



# National Wildlife Refuge Visitor Survey 2010/2011: Individual Refuge Results for Monomoy National Wildlife Refuge

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*I found the personnel at the Visitor Center most friendly and helpful and I learned a few things about horseshoe crabs that I hadn't known. It was a cloudy day, but we enjoyed hiking along the beach and on the trails. The bird watching was splendid!*—Survey comment from visitor to Monomoy National Wildlife Refuge.



Monomoy National Wildlife Refuge. Photo credit: 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 Monomoy 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 Monomoy 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 Monomoy National Wildlife Refuge

Stretching eight miles off the coast of Cape Cod in Massachusetts, Monomoy NWR hosts a variety of landscapes including oceans, dunes, freshwater ponds, and both salt and freshwater marshes. Established in 1944, Monomoy NWR is home to diverse wildlife and plant species, including the federally protected piping plover and the roseate tern, supporting the largest nesting colony of common terns on the Atlantic seaboard with over 8,000 nesting pairs. Nearly 94% of this 7,604-acre refuge is designated as a Wilderness Area.

In 1823, the United States commissioned a lighthouse fired by coal to be built on the island's southern beach to provide ship guidance. One-hundred years later, more powerful lights in Chatham and Nantucket ceased Monomoy NWR's role as a lighthouse. In 1988, the lighthouse was restored and listed under the National Register of Historic Places. Today it serves as a center for natural and cultural history tours and educational programs.

With over 25,000 visitors each year (based on 2008 RAPP data), Monomoy National Wildlife Refuge offers a variety of activities including fishing, hiking, use of the Visitor Center, photography, wildlife observation, guided natural and cultural tours, visiting historical landmarks, boating, environmental education, and interpretation. Figure 1 below displays a map of Monomoy NWR. For more information please visit <http://www.fws.gov/northeast/monomoy/index.html>.

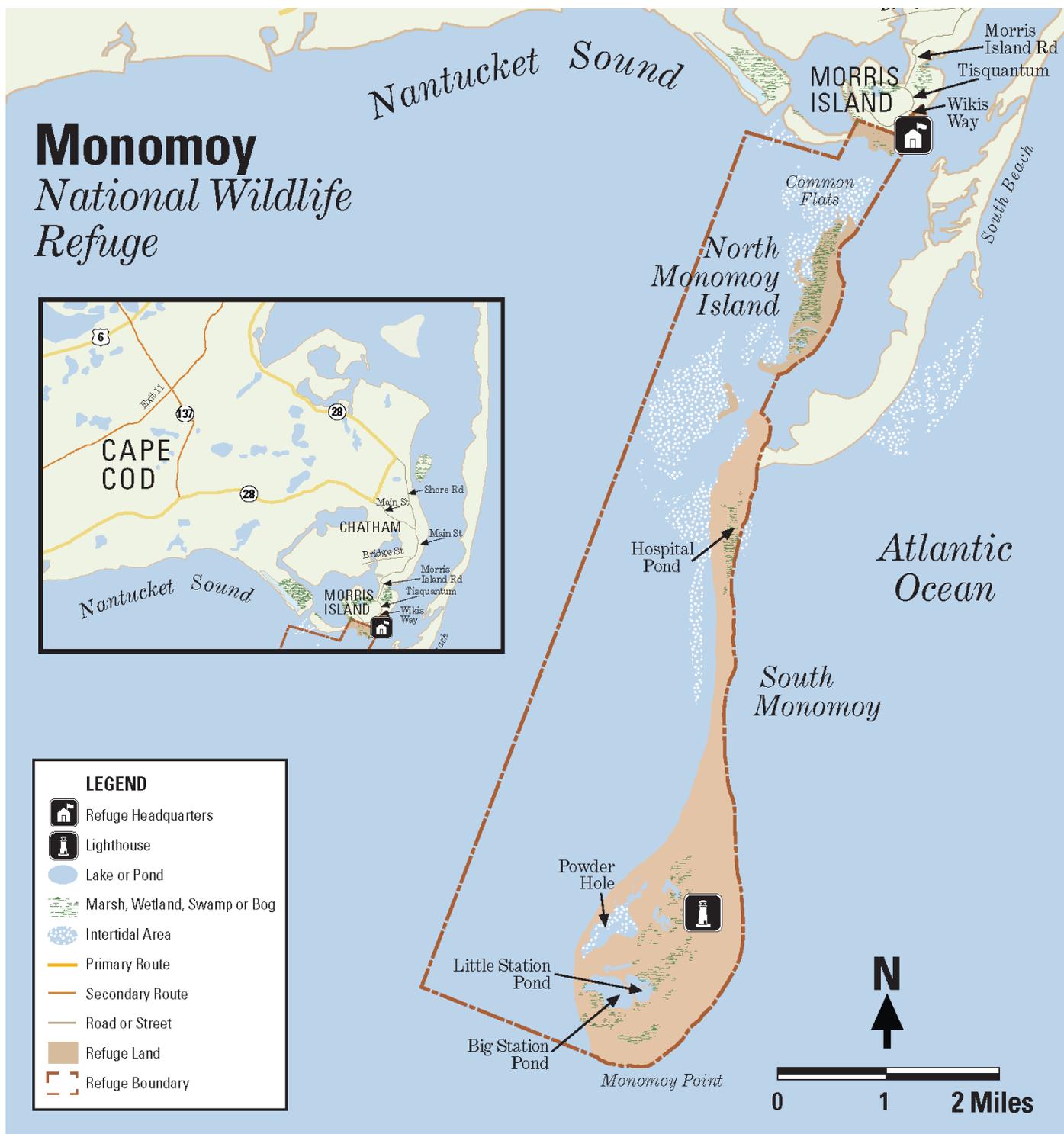


Figure 1. Map of Monomoy NWR, courtesy of U.S. Fish and Wildlife Service.

## Sampling at Monomoy National Wildlife Refuge

A total of 269 visitors agreed to participate in the survey during the two sampling periods at the identified locations at Monomoy NWR (table 2). In all, 172 visitors completed the survey for a 65% response rate and  $\pm 6\%$  margin of error at the 95% confidence level.<sup>1</sup>

**Table 2.** Sampling and response rate summary for Monomoy NWR.

Sampling period	Dates	Locations	Total contacts	Undeliverable addresses	Completed surveys	Response rate
1	7/17/2010 to 7/31/2010	Refuge Visitor Contact Station Morris Island Interpretive Trail Monomoy Island Lightkeeper's Station	159	4	102	66%
2	5/28/2011 to 6/11/2011	Refuge Visitor Contact Station Morris Island Interpretive Trail North Monomoy Boat Landing	110	2	70	65%
<b>Total</b>			<b>269</b>	<b>6</b>	<b>172</b>	<b>65%</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 Monomoy 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 (70%) and that the Refuge System has the mission of conserving, managing, and restoring fish, wildlife, plants and their habitat (84%). 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

<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).

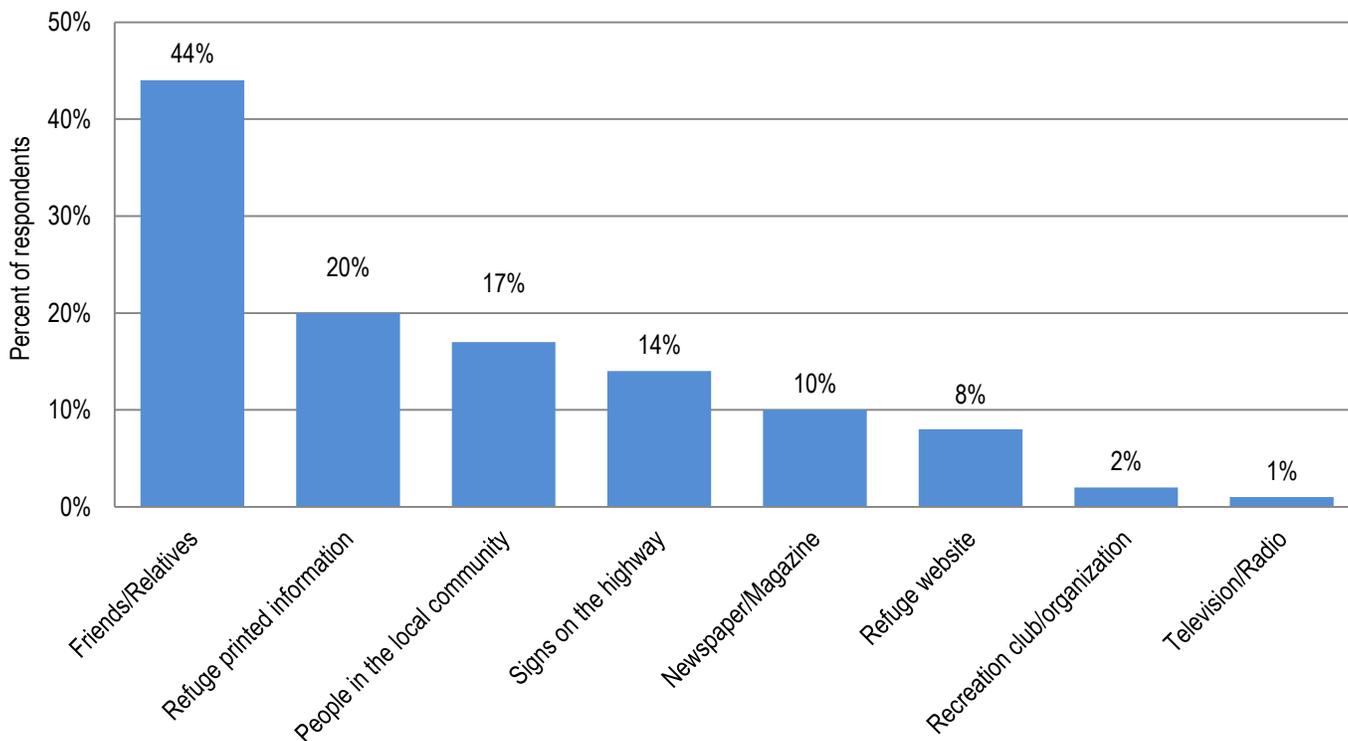
manages refuges and why. Compared to other public lands, many visitors feel that refuges provide a unique recreation experience (88%; see Appendix B for visitor comments on “What Makes National Wildlife Refuges Unique?”); however, reasons for why visitors find refuges unique are varied and may not directly correspond to their understanding of the mission of the Refuge System. Most visitors to Monomoy NWR had been to at least one other National Wildlife Refuge in the past year (68%), with an average of 4 visits to other refuges during the past 12 months.

### Visiting This Refuge

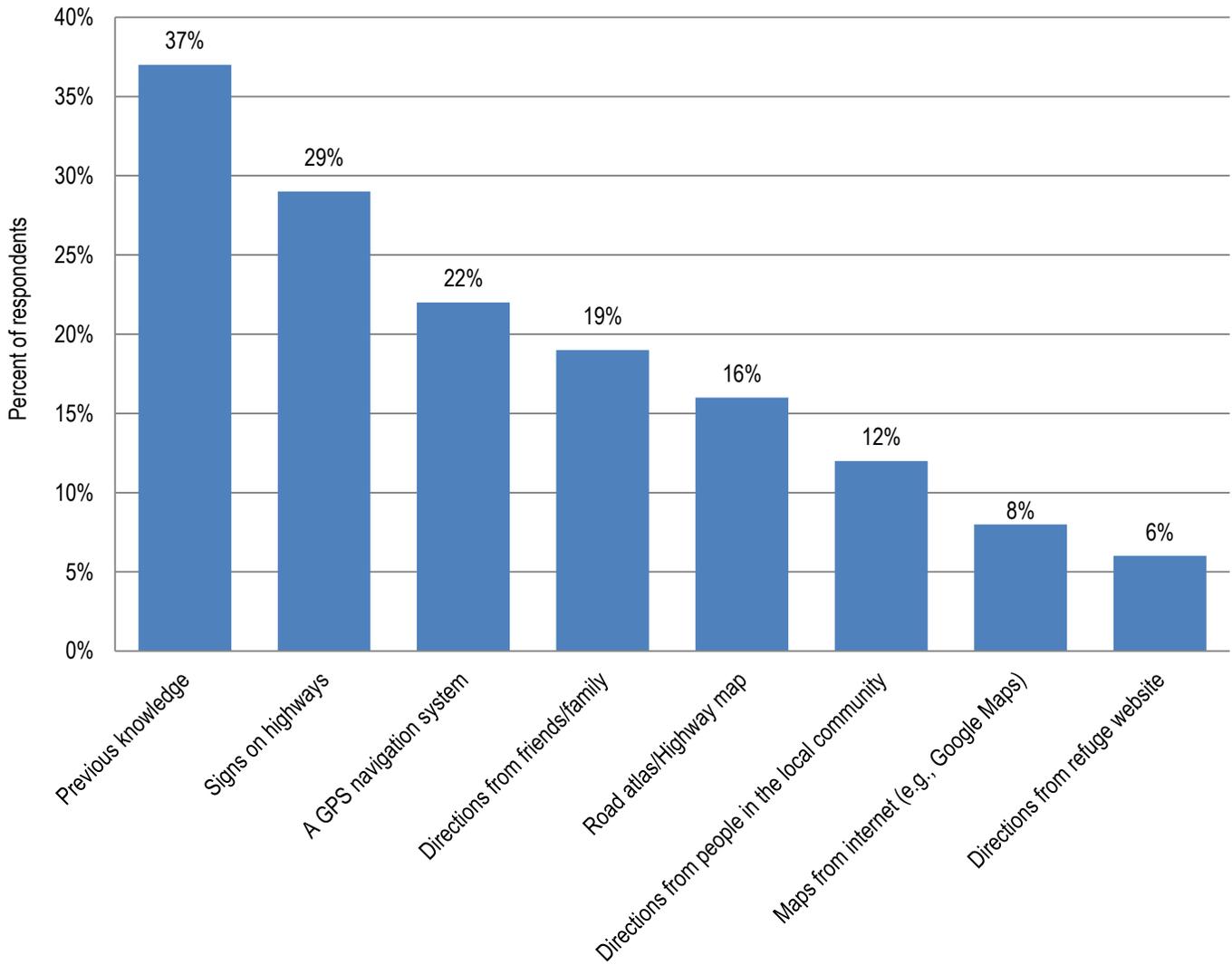
Most surveyed visitors (60%) had only been to Monomoy NWR once in the past 12 months, while others had been multiple times (40%). These repeat visitors went to the refuge an average of 10 times during that same 12-month period. Visitors used the refuge during only one season (75%), during multiple seasons (17%), and year-round (8%).

Most visitors first learned about the refuge from friends/relatives (44%), refuge printed information (20%), 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 (37%), signs on highways (29%), or a GPS navigation system (22%; fig. 3).

Few visitors (25%) lived in the local area (within 50 miles of the refuge), whereas 75% were nonlocal visitors. For most local visitors, Monomoy NWR was the primary purpose or sole destination of their trip (65%; table 3). For most nonlocal visitors, the refuge was one of many equally important reasons or destinations for trip (50%). Local visitors reported that they traveled an average of 17 miles to get to the refuge, while nonlocal visitors traveled an average of 330 miles. Figure 4 shows the residence of visitors travelling to the refuge. About 44% of visitors travelling to Monomoy NWR were from Massachusetts.



**Figure 2.** How visitors first learned or heard about Monomoy NWR (n = 167).



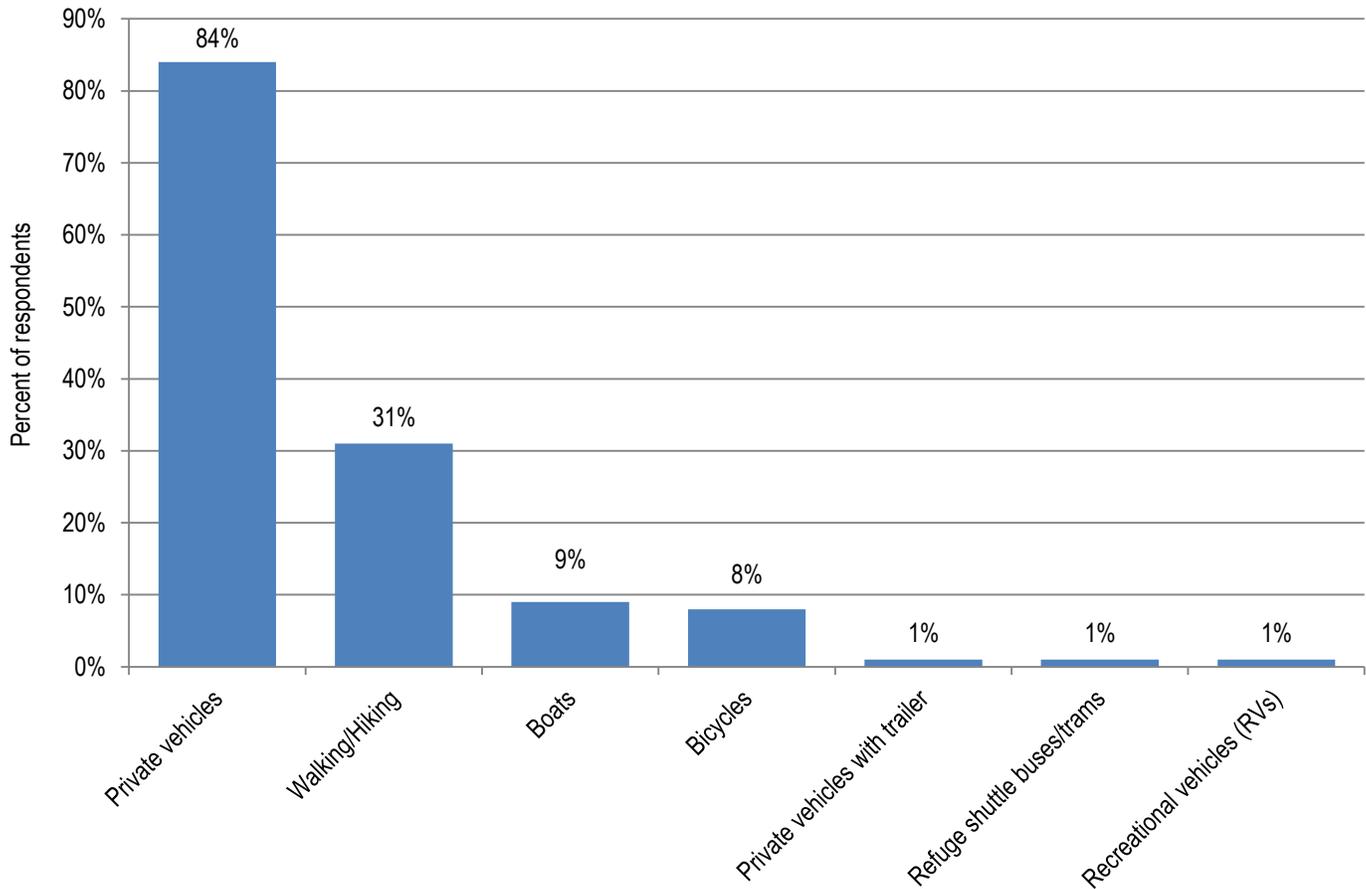
**Figure 3.** Resources used by visitors to find their way to Monomoy NWR during *this* visit (n = 167).

**Table 3.** Influence of Monomoy 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	19%	50%	31%
Local	65%	9%	26%
Total	31%	39%	30%



Surveyed visitors reported that they spent an average of 3 hours at Monomoy 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 2 hours (23%). The key modes of transportation used by visitors to travel around the refuge were private vehicle (84%) and walking/hiking (31%; fig. 5). Most visitors indicated they were part of a group on their visit to this refuge (64%), travelling primarily with family and friends (table 4).

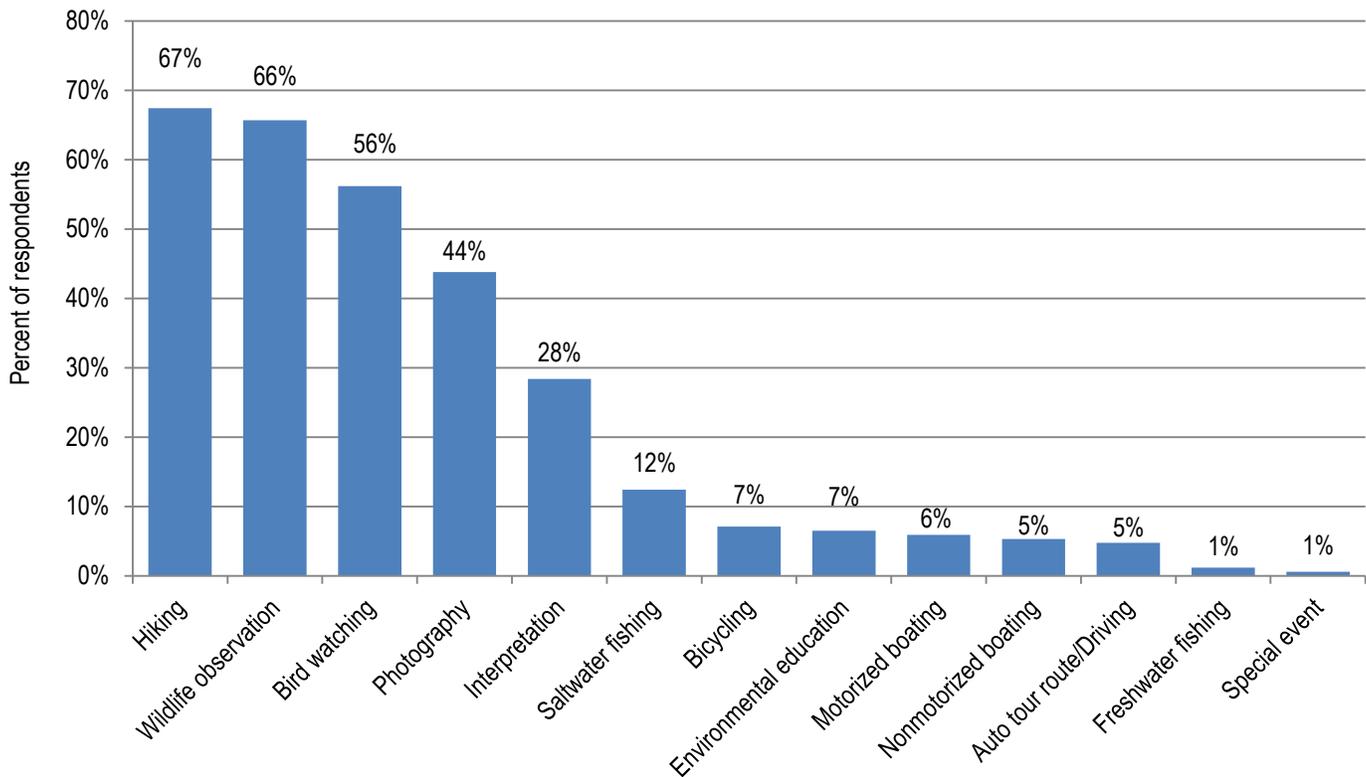


**Figure 5.** Modes of transportation used by visitors to Monomoy NWR during *this* visit (n = 169).

**Table 4.** Type and size of groups visiting Monomoy NWR (for those who indicated they were part of a group, n = 108).

Group type	Percent (of those traveling in a group)	Average group size		
		Number of adults	Number of children	Total group size
Family/Friends	95%	3	1	4
Commercial tour group	2%	5	2	7
Organized club/School group	0%	0	0	0
Other group type	3%	7	0	7

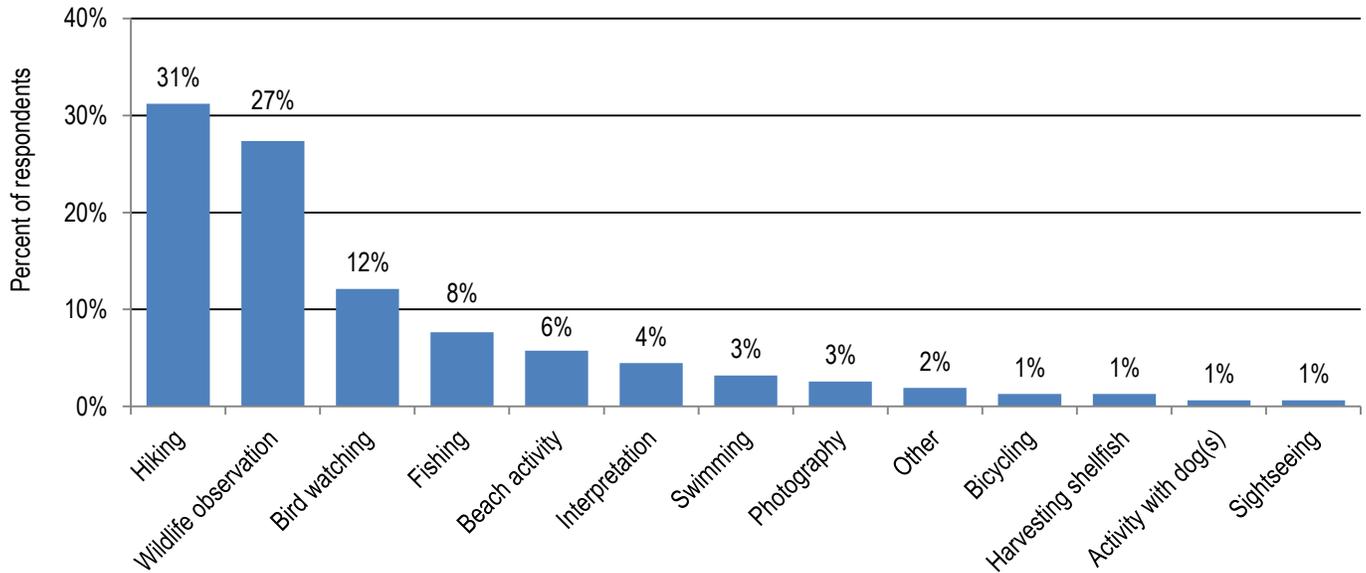
Surveyed visitors participated in a variety of refuge activities during the past 12 months (fig. 6); the top three activities reported were hiking (67%), wildlife observation (66%), and bird watching (56%). The primary reasons for their most recent visit included hiking (31%), wildlife observation (27%), and bird watching (12%; fig. 7). The visitor center was used by 80% of visitors, mostly to view the exhibits (85%), ask information of staff/volunteers (79%), and stop to use the facilities (for example, get water, use restroom) (63%; fig. 8).



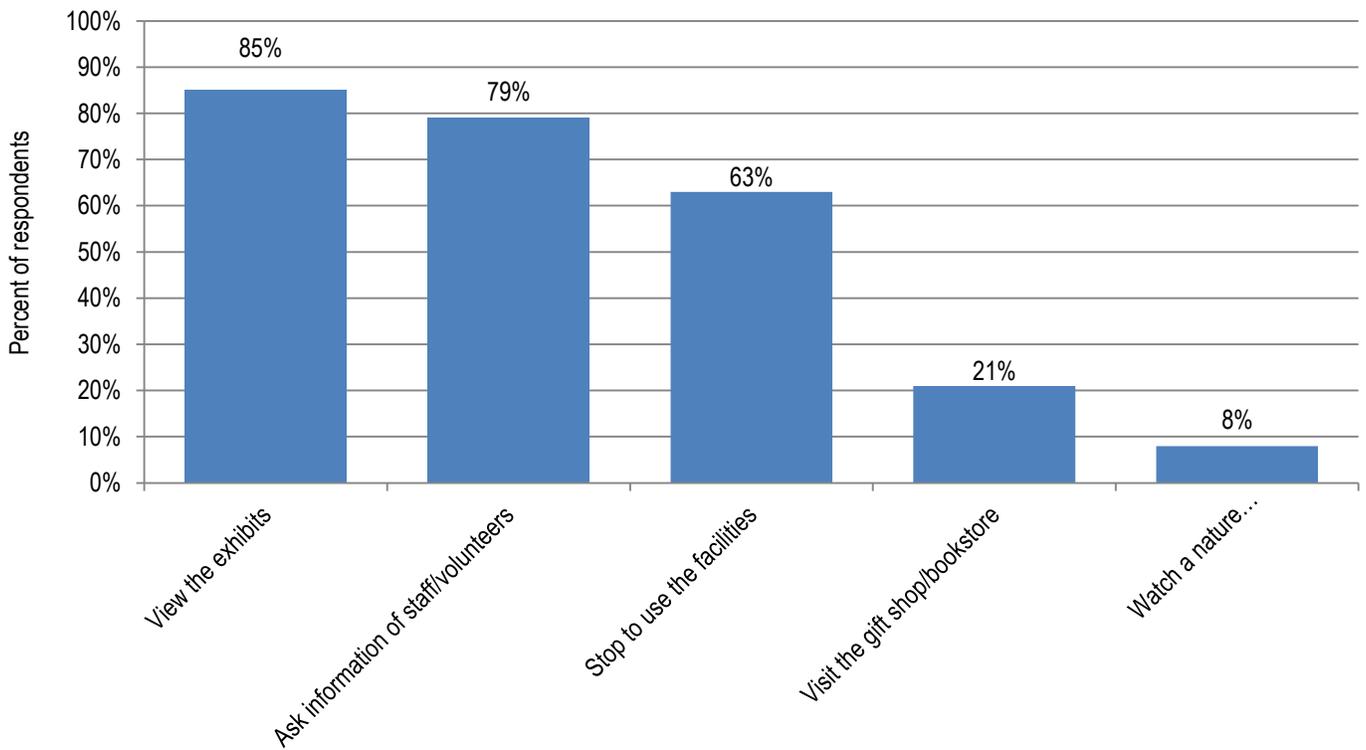
**Figure 6.** Activities in which visitors participated during the past 12 months at Monomoy NWR (n = 169). See Appendix B for a listing of “other” activities.

### Visitor Characteristics

Nearly all (93%) surveyed visitors to Monomoy 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 53% male with an average age of 59 years and 47% female with an average age of 54 years. Visitors, on average, reported they had 17 years of formal education (graduate or professional 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 Monomoy NWR (n = 157). See Appendix B for a listing of “other” activities.



**Figure 8.** Use of the visitor center at Monomoy NWR (for those visitors who indicated they used the visitor center, n = 136).

## 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, 25% of visitors to Monomoy NWR indicated that they live within the local area. Nonlocal visitors (75%) stayed in the local area, on average, for 5 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. ***It is important to note that summary statistics based on a small sample size ( $n < 30$ ) may not provide a reliable representation of that population.*** During the two sampling periods, nonlocal visitors spent an average of \$90 per person per day and local visitors spent an average of \$82 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 at Monomoy NWR expressed in dollars per person per day.

Visitors	n <sup>1</sup>	Median	Mean	Standard deviation	Minimum	Maximum
Nonlocal	105	\$69	\$90	\$76	\$0	\$378
Local	27	\$55	\$82	\$98	\$0	\$380

<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.

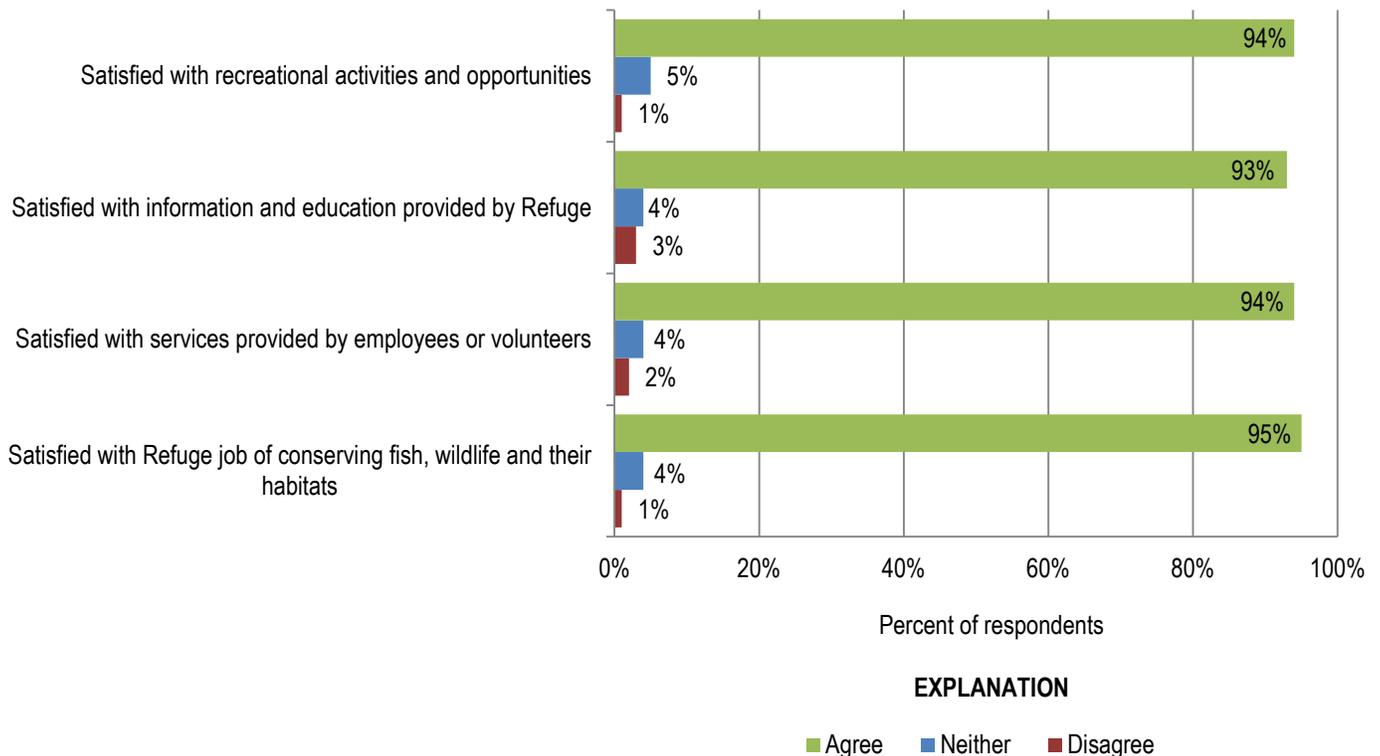
## Visitor Opinions about This Refuge

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 Monomoy NWR were as follows (fig. 9):

- 94% were satisfied with the recreational activities and opportunities,
- 93% were satisfied with the information and education about the refuge and its resources,
- 94% were satisfied with the services provided by employees or volunteers, and
- 95% were satisfied with the refuge's job of conserving fish, wildlife and their habitats.

Although 13% (n = 22) of visitors indicated they paid a fee to enter Monomoy NWR, the refuge does not charge a fee. It is unknown why some visitors thought they paid a fee.



**Figure 9.** Overall satisfaction with Monomoy NWR during *this* visit (n ≥ 163).

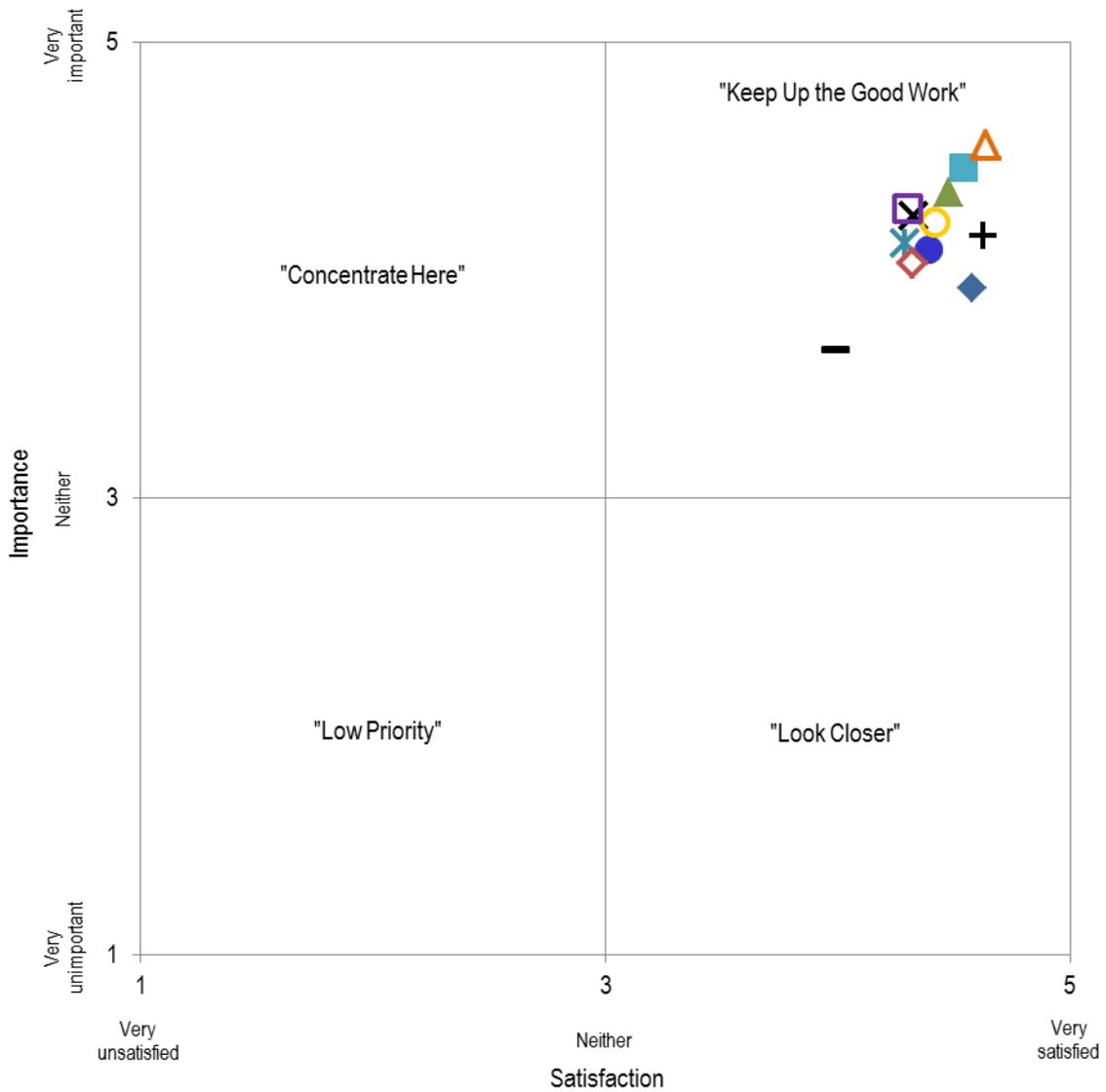
## Importance/Satisfaction Ratings

*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 Monomoy 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.*

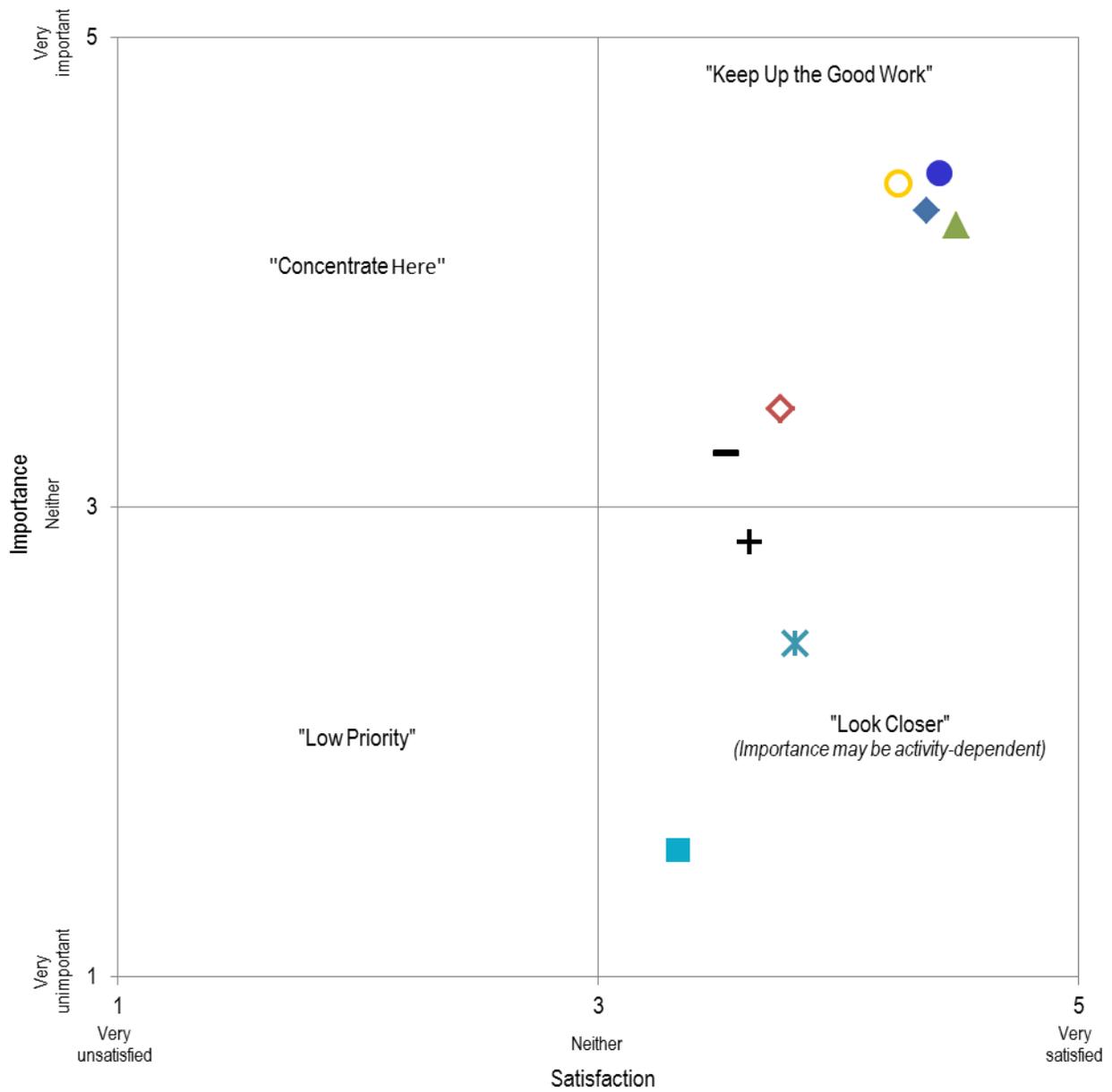
Figures 10-12 depict surveyed visitors' importance-satisfaction results for refuge services and facilities, recreational opportunities, and transportation-related features at Monomoy NWR, respectively. All refuge services and facilities fell in the "Keep Up the Good Work" quadrant (fig. 10). Nearly all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



**EXPLANATION**

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

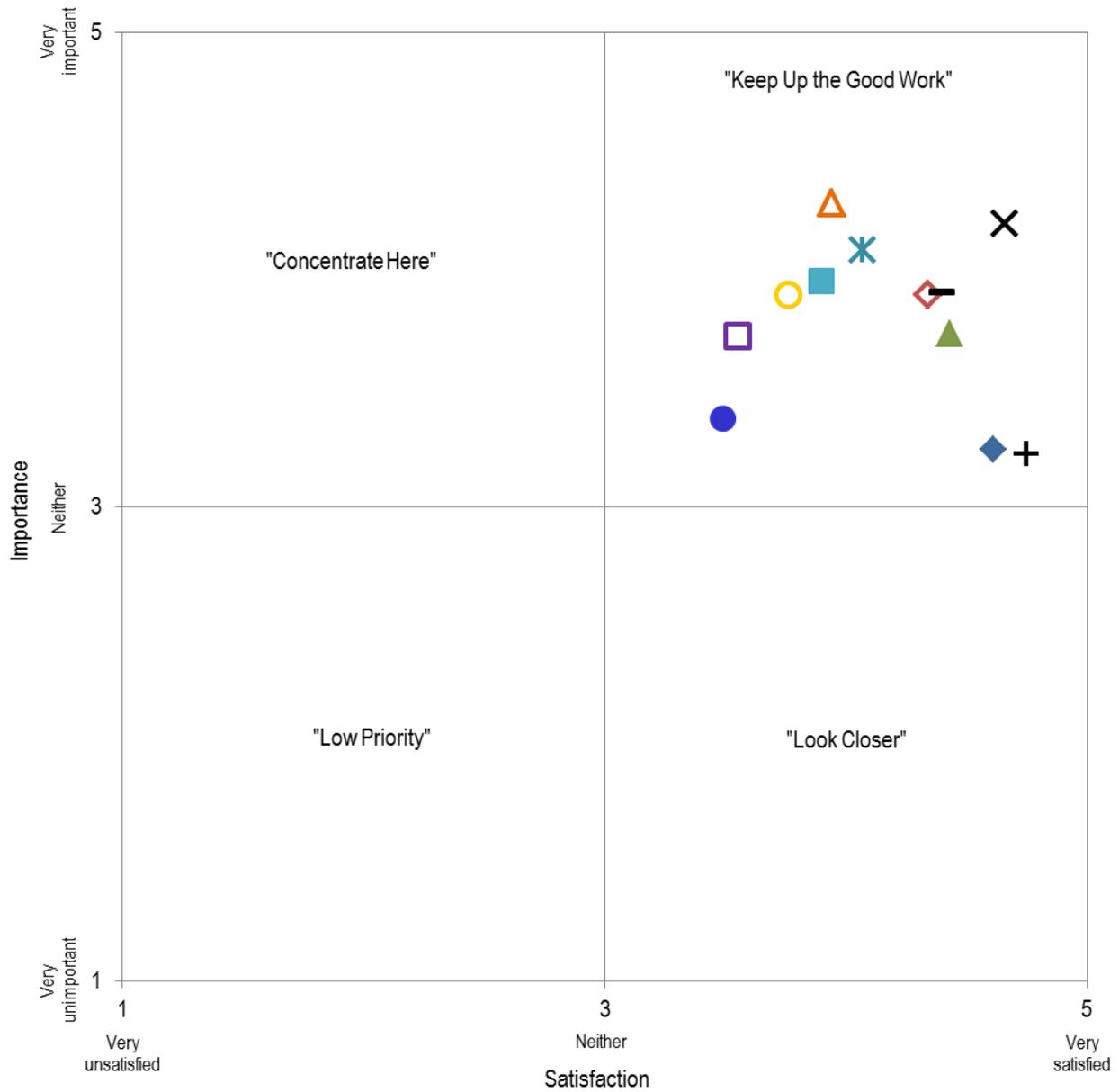
**Figure 10.** Importance-satisfaction ratings of services and facilities provided at Monomoy NWR.



**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 Monomoy 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 Monomoy 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 Monomoy NWR are reported here.*

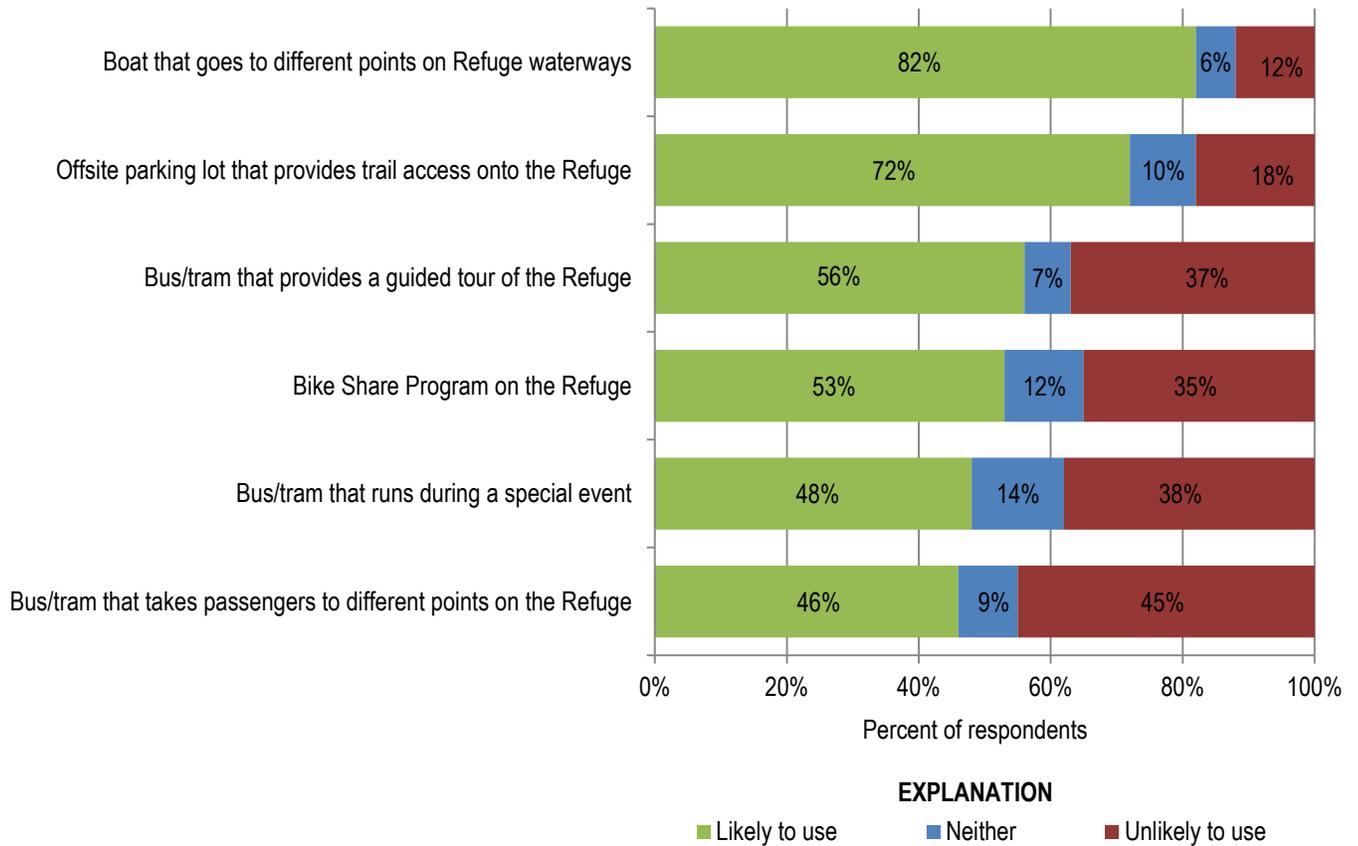
### Alternative Transportation and the National Wildlife Refuge System

*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 Monomoy 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;
- an offsite parking lot that provides trail access;
- a bus/tram that provides a guided tour; and
- a bike share program.

When asked about using alternative transportation at Monomoy NWR specifically, 31% of visitors indicated they were unsure whether it would enhance their experience; however, some visitors thought alternative transportation would enhance their experience (23%) and others thought it would not (45%).



**Figure 13.** Visitors’ likelihood of using alternative transportation options at national wildlife refuges in the future (n ≥ 158).

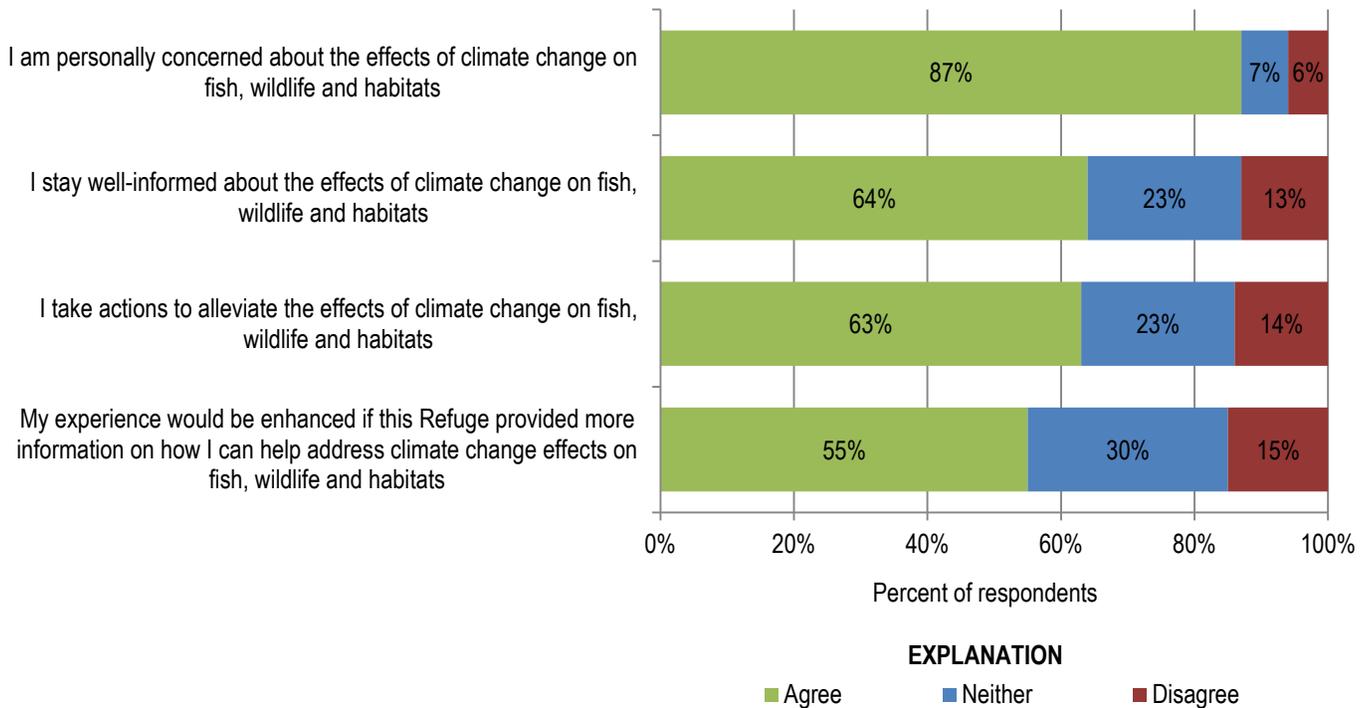
### Climate Change and the National Wildlife Refuge System

*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 Monomoy NWR agreed with the following statements (fig. 14):

- “I am personally concerned about the effects of climate change on fish, wildlife and habitats;”
- “I stay well-informed about the effects of climate change;”
- “I take actions to alleviate the effects of climate change;” and
- “My experience would be enhanced if the Refuge provides information about how I can help address climate change effects.”



**Figure 14.** Visitors’ personal involvement with climate change related to fish, wildlife and their habitats (n ≥ 156).

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).

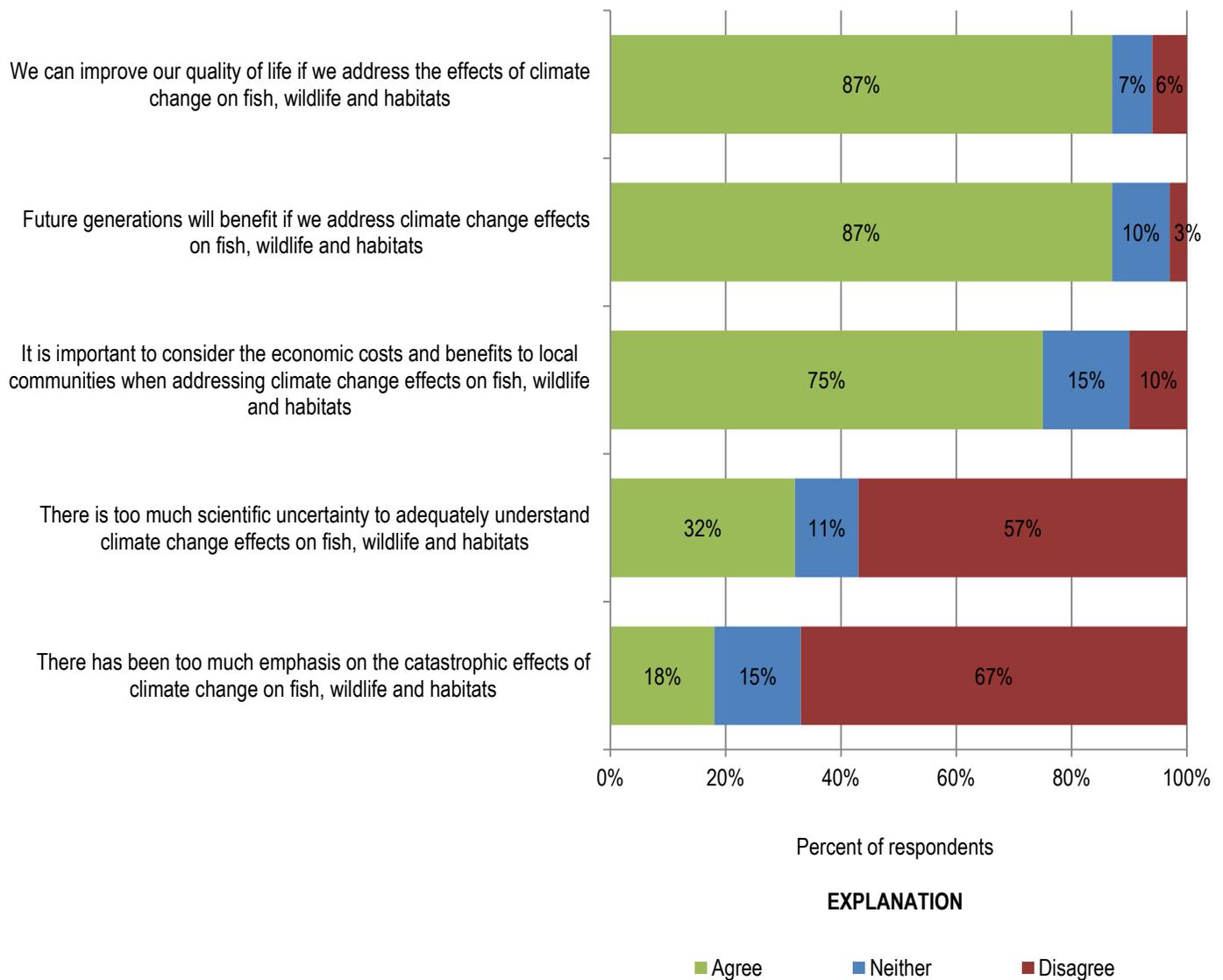
For Monomoy NWR, the majority of visitors believed the following regarding climate change related to fish, wildlife and their habitats (fig. 15):

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

The majority of visitors did *not* believe:

- “There has been too much emphasis on the catastrophic 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 the majority of visitors (55%) indicated that their experience would be enhanced if Monomoy 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 ≥ 156).

## Conclusion

These individual refuge results provide a summary of trip characteristics and experiences of a sample of visitors to Monomoy 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.**

**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"/> 0% Big game hunting                 | <input type="checkbox"/> 67% Hiking   | <input type="checkbox"/> 7% Environmental education (for example, classrooms or labs, tours) |
| <input type="checkbox"/> 0% Upland/Small-game hunting        | <input type="checkbox"/> 7% Bicycling   |  |
| <input type="checkbox"/> 0% Migratory bird/Waterfowl hunting | <input type="checkbox"/> 5% Auto tour route/Driving                                 | <input type="checkbox"/> 1% Special event ( <i>please specify</i> )<br><u>See Appendix B</u> |
| <input type="checkbox"/> 66% Wildlife observation            | <input type="checkbox"/> 6% Motorized boating                                       |  |
| <input type="checkbox"/> 56% Bird watching                   | <input type="checkbox"/> 5% Nonmotorized boating (including canoes/kayaks)          | <input type="checkbox"/> 17% Other ( <i>please specify</i> )<br><u>See Appendix B</u>        |
| <input type="checkbox"/> 1% Freshwater fishing               |   |  |
| <input type="checkbox"/> 12% Saltwater fishing               | <input type="checkbox"/> 28% Interpretation (for example, exhibits, kiosks, videos) | <input type="checkbox"/> 3% Other ( <i>please specify</i> )<br><u>See Appendix B</u>         |
| <input type="checkbox"/> 44% 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?

- 20% No
- 80% Yes → If yes, what did you do there? (Please mark **all that apply.**)
- |  |   |
|--|---|
| <input type="checkbox"/> 21% Visit the gift shop or bookstore    | <input type="checkbox"/> 8% Watch a nature talk/video/presentation                                |
| <input type="checkbox"/> 85% View the exhibits                   | <input type="checkbox"/> 63% Stopped to use the facilities (for example, get water, use restroom) |
| <input type="checkbox"/> 79% Ask information of staff/volunteers | <input type="checkbox"/> 6% 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	
19%	65%	31%	It was the primary purpose or sole destination of my trip.
50%	9%	39%	It was one of many equally important reasons or destinations for my trip.
31%	26%	30%	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**   330   number of miles

**Local**   17   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?

36% No (*skip to question #9*)

64% Yes → What **type of group** were you with on your visit? (*Please mark **only one.***)

95% Family and/or friends

0% Organized club or school group

2% Commercial tour group

3% 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

  1   number 17 years and under

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

44% Friends or relatives

8% Refuge website

14% Signs on highway

5% Other website (*please specify*) See Appendix B

2% Recreation club or organization

1% Television or radio

17% People in the local community

10% Newspaper or magazine

20% Refuge printed information (brochure, map)

13% 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.***)

34% Spring  
(March-May)

86% Summer  
(June-August)

20% Fall  
(September-November)

9% Winter  
(December-February)

11. How many times have you visited...

...this Refuge (including this visit) in the last 12 months?   5   number of visits

...other National Wildlife Refuges in the last 12 months?   3   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"/> 84% | Private vehicle without a trailer                             | <input type="checkbox"/> 1% | Refuge shuttle bus or tram       | <input type="checkbox"/> 8%  | Bicycle                               |
| <input type="checkbox"/> 1%  | Private vehicle with a trailer<br>(for boat, camper or other) | <input type="checkbox"/> 0% | Motorcycle                       | <input type="checkbox"/> 31% | 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"/> 9% | 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"/> 29% | Signs on highways  | <input type="checkbox"/> 6%  | Directions from Refuge website                        |
| <input type="checkbox"/> 22% | A GPS navigation system  | <input type="checkbox"/> 12% | Directions from people in community near this Refuge  |
| <input type="checkbox"/> 16% | A road atlas or highway map                                      | <input type="checkbox"/> 19% | Directions from friends or family                     |
| <input type="checkbox"/> 8%  | Maps from the Internet (for example,<br>MapQuest or Google Maps) | <input type="checkbox"/> 37% | Previous knowledge/I have been to this Refuge before  |
|                              |  | <input type="checkbox"/> 9%  | 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"/> 31%	<input type="checkbox"/> 14%	<input type="checkbox"/> 9%	<input type="checkbox"/> 32%	<input type="checkbox"/> 14%
...a bike that was offered through a Bike Share Program for use while on the Refuge?	<input type="checkbox"/> 27%	<input type="checkbox"/> 9%	<input type="checkbox"/> 11%	<input type="checkbox"/> 32%	<input type="checkbox"/> 22%
...a bus or tram that provides a guided tour of the Refuge with information about the Refuge and its resources?	<input type="checkbox"/> 26%	<input type="checkbox"/> 10%	<input type="checkbox"/> 8%	<input type="checkbox"/> 34%	<input type="checkbox"/> 22%
...a boat that goes to different points on Refuge waterways?	<input type="checkbox"/> 8%	<input type="checkbox"/> 4%	<input type="checkbox"/> 6%	<input type="checkbox"/> 36%	<input type="checkbox"/> 46%
...a bus or tram that runs during a special event (such as an evening tour of wildlife or weekend festival)?	<input type="checkbox"/> 26%	<input type="checkbox"/> 12%	<input type="checkbox"/> 14%	<input type="checkbox"/> 31%	<input type="checkbox"/> 18%
...an offsite parking lot that provides trail access for walking/hiking onto the Refuge?	<input type="checkbox"/> 10%	<input type="checkbox"/> 8%	<input type="checkbox"/> 10%	<input type="checkbox"/> 39%	<input type="checkbox"/> 33%
...some other alternative transportation option? ( <i>please specify</i> ) <u>See Appendix B</u>	<input type="checkbox"/> 13%	<input type="checkbox"/> 0%	<input type="checkbox"/> 0%	<input type="checkbox"/> 63%	<input type="checkbox"/> 25%

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

- 23% Yes       45% No       31% 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	
14%	15%	14%	49%	8%	Surface conditions of roads	2%	0%	6%	19%	74%	NA
13%	17%	13%	47%	10%	Surface conditions of parking areas	1%	0%	3%	13%	83%	NA
9%	7%	13%	44%	27%	Condition of bridges	3%	0%	16%	14%	67%	NA
4%	5%	1%	47%	42%	Condition of trails and boardwalks	2%	1%	1%	20%	76%	NA
5%	8%	3%	44%	41%	Number of places for parking	4%	14%	3%	30%	49%	NA
9%	10%	30%	38%	14%	Number of places to pull over along Refuge roads	3%	7%	48%	23%	20%	NA
8%	6%	14%	35%	38%	Safety of driving conditions on Refuge roads	2%	1%	16%	23%	58%	NA
6%	8%	11%	41%	34%	Safety of Refuge road entrances/exits	4%	2%	8%	24%	63%	NA
8%	8%	7%	40%	36%	Signs on highways directing you to the Refuge	5%	16%	13%	30%	36%	NA
9%	3%	13%	36%	40%	Signs directing you around the Refuge roads	5%	8%	18%	29%	39%	NA
4%	3%	3%	39%	50%	Signs directing you on trails	4%	12%	11%	30%	43%	NA
9%	3%	24%	35%	29%	Access for people with physical disabilities or who have difficulty walking	4%	15%	28%	29%	25%	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)?

25% Yes

75% No → How much time did you spend **in local communities** on this trip?  
                     5   number of hours      OR        7   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	Amount Spent in <u>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?

  3   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
15%	13%	14%	6%	11%	3%	15%	0%	3%	5%	14%

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	14%	Too low	86%	About right	0%	Too high	0%	Far too high	87%	Did not pay a fee <i>(skip to Section 4)</i>
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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.**

0%	Strongly disagree	5%	Disagree	9%	Neither agree or disagree	50%	Agree	36%	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%	0%	5%	34%	60%	NA
Overall, I am satisfied with the information and education provided by this Refuge about its resources.	3%	0%	4%	34%	59%	NA
Overall, I am satisfied with the services provided by employees or volunteers at this Refuge.	1%	1%	4%	32%	62%	NA
This Refuge does a good job of conserving fish, wildlife and their habitats.	0%	1%	4%	26%	69%	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
3%	7%	10%	55%	25%	Availability of employees or volunteers	1%	2%	4%	25%	68%	NA
1%	7%	8%	43%	41%	Courteous and welcoming employees or volunteers	1%	1%	6%	18%	74%	NA
1%	4%	8%	35%	53%	Knowledgeable employees or volunteers	1%	2%	7%	28%	62%	NA
1%	4%	6%	47%	42%	Printed information about this Refuge and its resources (for example, maps and brochures)	1%	8%	5%	31%	56%	NA
1%	4%	9%	52%	33%	Informational kiosks/displays about this Refuge and its resources	0%	6%	12%	29%	53%	NA
1%	6%	9%	51%	33%	Signs with rules/regulations for this Refuge	0%	2%	11%	33%	54%	NA
1%	6%	11%	52%	30%	Exhibits about this Refuge and its resources	1%	4%	10%	32%	53%	NA
3%	13%	20%	45%	19%	Environmental education programs or activities	1%	1%	31%	31%	35%	NA
2%	1%	7%	51%	38%	Visitor Center	0%	3%	11%	27%	59%	NA
0%	4%	6%	33%	58%	Convenient hours and days of operation	1%	1%	9%	21%	68%	NA
1%	1%	2%	31%	64%	Well-maintained restrooms	0%	2%	5%	20%	73%	NA
0%	2%	11%	44%	43%	Wildlife observation structures (decks, blinds)	0%	2%	15%	35%	48%	NA
0%	3%	10%	45%	42%	Bird-watching opportunities	0%	3%	12%	30%	55%	NA
0%	2%	6%	43%	49%	Opportunities to observe wildlife other than birds	2%	4%	11%	35%	48%	NA
1%	5%	10%	39%	45%	Opportunities to photograph wildlife and scenery	0%	2%	10%	27%	62%	NA
76%	5%	13%	3%	3%	Hunting opportunities	2%	2%	74%	2%	19%	NA
46%	11%	14%	14%	15%	Fishing opportunities	1%	3%	41%	21%	34%	NA
1%	1%	3%	42%	53%	Trail hiking opportunities	1%	2%	6%	35%	55%	NA
14%	9%	20%	36%	21%	Water trail opportunities for canoeing or kayaking	4%	3%	32%	35%	26%	NA
14%	10%	29%	33%	14%	Bicycling opportunities	5%	2%	48%	26%	19%	NA
18%	16%	38%	19%	9%	Volunteer opportunities	0%	0%	59%	19%	22%	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?

70% Yes

30% No

...have the primary mission of conserving, managing, and restoring fish, wildlife, plants and their habitat?

84% Yes

16% No

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

88% Yes

12% 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.	4%	2%	7%	36%	51%
We can improve our quality of life if we address the effects of climate change on fish, wildlife and their habitats.	4%	2%	8%	39%	48%
There is too much scientific uncertainty to adequately understand how climate change will impact fish, wildlife and their habitats.	25%	32%	11%	23%	9%
I stay well-informed about the effects of climate change on fish, wildlife and their habitats.	1%	12%	23%	50%	14%
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%	6%	16%	54%	21%
I take actions to alleviate the effects of climate change on fish, wildlife and their habitats.	4%	10%	23%	43%	20%
There has been too much emphasis on the catastrophic effects of climate change on fish, wildlife and their habitats.	38%	29%	15%	11%	7%
Future generations will benefit if we address the effects of climate change on fish, wildlife and their habitats.	1%	2%	10%	32%	55%
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.	4%	10%	30%	38%	17%

## 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?

93% Yes  7% No → If not, what is your home country? See Figure 4 in Report

2. Are you?  53% Male  47% Female

3. In what year were you born? 1955 (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)			
<input type="checkbox"/> 0%					<input type="checkbox"/> 5%				<input type="checkbox"/> 34%				<input type="checkbox"/> 61%						

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.**)*

- 1% American Indian or Alaska Native     1% Black or African American     96% White  
 2% Asian     1% 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 type="checkbox"/> 1% Less than \$10,000  | <input type="checkbox"/> 7% \$35,000 - \$49,999  | <input type="checkbox"/> 22% \$100,000 - \$149,999 |
| <input type="checkbox"/> 4% \$10,000 - \$24,999 | <input type="checkbox"/> 19% \$50,000 - \$74,999 | <input type="checkbox"/> 6% \$150,000 - \$199,999  |
| <input type="checkbox"/> 2% \$25,000 - \$34,999 | <input type="checkbox"/> 23% \$75,000 - \$99,999 | <input type="checkbox"/> 15% \$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.)?

  12   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 Monomoy 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?"

Special Event	Frequency
Took a chartered boat tour out of the refuge to see the area.	1

Other Activity	Frequency
Audubon Tour	1
Boat to Seals	1
Clamming	1
Dog walking	1
Enjoying the sand, water, and sun.	1
General Visit	1
Picnic	3
Rare bird alert	1
Seal tour	1
Seals	1
Shell fishing	1
Swimming	7
Visiting my cousin's bench.	1
Walking on the beach	2
Watching seals	6
Total	29

2 <sup>nd</sup> Other Activity	Frequency
Enjoying the view	1
Nature study	1
Sunbathing	1
Swimming	2
Total	5

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.*

Other Miscellaneous Primary Activities	Frequency
Enjoying the view	1
Fun	1
General Visit	1
Site seeing	1

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

Other Visitor Center Activity	Frequency
Bookstore	1
Entertain children	1
Parking	1
Quick walk with the staff	1
Rest and enjoy view	1
Seal Tour near Monomoy Island	1

Took a boat to see the seals	1
Visit Children's Area	1
Total	8

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?"

Other Group Type	Frequency
Audubon Birding Trip	1
Colleagues	1
Environmental	1
Total	3

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

Other Website	Frequency
AAA	1
Cape Cod Travel	1
Fly fishing forum.com	1
Google Earth	1
Google maps	1
google.co.uk/	1
Travel, don't recall actual site, maybe trip advisor	1
TripAdvisor	1
Total	8

Other Ways Heard about This Refuge	Frequency
AAA book	1
Area maps	1
Atlas of the Cape	1
Cape Cod Visitor Information	1
Cape Cod Visitor Magazines	1
Got there by chance.	1
Guidebook	1
Looking for a place to fish (Map, luck)	1
National Wildlife Brochure	1
Popular birding location	1
Seal tours	1
Seal Watch	1
Seasonal Magazine	1
Staff member	1
Stumbled upon it by accident when driving around	1
Tourist book	1
Visit cape cod phone app	1
We happened on it while exploring local roads.	1
Woman Artist working the Co-op at Chatham Village Gallery.	1
Word of mouth from others at Cape Cod.	1
Total	20

## Survey Section 2

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

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Other Forms of Transportation	Frequency
Kayak	1
Total	1

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

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Other Ways Found This Refuge	Frequency
Audubon Tour Guide	1
Boat shuttle	1
Brochure	1
Brochure of the town.	1
By accident. Didn't know it was here!	1
Directions from Visitor Center in Chatham, MA.	1
Found it by chance.	1
Guidebook	1
Informational Pamphlet for the boat group	1
Just luck	1
Local map	1
Magazine article	1
Staff member	1
Tour book	1
Tourist map of area	1
Total	15

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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
Bicycle path	1
Boat to Monomoy Island.	1
Car	1
Electric car	1
Electric golf cart	1
Horseback	1
I sometimes ride my bike.	1
This place does not need any of these.	1
Walking	1
Total	9

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 = 28)

Didn't know it was there, except by accident. Looks like a private road, etc.

For larger refuges, it would be really neat to make "waypoints" available for both trail and road navigation using GPS.

I go there to enjoy the scenery and to walk.

I was on crutches when we visited, but the great condition of the walkways and stairs made it very easy to get around.

I was somewhat unclear on exactly how to access this refuge. It seemed like we were entering a private neighborhood.

I'm a very selfish person when it comes to making this place easy to find or get to: the more people that find this beautiful and pristine place, the chances are great that it will not stay this way.

If possible, more parking spaces are needed, especially if there is a special event.

Monomoy is a very nice spot as it is now. Not crowded, with good restrooms, and a Visitor Center. It is an enclave in an otherwise crowded

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CAPE COD landscape. We go because it is beautiful and NOT well known!!!

Parking could be a real issue! Not accessible!

Parking is limited and could be an issue if visiting during a very busy time.

People with difficulty walking would not be able to use the stairs to the beach at this refuge. The views from above the beach were beautiful.

Poison ivy was common on the trails.

Restrooms were clean.

Since Monomoy Island does not have roads and is a barrier island, the questions above are not very relevant. The character of the refuge depends on maintaining its natural state. Keep it wild!

Surreal refuge. Transportation is not as relevant here as it is at other parks.

The parking lot was very small and crowded and the signage was weak and uninformative.

The ramp leading to the doorway at the Visitor Center was helpful for the 90 year-old relative who came with me.

The stairs leading to the beach are difficult for people with walking challenges.

The trail to the beach on the northeast side is dangerous and in poor condition. It is important to fix this. The other staircase is too steep for older visitors.

There aren't any roads on this refuge (Monomoy island), so that is why I answered "neither."

There need to be more signs to help find the refuge.

There was a sign on the road leading to the refuge that said, "Private- Keep out." That would have made me turn around and not go to the refuge, except that our guide knew to ignore it. The sign should be removed so people know that they can go on the road to get to the refuge. The refuge needs more signs.

This Refuge is an important shore bird sanctuary with wild beach and dunes. There are no roads or transportation other than walking and it is essential that it stays that way.

Trail signs could be larger. We were confused about the signs close to the refuge entrance which said "private property." We were not sure whether or not we were allowed to enter.

Trails were in very good shape!

Very few parking spaces and they are often all filled.

Visitor Center access over private land.

We like hard access areas that prevent over-crowding, but we are also uncertain - please: just don't install a merry-go-round.

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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 = 44)

A real gem. Great beach access and nice facilities.

A very nice refuge! I would visit again.

Bathroom facilities were in great shape.

Beautiful refuge!

Besides asking me to complete this survey, the staff did very little to engage me or educate me on the services and opportunities of the refuge. To be honest, I have no idea what the refuge offers besides the paid guided tour I went on, which was conducted by an outside vendor.

Best to maintain what is there and leave everything natural.

Boating to various places in the refuge, many times boats are not available.

Exhibits were well displayed and informative. A more recent visit with young children proved to be enjoyable, as well as a great learning experience; just a good way to teach young ones about the value of our wildlife in general.

Extremely satisfied with the Monomoy National Wildlife Refuge. The staff is very friendly and has good knowledge about the refuge.

Hard to find.

I go to this refuge only once a year for a week, but I go to the Frank Wildlife Refuge on Plum Island all summer. I get a season pass for \$20.

I greatly enjoyed our visit. I was part of a group of four friends vacationing to the Cape in early June before the season. We visited this refuge spur-of-the-moment and enjoyed our hike. We did not take time to go in the Visitors Center, but will probably stop by next year. We just loved the beauty of the whole area.

I wish the volunteers and staff were more knowledgeable. I called a couple of times before visiting, but got no answer.

I would enjoy lectures about wildlife seen on the refuge (such as unusual birds). What was the large green larval form in a jar? It suddenly disappeared.

I would like to see an interactive display that would show shifting sand/changes more clearly (e.g., maybe a plastic overlay arrangement).

It is a splendid and well maintained refuge. Like many families, we come to the area for a week or two. It would be nice to easily enroll our kids in opportunities there.

It is very well kept by the workers.

It was a cloudy, cool day, but the staff made us feel welcome. An available public boat service would be wonderful.

It was an enjoyable experience.

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Monomoy is a very nice get away spot. Please don't spoil it.

Needed clearer instructions to find the trails and especially the pedestrian public access to the refuge.

Off-hour parking and access to the facility/area is VERY important.

Once on our hike on the beach, we were unable to find markings indicating the trails we wanted to follow and explore. It was very foggy and visibility was limited, so we might have missed the signage due to the fog. Better signage would have enhanced our visit, as we could only see 30-50 feet around us.

Please do not change anything at this location for it would change the whole refuge.

Please improve signage to the entrance of the refuge. Improve boat access to Monomoy Island and canoe access to Morris Island.

Staff and volunteers were very professional, courteous, and informative.

Staff was very helpful. The weather was bad, and we spent more time in the Visitors Center asking questions than I normally would spend. We enjoyed our time with the staff.

Staff, site and facilities were excellent.

The ability to swim in water at the reserve was great. We had good opportunities to see birds at the bird feeder, even hummingbirds, and appreciated that very much.

The green flies are out in mass. I would have appreciated more warning and helpful hints, as I was badly bitten.

The Monomoy National Wildlife Refuge brochure was poorly illustrated and there were few markers to tell you distances and pathways. Otherwise, great area!

The refuge didn't have too many "in your face" regulations (and that is a GOOD THING!) since a big part of hiking in nature is letting your feet take you where they want to go (without destroying truly fragile environments).

The staff and volunteers are very knowledgeable and pleasant.

The volunteers at the Visitors Center did a wonderful job! The exhibits were a little outdated.

There was no parking after sunset.

This location is a wonderful place!

Very happy with the unspoiled peacefulness of this refuge; one of our favorite places to be. Love it just the way it is!

Very interesting and everything was well maintained.

Very satisfied!

Volunteers were friendly and knowledgeable. Signage on trails going away from the water into marshy areas was not very good or easy to see.

We always enjoy it.

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We enjoyed our visit immensely and look forward to a longer visit this fall. Thanks to the two volunteers we spoke with.

We were very happy to learn of the wildlife refuge and its opportunities. We were in the Art Gallery and an artist told us of the refuge. Thank you to all the volunteers.

Would like a gift shop with items related to the site, as well as local arts and crafts.

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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 = 119)

A "natural" refuge - natural habitat is utilized.

Always interesting exhibits, informative staff, and beautiful scenery.

Awesome place to observe nature and animals in their natural habitat.

Beautiful scenery and the opportunity to observe nature makes it unique.

Beauty of the views; clean beaches.

Because other recreational facilities get overrun and rundown without anyone to really care for them. Here, people care about the wildlife and plants making it as close to the way nature meant it to be. Educational programs for the young are a great way to possibly keep these areas this way.

Better opportunities to view wildlife.

Birding opportunities and wildlife observations!

Care is being taken to restore the area.

Cleanliness of water, beauty, birding (on the Atlantic Migratory Route), sandy beaches, varied habitat, observation by boating, and privacy.

Coastline and seals. Secluded beach. Hiking on the beach.

Easy access and free. Nice place to bring family for no cost.

Education along with the experience. Emphasis on conserving and preserving.

Education opportunities.

Education, volunteer guides, and an emphasis on wildlife.

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Efforts to improve the lives of wildlife.

Even though I didn't have enough time to stay longer at the refuge, I had an opportunity to observe and learn about their unique species (birds and wildlife). All the refuges that I have visited provide good information and facilities for visitors. I'm a master student of conservation biology; therefore, I really love to know about their education and conservation programs.

Experiencing habitats in which plants and wildlife are protected is quite educational and enjoyable.

Extent of open space, access by boat, shore birds, fishing, kayaking, snorkeling, and swimming.

Focus on wildlife preservation and viewing rather than scenic splendor or active recreational activities.

Generally consistent, enjoyable and worth my time and effort. However, I do tend to avoid places where hunting is allowed.

Great fishing and wildlife!

Great staff.

Home to many seals and birds. Great resource for aquatic marine ecosystems.

I am a birder, and I regularly visit NWRs.

I know when I am at a refuge that the wildlife is present and protected and that observation points are carefully chosen. I can (hopefully) spot, observe, and photograph the wildlife without unnecessarily disrupting their activities.

I liked how untouched and undeveloped it was.

I live in suburbia where wildlife is scarce - birds, squirrels, ground hogs, deer, etc. So, the opportunity to see and photograph different species in natural settings is what I'm seeking.

I really enjoyed seeing different landscapes, animals, and birds than what we are used to seeing where we live.

I saw a lot of wildlife and seals that would otherwise not have been seen.

Importance of wildlife management and conservation, plus education to the general public. Knowledge and awareness is a good thing.

Important habitat is preserved.

In beautiful and very convenient location.

It is a place where you can enjoy the natural beauty of an area and not have it commercialized. This refuge is perfect as it is to quietly enjoy the day.

It preserves the character of its location and protects natural resources.

It should be in its natural state, and people should enjoy and respect that.

It speaks to preservation of our heritage, which is about more than just people.

It still affords an opportunity to see birds and animals in their natural habitat, which is slowly disappearing.

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It was great to learn about the seals and the view was amazing!

It was quiet, calm, and relaxing while viewing wildlife.

Keys in on children and their education about the environment, as well as the animals and their local habitat.

Lack of camping areas. Tends to be a bit more wild.

Location is unique.

Location.

Morris Island is a magnificent natural place with open sky, water, birds, and fish. It's a beautiful place to walk, and it is very natural, and usually has very few people. It's a gift!

Nature and exposure to wildlife are the main reasons we live in Chatham! The refuge helps to preserve both!

Nature at its best.

Nature!!! Undeveloped. Uncivilized. The ability to get away from civilization for a brief respite. "GO TO THE BEAT OF A DIFFERENT DRUMMER."

Nice easy access to park.

Observe the natural beauty and experience the birds, seals, and other life in water such as the unique horseshoe crab.

Ocean and sea life.

Ocean birds, upland birds, and ocean views make it unique.

One can experience nature and scenery in its primitive and natural state without a lot of noisy people activities.

Only mother nature would be able to destroy the beauty of the land and sea.

Opportunity to enjoy walking along shorelines without hordes of people as distraction.

Opportunity to view natural surroundings in a pristine and well managed environment.

Preservation of important ecosystems and little impact by man-made facilities.

Preservation of wildlife: gives us a chance to see them.

Preserving nature and its beauty. Respect for the environment.

Pristine nature, beautiful views, abundant wildlife, and it is simply amazing to see the seals.

Protected wildlife.

Proximity to harbor and ocean, gorgeous views, pleasant hiking, and peaceful. Have enjoyed witnessing large flocks of migratory birds and

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beautiful sunsets.

Public access.

Public Lands.

Refuges must stay open for public use. They cannot be sold for housing lots like state lands.

Refuges provide opportunities to visit sites that are important to wildlife, especially water birds. They are managed primarily for the benefit of fish and wildlife populations.

Sea life that can be observed. Fishing. Hiking along the beach.

So beautiful!

Space without a lot of people. Access to good fishing waters.

Staff was passionate about their mission of conserving and restoring wildlife and habitat. Good to see what they are doing and how actively engaged they are.

Tends to be the most "natural."

The ability to preserve our natural environment and educate others to do so as well.

The ability to walk for miles and see such an array of birdlife as well as some sea life. Also, the boat trip to explore an island of its own surpassed my expectations.

The area is untouched and preserved, and the diversity of animals and plants there are amazing.

The atmosphere at Monomoy National Wildlife Refuge is preservation and respect for nature as evidence by signage, staff, and other visitors who were like minded.

The beauty.

The diversity makes it unique.

The educational aspect of the refuges is huge. It was comparable to a State Park.

The essence of them is not for marketing or sales, but for the enjoyment of all nature lovers.

The fact that this refuge conserves both land and water (marine).

The genuine unspoiled environment and the creatures contained there.

The information and facilities were excellent. I also enjoyed Provincetown.

The location and what it has to offer with respect to wildlife and scenery.

The location on the water was outstanding!

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The natural state. Freedom to roam. Minimal structures to visit.

The opportunity to access a relatively remote wildlife refuge.

The opportunity to view nature in a natural and safe setting.

The potential for educational experiences in the wild and the preservation of wildlife.

The primary mission of the refuge is preservation of flora, fauna, and habitat, which is crucial and unique. Our enjoyment of them is icing on the cake, but also provides the unparalleled educational opportunities that are key to more conservation and support of the U.S. Fish and Wildlife and Refuge System.

The specific lands they occupy, which are generally places that could have been lost to commercial development but are available for us to use. Very important.

The staff and volunteers have a lot of information on any related nature topic to share - a great resource!

The unique terrain and habitats.

The volunteers explained the opportunities available to individuals. The walkways were well established and message boards were helpful with the explanations along with the well labeled areas, restrooms, and parkways.

Their mission is clearer than many other public lands.

Their size, environmental diversity and accessibility for people with limited mobility.

They are more about conserving and less about recreation. Very important.

They are non-commercialized, which attracts people who are willing to walk, hike, bike, and clean up after themselves. Often quiet with wonderful scenery.

They are quiet, clean and welcoming.

They are special places where one can enjoy a piece of unspoiled space. I love the focus on the natural world.

They have potential. This particular refuge lacked opportunities. The hiking trail started out as a deck with steps down to a bench area, then there were no signs. We did not know which way to walk. Even if there is no wildlife present at a time, written information on stands with pictures should be inserted along the trail. When we left this refuge, my husband and I thought, is that all there is?

They offer wonderfully protected areas for migratory and breeding birds. Opportunities to walk, hike, bike, boat, and see birds and other animals. I am most familiar with Parker River and Plum Island, but now know about Monomoy!

They protect our country's wilderness areas!

They provide an opportunity to see wildlife in their natural habitats with reasonable access opportunities. These refuges also provide areas for wildlife where they can exist in their natural environments without civilization encroachment.

They provide learning opportunities about saving endangered species and local flora and fauna.

They try to preserve the natural state of the refuges.

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Tidal changes, beauty of the beach and shoreline grasses, etc., easy access from town, patterns in the sand left by tides, tidal pools.

Uninhabited and completely undeveloped island allows the wildlife and land to be truly natural. Unfortunately, people need signs every 50 feet around the perimeter warning them to stay off. It seemed there were far too many robust seagulls that out competed less robust birds. You could call this place "Seagull Island."

Unique seashore area.

Very conscious of the environment.

Very special to the area - very interesting.

Visitor Center.

We are from Australia and found the coastal environment in your area to be interesting and different.

We enjoyed seeing the natural environment in an area we had never seen before. We had never been to Cape Cod and it was interesting to see the wildlife and native flora.

Well informed personnel are not always present elsewhere.

Well maintained and professionally staffed.

Wildlife and education.

Wildlife observation.

With all the land on Cape Cod being built upon, it's good to see how beautiful it was in the past so our children can enjoy it for years to come!

You can hike, bike, fish, and even visit wildlife by chartered boat, yet it is not a commercialized environment.

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#### Additional Comments (n = 23)

Distinguish more clearly between different parts of the Refuge, e.g., South Beach and Monomoy. The Refuge is a precious resource and I'm glad USFWS is there to protect it.

Global warming is controversial and somewhat political. This location is a gem which we knew nothing about. Very nice. Hard to find. We found it by accident! Signage very poor to guide people there.

I am an Eagle Scout. Originally I went to school for wildlife management. I am an avid fisherman and I used to hunt. I spend as much time as I can outdoors and I am very interested in preserving our wildlife. I have a boat and I try to get out on our local lakes as much as I can. Therefore, I have great interest in the quality of our natural resources and access to them. I also have a 10 year old daughter whom I like spending time with and enjoying activities and resources we have available to us. Thank you for the great work you do for all of us! (Signed)

I can't picture adding more transportation options to this refuge without messing it up. Maybe easier opportunities to see it by boat, but local businesses provide that conveniently and affordably. For literature, how about some guides for what to look for in the specific months and seasons? Thanks!

I found the personnel at the Visitor Center most friendly and helpful and I learned a few things about horseshoe crabs that I hadn't known. It was

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a cloudy day, but we enjoyed hiking along the beach and on the trails. The bird watching was splendid!

I regularly visit National Wildlife Refuges. I wish the Federal government would add more refuges and increase funding to the ones we have.

I thoroughly enjoyed this visit and other past visits to refuges and parks and look forward to future trips!

I visited the Monomoy National Wildlife Refuge and it was beautiful and exciting. I want to go back and take the boat trip to see the seals. We didn't stay long on the day we visited because we had our dog with us, so we plan on returning. Thank you.

I was impressed that the folks that greeted us in the Visitor Center were also actively involved in management and research.

I'm glad you are soliciting feedback to make improvements.

It would be nice if the information on the boat tours/schedules was marked more clearly on the beach.

Keep up the good work; you're needed and necessary.

My husband came to Chatham in 1948. We married in 1958. We had two children and they continue to come to Chatham and Monomoy with their children. We bought a second home in Chatham in 1970. In 1991, we built our new house. My husband passed away in 2009. We all enjoy the natural beauty all around the coast. Monomoy is exceptional. Hopefully it will always be there for all to enjoy. (Signed)

Thank you for all of the hard work you are doing.

Thank you for maintaining such a beautiful refuge!

Thank you for the work you have chosen to do: preserving natural beauty.

Thanks for maintaining this fantastic place. :)

The staff was outstanding. We were not able to travel to Monomoy Island due to conditions.

This is a very small, local wildlife refuge where we had a picnic.

This is a wonderful place. I'm thankful and glad that places like this exist. I hope someday I can volunteer and help maintain these beautiful places. THANK YOU!!!!!!

Very nice refuge... just get a better sign to guide visitors into the refuge. There was confusion because there is a sign that says private property, and it appears that this is a private neighborhood and you should turn around. The car in front of us did turn around.

We love the refuge.

We were somewhat disappointed as the literature described this as a bird sanctuary, but we did not see one bird! Perhaps the literature should be more specific.