## Summary of Peer Reviewer Comments and Biological Review Team Responses for the *Status Review of the Spotted Seal*

A Report Submitted to: Protected Resources Division NMFS Alaska Region 709 West 9<sup>th</sup> Street Juneau, AK 99801

## Submitted by:

The 2009 Spotted Seal Biological Review Team

Peter L. Boveng<sup>1</sup> (Chair), John L. Bengtson<sup>1</sup>, Troy W. Buckley<sup>1</sup>, Michael F. Cameron<sup>1</sup>, Shawn P. Dahle<sup>1</sup>, Brendan P. Kelly<sup>1</sup>, Bernard A. Megrey<sup>1</sup>, James E. Overland<sup>2</sup>, and Neal J. Williamson<sup>1</sup>

<sup>1</sup> Alaska Fisheries Science Center 7600 Sand Point Way NE Seattle, WA 98115 www.afsc.noaa.gov

<sup>2</sup> Pacific Marine Environmental Laboratory Office of Oceanic and Atmospheric Research 7600 Sand Point Way NE Seattle, WA 98115

16 June 2011

The 2009 Spotted Seal Biological Review Team (BRT) received edits and comments on a draft of the *Status Review of the Spotted Seal* from three peer reviewers, including two marine mammal biologists with expertise on spotted seal ecology and a climate scientist with expertise on Arctic warming.

The general comments from one of the biologists and the climate scientist were positive. They described the status review as "quite thorough" and "a comprehensive, well researched effort", its background information as "informative and well written", and its conclusions as "sensible" and "valid". Both reviewers suggested that the status review could be shortened or reorganized to remove repetition and improve readability, but felt that this was "not critical" or that "with some revision, it should be ready to go." The general comments from the other biologist were somewhat more critical. This reviewer felt there was "a bit more than necessary of extraneous speculation" in certain sections, and while he concurred with nearly all of the BRT's conclusions, he took exception to one particular conclusion that he felt was unsupportable given the team's lack of expertise and data on seals in Russian waters.

Each of the reviewers also offered several specific comments on how to improve particular sections, typically with in their area of expertise, which included grammatical edits, suggestions for additional citations, and requests for clarification of confusing sections or correction of potentially errant information. In most instances, the BRT complied with these suggestions and requests and made the appropriate changes to the status review. Some of the more significant specific comments that the BRT responded to included:

- 1. The BRT neglected to consider how climate warming might affect coastal habitats used by spotted seals, currently and potentially more so in the future. The BRT responded by adding a section reviewing the observed increases in coastal erosion in the Arctic and discussing the difficulties in predicting the net effects of these changes on spotted seal habitat due to the complexity of the erosion and deposition processes, as well as uncertainty concerning changes in coastal-use patterns by humans and predators.
- 2. The BRT overlooked an important Russian publication about spotted seals in the Sea of Okhotsk. The BRT reviewed this publication and incorporated relevant information in 10 separate instances in the revised status review.
- 3. The BRT was speculating when it stated that the expression of the Pacific Decadal Oscillation (PDO) and the North Atlantic Oscillation (NAO) will change in a warming atmosphere. The BRT removed this statement in the revised status review.
- 4. In a couple instances, the BRT erred when it stated that the predicted increase in frequency of years with low ice conditions may have impacts on spotted seal *reproduction*. These changes are much more likely to affect *recruitment* through pup survival. The BRT made this correction in the revised status review.

The reviewers' comments and suggestions significantly strengthen the status review and the BRT was grateful for their assistance.