

Pacific Seabird Group



DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT

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30 March 2014

Pacific Fishery Management Council
Dorothy M. Lowman, Chair
7700 N.E. Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Agenda Item J.1. -- Unmanaged Forage Fish Initiative

Dear Chair Lowman and Council Members:

The Pacific Seabird Group (PSG) appreciates the great strides the Council has made over the past year toward conserving forage fish as a critical food source for marine life, including seabirds. Beginning with adoption of the Fisheries Ecosystem Plan (FEP) and approval of Initiative 1, the Council has set a clear pathway for extending protection to currently unmanaged and unfished forage species.

Most recently, the Ecosystem Workgroup's March 2014 report, "Ecosystem Initiative 1: Protecting Unfished and Unmanaged Forage Fish Species," provides a solid analysis of existing directed commercial fisheries and incidental take levels in other commercial fisheries. The report also provides recommendations as to which existing Fishery Management Plans are best suited for amendment.

Based on that report, PSG urges the Council to 1) approve and release for public comment a range of alternatives to protect currently unmanaged forage fish and 2) to select alternative 2.2.1, Ecosystem Trophic Role Pathway, as the preliminary preferred alternative. Alternative 2.2.1 incorporates currently unmanaged forage fish as "ecosystem component" species within each of the Council's existing Fishery Management Plans, where basic conservation measures can be put in place to prevent the development of new, directed commercial fisheries in the absence of a strong scientific and management framework. We believe selecting Alternative 2.2.1 as the

preliminary preferred alternative and as a framework for the Council's oversight of forage fish makes the most sense of the three pathways outlined under Chapter 2 because it clearly recognizes that forage fish provide important linkages within an interconnected ecosystem that includes upper trophic level species of seabirds of interest and concern to PSG members. This alternative also supports an ecosystem-based fisheries management approach whereby ecological resilience and ecosystem function are considered, and management is able to incorporate uncertainty from climate change, natural variability, and scientific models.

The PSG is an international, non-profit organization that was founded in 1972 to promote the knowledge, study and conservation of Pacific seabirds. It has a membership drawn from the entire Pacific basin, including Canada, Mexico, Russia, Japan, China, Australia, New Zealand, South Korea, Taiwan and the U.S. The PSG's members include biologists and other scientists who have research and conservation interests in Pacific seabirds, government officials who manage seabird refuges and populations, and representatives of nongovernmental organizations and individuals who are interested in marine conservation.

As a group, seabirds are among the most endangered birds in the world.¹ Thirty percent face some threat of extinction² and many are exceptionally vulnerable to climate change.³ Millions of seabirds, including at least 25 species during the breeding season and at least an additional 35 species during their non-breeding seasons, inhabit the U.S portion of the California Current Large Marine Ecosystem.

Protecting forage fish is critical for many seabird species, including the threatened Marbled Murrelet, which is listed as threatened in parts of the U.S. and Canada. Murrelets and other seabird species rely on forage fish, such as Pacific sand lance and osmerid smelt, which are specifically under consideration here. Changes in the abundance, distribution and quality of marine prey have been identified as factors in the decline of Marbled Murrelets,⁴ and Pacific sand lance is the most important food for marbled murrelets during the breeding season⁵ when the adult seabirds are feeding their hungry chicks.

Seabirds require substantial quantities of prey for survival and reproduction and are extremely sensitive to changes in prey abundance.⁶ Adult seabirds may select different species and sizes of prey for their chicks and themselves, thus it is essential to maintain a range of age classes and

¹ Croxall, J. et al. 2012 Seabird conservation status, threats and priority actions: a global assessment. *Bird Conservation International* 22:1-34.

² IUCN. 2010. Red List. http://www.iucn.org/about/work/programmes/species/red_list

³ North American Bird Conservation Initiative, U.S. Committee. 2010. The State of the Birds 2010 Report on Climate Change, United States of America. U.S. Dept. of Interior: Washington D.C.

⁴ Recovery Implementation Team. 2012. Report on marbled murrelet recovery implementation team meeting and stakeholder workshop. U.S. Fish and Wildlife Service, Lacey, WA.

⁵ Nelson, S. K. 1997. Marbled Murrelet (*Brachyramphus marmoratus*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/276>. doi:10.2173/bna.276

⁶ Cury, P. M. et al. (2011). Global Seabird Response to Forage Fish Depletion – One-Third for the Birds. *Science* 334 : 1703-1706

species to support healthy seabird populations⁷. There is significant evidence from around the world that collapses of forage fish populations following fisheries exploitation have caused breeding failures and population declines among seabirds.⁸ Hence, PSG is urging The Council to take action on April 10 by releasing a range of alternatives for public comment and selecting Alternative 2.2.1 as the preliminary preferred alternative.

While the analysis of directed fisheries and incidental take provided in section 3.3 of the Workgroup's report was informative, we believe that using bycatch and gear type as a framework for protecting forage fish species is too limited in scope to recognize the broad role these species play in the California Current Ecosystem. As the report states (at 2.2.2): "the main disadvantage of this pathway is that bycatch data for some of these species is limited, and gear connections are fairly speculative."

Similarly, using the Predator-Prey Pathway (at 2.2.3 in the report) also is too limited in scope to describe the complex interconnected relationships these forage fish have with other species and the ecological role they play within the CCE. As noted under subsections 3.2.1 through 3.2.7, each and every forage fish group serves as prey for seabirds.

We believe Alternative 2.2.1 does the best job of capturing the need to think about forage fish in the context of the California Current Ecosystem where there are complex relationships that vary from season to season and year to year based on climate and ocean conditions. For example, the complex relationship between predator and prey and the surrounding marine environment is well documented in the long-term seabird monitoring that has occurred at Yaquina Head on the central Oregon coast.⁹ This area is home to some of Oregon's largest and most visible nesting seabirds, including more than 60,000 Common Murres. Biologists working at Yaquina Head in Oregon have found that herring, smelt, and sand lance make up a substantial part of the diet of Common Murres and the relative importance each fish species plays in the seabird's diet varies from year to year depending on ocean conditions and other influences.

To adequately plan for the protection of this complex food web requires a precautionary, ecosystem-based approach, such as is described in alternative 2.2.1. Managing forage fish as an essential ecosystem component species for all Fisheries Management Plans is warranted.

In summary, the long-term abundance and wide distribution of forage fishes within the California Current Ecosystem are essential for the health of seabird populations along the entire Pacific coast. By advancing a range of alternatives for public comment and selecting Alternative 2.2.1 as the preliminary preferred alternative, the Council will be making progress on a proactive and precautionary approach to management that will serve to sustain the diversity and abundance of seabirds in the U.S. portion of the California Current Large Marine Ecosystem.

⁷ Davoren, G.K. and A.E. Burger. 1999. Differences in prey selection and behaviour during self-feeding and chick provisioning in rhinoceros auklets. *Animal Behaviour*. 58: 853-863.

⁸ Sydeman, W, J. Piatt, H. Brownman, eds. 2007. Seabirds as indicators of marine ecosystems. *Marine Ecology Progress Series* 352:199-204.

⁹ Suryan, R., et al. (2013). Yaquina Head seabird colony monitoring 2013 season summary. Unpublished Report. Oregon State University, Hatfield Marine Science Center, Newport, OR, 10pp.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Stan Senner". The signature is written in a cursive style with a large, sweeping "S" at the beginning.

Stanley Senner
Vice-Chair for Conservation