

**SUPPORTING STATEMENT**  
**U.S. Department of Commerce**  
**National Oceanic & Atmospheric Administration**  
**Marine Recreational Information Program**  
**Social Network In-Person Survey (SNAIS)**  
**OMB Control No. 0648-xxxx**

**A. JUSTIFICATION**

This request is for a new data collection, to implement the National Marine Fisheries Service (NMFS) Marine Recreational Information Program (MRIP) Social Network Analysis In-Person Survey (SNAIS).

**1. Explain the circumstances that make the collection of information necessary.**

Collection of recreational fisheries catch and effort data is necessary to fulfill statutory requirements of Section 303 of the [Magnuson-Stevens Fishery Conservation and Management Act](#) (16 U.S.C. 1852 *et. seq.*) and to comply with [Executive Order 12962](#) on Recreational Fisheries. Section 303 (a) of the Magnuson-Stevens Act specifies data and analyses to be included in Fishery Management Plans (FMPs), as well as pertinent data that shall be submitted to the Secretary of Commerce under the plan. Section 1 (e) of Executive Order 12962 orders Federal agencies to support outreach programs designed to stimulate angler participation in the conservation and restoration of aquatic systems.

Currently, MRIP administers surveys to collect data on recreational fishing catch, effort, and participation statistics, which are fundamental for assessing the influence of fishing on any stock of fish. The quantities taken, the fishing effort, and the seasonal and geographical distribution of the catch and effort are required to assess the health of fish stocks and develop and evaluate national fisheries management policies and plans. The allocation of fishery resources depends, in part, on the results of the surveys MRIP administers. In 2017, a National Academy of Sciences (NAS) review identified several strategic areas for MRIP's improvement. Among these areas for improvement, the NAS review suggested that MRIP develop the capacity to provide expertise that will help foster productive, collaborative relationships with key constituents who have valuable contributions to offer in the development of MRIP. These key constituents include the broader angling public. Further, MRIP is challenged to examine and develop strategic communications to ensure partners and constituents are engaged in the MRIP redesign process, kept well informed of opportunities to participate, and apprised of progress.

NAS recommendations include a need to "take a more active role in communication with anglers" and to match the level of understanding of recreational fisheries management by stakeholders (recreational anglers) with how the MRIP functions. One of the agency's responses to the NAS recommendations was to plan and implement a Social Network Analysis utilizing data from a mail survey and an in-person survey. Stakeholder attitudes toward and trust in resource management agencies can play a key role in how the agencies' actions are perceived and how their messages are received (Vaske et al. 2007; Carlton 2012; Carlton and Jacobson 2013). Effective communication is critical to building trust among stakeholders, garnering support for resource management decisions, and successfully transmitting critical resource

management information (Jacobson 2009). However, effective communication is a complex process, relying on an interplay between the message, the messenger, the medium, and the audience to determine how information is transmitted to and understood by the audience. The best channels for reaching stakeholders are not always obvious or direct from afar (Prokopy et al. 2015). By asking stakeholders about their attitudes toward and trust in fishery management agencies, their preferred sources of fishery information, and who they talk to about fishery data collection and management issues, their communication networks can be examined. Understanding the communication networks will clarify how information flows in the system, the relationship between different information sources and attitudes toward and trust in management, and regional differences in attitudes toward and trust in management. The results of the survey will be used to improve: 1) our understanding of saltwater recreational anglers' knowledge, opinions, and beliefs on data collection and fisheries management, and 2) how we communicate with saltwater recreational anglers.

The mail survey portion of the Social Network Analysis Mail Survey (SNAMS, OMB # 0648-0781), was conducted in 2019. Results of the SNAMS should be available in 2020, and be used, in concert with results from other surveys, to determine the locations where the in-person survey will be conducted. The in-person survey, or Social Network Analysis In-Person Survey (SNAIS) will be conducted in Spring 2020 to evaluate how marine recreational anglers gather, share, and evaluate information on topics related to fisheries data collection, fisheries regulations, stock assessments, the overall health of fisheries, fisheries science, and fisheries management. The interviews will allow NMFS to evaluate how anglers communicate about fishery data collection and management issues, with whom they communicate, and the drivers of their attitudes towards different sources of information. The results will enable NMFS to better understand how information flows through the fishing community and to make specific suggestions for communications strategies to foster productive, collaborative relationships with stakeholders.

The SNAIS questionnaire collects complex information about angler social networks and interactions that either could not be obtained through the mail survey or would have significantly increased the mail survey burden hours. The initial survey questions assess angler participation (similar to the mail survey), whether an angler fishes in State and/or Federal waters, their frequency of type of fishing (i.e., from shore, from a for-hire boat, from a private boat), and extent of involvement in fisheries management and data collection. NMFS is asking these questions to understand the diversity of these angler characteristics, which may be linked to the level and extent of involvement in saltwater recreational angler networks. An understanding of these characteristics is important for evaluating the social structure of anglers who may, or may not, interact in a social network. The second section of the survey evaluates the size and geographic extent of angler networks, the frequency of fisheries-related discussions, the venues for such discussions, the sharing of fisheries information within angler networks, the level of engagement, and connectedness of the network. The third section of the survey evaluates angler network sources of information, including frequency of use, the level of importance, and motivations for trust or distrust of information sources. The fourth section evaluates anglers' interactions with State or Federal fisheries management and perceptions of, and trust in fisheries management, which are important for understanding the perception of NMFS among different types of recreational anglers. These attitudes and perceptions are likely formed, in part, by anglers' fishing background and their sources of information (and the level of trust about saltwater fishing regulations and data collection from these sources) Demographic questions are also included. Finally, anglers who are smartphone users are asked questions to evaluate the

types of applications (e.g., social network, maps, activity, angling-specific) used, if NMFS should offer an application for reporting recreational saltwater fishing information, preferences for using such an application, potential frequency of use, and reliability of such information. Ultimately, all of these components are necessary as part of the social network analysis to identify data-driven strategies for outreach and effective communication with anglers.

**2. 1 Explain how, by whom, how frequently, and for what purpose the information will be used. 1 If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.**

The SNAIS is a one-time data collection to research how marine recreational anglers gather, share, and evaluate information on topics related to fisheries data collection, fisheries regulations, stock assessments, the overall health of fisheries, fisheries science, and fisheries management. The MRIP Communication and Education Team (CET) will be the primary user of the information to be collected.

The proposed questionnaire was developed in consultation with Dr. Andrew Ropicki of the University of Florida, Dr. Stuart Carlton of Purdue University, industry experts, and NMFS staff. The survey form will be organized to ease data collection by trained interviewers and has clearly defined sections which identify the types of data being collected. The survey will collect information on 1) saltwater recreational fishing habits, 2) saltwater recreational fishing information sharing, 3) sources for saltwater recreational fishing information, 4) attitudes and perceptions regarding fishery management agencies, and 5) for smartphone users, use of smartphone applications and opinions on reporting saltwater recreational fishing information using a smartphone. Collectively, these sections will provide insights into how recreational anglers gather and evaluate information on recreational fisheries.

#### Section 1 – Saltwater Recreational Fishing Habits

This section seeks to describe the level of involvement an individual has in recreational fishing. Questions are asked to determine fishing avidity, location of fishing activity, and level of involvement in fisheries management and data collection. The results of these questions will primarily be used for outreach and education purposes.

#### Section 2 – Saltwater Recreational Fishing Information Sharing

This section evaluates how anglers gather and share information so fisheries scientists and managers can improve the way they communicate with the recreational fishing community. Questions are asked to evaluate the size and geographic extent of angler networks, the frequency of fishing related discussions within angler networks, and the venues for the discussions. There are also questions to determine if those discussions include saltwater recreational fisheries management and data collection, evaluate angler network members' level of engagement with issues related to fisheries management and data collection, and model the connectedness of anglers in the respondent's network. Results will assist in building communication strategies, managing angler expectations, and targeting outreach and messaging.

#### Section 3 – Sources for Saltwater Recreational Fishing Information

This section asks about the sources recreational anglers use to get information about recreational saltwater fishing. Questions seek to identify the types of sources used, how often sources are

used to gather information on fishing, and the sources' level of importance.

#### Section 4 – Attitudes and Perceptions Regarding Fishery Management Agencies

This section asks about anglers' level of trust and communication with State fisheries management agencies and NMFS. Respondents who indicate they communicate with the state agency or NMFS are asked for suggestions to increase the level of trust and effectiveness of communications. Demographic questions are asked because the U.S. Census does not collect or provide information at a level to be able to identify a specific population of anglers, or fishing as a separate industry. Information about fishing in the U.S. Census is aggregated with other industries such as forestry and agriculture. Collection of gender, age, and level of education in this section serves to describe this specific population of anglers and will allow for comparison to the general U.S. public. Finally, anglers who are smartphone users are asked questions to evaluate the types of applications (e.g. social network, maps, activity, angling-specific) used, if NMFS should offer an application for reporting recreational saltwater fishing information, preferences for using such an application, potential frequency of use, and reliability of such information.

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. NOAA Fisheries will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. The data collected by the SNAIS will be subject to the quality control measures and pre-dissemination review pursuant to Section 515 of Public Law 106-554.

### **3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.**

The proposed data collection will be conducted via voluntary, in-person interviews. The interviewer will record responses using pencil and paper or a Computer-Assisted Personal Interviewing (CAPI) system on a tablet/computer. Some telephone interviews may be conducted with anglers for whom an in-person interview is not convenient; telephone interviews will be conducted using paper and pencil or the CAPI system as a Computerized Telephone interviewing (CATI) system. Survey responses will be entered into electronic databases.

### **4. Describe efforts to identify duplication.**

NMFS collaborates with state natural resource agencies and regional interstate fisheries commissions on the Atlantic and Gulf coasts to ensure that recreational fisheries data collections are not duplicative. The SNAIS is also not duplicative of the SNAMS (OMB # 0648-0781). While the SNAMS collected data at the management council region level, the SNAIS collects complex information about community angler social networks and interactions that could not reliably be obtained through the SNAMS and would have significantly increased the SNAMS burden hours.

**5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.**

No small businesses or other small entities will be impacted. Individuals are the respondents.

**6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.**

If the survey is not conducted, NMFS will not obtain complex information on how recreational anglers gather, share, and evaluate information on topics related to fisheries management and data collection. NMFS may experience difficulty in effectively communicating with recreational anglers concerning MRIP. MRIP may have difficulty examining and developing strategic communications to ensure partners and constituents are engaged in the MRIP, kept well informed of opportunities to participate, and apprised of MRIP's progress. There are no current plans to implement the SNAIS beyond 2020 or on a frequent basis.

**7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.**

The collection is consistent with OMB guidelines.

**8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

A Federal Register Notice published on December 21, 2018 (83 FR 65637) solicited public comments. No comments were received.

MRIP is a state-regional-federal partnership that develops, improves, and implements a network of surveys to measure total recreational fishing catch. MRIP members maintain regular communication with customers, through workshops, workgroup meetings and one-on-one consultations. For example, The MRIP Executive Steering Committee (ESC), which includes senior managers from NOAA Fisheries, the Executive Directors of the Interstate Marine Fisheries Commissions, and a representative from the Marine Fisheries Advisory Committee, provides general oversight of MRIP and ensures the program satisfies Federal, state and regional needs for recreational fishing statistics. The ESC meets annually to review program activities, strategically allocate funds to addresses data needs and approve research priorities. MRIP's Communications and Education Team (CET) seeks to build awareness, support, and confidence in MRIP among its partners and stakeholders, ensures partners and stakeholders are engaged in MRIP's transition toward improved survey methods, and demonstrates how MRIP data support fisheries management. The CET includes representatives from NOAA Fisheries headquarters, regional offices and science centers, as well as Sea Grant. The CET's Greater Atlantic and Southeast Regional Communications Working Groups include a subset of the CET in addition to representatives from the states and fishery management councils. The CET meets twice a month

to discuss national and regional outreach and education issues related to MRIP and recreational fishing data collection efforts. Recent feedback and questions resulting from these meetings include the following:

*Question:* Why conduct in-person interviews in addition to the mail survey?

*Response:* The mail survey helped identify sources and pathways used in information gathering, and focused on discovering broad trends. The in-person interviews, to be conducted in three distinct communities (urban, suburban, and rural), provides an opportunity to more fully detail how anglers communicate about fishery data collection and management issues, identify trusted information sources), and understand the drivers of their attitudes towards different sources of information. The results will help us better understand how information flows through recreational fishing communities and inform new communications strategies.

*Question:* What type of information will be collected during the SNAIS interviews?

*Response:* Interviewers will collect information on saltwater recreational fishing avidity and fishing information sources that anglers use to gather information about recreational fisheries data collection and management. They will also ask questions about how they share information about recreational fisheries data, and how fishery management agencies can improve their communications and outreach efforts.

*Question:* Will the NMFS Office Science and Technology share results of the social network analysis with other NOAA Fisheries offices as well as external MRIP partners?

*Response:* Results will be shared so agency and external partners can leverage the results to improve upon overall MRIP communications and outreach efforts. For example, findings from the social network analysis may support recently developed region-specific plans for connecting to and collaborating with the recreational fishing community.

The SNAIS instrument has been evaluated through a series of exchanges conducted between Dr. Ropicki, Dr. Carlton, ECS Federal, and NOAA Fisheries staff to obtain their views on the clarity of the questions and clarify the data elements to be recorded. Moreover, the SNAIS questionnaire was pre-tested with seven recreational anglers, and there were relatively few suggestions for change.

The survey was pretested with two respondents at the University of Florida and five respondents at the University of Miami. All pretests were conducted with licensed saltwater recreational anglers. The pretesters ranged in age and represented a diversity of educational backgrounds. The pretesters responded positively to the overall structure of the survey and handouts and indicated survey questions were easily understood. In particular, the pretesters indicated handout #2 illustrated the concept of a social network in a way that they could easily understand. Their feedback was used to revise the questionnaire and to ensure that the questions are understood and interpreted by respondents as intended.

The pretesters agreed the survey length was reasonable and suggested informing potential respondents up-front that the survey will take approximately 30 minutes to complete. In a recent anthropological study of recreational bonefish anglers with interviews lasting up to 2 hours, respondent fatigue may have been a problem (Kroloff, 2019). NMFS does not anticipate respondent fatigue to be a problem on the SNAIS because of the structured interview, and pretesters did not demonstrate evidence of respondent fatigue or satisficing. On average, the

pretest subjects took 32 minutes to complete the draft questionnaire, with a standard deviation of approximately 5 minutes. No questions were deemed redundant or unnecessary though some questions were revised (or removed, in response to pretest comments) to improve the questionnaire with the added benefit of reducing the respondent time burden to approximately 30 minutes per interview.

Pretest comments on specific questions that resulted in improvements to the questionnaire that also reduced the time burden:

The introduction (below) to Question 7 was too long and it was not necessary to show the handout so the question was revised as follows:

Original Question 7: Next, I'm going to ask about your involvement in issues related to saltwater recreational fisheries management and data collection. To make sure you know what I mean by "fisheries management and data collection," I'd like you to read a handout (provide handout #3) that defines these terms (give respondent time to read handout #3). I am going to name a few ways you might be involved in issues related to saltwater recreational fisheries management and data collection. For each activity, please answer "Yes" or "No."

Revised Question 7: I am going to name a few ways you might be involved in issues related to saltwater recreational fisheries management and data collection. For each activity, please answer "Yes" or "No."...

A question about how the respondent would describe their knowledge of saltwater recreational fishing regulations (e.g. Poor, Fair, Good, or Excellent) was deleted.

A question about the flow of saltwater recreational fishing information between the respondent and members of their social network revealed that information flowed both ways. The question was deleted.

The survey also asked about the importance of several motivations for saltwater recreational fishing in a multi-part question. Initial pretest comments revealed the question should be collapsed but when asked for the motivation that "best describes why you usually go fishing" this proved difficult to answer as the motivation varied from trip to trip, so the question was deleted.

**9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.**

Neither payments nor gifts will be provided to respondents.

**10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.**

As stated on the instrument, responses are kept confidential as required by section 402(b) of the Magnuson-Stevens Act and [NOAA Administrative Order 216-100](#), Confidentiality of Fisheries Statistics, and will not be released for public use except in aggregate statistical form without identification as to its source.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

No sensitive questions are asked.

**12. Provide an estimate in hours of the burden of the collection of information.**

Information Collection	Type of Respondent (e.g., Profession)	# of Respondents	Annual # of Responses / Respondent	Total # of Annual Responses	Burden Hrs / Response	Total Annual Burden Hrs	Hourly Wage Rate (for Type of Respondent)	Total Annual Wage Burden Costs
Social Network Analysis In-Person Survey	Civilian Workers	180	1	180	0.5	90	\$ 25.22	\$ 2,270
<b>Totals</b>				<b>180</b>		<b>90</b>		<b>\$ 2,270</b>

**13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).**

Information Collection	# of Respondents	Annual # of Responses / Respondent	Total # of Annual Responses	Cost Burden / Respondent	Total Annual Cost Burden
Social Network Analysis In-Person Survey	180	1	180	\$ -	\$ -
<b>TOTALS</b>			<b>180</b>		<b>-</b>

**14. Provide estimates of annualized cost to the Federal government.**

Cost Descriptions	Grade/Step	Loaded Salary /Cost	% of Effort	Fringe (if Applicable)	Total Cost to Government
Federal Oversight	13/2	\$ 75.94	5%		\$ 7,898
Contractor Cost		\$ 125,430			\$ 125,430
Travel					\$ 23,454
Other Costs					\$ 0
<b>TOTAL</b>					<b>\$ 156,783</b>

**15. Explain the reasons for any program changes or adjustments.**

This is a new data collection.

**16. For collections whose results will be published, outline the plans for tabulation and**

**publication.**

Descriptive and analytical reports will include summaries of data. These reports will not release or reveal individual responses. The data summaries may support research and analyses to be presented at appropriate professional meetings (e.g. American Fisheries Society, Joint Statistical Meetings) and may be submitted for publication in appropriate statistical or fisheries peer-reviewed journals.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.**

The OMB control number and expiration date will be displayed.

**18. Explain each exception to the certification statement.**

There are no exceptions to the certification statement.

## References

Carlton, 2012. The role of science in public understanding of environmental controversies: Cognition, media, and resident opinion in coastal Florida. Dissertation submitted to the School of Natural Resources & Environment, University of Florida.

Carlton, J. S., & Jacobson, S. K. (2013). Climate change and coastal environmental risk perceptions in Florida. *Journal of environmental management*, 130, 32-39.

Church, A.H. (1993). Estimating the Effect of Incentives on Mail Survey Response Rates: A Meta-Analysis. *Public Opinion Quarterly* 57:62–79.

Jacobson, S. K. (2009). *Communication skills for conservation professionals*. Island Press.

Prokopy, L. S., Carlton, J. S., Arbuckle, J. G., Haigh, T., Lemos, M. C., Mase, A. S., Babin, N., Dunn, M., Andresen, J., Angel, J., Hart, C., and R. Power. (2015). Extension' s role in disseminating information about climate change to agricultural stakeholders in the United States. *Climatic Change*, 130(2), 261-272.

Vaske, J. J., Absher, J. D., & Bright, A. D. (2007). Salient value similarity, social trust and attitudes toward wildland fire management strategies. *Human Ecology Review*, 223-232.