



Protecting the ocean through science and advocacy and inspiring environmental stewardship

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Submitted via email to [OceanResources.Climate@noaa.gov](mailto:OceanResources.Climate@noaa.gov)

National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Permits and Conservation Division  
1315 East-West Highway, Room 13116  
Silver Spring, MD 20910

RE: Executive Order *Tackling the Climate Crisis at Home and Abroad* Section 216(c)

To whom it may concern,

On behalf of Pacific Whale Foundation (PWF), we are submitting comment in response to President Biden's Executive Order 216(c) which directs NOAA to collect recommendations on how to make fisheries and protected resources more resilient to climate change. PWF is a marine conservation organization whose mission is to protect the ocean through science and advocacy, and to inspire environmental stewardship. We advocate for science-based solutions to major stressors on whales and dolphins. Using data from our Research Program, our team creates public policy agendas and mobilizes community members to support ocean protection efforts. Our priority issues include conducting research on and raising awareness about climate change impacts to cetaceans and ocean ecosystems at large.

We commend the Administration for taking swift action to ensure the health and longevity of the ocean and its invaluable resources within. We will outline four main actions that could be taken in order to accomplish the goal of increasing resiliency of fisheries and protected resources in the face of a changing climate. These efforts would likely require an increase in federal funding opportunities to help encourage multi-stakeholder involvement in this work.

The first recommendation is the immediate expansion of collaborative research. The need to understand the impacts of climate change on a variety of ocean habitats, from nearshore waters out to the high seas, is crucial to highlight the most vulnerable ecosystems. This research should be conducted in conjunction with an increase in fishery data collection and guided by the key drivers of climate change. Some of the relevant areas of study would include alterations in precipitation patterns and subsequent delivery of freshwater, nutrients, and sediment; increased ocean temperature; alterations in circulation patterns; and increased levels of atmospheric CO<sub>2</sub>. Ocean warming is expected to cause poleward shifts in the ranges of many organisms, including commercial species, which could have secondary

effects on their predators and prey<sup>1</sup>. This type of research would aid in the creation of a priority list for protections rooted in science.

Next, we recommend the implementation of an ecosystem-based management (EBM) approach as necessary to support an increase in fishery resilience. Utilizing a broad management approach recognizes how food web linkages and human interventions may affect sustainability in aquatic ecosystems. EBM maintains natural structure of ecosystems while factoring in human use, integrating the cumulative impacts on marine environments, and aiding in the management of species, habitats, economic activities, conflicting uses, and the sustainability of resources<sup>2</sup>. A successful EBM will recognize economic, social, and cultural interests, addressing the need for a multi-stakeholder approach to the implementation of any management practices.

Our third recommended action is to place an emphasis on increasing biodiversity. A growing body of evidence points to the importance of biodiversity for ecosystem stability and optimal functionality, thus creating the need for conservation measures to safeguard biodiversity needs and human society needs<sup>3</sup>. Due to conflict between biological conservation and social and economic demands, particularly as it relates to the commercial fishing industry, further research on areas that provide crucial ecosystem services, or those that are under the biggest threat for collapse, is greatly needed. These studies are needed to illuminate high priority areas and shed light on the most vulnerable species to help maintain (or increase) biodiversity and create “no-take” lists, size-limits, seasonal closures, or other such regulations as needed.

Finally, in order to make fisheries and protected resources more resilient to climate change, we ask you to consider cetacean health. In addition to increasing the biodiversity of an ecosystem, large whales, dolphins, and porpoises have a clearly proven support of ocean productivity and ultimately fishery abundance and health. Large migratory whales are crucial for nutrient transport across large swaths of ocean, and all cetaceans provide balance to ocean food webs, leading to healthier ocean ecosystems. In addition to the socio-ecological interactions, particularly in coastal communities, whales provide multiple benefits to human well-being such as primary production, nutrient cycling, recreation (ecotourism), education, and carbon sequestration<sup>4</sup>.

Whales as carbon sinks alone is enough to prioritize health and abundance of cetaceans, however, greater consideration is also needed for increased observer coverage in fishing operations to reduce marine mammal bycatch. For example, here in the Hawaiian Islands, observer coverage for the Hawaii Longline Fishery is only 20% on deep-set tuna fishing trips, and nonexistent in nearshore fisheries<sup>5,6</sup>. The Hawaiian insular false killer whale is threatened by extensive unobserved troll, handlines, and other hook-and-line fisheries that operate at near record levels in

their core habitat area<sup>6</sup>. Therefore, integrating health monitoring of cetacean species and increasing observer coverage aboard fishing operations would help support fisheries resilience by integrating cetacean health and abundance in management practices.

Thank you for the opportunity to submit comment. Again, we commend the Administration for taking the necessary steps toward creating a more resilient ocean and look forward to the positive changes ahead.

References:

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4. Cook, D., et. al., (2020). Reflections on the ecosystem services of whales and how their contribution to human well-being might be valued. *Ocean and Coastal Management*.
5. Western Pacific Regional Council - Hawaii Longline Fishery Fact Sheet
6. Oleson, E. M., et. al., (2010). Status review of Hawaiian insular false killer whales (*Pseudorca crassidens*) under the Endangered Species Act. U.S. Dep. Commer., *NOAA Tech. Memo.*, NOAA-TM-NMFS-PIFSC-22, 140 p. + Appendices.