

proposed rules.⁵ The RFA generally defines the term “small entity” as encompassing the terms “small business,” “small organization,” and “small governmental entity.”⁶ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁷ A small business concern is one which: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (“SBA”).⁸ The proposed rules and policies potentially will apply to all FM radio broadcasting licensees and potential licensees.

7. The SBA defines a radio broadcasting station that has \$7 million or less in annual receipts as a small business.⁹ A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public.¹⁰ Included in this industry are commercial, religious, educational, and other radio stations.¹¹ Radio broadcasting stations which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included.¹² However, radio stations that are separate establishments and are primarily engaged in producing radio program material are classified under a separate NAICS number.¹³ According to Commission staff review of the BIA Financial Network, Inc. Media Access Radio Analyzer Database as of February 19, 2009, about 10,600 (96 percent) of 11,050 commercial radio stations in the United States have revenues of \$7 million or less. We note that many radio stations are affiliated with much larger corporations having much higher revenue. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

8. In the *Second Report and Order*, the Commission declined to establish a deadline for radio stations to convert to digital broadcasting, 22 FCC Rcd at 10351. Presently, radio stations may choose to commence DAB operation pursuant to Section 73.404 of the Commission’s rules, 47 CFR 73.404, which requires in part that licensees provide notification to the Commission within 10 days of commencing DAB operation. The proposed rule change may impose additional reporting or recordkeeping requirements on FM radio stations choosing to upgrade DAB operating power above the current limitation of 1 percent of a station’s authorized analog power. For example, licensees choosing to increase DAB operating power above 1 percent of authorized analog power could be required to notify the Commission of the increase in power.

E. Steps Taken To Minimize Significant Impact on Small Entities, and Significant Alternatives Considered

9. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.¹⁴ This document has proposed for commenter evaluation the issue of taking steps to minimize significant impact on small entities, focusing on the four issues, enumerated *supra* in paragraph 6, relevant to the Joint Parties’ Request, as well as on any issues raised by the technical studies previously submitted by iBiquity and NPR. To assist in the analysis, commenters are requested to provide information, studies, and/or opinions regarding how small entities would be affected if the Commission were to adopt an increase in maximum digital operating power as proposed by the Joint Parties or a provisional power increase of some lesser extent than that requested by the Joint Parties, and whether such adoption could result in

the disparate treatment of small entities with limited financial and/or technical resources. Commenters should also provide information, studies, and/or opinions on alternative approaches to alleviate any potential burdens on small entities.

F. Federal Rules Which Duplicate, Overlap, or Conflict With, the Commission’s Proposals

10. None.

Federal Communications Commission.

Robert H. Ratcliffe,

Acting Chief, Media Bureau.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 0809161218–9950–02]

RIN 0648–AX23

Endangered and Threatened Species: 12–Month Finding for a Petition to Revise Critical Habitat for Hawaiian Monk Seal

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

ACTION: Notice of 12–month finding.

SUMMARY: On July 9, 2008, we (NMFS) received a petition dated July 2, 2008, requesting that we revise the present critical habitat designation for the Hawaiian monk seal (*Monachus schauinslandi*) under the Endangered Species Act (ESA) by expanding the current critical habitat in the Northwestern Hawaiian Islands, and by designating additional critical habitat in the main Hawaiian Islands. We have reviewed, and here provide a summary of the best available information regarding Hawaiian monk seal biology and habitat use. Based on our review, we intend to revise the monk seal’s critical habitat, and we are providing our initial thoughts on the habitat features that are essential to the conservation of this species and describing how we intend to proceed with the requested critical habitat revision.

ADDRESSES: Requests for copies of this determination should be addressed to the Assistant Regional Administrator, Protected Resources Division, NMFS, 1601 Kapiolani Blvd, Honolulu, HI 96814.

⁵ 5 U.S.C. 603(b)(3).

⁶ 5 U.S.C. 601(6).

⁷ 5 U.S.C. 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. 632). Pursuant to 5 U.S.C. 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the *Federal Register*.”

⁸ 15 U.S.C. 632.

⁹ See 13 CFR 121.201, NAICS Code 515112 (changed from 513112 in October 2002).

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ 5 U.S.C. 603(b).

FOR FURTHER INFORMATION CONTACT:

Lance Smith at (808) 944-2258, e-mail lance.smith@noaa.gov; Krista Graham at (808) 944-2238, e-mail krista.graham@noaa.gov; or Marta Nammack, (301) 713-1401.

SUPPLEMENTARY INFORMATION:

Background documents on the biology of the Hawaiian monk seal, the July 2, 2008, petition requesting revision of its critical habitat, and documents explaining the critical habitat designation process, can be downloaded from http://www.fpir.noaa.gov/PRD/prd_index.html, or requested by phone or e-mail from the NMFS staff in Honolulu (area code 808) listed under "FOR FURTHER INFORMATION CONTACT". The October 3, 2008, 90-day finding in response to the petition and the information received in response to the 90-day finding can be viewed at www.regulations.gov by searching for docket number "NOAA-NMFS-2008-0290".

Background

On July 9, 2008, we received a petition dated July 2, 2008, from the Center for Biological Diversity, Kahea, and the Ocean Conservancy (Petitioners) to revise the Hawaiian monk seal critical habitat designation (Center for Biological Diversity *et al.*, 2008) under the ESA. Currently designated critical habitat is described below in "Listing Status and Existing Critical Habitat Under the ESA." The Petitioners seek to revise critical habitat by adding the following areas in the main Hawaiian Islands (MHI): key beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 200 meters. In addition, The Petitioners request that currently designated critical habitat in the Northwestern Hawaiian Islands (NWHI) be extended to include Sand Island at Midway, as well as ocean waters out to a depth of 500 meters (Center for Biological Diversity *et al.*, 2008).

On October 3, 2008, we published a 90-day finding in response to the petition, finding that the petition presented substantial scientific information indicating that a revision to the current critical habitat designation may be warranted (73 FR 57583; October 3, 2008). The 90-day finding requested that the public submit information by December 2, 2008, to help us determine whether a revision of critical habitat is warranted for the Hawaiian monk seal. The purpose of this 12-month finding is to announce that we intend to proceed with a

revision of critical habitat for the monk seal and to provide details on the revision process.

In the following sections, we provide information on the Hawaiian monk seal's listing status and existing critical habitat under the ESA, population status and trend, Hawaiian monk seal biology, summary of the information received from the public in response to our 90-day finding (73 FR 57583; October 3, 2008), our determination that we will proceed with a revision of critical habitat, and the criteria we intend to use for the revision.

Listing Status and Existing Critical Habitat Under the ESA

The Hawaiian monk seal (*Monachus schauinslandi*) was listed as endangered under the ESA in 1976 (41 FR 33922; November 23, 1976). This species occurs throughout the Hawaiian Archipelago and on Johnston Atoll, and has been sighted at other atolls and islands to the south of Hawaii. In 1986, critical habitat was designated for all beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 10 fathoms (18.3 m) around Kure Atoll, Midway Islands (except Sand Island), Pearl & Hermes Reef, Lisianski Island, Laysan Island, Gardner Pinnacles, French Frigate Shoals, Necker Island, and Nihoa Island in the NWHI (51 FR 16047; April 30, 1986). In 1988, critical habitat was extended to include Maro Reef and waters around previously recommended areas out to the 20 fathom (36.6 m) isobath (53 FR 18988; May 26, 1988). A recovery plan was completed in 1983 (NMFS, 1983) and revised in 2007 (NMFS, 2007a). The species is endemic (found nowhere else) to the Hawaiian Archipelago, and is one of the most endangered marine mammals in the United States (NMFS, 2007a).

Hawaiian Monk Seal Biology

The Hawaiian monk seal is a mammal in the Order Carnivora, Family Phocidae, Genus *Monachus*. Only two other species occur in this genus, the recently extinct Caribbean monk seal (*M. tropicalis*) and the critically endangered Mediterranean monk seal (*M. monachus*). Following is an overview of the Hawaiian monk seal's biology, including Range, Population Status and Trends, Natural History, Habitat, and Northwestern Hawaiian Islands vs. Main Hawaiian Islands (a description of differences in monk seal habitat between these two areas).

Range

Hawaiian monk seals are found throughout the Hawaiian Archipelago and on Johnston Atoll. The six main reproductive sites for the species are in the NWHI: Kure Atoll, Midway Islands, Pearl and Hermes Reef, Lisianski Island, Laysan Island, and French Frigate Shoals. Smaller reproductive sites also occur on Necker Island and Nihoa Island, and monk seals have been observed at Gardner Pinnacles and Maro Reef. Monk seals are found throughout the MHI, where births have been documented on most of the major islands (NMFS, 2001, 2007a). In 1994, we relocated 21 adult male monk seals from the NWHI to the MHI in order to reduce male aggression and female deaths at Laysan Island, where males greatly outnumbered females at the time. We have relocated three female monk seals (a juvenile in 1981, a pup in 1991, and an adult in 2009) from the MHI to the NWHI. Thus, we have relocated 21 males from the NWHI to the MHI, and three females from the MHI to the NWHI.

At Johnston Atoll, a tagged yearling male monk seal from Laysan Island was first seen in July 1968 (Schreiber and Kilder, 1969) and remained until at least August 1972. In January 1969, an untagged adult female monk seal arrived on Sand Island, a secondary island within Johnston Atoll, and gave birth to a female pup. The mother-pup pair remained on or near the pupping beach until March 1969, when the pup was weaned and the mother disappeared. The pup remained until 1971 when it died from a deep flesh wound, probably from a shark attack (Amerson and Shelton, 1976). In July 1999, a tagged adult female from French Frigate Shoals arrived at Johnston Atoll and remained there for about a year (NMFS, 2001).

In addition to the above reported natural occurrences of monk seals at Johnston Atoll, a 12 male monk seals have been relocated there from the Hawaiian Archipelago. In 1984, nine adult males were relocated from the NWHI to Johnston Atoll, because of attacks on adult females and immature seals. At least three of these males were still at Johnston Atoll the following year, and at least one male was still there in 1986. In 1989, two adult males were relocated from the NWHI to Johnston Atoll because they were drowning pups. In 2003, an adult male was relocated from the MHI to Johnston Atoll because it was habituated to humans and exhibiting dangerous behavior. No sighting history is available for the latter three monk seals (NMFS unpublished data).

Unconfirmed but probable sightings of Hawaiian monk seals outside the Hawaiian Archipelago and Johnston Atoll have been reported from Palmyra Atoll (1,800 km south of NWHI) and Wake Island (2,000 km southwest of NWHI); two seals were sighted on Palmyra Atoll in 1990, a seal was sighted on Wake Island in early summer 1966, and a tagged seal was sighted on Wake Island in February 1987 (Westlake and Gilmartin, 1990, NMFS unpublished data). Other more poorly-documented sightings have also been reported from Bikini Atoll and Mejit Island in the Marshall Islands (2,400 km southwest of NWHI, NMFS unpublished data).

Population Status and Trends

The best estimate of Hawaiian monk seal total population size is 1,208 seals in 2006 (1,125 in the NWHI, 83 in the MHI; NMFS, 2008a). Additional population information can be found in the annual Stock Assessment Reports (e.g., NMFS, 2006, 2007b, 2008a). The first rangewide beach count surveys of Hawaiian monk seals were conducted in the late 1950s. Beach counts of juveniles and adults (i.e., all seals except pups) declined by 66 percent between the years 1958 and 2006 (Figure I.C.6 in NMFS, 2007a). More recently, beach counts declined rapidly from 1985 to 1993, and then became relatively stable until the current decline began in 2001. Total abundance at the six primary NWHI sites (French Frigate Shoals, Laysan, Lisianski, Pearl and Hermes, Midway, and Kure) is declining at a rate of about four percent per year (NMFS 2007a, 2007b, 2008a).

Since 2000, many sites have shown indications of decline in abundance, apparently due to low juvenile survival. The decline at French Frigate Shoals is of particular consequence to the welfare of the overall population because this site once accounted for over 50 percent of the total non-pup beach counts in the NWHI. While that proportion has now dropped to approximately 25 percent of its observed peak, there are still more seals at French Frigate Shoals than any other island or atoll. More detail on Hawaiian monk seal population status and trends in the NWHI is provided in the recovery plan (NMFS, 2007a). As noted above, in 1994, we relocated 21 adult male monk seals from the NWHI to the MHI in order to reduce male aggression and female deaths at Laysan Island, where males greatly outnumbered females at the time. All female monk seals in the MHI occur there naturally. In 2008, only five of the 21 relocated male monk seals remained in the MHI.

Although monk seals historically occurred throughout the Hawaiian Archipelago, the majority of the population now occurs in the NWHI. Human settlement appears to have largely excluded monk seals from the MHI, although seal bones have been found at archeological sites dating from 1400 - 1700 (Rosendahl, 1994). In 1900, Hilo residents reported that solitary monk seals were seen in the area about once every 10 years (Bailey, 1952). From 1928 to 1956, seven monk seal sightings were documented in the MHI (Kenyon and Rice, 1959), and Niihau residents reported that seals appeared there in the 1970s. By 1994 there was a small naturally-occurring population of male and female monk seals in the MHI. This population appeared to be growing, and at least six pups had been born (one in 1962, and five between 1988 and 1993). Since the mid-1990s, an increasing number of documented sightings and annual births of monk seal pups have occurred in the MHI. Combined aerial and ground surveys in the MHI counted 45 hauled-out monk seals in 2000, and 52 in 2001 (Baker and Johanos, 2004). Sightings in the MHI tallied 77 individually identifiable monk seals in 2005 (NMFS, 2007b), and 83 in 2006 (NMFS, 2008a). Together, these observations suggest that monk seals are recolonizing the MHI.

Natural History

Hawaiian monk seals are wide-ranging, air-breathing predators that forage underwater, preying primarily on small benthic fishes, cephalopods (e.g., octopus), and crustaceans (Goodman-Lowe, 1998). They spend the majority of their time in the ocean, where they are highly mobile and may have very large home ranges (Antonelis *et al.*, 2006). Monk seals are typical large predators, in that they can rapidly cover large areas in search of food. Individuals may travel hundreds of miles in a few days (Littnan *et al.*, 2007) and dive to 500 m (1,600 ft; Parrish *et al.*, 2002). Monk seals haul out on land to rest, molt, pup (give birth), and nurse. Resting may also occur at sea or in shallow, submerged caves. Monk seals are often solitary, both on land and in the water, but may congregate in favorable haul-out areas (Antonelis *et al.*, 2006). Adult monk seals reach a length of 2.3 m (7.5 ft) and weigh up to 273 kg (600 lb). Unlike most other pinnipeds, monk seals completely molt, whereby the entire layer of pelage (skin and hair) is shed annually. The old pelage strips away, leaving a dark grey coat underneath. Pups are black until first molt, and mostly grey thereafter, although coloration varies by individual and with age. When monk seals stay at

sea for an extensive period, they may develop a red or green tinge from algal growth on their pelage (Kenyon and Rice, 1959).

It is thought that Hawaiian monk seals have a lifespan of up to 30 years. Females reach breeding age at about 6 to 11 years of age, depending on their condition, and give birth no more than once annually. Mating occurs at sea, and gestation is thought to be approximately 11 months. Monk seal births are most common between February and August, peaking in March and April at Laysan Island. Females give birth to a single pup and nurse it for about 6 weeks, followed by an abrupt weaning, when the mother abandons the pup (Johanos *et al.*, 1994). At least several months are required for the pup to learn to forage successfully on its own, during which time it survives on fat stores built up during nursing, resulting in considerable weight loss. Juveniles (up to 3 years old) are typically longer but thinner than recently-weaned pups, and juveniles in the NWHI typically do not regain their weaning weight until approximately 2 years of age (Johanos *et al.*, 1994). Male aggression, in which a single male or multiple males repeatedly attempt to mount and mate with a female or immature seal, is most common where males outnumber females, and sometimes results in death or severe injury to the targeted seal. Individual adult males sometimes attack pups in the same manner, also sometimes killing the pup (Hiruki *et al.*, 1993).

Habitat

While Hawaiian monk seals spend most of their time in the water, they frequently haul out on land to rest, molt, pup (give birth), and nurse. Monk seals may remain at sea for several days or more at a time, but resting on land is necessary to conserve energy. Resting is commonly on sandy beaches, but may also occur on rocky shores, rock ledges, emergent reefs, and even shipwrecks (Antonelis *et al.*, 2006). Monk seals may take shelter from wind and rain under shoreline vegetation. Resting on land is typically done for a few hours to several days at a time, after which the monk seal returns to the water to continue foraging. When ocean conditions are rough, monk seals may spend a greater proportion of time resting on land. Hauling-out on land is also required for molting, when old pelage is shed. Molting is an annual process taking 1 to 2 weeks, during which time the monk seal usually remains on land (Kenyon and Rice, 1959).

Pupping and nursing areas are usually sandy beaches adjacent to shallow

protected water (Westlake and Gilmartin, 1990). Individual females appear to favor certain pupping locations, returning to them year after year. Pregnant females come ashore a few days before giving birth to a pup weighing approximately 16 kg (35 lb). Pups nurse for 5 to 6 weeks (Johanos *et al.*, 1994), and weigh 50 - 100 kg (110 - 220 lb) at weaning. During nursing, the mother-pup pair remain close to each other, and the mother is protective of her pup. Although the pup is able to swim at birth, nursing is done on land, and the mother-pup pair usually remain on land for the first few days after the pup is born. The mother gradually begins swimming with her pup in the shallows, returning to the general area around the pupping site. As weaning approaches, the mother-pup pair spend more time in the water, venturing further away from the pupping site. After weaning, pups typically remain in the shallows near their nursing areas for several weeks before venturing into deeper foraging areas (Kenyon and Rice, 1959; Henderson and Johanos, 1988).

Monk seals are generalists that forage primarily over low-relief substrates such as sand and talus. Live fish are generally the preferred prey, and over 150 fish species have been recorded in the monk seal diet (Iverson *et al.*, 2006). NWHI camera studies have shown that adult male monk seals forage mainly on sand terraces and talus slopes 50 - 100 m (160 - 325 ft) deep around their home atoll and nearby seamounts (Parrish and Littnan, 2008). Premium adult foraging habitat is comprised of large, loose talus fragments, which the seals move to reach the hiding prey underneath (Parrish *et al.*, 2000). Studies in the NWHI (Parrish *et al.*, 2002; Stewart *et al.*, 2006) have shown that adult monk seals may forage at 300 - 500 m (1,000 - 1,600 ft), sometimes visiting patches of deep corals (Parrish *et al.*, 2002). Recent surveys of deep fish assemblages across seamounts of the NWHI show a pattern of reduced fish biomass at sites close to colonies of monk seals (Parrish, 2009). Juvenile monk seals (1 - 3 years old) forage both within shallow atoll lagoons 10 - 30 m (30 - 100 ft) and on deep reef slopes (50 - 100 m/160 - 325 ft), usually over sand rather than talus. Juvenile seals likely do not yet have the size or experience to engage in the large talus-foraging behavior exhibited by adults (Parrish *et al.*, 2005).

Although much less information is available for monk seals in the MHI, 11 juvenile and adult monk seals were tracked there in 2005 using satellite-linked radio transmitters showing location but not depth. This study indicated that seals usually remained in

nearshore waters within the 200 m (650 ft) isobath. As in the NWHI, this study suggested that monk seals in the MHI forage mainly in deeper, low-relief (talus, sand) areas, commuting over shallower, high-relief (coral reefs, rock outcrops) without foraging (Littnan *et al.*, 2007). However, as in the NWHI, shallow areas adjacent to pupping areas are important for pups to develop foraging behavior. Otherwise, coral reefs and other high-relief shallows are not usually primary monk seal foraging habitat. Generally, juvenile and adult monk seals bypass these shallow high-relief substrates in transit to their primary foraging areas over low-relief substrates in deeper water, sometimes making no attempt to hunt the same fish species in the shallows that they were actively hunting in the deep (Parrish and Littnan, 2008).

In summary, the physical and biological habitat features that support resting, reproduction, and foraging are essential for the conservation of this species. For the Hawaiian monk seal, essential habitat includes terrestrial and marine areas. Terrestrial areas include both resting and reproductive habitat. Resting habitat consists of nearshore or emergent surfaces where monk seals can haul out, whereas reproductive habitat consists of a subset of resting habitat on sandy beaches that are also suitable for pupping and nursing. Marine areas include foraging habitat for pups, juveniles, and adults. Pup foraging habitat consists of shallow areas adjacent to pupping beaches where pups become accustomed to the marine environment and begin learning to forage on their own. Juveniles and adults forage widely, primarily in deeper areas.

Northwestern Hawaiian Islands vs. Main Hawaiian Islands

The Hawaiian monk seal consists of one population distributed throughout the Hawaiian Archipelago. That is, there is no evidence that monk seals occurring in any part of the archipelago are genetically distinct from those elsewhere in the archipelago (Schultz *et al.*, 2008). This suggests that the population is genetically well-mixed, with individual seals sometimes moving between the NWHI and the MHI, which has been confirmed with resightings of flipper-tagged or otherwise identifiable (e.g., scar patterns; Littnan *et al.*, 2007). However, monk seals in the MHI are typically in better physical condition than those in the NWHI. For example, weaned pups in the MHI are larger and fatter than those in the NWHI, which is thought to reflect better foraging conditions in the MHI (Baker and

Johanos, 2004; Baker *et al.*, 2006). Although the NWHI is one of the largest and best-protected natural areas in the world, and the MHI are populated by over a million people, the latter appears to currently provide superior monk seal foraging conditions.

Despite its large human population, the MHI may currently provide better monk seal foraging conditions than the NWHI because: (1) There are only about one-tenth the number of seals in the MHI than in the NWHI, thus the availability of prey may be higher per seal in the MHI than the NWHI (Baker and Johanos, 2004); and (2) Large sharks, jacks and other demersal fish compete directly with monk seals, but are much less abundant in the MHI than the NWHI (Parrish *et al.*, 2008). Competition is limited between humans and monk seals in the MHI because seals prefer small (usually < 20 cm/8 in) eels, wrasses, and other benthic species not commonly sought by fishermen, (Parrish *et al.*, 2000). However, while foraging conditions are currently better in the MHI than the NWHI for monk seals, pollution and runoff pose health hazards to the species in the MHI not found in the NWHI (Littnan *et al.*, 2007).

As described above in *Population Status and Trends*, since 1990, the total number of Hawaiian monk seals has decreased, while simultaneously the number of monk seals in the MHI appear to have increased (NMFS, 2006, 2007b, 2008a). As described in the above paragraph, foraging conditions currently appear better in the MHI than in the NWHI (Parrish *et al.*, 2000, 2008), likely resulting in better physical condition and higher survival of seals in the MHI than in the NWHI (Baker and Johanos, 2004; NMFS, 2007a). In addition, sea level rise may reduce or eliminate monk seal haul-out habitat more rapidly in the low-lying NWHI than the MHI (Baker *et al.*, 2006). Given the overall downward trend of the species (see *Population Status and Trends* above), generally poor physical condition and survival of seals in the NWHI, and proportionally greater sea level effects on the NWHI than the MHI, the MHI appears essential for the survival and recovery of this species.

Summary of Information Received

In our 90-day finding (73 FR 517583; October 3, 2008) in response to the petition (Center for Biological Diversity *et al.*, 2008), we solicited information from the public pertaining to the Hawaiian monk seal's essential habitat needs. The 90-day finding, and the information we received in response to it, can be viewed at www.regulations.gov by searching for

docket number “NOAA-NMFS–2008–0290”. The great majority of the monk seal habitat-related information received was based on programs and studies conducted, funded, or supported by NMFS; therefore, we did not receive any new information on the monk seal’s essential habitat needs. The information received is summarized below.

Comment 1: Over 100 comments argued that the MHI provide essential habitat for the Hawaiian monk seal because: (1) the MHI component of the monk seal population has increased in recent years while simultaneously the overall population has decreased; (2) monk seals in the MHI are in better physical condition than those in the NWHI; and (3) monk seal habitat loss is likely to be much more rapid in the NWHI than in the MHI in the near future due to sea level rise.

Response: We concur that the MHI component of the monk seal population appears to have increased in recent years while simultaneously the overall population has decreased (see “*Population Size and Trends*” above), that monk seals in the MHI are in better physical condition than those in the NWHI, and that monk seal haul-out habitat loss is likely to be more rapid in the NWHI than in the MHI in the future due to sea level rise (see “*Northwestern Hawaiian Islands vs. Main Hawaiian Islands*” above). For these three reasons, and also because of the current precarious state of the Hawaiian monk seal, we agree that monk seal habitat within the MHI is essential for the survival and recovery of the species.

Comment 2: Several comments argued that the MHI do not provide essential habitat for the Hawaiian monk seal, because: (1) monk seals are not indigenous to the MHI; and (2) various human threats to monk seals in the MHI outweigh benefits to the species of MHI habitat.

Response: Little evidence has been found that monk seals occurred in the MHI before the arrival of humans approximately 2,000 years ago, or during pre-European times before the late 1700s. However, before the arrival of humans, monk seal remains would typically have occurred on or near coastlines where wave action and erosion likely would have prevented preservation of remains. After the arrival of humans, monk seals may have been consumed by humans, in which case monk seal bones would likely occur in middens. However, if the seals were quickly extirpated after the arrival of humans, this would reduce the likelihood of finding bone fragment evidence in middens. An archeological dig of a midden on the Big Island

identified monk seal bones, and estimated that the bones were deposited during the years 1400 to 1700 (Rosendahl, 1994). Furthermore, monk seals commonly travel long distances between atolls or islands, and even between the NWHI and MHI (Littnan *et al.*, 2007). Thus, before the arrival of humans, it is highly unlikely that monk seals occurred only in the NWHI, while the MHI were vacant of both monk seals and humans. Finally, large, easily-hunted animals such as seals are typically extirpated or driven to extinction when humans arrive in an area for the first time (Grayson, 2001). Arrival of humans in Hawaii likely resulted in a rapid reduction in monk seal numbers in the MHI, such that the species was mostly restricted to the NWHI until recently (Baker and Johanos, 2004). For these reasons, we believe that the Hawaiian monk seal commonly occurred in the MHI before the arrival of humans, and that this species is indigenous to at least the entire Hawaiian Archipelago.

We agree that the Hawaiian monk seal faces a multitude of human threats in the MHI. The recovery plan identifies the most serious human threats to monk seals in the MHI as infectious diseases, fisheries interactions, habitat loss, and human interactions (NMFS, 2007a). In the MHI, monk seals forage near shore, and they haul out on beaches near sources of pathogens associated with human population centers, sewage spills, and stream mouths. Of 12 dead monk seals that were thoroughly necropsied in the MHI between 1996 and 2006, four appeared to have died of infectious disease (Littnan *et al.*, 2007). In the MHI from 1989 to 2007, 44 monk seals were confirmed to be hooked by fishing gear (one of which died, possibly from the hooking), another five entangled in lay gillnets (three of which drowned in the gillnets), and one seal hooked and entangled (but survived). Many hooks are removed from monk seals by the monk seal response program, most often resulting in healing of the wound and recovery of the monk seal. However, entanglement in lay gillnets often results in the drowning of the monk seal (NMFS, 2008b). Monk seal haul-out beaches in the MHI are being degraded or lost by development adjacent to the beaches, and increasing human activity on the beaches. The high and ever-increasing human use of MHI beaches and coastlines results in humans frequently interacting with monk seals, both unintentionally and intentionally (NMFS, 2007a). However, despite the numerous anthropogenic threats to monk seals in the MHI, the

MHI component of the monk seal population appears to have increased in recent years, and monk seals in the MHI are generally in good physical condition. In contrast, the NWHI component of the monk seal population continues to decrease, and monk seals in the NWHI are often in poor physical condition (see “*Population Size and Trends*” and “*Northwestern Hawaiian Islands vs. Main Hawaiian Islands*” above). Thus, although monk seals are more often exposed to infectious diseases in the MHI than in the NWHI, the MHI appear to currently provide a favorable environment for monk seals. In addition, the loss of monk seal haul-out habitat is likely to occur more rapidly in the NWHI than the MHI due to sea level rise (see “*Northwestern Hawaiian Islands vs. Main Hawaiian Islands*” above). For these reasons, we believe that the benefits of MHI habitat to the monk seal outweigh the various human threats to monk seals in the MHI.

Comment 3: Over 100 comments argued that areas out to a depth of 500 m (1,625 ft) in the NWHI provide essential foraging habitat for the Hawaiian monk seal.

Response: As discussed above in “*Habitat*,” studies in the NWHI have documented adult monk seal foraging to a maximum depth of approximately 500 m (1,600 ft; Parrish *et al.*, 2002; Stewart *et al.*, 2006). The relative importance of these deep foraging areas, compared to more frequently-used shallower areas, is currently unknown.

Comment 4: Several comments did not provide any information about habitat use by the Hawaiian monk seal, but rather expressed opinions about the effects of revising monk seal critical habitat on various human activities, such as beach use, fishing, economics, national security, and natural resource management.

Response: The economic, national security, and other effects of revising monk seal critical habitat will be addressed in the forthcoming proposed rule.

12-Month Determination on Revision of Critical Habitat

Since critical habitat for the Hawaiian monk seal was designated in 1986 (51 FR 16047; April 30, 1986) and revised in 1988 (53 FR 18988; May 26, 1988), a great deal of new information has become available regarding habitat use by this species, such as the literature cited in the petition (Center for Biological Diversity *et al.*, 2008) and in the Recovery Plan (NMFS, 2007a). For example, studies of monk seal foraging made possible by new technology (e.g.,

Parrish *et al.* 2000, 2002, 2005, 2008; Littnan *et al.*, 2007) have resulted in substantial progress since 1988 in understanding how this species uses foraging habitat (Parrish and Littnan, 2008). Also, since critical habitat was designated in 1988, monk seals appear to have begun recolonizing the MHI (Baker and Johanos, 2004; Baker *et al.*, 2006; NMFS, 2007a). Other information has also become available about other aspects of monk seal life history and habitat use (summarized in NMFS, 2007a). Because of this new information regarding habitat use by the Hawaiian monk seal that has become available since critical habitat for the species was revised in 1988 (53 FR 18988; May 26, 1988), we will proceed with a revision of critical habitat for the species.

How Does NMFS Intend To Proceed?

We intend to undertake rulemaking to revise critical habitat for the Hawaiian monk seal. Critical habitat is defined by section 3 of the ESA as “(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.” Further, our critical habitat regulations (50 CFR 424.12(c)) state that critical habitat will be defined by specific limits using reference points and lines on standard topographic maps of the area. Finally, section 4(b)(2) of the ESA requires that we consider economic, national security, and other impacts of designating critical habitat before designating critical habitat.

Based on the above definition and guidance, the following steps will be followed to propose the revision of designated critical habitat for the Hawaiian monk seal: (1) Determine the geographical area occupied by the species at the time of listing; (2) Identify the physical or biological features essential to the conservation of the species; (3) Delineate areas within the geographical area occupied by the species that contain these features, and that may require special management considerations or protections; (4) Delineate any areas outside of the geographical area occupied by the species that are essential for the

conservation of the species; and (5) Conduct economic, national security, and other analyses to determine if any areas identified in steps 3 and 4 could be excluded from critical habitat consideration under section 4(b)(2) of the ESA. Steps 1 and 2 above are included in this 12-month finding, as described below. Steps 3 - 5 will be completed in the forthcoming proposed rule.

Step 1: Determine Geographical Area Occupied by the Species at the Time of Listing: The final rule listing the Hawaiian monk seal as endangered, published on November 23, 1976 (41 FR 51611), stated that the “Hawaiian monk seal is found throughout the Hawaiian Archipelago,” with no mention of areas outside the archipelago. For reasons described above in “*Range*,” in 2001, we determined that Johnston Atoll is within the range of the Hawaiian monk seal (NMFS, 2001). Therefore, the geographical area occupied by the Hawaiian monk seal at the time of listing (1976) is considered to be the Hawaiian Archipelago and Johnston Atoll.

Step 2: Identify Physical or Biological Features Essential to Conservation: In this step, the physical and biological features essential to conservation are identified (hereafter referred to as “essential features”). Section 3 of the ESA (16 U.S.C. 1532(3)) defines the terms “conserve,” “conserving,” and “conservation” to mean: “to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary.” Our critical habitat regulations (50 CFR 424.12(b)) state that essential features “include, but are not limited to the following: (1) Space for individual and population growth, and for normal behavior; (2) Food, water, air, light, minerals or other nutritional or physiological requirements; (3) Cover or shelter; (4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally; (5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.”

The regulations also instruct us to “focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species. Known primary constituent elements shall be listed with the critical habitat description” (50 CFR 424.12(b)). Thus, the essential features will be defined here in terms of primary constituent

elements (PCEs). The PCEs can include sites used by the listed species for resting, reproduction, and feeding (examples given in the regulations include “nesting grounds, spawning sites, feeding sites”), and physical features of the species’ habitat (examples given in the regulations include “geological formation, vegetation type, tide, and specific soil types”; 50 CFR 424.12(b)).

As described above in “*Habitat*,” the physical and biological habitat features that support resting, molting, reproduction, and foraging are essential for the conservation of this species. For the Hawaiian monk seal, essential habitat includes terrestrial and marine areas. Terrestrial areas include resting, molting, and reproductive habitat. Resting and molting habitat consists of nearshore or emergent surfaces where monk seals can haul out, whereas reproductive habitat consists of a subset of resting and molting habitat (i.e., sandy beaches suitable for pupping and nursing). Marine areas include foraging habitat for pups, juveniles, and adults. Pup foraging habitat consists of shallow areas adjacent to pupping beaches where pups become accustomed to the marine environment and begin learning to forage on their own. Juveniles and adults forage widely, primarily in deeper areas. Thus, at this time, we believe that the following PCEs constitute the physical and biological features essential to conservation of the Hawaiian monk seal: (1) sandy beaches preferred by monk seals for pupping and nursing; (2) marine areas less than 20 m depth adjacent to pupping and nursing beaches where young pups learn to forage; (3) marine areas approximately 20 - 200 m depth in the MHI, and approximately 20–500 m depth in the NWHI, preferred by juvenile and adult monk seals for foraging; (4) low levels of unnatural disturbance; and (5) high prey quantity and quality.

Steps 3 - 5: Steps 3 - 5 of the critical habitat proposed revision process will be completed in the forthcoming proposed rule. In the proposed rule, the PCEs could differ slightly from the PCEs identified above, but these identified PCEs will give the public an idea of what we are considering. When we publish our proposed rule, we will solicit public comments on it and incorporate comments as appropriate.

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- All references are available upon request (see **FOR FURTHER INFORMATION CONTACT**).
- Authority:** 16 U.S.C. 1531 *et seq.*
- Dated: June 8, 2009.
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