



MARINE MAMMAL COMMISSION

6 February 2023

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, Maryland 20910-3226

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's (NMFS) 5 January 2023 notice (88 Fed. Reg. 916) reassessing the findings supporting its 2021 final rule (86 Fed. Reg. 5322) governing the taking of marine mammals incidental to conducting geophysical surveys in the Gulf of Mexico (GOM) under section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA). The reassessment of findings would support NMFS's continued issuance of letters of authorization (LOAs) to geophysical industry operators during a five-year period ending on 19 April 2026. The Commission reviewed and provided recommendations in its [21 August 2018 letter](#) on the proposed rule that governed activities from 2021 to 2026. The Commission will not reiterate those recommendations herein but maintains that the recommendations that NMFS did not incorporate into the final rule are still relevant to the current rulemaking and asks that they be reviewed again in the course of considering the proposed revisions.

Background

For the current rulemaking, NMFS revised the marine mammal take estimates that were provided by the Bureau of Ocean Energy Management (BOEM) for the 2021 final rule and later determined to be incorrect. The take estimates that underpinned the 2021 final rule originally had been revised by BOEM after certain geographic areas and associated activities that were proposed to be included in the rulemaking were removed by NMFS from consideration in the final rule. Those included areas subject to the Gulf of Mexico Energy Security Act (GOMESA) leasing moratorium¹ in the BOEM Outer Continental Shelf (OCS) Eastern and Central Planning Areas. As part of its proposed revisions to correct BOEM's take estimates, NMFS also incorporated new information on marine mammal densities, abundance, and behavior of GOM marine mammals, based in part on vessel-based and aerial line-transect surveys conducted between 2003 and 2019 (Litz et al. 2022)²,

¹ The GOMESA leasing moratorium is due to expire on 30 June 2032. The leasing moratorium does not prohibit geophysical survey activities from occurring in the GOMESA area, but it does make geophysical surveys in that area unlikely during the five-year timeframe covered by the 2021 final rule.

² As per spatial density model outputs available as shape files at <https://www.ncei.noaa.gov/access/metadata/landing-page/bin/iso?id=gov.noaa.nodc:0256800>. NMFS referred to the citation for the dataset as Garrison et al. (2022) throughout the preamble, but the correct citation should be Litz et al. (2022). All references to that dataset herein shall reference Litz et al. (2022).

and updated information from LOA applications submitted by geophysical operators under the 2021 final rule on the predominant volume and tow depth of airgun arrays used to conduct geophysical surveys in the GOM³.

Inadequate mitigation measures for Rice's whales

NMFS's revised annual take estimates decreased for most marine mammals, with the exception of a few species, most notably Rice's whales. NMFS estimated that the maximum annual takes of Rice's whales would increase from 10 to 30 (Table 9 in the *Federal Register* notice). Based on the information in the preamble, the increase in the numbers of Level B harassment takes for Rice's whales can be attributed to several factors—(1) the greater estimated densities of Rice's whales across all zones covered by the final rule, (2) the larger affected area associated with the 5,110-in³ array, and (3) new data that indicate deeper diving behavior for Rice's whales (88 Fed. Reg. 918). The increase in takes also can be attributed to geophysical surveys that may occur within the whales' recently revised and expanded core distribution area⁴, which now includes an additional portion of the OCS Central Planning Area, and other areas of the central and western GOM that NMFS has determined are habitat for Rice's whales and that fall within the geographic scope of the rule.

Rice's whale is the only baleen whale to reside year-round in the northern GOM. NMFS listed the whale as endangered in 2019 due to its small population size (currently estimated as 51 animals), restricted range (primarily in the eastern GOM), and the threats posed by energy exploration, development, and production, oil spills and oil spill response activities, vessel strikes, entanglement in fishing gear, and anthropogenic sound. NMFS is in the process of evaluating geographic areas that contain physical or biological features that are essential for the conservation of Rice's whales and that need special management or protection. In the interim, NMFS has identified a core distribution area for Rice's whales in the eastern GOM, which NMFS excluded from consideration in the 2021 final rule along with the rest of the GOMESA area. With that restriction in place, Level B harassment takes of Rice's whales were estimated to average no more than 8 whales annually.

The Rice's whale's core distribution area was expanded by NMFS in June 2019 to include all available observations of Rice's whales, as well as a 30-km buffer zone extending beyond the polygon that encompassed all sightings and tag locations. The larger buffer zone was intended to address uncertainty in observation locations and movements of Rice's whales (see Appendix B of Riley et al. 2021). Although NMFS announced the expansion of the Rice's whale core distribution area in June 2019, before issuance of the 2021 final rule, that expanded area was not discussed or reflected in the final rule. NMFS has now determined that 5 percent of the expanded core distribution area overlaps with areas in the Central Planning Area which were not excluded from consideration in the 2021 final rule (88 Fed. Reg. 935).

However, instead of extending restrictions on geophysical surveys to include the entirety of the currently recognized core distribution area, NMFS has proposed to authorize takes of Rice's whales in the portion of the core distribution area that extends beyond the GOMESA area

³ Including the addition of sound source modeling for a 5,100-in³ seismic airgun array at a tow depth of 12 m (which is deeper than the 8-m tow depths previously modeled for the 4,130 and 8,000-in³ arrays; Weirathmueller et al. 2022).

⁴ <https://www.fisheries.noaa.gov/resource/map/rices-whale-core-distribution-area-map-gis-data>

(identified by NMFS as Zone 2, shown in Figure 4 of the *Federal Register* notice). That proposed change, along with other information used to revise the take estimates for Rice's whales, has resulted in more than a three-fold increase in the mean number of annual Level B harassment takes, from 8 to 26. It is not clear from the information presented by NMFS how much the increase in the numbers of takes is attributed to geophysical surveys that are expected to occur in the expanded core distribution area and how much is attributed to other factors. Regardless, the year-round restriction on geophysical surveys in the Rice's whale core distribution area was the basis of NMFS's negligible impact determination for the final rule (86 Fed. Reg. 5433). NMFS noted in the preamble of the *Federal Register* notice that no geophysical surveys have occurred in the expanded core distribution area outside the GOMESA area since the publication of the 2021 final rule (88 Fed. Reg. 945). The Commission considers this fortuitous and indicative of a lack of interest in oil and gas exploration in that area. Nevertheless, to ensure that this portion of the core distribution area remains free from geophysical activities, the Commission recommends that NMFS condition the final rule to include a year-round closure for the Rice's whale expanded core distribution area that is outside the GOMESA area and reduce the numbers of Level B harassment takes accordingly.

Restricting activities in the expanded portion of the core distribution area likely will reduce some risk to Rice's whales, but not all. NMFS should therefore re-evaluate its analysis of restrictions on geophysical surveys in other portions of the northern GOM in which Rice's whales are known or suspected to occur based on sightings data, passive acoustic monitoring data, and habitat suitability modeling (Roberts et al. 2016; Kwon 2021; Soldevilla et al. 2022; see also Appendix B of Riley et al. 2021). Those areas include OCS shelf break waters from 100 to 400 m in depth throughout the Central and Western Planning Areas. As noted by NMFS, Litz et al. (2022) estimated that the core distribution area contains approximately 57 percent of predicted Rice's whale population abundance, which means that the remaining 43 percent of the population could occur in waters outside that area, including the central and western GOM, where the risk of Level B harassment takes due to geophysical-related acoustic exposure is significantly greater. How that risk relates to the zone-based risk assessment conducted by NMFS for the rulemaking is not clear, since zone-based density estimates were not made publicly available (as discussed further herein).

The Commission recognizes that a complete restriction on all geophysical surveys in the 100- to 400-m depth range in the Central and Western Planning Areas may not be feasible due to existing leases in those areas and the need for geophysical surveys to provide information for siting, drilling, and reservoir monitoring on those leases. However, restricting speculative geophysical surveys⁵ (typically 2D or similar surveys) that are conducted in advance of leasing is a viable mitigation measure that could reduce the potential for behavioral disturbance of Rice's whales. NMFS noted that only three LOAs (out of a total of 34 issued to date) have been for geophysical surveys in the 100- to 400-m depth range in the Central Planning Area since the effective date of the 2021 final rule (88 Fed. Reg. 937; presumably no LOAs have been issued in the Western Planning Area in this depth range). The Commission has reviewed the regulatory impact analysis conducted for the 2021 final rule but is not convinced, based on actual geophysical activity levels from LOAs issued to date, that the analysis provided sufficient justification to support an assertion that restricting speculative geophysical surveys in this limited area would result in significant reductions in oil and gas production in the GOM. The Commission, in its [6 October 2022 letter](#) to BOEM on the 2023–2028 National OCS Proposed Program, recommended that BOEM exclude from leasing

⁵ i.e., surveys not conducted in association with an active lease.

all areas in the GOM OCS within the 100- to 400-m depth range. Consistent with that recommendation and to further reduce the potential for Rice's whale takes associated with *new* oil and gas exploration outside the species' core distribution area, the Commission recommends that NMFS restrict speculative geophysical surveys from occurring in waters in the 100- to 400-m depth range in the Central and Western Planning Areas.

Density estimates

NMFS made numerous references in the preamble to updated marine mammal densities provided by Litz et al. (2022) that were used, along with other information, to support its negligible impact determination. Those densities are presented only in the form of a webpage with density shapefiles and other similar spatial data. Supporting documentation regarding the density estimation methodologies and assumptions⁶, as well as the densities⁷ themselves, were not made publicly available as part of the rulemaking. This is inconsistent with the original proposed rule and other rulemakings. Lack of transparency regarding how the densities that were used to determine the revised numbers of takes and to evaluate the small numbers and negligible impact determinations under section 101(a)(5)(A) of the MMPA were derived undermines the public review process. The Commission recommends that NMFS provide to the public the spatiotemporal marine mammal densities, associated CVs, and supporting documentation regarding how such estimates were derived and allow for an additional 30-day public comment period.

Synthesis of take reporting and development of an adaptive management process

The final rule required that LOA-holders “contribute to the compilation and analysis of data for inclusion in an annual synthesis report addressing all data collected and reported through annual reporting in each calendar year.” The preamble of the final rule specifies that the report shall be a synthesis of information collected by individual LOA-holders, including a summary of geophysical survey activities, monitoring efforts, marine mammal sightings, mitigation measures implemented, total take estimates, and recommendations for adaptive management. The annual synthesis report is to be “submitted to NMFS within 90 days following the end of a given one-year reporting period” (50 CFR § 217.185(d)(1)(vi)(2)). The Commission recognizes the challenge of compiling and synthesizing data collected by LOA-holders to date, but such data are invaluable in increasing knowledge of the species, levels of taking, and impacts on affected populations by activities covered under the rulemaking.⁸ These syntheses should also serve to improve the manner in which data are collected and used to inform the adaptive management process required under the final rule (50 C.F.R. § 217.187(c)(1)). The Commission recommends that NMFS provide an update on progress by LOA-holders or their representative(s) toward completing and making publicly available the synthesis report of all activities that were conducted by LOA-holders during the first year of the reporting period for the final rule.

⁶ Including why some species were combined into guilds (e.g., for “blackfish”, which combined melon-headed whales, false killer whales, pygmy killer whales, and killer whales).


⁷ Including updated densities by month or season and geographic zone and associated coefficients of variation (CVs).

⁸ As required by 50 C.F.R. § 216.104(a)(13) of NMFS's implementing regulations.

The Commission noted in its previous letter its willingness to work with NMFS, BOEM, the Bureau of Safety and Environmental Enforcement, and industry to develop and refine an adaptive management process, with an emphasis on bringing together these and other stakeholders to identify research and monitoring that may be needed to assess and minimize adverse impacts on the affected marine mammal populations. A similar research-based monitoring approach has been required under various U.S. Navy rulemakings⁹ and implemented for more than a decade. The Commission reiterates its recommendation that NMFS and BOEM establish a GOM scientific advisory group, composed of agency and industry representatives and independent scientists, to assist in the review of data collected to date and to identify and prioritize monitoring needs and hypothesis-driven research projects to better understand the short- and long-term effects of geophysical surveys on marine mammals in GOM. The Commission is willing to help organize such an effort on a periodic or ongoing basis but underscores the need for NMFS to formalize a more research-based monitoring requirement in any final rule issued hereafter.

The Commission appreciates the work that has gone into NMFS's review of the information presented in the preamble and hopes you find these comments and recommendations useful. Please contact me if you have questions.

Sincerely,



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

cc: Dr. Jill Lewandowski, Chief, BOEM Division of Environmental Assessment

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⁹ e.g., 50 C.F.R. § 218.155(b).

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