SUPPORTING STATEMENT
BOTTLENOSE DOLPHIN CONSERVATION OUTREACH SURVEY
OMB CONTROL NO. 0648-xxxx

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

The potential respondent universe for the tourism/local resident survey is all local residents and tourists in Panama City, FL. The number of residents in Panama City, FL is estimated to be 36,417 according to the 2000 Census (148,217 residents in Bay County). Tourism is Bay County's largest industry. According to the Panama City Beach Convention and Visitors Bureau website, each year, Panama City Beach attracts an estimated 4.1 million leisure visitors and an additional 2.1 million visitors associated with business travel and special events. Therefore, the total potential respondent universe (Bay County residents, leisure visitors, and visitors traveling for purposes other than leisure) for the tourism/local resident survey is estimated to be about 6.3 million people.

Some basic demographic information on Panama City, FL residents are available through: http://www.fedstats.gov/qf/states/12/1254700.html

Information concerning Panama City, FL residents is as follows:

The population in 2006 was 36,807; in 2000, it was 36,417.

The number of residents who are both age 25 years or older and are high school graduates is 19,522 (based on 2000 data).

18.9% of those age 25 years or older have a college degree (based on 2000 data).

In 1999, the median household income was $31,562 ($40,975 in current dollars)

The racial composition of Panama City residents in 2000 was 73.6% White, 21.5% Black, 0.6% American Indian and Alaska Native, 1.6% Asian, Native Hawaiian or some other Pacific Islander, and 2.7% some other race or two or more races. 2.9% are Hispanic or Latino origin.

Demographic profiles of tourists to the Panama City beaches are not readily available. However, we did receive some basic information on visitor patterns in 2008 from the Panama City Beach Convention and Visitors Bureau. Some of this information is as follows:

The average length of stay is 5.8 days.

The average age of the head of household is 43.1.

The average number of people in travel party is 2.7.

The median annual household income is $73,613.

8.7% of visitors are Florida residents.

42.8% reside in the Southeast, 27.2% in the Midwest, 7.1% in the Southwest, and 5.2% in the Northeast.

8.9% are either from other parts of the US, Canada or Europe.

Because demographic information for this population is limited, we included questions on this survey to gain greater insight on characteristics of Panama City beach visitors in order to help us achieve the goal of ensuring our outreach messages are reaching target audiences.

The tourist/local resident survey will be conducted over the course of approximately nine days per year, and will be stratified by season (low, medium and peak season), type of day of the week (weekday and weekend), and time of day (morning and afternoon). Table 1 tabulates the anticipated aggregate number of completed surveys, based on an anticipated response rate of 75%. Table 2 tabulates the estimated number of completed surveys by stratified samples.

Table 1: Intercept Surveys for Tourists/Local Residents and Anticipated Number of Completions

Approximate Number of Tourists/Local Residents Approached	Anticipated Response Rate	Number Surveys Completed
1,200	75%	900

Table 2: Anticipated Number of Completions by Subgroup

	Approximate Number of Completed Surveys (Total and by Subgroups)	Approximate Proportion of Total Completed Surveys
Total	900	
Stratification		
Morning	450	1/2
Afternoon	450	1/2
Weekday	300	1/3
Weekend	600	2/3
Low season	100	1/9
Medium-peak season	200	2/9
Peak season	600	2/3

For the collection as a whole, a response rate (i.e., number of those approached who comply) in the range of 70-80% is anticipated, based on reference materials and recent examples of intercept surveys. A book on survey design reports that in-person surveys have typical response rates of about 70%-75%, and in-person surveys tend to have higher response rates than telephone surveys (Kalton (1983)). In addition, a committee formed to evaluate the pros and cons of face-to-face interview versus phone interviews for the American National Election Studies, indicated that in-person surveys tend to have a response rate that is about 15% higher than telephone surveys (NESACSM, 1999).

While examples of surveys similar to this data collection effort are not readily available, a few of the following examples of recent intercept surveys demonstrate that the estimated response rate for this study is in line with other intercept studies:

A study commissioned by the Oregon Department of Transportation and carried out as intercept surveys to collect truck data using a roadside intercept survey method at an interstate highway weigh station, a Port of Portland marine terminal, and a private freight warehouse/distribution center, all in the Portland, OR metro area in 2003. The response rate for those who were asked to participate was 95% at the highway weigh station, 93% at the Port of Portland and 100% at the Distribution Center. This survey, designed to be two minutes in length, was much shorter than ours.

McCluskey, et al (2005) carried out a study in 2003 using an intercept survey approach at conventional supermarkets and natural foods markets in order to determine what attributes consumers consider when making beef purchases, with a special focus on attributes that may lead to the purchase of grass-fed beef. The response rate for this was approximately 50%.

Shivlani, et al (2008) completed a recent study to determine knowledge, attitudes and perceptions of Florida Keys National Marine Sanctuary management strategies among stakeholders. The stakeholder groups, mode, and response rates were commercial fishermen (86.2%) through intercept surveys, diver operators (77.5%) through either phone or intercept surveys, and members of a specific environmental group (11.6%) through mail survey.

Miller, et al (1997) conducted a street-intercept survey to assess the feasibility of street-intercept surveys versus random digit-dial telephone surveys in terms of its use in reaching population segments in urban areas that were considered difficult to reach, for example urban areas with high rates of crime. The street-intercept survey was carried in 1992, and again in 1993. It asked for demographic information and health related questions. In 1992, the survey consisted of 64 items and took about 10 to 15 minutes to complete. The 1993 version consisted of 91 items and took about 15 to 20 minutes to complete. The authors only provided the response rate for the 1993 survey, which was 80.2%.

A census approach, rather than a sampling approach, will be used for the commercial business survey. We will attempt to find, and provide a survey to, all businesses in the water-based recreation industry operating in the vicinity of Panama City Beach, FL. These businesses include diveshops, as well as snorkel, canoe rental, boat rental, jetski, cruise and commercial tour operations, fishing charters/headboats, etc. We expect the number of businesses within these categories and located in Bay County not to exceed 300, This expectation is based on a search of

the yellow pages online for Panama City Florida, which yielded the following numbers of each type of business: tours and charters (63), diving tours (7), recreational trips and guides (4), fishing boat charters, tours, and rental (2), raft trips and tours (1), personal watercraft sales and rental (2), boat and yacht charters, rental and leasing (4), diving equipment and supplies (19). Our plan is to locate relevant businesses through a local telephone directory and through online searches, as well as actually visiting locations near the marinas and beaches of Panama City, FL in order to find businesses operating in a tourism-related industry that are unlisted. The response rate is anticipated to be about 70-80%. Table 2 shows the tabulated anticipated number of completions based on the expected response rate and total number of existing businesses.

Table 2: Surveys (Census) for Commercial Businesses and Anticipated Number of Completions

Commercial Businesses	**Total Number of businesses is 150**	**Total Number of Businesses is 300**
75% response rate	113	225

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

The purpose of this data collection is to evaluate the effectiveness of NMFS' outreach techniques and determine if there are more appropriate outreach tools to convey NMFS' Protect Dolphin conservation messages. Panama City has been a national hot-spot for illegal feeding and harassing of wild dolphins for almost two decades, and a well-known tourist destination where many people participate in water-based activities or tours that may promote or conduct potentially illegal activities. These activities mainly take place from commercial dolphin viewing tours, ecotours, charter tours, and either rental platforms for recreational use by tourists or privately owned vessels/platforms by residents. Therefore, NMFS routinely places outreach materials at locations such as boat ramps; marinas where dolphin viewing and tours dock their vessels; beach-side hotels; etc.

The data collection for local residents and tourists will occur as an intercept survey. This data collection effort will occur at or near sites in Panama City Beach where visitor interactions with wild dolphins, such as dolphin-viewing or participating in water-sports in dolphin habitat, have been known or are likely to occur. We chose to target the data collection efforts to those respondents who are likely to participate in these water-related activities in order to ensure the survey results yield the intended results of evaluating NMFS' education and outreach efforts that are targeted to these audiences and in these locations.

We anticipate data collection to take place at the marinas or visitor centers, where the survey administrator will notify, after the completion of the previous survey, the n^{th} (or some set number) passerby that the individual had been randomly selected and to ask if this individual would be able to complete the survey. The data collector will also stress that because the respondent was randomly selected, it is important that this person participate and answer honestly so that the responses provided by him and other respondents are informative and useful. Data collection will occur primarily through in-person surveys provided by survey

administrators. The survey administrators will be on hand to explain the survey, answer questions, and either collect the survey upon completion or provide a prepaid postage return envelope, if the respondent is unable to complete the survey until a later time.

Our primary goal is to obtain a general assessment of the level of knowledge and attitudes that visitors and residents have of issues related to dolphin conservation, therefore we do not need a high degree of accuracy in terms of targeting the respondents or with a large sample size. We are using a sample size for which we have the resources, given that our goal is to gain information of the effectiveness of various outreach tools. A sample size of 400 would achieve a 95% level of confidence and 5% margin of error. With our proposed sample size of 900 for the visitor survey, we would improve on these margins of error.

We anticipate using a quota of intercepts, of roughly 100 approaches per day across several intercept locations.The tourist/local resident survey will be stratified by season (low, medium and peak season), type of day of the week (weekday and weekend), and time of day (morning and afternoon), as summarized in Table 1 (see the response to the previous question). However, we will not attempt to stratify sampling based on respondent characteristics. Summary statistics and information (mainly frequencies/percentages of individual responses to particular questions and means/medians) will be calculated for survey responses. In addition, responses to questions will be used to estimate the likelihood of knowledge of issues concerning harassment of wild dolphins based on various characteristics and attributes of the respondent (for instance, demographic variables or past incidence of dolphin interactions)

The data collection for commercial businesses will also occur at or near locations where visitor interactions with wild dolphins have been known or are likely to occur. However, because the potential respondent universe for this survey is not large (estimated to be 100-150, but less than 300), we will attempt to census the entire universe of water-based businesses operating on or near Panama City Beach, FL.

Survey administrators will visit all businesses that are identified as providing water-based recreation activities, during non-peak seasons and times. If the business owner or manager cannot complete the survey at the time s/he is contacted, but is willing to do so, the survey administrator will return at a mutually agreed-upon time. If the business owner or manager is not available, the survey administrator will return repeatedly until contact with the appropriate party is made.

For many of the questions, responses will primarily be reported as means (for quantitative answers) or frequencies (for categorical answers).

A few of the survey questions did contain a large list of outreach tools that were provided to aid recall. When evaluating the effectiveness of one tool over another, we will find natural aggregation of categories to condense the number of categories to 11 (including “other” and “cannot recall”). So as an example, consider the survey question which asks the respondent to check the box next to various categories of outreach tools. If one or more of the posted sign subcategories (located at docks, fishing piers, visitor centers, or other) is marked, any of those subcategories will be treated as a posted sign category. We will then evaluate the percentage of respondents who learned particular messages through a particular tool according to both the original categories as well as to the higher level of aggregation.

Both surveys will be a one-time data collection conducted over the course of a year, rather than a repeated collection.

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.

Each of the two survey instruments, as well as the survey implementation, incorporates various elements to help increase response rates. The surveys, designed to be easily understood at a junior high reading level, are respondent-friendly, with clear and easy-to-comprehend questions. To further aid in ease of reading and responding to questions, we incorporated suggested changes to simplify the language and visual presentation of the survey. The suggested changes were provided through several rounds of review by those who were mindful that the population of respondents were likely to have at least an 8^{th} grade education. The survey topic and related questions may also be interesting to respondents. Each survey makes ample use of listing options to allow the respondent to answer by checking the appropriate boxes, which may aid in recall. In addition, an in-person survey should increase response rate over other methods, such as mail or Internet surveys (Dillman (2000) and Kalton (1983)). For those randomly selected individuals who are unable to complete the survey at that time, but who are willing to be surveyed, a postage-paid return envelope will be provided.

In addition to the design of the survey itself, some measures will be taken in order to attempt to minimize the number of nonresponses through the interaction with the potential survey respondent. Survey administrators will briefly explain, to the randomly selected respondent, the value of the survey itself as well as the importance of having as high a response rate as possible in order to generate meaningful results. Reassuring respondents that their responses are completely anonymous should also help increase response rates. We will not collect personally identifying information from local residents/tourists. For the business survey, we will keep a separate list of the names and addresses of those businesses that had already completed a survey and those that declined, solely for tracking which businesses had already been contacted. This list will not be matched with the survey responses and will be destroyed at the end of the data collection effort.

Finally, we will not ask members of the business community to complete the survey during peak season. Businesses will be approached to complete the survey during slow or medium-peak season, so as to enhance the likelihood that the employee or business owner will cooperate and complete the survey. In addition, visits will be repeated until contact is made with the appropriate person, which would be someone who has sufficient knowledge of the business to answer the survey questions. We will make efforts to provide respondents from the commercial sector to participate at their convenience, and if the survey could not be completed at that time, to set up a mutually convenient time.

In terms of evaluating non-response bias, we plan to ask those who decline to participate in the survey effort to answer two questions, in order to see if their answers to those questions differed significantly from those who choose to participate. The questions are taken from the surveys.

For those who decline to participate in the tourist/local resident survey, the two questions we intend to ask are:

1) How concerned are you, if at all, about protecting dolphins? (Same as Q1 on the tourist/local resident survey)
2) What is the highest level of education you have attained? (Same as Q32)

The same category choices from Q1 and Q32 in the main survey will also be provided on the non-response bias questionnaire.

For those who decline to participate in the commercial business survey, we intend to ask the following:

1) How concerned are you, if at all, about protecting dolphins? (Same as Q1 on the commercial business survey)
2) Which of the following best describes your business? (Same as Q9)

Again, these non-response questions will mirror their counterparts on the larger survey, so the response categories will be the same.

4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.

No formal tests were undertaken. Six NMFS employees and three non-Federal individuals reviewed the survey to provide feedback on the clarity of the survey. The survey design and implementation have also benefited from reviews by several NMFS employees with expertise in survey design and implementation.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

The following individuals were consulted on the statistical aspect of the survey design:

Michelle McGregor
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Justin Hospital
National Marine Fisheries Service
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The following individuals will analyze the information for the agency:

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NMFS plans to hire a professional survey research firm to administer the survey, pending funding.

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