6 November 2026

Mr. Eugenio Piñeiro Soler
Assistant Administrator for NOAA Fisheries
National Marine Fisheries Service
1315 East-West Hwy, Room 14636
Silver Spring, Maryland 20910

Dear Assistant Administrator Piñeiro Soler:

On April 29, 2026, I wrote to you about a science symposium that the Marine Mammal Commission (the Commission) was planning in response to concerns over the status of the Eastern North Pacific gray whale (*Eschrichtius robustus*) population.

The Range-wide Gray Whale Science Symposium took place on September 9–10, 2026, coordinated by the Commission and hosted by the Marine Mammal Institute at Oregon State University in Newport, Oregon. The meeting focused on gray whale population dynamics, ecology, and health. More than 300 people from Mexico, Canada, and the United States, including many from the National Marine Fisheries Service (NMFS), participated (approximately 140 in-person and 190 virtual) in the first day of science presentations. The second day consisted of in-person panel discussions of the topics introduced the previous day.

The Symposium goals were to 1) review gray whale ecology and health status in the context of recent marine ecosystem changes in the Eastern North Pacific and Arctic; 2) outline future priorities for gray whale ecology research and health surveillance and monitoring to help fill identified data gaps and address management objectives; 3) enhance communication among scientists from Mexico, Canada, and the United States who are monitoring and conducting research on gray whales; and 4) produce a symposium proceedings document summarizing presentations and recommendations for future directions. The symposium proceedings are posted on the Commission website.

Presentations highlighted growing evidence that rapid environmental change across the North Pacific and Arctic, including declining sea ice, warming water temperatures, changes in prey resources, and possibly biotoxins, are affecting the gray whale population. Researchers reported that the Eastern North Pacific gray whale population estimate declined approximately 32% from a high of 16,000 in 2024 to roughly 12,000 whales in 2025, due to low calf production coupled with elevated mortality and poor health due to nutritional stress. High numbers of dead stranded whales led NMFS to declare an Unusual Mortality Event from 2019 to 2023, and elevated stranding rates continue. Scientists also described declines in gray whales' Arctic prey resources and clear changes in their distribution and foraging behavior throughout the year. Participants proposed that modeling efforts should be undertaken to elucidate how varying environmental parameters alter population dynamics in this species.

The Pacific Coast Feeding Group is a small subset of the Eastern North Pacific population that consists of whales that forage between northern California and southeastern Alaska instead of exhibiting the predominant pattern of seasonal migration to summer foraging areas in the Arctic. This demonstrates that gray whales have some behavioral flexibility and may be able to respond to environmental change by using alternative feeding habitat and prey, a response now observed in other sites in the North Pacific. Several speakers documented that many gray whales now use coastal feeding areas along the U.S. West Coast, Canada, and Alaska, particularly as they follow and feed on the northward progression of spawning herring during the spring. These apparent deviations from what has been considered the predominant ("normal") migratory pattern to Arctic foraging waters in summer months requires further study. Specifically, the number of whales using alternative foraging areas, the types, life stages, and abundance of prey consumed, the adequacy of such prey for supporting whales' health, and as-yet undiscovered foraging grounds need to be elucidated. Furthermore, feeding in areas along the coast that overlap marine shipping lanes increases the risk of vessel strikes to whales, as demonstrated by the high numbers of whales killed in the San Francisco Bay area in 2026. Presenters emphasized the need for continued long-term monitoring, collaborative research, and standardized health assessment to better understand and anticipate how ecosystem changes are affecting gray whale distribution, reproduction, and survival.

Commission follow-up

As an immediate follow-on to the Symposium, on October 15, 2026, the Commission issued a Request for Proposals to our small grants program for 2027 on the topic "*Advancing range-wide gray whale science through partnerships and collaboration*." We seek proposals that focus on the population dynamics, distribution, foraging ecology, body condition, or health of North Pacific gray whales throughout their range. Responding to the research needs identified at the Symposium, we are specifically interested in projects that develop research methods or data collection protocols to support comparisons across geographic regions, as well as projects that strengthen existing research collaborations to build a range-wide understanding of gray whale ecology and population dynamics.

Recommendations for NMFS

During the Symposium, participants from various institutions commended NMFS for leading, maintaining and improving many aspects of gray whale research and monitoring over many decades. The Commission echoes this, and strongly supports NMFS continuing to lead Federal gray whale research and monitoring, as mandated by the Marine Mammal Protection Act. Based upon the Symposium presentations and discussions, the Commission recommends that NMFS adopt four priorities, detailed below, to advance our understanding of the status of the Eastern North Pacific gray whale population in the face of environmental change:

1. Continue NMFS's decades-long coastal monitoring program that underpins our understanding of gray whale population abundance, reproduction and body condition.

2. Work with partners to enhance our understanding of individual gray whale movements and life histories to bolster our population models and inform health and nutritional assessment.

3. Examine how NMFS resources can be brought to bear to gather information on the presence, behavior, body condition, and health of gray whales in the Arctic feeding grounds to understand how they are responding to changing conditions there, and

4. Support our understanding of gray whale health and mortality with capacity building and standardization of health metrics.

1. Population abundance

First and foremost, NMFS should continue its annual California shore-based gray whale abundance and calf production surveys, which have been conducted since 1967 and 1994, respectively. Modeling and survey tool development (e.g., paired visual and Uncrewed Aerial System (UAS) observations) associated with these surveys should also be continued. Recent abundance estimates have exhibited biologically implausible annual variability, possibly due to changes in the whales' migratory behavior. Survey and statistical methods to estimate the proportion of whales that are alive but do not migrate past the survey range should be developed to help contextualize and better understand what the abundance estimates represent. NMFS should continue to update modeling approaches to take advantage of improved survey methodiologies and elucidate how varying environmental parameters alter population dynamics.

2. Gray whale individual identification and movements

NMFS should conduct and collaborate in research to fill knowledge gaps about annual migratory patterns and regional distribution of gray whales, including research on the movements of individual whales. These gaps limit our understanding of many aspects of current gray whale population ecology, including estimates of abundance and of age-specific survival and reproductive rates. Also, little is known about the relative nutritive value of alternative foraging areas that are being used by whales or the threats the animals may face in those areas.

Symposium participants agreed on the need to better understand the movements and behavior of individual whales; this can be best achieved through capture-recapture methods. Gray whales are being photo-identified at research sites in several portions of their range but comparisons of images between sites are limited. More tracking of individually identified whales across all regions and seasons would greatly improve understanding of the aforementioned elements of the population's behavioral ecology.

NMFS should continue to fully engage in collaborative efforts to build a comprehensive range-wide gray whale photo-ID catalog, including lateral and aerial imagery, that integrates existing datasets from across the range, using emerging AI-based photo-matching tools to support and expand the geographic and temporal coverage of observations. Symposium participants were convinced that this can be rapidly advanced, using the technologies of existing photo-ID platforms and in public-private partnerships. Assembling a range-wide catalog, including images from governmental, academic, non-governmental, and citizen science sources, will encourage expanded photo-ID and mark-recapture field work in locations across the range.

3. Gray whales in the Arctic

NMFS should examine how to leverage its North Pacific and Arctic resources and programs to increase understanding of gray whale seasonal occupancy, abundance, individual identity, foraging behavior, and health in their primary feeding grounds in high-latitude waters (especially the Bering and Chukchi Seas). This will require initiating, maintaining, or expanding marine mammal observations, including through visual surveys, passive acoustics, satellite telemetry, photo-ID, and oceanography.

NMFS should prioritize collection of gray whale sightings data as an element of targeted surveys for other species (e.g., bowheads, belugas, North Pacific right whales) and broader-scale national and international (e.g., Pacific Ocean Whale and Ecosystem Research (IWC-POWER)) cetacean survey and monitoring efforts. In addition to better characterizing the summer feeding grounds, such data could help us discover areas where whales are foraging undetected (e.g., Gulf of Alaska, Bering Sea/Aleutians).

NMFS should facilitate satellite telemetry research to follow individuals in more poorly observed portions of the migratory and summer feeding cycle. Telemetry tags placed on animals moving north along the U.S. West Coast can help document late spring movements to northern waters and pinpoint both migratory stop-overs and feeding areas, and summer foraging locations. This can also elucidate areas of overlap with elevated risk from vessels or fishing gear.

NMFS should continue and expand support for biological oceanographic research to evaluate gray whale prey quantity and quality throughout their range, focusing on changes to those resources and on the presence of biotoxins, in gray whale foraging habitat. Continued collaboration with long-term research programs such as the Distributed Biological Observatory, which tracks oceanographic and ecosystem variability (including gray whale benthic prey) should be a priority.

4. Gray whale health and mortality

Participants emphasized that our current understanding of gray whale health is restricted by limited availability of longitudinal datasets that follow individuals through different seasons, regions, and life stages. For example, the group discussed the difficulty of distinguishing whether whales identified as "skinny" in aerial drone photos were in the midst of normal seasonal fasting or were emaciated due to a lack of prey during a "normal" feeding season. The aforementioned range-wide photo-ID initiative would help examine such uncertainties. Further, standardized data collection and protocols are needed to build our understanding of the role of infectious disease, parasites, predators, biotoxins, and contaminants on gray whale health and mortality.

NMFS should strengthen support for stranding response and standardized mortality investigation range-wide. Regional stranding response programs provide important health, nutritional, and mortality data. A focus on improving communication and connectivity between these programs in Alaska, in particular, will reduce response time and ensure that health and necropsy data on stranded large whales are collected uniformly across the region.

The NMFS Marine Mammal Health and Stranding Research Program and the Prescott Grant Program can provide avenues to support and advance this priority. NMFS can support the integration of health metrics and other data from individual whales into the enhanced photo-ID catalog to allow long-term tracking of individual health over time and the development of baseline health metrics. NMFS can encourage the development and standardization of noninvasive health

sampling methods (e.g., photogrammetry, analysis of blow samples) and physiological and metabolic biomarkers (e.g., to distinguish between seasonal fasting and starvation). Standardized necropsy protocols supported by a prioritized sampling list can be used range-wide.

The Commission gratefully acknowledges the strong in-person participation and on-line attendance of your staff from the Southwest, Northwest, Alaska, and Pacific Islands Fisheries Science Centers, the West Coast, Alaska, Greater Atlantic, and Southeast Regional Offices, and the Office of Protected Resources. In-person NMFS scientists provided talks and posters and moderated sessions, generously sharing their expertise and NMFS's programs with symposium participants. Thank you for supporting your staff which enabled them to participate in the symposium.

We stand ready to brief you and NMFS leadership, at NMFS Headquarters and in the regions, on the outcomes of this symposium and our recommendations. We will continue to collaborate with you, your agency, and the larger gray whale research community to advance the priorities arising out of our symposium.

Sincerely,

Peter O. Thomas, Ph.D.,
Executive Director

cc: Dr. Evan Howell, Deputy Assistant Administrator for Scientific Programs, NMFS
Ms. Kimberly B. Damon-Randall, Director, Office of Protected Resources, NMFS
Ms. Kristen Koch, Southwest Fisheries Science Center, NMFS
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