



DEPARTMENT OF COMMERCE

Tab E, No. 4(b)

National Oceanic and Atmospheric Administration

50 CFR Parts 224 and 226

[Docket No. 230711-0164]

RIN 0648-BL86

Endangered and Threatened Species; Designation of Critical Habitat for the Rice's Whale

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

ACTION: Proposed rule; request for comments and notice of public hearing.

SUMMARY: We, NMFS, propose to designate critical habitat for the Rice's whale (*Balaenoptera ricei*) by designating waters from the 100 meter (m) isobath to the 400 m isobath in the Gulf of Mexico (GOMx), pursuant to section 4 of the Endangered Species Act (ESA). We have considered economic, national security, and other relevant impacts of the proposed designation. We are not excluding any particular area from the critical habitat designation. We seek comments on all aspects of the proposed critical habitat designation and will consider information received before issuing a final designation.

DATES: *Comments due:* Written comments and information must be received by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Public hearings: Virtual public hearings will be held on August 24, 2023, and August 30, 2023. Requests for additional public hearings must be made in writing by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit data, information, or comments on this document, identified by NOAA-NMFS-2023-0028, as well as the supporting documents, by the following methods:

- *Electronic Submission:* Submit all electronic comments via the Federal e-Rulemaking Portal. Go to <https://www.regulations.gov> and enter NOAA-NMFS-2023-0028. Click on the “Comment” icon and complete the required fields. Enter or attach your comments.
- *Mail:* Submit written comments to Assistant Regional Administrator, Protected Resources Division, NMFS, Southeast Regional Office, 263 13th Avenue South, St. Petersburg, FL 33701.

Instructions: NMFS may not consider comments 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 generally will be posted for public viewing on www.regulations.gov without change. All personal identifying information (e.g., name, address), 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). Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe portable document format (PDF) formats only.

Details on the virtual public hearings will be made available on our website at: <https://www.fisheries.noaa.gov/species/rices-whale#conservation-management>. The Endangered Species Act Critical Habitat Report, GIS data, and maps that were prepared to support the development of this proposed rule are available on our website at: <https://www.fisheries.noaa.gov/species/rices-whale#conservation-management>. Previous rulemaking documents related to the listing of the species can also be obtained

electronically on our website at: <https://www.fisheries.noaa.gov/species/rices-whale#conservation-management>.

FOR FURTHER INFORMATION CONTACT: Grant Baysinger, NMFS Southeast Region, (727) 551-5790; or Lisa Manning, NMFS Office of Protected Resources, (301) 427-8466.

SUPPLEMENTARY INFORMATION:

Background

Under the ESA, we are responsible for determining whether certain species are threatened or endangered, and, to the maximum extent prudent and determinable, designating critical habitat for endangered and threatened species at the time of listing (16 U.S.C. 1533(a)(3)(A)(i)). On August 23, 2021, we published a final rule that revised the listing of Rice's whales under the ESA to reflect the change in the scientifically accepted taxonomy and nomenclature of this species (86 FR 47022). Prior to this revision, the Rice's whale had been listed in 2019 under the ESA as an endangered subspecies of the Bryde's whale, *Balaenoptera edeni* (Gulf of Mexico subspecies). The 2019 listing rule indicated that, with a total abundance of approximately 100 individuals, small population size and restricted range are the most serious threats to this species (84 FR 15446, April 15, 2019). However, other threats such as energy exploration, development, and production; oil spills and oil spill responses; vessel collision; fishing gear entanglement; and anthropogenic noise were also identified as threats that contribute to the risk of extinction.

In the final listing rule, we stated that critical habitat was not determinable at the time of the listing, because sufficient information was not currently available on the geographical area occupied by the species (84 FR 15446, April 15, 2019). Under section 4 of the ESA, if critical habitat is not determinable at the time of listing, a final critical habitat designation must be published 1 year after listing (16 U.S.C. 1533(b)(6)(C)(ii)).

The Natural Resources Defense Council and Healthy Gulf filed a complaint in July 2020 with the U.S. District Court for the District of Columbia seeking an order to compel NMFS to designate critical habitat for the Rice's whale. A settlement agreement was approved on October 14, 2021, and a modified settlement agreement was approved on October 26, 2022 (*Natural Resources Defense Council, Inc. and Healthy Gulf v. Raimondo*, 1:20-cv-2047-KBJ (D.D.C.)). The modified settlement agreement stipulates that NMFS will submit a proposed rule to the Office of the Federal Register by July 15, 2023, and the final rule by June 15, 2024. This proposed rule describes the proposed critical habitat designation, including supporting information on Rice's whale biology, distribution, and habitat use, and the methods used to develop the proposed designation.

Section 3(5)(A) of the ESA defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary of Commerce (Secretary) that such areas are essential for the conservation of the species. (16 U.S.C. 1532(5)(A)). Conservation is defined in section 3(3) of the ESA as the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary (16 U.S.C. 1532(3)). Section 3(5)(C) of the ESA provides that, except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.

Section 4(a)(3)(B) of the ESA prohibits designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DOD) or designated for its use, that are subject to an Integrated Natural Resources Management

Plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such a plan provides a benefit to the species for which critical habitat is proposed for designation. Our regulations also provide that critical habitat shall not be designated within foreign countries or in other areas outside of U.S. jurisdiction (50 CFR 424.12(g)).

Section 4(b)(2) of the ESA requires the Secretary to designate critical habitat for threatened or endangered species “on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.” This section also grants the Secretary discretion to exclude any area from critical habitat if the Secretary determines “the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat.” However, the Secretary may not exclude areas if such exclusion will result in the extinction of the species (16 U.S.C. 1533(b)(2)).

Once critical habitat is designated, section 7(a)(2) of the ESA requires Federal agencies to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify that habitat (16 U.S.C. 1536 (a)(2)). This requirement is in addition to the section 7(a)(2) requirement that Federal agencies ensure their actions are not likely to jeopardize the continued existence of ESA-listed species. Specifying the geographic location of critical habitat also facilitates implementation of section 7(a)(1) of the ESA by identifying areas where Federal agencies can focus their conservation programs and use their authorities to further the purposes of the ESA. See 16 U.S.C. 1536(a)(1). The ESA section 7 consultation requirements do not apply to citizens engaged in actions on private lands that do not involve a Federal agency. However, designating critical habitat can help focus the efforts of other conservation partners (*e.g.*, State and local governments, individuals, and nongovernmental organizations).

This proposed rule describes information on the biology of the Rice's whale, the methods used to develop the proposed designation, and our proposal to designate critical habitat for the Rice's whale. The Endangered Species Act Critical Habitat Report, referenced throughout this proposed rule and available for review (see **ADDRESSES**), provides more detailed discussions of information and analyses that contributed to the conclusions presented in this proposed rule.

The proposed designation was developed in accordance with the current implementing regulations, which include changes made in 2019 to the definition of physical or biological feature and the requirements for designating unoccupied critical habitat (84 FR 45020, August 27, 2019). On July 5, 2022, the United States District Court for the Northern District of California issued an order vacating regulations, promulgated in 2019, that adopted changes to 50 CFR part 424 (84 FR 45020, August 27, 2019) ("2019 regulations"). Among other things, the 2019 regulations made changes to the definition of "physical or biological features" (50 CFR 424.02) and the criteria for designating specific areas outside the geographical area occupied by the species as critical habitat (50 CFR 424.12(b)(2)). On September 21, 2022, the U.S. Court of Appeals for the Ninth Circuit granted a temporary stay of the district court's July 5 order. On November 14, 2022, the Northern District of California issued an order granting the government's request for voluntary remand without vacating the 2019 regulations. The District Court issued a slightly amended order 2 days later on November 16, 2022. As a result, the 2019 regulations remain in effect, and we are applying the 2019 regulations here. For the purposes of developing this proposed rule, however, we considered whether the analysis or its conclusion would be any different under the regulations in effect prior to 2019. We have determined that while our analysis in some respects would differ, the conclusions ultimately reached and presented here would not be any different. Additional discussion regarding these analyses is provided in this document where applicable.

As detailed in the sections that follow, the specific occupied areas proposed for designation as critical habitat for the Rice's whale contain approximately 73,220.65 square kilometers (28,270.65 square miles) of continental shelf and slope associated waters within the Gulf of Mexico.

Species Description and Life History

This section summarizes life history and biological characteristics of endangered Rice's whales to provide context for the determination of physical or biological features that are essential for the conservation of the species. Rice's whales were estimated to be the most impacted shelf and oceanic stock of marine mammals exposed to the 2010 *Deepwater Horizon* (DWH) oil spill (*Deepwater Horizon* Natural Resource Damage Assessment Trustees, 2016) and much of what we know about the species has been learned since 2010. Following the DWH event, Rice's whales were estimated to have experienced 17 percent increase in mortality (confidence interval of 7 to 24 percent), 22 percent increase in failed pregnancies (confidence interval of 10 to 31 percent), and an 18 percent higher likelihood of having adverse health effects (confidence interval of 7 to 28 percent) (DWH MMIQT, 2015). An estimated 48 percent of the Rice's whale population was exposed to DWH oil, resulting in an estimated 22 percent maximum decline in population size that will require an estimated 69 years until recovery, meaning the time it would take for the population to return to 95 percent of the baseline trajectory (DWH MMIQT, 2015).

Limited information is available on the life history of Rice's whales. Consequently, we provide specific information for Rice's whales where possible and pertinent information on the closely related Bryde's-like whales in general, highlighting traits that these species likely share. The information below summarizes information contained in the final listing rule (84 FR 15446, April 15, 2019) updated with the best scientific information available.

Like other members of the “Bryde’s whale complex” or “Bryde’s-like whales” in the genus *Balaenoptera*, Rice’s whales are medium-sized rorqual whales. Rice’s whales have a streamlined and sleek body shape, a somewhat pointed, flat rostrum with three prominent ridges (*i.e.*, a large central ridge, and smaller left and right lateral ridges), a large, falcate dorsal fin located about two-thirds of the way back on its body, and counter-shaded coloration that is fairly uniformly dark dorsally and light to pinkish ventrally (Jefferson *et al.*, 2015). The pectoral fins are uniformly dark, slender and pointed. The head of a Rice’s whale makes up about one quarter of its entire body length. Its fluke, or tail, is broad. These whales exhibit no external asymmetrical pigmentation on the lower jaws, differentiating them from fin and Omura’s whales. Limited data (from eight whales) indicate total length measurements for Rice’s whales ranged from 470 centimeters (cm) (15.4 ft) to 1,265 cm (41.5 ft). The largest verified Rice’s whale observed in the GOMx was a lactating female measuring 1,265 cm (41.5 ft) in length and the largest male was 1,126 cm (36.9 ft) (Rosel *et al.*, 2021). Based on bristle coarseness, a stranded animal initially identified as a juvenile sei whale (*B. borealis*) was reclassified as a Bryde’s whale (Mead, 1977). While baleen from across the Bryde’s whale complex has not been comprehensively analyzed, Mead (1977) and Kato and Perrin (2018) indicate that the baleen bristles from members of the Bryde’s whale complex are coarser than those of sei whales. Similarly, Rosel *et al.* (2021) found that the baleen bristles of three Rice’s whales from the GOMx were coarser than that of a sei whale that stranded in the GOMx in 1994.

Similar to other marine mammals, the Rice’s whale is considered to be a k-selected species (large body size, long life expectancy, slow growth rate, late maturity, and with few offspring). Taylor *et al.* (2007) estimate that Bryde’s whales worldwide may reproduce every 2 to 3 years and reach sexual maturity at age 9. Given the basic biology of baleen whales, it is likely that under normal conditions, female Rice’s whales

produce a calf every 2 to 3 years. The sex ratio determined for 32 individual whales stranded or biopsied from the northern GOMx was 18 females and 14 males, which is not significantly different from a 50:50 ratio (Rosel *et al.*, 2021).

Identification of several smaller Rice's whales in the GOMx stranding records (Edds *et al.*, 1993) and observations of smaller individuals during NMFS Southeast Fisheries Science Center (SEFSC) large-vessel surveys in the GOMx provide evidence of breeding. In October of 2009, a dead, lactating female whale was found in Tampa Bay, with internal injuries consistent with blunt force trauma likely caused by a vessel strike. As a long-lived marine mammal with low reproduction rates and a very small population size, the loss of a single individual could drive the species towards extinction (Franklin, 1980; Rosenfeld, 2014).

As with its life history, little information exists on the behavior of the Rice's whale. Maze-Foley and Mullin (2006) found Rice's whales to have a mean group size of 2 (range 1-5, $n = 14$), similar to group sizes of the Eden's and Bryde's whales (Wade and Gerrodette, 1993). The Rice's whale is known to be periodically "curious" around ships and has been documented approaching ships in the GOMx (Rosel *et al.*, 2016), as has also been observed in Bryde's whales worldwide (Leatherwood *et al.*, 1976; Cummings, 1985). Two Rice's whales have shown evidence for vessel strike. This includes the dead adult, lactating female mentioned above that was discovered in Tampa Bay in 2009 with injuries, including separated vertebrae, lung damage, and subdermal contusions, consistent with impact caused by a large object, and a free-swimming Bryde's-like whale that was observed in 2019 in the northeastern GOMx with a severely deformed spine posterior to the dorsal fin consistent with a vessel strike. In September 2015, a female Rice's whale was tagged with an acoustic and kinematic data-logging tag in the De Soto Canyon (Soldevilla *et al.*, 2017). Over the nearly 3-day tagging period, the whale spent 47 percent of its time within 15 m of the surface during the day and 88 percent of its time

within 15 m of the surface during the night (Soldevilla *et al.*, 2017). Curiosity around vessels, documented injuries consistent with vessel strikes, and documented behavior near the surface for a considerable amount of time illustrate the anthropogenic threat that vessels pose to Rice's whales. Bryde's whales are the third most commonly reported whale species to be struck by vessels in the southern hemisphere (vanWaerbeck and Leaper, 2008).

Taylor *et al.* (2007) estimated generation length for cetaceans using the following parameters: oldest age (or an estimate based on length), calf survival, adult survival, age at maturity, gestation length, and interbirth interval. For all Bryde's whales, the estimated generation length is 18.4 years using the following estimated parameters: maximum age of 58 years based on length (Best, 1977), age at first reproduction of 9 years based on gestation length (Lockyer, 1984) and age of sexual maturity (IWC, 1997), an interbirth interval of 2.5 years (Lockyer, 1984), calf survival rate of 0.840, and non-calf survival rate of 0.925 (IWC, 1997). According to Rosel *et al.* (2016), the majority of the samples used to estimate these parameters came from Japanese whaling data from the 'typical' or pelagic form of Bryde's whale in the North Pacific and from South Africa, and are probably the *B. e. brydei* subspecies.

Vocalizations and Sound

Sound production associated with behaviors including mating, rearing, social interaction, group cohesion, and feeding have been documented in marine mammal species (Erbe *et al.*, 2016). Baleen whale species produce a variety of highly stereotyped, low-frequency tonal and broadband calls for communication purposes that are thought to function in a reproductive or territorial context, provide individual identification, and communicate the presence of danger or food (Richardson *et al.*, 1995). Marine mammal species with and without specialized biosonar capabilities may rely on biological sounds to find prey, avoid predators, and likely use environmental sounds to support spatial

orientation and navigation in three-dimensional marine habitats (Erbe *et al.*, 2016; Cure *et al.*, 2013; Deecke *et al.*, 2002; Gannon *et al.*, 2005). Generally, balaenopterids produce a variety of low-frequency tonal and broadband calls, with durations ranging from 1 to 60 seconds (s), fundamental frequencies between 10-1000 Hertz (Hz), and high source levels from around 145 to over 190 decibels referenced to 1 micropascal (re 1 μ Pa) at 1 m (Richardson *et al.*, 1995; Miller *et al.*, 2021). Most balaenopterids produce some call types that are distinctive, stereotyped, and unique at the species or population level, including Rice's whales, which can be detected with autonomous passive acoustic monitoring surveys. Bryde's whales worldwide produce a variety of calls that are distinctive among geographic regions, and these calls may be useful for delineating subspecies or populations (Oleson *et al.*, 2003; Širović *et al.*, 2014). In the GOMx, Širović *et al.* (2014) reported 'Bryde's' whale call types composed of downsweeps (frequency modulated signals with decreasing frequency over time) and downsweep sequences and localized these calls (*i.e.*, researchers recorded the calls on multiple instruments that allowed them to triangulate the location of the calls and then confirmed the location with visual sightings). Rice *et al.* (2014) detected these sequences, as well as two stereotyped tonal call types that originated from 'Bryde's' whales in the GOMx.

Soldevilla *et al.* (2022a) used sonobuoys and passive acoustic tagging from three marine mammal surveys with focused effort in the Rice's whale core distribution area between 2015 and 2018 to validate potential call type sources and to characterize Rice's whale calls. Validation includes manually reviewing each automated detection and scoring each as a true or false detection. During concurrent visual and acoustic surveys, acoustic-directed approaches were conducted to obtain visual verifications of sources of localized sounds. The call repertoire that was validated to Rice's whales includes downsweep sequences (including downswept pulse pairs), long-moan calls, and tonal-sequence calls. Širović *et al.* (2014) proposed a fourth Rice's whale call type, the high-

frequency down sweep call, which was not detected during the Soldevilla *et al.* (2022a) study and therefore the source remains unvalidated.

Soldevilla *et al.* (2022b) detected novel stereotyped tonal calls at three locations in the northwestern GOMx. The calls are similar to the Rice's whale long-moan calls detected in the northeastern GOMx, but with distinct differences from the northeastern calls and with at least six stereotyped variations. The cause and occurrence of these call features require further study.

Distribution, Movement, and Habitat Use

The Rice's whale is the only species of large whale endemic to the United States and the only year-round resident baleen whale species in the Gulf of Mexico (Rosel *et al.*, 2021).

Members of the Bryde's whale complex are tropical and subtropical in distribution, generally non-migratory, and found in all major ocean basins (Rosel *et al.*, 2021). Bryde's-like whales do not migrate long distances to feed in polar or temperate regions (Constantine *et al.*, 2018), nor do they have specific or separate feeding or breeding grounds (Penry *et al.*, 2011).

Based on a compilation of 181 sightings from NMFS marine mammal vessel and aerial survey sightings, the primary Rice's whale core habitat is considered to be in the northeastern GOMx, centered over the De Soto Canyon in waters between 150 m and 410 m depth (Rosel *et al.*, 2021). This area, referred to by NMFS as the Rice's whale "core distribution area," is characterized by seasonal advection of low salinity, high productivity surface waters (*i.e.*, waters with high production of organic matter by planktonic plants), leading to persistent upwelling driven by both winds and interactions with the loop current (Farmer *et al.*, 2022). In 2017, there was a genetically confirmed sighting of a Rice's whale in the western GOMx off the central Texas coast in 225 m depth (NMFS, 2018a; Rosel *et al.*, 2021).

Passive acoustic monitoring recordings from the western GOMx along the shelf break south of the Flower Garden Banks National Marine Sanctuary (FGBNMS) confirm the presence of Rice's whales in the same area as two balaenopterid sightings made by NMFS in the early 1990s (Soldevilla *et al.*, 2022b). A predictive density model highlights the importance of the 200 m isobath as an area Rice's whales may occupy along the northwestern GOMx shelf break (Roberts *et al.*, 2016). Soldevilla *et al.* (2022b) detected baleen whale calls from passive acoustic moorings deployed from June 2016 to August 2017 in areas of predicted Rice's whale habitat in several locations in the northern GOMx. Passive acoustic recorder site selection was based on the median water depth of 221 m for Rice's whale sightings in the core distribution area and locations of unidentified baleen whale sightings, as well as dispersed sampling sites along the north-central to northwestern GOMx shelf break (Soldevilla *et al.*, 2022b). A combined 1,285 days of acoustic data were collected at four western sites, and a total of 304 days of acoustic data were recorded at the concurrently deployed site in the core distribution area. Variants of Rice's whale long-moan calls were detected at three sites in the northwestern GOMx. At the westernmost FGBNMS site, 1,939 calls were detected on 47 days over 10 months of data collection (16 percent of days with data collected). The eastern FGBNMS site detected 429 calls on 18 days over 10 months (6 percent of days with data collected), and the Eugene Isles South site detected 22 calls on 3 days over 10 months (1 percent of days with data collected). No calls were detected at a site off Grand Isle, Louisiana. The recorder at the site in the core distribution area detected 66,583 long-moan Rice's whale calls over 11 months of data collection. On several occasions overlapping calls were detected and in some instances the overlapping calls were of different call subtypes indicating at least two individuals were calling during that encounter. Overlapping calls were recorded at both of the FGBNMS sites and at the site in the core distribution area. Long-moan call detections occurred in sporadic clusters throughout the year, with no

evidence of seasonality at the western sites. At the western sites, at least one call was detected in every month of the year, which suggests year-round use of the western habitat area. Further research is needed to understand how many animals are using the northwestern sites and whether animals are moving between the northwestern and northeastern sites, or whether the calls at these sites represent different groups of animals.

Comparing numbers of acoustic call detections among sites is difficult. Local sound propagation conditions and ambient sound levels influence the ability to detect Rice's whale calls and the area over which whales can be detected. Higher numbers of acoustic call detections at a site may reflect higher call production rates, or it may reflect larger detection areas instead of higher animal presence. Soldevilla *et al.* (2022b) expected detection ranges at the western FGBNMS site to be approximately 25-50 percent of the detection range at the site in the core distribution area. Ambient noise levels at Rice's whale call frequencies are 6-13 decibels higher at the western FGBNMS site than the site in the core distribution area. Baleen whale calls in the 100-150 Hz frequency range generally can be detected on scales of tens of kilometers in pelagic environments (*e.g.*, McDonald, 2004). Rice's whale long-moan calls were commonly detected on scales of 20-75 km, suggesting a Rice's whale call could be detected over as much as 25 percent of the core distribution area in some conditions (Soldevilla *et al.*, 2022a). In the western GOMx, which has 6-13 decibel higher mean ambient noise levels, resulting in smaller detection distances, the same long-moan calls were detected on two sensors 40 km apart, which suggests the Rice's whale call could be detected out to distances of at least 20 km (Soldevilla *et al.*, 2022b). In the core distribution area, Rice *et al.* (2014) documented an occurrence of the same call on three sensors with a maximum of 150 km spacing, suggesting the calls could be detected out to distances of at least 75 km at times. Anthropogenic noise sources, including seismic survey airgun pulses and shipping traffic noise, appear to be the main contributors to the increased noise levels that

lead to reduced detection ranges in the western GOMx. Studies in baleen whales, including Bryde's whales, have shown a decrease in communication range as a result of masking, which occurs when biologically irrelevant sounds prevent an animal from hearing biologically important sounds (Clark *et al.*, 2009; Cholewiak *et al.*, 2018; Gabriele *et al.*, 2018; Putland *et al.*, 2018). The three westernmost sites used by Soldevilla *et al.* (2022b) were not far from a major shipping fairway and vessel traffic noise was common in the recordings at those sites. The effects of low-frequency noise from shipping traffic and airguns on researchers' ability to detect calls were apparent in the detectable features of Rice's whale calls in the western GOMx. For example, many of the manually detected calls at the western sites consisted of only the 150 Hz tone due to increased noise levels below 125 Hz, and these were often of low signal-to-noise ratio likely due to a combination of sound propagation losses with distance and higher levels of shipping or seismic survey noise at the lower frequencies.

While contemporary sightings are primarily confined to the core distribution area in the northeastern GOMx, Rice's whales historically may have had a broader distribution in the northern and southern GOMx. Reeves *et al.* (2011) reviewed whaling logbooks from the GOMx and identified records of "finback" whales from the north-central GOMx south of the Mississippi River delta and in the southern GOMx on the Campeche Banks. Because fin whales are not part of the GOMx ecosystem, these records were likely Rice's whales misidentified as fin whales (Reeves *et al.*, 2011), suggesting the distribution of the Rice's whale was likely broader than we see currently. In the north-central GOMx, whether Rice's whales stay in this area or their use of this area is restricted to travel between the northwest and northeast through areas of high shipping traffic near the Mississippi River delta is unknown. Soldevilla *et al.* (2022b) did not record Rice's whale calls at a site offshore of Grand Isle, Louisiana or during 2 months at a site in the north-central GOMx. The absence of Rice's whale call detections at these

sites could indicate an absence of Rice's whales, an absence of calling Rice's whales, or an inability to detect whales in these areas due to higher ambient noise conditions and sound propagation conditions within the Mississippi Canyon. However, Rice's whale western long-moan call variants were detected both at the western-most sites and a site in the core distribution area, which suggests movement between the areas. Rice's whale western long-moan calls were detected on 6.4 percent of days at the site in the core distribution area. Rice's whale western long-moan call variants were detected on the same or consecutive days in the western-most and eastern-most GOMx sites, which were separated by a distance that is too far for one whale to travel in a single day (740 km), indicating that different Rice's whales produced the calls.

Based on the best available data, we conclude that the normal distribution of Rice's whales is limited to the Gulf of Mexico. No NMFS marine mammal vessel or aerial surveys from 1992 through 2019 have recorded a confirmed sighting of Rice's whales or any type of Bryde's whale along the U.S. eastern seaboard (Rosel *et al.*, 2021). While Roberts *et al.* (2016) predicted a mean monthly abundance of seven Bryde's whales along the entire U.S. eastern seaboard based on four ambiguous "sei or Bryde's whale" sightings documented during surveys conducted between 1992 and 2014, Roberts *et al.* (2023) later concluded that these four sightings were most likely sei whales, and that given the lack of more recent evidence of Bryde's whales and the expert opinions of Rosel *et al.*, 2021, Bryde's whales are effectively absent from the U.S. east coast. Acoustic studies off Jacksonville, Florida (Frasier *et al.*, 2016), North Carolina (Debich *et al.*, 2014), and Norfolk Canyon (Rafter *et al.*, 2018) during 2011 through 2017 have not detected any types of Bryde's whales or similar species. This evidence suggests that Bryde's whales and similar species, including Rice's whales, are extremely rare along the U.S. east coast (Rosel *et al.*, 2021). Rosel *et al.* (2021) compiled and scrutinized stranding reports from the U.S. Atlantic coast dating back to 1954 and confirmed six

records of whales from the Bryde's whale complex. Of these, only two could be genetically confirmed as Rice's whales. All six whales were characterized as small. Mead (1977) suggested Bryde's whale strandings along the U.S. Atlantic were likely extralimital strays from the GOMx.

Northern Gulf of Mexico continental shelf habitat is characterized by sediment transported by the Mississippi River with soft-bottom sediment being the dominant substrate type (Balsam and Beeson, 2003; Love *et al.*, 2013; Rezak *et al.*, 1985). Froeschke and Dale (2012) attribute 96 percent of the GOMx floor to soft-bottom and 4 percent to hard substrate. This hard substrate provides Essential Fish Habitat (EFH) in the U.S. Exclusive Economic Zone of the GOMx. These substrate types support a wide variety of marine life, with some species' distributions that tend to change with depth, among other environmental factors (Etnoyer, 2009; Gallaway *et al.*, 2001). There are no absolute biological or physical barriers or boundaries separating individual benthic habitats and communities that extend from the depths up across the continental shelf to the shoreline, but there appear to be transition zones with some biota moving between habitats. The continental shelf (10-200 meter depth) is heavily influenced by light, the shoreline, and surface currents, with sand and hardground habitats supporting reef forming corals and non-reef forming corals (Sulak and Dixon, 2015). The continental slope (>200-800 meter depth) is characterized by relatively rapid changes in depth over short horizontal distances with occasional canyons and hardground dominated by seeps or corals (Gallaway *et al.*, 2001).

Garrison *et al.* (2022) developed a density surface model to predict Rice's whale distribution in the GOMx based on bathymetric and oceanographic features. Visual line transect survey data collected throughout the northern GOMx between 2003 and 2019 were analyzed, including broad-scale surveys of oceanic waters and directed studies within the Rice's whale core distribution area. Depth, sea surface temperature, surface

and bottom salinity, sea surface height, surface geostrophic velocity, chlorophyll-a, and bottom temperature were among the variables considered. The model identified water depth, surface chlorophyll-a concentration, bottom temperature, and bottom salinity as the key parameters that characterize Rice's whale habitat. The model predicted additional suitable Rice's whale habitat outside the core distribution area in the northeastern GOMx, generally throughout the GOMx within 100 and 400 meters depth. Concentration of Rice's whales in the core distribution area appeared to be explained by higher summer chlorophyll-a concentrations, an indicator of phytoplankton abundance and biomass in coastal and estuarine waters, in the northeast region of the GOMx as compared to other regions in the GOMx with suitable bottom temperatures, but less surface productivity.

The Garrison *et al.* (2022) results build on earlier spatial density modeling efforts for Rice's whales based on sightings data that identified a relatively high density area ranging from shelf-edge Alabama to southwest Florida, with further suitable habitat in a narrower strip of shelf-edge extending to central Texas to the west and the Florida Keys to the east (Roberts *et al.*, 2016). Garrison *et al.* (2022) stated that the model results are consistent with cold, high salinity water upwelling along the continental shelf break and seasonal inputs of high productivity surface water derived from coastal sources. The presence of eddies that have separated from the warm water loop current and the dominant circulation patterns in the GOMx lead to increased productivity and are likely a factor in maintaining the high density of forage species needed to support Rice's whales. The model also suggests additional habitat outside of U.S. waters in the southern GOMx may be suitable for Rice's whales, however these areas were not further considered, as areas outside U.S. jurisdiction cannot be designated as critical habitat.

Diet and Foraging

Understanding predator-prey interactions is difficult for highly mobile and elusive species, such as marine mammals, that forage at depth (Sekiguchi *et al.*, 1992; Pauly *et*

et al., 1998; Pierce and Boyle, 1991; Trites and Spitz, 2018). Cetaceans rely on predictable prey resources, and changes in prey availability and quality can potentially have population-level consequences, including decreased survival and reproduction rates leading to subsequent population declines (Bearzi *et al.*, 2006; Piroddi *et al.*, 2011; Ford *et al.*, 2010). While information on the feeding ecology and drivers of prey selection are lacking for many cetacean species, foraging specialization has been documented among and within species and populations. Predators with high levels of specialization or higher energetic requirements are more susceptible to risks associated with the decline of their prey (Kiszka *et al.*, in press).

Worldwide, members of the Bryde's whale complex exhibit a variety of foraging tactics and prey preferences, often with observations of surface feeding. Overall, pelagic schooling fishes in the order Clupeiformes (sardines, herring, menhaden, anchovies) are the most commonly recorded prey, along with similar schooling species, such as members of the family Carangidae (Best, 2001; Konishi *et al.*, 2009; Murase *et al.*, 2007; Siciliano *et al.*, 2004; Tershy, 1992; Watanabe *et al.*, 2012). Populations examined further offshore also target krill (Best, 2001; Konishi *et al.*, 2009), while the *B. e. brydei* population of the Hauraki Gulf in New Zealand appears to prey on copepods and krill along with ray-finned fishes and salps (Carroll *et al.*, 2019).

Diet is poorly characterized for Rice's whales. Stomach contents, which traditionally provide most information on the diets and feeding ecology of baleen whales, are unavailable for Rice's whales. In 2019, an adult male Rice's whale stranded and died near Flamingo, Florida Bay, on the southwestern coast of Florida in the GOMx (field number FMMSN1908). The whale was collected and a necropsy was performed. However, stomach contents were unavailable due to a sharp piece of intragastric plastic in the second stomach chamber that caused hemorrhaging and acute gastric necrosis leading to the stranding and subsequent mortality of the whale. No direct information on

the foraging ecology of Rice's whales exists. Surface feeding has never been observed, and, as a result, fish scales and tissue remains collected from Rice's whale feeding activity are not available. Fecal sampling has not been conducted for Rice's whales. In 2015, Soldevilla *et al.* (2017) placed an Acousonde suction-cup tag on a Rice's whale in the northeastern GOMx. The tag remained attached for nearly 3 days (63.85 hours) and revealed a diel diving pattern. The whale remained within 15 m the surface of the water 88 percent of the time during the night. Daytime dive behavior was characterized by repeated dives to depths >200 m, likely at or near the seafloor. Some of these deep dives included lunges near the seafloor associated with foraging (Soldevilla *et al.*, 2017). Similar deep foraging dives throughout daylight hours were observed during 25 hours of tag deployment on a Rice's whale in the summer of 2018 (Soldevilla *et al.*, 2022a). This type of bottom feeding is unusual for members of the Bryde's whale complex. What they may have been feeding on at those depths remains unknown.

Although direct evidence of Rice's whale prey species is lacking, analysis of stable isotopes of Rice's whale tissues collected by at-sea biopsies has provided data to better understand the feeding relationships among Rice's whales and other species within the ecosystem, *i.e.*, the food web, also known as the trophic relationships. Stable carbon and nitrogen isotope ratios (noted $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$, respectively) within tissues of a predator reflect those of its prey and provide a useful method for assessing trophic relationships and can help identify foraging habitats. The use of stable isotope analysis of multiple elements (nitrogen, carbon, and sulfur) from biopsy samples collected on free-ranging whales to assess the trophic relationships and feeding ecology of cetaceans has recently increased (*e.g.*, Hooker *et al.*, 2001; Ryan *et al.*, 2013; Caputo *et al.*, 2021).

Kiszka *et al.* (in press) are the first to attempt to describe the feeding ecology of Rice's whales and the first to examine the potential drivers affecting prey selection by Rice's whales in relation to prey availability and energy density. They used a

combination of data from whale skin biopsy samples, fish trawl collections, and analysis of proximate composition in potential prey samples collected during research cruises conducted by the NMFS SEFSC in 2019. To account for the changes in isotopes through the food web, stable isotope mixing models incorporate uncertainty for each parameter and employ trophic enrichment factors (TEF). No TEF is available specifically for Rice's whales and therefore TEFs from the skin of fin whales were used.

Potential Rice's whale prey items were collected in 21 mid-water trawl hauls, conducted during daylight hours in the Rice's whale core distribution area from July 4-28, 2019. Trawls were operated close to the seafloor, consistent with the near-bottom foraging depths of individual Rice's whales observed by Soldevilla *et al.* (2017, 2022a). The trawls collected 35,598 organisms with an overall biomass of 158.21 kg. A total of 25 species/species groups were identified with 8 of those in less than 10 percent of the trawls. *Maurolicus weitzmani*, the Atlantic pearlside, was by far the most abundant species by number at 88.05 percent of the total catch (confidence interval of 86 to 90 percent). It also represented 19.67 percent of the total biomass (confidence interval of 17.4 to 22 percent). A different species dominated in biomass: *Ariomma bondi*, the silver-rag driftfish, made up 26.7 percent of the biomass (confidence interval of 23.9 to 29.5 percent), while making up only 1.21 percent of the total catch by number (confidence interval of 0.6 to 1.9) (Kiszka *et al.* in press).

Kiszka *et al.* (in press) selected four species for the stable isotope mixing model due to their prevalence in the samples and potential significance as a prey source in the community: *Doryteuthis pealeii* (longfin inshore squid), *Diaphus dumerilii* (Dumeril's lanternfish), *Maurolicus weitzmani*, and *Ariomma bondi*. All Rice's whale tissue samples fell within the mixing polygon, which suggests that the TEF and prey included in the analysis were appropriate. Mixing models of dietary contributions identified *Ariomma bondi* as the main prey (66.8 percent relative contribution), followed by *Diaphus*

dumerilii (17.8 percent relative contribution), while other prey had minor relative contributions to the diet of Rice's whales (*Doryteuthis pealeii*, 6.4 percent; and *Maurolicus weitzmani*, 9.1 percent). While stable isotope mixing models are a useful tool to understand trophic relationships within food webs, stomach content analysis is still the most reliable method to comprehensively investigate the diets of cetaceans. As explained above, stomach content analysis is not available for Rice's whales. Therefore, other prey species may be consumed that were not examined in the Kiszka *et al.* (in press) study.

The availability and quality of prey play important roles in the selection of prey in large predators, such as Rice's whales. Rice's whales forage during the day close to the seafloor. Because these deep dives require significant expenditures of energy, Rice's whales likely need high quality prey to meet their energetic requirements. Energy density data suggest that the high energy content of *Ariomma bondi*, relative to other available prey species, may be the primary driver of prey selection for Rice's whales. Kiszka *et al.* (in press) found that *Ariomma bondi* had significantly greater energy density (kilojoules/gram wet), lipids, and protein compared to the three other species selected for the model. *Ariomma bondi* were also significantly enriched in energy density (kilojoules/gram dry) compared to *Diaphus dumerilii* and *Maurolicus weitzmani* (Kiszka *et al.* (in press)). Moreover, Kiszka *et al.* (in press) found active prey selection was positive for *Ariomma bondi*, *Doryteuthis pealeii*, and *Diaphus dumerilii*, and that despite the fact *Maurolicus weitzmani* were the most abundant species in the trawl samples, *Maurolicus weitzmani* were relatively unimportant in the diets of Rice's whales. This suggests that prey abundance is likely not a primary driver of prey selection for Rice's whales. Overall, the results from Kiszka *et al.* (in press) suggest that Rice's whales are selective predators, preferentially targeting schooling demersal and vertically migrating prey with the highest energy content.

Abundance

Estimates of abundance for Rice's whales in the northern GOMx are less than 100 individuals, with mean estimates of <50 individuals remaining (Rosel *et al.*, 2021). Broad-scale aerial and ship-based line transect surveys to estimate cetacean abundance have been conducted in the northern GOMx as far back as 1991. Eleven abundance estimates were made between 1991 and 2012 and ranged between 0 and 44 individuals (see Rosel *et al.*, 2016 for summary of surveys). Surveys with the lowest estimates covered waters primarily off the western GOMx, which is consistent with the species' preference for the northeastern GOMx, particularly the core distribution area. It should be noted, however, none of these surveys were focused on estimating abundance of a rare species and precision of all estimates is poor. The best and most recent population estimate available for Rice's whales is 51 individuals (confidence interval of 20 to 130 whales, Garrison *et al.*, 2020).

Critical Habitat Identification

In the following sections, we describe the relevant definitions and requirements in the ESA and implementing regulations at 50 CFR part 424 and the key information and criteria used to prepare this proposed critical habitat designation. In accordance with section 4(b)(2) of the ESA, this proposed critical habitat designation is based on the best scientific data available and takes into consideration the economic impact, the impact on national security, and any other relevant impact of specifying any particular area as critical habitat. Scientific data used to identify potential critical habitat includes the information contained in the status review for the species (Rosel *et al.*, 2016), proposed and final rules to list the Rice's whale under the ESA (81 FR 88639, December 8, 2016; 84 FR 15446, April 15, 2019), articles in peer-reviewed journals, other scientific reports and fishery management plans, and relevant Geographic Information System (GIS) data (*e.g.*, U.S. maritime limits and boundaries data) for geographic area calculations and mapping. To identify specific areas that may qualify as critical habitat for Rice's whale,

in accordance with 50 CFR 424.12(b), we undertook the following steps: Identifying the geographical area occupied by the species at the time of listing; identifying physical or biological features essential to the conservation of the species; identifying the specific areas within the geographical area occupied by the species that contain one or more of the physical or biological features essential to the conservation of the species; determining whether these essential features may require special management considerations or protection; and considered whether any specific areas outside the geographical area occupied by the species are essential for the species' conservation. Our evaluation and conclusions are described in detail in the following sections.

Geographical Area Occupied by the Species

One of the first steps in the critical habitat designation process is to define the geographical area occupied by the species at the time of listing. NMFS is also required to designate critical habitat based on the best available scientific data. The phrase "geographical areas occupied by the species," which appears in the statutory definition of critical habitat (16 U.S.C. 1532(5)(A)(i)), is defined by regulation as "an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals) (50 CFR 424.02).

At the time of listing (84 FR 15446, April 15, 2019), Rice's whales were considered to be limited to the northeastern Gulf of Mexico, in the vicinity of the De Soto Canyon, although historical whaling records and unconfirmed sightings suggested their occurrence in the southern and northwestern GOMx (Rosel *et al.*, 2016). Subsequent publications confirming that Rice's whales are continuing to use the northwestern GOMx include a sighting in the western GOMx off the central Texas coast in 2017 that was genetically confirmed as a Rice's whale (Rosel *et al.*, 2021) and Rice's whale calls that

were detected acoustically along the shelf break in the western and northern Gulf of Mexico from July 2016 to August 2017 (Soldevilla *et al.*, 2022b). Soldevilla *et al.* (2022b) concluded that Rice's whales persistently occur over a broader distribution in the GOMx than was previously understood, which is documented to include both the northeastern and northwestern GOMx.

Rosel *et al.* (2021) reviewed Bryde's-like whale records in the Caribbean and greater Atlantic. They compiled sighting and stranding data from the U.S. eastern seaboard; reviewed acoustic studies off Cherry Point, North Carolina, in Norfolk Canyon, and off Jacksonville, Florida; and reviewed the published literature for the entire Atlantic Ocean to evaluate the distribution of Bryde's whale taxa in these areas. The investigators found that there are no confirmed sightings of Bryde's whales along the U.S. eastern seaboard and no acoustic detections in the specified study areas. Only six Bryde's whale strandings could be verified in the U.S. Atlantic coast, and of those, two were genetically determined to be Rice's whales. Bryde's whale strandings along the U.S. Atlantic are likely extralimital strays from the Gulf of Mexico (Mead, 1977) or their carcasses may have been transported via currents and winds from their normal distribution (Rosel *et al.*, 2021). Therefore, the Atlantic Ocean is not considered part of the geographical area occupied by Rice's whales.

Because we cannot designate critical habitat areas outside of U.S. jurisdiction (50 CFR 424.12(g)) the geographical area under consideration for this designation is limited to areas under the jurisdiction of the United States that Rice's whale occupied at the time of listing. Based on the information above, we have determined that at the time of listing Rice's whales occupied the Gulf of Mexico.

Physical or Biological Features Essential for Conservation

The statutory definition of critical habitat refers to "physical or biological features essential to the conservation of the species," (16 U.S.C. 1532(3)), but the ESA does not

specifically define or further describe these features. ESA implementing regulations, however, define such features as those that occur in specific areas and that are essential to support the life-history needs of the species, including but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. The ESA regulations further provide that a feature may be a single habitat characteristic, or a more complex combination of habitat characteristics and may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity (50 CFR 424.02).

To assess habitat features that may qualify as “essential to the conservation” of Rice’s whales, we evaluated physical and biological features that are essential to support the life history needs and support the conservation of Rice’s whales within the areas they occupy within U.S. waters. Section 3 of the ESA defines the terms “conserve,” “conserving,” and “conservation” to mean: “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary” 16 U.S.C. 1532(3).

In the final listing rule, we determined that the Rice’s whale is endangered under the ESA throughout all of its range due to its small population size and restricted range, and the threats of energy exploration, development and production, oil spills and oil spill response, vessel collision, fishing gear entanglement, and anthropogenic noise (84 FR 15446, April 15, 2019). Because Rice’s whales rely entirely on the GOMx continental shelf and slope waters between the 100 and 400 m isobaths to support all of their life history stages, we have identified physical and biological features that support all of the Rice’s whale life-history stages within its restricted range.

Based on the best scientific information available we have identified the

following feature as being essential to the conservation of the Rice's whale: GOMx continental shelf and slope associated waters between the 100 and 400 m isobaths that support individual growth, reproduction, and development, social behavior, and overall population growth. The following attributes of this feature support Rice's whales' ability to forage, develop, communicate, reproduce, rear calves, and migrate throughout the GOMx continental shelf and slope waters and influence the value of the feature to the conservation of the species:

1. Sufficient density, quality, abundance, and accessibility of small demersal and vertically migrating prey species, including scombriformes, stomiiformes, myctophiformes, and myopsida;
2. Marine water with (i) elevated productivity, (ii) bottom temperatures of 10-19 degrees Celsius, and (iii) levels of pollutants that do not preclude or inhibit any demographic function; and
3. Sufficiently quiet conditions for normal use and occupancy, including intraspecific communication, navigation, and detection of prey, predators, and other threats.

Identification of "physical and biological features essential to the conservation of the species" must be done at an appropriate level of specificity, and that level of specificity is in turn determined by the best scientific data available (50 CFR 424.12(b)(1)(ii)). The description of these attributes reflects an appropriate level of specificity based on the best scientific data available.

With respect to the first attribute related to prey, we have identified four orders of prey that are important components of the Rice's whale diet, but we are not able to identify a quantitative threshold for a critical habitat prey feature. Even without such a threshold for critical habitat, however, we conclude the scientific information available supports evaluation of prey availability as an attribute of the essential feature. Emerging

scientific information supporting Rice's whale prey preferences suggest that Rice's whales feed primarily on a schooling fish, *Ariomma bondi*. However, data are limited (small sample size from limited area and seasons) and still emerging as research continues. Therefore, we have not specified prey at the species level in the description of the prey attribute at this time, and we will continue to use the best available information on prey species in the diet of the whales and incorporate new information on prey in consultations on Rice's whale critical habitat as our understanding evolves.

With respect to the second attribute related to marine water quality, the term "elevated productivity" refers to waters with higher than normal production of organic matter by planktonic plants when compared to typical Gulf of Mexico oceanic levels, which are influenced by a complex variety of factors, including seasonal inputs of surface water originating from coastal sources and the offshore presence of loop current eddies.

Finally, with respect to the third attribute related to sufficiently quiet conditions for normal use and occupancy, Rice's whales rely on their ability to produce and receive sound within their environment to navigate, communicate, and detect prey and predators. Rice's whales have a foraging strategy that is adapted to the waters near the continental shelf and slope of the Gulf of Mexico, and limited data from two tagged Rice's whales showed each whale made repeated dives to depths of 200 m or greater throughout daytime hours, followed by foraging lunges at or just above the seafloor. Little or no light reaches the seafloor at those depths, even during daylight hours, suggesting that these animals may use acoustic cues to locate and target schools of prey fish.

Scientific information on the effects of anthropogenic noise on the behavior and distribution of baleen whales, including Bryde's whales, demonstrates that the presence of anthropogenic noise can adversely affect the value of marine habitat to Bryde's whales (for more discussion see the Anthropogenic Noise section of the final listing rule, 84 FR 15446, April 15, 2019). Of particular concern are anthropogenic noise sources that are

long-lasting, chronic, and/or persistent, and cumulatively inhibit and/or mask the animals' ability to receive and interpret sound (e.g., opportunities to forage or reproduce). Rice's whales vocalize at frequencies between 60 and 160 Hz, and elevation of ambient noise in low frequencies (between 10 and 1,000 Hz) are the most likely to adversely affect Rice's whales' acoustic soundscape and use of their habitat.

How human activities introduce noise in the marine environment, and how those noises alter the animals' use of habitat, is complex. Determining the biological significance of such alterations is equally complex and involves considering site specific variables, including: the acoustic characteristics of the introduced sound (frequency (i.e., pitch), duration, and intensity); the physical characteristics of the habitat; the baseline soundscape; interactions with other sound sources; and the animals' use of that habitat. All of these factors will influence the pervasiveness and dominance of anthropogenic sound sources across the habitat. NMFS will continue to use the best scientific information available to analyze chronic or persistent noise sources and determine whether they degrade listening conditions within Rice's whale habitat.

Noises that would impair sufficiently quiet conditions for normal use and occupancy are those that inhibit Rice's whales' ability to receive and interpret sound for the purposes of navigation, communication, and detection of prey, predators, and other threats. As already noted, anthropogenic noises that are likely to impact the whales' habitat would be long-lasting, chronic, and/or persistent in the marine environment and, either alone or combined with other ambient noises, significantly raise sound levels over a significant portion of an area (in terms of size and use by the whale) on a prolonged basis (e.g., annual or multiannual).

Need for Special Management Considerations or Protection

Specific areas within the geographical area occupied by a species may be designated as critical habitat only if they contain essential features that "may require

special management considerations or protection” (16 U.S.C. 1532 (5)(A)(i)(II)). Special management considerations or protection are any “methods or procedures useful in protecting the physical or biological features essential to the conservation of listed species” (50 CFR 424.02).

The essential feature is particularly susceptible to impacts from human activity because of the moderate water depth range where this feature occurs as well as its proximity to the coast. We identified broad categories of actions, or threats, as having the potential to negatively impact the essential feature, or its attributes, and the ability to support the conservation of listed Rice’s whales, including, but not limited to, in-water construction, energy development, commercial shipping, aquaculture, military activities, and fisheries. Each of these threats could independently or in combination result in the need for special management or protections of the essential feature. For example, direct harvest of the prey by fisheries has the potential to negatively impact the essential feature and the ability of feeding areas to support the conservation of Rice’s whales. Energy development could inhibit safe, unrestricted passage between important habitat areas to find prey and fulfill other life history requirements. Thus, the “may require” standard is met or exceeded with respect to management of the essential feature. Although we do not speculate as to what specific conservation measures might be required in the future through section 7 consultations on particular proposed Federal actions, the impacts from categories of actions described above, combined with those from natural factors may affect the habitat, including the attributes described for its essential feature. We therefore conclude that the essential feature identified herein may require special management considerations or protection because threats to this feature exist throughout the species’ range.

Specific Areas Within the Geographic Area Occupied by the Species Containing the Essential Feature

To determine what areas qualify as critical habitat within the geographical area occupied by the species, we are required to identify “specific areas” within the geographical area occupied by the species that contain the physical or biological features essential to the conservation of the species (50 CFR 424.12(b)(1)(iii)). Delineation of the specific areas is done “at a scale determined by the Secretary [of Commerce] to be appropriate” (50 CFR 424.12(b)(1)). Regulations at 50 CFR 424.12(c) also require that each critical habitat area be shown on a map. Because the ESA implementing regulations allow for discretion in determining the appropriate scale at which specific areas are drawn (50 CFR 424.12(b)(1)), we are not required to, nor do we have the ability to, determine that each square inch, acre, or even square mile independently meets the definition of “critical habitat.” A main goal in determining and mapping the boundaries of the specific areas is to provide a clear description and documentation of the areas containing the identified essential feature. This is ultimately crucial to ensuring that Federal action agencies are able to determine whether their particular actions may affect the critical habitat.

To map the specific area, we reviewed available species occurrence and bathymetric data. We used the highest resolution bathymetric data available. We used contours created from NOAA Office for Coastal Management, 2022 Bathymetric Contours, which provides data and maps at <https://www.fisheries.noaa.gov/inport/item/54364>. These bathymetric data (*i.e.*, isobaths) were used, with other geographic or management boundaries, to draw the boundary on the map of the specific areas identified as meeting the definition of occupied critical habitat. Sighting reports, species presence or absence, scientific papers and other research, the biology and ecology of Rice’s whales, and information indicating the presence of one or more of the identified essential features within certain areas of their range were also used to inform the decision making. Expert opinion was important to

identifying areas that contain the feature. These experts included a NMFS regional GIS lead, a NMFS Large Whale Recovery Coordinator, and other Rice's whale researchers from the SEFSC.

Ultimately, based on a review of the best available data, we identified one specific area in the Gulf of Mexico that meets the definition of critical habitat for the Rice's whale. To be eligible for designation as critical habitat under the ESA's definition of occupied areas, each specific area must contain at least one essential feature that may require special management considerations or protection. This area meets the definition of "critical habitat" because the best available scientific data indicate that the essential feature is present, as evidenced by Rice's whale sightings data, the presence of Rice's whale prey, and habitat use patterns. Due to the unique ecology of the continental shelf and slope associated waters, use by Rice's whales is largely driven by depth. Therefore, the feature essential to the species' conservation is found in those depths that allow the whales to travel throughout a majority of their range seeking food and opportunities to socialize and reproduce. The area identified as including the essential feature for Rice's whales ranges from the 100 m isobath to the 400 m isobath in the Gulf of Mexico. As noted above, Rice's whale sightings occurred predominantly between the 100 m isobath to the 400 m isobath within the northeastern GOMx centered along the 200 m isobath with one sighting during the summer of 2017 in a water depth of 263 m off the coast of Texas (Garrison *et al.*, 2022).

One hundred eighty-one sightings ranged in water depths from 117 m to 408 m, with only two sightings falling outside the range of 151-352 m (Rosel *et al.*, 2021). One Rice's whale was satellite-tagged for 33 days in the core distribution area in 2010 and remained between the 100 m isobath and the 400 m isobath for the duration of tracking (Soldevilla *et al.*, 2017). Additionally, *Ariomma bondi* is a small schooling fish that occupies demersal habitat over muddy bottoms, typically between 50 m and 500 m, but

particularly near the continental shelf break throughout the north-central and northwestern GOMx (Kiszka *et al.*, in press). Moreover, moored passive acoustic monitoring units placed seaward of the continental shelf break in the western and central GOMx regularly detected Rice's whale vocalizations with no apparent seasonality (Soldevilla *et al.*, 2022b).

The 100 m isobath was selected to delineate the inshore extent of the area that would include the essential feature for Rice's whales due to consistent habitat use at depths greater than 100 m and because no sightings have been made in areas where the water is shallower than 117 m. The 400 m isobath was selected to delineate the offshore extent of the area that would include the essential feature for Rice's whales due to consistent habitat use at depths less than 400 m and because no sightings have been made in areas where the water is deeper than 408 m. This full range of depths, from the 100 m isobath to the 400 m isobath, incorporates nearly all of the recorded locations of Rice's whales and includes those continental shelf and slope waters and feature essential to Rice's whales.

Areas Outside of the Geographical Areas Occupied by the Species at the Time of Listing that are Essential for Conservation

ESA section 3(5)(A)(ii) defines critical habitat to include specific areas outside the geographical area occupied by the species at the time of listing if the areas are determined by the Secretary to be essential for the conservation of the species. An area must logically be "habitat" in order for that area to meet the narrower category of "critical habitat" as defined in the ESA. *Weyerhaeuser Co. v. U.S. FWS*, 139 S. Ct. 361, 368 (2018) (explaining that an area cannot be designated as critical habitat unless it is also habitat for the species). Our regulations at 50 CFR 424.12(b)(2) further explain that the Secretary will identify, at a scale determined by the Secretary to be appropriate, specific areas outside the geographical area occupied by the species that are essential for

its conservation. The regulations also state that the Secretary will only consider unoccupied areas to be essential where a critical habitat designation limited to geographical areas occupied would be inadequate to ensure the conservation of the species. In addition, for an unoccupied area to be considered essential, the Secretary must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to the conservation of the species. Under the previous implementing regulations (i.e. those in effect prior to 2019), the Secretary's determination of specific areas outside the geographic area occupied by the species that are essential for its conservation considered the life history, status, and conservation needs of the species based on the best available scientific data.

The final rule that listed Rice's whales under the ESA identified energy exploration, development and production, oil spills and oil spill response, vessel collision, fishing gear entanglement, and anthropogenic noise as the most serious threats to Rice's whales (84 FR 15446, April 15, 2019). The presence of these threats within habitats used by Rice's whales likely influences the species' distribution, abundance, and survival. For example, noise levels within the 100 m to 400 m isobaths portion of the northern GOMx may be impacting the environment such that, in locations where noise levels are chronically the highest, Rice's whales may be periodically avoiding habitat they would otherwise inhabit. Should they be designated as critical habitat, the occupied areas identified and discussed above would help conserve areas that support individual growth, reproduction, and development; social behavior; and overall population growth of the species within U.S. jurisdiction. Based on our current understanding of the species' life history, status, and conservation needs, we are not able to identify any specific areas outside the geographical area occupied by the species that are essential for its conservation under either the current implementing regulations in 50 CFR 424.12(b)(2)

or those in effect prior to 2019. Protecting the specific occupied area identified as critical habitat from destruction and adverse modification stemming from Federal actions would help support the species' habitat-based conservation needs.

Application of ESA Section 4(a)(3)(B)(i) (Military Lands)

Section 4(a)(3)(B)(i) of the ESA prohibits designating as critical habitat any lands or other geographical areas owned or controlled by the DOD, or designated for its use, that are subject to an Integrated Natural Resources Management Plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary [of Commerce] determines in writing that such a plan provides a benefit to the species for which critical habitat is proposed for designation. Our regulations at 50 CFR 424.12(h) provide that, in determining whether an applicable benefit is provided, we will consider:

- (1) The extent of the area and features present;
- (2) The type and frequency of use of the area by the species;
- (3) The relevant elements of the INRMP in terms of management objectives, activities covered, and best management practices, and the certainty that the relevant elements will be implemented; and
- (4) The degree to which the relevant elements of the INRMP will protect the habitat from the types of effects that would be addressed through a destruction-or-adverse-modification analysis.

There are no geographical areas owned or controlled by the DOD or designated for its use that are subject to an INRMP that coincide with any of the areas under consideration for Rice's whale critical habitat.

Analysis of Impacts Under ESA Section 4(b)(2)

Section 4(b)(2) of the ESA requires that we consider the economic impact, the impact on national security, and any other relevant impact, of designating any particular area as critical habitat.

Additionally, the Secretary has the discretion to exclude any area from critical habitat if the Secretary determines the benefits of exclusion (that is, avoiding some or all of the impacts that would result from designation) outweigh the benefits of designation. The Secretary may not exclude an area from designation if the Secretary determines, based upon the best scientific and commercial data available, exclusion will result in the extinction of the species. Because the authority to exclude is discretionary, exclusion is not required for any particular area.

The ESA provides the Secretary broad discretion in how to consider impacts. (See H.R. Rep. No. 95-1625, at 17, reprinted in 1978 U.S.C.C.A.N. 9453, 9467 (1978)). Regulations at 50 CFR 424.19(b) specify that the Secretary will consider the probable impacts of the designation at a scale that the Secretary determines to be appropriate, and that such impacts may be qualitatively or quantitatively described. The Secretary is also required to compare impacts with and without the designation (50 CFR 424.19(b)). In other words, we are required to assess the incremental impacts attributable to the critical habitat designation relative to a baseline that reflects existing regulatory impacts in the absence of the critical habitat. The consideration and weight given to any particular impact is determined by the Secretary. Courts have noted the ESA does not contain requirements for any particular methods or approaches. See, *e.g.*, *Bldg. Indus. Ass'n of the Bay Area et al. v. U.S. Dept. of Commerce et al.*, 792 F.3d 1027 (9th Cir. 2015) (upholding district court's ruling that the ESA does not require the agency to follow a specific methodology when designating critical habitat under section 4(b)(2)). NMFS and the U.S. Fish and Wildlife Service have adopted a joint policy setting out non-binding guidance explaining generally how we exercise our discretion under 4(b)(2). See Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act ("4(b)(2) Policy," 81 FR 7226, February 11, 2016). For this proposed rule, we followed the same

basic approach to describing and evaluating impacts as we have for several recent critical habitat rulemakings, as informed by our 4(b)(2) Policy.

The following discussion of impacts is summarized from our Endangered Species Act Critical Habitat Report, which identifies the economic, national security, and other relevant impacts that we project would result from including the specified area in the proposed critical habitat designation. We considered these impacts when deciding whether to exercise our discretion to propose excluding particular areas from the designation. Both positive and negative impacts were identified and considered (these terms are used interchangeably with benefits and costs, respectively). Impacts were evaluated in quantitative terms where feasible, but qualitative appraisals were used where more appropriate to particular impacts. The primary impacts of a critical habitat designation result from the ESA section 7(a)(2) requirement that Federal agencies ensure their actions are not likely to result in the destruction or adverse modification of critical habitat, and that they consult with NMFS in fulfilling this requirement. Determining these impacts is complicated by the fact that section 7(a)(2) also requires that Federal agencies ensure their actions are not likely to jeopardize the species' continued existence. The incremental impact of critical habitat designation is the extent to which Federal agencies modify their proposed actions to ensure they are not likely to destroy or adversely modify the critical habitat beyond any modifications the agencies would make because of listing and the requirement to avoid jeopardy to the Rice's whale. When the same modification would be required due to impacts to both the species and critical habitat, there would be no additional or incremental impact attributable to the critical habitat designation beyond the administrative impact associated with conducting the critical habitat analysis.

Relevant existing regulatory protections are referred to as the "baseline" for this analysis and are discussed in the Endangered Species Act Critical Habitat Report. In this case, notable baseline protections include the ESA listing of the species (84 FR 15446,

April 15, 2019); other species listings and critical habitat designations, such as critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle distinct population segment (79 FR 39855, August 11, 2014); and protections afforded the whales under the Marine Mammal Protection Act.

The Endangered Species Act Critical Habitat Report describes the projected future Federal activities that would trigger ESA section 7 consultation requirements if they are implemented in the future because the activities may affect the essential feature. These activities and the ESA consultation consequently may result in economic costs or negative impacts. The report also identifies the potential national security and other relevant impacts that may arise due to the proposed critical habitat designation, such as positive impacts that may arise from conservation of the species and its habitat, state and local protections that may be triggered as a result of designation, and educating the public about the importance of an area for species conservation.

Economic Impacts

Economic impacts of critical habitat designations primarily occur through implementation of section 7 of the ESA in consultations with Federal agencies to ensure their proposed actions are not likely to destroy or adversely modify critical habitat. The economic impacts of consultation may include both administrative and project modification costs; economic impacts that may be associated with the conservation benefits resulting from designation are described later.

To identify the types and geographic distribution of activities that may trigger section 7 consultation on Rice's whale critical habitat, we first reviewed the section 7 consultation histories from 2010 through 2021 for both the NMFS Southeast Region and its Office of Protected Resources for:

- Activities consulted on in the areas being proposed as critical habitat for the Rice's whale; and

- Activities that take place outside of the areas proposed critical habitat but whose effects extend into the critical habitat and are therefore subject to consultation.

We also considered section 7 consultations conducted in 2022 to the extent those consultations support modifying our projections of future consultations based on the 2010-2021 consultation history alone.

In addition, we convened discussions with NMFS personnel to identify future activities that may affect Rice's whale critical habitat that may not have been captured by relying on the section 7 consultation history. We reviewed the U.S. Army Corps of Engineers (USACE) permit application database for the South Atlantic Division and Southwestern Division to identify all USACE permit applications for projects located within the proposed critical habitat area. Review of USACE permit application data is useful because the database encompasses USACE-permitted activities that may not have been consulted on in the past if they were outside of previously designated critical habitats or areas containing species protected under the ESA. We compared the USACE permit application data to the NMFS section 7 consultation history and confirmed the latter's completeness, thereby validating use of the NMFS section 7 consultation database to project future informal consultations on USACE-permitted projects. We also will review more recent consultation information prior to the publication of any final rule. We determined that all categories of the activities identified have potential routes of effects to both the endangered Rice's whale and the proposed Rice's whale critical habitat, or to other species or designated critical habitat. We did not identify and we do not anticipate Federal actions that have the potential to affect only the Rice's whale critical habitat.

We identified the following eleven categories of activities implemented by seven different Federal entities as having the potential to affect the essential feature of the Rice's whale critical habitat:

- Oil and gas exploration and development

- Commercial fishery management
- Military activities
- Water quality management
- Scientific research and monitoring
- Space vehicle launch and reentry
- In-water construction
- Aquaculture
- Vessel traffic
- Renewable energy development
- Activities that lead to or address greenhouse gas emissions or global climate change

Future consultations were projected based on the frequency and distribution of section 7 consultations conducted from 2010 through 2021 as well as some consultations conducted in 2022 that revealed a need to modify our projections of future consultations that was not captured in the 2010-2021 consultation history alone, review of USACE permit applications between 2010 and 2021, and discussions with NMFS personnel familiar with the scope of future activities that may affect the potential critical habitat. With certain exceptions, we consider it reasonable to assume that the breakdown of past consultations by type (into informal, formal, and programmatic consultations) and activity category (e.g., scientific research and monitoring, water quality management, etc.) between the years 2010 and 2021 will generally reflect the breakdown of future consultations. Accordingly, we assume for most potentially impacted activity categories that the number and type of activities occurring within or affecting Rice's whale critical habitat would not change in the future. Activity categories to which we do not apply this assumption include space vehicle launches and reentry, wind energy development, oil and gas exploration and development, and military activities. For oil and gas and military

activities, we anticipate that current programmatic and formal consultations on activities that could affect the proposed critical habitat would require two reinitiations each over the next 10 years and that each of these consultations would consider effects to Rice's whale critical habitat. As of January 2022, NMFS consults with the Federal Aviation Administration, U.S. Space Force, and National Aeronautics and Space Administration on space vehicle launches and reentries on a programmatic basis. Despite an expected increase in the frequency of space vehicle launches and reentries that could affect the proposed critical habitat, we project only one section 7 consultation over the next 10 years because these types of operations will be covered by a single programmatic consultation, and because we consider it unlikely that designation of critical habitat for the Rice's whale would change the outcome of the programmatic consultation. While there is considerable uncertainty regarding the scope of future renewable (i.e., wind) energy development activities that would require Section 7 consultation on effects to Rice's whale critical habitat, our projections reflect the assumed reinitiation of the current programmatic consultation on site characterization and assessment activities. Our projections also assume formal consultation on the construction and operation of two wind energy projects over the next 10 years. While it is unlikely that such projects would be located seaward of the 100-meter isobath, it is possible that activities related to the construction and/or operation of the projects would affect the proposed critical habitat.

As discussed in more detail in our Endangered Species Act Critical Habitat Report, all categories of activities identified as having the potential to affect the proposed essential feature also have the potential to affect the endangered Rice's whales or other listed species or critical habitat. To estimate the economic impacts of critical habitat designation, our analysis compares the state of the world with and without the designation of critical habitat. The "without critical habitat" scenario represents the baseline for the analysis, considering protections already afforded the proposed critical

habitat as a result of listing the Rice's whale as endangered and as a result of other Federal, state, and local regulations or protections, including other species listings and critical habitat designations. The "with critical habitat" scenario describes the state of the world with the critical habitat designation. The incremental impacts that will be associated specifically with the critical habitat designation, if finalized as proposed, are the difference between the two scenarios. As it stands, baseline protections exist in large areas proposed for designation as critical habitat for Rice's whale. In particular, areas proposed for Rice's whale critical habitat designation overlap to varying degrees with the presence of the threatened or endangered sei whale, sperm whale, North Atlantic green sea turtle distinct population segment, Northwest Atlantic Ocean loggerhead sea turtle distinct population segment, hawksbill sea turtle, Kemp's ridley sea turtle, and leatherback sea turtle; and critical habitat designated for the Northwest Atlantic Ocean loggerhead sea turtle distinct population segment. These areas already receive significant protections related to these listings and critical habitat designation. These protections may also protect the essential feature of the proposed Rice's whale critical habitat.

Importantly, we do not expect designation of critical habitat for the Rice's whale to result in project modification for any of the activities that may affect the critical habitat because actions that are likely to adversely affect designated critical habitat may proceed so long as such actions do not result in the destruction or adverse modification of critical habitat. Unlike actions that are likely to adversely affect listed species, NMFS cannot specify reasonable and prudent measures that are necessary or appropriate to minimize impacts to critical habitat. In circumstances where NMFS determines an action is likely to result in destruction or adverse modification of critical habitat, NMFS must propose reasonable and prudent alternatives that avoid the destruction and adverse modification of the critical habitat.

The effort required to address adverse effects to the proposed critical habitat is assumed to be the same, on average, across categories of activities. Informal consultations are expected to require comparatively low levels of administrative effort, while formal and programmatic consultations are expected to require comparatively higher levels of administrative effort. For all formal and informal consultations, we anticipate that incremental administrative costs will be incurred by NMFS, the consulting Federal action agencies, and potentially, third parties. For programmatic consultations, we anticipate that costs will be incurred by NMFS and the consulting Federal action agencies. Incremental administrative costs per consultation that would occur absent designation of critical habitat for the Rice's whale and that would consider effects to Rice's whale critical habitat, are expected on average to be \$12,000 for programmatic, \$6,300 for formal consultations, and \$3,000 for informal consultations (in 2022 dollars). These costs are assumed to double, on a per consultation basis, for consultations that are reinitiated to consider effects to Rice's whale critical habitat (NMFS, 2022).

We estimate the incremental administrative costs of section 7 consultation by applying these per consultation costs to the forecasted number of consultations. We anticipate that there will be approximately 8 programmatic consultations, 12 formal consultations, and 29 informal consultations that will require incremental administrative effort. Incremental costs are expected to total approximately \$240,000 over the next 10 years (discounted at 7 percent), at an annualized cost of \$37,000 (in 2022 dollars). We conservatively assume that there will be approximately 10 re-initiations of existing consultations to specifically address effects to Rice's whale critical habitat. We anticipate that the reinitiated consultations will be for Federal actions related to oil and gas activities, fishery management, military activities, water quality management, renewable energy development, and space vehicle launch and reentry operations. Table 1 shows the

projected incremental costs of designation of critical habitat for the Rice's whale, by activity category.

Table 1 – Projected Incremental Costs of Rice's Whale Critical Habitat Designation By Activity Type, 2023-2032 (2022 DOLLARS)

Activity	Total Cost (7 percent discount rate)	Annualized Cost
Oil and Gas Activities	\$53,000	\$8,100
Renewable Energy	\$24,000	\$3,700
Fishery Management	\$52,000	\$7,900
Military	\$36,000	\$5,500
Water Quality	\$41,000	\$6,200
Scientific Research and Monitoring	\$18,000	\$2,800
Space Vehicle Launch and Reentry	\$16,000	\$2,400
Construction	\$1,700	\$250
TOTAL	\$240,000	\$37,000
Note: The estimates may not sum to the totals reported due to rounding.		

In summary, significant baseline protections exist in areas proposed for Rice's whale critical habitat. Incremental impacts of the proposed designation are projected to reflect the incremental administrative effort required for section 7 consultations to consider effects to the critical habitat. Taking into consideration several assumptions and uncertainties, total projected incremental costs are approximately \$240,000 over the next 10 years (discounted at 7 percent), or \$37,000 in annualized costs (in 2022 dollars). Notwithstanding the uncertainty underlying the projection of incremental costs, the results provide an indication of the potential activities that may be affected and a reasonable projection of future costs.

National Security Impacts

Impacts to national security could occur if a designation triggers future ESA section 7 consultations because a proposed military activity "may affect" the feature essential to the listed species' conservation. Interference with mission-essential training

or testing or unit readiness could result from the additional commitment of resources by the DOD or United States Coast Guard (USCG) to modify the action to prevent adverse modification of critical habitat or implement Reasonable and Prudent Alternatives.

Whether national security impacts result from the designation also depends on whether future consultations and associated project modifications and/or implementation of reasonable and prudent alternatives, reasonable and prudent measures and terms and conditions would be required due to potential effects to Rice's whale or other ESA-listed species or designated critical habitat, regardless of the Rice's whale critical habitat designation, and whether the Rice's whale designation would add costs beyond those related to the consultation on effects to Rice's whale or other species or critical habitat.

As described previously, we identified DOD military operations as a category of activity that has the potential to affect the essential feature of the proposed Rice's whale critical habitat. However, for the actions that may affect Rice's whale critical habitat, designating critical habitat for Rice's whale is not expected to result in incremental impacts beyond administrative costs because the consultations would otherwise be required to address effects to either the Rice's whale or other listed species. National security impacts could result from the designation of critical habitat for the Rice's whale if it is determined through section 7 consultation that modifications to DOD activities are required to mitigate adverse effects to the critical habitat alone. We anticipate two reinitiations each over the next 10 years of existing consultations that would address effects to Rice's whale critical habitat. These include a programmatic consultation on U.S. Navy Atlantic Fleet Testing and Training operations and a formal consultation on U.S. Air Force training and testing operations based out of Eglin Air Force Base. While these reinitiated consultations represent an incremental administrative impact of the proposed rule, which is considered in the economic analysis, the reinitiated consultations

would not impact national security. We did not identify any other areas managed by DOD branches that are of potential concern.

Other Relevant Impacts

We identified three broad categories of other relevant impacts related to this proposed critical habitat designation: Conservation benefits, both to the species and to the ecosystem; impacts on governmental or private entities that are implementing existing management plans that provide benefits to the listed species; and educational and awareness benefits. Our economic analysis provided in the Endangered Species Act Critical Habitat Report discusses conservation benefits of designating the proposed area and the benefits to society of conserving the species.

Conservation Benefits

The primary benefit of critical habitat designation is the contribution to conservation and recovery of the Rice's whale. That is, in protecting the feature essential to the conservation of the species, critical habitat directly contributes to the conservation and recovery of the species. This analysis contemplates two broad categories of conservation benefits of critical habitat designation: (1) Increased probability of conservation and recovery of the species, and (2) Ecosystem service benefits.

The most direct benefits of the critical habitat designations stem from the enhanced probability of conservation and recovery of the species. From an economic perspective, the appropriate measure of the value of this benefit is people's "willingness-to-pay" for the incremental change. While the existing economics literature is insufficient to provide a quantitative estimate of the extent to which people value incremental changes in recovery potential, the literature does provide evidence that people have a positive preference for listed species conservation, even beyond any direct (*e.g.*, recreation, such as viewing the species while whale watching) or indirect use for the species (*e.g.*, fishing that is supported by the presence of healthy ecosystems).

In addition, designating critical habitat can benefit the ecosystem. Overall, the GOMx continental shelf and slope associated waters, including those comprising Rice's whale proposed critical habitat, provide important ecosystem services of value to individuals, communities, and economies. These include recreational opportunities (and associated tourism spending in the regional economy), habitat for recreationally and commercially valuable fish species, and climate stabilization via carbon sequestration. Critical habitat most directly influences the recovery potential of the species and protects ecosystem services through its implementation under section 7 of the ESA. Our analysis finds that the proposed rule is not anticipated to result in incremental project modifications. However, the protections afforded to the GOMx continental shelf and slope associated waters proposed as Rice's whale critical habitat could increase awareness of the importance of these habitat areas, which in turn could lead to additional conservation efforts.

Impacts to Governmental and Private Entities with Existing Management Plans

Benefitting the Listed Species

Among other relevant impacts of critical habitat designations that we consider under section 4(b)(2) of the ESA are impacts on the efforts of private and public entities involved in management or conservation efforts benefiting listed species. In cases where there is a Federal nexus (*e.g.*, a Federal grant or permit), critical habitat designation could necessitate consultation with NMFS to incrementally address the effects of the management or conservation activities on critical habitat. In such cases, these entities may have to allocate resources to fulfill their section 7 consultation obligations as third parties to the consultation – including the administrative effort of consultation and, potentially, modification of projects or conservation measures to avoid adverse modification to the critical habitat – that, absent critical habitat designation, would be applied to management or conservation efforts benefiting listed species. As we anticipate

the proposed designation would result in no project modifications beyond those that would already occur absent designation, the potential for reallocation of these private and public entities' resources would be limited to the incremental administrative costs of section 7 consultations that would occur absent Rice's whale critical habitat. Therefore, we do not expect that designating critical habitat for the Rice's whale would diminish private and public entities' ability to provide for the conservation of the Rice's whale.

Education and Awareness Benefits

The critical habitat designation could potentially have benefits associated with education and awareness. The potential for such benefits stems from three sources: (1) Entities that engage in section 7 consultation, including Federal action agencies and, in some cases, third party applicants; (2) members of the general public interested in conservation; and (3) state and local governments that take action to complement the critical habitat designation. Certain entities, such as applicants for particular permits, may alter their activities to benefit the essential feature of the critical habitat because they were made aware of the critical habitat designation through the section 7 consultation process. Similarly, Federal action agencies that undertake activities that affect the critical habitat may alter their activities to benefit the critical habitat. Members of the public interested in conservation also may adjust their behavior to benefit critical habitat because they learned of the critical habitat designation through outreach materials or the regulatory process. In our experience, designation raises the public's awareness that there are special considerations to be taken within areas identified as critical habitat. Similarly, state and local governments may be prompted to enact laws or rules to complement the critical habitat designations and benefit the listed species. Those laws would likely result in additional impacts of the designations.

However, quantifying the beneficial effects of the awareness gained through, or the impacts from state and local regulations resulting from, the proposed critical habitat designation is not possible.

Exclusions Under Section 4(b)(2)

We are not exercising our discretion to exclude any particular areas from designation based on economic, national security, and other relevant impacts. In summary, there are significant baseline protections that exist in the areas proposed for the Rice's whale critical habitat, and as a result, the incremental impacts of the proposed designation are low and reflect the incremental administrative effort required for section 7 consultations to consider effects specific to critical habitat. Taking into consideration several assumptions and uncertainties, the total projected incremental costs are approximately \$240,000 over the next 10 years (\$37,000 annualized), applying a discount rate of 7 percent. As the proposed critical habitat comprises a single unit, the analysis does not identify any particular area within the proposed critical habitat unit where these costs would be highly concentrated. Moreover, we anticipate that no particular industry would be disproportionately impacted. Similarly, we are not proposing to exclude any areas on the basis of national security impacts because no national security concerns exist related to the proposed critical habitat designation. We are also not proposing to exclude any particular area based on other relevant impacts. Other relevant impacts include conservation benefits of the designation, both to the species and to the ecosystem. We expect that designation of critical habitat will support conservation and recovery of the species. Future section 7 consultations on some of the activities that may affect Rice's whale will also consider effects to the critical habitat. While we do not expect these consultations to result in additional conservation measures, the additional consideration of effects specific to the critical habitat will increase overall awareness of the importance

of Rice's whale and its habitat. For these reasons, we are not proposing to exclude any areas as a result of these other relevant impacts.

Proposed Critical Habitat Designation

Our critical habitat regulations state that we will show critical habitat on a map with more detailed information discussed in the preamble of the critical habitat rulemaking and made available from NMFS (50 CFR 424.12(c)). When several habitats, each satisfying the requirements for designation as critical habitat, are located in proximity to one another, an inclusive area may be designated as critical habitat (50 CFR 424.12(d)). The habitat containing the essential feature and that may require special management considerations or protection is continental shelf and slope associated waters in the Gulf of Mexico. The boundaries of the specific area were determined by the presence of the essential feature and Rice's whales, as described earlier within this document. Because the quality of the available GIS data varies based on collection method, resolution, and processing, the proposed critical habitat boundaries are defined by the maps in combination with the textual information included in the proposed regulation. This textual information clarifies and refines the location and boundaries of each specific area.

Occupied Critical Habitat Unit Description

The specific area of occupied critical habitat for the Rice's whale consists of waters from the 100 meter isobath to the 400 meter isobath in the Gulf of Mexico starting at the U.S. Exclusive Economic Zone boundary off of Texas east to the boundary between the South Atlantic Fishery Management Council and the Gulf of Mexico Fishery Management Council (50 CFR 600.105(c)) off of Florida. The area of the Gulf of Mexico unit is 73,220.65 square kilometers or 28,270.65 square miles. The map and regulatory text in this document provide more detail regarding the location and boundaries of this area.

Effects of Critical Habitat Designation

Section 7(a)(2) of the ESA requires Federal agencies, including NMFS, to insure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify designated critical habitat. Federal agencies are also required to confer with NMFS regarding any actions likely to jeopardize the continued existence of any species proposed for listing under the ESA, or likely to destroy or adversely modify proposed critical habitat, pursuant to section 7(a)(4).

A conference involves informal discussions in which NMFS may recommend conservation measures to minimize or avoid adverse effects (50 CFR 402.02). The discussions and conservation recommendations are documented in a conference report provided to the Federal agency (50 CFR 402.10(e)). If requested by the Federal agency and deemed appropriate by NMFS, the conference may be conducted following the procedures for formal consultation in 50 CFR 402.14, and NMFS may issue an opinion at the conclusion of the conference. This opinion may be adopted as the biological opinion when the species is listed or critical habitat designated if no significant new information or changes to the action alter the content of the opinion (50 CFR 402.10(d)).

When a species is listed or critical habitat is designated, Federal agencies must consult with NMFS on any agency actions that may affect a listed species or its critical habitat. During the consultation, we evaluate the agency action to determine whether the action may adversely affect listed species or critical habitat and issue our findings in a letter of concurrence or in a biological opinion. If we conclude in the biological opinion that the action would likely result in the destruction or adverse modification of critical habitat, we would also identify any reasonable and prudent alternatives to the action. Reasonable and prudent alternatives are defined in 50 CFR 402.02 as alternative actions identified during formal consultation that can be implemented in a manner consistent

with the intended purpose of the action, that can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that we believe would avoid the likelihood of destruction or adverse modification of critical habitat.

Regulations at 50 CFR 402.16 require Federal agencies that have retained discretionary involvement or control over an action, or where such discretionary involvement or control is authorized by law, to reinitiate consultation on previously reviewed actions in instances where: (1) Critical habitat is subsequently designated that may be affected by the identified action; or (2) New information or changes to the action may result in effects to critical habitat in a manner or to an extent not previously considered. Consequently, some Federal agencies may request reinitiation of consultation or conference with NMFS on actions that may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Activities subject to the ESA section 7 consultation process are those activities authorized, funded, or carried out by Federal action agencies, whether on Federal, state, or private lands or waters. ESA section 7 consultation would not be required for Federal actions that do not affect listed species or critical habitat and for actions that are not federally funded, authorized, or carried out.

Activities That May Be Affected

Section 4(b)(8) of the ESA requires that we describe briefly and evaluate in any proposed or final regulation to designate critical habitat those activities, whether public or private, that may adversely modify such habitat or that may be affected by such designation. As described in our Endangered Species Act Critical Habitat Report, a wide variety of Federal activities may require ESA section 7 consultation because they may affect the essential feature of Rice's whale critical habitat. Specific future activities will need to be evaluated with respect to their potential to destroy or adversely modify critical

habitat, in addition to their potential to affect and jeopardize the continued existence of listed species. For example, activities may adversely modify the continental shelf and slope associated waters by destroying or altering the habitat. These activities, whether public or private, would require ESA section 7 consultation when they are authorized, funded, or carried out by a Federal agency. A private entity may also be affected by proposed critical habitat designations if it is a proponent of a project that requires a Federal permit or receives Federal funding. Categories of activities that may be affected through section 7 consultation by designating Rice's whale critical habitat include oil and exploration and development, renewable energy development, fishery management, military activities, water quality management, scientific research and monitoring, space vehicle launches and reentry, and in-water construction.

Questions regarding whether specific activities may constitute destruction or adverse modification of critical habitat should be directed to us (see **ADDRESSES** and **FOR FURTHER INFORMATION CONTACT**).

Identifying the extent or severity of an impact on the essential feature at which the conservation value of habitat for the listed species may be affected is inherently complex. Consequently, the actual responses of the critical habitat to effects to the essential feature resulting from future Federal actions will be case- and site-specific, and predicting such responses will require case- and site-specific data and analyses.

Public Comments Solicited

We request that interested persons submit comments, information, and data concerning this proposed rule during the comment period (see **DATES**). We are soliciting comments from the public, other concerned governments and agencies, the scientific community, industry, or any other interested party concerning the areas proposed for designation and appropriateness and description of the essential feature. Specifically, we seek public comments concerning the attributes of the proposed essential

feature. We also solicit comments regarding specific, probable benefits and impacts stemming from this designation, including any estimates of incremental impacts. We also request comment on any projects or activities that may be affected or delayed by this designation, and the assumption that consultations will not result in project modifications. We also seek comments on the identified geographic area occupied by the species and the potential benefits to the species from this designation or alternative designations. We seek information that would assist in further characterizing environmental parameters important to Rice's whales. We seek information about any additional sightings or areas that may support Rice's whales not addressed in this proposed rule or supporting information. We seek any additional information about strandings or other historical records of Bryde's-like whales in the Gulf of Mexico or Atlantic Ocean.

You may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES**). We will consider all comments pertaining to these designations received during the comment period in preparing the final rule. Accordingly, the final designation may differ from this proposal.

Information Quality Act and Peer Review

The data and analyses supporting this proposed action have undergone a pre-dissemination review and have been determined to be in compliance with applicable information quality guidelines implementing the Information Quality Act (Section 515 of Pub. L. 106-554). On December 16, 2004, OMB issued its Final Information Quality Bulletin for Peer Review (Bulletin). The Bulletin was published in the **Federal Register** on January 14, 2005 (70 FR 2664), and all of the requirements were effective by June 16, 2005. The primary purpose of the Bulletin is to improve the quality and credibility of scientific information disseminated by the Federal government by requiring peer review of "influential scientific information" and "highly influential scientific assessments" prior to public dissemination. "Influential scientific information" is defined as information that

the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions. The Bulletin provides agencies broad discretion in determining the appropriate process and level of peer review of influential scientific information. Stricter standards were established for the peer review of highly influential scientific assessments, defined as information whose dissemination could have a potential impact of more than \$500 million in any one year on either the public or private sector or for which the dissemination is novel, controversial, or precedent-setting, or has significant interagency interest.

The information in the Endangered Species Act Critical Habitat Report supporting this proposed critical habitat rule is considered influential scientific information and was thus subjected to peer review. To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the biological information in the Endangered Species Act Critical Habitat Report and incorporated the peer review comments into the report prior to dissemination of this proposed rulemaking. Comments received from peer reviewers are available on our website at <https://www.noaa.gov/information-technology/endangered-species-act-critical-habitat-report-rices-whale-id452>.

Classification

Takings (Executive Order 12630)

Under E.O. 12630, Federal agencies must consider the effects of their actions on constitutionally protected private property rights and avoid unnecessary takings of private property. A taking of property includes actions that result in physical invasion or occupancy of private property, and regulations imposed on private property that substantially affect its value or use. In accordance with E.O. 12630, this proposed rule would not have significant takings implications. A takings implication assessment is not required. These designations would affect only Federal agency actions (*i.e.*, those actions authorized, funded, or carried out by Federal agencies). Therefore, the critical habitat

designation does not affect landowner actions that do not require Federal funding or permits.

Regulatory Planning and Review (Executive Order 12866)

This proposed rule has been determined to be significant for purposes of E.O. 12866 review. A report evaluating the economic impacts of the proposed rule has been prepared and is included in the Endangered Species Act Critical Habitat Report, incorporating the principles of E.O. 12866. Based on the economic impacts evaluation in the Endangered Species Act Critical Habitat Report, total incremental costs resulting from the critical habitat are approximately \$240,000 over the next 10 years (\$37,000 annualized), applying a discount rate of 7 percent.

Federalism (Executive Order 13132)

Executive Order 13132 requires agencies to ensure state and local officials have the opportunity for meaningful and timely input when developing regulatory policies that have federalism implications. Policies that have federalism implications are those with substantial, direct effect on the states, on the relationship between the Federal government and the states, or on the distribution of power and responsibilities among the various levels of government. If the effects of the rule on local governments are sufficiently substantial, the agency must prepare a Federal assessment. Pursuant to the Executive Order on Federalism, E.O. 13132, we determined that this proposed rule does not have significant federalism effects and that a federalism assessment is not required. However, in keeping with Department of Commerce policies and consistent with ESA regulations at 50 CFR 424.16(c)(1)(ii), we will request information for this proposed rule from state and territorial resource agencies in Florida, Alabama, Mississippi, Louisiana, and Texas. The proposed designation may have some benefit to state and local resource agencies in that the proposed rule clearly defines the essential feature and the areas in which that feature is found. Clear definitions and information about the critical habitat

may help local governments plan for activities that may require ESA section 7 consultation.

Energy Supply, Distribution, and Use (Executive Order 13211)

Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking an action expected to lead to the promulgation of a final rule or regulation that is a significant regulatory action under E.O. 12866 and is likely to have a significant adverse effect on the supply, distribution, or use of energy. This rule, if finalized, will not have a significant adverse effect on the supply, distribution, or use of energy. Therefore, we have not prepared a Statement of Energy Effects.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)/ Initial Regulatory Flexibility Analysis (IRFA)

We prepared an initial regulatory flexibility analysis (IRFA) in accordance with section 603 of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601, *et seq.*). The IRFA analyzes the impacts to small entities that may be affected by the proposed designations and is included as Appendix B of the Endangered Species Act Critical Habitat Report and is available upon request (see **ADDRESSES** section). We welcome public comment on this IRFA, which is summarized below, as required by section 603 of the RFA.

The IRFA uses the best available information to identify the potential impacts to small entities of designating critical habitat. However, a number of uncertainties complicate quantification of these impacts. These include 1) the fact that the manner in which potential impacts of critical habitat designations will be allocated between large and small entities is generally uncertain; and 2) as discussed in the main body of the economic report, there is uncertainty regarding the potential effects of critical habitat designation, and some categories of potential impacts that cannot be quantified must be described qualitatively.

The IRFA anticipates that the proposed critical habitat will result in negligible impacts to small entities. In-water construction is likely the only activity category for which a portion of incremental costs of the proposed rule would be borne by small entities, and the scope of in-water construction projects potentially undertaken by small entities is limited due to the 100 meter depth of the proposed critical habitat's shoreward boundary. Incremental costs of the proposed rule to activities other than in-water construction would likely be borne entirely by Federal agencies, which, by definition, are not small entities.

As documented in the Endangered Species Act Critical Habitat Report, incremental impacts of the proposed rule are expected to be limited to the administrative costs of addressing Rice's whale critical habitat in future section 7 consultations, as any project modifications to activities that may affect the proposed critical habitat are expected to be required absent designation. The forecast of section 7 consultations that would consider effects specific to Rice's whale critical habitat over the next 10 years includes consultation on approximately one in-water construction project over the 10 years. Based on assumed administrative costs of consultation to third parties, this would result in an average annualized cost of \$250 to the third party involved in the project. This average annualized cost represents the maximum potential impact of the proposed rule to small entities, as determined by the IRFA. This is reasonable given 1) as noted above, the nearshore boundary of the proposed critical habitat is the 100-meter isobath and well offshore of coastal areas where most in-water construction activity that involves small entities occurs and 2) the section 7 consultation history for 2010 through 2021 includes only one U.S. Army Corps of Engineers-permitted in-water construction project within the proposed critical habitat area. Based on this analysis, the IRFA concludes that the proposed designation of critical habitat for the Rice's whale would result in negligible impacts to small entities.

The proposed rule will not duplicate or conflict with any other laws or regulations. However, other aspects of the ESA may overlap with the proposed critical habitat designation. For instance, listing of the Rice's whale under the ESA requires Federal agencies to consult with NMFS to ensure against jeopardy to the species. Overlap of the presence of other ESA-listed species, including ESA-listed whales and sea turtles, and critical habitat designated for the Northwest Atlantic Ocean Distinct Population Segment of the loggerhead sea turtle with the areas proposed for critical habitat designation protects the essential feature of the proposed critical habitat to the extent that projects or activities that may adversely affect the proposed critical habitat also pose a threat to the listed species or to loggerhead sea turtle critical habitat.

The RFA requires consideration of significant alternatives that would minimize impacts to small entities. We considered three alternatives when developing the proposed critical habitat rule: (1) a no action alternative that would not designate critical habitat (status quo), (2) our proposed critical habitat designation (the preferred alternative), and (3) a critical habitat designation with different geographic boundaries.

Under the no action alternative (status quo), we considered not designating critical habitat for the Rice's whale. Under this alternative, conservation and recovery of the listed species would depend exclusively upon the protection provided under the "jeopardy" provisions of section 7 of the ESA. This alternative would impose no additional economic, national security, or other relevant impacts. However, after compiling and reviewing the biological information for the Rice's whale, we have determined that the physical and biological feature forming the basis for our critical habitat designation is essential to the Rice's whale's conservation, and conservation of the species will not succeed without this feature being available. Thus, the lack of protection of the critical habitat feature from adverse modification could result in continued declines in abundance of Rice's whale, and loss of associated economic and

other biodiversity values the whale provides. Thus, the no action alternative is not necessarily a “no cost” alternative for small entities. Moreover, this option would not be legally viable under section 4 of the ESA, which specifically requires that we designate critical habitat to the maximum extent prudent and determinable based on consideration of the best available scientific information.

Under the preferred alternative, we would designate the area ranging from the 100 m isobath to the 400 m isobath in GOMx waters from the Texas-Mexico border east to the boundary between the South Atlantic Fishery Management Council and the Gulf of Mexico Fishery Management Council (50 CFR 600.105(c)) off of Florida. This area contains the physical and biological feature essential to the conservation of Rice’s whales. The preferred alternative was selected because it implements the critical habitat provisions of the ESA by including the feature we believe is essential to the conservation of the species based on the best available scientific information on the Rice’s whale and offers greater conservation benefits relative to either of the other alternatives.

Under the third alternative that would have delineated different geographic boundaries, we would propose to designate a smaller area within the GOMx as critical habitat. Under section 4(b)(2) of the ESA, NMFS has the discretion to exclude a particular area from designation as critical habitat even though it meets the definition of “critical habitat” if the benefits of exclusion (*i.e.*, the impacts that would be avoided if an area were excluded from the designation) outweigh the benefits of designation (*i.e.*, the conservation benefits to the Rice’s whale if an area were designated), as long as exclusion of the area will not result in extinction of the species. However, following our consideration of probable national security, economic, and other relevant impacts of designating all the specific areas, we rejected this alternative. We determined that the benefits of excluding any particular areas ranging from the 100 m isobath to the 400 m isobath in GOMx waters from the Texas-Mexico border east to the boundary between the

South Atlantic Fishery Management Council and the Gulf of Mexico Fishery Management Council (50 CFR 600.105(c)) off of Florida did not outweigh the conservation benefits of designating those areas. Thus, this alternative was rejected in favor of the preferred alternative.

Coastal Zone Management Act

We have determined that this action will have no reasonably foreseeable effects on coastal uses or resources under the CZMA in Florida, Alabama, Mississippi, Louisiana, and Texas. Upon publication of this proposed rule, these determinations will be submitted to responsible State agencies for review under section 307 of the Coastal Zone Management Act.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This proposed rule does not contain any new or revised collection of information requirements. This rule, if adopted, would not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. Therefore, the Paperwork Reduction Act does not apply.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

This proposed rule will not produce a Federal mandate. The designation of critical habitat does not impose a legally-binding duty on non-Federal government entities or private parties. The only regulatory effect is that Federal agencies must ensure that their actions are not likely to destroy or adversely modify critical habitat under section 7 of the ESA. Non-Federal entities that receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, but the Federal agency has the legally binding duty to avoid destruction or adverse modification of critical habitat. We do not anticipate that this rule, if finalized, will significantly or uniquely affect small governments. Therefore, a Small Government Action Plan is not required.

Consultation and Coordination With Indian Tribal Governments (Executive Order 13175)

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government.

This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Tribal Nations and with respect to tribal lands, tribal trust resources, and the exercise of tribal rights.

Pursuant to these authorities, lands have been retained by Tribal Nations or have been set aside for tribal use. These lands are managed by Tribal Nations in accordance with tribal goals and objectives within the framework of applicable treaties and laws. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting tribal interests.

In developing this proposed rule, we reviewed maps and did not identify any areas under consideration for critical habitat that overlap with tribal lands. Based on this, we preliminarily found the proposed critical habitat does not have tribal implications.

References Cited

A complete list of all references cited in this rulemaking can be found on our website at <https://www.fisheries.noaa.gov/species/rices-whale#conservation-management> and is available upon request from NMFS (see **ADDRESSES**).

List of Subjects

50 CFR Part 224

Endangered and threatened species, Exports, Imports, Transportation.

50 CFR Part 226

Endangered and threatened species.

Dated: July 13, 2023.

Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs,

National Marine Fisheries Service.

For the reasons set out in the preamble, NMFS proposes to amend 50 CFR parts 224 and 226 as follows:

PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES

1. The authority citation for part 224 continues to read as follows:

Authority: 16 U.S.C. 1531-1543 and 16 U.S.C. 1361 *et seq.*

2. In § 224.101 amend paragraph (h) by revising the entry for “Whale, Rice’s” to read as follows:

§ 224.101 Enumeration of endangered marine and anadromous species.

* * * * *

(h) * * *

Species ¹			Citation(s) for listing determination(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			
Marine Mammals					

Whale, Rice’s	<i>Balaenoptera ricei</i>	Entire species	84 FR 15446, April 15, 2019	226.230	NA

¹ Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).

PART 226—DESIGNATED CRITICAL HABITAT

3. The authority citation for part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

4. Add § 226.230 to read as follows:

§ 226.230 Critical habitat for the Rice's whale (*Balaenoptera ricei*).

Critical habitat is designated for the Rice's whale as described in this section. The maps, clarified by the textual descriptions in this section, are the definitive source for determining the critical habitat boundaries.

(a) *Critical habitat boundaries.* Critical habitat for the Rice's whale includes all marine waters from a nearshore boundary corresponding to the 100-meter isobath to an offshore boundary corresponding to the 400- meter isobath in the Gulf of Mexico and between the U.S. Exclusive Economic Zone boundary off of Texas east to the boundary between the South Atlantic Fishery Management Council and the Gulf of Mexico Fishery Management Council (50 CFR 600.105(c)) off of Florida.

(b) *Essential feature.* The feature essential to the conservation of the Rice's whale is the Gulf of Mexico continental shelf and slope associated waters between the 100 and 400-meter isobaths that support individual growth, reproduction, and development, social behavior, and overall population growth. The following attributes of this feature support Rice's whales' ability to forage, develop, communicate, reproduce, rear calves, and migrate throughout the Gulf of Mexico continental shelf and slope waters and influence the value of the feature to the conservation of the species:

(1) Sufficient density, quality, abundance, and accessibility of small demersal and vertically migrating prey species, including scombriformes, stomiiformes, myctophiformes, and myopsida;

(2) Marine water with elevated productivity, bottom temperatures of 10-19 degrees Celsius, and levels of pollutants that do not preclude or inhibit any demographic function; and

(3) Sufficiently quiet conditions for normal use and occupancy, including intraspecific communication, navigation, and detection of prey, predators, and other threats.

(c) *Map*. Critical habitat map – an overview map of the proposed critical habitat follows. Key points are identified and depth information provided.

Figure 1 to paragraph (c)

