



WESTERN
PACIFIC
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FISHERY
MANAGEMENT
COUNCIL

Rare Events Bycatch Workshop Overview

Background:

Since 2004, National Marine Fisheries Service (NMFS) has reinitiated formal Endangered Species Act (ESA) consultations on longline fisheries managed by the Western Pacific Regional Fisheries Management Council (Council) three times to re-assess interactions between the fisheries and endangered or threatened species of sea turtles. In 2004, NMFS' Office of Protected Resources issued a "no jeopardy" Biological Opinion that set incidental take limits for individual components of the longline fisheries managed by the Western Pacific Regional Fisheries Management Council under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Less than a year later, formal consultation on the deep-set component of the Hawaii-based pelagic longline fishery had to be reinitiated because the fishery had exceeded the amount of take of olive ridley sea turtles the 2004 Incidental Take Statement (ITS) anticipated. A new Biological Opinion for the deep-set longline fishery was subsequently issued in 2005.

In 2013, NMFS Pacific Islands Regional Office's (PIRO) Sustainable Fisheries Division requested PIRO's Protected Resources Division to reinitiate formal consultation on these fisheries, partially because a new species (insular false killer whale) had been listed as endangered and partially because the fishery had interacted with a sperm whale for which take was not authorized under the 2005 Biological Opinion. While the reinitiated consultation was underway, the fishery exceeded the amount of incidental take of leatherback sea turtles anticipated in the 2005 Biological Opinion, which provided another trigger for reinitiating consultation. This consultation was concluded in 2014 with a new Biological Opinion for the deep-set fishery. Approximately one year later, take for two species of sea turtles exceeded the amount of ITS anticipated in the new biological opinion. The need to frequently reinitiate consultation on these fisheries due to exceeding incidental take of listed species prompted a Council directive at its 163rd Meeting to examine current approaches to estimating the amount or extent of incidental take and their considerations in NMFS' Biological Opinions, and to consider alternative approaches.

To achieve this objective, the Council will host a workshop series in coordination with NMFS PIRO to (1) re-examine how the number of different sea turtle species that are likely to interact with the fisheries have been considered in NMFS' Biological Opinions in the past and (2) identify alternatives to the approaches NMFS uses to estimate the incidental take of ESA-listed sea turtles in the Hawaii deep-set pelagic longline fishery. The Council aims to identify additional alternative, probabilistic approaches that explicitly consider (a) the effects of limited observer coverage on estimates of interaction rates; (b) year to year variability in interaction rates; (c) the possibility of no interactions occurring in some years; and (d) the uncertainty associated with any estimate.

Recent publications have described statistical approaches developed in other industry sectors to estimate the probability of rare events involving endangered and threatened species. These and other statistical approaches may provide new information that warrants consideration by NMFS and the Council as they formulate fishery management actions under the MSA. Consistent with the ESA-MSA Integration Agreement (May 12, 2016)¹ between the Council and NMFS PIRO that recognizes their unique relationship and the integration of the ESA Section 7 with the MSA processes, working together in this effort may improve the quality of information available during consultation.

Objective:

The goal of the workshop is to identify alternative approaches that also satisfy regulatory standards and substantive requirements that apply to incidental take estimates and their consideration in PIRO's ESA consultations with specific focus on the data obtained from the deep-set longline observer program. The workshop will explore and evaluate a range of methodologies and statistical approaches. The outcomes of this workshop are intended to assist in identifying technical approaches to estimating the number of sea turtles that interact with these fisheries and how they are considered in Biological Opinions that can be implemented by the Council, PIRO Sustainable Fisheries Division, and PIRO Protected Resources Division when developing fishery management actions under the MSA and related ESA Section 7 consultations and NEPA reviews.

Scope:

The workshop will focus on sea turtle bycatch in the Hawaii deep-set longline fishery with potential application to similarly monitored species with rare bycatch in other fisheries. Marine mammals are not included in the scope, as the method for monitoring and predicting future levels of interactions are substantially different due to the need to satisfy both ESA and MMPA requirements.

Outcome:

A workshop summary report will identify potential alternatives for producing take estimates and their consideration in Biological Opinions. These alternatives may be considered by the Council and NMFS² to support future ESA consultations and fishery management actions under the MSA in the Hawaii deep-set longline fisheries and other applicable pelagic longline fisheries.

¹ See Appendix 1 of the Regional Operating Agreement available here: http://www.wpcouncil.org/wp-content/uploads/2013/10/WPRFMC-PIRO-PIFSC_ROA-Final_April2016.pdf

² Participation in this workshop shall not be construed as an agreement by any party to implement the outcomes. Consistent with statutory responsibilities and the ESA-MSA Integration Agreement, NMFS retains discretion to conduct any individual ESA consultation differently from the process or any outcomes produced as a result of this workshop.

Schedule:

The workshop will consist of one teleconference/webinar session on September 14, 2016 and an in-person meeting on October 18-20, 2016. The teleconference session will cover previously used methodologies to set the stage for in-depth discussion at the in-person meeting.

The teleconference/webinar session (3 hours) will cover:

- Overview of ESA consultations and relevant terminology
- Brief overview of Hawaii deep-set longline fishery and observer coverage history
- Overview of methodologies used in past ESA consultations for the Hawaii deep-set longline fishery to determine the level of interactions expected from a proposed fishery action (“exposure”)
 - Comparison of methodologies and how they are considered in 2004, 2005, and 2014 Biological Opinions
- Overview of statistical approaches used in other industry sectors to address and monitor rare events interactions, including:
 - Framework for Decision Points in monitoring wind-power project impacts
 - Control Charts for monitoring oil and gas development impacts

The in-person meeting (3 days) will cover topics including the following:

- Overview of monitoring interactions against take limits in the Hawaii deep-set longline fishery
- Evaluation of past “exposure” estimates in relation to observed interactions
- Overview and discussion on considerations for determining “exposure” in the Hawaii deep-set longline fishery
 - Incorporating new data in a timely manner
- Suitable options for determining “exposure” in the Hawaii deep-set longline fishery
 - Best practices
 - Tool development
 - Recommended approach