchased for the refuge system makes them more attractive for these activities.

The refuges have employees dedicated to the park and educating visitors about the refuge.

The refuges I have visited in my areas are well-kept. They offer a wide variety of activities to all.

The Ten Thousand Islands, what more can I say?

The Thousand Island area, alligators, and wild birds.

The wildlife being observed in their natural habitat.

Their intent is to serve the ecosystem first and the needs of people visiting second. I like this, as it makes me feel as though I am visiting the land of the animals and plants instead of some land I feel I have an unauthorized right to.

These areas are beautiful and they need to be protected and maintained.

They are basically in their natural condition without human improvements, except as minimally necessary.

They are looked after, which is better at keeping out the riff-raff.

They are maintained properly.

They are the means of protecting unique areas from development and/or misuse.

They are undisturbed, natural wilderness.

They attempt to maintain the natural environment and provide a buffer from developed lands.

They educate the public, provide habitat for native creatures, and save environments so that contiguous refuges can provide corridors for animals such as panthers, bears, etc.

They enhance the experience for which a person is there. They are vital in keeping and preserving Mother Nature and Her glory.

They give "city people" an opportunity to enjoy the great outdoors.

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They give the animals a place to live without harm.

They have the primary mission of "conserving, managing, and restoring fish, wildlife, plants, and their habitat." Without these places, it may be difficult to conserve "wild" areas, although this particular area is joined by the Florida Department of Reserves, which made the whole area I visited well worth the trip. I hope the Fish and Wildlife Service keeps up the good work.

They help you enjoy and experience the areas around you, especially the wildlife indigenous to these areas. I live to visit wildlife refuges; I'm glad they exist and enjoyed the many programs we went to with my children when they were little. My children also remember the many activities they did and are passing on their appreciation to their children. I can't wait until the grandkids are big enough to go with Grandma to refuges.

They let visitors see what the area looked like before being developed. It has been amazing what we have seen on this short walk. Just by allowing no building on this area, it is astonishing what has thrived.

They often have a "wild" character not always present in parks and rarely present in managed forests. The dedicated emphasis on wildlife is also different.

They preserve our nation's natural resources.

They prevent development in vulnerable areas.

They protect areas of distinct wildlife habitat from developers.

They protect wildlife, provide opportunities for public to view the wildlife, and they educate the public on land and wildlife conservation.

They provide habitat and protection to wildlife in their natural habitats without disturbing nature.

This refuge had a great tower to watch wildlife. I saw a lot of different animals!

This refuge has been left in a natural state except for the marked channels.

U.S. Fish and Wildlife Service is great.

Usually their location.

Watching the wildlife.

Waterway and island environment.

Waterways, exotic animals, fishing, and the Everglades.

We love refuges because of the wildlife viewing opportunities and because they are not overrun with other visitors who don't always respect the area. Refuge visitors seem to have more awareness of how to visit without disrupting the habitat.

Well maintained. Location great for guides and fishing trips. Good people/guides work out of this facility.

Wide open, no signs of humanity.

Wildlife and beauty.

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Wildlife.

You have a chance to see conservation in practice.

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Additional Comments (n = 38)

Any actions to preserve biodiversity, protect our flora and fauna, and provide access for the public to have good experiences in nature are worthwhile and commendable. Public education about global climate change is also extremely important; much denial and misinformation is hampering efforts that must be made to avert catastrophe. Keep up the good work and thanks for fighting the good fight against seemingly insurmountable odds.

Ban jet skis from your boundaries.

Cut more trees on the side of the road so you can see the water better.

Define climate change. Are we talking man-made? Many other factors affect fish, wildlife, and habitats, but are not addressed here at all. Why not? Section 5.4. Only climate change? Why?

Second, it's a beautiful, wonderful, and unique piece of the planet that I have respected and enjoyed for more than 50 years. Leave it exactly as it is! More times than not, as the government increases involvement, the resource suffers. I know this place; leave it alone! (signature)

Glad you are making the Everglades available for enjoying nature.

I am a wildland firefighter and have been busy. Spent three weeks on the fire in the Okefenokee National Wildlife Refuge.

I am just happy to see this facility so close to home... was not aware of it until a friend told me about it and took me there. Will definitely go back with more family and friends.

I am very glad you put the path in!

I fish out of the Port of Islands Marina a lot. The canal is 3.5 miles long at min. wake. I was stopped by some form of law enforcement four times in a van. Alone! My speed is 6.5MPH in the canal, but my boat puts out more wake because it has a square bow skiff. Many variables also have to do with the amount of wake. Going into the tide or wind, weight in the boat, how the motor is trimmed, style of boat, etc. Manatees don't get hit by boats on plane doing 20-30MPH in the grass flats! The only boat I saw on plane in the canal was a sheriff! With tourism down in Florida, does it make sense to harass people to the point that they go somewhere else?! P.S. I was never ticketed.

I have fished the Ten Thousand Island area of south Florida for at least 20 years. When outside the Everglades National Park, I've had good experiences. Most wildlife officers are polite and do their job: check for legal fish and safety gear, then on their way. Sometimes they go too far. Ten or so years ago, one officer checked our boat twice in one night. Our licenses were good at 5PM and 11PM. The only other bad time I've had was in the Everglades National Park. A friend of mine and I wanted to go camping at one of my special places, Lost Man's River. I have camped here many times over the years. My boss and his family have camped there even longer--30 years. We left the dock at Everglades City, Florida, and traveled 30 miles by water. We had boat problems and could not get on plane. The trip is one hour and it took four. We got there at sunset and other campers were there. We set camp and went fishing early the next morning, Friday morning; fishing was slow, but we caught some to eat. The next morning (Saturday), we went out early; no fish. We ate Friday's fish around noon. I was taking a nap on my boat when I heard yelling. Two officers were yelling at my friend on the beach to DROP THE CHAIR. A beach chair. I woke up to see the officers with hands on guns yelling at my friend. I calmed the situation down and they told me I was on a historical site and had to break camp and leave. I told them we were leaving the next day. They wouldn't take that and demanded that we leave now. After a \$100 ticket, we broke camp and left. I'm reading about this history of the glades; there hasn't been a structure on that island since 1947. The park took over in 1955 and burned all homesteads down. It's a mangrove island, not a historical site. They ruined my camping trip to my favorite place. P.S. I have not and will not go back to Everglades NP until want-to-be cops are out of the National Parks. They only need to do their job: check safety, length of

fish, and licenses!

I largely take advantage of the many recreational opportunities in both places.

I live on Maco Island and fish/boat at Ten Thousand Islands. I love the area and would like to experience better/easier fishing. Please HELP!

I was enjoying the serenity of the Ten Thousand Islands Refuge until a group of jet skis buzzed by.

In the last 20 years, I have seen a great increase in turtle life, dolphin activity, and manatees, of which I enjoy all. However, I learned more areas to fish, more about tide influences, moon effects, and a decline in the fishing population.

It is a nice new marina and we appreciate it very much.

Just a beautiful place to enjoy nature and fishing.

Keep up the good work!

My husband and I would like to return to this refuge and learn more about it. We were there during the spring (dry season). There wasn't much wildlife or very many birds to observe. We did not see or read any information about other activities/facilities in the preserve. We plan to return in the fall after the rainy season and in the winter, and we hope to see a different landscape and more birds. If there is an opportunity to explore by kayak or canoe we hope that this information is posted--we would be glad to rent kayaks.

Please do not screw up this remote area of Florida. We don't need more oppression through laws. Please don't close down this refuge.

Please pass our thanks to "Lotte" (we think that this is her name), one of your staff-based at the Comfort Inn, Tollgate Blvd, Naples FL, for taking the time to speak to us and show us some of the wildlife exhibits, etc. in her office. It was most informative. Unfortunately, we met her on the last day of our stay in Naples so we could not go to all the areas she informed us of, but we will return to Florida again soon! Many thanks. (signature)

Sadly, water levels were down so wildlife was sparse. Volunteer staff was available and very knowledgeable.

Staff presence is appreciated at the boat launching facility. Also, I appreciate that the habitat is left untouched and there's no need for staff and signs throughout this park.

Ten Thousand Island Preserve Naples, Marco, FL. Fix the sea grass problem! The problem is primarily aquatic weed control and run-off from residential, farming, and highway areas. The manatee numbers have increased 500%. The major threat to them is not boats, but starvation!

Ten Thousand Islands is a beautiful place to see nature at its best. We enjoy the back water and would like to see it preserved for the future generations.

Thank you for providing this space. Site: Oil platform grade about 20 miles Southeast of Naples, Florida on US-41. Dogs on leash allowed. I've seen a few piles of excrement from dogs whose owners seem to use this old grade as a relief station. For at least two reasons dogs should be banned: 1) These scat piles bring with them certain diseases that wild animals might contract. 2) Even on a leash, water features are contiguous to the foot-traveled trail way. Several alligators in the 8 feet to 12 feet range use the far trail (40'-50') for swimming. A personal experience 40 years ago illustrated how quickly and quietly a gator can close in on an animal on the bank (even a child). One of these alligators is about the age of Tamiami Trail itself. Give it a chance to keep going. Duck hunting is allowed too close to the grade. Check your own permitted zones documents. This is, beyond all else, a bird observation area. Migratory waterfowl and other water and wading birds should not be hammered by shotguns a few hundred yards away. Remember: Section 5, statement #1 of this questionnaire (survey).

Thank you for providing us with places to visit like these. Even though I didn't agree with man causing climate change, I do try to keep my environment cleaner for the animals and birds!

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Thanks for asking and for protection of our natural resources!

The two survey volunteers and the interpretive volunteer were very considerate and knowledgeable.

The volunteers are outstanding, as is the limited staff. What you are doing is very important work. Thank you.

We are delighted to be able to live immediately adjacent to this refuge. The refuge is the reason we live where we do during the winter months.

We are too young of a species here on earth to even know what kind of climate trends this planet goes through. We have just seen two of the coldest winters ever in Florida. So global warming and climate change holds no merit in my mind. Also, I completed a census last year. I do not give out this type of information. Thank You.

We enjoy recording our visits by using the Blue Goose Passport Stamps. It would be nice if the stamps were available at this and other refuges that don't have a Visitors Center. Sometimes the staff isn't even familiar with what this is.

We loved it and wish we had more time to explore it.

We planned our Florida trip with my main missions of seeing the Everglades, manatees, and the Keys (more of which I have done). As I researched our trip, I first saw there were many refuges along the west coast of Florida, but I also learned most of them were only accessible by boat (not surprisingly). So our access was limited by car track, signage, and available trails until we returned and I again looked up the computer site. We hadn't realized there were two tours with port access (and kayak rentals) to the refuge--our loss.

We stumbled on this refuge on our way to another trail down the road. We had our own bikes and kayaks with us. There was a nice (I assume) volunteer couple in the parking lot who gave us this survey. I was formerly employed in resource management and always watch for the brown signs along roads as they point me to my areas of interest. We biked in and out on the main, and only, trail which ended abruptly in a clearing. I believe the water levels in the refuge were much below normal.

We visit the Ten Thousand Islands at least two times a week from late November through late April. It is our primary boating area of interest to enjoy the Mangrove Islands and beauty of the area. It is a marvelous "get away" from the boating traffic closer to Marco Island.

When reviewing this survey please consider the refuge I go to is a very small park with no facilities and is about 15 minutes from my Naples home. My "trips" are no big deal.

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