perform, display, disclose, or distribute data in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so.

(b) *Allocation of rights.*(1) The SBIR/STTR data rights are to be interpreted consistent with SBA's SBIR and STTR policy directive. However, if there is an inconsistency between this clause and the SBIR and STTR policy directive, this clause governs.

(2) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights both during and after the protection period in—

* * * * *

(iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract, *i.e.,* OMIT data; and

(iv) All other data delivered under this contract unless provided otherwise for SBIR/STTR data in accordance with paragraph (d) of this clause or for limited rights data or restricted computer software in accordance with paragraph (f) of this clause.

* * * * *

(d) *Rights to and marking of SBIR/STTR data.* (1) The Contractor is authorized to affix the following ''SBIR/STTR Data Rights Notice'' to SBIR/STTR data delivered under this contract and the Government will treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with the notice:

SBIR/STTR Data Rights Notice (DATE)

These SBIR/STTR data are furnished with SBIR/STTR data rights under Contract number __, date of award __ (and subcontract number __, if appropriate). For a period of 20 years, starting from the date of award, the Government will have SBIR/STTR technical data rights or SBIR/STTR computer software rights in these data as defined in paragraph (a) of the clause 52.227–20 Rights in Data—Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs, included in the above identified contract, and they shall not be disclosed outside the Government (including disclosure for procurement purposes) during such period without permission of the Contractor (unless specifically permitted elsewhere in the contract pursuant to post-award negotiations), except that, subject to the foregoing use and disclosure prohibitions, these data may be disclosed for use by support Contractors. After the SBIR/STTR protection period ends, the Government has Government purpose rights in this data as defined in paragraph (a) of 52.227–20. This notice shall be affixed to any reproductions of these data, in whole or in part.

(End of Notice)

(2) If the Contractor and the contracting officer negotiate a different SBIR/STTR protection period after award of the contract, the Contractor shall revise the SBIR/STTR Data Rights Notice to reflect the negotiated protection period.

(3) The Government's sole obligation with respect to any SBIR/STTR data shall be as set forth in this paragraph (d).

* * * * *

(g) *Subcontracts.* * * *

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52.227–21 [Amended]

■ 17. Amend section 52.227–21 by removing from the introductory text ''27.409'' and adding ''27.410'' in its place.

52.227–22 [Amended]

■ 18. Amend section 52.227–22 by removing from the introductory text ''27.409'' and adding ''27.410'' in its place.

52.227–23 [Amended]

■ 19. Amend section 52.227–23 by removing from the introductory text ''27.409'' and adding ''27.410'' in its place.

[FR Doc. 2023–06420 Filed 4–6–23; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 224

[Docket No. 230403–0090; RTID 0648–XR118]

Endangered and Threatened Wildlife and Plants; Listing the Atlantic Humpback Dolphin as an Endangered Species Under the Endangered Species Act

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

ACTION: Proposed rule; request for comments.

SUMMARY: We, NMFS, have completed a comprehensive status review under the Endangered Species Act (ESA) for the Atlantic humpback dolphin (*Sousa teuszii*) in response to a petition from the Animal Welfare Institute, the Center for Biological Diversity, and VIVA Vaquita to list the species. Based on the best scientific and commercial information available, including the draft status review report, and taking into account efforts being made to protect the species, we have determined that the Atlantic humpback dolphin has a high risk of extinction throughout its range and warrants listing as an endangered species. This species occurs only in coastal Atlantic waters of western Africa. We are authorized to designate critical habitat within U.S. jurisdiction only, and we are not aware of any areas within U.S jurisdiction that may meet the definition of critical habitat under the ESA. Therefore, we are not proposing to designate critical habitat. We are soliciting public comments on our draft status review report and proposal to list this species.

DATES: Comments on this proposed rule must be received by June 6, 2023. Public hearing requests must be made by May 22, 2023.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2021–0110, by the following method:

• *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter NOAA–NMFS–2021–0110 in the Search box. Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address, *etc.*), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous).

The petition, status review report, **Federal Register** notices, and the list of references can be accessed electronically online at: *https://www.fisheries.noaa.gov/species/atlantic-humpback-dolphin#conservation-management.*

The peer review report is available online at: *https://www.noaa.gov/information-technology/endangered-species-act-status-review-report-atlantic-humpback-dolphin-sousa-teuszii-id447.*

FOR FURTHER INFORMATION CONTACT: Heather Austin, NMFS Office of Protected Resources, 301–427–8422.

SUPPLEMENTARY INFORMATION:

Background

On September 8, 2021, we received a petition from the Animal Welfare Institute, the Center for Biological Diversity, and VIVA Vaquita to list the Atlantic humpback dolphin (*Sousa teuszii*) as a threatened or endangered species under the ESA. The petition asserted that the Atlantic humpback dolphin is threatened by four of the ESA section 4(a)(1) factors: (1) the present destruction or modification of its habitat; (2) overutilization for commercial purposes; (3) inadequacy of existing regulatory mechanisms; and (4) manmade factors affecting its continued existence.

On December 2, 2021, we published a 90-day finding for the Atlantic humpback dolphin with our determination that the petition presented substantial scientific or commercial information indicating that the petitioned action may be warranted (86 FR 68452). We also announced the initiation of a status review of the species, as required by section 4(b)(3)(A) of the ESA, and requested information to inform the agency's decision on whether this species warrants listing as endangered or threatened under the ESA. We received information from the public in response to the 90-day finding and incorporated the information into both the draft status review report (Austin 2023) and this proposed rule.

Listing Determinations Under the ESA

We are responsible for determining whether species are threatened or endangered under the ESA (16 U.S.C. 1531 *et seq.*). To make this determination, we first consider whether a group of organisms constitutes a ''species,'' which is defined in section 3 of the ESA to include ''any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature'' (16 U.S.C. 1532(16)). On February 7, 1996, NMFS and the U.S. Fish and Wildlife Service (USFWS; together, the Services) adopted a policy describing what constitutes a distinct population segment (DPS) of a taxonomic species (''DPS Policy,'' 61 FR 4722). The joint DPS Policy identifies two elements that must be considered when identifying a DPS: (1) The discreteness of the population segment in relation to the remainder of the taxon to which it belongs; and (2) the significance of the population segment to the remainder of the taxon to which it belongs.

Section 3 of the ESA defines an endangered species as any species which is in danger of extinction throughout all or a significant portion of its range and a threatened species as one which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(6), 16 U.S.C. 1532(20)). Thus, we interpret an ''endangered species'' to be one that is presently in danger of extinction. A ''threatened species,'' on the other hand, is not presently in danger of extinction, but is likely to become so in the foreseeable future (that is, at a later time). In other words, the primary statutory difference between a threatened and endangered species is the timing of when a species may be in danger of extinction, either presently (endangered) or not presently but within the foreseeable future (threatened).

Under section 4(a)(1) of the ESA, we must determine whether any species is endangered or threatened as a result of any one or a combination of any of the following factors: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence (16 U.S.C. 1533(a)(1)). We are also required to make listing determinations based solely on the best scientific and commercial data available, after conducting a review of the species' status and after taking into account efforts, if any, being made by any state or foreign nation (or subdivision thereof) to protect the species (16 U.S.C. 1533(b)(1)(A)).

Status Review

To determine whether the Atlantic humpback dolphin warrants listing under the ESA, we completed a draft status review report, which summarizes information on the species' taxonomy, distribution, abundance, life history, ecology, and biology; identifies threats or stressors affecting the status of the species; and assesses the species' current and future extinction risk. We appointed a biologist in the Office of Protected Resources Endangered Species Conservation Division to compile and complete a scientific review of the best available information on the Atlantic humpback dolphin, including information received in response to our request for information (86 FR 68452, December 2, 2021). Next, we conducted an Extinction Risk Analysis (ERA) to assess the threats affecting the Atlantic humpback dolphin, as well as demographic risk factors (abundance, productivity, spatial distribution, and diversity), using the information in the scientific review. The draft status review report presents our professional judgment of the extinction risk facing the Atlantic humpback dolphin but makes no recommendation as to the listing status of the species. The draft status review report (Austin 2023) is available electronically (see **ADDRESSES**). Information from the draft status review report is summarized below in the Biological Review section, and the results of the ERA from the draft status review report are discussed below.

The draft status review report was subject to independent peer review pursuant to the Office of Management and Budget Final Information Quality Bulletin for Peer Review (M–05–03; December 16, 2004). The draft status review report was peer reviewed by four independent scientists selected from the academic and scientific community with expertise in cetacean biology, conservation, and management, and specific knowledge of Atlantic humpback dolphins. The peer reviewers were asked to evaluate the adequacy, appropriateness, and application of data used in the draft status review report, as well as the findings made in the ''Extinction Risk Analysis'' section of the report. All peer reviewer comments were addressed prior to finalizing the draft status review report.

We subsequently reviewed the status review report, its cited references, and peer review comments, and conclude the status review report, upon which this proposed rule is based, provides the best available scientific and commercial information on the Atlantic humpback dolphin. Much of the information discussed below on the species' biology, distribution, abundance, threats, and extinction risk is attributable to the status review report. We have applied the statutory provisions of the ESA, including evaluation of the factors set forth in section 4(a)(1)(A)–(E), our regulations regarding listing determinations,[1] and relevant policies

[1] On July 5, 2022, the U.S. District Court for the Northern District of California issued an order

identified herein in making the listing determination. In the sections below, we provide information from the report regarding threats to and the status of the Atlantic humpback dolphin.

Biological Review

Taxonomy and Species Description

The Atlantic humpback dolphin, *S. teuszii,* belongs to the family Delphinidae in the order Artiodactyla, and is one of four currently recognized species of humpback dolphins in the genus *Sousa: S. plumbea* (Indian Ocean humpback dolphin), *S. chinensis* (Indo-Pacific humpback dolphin), and *S. sahulensis* (Australian humpback dolphin) (Jefferson and Van Waerebeek 2004; Mendez *et al.* 2013; Jefferson and Rosenbaum 2014). Available data indicate that there is genetic and morphological differentiation between *S. teuszii* and other species of humpback dolphins (Mendez *et al.* 2013). Additionally, a comprehensive study of *Sousa* cranial morphometrics conducted by Jefferson and Van Waerebeek (2004), found that *S. teuszii* have significantly shorter rostra, wider skulls, and lower tooth counts when compared with 222 Southeast African, Arabian/Persian Gulf, and Indian *Sousa* specimens (Jefferson and Van Waerebeek 2004; Jefferson and Rosenbaum 2014; Austin 2023).

The Atlantic humpback dolphin does not share mitochondrial DNA (mtDNA) haplotypes with other species in the genus *Sousa.* A phylogenetic assessment of combined nuclear and mtDNA datasets indicates that *S. teuszii* is most closely related to the Indian Ocean humpback dolphin (*S. plumbea*) from Southeast Africa (Mendez *et al.* 2013). The most plausible mechanism for their isolation is the Benguela upwelling system, an area dominated by cold upwelling that is located within the ~2,000 kilometer (km) distribution gap between *S. teuszii* and *S. plumbea* (Jefferson and Van Waerebeek 2004; Mendez *et al.* 2013; Collins 2015). The complete mitochondrial genome of *S. teuszii* was recently mapped by McGowen *et al.* (2020), and was found to be 98.1 percent similar to its closest relative with a sequenced mitogenome, the Indo-Pacific humpback dolphin (*S. chinensis*).

The Atlantic humpback dolphin holotype (a skull) was discovered in 1892 in ''Bucht des Kameruner Kriegsshiffhafens,'' (''Bay of Warships'' or ''Man O'War Bay''), in Cameroon by the German agronomist Eduard Tëusz (Collins *et al.* 2017). The holotype was sent to Germany, where it was examined and first described by the German zoologist Dr. Willy Kükenthal, who based his description primarily on differences in the skull compared to other humpback dolphins known at the time (Kükenthal 1891; Collins 2015). The species was originally placed in the genus *Sotalia;* the genus named *Sousa* came into general use in the 1960s (Kükenthal 1891; Van Waerebeek *et al.* 2004; Collins 2015).

In terms of distinctive physical characteristics, the Atlantic humpback dolphin is characterized by a prominent dorsal hump, ranging from about 26–32 percent of body length, giving the species its common name (Jefferson and Rosenbaum 2014; Austin 2023). A small dorsal fin with a rounded tip is situated at the top of the hump (Jefferson and Rosenbaum 2014; Austin 2023). The species has a well-defined long and slender beak; the lower jaw is paler gray in coloration than the upper jaw (Austin 2023). Individuals are generally uniform dark gray in color with a lighter ventral surface and broad flippers, with a straight trailing edge and rounded tips (Jefferson and Rosenbaum 2014; Austin 2023). Some larger adults are known to have a white margin to the dorsal hump and fin, apparently caused by scarring, and there may be some white or dark oval flecking on the tail stock (Austin 2023). Atlantic humpback dolphins reach maximum body lengths of approximately 2.8 meters (m) (Austin 2023). While sexual dimorphism has not been studied in detail (largely due to small sample sizes of specimens), it is suspected that adult males are larger, heavier, and have a more pronounced dorsal hump, than females. The hump and dorsal fin of some larger adults may be bordered by white pigmentation (Jefferson and Van Waerebeek 2004; Jefferson and Rosenbaum 2014).

Range, Distribution, and Habitat Use

The Atlantic humpback dolphin is considered an obligate shallow water dolphin that is endemic to the tropical and subtropical eastern Atlantic nearshore waters (<30 m) of the west coast of Africa, ranging discontinuously for approximately 7,000 km from Dakhla Bay (Rio de Oro) in Western Sahara (23°52′ N, 15°47′ W) to Tômbwa (Namibe Province) in Angola (15°46′ S, 11°46′ E) (International Whaling Commission 2011; Collins 2015; Weir and Collins 2015; International Whaling Commission 2017; International Whaling Commission 2020b; Austin 2023).

This species is the only member of the genus that occurs outside of the Indo-Pacific region (Mendez *et al.* 2013; Jefferson and Rosenbaum 2014; Collins 2015). Although each of the 19 countries between (and including) Western Sahara and Angola are presumed to be part of the species' natural range, the current distribution is uncertain due to incomplete research coverage, including an absence of survey effort in many areas. Currently, there are confirmed records of occurrence (confirmed via sightings, strandings, and bycatch data) in the following 13 countries: Western Sahara, Mauritania, Senegal, The Gambia, Guinea-Bissau, Guinea, Togo, Benin, Nigeria, Cameroon, Gabon, Republic of the Congo, and Angola (Ayissi *et al.* 2014; Weir and Collins 2015; Van Waerebeek *et al.* 2017; CCAHD 2020; Bamy *et al.* 2021, Austin 2023). The six countries with no confirmed records (Sierra Leone, Liberia, Côte d'Ivoire, Ghana, mainland Equatorial Guinea, and the Democratic Republic of the Congo) have received little or no systematic cetacean or coastal research (Collins 2015; Collins *et al.* 2017, Austin 2023). It remains uncertain whether the absence or scarcity of records in many countries is due to lack of observation effort and reporting, scarcity of the species, or a discontinuous distribution (caused by suboptimal habitat and/or local extirpation) (Weir *et al.* 2021, Austin 2023). Additionally, the species is not known to occur around any of the larger offshore islands of the Gulf of Guinea, including Sao Tome and Principe or Bioko (Fernando Póo) and Annabon (Pagalu) (Van Waerebeek *et al.* 2004).

Eleven putative ''management stocks'' (*i.e.,* subpopulations) of *S. teuszii* were identified by Van Waerebeek *et al.* (2004) based on localities or countries where the species has been recorded and evidence of gaps in the species' range (Van Waerebeek *et al.* 2004; Austin 2023). These management stocks are meant to serve practical management purposes amongst range countries until intraspecific genetic variation data become available (Van Waerebeek *et al.* 2017). However, Van Waerebeek *et al.* (2017) proposed that the currently recognized management stocks of Canal do Gêba-Bijagós Archipelago (Guinea-Bissau) and South Guinea be combined into a single

vacating the ESA section 4 implementing regulations that were revised or added to 50 CFR part 424 in 2019 (''2019 regulations,'' see 84 FR 45020, August 27, 2019) without making a finding on the merits. 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. As a result, the 2019 regulations are once again in effect, and we are applying the 2019 regulations here. For purposes of this determination, we considered whether the analysis or its conclusions would be any different under the pre-2019 regulations. We have determined that our analysis and conclusions presented here would not be any different.

''Guineas'' stock due to multiple records reported from the Tristao Islands and the Río Nuñez Estuary (Weir 2015) in northern Guinea.

Throughout its range, the Atlantic humpback dolphin predominantly occurs shoreward of the 20 m depth isobaths, and often in the shallowest (≤5 m depth) part of that range, in nearshore waters (average sea surface temperatures ranging from 15.8° to 31.8° Celsius), and in a diverse array of dynamic habitats strongly influenced by tidal patterns (*e.g.,* sandbanks, deltas, estuaries, and mangrove systems) (Collins 2015; Weir and Collins 2015; Taylor *et al.* 2020). In this context, ''nearshore'' is defined as areas in which the sea floor is affected by wave motion, resulting in dynamic, tide-influenced, habitats (Weir 2015; Weir and Collins 2015). Documented habitats include: large estuarine systems (including mangrove channels, upstream waters with tidal influence, and the estuary-influenced waters further offshore); exposed marine coasts (often within, or just beyond, the surf zone); coastal archipelagos; tidal mud-flats, sandbanks and seagrass expanses; and large, sheltered enclosed shallow bays (Van Waerebeek *et al.* 2004; Collins 2015; Weir and Collins 2015; Austin 2023).

Even though recorded sightings are typically coastal, the species may also occur up to at least 13 km from shore when suitable shallow habitat is present (Van Waerebeek *et al.* 2004; Weir and Collins 2015). It has been recorded some distance upriver but there is no evidence that it travels beyond the influence of marine waters, and is not known to enter the coastal lagoons that are a prevalent feature of equatorial Atlantic African coasts (Maigret 1980a; Van Waerebeek *et al.* 2004; Weir and Collins 2015).

Areas of known occurrence of *S. teuszii* may reflect availability of suitable shallow habitat for the species. The Dakhla Bay, Banc d'Arguin, and Saloum-Niumi stocks are separated from each other by distances exceeding 350 km, and few observations have been recorded between them despite fieldwork over several decades (Collins 2015). This suggests that these stocks may currently be reproductively isolated from each other and from more southern stocks, and that the distribution of *S. teuszii* may be naturally discontinuous in some areas, with highest densities in optimal habitats and reduced occurrence on intervening coasts (Van Waerebeek *et al.* 2004; Collins 2015; Van Waerebeek *et al.* 2017). However, Collins (2015) notes that gaps in the species' range may be a relatively recent phenomenon, due to increased human pressures in once pristine regions (Van Waerebeek and Perrin 2007; Weir *et al.* 2011). Available data demonstrate that even where dedicated cetacean surveys are conducted, sightings in most areas of known occurrence can be low, and a general absence of records from gap areas may indicate occurrence in extremely low densities rather than absence. For instance, in southern Gabon, where *S. teuszii* occurs in the surf zone on open coastlines, boat-based survey work demonstrates that sightings rates can be very low, even with dedicated effort (Collins 2015; Austin 2023).

Atlantic humpback dolphin migrations and movements are poorly understood largely because the necessary work (*e.g.,* comparison of identification catalogues, genetic sampling and tagging) has not been conducted (Collins *et al.* 2017). Because Atlantic humpback dolphins feed primarily on coastal, estuarine, and reef-associated fishes, localized movements have been linked to feeding opportunities facilitated by tides (Busnel 1973; Collins 2015; Collins *et al.* 2017). Movements on larger scales have never been documented, but have been inferred using local accounts and sightings from fishers, suggesting movement north of the Banc d'Arguin (Maigret 1980a) and sightings between Nouamghar and Nouakchott (Mauritania) may indicate occasional movements south (Robineau and Vely 1998). More recent observations of *S. teuszii* groups passing between Barra and Buniada Points, indicate routine movement between Senegal and Gambia (Collins 2015). Additionally, swim speeds of 1–7 km/hour (hr) (mean of 4 km/hr) were recorded during travel along a linear coastline in Angola, indicating that Atlantic humpback dolphins might be capable of undertaking considerable spatial movements with the potential for relatively large home ranges (Weir 2009). Records suggest transboundary movements between some range countries, such as between Saloum-Niumi (Senegal-The Gambia) and Bijagos (Guinea-Bissau) (Van Waerebeek *et al.* 2004; Collins 2015; Weir 2016; Collins *et al.* 2017). Sightings in the Rio Nuñez region suggest this connectivity extends into Guinea (Weir and Collins 2015). Additionally, beach-based observations indicate routine movements of *S. teuszii* across the Gabon/Republic of the Congo border within the Mayumba-Conkouati transboundary protected area; however, it remains unclear if these individuals range farther afield (Collins 2015).

Diet and Feeding

Information on the Atlantic humpback dolphin's diet and feeding ecology is limited, as few stomach samples have been examined and direct observations of feeding are rare (Van Waerebeek *et al.* 2004; Collins 2015). Additionally, there have not been any targeted studies of its diet or interactions with prey species. However, based on stomach contents of bycaught *S. teuszii* specimens and direct observations of feeding, it is thought that *S. teuszii* diet consists predominantly of coastal, estuarine, and reef-associated fish (Cadenat and Paraiso 1957; Cadenat 1959; Van Waerebeek *et al.* 2004; Weir 2009; Austin 2023).

There are few accounts of observed Atlantic humpback dolphin predation. In Mauritania, a single Atlantic humpback dolphin was observed twice among bottlenose dolphin pods (*Tursiops truncatus*) fishing for mullet (*Mugil cephalus* and *Liza aurata*) (Busnel 1973; Collins *et al.* 2017). Additionally, *S. teuszii* have been observed chasing mullet in channels between the Tidra and Nair islets (Banc d'Arguin) (Duguy 1976) and feeding on the South African mullet (*Liza richardsonii*) and Atlantic bonito (*Sarda sarda*) off the coast of the Flamingos area of Angola (Weir 2009).

Foraging has been linked to rising (flood) tides (Van Waerebeek *et al.* 2004; Weir 2009). In the Saloum Delta, tides were thought to provide access to inner reaches of mangrove channels and mangrove edges (Maigret 1980a; Collins 2015). Daily movements of individual Atlantic humpback dolphins into channels inshore were coupled with flood tides in Banc d'Arguin (Maigret 1980a), and (Duguy 1976) reported *S. teuszii* at the Banc d'Arguin chasing mullet in the channels between the Tidra and Nair islets. In other areas, feeding activity also coincides with observations of larger group sizes (*e.g.,* 20–40 individuals) (Maigret 1980a; Collins *et al.* 2004; Van Waerebeek *et al.* 2004).

Atlantic humpback dolphins observed off the coast of the Flamingos area of Angola have been observed spending approximately half of the daylight hours engaged in travel and foraging activities and were observed foraging preferentially around rocks and reefs, as well as at the mouths of rivers, including the typically dry Flamingo River (Weir 2009). Off the coast of Guinea, limited observations suggest that *S. teuszii* individuals observed in

the shallow waters west of the Île de Taïdi spent relatively more time foraging than those individuals in deeper waters of the outer Río Nuñez estuary (Weir 2015).

Reproduction and Growth

Data and information regarding life history and reproductive parameters are almost nonexistent for this species. An estimated generation length of 18.4 years is given for the Atlantic humpback dolphin by Taylor *et al.* (2007), although Moore (2015) provided a figure closer to 25 years for the Indo-Pacific humpback dolphin (*S. chinensis*) and Indian Ocean humpback dolphin (*S. plumbea*) (Collins 2015; Collins *et al.* 2017). Available data for other species in the genus can be used to infer that *S. teuszii* likely has a low reproductive rate and low intrinsic potential for population increase (Taylor *et al.* 2007; Jefferson and Rosenbaum 2014; Moore 2015).

In the Saloum Delta (Senegal), births are thought to occur in March and April, based upon observations of juveniles (Maigret 1980b; Van Waerebeek *et al.* 2004; Collins 2015). This pattern was also suggested for Guinea Bissau (Collins 2015). No neonates have been examined, but lengths at birth may be similar to the 100 cm cited for *S. plumbea* from South Africa (Van Waerebeek *et al.* 2004). The species is suspected to be sexually dimorphic (males larger at maturity and with a more prominent dorsal hump (Austin 2023)), but the sample size of carcasses used to formally assess this trait (~20 individuals) is too small to assess this statistically (Jefferson and Rosenbaum 2014). The data required to estimate other *S. teuszii* vital rates remain unavailable.

Social Behavior

Atlantic humpback dolphins have a surfacing behavior that usually comprises calm rolls, during which the beak is often lifted above the water and the body is arched, accentuating its characteristic hump. Overall, the species is naturally unobtrusive, preferring to maintain a distance from boats and engines; however, individuals have been observed occasionally leaping, breaching, spyhopping and tail-slapping (Weir 2015; Austin 2023). Traveling and foraging are the dominant behaviors reported during targeted focal follows of Atlantic humpback dolphins (Weir 2009; Weir 2015; Weir 2016).

Atlantic humpback dolphins typically travel in small groups; 65 percent of reviewed sightings comprised 10 or fewer animals, although larger groups of up to 45 individuals have been reported (Weir and Collins 2015). Mixed-species associations between Atlantic humpback dolphins and bottlenose dolphins (*Tursiops truncatus*) have been observed in Western Sahara, Mauritania, Senegal, Guinea-Bissau, Gabon, the Republic of the Congo, and Angola (Weir 2009; Weir 2011; Leeney *et al.* 2016).

Population Structure and Genetics

No analyses of Atlantic humpback dolphin population structure have been conducted. Thus, the only information currently available comes from known distribution records and evidence of range gaps, which was the approach initially used by Van Waerebeek *et al.* (2004) to identify Atlantic humpback dolphin management stocks (see *Range, Distribution, and Habitat Use* and Austin 2023). Additionally, while the complete mitochondrial genome of *S. teuszii* has been mapped by McGowen *et al.* (2020), genetic data have been collected for only a few individuals (Mendez *et al.* 2013; Austin 2023). As a result, estimates of genetic diversity across and within populations are currently not available for this species.

Population Abundance and Trends

Atlantic humpback dolphin abundance data are limited and robust abundance estimates are lacking for most putative stocks. However, the available information for the eleven recognized management stocks suggests stocks range from the tens to low hundreds of individuals (Collins 2015; Collins *et al.* 2017; Austin 2023).

Atlantic humpback dolphin populations at the northern (Dakhla Bay, Western Sahara) and southern (Namibe, Angola) extremes of the range appear to be very small (Weir 2009; Collins 2015; Austin 2023). Observations by Beaubrun (1990) described this stock as ''miniscule'', and additional sightings in the same area between January 20 and February 14, 1996, by Notarbartolo di Sciara *et al.* (1998) reported only 4 sightings with a mean group size of 6.9 individuals. Furthermore, Van Waerebeek *et al.* (2004) noted that the Dakhla Bay stock is likely limited to a few tens of individuals.

The Banc d'Arguin and Saloum-Niumu stocks have been estimated repeatedly at ~100 animals since the mid-1970s (Maigret 1980a; Van Waerebeek *et al.* 2003; Van Waerebeek *et al.* 2004). Incidental sightings from the southern Banc d'Arguin suggest that the species is sighted relatively frequently (Collins 2015). However, this stock has never been considered large by those who have completed assessments (Maigret 1980a, b; Robineau and Vely 1998). For the Saloum-Niumi stock, encounter rates and group sizes recorded during surveys since 1997 indicate a small population ''unlikely [to] exceed low hundreds, and may be less'' (Van Waerebeek *et al.* 2000; Van Waerebeek *et al.* 2004; Austin 2023). However, between October and November 2015, a systematic survey conducted by Weir (2016) in the Saloum Delta of Senegal produced a minimum population size estimate of 103 animals, which is the highest population estimation recorded for *S. teuszii* within the species' range (Austin 2023).

Data and sightings records for the Canal do Gêba-Bijagós Archipelago stock within Guinea-Bissau suggest the continued occurrence of a population of *S. teuszii* into at least the late 1990s (Spaans 1990; Jefferson *et al.* 1997; Van Waerebeek *et al.* 2000; Van Waerebeek *et al.* 2004). A more recent review of sightings records indicates that *S. teuszii* is still relatively widely distributed in the Canal do Gêba-Bijagós Archipelago stock within Guinea-Bissau (Leeney *et al.* 2016), but sightings appear to be declining in regularity (Collins 2015). Within the Guinea stock, six *S. teuszii* sightings were recorded by Weir (2015) during 817.6 kms of boat-based survey effort in the Río Nuñez Estuary. Photo-identification resulting from this survey resulted in a minimum population estimate of 47 individuals (Weir 2015; Austin 2023).

Recently, observations of *S. teuszii* in Togolese waters were recorded for the first time by Van Waerebeek *et al.* (2017), providing evidence confirming Togo as a newly documented range country. Van Waerebeek *et al.* (2017) described five sightings recorded from shore in Togo between 2008 and 2015. However, small group sizes suggest that the species is not very abundant in Togolese waters (Van Waerebeek *et al.* 2017; Austin 2023).

In Benin, a single small group (n=4) of Atlantic humpback dolphins was sighted and photographed west of Cotonou, Benin, making it the first *S. teuszii* record for the Benin stock (Zwart and Weir 2014; Austin 2023). Additionally, Collins (2015) noted that 27 individuals were also observed in Beninese waters. In Nigeria, two dolphins killed in artisanal gillnets off Brass Island in 2011 and 2012 were the first authenticated records of *S. teuszii* for this range country. Recently, however, five additional *S. teuszii* sightings have been documented between 2017 and 2021 off the coast of western Nigeria near Lagos (Austin 2023).

Surveys of the Cameroon Estuary stock between May and June 2011,

yielded a single *S. teuszii* sighting on May 17, 2011, despite extensive beach and boat-based survey effort (Ayissi *et al.* 2014). Additionally, in May 2011, a recorded encounter rate of 0.386 sightings per 100 km (or 3.86 individuals per 100 km) suggests that abundance there may be very low (Ayissi *et al.* 2014; Austin 2023). Boat-based surveys, conducted in Gabon within the Gabon Estuary stock, between 2003 and 2006 yielded five sightings (Collins *et al.* 2010; Collins 2015). Boat surveys conducted off the coast of Gamba region of Gabon between 2013 and 2015, documented *S. teuszii* in Gabonese waters during the survey's first year in 2013 (Minton *et al.* 2017; Austin 2023). However, sightings rates during shore-based work in 2012 in the Republic of the Congo within the Congo stock were much higher (though not directly comparable), and suggest that the coasts of southern Gabon and a limited area in the adjacent Republic of the Congo may harbor a total population in the low hundreds (Collins 2013; Collins 2015; Austin 2023). While most of the Angolan coast is unsurveyed, intensive survey effort in 2008 along a 35 km stretch of coastline off Angola found a small group of 10 resident individuals in the Flamingos area (Weir 2009; Austin 2023).

It is important to note that, while photo-identification work has yielded minimum estimates of the number of Atlantic humpback dolphins in a number of the study areas discussed above (*i.e.,* Saloum Delta region of Senegal, Río Nuñez Estuary of Guinea, and the Flamingos area of Angola), each of these studies had limited temporal and spatial extents, and (with the possible exception of the Angola study conducted by Weir (2009)) are unlikely to have photographed all *S. teuszii* individuals using those areas. Additionally, while encounter rates are available for a number of other studies noted above, they are not directly comparable due to differing sampling methodologies (*e.g.,* platforms, extent of study area, and seasons).

Overall, the best available scientific and commercial information indicates that the Atlantic humpback dolphin has a small total population size (Austin 2023). Comprehensive reviews conducted by Collins (2015) and Collins *et al.* (2017) conclude that the species probably includes fewer than 3,000 individuals (Collins 2015; Collins *et al.* 2017; Austin 2023). If it is assumed that 50 percent of these are mature individuals, then the number of mature individuals in the total population would be no more than 1,500 (Taylor *et al.* 2007; Collins *et al.* 2017; Brownell *et al.* 2019; Austin 2023).

Apart from the systematic surveys in Angola, Republic of the Congo, Gabon, Cameroon, Senegal, and Guinea, no quantitative assessments of population abundance exist in other range countries, thus precluding any quantitative assessments of trend for this species across its range. However, based on available evidence, and a review of published estimates of abundance in each range country, the best available data and information indicates that most *S. teuszii* stocks are small and that some stocks (*i.e.,* Canal do Gêba-Bijagós Archipelago stock) may be experiencing population declines (Collins 2015; Collins *et al.* 2017; Austin 2023). Limited research effort for each putative *S. teuszii* management stock has either identified significant mortality or yielded strong evidence to infer it (Van Waerebeek *et al.* 2004; Collins 2015; Collins *et al.* 2017). According to Van Waerebeek *et al.* (2003), Van Waerebeek *et al.* (2004), Weir (2009), Collins (2015), Weir (2015), Collins *et al.* (2017), and Van Waerebeek *et al.* (2017), artisanal fishing bycatch and directed takes are the principal causes of these declines, although habitat loss is also likely a contributing factor as well (Collins 2015; Collins *et al.* 2017; Austin 2023).

Extinction Risk Analysis

In evaluating the level of risk faced by a species and determining whether the species is threatened or endangered, we must consider all relevant data and base our conclusions on the best scientific and commercial data available. In evaluating and interpreting the best scientific and commercial data available, we also apply professional judgment in evaluating the level of risk faced by a species in determining whether the species is threatened or endangered. We evaluate both the viability of the species based on its demographic characteristics (abundance, growth rate/productivity, spatial distribution/connectivity, and genetic diversity; see McElhany *et al.* (2000)), and the threats to the species as specified in ESA section 4(a)(1)(A)–(E) (summarized in a separate Threats Assessment section below).

For purposes of assessing the extinction risk for the Atlantic humpback dolphin, we reviewed the best available information on the species and evaluated the overall risk of extinction facing the Atlantic humpback dolphin, now and in the foreseeable future. The term ''foreseeable future'' was discussed qualitatively in the status review report (Austin 2023) and defined as the period of time over which we can reasonably determine that both the specific threats facing the species and the species' response to those threats are likely. We note however, that the term foreseeable future is not limited to a period that a species' status can be quantitatively modeled or predicted within predetermined limits of statistical confidence. The foreseeable future also need not be identified as a specific period of time and may vary depending on the particular threat. *See generally* 50 CFR 424.11(d).

In considering an appropriate foreseeable future for this extinction risk analysis, we took into account the best available information regarding both the life history of the Atlantic humpback dolphin and threats to the species. Due to uncertainty regarding the species' life history parameters, we do not define a quantitative time frame for the foreseeable future in the risk assessment sections below. Thus, foreseeable future is stated qualitatively, in terms of the projected trend of each threat.

Demographic Risk Assessment

In our status review, data and information about demographic risks to the Atlantic humpback dolphin were considered according to four categories—abundance, growth rate/productivity, spatial structure/connectivity, and genetic diversity. Each of these demographic threat categories was then rated according to the following qualitative scale:

Unknown: The current level of information is either unavailable or unknown for this particular factor, such that the contribution of this factor to the species' risk of extinction cannot be determined.

Low risk: It is unlikely that the particular factor directly contributes or will contribute significantly to the species' risk of extinction.

Moderate risk: It is likely that the particular factor directly contributes or will contribute significantly to the species' risk of extinction.

High risk: It is highly likely that the particular factor directly contributes or will contribute significantly to the species' risk of extinction.

(Note: the term ''significantly'' is used here as it is commonly understood—*i.e.,* in a sufficiently great or important way as to be worthy of attention.)

In the sections below, we present information from Austin (2023) to summarize the demographic risks facing the Atlantic humpback dolphin.

Abundance

There are no historical abundance estimates for the Atlantic humpback

dolphin. While historical and robust range-wide abundance estimates are lacking, and there are no robust estimates available for most of the recognized management stocks, the available information suggests stocks range from the tens to low hundreds of individuals (Austin 2023). Most stocks for which data are available are extremely small and several appear to be isolated and at risk of local extirpation (*e.g.,* Dakhla Bay, Banc d'Arguin, and Angola) (Van Waerebeek *et al.* 2003; Van Waerebeek *et al.* 2004; Weir 2009; Weir *et al.* 2011; Collins 2015; Van Waerebeek *et al.* 2017; Austin 2023). Considering the relatively small numbers observed, and taking into account the many areas of the species' range where there has been little or no assessment, available published estimates suggest that the species' total abundance consists of no more than 3,000 individuals (Collins 2015; Collins *et al.* 2017), and indicate that the number of mature individuals is likely less than 1,500 (following Taylor *et al.* 2007). Additionally, declines in abundance have been observed or are suspected, and continued declines are expected due to the ongoing and projected expansion of identified threats throughout the species' range (Austin 2023). Bycatch in fisheries, which is considered the main cause of these declines, has not ceased and may be increasing as new fishing areas are targeted and fishery pressures increase, thus placing additional pressure on already low and declining Atlantic humpback dolphin stocks.

With fewer than 3,000 individuals likely remaining and available information indicating that the species consists of small, fragmented stocks (with some stocks numbering in the tens of individuals), coupled by observed or suspected declines throughout the species' range, single mortality events could impact some of the smaller stocks' continued viability. Furthermore, the species' low abundance and fragmented and narrow distribution greatly increases the impact of anthropogenic perturbations (*e.g.,* coastal development and anthropogenic underwater noise) on the species as a whole, and decreases the species' resilience to environmental change (*e.g.,* climate change) (Davidson *et al.* 2012; Collins 2015; Weir *et al.* 2021; Austin 2023). Overall, the available information indicates that the Atlantic humpback dolphin's low abundance poses a high risk (Austin 2023).

Growth Rate and Productivity

Although information on Atlantic humpback dolphin reproduction is almost completely absent, some data regarding reproductive parameters for other species in the genus, (*e.g., S. chinensis* and *S. plumbea*), are available. For example, *S. chinensis* has an annual estimated birth rate of 0.053 ± 0.025, with an annual recruitment rate of 0.028 ± 0.024, and a calf rate of survival to the age of 1 year of 0.600 ± 0.392, with females experiencing a long inter-birth interval (4.27 ± 1.06 y) (Zeng *et al.* 2021). *S. plumbea* has a reported ovulation rate of 0.2 with a 5-year calving interval (Plon *et al.* 2015). This can be used to infer that *S. teuszii* likely has a low reproductive rate as well. *S. teuszii*'s likely low reproductive rate coupled with a population growth rate (*r*) of 0.00, calculated by Taylor *et al.* (2007), indicates a low intrinsic potential for population increase (Taylor *et al.* 2007; Jefferson and Rosenbaum 2014; Collins 2015; Moore 2015). However, it should be noted that the calculation by Taylor *et al.* (2007) was based on several reproductive parameters that are lacking for this species. Thus, this calculation may not be indicative of the actual population growth rate for this species (due to data deficiencies) (Austin 2023). Nevertheless, taking into consideration the information available for closely related species, a long estimated generation length of about 18 years (Taylor *et al.* 2007), as well as ongoing and projected increases of identified range-wide threats, this species is likely experiencing a low population growth rate.

Because Atlantic humpback dolphins are thought to consist of small, fragmented stocks, any mortality over and above natural rates is likely to lead to appreciable declines in abundance (Pimm *et al.* 1988). Moore (2015) estimated that, given an inferred generation time of 25 years (as estimated for *S. chinensis* and *S. plumbea*), an average annual adult mortality rate of approximately 4 percent across the species' range would lead to a 50 percent decline over 75 years (*i.e.,* three generations) (Collins 2015; Collins *et al.* 2017). The International Union for Conservation of Nature's (IUCN) assessment for this species uses Moore's estimate and further notes that a slightly higher adult mortality rate of 5.3 percent per year (equal to one or two additional deaths per year per 100 mature individuals) would lead to an 80 percent decline over 75 years (*i.e.,* three generations) (Moore 2015; Collins *et al.* 2017). Data for some areas (*e.g.,* The Republic of the Congo) indicate that human-caused mortality (particularly via bycatch) is high, and when those data are considered alongside the scale of other anthropogenic pressures (*e.g.,* coastal development), a population decline of 50 percent over three generations is highly likely (Moore 2015; Collins *et al.* 2017; Austin 2023). While the actual rate of decline is unknown, the available abundance and bycatch data (see *Population Abundance and Trends* and *Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*) suggest the species is declining throughout its range, and there is no information to suggest such a trend would likely reverse. Additionally, given the available information and likely low population growth rate (see *Growth Rate and Productivity*), it is likely that the low population growth rate poses a moderate risk to the species (Austin 2023).

Spatial Structure and Connectivity

The Atlantic humpback dolphin has a restricted range and fragmented distribution, being a shallow water dolphin endemic to (sub)tropical nearshore waters along the Atlantic coast of Africa, ranging discontinuously for approximately 7,000 km from Western Sahara in the north to Angola in the south (Collins 2015; Weir and Collins 2015; Collins *et al.* 2017). Within that range, the species' habitat preferences appear to limit it to habitats shoreward of the 20 m depth isobaths (Weir and Collins 2015; Weir *et al.* 2021), and thus they are often in the immediate vicinity of the coast. Use of nearshore habitat increases the species' vulnerability to incidental capture (*i.e.,* bycatch) in non-selective fishing gears and to habitat-related threats from human activities (*i.e.,* coastal development). Additionally, the species' fragmented distribution makes stocks more vulnerable to local extirpation.

Direct data on connectivity among Atlantic humpback dolphin stocks are sparse. Although the mitogenome of *S. teuszii* (n = 1) has been sequenced, genetic data to assess population structure and connectivity are not available. Thus, the genetic connectivity across and within stocks cannot be directly assessed. However, work investigating the genetic substructure for the Indian Ocean humpback dolphin, *S. plumbea* (the species that is geographically and morphologically most similar to *S. teuszii*), indicated appreciable genetic divergence between populations in neighboring regions, and finer scale comparisons have found less diversity among neighboring populations and low overall mtDNA diversity (Mendez *et al.* 2011; Lampert

et al. 2021). This suggests that similar structuring is possible within *S. teuszii* (Collins 2015; Austin 2023).

Research suggests that individuals occur in a series of localized communities with little interchange identified between them (Maigret 1980a; Van Waerebeek *et al.* 2003; Van Waerebeek *et al.* 2004; Weir 2009; Collins 2015; Weir 2016; Collins *et al.* 2017; Austin 2023). Movements on larger scales are rarely documented, but have been inferred (Collins 2015; Austin 2023). While records suggest transboundary movements between some range countries, such as between Saloum-Niumi (Senegal-The Gambia), Bijagos (Guinea-Bissau), and across the Gabon/Congo border, it remains unclear if these individuals range farther afield (Van Waerebeek *et al.* 2004; Collins 2015; Weir 2016; Collins *et al.* 2017). The threat of habitat loss due to coastal development projects (*i.e.,* port development), is widespread and increasing, and frequently overlaps with the species' preferred habitat (Collins 2015; Austin 2023). Habitat loss due to ongoing and expanding coastal development projects could also cause additional fragmentation of stocks, thus increasing the risk of extirpation of stocks in the near future.

Overall, based on the Atlantic humpback dolphin's restricted range and fragmented distribution, coupled with evidence for the species' tendency for localized residency, connectivity of *S. teuszii* is likely limited. Limited exchange between stocks would reduce the recovery potential for resident stocks that have experienced severe declines. Thus, given the available information, we conclude that this demographic factor poses a moderate risk to the species. However, additional research on this topic is needed for the Atlantic humpback dolphin to further elucidate this species' population structure and genetic diversity (Austin 2023).

Genetic Diversity

As discussed in Austin 2023 and in the above section (see *Spatial Structure and Connectivity*), data do not exist to address the genetic diversity of the Atlantic humpback dolphin. Additionally, most of the genetic data that have been collected to date for this species were generated to investigate the overall phylogenetic relationships within the *Sousa* genus, and no study has examined *S. teuszii* population structure or genetic diversity (CCAHD 2020; Austin 2023). Thus, it is unclear how much genetic diversity exists within the species as a whole, whether it occurs as genetically-distinct populations (with limited inter-population breeding, due to geographic isolation), or if any connectivity in gene flow exists between those populations (either at present, or in the past) (CCAHD 2020; Weir *et al.* 2021). Consequently, without any genetic analyses to determine diversity or effective population size for *S. teuszii,* it is unknown at this time whether this demographic factor is a threat contributing to the species' risk of extinction (Austin 2023).

Summary and Analysis of Section 4(a)(1) Factors Affecting the Atlantic Humpback Dolphin

As described above, section 4(a)(1) of the ESA and NMFS' implementing regulations (50 CFR 424.11(c)) state that we must determine whether a species is endangered or threatened because of any one or a combination of the following factors: the present or threatened destruction, modification, or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; or other natural or manmade factors affecting its continued existence. We evaluated whether and the extent to which each of the foregoing factors contributes to the overall extinction risk of the Atlantic humpback dolphin. In short, we found that the best scientific and commercial data available indicate that overutilization of the species (*e.g.,* fisheries bycatch) and the present or threatened destruction, modification, or curtailment of the species' habitat or range (*e.g.,* coastal development) contribute significantly to the species' risk of extinction. We also determined that the inadequacy of existing regulatory mechanisms to address these threats is also contributing significantly to the Atlantic humpback dolphin's extinction risk. We determined that the other factors, including disease and predation, and other natural or manmade factors affecting the species' continued existence, are not contributing significantly to the species' risk of extinction now or in the foreseeable future. See Austin (2023) for additional discussion of all ESA section 4(a)(1) threat categories. Additional information regarding each of these threats is summarized below according to the factors specified in section 4(a)(1) of the ESA.

The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

We assessed three potential threats that fall under the factor category, present or threatened destruction, modification, or curtailment of its habitat or range. These threats include coastal development, contaminants and pollutants, and climate change. Among these threats, coastal development was the only threat which poses a high risk (Austin 2023). We discuss this threat in detail below. We also considered the potential effects of contaminants and pollutants on the Atlantic humpback dolphin's habitat as well as potential habitat-related impacts stemming from climate change, such as food availability. However, due to the paucity of data, the degree to which these threats contribute to the Atlantic humpback dolphin's extinction risk, now or in the foreseeable future, is unknown (Austin 2023). Additional information on the other threats (*i.e.,* contaminants and pollutants and climate change) can be found in the draft status review report (Austin 2023).

As previously discussed in the *Range, Distribution, and Habitat Use* section of this proposed rule, the Atlantic humpback dolphin is considered an obligate coastal and shallow water nearshore species preferring dynamic habitats strongly influenced by tidal patterns (International Whaling Commission 2011; 2017; Taylor *et al.* 2020; Austin 2023). Additionally, the species has a restricted geographic range, being endemic to the tropical and subtropical nearshore waters along the Atlantic African coast from Western Sahara in the north to the southern region of Angola (Van Waerebeek *et al.* 2004; Collins 2015; Weir and Collins 2015). Within that range, the species' habitat preferences restrict it to a relatively narrow ecological niche (Austin 2023). Thus, the nearshore habitat requirements increase the vulnerability of Atlantic humpback dolphins to a range of human activities and anthropogenic disturbances (Collins *et al.* 2017).

The destruction, deterioration, or fragmentation of the nearshore habitats relied upon by Atlantic humpback dolphins is likely to be a range-wide issue (Li 2020; Weir *et al.* 2021). A variety of anthropogenic activities may adversely impact the capacity of nearshore habitats to support the dolphins, including direct habitat loss to coastal development projects (*e.g.,* construction and expansion of ports, liquefied natural gas plants, and mining), damage to benthic

environments from trawling and dredging, alterations to water flow and quality from upstream activities such as deforestation and damming, reduction of available prey due to destruction of mangroves, and marine pollution originating from terrestrial, atmospheric, and shipping sources (International Whaling Commission 2011, 2017; PWC 2018; International Whaling Commission 2020a, b; Li 2020; Weir *et al.* 2021). The latter potentially includes runoff of agricultural contaminants, discarding of mining aggregates and other industrial wastes, oil spills, and lack of adequate waste disposal for sewage (introducing bacterial, fungal, and viral pathogens into the Atlantic humpback dolphins' habitat).

As noted above, habitat loss can result from a variety of coastal development activities within the Atlantic humpback dolphin's range. Increasing coastal development is a potential concern within the eastern tropical Atlantic (ETA), a biogeographic realm that extends from Mauritania to southern Angola, overlapping with much of this species' range (Weir and Pierce 2013). Approximately 40 percent of the human population inhabiting the ETA region is concentrated in coastal areas (Ukwe 2003; Ukwe and Ibe 2010). For example, 42 percent of Ghana's population lives within 100 km off the coast, while 20 percent of Nigeria's population lives in large coastal cities (Ukwe and Ibe 2010; Weir and Pierce 2013). The human population of most ETA countries is expanding by 2–3 percent annually (Weir and Pierce 2013), and populations in coastal areas are set to double within 20–25 years (Ukwe and Ibe 2010). Additionally, the coastal zone is the site of all ports and most airports along the Atlantic coast of Africa, as well as factories for processing food and raw materials (*e.g.,* petroleum and metals), industrial production of fertilizer, pesticides, pharmaceuticals, paper and plastic, and the agriculture, mining, forestry, and tourism industries (Weir and Pierce 2013).

A number of Atlantic humpback dolphin range countries are also major oil producers, specifically, Angola, Equatorial Guinea, Gabon, Cameroon, Nigeria, and the Republic of the Congo (Ukwe and Ibe 2010; Minton *et al.* 2017; PWC 2018). Additionally, smaller oil fields exist in several other countries such as Senegal, Côte d'Ivoire, Ghana, and São Tomé and Príncipe (Weir and Pierce 2013). Thus habitat loss as a result of coastal construction (due to development of platforms, ports, pipelines, liquefied natural gas plants) and degradation (*e.g.,* due to discharges, accidental oil spills, gas flaring, seismic exploration and explosives used during installation and decommissioning, and high-amplitude sound associated with shipping) can all negatively impact *S. teuszii* habitat. Impacts on marine environments are already evident in some areas. For example, in the Niger Delta, the Nigerian National Petroleum Corporation (NNPC) indicates that approximately 300 oil spills occurred annually from 1975 to 1995 causing pollution in the marine environment and fish mortality (Osuagwu and Olaifa 2018). It has been suggested by Van Waerebeek *et al.* (2004) that *S. teuszii* most likely inhabited the Niger Delta before large-scale oil exploration and extraction altered the coastal environment (International Whaling Commission 2011). Oil-producing companies from Guinea-Bissau to Angola are estimated to discharge 710 tons of oil annually into the coastal and marine environment; a further 2,100 tons originates from oil spills (Ukwe and Ibe 2010). Impacts on small cetaceans, including the Atlantic humpback dolphin, potentially include ingestion of contaminated prey, irritation of skin and eyes, inhalation of toxic fumes causing lung congestion, neurological damage and liver disorders, and displacement from habitat essential to the species (Geraci 1990; Reeves *et al.* 2003; Takeshita *et al.* 2017).

Port developments and other urban construction projects are particularly widespread throughout the Atlantic humpback dolphin's range (Austin 2023), and preferred sites for such developments and projects frequently overlap with *S. teuszii* habitat (Collins 2015). With economic growth of sub-Saharan Africa increasing from 2.6 percent in 2017 to 3.9 percent in 2022 (PWC 2018; IMF 2022), port developments have increased over the years with the potential for continued expansion. At least three ports that have recently undergone or are undergoing expansion are close to the locations of recent sightings of Atlantic humpback dolphins (Rogers 2017). These include Badagry (Nigeria) which is close to the location of recent sightings of *S. teuszii* near Lagos (CCAHD unpublished data), Kamsar Port (Guinea) within the Río Nuñez Estuary (Weir 2015), and the deep-sea port of Kribi (Cameroon) (Van Waerebeek *et al.* 2017). The scale of some ports suggests that they present effective physical barriers and thus have potential for disrupting Atlantic humpback dolphin longshore movements (Austin 2023). Indirect or ''non-lethal'' disturbances are likely during port construction, and may become more permanent if maintenance (*e.g.* dredging) and urban development occurs at port sites (Jefferson *et al.* 2009; Collins 2015).

Habitat loss resulting from mangrove destruction and altered river sediment loads have also been documented in Guinea-Bissau and Senegal. For example, mangrove habitat loss (*i.e.* 29 percent in one protected area) occurred in Guinea-Bissau due to agricultural practices and firewood collection (Vasconcelos *et al.* 2002; Weir and Pierce 2013). Additionally, the completion of the Diama dam on the Senegal River in 1985 resulted in topographical and hydrological changes to the Senegal Delta, with associated ecological changes (*e.g.* in zooplankton communities) (Champalbert *et al.* 2007). These activities may directly and indirectly (via changes in prey) affect Atlantic humpback dolphins, which regularly inhabit estuarine areas (Collins 2015).

Overall, widespread coastal development results in extensive damage to benthic environments and alterations to water flow and quality, all of which degrade or eliminate the already restricted nearshore habitat of the Atlantic humpback dolphin. Oil and gas development and extraction activities occur in the central and southern portions of the species' range, resulting in an increase in port facilities and other coastal development projects (Collins 2015; Collins *et al.* 2017). Additionally, habitat fragmentation resulting from these activities, has serious implications for a species already restricted to narrow geographic and ecological niches consisting of small, fragmented stocks. Coastal development activities have increased over the past decade, with little indication that these activities will decline or cease in the foreseeable future. Additionally, port developments are widespread throughout the species' range and preferred port sites often overlap with the habitats of these coastal dolphins (Austin 2023). It has also been noted in the Niger Delta that populations of *S. teuszii* may have been displaced due to altered coastal environments from large scale oil exploration and extraction activities, suggesting a link between coastal oil and gas activities and the species' decline in this area (International Whaling Commission 2011; Austin 2023). Thus, the impacts of coastal development activities on the Atlantic humpback dolphin will likely continue and may intensify in the foreseeable future. Because of the possible species' displacement in the Niger Delta coupled by habitat fragmentation resulting from

coastal development activities (which has serious implications for a species already restricted to narrow geographic and ecological niches), the destruction, modification, and curtailment of habitat in the form of coastal development contribute to a high risk of extinction (Austin 2023), and this risk will be exacerbated in the foreseeable future.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

We assessed four potential threats that may contribute to the overutilization of the species: fisheries bycatch, use and trade, depletion of prey resources, and ecotourism. Of these four threats, the primary threat facing the Atlantic humpback dolphin is fisheries bycatch, specifically in artisanal gillnets. This type of overutilization is considered widespread throughout the species' range, and is considered to be causing population declines. Thus, fisheries bycatch was determined to pose a high risk (Austin 2023). The use of stranded or bycaught Atlantic humpback dolphins for human consumption or fishing bait, which has been documented throughout the species' range (Clapham and Van Waerebeek 2007; Weir and Pierce 2013; Collins 2015), was also determined to pose a high risk (Austin 2023). Depletion of prey resources resulting from intensive and unsustainable commercial and artisanal exploitation of fish stocks is another factor contributing to declining Atlantic humpback dolphin stocks (Van Waerebeek *et al.* 2004; Weir 2011), and was determined to pose a moderate risk. We discuss these three threats in detail below. While ecotourism is increasing in some countries within the species' range, and the activities associated with ecotourism may affect the Atlantic humpback dolphin and its habitat, it is currently unknown if ecotourism is a threat that contributes to the Atlantic humpback dolphin's extinction risk, now or in the foreseeable future (Austin 2023).

The best scientific and commercial data indicate that the primary threat facing the Atlantic humpback dolphin is bycatch in artisanal gillnets. Bycatch in artisanal gillnets is considered widespread throughout the species' range and has been documented in Mauritania, Senegal, Guinea, Guinea-Bissau, Nigeria, Cameroon, and the Republic of the Congo (Campredon and Cuq 2001; Van Waerebeek *et al.* 2004; Collins 2015; Collins *et al.* 2017; Brownell *et al.* 2019; Jefferson 2019; Weir *et al.* 2021).

A study by Weir and Pierce (2013) summarizing historical accounts of bycaught and hunted cetaceans in the ETA, noted that the Atlantic humpback dolphin was one of four most frequently documented bycaught species within the ETA (the other three species being the harbor porpoise, common dolphin, and bottlenose dolphin). Specifically, Atlantic humpback dolphins were noted to be particularly vulnerable to bycatch in artisanal gillnets: out of 16 reported bycatch events for this species, 13 animals died in artisanal gillnets in Mauritania, Senegal, and the Republic of the Congo, one died in a fish trap in Guinea-Bissau, and two were taken in unspecified fishing gear (possibly also gillnets) in Senegal and Guinea (Weir and Pierce 2013; International Whaling Commission 2020a; Austin 2023). Weir *et al.* (2011) notes that gillnet density is high in parts of the Atlantic humpback dolphin's range (*e.g.* in Angola). Furthermore, Leeney *et al.* (2015) reports that there are at least 4,700 artisanal fishers in The Gambia, 59,500 in Senegal, and 4,141 in Guinea-Bissau, and potentially a lot more in other countries along the Atlantic Coast of Africa within the species' range. However, Notarbartolo di Sciara (1998) notes that the species has also been ''fatally entangled in octopus line'', and observations of foraging individuals taken near the stern wake of trawlers indicate potential for bycatch in other fisheries.

Work in Conkouati-Douli National Park (Republic of the Congo) provides some indication of the potential scale of *S. teuszii* bycatch and substantial bycatch risk for the species (Collins 2015). An intensive monitoring, enforcement, and cooperative (incentivized) reporting program identified 19 dolphins that were caught as bycatch over 5 years across all artisanal landing sites (n = 14) along a 60-km stretch of protected beach (Collins 2015). Out of the 19 dolphins caught as bycatch, 10 were identified as *S. teuszii,* and the testimony of fishers showed that all were caught in gillnets less than 1 km from shore (Collins 2015; Collins *et al.* 2017). More recently, CCAHD partners in Renatura, Congo documented two adult *S. teuszii* caught in fishing gear in May, 2021 in the village of Bellelo just south of Conkouati-Douli National Park, Congo (CCAHD).

In northern Guinea, bycatch (mostly gillnet entanglements) of Atlantic humpback dolphins has also occurred in small-scale local fisheries surrounding the Marine Protected Area of the Tristao Islands until at least 2017 (Bamy *et al.* 2010; Van Waerebeek *et al.* 2017; Bamy *et al.* 2021) with documented *S. teuszii* specimens bycaught in low frequency in 2002 (n=1) and in slightly higher frequency from 2011–2012 (n=5) (Van Waerebeek *et al.* 2017; Austin 2023).

In Cameroon, a capture of an Atlantic humpback dolphin was reported (supported by photographs), landed by small-scale fishers at Campo in southern Cameroon on an unspecified date in 2012 (Ayissi *et al.* 2014). Additionally, Van Waerebeek *et al.* (2017) reported an adult specimen landed at Londji fish landing site (near Kribi) that became accidentally entangled in an artisanal gillnet in Douala-Edea Fauna Reserve on March 22, 2014 (Austin 2023). In the neighboring country of Nigeria, there have been reports of Atlantic humpback dolphins killed in artisanal gillnets off Brass Island (Van Waerebeek *et al.* 2017; Austin 2023). Both individuals were killed for human consumption. Even though mortality figures have also been reported for other areas, including Banc d'Arguin and the Saloum Delta (Campredon and Cuq 2001), these mortality figures are based on single studies, and there are no formal ongoing monitoring programs for cetacean bycatch in these aforementioned areas or anywhere else in the species' range (Van Waerebeek *et al.* 2004; Collins 2015; Collins *et al.* 2017). Thus, the reported bycatch figures are likely to be underestimates of the true level of mortality.

There is some evidence that beach seines may also contribute to dolphin mortality. The first *S. teuszii* specimen records for Togo were two incidentally bycaught individuals found killed in a beach seine at Agbodrafo along Togo's eastern coast (Van Waerebeek *et al.* 2017; Austin 2023). Additionally, in December 2021, eight *S. teuszii* individuals were trapped in a beach seine near Port Gentil, Gabon, and subsequently were released through the collaborative efforts of local fishers, National Parks Agency staff, and a local non-government organization (NGO) (CCAHD; Austin 2023).

Although there is no evidence of any organized, directed fisheries for *S. teuszii,* there is a concern that bycatch can develop into what is known as ''directed entanglement'' or ''non-target-deliberate acquisition'', where fishers may intentionally try to catch Atlantic humpback dolphins in gillnets originally intended for other species (especially if there is a market for such catches) (Clapham and Van Waerebeek 2007; Collins 2015). While the scale of this practice is unknown, the use of cetaceans for human consumption has been documented in 15 (71 percent) of the 21 countries bordering the ETA (Weir and Pierce 2013). These countries

provide a potential market for cetacean products (Van Waerebeek *et al.* 2004; Clapham and Van Waerebeek 2007; Collins 2015; Leeney *et al.* 2015; Brownell *et al.* 2019; Jefferson 2019; Ingram D.J. *et al.* 2022). Throughout the ETA, declining fisheries resources and rising human populations have accelerated the displacement of a number of communities from their traditional food sources, resulting in new forms of aquatic meat consumption, as well as the rise of illegal local and international trade to generate revenue (Balinga and Dyc 2018). Consequently, this aquatic harvest is impacting large aquatic mammal, reptile, and avian fauna in the region, including *S. teuszii* (Balinga and Dyc 2018; Ingram D.J. *et al.* 2022). Furthermore, some of the main factors contributing to declines in fish biomass are inadequate policies and institutional frameworks and inadequate enforcement of existing laws and regulations to address illegal, unreported, and unregulated (IUU) fishing, bycatch, and harvesting activities throughout much of the species' range countries (Balinga and Dyc 2018; Weir *et al.* 2021). The sale of dolphin meat (from various species) for either human consumption or bait has been documented or suspected from a number of *S. teuszii* range countries. Evidence for use of *S. teuszii* for bait, consumption, and sale has been reported from Ghana, Mauritania, Senegal, Guinea, Guinea-Bissau, Nigeria, Cameroon, and the Republic of the Congo (Cadenat 1956; Van Waerebeek *et al.* 2004; Collins 2015; Van Waerebeek *et al.* 2015; Collins *et al.* 2017; Van Waerebeek *et al.* 2017; International Whaling Commission 2020a; Weir *et al.* 2021). Furthermore, the use of Atlantic humpback dolphins as bait in some of the aforementioned countries has been documented in longline fisheries targeting sharks (Van Waerebeek *et al.* 2017). Stranded or bycaught Atlantic humpback dolphin carcasses are routinely utilized by local communities for fishing bait, primarily targeting sharks (Van Waerebeek *et al.* 2017; Weir *et al.* 2021). Individual dolphin carcasses are those from either stranded individuals found dead on the shore (primarily having been bycaught in beach seines), or individuals that are found dead after being bycaught in artisanal gillnets offshore and then subsequently brought to shore for use (Weir and Pierce 2013; CCAHD 2020; Weir *et al.* 2021).

Weir and Pierce (2013) documented instances of human consumption of cetaceans, including the Atlantic humpback dolphin, in 15 of the 21 countries bordering the ETA (Mauritania to Angola). In The Gambia, an unidentified dolphin (either bottlenose or Atlantic humpback) found alive in a fishing net in 1996 was killed and butchered (Weir and Pierce 2013). Off the coast of Fadiouth, Senegal, the meat of an Atlantic humpback dolphin caught (capture method unknown) in June 1997 was sold and the remains dumped (Van Waerebeek *et al.* 2000; Van Waerebeek *et al.* 2004). In Guinea, an Atlantic humpback dolphin was found for sale at the Dixinn fish landing site on March 13, 2002 (Bamy *et al.* 2010). Additionally, Van Waerebeek *et al.* (2017) noted that when locals in Guinea, Nigeria, Cameroon, and Togo were queried, they typically admitted that dolphins were butchered and fully utilized (and many of these instances involve the incidental use of stranded or bycaught dolphins) (Collins 2015; Collins *et al.* 2017; Weir *et al.* 2021).

In the Republic of the Congo, there have been 30 cases of small cetacean carcasses being used for human consumption (30 of 34 bycatches, or 88.2 percent of cases), most of which were identified as Atlantic humpback dolphins (n=18) and bottlenose dolphins (n=7) (Collins 2015; Collins *et al.* 2017). In the Tristao Islands region of northern Guinea, Bamy *et al.* (2021) noted the use of cetaceans for human consumption is synchronous with and thought to be related to declining fish stocks.

In The Gambia, Senegal, and Guinea-Bissau, a survey conducted by Leeney *et al.* (2015) between 2007 and 2012, reported that at least a quarter of respondents in each country stated they had accidentally caught a dolphin at least once, and greater proportions of interviewees stated that other fishers sometimes caught dolphins. Furthermore, while bycaught animals in The Gambia, Senegal, and Guinea-Bissau were usually distributed within the community as food, Leeney *et al.* (2015) found that the meat and oil of dolphins were also used to treat various illnesses. Overall, this survey's results suggested that although dolphin meat was not a major source of income for communities in Guinea-Bissau, The Gambia, and the Saloum Delta, it did provide a supplementary source of food.

Clapham and Van Waerebeek (2007) noted that market surveys conducted in ETA coastal nations indicated that the sale and consumption of cetacean products is common. Additionally, these sales contribute to the economic viability of gillnet fisheries in Ghana, which includes the killing of live entangled animals, and using dolphin meat as bait (Van Waerebeek *et al.* 2004; Clapham and Van Waerebeek 2007; Collins 2015). However, it is important to note that captures may be concealed because of legal prohibitions, and, therefore, acquiring reliable data from surveys remains a challenge in some areas (Van Waerebeek *et al.* 2004; Collins 2015; Collins *et al.* 2017).

The depletion of prey resulting from intensive and unsustainable commercial and artisanal exploitation of fish stocks is also considered a potential contributing factor to declining Atlantic humpback dolphin populations (Van Waerebeek *et al.* 2004; Weir 2011). As noted in the *Diet and Feeding* section of this proposed rule, knowledge of the species' diet is limited. However, some fish consumed by Atlantic humpback dolphins (*e.g.* mullet, *Mugil* spp.) are also targeted by coastal fisheries (Cadenat 1956; Maigret 1980b; Weir 2016). Additionally, within Atlantic humpback dolphin range countries, there is a high level of reliance on artisanal fishing for the protein intake and livelihoods of impoverished coastal communities (Weir *et al.* 2021). Senegal, Mauritania, Liberia, Ghana, and Sierra Leone are among the countries most affected by IUU fishing (Balinga and Dyc 2018), and the presence of *S. teuszii* has been documented in Senegal and Mauritania. Generally, IUU fishing is widespread throughout the species range (Brashares *et al.* 2004), including within protected marine areas such as Conkouati-Douli National Park in the Republic of the Congo (Collins 2015). Fish biomass in nearshore and offshore waters off the Gulf of Guinea has declined by at least 50 percent since 1977 due to unsustainable fishing by foreign and domestic fleets (Brashares *et al.* 2004). In the Eastern Central Atlantic, 68 percent of the main fisheries are considered to be either at full capacity or in decline (Weir and Pierce 2013). Overall, fish biomass in the northwest region of Africa declined by a factor of 13 between 1960 and 2001 (Christensen *et al.* 2004). Consequently, declines in fish biomass may affect Atlantic humpback dolphin populations by increasing artisanal fishing effort and pressure, leading not only to increased bycatch risk but also potentially reduced prey availability for the species (Collins 2015; Collins *et al.* 2017).

Overall, as noted in the *Range, Distribution, and Habitat Use* section of this proposed rule, the habitat preferences of the Atlantic humpback dolphin increases its susceptibility and exposure to inshore artisanal and commercial fisheries and associated gears, such as artisanal gillnets, beach seines, and octopus line (Austin 2023).

As discussed in depth in the draft status review report (Austin 2023), bycatch in fisheries has not ceased and may intensify in the foreseeable future as new fishing areas are targeted and fishing pressure increases. The use of stranded or bycaught Atlantic humpback dolphins for human consumption or fishing bait has also been documented throughout the species' range (Clapham and Van Waerebeek 2007; Weir and Pierce 2013; Collins 2015; Van Waerebeek *et al.* 2017; Ingram D.J. *et al.* 2022). While there is some indication of secondary (*i.e.* non-targeted) use of dolphin bycatch, it is evident that the species has been, and is directly and increasingly being targeted for food in many areas across its range (Weir and Pierce 2013; Collins 2015; Leeney *et al.* 2015). In addition, effective bycatch monitoring and mitigation has not been documented in most *S. teuszii* range countries (Austin 2023; see *Inadequacy of Existing Regulatory Mechanisms*), and the lack of effective monitoring and enforcement to protect the species from targeted hunting throughout much of the species' range places additional pressure on already small, likely fragmented, and declining Atlantic humpback dolphin stocks (Doumbouya *et al.* 2017; CMS 2022; Minton *et al.* 2022). Furthermore, the depletion of prey resulting from intensive and unsustainable commercial and artisanal exploitation of fish stocks (Van Waerebeek *et al.* 2004; Weir 2011) is likely to increase in the foreseeable future, as some fish predated by Atlantic humpback dolphins are also targets of coastal fisheries. Resource competition between dolphin and human communities will continue for the foreseeable future due to a high reliance on artisanal fishing for the protein intake and livelihoods of impoverished coastal communities within the range countries (Weir *et al.* 2021). Thus, we determined that overutilization of the species in the form of fisheries bycatch and human use contributes to a high risk of extinction, and depletion of prey resources contributes to a moderate risk of extinction (Austin 2023). These risks will be exacerbated in the foreseeable future (Austin 2023).

Inadequacy of Existing Regulatory Mechanisms

We assessed existing regulatory mechanisms to determine whether they may be inadequate to address threats to the Atlantic humpback dolphin from bycatch in commercial and artisanal fisheries as well as coastal development. We determined that inadequacy of existing regulatory mechanisms, particularly due to lack of enforcement, resources, implementation, and/or effectiveness within each range country, contributes to a high risk of extinction (Austin 2023). Below is a description and evaluation of current and relevant international, regional, and domestic regulatory mechanisms that currently apply to the Atlantic humpback dolphin. More detailed information on these regulatory mechanisms can be found in the draft status review report (Austin 2023).

International Regulatory Mechanisms

A majority of Atlantic humpback dolphin range countries are members or signatories to a diverse array of international conventions and agreements. The Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) is an environmental treaty of the United Nations that aims to conserve migratory species, their habitats, and their migration routes. CMS establishes obligations for each state joining the convention, promotes collaboration among range states, and provides the legal foundation for coordinating international conservation measures throughout a migratory range. Early recognition of the vulnerability of the *Sousa* species was indicated by their inclusion on the CMS Appendix II in 1991 (Weir *et al.* 2021) and on Appendix I in 2009, thereby obligating parties to work regionally to promote their conservation. Parties include all countries that are in the Atlantic humpback dolphin's range except for Sierra Leone and Western Sahara (Austin 2023). The CMS defines Appendix I species as those ''that have been assessed as being in danger of extinction throughout all or a significant portion of their range.'' The listing under Appendix I is the highest level of protection under CMS and is for species threatened with extinction. The listing obligates the parties to strive towards protecting these animals (including the Atlantic humpback dolphin), conserving and restoring their habitats, mitigating obstacles to migration, and controlling other factors that might endanger them. However, while 17 out of the 19 range countries of *S. teuszii* are parties to CMS, conservation of the Atlantic humpback dolphin is often not a high priority for governments of range countries, despite the efforts of the CMS's National Focal Points to promote the issue. Additionally, relevant government agencies in many range countries currently lack the resources to monitor and enforce CMS provisions (Doumbouya *et al.* 2017; CMS 2022; Minton *et al.* 2022).

The CMS has been closely involved with efforts to conserve the Atlantic humpback dolphin since the early 1990s and has funded two West African Cetacean Research and Conservation Programme (WAFCET) projects during the late 1990s to collect information on this (and other) species, and to stimulate regional involvement in conservation efforts (Van Waerebeek *et al.* 2000; Van Waerebeek *et al.* 2003; Van Waerebeek *et al.* 2004; Weir *et al.* 2021). A series of CMS meetings was held on West African cetaceans and culminated in the signing of a Memorandum of Understanding (MoU) Concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia in 2008 (CMS 2008). This MoU came into effect on October 3, 2008, and will remain open for signature indefinitely. It aims to achieve and maintain a favorable conservation status for manatees and small cetaceans of West Africa and Macaronesia (including the Atlantic humpback dolphin) and their habitats to help safeguard the associated values of these species for the people of the region. Thus far, 17 West African and Macaronesian range states and 6 collaborating organizations have signed the MoU. This includes 12 of the countries within the Atlantic humpback dolphin's range (Austin 2023), thereby obligating the signatories to conserve manatees and small cetaceans in West Africa (including the Atlantic humpback dolphin). In 2017, a CMS Concerted Action was adopted specifically for the Atlantic humpback dolphin; the CMS Concerted Action required a meeting of delegates from countries within the species range and the formulation of an action plan covering the years 2018–2023 (Austin 2023). However, progress on its implementation was substantially delayed, and another CMS Concerted Action was adopted in 2020 to revise the action plan's timeline to 2021–2025 (Weir *et al.* 2021). As such, very little progress has been made in applied conservation of the Atlantic humpback dolphin across its range. Additionally, as part of the work on the Atlantic humpback dolphin action plan required by the 2020 Concerted Action, a formal review of the legal status and protections for the species in each range country is also underway (CMS 2022). Based on currently available information, it seems that the species is legally protected under general categories such as ''marine mammals,'' ''aquatic animals,'' or ''Family Delphinidae'' in most range countries, but species-specific protections are

lacking (CMS 2022; Austin 2023). However, many range countries lack resources to effectively monitor and mitigate bycatch, design and implement other research and conservation measures, or enforce laws relating to retention and use of bycaught individuals (CMS 2022; Minton *et al.* 2022; Austin 2023).

In 2002, the International Whaling Commission's (IWC) Small Cetacean Sub-Committee identified the Atlantic humpback dolphin as a priority for research, spurring a genus-wide review, and in 2010, it identified a range of specific research and conservation objectives for the Atlantic humpback dolphin (IWC 2011). In 2015, the Small Cetaceans Sub-Committee identified the Atlantic humpback dolphin as one of the cetacean species with high priority for designation of task teams for the potential development of Conservation Management Plans (Genov *et al.* 2015). These objectives incorporated expert scientific opinion and considered earlier conservation agreements and strategies, including the Memorandum of Understanding for the Conservation of Small Cetaceans of Western African and Macaronesia (Van Waerebeek and Perrin 2007; CMS 2008; Weir *et al.* 2021). Additionally, the IWC's Bycatch Mitigation Initiative (BMI) is focused on raising awareness of the issue of cetacean bycatch and available approaches and solutions for assessing, monitoring, and reducing bycatch (Austin 2023). Specifically, the IWC's BMI is focused on bycatch in gillnets, particularly in small-scale fishing fleets, which include the fleets of Atlantic humpback dolphin range countries (CCAHD 2020). While a number of *S. teuszii* range countries are IWC member nations and thus are party to the conservation initiatives set forth under the IWC, effective bycatch mitigation and monitoring programs have not been documented in most *S. teuszii* range countries. Additionally, the objectives set forth under the IWC's BMI are either at the planning or pilot project stage, and full implementation of this initiative (and subsequent results) has not been completed within *S. teuszii* range countries (CCAHD 2020; Austin 2023).

The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty, which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. As of October 2021, there are 172 parties, which includes 18 out of 19 range countries of *S. teuszii* and 2,347 designated sites (Austin 2023). One of these is the Saloum Delta, Senegal, which is listed as a Wetland of International Importance under the Convention on Wetlands, and is known to host possibly the largest known population of *S. teuszii*. While the Convention on Wetlands provides indirect benefits to the species by providing protection of key habitat areas along the west coast of Africa, the level of protection varies at each site (Collins 2013; Weir and Pierce 2013; Taylor *et al.* 2020).

Regional Regulatory Mechanisms

The Abidjan Convention covers the marine environment, coastal zones, and related inland waters from Mauritania to Namibia, which covers much of the Atlantic humpback dolphin's range. The Abidjan Convention is an agreement for the protection and management of the marine and coastal areas that highlights sources of pollution, including pollution from ships, dumping, land-based sources, exploration and exploitation of the sea-bed, and pollution from or through the atmosphere. The Abidjan Convention also identifies where co-operative environmental management efforts are needed. These areas of concern include coastal erosion, especially protected areas, combating pollution in cases of emergency, and environmental impact assessment. Additionally, the Abidjan Convention promotes scientific and technological collaboration (including exchanges of information and expertise) as a means of identifying and managing environmental issues. The action plan and the Abidjan Convention were adopted by the participating governments in March, 1981; the Abidjan Convention entered into force on August 5th, 1984 (Austin 2023). The contracting parties that have ratified the Abidjan Convention are: Benin, Cameroon, Republic of the Congo, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Nigeria, Senegal, Sierra Leone, South Africa and Togo, which includes 15 out of the 19 range countries of *S. teuszii* (Austin 2023). The remaining 4 range countries including Angola, Democratic Republic of the Congo, and Equatorial Guinea are located in the Abidjan Convention area but have not yet ratified the convention; and Western Sahara is not a signatory of the Abidjan Convention (Austin 2023). While the Abidjan Convention provides a framework within which broad conservation and environmental protection objectives may be pursued collaboratively among African countries on a regional scale, it does not specifically address Atlantic humpback dolphin conservation. Furthermore, relevant government agencies in many range countries lack the resources to effectively implement conservation measures resulting from the Abidjan Convention (Doumbouya *et al.* 2017; CMS 2022; Minton *et al.* 2022).

In 1998, the environmental ministers of Côte d'Ivoire, Ghana, Togo, Benin, Nigeria, and Cameroon signed the Accra Declaration to strengthen regional capacity to prevent and correct pollution in the Gulf of Guinea Large Marine Ecosystem (GOG–LME) and prevent and correct degradation of critical habitats. The ministers identified the living resources and management problems in the area. The countries decided to undertake a detailed survey of industries, defined regional effluent standards, instituted community based mangrove restoration activities, and created a campaign for the reduction, recovery, recycling, and re-use of industrial wastes (Austin 2023). In 2006, the Guinea Current LME Project expanded the project scope to 10 neighboring countries (Guinea-Bissau, Guinea, Sierra Leone, Liberia, Sao Tome and Principe, Equatorial Guinea, Gabon, Republic of the Congo, Democratic Republic of the Congo, and Angola) (Austin 2023). The Guinea Current LME Project includes 15 out of the 19 countries within the Atlantic humpback dolphin's range and is a regional effort to assess, monitor, and restore the ecosystem and enhance its sustainability, with the aim of conserving and preventing the degradation of the nearshore habitats along portions of the Atlantic Coast of Africa. However, government agencies in many range countries lack the resources to effectively implement conservation measures resulting from this declaration (Doumbouya *et al.* 2017; CMS 2022; Minton *et al.* 2022).

The Revised African Convention on the Conservation of Nature and Natural Resources (Revised African Convention) was adopted by the Assembly of the African Union on July 11, 2003 in Maputo, Mozambique and entered into force on July 23rd, 2016 (Austin 2023). The Revised African Convention is the result of a thorough revision of the original Algiers Convention (adopted in 1968) (Austin 2023). The Revised African Convention is a comprehensive regional treaty on environment and natural resources conservation, and the first to deal with an array of sustainable development matters, including quantitative and qualitative management of natural resources such as soil and land, air and water, and biological resources (Austin 2023). The contracting parties that are signatories to

the Revised African Convention are: Angola, Mauritania, Senegal, Guinea-Bissau, Nigeria, Equatorial Guinea, Democratic Republic of the Congo, The Gambia, Guinea, Togo, Benin, Gabon, Republic of the Congo, Sierra Leone, Liberia, Côte d'Ivoire, and Ghana; this includes 17 out of the 19 range countries of *S. teuszii* (Austin 2023). As of February, 2022, 7 of these range countries (Angola, The Gambia, Benin, Republic of the Congo, Liberia, Côte d'Ivoire, and Ghana) have officially ratified the Revised African Convention (Austin 2023). While the Revised African Convention provides a framework within which broad conservation and sustainable development objectives may be pursued to provide environmental regulation at the regional level, it does not specifically address Atlantic humpback dolphin conservation. Furthermore, financing the Revised African Convention has been a challenge and is crucial to implementation of its provisions as well as management of compliance of its parties. The provisions of the 2003 Revised African Convention emphasize the need for its member states to mobilize financial resources individually or jointly from bilateral or multilateral funding sources (Erinosho 2013). While the financial provisions of the 2003 Revised African Convention are an improvement over the 1968 African Convention (which was silent on issues of funding), the funding provisions are largely generic (Erinosho 2013). The successful implementation of the Revised African Convention is dependent on its procedures for implementation and compliance which are only made possible with adequate financial backing from its parties. This remains a challenge for a number of African countries that are signatories to the Revised African Convention, as resources to fully implement the treaty are currently lacking (Erinosho 2013).

Domestic Regulatory Mechanisms

Information on the existence of domestic laws or regulations of range countries that specifically apply to the Atlantic humpback dolphin is limited. However, two countries within the species' range, Senegal and Gabon, have laws and measures in place that are intended to reduce cetacean bycatch (CMS 2022; Austin 2023).

In Senegal, monofilament nets are officially banned in coastal waters (Belhabib *et al.* 2014). However, this prohibition is not well enforced and gillnets are still widely used in Senegalese waters in nearshore areas (Belhabib *et al.* 2014; Thiao *et al.* 2017). This is largely because Senegal has neither the resources nor the capacity to enforce fishing regulations (Diedhiou and Yang 2018).

In Gabon, there is a ban for setting gillnets in estuaries under Law No. 042/2018 of July 5, 2019, in the Penal Code in the Gabonese Republic and under the Gabonese Decree 0579/PR/MPE of November 30, 2015 (CMS 2022; Austin 2023). However, this law and decree are not well enforced (Austin 2023). Additionally, although a local agreement on beach seine practices is intended to reduce bycatch in Gabon, limited progress is being made regarding bycatch mitigation (Austin 2023).

While a majority of Atlantic humpback dolphin range countries are members or signatories to a diverse array of international and regional conventions and agreements that would require them to take concrete measures to protect the Atlantic humpback dolphin and mitigate threats (Austin 2023), such as protections afforded to CMS Appendix I species, few such countries have adopted specific protections for the species, and effective bycatch mitigation has not been documented in most *S. teuszii* range countries (CMS 2022; Austin 2023). This is a serious concern, given that bycatch is considered linked to the species' population decline and poses an immediate range-wide threat (Brashares *et al.* 2004; Van Waerebeek and Perrin 2007; Ayissi *et al.* 2014; Belhabib *et al.* 2014; Collins 2015; Collins *et al.* 2017). Additionally, domestic, regional, and international regulatory mechanisms that currently exist are not adequately enforced or do not address the species' primary threats. Furthermore, government agencies in many range countries lack the resources to effectively monitor and mitigate threats and design and implement research and conservation measures specific to the Atlantic humpback dolphin (Doumbouya *et al.* 2017; CMS 2022; Austin 2023). Thus, we determined that inadequacy of existing regulatory mechanisms to address the risks posed by bycatch and coastal development, due to lack of enforcement, resources, implementation, and/or effectiveness within each range country, contributes to a high risk of extinction (Austin 2023).

Other Natural or Manmade Factors Affecting the Species' Continued Existence

Under this category, we assessed the potential threat posed by anthropogenic underwater noise on the Atlantic humpback dolphin. We determined that anthropogenic underwater noise poses a moderate risk (Austin 2023). We discuss this threat in detail below.

Knowledge about this species indicates that sound is important to Atlantic humpback dolphin functioning and survival. Small odontocete cetaceans, which have a similar hearing range as that of the Atlantic humpback dolphin, rely upon a highly developed acoustic sensory system and rely on echolocation to navigate, feed, and communicate with conspecifics in the marine environment (Weilgart 2017; Stevens *et al.* 2021). It is also widely recognized that anthropogenic sound sources and the resulting anthropogenic underwater noise can have potential impacts on cetaceans' welfare including stress/physiological effects (such as hearing loss, tissue damage, and respiration rates) as well as behavioral impacts (such as shifts in migration, reduced group cohesion, reduced foraging, changing dive patterns, masking of communication sounds, displacement from important habitats, and even cognition when the added noise exceeds the threshold levels of the species) (Wartzok and Ketten 1999; Whittaker and Young 2018; Erbe *et al.* 2019; Stevens *et al.* 2021). Additionally, anthropogenic underwater noise has been shown to elicit a variety of stress responses from other cetacean species, such as the bottlenose dolphin and beluga whale (Ketten 1995; Gordon and Moscrop 1996; Richardson and Wursig 1997; Nowacek *et al.* 2007; Whittaker and Young 2018).

Underwater noise from coastal development activities such as drilling, pile-driving, explosions, and dredging are likely to affect many of the coastal habitats relied upon by Atlantic humpback dolphins (Weir *et al.* 2021). Additionally, engine noise and sonar from different vessel types (*e.g.* pirogues, dredgers, trawlers and tankers) may reach sufficient amplitude and duration such that the health and/or behavior of coastal marine mammals in the area (including Atlantic humpback dolphins) are negatively affected (Whittaker 2018; Erbe *et al.* 2019; Weir *et al.* 2021). Additionally, there is a possible link between anthropogenic underwater noise and higher likelihood in occurrence of strandings of cetaceans (Ketten 1995; Gordon and Moscrop 1996; Richardson and Wursig 1997; Nowacek *et al.* 2007; Whittaker and Young 2018). Hydrocarbon exploration using high-amplitude impulsive sounds may also affect Atlantic humpback dolphins, as has been noted in other cetaceans (Cerchio *et al.* 2014; Weir *et al.* 2021).

Small odontocete cetaceans use clicks and whistles to communicate with other individuals, and are strongly dependent on echolocation for navigation, foraging, and predator avoidance (Reeves *et al.* 2003; Stevens *et al.* 2021). Although studies in this species have been scarce, there are acoustic recordings of the species made in Namibe province, Angola (Weir 2010). The whistles of the Atlantic humpback dolphin were found to be comparable to *S. chinensis,* and are composed of generally low frequencies with a 92 percent occurrence of harmonics (Weir 2010). Given the increasing development activities within the dolphin's habitat along the west coast of Africa, particularly related to coastal construction activities (especially port construction and expansion) and the oil and gas industry (*e.g.* development of platforms, ports, pipelines, liquefied natural gas plants), anthropogenic underwater noise levels are likely to increase. Thus, potentially negative effects from noise to the Atlantic humpback dolphin are likely to increase in the future as well.

Overall, anthropogenic underwater noise is a serious concern for the Atlantic humpback dolphin, because (like other odontocete species) it is strongly dependent on sound for critical life functions, such as maintaining social bonds, communicating, navigating, finding food, and avoiding predators (Reeves *et al.* 2003; Stevens *et al.* 2021). While there are no studies analyzing the impacts of anthropogenic underwater noise on Atlantic humpback dolphins, anthropogenic underwater noise has been found to disrupt the behavior and affect the functioning and survival of other dolphin species (Ketten 1995; Gordon and Moscrop 1996; Richardson and Wursig 1997; Nowacek *et al.* 2007; Weilgart 2017; Whittaker and Young 2018; Erbe *et al.* 2019). This threat is likely to increase in the foreseeable future due to the projected increase of activities within the Atlantic humpback dolphin's habitat that contribute to underwater noise, such as port construction, vessel traffic, and other coastal development. Thus, we determined that anthropogenic underwater noise contributes a moderate risk of extinction (Austin 2023).

Overall Extinction Risk Summary

We identified several threats that are likely affect the continued survival of the Atlantic humpback dolphin, including destruction, modification, and curtailment of its habitat (*e.g.,* coastal development projects), overutilization of the species via fisheries bycatch (particularly in artisanal gillnets), depletion of prey resources, human use, anthropogenic underwater noise, and the inadequacy of existing regulatory mechanisms (the lack of enforcement, resources, and implementation, and the lack of effectiveness of such mechanisms to address the other identified threats). Of these threats, overutilization of the species in the form of fisheries bycatch and human use, as well as destruction, modification, and curtailment of habitat resulting from coastal development, and the inadequacy of existing regulatory mechanisms to address the threat of overutilization and threats to the species' habitat, all contribute significantly to the Atlantic humpback dolphin's risk of extinction. These threats are immediate and range-wide, and their intensity is likely to increase in the future throughout the species' range. Few countries within the species' range have specific protections for the Atlantic humpback dolphin, and effective bycatch mitigation has not been documented in most range countries.

Analysis of demographic factors identified several characteristics that elevate the population's vulnerability to these threats. For example, observed or suspected population declines of already small, likely fragmented stocks throughout the species' range drastically elevates the impact of single mortality events. In addition, continued declines are highly likely given the projected increase of identified threats that affect most of the species' known range (*e.g.,* coastal development and fisheries bycatch). Furthermore, the species' restricted geographic range along the Atlantic coast of Africa and reliance on nearshore habitat make it highly vulnerable to human activities. The limited, available evidence also suggests that there is limited connectivity between stocks within the species' range, which would reduce the recovery potential for resident stocks that have experienced severe declines (*i.e.* Dakhla Bay). Finally, it is likely that the Atlantic humpback dolphin exhibits a naturally low reproductive rate and thus a low intrinsic potential for population increase. Given the immediacy and prevalence of threats range-wide, and demographic characteristics increasing the species' vulnerability, we conclude that the Atlantic humpback dolphin currently faces an overall high risk of extinction throughout its range.

Conservation Efforts

Section 4(b)(1)(A) of the ESA requires the Secretary, when making a listing determination for a species, to take into account those efforts, if any, being made by any State or foreign nation to protect the species. In addition to the regulatory measures discussed in the *Inadequacy of Existing Regulatory Mechanisms* section of this proposed rule, we considered whether such protective efforts, as summarized below, alter the extinction risk for the Atlantic humpback dolphin.

Early recognition of the vulnerability of the *Sousa* species was indicated by their inclusion on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) [2] in 1979, as a species threatened with extinction for which trade is permitted only in exceptional circumstances (Austin 2023). Additionally, CMS has been closely involved with efforts to conserve Atlantic humpback dolphins since the 1990s. The species was also listed on CMS Appendix II in 1991 and on Appendix I in 2007, thus obligating parties to work regionally to promote Atlantic humpback dolphin conservation (which includes 17 out of 19 countries within the species range) (Austin 2023). The CMS funded two WAFCET projects during the late 1990s to collect information on this species and stimulate regional involvement in conservation efforts (Weir *et al.* 2021). This culminated in the signing of a Memorandum of Understanding Concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia in 2008 (Weir *et al.* 2021). In 2017, a CMS Concerted Action was adopted specifically for the Atlantic humpback dolphin and required a meeting of delegates from countries within the species range and the formulation of an action plan for 2018–2023. However, progress on its implementation was substantially delayed, and a Concerted Action was adopted in 2020 to change the action plan's timeline to 2021–2025 (Weir *et al.* 2021).

The IUCN's Cetacean Specialist Group (IUCN–CSG) has also expressed concern regarding the status of the Atlantic humpback dolphin, highlighting the species as a priority for research (Reeves *et al.* 2003; Taylor *et al.* 2020). The IUCN's Red List of Threatened Species (the ''Red List'') global conservation assessments carried out for this species by the IUCN–CSG reveal a steady deterioration in status over time, from early assessments that underlined the

[2] 18 out of the 19 Atlantic humpback dolphin range countries are a party to CITES. However, since there is a lack of documented trade for this species, NMFS has no information to conclude that the CITES listing has lead to efforts to protect the species.

paucity of information (1994: Insufficiently Known; 1996: Data Deficient), to those reflecting growing concern about potential decline (2008 and 2012: Vulnerable), and culminating in the most recent assessment which classified this species into the Red List category of ''Critically Endangered'' in 2017 (Collins *et al.* 2017; Weir *et al.* 2021).

The Atlantic humpback dolphin's concerning conservation status has been discussed and described in several reviews over the past two decades (Reeves *et al.* 2003; Van Waerebeek *et al.* 2004; Weir *et al.* 2011; Collins 2015; Collins *et al.* 2017). However, very little progress has been made in applied conservation of the Atlantic humpback dolphin. Recognition of this lack of progress led to a meeting in December 2019 at the World Marine Mammal Conference in Barcelona, Spain, to discuss how research and conservation efforts for the species could be reinvigorated (Weir *et al.* 2021). Outputs from this meeting evolved into the formation of a new organization, the Consortium for the Conservation of the Atlantic Humpback Dolphin (CCAHD), in 2020. The CCAHD brings together national partner organizations and individuals from countries within the species range, and a number of international conservation management bodies and species experts, to work collaboratively towards the long-term sustainability of Atlantic humpback dolphin populations and their habitats (Weir *et al.* 2021). The CCAHD aims to work alongside the CMS to optimize the implementation of the draft Concerted Action plan for the Atlantic humpback dolphin. It also works alongside the IWC's bycatch and stranding initiatives following IWC meetings that identified the Atlantic humpback dolphin as a priority for research, and worked with the IUCN–CSG, which highlighted the species as a priority in their ''Integrated Conservation Planning for Cetaceans'' initiative (Weir *et al.* 2021).

On August 15, 2016, NMFS published the final rule on fish and fish product import provisions of the Marine Mammal Protection Act (MMPA import rule) (81 FR 54389), which establishes criteria and a formal process for evaluating foreign fisheries and their frequency of incidental mortality and serious injury to marine mammals. Specifically, the MMPA import rule requires that the Unites States ban imports of commercial fish or fish products caught in commercial fisheries resulting in the incidental killing or serious injury (bycatch) of marine mammals in excess of U.S. standards. The rule also establishes criteria for evaluating a harvesting nation's regulatory program for reducing marine mammal bycatch. A number of Atlantic humpback dolphin range countries are included on the List of Foreign Fisheries as having fisheries that export to the United States, with particular fisheries that are associated with marine mammal bycatch (CMS 2022; Austin 2023). The Atlantic humpback dolphin is listed as a possible bycatch species for some of these fisheries in relation to their overlap with the dolphin's habitat (CMS 2022; Austin 2023). Thus, the MMPA import rule may help to provide external motivation for Atlantic humpback dolphin range countries with fisheries exports to the United States to invest more in the accurate assessment of marine mammal populations in their waters and the possible impacts of fisheries on these populations, including the Atlantic humpback dolphin (CMS 2022; Austin 2023).

Significant conservation concerns for the Atlantic humpback dolphin have been raised for decades, and since 2020 international and regional collaboration to increase awareness and promote conservation efforts has intensified. However, there is no indication that these conservation efforts are ameliorating threats, particularly the threats of fisheries bycatch and coastal development, such that the extinction risk of the species is reduced. Therefore, we conclude that these conservation efforts do not alter the extinction risk for the Atlantic humpback dolphin. We are not aware of any other conservation measures for this species, and we are soliciting additional information on any relevant conservation efforts through the public comment process on this proposed rule (see *Public Comments Solicited on Listing* below).

Proposed Listing Determination

Section 4(b)(1) of the ESA requires that we make listing determinations based solely on the best scientific and commercial data available after conducting a review of the status of the species and taking into account those efforts, if any, being made by any state or foreign nation, or political subdivisions thereof, to protect and conserve the species. We have independently reviewed the best available scientific and commercial information, including the petition, public comments submitted on the 90-day finding (86 FR 68452; December 2, 2021), the draft status review report (Austin 2023), and other published and unpublished information, and we have consulted with species experts and individuals familiar with the Atlantic humpback dolphin. We considered each of the section 4(a)(1) factors to determine whether it contributed significantly to the extinction risk of the species on its own. We also considered the combination of those factors to determine whether they collectively contributed significantly to the extinction risk of the species. Therefore, our determination set forth below is based on a synthesis and integration of the foregoing information, factors and considerations, and their effects on the status of the species throughout its range.

We conclude that the Atlantic humpback dolphin is presently in danger of extinction throughout its range. We summarize the factors supporting this conclusion as follows: (1) the best available information indicates that the species has a low abundance, with fewer than 3,000 dolphins likely remaining, with observed or suspected population declines increasing the risk of local extirpation for extremely small stocks (*e.g.* Dakhla Bay and Angola) in the near future; (2) continued declines in abundance are expected given the ongoing and projected increase of identified range-wide threats (specifically fisheries bycatch and coastal development), suggesting that the species will continue to decline in the absence of interventions; (3) the Atlantic humpback dolphin has a fragmented distribution with limited connectivity between stocks; (4) the Atlantic humpback dolphin has a restricted geographic range, being endemic to the tropical and subtropical waters along the Atlantic African coast where ongoing habitat destruction (including coastal development) contributes to a high risk of extinction; (5) the species' preference for nearshore habitat increases its vulnerability to incidental capture (*i.e.* fisheries bycatch) which also contributes to a high risk of extinction; and (6) existing regulatory mechanisms are inadequate for addressing the most important threats of fisheries bycatch and coastal development.

As a result of the foregoing findings, which are based on the best scientific and commercial data available, we conclude that the Atlantic humpback dolphin is presently in danger of extinction throughout its range. Accordingly, the Atlantic humpback dolphin meets the definition of an endangered species, and thus we are proposing to list it as an endangered species.

Effects of Listing

Conservation measures provided for species listed as endangered or

threatened under the ESA include the development and implementation of recovery plans (16 U.S.C. 1533(f)); designation of critical habitat, if prudent and determinable (16 U.S.C. 1533(a)(3)(A)); a requirement that Federal agencies consult with NMFS under section 7 of the ESA to ensure their actions do not jeopardize the species or result in adverse modification or destruction of designated critical habitat (16 U.S.C. 1536); and, for endangered species, prohibitions on the import and export of any endangered species; the sale and offering for sale of such species in interstate or foreign commerce; the delivery, receipt, carriage, shipment, or transport of such species in interstate or foreign commerce and in the course of a commercial activity; and the ''take'' of such species within the United States, within the U.S. territorial sea, or on the high seas (16 U.S.C. 1538). Recognition of the species' imperiled status through listing may also promote conservation actions by Federal and state agencies, foreign entities, private groups, and individuals.

Section 7 Conference and Consultation Requirements

Section 7(a)(4) (16 U.S.C. 1536(a)(4)) of the ESA and NMFS/USFWS regulations (50 CFR 402.10) require Federal agencies to confer with NMFS on actions likely to jeopardize the continued existence of species proposed for listing, or that are likely to result in the destruction or adverse modification of proposed critical habitat of those species. If a proposed species is ultimately listed, under section 7(a)(2) (16 U.S.C. 1536(a)(2)) of the ESA and the NMFS/USFWS regulations (50 CFR part 402), Federal agencies must consult on any action they authorize, fund, or carry out if those actions may affect the listed species or its critical habitat to ensure that such actions are not likely to jeopardize the continued existence of the species or result in adverse modification or destruction of critical habitat should it be designated. It is unlikely that the listing of this species under the ESA will increase the number of section 7 consultations, because this species occurs outside of the United States and is unlikely to be affected by Federal actions.

Critical Habitat

Critical habitat is defined in section 3 of the ESA (16 U.S.C. 1532(5)) as: (1) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination that such areas are essential for the conservation of the species. ''Conservation'' means the use of all methods and procedures needed to bring the species to the point at which listing under the ESA is no longer necessary. Section 4(a)(3)(A) of the ESA (16 U.S.C. 1533(a)(3)(A)) requires that, to the extent prudent and determinable, critical habitat be designated concurrently with the listing of a species. However, critical habitat cannot be designated in foreign countries or other areas outside U.S. jurisdiction (50 CFR 424.12(g)). The Atlantic humpback dolphin is endemic to coastal Atlantic waters of western Africa and does not occur within areas under U.S. jurisdiction, which are in different biogeographic regions and well outside the natural range of this species. Therefore, we do not intend to propose any critical habitat designations for this species.

Public Comments Solicited on Listing

To ensure that the final action resulting from this proposed rule will be accurate and based on the best available data, we solicit comments from the public, other governmental agencies, the scientific community, industry, environmental groups, and any other interested parties on the draft status review report and this proposed rule. See **DATES** and **ADDRESSES** for information on how to submit comments.

Promulgation of any final regulation to list this species will take into consideration the comments and any additional data we receive during the comment period, and this process may lead to a final regulation that differs from this proposal. Specifically, we are interested in new or updated information regarding: (1) the range, distribution, and abundance of the Atlantic humpback dolphin; (2) the genetics and population structure of the Atlantic humpback dolphin; (3) habitat within the range of the Atlantic humpback dolphin that was present in the past, but may have been lost over time; (4) any threats to the Atlantic humpback dolphin (*e.g.,* fisheries bycatch, coastal development, etc.); (5) current or planned activities within the range of the Atlantic humpback dolphin and their possible impact on the species; (6) recent observations or sampling of the Atlantic humpback dolphin; and (7) conservation efforts that are addressing threats to the Atlantic humpback dolphin.

We request that all data and information be accompanied by supporting documentation such as maps, bibliographic references, or reprints of pertinent publications. Please send any comments in accordance with the instructions provided in the **ADDRESSES** section above.

Role of Peer Review

In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review establishing minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation. The OMB Bulletin, implemented under the Information Quality Act (Pub. L. 106–554), is intended to enhance the quality and credibility of the Federal Government's scientific information, and applies to influential scientific information or highly influential scientific assessments disseminated on or after June 16, 2005. To satisfy our requirements under the OMB Bulletin, we solicited peer review comments on the draft status review report (Austin 2023) from four independent scientists selected from the academic and scientific community. We received and reviewed comments from these scientists. All peer reviewer comments, which are publically available (see **ADDRESSESS**) were addressed prior to dissemination of the draft status review report and publication of this proposed rule.

References

A complete list of all references cited herein is available upon request (see **FOR FURTHER INFORMATION CONTACT**).

Classification

National Environmental Policy Act

Section 4(b)(1)(A) of the ESA restricts the information that may be considered when assessing species for listing and sets the basis upon which listing determinations must be made. Based on the requirements in section 4(b)(1)(A) of the ESA and the opinion in *Pacific Legal Foundation* v. *Andrus,* 675 F. 2d 825 (6th Cir. 1981), we have concluded that ESA listing actions are not subject to the environmental assessment requirements of the National Environmental Policy Act (NEPA).

Executive Order 12866, Regulatory Flexibility Act, and Paperwork Reduction Act

As noted in the Conference Report on the 1982 amendments to the ESA,

economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analysis requirements of the Regulatory Flexibility Act are not applicable to the listing process. In addition, this proposed rule is exempt from review under Executive Order 12866. This proposed rule does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

Executive Order 13132, Federalism

In accordance with E.O. 13132, we determined that this proposed rule does not have significant federalism effects and that a federalism assessment is not required. Given that this species occurs entirely outside of U.S. waters, there will be no federalism impacts because listing the species will not affect any state programs.

List of Subjects in 50 CFR Part 224

Endangered and threatened species, Exports, Imports, Transportation.

Dated: April 3, 2023.

Kelly Denit,

Acting Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, NOAA proposes to amend 50 CFR part 224 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, in the table in paragraph (h), add the entry, ''Dolphin, Atlantic humpback'', in alphabetical order by common name under ''Marine Mammals'' 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:					
*	*	*	*	*	*
Dolphin, Atlantic humpback.	*Sousa teuszii*	Entire species	*[Insert* **FEDERAL REGISTER** *page where the document begins], [date of publication when published as a final rule].*	NA	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).

[FR Doc. 2023–07286 Filed 4–6–23; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC760]

50 CFR Part 224

Endangered and Threatened Species; Petition To Establish a Vessel Speed Restriction and Other Vessel-Related Measures To Protect Rice's Whales

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

ACTION: Notice of receipt of petition; request for comments.

SUMMARY: The Natural Resources Defense Council, Healthy Gulf, Center for Biological Diversity, Defenders of Wildlife, Earthjustice, and New England Aquarium submitted a petition to the National Marine Fisheries Service (NMFS) for rulemaking to establish a year-round 10-knot (kn) (5.1 meters/second) vessel speed limit and other vessel-related mitigation measures in the Rice's whale ''core'' habitat area. NMFS is requesting comments on the petition and will consider all comments and available information when determining whether to accept the petition and proceed with the suggested rulemaking.

DATES: Submit written comments on or before July 6, 2023.

ADDRESSES: You may submit data, information, or comments on this document, identified by NOAA–NMFS–2023–0027, and the petition by either of 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–2023–0027. 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 will generally 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 electronic file (PDF) formats only. The petition can be obtained electronically on our website at: *https://www.fisheries.noaa.gov/species/rices-whale#conservation-management.*

FOR FURTHER INFORMATION CONTACT: Laura Engleby, NMFS Southeast Region, *laura.engleby@noaa.gov,* 727–824–5312.

SUPPLEMENTARY INFORMATION: On May 11, 2021, NMFS received a petition pursuant to the Administrative Procedure Act from the Natural Resources Defense Council, Healthy Gulf, Center for Biological Diversity,