



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XA349]

Draft 2020 Marine Mammal Stock Assessment Reports

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

ACTION: Notice; request for comments and new information.

SUMMARY: NMFS reviewed the Alaska, Atlantic, and Pacific regional marine mammal stock assessment reports (SARs) in accordance with the Marine Mammal Protection Act (MMPA). SARs for marine mammals in the Alaska, Atlantic, and Pacific regions were revised according to new information. NMFS solicits public comments on the draft 2020 SARs. NMFS is also requesting new information for strategic stocks that were not updated in 2020.

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

ADDRESSES: The 2020 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>.

Copies of the Alaska Regional SARs may be requested from Marcia Muto, Alaska Fisheries Science Center; copies of the Atlantic, Gulf of Mexico, and Caribbean Regional SARs may be requested from Elizabeth Josephson, Northeast Fisheries Science Center; and copies of the Pacific Regional SARs may be requested from Jim Carretta, Southwest Fisheries Science Center (see **“FOR FURTHER INFORMATION CONTACT”** below).

You may submit comments or new information, identified by NOAA-NMFS-2020-0130, through the Federal e-Rulemaking Portal:

1. Go to *www.regulations.gov#!/docketDetail;D=NOAA-NMFS-2020-0130*.
2. Click the “Comment Now!” icon, and complete the required fields
3. Enter or attach your comments.

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. Due to delays in processing mail related to COVID-19 and health and safety concerns, no mail, courier, or hand deliveries will be accepted. 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: Dr. Zachary Schakner, Office of Science and Technology, 301-427-8106, *Zachary.Schakner@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 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

U.S. Exclusive Economic Zone (EEZ). 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 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, established under the MMPA to independently advise NMFS on information and uncertainties related to the status of marine mammals.

The period covered by the 2020 draft SARs is 2014 through 2018. NMFS reviewed the status of all marine mammal strategic stocks as required and considered whether significant new information was available for all other stocks under NMFS’ jurisdiction. As a result of this review, NMFS revised a total of 81 reports representing 84 stocks in the Alaska, Atlantic, and Pacific regions to incorporate new information. The

2020 revisions to the SARs consist primarily of updated or revised human-caused mortality and serious injury (M/SI) estimates and updated abundance estimates. For the Gulf of Maine humpback whale stock, the revisions include the application of an established capture-mark-recapture method to estimate the abundance and unobserved or cryptic mortality. Five stocks changed in status from “non-strategic” to “strategic” (Eastern Bering Sea beluga whale, Gulf of Maine humpback whale, Gulf of Mexico spinner dolphin, Gulf of Mexico striped dolphin, and Gulf of Mexico Clymene dolphin stocks). The stock summary tables have been reformatted for consistency across each region. Highlights of the draft 2020 SAR revisions are discussed below.

NMFS solicits public comments on the draft 2020 SARs. To ensure NMFS is aware of new information relevant to all strategic stocks, NMFS also requests new information for strategic stocks that were not updated in 2020. Specifically, new relevant information could include peer-reviewed information on human-caused M/SI, fishery interactions, abundance, distribution, stock structure, and habitat concerns, which could be incorporated into the SARs, and other information on emerging concerns for strategic stocks.

Alaska Reports

In 2020, NMFS reviewed new information for 28 stocks in the Alaska Region and revised 23 Stock Assessment Reports under NMFS’ jurisdiction: 16 strategic stocks and 7 non-strategic stocks. The Eastern Bering Sea beluga whale stock changed from “non-strategic” to “strategic” (see below). A list of the revised stocks in 2020 for the Alaska region is presented in Table 1. Information on the remaining Alaska region stocks can be found in the final 2019 reports (Muto *et al.* 2020).

Table 1 -- List of Marine Mammal Stocks in the Alaska Region Revised in 2020

| Strategic Stocks | Non-Strategic Stocks |
|--|---|
| <ul style="list-style-type: none"> • Steller sea lion, Western U.S.* • Northern fur seal, Eastern Pacific* • Bearded seal, Beringia | <ul style="list-style-type: none"> • Spotted seal, Bering • Ribbon seal • Beluga whale, Beaufort Sea |

| | |
|---|--|
| <ul style="list-style-type: none"> • Ringed seal, Arctic • Beluga whale, Eastern Bering Sea* • 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"> • Beluga whale, Eastern Chukchi Sea* • Beluga whale, Bristol Bay* • Killer whale, Gulf of Alaska, Aleutian Islands, and • Killer whale, West Coast Transient* |
|---|--|

*Includes updated abundance estimates

Stock name changes

NMFS changed the stock names for the four ice seal stocks (bearded seal, ribbon seal, ringed seal, and spotted seal) to reflect advice in the NMFS Policy Directive, “Guidelines for preparing stock assessment reports pursuant to the 1994 amendments to the Marine Mammal Protection Act” (NMFS 2016) regarding trans-boundary stocks. While the stocks extend beyond the boundaries of the U.S. EEZ, the stock assessment reports consider only the portions of the stocks that are within the U.S. EEZ because the relevant stock assessment data on abundance and human-caused mortality and serious injury are generally not available for the broader range of the stock or even for waters adjacent to the U.S. EEZ.

Beluga whale, Eastern Bering Sea

The updated abundance estimate, derived from aerial surveys in 2017, is 9,242 beluga whales. This is an increase from the previous estimate of 6,994. The updated minimum population estimate is 8,357, previously considered unreliable for calculating a PBR as the survey data were more than eight years old. The Eastern Bering Sea beluga whale stock changed from non-strategic to strategic because the calculated PBR of 167 is less than the estimated human-caused mortality and serious injury of 198 beluga whales.

Beluga whales-Cook Inlet

A new approach using video data was applied to address bias in the group-size estimation process of previous methods. The updated best estimate of abundance in 2018, derived using this new analytical method on aerial survey data from 2014, 2016, and 2018, is 279 beluga whales. This is a decrease from the previous estimate of 327. During the most recent 10-year time period (2008-2018), the estimated exponential trend in the abundance estimates is a decline of 2.3 percent per year (95 percent Probability Interval: -4.1 percent to -0.6 percent), with a 99.7 percent probability of a decline, and a 93.0 percent probability of a decline that is more than 1 percent per year (Wade *et al.* 2019).

Harbor porpoise, Bering Sea

The abundance estimate for harbor porpoise in the eastern Bering Sea, derived from vessel surveys in association with pollock stock assessment surveys in 2008, is 5,713 harbor porpoise. However, this estimate is for only a small portion of the range of this stock. Because the survey data are more than eight years old, the minimum population estimate (N_{MIN}) is now considered unknown, and the PBR is now considered undetermined.

Atlantic Reports

In 2020, NMFS reviewed all 116 stocks in the Atlantic region for new information (including the Atlantic Ocean, Gulf of Mexico, and U.S. territories in the Caribbean). This year, NMFS revised 33 reports in the Atlantic region (13 strategic and 20 non-strategic). Four stocks (Gulf of Maine humpback whale, Gulf of Mexico spinner dolphin, Gulf of Mexico striped dolphin, and Gulf of Mexico Clymene dolphin) changed from “non-strategic” to “strategic” (see below). A list of the revised stocks in the Atlantic region for 2020 is presented in Table 2. Information on the remaining Atlantic region stocks can be found in the final 2019 reports (Hayes *et al.* 2020).

Table 2 -- List of Marine Mammal Stocks in the Atlantic Region Revised in 2020

| Strategic Stocks | Non-Strategic Stocks |
|------------------|----------------------|
|------------------|----------------------|

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|---|---|
| <ul style="list-style-type: none"> • North Atlantic right whale, Western North Atlantic (WNA)* • Fin whale, WNA* • Sei whale, Nova Scotia • Humpback whale, Gulf of Maine • Common bottlenose dolphin, WNA Northern Migratory coastal • Common bottlenose dolphin, WNA Southern Migratory coastal • Common bottlenose, Northern North Carolina Estuarine System • Common bottlenose, Southern North Carolina Estuarine System • Bryde's whale, Gulf of Mexico* • Clymene dolphin, Gulf of Mexico* • Sperm whale, Gulf of Mexico* • Spinner dolphin, Gulf of Mexico* • Striped dolphin, Gulf of Mexico* | <ul style="list-style-type: none"> • Minke whale, Canadian East Coast* • Common dolphin, WNA* • Harbor porpoise, Gulf of Maine • Harbor seal, WNA • Gray seal, WNA • Blainville's beaked whale, Gulf of Mexico* • Cuvier's beaked whale, Gulf of Mexico* • Gervais' beaked whale, Gulf of Mexico* • Bottlenose dolphin, Gulf of Mexico, Oceanic* • Dwarf sperm whale, Gulf of Mexico* • Pygmy sperm whale, Gulf of Mexico* • False killer whale, Gulf of Mexico* • Fraser's dolphin, Gulf of Mexico* • Killer whale, Gulf of Mexico* • Melon-headed whale, Gulf of Mexico* • Pantropical spotted dolphin, Gulf of Mexico* • Pygmy killer whale, Gulf of Mexico* • Risso's dolphin, Gulf of Mexico* • Rough-toothed dolphin, Gulf of Mexico* • Short-finned pilot whale, Gulf of Mexico* |
|---|---|

*Includes updated abundance estimates

North Atlantic right whale, Western Atlantic:

For the second year, western North Atlantic right whale stock size is based on a state-space model of the sighting histories of individual whales (Pace *et al.* 2017). Using a hierarchical, state-space Bayesian open population model of these histories produced a median abundance value of 412 individuals (95 percent credible intervals 403-424). The previous best abundance estimate in the 2019 SAR was 428 (95 percent credible intervals 406-447).

The estimated annual rate of total mortality using this modeling approach is 18.6 animals for the period 2013–2017 (Pace *et al.* submitted). This estimated total mortality accounts for detected mortality and serious injury, as well as undetected (unobserved or cryptic) mortality within the population. When comparing the detected mortality and serious injury to the model estimates for the five-year period (2013-2017), the detection rate was 51 percent of the state space model's annual mortality estimate.

Humpback whale, Gulf of Maine

For the Gulf of Maine humpback whale report, two independent abundance estimates are presented. One based on ship/aerial line-transect surveys, and a second based on applying mark and recapture methods to photo identification records (Robbins and Pace 2018). The best abundance estimate of 1,396 (95 percent credible intervals 1363–1429) is based on the mark and recapture method that utilizes a state-space model of the sighting histories of individual whales. Using the resulting N_{MIN} associated with this abundance estimate of 1,380, the PBR for the Gulf of Maine Humpback whale stock is 22.

The state-space model was also used to estimate total mortality as described above for North Atlantic right whales. The estimated annual rate of total mortality using this modeling method is 57.6 animals for the period 2011–2015 (estimated mortality for 2016 forward is not yet available due to ongoing processing of all photographs collected through 2020). The estimated human caused mortality and serious injury now exceeds PBR (22), and the Gulf of Maine humpback whale stock changed in status from “non-strategic” to “strategic.”

Gulf of Mexico stocks abundance estimates

New abundance estimates for 20 Gulf of Mexico stocks were generated from vessel surveys conducted in the northern Gulf of Mexico and an updated methodology (Garrison *et al.* 2020). The new estimates were produced using a new double-platform data-collection procedure to allow estimation of the detection probability on the trackline using the independent observer approach assuming point independence (Laake and Borchers 2004). Unlike previous abundance estimates, these estimates were corrected for the probability of detection on the trackline. Three stocks changed from “non-strategic” to “strategic” (spinner dolphin, striped dolphin, and Clymene dolphin) because the mean

modeled annual human-caused mortality and serious injury due to the Deepwater Horizon (DWH) oil spill exceeds PBR.

Deep Water Horizon mortality and serious injury estimates

A population model was developed to estimate the injury and time to recovery for stocks affected by the DWH oil spill, taking into account long-term effects resulting from mortality, reproductive failure, reduced survival rates, and the proportion of the stock exposed to DWH oil (DWH MMIQT 2015). As a result, the mean modeled annual human-caused mortality and serious injury due to the DWH oil spill now exceeds PBR in Gulf of Mexico spinner dolphin, striped dolphin, and Clymene dolphin stocks. The mortality is not associated with commercial fishery-related mortality and serious injury and does not trigger action under section 118 of the MMPA.

Common bottlenose dolphin, Western North Atlantic Stocks

An analysis of coast-wide (New Jersey to Florida) trends in abundance for common bottlenose dolphins was included in the WNA Northern and Southern Migratory Coastal SARs and indicated a declining trend. There was a statistically significant change in slope between 2011 and 2016, indicating a decline in population size. The coast-wide inverse-variance weighted average estimate for coastal common bottlenose dolphins during 2011 was 41,456 (Coefficient of Variation--CV=0.30), while the estimate during 2016 was 19,470 (CV=0.23; Garrison *et al.* 2017). This apparent decline in common bottlenose dolphin abundance in coastal waters along the eastern seaboard may be a result of the 2013–2015 Unusual Mortality Event.

Pacific Reports

In 2020, NMFS reviewed all 85 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) for new information, and revised SARs for 28 stocks (7 strategic and 21 non-strategic). A

list revised stocks in 2020 for the Pacific region is presented in Table 3. Information on the remaining Pacific region stocks can be found in the final 2019 reports (Carretta *et al.* 2020).

Table 3 -- List of Marine Mammal Stocks in the Pacific Region Revised in 2020

| Strategic Stocks | Non-Strategic Stocks |
|--|--|
| <ul style="list-style-type: none"> • False killer whale, Main Hawaiian Islands Insular • Hawaiian monk seal* • Killer whale, Eastern N Pacific Southern* Resident • Sperm whale, Hawaii* • Fin whale, Hawaii* • Fin whale, California/Oregon/Washington • Gray whale, Western North Pacific | <ul style="list-style-type: none"> • Gray whale, Eastern North Pacific • Rough-toothed dolphin, Hawaii* • Risso’s dolphin, Hawaii* • Pantropical spotted dolphin, Hawaii Pelagic* • Bottlenose dolphin, Hawaii Pelagic* • Striped dolphin, Hawaii Pelagic* • Frasers dolphin, Hawaii* • Melon-headed whale* <ul style="list-style-type: none"> ○ Hawaiian islands ○ Kohala Resident • Pygmy killer whale, Hawaii* • False Killer whale* <ul style="list-style-type: none"> ○ Northwest Hawaiian Islands ○ Hawaii Pelagic • Killer whale, Hawaii* • Short-finned pilot whale, Hawaii* • Blainville’s beaked whale, Hawaii Pelagic* • Cuvier’s beaked whale, Hawaii Pelagic* • Longman’s beaked whale, Hawaii* • Pygmy sperm whale, Hawaii* • Dwarf sperm whale, Hawaii • Bryde’s whale, Hawaii* • Minke whale, Hawaii* |

*Includes updated abundance estimates

Updated abundance estimates for Hawaiian stocks

The majority of Hawaii reports contain new abundance estimates for all Hawaiian Islands Cetacean Assessment Survey (HICEAS) years (2002, 2010, and 2017) using a consistent analysis approach across years. Some stocks use model-based estimates of abundance when available.

False killer whale, all Pacific stocks

The stock range and boundaries of the three Hawaiian stocks of false killer whales were recently reevaluated, given significant new information on the occurrence and

movements of each stock in Bradford *et al.* (2015), and further revised for the pelagic stock in Bradford *et al.* (2020). A new model-based methodology, taking into account the removal of the inner stock boundary for the pelagic stock, was used to estimate abundance. This resulted in new abundance, N_{MIN} , and PBR estimates for the Hawaii EEZ and broader central Pacific study area.

Common Bottlenose dolphin-Hawaii Pelagic

There were no sightings of bottlenose dolphins during systematic survey effort in 2017, and therefore design-based estimates are not available. This results in an undetermined abundance estimate (previously 21,815) and correspondingly, the PBR for this population is now undetermined (previously 140).

References

- Bradford, A.L., E.M. Oleson, R.W. Baird, C.H. Boggs, K.A. Forney, and N.C. Young. 2015. Revised stock boundaries for false killer whales (*Pseudorca crassidens*) in Hawaiian waters. U.S. Department of Commerce, NOAA Technical Memorandum. NOAA-TM-NMFS-PIFSC-47, 29 p.
- Bradford, A.L., E.A. Becker, E.M. Oleson, K.A. Forney, J.E. Moore, and J. Barlow. 2020. Abundance estimates of false killer whales in Hawaiian waters and the broader central Pacific. U.S. Department of Commerce, NOAA Technical Memorandum NOAA-TM-NMFS-PIFSC-104, 78 p.
- Carretta, J.V., K.A. Forney, E.M. Oleson, D.W. Weller, A.R. Lang, J. Baker, M.M. Muto, B. Hanson, A.J. Orr, H. Huber, M.S. Lowry, J. Barlow, J.E. Moore, D. Lynch, L. Carswell, and R.L. Brownell Jr. 2020. U.S. Pacific marine mammal stock assessments: 2019. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-SWFSC-629, 385 p.
- DWH MMIQT. 2015. Models and analyses for the quantification of injury to Gulf of Mexico cetaceans from the *Deepwater Horizon* Oil Spill,

MM_TR.01_Schwacke_Quantification.of.Injury.to.GOM.Cetaceans. Southeast
Fisheries Science Center Reference Document PRBD-2020-02.

Garrison, L.P., J. Ortega-Ortiz, and G. Rappucci. 2020. Abundance of marine mammals in the waters of the U.S. Gulf of Mexico in the summer of 2017 and 2018. Southeast Fisheries Science Center Reference Document PRBD-2020-07, 55 p.

Garrison, L.P., K. Barry, and W. Hoggard. 2017. The abundance of coastal morphotype bottlenose dolphins on the U.S. east coast: 2002-2016. Southeast Fisheries Science Center Reference Document PRBD-2017-01, 43 p.

Hayes, S.A., E. Josephson, K. Maze-Foley, and P.E. Rosel, Editors. 2020. US Atlantic and Gulf of Mexico marine mammal stock assessments - 2019. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NE-264, 477 p.

Laake, J.L. and D.L. Borchers. 2004. Methods for incomplete detection at distance zero, In: Advanced distance sampling, edited by S.T. Buckland, D.R. Andersen, K.P. Burnham, J.L. Laake, and L. Thomas, p. 108–189, Oxford University Press, New York.

Muto, M.M., V.T. Helker, B.J. Delean, R.P. Angliss, P.L. Boveng, J.M. Breiwick, B.M. Brost, M.F. Cameron, P.J. Clapham, S.P. Dahle, M.E. Dahlheim, B.S. Fadely, M.C. Ferguson, L.W. Fritz, R.C. Hobbs, Y.V. Ivashchenko, A.S. Kennedy, J.M. London, S.A. Mizroch, R.R. Ream, E.L. Richmond, K.E.W. Shelden, K.L. Sweeney, R.G. Towell, P.R. Wade, J.M. Waite, and A.N. Zerbini. 2020. Alaska marine mammal stock assessments, 2019. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-AFSC-404, 395 p.

National Marine Fisheries Service (NMFS). 2016. Guidelines for preparing stock assessment reports pursuant to the 1994 amendments to the Marine Mammal Protection Act, 23 p.

Pace, R.M., III, P.J. Corkeron, and S.D. Kraus. 2017. State-space mark-recapture estimates reveal a recent decline in abundance of North Atlantic right whales. *Ecol. and Evol.* 7:8730–8741. DOI: 10.1002/ece3.3406

Pace, R.M., III, R. Williams, A.R. Knowlton, H.M. Pettis, and S.D. Kraus. Submitted. Cryptic mortality of North Atlantic right whales.

Robbins, J. and R.M. Pace, III. 2018. Trends in abundance of North Atlantic humpback whales in the Gulf of Maine. EE133F-17-SE-1320 Task I Contract Report. Northeast Fisheries Science Center, Woods Hole, MA.

Wade, P.R., C. Boyd, K.E.W. Sheldon, and C.L. Sims. 2019. Chapter 2: Group size estimates and revised abundance estimates and trend for the Cook Inlet beluga population. In K.E.W. Sheldon and P.R. Wade (eds.), *Aerial surveys, distribution, abundance, and trend of belugas (*Delphinapterus leucas*) in Cook Inlet, Alaska, June 2018*. AFSC Processed Rep. 2019-09, 93 p. Alaska Fisheries Science Center, Seattle, WA.

Dated: November 30, 2020.

Christopher Wayne Oliver,

Assistant Administrator for Fisheries,

National Marine Fisheries Service.

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