

Protecting the ocean through science and advocacy and inspiring environmental stewardship

March 24, 2021

Pacific Whale Foundation's mission is to protect the ocean through science and advocacy and to inspire environmental stewardship. Over the last 40 years, we have led marine mammal research projects in Hawaii, Australia, and Ecuador. Through our research program, we identify and quantify the major stressors to whales and dolphins and, in conjunction with our conservation program, aim to apply this research to the sustainable management of cetaceans. On behalf of our members and supporters, we agree that the proposed delisting of humpback whales is warranted at this time, however, due to the uncertain impact of climate change and other emerging threats, we strongly urge the creation and implementation of a robust post-delisting monitoring plan.

The current protections in place by the Environment Protection and Biodiversity Conservation Act of 1999 (EPBC Act) make the killing, injuring, or interfering with cetaceans illegal⁶. The Act also regulates actions that will have, or are likely to have, a significant impact on all listed threatened and migratory species⁶. Currently, the humpback whale is listed as nationally threatened under the EPBC Act, but is considered vulnerable and does not have an accompanying recovery plan⁶. Under the EPBC, recovery plans identify key threats to whales and establish objectives and actions to ensure the ongoing recovery of the species⁶. When humpback whales were downlisted in the United States, in 2016, the Endangered Species Act (ESA) required the U.S. federal government to monitor the species for a minimum of five years to assess the population's ability to sustain itself without the additional protective measures⁵. This post delisting monitoring ensures that if threats to the population change or unforeseen events change the stability of the population, the species can be relisted, or the monitoring period extended. We urge the Director of Migratory Species Section to implement a similar monitoring plan upon the delisting of humpback whales in Australian waters.

Humpback whales are making remarkable recovery worldwide from the commercial whaling era. Today, the threats facing the humpback whales of the world are far greater and more complex, and researchers are aware that baselines are shifting. We do not agree that the threats listed on your consultation document should be treated as theories and urge you to consider "shifting baseline syndrome". Climate change is a real and urgent threat to the health of the ocean, and the inhabitants within them. The Antarctic and Southern Ocean marine ecosystems have been changing for at least the last 30 years, having profound implications for marine ecosystems in those regions. As migratory species, humpback whales rely on the health of these large swaths of ocean to provide both an abundance of food, and safe and healthy corridors for migration and calving. In their polar feeding grounds, a loss in sea-ice is reducing abundance of krill, as krill density is influenced by seasonally important food sources; phytoplankton in the water column during summer and phytoplankton under winter ice8. Both food sources are declining with warming temperatures and decreasing sea ice extent8.

In addition to the impacts already felt by climate change, there are numerous other direct threats facing humpback whales today. Direct fisheries interactions are the number one source of direct human-caused death and serious injury to marine mammals worldwide, estimated at over 650,000 individuals each year⁹. In addition, indirect interaction with abandoned, lost or otherwise discarded fishing gear (ALD) can have lethal impacts to large baleen whales such as



Protecting the ocean through science and advocacy and inspiring environmental stewardship

the humpback. Entanglement in this kind of gear has been widely documented and affects a significant portion of humpback whale populations¹⁰. The prevalence of non-lethal entanglements of humpback whales in the northern part of southeastern Alaska showed an estimated 52-78% of the population had been entangled¹⁰. In northern Australian waters, more than 794 marine animals, including whales, have been documented entangled in ALD since 1994¹⁰.

Although it is possible for ALD gear to fall off, or removed by dedicated, trained disentanglement teams, being entangled requires extra energy from the humpback whale as they are unnaturally weighed down by the gear. Research on the North Atlantic Right Whale has shown that entanglement is as energetically costly as producing a calf¹¹. For a migratory species that spends up to half the year fasting and surviving on energy reserves, entanglement has extreme consequences to the long-term health of the population.

We acknowledge the conservation success of the humpback whale across the world, and in particular the populations that utilize the waters of the Australian Whale Sanctuary. However, we are concerned about the current and emerging threats facing the whales and urge the Commonwealth to implement a post delisting monitoring plan. The historic decline in humpback whale populations was due to commercial whaling across the globe. During this recovery period, however, climate change, fisheries interactions, tourism pressure, marine debris and prey depletion have emerged as new threats. It is prudent to consider the need for the continued monitoring of these threats as they pertain to the health of humpback whale populations along Australia's coast.

This monitoring plan should include long-term agreements among cooperating agencies, researchers and conservation organizations to ensure the protection and management is sufficient to maintain population targets. Looking to the United States' post delisting monitoring plan as an example, ongoing monitoring should include a summary of the roles of all stakeholders to the planning effort; summary of species status at the time of delisting, including demographic parameters and residual threats; monitoring methods; definitions of thresholds for potential monitoring outcomes and conclusions; data compilation and reporting procedures and responsibilities; estimated funding requirements and sources; and an implementation schedule. While we support the proposed management action, we believe that without an accompanying post-delisting monitoring plan, humpback whales in Australia could be in danger of decline to both their health and abundance.

References

 Rocha, R. C., P. J. Clapham and Y. V. Ivashchenko. (2014). Emptying the oceans: A summary of industrial whaling catches in the 20 century. Marine Fisheries Review 76(4):37–48



Protecting the ocean through science and advocacy and inspiring environmental stewardship

- 2. Bejder, M., Johnston, D. W., Smith, J., Friedlaender, A., & Bejder, L. (2016). Embracing conservation success of recovering humpback whale populations: Evaluating the case for downlisting their conservation status in Australia. Marine Policy, 66, 137–141
- 3. Betteridge, S., Baker, C.S., Barlow, J., Clapham, P. J., Ford, M., Grouveia, D., Mattila, D. K., Pace III, R. M., Rosel, P. E., Silber, G. K. & Wade, P. R. (2015). Status review of the humpback whale (Megaptera novaeangliae) under the Endangered Species Act. U. S. Department of Commerce, NOAA-TM-NMFSSWFSC-540
- 4. Cartwright R, Venema A, Hernandez V, Wyels C, Cesere J, Cesere D. 2019 Fluctuating reproductive rates in Hawaii's humpback whales, Megaptera novaeangliae, reflect recent climate anomalies in the North Pacific. R. Soc. open sci. 6: 181463. http://dx.doi.org/10.1098/rsos.181463
- 5. U.S. Fish and Wildlife Service. "Delisting a Species Section 4 of the Endangered Species Act." Fws.gov, Aug. 2002, www.fws.gov/pacific/ecoservices/endangered/classification/pdf/delisting.pdf.
- 6. Australian Government Department of Agriculture, Water and the Environment https://www.environment.gov.au/marine/marine-species/cetaceans/legislation
- Constable, A. J., Melbourne-Thomas, J., Corney, S. P., Arrigo, K. R., Barbraud, C., Barnes, D. K. A., et al. (2014). Climate change and Southern Ocean ecosystems I: how changes in physical habitats directly affect marine biota. *Glob. Chang. Biol.* 20, 3004–3025. doi: 10.1111/gcb.12623
- 8. Poloczanska ES, et al. (2016) Responses of marine organisms to climate change across oceans. Front Mater Sci 3:62
- 9. Marine Mammal Commission https://www.mmc.gov/priority-topics/fisheries-interactions-with-marine-mammals/
- 10. Macfadyen, G.; Huntington, T.; Cappell, R. Abandoned, lost or otherwise discarded fishing gear. UNEP Regional Seas Reports and Studies, No. 185; FAO Fisheries and Aquaculture Technical Paper, No. 523. Rome, UNEP/FAO. 2009. 115p.
- 11. van der Hoop, J., Corkeron, P., & Moore, M. (2017). Entanglement is a costly life-history stage in large whales. Ecology and evolution, 7(1), 92-106.