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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XG300

Draft 2018 Marine Mammal Stock Assessment Reports

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; request for comments and correction.

SUMMARY: NMFS reviewed the Alaska, Atlantic, and Pacific regional marine mammal stock assessment reports (SARs) in accordance with the Marine Mammal Protection Act. SARs for marine mammals in the Alaska, Atlantic, and Pacific regions were revised according to new information. NMFS solicits public comments on the draft 2018 SARs. NMFS also announces the availability of revised Atlantic Regional 2016 and 2017 SARs that include technical corrections.

DATES: Comments must be received by **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: The 2018 draft SARs are available in electronic form via the Internet at <https://www.fisheries.noaa.gov/national/marine-mammal-protection/draft-marine-mammal-stock-assessment-reports>. The revised final Atlantic Regional SAR for 2016 is available at <https://www.nefsc.noaa.gov/publications/tm/tm241/> and the revised 2017 SAR is available at <https://www.nefsc.noaa.gov/publications/tm/tm245/>.

Copies of the Alaska Regional SARs may be requested from Marcia Muto,

Alaska Fisheries Science Center, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115-6349.

Copies of the Atlantic, Gulf of Mexico, and Caribbean Regional SARs may be requested from Elizabeth Josephson, Northeast Fisheries Science Center, 166 Water St., Woods Hole, MA 02543.

Copies of the Pacific Regional SARs may be requested from Jim Carretta, Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA 92037-1508.

You may submit comments, identified by NOAA-NMFS-2018-0086, by either of the following methods:

Federal e-Rulemaking Portal: Go to www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2018-0086, click the “Comment Now!” icon, complete the required fields, and enter or attach your comments.

Mail: Send comments or requests for copies of reports to: Chief, Marine Mammal and Sea Turtle Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3226, Attn: Stock Assessments.

Instructions: NMFS may not consider comments if they are sent by any other method, to any other address or individual, or received after the end of the comment period. All comments received are a part of the public record and will generally be posted for public viewing on www.regulations.gov without change. All personal identifying information (e.g., name, address, etc.), confidential business information, or otherwise

sensitive information submitted voluntarily by the sender will be publicly accessible.

NMFS will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous).

FOR FURTHER INFORMATION CONTACT: Lisa Lierheimer, Office of Protected Resources, 301-427-8402, *Lisa.Lierheimer@noaa.gov*; Marcia Muto, 206-526-4026, *Marcia.Muto@noaa.gov*, regarding Alaska regional stock assessments; Elizabeth Josephson, 508-495-2362, *Elizabeth.Josephson @noaa.gov*, regarding Atlantic, Gulf of Mexico, and Caribbean regional stock assessments; or Jim Carretta, 858-546-7171, *Jim.Carretta@noaa.gov*, regarding Pacific regional stock assessments.

SUPPLEMENTARY INFORMATION:

Background

Section 117 of the Marine Mammal Protection Act (MMPA) (16 U.S.C. 1361 *et seq.*) requires NMFS and the U.S. Fish and Wildlife Service (FWS) to prepare stock assessments for each stock of marine mammals occurring in waters under the jurisdiction of the United States, including the Exclusive Economic Zone. These reports must contain information regarding the distribution and abundance of the stock, population growth rates and trends, estimates of annual human-caused mortality and serious injury (M/SI) from all sources, descriptions of the fisheries with which the stock interacts, and the status of the stock. Initial reports were completed in 1995.

The MMPA requires NMFS and FWS to review the SARs at least annually for strategic stocks and stocks for which significant new information is available, and at least once every three years for non-strategic stocks. The term “strategic stock” means a

marine mammal stock: (A) for which the level of direct human-caused mortality exceeds the potential biological removal level or PBR (defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population); (B) which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the Endangered Species Act (ESA) within the foreseeable future; or (C) which is listed as a threatened species or endangered species under the ESA. NMFS and the FWS are required to revise a SAR if the status of the stock has changed or can be more accurately determined.

Prior to public review, the updated SARs under NMFS' jurisdiction are peer-reviewed within NMFS Fisheries Science Centers and by members of three regional independent Scientific Review Groups, which were established under the MMPA to independently advise NMFS on information and uncertainties related to the status of marine mammals.

The period covered by the 2018 draft SARs is 2012-2016. NMFS reviewed the status of marine mammal stocks as required and revised a total of 47 reports representing 76 stocks in the Alaska, Atlantic, and Pacific regions to incorporate new information. The 2018 revisions consist primarily of updated or revised M/SI estimates and updated abundance estimates. One stock (Alaska bearded seal) changed in status from non-strategic to strategic, and three stocks (Gulf of Maine humpback whale, and Western North Atlantic short-finned and long-finned pilot whales) changed in status from strategic to non-strategic. Substantive revisions to the SARs are discussed below. NMFS solicits

public comments on the draft 2018 SARs.

Alaska Reports

In 2018, NMFS reviewed all 45 stocks in the Alaska region, and revised SARs under NMFS jurisdiction for 18 stocks (14 strategic and 4 non-strategic). The Alaska bearded seal stock changed from “non-strategic” to “strategic” status because the stock is now considered depleted under the MMPA (see below). A list of the 18 reports revised in 2018 for stocks in the Alaska region is presented in Table 1. Information on the remaining Alaska region stocks can be found in the final 2017 reports (Muto *et al.*, 2018).

Table 1. List of marine mammal stocks in the Alaska region revised in 2018.

Strategic Stocks	Non-Strategic Stocks
<ul style="list-style-type: none"> • Steller sea lion, Western U.S. • northern fur seal, Eastern Pacific • bearded seal, Alaska • beluga whale, Cook Inlet • killer whale, AT1 Transient • harbor porpoise, Southeast Alaska • harbor porpoise, Gulf of Alaska • harbor porpoise, Bering Sea • sperm whale, North Pacific • humpback whale, Western North Pacific • humpback whale, Central North Pacific • fin whale, Northeast Pacific • North Pacific right whale, Eastern North Pacific • bowhead whale, Western Arctic 	<ul style="list-style-type: none"> • ribbon seal, Alaska • Pacific white-sided dolphin, North Pacific • Dall’s porpoise, Alaska • Minke whale, Alaska

Revisions to the Alaska SARs included updates of abundance and/or M/SI estimates, including revised abundance estimates for Western U.S. Steller sea lion; Eastern Pacific northern fur seal; and Cook Inlet beluga whale.

Alaska bearded seal

In 2012, NMFS listed the Beringia distinct population segment of bearded seal, and thus the Alaska stock of bearded seal, as threatened under the ESA (77 FR 76740, December 28, 2012). The primary concern for this population is the ongoing and projected loss of sea-ice cover stemming from climate change, which is expected to pose a significant threat to the persistence of these seals in the foreseeable future. In 2014, the U.S. District Court for the District of Alaska issued a decision vacating NMFS' listing in a lawsuit that challenged listing bearded seals under the ESA (*Alaska Oil and Gas Association v. Pritzker, Case No. 4:13-cv-00018-RPB*). Consequently, it was also no longer designated as "depleted" or classified as a strategic stock. In 2016, the 9th Circuit Court of Appeals overturned the decision and approved the agency's protection of the seals; and in 2018, the U.S. Supreme Court declined a challenge to NMFS' listing decision. Thus, because of its threatened status under the ESA, this bearded seal stock is considered depleted under the Marine Mammal Protection Act and is now classified as a "strategic" stock.

Atlantic Reports

In 2018, NMFS reviewed all 117 stocks in the Atlantic region (including the Atlantic Ocean, Gulf of Mexico, and U.S. territories in the Caribbean) under NMFS jurisdiction. This year, NMFS revised 16 reports and created 2 new common bottlenose dolphin reports (West Bay and Terrebonne Bay/Timbalier Bay). These updated reports represent 42 stocks (26 strategic and 16 non-strategic). The Gulf of Maine humpback whale stock and Western North Atlantic (WNA) long-finned and short-finned pilot whale

stocks changed from “strategic” to “non-strategic” status because the mean annual human-caused M/SI is below PBR (see below). A list of the 42 stocks in the Atlantic region (contained in 18 reports), is presented in Table 2. Information on the remaining Atlantic region stocks can be found in the final 2017 reports (Hayes *et al.*, 2018).

Table 2. List of marine mammal stocks in the Atlantic region revised in 2018.

Strategic Stocks	Non-Strategic Stocks
<ul style="list-style-type: none"> • North Atlantic right whale, Western Atlantic • fin whale, WNA • common bottlenose dolphin (24 stocks)* <ul style="list-style-type: none"> ○ Laguna Madre ○ Neuces Bay/Corpus Christi Bay ○ Copano Bay/Aransas Bay/San Antonio Bay/Redfish Bay/Espiritu Santo Bay ○ Matagorda Bay/Tres Palacios Bay/Lavaca Bay ○ Galveson Bay/East Bay/Trinity Bay ○ Sabine Lake ○ Calcasieu Lake ○ Vermilion Bay/West Cote Blanche Bay/Atchafalaya Bay ○ Mississippi River Delta ○ Mobile Bay/Bonsecour Bay ○ Perdido Bay ○ Pensacola Bay/East Bay ○ St. Andrew Bay ○ St. Vincent Sound/Apalachicola Bay/St. George Sound ○ Apalachee Bay ○ Waccassa Bay/Withlacoochee Bay/Crystal Bay ○ St. Joseph Sound/Clearwater Harbor ○ Tampa Bay ○ Pine Island Sound/Charlotte Harbor/Gasparilla Sound/Lemon Bay ○ Caloosahatchee River ○ Estero Bay 	<ul style="list-style-type: none"> • humpback whale, Gulf of Maine • minke whale, Canadian East Coast • Risso’s dolphin, WNA • pilot whale, long-finned, WNA • pilot whale, short-finned, WNA • Atlantic white-sided dolphin, WNA • common dolphin, WNA offshore • rough-toothed dolphin, WNA • harbor porpoise, Gulf of Maine/Bay of Fundy • harbor seal, WNA • gray seal, WNA • harp seal, WNA • hooded seal, WNA • common bottlenose dolphin (3 stocks) <ul style="list-style-type: none"> ○ West Bay ○ Terrebonne Bay/Timbalier Bay ○ Sarasota Bay/Little Sarasota Bay*

<ul style="list-style-type: none"> ○ Chokoloskee Bay/Ten Thousand Islands/Gullivan Bay ○ Whitewater Bay ○ Florida Keys (Bahia Honda to Key West) 	
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*Details for these 25 stocks are included in the report: Common bottlenose dolphin, Northern Gulf of Mexico Bay, Sound, and Estuary Stocks.

Revisions to the Atlantic SARs included updates of abundance and/or M/SI estimates. New abundance estimates are available for the North Atlantic right whale, Gulf of Maine humpback whale, WNA short-finned pilot whale, WNA rough-toothed dolphin, and the West Bay and Terrebonne Bay/Timbalier Bay common bottlenose dolphin stocks.

North Atlantic right whale, Western Atlantic

Although PBR analyses in this 2018 SAR reflect data collected through 2016, it should be noted that an additional 17 North Atlantic right whale mortalities were observed in 2017 (Daoust et al. 2017). This number exceeds the largest estimated mortality rate during the past 25 years. Further, despite the usual extensive survey effort, only 5 and 0 new calves were detected in 2017 and 2018, respectively. Therefore, the decline in the right whale population is expected to continue for at least an additional 2 years. The minimum population size for the Western Atlantic stock of the North Atlantic right whale is 445 and PBR is 0.9.

Humpback whale, Gulf of Maine

The updated abundance estimate for the Gulf of Maine humpback whale stock is 896, based on a recent count of the minimum number alive (MNA). The 2015 humpback whale MNA was produced by counting the number of unique individuals seen in 2015 in

the Gulf of Maine stock area as well as seen both before and after 2015. The 2015 humpback whale MNA includes not only cataloged whales but some calves born in 2015 but not yet identifiable. MNA is a rigorous accounting of individuals and has no associated coefficient of variation (CV). It is both more recent and larger than the previous 2011 line transect estimate of 335 and has zero probability of overestimating abundance. Although the abundance appears to increase from 2017 to 2018, these estimates should not be compared as they were derived using different methodologies and data sets. As a result of the higher abundance estimate, the PBR for the Gulf of Maine humpback whale stock increased from 3.7 to 14.6 whales. Based on a recovery factor of 0.5, the estimate of human-caused M/SI is now below PBR; thus, the stock has changed from “strategic” to “non-strategic.”

Long-finned pilot whale, Western North Atlantic

The PBR for the western North Atlantic long-finned pilot whale is 35 and the estimate of total annual observed average fishery-related of human-caused M/SI is 27. In bottom trawls and mid-water trawls and in the gillnet fisheries, mortalities were more generally observed north of 40°N latitude and in areas expected to have only long-finned pilot whales. Takes in these fisheries were therefore attributed to the long-finned pilot whales. Takes in the pelagic longline fishery were partitioned according to a logistic regression model (Garrison and Rosel 2017). Because the M/SI does not exceed PBR, the stock has changed from “strategic” to “non-strategic.”

Short-finned pilot whale, Western North Atlantic

The best available abundance estimate for short-finned pilot whales, based on shipboard surveys conducted during the summer of 2016 in the western North Atlantic, is 28,924. These most recent surveys covered the full range of short-finned pilot whales in U.S. Atlantic waters. Because long-finned and short-finned pilot whales are difficult to distinguish at sea, sightings data are reported as *Globicephala* sp. These survey data have been combined with an analysis of the spatial distribution of the two pilot whale species based on genetic analyses of biopsy samples to derive separate abundance estimates for each species. Due to changes in survey methodology, previous abundance estimates should not be used to make comparisons with more current estimates. As a result of the higher abundance estimate, the PBR for the western North Atlantic short-finned pilot whale increased from 159 to 236 and the estimate of total annual observed average fishery-related of human-caused M/SI is 27. The estimate of human-caused M/SI is now below PBR; thus, the stock has changed from “strategic” to “non-strategic.”

Common bottlenose dolphins

NMFS is in the process of writing individual stock assessment reports for each of the 31 bay, sound, and estuary stocks of common bottlenose dolphins in the northern Gulf of Mexico. Two new individual reports, for the West Bay and Terrebonne-Timbalier Bay Estuarine System stocks, were completed for the draft 2018 SARs. Therefore, the reader will not see tracked changes in the draft 2018 reports for these stocks. To date, six bottlenose dolphin stocks, have individual reports completed (West Bay, Terrebonne-Timbalier Bay Estuarine System, Barataria Bay Estuarine System, Mississippi Sound/Lake Borgne/Bay Boudreau, Choctawhatchee Bay, and St. Joseph Bay), and the

remaining 25 stocks are included in the Northern Gulf of Mexico Bay, Sound, and Estuary Stocks report.

Pacific Reports

In 2018, NMFS reviewed all 87 stocks in the Pacific region (waters along the west coast of the United States, within waters surrounding the main and Northwestern Hawaiian Islands, and within waters surrounding U.S. territories in the Western Pacific), and revised SARs for 16 stocks (7 strategic and 9 non-strategic). A list of the reports revised in 2018, representing 16 stocks in the Pacific region, is presented in Table 3. Information on the remaining Pacific region stocks can be found in the final 2017 reports (Carretta et al., 2018).

Table 3. List of marine mammal stocks in the Pacific region revised in 2018.

Strategic Stocks	Non-Strategic Stocks
<ul style="list-style-type: none"> • Hawaiian monk seal • killer whale, Eastern N Pacific Southern Resident • gray whale, Western N Pacific • humpback whale, CA/OR/WA • blue whale, Eastern N Pacific • fin whale, CA/OR/WA • sei whale, Eastern N Pacific 	<ul style="list-style-type: none"> • California sea lion • killer whale, Eastern N Pacific Offshore • gray whale, Eastern N Pacific • spinner dolphin <ul style="list-style-type: none"> ○ Hawaii pelagic ○ Hawaii Island ○ O’ahu/4 Islands ○ Kaua’i/Ni’ihau ○ Kure/Midway ○ Pearl and Hermes Reef

New abundance estimates are available for 8 stocks: California sea lions, Hawaiian monk seals, Eastern North Pacific Offshore killer whales, Southern Resident killer whales, Eastern North Pacific gray whales, Western North Pacific gray whales, California/Oregon/Washington humpback whales, and Hawaii Island spinner dolphins.

New methodology to estimate level of vessel strike mortality: CA/OR/WA humpback whale, CA/OR/WA fin whale, and the Eastern North Pacific blue whales

New information on serious injury and mortality resulting from estimated vessel strikes based on an analysis by Rockwood *et al.* (2017) is included for the following stocks of large whales: CA/OR/WA humpback whale, CA/OR/WA fin whale, and the Eastern North Pacific blue whales. Using the moderate level of vessel avoidance, this model estimated the following annual mortality of these stocks of large whales due to ship strikes as follows: 22 humpback whales (representing approximately 0.7 percent of the estimated population size of the stock); 43 fin whales (representing approximately <0.5 percent of the estimated population size of the stock); and 18 blue whales (representing approximately 1 percent of the estimated population size of the stock. Based on this new methodology, estimated levels of vessel strike mortality exceed PBR for both Eastern North Pacific blue and CA/OR/WA humpback whale stocks, although estimated vessel strike levels represent a small fraction of the overall estimated population sizes. Estimated vessel strikes are also compared with recent detected levels of vessel strikes, which indicate that detection rates for vessel strike events are quite low, ranging from approximately 1 percent (for blue whales) to 12 percent (for humpback whales). There is uncertainty regarding the estimated number of ship strike deaths as carcass recovery rates are quite low.

New methodology to assign cases of entangled but unidentified whales to stock:

CA/OR/WA humpback whale, CA/OR/WA fin whale, Eastern North Pacific gray whale, and Eastern North Pacific blue whales

Unidentified whales represent approximately 15 percent of entanglement cases along the U.S. West Coast. In previous stock assessments, unidentified entanglements

were not assigned to stock. For large whale stocks, including gray, humpback, blue, and fin whales, a new methodology based on an assignment model generated from historic known-species entanglements in the region was used to assign previous cases of unidentified whale entanglements to species (Carretta 2018). This has eliminated a negative bias in assessments that occurs when unidentified whale entanglements are not assigned to any species/stock. In the case of CA/OR/WA humpback whales, observed levels of entanglements and vessel strikes combined exceed PBR.

New methodology to calculate the minimum population estimate (Nmin) for California sea lion

The 2018 SAR for California sea lions uses a different methodology for estimating Nmin. The updated minimum population size of the U.S. stock is 233,515 (153,337 in 2014 SAR). This resulted in an increase in PBR from 9,200 (in 2014) to 14,011. The updated best abundance estimate available for California sea lions, based on a 1975-2014 time series of pup counts, combined with mark-recapture estimates of survival rates, is 257,606 sea lions (Laake *et al.*, 2018) (down from 296,750 in 2014 SAR).

The previous approach to calculate Nmin used two times the annual pup count, which resulted in negatively-biased Nmin values because not all age classes are represented. The Guidelines for preparing Stock Assessment Reports (NMFS 2016) recommends defining Nmin as the 20th percentile of a log-normal distribution based on an estimate of the number of animals in a stock (which is equivalent to the lower limit of a 60% 2-tailed confidence interval). The Guidelines allow for other approaches to be used

to estimate N_{min} if they provide an adequate level of assurance that the stock size is equal to or greater than that estimate. Laake et al. (2018) did not provide a CV for the estimated population size, so the updated N_{min} is based on the lower 95 percent confidence limit. The stock is estimated to be approximately 40 percent above its maximum net productivity level (MNPL = 183,481 animals), and it is therefore considered within the range of its optimum sustainable population. The carrying capacity of the population was estimated at 275,298 animals in 2014 (Laake *et al.* 2018). The total human caused mortality is less than the PBR of 14,011.

Corrections to the 2016 and 2017 SARs

Subsequent to announcing the availability of the final 2016 (82 FR 29039, June 27, 2017) and 2017 (83 FR 32093, July 11, 2018) SARs, we were made aware that the SARs contained some technical errors. In the 2016 North Atlantic right whale SAR, the PBR was listed incorrectly as 1. The correct PBR value for 2016 is 0.9. Similarly, in the 2017 North Atlantic right whale SAR, PBR was listed as 1.4, but the correct value is 0.9. In addition, the 2017 SAR for the WNA Central Florida Coastal Stock of common bottlenose dolphins contained a technical error. In the “Population Size” section, the name of the stock was incorrectly listed as the “Northern” Florida Coastal Stock instead of the “Central” Florida Coastal Stock. We have corrected the errors and posted revised versions of the 2016 and 2017 North Atlantic right whale SARs and 2017 WNA Central Florida Coastal Stock common bottlenose dolphin SAR on the NMFS website (see

“Addresses”). With this *Federal Register* notice, we are notifying the public about the revised versions.

References

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