MARINE MAMMAL COMMISSION

2 April 2025

U.S. Fish and Wildlife Service
MS: PRB (JAO/3W)
5275 Leesburg Pike
Falls Church, VA 22041-3803

ATTN: Docket No. FWS-R7-ES-2024-0128

Dear Sir or Madam:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Fish and Wildlife Service's (FWS) draft stock assessment reports (SARs) for the Chukchi/Bering Seas (CBS) and Southern Beaufort Sea (SBS) polar bear stocks in Alaska (90 Fed. Reg. 114). The draft SARs provide new information on sources and numbers of human-caused serious injuries and deaths, analyses of population sizes and trends, and calculations of potential biological removal (PBR) levels. The Commission appreciates FWS's efforts to update and improve these reports and provides the following comments and recommendations.

Population size estimates and trends

Both draft SARs present updated abundance estimates and derive new minimum population estimates (N_{min}), but these updates appear to be based on reanalysis of data from older surveys, rather than new survey data. For example, the CBS stock abundance estimate of 2,937 individuals is based on data from 2008 to 2016. While this estimate is characterized as the "best available," it is important for the SAR to clearly state that the surveys on which it is based were conducted between 9 and 17 years ago. As such, it cannot be considered a "current" estimate of population size, or one that is very reliable, particularly given the rate of environmental change in the Arctic. The Commission therefore recommends that the SARs be revised to acknowledge explicitly the lack of a current population estimate and explain how the existing data were reanalyzed to support the change in N_{best} and N_{min} values from the previous SARs. While these changes appear to be reasonably supported by new analyses of old data, greater transparency in the methodology and rationale is needed.

Population estimates become less reliable measures of current abundance in relation to time elapsed since data were collected because there is uncertainty about how much the population may have grown or declined since the last survey. When population estimates rely on older data, the SARs should be amended accordingly to reflect this limitation. The Commission is particularly concerned about using old information to estimate N_{min}, since that is a variable used to calculate a stock's PBR level. As defined in section 3(27) of the Marine Mammal Protection Act (MMPA), the N_{min} value used in a SAR is meant to provide "reasonable assurance that the stock size is equal to or greater than the [population] estimate." Given the age of the data on which estimates of N_{min}

presented in both SARs are based, it is fair to say that those estimates no longer provide reasonable assurance that the stocks are at least that large. This being the case, the Commission recommends that FWS devise a method to adjust N_{min} to account for the time that has elapsed since the last survey. The FWS should consider the approaches proposed by the National Marine Fisheries Service (NMFS) in its most recent Guidelines for Assessing Marine Mammal Stocks (GAMMS)[1] to account for uncertainty in N_{min} estimates for stocks surveyed less frequently than every eight years, and if needed, FWS should develop separate guidance for species under its jurisdiction that parallels and draws heavily on the NMFS guidance.

In the absence of supporting evidence, these SARS appear to have adopted a different method for assessing the current population trends than was used in preceding SARs for these two stocks. The CBS stock shifted from "data deficient" to "likely stable" despite the fact that no new abundance data have become available. For the CBS stock, past abundance estimates are reviewed, and the Polar Bear Specialist Group is cited as having concluded that the stock is likely stable in the short term, but data deficient in the long term. However, the short-term stability conclusion appears poorly supported. Because past estimates have wide confidence intervals, there is no basis for determining any trend. The most recent abundance and body condition data are nearly a decade old, so it is unlikely they reflect current conditions. It would be more appropriate to conclude that the population trend is unknown given these limitations. Additionally, in the Habitat and Prey Concerns section, FWS suggests that the stock is stable despite continued sea ice loss and other documented environmental changes. This implies that the consequent loss of hunting and denning habitat has had little demographic impact. Given the outdated survey data and uncertain trend, such statements are not well supported.

The reported trend of the SBS stock went from "declining" to no stated trend, again without clear justification. For the SBS stock, the "current population trend" section lists past population estimates, but does not explicitly state the current trend. Given fluctuations in past population estimates and the reliance on data that are at least 10 years old, the most appropriate conclusion would be that the trend remains unknown.

The Commission recommends the "current population trend" sections of the two SARs be revised to acknowledge the uncertainty in population trends and ensure that its conclusions are appropriately supported by the available data.

The Commission appreciates that a lack of resources, including funding, personnel, and access to the survey areas, undermines FWS's ability to secure reliable, up-to-date population estimates for the CBS and SBS polar bear stocks. However, current population estimates are needed, not just to satisfy the stock assessment requirements of MMPA section 117, but also to support a host of conservation and management activities, including setting sustainable harvest limits under the bilateral polar bear agreement with Russia for the CBS stock and the Inuvialuit–Inupiat Polar Bear Management Agreement for the SBS stock. It is crucial that base funding for regular marine mammal population surveys, including polar bear surveys, be prioritized and incorporated into the annual budget requests of the FWS. The Commission therefore recommends that the agency leadership request and allocate sufficient resources to meet these core requirements of the MMPA

[1] NMFS. 2023. Guidelines for Preparing Stock Assessment Reports Pursuant to the Marine Mammal Protection Act. https://www.fisheries.noaa.gov/s3/2023-05/02-204-01-Final-GAMMS-IV-Revisions-clean-1-kdr.pdf

that will enable FWS and U.S. Geological Survey (USGS) to provide updated information on polar bear status and trends. Obtaining this information should be a high priority for the agency.

Maximum net productivity rate

The draft SARs use a maximum theoretical net productivity rate (R_{max}) of 0.10 for both polar bear stocks, which is higher than the R_{max} values used in previous SARs. In the final SARs made available to the public in 2021[2], R_{max} values of 0.075 and 0.0603 were used for SBS and CBS, respectively. The current draft SARs reference the demographic simulations of Regehr et al. (2017) for the decision to use an R_{max} of 0.10, but this information was available when the 2021 SARs were written and the higher value was not adopted at that time. The draft SARs do not provide a clear rationale as to why this change is now warranted or why the previous R_{max} value was considered too low.

The Commission recommends that FWS provide further justification for its proposal to incorporate an R_{max} value of 0.10 into the current draft SARs. If this change is based on new analyses or a reevaluation of existing data, the rationale should be clearly articulated. If there is uncertainty regarding selection of the R_{max} value, the SARs should acknowledge this uncertainty and explain why opting for the more conservative alternatives would not be more appropriate. In particular, we are struck by the characterization of the Regehr et al. (2017) paper in the SBS polar bear SAR, which states that "growth rates could be as high as 10 percent *under ideal conditions*" (emphasis added). Given the information presented in the SARs on sea ice loss and reduced prey availability, it seems unlikely that such "ideal conditions" will be experienced within the foreseeable future. The "potential biological removal level" of a stock is supposed to be calculated in a way that provides reasonable assurance that removing no more than that number of animals from the stock, not counting natural mortality, will not cause the stock to drop below or, if already below, then prevent the stock from growing to, its optimum sustainable population. If FWS selects an unrealistically high R_{max} value to calculate PBR, this undercuts the basic purpose behind establishing that number.

Status of stocks

Because both the SBS and CBS polar bear stocks are listed as threatened under the Endangered Species Act (ESA), they are also depleted under the MMPA. This means that both stocks are also considered to be strategic under the MMPA. The draft Stock Assessment Reports (SARs) reaffirm these classifications, however, a new statement has been added to the Status of Stock section of both SARs:

> ""However, as explained in this stock assessment report, we have determined that the status of the stock under the MMPA can be more accurately determined, pursuant to MMPA section 117(c)(2)."

The meaning of this statement is unclear. Section 117(c)(2) is largely a procedural provision, requiring revisions to SARs whenever new information indicates that the status of the stock has

[2] https://www.federalregister.gov/documents/2021/06/24/2021-13227/marine-mammal-protection-act-stock-assessment-reports-for-two-stocks-of-polar-bears

changed or "can be more accurately determined." The Commission recommends that FWS clarify its statement and explain the rationale behind it.[3]

The Commission appreciates the opportunity to provide comments and recommendations on these 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: Charles Hamilton, U.S. Fish and Wildlife Service

Reference

Regehr, E. V., R. R. Wilson, K. D. Rode, M. C. Runge, and H. L. Stern. 2017. Harvesting wildlife affected by climate change: a modelling and management approach for polar bears. Journal of Applied Ecology 54:1534–1543.