

# Pacific Scientific Review Group

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## A Regional Advisory Group for the National Marine Fisheries Service and Fish and Wildlife Service

1 June 2018

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Dear Assistant Administrator Oliver and Regional Directors Souza and Thorson:

This letter conveys recommendations from the Pacific Scientific Review Group (PSRG) to the National Marine Fisheries Service (NMFS) and Fish and Wildlife Service (FWS) based on the its 21-23 March 2018 meeting in La Jolla, California. The meeting focused on science, management, and conservation of marine mammals that occur along the U.S. West Coast and in the central North Pacific including some stocks that occur in U.S. waters around Alaska. The PSRG gratefully acknowledges the NMFS and FWS scientists and managers for preparing stock assessment reports and helping the PSRG prepare for its meeting. Our recommendations and rationale follow.

### **Resources for and timeliness of SARs-related research**

The PSRG recommends that NMFS and FWS bolster the resources available for stock assessment research and reporting. The SARs prepared by these regions are critical for the management and conservation of marine mammals and ecosystems in the affected regions. In turn, the value of the SARs depends on the completeness and timeliness of the information they contain. “Level funding” and attrition are eroding the research programs responsible for collecting SARs-related information. The resulting loss of personnel and information already has diminished NMFS’ effectiveness in carrying out its management and conservation mission. Indeed, many of the recommendations that follow pertain to large and important gaps in the information needed to guide management and conservation efforts.

The PSRG also recommends that NMFS and FWS streamline their SAR processes to ensure that the information included in SARs is as up-to-date as possible. The PSRG recognizes that certain types of information may require more extensive review, but that is not always the case. For example, as described later in this letter, the PSRG believes that NMFS' SAR review process has been slow in including important information on humpback whale-fisheries interactions, which could delay subsequent remedial actions. Managing marine mammal interactions with human activities can take years, even decades, for legitimate reasons. However, the PSRG does not consider delays caused by slow SAR processing and reporting to be a legitimate reason.

### **Inter-regional coordination**

The PSRG recommends that, when marine mammal stocks occur in multiple regions, NMFS coordinate research and management programs among regions to ensure management and conservation goals are met. In particular, NMFS regions discussed at the PSRG meeting face a number of common challenges in terms of species or stocks involved and threats managed. Each region can justifiably claim certain scientific strengths but those strengths are not necessarily the same from region to region. Coordinating research and management efforts among regions ensures that NMFS is making full use of its scientists' and managers' talent and expertise to resolve scientific and conservation challenges. Cetacean surveys along the West Coast and around the Hawaiian Archipelago illustrate the value of such coordination.

In other cases, lack of coordination undermines assessment and management efforts. For example, pinniped research and management would benefit from better coordination, especially because recent attrition has resulted in lost expertise. After its 2017 meeting, the PSRG recommended that NMFS develop and implement a 3- to 5-year schedule for assessing West Coast pinnipeds based, in part, on concern that pinniped assessments were becoming outdated. West Coast pinnipeds have recovered or are recovering, which is good, but careful assessment and management of pinniped populations is still needed because of their interactions with human activities (e.g., fisheries, tourism); their potential ecological effects on prey, including some that are endangered or threatened (e.g., certain salmon runs at various West Coast dams); their potential to compete with other high-risk populations (e.g., killer whales in the Pacific Northwest), and their vulnerability to large-scale oceanographic and ecological phenomena (e.g., harmful algal blooms and climate change). Coordination is also important for cetaceans that migrate along the West Coast. Coordination is particularly important for species and stocks at elevated risk of extinction, including the southern resident killer whale stock and endangered humpback whale distinct population segments (DPSs).

### **Vessel-based cetacean surveys**

The PSRG recommends that NMFS make every effort to sustain the multi-year, multi-region ship survey schedule established with the Bureau of Ocean Energy Management and the Navy. These Federal agencies all need information that must be gathered *in situ*. The resulting ship surveys provide essential information in all U.S. waters. They are particularly important in the Pacific Islands region and, more generally, in the central Pacific Ocean,

where lack of data on cetacean stocks severely undermines NOAA's management efforts. The U.S. needs more research vessels that can operate in oceanic conditions, but funding, designing, and building research vessels take years or even decades. Stated simply, multi-year, multi-region ship surveys provide an essential research platform for marine mammal assessment efforts and NMFS must make every effort to sustain its survey capacity.

### **Managing stock complexes**

The PSRG recommends that NMFS develop a long-needed strategy to manage stock complexes based on their biological and ecological characteristics and the risks they face individually and collectively. The primary objective of the Marine Mammal Protection Act is to maintain the health and stability of the marine ecosystem. Achieving that objective requires that management be based on the biological and ecological features of marine mammals and their ecosystems. Recent advances in delineation of stocks and DPSs pose a considerable challenge to NMFS' management systems and the agency has not yet fully risen to that challenge. NMFS deliberated for a decade before responding to scientific information on harbor seal stocks in Alaska, and it has not yet fully addressed multiple putative stocks of bottlenose dolphins in the Gulf of Mexico. Similarly, research likely will reveal greater complexity of cetacean stocks in the Pacific Islands region. Even if NMFS lacks the resources to manage stock complexes adequately, it should at least develop a strategy for doing so. Identifying a way forward will provide fiscal decision-makers a basis for weighing the costs and benefits—including the risks of under- and over-protection errors—of a more biologically and ecologically sound management and conservation approach.

### **Monitoring waived activities**

The PSRG recommends that NMFS monitor activities otherwise waived from certain Marine Mammal Protection Act statutes and regulations. At the 2018 meeting, the PSRG was told that planned construction activities in the Mississippi River Delta area were being granted a waiver from Marine Mammal Protection Act requirements and that any effects of those activities on marine mammals and marine ecosystems would be monitored by the State of Louisiana rather than NMFS. The PSRG is concerned that this waiver could have implications for other regions.

More specifically, the PSRG is concerned that the issuance of such a waiver may set an unfortunate precedent that could be extended to the Pacific region. The PSRG does not see a justification for the waiver and notes that “in making such determinations [the Secretary] must be assured that the taking of such marine mammal is in accord with sound principles of resource protection and conservation” as set forth in the Marine Mammal Protection Act. The PSRG does not understand how NMFS (for the Secretary) can be assured that any taking of bottlenose dolphins in that area will be in accord with sound principles of resource protection and conservation if NMFS does not monitor the effects of such activities and when it has not yet reliably described the stock structure of bottlenose dolphins in that area.

### **Setting priorities**

The PSRG recommends that NMFS place greater emphasis on prioritizing available research

and management resources to ensure that its scientific and management actions are sufficient to prevent irreversible changes in stock status. Scientific and management resources are clearly inadequate and decision-makers must make difficult decisions regarding the most effective way to use those resources. The PSRG believes that NMFS should give priority to species and stocks at increased risk of extinction (i.e., listed as endangered or threatened under the Endangered Species Act or designated as depleted under the Marine Mammal Protection Act) or that interact with human activities causing unacceptable effects on the stocks and human activities (e.g., identified as strategic because of the frequency of their interactions with fisheries). Stocks that have not yet been recognized as such also may be at high risk, and continued support is essential for stock identification research.

In accordance with the preceding recommendation, the following recommendations focus on species or stocks at elevated risk of irreversible adverse effects from human activities.

### **False killer whales and other insular cetacean stocks**

The PSRG recommends that NMFS continue a high level of funding for studies of false killer whales and their vulnerability to human-related threats in Hawaiian and other U.S. waters in the Central Pacific. The purpose of such studies should be to better understand stock structure, abundance and trends, ecology, distribution, fishery interactions, and the effects of those interactions on injury/mortality rates. Scientific information gathered in the past decade has greatly increased our understanding of these whales but much more information is needed to ensure that they are effectively managed and conserved.

The PSRG also recommends that NMFS, in consultation with the False Killer Whale Take Reduction Team, critically examine all false killer whale interactions with the deep-set longline fishery to determine what current gear and/or techniques should be modified or whether an entirely different approach should be developed and implemented. The False Killer Whale Take Reduction Plan is focused on the Hawaii pelagic stock of false killer whales, and the PSRG continues to be concerned about the lack of progress in implementing protective measures. One of the key measures developed in the take-reduction plan is the use of circle hooks that are expected to straighten when exposed to the kinds of line tension false killer whales can exert. This approach depends on a number of factors, including the diameter of hook shafts, but also the make/model of the hooks. In addition, it depends on the branchlines, which consist almost entirely of one long section of monofilament that must be of sufficient strength to withstand the same amount of tension so that the monofilament or the wire leaders do not snap, leaving gear still attached to the whales. The PSRG's 2017 letter recommended that —

...the relative bending strength of different circle hook types that currently meet regulatory standards for the fishery be tested by an independent entity with results reported to NOAA and the TRT.

To our knowledge, this recommendation has not been completed and we reiterate it here.

The proposed approach for managing hooked whales also requires the captain to come on deck and supervise the crew's efforts to increase the likelihood that the affected whale will be released

without hook or trailing gear. Analysis of recent false killer whale interactions with deep-set longline gear indicate that this measure was effective (i.e., the hook straightened) in only four interactions (11%) but the leader line broke or was cut in 32% and 30% of release attempts. As a result, NMFS concluded that at least 62% of the interactions caused serious injury based on the presence of trailing gear alone. These data indicate that this type of release effort, as currently implemented, is not effective and does not appreciably reduce the risk to the whales. It also endangers the crew when they are attempting to straighten a hook by applying more line tension: a hook or 45 g leaded swivel may strike a crewmember if the line or hook releases suddenly.

In addition, the PSRG recommends that NMFS increase its support for studies of other insular cetacean populations in U.S. waters of the central Pacific. Recent studies illustrate the complexity of cetacean stock structure around the Main Hawaiian Islands and similar complexity is reasonably expected in other U.S. waters of the central Pacific. Cetacean stocks in the broader Pacific have been largely ignored until recently. Progress in the past decade has been commendable, but reinforces how little is known about these waters and the cetaceans that use them. The PSRG believes that NMFS — as the responsible management agency — has just as much an obligation to develop and support a research and conservation program for cetacean stocks in U.S. Pacific waters as it does in other U.S. waters. The recent HICEAS surveys around the Hawaiian Archipelago are an important step toward more comprehensive assessment of Pacific cetaceans, but much more remains to be done.

### **Hawaiian monk seals**

The PSRG recommends that NMFS continue to provide full support for its monk seal research and management programs. In the past several years the status of the Hawaiian monk seal appears to have improved, as indicated by increasing total counts and improved condition and vital rates of juvenile seals. The evidence for these apparent changes is certainly welcome, but it will take more time to confirm a real and lasting reversal of the monk seal decline. Furthermore, this population has repeatedly surprised researchers and managers over the past four to five decades (e.g., the recent, unexpected leveling of growth in the Main Hawaiian Islands).

The PSRG also recommends that NMFS reinvigorate its efforts to clear the Northwestern Hawaiian Islands of net debris. Although virtually all of that debris originates from areas far away from the Hawaiian Archipelago, it still poses serious entanglement risks to monk seals, sea turtles, seabirds, fish, and invertebrates, including the corals that form the core habitat for the archipelago's ecosystems. Since the 1990s NMFS, with various partners, has attempted to remove that debris on a fairly regular basis, but those efforts have waned in recent years despite continued debris accumulation. As a key agency responsible for the health of Northwestern Hawaiian Island ecosystems, NMFS should be leading efforts to protect them.

### **Spinner dolphins**

The PSRG recommends that NMFS support development and implementation of a spinner dolphin survey design that provides a stronger basis for characterizing the abundance, trend, and status of spinner dolphins around the island of Hawaii. The PSRG reviewed the status of spinner dolphins in the nearshore waters of Hawaii and efforts to protect them in the bays where they



rest. The most recent abundance estimates indicate a decline in numbers when compared with historical counts. However, multiple alternative hypotheses could explain that apparent decline, such as a change in habitat use patterns or variation in the survey methods. To provide a better basis for interpreting the apparent decline, NMFS should support the development and implementation of a survey design for spinner dolphins that can be used consistently, will account for any changes in habitat use patterns, and will provide a more accurate assessment of their status. Partial surveys may continue to be useful to assess their habitat use patterns, particularly when disturbance may alter those patterns, but partial surveys are not sufficient for forming conclusions about potential changes in abundance.

The PSRG also recommends that NMFS reconsider plans to manage human interactions with spinner dolphins by establishing 50-yard approach limits, and instead focus on restrictions based on time and area management. The situations in which such approaches occur are generally very dynamic: both humans and dolphins may be moving about and the distances between them change rapidly and are difficult to measure. When accused of an infraction of the approach limit, a swimmer could simply argue that he/she didn't move, but that the dolphin approached him/her. Time and area measures are far more manageable (i.e., enforceable). NMFS should simply establish times and areas where boaters and swimmers are not allowed so that the dolphins can rest or engage in natural behaviors without being disturbed. Violations of time area measures are much easier to detect, verify, and enforce.

### **Humpback, blue, and gray whales**

The PSRG recommends that NMFS revise its 2017 SAR for CA/OR/WA humpback whales to include new information that, in the PSRG's view, constitutes the best available science and that is crucial to the SAR's accuracy and timeliness. The information should include —

- The known continued high entanglement rate of humpback whales off California in 2016 and 2017;
- The fact that the calculated mortality for the reported period (2011-2015) falls just below PBR and an explanation that PBR will be exceeded once more recent data are included;
- Reference to Rockwood et al. (2017), which (1) concluded that ship-strike mortality of humpback whales and other large whale species exceeds PBR and (2) was included as a background document at the 2018 PSRG meeting; and.
- Relevance of the new information to threat assessments for the different humpback whale DPSs.

The 2017 draft SAR for this stock states that the average entanglement mortality and serious injury for 2011 to 2015 does not exceed PBR. It does not indicate that PBR will be exceeded with the inclusion of 2016 data, but that is the case. The 2017 SAR also does not describe the evidence that humpback whale stock structure should be revised.

If the 2017 SAR for this stock cannot be revised before final publication, then the PSRG recommends that NMFS prepare a 2018 SAR report for the stock that includes the above information. Timely revision of the humpback whale SAR is all the more important given the revisions to humpback whale stocks and recognition of DPS units including the endangered Central America and the threatened Mexican DPSs. (After its meeting the PSRG was provided

draft 2018 SARs for humpback and blue whale stocks; the drafts were responsive to the above two recommendations but we decided to leave them in our letter for the record.)

The PSRG recommends that NMFS convene a take reduction team for fisheries that are known to entangle humpback whales along the West Coast and also evaluate the large number of entanglements to determine if they constitute an unusual mortality event. As indicated above, humpback whale entanglement mortality off California increased several fold starting in 2015 and human-related mortality currently exceeds PBR. The PSRG notes that working groups of Dungeness crab fishers are attempting to develop means for reducing this mortality, disentanglement teams are attempting to save entangled whales, and NMFS is encouraging all these efforts. Still, the increase in entanglements calls for a stronger and more rapid response, particularly because some of the whales involved are likely from endangered or threatened DPSs.

The PSRG recommends that the final 2017 stock assessment report for eastern North Pacific blue whales refer to the Rockwood et al. (2017) findings (background document 13 for the 2018 meeting) that estimated ship strike mortality of blue whales exceeds PBR. The situation here is similar to that for the humpback whale in that the best available information indicates that take of this endangered stock exceeds its PBR and NMFS should incorporate such information into its stock assessment report as soon as possible. Here, again, if the 2017 SAR for this stock cannot be revised before final publication, then the PSRG recommends that NMFS prepare a 2018 SAR report for the stock that includes the recent and pertinent information. (Again, a draft 2018 SAR provided to the PSRG after its meeting addressed this recommendation.)

The PSRG recommends that NMFS reconsider the characteristics and status of the Pacific Coast Feeding Group (PCFG) of gray whales and whether it should be recognized and managed as a full stock. In 2012 NMFS was unable to determine if this aggregation warranted recognition as a population stock and concluded that additional data should be evaluated as it becomes available. Since then additional genetic results have been published and new insights have emerged regarding internal recruitment from calves of PCFG mothers. Also, Canada (under its Committee on the Status of Endangered Wildlife in Canada) and the International Whaling Commission have since recognized the PCFG as a distinct group.

Finally, the PSRG requests that in future years NMFS provide the PSRG information on how it is achieving the Marine Mammal Protection Act directive to NMFS to “ban the importation of commercial fish or products from fish which have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards.” This directive has important implications for research and management of marine mammals throughout the Pacific Ocean. The PSRG will be able to provide more timely, appropriate advice if it is informed about NMFS’ implementation progress and plans on this topic. We are aware of NMFS’ detailed strategy, as described in the Federal Register (<https://www.federalregister.gov/d/2016-19158/page-54390>), but would like to be better informed about the implementation of this strategy.

Minutes for this meeting are attached. Again, the PSRG gratefully acknowledges the NMFS and FWS scientists and managers for their efforts to prepare marine mammal stock assessment reports.

Sincerely,

A handwritten signature in blue ink that reads "Timothy J. Ragen". The signature is written in a cursive style with a large initial 'T' and a long horizontal stroke extending to the right.

Timothy J. Ragen, Ph.D.  
Acting Chair

cc: Douglas DeMaster, Ph.D., Alaska Fisheries Science Center  
Kristen Koch, Southwest Fisheries Science Center  
Michael Seki, Ph.D., Pacific Islands Fisheries Science Center  
Francisco Werner, Ph.D., NMFS Science Director  
Kevin Werner, Ph.D., Director, Northwest Fisheries Science Center  
Shannon Bettridge, Ph.D., NMFS National SRG Coordinator  
Karin Forney, Ph.D., NMFS Liaison to the Pacific SRG  
Lilian Carswell, U.S. Fish and Wildlife Service  
Steve Henry, U.S. Fish and Wildlife Service  
Deanna Lynch, U.S. Fish and Wildlife Service  
Eric Rickerson, U.S. Fish and Wildlife Service

Attachment (1)