



# MARINE MAMMAL COMMISSION

13 March 2017

Mr. Steve 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 (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, in response to the request for comments published on 6 December 2016 (81 Fed. Reg. 87951) has reviewed the 2016 draft stock assessment report (SAR) for the southern sea otter, and offers the following recommendations and comments.

The draft report provides new information on the abundance and trends of the southern sea otter and human sources of mortality including incidental take in fisheries. The Marine Mammal Commission recommends that the Fish and Wildlife Service adopt the draft stock assessment report as the final report for the southern sea otter, subject to incorporation of the modifications recommended below.

## **Fishery Information**

As in the 2012 southern sea otter SAR, the draft 2016 SAR notes the potential for sea otters to die in traps set to catch crab, lobster and finfish, and it summarizes the evidence of such entrapment from both California and Alaska. The draft SAR also acknowledges that, without substantial observer coverage of trap fisheries, it is not possible to determine if bycatch of southern sea otters in traps is occurring and, if so, whether the resulting mortality and serious injury is at a level where it might impede recovery of the population. Further, the draft SAR reports that experiments have demonstrated that most sea otters can be excluded from crab, lobster and finfish traps without reducing catch of the target species by making modifications to trap openings. While such modifications to finfish traps have been required since 2002 over most of the southern sea otter's range, no corresponding requirements are in place for crab and lobster traps.

Without adequate observer coverage to document the rate at which sea otters are being caught in crab and lobster gear, it is not possible to know if modifications to these traps should be required. Therefore, the Commission recommends that the Fish and Wildlife Service collaborate with the National Marine Fisheries Service and the California Department of Fish and Wildlife to 1) establish an observer program with adequate coverage to obtain reliable information on the rate and circumstances under which sea otters are being taken in crab and lobster trap fisheries operating within the range of the southern sea otter, or 2) implement a precautionary requirement for all trap gear to be modified to reduce the probability of sea otter bycatch to near zero.

## **Mortality**

The draft 2016 SAR provides a thorough review of known mortality and threats to southern sea otters. Figure 3 in the draft SAR shows an increasing trend in the number of strandings as a proportion of the spring count of sea otters (termed “relative mortality” in the report), from roughly 5 percent in the late 1980s to 12 percent in the past four years. The draft SAR attributes this pattern largely to the increase in shark-bite mortality at the peripheries of the southern sea otter’s range. However, this interpretation assumes that “search” effort and stranding rates have not increased, an assumption that is not addressed in the report. As noted in the draft SAR, the probability an animal that dies at sea is detected is dependent on a number of factors related to the condition of the body, water temperature and scavenging, which affect buoyancy, probability of sinking, and current and wind patterns. Once a carcass is ashore, the probability that it is discovered is dependent on deposition, scavenging and decomposition rates, and “search effort” (i.e., how often the site is visited by someone likely to see and report the carcass). Changes in the factors determining stranding and discovery probabilities could produce the pattern seen in Figure 3, without a change in the mortality rate. In other words, the increase in “relative mortality” could have been due to an increase in the true mortality rate, a change in the factors affecting the carcass discovery rate, or a combination of the two. Therefore, the Commission recommends that the Fish and Wildlife Service address all of the factors that could explain the apparent increase in the relative number of strandings. In addition, the Commission recommends that the Fish and Wildlife Service place greater emphasis on the fact that the “relative mortality” rate is an underestimate of the true mortality rate because a substantial portion of carcasses likely never strand or are never found, as has been demonstrated in this and other sea otter populations (see e.g., Estes 2003).

## **Stock Assessment Report Review**

The Marine Mammal Protection Act (MMPA) requires that “The Secretary [of the Interior, whose responsibility has been delegated to the Fish and Wildlife Service] shall publish ... a notice of the availability of a draft stock assessment ... and provide an opportunity for public review and comment...” Although not explicitly required by the MMPA, an effective “public review and comment” cannot occur if the public does not have access to all of the sources of information used to produce a draft stock assessment. The draft 2016 southern sea otter SAR contains numerous references to sources of information that are not easily available to the public. For example, key findings in the draft SAR on pages 3, 4 and 5 are based on personal communications from a U.S. Geological Survey scientist. In addition, the references cited in the SAR include nine unpublished reports. The National Marine Fisheries Service recently established a policy that requires its marine mammal stock assessments to be based on peer-reviewed publications that are made available to the public. The Commission recommends that the Fish and Wildlife Service consider implementing a policy regarding the use of different data/information sources that would ensure that those sources have been reviewed and are easily available to the public. The Commission understands that in some cases the best available science has not been reviewed and published. In those cases, the Commission recommends that if the Fish and Wildlife Service uses such information in a SAR, that it then make the information easily available to the public.

## 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 is automatically 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 (2008, 2012, and now 2016). The Commission recognizes that Fish and Wildlife may review a stock’s status annually and only update its stock assessment report when it considers it appropriate to do so. However, given the rapid changes that are ongoing within the current and historical range of the southern sea otter, the failure of the population to expand its range significantly in the past twenty years, and the sudden shifts in count trajectories in different parts of the range over the last few years, the Marine Mammal Commission recommends that the Fish and Wildlife Service make its stock assessment reviews available yearly to the appropriate Scientific Review Group and the Marine Mammal Commission, at a minimum, from this point forward.

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

Sincerely,



Rebecca J. Lent, Ph.D.  
Executive Director

## References

- Estes, J.A., B.B. Hatfield, K. Ralls, and J. Ames. 2003. Causes of mortality in California sea otters during periods of population growth and decline. *Marine Mammal Science* 19:198-216.
- Tinker, M.T. and B.B. Hatfield. 2015. Southwest U.S. Southern sea otter annual range-wide census results: U.S. Geological Survey Data Release, <http://dx.doi.org/10.5066/F7F47M5C>.