

PACIFIC SCIENTIFIC REVIEW GROUP

A Regional Advisory Group to the National Marine Fisheries Service

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Assistant Administrator for NOAA Fisheries
National Marine Fisheries Service
1335 East-West Highway
Silver Spring, Maryland 20910

22 August 2017

Dear Mr. Oliver,


Please find enclosed the minutes and recommendations from the most recent meeting of the Pacific Scientific Review Group held 13-15 February 2017.

With the ESA relistings for humpback whale breeding populations, many stocks will need to be restructured for management under the MMPA. Regardless of the stock structure adopted, however, research using photo-identification, surveys, telemetry, and genetics will be needed to implement the management of these new stocks.

The SRG has recommended an analysis on the effectiveness of the Take Reduction Plan measures for reducing mortality and injury of false killer whales in the Hawaii longline fisheries, particularly with regard to the interaction between the branchline strength and weak hook effectiveness. More testing of hook breakage and straightening should be conducted as many more hooks have come onto the market since the original NMFS hook study.

Once again, the SRG compliments your NMFS staff for their excellent presentations, outstanding research, and support of the SRG. The SRG is particularly grateful to the Pacific Islands Regional Office and the Pacific Islands Fisheries Science Center for hosting the meeting of the Pacific SRG and for the tour of your Ford Island facility.

Sincerely,



Michael Scott
Chairman, Pacific Scientific Review Group
cc: Shannon Bettridge

Research and Management Recommendations
Pacific Scientific Review Group Meeting, 13-15 February 2017

The SRG recommends that the NMFS continue funding for studies of movements and genetics of false killer whales and other cetaceans around Hawaii and U.S. waters in the Central Pacific to better understand stock structure, abundance and trends, ecology, distribution, and fishery interactions and survey bias.

The SRG recommends that the NMFS collaborate with the State of Hawaii to conduct two reviews that can aid in future management:

- 1) Expand upon the information presented at previous SRG meetings and the subsequent preliminary studies on the fisheries that operate in Hawaiian nearshore waters (such as the troll, handline, shortline, and other fisheries). In addition to the information that is currently collected from fishermen through self-reports, data should be collected on catch and bycatch amounts, season, location, and types of gear used, including regional gear variations. The SRG supports the collaborative NMFS-funded research planned by the Hawaii Department of Land and Natural Resources, with its emphasis on scientific research and outreach to the fishing community and public.
- 2) Depredation of bait and fish catches by cetaceans is recognized as a serious problem for both fishermen and cetaceans in Hawaii. To better understand the dimensions and dynamics of this cetacean-fishery interaction, a review and problem analysis for each of the applicable fisheries could provide both a historical perspective and a current assessment of the problem.

The SRG would like to receive an update on these ongoing studies and reviews at its 2018 meeting. These reviews would be particularly valuable given the endangered status of the Hawaii insular stock of false killer whales and our current inability to identify causes for its decline.

A study (Harting *et al.* 2014) showed that about one-third of the current Hawaiian monk seal population is alive only because of the survival-enhancement efforts of NMFS and its collaborators. Those efforts include rescuing sick or malnourished pups, translocating pups to areas where survivorship probabilities are greater, and mitigating mortality from male seal aggression, Galapagos shark predation, and entrapment. Not included in this total were the additional seals would have become entangled in debris were it not for net-debris removal efforts. To continue these vital conservation and recovery efforts, the SRG recommends that the NMFS:

- 1) Maintain sufficient resources to continue to operate the NWHI monk seal field camps and maintain rescue, rehabilitation, and survivorship-enhancement programs throughout the Hawaiian Archipelago. The field camps in the NWHI not only allow monitoring status of these subpopulations and research, but have been shown to play a critical part in survivorship-enhancement efforts
- 2) Restore the NMFS net-debris removal program near monk seal haulout areas where entanglement occurs.

The SRG has recommended that NMFS develop a multi-year allocation of ship time for marine mammal surveys and increase the priority and funding for these surveys, which are necessary to obtain the abundance estimates used to calculate PBR and thereby enable fisheries to meet the required MMPA standards. A multi-year survey plan for all U.S. waters was developed but has not

been implemented. In the Pacific, a West Coast survey was completed that provided new abundance estimates and a Hawaii survey is planned for 2017. The lack of operational funds threatens to delay the Hawaii survey. The SRG recommends implementation of the national survey plan to allocate both ship time and operational funding and collaboration with other agencies to obtain new abundance estimates for marine mammal populations in a timely and systematic manner.

The False Killer Whale Take Reduction Plan instituted for the Hawaii-based deep-set longline fishery included operational changes to such things as branchline strength, hook shapes and strengths, and set procedures. The effectiveness of these changes has bearing on the comparison of mortality and PBR and, at its 2017 meeting, the SRG reviewed the effectiveness of these changes in reducing the mortality and serious injury of false killer whales. Preliminary information suggests that lines were breaking or being cut and hooks were not straightening as anticipated, and that the approach to reduce serious injuries is not working as hoped. NMFS should continue efforts to work with the TRT to improve the approach to reduce serious injury of false killer whales.

The SRG recommends that the NMFS provide, along with current mortality and effort data, an analysis on the effectiveness of the Take Reduction Plan measures, particularly with regard to 1) the interaction between the branchline strength and weak hook effectiveness, 2) potential differences in fishing practices and location for trips with and without observers, and update its testing of hook breakage and straightening for new hooks that have come onto the market since the original NMFS hook study.

The SRG recommends that NMFS implement a multi-year plan and provide funding for conducting US West Coast pinniped surveys on a 3-5-year schedule. These surveys are necessary to obtain abundance estimates required to calculate PBR and thus enable fisheries to meet the standards required by the MMPA and place an undue burden on those fisheries. Abundance estimates are required to meet assessment needs and conduct multi-species ecosystem modeling.

With the ESA relistings of many humpback whale breeding populations, the WA/OR/CA stock will need to be restructured. Regardless of the stock structure adopted, more research will be required to implement the management of these new stocks. The SRG recommends that photo-identification, surveys, telemetry, and genetics studies be reviewed and expanded as necessary to a) identify the proportion of different breeding populations that comprise the CA/OR and WA/BC feeding populations, b) estimate the abundance of these feeding populations, and c) assign breeding population of origin for whales taken in fisheries or stranded. Because certain newly recognized populations are listed as endangered or threatened, the SRG supports NMFS' efforts to move forward expeditiously with the designation of MMPA stocks.

The SRG recommends that the 2002 and 2010 HICEAS data be reanalyzed after the completion of the 2017 HICEAS survey to apply consistent abundance analysis methods to all three survey years.