9 March 2021

Dr. Zachary Schakner
Protected Species Science Branch
Office of Science and Technology
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3226

ATTN: Stock Assessments, NOAA–NMFS–2020–0130

Dear Dr. Schakner:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service (NMFS) 2020 draft stock assessment reports (SARs) for marine mammals occurring in U.S. waters (85 Fed. Reg. 78308). These reports provide valuable information needed to understand and address important marine mammal conservation issues. The Commission appreciates NMFS's efforts to update and improve these reports, as well as the opportunity to review them, provide comments, and recommend further improvements. The Commission is providing general comments on meeting the Marine Mammal Protection Act (MMPA) requirements pertaining to preparing SARs as well as comments specific to different regions and stocks.

GENERAL COMMENTS

Requirements of section 117

Meeting basic requirements–As described in the Commission's letter on the draft 2019 SARs and several other Commission reviews[1], the Commission continues to be concerned about NMFS's performance in meeting several of the requirements of Section 117 of the MMPA. That provision requires inclusion of a minimum population estimate (N_{min}), a key factor for effective management of marine mammal stocks using potential biological removal (PBR). Without an N_{min} derived from recent[2] data, PBR cannot be calculated and is considered "unknown," which is useless for management purposes. Including the revised 2020 draft SARs, an N_{min} estimate is lacking for 81 of the 252, or 32% of identified stocks. The Commission understands that although COVID-19 has further impacted data collection this past year, that has not yet influenced the numbers reported here and it is an ongoing lack of resources (including access to vessel and aerial platforms from which surveys are conducted) that is the primary hindrance to full assessment of all stocks. The lack of data for over one third of the stocks recognized[3] by NMFS is a serious shortcoming in meeting statutory

[1] Full 2016 report, summary 2016 report, and updated 2018 report
[2] NMFS's Guidelines for Assessing Marine Mammal Stocks defines recent as within the last eight years.
[3] There are additional stocks, primarily in the Pacific Islands, for which information is lacking and SARs have yet to be created.

obligations. The Commission appreciates the efforts NMFS has made to address this shortcoming by setting priorities across regions, coordinating requests for vessel time, and maximizing the data collected during these surveys (e.g. Ballance et al. 2017). The Commission reiterates its recommendation that NMFS continue its efforts to prioritize and coordinate requests to secure the necessary survey resources across regions. In addition to these internal efforts, the Commission acknowledges and encourages NMFS's continued engagement and collaboration with other federal agencies that also require basic information on marine mammal stocks, through programs like the Atlantic Marine Assessment Program for Protected Species[4] and similar programs in the Gulf of Mexico[5] and the Pacific[6]. Further, the Commission also reiterates its recommendation that these marine assessment programs continue to include appropriate personnel, logistical capability, and vessel time to allow for photo-identification, biopsy sampling, satellite tagging, acoustic monitoring and other efforts to augment and increase the value of the core line-transect survey data collected. These additional efforts will assist in delineating stock structure, confirming at-sea identification of cryptic species, and furthering understanding of marine mammal distribution, habitat use, and behavior, all of which are important for reaching the overall management goals of NMFS under the MMPA.

Year-specific mortality and serious injury data

In a few of the individual SARs (e.g., Eastern Pacific gray whale, CA/WA/OR fin whale, and all of the NE stocks) mortality and serious injury data are lumped for the five-year analysis period. The Commission feels strongly that mortality and serious injury data should be presented individually for each year of the analysis period. The detection of short-term trends or extreme events affecting mortality and serious injury are difficult to discern if five-year averages are the only data available. The Commission recommends that NMFS presents estimates for each year of a five-year analysis period for all SARs with mortality and serious injury data.

SPECIFIC COMMENTS

Atlantic

North Atlantic right whale cryptic mortality–North Atlantic right whales are in serious peril. The population is declining, anthropogenic impacts are increasing, and the reproductive output is decreasing. If something is not done to arrest the decline, the species will be functionally extinct within a few decades. Recently, NMFS has taken important steps to address this problem, but the Commission remains concerned about their adequacy[7]. The Commission is hopeful that its recommendations and those of other experts will compel NMFS to take decisive and effective steps toward enabling right whales to recover. In that effort, it is imperative that NMFS apply the best available data and science to its estimation of population size and the mortality and serious injury rate. The best available population estimates are provided by the population model developed by Pace et al. (2017), and NMFS is making use of those estimates. NMFS has always done an excellent job of estimating the number of known mortalities and serious injuries due to entanglement in fishing gear and to vessel strikes. However, a secondary finding of the Pace et al. (2017) population

[4] https://www.nefsc.noaa.gov/psb/AMAPPS/
[5] https://www.boem.gov/GOMMAPPS/
[6] https://swfsc.noaa.gov/textblock.aspx?Division=PRD&ParentMenuId=276&id=22316
[7] See Commission letters to NMFS 19 February 2021 and 1March 2021

model was that only 60 percent of the total mortality estimated by the model was accounted for by the known mortalities and serious injuries. It was long suspected that some mortalities were going undetected, and the Pace et al. (2017) model suggested that the undetected proportion was 40 percent. A more recent model, explicitly designed to estimate the undetected portion of total mortality (Pace et al. 2021), found that over the last two decades the undetected portion has amounted to 64 percent of the total. In other words, the known mortalities and serious injuries upon which NMFS makes its comparison to PBR in the right whale SAR, was accounting for just 36 percent of the total human-caused mortality. Furthermore, Pace et al. (2021) found that the known number of mortalities and serious injuries was a very poor predictor of the total number of mortalities or the number of undetected mortalities, suggesting that basing management decisions on only known mortalities and serious injuries could lead to significant errors. The degree to which human-caused mortality and serious injury exceeds PBR has been substantially underestimated. Therefore, the Commission recommends that NMFS immediately take steps to include the best available science by incorporating the Pace et al. (2021) estimates of undetected mortalities in its estimates of total human-caused mortality and serious injuries of right whales in the final 2020 SAR.

Improving reporting serious injury data for gray seals–In an effort to improve national consistency and completeness in documenting and quantifying human-caused serious injury of marine mammal stocks, NMFS implemented a process for assessing all data available: "Process for distinguishing serious from non-serious injury of marine mammals: process for injury determinations" (NMFS, 2012). Human-caused serious injury data are reported by injury source within the SARs, including both observations and extrapolations, if possible. Summaries of observations of human-caused injuries may include some uncertainty of the specific source, but should still be included in the total Mortality and Serious Injury (M/SI) summaries reported in the Status of the Stock section relative to PBR level.

The Commission is concerned that numerous observations of potentially serious injuries of gray seals are not being accounted for in the SAR. Based on unmanned aerial surveys of gray seals hauled out on shore, Martins et al. (2019) reported the minimum total number of entangled gray seals could range from 192 to 857 (or 0.83% to 3.7% of the population in US Atlantic waters). Many of these seals have circumferential neck entanglements, tight constrictions around the neck or body, or with evidence of open wounds around the neck or body; all of which may be considered serious injuries (NMFS 2012). It appears that these seriously injured animals are not being counted in either the commercial fisheries observer M/SI data or the stranding data. Zero serious injuries were reported for 2014-2018 in the commercial fisheries observer data (for both gillnet and trawl fisheries in which mortality is known to occur), and only mortalities are being reported in the human-interaction stranding table. Further, because no serious injuries are reported in fisheries observer data, these injured animals are not accounted for in the extrapolated M/SI estimates either. Therefore, the Commission recommends that NMFS ensure that these observations of injured seals are being accurately quantified and included in the SAR, following its 2012 guidelines, including through consultation with staff from other Science Centers on the injury determinations. In an effort to improve data quality, minimize duplication in counts, and better understand seal entanglement, NMFS should continue to collaborate with the Northwest Atlantic Seal Research Consortium (NASRC), Northeast Fisheries Observer Program (NEFOP), and regional stranding responders on efforts to better photo-document and identify injured and dead seals.

Alaska

Alaska Native subsistence takes–Over the past decade, the Commission has repeatedly recommended that NMFS, in collaboration with its co-management partners, improve its monitoring and reporting of subsistence hunting in Alaska. While there have been improvements in the number of communities reporting take levels for some ice seals in the SARs in recent years, the majority of communities that hunt or may hunt ice seals are still unaccounted for. The Commission was pleased to see the inclusion of harvest estimates based on Nelson et al. (2019) in several SARs, but these model estimates cannot replace collection of empirical data on harvest levels in the long run. Therefore, the Commission continues to recommend that NMFS pursue additional mechanisms to gather reliable information on the numbers of marine mammals taken for subsistence and handicraft purposes, including by securing adequate funding for comprehensive surveys of subsistence use and Native hunting effort in collaboration with co-management partners and the state of Alaska. Further, the Commission encourages NMFS to continue to provide updated information in the SARs whenever it becomes available, even if it pertains only to a limited number of villages or a subset of years. The Commission would welcome the opportunity to meet with NMFS to discuss progress, next steps, and any impediments to including comprehensive data on take levels by Alaska Natives in future SARs.

Tracking the numbers of marine mammals secured, in addition to the numbers struck and lost, is critical to the management of harvested stocks. The Commission has previously recommended that NMFS include all available data about harvest numbers, including struck and lost, in the SARs for beluga whales, and that NMFS work with the Alaska Beluga Whale Committee to improve the completeness of and consistency in reporting harvest data, with a focus on struck and lost information for these stocks. The Commission understands that, in response to another recommendation from the Alaska SRG, struck and lost numbers will be included in the final 2020 SARs and the Commission looks forward to seeing those numbers.

The Commission appreciates the opportunity to provide comments and recommendations on the 2020 draft SARs. Please contact me if you have any questions regarding the Commission's rationale or recommendations.

Sincerely,

Peter O. Thomas, Ph.D.,
Executive Director

cc: Genevieve Nesslage, Chair Atlantic Scientific Review Group
Megan Peterson Williams, Acting co-Chair Alaska Scientific Review Group
Greg O'Corry-Crowe, Acting co-Chair Alaska Scientific Review Group
John Calambokidis, Chair Pacific Scientific Review Group

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