



# MARINE MAMMAL COMMISSION

27 April 2020

Mr. Steven P. Henry, Field Supervisor  
Ventura Fish and Wildlife Office  
U.S. Fish and Wildlife Service  
2493 Portola Road, Suite B  
Ventura, CA 93003

Dear Mr. Henry:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the 27 January 2020 notice of availability (85 Fed. Reg. 4696) of the draft revised stock assessment report (SAR) for the southern sea otter. The Commission offers the following recommendations and comments.

The draft report provides new information on abundance and trends of the southern sea otter population and on sources of human-caused mortality, including incidental take in fisheries. The Commission recognizes the extensive collaboration required among the U.S. Geological Survey, the University of California Santa Cruz, and the California Department of Fish and Wildlife to collect the necessary data for the SAR. The Marine Mammal Commission recommends that the Fish and Wildlife Service (the Service) adopt the draft stock assessment report as the final report for the southern sea otter subject to incorporation of the modifications described below, including a minor proofing edit in the Appendix to this letter.

## **Calculation of Potential Biological Removal and Rounding**

The Commission concurs with the range-wide minimum population estimate (3,081) reported in the draft SAR, which combines estimates for the mainland (2,986) and San Nicolas Island (95) populations. However, the Commission does not support the calculation of a range-wide potential biological removal (PBR) level by summing individual calculations for the mainland and San Nicolas Island populations using different  $R_{\max}$  values for each.  $R_{\max}$  is defined in the Marine Mammal Protection Act as, “the maximum theoretical or estimated net productivity rate of the stock at a small population size”. While the Guidelines for Assessing Marine Mammal Stocks (NMFS 2016) indicate that stock-specific measures may be used, substitution of these values for the default  $R_{\max}$  values should be made with caution, and only when reliable stock-specific information is available on  $R_{\max}$ . Moreover, the Guidelines indicate that  $R_{\max}$  values apply at the stock level, and make no explicit provision for using different values for separate parts of the same stock. In the revised draft SAR, an  $R_{\max}$  of 0.06 is used for the mainland population and 0.13 for the San Nicolas Island population. The SAR provides neither a reference nor a justification for the 0.13 value. The 0.06 value is calculated from data starting in the 1980s when reliable trend estimates were available for the mainland population. However, the same sentence of the SAR in which the 0.06 value is introduced continues by stating, “...localized sub-populations have been observed to grow at much higher rates immediately after re-colonization (Lafferty and Tinker 2014),” implying that 0.06 is well below the true maximum for the species.

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Additionally, the SAR compares the maximum growth rates observed in the southern sea otter population with those seen in northern sea otter populations and states that, “although there has been speculation that the slower rate of population growth observed for the southern sea otter reflects a fundamental difference in survival or reproduction relative to northern sea otter populations, recent data and analyses indicate that the emphasis on differential rates of population growth may be misplaced.” This statement appears to directly contradict using an  $R_{\max}$  of 0.06 for the mainland population. Therefore, the Marine Mammal Commission recommends that the Service review and revise the “Current and Maximum Net Productivity Rates” section of the SAR and provide a rationale for using an  $R_{\max}$  that is consistent with the numbers used in the calculation of PBR. Further, the Commission recommends that the Service consider the theory behind use of  $R_{\max}$  in the PBR calculation and whether 0.13 (or the default value of 0.12 for sea otters) is appropriate for a single range-wide calculation of PBR.

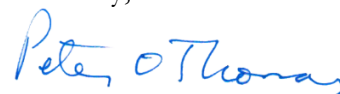
If the Service continues to calculate PBR for the mainland and island populations separately, it needs to use the mainland-specific estimate (2,986) to calculate PBR for the mainland population rather than the range-wide minimum population estimate (3,081). Therefore, the Marine Mammal Commission recommends that, at a minimum, the Service correct the mainland PBR estimate in the SAR using the mainland minimum population estimate. Further, the Commission recommends that the Service follow the guidance provided in the Guidelines for Assessing Marine Mammal Stocks (NMFS 2016) for rounding the PBR estimate and report the PBR to one decimal place.

### **Stock Assessment Updates**

The draft SAR correctly points out that because the southern sea otter is listed as threatened under the Endangered Species Act, it automatically is considered strategic under the MMPA. Section 117(c)(1)(A) of the MMPA requires that “The Secretary [of the Interior, whose responsibility has been delegated to the Fish and Wildlife Service] shall review stock assessments ... at least annually for ... strategic stocks.” In the last 10 years, the Fish and Wildlife Service has published only three updates to the SAR for the southern sea otter (2012, 2016, and now 2020). The Commission recognizes that the Service may review its stock assessments for strategic stocks annually, but only revise them when significant new information becomes available. However, given the changes that are ongoing within the current and historical range of the southern sea otter population, that population’s failure to expand its range significantly over the past twenty years, and the sudden shifts in population trajectory in the last few years, the Marine Mammal Commission recommends that the Service make its stock assessment reviews available yearly to the appropriate Scientific Review Group and the Marine Mammal Commission from this point forward.

I hope these recommendations will be helpful. Please contact me if you have questions.

Sincerely,



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

## References

- Lafferty, K.D., and M.T. Tinker. 2014. Sea otters are recolonizing southern California in fits and starts. *Ecosphere* 5:50. <http://dx.doi.org/10.1890/ES13-00394.1>
- NMFS (National Marine Fisheries Service). 2016. Revisions to Guidelines for Assessing Marine Mammal Stocks. 24 pp.

## Appendix

### Proofing edits:

- Figure 3: The title and figure description cite two different year ranges for the data displayed. The figure title states 1983-2017 but the description states 1983-2018. Based on the rest of the SAR, it seems the title needs to be revised to be 1983-2018.