



Request for Proposals

Developing a Framework for Understanding Ecosystem Factors Influencing Protected Species Interaction Patterns in the Hawaii and American Samoa Longline Fisheries: Case Study using Olive Ridley and Leatherback Turtle Interactions in the Hawaii Deep-set Longline Fishery

Western Pacific Regional Fishery Management Council

The Western Pacific Regional Fishery Management Council (Council), in coordination with the NMFS Pacific Island Fisheries Science Center (PIFSC) and Pacific Islands Regional Office (PIRO), is soliciting proposals for a contractor to develop a framework to understand ecosystem factors influencing patterns in interaction with sea turtles, marine mammals, seabirds, and protected elasmobranchs in the Hawaii longline fisheries, using olive ridley and leatherback turtle interactions in the Hawaii deep-set longline fishery as a case study.

The Council is responsible for developing fisheries management policies in the offshore waters of the US Pacific Islands pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The Hawaii and American Samoa longline fisheries are managed under the Council's Pelagic Fishery Ecosystem Plan (FEP), and the performance of these fisheries are monitored under the plan's Stock Assessment and Fishery Evaluation (SAFE) reports¹. The SAFE reports are drafted by the Council's FEP Plan Team members and Council staff, with review provided by the Plan Team and other Council advisory groups.

The review process of the 2015 and 2016 SAFE reports highlighted a need to understand the environmental and ecological drivers influencing patterns in protected species interactions in the Hawaii and American Samoa longline fisheries. The reviews identified patterns in the observed interaction data that warrant further investigation, such as a higher leatherback turtle interaction in 2014 in the Hawaii deep-set longline fishery, higher interaction rates in the black-footed albatross interactions in the Hawaii deep-set and shallow-set longline fishery since 2015, and higher olive ridley turtle interactions in the Hawaii deep-set longline fishery since 2016. Published analysis of black-footed albatross interactions in the Hawaii deep-set longline fishery and a recent workshop convened by the Council indicated that the higher interaction rates may be driven largely by oceanographic factors. Conversely, environmental and operational factors influencing leatherback and olive ridley turtle interactions have not been identified. Continued monitoring of protected species interactions in these fisheries will likely identify patterns in other species. Therefore, an overarching framework for understanding ecosystem factors influencing interaction patterns for a range of species is needed.

¹ See the 2015 and 2016 Pelagic FEP SAFE Reports at: <http://www.wpcouncil.org/fishery-plans-policies-reports/fishery-reports-2/>

For this Request for Proposals (RFP), we invite proposals to develop this framework using olive ridley and leatherback turtle interactions in the Hawaii deep-set longline fishery as a case study and examining the environmental and operational drivers and patterns underlying interactions with these species. The long-term goal for the framework is to improve the understanding of drivers influencing interaction patterns for a range of protected species including sea turtles, marine mammals, seabirds, and protected sharks and rays. The proposal for this 12-month project should utilize data associated with olive ridley and leatherback turtle interactions in the Hawaii deep-set longline fishery to develop a framework that may be applied to other species as well as the Hawaii shallow-set longline fishery and the American Samoa longline fishery.

SCOPE OF WORK

The selected contractor will work closely with the Council, PIFSC, PIRO and other partners as appropriate to develop a framework to understand ecosystem factors influencing patterns in interaction with sea turtles, marine mammals, seabirds, and protected elasmobranchs in the Hawaii longline fisheries, using olive ridley and leatherback turtles in the Hawaii deep-set longline fishery as a case study. The specific activities to be carried out under the contract will include the following:

- Coordinate with Council, PIFSC and PIRO throughout the contract period to determine the final analysis approach, obtain data necessary for the analysis, discuss preliminary results, and coordinate presentations as appropriate;
- Develop a framework for understanding ecosystem factors influencing patterns in interaction that may be applied to a range of protected species (sea turtles, marine mammals, seabirds, elasmobranchs) with consideration given to the following:
 - protected species thermal habitat (vertical and horizontal);
 - other environmental and ecological drivers that may affect distribution and aggregation (e.g., oceanographic features such as currents, fronts, chlorophyll concentrations, or prey distributions); and
 - fishery operational characteristics (e.g., estimated depth, spatial distribution);
- Conduct an analysis to examine factors influencing olive ridley and leatherback turtle interaction patterns in the Hawaii deep-set longline fishery using the above framework;
- Provide presentations to the Council's advisory bodies during the 2017 SAFE report review process to take place in April-May 2018, including any preliminary findings;
- Prepare a report detailing the methods, results and discussion of the analysis by the end of the 12-month project period.

CONTRACT PERIOD

The contract will run for a 12-month period starting in late February or early March 2018.

ELIGIBILITY

- Principle Investigator(s) must have a demonstrated ability to implement the project, with a background in statistical or ecological modeling and experience working with large oceanographic and/or fisheries datasets, including coding in R (preferable);
- The contractor must be available to start the project in or around February 2018;
- Principal investigator(s) with prior experience working with data from the Hawaii and/or

- American Samoa longline fishery is preferred;
- Principal investigator(s) based in Honolulu are preferred (if not based in Honolulu, travel may be included in the proposal for up to 3 trips to Hawaii);
- U.S. Federal agencies and their employees are not eligible for contractual agreements with the Council;
- Proposals will be evaluated on a competitive basis by a review committee. The selected proposal will be funded as a contract.

REPORTING REQUIREMENTS

The contractor will be required to submit regular progress reports and a final report. All end products, reports, and deliverables resulting from this project must be submitted to the Council. Substantive deliverables may also be reviewed by PIFSC and PIRO personnel. The contractor must also formally acknowledge the Council support in all publications and presentations related to the funded project. The contractor is expected to produce a high quality analysis that is appropriate for submission to a peer-reviewed scientific journal.

HOW TO APPLY

Proposal submissions should include the following materials:

- (1) A proposal including the following items (*maximum 5 pages*):
 - a. Name, affiliation, and contact information of the principal investigator(s)
 - b. Project narrative, including the proposed analysis approach and timeline
 - c. Budget
 - d. List of citations, if any
- (2) A curriculum vitae or resume for each Principal Investigator (*maximum of 2 CVs per proposal; not to exceed 4 pages each*).

Proposals may be submitted by e-mail (attach materials in PDF files) or regular mail to:

Asuka Ishizaki
Protected Species Coordinator
Western Pacific Regional Fishery Management Council
1164 Bishop Street, Suite 1400
Honolulu, HI 96813
Email: asuka.ishizaki@wpcouncil.org

Any inquiries regarding this Request for Proposals should be directed to the contact information above. Proposals will be reviewed by a committee consisting of staff members from Council, NMFS Pacific Islands Fisheries Science Center, and NMFS Pacific Islands Regional Office.

SUBMISSION DEADLINE

Proposals must be submitted and received at the Council office by **Friday, January 19, 2018** at 5pm Hawaii Standard Time.

POTENTIAL AVAILABLE ASSISTANCE

Total amount of funding available is \$100,000.