NMFS Responses to 2023 Alaska SRG Recommendations

Emerging issues for cetaceans

1. Emerging issues related to climate change and human activity (e.g., increased shipping traffic in the Arctic and Northern Bering Sea, regime shifts, increased fisheries bycatch, changing fisheries distribution, prey base changes, plastics ingestion) represent current or future threats to nearly all species of cetaceans, as well as pinnipeds, in the North Pacific Ocean. However, in comparison to many pinniped species in the Alaska region, many cetacean species have outdated abundance estimates or abundance estimates that cover only a small portion of their known range. **The AKSRG recommends that NMFS consider cetacean sensitivity and vulnerability to potential climate change impacts when prioritizing research and funding priorities for marine mammals.**

   NMFS response: NMFS agrees that monitoring and understanding cetacean sensitivity and vulnerability to potential climate change impacts is critical, especially in the Arctic (*i.e.*, Bering, Chukchi, and Beaufort seas). NMFS has been conducting Climate Vulnerability Assessments to determine the vulnerability of fish stocks, protected species (mammals, sea turtles), habitats, and fishing communities to changing climate and ocean conditions. Climate Vulnerability Assessments for protected species in the Pacific and Arctic are close to being final and will be used to identify which species are more likely to be negatively affected by climate change. NMFS is planning to examine the effects of increased vessel traffic in the region on marine mammals.

   NMFS prioritizes research and funding needs for the Alaska Fisheries Science Center (AFSC) Marine Mammal Laboratory (MML) depending on the type of funds received; most of AFSC's protected species funding is specifically appropriated for research on Alaska seals and sea lions. AFSC's cetacean priorities are to support research on Cook Inlet beluga whales, which are both an endangered species and a NMFS Species in the Spotlight; support rotating abundance estimates of cetaceans important for Alaska Native subsistence harvests; and support acoustic monitoring throughout Alaska waters with a focus on the critically endangered eastern North Pacific right whale. AFSC is also seeking to conduct large-scale cetacean surveys, which will provide much-needed information, including abundance estimates, on a number of species, including those vulnerable to potential climate change impacts.

Determining the recovery factor when calculating Potential Biological Removal

2. The Potential Biological Removal (PBR) approach is a key tool for evaluating the numbers of animals that can be removed from a marine mammal stock without causing negative demographic effects. The choice of value used for the recovery factor (denoted F_R in the formula to calculate PBR) affects the PBR level with ramifications

for management. Although general guidance exists on how to determine F_R, in practice the process is somewhat flexible and subjective. This has, at times, led to apparent inconsistencies among F_R values or uncertainty about how they were determined, especially when modifying the default values to account for additional uncertainty. **At the next meeting of the AKSRG, the group requests that NMFS provide examples of how recovery factors are determined and guidance for how they might be implemented more consistently going forward.**

NMFS response: NMFS agrees that additional guidance is needed regarding recovery factors. Since this topic is national in scope and relevant to all SARs, NMFS plans to include this in the list of topics to be addressed at the forthcoming joint SRG meeting that is currently being planned for 2025.

Marine mammal bycatch

3. In the 2022 AKSRG Recommendations to NMFS, the AKSRG requested that AFSC and MML continue to work with the observer program to develop Electronic Monitoring (EM) protocols to ensure marine mammal interaction data collection continues to be a key component of fisheries monitoring. **Per NMFS's response, we look forward to hearing a presentation on this issue at the 2024 meeting that addresses how M&SI estimates are being adjusted as more vessels transition to EM, and how new EM-based marine mammal sightings/interaction data are being processed and incorporated into the SARs.**

   NMFS response: NMFS plans to present information about incorporating EM data into the bycatch estimation procedure at the 2024 AKSRG meeting.

4. At the 2023 meeting, the AKSRG received a presentation on progress towards developing a model-based approach to estimate marine mammal bycatch in Alaska fisheries. The current ratio-based approach to estimating marine mammal bycatch is problematic due to the risk of false zeros (or undetected bycatch events) and the inherent volatility of bycatch estimates associated with low coverage and/or documentation of rare events. **The AKSRG supports this model-based approach and notes that in addition to the advantages of reduced interannual volatility in marine mammal bycatch estimation, there may be other advantages as this method is further developed to explore longer-term time series for certain fishery/marine mammal combinations, probabilities of exceeding PBR for vulnerable marine mammal species, and to incorporate interaction (presence/absence or distribution) data in the models to improve performance. The AKSRG also urges NMFS to evaluate ways to address rare events (such as years with high bycatch numbers) via simulations or other methods to best account for these interactions.**

   NMFS response: AFSC will continue the development of model-based estimators for marine mammal bycatch, including low-coverage scenarios (*e.g.*, longline fisheries). A

simulation will be considered to evaluate the performance of the model, particularly in the context of rare events (years with abnormally high mortilities). Model-based and ratio estimates will be compared and progress presented to the AKSRG in 2024. If the AKSRG supports the new methodology and determines it is the best available science, AFSC will transition to model-based estimates for the 2025 SARs.

SAR review process transparency

5. The 2023 AKSRG meeting represented the first meeting where NMFS formally enacted a new process to review Alaska SARs annually for strategic stocks, stocks that have new information, and stocks that have not been reviewed in 3 years and to only revise other SARs when substantial new information becomes available and/or changes have occurred within M&SI estimates. The AKSRG previously agreed that this new approach will streamline the revision process overall but had requested that MML develop a document summarizing key information on the strategic stocks that were reviewed but not revised in each year. The AKSRG was able to review this list at the 2023 meeting but was unable to efficiently review the PBR relative to M&SI for all stocks. **Therefore, the AKSRG requests that in future years the document includes the stocks' PBR values to provide context for any updated M&SI information. The AKSRG also requests that a formal process be developed so that this list can be reviewed and approved ahead of the meeting (e.g., inter-sessional meeting or correspondence in the fall) to ensure that revisions to SARs can be requested if deemed necessary.**

   NMFS response: NMFS appreciates the AKSRG's support for the new process for reviewing and revising SARs. In response to the AKSRG's comment, AFSC added a step to the SAR review process to share a list of the SARs that MML is proposing to revise and a document detailing information, including PBR values, on all SARs that were reviewed but determined revisions are not warranted. This step will occur in the fall, which is early enough in the SAR review and revision cycle for AFSC to consider additional scientific information provided by the AKSRG. NMFS looks forward to continued discussions with the AKSRG about ways to improve the SAR process.

Collaboration with Russia on shared populations

6. Marine mammal populations move freely between American and Russian waters in the Bering and Chukchi seas and surrounding regions where vessel transport and fishing has been increasing. In recent decades, collaboration between the U.S. and Russia has been critical for effective research, management, and conservation of these shared populations. The AKSRG recognizes that since 2022 political relations between the U.S. and Russia have made such collaboration difficult or impossible. **Given the potential for the longer-term lack of scientific collaboration between the U.S. and Russia, the AKSRG requests information on how NMFS is evaluating potential environmental**

risks that may occur disproportionately outside of U.S. federal waters (on the Russian side) for assessed marine mammal stocks.

NMFS response: As feasible and allowed by U.S. government guidelines, NMFS will communicate with Russian and other scientists to acquire any population trend data that become available. With regard to Steller sea lions, the lack of updated abundance information for rookeries and haulouts in the Russian Far East, especially the Commander Islands, represents a potential challenge to assessing recovery; as feasible, NMFS is receiving current information on Steller sea lion abundance and vital rates. The Recovery Criteria for the western DPS includes assessment of the population trend within the Russia/Asia sub-region of the stock. Continued monitoring of this trend is crucial given its adjacency to the declining Western Aleutian Islands sub-region. Additionally, NMFS continues to co-chair the long-standing (50-year) bilateral, U.S./Russia marine mammal working group.

Consultation with Alaska Native co-management groups

7. We applaud NMFS for reaching out and sending draft SARs to Alaska Native co-management organizations and seeking comment in 2023. We caution that emailing draft SARs to the representatives of Alaska Native co-management organizations may not be the best method for receiving meaningful input. More effective consultation may come from having NMFS staff present draft SARs at annual co-management meetings or setting up video-conference calls. We recognize that aligning the timing of SAR approval with the meeting schedule of co-management organizations may be difficult. **The AKSRG therefore suggests that NMFS broadly consider alternative methods (meetings or workshops, calls, etc.) for receiving meaningful input and extended review periods to allow for feedback from co-management groups.**

   NMFS response: NMFS recognizes the importance of Alaska Native Organization (ANO) involvement in the stock assessment review process for co-managed species. MML and Alaska Regional Office staff attend ANO meetings to discuss science related to marine mammal stock assessment and to present potential upcoming changes to the SARs, if known, to facilitate early engagement. Unfortunately, the ANO meeting schedules generally do not line up with the NMFS SAR review schedule.

   ANOs have varying levels of capacity to conduct research or attend outside meetings, so their participation in SAR reviews may likewise vary. Over the next few months, NMFS plans to reach out to individual ANOs to discuss their preferences for communication and engagement on draft SARs. NMFS also plans to communicate that ANO feedback on draft SARs will be accepted through the end of the public comment period, not just prior to AKSRG reviews. If ANO comments are received after the AKSRG's review, MML will share those comments with the AKSRG.

SAR for Bristol Bay belugas

8. NOAA did not update the SAR for Bristol Bay beluga whales in 2023. The primary reasons for this were because: 1) time constraints; 2) a stated desire to update the correction factor for Bristol Bay belugas. During the discussion, it was revealed that NOAA thought that the correction factor for Bristol Bay did not account for surface and dive intervals and was likely out-of-date (as much of the data for correction factors used in Bristol Bay was collected in the 1980s). During the meeting, it was suggested by NOAA that a workshop be conducted that reviewed survey methods for Bristol Bay.

   We note that there are multiple correction factors available that are specific to Bristol Bay, that they do account for surface and dive intervals, and that these correction factors are generally as reliable as those available for other stocks of belugas in Alaska. A larger issue is how best to count belugas that are densely aggregated (as they often are in Cook Inlet). We agree with NOAA that these issues are complex and would welcome efforts to clarify them and to develop or apply improved survey techniques. However, these issues are unlikely to be resolved soon. Biologists have struggled with assessing abundance of belugas (and other marine mammals) for decades, and more information is available for Bristol Bay belugas than any other stock in Alaska, except Cook Inlet. **As such, although the AKSRG supports the collection of new data and the application of new methods, the AKSRG encourages NMFS to update the SAR for Bristol Bay belugas with the data available.**

   NMFS response: NMFS plans to revise the Bristol Bay beluga whale SAR in the 2024 cycle.