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Update on the Eastern North Pacific Gray Whale (*Eschrichtius robustus*) Unusual Mortality Event

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Update on the Eastern North Pacific Gray Whale (*Eschrichtius robustus*) Unusual Mortality Event

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Summary

From 17 December 2018 through 9 April 2021 a total of ~445 stranded Eastern North Pacific gray whales (*Eschrichtius robustus*) have been documented along the Pacific coast across three countries (Canada, Mexico, and United States), with 214 whales reported in 2019, 174 in 2020 and 57 in 2021 to date (Table 1, Figure 1). In the U.S., the 122 stranded whales reported in 2019 and 79 stranded whales reported in 2020 were above the annual average and the standard deviation rate of $\sim 29 \pm 10$ whales for years 2001-2018 (Table 2, Figure 2). The highest number of strandings occurred in Mexico and in the U.S. in Alaska (Table 1, 2). Eastern North Pacific gray whales are not endangered, however recent abundance estimates found a ~24% decrease in the population between 2016 and 2020, which is thought to be associated with deaths as a result of the UME (Stewart and Weller, 2021). Partial or complete necropsy examinations conducted in 2019 on a subset of stranded whales had evidence of poor to thin body condition, killer whale predation, and human interactions (Raverty *et al.* 2020). Tissue samples have been collected and are pending analyses for cetacean morbillivirus and biotoxins. Sample processing was delayed in 2020 due to the COVID-19 pandemic. The preliminary cause of the gray whale UME is undetermined, although some mortality has been linked to killer whale predation, entanglements and vessel strikes, and more tentatively to poor body condition (in some whales) possibly resulting from ecosystem changes occurring in Arctic feeding areas.

Please refer to: <https://www.fisheries.noaa.gov/national/marine-life-distress/2019-2021-gray-whale-unusual-mortality-event-along-west-coast-and>

Table 1: Overall gray whale strandings by country from 1 January 2019 through 9 April 2021

Country	2019*	2020	2021	Total
Canada	11	5	0	16
US	122	79	10	211
Mexico	81	90	47	218
Total	214	174	57	445

*This includes 2 whales that stranded in Mexico in December 2018

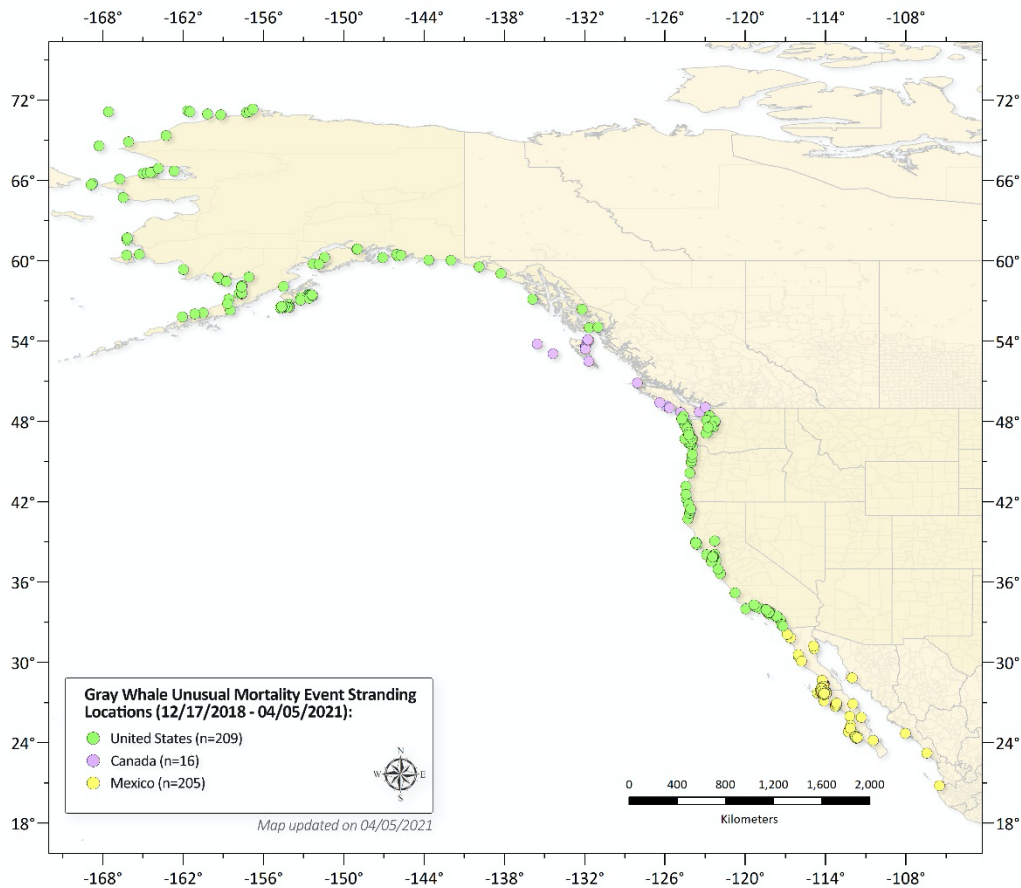


Figure 1: Locations of stranded gray whales from 17 December 2018 through 5 April 2021

Table 2: Gray whale strandings by U.S. state from 1 January 2019 through 9 April 2021

U.S. State	2019	2020	2021
Alaska	48	45	0
Washington	34	13	3
Oregon	6	3	0
California	34	18	7
Total	122	79	10

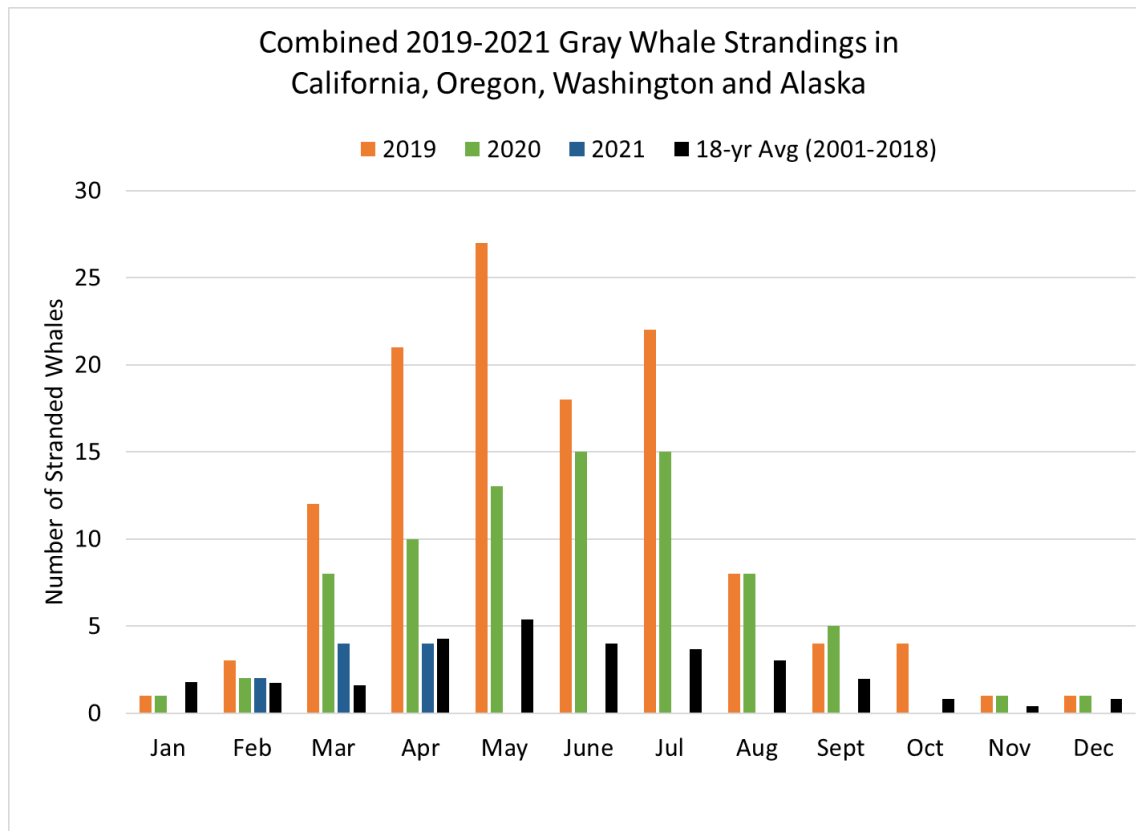


Figure 2: Annual U.S. gray whale strandings from 1 January 2019 through 9 April 2021

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