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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[Docket No. 131018873-4107-01]

RIN 0648-XC924

Endangered and Threatened Wildlife; 90-Day Finding on a Petition to List Multiple Species and Subpopulations of Marine Mammals as Threatened or Endangered Under the Endangered Species Act

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

ACTION: Notice of 90-day petition finding; request for information.

SUMMARY: We (NMFS) announce a 90-day finding on a petition to list two species and three distinct population segments of marine mammals as threatened or endangered under the Endangered Species Act (ESA). We find that the petition does not present substantial scientific or commercial information indicating that the petitioned action may be warranted for the Galápagos fur seal (Arctocephalus galapagoensis). We also find that the petition presents substantial information indicating that the petitioned action may be warranted for Hector's dolphin (Cephalorhynchus hectori), the Baltic Sea subpopulation of harbor porpoise (Phocoena phocoena), the eastern Taiwan Strait subpopulation of the Indo-Pacific humpback dolphin (Sousa chinensis), and the Fiordland subpopulation of bottlenose dolphin (Tursiops truncatus). We will conduct status reviews for this species and three subpopulations to determine if the petitioned actions are warranted. To ensure that these status reviews are comprehensive, we are soliciting

scientific and commercial information pertaining to these marine mammals from any interested party.

DATES: Information and comments on the subject action must be received by [insert date 60 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: You may submit comments, information, or data on this document, identified by the code NOAA-NMFS-2013-0151, by any of the following methods:

- Electronic Submissions*:* Submit all electronic comments via the Federal eRulemaking Portal. Go to www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2013-0151, click the "Comment Now!" icon, complete the required fields, and enter or attach your comments.
- Mail: Submit written comments to Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910.

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. We will accept anonymous comments (enter "N/A" in the required fields if you wish to remain anonymous), although submitting comments anonymously will prevent us from contacting you if we have difficulty retrieving your submission. Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only.

Copies of the petition and related materials are available upon request from the Director, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910, or online at: www.nmfs.noaa.gov/pr/species/petition81.htm.

FOR FURTHER INFORMATION CONTACT: Lisa Manning, Office of Protected Resources, 301-427-8466.

SUPPLEMENTARY INFORMATION:

Background

On July 15, 2013, we received a petition from the WildEarth Guardians to list 81 marine species as threatened or endangered under the ESA and to designate critical habitat under the ESA. Copies of this petition are available from us (see ADDRESSES). Of the 81 species petitioned for listing, this notice addresses the marine mammals: specifically, the Galápagos fur seal (Arctocephalus galapagoensis), Hector's dolphin (Cephalorhynchus hectori); the Baltic Sea subpopulation of harbor porpoise (Phocoena phocoena), the eastern Taiwan Strait subpopulation of the Indo-Pacific humpback dolphin (Sousa chinensis), and the Fiordland subpopulation of bottlenose dolphin (Tursiops truncatus). Separate 90-day findings are being drafted or have already issued for the other species addressed by the petition.

Section 4(b)(3)(A) of the ESA of 1973, as amended (U.S.C. 1531 et seq.), requires, to the maximum extent practicable, that within 90 days of receipt of a petition to list a species as threatened or endangered, the Secretary of Commerce make a finding on whether that petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted, and to promptly publish the finding in the Federal Register (16 U.S.C. 1533(b)(3)(A)). When we find that substantial scientific or commercial information in a petition

indicates that the petitioned action may be warranted (a "positive 90-day finding"), we are required to promptly commence a review of the status of the species concerned, which includes conducting a comprehensive review of the best available scientific and commercial information. Within 12 months of receiving the petition, we must conclude the review with a finding as to whether, in fact, the petitioned action is warranted. Because the finding at the 12-month stage is based on a significantly more thorough review of the available information, a "may be warranted" finding at the 90-day stage does not prejudge the outcome of the status review.

Under the ESA, a listing determination may address a "species," which is defined to also include subspecies and, for any vertebrate species, any distinct population segment (DPS) that interbreeds when mature (16 U.S.C. 1532(16)). A species, subspecies, or DPS is "endangered" if it is in danger of extinction throughout all or a significant portion of its range, and "threatened" if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range (ESA sections 3(6) and 3(20), respectively; 16 U.S.C. 1532(6) and (20)). Pursuant to the ESA and our implementing regulations, the determination of whether a species is threatened or endangered shall be based on any one or a combination of the following five section 4(a)(1) factors: the present or threatened destruction, modification, or curtailment of habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; inadequacy of existing regulatory mechanisms; and any other natural or manmade factors affecting the species' existence (16 U.S.C. 1533(a)(1), 50 CFR 424.11(c)).

ESA-implementing regulations issued jointly by NMFS and the U.S. Fish and Wildlife Service (50 CFR 424.14(b)) define "substantial information" in the context of reviewing a petition to list, delist, or reclassify a species as the amount of information that would lead a

reasonable person to believe that the measure proposed in the petition may be warranted. When evaluating whether substantial information is contained in a petition, we must consider whether the petition: (1) clearly indicates the administrative measure recommended and gives the scientific and any common name of the species involved; (2) contains detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved and any threats faced by the species; (3) provides information regarding the status of the species over all or a significant portion of its range; and (4) is accompanied by the appropriate supporting documentation in the form of bibliographic references, reprints of pertinent publications, copies of reports or letters from authorities, and maps (50 CFR 424.14(b)(2)).

At the 90-day stage, we evaluate the petitioner's request based upon the information in the petition, including references provided, and the information readily available in our files. We do not conduct additional research, and we do not solicit information from parties outside the agency to help us in evaluating the petition. We will accept the petitioner's sources and characterizations of the information presented if they appear to be based on accepted scientific principles, unless we have specific information in our files which indicates that the petition's information is incorrect, unreliable, obsolete, or otherwise irrelevant to the requested action. Information that is susceptible to more than one interpretation or that is contradicted by other available information will not be dismissed at the 90-day finding stage, so long as it is reliable and a reasonable person would conclude that it supports the petitioner's assertions. Conclusive information indicating that the species may meet the ESA's requirements for listing is not required to make a positive 90-day finding. We will not conclude that a lack of specific

information alone negates a positive 90-day finding, if a reasonable person would conclude that the unknown information itself suggests an extinction risk of concern for the species at issue.

To make a 90-day finding on a petition to list a species, we evaluate whether the petition presents substantial scientific or commercial information indicating that the subject species may be either threatened or endangered, as defined by the ESA. First, we evaluate whether the information presented in the petition, along with the information readily available in our files, indicates that the petitioned entity constitutes a "species" eligible for listing under the ESA. Next, we evaluate whether the information indicates that the species at issue faces extinction risk that is cause for concern; this may be indicated in information expressly discussing the species' status and trends, or in information describing impacts and threats to the species. We evaluate any information on specific demographic factors pertinent to evaluating extinction risk for the species at issue (e.g., population abundance and trends, productivity, spatial structure, age structure, sex ratio, diversity, current and historical range, habitat integrity or fragmentation), and the potential contribution of identified demographic risks to extinction risk for the species. We then evaluate the potential links between these demographic risks and the causative impacts and threats identified in section 4(a)(1).

Information presented on impacts or threats should be specific to the species and should reasonably suggest that one or more of these factors may be operative threats that act or have acted on the species to the point that it may warrant protection under the ESA. Broad statements about generalized threats to the species, or identification of factors that could negatively impact a species, do not constitute substantial information that listing may be warranted. We look for information indicating that not only is the particular species exposed to a factor, but that the

species may be responding in a negative fashion; then we assess the potential significance of that negative response.

Many petitions identify risk classifications made by non-governmental organizations, such as the International Union for Conservation of Nature (IUCN), the American Fisheries Society, or NatureServe, as evidence of extinction risk for a species. Risk classifications by other organizations or made under other Federal or state statutes may be informative, but such classification alone may not provide the rationale for a positive 90-day finding under the ESA. For example, as explained by NatureServe, their assessments of a species' conservation status do "not constitute a recommendation by NatureServe for listing under the U.S. Endangered Species Act" because NatureServe assessments "have different criteria, evidence requirements, purposes and taxonomic coverage than government lists of endangered and threatened species, and therefore these two types of lists should not be expected to coincide" (http://www.natureserve.org/prodServices/statusAssessment.jsp). Thus, when a petition cites such classifications, we will evaluate the source of information that the classification is based upon in light of the standards of the ESA and our policies as described above.

With respect to the two species and three subpopulations of marine mammals discussed in this finding, the petitioner relies almost exclusively on the risk classifications of the IUCN as the source of information on the status of each petitioned species. All of the petitioned marine mammals are listed as "endangered" or "critically endangered" on the IUCN Red List and the petitioner notes this as an explicit consideration in offering petitions on these species. Species classifications under the IUCN and the ESA are not equivalent, and the data standards, evaluation criteria, and treatment of uncertainty are also not necessarily the same.

DPS Policy

A joint NOAA-U.S. Fish and Wildlife Service (USFWS) policy clarifies the agencies' interpretation of the phrase "distinct population segment" for the purposes of listing, delisting, and reclassifying a species under the ESA ("DPS Policy"; 61 FR 4722; February 7, 1996). The joint DPS Policy (61 FR 4722; February 7, 1996) identifies two criteria for making DPS determinations: (1) the population must be discrete in relation to the remainder of the taxon (species or subspecies) to which it belongs; and (2) the population must be significant to the remainder of the taxon to which it belongs.

A population segment of a vertebrate species may be considered discrete if it satisfies either one of the following conditions: (1) "it is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation"; or (2) "it is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D)" of the ESA (61 FR 4722; February 7, 1996).

If a population segment is found to be discrete under one or both of the above conditions, then its biological and ecological significance to the taxon to which it belongs is evaluated. This consideration may include, but is not limited to: (1) "persistence of the discrete population segment in an ecological setting unusual or unique for the taxon; (2) evidence that the loss of the discrete population segment would result in a significant gap in the range of a taxon; (3) evidence that the discrete population segment represents the only surviving natural occurrence of

a taxon that may be more abundant elsewhere as an introduced population outside its historic range; and (4) evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics" (61 FR 4722; February 7, 1996).

Species Descriptions

The marine mammals addressed by the petition include three dolphins (Cephalorhynchus hectori, Sousa chinensis, Tursiops truncatus), a porpoise (Phocoena phocoena), and a seal (Arctocephalus galapagoensis).

The Galápagos fur seal, Arctocephalus galapagoensis, is found on most islands of the Galápagos Archipelago, Ecuador in the southeast Pacific Ocean. This species is the smallest and least sexually dimorphic member of the "eared seal" family, Otariidae. The few adult males that have been weighed have ranged from 60-68 kg; adult females are smaller and weigh an average of 27.3 kg (Aurioles and Trillmich, 2013). Galápagos fur seals may mature at about 5-6 years of age, and lactation lasts for 2-3 years (Bonner, 1984). The seals form colonies close to foraging areas and feed primarily at night on squids and fishes. Their preferred haul-out areas are rocky, rugged coasts with large boulders that provide shade.

Hector's dolphin (Cephalorhynchus hectori) is a coastal species endemic to New Zealand, and as a result of its very nearshore distribution, it is one of the best-studied dolphins in the world. They are the smallest members of the family Delphinidae. Adults reach lengths of 1.5 m and weights up to 57 kg (Jefferson et al., 1993). Hector's dolphins live in groups of 2-8 individuals but larger aggregations (~50 animals) can also be seen at times (Jefferson et al., 1993). Females bear their first calf at around 7- 9 years of age and may bear calves every 2-3 years (Dawson, 1991). Their diet consists of small fishes and squids. Relatively recently, based

on genetic and morphological data, the population of Hector's dolphins occurring on the coast of New Zealand's North Island were formally recognized as a new subspecies, C. hectori maui or Maui's dolphin (Baker et al., 2002). The dolphins of the South Island can be referred to as the nominate subspecies, C. hectori hectori.

The harbor porpoise, Phocoena phocoena, is a widely distributed cetacean found in northern temperate and subarctic coastal and offshore waters. They are commonly found in bays, estuaries, harbors, and fiords in waters less than 200 m deep. They are medium to dark gray with a white belly and throat and have a small, stocky body (~45-70 kg; 2.0 m maximum length); a short, blunt beak; and a medium-sized triangular dorsal fin. Sexual maturity is generally reached at about 3-4 years. They feed on demersal and benthic species, mainly schooling fish and cephalopods. They are non-social and are usually seen in groups of 2-5 animals. The petition requests listing of the Baltic Sea subpopulation of harbor porpoise.

The Indo-Pacific humpback dolphin, Sousa chinensis, is found from northern Australia and southern China, through Indonesia and westward along the coastal rim of the Indian Ocean and down along the east coast of Africa (Jefferson et al., 1993). This species primarily occurs in nearshore habitats, and is often associated with estuaries, river mouths and mangroves. Although still formally recognized as a single species, some biologists consider there to be two species: S. plumbea, found from South Africa to the east coast of India, and S. chinensis, found from the east coast of India to China and Australia (Reeves et al., 2008a). Evidence seems to be growing in support of the existences of two or even more species (Reeves et al., 2008a). Color and color patterns are variable among the populations; and, in some populations the dorsal fin sits on a hump on the back, while in other populations this hump is absent (Jefferson et al., 1993). All

Indo-Pacific humpback dolphins have a distinctively long, well defined beak. Maximum sizes recorded for males 3.2 m long and 2.5 m long for females. They form social groups of about 10 animals, but groups of up to 30 animals have been documented (Jefferson et al., 1993). Reproductive parameters are not well known. Based on limited information, age at sexual maturity is thought to be around 9-12 years, and gestation length may be about 10-12 months (Jefferson, 2004). Diet consists of mainly nearshore and estuarine fishes. The petition requests listing of the eastern Taiwan Strait subpopulation of the Indo-Pacific humpback dolphin.

The bottlenose dolphin, Tursiops truncatus, is one of the most well-known species of marine mammals. They have a robust body and a short, thick beak. Their coloration ranges from light gray to black with lighter coloration on the belly. Inshore and offshore individuals vary in color and size. Inshore animals are smaller and lighter in color, while offshore animals are larger, darker in coloration, and have smaller flippers. Bottlenose dolphins range in length from 1.8 to 3.8 m, with males slightly larger than females. Lifespan is 40-45 years for males and more than 50 years for females. Sexual maturity varies by population and ranges from 5-13 years for females and 9-14 years for males. Calves are born after a 12 month gestation period and are weaned at 18 to 20 months. On average, calving occurs every 3 to 6 years. Females as old as 45 years have given birth. Bottlenose dolphins are commonly found in groups of 2 to 15 individuals, but offshore herds can sometimes have several hundred individuals. They feed on a variety of prey items, including invertebrates and fishes, and may forage individually and cooperatively. The petition requests listing of the Fiordland subpopulation of bottlenose dolphins.

Analysis of the Petition

The petition indicates the recommended administrative measure and gives the scientific and common names of the species involved. The petition is not clear, however, regarding which population or populations of Hector's dolphin are petitioned for listing; we discuss this further below in the section addressing this particular species. The petition contains a narrative justification for the recommended measures and provides information on the species' geographic distributions, habitats, and threats. Information is provided regarding the species' past or present numbers, or population status and trends for all or a significant portion of the species' ranges. Supporting documentation is provided, mainly in the form of IUCN species assessments.

Based on the information presented in the petition, along with the information readily available in our files, we find that the Galápagos fur seal (Arctocephalus galapagoensis) and Hector's dolphin (Cephalorhynchus hectori) constitute valid "species" eligible for listing under the ESA as each is considered a valid taxonomic species. In evaluating the request to list certain DPSs, we must first consider whether the petition provides substantial information indicating that the petitioned subpopulations may qualify as DPSs and thus constitute valid "species" eligible for listing. Our analyses and conclusions regarding the possible qualification of the petitioned subpopulations as DPSs are provided below within the relevant species section.

The petition includes a general introductory section discussing threats to all 81 species addressed in the petition, a section on the threats to the marine mammals petitioned for listing, and species-specific sections with information on each individual marine mammal species. We have reviewed and considered the information in each section of the petition, and a synopsis of our analysis of the information provided in the petition and readily available in our files is provided below for each of the petitioned marine mammal species and subpopulations.

Galápagos Fur Seal

This species (Arctocephalus galapagoensis) is currently listed as "endangered" on the IUCN Red List and is listed on CITES Appendix II. The petition asserts that this species is being threatened with extinction by all five of the ESA section 4(a)(1) factors - habitat destruction or modification, overutilization, disease and predation, inadequacy of regulatory mechanisms, and other natural factors.

The petition states that Galápagos fur seals, and in fact all of the marine mammals addressed in the petition, are threatened by habitat destruction and modification as a result of various factors, including human population growth and associated consequences such as pollution, dead zones (i.e., areas of very low dissolved oxygen), development, tourism, and ocean acidification. The petition highlights the threat of ocean acidification in particular, and discusses how the acidity of sea water alters the absorption of low and mid-frequency sound. The petition argues that while communication over long distances for some marine mammals may be improved, the increasing ocean acidity also means a "noisier" environment and potential loss of suitable habitat. The information in the petition regarding these various habitat threats, however, is general in nature and is not clearly linked to the petitioned species' range or habitats. For example, no information is provided or available to us to indicate what, if any, effect dead zones, pollution, or ocean acidification may be having, or may have in the future, on Galápagos fur seal habitat. Furthermore, the Galápagos fur seals' range lies within the boundaries of the Galápagos National Park, where tourism is closely regulated (Aurioles and Trillmich, 2008) and where, presumably, their habitat receives some measure of protection from development and pollution.

During the 19th century, Galápagos fur seals were heavily exploited by sealers and whalers. By the early 20th century, the species was near extinction but "has since recovered" (Aurioles and Trillmich, 2008). Although the seals are now protected, the petition asserts that the seals continue to be threatened indirectly by fishing as evidenced by reports of the seals becoming entangled in fishing nets. According to the most recent IUCN assessment, entanglement of seals is "thought to be increasing" (Aurioles and Trillmich, 2008). References or data to support this statement are not provided, and there is no indication of why the entanglements are thought to be increasing (e.g., increased fishing activity). The waters around the islands are also protected by a 40 nautical mile no fishing zone (Aurioles and Trillmich, 2008). No additional information is provided or available in our files regarding fishing activity, the frequency of seal entanglements, or the outcome of seal entanglements (e.g., mortality, injury). Therefore, it is unclear whether and to what extent entanglement is affecting the extinction risk of the species.

The petition states that Galápagos fur seals are threatened by both disease and predation. The petition presents information about feral dogs on Isabela Island and how the dogs decimated colonies of seals on the southwestern end of the island (Aurioles and Trillmich, 2008). The petition also states that transmission of diseases from dogs to the fur seals is the "most serious threat to the species at this time." The feral dogs have since been exterminated from this island (Aurioles and Trillmich, 2008), but because the potential exists for feral dogs to return the island, the petition asserts that predation by dogs and disease transmission from dogs to seals represent "ongoing" threats to the species' existence. No information is provided or is available in our files to indicate the likelihood of feral dogs returning, and no information is available in the

petition or our files to indicate whether or how these threats are currently being managed within the Galápagos National Park. We also lack information about how specific impacts occurring on Isabela Island would impact the fur seals elsewhere in the archipelago and at the species level. As a result, we cannot conclude that disease and predation by dogs on Isabela Island represent ongoing threats to the species existence.

The petition states that current protections for the Galápagos fur seals are inadequate to protect them against the most serious threats to their existence. Specifically, the petition asserts that although the seals are listed on CITES Appendix II and are protected under Ecuadorian law and by management of the Galápagos National Park, these protections are not adequate to address the threats of bycatch, disease, predation, tourism, El Niño and anthropogenic climate change. The petition does not discuss the existing regulatory context further or indicate what additional regulations might be necessary to adequately protect the fur seals from these threats. Also, as discussed above, we do not have sufficient information to indicate whether bycatch, disease, predation and tourism are posing an extinction risk for the species. Therefore, it is unclear whether existing regulatory mechanisms and protections are inadequate to address these threats. With respect to climate change and El Niño, we agree with statements in the petition that localized protections may not be adequate to protect a species from global events. However, the petition does not present information regarding existing regulatory mechanisms or what protections are needed to address these particular threats as they relate specifically to Galápagos fur seals. For example, the petition does not relate current levels of greenhouse gas emissions to the status of the species, or indicate what reductions would adequately safeguard the seals from anthropogenic climate change given an existing context of the various emission reduction targets

and pledges that have been made by a number of countries. Such specific information is also not provided regarding regulatory mechanisms to mitigate the effects of El Niño, a natural feature of our climate system and the seals' habitat. Thus, it is unclear the level and extent to which existing regulatory mechanisms are inadequate to protect Galápagos fur seals from potential consequences of anthropogenic climate change and El Niño.

The petition states that Galápagos fur seals are threatened by El Niño events, which result in declines in primary productivity and reduced food availability for higher trophic levels. The effects of El Niño on Galápagos fur seals and other pinnipeds in the eastern tropical and temperate Pacific Ocean are well documented (Limberger, 1990; Aurioles-Gamboa et al., 2004). The 1982/83 El Niño was an extreme event that had widespread oceanographic effects and resulted in very high mortality rates for Galápagos fur seals and other species (Aurioles and Trillmich, 2008). El Niño events occur irregularly about every 3-6 years, and strong events, as measured by the degree of warming, occur at 8 to 15 year intervals. El Niño events of the magnitude similar to the 1982/83 event, however, only occur one or a few times per century (see www.elnino.noaa.gov). Presumably, the seals are somewhat resilient to this periodic disturbance, which forms a part of the evolutionary framework that shaped the species (Limberger, 1990), but the degree of recovery of Galápagos fur seals since the 1982/83 event is not known (Aurioles and Trillmich, 2008). Whether or not El Niño constitutes an extinction risk for the species depends on the rate of recovery of the seals and the frequency of intense El Niño events. Sufficient information to evaluate this is not available in the petition or in in our files. Thus, it is not clear that such events represent an extinction risk to the species such that listing under the ESA may be warranted.

The petition presents the additional argument that El Niño events "appear to be increasing in frequency and duration" and therefore this threat "will only continue to grow." Whether the frequency and intensity of El Niños are increasing or are being influenced by anthropogenic climate change are unanswered questions and currently the subject of much research. Furthermore, there is no information provided to indicate that such environmental changes are occurring at a certain rate that is expected out-pace the species' ability to adapt. Sightings of Galápagos fur seals and other pinnipeds outside their geographic ranges have been documented along the Central and South American coast, and several authors have hypothesized these extra-range sightings are caused in part by El Niño events (Felix et al., 2001; Capella, 2002; Aurioles-Gamboa et al, 2004). While much research is still needed to conclusively link El Niño events to these extra-range sightings, such dispersal may play an important role in the long-term persistence of populations as the carrying capacity of their preferred habitats changes in response to climatic events (Capella et al., 2002).

The petition includes brief mention of several other threats to Galápagos fur seals, including small population size, oil spills, a small range, and a declining population trend. We considered each of these factors and concluded that statements about them and their effect on the species are very general in nature or not substantiated by any data or information. For example, the petition states that, although there is limited large vessel traffic in the Galápagos, smaller vessels "could release moderate quantities" of oil "if involved in a marine accident." No information regarding frequency or potential for such oil spills is presented or available in our files. Furthermore, according to the last IUCN assessment, the current abundance of Galápagos fur seals is roughly estimated to be about 15,000 to 20,000 animals (Aurioles and Trillmich,

2008), which is not necessarily considered "small." Given the limited information provided, we do not consider the "other natural factors" discussed in the petition to constitute substantial information that listing Galápagos fur seals under the ESA may be warranted.

Overall, while the information in the petition suggests that the Galápagos fur seal should continue to be protected, much of the information about threats is overly general or speculative in nature. Insufficient information is provided to demonstrate that ocean acidification, pollution, entanglement, disease, predation and climate change are operative threats that are acting or will act on the species such that it may warrant protection under the ESA. Many of the major threats presented in the petition also appear to have been eliminated (e.g., direct harvest, feral dogs) or addressed through current management action (e.g., no fishing zone, regulation of tourism). Information regarding specific effects of climate change on the seals and the seals response to this threat is lacking, and the argument that Galápagos fur seals will not be able to recover from temporary impacts of El Niño events is not well supported. In conclusion, we do not find that the petition presents substantial information that listing under the ESA may be warranted for the Galápagos fur seals.

Hector's Dolphin

Hector's dolphin (Cephalorhynchus hectori) has a discontinuous distribution along the coasts of both the North and South Islands of New Zealand and is comprised of multiple, genetically distinct populations (Reeves et al., 2013a). A separate IUCN assessment has been completed for the subspecies C. hectori maui or Maui's dolphin, which occurs off the North Island. The petition states that, because Maui's dolphin has been recognized and assessed separately, "…this Petition is focused on the South Island subspecies and petitions for listing as

an endangered or threatened species and not as a DPS." Despite this stated focus on the "South Island subspecies," the petition provides status information for both subspecies and relies on the species-level IUCN assessment for C. hectori. The Latin name for the South Island subspecies, C. hectori hectori, is not mentioned in the petition. Thus, it is not clear which entity the petition is requesting be considered for listing under the ESA. We elected to address the species, C. hectori, in our review, because the petition consistently refers to C. hectori throughout its discussions and presents status and threats information for the dolphins range-wide.

Hector's dolphin is currently classified as "endangered" on the IUCN Red List and is listed on Appendix II of CITES. Maui's dolphin is listed separately as "critically endangered" on the Red List. Under the New Zealand Threat Classification System, the South Island subspecies is currently categorized as "endangered" (Baker et al., 2010), and Maui's dolphin is categorized as the more serious, "nationally critical."

Aside from the vaquita (Phocoena sinus), Hector's dolphin is considered to have the most limited range of any marine cetacean (Reeves et al., 2013a). Alongshore ranges of individual dolphins may typically be less than 60 km (Brager et al, 2002). The petition states that, due to this limited coastal distribution, Hector's dolphins are threatened by human activities such as "pollution, vessel traffic and habitat modification." The petition refers to a single sentence in the IUCN assessment of C. hectori to support of these assertions (Reeves et al., 2013a). No further discussion or information is provided in the petition to clarify these statements or indicate how these factors are threatening the Hector's dolphins of either island. One study in our files, however, suggests that boat strikes are posing more of a threat to this species than previously

thought (Stone and Yoshinaga 2000), but the available data are too limited to make conclusive statements regarding the severity or extent of this particular threat.

The petition asserts that that the main threat to Hector's dolphins is incidental entanglement in fishing nets and gear. Multiple, independent modeling efforts have indicated that bycatch is contributing to the decline of Hector's dolphin populations (Martien et al., 1999; Burkhart and Slooten, 2003), and populations are predicted to continue declining throughout New Zealand under the current management scenarios (Slooten, 2013). In a review of such modelling efforts, Slooten and Davies (2012) showed that all analyses are remarkably consistent in indicating that 1) dolphin populations have declined substantially due to fisheries mortality, and 2) recovery is unlikely under recent management efforts. Research has also demonstrated a significant conservation benefit of the Banks Peninsula Marine Mammal Sanctuary (Slooten, 2013), which was enacted in 1988 to protect the dolphins from commercial gillnetting. Despite this sanctuary, additional protected areas, and a slow but steady escalation of protections since 1988, Slooten (2013) reports that population decline is still occurring nationwide. An expert panel, convened in 2012 by the New Zealand Department of Conservation and Ministry for Primary Industries and consisting of scientists from New Zealand and the United States, estimated that fisheries bycatch accounted for 95.5% of all human-caused mortality; pollution, mining, and tidal energy generation were among the threats comprising the remaining 4.5% of human-caused mortality (Slooten, 2013). Overall, the available information suggests that bycatch is posing an extinction risk for the species.

The petition states that Hectors' dolphins are also threatened with extinction from disease. However, no other information, discussion or references are provided in the petition to

indicate what diseases are affecting the dolphins and how these diseases are affecting survivorship or health of the dolphins. While it is possible the species is threatened by some disease or diseases, the available information is insufficient to indicate that it is an operative threat that is posing a potential extinction risk for the species. For example, Duignan et al. (2005) confirmed the presence of Brucella in a female dolphin, but the prevalence of this potentially significant dolphin pathogen or its impacts on Hector's dolphin is not known.

The petition asserts that Hector's dolphin is threatened by the inadequacy of existing regulatory mechanisms. The petition focuses specifically on CITES and the efforts of the New Zealand government. No information or discussion of international trade is provided, and thus it is not clear whether CITES protections are actually inadequate to address this particular threat. For reasons discussed above, we agree that recent protections extended to Hector's dolphins within New Zealand do not appear to be sufficient to address the threat of bycatch, which is estimated to be occurring at an unsustainable rate (Slooten, 2007).

Although figures vary among studies, Hector's dolphins have been estimated to number 7,270 animals off the South Island (Slooten et al., 2004) and 111 animals off the North Island (Slooten et al., 2006). Dolphin densities have declined since the 1970s and the populations have become increasingly fragmented (Slooten, 2013). In a population viability analysis for the period 1970-2009, Slooten (2007) estimated a rate of decline of 74% over 3 generations for the species as a whole. Given low the abundances and population fragmentation, the ongoing threat of bycatch, and the predicted continued decline in abundance, we find that Hector's dolphin may warrant listing under the ESA.

Baltic Sea Subpopulation of Harbor Porpoise

The petition requests listing of the Baltic Sea subpopulation of harbor porpoise (Phocoena phocoena) as a DPS. To meet the definition of a DPS, a population must be both discrete from other populations of the species and significant to the species as a whole (61 FR 4722; February 7, 1996). Several morphological and genetic studies referenced in the petition provide some evidence that the harbor porpoises in the Baltic Sea are distinct from the harbor porpoises living in the Kattegat, Skagerrak and North Seas (Tiedemann et al., 1997; Huggenberger et al., 2002). On the basis of these studies, the petition argues that the Baltic Sea porpoises are markedly separated from other subpopulations and thus meet the "discreteness" criterion of the DPS Policy. A more recent paper in our files provides some additional support for this assertion: Wiemann et al. (2010) analyzed microsatellite and mitochondrial DNA for over 300 porpoise samples from the Baltic and surrounding seas and found a small but significant amount of genetic separation of the Baltic Sea porpoises from those in the adjacent Belt Sea. The data also suggest some level of gene flow among subpopulations, and the issues of how and where to divide subpopulations into meaningful management units has been a matter of some debate (Palme et al., 2008; Wiemann et al., 2010). In a review article on harbor porpoises in the Baltic Sea, Kochinski (2002) concludes that, although some studies are inconsistent in their findings, the existence of a Baltic Sea subpopulation does seem likely. Thus, we consider the available information sufficient to indicate that there may be a discrete Baltic Sea subpopulation of P. phocoena. For ease of discussion, we refer to these harbor porpoises as the Baltic Sea subpopulation (BSS) throughout the remainder of this document.

The petition asserts that the BSS differs from other subpopulations in its genetic characteristics and that loss of the BSS of harbor porpoise would result in a significant gap in the

range of the taxonomic species. Based on these two lines of reasoning, the petition argues that the BSS meets the "significance" criterion of the DPS Policy. We find limited support for the assertion that loss of this subpopulation from the Baltic Sea would result in a signifigant gap in the range of this very wide-ranging and mobile species. Given the evidence of some degree of migration among the subpopulations (Wiemann, 2010), we cannot concur with the statement in the petition that it is "highly unlikely" for harbor porpoises from other subpopulations to fill the gap that would be left by an extirpated BSS. However, we do agree, that on the basis of morphological differences among subpopulations, the BSS may differ markedly in its genetic characteristics. For example, Huggenberger et al. (2002) found significant differences in skull morphology among subpopuations of the North and Baltic Sea regions that may stem from differences in prey species among areas. Differences in tooth ultrastructure, which may be genetically or environmentally controlled, have also been found among harbor porpoises from the Baltic, North and Skagerrat Seas (Lockyer, 1999). In conclusion, we find sufficient indication that the BSS may meet the "significance" criterion of the DPS Policy.

The weight of the available evidence suggests that the BSS may meet the "discreteness" and the "significance" criteria of the DPS Policy (61 FR 4722; February 7, 1996) and thus may qualify as a DPS. Therefore, we proceeded to review the petition and information readily available in our files to evaluate whether this presumed DPS may warrant listing under the ESA. We note, however, that precise boundaries for this potential DPS are not known or determined at this stage.

The petition highlights pollution, and specifically polychlorinated biphenyls **(**PCBs), as a cause of habitat modification, disease and parasitism that is threatening the BSS of harbor

porpoise. PCBs are toxic organic chemicals once widely used in many commercial and industrial products (e.g., paints, plastics, electrical equipment), and although used and manufactured to a much lesser extent today, they can still be released into the environment where they persist for long periods of time. PCBs can enter the food chain through direct contact, inhalation or ingestion, and can accumulate in the tissues of animals, especially those of higher trophic levels. An analysis of organic contaminants in harbor porpoises showed that animals in the Baltic Sea have 41 to 245% higher mean levels of PCBs and other organochlorines in their tissues when compared to animals from the Kattegat and Skagerrak Seas (Berggrena et al., 1999). The total mean concentration of PCBs measured in mature harbor porpoises from the Baltic Sea (46 ± 26 µg/g) also exceeds the estimated threshold level for subtle, adverse neurobehavioral effects in harbor porpoises (i.e., ~3 µg/g; (Berggrena et al, 1999). Beineke et al. (2005) completed detailed pathological examinations on 61 stranded or by-caught harbor porpoises and found that harbor porpoises from the German North and Baltic Seas exhibited a higher incidence of bacterial infection when compared to harbor porpoises from less polluted Icelandic and Norwegian waters. These authors concluded their findings support the hypothesis of contaminant-induced immunosuppression in harbor porpoise, which may possibly contribute to disease susceptibility (Beineke et al, 2005). In a review article, Koschinski (2002) reports that environmental contaminants most likely do affect the long-term viability of the BSS porpoises and may in fact have played a large role in their decline from the 1940s to the 1970s, after which time the concentration of PCBs and other organochlorine contaminants began to decline. The IUCN assessment for the BSS also references multiple studies that report various pathologies in Baltic harbor porpoises, including pneumonia, skin lesions, and heavy parasite loads (see Hammond et

al., 2008b). Thus, while it is unclear the level and extent to which pollution is currently affecting the BSS, the available information indicates the BSS is exposed to a relatively high level of pollution, and it suggests this exposure may be having negative health consequences for these animals.

The petition and IUCN assessment for the BSS of harbor porpoise state that the most significant threat to this subpopulation today is bycatch in commercial fisheries (Hammond et al., 2008b). Bycatch of harbor porpoises has been documented to occur in multiple gear types, but the majority of the bycatch is attributed to bottom-set gillnets and driftnets (Koschinski, 2002). Entanglement in such nets typically results in mortality (Koschinski, 2002). Concern about incidental catch of small cetaceans led the European Union (EU) to adopt a regulation in 2004 to help minimize bycatch in EU waters (Hammond et al., 2008b). Information or data to evaluate the effectiveness of this regulation in mitigating bycatch of harbor porpoises are not available to us. Apparently, a complete evaluation of the threat bycatch poses to the BSS is not yet possible due to uncertainty regarding the total amount of bycatch and uncertainty regarding harbor porpoise stock structure, abundance, and population growth rate (Berggren, 1994; Koschinski, 2002). However, Berggren et al. (2002); as cited in (Carlstrom et al, 2009) concluded that the levels of bycatch in the Skagerrak, Kattegat, and Baltic Sea are not sustainable. Overall, it appears that bycatch is widely accepted to be a serious threat to harbor porpoises in the Baltic Sea; however, sufficient data and information to thoroughly evaluate the extent and severity of this threat appear to be lacking, especially given the context of ongoing conservation action.

The petition argues that existing regulatory measures are inadequate to protect the BSS of harbor porpoise and focuses the discussion on CITES and the 2004 EU fisheries regulation in particular. However, no information is presented on international trade of the BSS of harbor porpoise, and no information is presented to indicate that the current Appendix II listing of P. phocoena is not adequate to safeguard the BSS from effects of international trade. The petition argues that the EU's fisheries regulation is inadequate because this regulation does not address sources of bycatch from fisheries other than drift net fisheries (e.g., does not address trawls). The extent of take or mortality in other fisheries or gear types is not discussed further nor is such information available in our files; thus, it is not possible for us to evaluate the extent to which these other fisheries pose a threat to the BSS. Lastly, the petition argues that no regulations are adequately addressing the threat of pollution; but the regulatory context for addressing pollution and PCBs in this region is not discussed, making this assertion difficult to assess. Furthermore, while the petition refers to a report by ASCOBANS ("Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas") at one point, the petition provides no information on international conservation goals or actions being taken by this group. We have no additional information in our files regarding the management actions of this group or any other individual country. Thus, we do not find there is sufficient information to support the claim that existing measures are inadequate.

The harbor porpoise, P. phocoena, is an abundant and widespread species with an estimated global abundance of about 700,000, (Hammond et al., 2008a). In contrast, the BSS is estimated to number fewer than 250 mature animals (Hammond et al., 2008b). In his review of existing literature, Koschinski (2002) states that abundance of porpoises in the Baltic region

declined during the second half of the 20th century and the range contracted considerably. Anecdotal data collected by Skora et al. (1988) suggest that in Polish waters, harbor porpoise abundance is very low as compared to the abundance in the early 20th century. Harbor porpoises are still fairly abundant in the Kattegat and Belt Seas (0.73- 0.99 animals/ sq km), especially relative to the Baltic proper where densities are less than 0.01 animals/ sq km (Koschinski, 2002). Acoustic and visual surveys conducted in the Baltic Sea and surrounding waters during the summers of 2001 and 2002 have confirmed that the relative abudance and occurrence of harbor porpoises in the Baltic Sea are very low (Gillespie et al., 2005). An unpublished ASCOBANS report (1997; as cited in Koschinski, 2002) also states that harbor porpoises in the Baltic Sea "appear to be in a serious long-term decline."

In conclusion, we find that harbor porpoises of the Baltic Sea may meet the "discreteness" and "significance" criteria of the DPS Policy (61 FR 4722; February 7, 1996) and thus may qualify as a DPS. We also find that, given the available information regarding low abundance, a declining population trend and potential threat of pollution, the BSS of harbor porpoise may warrant listing as threatened or endangered under the ESA.

Eastern Taiwan Strait Subpopulation of Indo-Pacific Humpback Dolphin

The petition requests listing of the eastern Taiwan Strait subpopulation (ETS) of the Indo-Pacific humpback dolphin, Sousa chinensis, as a DPS. As discussed previously, a population must be both discrete from other populations of the species and significant to the species as a whole in order to meet the definition of a DPS (61 FR 4722; February 7, 1996). The petition discusses how the ETS dolphins can be distinguished from Indo-Pacific dolphins off the coast of mainland China on the basis of pigmentation patterns. While a genetic basis for this

color variation has not yet been established, the maintenance of these phenotypic differences may be indicative of reproductive isolation (Wang et al., 2008). As additional evidence of "marked separation" of ETS dolphins, the petition discusses how the ETS dolphins are restricted to the western side of Taiwan, mainly in and around the two main estuaries. With few exceptions, all sightings of ETS dolphins have been reported from within 3 km of shore despite survey efforts beyond this point, and it has been suggested that the depth of the relatively narrow Taiwan Strait may function as a barrier for movement of ETS dolphins across to the coast of mainland China (Wang et al., 2008; Reeves et al., 2008b). An analysis of 450 individually photo-identified dolphins also provided no evidence of movement or exchange of individuals among the ETS and two groups from mainland China (Wang et al., 2008). Overall, this information suggests this subpopulation may be "discrete" from other Indo-Pacific humpback dolphins.

With respect to the "significance" criterion of the DPS Policy, the petition states that the ETS dolphins are significant to the taxonomic species as a whole, because loss of this particular subpopulation would result in a significant gap in the range of the species. While it may be unlikely that other Indo-Pacific humpback dolphins would move to occupy the available habitat should the ETS dolphins be extirpated (given potential bathymetric barriers), it is not clear that the loss of this small range would constitute a "significant gap" given the extensive Indo-Pacific range of this species. The petition also argues that the subpopulation is significant to the species as a whole, because it differs markedly from other subpopulations in its genetic characteristics. While there are no genetic data provided in the petition or in our files to indicate the observed phenotypic differences are genetically controlled, a meaningful degree of genetic differentiation

of the ETS dolphins is plausible given the potential year-round residency of the ETS dolphins and the evidence suggesting a lack of migration among regional groups (Wang et al., 2008; Wang and Yang, 2010). Thus, we find sufficient indication that the ETS dolphins may meet the "significance" criterion of the DPS Policy.

We conclude that the Indo-Pacific humpback dolphins in the eastern Taiwan Strait may meet both the "discreteness" and the "significance" criteria of the DPS Policy and thus may qualify as a DPS (61 FR 4722; February 7, 1996). Therefore, we proceeded to review the petition and information readily available in our files to evaluate whether this presumed DPS may warrant listing under the ESA. For ease of discussion, we refer to the ETS subpopulation of the Indo-Pacific humpback dolphin as a DPS throughout the remainder of this text.

The petition states that the ETS DPS of S. chinensis is being threatened by habitat destruction and modification and lists multiple causes including reduction of freshwater flows, seabed reclamation, and pollution. The ETS DPS dolphins' exposure to land-based pollution and other threats is relatively high all along the central western coast of Taiwan, because these dolphins are thought to inhabit only a narrow strip of coastal habitat: they have not been observed in waters deeper than 25 m and are typically sighted in waters 15 m deep and within 3 km from shore (Reeves et al., 2008b). Information in our files indicates that much of the preferred habitat of the ETS DPS has been altered or may become altered, but we do not have sufficient information to evaluate what effects this and most of the activities discussed in the petition (e.g., reduced freshwater flows, seabed reclamation) are having on the dolphins' status. For example, while several of the rivers in western Taiwan have already been dammed or diverted for agricultural, municipal, or other purposes, there are no data or information in the

petition or our files to indicate what the impact, if any, reduced water flows to the estuaries is having on the ETS DPS dolphins or their prey (Ross et al, 2010). However, we do have some information in our files indicating that these dolphins are exposed to toxic PCBs and are likely to be negatively affected through ingestion of contaminated prey. By measuring PCB concentrations of known prey species, Riehl et al. (2011) constructed a bioaccumulation model to assess the risk PCBs may be posing to the ETS dolphins. Their results indicated that the ETS dolphins are at risk of immunotoxic effects of PCBs over their lifetime (Riehl et al., 2011). In addition, surveys of 97 ETS DPS dolphins conducted from 2006 to 2010 showed that 73% had at least one type of skin lesion and that 49% of the surveyed dolphins were diseased (Yang et al., 2011). These data suggest the dolphins may have weakened immune systems and are consequently more susceptible to disease. Overall, while we have insufficient information to evaluate several of the claims in the petition, we do have sufficient information to indicate that pollution is probably having a negative impact on the status of the ETS of Indo-Pacific humpback dolphins.

The petition asserts that the greatest threat to this DPS is bycatch in commercial fisheries. Data or information to directly evaluate this assertion appears to be lacking, but some indirect data does suggest that fisheries are posing a threat to this DPS. For example, thousands of vessels deploying trammel or gillnets are known to operate within the range of this DPS, and one third of 32 photo-identified dolphins of this DPS have scars thought to have been caused by either collisions with ships or interactions with fishing gear (Wang et al., 2004). There are also two unpublished reports of dead, stranded ETS dolphins suspected to have died as a result of a fisheries interaction (see Ross et al., 2010). Overall, however, the available information is

insufficient to support conclusions regarding whether or to what extent bycatch is contributing to extinction risk for the ETS DPS.

The petition asserts that existing regulatory mechanisms are inadequate to conserve this DPS. The petition specifically identifies the CITES Appendix I listing of Sousa spp. as one deficiency; however, no additional information or data are provided in the petition regarding international trade of ETS DPS dolphins. Thus, we cannot conclude that the Appendix I listing is inadequate to safeguard this DPS from the threat of international trade. The ETS DPS dolphins are currently protected under Taiwan's Wildlife Conservation Act, although it appears that no specific habitats or areas are currently being protected (Ross et al., 2010). The petition, the IUCN assessment, and other references in our files also discuss Taiwan's policy on environmental impact assessments and the failure of this process to adequately assess potential impacts of projects to the ETS DPS dolphins or result in meaningful protection for the dolphins (e.g., see Wang et al., 2007). The lack of habitat protections and a rigorous environmental review process is concerning given the large number of new industrial projects awaiting approval and an expectation of continued habitat alteration and degradation (Wang et al., 2007).

The size of the ETS DPS has been estimated to total 99 animals, and additional mark-recapture data from 2007-2010 indicate that the total population size is probably less than 80 animals (Wang et al., 2012). Given the low estimated abundance and restricted range coupled with high exposure to environmental contaminants and potentially weak regulatory protections, we conclude that the ETS DPS of the Indo-Pacific humpback dolphin may warrant listing under the ESA.

Fiordland Subpopulation of Bottlenose Dolphin

The petition requests listing of the Fiordland subpopulation of bottlenose dolphins as a DPS and provides information on how this subpopulation meets both the "discreteness" and "significance" criteria of the DPS Policy (61 FR 4722; February 7, 1996). Bottlenose dolphins occupy three, discontinuous coastal regions around New Zealand: Northland, Marlborough Sounds and Fiordland. A comprehensive analysis of mitochondrial DNA indicates that there is a high degree of genetic isolation of the Fiordland, Northland and Marlborough Sounds subpopulations from each other (Tezanos-Pinto et al., 2008). Within Fiordland - the mountainous, rainforested region in the southwest portion of New Zealand's South Island - the population is considered to be further subdivided into three units, which can be referred to as the Milford, Doubtful and Dusky Sounds units (Tezanos-Pinto et al., 2008). The three bottlenose dolphin communities within Fiordland appear to be relatively separate from each other; however, there are some records of exchange among these groups, suggesting that they are part of one metapopulation (Currey et al., 2011a; citing Lusseau et al. 2006). We find the available information sufficient to indicate that the Fiordland bottlenose dolphins may meet the "discreteness" criterion of the DPS Policy.

The petition argues that the Fiordland bottlenose dolphins are significant to their taxon as a whole for multiple reasons. We agree with the assertion in the petition that the Fiordland bottlenose dolphins differ markedly from other populations in their genetic characteristics and thereby may meet the "significance criterion" of the DPS Policy. As noted above, analysis of mitochondrial DNA indicates that there is significant genetic differentiation of the Fiordland bottlenose dolphins (Tezanos-Pinto et al., 2008). The Fiordland dolphins also display multiple physical (e.g., larger, more rotund bodies; shorter fins, flukes and rostrum; Currey et al., 2011a;

citing Schneider, 1999) and behavioral (e.g., shorter birthing season; Haase and Schneider, 2001) differences that possibly reflect adaptation to their colder water habitat, which lies at the extreme southern end of the species' range (Currey et al., 2011a). The coastal fiords and bays of Fiordland may also represent an ecological setting that is unusual for this species. We find this information sufficient to indicate that the Fiordland bottlenose dolphins may meet the "significance" criterion of the DPS Policy.

We conclude, based on the readily available information in our files and the information presented in the petition, that the Fiordland bottlenose dolphins may meet both the "discreteness" and the "significance" criteria of the DPS Policy and thus may qualify as a DPS (61 FR 4722; February 7, 1996). Therefore, we proceeded to review the petition and information readily available in our files to evaluate whether this potential DPS may warrant listing under the ESA.

Citing the IUCN assessment, the petition states that the Fiordland bottlenose dolphins are exposed to three main threats: disturbance and boat strikes associated with boat-based tourism, increased freshwater discharge from hydroelectric power generation, and reduced prey availability (Currey et al., 2011a). Other threats discussed in the petition (e.g., anthropogenic climate change, ocean acidification) are general in nature and not clearly or causally linked to the status or habitat of the Fiordland bottlenose dolphins. Thus, as summarized below, our review of the information regarding threats to this subpopulation focused on the three main threats identified in the IUCN assessment.

Tour boats have been shown to affect several behaviors of bottlenose dolphins in Doubtful Sound, and dolphins with boat-strike scars have been observed in both Doubtful and Milford Sounds (Currey et al., 2011a; citing Lusseau et al., 2002; Lusseau, 2003; Boisseau,

2003). In response to the documented impacts on the dolphins, a voluntary code of conduct was adopted in 2006 in Milford and Doubtful Sounds. Dolphin Protection Zones, in which boating activities are limited, were also created and extend 200m out from shore in regions of the fiord that include some of the most frequently used habitats (Currey et al., 2011a). This management effort remains voluntary, and its effectiveness is unknown (Currey et al., 2011a). Tourism in Fiordland is increasing, and thus the potential for impacts on bottlenose dolphins is expected to increase as well, even in the less accessible Dusky Sound (Currey et al., 2011a). Although boating clearly is and will likely continue to affect the Fiordland dolphins, it is not clear what population-level effect boating activity is having on the Fiordland bottlenose dolphins. Thus, based on the available information, it is unclear whether this threat is posing an extinction risk that is cause for concern.

The Lake Manapouri hydroelectric power station tailrace discharges a large volume of freshwater into Deep Cove in Doubtful Sound and creates a distinct low-salinity water layer significantly deeper than that found in neighboring fiords (Currey et al., 2011a; citing Gibbs et al. 2000, Gibbs 2001). The bottlenose dolphins of Doubtful Sound exhibit a higher severity of skin lesions, have smaller calves and a more restricted calving season when compared to the bottlenose dolphins of the less-disturbed Dusky Sound (Rowe et al., 2010). This circumstantial evidence supports but does not confirm the hypothesis that the elevated freshwater input is having a negative impact on the bottlenose dolphins within this particular sound. Additional data are required to fully evaluate the extent to which freshwater input from this hydropower facility is contributing to extinction risk for the Fiordland subpopulation.

Quoting from the IUCN assessment, the petition states that the Fiordland bottlenose dolphins are threatened by reduced prey availability as a result of environmental degradation and overfishing. Specific information or data to support this assertion are very limited. The IUCN assessment cites several studies that document an altered sub-tidal community structure and reduced the species' richness in response to the freshwater input in Doubtful Sound from the hydropower facility (Currey et al., 2011a; citing Boyle et al. 2001, Tallis et al. 2004, Rutger and Wing 2006). These ecological side-effects may translate into reduced or altered prey availability for the dolphins. The IUCN assessment also states that historical fishing has resulted in significant declines in fish abundance throughout Fiordland (Currey et al., 2011a; citing Beentjes and Carbines 2005). Specific information regarding the dolphins' existing prey resources, however, is not presented or available in our files; thus, it is difficult to fully assess whether food limitation is posing a threat to the Fiordland bottlenose dolphins.

While the common bottlenose dolphin, T. truncatus, is a cosmopolitan and relatively abundant species, the Fiordland subpopulation contains only about 205 animals (95% CI: 192–219; Currey et al., 2009). Results of population viability analyses by Currey et al. (2009) also show that the Fiordland subpopulation is highly likely to decline over periods of one, three and five generations. The average rate of decline for this subpopulation was estimated as 31.4% over one generation (21 years), and the average risk of extinction was calculated as 10.1% over five generations (100 years) (Currey et al., 2009). Capture-recapture modeling of data from 1996-2008 for the bottlenose dolphins in Doubtful Sound indicate that this unit has been declining since 1995, and that the decline has been driven by reduced survivorship of calves (less than 1 year old) and juveniles (less than 3 years old) (Currey et al., 2011b).

In conclusion, while it is difficult to attribute the decline of the Fiordland bottlenose dolphins to a specific cause or causes, we find that low abundance coupled with past and projected decline of these dolphins constitutes substantial information that listing Fiordland bottlenose dolphins as threatened or endangered under the ESA may be warranted.

Petition Finding

After reviewing the information contained in the petition, as well as information readily available in our files, we conclude that the petition does not present substantial scientific or commercial information indicating the petitioned action may be warranted for the Galápagos fur seal, Arctocephalus galapagoensis. In contrast, as described above, we find that there is substantial scientific information indicating the petitioned action may be warranted for Hector's dolphin, Cephalorhynchus hectori; the BSS of the harbor porpoise, Phocoena phocoena; the ETS subpopulation of the Indo-Pacific humpback dolphin, Sousa chinensis; and the Fiordland subpopulation of the bottlenose dolphin, Tursiops truncatus. We hereby announce the initiation of status reviews for each of these four entities to determine whether the petition actions are warranted.

Information Solicited

To ensure that the status reviews are based on the best available scientific and commercial data, we are soliciting information relevant to whether Hector's dolphin, the BSS of harbor porpoise, the ETS subpopulation of the Indo-Pacific humpback dolphin, and the Fiordland subpopulation of bottlenose dolphin may warrant listing as threatened or endangered under the ESA. Specifically, we are soliciting data and information, including unpublished data and information, in the following areas: (1) historical and current distribution and abundance of

Hector's dolphin and the petitioned subpopulations of harbor porpoise, Indo-Pacific humpbacked dolphin, and bottlenose dolphin throughout their range; (2) historical and current population trends; (3) life history and habitat requirements (4) genetic analyses of subpopulations, populations or subspecies; (5) past, current and future threats, including any current or planned activities that may adversely impact these marine mammals; (6) ongoing or planned efforts to protect and restore the marine mammals and their habitat; and (7) management, regulatory, and enforcement information. We request that all information be accompanied by: (1) supporting documentation such as maps, bibliographic references, or reprints of pertinent publications; and (2) the submitter's name, address, and any association, institution, or business that the person represents.

References Cited

A complete list of references is available upon request to the Office of Protected Resources (see ADDRESSES).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended **(**16 U.S.C. 1531 et seq.).

Dated: February 14, 2014.

Samuel D. Rauch III,
Deputy Assistant Administrator for Regulatory Programs,
National Marine Fisheries Service.

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