

Federal requirement	Federal Register reference	Publication date
Mineral Processing Secondary Materials	63 FR 28556; Amendments to 40 CFR Part 261 .....	05/26/98

(5) *Memorandum of Agreement*. The Memorandum of Agreement between EPA Region 6 and the State of New Mexico, signed by the EPA Regional Administrator on July 25, 2007, is referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(6) *Statement of Legal Authority*. "Attorney General's Statement for Final Authorization", signed by the Attorney General of New Mexico January 1985, and revisions, supplements and addenda to that Statement dated April 13, 1988; September 14, 1988; July 19, 1989; July 23, 1992; February 14, 1994; July 18, 1994; July 20, 1994; August 11, 1994; November 28, 1994; August 24, 1995; January 12, 1996; June 14, 2000, and August 3, 2006, are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(7) *Program Description*. The Program Description and any other materials submitted as supplements thereto are referenced as part of the authorized hazardous waste management program under subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

■ 3. Appendix A to part 272 is amended by revising the listing for "New Mexico" to read as follows:

#### Appendix A to Part 272—State Requirements

\* \* \* \* \*

#### New Mexico

The statutory provisions include:

New Mexico Statutes 1978 Annotated, Hazardous Waste Act, Chapter 74, Article 4 (2000 Replacement Pamphlet). Please note that for a few provisions the version found in the 2002 Cumulative Supplement to NMSA 74-4 is the approved version of the statutes.

Chapter 74, Article 4, Sections 74-4-2, 74-4-3 (except 74-4-3.A, 74-4-3.N, 74-4-3.R, and 74-4-3.V) (2002 Cumulative Supplement), 74-4-3.1, 74-4-4.2.A, 74-4-4.2.B, 74-4-4.2.G introductory paragraph, 74-4-4.2.G(2), 74-4-4.3.F (2002 Cumulative Supplement), 74-4-4.7 (except 74-4-4.7.B and 74-4-4.7.C), 74-4-9, and 74-4-10.1.C, as published by ConwayGreene Company, 1400 East 30th Street, Suite #402, Cleveland, OH 44114; Phone number (216) 619-8091; Web site: <http://www.conwaygreene.com>.

The regulatory provisions include:

Title 20, Chapter 4, Part 1, New Mexico Annotated Code, effective October 1, 2003, unless otherwise indicated, Sections 20.4.100, 20.4.1.101, 20.4.1.200, 20.4.1.300,

20.4.1.400, 20.4.1.401, 20.4.1.500, 20.4.1.501, 20.4.1.600, 20.4.1.601, 20.4.1.700, 20.4.1.800, 20.4.801, 20.4.1.900, 20.4.1.901.B.1 through 20.4.1.901.B.6, 20.4.1.901.E, 20.4.1.1000, 20.4.1.1001 (June 14, 2000), 20.4.1.1102 (June 14, 2000), and 20.4.1.1103. Copies of the New Mexico regulations can be obtained from the New Mexico Commission of Public Records, State Records Center and Archives, Administrative Law Division, 1205 Camino Carlos Rey, Santa Fe, NM 87507; Phone number (505) 476-7907; Web site: <http://www.nmcp.state.nm.us/>.

[FR Doc. E8-25533 Filed 10-27-08; 8:45 am]

BILLING CODE 6560-50-P

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 73

[DA 08-2276; MB Docket No. 07-182; RM-11393; MB Docket No. 07-194; RM-11397]

### Radio Broadcasting Services; Antlers, OK; Hico, TX, and Hugo, OK

AGENCY: Federal Communications Commission.

ACTION: Final rule.

**SUMMARY:** The Audio Division, at the request of Liberman Broadcasting of Dallas License LLC, allots FM Channel 293A in lieu of vacant FM Channel 285A at Hico, Texas. Channel 293A can be allotted at Hico, Texas, in compliance with the Commission's minimum distance separation requirements with a site restriction of 5.5 km (3.4 miles) south of Hico at the following reference coordinates: 31-56-00 North Latitude and 98-02-00 West Longitude. The Audio Division further amends the reference coordinates of vacant FM Channel 285A at Broken Bow, Oklahoma, to reflect a site restriction of 12.8 km (7.9 miles) northeast of Broken Bow at the following reference coordinates: 34-06-21 North Latitude and 94-38-09 West Longitude.

**DATES:** Effective November 24, 2008.

**ADDRESSES:** Secretary, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554.

**FOR FURTHER INFORMATION CONTACT:** Deborah Dupont, Media Bureau, (202) 418-2180.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's *Report and Order*, MB Docket Nos. 07-182 and 07-194, adopted October 8, 2008, and released October 10, 2008. The full text

of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Information Center, Portals II, 445 12th Street, SW., Room CY-A257, Washington, DC 20554. The complete text of this decision also may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW., Room CY-B402, Washington, DC, 20554, (800) 378-3160, or via the company's Web site, <http://www.bcpweb.com>. The Commission will send a copy of this *Report and Order* in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

### List of Subjects in 47 CFR Part 73

Radio, Radio broadcasting.

■ As stated in the preamble, the Federal Communications Commission amends 47 CFR part 73 as follows:

### PART 73—RADIO BROADCAST SERVICES

■ 1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, 336.

#### § 73.202 [Amended]

■ 2. Section 73.202(b), the Table of FM Allotments under Texas, is amended by removing Channel 285A and adding Channel 293A at Hico.

Federal Communications Commission.

John A. Karousos,

Assistant Chief, Audio Division, Media Bureau.

[FR Doc. E8-25726 Filed 10-27-08; 8:45 am]

BILLING CODE 6712-01-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 224

[Docket No. 080320453-8705-01]

RIN 0648-XG60

### Endangered and Threatened Species; Final Rule to Remove the Caribbean Monk Seal From the Federal List of Endangered and Threatened Wildlife

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration,  
Commerce.

**ACTION:** Final rule.

**SUMMARY:** We, the National Marine Fisheries Service (NMFS), publish this final rule to remove the Caribbean monk seal (*Monachus tropicalis*) from the list of endangered marine and anadromous species at 50 CFR 224.101 due to extinction of the species. We have reviewed the status of this species and determined that removal of the protections of the Endangered Species Act (ESA) for the Caribbean monk seal is warranted. The U.S. Fish and Wildlife Service (USFWS) concurred with our recommendation to delist this species in a letter dated October 17, 2008.

**DATES:** The effective date of this rule is October 28, 2008.

**ADDRESSES:** Assistant Regional Administrator, Protected Resources Division, NMFS, Southeast Regional Office, 263 13th Ave. South, St. Petersburg, FL 33701.

**FOR FURTHER INFORMATION CONTACT:** Kyle Baker, NMFS, Southeast Regional Office at 727-824-5312; or Marta Nammack, NMFS, Office of Protected Resources at 301-713-1401. Reference materials regarding this determination are available upon request or on the Internet at <http://sero.nmfs.noaa.gov>.

**SUPPLEMENTARY INFORMATION:**

**Background**

On June 9, 2008, we proposed to delist the Caribbean monk seal under the ESA due to extinction of the species (73 FR 32521). Under the ESA, a list of endangered and threatened wildlife and plant species must be maintained. NMFS lists threatened and endangered species under its jurisdiction in 50 CFR parts 223 and 224. The USFWS maintains the official lists of threatened and endangered species, which are published at 50 CFR 17.11 (for animals) and 17.12 (for plants). NMFS and USFWS regulations published at 50 CFR, part 424, specify the procedures and requirements for adding or removing species from the list of endangered and threatened species. In addition, section 4(a)(2)(B)(i) of the ESA requires that, when determining that a species should be removed from any list published pursuant to section 4(c), the Secretary of Commerce shall recommend such action to the Secretary of the Interior, and the Secretary of the Interior, if he concurs in the recommendation, shall implement such action. These responsibilities have been delegated to NMFS and USFWS, respectively.

We are additionally required by ESA section 4(c)(2) and 50 CFR 424.12 to review each species on the list every 5 years ("5-year review") to determine whether a species' classification on the list of threatened or endangered species is accurate. We evaluate whether the species continues to meet the definition of a threatened or endangered species, and we evaluate the five factors under ESA section 4(a)(1) to specify the ongoing reasons for the species' status:

(1) The present or threatened destruction, modification or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; and (5) other natural or manmade factors affecting its continued existence. A species may be delisted pursuant to 50 CFR 424.11(d) if the best scientific and commercial data available substantiate that the species is neither endangered nor threatened for one or more of the following reasons: (1) the species is considered extinct; (2) the species is considered to be recovered; (3) the original data available when the species was listed, or the interpretation of such data, was in error.

We initiated a 5-year review for the Caribbean monk seal on November 29, 2006 (71 FR 39327), to ensure that the listing classification of the species endangered is accurate. We completed the 5-year review on March 7, 2008. The 5-year review synthesized the best available scientific and commercial data on the status of the species and concluded that the Caribbean monk seal is extinct.

**Summary of Comments Received**

We received no comments on the proposed delisting of Caribbean monk seals during the public comment period.

**Assessment of the Species Status**

The following presents a summary of the data on which this determination is based, including a review of the taxonomy, biology, life history, and historic distribution of the Caribbean monk seal; previous statutory and regulatory actions associated with this species; and an analysis of the best available information on the Caribbean monk seals' status.

*Taxonomic Classification and Phylogeny*

The Caribbean monk seal, also known as the Caribbean seal, the West Indian seal, and the West Indian monk seal, was described from the scientific literature in 1849 from a specimen taken in Jamaica (Gray, 1849). Early references to this species referred to these animals

as sea wolves, hair seals, or simply seals. Although the species had several common names, it is taxonomically described according to the following:

Kingdom: Animalia  
Phylum: Chordata  
Class: Mammalia  
Subclass: Eutheria  
Order: Carnivora  
Suborder: Pinnipedia  
Family: Phocidae  
Subfamily: Monachinae  
Genus: *Monachus*  
Species: *tropicalis*

The genus *Monachus* includes 3 allopatric species: *M. tropicalis* (Caribbean monk seals), *M. schauinslandi* (Hawaiian monk seals), and *M. monachus* (Mediterranean monk seals). A thorough description of the Caribbean monk seal was completed by Adam (2004). Caribbean monk seals are more closely related to Mediterranean monk seals than to Hawaiian monk seals (Wyss, 1988). However, the phylogenetic relationship among species of monk seals remains in dispute (Lavigne, 1998). No genetic studies of Caribbean monk seals have been conducted.

*Biology*

The Caribbean monk seal had a typical seal-like appearance, with a well-developed blubber layer, flipper-like limbs, a short tail, and a smooth body contour. The head was large and prominent, its eyes were large and light reddish-brown in color (Ward, 1887), and external pinnae were absent. Pups were born black in color and remained that way for about 1 year (Allen, 1887a). Adult pelage was variably dark dorsally (brown to black) and graded into a lighter yellowish-white countershade ventrally. Ventral fur ranged from pale yellow to yellowish-gray or yellowish-brown and was sometimes mottled with darker patches. The front and sides of the muzzle and the edge of the full and fleshy lips were yellowish-white.

Caribbean monk seals were sexually dimorphic females were smaller than males (Allen, 1887b). However, the size difference was slight and could not be used to distinguish between the sexes. The two sexes were also alike in color and form (Allen, 1887b). Females had two pairs of mammae (Ward, 1887). Measurements of adults of both sexes generally ranged from 2.0–2.5 m (Allen, 1887b; Allen, 1887c; Ward, 1887).

Caribbean monk seal vocalizations have been described as roaring, pig-like snorting, moaning, dog-like barking, growling, and snarling (Gosse, 1851; Hill, 1843; Nesbitt, 1836; Townsend, 1909). Pup vocalizations have been reported as a long, drawn out, guttural

“ah” with a series of vocal hitches during enunciation (Ward, 1887). Underwater vocalizations of Caribbean monk seals have not been described and are unknown.

Both Mediterranean and Hawaiian monk seals are known to consume a variety of fish, cephalopods, and crustaceans (Marchessaux, 1989; Goodman-Lowe, 1998), and it has been speculated that Caribbean monk seals had a similar diet (Nesbitt, 1836; Gosse, 1851; Ward, 1887). The three species of *Monachus* have no obvious functional dental or osteological features to suggest that their feeding habits are significantly different from each other (Adam and Berta, 2002).

The incidence of disease in the wild has not been reported, but an occurrence of a condition that may have been cataracts has been noted (Gaumer, 1917; Ward, 1887). The nasal mite *Halarachne americana* was recovered in great numbers and in all stages of its life cycle from the respiratory passages of a single captive specimen. The mite, which is only known from Caribbean monk seals and has not been identified from any other species or habitats since that time, also may now be extinct (Adam, 2004). Caribbean monk seals were reported to have heavy parasitic helminth loads (Adam and Garcia, 2003; Ward, 1887), but a detailed description and species identification was not described.

#### Life History

Most observations of life history and behavior of Caribbean monk seals were based on short-term observations of seals in isolated colonies following heavy exploitation of the species. Due to the decline of this species after the arrival of the Europeans in the wider Caribbean region and its rarity by the time the species was first described in the scientific literature, remarkably little is known about its life history. Prior to its depletion, Caribbean monk seals hauled out in groups of up to 500 individuals (Nesbitt, 1836). Accounts of Caribbean monk seals were usually from isolated islands, keys, and atolls surrounded by shallow, reef-protected waters, and only occasionally from mainland beaches. Haul out sites were usually sandy beaches that remain exposed at high tide (Gaumer, 1917; and Hill, 1843; as summarized in Adam, 2004; Kerr, 1824; Ward, 1887), but also included near shore rocks and rocky islets (Allen, 1880; as cited in Adam and Garcia, 2003). Haul out sites typically had sparse or no vegetation and no fresh water (Ward, 1887). Adam and Garcia (2003) and Ward (1887) reported that the seals usually hauled out on beaches

to rest in the early morning, though sometimes they would haul out and rest overnight.

Very little is known about the effects of over-exploitation on sex ratios of the species. The male to female ratio of specimens collected during a 1900 expedition in Mexico was 24:76, but by then the species was already severely depleted. Because such data are limited to a single sample size from one colony, it is not possible to determine whether that reported sex ratio is representative, reflective of previous hunting on the sex ratio of the population, or due to some other unknown factor. Therefore, the relevance of those data to life history characteristics should be interpreted with caution.

Observations of feeding seals have not been reported, and there are no reports of prey items from the few examinations of stomach contents cited in the available literature. Pregnant females were known only from the Triangle Keys off Mexico, where a newborn suckling pup and five females with fetuses were collected in early December 1886 (Ward, 1887) and a single pregnant seal was killed in late June 1900 (original unpublished field notes of W.E. Nelson as cited in Adam and Garcia, 2003). Adam and Garcia (2003) speculate that Caribbean monk seals had low pupping synchrony due to the limited seasonal variations in climate and prey abundance. An annual birth rate of 15 percent has been calculated, but this is likely an underestimate (Rice, 1973). Rice (1973) concluded that females rarely bore young in successive years and likely produced a pup every other year; however, research on Hawaiian monk seals (Johanos *et al.*, 1994) and Mediterranean monk seals (Johnson *et al.*, 2006) has demonstrated that pupping in successive years is common for those species. Weaning reportedly began 2 weeks after parturition; however, this also may be an underestimate based on weaning behavior in Hawaiian and Mediterranean monk seals. Pups apparently developed quickly (Nesbitt, 1836). Subadult seals were speculated to have foraged nocturnally in shallow, nearshore waters to avoid direct competition with adults, which fed at dawn and dusk (Adam and Garcia, 2003). Caribbean monk seals were estimated to have a life span of 20–30 years (Adam, 2004), but long-term studies of the species in the wild were not conducted. However, this estimate is consistent with that of the Hawaiian monk seal, which is thought to have a life span of approximately 25–30 years.

#### Distribution

The historic distribution of Caribbean monk seals has been estimated from historical sightings, archeological records, fossil evidence, and geographical features bearing names suggestive of their presence (Adam and Garcia, 2003; Adam, 2004). The species' northernmost record is from a fossil recovered near Charleston, South Carolina. There is evidence that Caribbean monk seals used mainland beaches of North or Central America as haul-out sites in great numbers. Most sightings records were from isolated islands, cays, and reefs in the eastern Gulf of Mexico (Ray, 1961; Timm *et al.*, 1997) and western Caribbean Sea. The only evidence Caribbean monk seals occurred in the Lesser Antilles is from archeological remains in the northern end of the chain (Wing, 1992) and a single sighting record (Timm *et al.*, 1997). A few sightings records, archeological finds, and suggestive place names extend the known range of Caribbean monk seals to include the northern coast of South America (Timm *et al.*, 1997; Debrot, 2000).

#### Previous Regulatory and Statutory Actions for the Caribbean Monk Seal

The Caribbean monk seal was listed as endangered in 1967 under the Endangered Species Preservation Act of 1966 (32 FR 4001; March 11, 1967) and then again in 1979 following its re-assessment under the ESA (44 FR 21288; April 10, 1979). The first Caribbean monk seal 5-year review was published on November 9, 1984 (49 FR 44774). At the time of that review, no sightings or evidence of Caribbean monk seals were documented since the last confirmed sighting at Seranilla Bank, between Jamaica and the Yucatan Peninsula, in 1952. Therefore, that 5-year review concluded that the best available information indicated the Caribbean monk seal may be extinct.

Following the 1984 status review, the U.S. Marine Mammal Commission contracted a study to interview local fishermen, residents, and sailors along the north coast of Haiti. Although there were two reported seal sightings obtained during the survey, there was no tangible evidence to confirm whether those sightings involved Caribbean monk seals or some other species. Based upon a credible account of a sighting, however, some isolated animals were believed to potentially remain in some remote regions off the northern coast of Haiti (Woods and Hermanson, 1987). A subsequent survey of fishermen in waters of Haiti and Jamaica also generated a few oral accounts of seal

sightings, but again, there was no corroborating proof that the sightings involved seals, much less Caribbean monk seals (Boyd and Stanfield, 1998). We decided not to delist the species in 1999, however, because the question of the possible existence of a remnant population in the wild remained as a result of these surveys.

Since the time of these additional surveys, there has been no new information to support the continued existence of Caribbean monk seals. A review of sightings and stranding data provided evidence of several positively identified arctic phocids (true seals, or earless seals) in tropical and subtropical waters of the Western North Atlantic from 1917 through 1996 (Mignucci-Giannoni and Odell, 2001). Due to confirmed sightings of arctic species in the Caribbean region outside their normal ranges, mostly hooded seals (*Cystophora cristata*), and lack of any Caribbean monk seal sightings since 1952, the authors concluded that the unidentified sightings in the period reviewed were not Caribbean monk seals (Mignucci-Giannoni and Odell, 2001). We recently analyzed data between 1996 and 2007 and determined 22 additional sightings of hooded seals have been confirmed in southeast U.S. waters in that time period, of which 7 occurred in the Caribbean Sea (Southeast U.S. Marine Mammal Stranding Database, 2007). No confirmed sightings of Caribbean monk seals have been reported since 1952.

#### *Detailed Information on Sightings of the Caribbean Monk Seal*

Since passage of the ESA, several efforts have been made to investigate unconfirmed reports of the species in or near the Caribbean Sea, Gulf of Mexico, the Southern Bahamas, and Atlantic coast of the Greater Antilles. There have been several reports of pinnipeds within the range of Caribbean monk seals since the last authoritative sighting at the Seranilla Banks in 1952. Unconfirmed sightings of pinnipeds up to that time resulted in speculation that the Caribbean monk seal still existed in a few, isolated colonies as late as the mid-to-late 1900s. The historical accounts of the species, unsuccessful expeditions to locate remnant colonies, and confirmed sightings of pinniped species other than Caribbean monk seal within the species' historical range now provide useful perspective on the species' decline. The following provides a brief historical account of sightings and survey efforts for the species.

1494: The first sightings records of Caribbean monk seals were made during the second voyage of Columbus, when

eight individuals were killed for their meat (Kerr, 1824).

1600s to 1900s: Caribbean monk seals were exploited intensively for their oil, and to a lesser extent for food, scientific study, and zoological collection following European colonization (Allen, 1887b; Elliot, 1884; Townsend, 1923; Moore, 1953; Ward, 1887).

1849: The type specimen for the Caribbean seal was described from the scientific literature from a specimen taken in Jamaica (Gray, 1849).

1886: Caribbean monk seals were reported to occur in the Triangle Keys in the Gulf of Campeche, where 49 seals were killed during a scientific expedition (Ward, 1887).

1897: The New York Aquarium acquired two specimens captured from the Triangle Keys (Townsend, 1909).

1906: On February 25, 1906, fishermen killed a Caribbean monk seal five miles off Key West, Florida. The 1906 account was the first sighting of the species in Florida in approximately 30 years (Townsend, 1906).

1909: The New York Aquarium received four live Caribbean monk seals from a dealer in Progreso, Yucatan. At the time, the last known population of the Caribbean monk seal was restricted to islands and reefs off the Yucatan, Mexico (Townsend, 1909).

1911: An expedition off the coast of Mexico killed approximately 200 seals for scientific study and collection (Townsend, 1909).

1922: A monk seal was killed by a fisherman near Key West, Florida, on March 15, 1922. This was the last confirmed sighting of the seal in the United States. Townsend noted a small breeding colony still remained in the Triangulos reef group (i.e., the Triangle Islands) in the Campeche Bank islands off Mexico (Townsend, 1923).

1932: Following interviews with men having seen seals in the lower Laguna Madre region of Texas, Gordon Gunter concluded that a few Caribbean monk seals were scattered along the Texas coast as late as 1932 (Gunter, 1947). It was later suggested that the sightings of seals along the Texas coast were probably feral California sea lions (Gunter, 1968).

1949: The International Union for the Conservation of Nature and Natural Resources (IUCN) included the Caribbean monk seal in a list of 14 mammals whose survival was considered to be a matter of international concern requiring immediate protection (Westerman, 1953).

1952: C.B. Lewis made the last authoritative sighting of Caribbean monk seals at a small seal colony off

Seranilla Banks (Colombia) in 1952, located between Jamaica and the Yucatan peninsula (Rice, 1973).

1973: The IUCN distributed circulars in both English and Spanish throughout the Caribbean region in 1973, offering U.S. \$500 for information on recent sightings of the species. No confirmed sightings were made (Boulva, 1979).

1973: The USFWS conducted aerial surveys off the Yucatan, south to Nicaragua, and east to Jamaica, of all the areas where Rice suggested that Caribbean monk seals may still exist. The species was not sighted in the survey area (Kenyon, 1977).

1980: Canada's Department of Fisheries and Oceans, Arctic Biological Station, supported a search for evidence of Caribbean monk seals in remote islands of the southeastern Bahamas by vessel and interviews with local fishermen. The vessel survey produced no sightings of seals. Interviews with fishermen produced a few new accounts of seals in the area during the 1960s and 1970s, but the sightings could not be confirmed as Caribbean monk seals. (Sergeant *et al.*, 1980)

1984: From September 5–15, 1984, a survey was conducted across the Gulf of Mexico to Campeche, Mexico, aboard the Scripps Institution of Oceanography research vessel, Robert G. Sproul. The survey crew landed at three island groups off the north coast of the Yucatan Peninsula considered possible haul-out sites still used by monk seals: Islas Triangulos, Cayo Arenas and Arrecife Alacran. Another island, Cayo Arcas, was visited by helicopter on September 7, 1984. The survey yielded no seal sightings or evidence of their continued existence (LeBoeuf *et al.*, 1986).

1985: The U.S. Marine Mammal Commission contracted for a survey of local fishermen, coastal residents, and sailors in northern Haiti. Two of 77 people interviewed reported having seen a seal, one of which—a sighting at Ile Rat in the Baie de l'Acul in 1981—was considered a reliable account. In neither case, however, was it possible to confirm the sighting as a Caribbean monk seal (Woods and Hermanson, 1987).

1996: The IUCN Seal Specialist Group listed the Caribbean monk seal as extinct on its Red List of threatened and endangered species (Seal Specialist Group, 1996).

1997: Based on interviews with 93 fishermen in northern Haiti and Jamaica during 1997, it was concluded that there was a likelihood that Caribbean monk seals may still survive in this region of the West Indies. Fishermen were asked to select marine species known to them from randomly arranged pictures: 22.6

percent (n=21) selected monk seals of which 78 percent (n=16) had seen at least one in the past 1–2 years (Boyd and Stanfield, 1998).

2001: A review of seal sightings and marine mammal stranding data in the Southeast U.S. and Caribbean region documented evidence of several pinnipeds positively identified as arctic phocids between 1917 and 1996 that had strayed into the tropical and subtropical waters of the Western North Atlantic. Due to confirmed sightings of arctic species, mostly hooded seals (*Cystophora cristata*) in the Caribbean region outside their normal ranges, confirmed sightings and recaptures of feral California sea lions that had escaped from captivity, and lack of any confirmed Caribbean monk seal sightings since 1952, the authors concluded that unidentified sightings since 1952 were likely species other than Caribbean monk seals (Mignucci-Giannoni and Odell, 2001).

2007: Between 1996 and 2008, 22 additional, confirmed sightings of hooded seals have been reported from the tropical and subtropical waters of the Western North Atlantic, including nine from the tropical and subtropical waters of the Western North Atlantic (Southeast U.S. Marine Mammal Stranding Database, 2008).

2008: NMFS status review of the species concludes that recent pinniped sightings have been of species other than Caribbean monk seals, and that sufficient time has passed since the last sighting to infer extinction of the species (NMFS, 2008).

Although Caribbean monk seals could be cryptic while at sea and a low number of individuals in a population may lower the detectability of individuals, hauled out individuals at rest or females with pups would be conspicuous to an observer. The United Nations Environment Programme, Caribbean Environment Programme, was contacted in December 2007 regarding any new information on surveys or sightings of Caribbean monk seals that may have been missed by NMFS' review of sightings and stranding data; however, the inquiry resulted in no new information. With pervasive human presence in the wider Caribbean region and the necessity for seals to haul-out to rest and pup, it would be expected that any remaining individuals in the wild would have been sighted and confirmed over the past 50 years. Furthermore, there are few, if any, remaining areas where Caribbean monk seals were known to occur that have not been frequented by at least periodic human visits (e.g., fishing activities, recreational activities,

and scientific expeditions). No Caribbean monk seal sightings have been reported from the numerous scientific surveys conducted in the former range of the species (e.g., avian nesting colonies, sea turtle nesting beaches, coral reef studies, and other biological and ecological research). Fishermen, shrimping boats, and abandoned camps have been ubiquitous throughout the species' known hauling grounds for decades (Kenyon, 1977; LeBoeuf *et al.*, 1986).

Because the range of Caribbean monk seal lies well outside the normal distribution of all other pinnipeds, sightings of seals are remarkable events in the wider Caribbean region. Hooded seals, usually juveniles, have been documented wandering over large ranges. The wide-ranging movement of hooded seals was recently supported by DNA research showing genetic exchange between four main breeding areas (Coltman *et al.*, 2007). NMFS' analysis of stranding data shows that the occurrence of arctic phocids outside their normal ranges occurs with some regularity. Current technology allows for near real-time communication when such rare or unusual species are sighted. Better methods also exist to confirm species identification when such sightings are made (e.g., photographs and genetic analysis of tissue samples). Although some seal sightings inevitably are not identifiable to a particular species, all those that have been confirmed in recent decades within the known range of the Caribbean monk seal have proven to be other species, namely feral California sea lions (Rice, 1973), manatees (*Trichechus manatus*), or hooded seals (Mignucci-Giannoni and Odell, 2001; NMFS Southeast U.S. Marine Mammal Stranding Database data, 2007). The occurrence of juvenile hooded seals in subtropical and tropical waters (outside the normal range of these seals) occurs with enough frequency to account for most recent pinniped sightings within the former range of the Caribbean monk seal (Mignucci-Giannoni and Haddow, 2002; Mignucci-Giannoni and Odell, 2001).

A sufficient amount of time has passed since the last sighting of this species to indicate clearly the status of this species. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the IUCN have set 50 years with no sightings as the cut-off for species extinction (IUCN, 1982). In 1949, the IUCN included the Caribbean monk seal in a list of 14 mammals whose survival was considered to be a matter of international concern requiring immediate protection

(Westerman, 1953). However, the last confirmed sighting of the species occurred in 1952, limiting any opportunity for conservation efforts of any remaining animals in the wild. It has been over 50 years since the last confirmed sighting of Caribbean monk seals in the wild, despite multiple survey efforts to locate the species. Solow (1993) used survey data of Caribbean monk seals to demonstrate statistically that the likelihood of extinction is high based on the lack of sightings of this species. The IUCN concluded the Caribbean monk seal was extinct in 1996 (Seal Specialist Group, 1996), but the species remained listed under the ESA in the United States based on the results of survey data conducted after the 1984 status review indicating a possibility that some Caribbean monk seals persisted for a few years after their last confirmed sighting in 1952 at Seranilla Bank.

Although there were no sightings, it is possible that the Caribbean monk seal persisted for a short period in the years following the last confirmed sighting in 1952 at Seranilla Bank. If so, with an estimated life span of 20–30 years, some newborn individuals may have possibly persisted in the wild between the 1950s and early 1980s. If any remnant population did survive, it seems likely they consisted of scattered individuals, with no remaining colonies large enough to be viable in the wild. Considering the absence of seal sightings since 1952, the fact that all confirmed seal sightings have been of other species, and the ubiquitous presence of humans throughout the species' range, the Caribbean monk seal appears to have been extirpated before any meaningful conservation and recovery efforts could be taken for the species.

Although documentation of harvest levels and practices that led to this species' population decline is nearly absent, it is evident from early reports that relatively large numbers of seals persisted in at least some areas as late as the early 1800s and that their precipitous decline in abundance was due to heavy exploitation by sealers and others. During the 1800s their distribution became increasingly fragmented. By the time scientific expeditions were organized in the late 1800s to document and study the species, their range was already drastically curtailed. Rice (1973) noted that the last confirmed sighting of this species was in 1952 at Seranilla Banks in the western Caribbean. The Caribbean monk seal population was already severely depleted, and likely extirpated throughout most, and possibly all, of its

range prior to the passage of the ESA and Marine Mammal Protection Act.

#### Consideration of the Factors Listed under Section 4(a)(1) of the ESA

The two main factors leading to the listing of the Caribbean monk seal as endangered are the modification and curtailment of its habitat and range, and overutilization for commercial and educational purposes. Details about these factors and how they impacted the species are provided below, but because we have determined that this species is extinct, they no longer have any bearing on the status of the species.

#### *Modification and Curtailment of its Habitat and Range*

When hauled out on beaches, Caribbean monk seals were reported to have been sensitive to human disturbance (Allen, 1880; Gaumer, 1917; Ward, 1887). As with both Hawaiian and Mediterranean monk seals, Caribbean monk seals apparently became sensitized to human presence after exposure to hunting or other human activity. Thus, although many recent descriptions of monk seals state that they are highly sensitive to human disturbance, some accounts, including early accounts of the species (e.g., E.W. Nelson, as cited in Adam and Garcia, 2003), describe them as being very approachable when hauled out on beaches. When disturbed, Caribbean monk seals reportedly returned to the water where they remained until the people or vessels left the area (Adam and Garcia, 2003; Allen, 1880). As human settlements expanded in areas inhabited by this species and persistent hunting reinforced evasive seal behaviors, avoidance of human presence near populated shorelines and areas regularly visited by fishermen likely caused seals to abandon historic haul-out sites. Human encroachment also likely exacerbated stresses on the population as it declined. Although the species was reported as common in the early to mid 1700s, it was already considered rare by the mid 1880s (Allen, 1887b; Elliot, 1884; Gratacap, 1900).

#### *Overutilization for Commercial and Educational Purposes*

Caribbean monk seals were utilized as a source of meat by early mariners and heavily exploited as a source of oil following European colonization (Allen, 1880). Other human-caused factors, such as entanglement and drowning in fishing nets or slaughter by fishermen viewing the seals as competitors for fish, contributed to their decline (Rice, 1973). Caribbean monk seals were also killed

for scientific collection and study, as well as for display in zoological gardens. Adam (2004) provides an excellent review of the historical exploitation of Caribbean monk seals. He reports the species was the most readily exploited source of oil in the tropical West Atlantic Ocean prior to the early 1800s, and that it was hunted to near extinction for its blubber until the early 1900s.

Blubber was processed and used for lubrication, coating the bottom of boats, and as lamp and cooking oil. Caribbean monk seal skins were sought to make trunk linings, articles of clothing (e.g., caps and belts), straps, and bags. In the early 1700s, a girdle fashioned from a Caribbean monk seal pelt was believed to relieve lower back pain. At least some sailors reportedly prized monk seal pelts, believing that their hairs became erect during rough seas, but remained flat in calm seas. The Swiss naturalist Konrad Gesner reported accounts from seafarers in the Caribbean (near the island of Hispaniola) in the 1550s, writing: "Its hair is reputed to be of such a wondrous nature that the skins or belts are worn by mariners. When thunderstorms, tempests and other inclement weather is nigh, the hair shall rise and bristle, but when it turns still and mild, it shall lay down smoothly" (Gesner, 1558, as cited in Johnson, 2004).

Caribbean monk seals were taken for food by sailors stranded on the Arricifes Viboras (Cuba) in 1520, on the Islas de Lobos (Veracruz, Mexico) in 1524, Dry Tortugas (Florida) in 1742, and in the Triangle Keys (Mexico) in 1846. Guano gatherers visiting the Triangle Keys in 1856 reportedly made a bonfire of 100 barrels of Caribbean monk seal skins and skeletons left behind by sealers, suggesting that they were heavily exploited for their oil in this region. Fishermen sometimes hunted the seals for meat until about 1885. In at least one instance, two monk seals were killed simply "for fun" (Allen, 1880). Aside from heavy hunting pressure by humans, the only known natural predator reported is an unidentified species of shark (Fernandez de Oviedo, 1944).

As a result of this species' increasing rarity in the wild, live specimens were eagerly sought by zoological gardens following the discovery of remnant populations in the late 1800s. In 1897, two live specimens sold for \$50.00 each, and dead or mounted specimens also were sold to museums. Two scientific expeditions to the Triangle Keys are believed to have contributed to the extirpation in that region. On 4 days in December 1886, 49 seals were killed in

the Triangle Keys (Allen, 1887; Ward, 1887). Live specimens obtained by the New York Aquarium in 1897 and 1909 also were captured from the Triangle Keys (Townsend, 1909).

#### Conclusions Regarding Listing Determination

Based upon the best available commercial and scientific information, we have determined that the Caribbean monk seal has become extinct. A sufficient period of time has passed since the last confirmed sighting of the species, and the best available information supports this finding. The USFWS concurred with our recommendation to delist this species in a letter dated October 17, 2008, and will remove the species from the List of Endangered and Threatened Wildlife at 50 CFR 17.11(h) in a separate **Federal Register** notice. Therefore, we remove the species from our endangered species list at 50 CFR 224.101(b) in this final rule.

#### References Cited

A complete list of all references cited in this final rule is available upon request from the NMFS (see **ADDRESSES**) and our website at <http://sero.nmfs.noaa.gov/pr/protres.htm>.

#### Peer Review

On July 1, 1994, we and the USFWS published a series of policies regarding delistings under the ESA, including a policy for peer review of scientific data (59 FR 34270). In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review establishing minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation. The OMB Bulletin, implemented under the Information Quality Act (Public Law 106-554), is intended to enhance the quality and credibility of the Federal Government's scientific information, and applies to influential or highly influential scientific information disseminated on or after June 16, 2005.

To satisfy our requirements under our peer review policy and the OMB Bulletin, independent peer review was obtained from three individual subject matter experts to ensure the best biological and commercial information was used to make the recommendation to delist the species due to extinction. Peer review was also obtained to ensure that reviews by recognized experts were incorporated into the 5-year review that supports this final rule to delist the Caribbean monk seal, and we

incorporated the peer review comments prior to dissemination of this final rule. The 5-year review upon which the information in this final rule is based was completed for the Caribbean monk seal on March 7, 2008, and is available on our website at <http://sero.nmfs.noaa.gov/pr/protres.htm>.

#### Classification

##### *National Environmental Policy Act*

The 1982 amendments to the ESA, in section 4(b)(1)(A), restrict the information that may be considered when assessing species for listing to the best scientific and commercial data available. Based on this limitation of criteria for a listing decision and the opinion in *Pacific Legal Foundation v. Andrus*, 657 F 2d 829 (6th Cir.1981), we have concluded that ESA listing actions are not subject to the environmental assessment requirements of the National Environmental Policy Act. (see also NOAA Administrative Order 216 6.)

##### *Executive Order (E.O.) 12866, Regulatory Flexibility Act*

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species.

Therefore, the economic analysis requirements of the Regulatory Flexibility Act are not applicable to the listing process. In addition, this rule is exempt from review under E. O. 12866.

##### *Paperwork Reduction Act*

This proposed rule does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

##### *Federalism*

E.O. 13132 requires agencies to take into account any federalism impacts of regulations under development. It includes specific consultation directives for situations where a regulation will preempt state law, or impose substantial direct compliance costs on state and local governments (unless required by statute). Neither of these circumstances is applicable to this proposed listing determination. In keeping with the intent of the Administration and Congress to provide continuing and meaningful dialogue on issues of mutual State and Federal interest, the proposed rule was given to the relevant state agencies in each state in which the Caribbean monk seal formerly occurred, and each agency was invited to comment.

#### List of Subjects in 50 CFR Part 224

Administrative practice and procedure, Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Dated: October 22, 2008.

**Samuel D. Rauch III,**

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

■ For the reasons set out in the preamble, we amend 50 CFR part 224 as follows:

#### **PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES**

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

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

##### **§ 224.101 [Amended]**

■ 2. Amend § 224.101(b) by removing the phrase “Caribbean monk seal (*Monachus tropicalis*);”.

[FR Doc. E8-25704 Filed 10-27-08; 8:45 am]

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