

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

In re:

**Proposed Waiver and Regulations
Governing the Taking of
Eastern North Pacific Gray Whales
by the Makah Indian Tribe**

Administrative Law Judge
Hon. George J. Jordan
Docket No. 19-NMFS-0001

RINs: 0648-BI58; 0648-XG584

Rebuttal Testimony of Donald J. (“DJ”) Schubert

1. I submit this testimony in rebuttal to information provided in the direct testimony submitted by Dr. Shannon Bettridge (third declaration), Mr. Chris Yates (fourth declaration), and Dr. John Brandon (second declaration) in regard to the Unusual Mortality Event (“UME”) for gray whales declared by the National Marine Fisheries Services (“NMFS”) on May 29, 2019. My educational background, work history, and specific involvement in the Makah Tribe’s interest in hunting gray whales is contained in paragraphs 1-8 in my original declaration filed in this proceeding on May 20, 2019.

2. Since I submitted my direct testimony on the gray whale UME on August 6, 2019, the number of gray whales reported to have died has increased from 191 to 208 (as of September 5, 2019). This includes 117 whales in the United States, 10 in Canada, and 81 in Mexico. Within the United States (including Alaska), 37 gray whales have reportedly died in California, 6 in Oregon, 34 in Washington, and 40 in Alaska. See Figures 1 and 2.¹

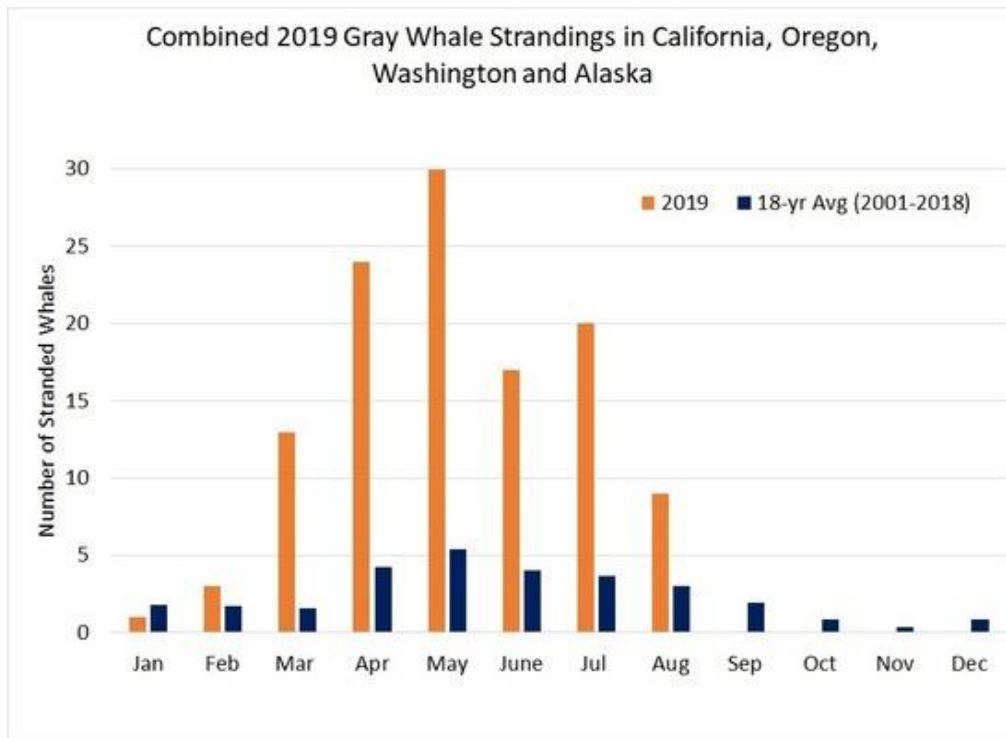
¹ Figures were originally published by NMFS at <https://www.fisheries.noaa.gov/national/marine-life-distress/2019-gray-whale-unusual-mortality-event-along-west-coast>

Figure 1: Gray Whale Strandings (as of September 5, 2019)

U.S. State	2019
Alaska	40
Washington	34
Oregon	6
California	37
Total	117

Country	2019
Canada	10
U.S.	117
Mexico	81
Total	208

Figure 2: Combined 2019 Gray Whale Strandings in California, Oregon, Washington and Alaska.



3. As noted in Yates's fourth declaration,² and as reported by Punt and Wade (2010),³ it is estimated that only 3.9 to 13 percent of dead gray whales wash up on the beach as stranded and are reported. This means that, for the current gray whale UME, the actual number of deceased gray whales likely reaches between 1,600 to 5,333 individuals, with as many as 900 to 3,000 dying in waters of the United States. If the total Eastern North Pacific ("ENP") gray whale population is 26,960, as was reported by NMFS in the proposed waiver of the MMPA and regulations governing the lethal taking of marine mammals by the Makah Tribe, *see* 84 Fed. Reg. 13,604, 13616 (Apr. 5, 2019), the current UME has likely resulted in losses amounting to between 6 and 19.8 percent of the total ENP population.

4. For the Pacific Coast Feeding Group ("PCFG") and the Western North Pacific ("WNP") stock of gray whales, Mr. Yates asserts that, based on preliminary photograph-identification data, that no stranded whale has been positively identified as a PCFG gray whale.⁴ However, based on the well-established and widely accepted models demonstrating that only a small fraction of deceased whales wash ashore and are detected, the unsupported assertion that no *stranded* whale has been positively identified as a PCFG gray whale does not establish that no PCFG gray whales have died during the UME. One or more PCFG whales could have died during the UME and not washed ashore. Moreover, as a practical matter, neither Mr. Yates, nor Dr. Bettridge, included information about *each and every one* of the 208 dead gray whales in their declarations, such as whether DNA samples and/or photographs have been obtained from each stranded whale and analyzed to positively determine their classification (e.g., ENP, PCFG, WNP). Mr. Yates also did not include the basic information required to assess the validity of the

² *See* 4th Decl. Yates ¶ 9.

³ *See* A. E. Punt & P. R. Wade, U.S. Dep't of Commerce, NOAA, *Population Status of the Eastern North Pacific Stock of Gray Whales in 2009*, NMFS-AFSC-207, NOAA Tech. Mem., (2010).

⁴ 4th Decl. Yates ¶ 7.

“preliminary data” he referred to, such as the date and location of the whales that were photographed. Nor did he indicate whether the preliminary data included the dead gray whales reported stranded in Mexico and Canada, or whether the preliminary analysis identified any WNP gray whales among the deceased specimens.⁵ As explained by Mr. Yates and Dr. Bettridge, it could be months or years before the investigation into this UME is completed and the results released publicly (indeed, potentially well after this proceeding is concluded).⁶ Even then, if the final NMFS report on the previous gray whale UME published in 2005⁷ is any indication, NMFS may not publicly disclose whale-specific data for each whale reported dead during the current UME, including whether each stranded whale was sampled, whether DNA and/or photographs were collected, what other samples were collected, what the necropsy and/or other laboratory procedures found, and what classification group each stranded whale belonged to (e.g., ENP, PCFG, and WNP).

5. Dr. Bettridge provided information about how a UME is declared and, once declared, the process undertaken to investigate the causes of the event. What she does not disclose, however, is critical to understanding the mechanisms employed to sample the dead whales, how those samples are analyzed (and by whom), where the results are sent, and when or

⁵ This is particularly significant as the Makah argue that the proposed hunt would not impact WNP gray whales because according to the Makah, the WNP gray whales who migrate to the ENP are merely a separate feeding group of ENP gray whales. Since WNP gray whales, as currently designated, are protected under the Endangered Species Act and MMPA, the claims by the Makah are irrelevant. Indeed, the presence of WNP whales along the shores of the United States including evidence that WNP gray whales have died as a result of the UME would undermine the Makah Tribe’s claim that the proposed hunt would have no impact on endangered WNP gray whales. Even if no stranded whale is positively identified as a WNP gray whale, that does not mean that WNP gray whales are not affected by the UME given the large percentage of dead gray whales that never strand and are not reported.

⁶ 4th Decl. Yates ¶ 2; 3d Decl. Bettridge ¶ 12.

⁷ F.M.D. Gulland, et. al., U.S. Dep’t of Commerce, *Eastern North Pacific Gray Whale (Eschrichtius robustus) Unusual Mortality Event, 1999-2000.*, NMFS-AFSC-150, NOAA Tech. Mem. (2005).

how the public can access the relevant data that may not be included in the NMFS report on the UME. As noted by Dr. Bettridge, NMFS implements the Marine Mammal Health and Stranding Response Program.⁸ Within California, Oregon, Washington, and Alaska, each stranding network relies on a number of separate entities that are responsible for responding to a reported marine mammal stranding within their region in the state.⁹ What is unclear from information that NMFS makes publicly available about its stranding networks, or from Dr. Bettridge's declaration, is whether there is a standardized list of samples (including photographs) that NMFS asks each entity responding to a reported stranding to collect (if possible depending on condition and position of the stranded animal), what methodologies are used to collect such samples, what laboratory or laboratories are used to analyze the samples, what methodologies are followed for sample analysis, where the laboratory results are sent, who evaluates or interprets the results, how that data can be accessed by the public if not included in the NMFS UME report, what procedures and methodologies are used to sample stranded gray whales in Mexico and Canada, how samples from animals sampled in those countries are handled and processed, where those samples are analyzed, and whether and how that data is shared with NMFS for its consideration. As a result, it is nearly impossible for scientists unaffiliated with NMFS to independently assess either the accuracy of the data itself, or NMFS's publicly released interpretations of and conclusions drawn from the data. It is important for the public, including scientists who are independent from NMFS, to be able to access such data to provide a separate independent and objective analysis of the data to confirm or refute the findings published by NMFS. The need for such transparency is not limited to the data on stranded gray whales, but should be applicable to

⁸ 3d Decl. Bettridge ¶ 2.

⁹ See <https://www.fisheries.noaa.gov/national/marine-life-distress/marine-mammal-health-and-stranding-response-program>

any and all sources of information obtained during the investigation into the UME, consistent with basic scientific principles and the rigorous objectives of the scientific method.

6. Mr. Yates largely dismisses the potential adverse impact of the current UME on gray whales. He further notes that the UME should not “delay our decision-making process regarding issuance of a waiver” and asserts that NMFS has “adequately accounted for the possibility of a UME for a number of reasons.”¹⁰ As reported by Mr. Yates, those reasons include that: (A) NMFS does not expect the ENP stock numbers to fall below 40 percent of the Maximum Net Productivity Level, which is the lower boundary of the Optimum Sustainable Population (“OSP”) because, again according to Mr. Yates, to date the ENP population has only declined by 5.4 to 18.2 percent;¹¹ (B) the current amount of human-caused mortality is well below the Potential Biological Removal and the average removal of 2.5 whales per year by the Makah would not “cause or exacerbate any fluctuations or declines in the stock’s abundance;”¹² (C) NMFS will consider the effects of the 2019 UME in its decision-making process related to the waiver and the proposed ten year duration of the waiver and five year duration of the permit will permit NMFS to make changes as necessary;¹³ and (D) the low abundance trigger included in the proposed rule for PCFG gray whales will adequately protect those whales in the event that PCFG gray whales are identified as being killed as a result of the UME.¹⁴ Considering that the causes and duration of the UME are unknown, and the ultimate level of harm to the species uncertain, Mr. Yates’ dismissal of the potential significance of the UME to gray whales is misplaced and premature. Indeed, given the vast changes occurring in the Arctic associated with climate change, including ocean warming, assuming that the duration of the current UME will be as short as the

¹⁰ 4th Decl. Yates ¶ 10.

¹¹ *Id.* at ¶ 11.

¹² *Id.* at ¶ 12.

¹³ *Id.* at ¶¶ 13, 14.

¹⁴ *Id.* at ¶ 15.

1999-2000 UME would be biologically reckless. The physical condition of the gray whales during the southbound migration in 2019-2020 and the northbound migration in 2020 will be a more appropriate measure of the potential duration of the current UME.

7. The downplaying or ignoring of the potential adverse impacts of the 2019 UME by NMFS appears to be consistent with an overall attitude of hoping for the best while avoiding planning for the worst. Instead of focusing on how unlikely an adverse impact may be (e.g., minimal effects of a directed hunt on PCFG gray whales during an odd year, the remote risk of taking a WNP gray whale, a UME that is unlikely to result in the mortality of PCFG and WNP gray whales), NMFS should be evaluating the hunt based on a consideration of all potential impacts to gray whale populations so that the adverse consequences of the myriad threats to gray whales (e.g., the UME, habitat degradation, intentional harassment, climate change, the newly formed “blob” of warm water off the West Coast of the United States¹⁵) are evaluated along with the proposed intentional killing of gray whales to properly assess the consequences of the hunt on, in particular, PCFG and WNP gray whales. Indeed, the precautionary principle and conservative bias in favor of marine mammal protection embraced by the MMPA demand that NMFS make positive findings related to the proposed waiver’s impacts to marine mammals. The agency’s current approach of relying on the absence of data as definitive evidence that no data exists while simultaneously refusing to wait for data to be collected and fully analyzed cannot be squared with its statutory obligations under the MMPA. Additionally, considering the small size of the PCFG and WNP gray whale stock and the even smaller number of reproductive female whales within each group, an approach that considers the proposed hunt within the context of the ecosystem of which the whales are a part—which includes the threats to that ecosystem and its

¹⁵ See https://www.fisheries.noaa.gov/feature-story/new-marine-heatwave-emerges-west-coast-resembles-blob?utm_medium=email&utm_source=govdelivery

constituent parts—in making management decisions would be far more precautionary and more consistent with the conservation mandates of the MMPA than basing management decisions on an expectation of minimal to limited impacts of such threats to gray whales that is based not on the best available science, but on little more than rose-colored optimism that lack any basis in science or evidence. The purported protections that NMFS has included in the proposed rule to ostensibly reduce the impacts of the proposed hunt on PCFG and WNP gray whales are not sufficient to satisfy the science-based, precautionary, and conservative decision-making process demanded by the MMPA.

8. None of the parties in this proceeding have sufficient information to accurately predict the duration or severity of the current UME. Consequently, it is ill conceived and biologically reckless to continue with the current decision-making process unless and until the UME has ended; the causes are determined; NMFS publishes a report on the 2019 UME; and the impacts of the UME to gray whales, including to the ENP, PCFG, and WNP gray are fully understood.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing statements are true and correct to the best of my knowledge, information, and belief.

Executed this 11th day of September, 2019.



Donald (DJ) Schubert