

Request for Proposals

Monitoring and Forecasting Trends in Hawai'i Non-Target Pelagic Species

Western Pacific Regional Fishery Management Council

The Western Pacific Regional Fishery Management Council (Council) is soliciting proposals for a contractor to design and conduct an analytical framework to model and forecast changes in longline fishery performance and availability of non-target pelagic species caught in Hawai'i longline fisheries using catch-per-unit effort (CPUE). For this Request for Proposals (RFP), we invite proposals that address monitoring and forecasting non-target pelagic management unit species such as opah, monchong, shortbill spearfish, ono, mahi-mahi, and sharks (blue, mako, oceanic whitetips). The proposal should also provide a means to create a software platform to reproduce and update analyses in the future with a standardized data input. This platform should generate documentation and figures that could be updated in the future for incorporation in the Council's Annual Pelagic Stock Assessment and Fishery Evaluation (SAFE) Report. The contractor should be able to work well with Council and NMFS staff and seek their consultation throughout the project's duration.

SCOPE OF WORK

The selected contractor will work closely with the Council, NMFS, and other scientific partners to analyze trends in CPUE of non-target species caught by Hawai'i longline fisheries and provide visualizations of trends.

The contracting party will fulfill the following scope of work:

- 1) The contracted scientist will perform CPUE analyses for non-target pelagic management unit species opah, monchong, shortbill spearfish, ono, mahi-mahi, and sharks (blue, mako, oceanic whitetips) using PIROP and/or logbook catch and effort data. The scientist will implement methods such as generalized linear models, geostatistical CPUE models (such as VAST), generalized additive models, or a combination of methods. The scientist will provide justification for these methods so that a robust index of abundance emerges from his/her work.
- 2) The contracted scientist will analyze CPUE and/or size composition data to infer population processes driven by extrinsic factors such as environmental processes and provide insight on forecasting future availability or local abundance.
- 3) The contracted scientist will provide technical reports on the CPUE standardization for the species identified above in SOW #1 and a final report.
- 4) The contracted scientist will create either R Markdown or Shiny R applications from the analyses to be updated the following year or reproduced by other scientists with the Council or NMFS. The project should provide detailed instructions on the use of this platform.

- 5) The contracted scientist will consult with NMFS staff for technical guidance on data or methods
- 6) The contracted scientist will present his/her work to the Council's Pelagic Plan Team and Scientific and Statistical Committee
- 7) Results from the work should be able to be modulated into the Council's Annual Pelagic Stock Assessment and Fishery Evaluation (SAFE) Reports, if so desired by the Pelagic Plan Team

CONTRACT PERIOD

The contract is expected to begin May 15, 2020. The contract shall be completed no later than December 31, 2020.

ELIGIBILITY

- Principle Investigator(s) must have a demonstrated ability to implement the project, with a background in statistics, computer science, and data visualization.
- Principle Investigator(s) must have a demonstrated expertise with statistical platforms such as R or SAS or any related software packages that can perform needed exercises and provide a means to reproduce the analyses.
- Principle Investigator(s) must have a demonstrated familiarity with spatial statistics and related software packages.
- The contractor must be available to start the project no later than May 15, 2020;
- 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, a final report, and any other deliverables to be identified in the contractual agreement. All end products, reports, and other deliverables resulting from this project must be submitted to the Council. 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 and incorporation into annual reports.

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:

Western Pacific Regional Fishery Management Council 1164 Bishop Street, Suite 1400 Honolulu, HI 96813 Email: <u>info@wpcouncil.org</u>

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 and/or Science and Statistical Committee (SSC) members..

SUBMISSION DEADLINE

Proposals must be submitted and received at the Council office by **Friday May 8, 2020,** at 5pm Hawaii Standard Time.