

National Park Service U.S. Department of the Interior

The Visitor Services Project



# BISCAYNE NATIONAL PARK Visitor Study

### Spring 2001

### Report 125

**Cooperative Park Studies Unit** 



NATIONAL PARK SERVICE

National Park Service U.S. Department of the Interior

**The Visitor Services Project** 

## **Biscayne National Park**

### Visitor Study Spring 2001

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Visitor Services Project Report 125

February 2002

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#### Visitor Services Project Biscayne National Park Report Summary

- This report describes the results of a visitor study at Biscayne National Park during March 3-11, 2001. A total of 605 questionnaires were distributed to visitors. Visitors returned 380 questionnaires for a 62.8% response rate.
- This report profiles Biscayne National Park visitors. A separate appendix contains visitors' comments about their visit. This report and the appendix include summaries of those comments.
- Thirty-three percent of visitor groups were groups of two. Thirty-eight percent of the visitor groups were family groups. Thirty-one percent of visitors were aged 36-45.
- United States visitors were from Florida (80%), Pennsylvania (2%), Michigan (2%), and 27 other states and Washington, D.C. Nine percent of all visitors were international, with 45% from Canada, 14% from Cuba, and 8% from Germany.
- Most visitor groups (77%) spent less than a day at the park and 19% spent one or two days. Of those groups that spent less than a day at the park, 30% spent seven or more hours.
- On this visit, the most common activities were nature viewing (53%), walking/ hiking (48%) and fishing (31%).
- Previous visits (64%), friends or relatives (38%), and travel guides/ tour books (13%) were the most used sources of information about the park prior to visiting.
- Fifty-six percent of visitor groups reported that visiting Biscayne National Park was a primary reason for visiting the area, followed by boating (49%).
- The most commonly visited sites in the park were Elliot Key (34%), Boca Chita Key (33%), Dante Fascell Visitor Center (31%) and Black Point Marina (26%).
- In regard to the use, importance and quality of visitor services and facilities, it is important to note the number of visitor groups that responded to each question. The services that were most used by 335 respondents were the restrooms (76%) and parking (58%). According to visitors, the most important services were campgrounds (93% of 40 respondents) and docks (92% of 167 respondents). The highest quality services were the visitor center (93% of 112 respondents) and the visitor center video (92% of 50 respondents).
- Seventy-two percent of visitor groups indicated that recreational fishing is an appropriate activity in Biscayne NP, 13% indicated it was not, and 15% were not sure. Forty-five percent of visitor groups indicated that additional controls should be placed on fishing activities as the number of recreational fisherman and number of fish harvested increase with increasing numbers of visitors.
- Eighty percent of visitor groups rated the protection of water quality and flow as "extremely important." Seventy-nine percent of visitor groups rated coral reef protection as "extremely important."
- The average visitor group expenditure was \$275. The average per capita expenditure was \$85. The median visitor group expenditure (50% of group spent more, 50% spent less) was \$85. Sixteen percent of visitor groups spent no money and 41% spent between \$1 and \$100 in total expenditures in Biscayne NP. Of the total expenditures by groups, 22% was for gas and oil and 19% was for groceries and take-out food.
- Eighty-eight percent of visitor groups rated the overall quality of visitor services at Biscayne National Park as "very good" or "good." One percent of groups rated the overall quality of visitor services as "very poor."

For more information about the Visitor Services Project, please contact the University of Idaho Cooperative Park Studies Unit; phone (208) 885-7129 or 885-7863.

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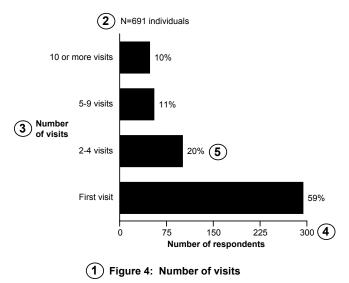
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#### INTRODUCTION

This report describes the results of a study of visitors at Biscayne National Park, also referred to as Biscayne NP. This visitor study was conducted March 3-11, 2001 by the National Park Service (NPS) Visitor Services Project (VSP), part of the Cooperative Park Studies Unit at the University of Idaho.

A *Methods* section discusses the procedures and limitations of the study. A *Results* section follows, including a summary of visitor comments. Next, an *Additional Analysis* page helps managers request additional analyses. The final section has a copy of the *Questionnaire*. The separate appendix includes comment summaries and visitors' unedited comments.

Most of this report's graphs resemble the example below. The large numbers refer to explanations following the graph.





- 1: The figure title describes the graph's information.
- Listed above the graph, the 'N' shows the number of visitors responding and a description of the chart's information. Interpret data with an 'N' of less than 30 with CAUTION! as the results may be unreliable.
- 3: Vertical information describes categories.
- 4: Horizontal information shows the number or proportions in each category.
- 5: In most graphs, percentages provide additional information.

#### METHODS

#### Questionnaire design and administration

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The questionnaire for this visitor study was designed using a standard format that has been developed in previous Visitor Services Project studies. A copy of the questionnaire, and the Spanish translation, are included at the end of this report.

Interviews were conducted with, and questionnaires were distributed to, a sample of visitors who arrived at Biscayne National Park during the period from March 3-11, 2001. Interviews were conducted in English and Spanish. Visitors were sampled at 8 locations (see Table 1) with 576 English and 29 Spanish questionnaires distributed.

Location			Question	naires	
	tal num listribu			•	h Spanish % ted returned
Dante Fascell Visitor Center	204	34	71	8	25
Boca Chita Key	92	15	70	6	33
Black Point Marina	68	11	53	1	0
Elliot Key	67	11	16	2	100
Crandon Park Marina	53	9	42	6	17
Moored boats	49	8	55	0	0
Homestead Bayfront Marina	36	6	58	1	100
Matheson Hammock Marina	36	6	58	5	40
GRAND TOTAL	605	100	) n/a	29	n/a

#### Table 1: Questionnaire distribution locations

Visitor groups were greeted, briefly introduced to the purpose of the study, and asked to participate. If visitors agreed, an interview, lasting approximately two minutes, was used to determine group size, group type, and the age of the adult who would complete the questionnaire. These individuals were then given a questionnaire and asked their names, addresses and telephone numbers in order to mail them a reminder/thank you postcard. Visitor groups were asked to complete the questionnaire during or after their visit and then return it by mail. Two weeks following the survey, a reminder-thank you postcard was mailed to all participants. Replacement questionnaires were mailed to participants who had not returned their questionnaires four weeks after the survey. Seven weeks after the survey, second replacement questionnaires were mailed to visitors who still had not returned their questionnaires. Questionnaire design and administration (continued)

Data analysis

Returned questionnaires were coded and the information was entered into a computer using a standard statistical software package—Statistical Analysis System (SAS). Frequency distributions and cross-tabulations were calculated for the coded data, and responses to open-ended questions were categorized and summarized.

This study collected information on both visitor groups and individual group members. Thus, the sample size ("N"), varies from figure to figure. For example, while Figure 1 shows information for 369 visitor groups, Figure 3 presents data for 1,276 individuals. A note above each graph specifies the information illustrated.

Occasionally, a respondent may not have answered all of the questions, or may have answered some incorrectly. Unanswered questions result in missing data and cause the number in the sample to vary from figure to figure. For example, although 380 questionnaires were returned by Biscayne National Park visitors, Figure 1 shows data for only 369 respondents.

Questions answered incorrectly due to carelessness, misunderstanding directions, and so forth turn up in the data as reporting errors. These create small data inconsistencies.

#### Sample size, missing data and reporting errors

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Limitations	Like all surveys, this study has limitations that should be			
	considered when interpreting the results.			
	1. It is not possible to know whether visitor responses reflect			
	actual behavior. This disadvantage applies to all such studies and is			
	reduced by having visitors fill out the questionnaire soon after they visit			
	the park.			
	2. The data reflect visitor use patterns of visitors to the			
	selected sites during the study period of March 3-11, 2001. The			
	results do not necessarily apply to visitors during other times of the			
	year. 3. Caution is advised when interpreting any data with a sample size of less than 30, as the results may be unreliable.			
	Whenever the sample size is less than 30, the word "CAUTION!" is			
	included in the graph, figure or table.			
Special	Weather conditions during the visitor study were typical of			
conditions	March in the Biscayne area, with warm, sunny days, and the			
	occasional thunderstorm. High winds and cold temperatures occurred			
	on some days, possibly decreasing the number of visitors to the park.			

#### RESULTS

At Biscayne National Park, 630 visitor groups were contacted,	Visitors
and 605 of these groups (96%) accepted questionnaires.	contacted
Questionnaires were completed and returned by 380 visitor groups,	
resulting in a 62.8% response rate for this study.	

Table 1 compares age and group size information collected from the total sample of visitors contacted with that from those who actually returned questionnaires. Based on the variables of respondent age and visitor group size, non-response bias was judged to be slightly significant. The ages and group sizes reported by actual respondents were higher than the ages and group sizes reported during the initial interview. This may be due to underreporting of both variables during the initial interview and that visitors interpreted the questions differently. Younger visitors and smaller groups are underrepresented. Group size and age data should be treated with some caution, and other data that may differ by age or group size should be examined carefully.

Variable	Total sample		Actual respondents	
	Ν	Avg.	N	Avg.
Age of respondents	603	42.5	361	45.2
Group size	600	3.8	371	5.8

### Table 2: Comparison of total sample and<br/>actual respondents

#### Demographics

Figure 1 shows visitor group sizes, which ranged from one person to 63 people. Thirty-three percent of visitor groups consisted of two people, while another 20% consisted of three people. Thirty-eight percent of visitor groups were made up of family members, 29% were made up of friends, and 24% were made up of family and friends (see Figure 2). Groups listing themselves as "other" for group type included fishing guides and Boy Scout groups. Fifty-eight percent of visitors were male, and 42% were female (see Figure 3).

Most visitor groups (88%) preferred to speak and write English, followed by Spanish (6%) and French (3%). "Other" languages visitors preferred to speak and write included: Japanese, Dutch, Portuguese, Italian, Russian, Italian, and Swedish.

## Demographics (continued)

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Thirty-one percent of the visitors were in the 31-45 age group and 21% were in the 51-65 age group (see Figure 6). Another 11% of visitors were in the 10 or younger age group. Forty-nine percent of visitor groups earned \$40,000 or less, while 33% earned between \$40,000 and \$80,000. Seventy-five percent of visitors did not identify themselves as of Hispanic or Latino ethnicity (see Figure 7). Ninetyfive percent of visitors identified themselves as White, 2% as Asian, and 2% as Black or African American (see Figure 8).

Visitors were asked to list the number of visits they had made to the park during the past 12 months (including this visit) and also from two to five years ago. Thirty-two percent of visitors indicated they had visited only once in the past 12 months, while another 69% said they had visited more than once (see Figure 9). During the past five years, 43% had visited 10 or more times (see Figure 10).

International visitors to Biscayne National Park comprised eleven percent of the total visitation and the countries most often represented were Canada (45%), Cuba (14%) and Germany (8%), as shown in Table 3. The largest proportions of United States visitors were from Florida (80%), Pennsylvania (2%), and Michigan (2%). Smaller proportions of U.S. visitors came from another twenty-seven states and Washington, D.C. (see Map 1 and Table 4).

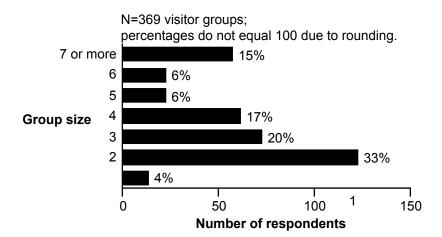
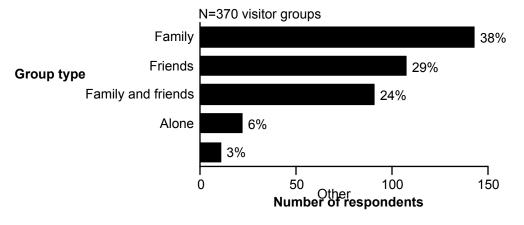
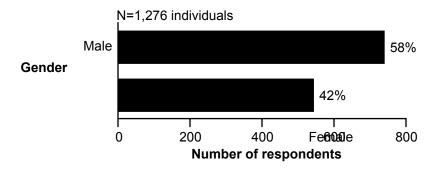
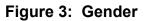


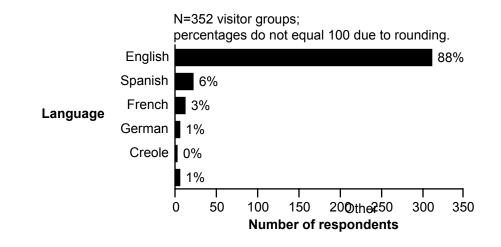
Figure 1: Visitor group sizes













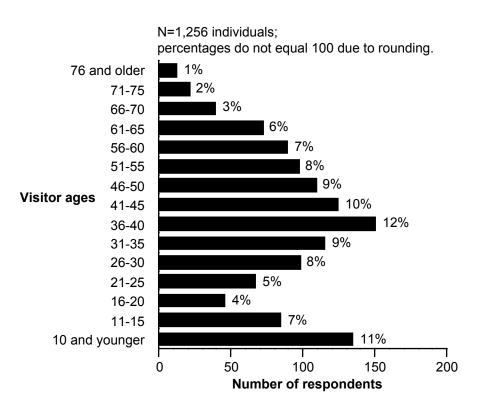


Figure 5: Visitor ages

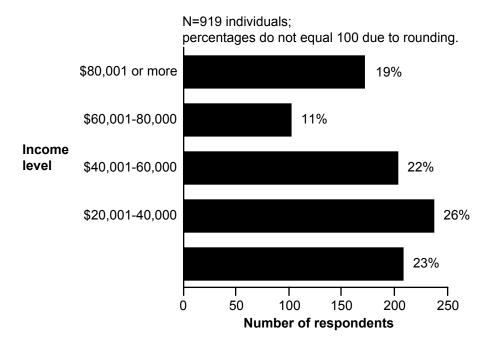
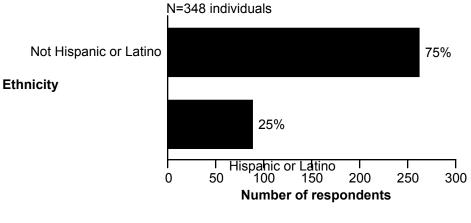
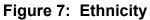
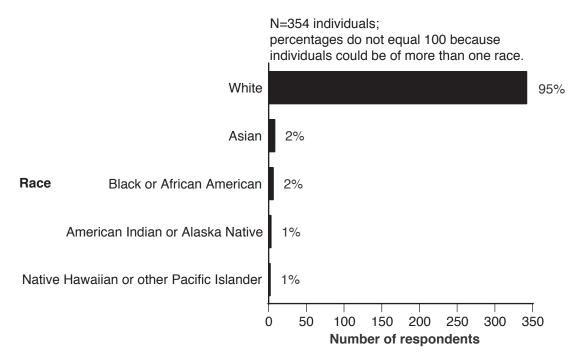
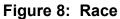


Figure 6: Income level









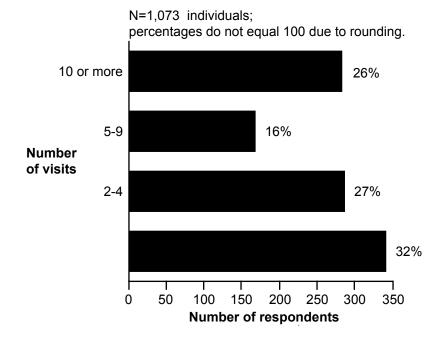


Figure 9: Number of visits during past 12 months

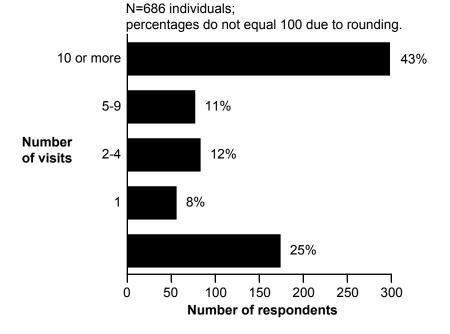
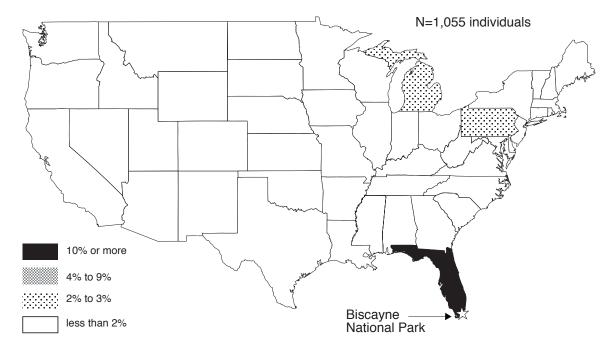


Figure 10: Number of visits during past 2-5 years

Country	Number of individuals	Percent of Int'l visitors	Percent of total visitors
Canada	45	41	3
Cuba	14	13	1
Germany	8	7	1
England	7	6	1
Ecuador	4	4	<1
Bahamas	3	3	<1
Brazil	3	3	<1
Jamaica	3	3	<1
Peru	3	3	<1
Argentina	2	2	<1
Dominican Republic	2	2	<1
El Salvador	2	2	<1
Switzerland	2	2	<1
Trinidad/ Tobago	2	2	<1
Ukraine	2	2	<1
Venezuela	2	2	<1
5 other countries	5	5	<1

# Table 3: International visitors by country of residenceN=109 individuals;percentages do not equal 100 due to rounding.



Map 1: Proportion of United States visitors by state of residence

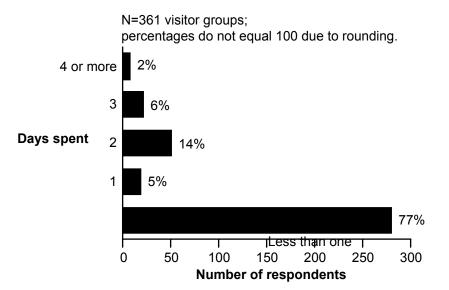
## Table 4: United States visitors by state of residence N=1,055 individuals;

Percentages do not equal 100 due to rounding.

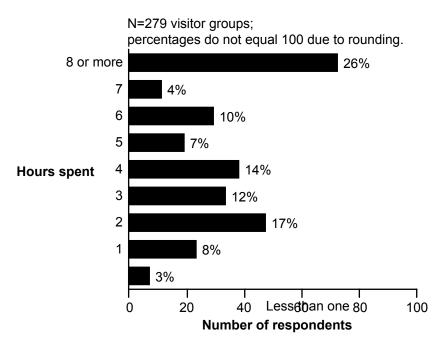
State	Number of individuals	Percent of U.S. visitors	Percent of total visitors
Florida	847	80	73
Pennsylvania	21	2	2
Michigan	17	2	1
New Hampshire	14	1	1
North Carolina	13	1	1
New York	13	1	1
Massachusetts	8	1	1
Colorado	7	1	1
Texas	7	1	1
Washington	7	1	1
20 other states and Washington D.C.	61	6	5

#### Length of stay

Visitor groups were asked how much time they spent at Biscayne National Park. Seventy-seven percent of visitor groups spent less than one day at the park and 19% spent one or two days (see Figure 11). Of the groups that spent less than a day at the park, 50% reported that they spent from two to five hours at the park while 40% spent six hours or more (see Figure 12).









Activities

Figure 13 shows the proportions of visitor groups that participated in a variety of activities at Biscayne NP. The most common activities were nature viewing (53%), walking/ hiking (48%), and fishing (31%). Visitor groups were also asked to specify certain types of activities they participated in. For example, nature viewing had separate categories of birding, fish/ coral, and general scenery. Figure 15 shows that 76% of visitors viewed general scenery, 41% viewed fish/ coral, and 33% went birding.

In addition, visitor groups were asked to indicate in which part of the park they had participated in the activities. As shown in Figure 16, South Biscayne Bay was the most common place visitors went birding (32%), followed by the Islands (27%) and the mainland (23%).

Figures 14 through 38 show the activities that visited participated in and the locations for those activities. Other fishing activities as listed by visitor groups were food fishing and bottom fishing. "Other" activities listed by visitor groups were sunbathing, meeting friends, and playing frisbee.

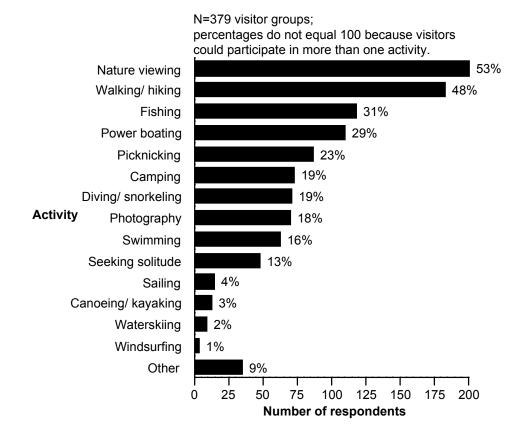
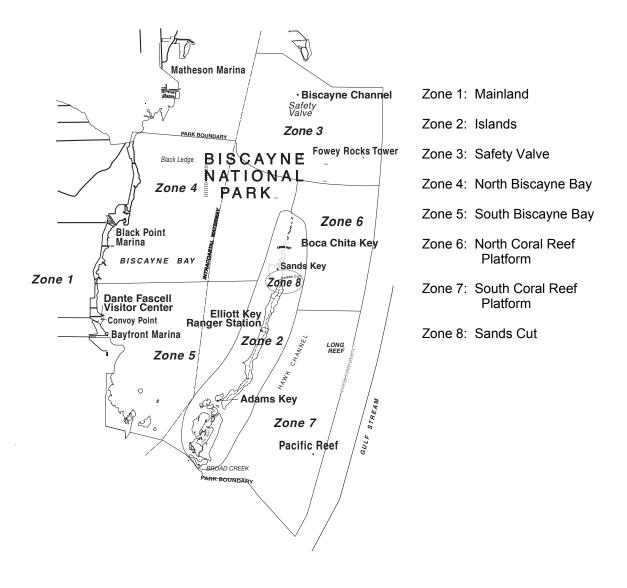


Figure 13: Visitor activities



Map 2: Park zone map used in questionnaire

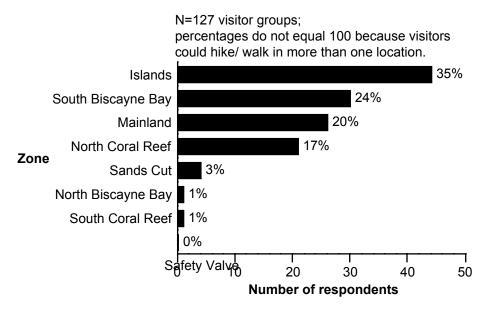


Figure 14: Walking/ hiking locations

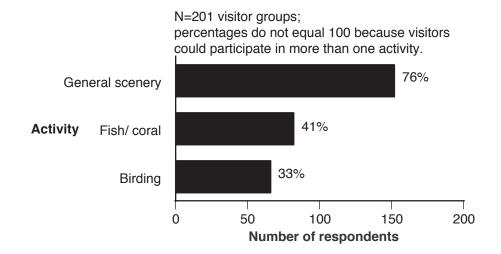
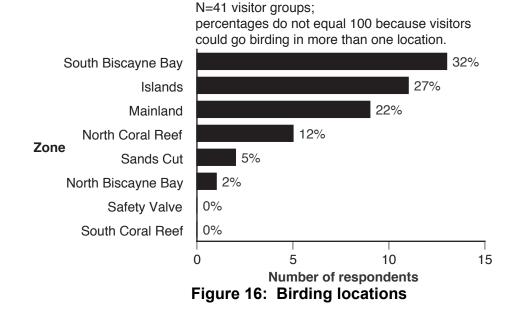


Figure 15: Nature viewing activities



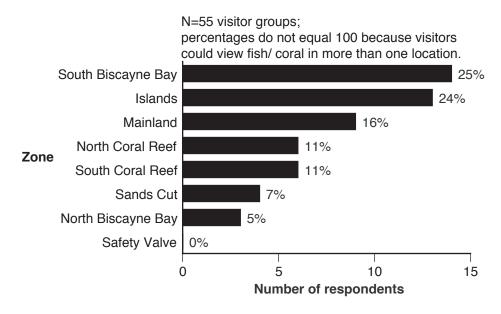


Figure 17: Fish/ coral viewing locations

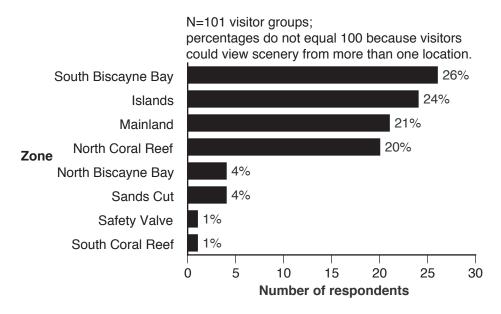


Figure 18: General scenery viewing locations

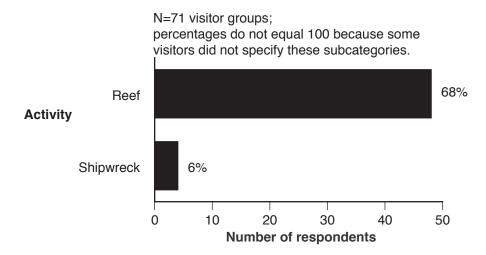


Figure 19: Diving/ snorkeling activities

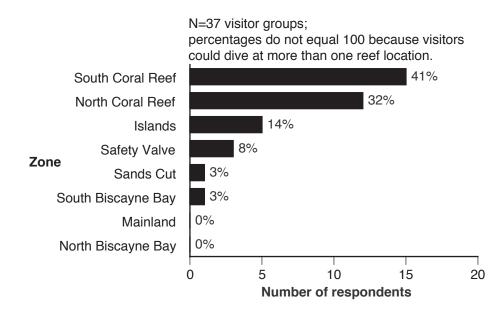


Figure 20: Reef diving/ snorkeling locations

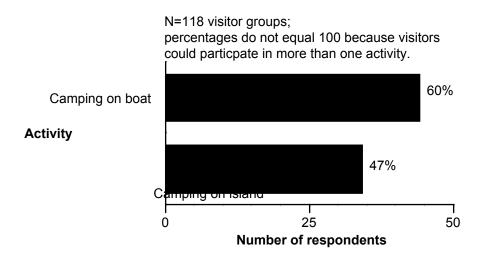
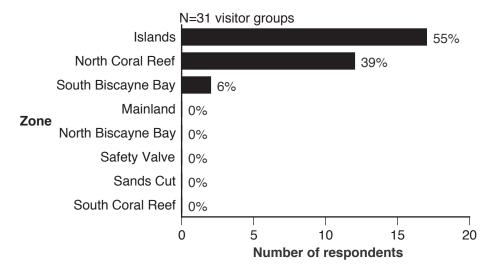
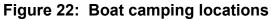


Figure 21: Camping activities





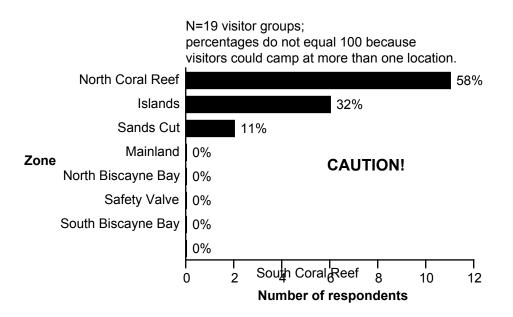


Figure 23: Island camping locations

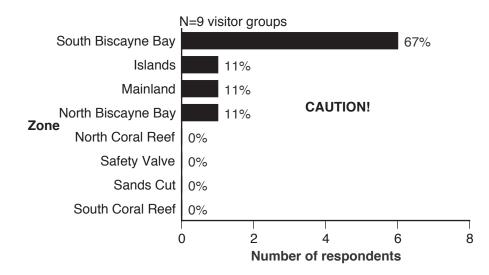


Figure 24: Canoeing/ kayaking locations

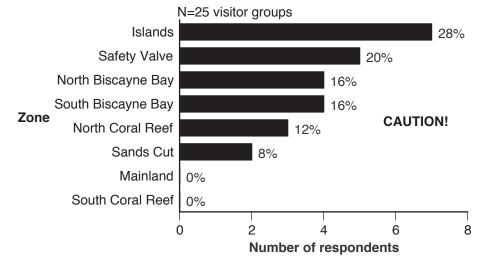
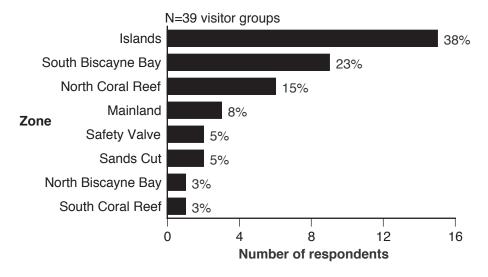


Figure 25: Sailing locations





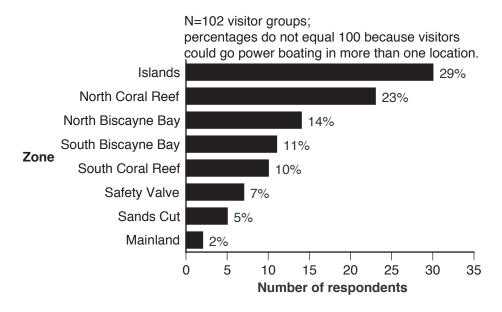


Figure 27: Power boating locations

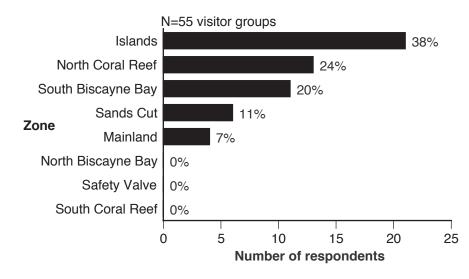


Figure 28: Picnicking locations

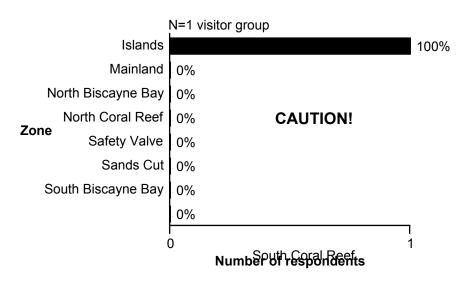
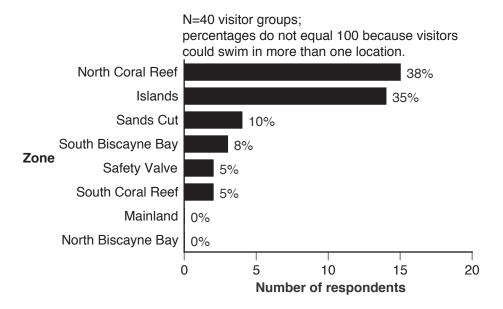


Figure 29: Windsurfing locations





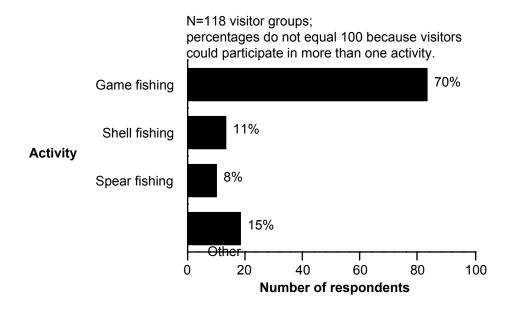




Table 11: "Other" types of fishing N=8 comments		
Comments		Number of times mentioned
Subsistence Bottom Other		3 2 3

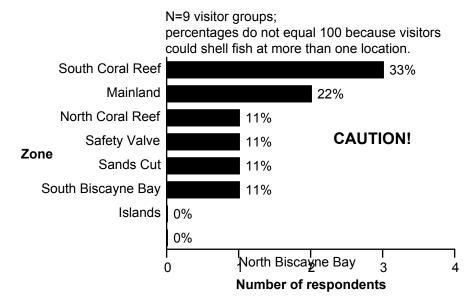


Figure 32: Shell fishing locations

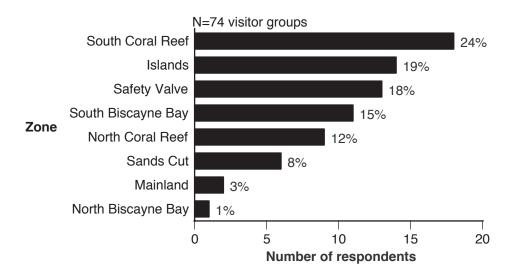
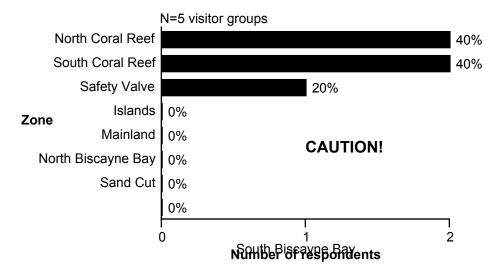


Figure 33: Game fishing locations





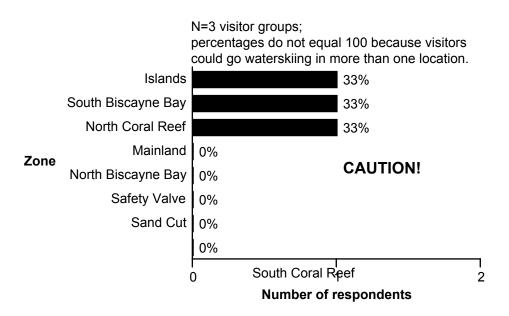
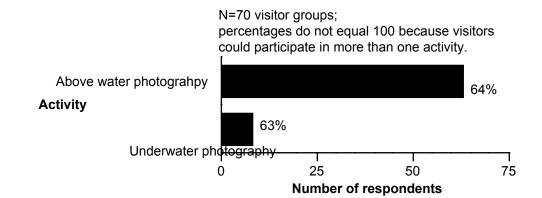


Figure 35: Waterskiing locations



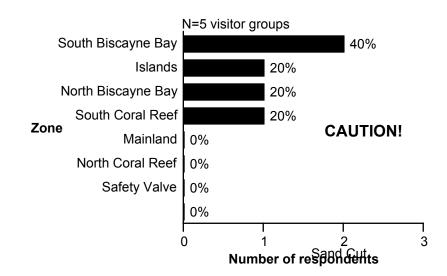
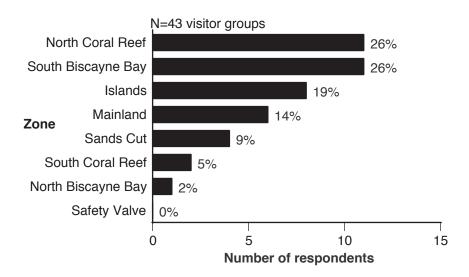
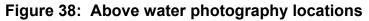


Figure 36: Photography activities

Figure 37: Underwater photography locations





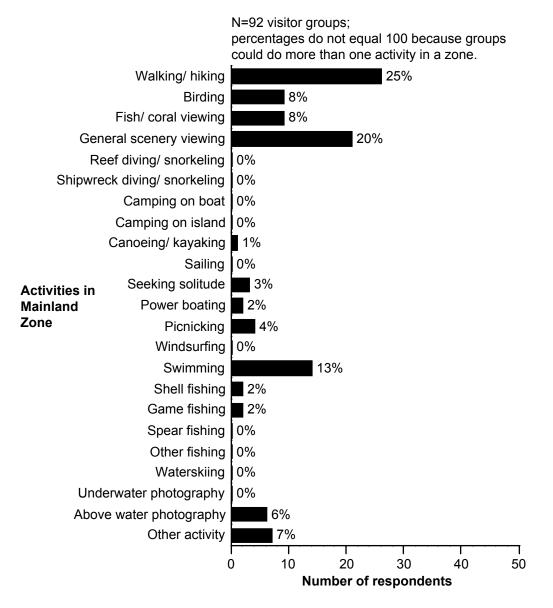


Figure 39: Zone 1—Mainland activities

30

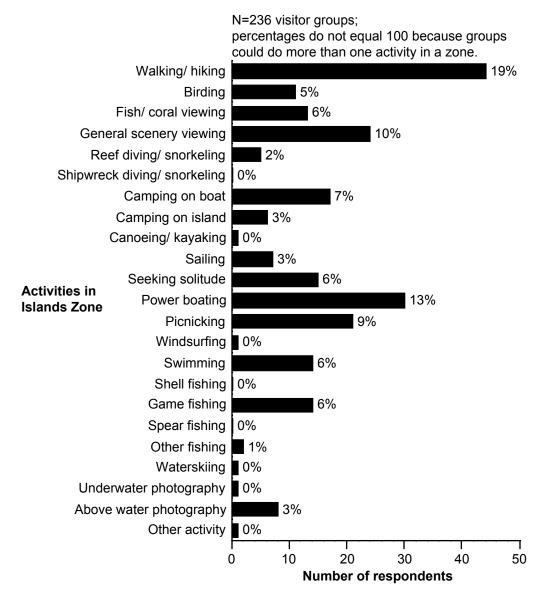


Figure 40: Zone 2—Islands activities

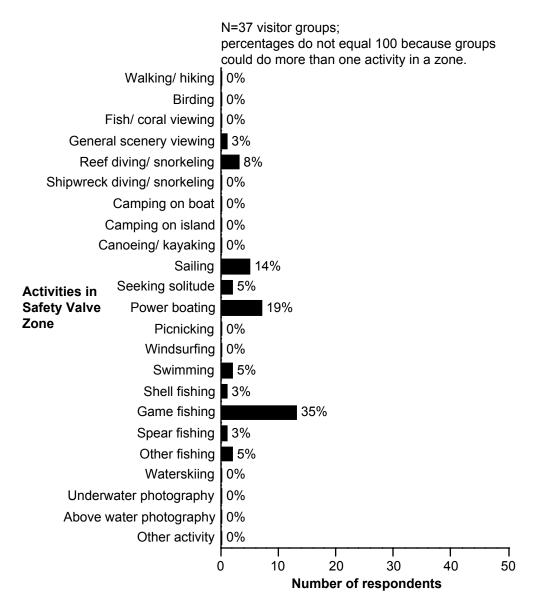


Figure 41: Zone 3—Safety Valve activities

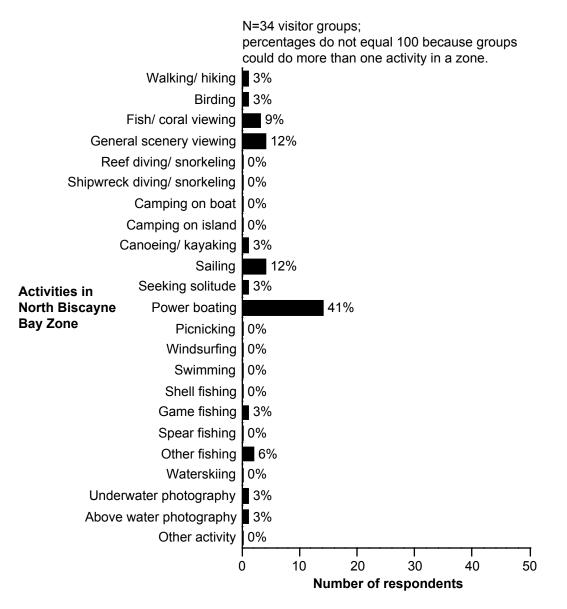


Figure 42: Zone 4—North Biscayne Bay activities

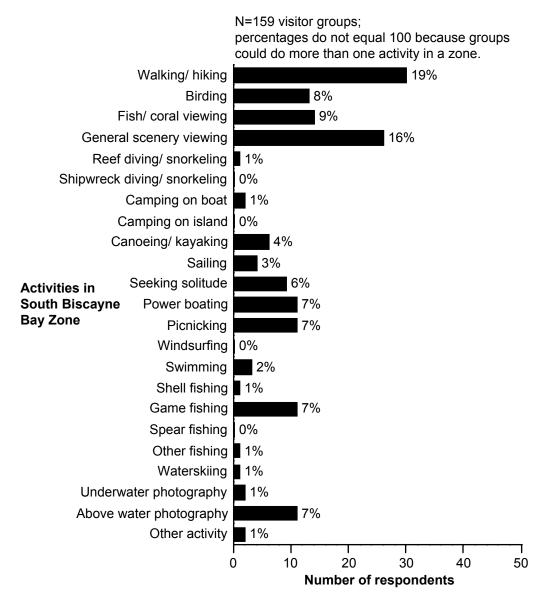


Figure 43: Zone 5—South Biscayne Bay activities

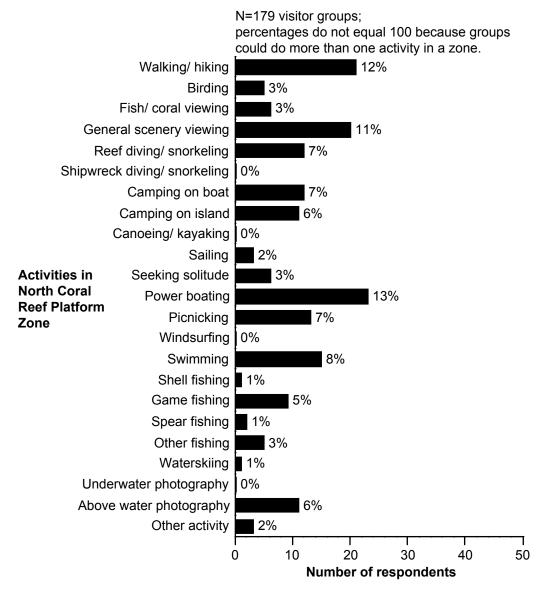


Figure 44: Zone 6—North Coral Reef Platform activities



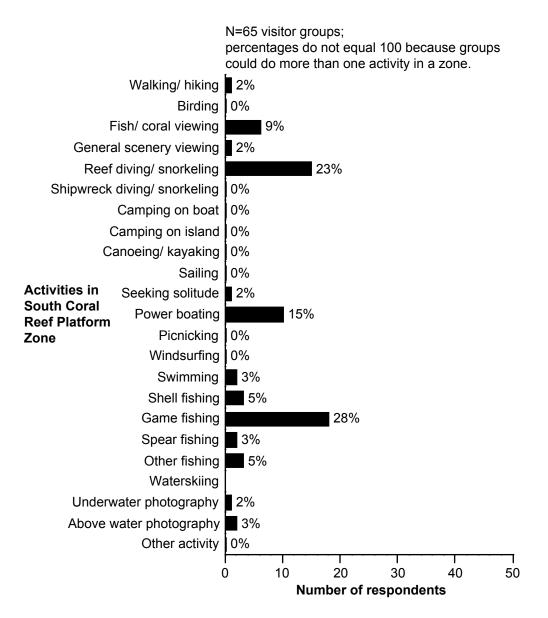


Figure 45: Zone 7—South Coral Reef Platform activities

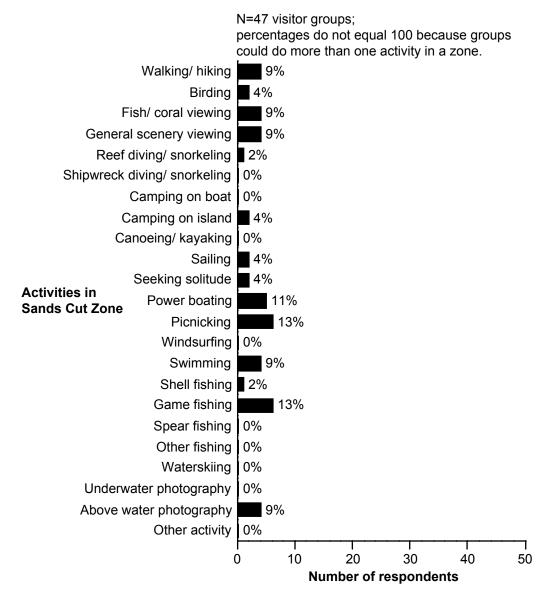
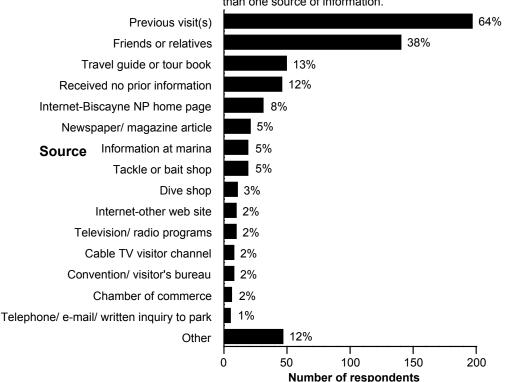


Figure 46: Zone 8—Sands Cut activities

Visitor groups were asked to indicate the sources from which they had received information about Biscayne National Park prior to their visit. Sixty-four percent of visitor groups received information during previous visits, 38% received information from friends or relatives, and 13% received information from travel guides and tour books (see Figure 47). Twelve percent of visitor groups received no information prior to their visits. "Other" sources of information used by visitor groups included living or growing up nearby, signs on US 1, and fishing guides. As shown by Figure 48, most (83%) of visitor groups indicated that they had received the information that they needed, while 9% had not, and 8% were not sure. Table 5 lists the information needed by visitor groups that they did not receive.



N=373 visitor groups; percentages do not equal 100 because visitors could use more than one source of information.

Figure 47: Sources of information used by visitors

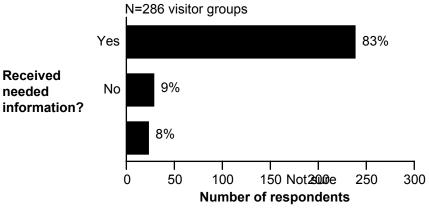
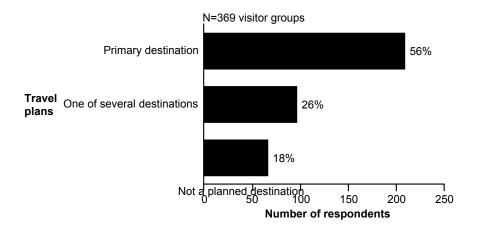


Figure 48: Information needed

Table 5: Type of information needed         N=24 comments;         several visitors made more than one comment.         CAUTION!	
Comment	Number of times mentioned
More information regarding services Hours of operation Water usage information Other comments	16 3 2 3

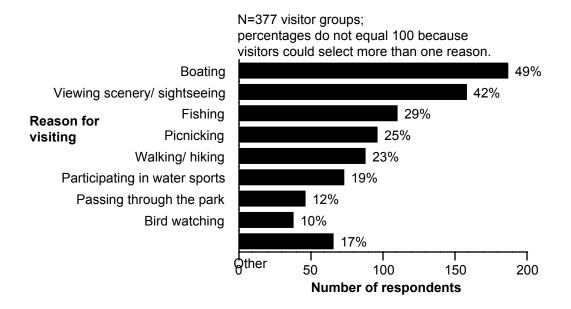
Visitor groups were asked to indicate how their visit to Biscayne NP fit into their travel plans. Fifty-six percent of visitors to Biscayne NP said it was their primary destination, 26% as one of several destinations, and 18% had not planned on visiting (see Figure 49). Other primary destinations included Everglades NP, the Keys, and fishing in the Gulf Stream.

As shown in Figure 50, boating (49%) was the primary reason for visiting, followed by viewing scenery/ sightseeing (42%) and fishing (29%). "Other" reasons for visiting were sunbathing, camping, and family celebrations.



## Figure 49: Biscayne NP as part of travel plans

## Travel plans/ Reason for visiting





Visitor groups were asked to indicate the forms of both land **Transportation** and water transportation that they had utilized during their visit to Biscayne National Park. As shown by Figure 51, the most commonly used forms of land transportation were private vehicles (88%), rental vehicles (11%), and bicycles (2%). One "other" form of land transportation used by visitors was walking.

For water transportation, private motor boats were primarily used (84%), followed by the concession tour boat (5%), private sail boats (5%) and canoe/ kayak (5%), as shown in Figure 52. Swimming was another form of water transportation used by visitors.

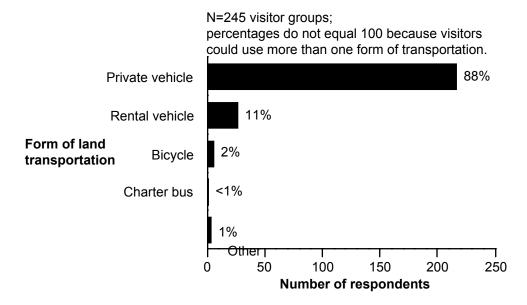
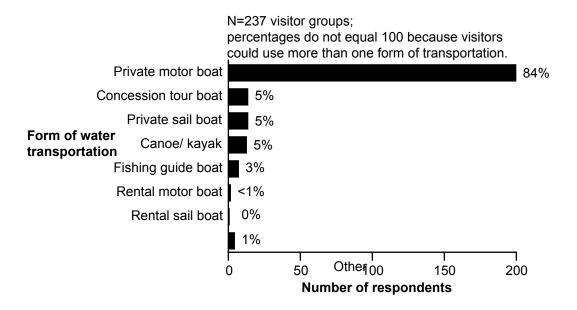


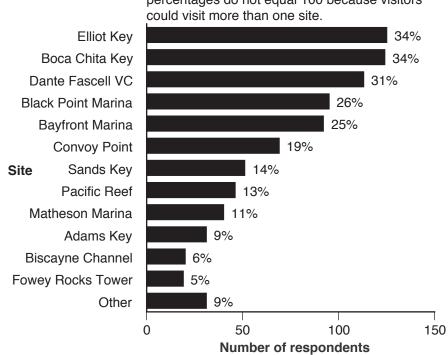
Figure 51: Land transportation used to visit Biscayne NP



**Figure 52: Water transportation used to visit Biscayne NP** (Note: The glass-bottom tour boat was not operational during part of the survey period.)

Visitor groups were asked to indicate the sites they had visited **Sites visited** at Biscayne National Park and the order in which they had visited them. As shown in Figure 53, the most commonly visited sites were Elliot Key (34%), Boca Chita Key (34%), Dante Fascell Visitor Center (31%) and Black Point Marina (26%). The least visited site was Fowey Rocks Tower (5%). "Other" sites visited included Turkey Point and Crandon Marina.

Figure 54 shows the proportion of visitor groups who visited each site first during their visit to the park. The sites most frequently visited first included Dante Fascell Visitor Center (25%), Black Point Marina (22%), and Bayfront Marina (16%). The sites visited first by the fewest number of visitor groups were Adams Key and the Pacific Reef (each <1%). "Other" sites visited included the Pacific Reef and Biscayne Flats.



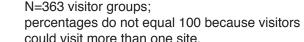


Figure 53: Sites visited in Biscayne NP

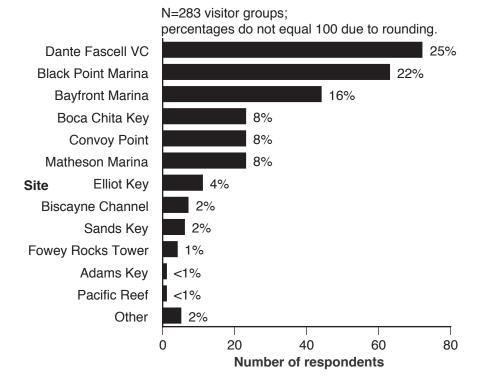


Figure 54: Sites visited first in Biscayne NP

Visitor groups were asked to note the park services and facilities they used during their visit to Biscayne National Park. As shown in Figure 55, the services and facilities that were most commonly used by visitor groups were restrooms (76%), parking (58%), docks (54%) and the visitor center (37%). The least used service or facility was access for the disabled (4%).

Visitor services and facilities: use, importance and quality

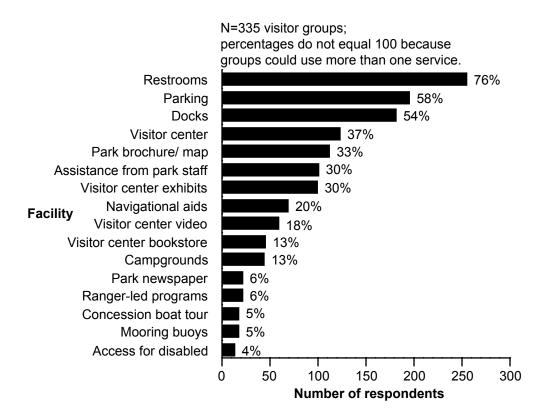


Figure 55: Services and facilities used

Visitor groups rated the importance and quality of each of the services and facilities they used. The following five point scales were used in the questionnaire:

> IMPORTANCE 5=extremely important 4=very important 3=moderately important 2=somewhat important 1=not important

QUALITY 5=very good 4=good 3=average 2=poor 1=very poor

Figure 56 shows the average importance and quality ratings for visitor services and facilities. An average score was determined for each service or facility based on ratings provided by visitors who used that service or facility. This was done for both importance and quality, and the results are plotted on the grid shown in Figure 56 and detailed in Figure 57. All services and facilities were rated as above "average" both in importance and quality. It should be noted that the park newspaper, ranger-led programs, access for disabled visitors, mooring buoys, and the concession boat tour were not rated by enough people to provide reliable data.

Figures 58 show the importance ratings that were provided by visitor groups for each of the individual services and facilities. Those services and facilities receiving the highest proportion of "extremely important" or "very important" ratings included campgrounds (93%), docks (92%) and parking (90%). The highest proportion of "not important" ratings was for campgrounds (3%).

Figures 66-81 show the quality ratings that were provided by visitor groups for each of the individual services and facilities. Those services and facilities receiving the highest proportion of "very good" or "good" ratings included the visitor center (93%), the visitor center video (92%) and assistance from park staff (91%). The highest proportion of "very poor" ratings was for restrooms (7%).

Figure 82 combines the "very good" and "good" quality ratings and compares those ratings for all of the services and facilities.

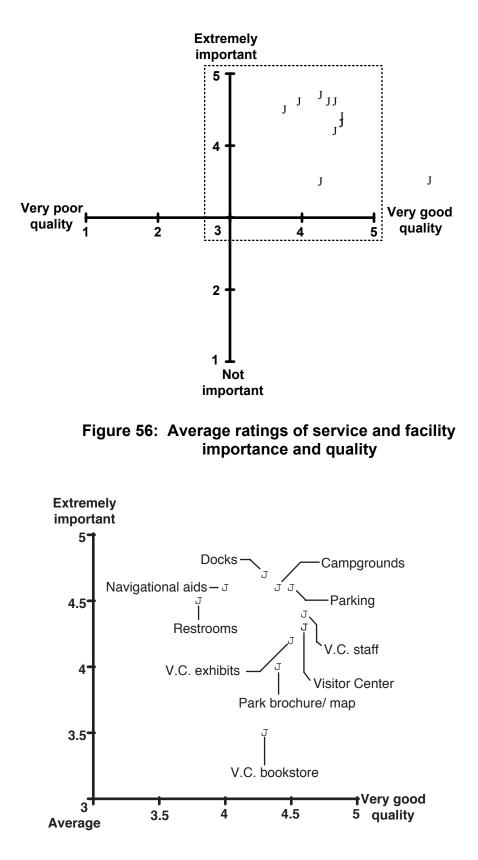
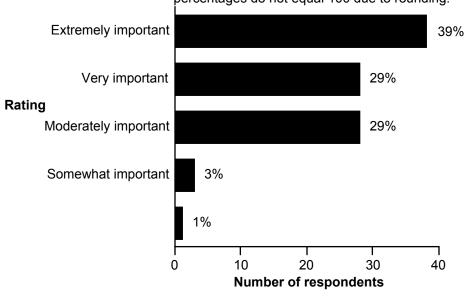


Figure 57: Detail



N=98 visitor groups; percentages do not equal 100 due to rounding.

Figure 58: Importance of park brochure/map

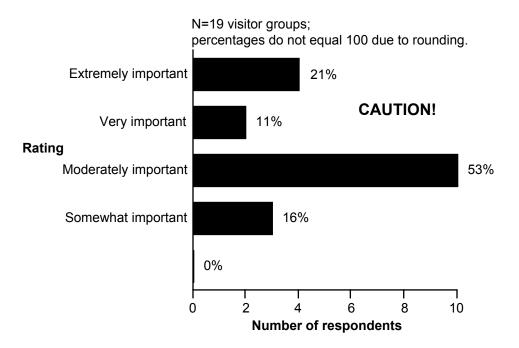


Figure 59: Importance of park newspaper

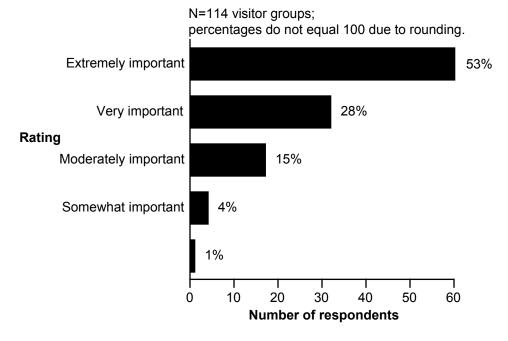


Figure 60: Importance of visitor center

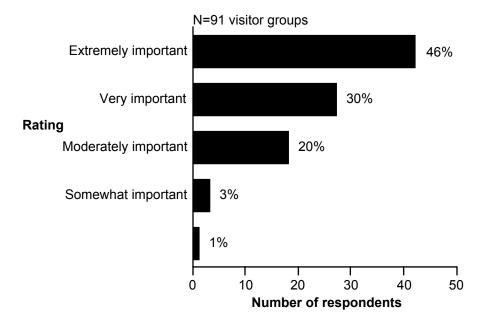


Figure 61: Importance of visitor center exhibits

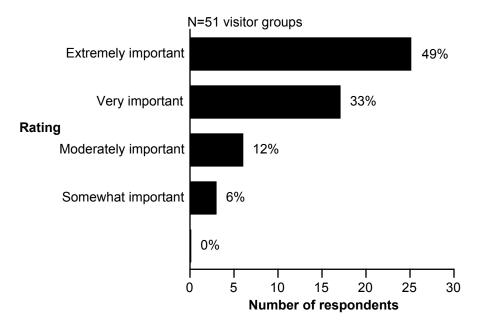


Figure 62: Importance of visitor center video

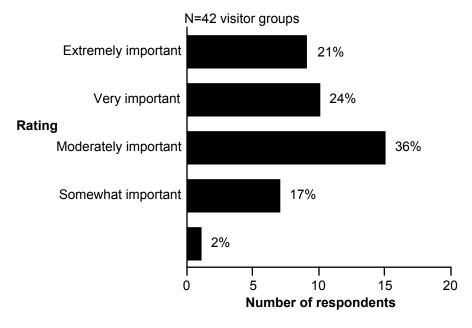
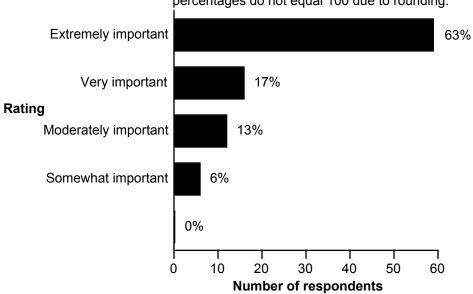


Figure 63: Importance of visitor center bookstore sales items



N=93 visitor groups; percentages do not equal 100 due to rounding.

Figure 64: Importance of assistance from park staff

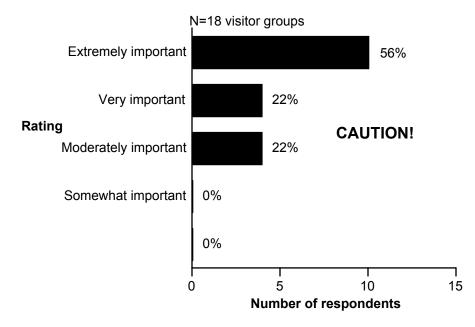
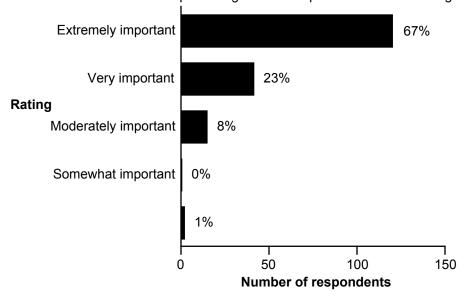


Figure 65: Importance of ranger-led programs



N=178 visitor groups; percentages do not equal 100 due to rounding.

Figure 66: Importance of parking

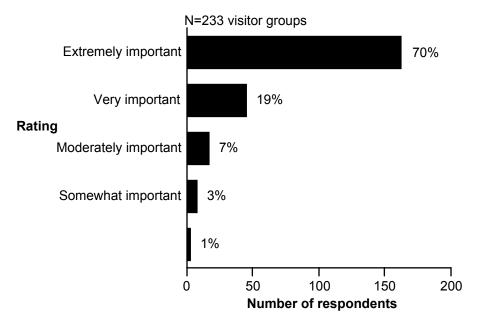


Figure 67: Importance of restrooms

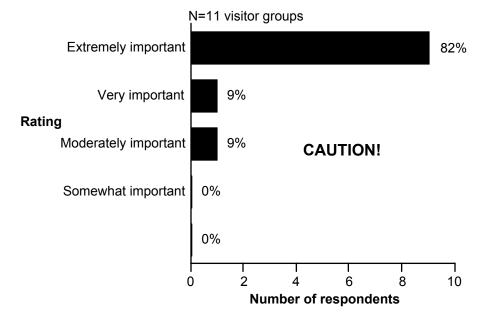


Figure 68: Importance of access for people with disabilities

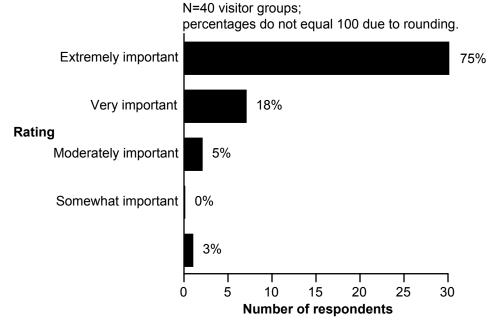


Figure 69: Importance of campgrounds

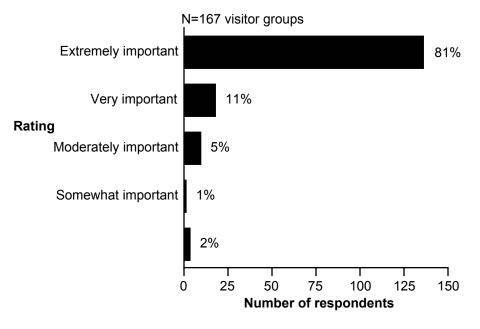


Figure 70: Importance of docks

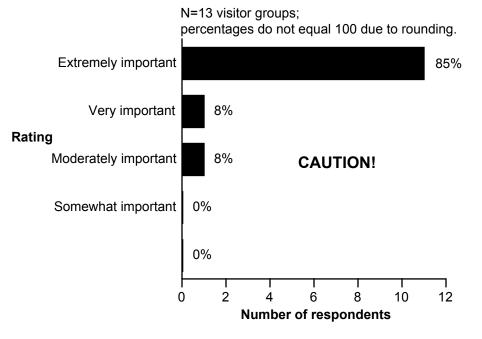


Figure 71: Importance of mooring buoys

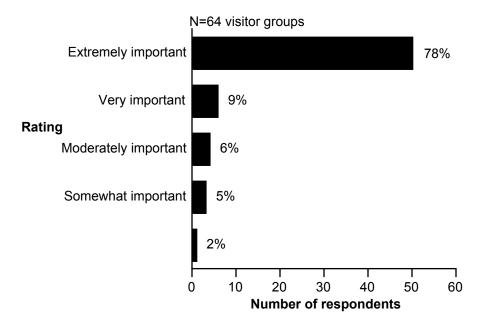


Figure 72: Importance of navigational aids

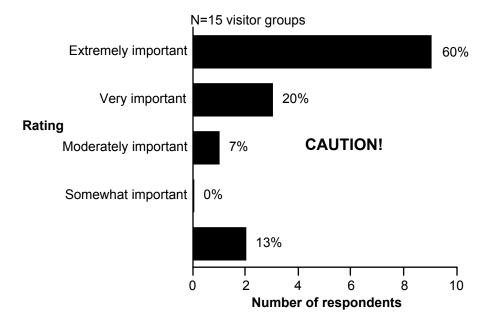


Figure 73: Importance of concession boat tour

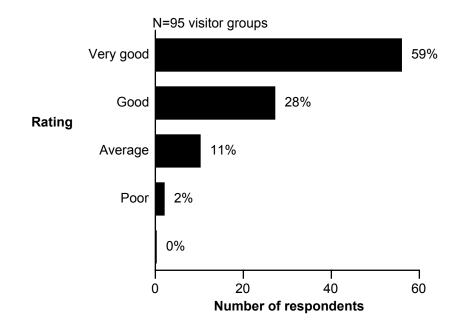


Figure 74: Quality of park brochure/ map

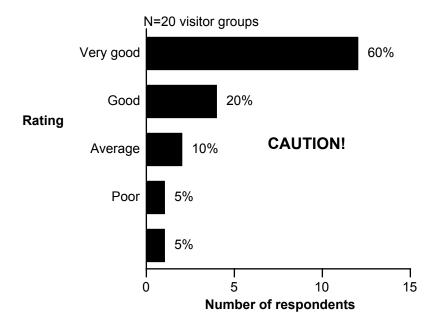


Figure 75: Quality of park newspaper

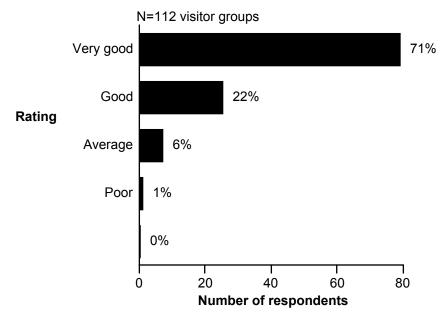


Figure 76: Quality of visitor center

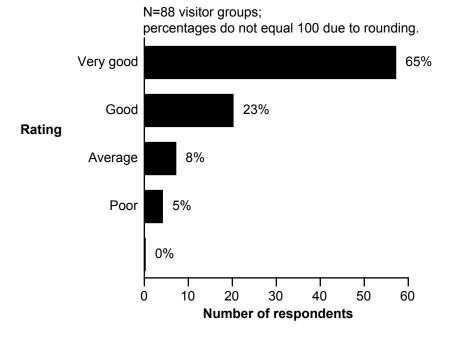


Figure 77: Quality of visitor center exhibits

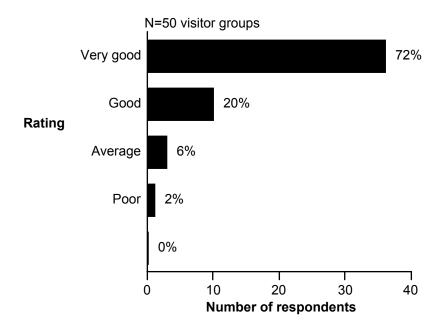


Figure 78: Quality of visitor center video

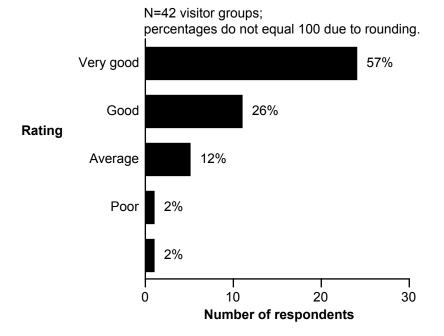


Figure 79: Quality of visitor center bookstore sales items

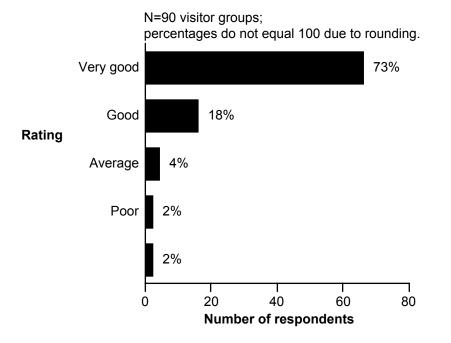


Figure 80: Quality of assistance from park staff

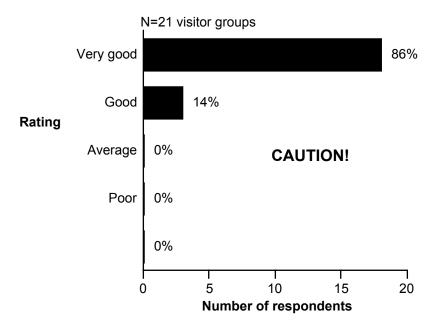


Figure 81: Quality of ranger-led programs

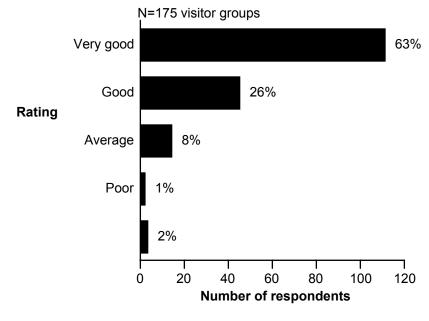


Figure 82: Quality of parking

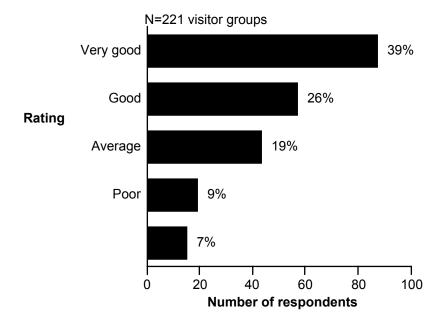


Figure 83: Quality of restrooms

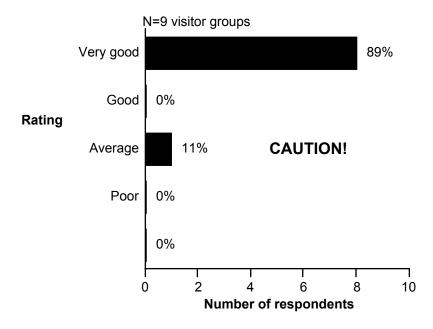


Figure 84: Quality of access for people with disabilities

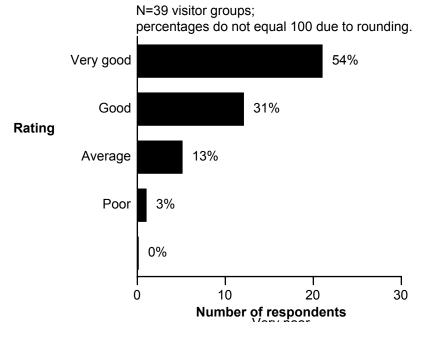
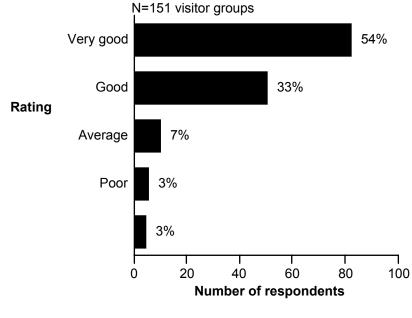


Figure 85: Quality of campgrounds





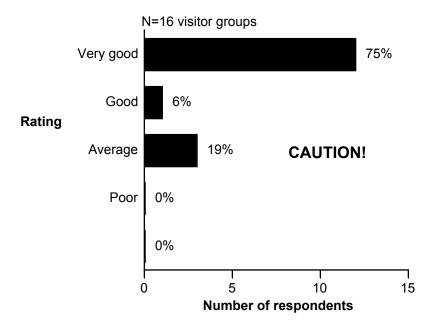


Figure 87: Quality of mooring buoys

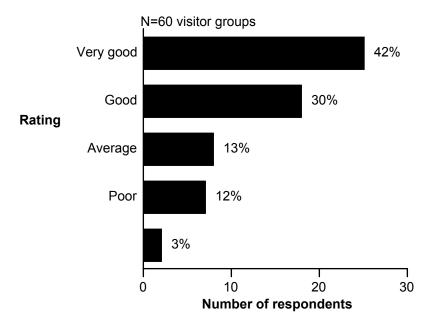


Figure 88: Quality of navigational aids

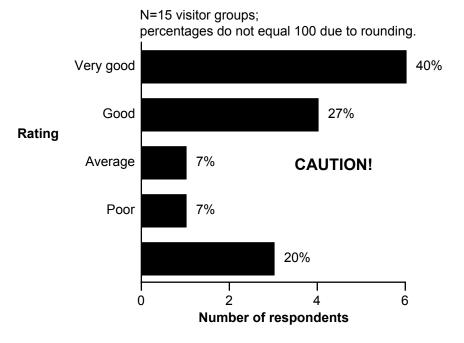


Figure 89: Quality of concession boat tour

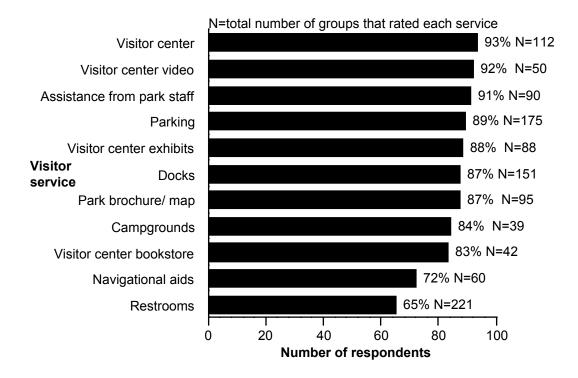


Figure 90: Combined proportions of "very good" or "good" quality ratings for services

Visitor groups were asked: "For any of the following elements that you and your group experienced in Biscayne National Park, please indicate how they affected your park experience." As shown in Figures 91-96, the majority of visitors indicated "no effect" for each of the six elements included in the question. Thirty-five percent of visitor groups indicated that noise from other visitors detracted from their experience (see Figure 86). Thirty-six percent of visitors indicated that the number of boats at anchorages detracted from their experience (see Figure 87). Other park elements that distracted from visitor experience included loud music and personal watercraft.

Park elementseffects on visitor experience

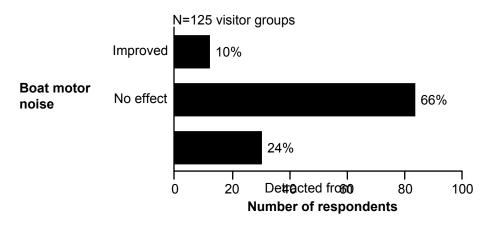
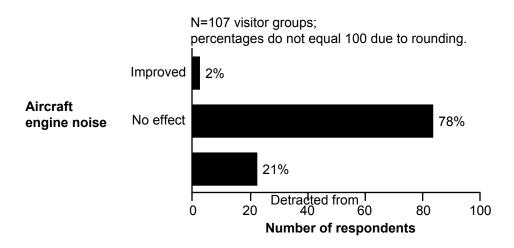
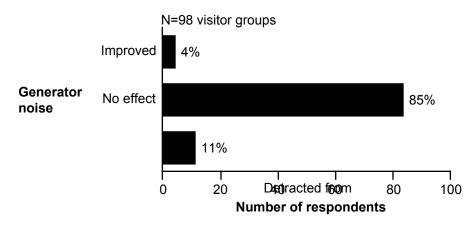


Figure 91: Effect of boat motor noise on park experience









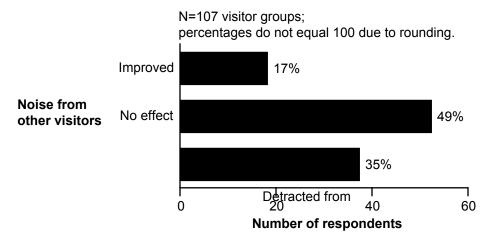
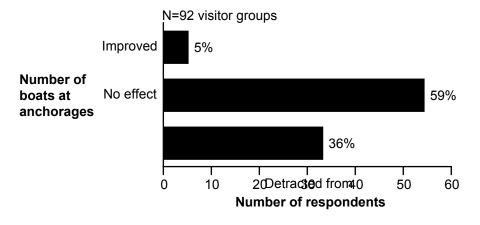
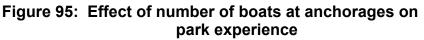
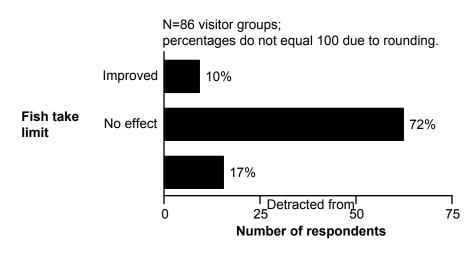


Figure 94: Effect of other visitors' noise on park experience









## Solitude

Visitor groups were asked: "If you and your group were looking for solitude and quiet in Biscayne National Park, to what location would you go?" Table 6 lists the areas of the park as noted by the visitor groups.

Site	Number of times mentioned
Elliot Key	36
South Biscayne Bay	22
Boca Chita Key	20
Adams Key	11
On the water	8
Islands	8
End of pier at VC	7
Mangrove trees near shoreline	6
Ocean side of keys	5
Sands Cut	5
North Biscayne Bay	5
South Coral Reef Platform	4
North Coral Reef Platform	4
Weekdays anywhere	4
Anywhere	3
Rocking chairs at VC	3
Billings Point	2
Bird sanctuary	2
Flamingo (mud hole)	2
Jones Lagoon	2
Remote campsites	2
Safety Valve	2
Turkey Point	2

## Table 6: Places visitors went to seek solitude and quiet N=180 comments

Visitor groups were asked to rate the importance of protecting certain resources at Biscayne NP. As shown in Figures 97-106, the majority of visitor groups rated the protection of all the park resources in the question as "moderately" to "extremely" important. Coral reef protection (96%), water quality and flow (94%), and original Keys habitat protection (92%) ranked high in importance (see Figures 97, 106 and 98, respectively).

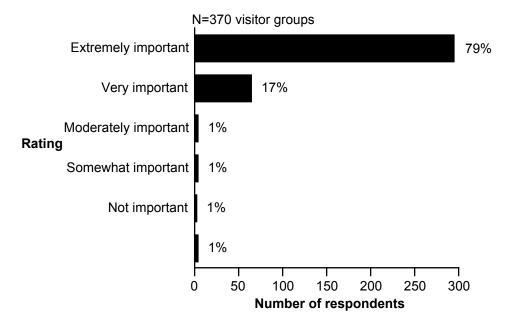


Figure 97: Importance of protecting coral reef

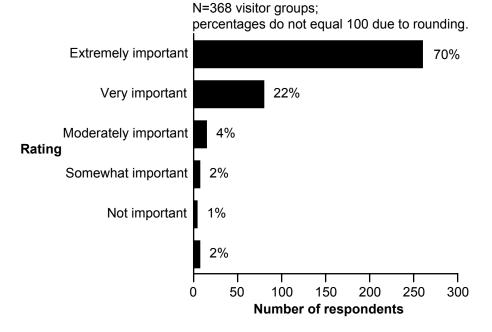
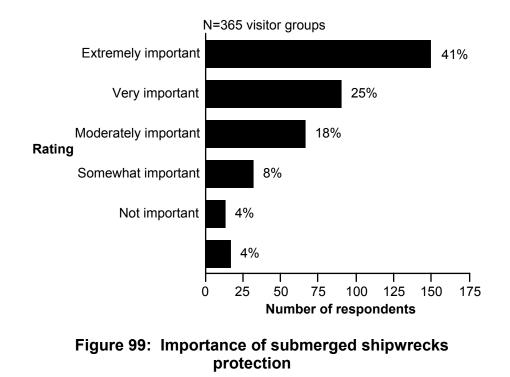
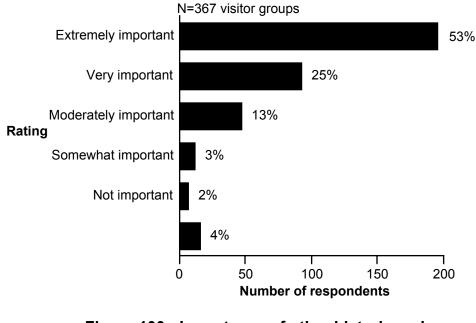
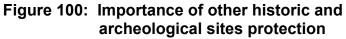


Figure 98: Importance of original Keys habitat protection







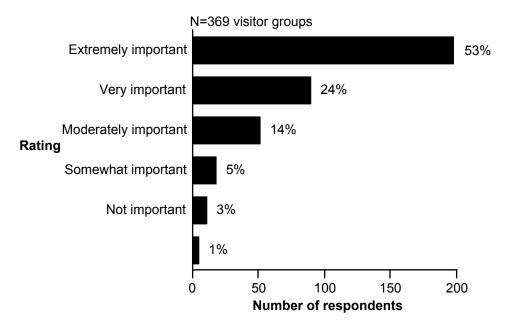


Figure 101: Importance of natural quiet protection

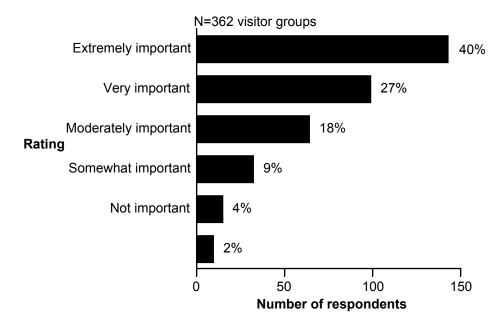


Figure 102: Importance of solitude protection

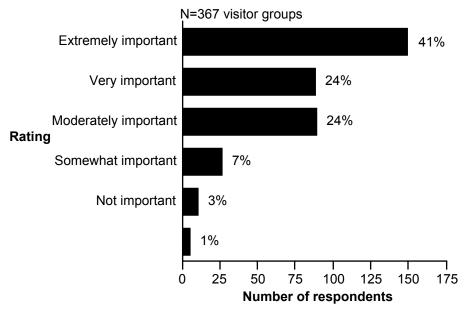


Figure 103: Importance of recreational opportunities protection

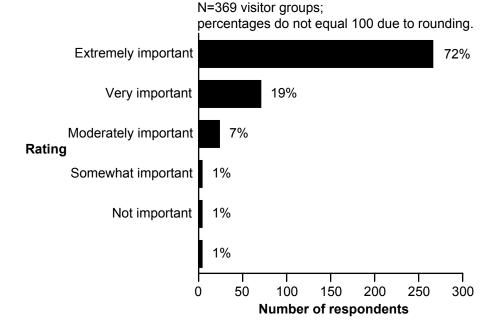


Figure 104: Importance of native plant/ animal protection

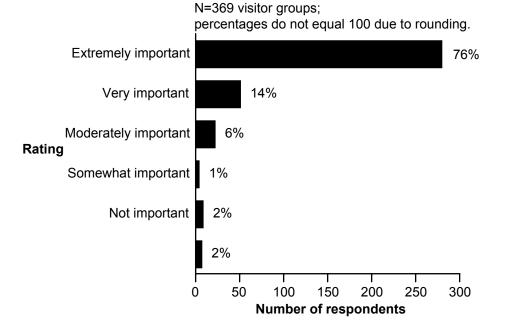


Figure 105: Importance of endangered species protection

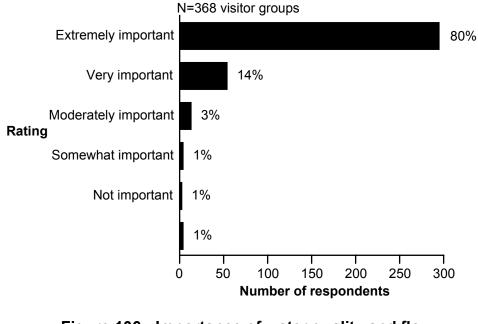


Figure 106: Importance of water quality and flow protection

Use of marinas at Biscayne

National Park

Visitor groups were asked if their visit to Biscayne National Park started at a marina. Fifty-six percent of visitors groups indicated that their visit had begun at a marina, while 44% indicated that it had not (see Figure 107). Thirty-nine percent of visitor groups indicated that their trip began at Black Point Marina, 22% indicated Bayfront Marina and 18% indicated Matheson Marina (see Figure 108). "Other" marina locations indicated by visitor groups included the Dinner Key Marina and Sunset Harbor Marina. Figure 109 shows other locations where visitor groups started their trip. "Other" starting locations indicated by visitor groups included home, Everglades NP and the Yacht Club.

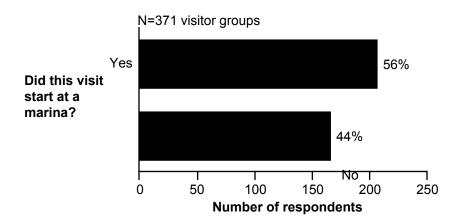
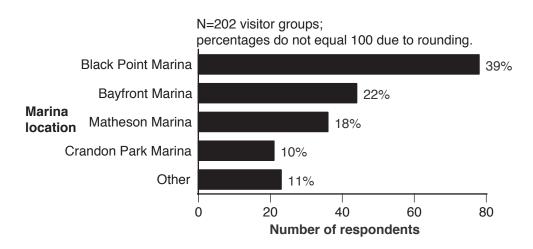


Figure 107: Did this visit start at a marina?





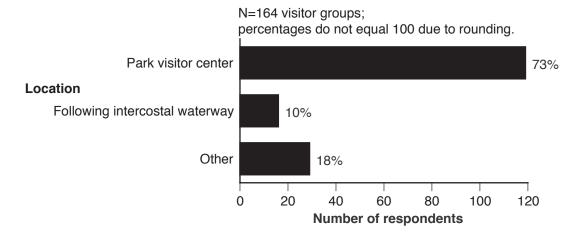


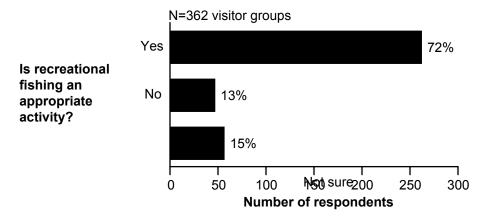
Figure 109: Other locations where this visit began

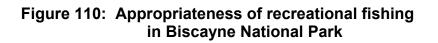
Visitor groups were asked a number of questions concerning fishing in Biscayne NP. Most visitor groups (72%) said that recreational fishing is an appropriate activity in Biscayne NP, 13% indicated it was not, and 15% were not sure (see Figure 110). Visitor groups were asked: "As the number of recreational fisherman and number of fish harvested increase with increasing number of visitors, do you think Biscayne National Park managers should place additional controls on fishing activity?" Forty-five percent of visitor groups said that additional controls should be placed on fishing activities, 27% said that additional controls should not be put in place, and 27% were not sure (see Figure 111).

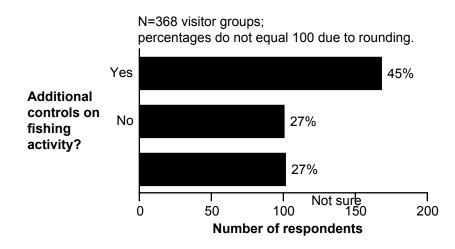
Visitors groups were asked: "If you went fishing on this visit to Biscayne National Park, what are the most important factors that result in a successful fishing experience to you?" Table 7 describes the importance rankings visitor groups gave to factors resulting in a successful fishing experience. About two-thirds of the visitors (66%) said they did not fish on this visit. Figure 112 shows the top two rankings visitors gave to each fishing factor. "Other" factors that resulted in a successful fishing experience were accessibility, catch and release fishing, and spending time with family.

Lastly, visitor groups were asked: "In order to protect the number of species of fish and shellfish, and numbers of each species, the following management techniques may be used in Biscayne National Park. What is your opinion about each of the following techniques?" Figures 113-118 show the approval ratings given by visitors concerning various fishery management techniques that may be used in Biscayne NP. The highest "approve" and "strongly" approve" ratings were for minimum size limits on number of fish or shellfish of a particular species (86%), maximum catch limits on number of fish or shellfish of a particular species (85%), and seasonally restricted zones to limit harassment of spawning fish (78%), as shown in Figures 116, 117, and 115, respectively. As shown in Figure 118, the highest "disapprove" and "strongly disapprove" ratings were for catch and release fishing only (42%).

#### Fishing in Biscayne National Park







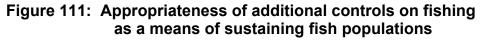


		Table 7:	N=total r	ortant fishir number of grou nges do not eq	p who rated e		fisherman
Importance Ranking		Number of fish caught N=66	Size of fish caught N=66	Type/ species of fish caught N=64	Number of legal- sized fish you can take home N=61	Number of other fisherman encountered while fishing N=60	Boat ramp/ Launching conditions N=62
1	#	14	18	14	3	2	13
	%	21%	27%	22%	5%	3%	21%
2	#	17	21	13	10	4	4
	%	26%	32%	20%	16%	7%	7%
3	#	12	16	12	16	5	6
	%	18%	24%	19%	26%	8%	10%
4	#	12	6	17	16	4	8
	%	18%	9%	27%	26%	7%	13%
5	#	6	5	5	9	18	17
	%	9%	8%	8%	15%	30%	27%
6	#	5	0	3	7	26	13
	%	8%	0%	5%	12%	43%	21%
7	#	0	0	0	0	1	1
	%	0%	0%	0%	0%	2%	2%

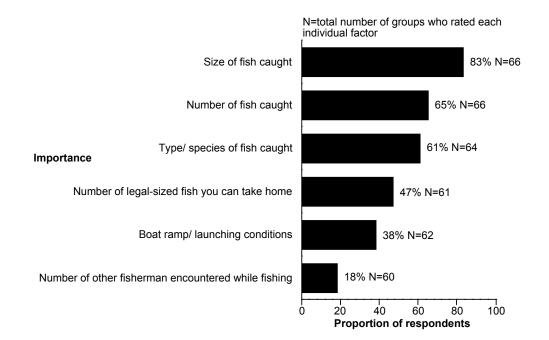


Figure 112: Combined proportions of top three importance rankings of listed factors for a successful fishing experience

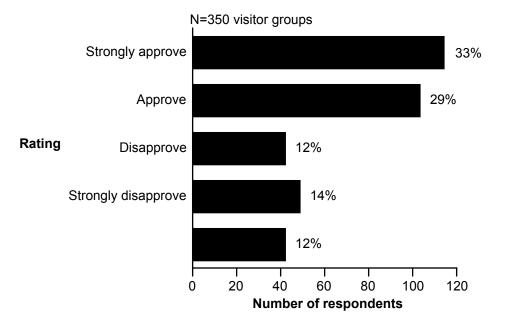
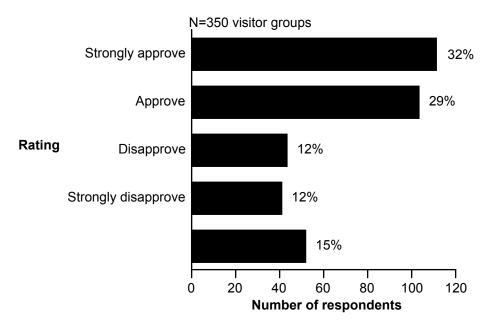
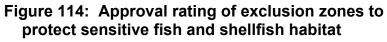


Figure 113: Approval rating of no fishing zones to protect sensitive fish and/ or shellfish species





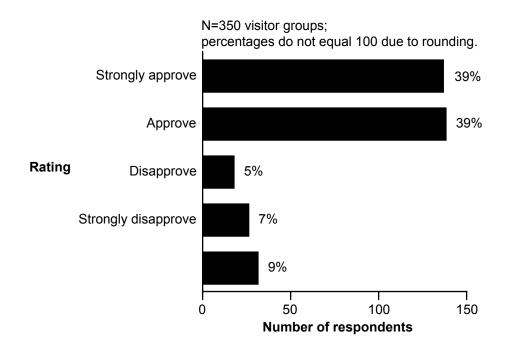
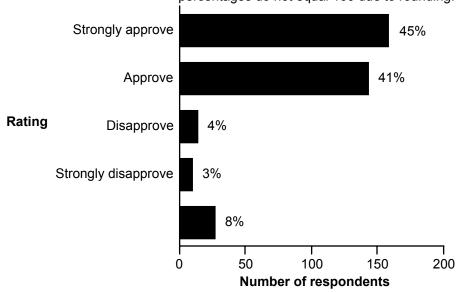


Figure 115: Approval rating of seasonally restricted zones to limit harassment of spawning fish



N=351 visitor groups; percentages do not equal 100 due to rounding.

Figure 116: Approval rating of minimum size limits on number of fish or shellfish of a particular species

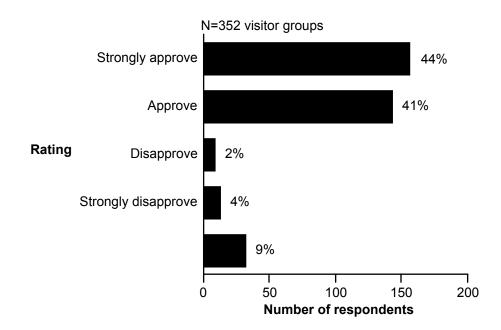


Figure 117: Approval rating of maximum catch limits on number of fish or shellfish of a particular species

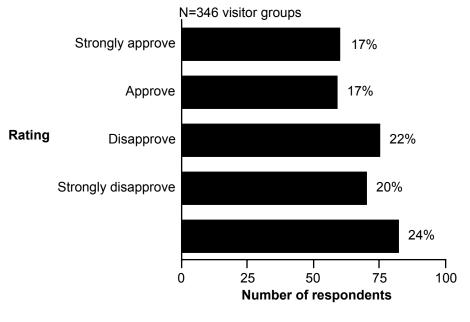
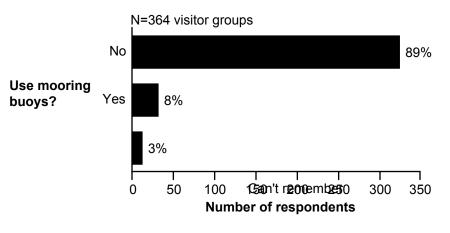


Figure 118: Approval rating of catch and release fishing only

### Mooring buoys use in Biscayne National Park

Most visitor groups (89%) did not use mooring buoys while at Biscayne NP, while 8% did use mooring buoys, and 3% could not remember (see Figure 119). Figure 120 describes the reasons visitors used mooring buoys at Biscayne NP. Reef diving (39%), snorkeling (36%), and fishing (33%) were the most common uses, while shipwreck diving (6%) was the least common use. One "other" reason visitors stopped at mooring buoys was to catch bait fish.





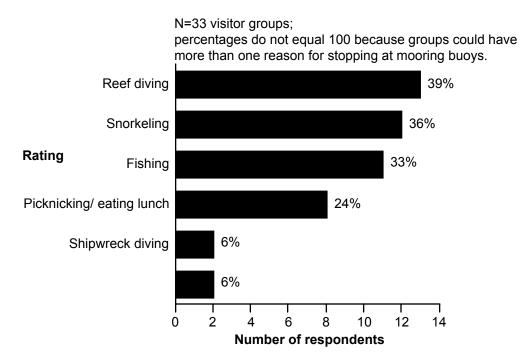


Figure 120: Reasons for using mooring buoys

#### Lodging

Visitor groups were asked a series of questions about their use of lodging while visiting Biscayne NP and the surrounding area. Figure 121 shows that 70% of visitor groups did not spend the night away from home within the Miami and/or the Florida City/Homestead area while on their visit. Thirty percent of visitors did spend the night away from home while on their visit.

Those visitors that did spend the night away from home were then asked to provide the number of nights spent in the Miami and/or Florida City/Homestead areas. Fifty-nine percent of visitor groups spent between one and three nights in the Florida City/Homestead area, and 22% spent eight or more nights in that area (see Figure 122). Figure 123 shows the proportions of types of lodging used in the Florida City/Homestead area including lodge, motel, cabin, etc. (49%); campground/trailer park (28%); and residence of friends (9%). "Other" types of lodging used in the Florida City/ Homestead area included rented apartments and boats.

Over one-half of visitor groups (58%) spent between one and three nights in the Miami area, and another 18% spent no nights in that area (see Figure 124). Figure 125 shows the proportions of types of lodging used in the Miami area including campground/ trailer park (30%); lodge, motel, cabin, etc. (29%); and residence or friends (24%). "Other" types of lodging used in the Miami area were hostels and boats.

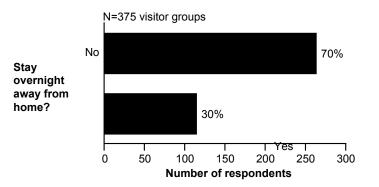
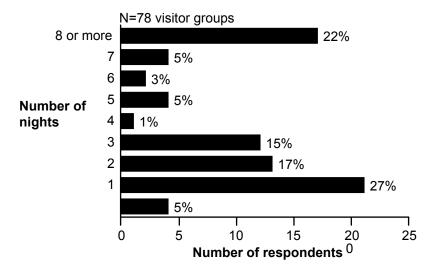
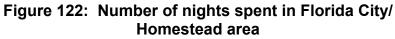
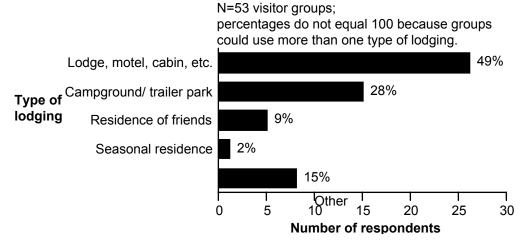


Figure 121: Stays overnight away from home on this visit









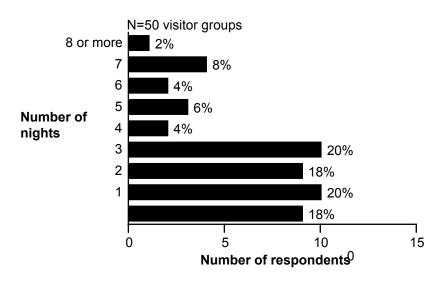


Figure 124: Number of nights spent in Miami area

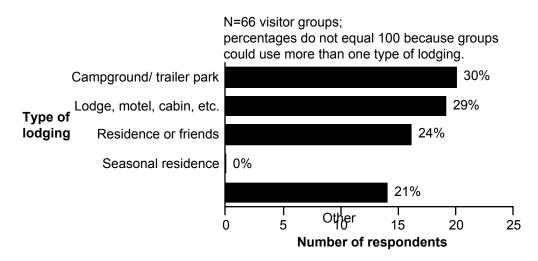


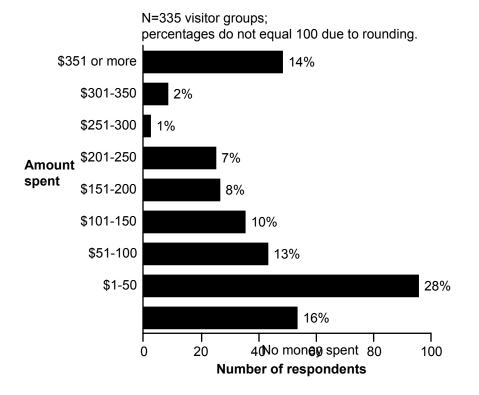
Figure 125: Type of lodging used in Miami area

Visitor groups were asked to list the amount of money they had **Expenditures** spent both inside Biscayne NP and in the Florida City/ Homestead area on this visit. Groups were asked to indicate the amounts they spent for lodging; camping fees; guide fees and charges; restaurants and bars; groceries and take-out food, gas and oil; other transportation expenses; admissions, recreation, entertainment fees; and all other purchases.

**Total expenditures in and out of park:** Sixteen percent of visitor groups spent no money and 41% spent between \$1 and \$100 in total expenditures in Biscayne NP and the surrounding area (see Figure 126). Of the total expenditures by groups, 21% was for gas and oil, 18% was for groceries and take-out food, 16% was for restaurants and bars and 10% was for camping fees and charges (see Figure 127).

The average <u>visitor group</u> expenditure during this visit was \$275. The median visitor group expenditure (50% of groups spent more and 50% of groups spent less) was \$75. The average <u>per</u> <u>capita</u> expenditure was \$85.

In addition, visitors were asked to indicate how many adults (18 years and older) and children (under 18 years) were covered by their expenditures. Figure 128 shows that 55% of the visitor groups had two adults. Figure 129 show that 54% of the visitor groups had one or two children under 18 years of age.





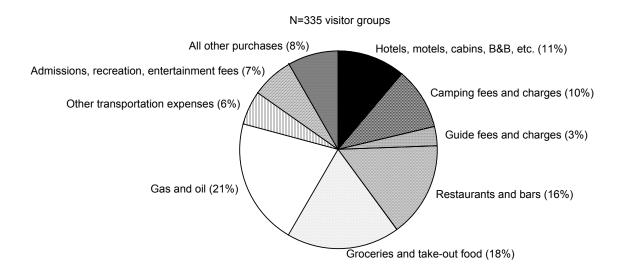


Figure 127: Proportions of expenses in Biscayne NP and Florida City/ Homestead area

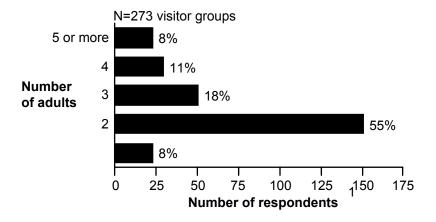


Figure 128: Number of adults covered by expenses

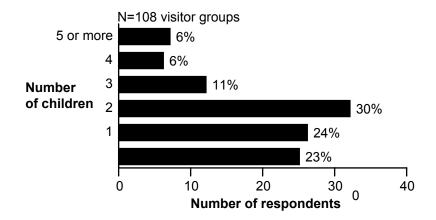


Figure 129: Number of children covered by expenses

Expenditures inside park	<b>Total expenditures in the park</b> : 41% percent of visitor groups spent no money in Biscayne NP and another 54% spent
	between \$1 and \$100 in total expenditures in the park on this visit (see
	Figure 130).
	All other purchases accounted for 54% of total expenditures in
	the park, followed by admission, recreation, and entertainment fees
	(45%), as shown in Figure 131.
	Admissions, recreation, and entertainment fees in the
	park: Forty-seven percent of visitor groups spent no money on
	admission, recreation, and entertainment fees in Biscayne NP, while
	39% spent between \$1 and \$25 (see Figure 132).
	Other purchases in the park: Seventy-four percent of visitor
	groups spent no money on other purchases in Biscayne NP; 18%
	spent between \$1 and \$25 (see Figure 133).

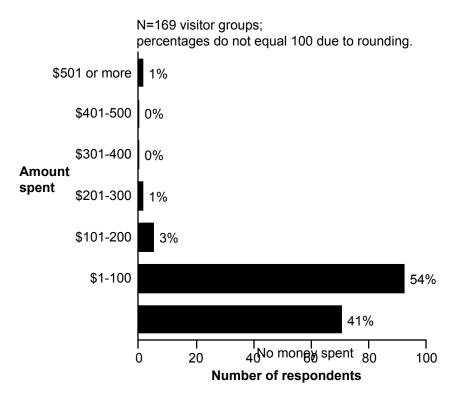


Figure 130: Total expenditures in park

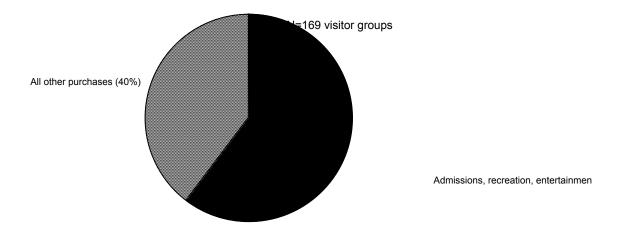


Figure 131: Proportion of expenditures in park

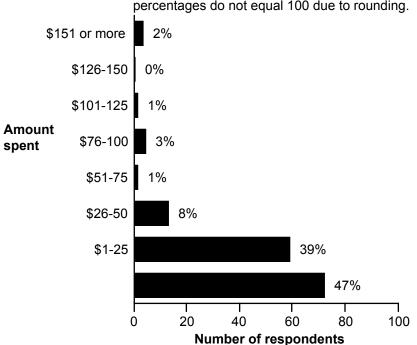
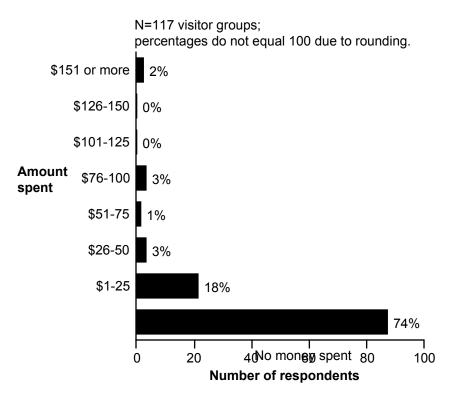
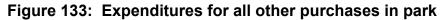


Figure 132: Expenditures for admissions, recreation and entertainment fees in park





N=153 visitor groups; percentages do not equal 100 due to rounding. Total expenditures:Thirty-four percent of visitor groups spentExpbetween \$1 and \$100 in total expenditures out of the park during thisoutstrip (see Figure 134).

Gas and oil accounted for 22% of total expenditures out of the park, followed by 19% for groceries and take-out food, as shown in Figure 135.

*Hotels, motels, cabins, B&B, etc. out of the park*: Most visitor groups (82%) spent no money on lodging out of the park (see Figure 136).

*Camping fees and charges out of the park*: Seventy-four percent of visitor groups spent no money on camping fees and charges out of the park. (see Figure 137).

*Guide fees and charges out of the park*: Most visitor groups (91%) spent no money on guide fees out of the park (see Figure 138).

**Restaurants and bars out of the park:** Sixty-three percent of visitor groups spent no money on restaurants and bars out of the park, while 16% spent between \$1 and \$50 (see Figure 139).

*Groceries and take-out food out of the park*: Thirty-nine percent of visitor groups spent no money on groceries and take-out food out of the park, while 37% spent between \$1 and \$50 (see Figure 140).

*Gas and oil out of the park*: Thirty percent of visitor groups spent no money on gas and oil out of the park, while 42% spent between \$1 and \$50 (see Figure 141).

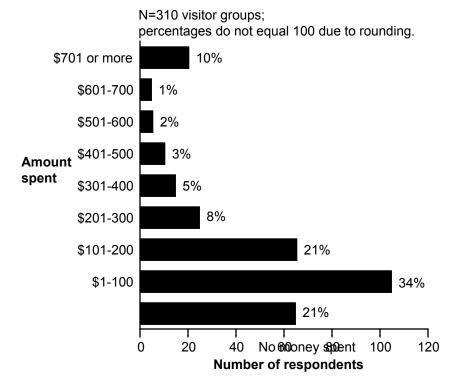
*Other transportation expenses out of the park*: Most visitor groups (84%) spent no money on other transportation expenses out of the park (see Figure 142).

Admissions, recreation, and entertainment fees out of park: Sixty-nine percent of visitor groups spent no money on admissions, recreation, and entertainment fees out of the park, while 22% spent between \$1 and \$25 (see Figure 143).

*Other purchases out of park*: Over one-half of the visitor groups (69%) spent no money on other purchases out of the park (see Figure 144).

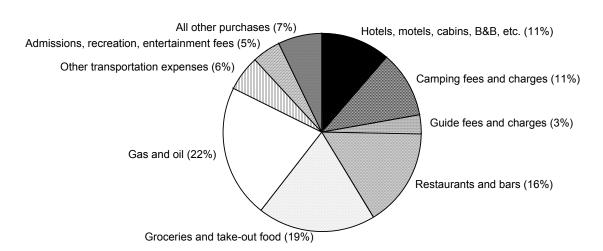
### Expenditures outside park



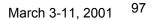


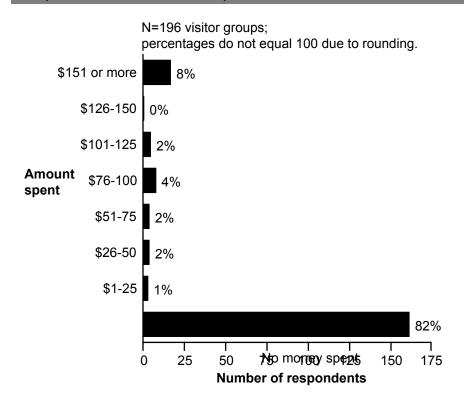


N=310 visitor groups

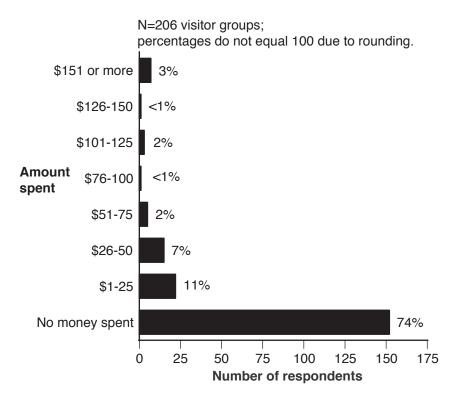


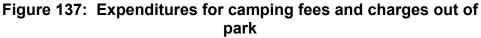


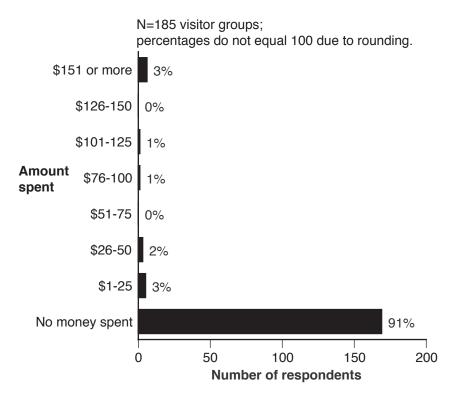


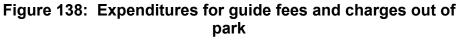


## Figure 136: Expenditures for hotels, motels, cabins and B&B out of park









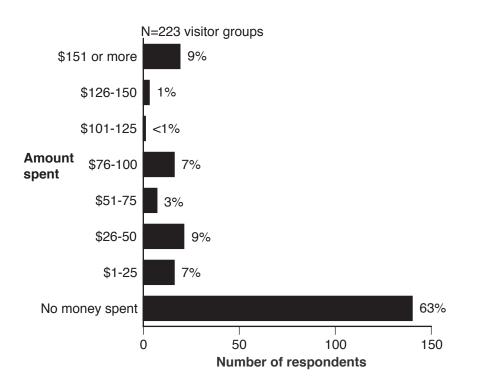
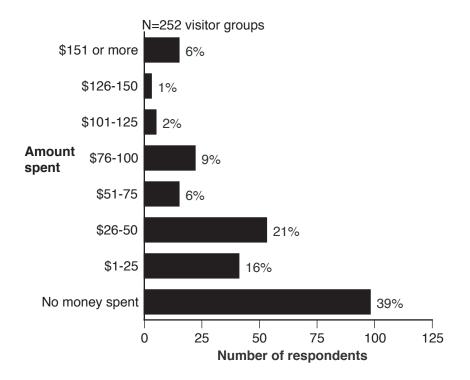
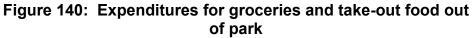


Figure 139: Expenditures for restaurants and bars out of park





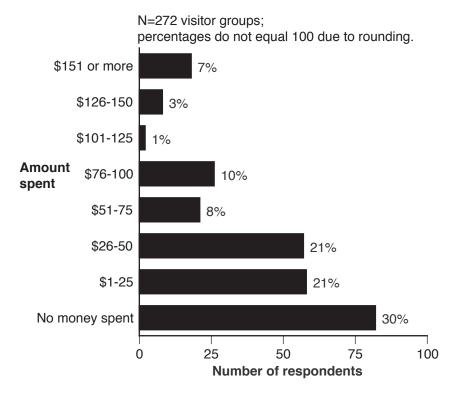
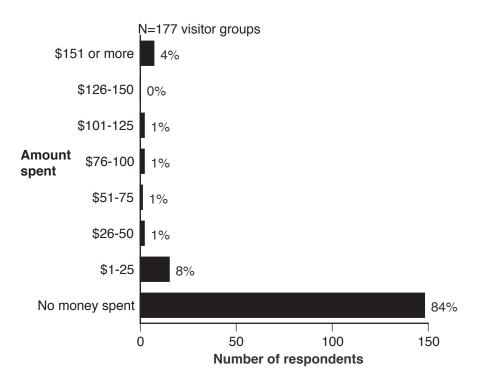
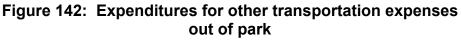
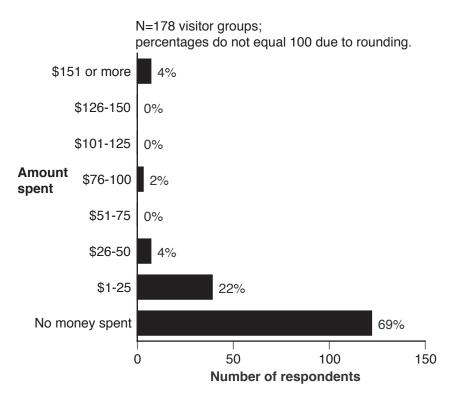
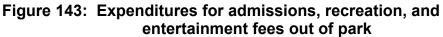


Figure 141: Expenditures for gas and oil out of park









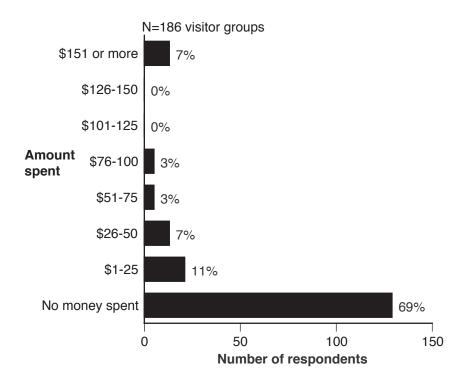


Figure 144: Expenditures for all other purchases out of park

#### Visitor expectations

Visitor groups were asked if there was anything specific which they were unable to see or do during their visit, and the reasons why. Seventy-five percent of visitor groups indicated there wasn't anything that they had not been able to see or do (see Figure 145). Twentyfive percent of visitor groups responded that there were things that they had not been able to see or do. Some of these were: taking the glass-bottom boat tour, catching fish, and visiting the lighthouse. Please see Table 8 for a full list of things visitors could not see or do. The reasons that visitors could not participate in the above activities were, respectively: the glass-bottom boat was not working, the fish were not biting, and the lighthouse was under repair. Please see Table 9 for the reasons why.

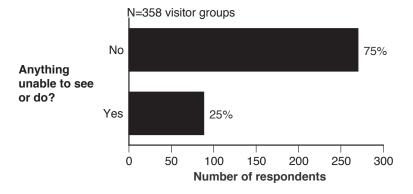


Figure 145: Unable to see or do during visit

Expectation	Number of times mentioned
Catch fish	13
Glass-bottom boat	12
Tour lighthouse	9
Snorkeling	5
Access entire park	4
Camping	4
Party	3
Swimming	3
View aquatic wildlife	3
See coral reefs	2
Sun at beach	2
Experience nature	2
Other comments	16

# Table 8: Expectations visitors were unable to fulfill N=78 comments

### Table 9: Reasons visitors were unable to fulfill expectations N=77 comments

Reason	Number of times mentioned
Weather	12
Glass-bottom boat out of service	10
Lighthouse closed for repairs	8
Time	6
Fish weren't biting	4
Inconsiderate boaters	3
No docking spaces	3
No music allowed	3
Rangers harassed us	3
Cloudy water	2
Information was misleading	2
Park closes too early	2
Rangers had no information	2
No music allowed	17

# Overall quality of visitor services

Visitor groups were asked to rate the overall quality of the visitor services provided at Biscayne National Park during this visit. Most visitor groups (88%) rated services as "very good" or "good" (see Figure 146). Only 1% of visitor groups rated the overall quality of services provided at Biscayne NP as "very poor."

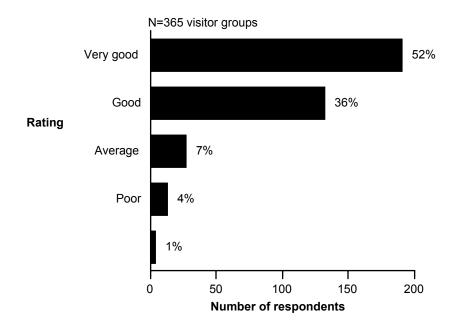


Figure 146: Overall quality of visitor services

Visitor groups were asked, "What did you like most about your visit to Biscayne National Park?" Eighty-eight percent of visitor groups (333 groups) responded to this question. A summary of their responses is listed below in Table 10 and complete copies of visitor responses are contained in the appendix.

## What visitors liked most

Table 10: What visitors like most	
N=501 comments; some visitors made more than one c	comment.
Comment	Number of times mentioned
<b>PERSONNEL</b> Helpful staff Friendly staff	14 2
INTERPRETIVE SERVICES Nature programs Nature trails Video Other comments	5 4 3 4
FACILITIES/MAINTENANCE Clean Visitor center Easy accessibility Picnic areas Boardwalks Docks in good shape Rocking chairs at visitor center Other comments	34 18 11 10 7 5 2 3
<b>POLICIES</b> Dogs allowed Free admission	5 2
RESOURCE MANAGEMENT Water Fishing Aquatic wildlife Snorkeling Coral reef Not crowded Boating Elliot Key Camping Swimming Walking Beach Birds Boca Chita Lack of insects Other comments	28 23 11 10 7 5 5 5 5 4 3 2 2 2 2 2 7

Table 10 (continued)		
Comment	Number of times mentioned	
GENERAL IMPRESSIONS		
Natural beauty	137	
Peaceful	56	
Solitude	17	
Weather	12	
Close to home	8	
Being outdoors	4	
Safe	4	
Sunset	4	
Full moon	2	
Time with family and friends	2	
Other comments	3	

Visitor groups were asked, "What did you like least about your visit to Biscayne National Park?" Seventy-one percent of visitor groups (268 groups) responded to this question. A summary of their responses is listed below in Table 11 and complete copies of visitor responses are contained in the appendix.

### Table 11: What visitors like least

N=282 comments;

some visitors made more than one comment.

Comment	Number of times mentioned
PERSONNEL Rude staff	17
INTERPRETIVE SERVICES Comment	1
FACILITIES/MAINTENANCE Congestion at boat ramps A lot of trash around Bathrooms dirty Poor signs Inadequate hiking trails No dock space No wash-down station Not enough showers Lack of garbage cans Lack of benches Lack of freshwater Lack of shaded sitting areas Unfinished boardwalks Other comments	17 15 9 8 5 5 4 3 3 2 2 2 2 9
POLICIES Park closes too early Personal water craft Power boats Not enough swimming locations Generators Lack of park enforcement Lobster traps Pets were distracting Too many fisherman Other comments	12 7 4 2 2 2 2 2 7

## What visitors liked least

Table 11 (continued)           Comment	Number of times mentioned
Comment	times mentioned
RESOURCE MANAGEMENT	
Crowded	11
Insects	11
No fish or coral to see	7
Swimming	4
Didn't catch fish	
Beach	3 2
Other comments	4
00105001010	
CONCESSIONS Rude concessionaire	2
Bait for recreational fishermen not sold	2
Other comments	3 2 2
GENERAL IMPRESSIONS Inconsiderate boaters Nothing Not enough time Inaccessibility without boat Noisy visitors Weather Unattended children Personal safety Geographic location Miami's smog	15 12 8 8 7 4 3 2 2
Mount Trashmore	2
Not too much to see	2 2 2 2 2
People	2
Power plant	
Other comments	5

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Visitor groups were asked, "If you were a manager planning for the future of Biscayne National Park, what would you propose?" Sixty-six percent of visitor groups (250 groups) responded to this question. A summary of their responses is listed below in Table 12 and complete copies of visitor responses are contained in the appendix.

## Table 12: Planning for the future

N=347 comments;

many visitors made more than one comment.

Comment	Number of times mentioned
<b>PERSONNEL</b> Better public relations from staff Increase ranks of law enforcement personnel Keep hiring friendly employees Better coordination among law enforcement More night security	10 9 5 2 2
INTERPRETIVE SERVICES Emphasize environmental ethics More ranger programs More activities Advertise More information available Real fish in aquarium Other comments	21 7 5 4 4 2 5
FACILITIES/MAINTENANCE More campground facilities Keep clean More dock space available More efficient boat launching system More mooring buoys Lighted buoys Improve restrooms More fresh water available More parking available Better access to Boca Chita More benches More shade areas Play area for children Repair lighthouse Wider walkways Other comments	16 12 10 11 8 5 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

# Planning for the future

Table 12 (continued)		
Comment	Number of times mentioned	
POLICIES		
Greater enforcement of fishing regulations	17	
Ban power boats	12	
Greater enforcement of boating regulations	10	
Analyze fishing policy	7	
Establish noise limits	6	
Curtail fishing	5	
Prohibit shrimping	5	
Ban alcohol	4	
Designate party areas	4	
Keep it free	4	
Restrict access using fees	4	
Ban fishing	3	
Limit visitors if necessary	3	
More "no wake" zones	ა ი	
Allow generators Dogs not on leashes	3 3 2 2	
Longer visiting hours	2	
Plan for an increase in people	2 2	
Other comments	2	
RESOURCE MANAGEMENT		
Protection of endangered wildlife	13	
No development	10	
Leave Stiltsville to its owners	5	
Spray for insects	5	
Artificially increase aquatic wildlife	2	
Exchange land for Stiltsville	2	
Plant more native vegetation around visitor center	2	
Other comments	6	
CONCESSIONS	_	
More boat tours available	7	
More food concessions	5 2	
Rude concessionaire Provide vegetarian meals	2	
Other comments	4	
GENERAL IMPRESSIONS		
No airport at Homestead	5	
Will return	2	
Other comments	2	

### Table 12 (continued)

Forty-nine percent of visitor groups (186 groups) wrote additional comments, which are included in the separate appendix of this report. Their comments about Biscayne National Park are summarized below (see Table 13). Some comments offer specific suggestions on how to improve the park; others describe what visitors enjoyed or did not enjoy about their visit.

#### **Table 13: Additional comments**

N= 208 comments;

some visitors made more than one comment.

Comment	Number of times mentioned
<b>PERSONNEL</b> Friendly staff Knowledgeable staff Rude staff More visible staff Rude concessionaire Other comments	11 9 9 3 2 2
INTERPRETIVE SERVICES Emphasize ethics More general information available More weather advisories Provide information in French Other comments	9 3 2 2 2
FACILITIES & MAINTENANCE Keep clean More recycling bins Good handicapped accessibility More boat ramps Repair lighthouse Provide outdoor showers Utilize sustainable energy Well planned layout Other comments	6 3 2 2 2 2 2 2 2 7
<b>POLICY</b> More enforcement of regulations Balanced management approach More control over power boats Analyze fishing policy Extend visiting hours Too many rules Allow generators Dogs are allowed Other comments	10 6 4 4 3 2 2 5
CONCESSIONS Comments	3

#### Comment summary

#### Table 13 (continued) Number of times mentioned Comment **RESOURCE MANAGEMENT** 2 2 Stiltsville should be cleaned up Like Stiltsville as is Other comments 6 **GENERAL IMPRESSIONS** Lovely experience 29 Keep up the good work 24 Will return 9 3 Beautiful park No airport at Homestead 3 Other comments 3

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#### Biscayne National Park Visitor Study Additional Analysis VSP Report 125

The Visitor Services Project (VSP) staff offers the opportunity to learn more from VSP visitor study data.

#### **Additional Analysis**

Additional analysis can be done using the park's VSP visitor study data that was collected and entered into the computer. Two-way and three-way cross tabulations can be made of any of the characteristics listed below. Be as specific as possible-you may select a single program/ service/facility instead of all that were listed in the questionnaire. Include your name, address and phone number in the request.

- Sources of information this trip
- Sources of information future trips
- Reasons for visiting
- Visit fit into travel plans
- Primary destination
- Forms of transportation (land)
- Forms of transportation (water)
- Activities
- Activity location zone
- Sites visited
- Sites visited (order)
- Overnight stays within Miami and/or Florida City/ Homestead area
- # nights spent in Florida City/ Homestead area
- # nights spent outside in Miami area
- Type of lodging in Florida City/ Homestead area
- Type of lodging outside in Miami area
- All other purchases in park
- · Hotel/ motel expenditures out of park
- Camping fee expenditures out of park
- Guide fee expenditures out of park
- Restaurant and bar expenditure out of park

- Marina where trip began
- Place where trip began
- Days spent at park
- · Hours spent at park
- Use of visitor services and facilities
- Importance of visitor services
   and facilities
- Quality of visitor services and facilities
- Effects of park elements
- Importance of protecting park resources
- Locations for solitude
- Preferred language
- Group type
- Group size
- Gender
- Age
- State/ country of residence
- Groceries and take-out food expenditure out of park
- Other transportation
   expenditures out of park
- Admissions/ recreation/ entertainment fee expenditures out of park
- All other purchases out of park
- Number of adults covered by expenses

- Number of visits past 12 months
- # of visits 2 to 5 years ago
- Income level
- Ethnicity
- Race
- Visitor expectations
- Appropriateness of recreational fishing
- Appropriateness of additional controls on fishing
- Importance factors for a successful fishing experience
- Approval rating of various fishery management techniques
- Mooring buoy use
- Reasons for mooring buoy use
- Total expenditures in and out of park
- Total expenditures in park
- Total expenditures out of park
- Admissions/ recreation/ entertainmen fee expenditures in park
- Number of children covered by expenses
- What visitors liked most
- What visitors liked least
- Planning for the future
- Additional comments

#### Database:

Phone/send requests to:

Visitor Services Project, CPSU College of Natural Resources P.O. Box 441133 University of Idaho Moscow, Idaho 83844-1133

Phone: 208-885-7863 FAX: 208-885-4261

## **QUESTIONNAIRES:**

English

Spanish

## **Visitor Services Project Publications**

Reports 1-6 (pilot studies) are available from the University of Idaho Cooperative Park Studies Unit. All other VSP reports listed are available from the parks where the studies were conducted or from the UI CPSU. All studies were conducted in summer unless otherwise noted.

#### 1982

1. Mapping interpretive services: A pilot study at Grand Teton National Park.

#### 1983

- 2. Mapping interpretive services: Identifying barriers to adoption and diffusion of the method.
- Mapping interpretive services: A follow-up study at Yellowstone National Park and Mt Rushmore National Memorial.
- 4. Mapping visitor populations: A pilot study at Yellowstone National Park.

#### 1985

- 5. North Cascades National Park Service Complex
- 6. Crater Lake National Park

#### 1986

- 7. Gettysburg National Military Park
- 8. Independence National Historical Park
- 9. Valley Forge National Historical Park

#### 1987

- 10. Colonial National Historical Park (summer & fall)
- 11. Grand Teton National Park
- 12. Harpers Ferry National Historical Park
- 13. Mesa Verde National Park
- 14. Shenandoah National Park
- 15. Yellowstone National Park
- 16. Independence National Historical Park: Four Seasons Study

#### 1**9**88

- 17. Glen Canyon National Recreational Area
- 18. Denali National Park and Preserve
- 19. Bryce Canyon National Park
- 20. Craters of the Moon National Monument

#### 1989

- 21. Everglades National Park (winter)
- 22. Statue of Liberty National Monument
- 23. The White House Tours, President's Park (summer)
- 24. Lincoln Home National Historical Site
- 25. Yellowstone National Park
- 26. Delaware Water Gap National Recreation Area
- 27. Muir Woods National Monument

#### 1990

- 28. Canyonlands National Park (spring)
- 29. White Sands National Monument
- 30. National Monuments, Washington, D.C.
- 31. Kenai Fjords National Park
- 32. Gateway National Recreation Area
- 33. Petersburg National Battlefield
- 34. Death Valley National Monument
- 35. Glacier National Park
- 36. Scott's Bluff National Monument
- 37. John Day Fossil Beds National Monument

#### 1991

- 38. Jean Lafitte National Historical Park (spring)
- 39. Joshua Tree National Monument (spring)
- 40. The White House Tours, President's Park (spring)
- 41. Natchez Trace Parkway (spring)
- 42. Stehekin-North Cascades NP/ Lake Chelan National Recreation Area
- 43. City of Rocks National Reserve
- 44. The White House Tours, President's Park (fall)

#### 1992

- 45. Big Bend National Park (spring)
- 46. Frederick Douglass National Historic Site (spring)
- 47. Glen Echo Park (spring)
- 48. Bent's Old Fort National Historic Site
- 49. Jefferson National Expansion Memorial
- 50. Zion National Park
- 51. New River Gorge National River
- 52. Klondike Gold Rush National Historical Park (AK)
- 53. Arlington House-The Robert E. Lee Memorial

#### 1993

- 54. Belle Haven Park/Dyke Marsh Wildlife Preserve (spring)
- 55. Santa Monica Mountains National Recreation Area (spring)
- 56. Whitman Mission National Historic Site
- 57. Sitka National Historical Park
- 58. Indiana Dunes National Lakeshore (summer)
- 59. Redwood National Park
- 60. Channel Islands National Park
- 61. Pecos National Historical Park
- 62. Canyon de Chelly National Monument
- 63. Bryce Canyon National Park (fall)

## **Visitor Services Project Publications (continued)**

#### 1994

- 64. Death Valley National Monument Backcountry (winter)
- 65. San Antonio Missions National Historical Park (spring)
- 66. Anchorage Alaska Public Lands Information Center
- 67. Wolf Trap Farm Park for the Performing Arts
- 68. Nez Perce National Historical Park
- 69. Edison National Historic Site
- 70. San Juan Island National Historical Park
- 71. Canaveral National Seashore
- 72. Indiana Dunes National Lakeshore (fall)
- 73. Gettysburg National Military Park (fall)

#### 1995

- 74. Grand Teton National Park (winter)
- 75. Yellowstone National Park (winter)
- 76. Bandelier National Monument
- 77. Wrangell-St. Elias National Park & Preserve
- 78. Adams National Historic Site
- 79. Devils Tower National Monument
- 80. Manassas National Battlefield Park
- 81. Booker T. Washington National Monument
- 82. San Francisco Maritime National Historical Park
- 83. Dry Tortugas National Park

#### 1996

- 84. Everglades National Park (spring)
- 85. Chiricahua National Monument (spring)
- 86. Fort Bowie National Historic Site (spring)
- 87. Great Falls Park, Virginia (spring)
- 88. Great Smoky Mountains National Park
- 89. Chamizal National Memorial
- 90. Death Valley National Park (fall)
- 91. Prince William Forest Park (fall)

#### 1997

- 92. Great Smoky Mountains National Park (summer & fall)
- 93. Virgin Islands National Park (winter)
- 94. Mojave National Preserve (spring)
- 95. Martin Luther King, Jr., National Historic Site (spring)
- 96. Lincoln Boyhood Home National Memorial
- 97. Grand Teton National Park
- 98. Bryce Canyon National Park
- 99. Voyageurs National Park
- 100. Lowell National Historical Park

#### 1998

- 101. Jean Lafitte National Historical Park & Preserve (spring)
- 102. Chattahoochee River National Recreation Area (spring)
- 103. Cumberland Island National Seashore (spring)
- 104. Iwo Jima/Netherlands Carillon Memorials
- 105. National Monuments & Memorials, Washington, D.C.
- 106. Klondike Gold Rush National Historical Park (AK)
- 107. Whiskeytown National Recreation Area
- 108. Acadia National Park

#### 1999

- 109. Big Cypress National Preserve (winter)
- 110. San Juan National Historic Site (Puerto Rico)
- 111. Saint Croix National Scenic Riverway
- 112. Rock Creek Park
- 113. New Bedford Whaling National Historical Park
- 114. Glacier Bay National Park & Preserve
- 115. Kenai Fjords National Park & Preserve
- 116. Lassen Volcanic National Park
- 117. Cumberland Gap National Historic Park (fall)

#### 2000

- 118. Haleakala National Park (spring)
- 119. White House Tour and White House Visitor Center (spring)
- 120. USS Arizona Memorial
- 121. Olympic National Park
- 122. Eisenhower National Historic Site
- 123. Badlands National Park
- 124. Mount Ranier National Park

#### 2001

125. Biscayne National Park (spring)

For more information about the Visitor Services Project, please contact the University of Idaho Cooperative Park Studies Unit: phone (208) 885-7863.

**NPS D-72** 

February 2002