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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[FWS–R8–IA–2007–0021; 96100–1671–0000–B6]

RIN 1018–AV21

Endangered and Threatened Wildlife and Plants; Listing the Chatham Petrel, Fiji Petrel, and Magenta Petrel as Endangered Throughout Their Ranges

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), determine endangered status for three petrel species (order Procellariiformes)—Chatham petrel (*Pterodroma axillaris*) previously referred to as (*Pterodroma hypoleuca axillaris*); Fiji petrel (*Pseudobulweria macgillivrayi*) previously referred to as (*Pterodroma macgillivrayi*); and the magenta petrel (*Pterodroma magentae*)—under the Endangered Species Act of 1973, as amended (Act). This rule implements the Federal protections provided by the Act for these three species.

DATES: This rule becomes effective October 14, 2009.

ADDRESSES: Comments and materials we receive, as well as supporting information used in the preparation of this rule, are available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Division of Scientific Authority, 4401 N. Fairfax Drive, Suite 110, Arlington, VA 22203.

FOR FURTHER INFORMATION CONTACT: Monica A. Horton, Biologist, Division of Scientific Authority (see **ADDRESSES**); telephone 703–358–1708; facsimile 703–358–2276; e-mail *ScientificAuthority@fws.gov*. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(A) of the Act (16 U.S.C. 1531 *et seq.*) requires us to make a finding (known as a ''90-day finding'') on whether a petition to add a species to, remove a species from, or reclassify a species on the Federal Lists of Endangered and Threatened Wildlife and Plants has presented substantial information indicating that the requested action may be warranted. To the maximum extent practicable, the finding must be made within 90 days following receipt of the petition and must be published promptly in the **Federal Register.** If we find that the petition has presented substantial information indicating that the requested action may be warranted (a positive finding), section 4(b)(3)(A) of the Act requires us to commence a status review of the species if one has not already been initiated under our internal candidate assessment process. In addition, section 4(b)(3)(B) of the Act requires us to make a finding within 12 months following receipt of the petition (''12-month finding'') on whether the requested action is warranted, not warranted, or warranted but precluded by higher priority listing. Section 4(b)(3)(C) of the Act requires that a finding of warranted but precluded for petitioned species should be treated as having been resubmitted on the date of the warranted but precluded finding, and is, therefore, subject to a new finding within 1 year and subsequently thereafter until we publish a proposal to list or a finding that the petitioned action is not warranted. The Service publishes an annual notice of resubmitted petition findings (annual notice) for all foreign species for which listings were previously found to be warranted but precluded.

Previous Federal Actions

On November 28, 1980, we received a petition (1980 petition) from Dr. Warren B. King, Chairman of the International Council for Bird Preservation (ICBP), to add 60 foreign bird species to the List of Endangered and Threatened Wildlife (50 CFR 17.11(h)), including two species (the Chatham petrel and magenta petrel) that are the subject of this final rule. Two of the foreign species identified in the petition were already listed under the Act; therefore, in response to the 1980 petition, we published a substantial 90-day finding on May 12, 1981 (46 FR 26464), for 58 foreign species and initiated a status review. On January 20, 1984 (49 FR 2485), we published a 12-month finding within an annual review on pending petitions and description of progress on all pending petition findings. In that notice, we found that all 58 foreign bird species from the 1980 petition were warranted but precluded by higher priority listing actions. On May 10, 1985, we published the first annual notice (50 FR 19761) in which we continued to find that listing all 58 foreign bird species from the 1980 petition was warranted but precluded. We published additional annual notices on the 58 species included in the 1980 petition on January 9, 1986 (51 FR 996), July 7, 1988 (53 FR 25511), December 29, 1988 (53 FR 52746), April 25, 1990 (55 FR 17475), November 21, 1991 (56 FR 58664), and May 21, 2004 (69 FR 29354). These notices indicated that the Chatham petrel and the magenta petrel, along with the remaining species in the 1980 petition, continued to be warranted but precluded.

On May 6, 1991, we received a petition (1991 petition) from ICBP to add an additional 53 species of foreign birds to the List of Endangered and Threatened Wildlife, including the Fiji petrel. In response to the 1991 petition, we published a substantial 90-day finding on December 16, 1991 (56 FR 65207), for all 53 species, and initiated a status review. On March 28, 1994 (59 FR 14496), we published a 12-month finding on the 1991 petition, along with a proposed rule to list 30 African birds under the Act (15 each from the 1980 petition and 1991 petition). In that document, we announced our finding that listing the remaining 38 species from the 1991 petition, including the Fiji petrel, was warranted but precluded by higher priority listing actions. We made a subsequent warranted-but-precluded finding for all outstanding foreign species from the 1980 and 1991 petitions, including the three species that are the subject of this final rule, as published in our annual notice of review (ANOR) on May 21, 2004 (69 FR 29354).

Per the Service's listing priority guidelines (September 21, 1983; 48 FR 43098), in our April 23, 2007, Annual Notice on Resubmitted Petition Findings for Foreign Species (72 FR 20184), we determined that listing six seabird species of the family Procellariidae, including the three species that are the subject of this final rule, was warranted. In selecting these six species from the list of warranted-but-precluded species, we took into consideration the magnitude and immediacy of the threats to the species, consistent with the Service's listing priority guidelines.

On December 17, 2007 (72 FR 71298), we published in the **Federal Register** a proposal to list the Chatham petrel, Fiji petrel, and the magenta petrel as endangered under the Act, and the Cook's petrel, Galapagos petrel, and the Heinroth's shearwater as threatened under the Act. We implemented the Service's peer review process and opened a 60-day comment period to solicit scientific and commercial

information on the species from all interested parties following publication of the proposed rule.

On December 30, 2008, the Service received a 60-day notice of intent to sue from the Center for Biological Diversity (CBD) over violations of section 4 of the Act and the Administrative Procedure Act (APA) for the Service's failure to issue a final determination regarding the listing of these six foreign birds. Under a settlement agreement approved by the U.S. District Court for the Northern District of California on June 15, 2009 (*CBD* v. *Salazar,* 09-cv-02578–CRB), the Service must submit to the **Federal Register** final determinations on the proposed listings of the Chatham petrel, Fiji petrel, and magenta petrel by September 30, 2009, and final determinations on the proposed listings of the Cook's petrel, Galapagos petrel, and Heinroth's shearwater by December 29, 2009.

In this final rule, we determine endangered status for three foreign seabird species under the Act: Chatham petrel (*Pterodroma axillaris*), Fiji petrel (*Pseudobulweria macgillivrayi*), and the magenta petrel (*Pterodroma magentae*). We will publish our final listing determinations for the Cook's petrel (*Pterodroma cookii*), Galapagos petrel (*Pterodroma phaeopygia*), and the Heinroth's shearwater (*Puffinus heinrothi*) in a subsequent **Federal Register** notice.

Summary of Comments and Recommendations

In the proposed rule published on December 17, 2007 (72 FR 71298), we requested that all interested parties submit information that might contribute to development of a final rule. We received nine comments: six from members of the public, one from an international conservation organization, one from the U.S. National Marine Fisheries Service (NMFS), and one from the New Zealand Department of Conservation (NZDOC). In all, three commenters supported the proposed listings. The NZDOC provided new information on the Chatham and magenta petrels and concluded that the information presented in the December 2007 proposal supported the listing of these two species under the U.S. Endangered Species Act. Five commenters provided information but did not express support of or opposition to the proposed listings.

General comments we received, as well as comments we received regarding the three species that are the subject of this final rule, are addressed in the following summary and incorporated into the final rule as appropriate. Comments we received regarding the other three species of seabirds in the family Procellariidae proposed for listing (December 17, 2007; 72 FR 71298) will be addressed in a subsequent **Federal Register** notice announcing our final listing determinations for those species.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from 14 knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received a response from six of the peer reviewers from whom we requested comments. The peer reviewers generally agreed that the description of the biology and habitat for each species was accurate and based on the best available information. New or additional information on the current population numbers of each of the three species and their threats was provided and incorporated into the final rule as appropriate (as indicated in the citations by ''in litt.'').

We reviewed all comments received from the public and the peer reviewers for substantive issues and new information regarding the proposed listing of the three species, and address them in the following summary.

Peer Reviewers' General Comments

Comment 1: While it is generally true that ''once a population is reduced below a certain number of individuals it tends to rapidly decline towards extinction,'' without details on what the ''certain'' number of individuals is, this statement is superfluous for these species. For these species, the issue is not so much reaching certain low numbers as whether or not catastrophic threats impacting these species are still ongoing.

Our Response: We concur and have amended this statement in this final rule.

Comment 2: Provide the taxonomic list(s) of birds used to identify the species.

Our Response: We have added information on taxonomy of each species to this final rule.

Peer Reviewers' Species-Specific Comments

Fiji Petrel

Comment 3: The analysis of the population size is not accurate, although based on the best available information, since the estimated population size is based on single sightings. Until surveys are carried out in the catchment area of the main waterway of Gau Island [the likely breeding area for this species], the population size of the Fiji petrel is unknown.

Our Response: We agree that surveys of the purported breeding area will be important in determining an accurate population size for this elusive bird. Although we have acknowledged the lack of certainty regarding the current estimate of the population size of this species in this final rule, this estimate represents the best available scientific data on the population size of the Fiji petrel.

Comment 4: Two peer reviewers disagreed with the commonly held belief that this species nests in ''rocky, mountainous cloud forests'' on Gau Island. According to these reviewers, aerial photos of interior Gau Island show no ''rocky'' terrain, just steep terrain covered in tropical rainforest. Past surveys focused on these ''rocky'' areas (the highest parts of the island) without success, based on information reported in Jenkins (1986). These peer reviewers suggest that, as no nests or birds have been found in the highest parts of the island, other possible sites should be considered. According to Jenkins (1986, as cited in Priddel *et al.* in draft), in 1925, Rollo Beck trekked to the summit of the island with the chief who indicated that the petrels nested not in the summit area but down below in dense canyons on the eastern side of the island. Therefore, according to these reviewers, future surveys should focus on the unsurveyed catchment of the main waterway of the island, particularly the headwaters of the Waiboteigau Creek on the eastern side of Gau. This remote lowland area is uncleared and lacks roads or trails. According to the peer reviewers, an intensive survey of this area for potential breeding sites is planned for July 2009 (Carlile and Priddel, in litt. 2008, pp. 2–3).

Our Response: We have added this new information regarding the potential breeding habitat of the Fiji petrel in the remote and unsurveyed catchment area of the main waterway of Gau Island to this final rule.

Comment 5: Consider the potential impact of the recently established feral pig population in the southern part of Gau Island.

Our Response: We agree that there may be impacts to the Fiji petrel from recently established feral pig populations on Gau Island and have included this new information in the discussion of threats under Factor C (*Disease or Predation*) in this final rule.

New Zealand Department of Conservation's (NZDOC) Comments

Chatham Petrel

Comment 6: Incidental take of the Chatham petrel by commercial long-line fisheries is not a significant threat and is overstated for this species. There has been no documented incidental take of small *Pterodroma* petrels in any New Zealand fishery from 1993–2007. New Zealand supports a fisheries observer and seabird autopsy program, and this species and its close small relatives have not been taken in any fisheries operations. Therefore, there is little risk to this species from fishing impacts.

Our Response: We have reexamined our discussion of this threat in the proposed rule, and based on the information provided above, we agree that commercial long-line fisheries is not a significant threat to the Chatham petrel, and have amended this final rule accordingly.

Comment 7: Pitt Island also has a population of feral pigs that could be a potential predator threat to translocated birds that attempt to nest outside the predator-proof fence.

Our Response: We have included, in this final rule, this new information regarding the potential threat of predation by feral pigs on birds nesting outside the predator-proof fence on Pitt Island.

Comment 8: We disagree that the existing regulatory protections have not reduced the threats to Chatham petrels. The Chatham petrel is well-protected in New Zealand under the Wildlife Act of 1953 and access to the breeding grounds is strictly controlled under the Reserves Act of 1977 (permitted access only for scientific or management purposes). In addition, while there might be illegal visits to the breeding grounds, the burrows are located some distance from the landing areas and are unlikely to be disturbed.

Our Response: We agree, based on the information provided by the NZDOC (2008, in litt.), that existing regulatory mechanisms have reduced the threats to the Chatham petrel. As a result, we have amended our discussion under Factor D (*The Inadequacy of Existing Regulatory Mechanisms*) in this final rule.

Comment 9: It is unlikely that the Chatham petrel is threatened by burrow damage from storm waves. The current breeding sites on the [three] islands are mostly above 33 feet (ft) (10 meters (m)) in elevation and more than 330 ft (100 m) from the coast. However, there is a risk of burrow damage from storm-related tree falls.

Our Response: We agree that the Chatham petrel is likely not threatened by burrow damage from storm waves, although there is a potential threat to the birds and their burrows from storm-related tree falls. Therefore, we have amended the discussion under Factor E (*Other Natural or Manmade Factors Affecting the Continued Existence of the Species*) for this species in this final rule to reflect this new information.

Magenta Petrel

Comment 10: The risk of logging activities on private land impacting the magenta petrel is quite low for the following reasons: (1) Unprotected breeding sites are more than 3 miles (mi) (5 kilometers (km)) from existing roads [which are needed to move vehicles and equipment to potential logging sites], (2) over the past 50 years there has been no logging of forests near the breeding burrows except to clear a thin strip of forest for a reserve boundary fence, and (3) the private landowners are aware of the petrel's rare status and are fully supportive of its protection.

Our Response: Based on the information provided above, we agree that the magenta petrel is not threatened by logging on private land, and we have amended our discussion under Factor A (*The Present or Threatened Destruction, Modification, or Curtailment of Species' Habitat or Range*) in this final rule.

Comment 11: The risk to the magenta petrel from long-line fishing is probably not as serious as concluded in the proposed rule. There may be some risk as the closely related grey-faced petrel (*Pterodroma macroptera gouldi*) is occasionally caught on commercial long lines. However, the New Zealand fisheries observer program has not reported any incidental take of the closely related white-headed petrel (*Pterodroma lessonii*), which feeds in the same cold, subantarctic waters as the magenta petrel.

Our Response: We have reexamined our discussion of this threat in the proposed rule, and based on the information provided by the NZDOC and other commenters, we agree that commercial long-line fisheries are not a significant threat to the magenta petrel. We have amended this final rule accordingly.

Comment 12: There is not a risk of burrow damage by storm waves because the known breeding sites on Chatham Island are at least 660 ft (200 m) in elevation and over 3 mi (5 km) from the coast. Storm-related windfalls and flooding of breeding sites from rising streams, however, do pose a threat to the magenta petrel.

Our Response: We agree that the magenta petrel is not threatened by storm waves, although there is a potential threat of storm-related tree falls and flooding from rising streams. Therefore, we have amended the discussion under Factor E (*Other Natural or Manmade Factors Affecting the Continued Existence of the Species*) in this final rule.

Comment 13: The NZDOC disagreed that one random, naturally occurring event, such as a cyclone, during the nesting season could destroy the entire known breeding population on Chatham Island. The NZDOC acknowledged that there is a risk that some burrows might be destroyed during such an event, but it is unlikely that all burrows would be destroyed in a major storm because the forest on Chatham Island is very resilient to storm damage as it is regularly exposed to wind gusts over 60 knots. In addition, some proportion of the breeding birds is at sea at any stage of the [breeding] season, so the risk of catastrophic loss of all adults in a storm is also unlikely.

Our Response: Based on this new information regarding the risk of destruction of the entire breeding population of magenta petrels due to one stochastic event, we have amended our discussion under Factor E (*Other Natural or Manmade Factors Affecting the Continued Existence of the Species*) for this species in this final rule.

Comment 14: The risk of inbreeding depression is a new threat to consider for this species. While the magenta petrel gene pool appears to be fairly diverse, the tendency for returning chicks to nest close to their natal burrows greatly increases the risk of interbreeding among close relatives. Poor fertility rates were found in recent seasons where close relatives have interbred.

Our Response: We have included the threat of inbreeding depression in our discussion under Factor E (*Other Natural or Manmade Factors Affecting the Continued Existence of the Species*) for this species in this final rule.

Other Comments

Comment 15: Listing under the Act provides substantial benefits to foreign species.

Our Response: We agree that listing a foreign species under the Act provides benefits to the species in the form of conservation measures, such as recognition, requirements for Federal protection, and prohibitions against certain practices (see Available Conservation Measures). In addition, once a foreign species is listed as endangered under the Act, a section 7 consultation and an enhancement finding are usually required for the

issuance of a permit. Through various enhancement findings pursuant to section 10(a)(1)(A) of the Act, the permit process can be used to create incentives for conservation, through cooperation and consultation with range countries and users of the resource.

Comment 16: Listing under the Act can only help these birds by drawing attention to their needs and providing much needed funding and expertise to address the significant threats they face.

Our Response: Listing the three species that are the subject of this final rule under the Act can provide several benefits to the species in the form of conservation measures, such as recognition, requirements for Federal protection, and prohibitions against certain practices (see Available Conservation Measures).

Comment 17: We would encourage the U.S. Fish and Wildlife Service to carefully consider how listing these species under the Act will benefit their conservation. Would a listing under the Act prompt U.S.-based actions that the species would otherwise not receive?

Our Response: As part of the conservation measures provided to foreign species listed under the Act (see Available Conservation Measures), recognition through listing results in public awareness and encourages and results in conservation actions by Federal and State governments, private agencies and groups, and individuals. In addition, section 8(a) of the Act authorizes the provision of limited financial assistance for the development and management of programs that the Secretary of the Interior determines to be necessary or useful for the conservation of endangered and threatened species in foreign countries. Sections 8(b) and 8(c) of the Act authorize the Secretary to encourage conservation programs for foreign endangered and threatened species and to provide assistance for such programs in the form of personnel and the training of personnel.

Comment 18: The general statement that the ''long-line fishery * * * is the single greatest threat to all seabirds'' erroneously indicates long-line fishing as a threat to *all* seabirds. The main species of seabirds killed in long-line fisheries are albatrosses and other species of petrels (not *Pterodroma* species). The characteristics of a petrel species vulnerable to long-line fishing (seabird that is aggressive and good at seizing prey (or baited hooks) at the water's surface, or is a proficient diver) do not describe the five *Pterodroma* species or the Heinroth's shearwater that are proposed for listing under the Act. Fisheries bycatch has not been identified as a key threat for any of these species; therefore, it is inaccurate to characterize long-line fishing as a threat to these species or to all seabird species.

Our Response: We received several comments disputing our statement that long-line fisheries threaten all seabirds, including the Chatham petrel, Fiji petrel, and magenta petrel (see also Comments 6 and 11 above). We have amended this final rule accordingly (see Summary of Factors Affecting the Species).

Comment 19: The serious threats to the species are impacts from extremely small populations, limited breeding locations or foraging ranges, loss and degradation of nesting habitat, invasive alien species, introduced predators, and hunting.

Our Response: We agree that the Chatham petrel, Fiji petrel, and magenta petrel are threatened by extremely small populations, limited breeding sites, degradation or destruction of nesting habitat, or nonnative species. We have incorporated this information into this final rule. We are not aware of any information regarding the current threat from hunting of any of these seabirds. Harvesting of petrel chicks (called muttonbird harvesting), especially shearwater species (*Puffinus* spp.), for food, oil, and feathers prior to European arrival may have contributed to the decline of some New Zealand petrel species (Tennyson and Millener 1994, pp. 165, 174). Currently, the Maori people of New Zealand's southernmost region and their descendents have gathering rights to sooty shearwater (*Puffinus griseus*) chicks on islands around Stewart Island. Maori from the Alderman group of islands off the Coromandel Peninsula have rights to harvest grey-faced petrels (*Pterodroma macroptera gouldi*). However, we are not aware of any information that indicates that the Chatham petrel or the magenta petrel is currently threatened by hunting or overcollection in New Zealand (Lyver *et al.* 2007). In addition, we are unaware of any information that indicates that the Fiji petrel currently faces threats from human hunting or overcollection.

Comment 20: The primary threats to these species are predation by introduced predators and risk at breeding colonies.

Our Response: We agree that predation by nonnative predators is a significant threat to one or more life stages of the Chatham petrel, Fiji petrel, and the magenta petrel, and we have incorporated this information into this final rule.

Species Information and Factors Affecting the Species

Section 4 of the Act (16 U.S.C. 1533), and its implementing regulations at 50 CFR part 424, set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act. The five factors are: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other natural or manmade factors affecting its continued existence. Listing actions may be warranted based on any of the above threat factors, singly or in combination.

As previously mentioned, several commenters disputed our statement that long-line fisheries threaten all seabirds, including the species that are the subject of this final rule. According to the U.S. National Marine Fisheries Service (Mecum, in litt. 2008) and BirdLife International (Small, in litt. 2008), the main seabirds killed in long-line fisheries are albatrosses and other species of petrels (not *Pterodroma* species). The characteristics of a petrel species vulnerable to long-line fishing (a seabird that is aggressive and good at seizing prey (or baited hooks) at the water's surface, or is a proficient diver) do not describe the three species that are the subject of this final rule. According to the commenters, fisheries bycatch has not been identified as a key threat for any of these species (Mecum, in litt. 2008; NZDOC, in litt. 2008, pp. 2–3; Small, in litt. 2008). Therefore, we do not believe that long-line fishing is a significant threat to the Chatham petrel or Fiji petrel. The NZDOC (in litt. 2008, p. 3) stated that there may be some risk to the magenta petrel as the closely related grey-faced petrel (*Pterodroma macroptera gouldi*) is occasionally caught on commercial long lines. However, because the New Zealand fisheries observer program has not reported any incidental take of the closely related white-headed petrel (*Pterodroma lessonii*), which feeds in the same cold, subantarctic waters as the magenta petrel, the risk to the magenta petrel from long-line fisheries is not significant (NZDOC, in litt. 2008, p. 3). Therefore, we do not believe that long-line fisheries are a significant threat to the magenta petrel.

Below is a species-by-species analysis of the five factors. The species are considered in alphabetical order, beginning with the Chatham petrel, and followed by the Fiji petrel and the magenta petrel.

I. Chatham petrel (*Pterodroma axillaris*)

Species Information

The Chatham petrel (*Pterodroma axillaris*) is a small, gray and white gadfly petrel that is endemic to the Chatham Islands of New Zealand (BirdLife International 2008a). Its unique underwing pattern (a black diagonal band that runs from the bend of the wing to the body) distinguishes this species from other petrels (BirdLife International 2008a; del Hoyo *et al.* 1992, p. 247). The Chatham petrel is also known by its Maori name, ''ranguru.'' The species was first taxonomically described by Salvin in 1893 (Sibley and Monroe 1990, p. 321).

Habitat and Life History

In general, Chatham petrels are considered pelagic, occurring on the open sea generally out of sight of land, where they feed year round. They return to nesting sites on islands during the breeding season where they nest in colonies (Pettingill 1970, p. 206). Banding studies have shown that young birds of this species remain at sea for at least 2 years before returning to land to breed and nest. Based on limited feeding habits data, the Chatham petrel preys on squid and small fish (Heather and Robertson 1997, p. 212).

The Chatham petrel breeds in lowland temperate forest and scrub in habitats with low forest, bracken, or rank grass (BirdLife International 2008a; del Hoyo *et al.* 1992, p. 247). It nests in burrows in very friable (brittle) soils on flat to moderately sloping ground among low vegetation and roots (BirdLife International 2008a; Marchant and Higgins 1990, as cited in BirdLife International 2000, p. 55).

Range and Distribution

The range of the Chatham petrel changes intra-annually based on an established breeding cycle. During the breeding season (November to June) (New Zealand Department of Conservation (NZDOC) 2001b, p. 7), breeding birds return to breeding colonies to breed and nest. During the nonbreeding season, birds migrate far from their breeding range, where they remain at sea until returning to breed.

BirdLife International (2008a) estimates the range of the Chatham petrel to be 168,300 square miles (mi^2) (436,000 square kilometers (km^2)); however, BirdLife International (2000, pp. 22, 27) defines ''range'' as the ''Extent of Occurrence, the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred, or projected sites of present occurrence of a species, excluding cases of vagrancy.'' Therefore, this reported range includes a large area of nonbreeding habitat (*i.e.,* the sea).

Fossil evidence indicates that the Chatham petrel was once widespread throughout the Chatham Islands of New Zealand (NZDOC 2001b, p. 5). However, the species is currently only known to breed on one island (BirdLife International 2000, p. 55; NZDOC 2001b, p. 5), the 0.84 mi^2 (2.18 km^2) (Oceandots n.d.) South East Island in the Chatham Islands, New Zealand (BirdLife International 2000, p. 55; NZDOC 2001b, p. 5). In 2002, the NZDOC began efforts to expand the species' breeding range by releasing chicks onto Pitt Island, an island approximately 1.55 mi (2.5 km) northwest of South East Island. Over a 4-year time period, 200 chicks were transferred to the 98.8-acre (ac) (40-hectare (ha)) Ellen Elizabeth Preece Conservation Covenant (Caravan Bush), a fenced, predator-free enclosure on Pitt Island. As of 2006, four adult birds had returned to the island from the sea to breed, and in June 2006, a pair successfully reared a chick. This represents the first time in more than a century that a Chatham petrel chick has fledged on Pitt Island (BirdLife International News 2006). In 2008, there were six pairs of Chatham petrels breeding in the predator-proof reserve on Pitt Island (NZDOC, in litt. 2008, p. 5). In addition, in April 2008, 43 chicks were transferred from South East Island to the 6.2-ac (2.5-ha) predator-proof fenced site (Sweetwater Conservation Covenant) on main Chatham Island (NZDOC News 2008).

The Chatham petrel's range at sea is poorly known; the species has been recorded on several occasions at sea near South East Island, and has been recorded once 7.5 mi (12 km) south of the island (West 1994, p. 25), and northeast of the Bounty Islands (NZDOC, in litt. 2008, p. 5). It is believed that the species migrates to the North Pacific Ocean in the nonbreeding season, based on the habits of closely related species; however, no sightings have been recorded in the Northern Hemisphere (Taylor 2000, p. 128).

Population Estimates

The population of the Chatham petrel is very small, estimated at 900 to 1,100 birds based on recent research and banding studies (NZDOC, in litt. 2008, p. 5), and is showing a decreasing population trend (BirdLife International 2008a). The breeding population was estimated to be 250 pairs in 2004 on South East Island (NZDOC, in litt. 2008, p. 5), and the breeding population on Pitt Island was 6 pairs in 2008 (NZDOC, in litt. 2008, p. 5).

Conservation Status

The Chatham petrel is ranked as ''Nationally Endangered'' by the New Zealand Department of Conservation, which is the second highest threat category and signifies that the species has a small population size with an ongoing or predicted population decline (Hitchmough *et al.* 2005, p. 38; Townsend *et al.* 2008, p. 11). The species is considered ''Endangered'' by the International Union for Conservation of Nature (IUCN). The species was recently (2009) downlisted from ''Critically Endangered'' because ''despite very rapid declines over the past three generations, the population stabilized and began to increase since 2000; a trend boosted by two recent translocations'' (BirdLife International 2009).

Summary of Factors Affecting the Chatham Petrel

A. The Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range

The range of the Chatham petrel changes intra-annually based on an established breeding cycle. During the breeding season (November to June) (NZDOC 2001b, p. 7), breeding birds return to breeding colonies to breed and nest. During the nonbreeding season, birds migrate far from their breeding range, and they remain at sea until returning to breed. Therefore, our analysis of Factor A is separated into analyses of: (1) The species' breeding habitat and range; and (2) the species' nonbreeding habitat and range.

The Chatham petrel breeds primarily on one island, the island of South East Island in the Chatham Islands, New Zealand (BirdLife International 2000, p. 55; NZDOC 2001b, p. 5). The species breeds in lowland temperate forest and scrub in habitats with low forest, bracken, or rank grass (BirdLife International 2008a; del Hoyo *et al.* 1992, p. 247). Since the arrival of European explorers, this breeding habitat has contracted extensively, largely as a result of its conversion to agricultural purposes (NZDOC 2001b, p. 5; Tennyson and Millener 1994, pp.

165–166). However, we are not aware of any present or threatened destruction or modification of the Chatham petrel's habitat on South East Island. This island is currently uninhabited by humans (Lechner *et al.* 1997, p. 256), and since 1954, it has been managed as a nature reserve for native plants and animals, including fur seals, rare birds (including the Chatham petrel), and endangered invertebrates (NZDOC n.d.(a)). Access to this island is restricted by permit. In addition, since 1961, all livestock has been removed from the island, allowing the natural vegetation to regenerate (Nilsson *et al.* 1994, p. 110; NZDOC n.d.(a)). The Chatham petrel's fenced release areas on Pitt and Chatham Islands are protected by conservation covenants, and we are unaware of any present or threatened destruction or modification of any of the species' habitat on either island.

The Chatham petrel's range at sea is poorly known; the species has been recorded on several occasions at sea near South East Island, and has been recorded once 7.5 mi (12 km) south of the island (West 1994, p. 25), and northeast of the Bounty Islands (NZDOC, in litt. 2008, p. 5). It is believed that the species migrates to the North Pacific Ocean in the nonbreeding season, based on the habits of closely related species; however, no sightings have been recorded in the Northern Hemisphere (Taylor 2000, p. 128). We are not aware of any present or threatened destruction, modification, or curtailment of the species' current sea habitat or range.

Summary of Factor A

We are not aware of any scientific or commercial information that indicates that the present or threatened destruction, modification, or curtailment of the Chatham petrel's habitat or range poses a threat to this species. As a result, we do not consider the destruction, modification, or curtailment of the species' habitat or range to be a contributing factor to the continued existence of the Chatham petrel.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

We are not aware of any scientific or commercial information that indicates that overutilization of the Chatham petrel for commercial, recreational, scientific, or educational purposes poses a threat to this species. As a result, we do not consider overutilization to be a contributing factor to the continued existence of the Chatham petrel.

C. Disease or Predation

Disease

The information available suggests that petrels in general are susceptible to a variety of diseases and parasites, particularly during the breeding season, when large numbers of seabirds congregate in relatively small areas to breed and nest (BirdLife International 2007a; Taylor 2000, p. 23). However, there are no documented records of diseases impacting the persistence of the Chatham petrel. Therefore, we find that disease is not a threat to this species.

Predation

The Chatham petrel's breeding range was reduced extensively following the arrival of European explorers, largely due to predation by introduced species such as rats (*Rattus* spp.), feral cats (*Felis catus*), and weka (*Gallirallus australis*), a bird native to the North and South Islands and introduced to Chatham and Pitt Islands in the early 1900s (Heather and Robertson 1997, p. 213; NZDOC 2001b, p. 7; Taylor 2000, pp. 20–21). Currently, no introduced predators are present on South East Island (Dowding and Murphy 2001, p. 51). The NZDOC manages South East Island under the New Zealand Conservation Act of 1987 as a nature reserve for the conservation of Chatham Islands flora, fauna, and ecosystems (NZDOC n.d.(a)). Access to the island is restricted by permit for scientific or conservation purposes only, and visitor numbers and movements are strictly regulated. While there is an ongoing risk that predators, such as rats or cats, may be inadvertently reintroduced to the island by boats transporting conservation and research groups to the island, we believe the risk of these predators becoming reestablished on the island is quite low because the NZDOC monitors and manages the island intensively to maintain the island as a predator-free habitat. Therefore, we find that predation by introduced species is not a significant threat to the Chatham petrel on South East Island, the species' primary breeding location.

On Pitt Island, Chatham petrel chicks were released within a 98.8-ac (40-ha) fenced, predator-free breeding habitat. Although this area is fenced, and the threat of predation on nesting Chatham petrels is reduced, introduced predators, such as rats, feral cats and pigs, and weka, are present on this island (BirdLife International News 2002; NZDOC, in litt. 2008, p. 1) and could potentially get inside the fenced area or prey on Chatham petrels that leave the fenced area. Therefore, we find that predation by introduced species is a threat to the Chatham petrel on Pitt Island.

On Chatham Island, 43 Chatham petrel chicks were released within the 6.2-ac (2.5-ha) fenced, predator-free Sweetwater Covenant site in April 2008 (NZDOC News 2008). Although this area is fenced, and the threat of predation on nesting Chatham petrels is reduced, introduced predators, such as rats, feral cats and pigs, and weka, are present on this island (NZDOC, in litt. 2008, p. 1) and could potentially get inside the fenced area or prey on Chatham petrels that leave the fenced area. Therefore, we find that predation by introduced species is a threat to the Chatham petrel on Chatham Island.

We are unaware of any threats due to predation on Chatham petrels during the nonbreeding season while the species is at sea.

Summary of Factor C

On the basis of this analysis, we find that predation by nonnative predators, such as rats, feral cats, pigs, and weka, is a threat to the continued existence of the Chatham petrel on Pitt and Chatham Island.

D. The Inadequacy of Existing Regulatory Mechanisms

The Chatham petrel is protected from disturbance and harvest under New Zealand's Wildlife Act of 1953 and its Reserves Act of 1977. The petrel is designated as ''Nationally Endangered'' by the NZDOC, which is the second highest threat category and signifies that the species has a small population size with an ongoing or predicted population decline (Hitchmough *et al.* 2005, p. 38; Townsend *et al.* 2008, p. 11). Access to the breeding grounds on all three islands is strictly controlled (*i.e.,* permitted access only for scientific or management purposes). While some illegal visits may occur to the breeding ground [on South East Island], the burrows of this species are sited away from the main landing areas and are unlikely to be disturbed (NZDOC, in litt. 2008, p. 2).

In addition, the NZDOC developed a 10-year recovery plan for the Chatham petrel in 2001, with the goals of protecting the species' breeding burrows on South East Island from the broad-billed prion (*Pachyptila vittata*) (see Factor E) and establishing a reintroduced population elsewhere within the species' historic breeding range (NZDOC 2001b, p. 10). New Zealand has implemented management actions for the conservation of the species, including establishment of predator-proof breeding sites, hand-

rearing and translocation of chicks to establish additional breeding sites, broadcasting of Chatham petrel calls to attract adults to protected breeding sites, and nest site protection efforts to prevent occupation by the broad-billed prion (Chatham Islands Conservation News 2008b–e; NZDOC 2001b, p. 8; NZDOC, in litt. 2008, p. 5). A measure of the success of the recovery plan is the successful establishment of breeding individuals on Pitt Island (see Range and Distribution) in 2006, which increased the breeding range of the species, and the introduction of chicks to a protected site on Chatham Island in 2008. These efforts are beginning to show some success (see Factor E), but it is too early to know the level of success, because it can take fledged seabirds years to return to their breeding colony to breed and nest (Taylor 2000, p. 15). Similarly, protection of Chatham petrel burrows has reduced the population impacts resulting from competition with the broad-billed prion (see Factor E); however, this still remains the greatest threat to the species.

Summary of Factor D

We believe the regulatory protections conferred by the New Zealand Wildlife and Reserves Acts in combination with the actions implemented for the conservation of the Chatham petrel by the NZDOC under the 2001 recovery plan provide significant protection to the species. As a result, we believe that existing regulatory protections have significantly reduced the threats from predation by rats, cats, pigs, and weka, and competition with the broad-billed prion. However, these threats still exist. We, therefore, find that the inadequacy of existing regulatory mechanisms is a threat to the Chatham petrel throughout its range.

E. Other Natural or Manmade Factors Affecting the Continued Existence of the Species

Competition With the Broad-Billed Prion (*Pachyptila vittata*)

Based on the information available, the predominant threat to the Chatham petrel is nest burrow competition between this species and the more abundant broad-billed prion (*Pachyptila vittata*), which numbers around 300,000 individuals. The prion not only occupies potential Chatham petrel burrows, but has been observed actively evicting or lethally attacking eggs, nestlings, and occasionally adults of the Chatham petrel. Such competition has resulted in a high rate of pair bond disruption and a low rate of breeding success in Chatham petrels, despite the high percentage of egg fertility (BirdLife International 2000, p. 55; Hirschfeld 2007, p. 102; NZDOC 2001b, p. 7).

To reduce the threat posed by competition with the broad-billed prion on South East Island, the NZDOC has implemented nest site protection efforts for the Chatham petrel, including placement of artificial nest sites and the blockage of burrows to prevent occupation by the broad-billed prion (NZDOC 2001b, pp. 12, 14, 16). Although these actions are improving the petrel's breeding success (NZDOC 2001b, p. 8; Taylor 1999, as cited in BirdLife International 2000, p. 55), only a small proportion of breeding burrows occupied by Chatham petrels have been located and, therefore, protected (Taylor 1999, as cited in BirdLife International 2000, p. 55). Therefore, we consider nest burrow competition between this species and the broad-billed prion to be a significant threat to the Chatham petrel.

Restricted Breeding Range

The Chatham petrel's restricted breeding range puts the species at a greater risk of extinction. Breeding colonies were once widespread throughout the Chatham Islands (Hirschfeld 2007, p. 102; NZDOC 2001b, p. 5), a group of about 10 islands within a 24.85-mi (40-km) radius covering a total land area of 375 mi^2 (970 km^2) (Oceandots n.d.). Currently, however, breeding of this species is restricted to South East Island (BirdLife International 2007a), a land area of less than 1 mi^2 (2.5 km^2) (Oceandots n.d.), and, as a result of recent release efforts, Pitt Island (BirdLife International News 2006; NZDOC, in litt. 2008, p. 5). It is unknown at this time if the recent translocation of Chatham petrel chicks to Chatham Island will result in successful breeding pairs. This habitat area is insufficient for the long-term survival of the Chatham petrel, particularly since breeding pairs, eggs, and nestlings on South East Island, the primary breeding area of this species, face the pervasive threat of nest-site competition with the broad-billed prion. It is estimated that the self-sustainability of the breeding population on Pitt Island as a result of the release program will take longer than 4 more years to achieve (NZDOC 2001b, pp. 18–19).

Stochastic Events

The Chatham petrel's restricted breeding range combined with its colonial nesting habits and small population size of 900 to 1,100 birds (NZDOC, in litt. 2008, p. 5) makes the species particularly vulnerable to the threat of adverse random, naturally occurring events (*e.g.,* cyclones, fire) that destroy breeding individuals and their breeding habitat. Fire is a high risk in the Chatham Islands because the climate is very dry during the summer, and the vegetation becomes tinder dry. If fires do occur, the remoteness of the islands renders the fires unlikely to be exterminated by human intervention. Burrow-nesting species such as the Chatham petrel are at a high risk because they are likely to suffocate from smoke inhalation or to be lethally burned inside or while attempting to escape from their burrows (Taylor 2000, p. 22).

Another natural disaster, severe storms, has impacted New Zealand historically, and so the likelihood of future impacts of storms is high. A severe storm in 1985 stripped two islands in the Chatham Islands chain bare of vegetation and soil cover, causing high increases in egg mortality of nesting albatrosses (Taylor 2000, p. 23). Considered the worst recorded cyclone in New Zealand's history, Cyclone Giselle hit New Zealand on April 10, 1968, with wind speeds of 275 km per hour (Christchurch City Libraries n.d.). Although we are unaware of the impact of this cyclone on the Chatham petrel's population numbers or breeding habitat, the severity of the wind, or tree falls created by such a storm, has potential to significantly damage Chatham petrel burrows. These burrows are particularly vulnerable because they are extremely fragile, occurring in soft soils that are easily disrupted by severe climatic events (BirdLife International 2008a; NZDOC, in litt. 2008, p. 2; Taylor 2000, p. 128).

While species with more extensive breeding ranges or higher population numbers could recover from adverse random, naturally occurring events such as fire or storms, the Chatham petrel does not have such resiliency. Its very small population size and restricted breeding range puts the species at higher risk for experiencing the irreversible adverse effects of random, naturally occurring events. Therefore, we find a combination of factors—the species' small population size, the species' restricted breeding range, and the likelihood of adverse random, naturally occurring events—to be a significant threat to the Chatham petrel.

Summary of Factor E

On the basis of this analysis, we find that due to the species' small population size and restricted breeding range, the continued existence of the Chatham petrel is threatened by nest burrow competition between this species and

the more abundant broad-billed prion in its primary breeding area, and adverse random, naturally occurring events (*e.g.,* cyclones, fire).

Status Determination for the Chatham Petrel

We have carefully assessed the best available scientific and commercial information regarding the past, present, and potential future threats faced by the Chatham petrel. Historically, predation by introduced species reduced the Chatham petrel's population numbers throughout all of its range (Factor C). Today, however, South East Island is predator free, and we believe the risk of these predators becoming reestablished on the island is quite low because the NZDOC monitors and manages the island intensively to maintain the island as a predator-free habitat. Therefore, predation by nonnative predators, such as rats, feral cats, pigs, and weka, is only a significant threat to the species on Pitt and Chatham Island (Factor C).

Nest burrow competition between the Chatham petrel and the more abundant broad-billed prion is a current, ongoing threat to the species that is of high magnitude and that has not been controlled by human intervention (Factor E). The broad-billed prion occupies Chatham petrel burrows, actively evicting or lethally attacking eggs, nestlings, and occasionally adults of the Chatham petrel, and as a result is reducing the Chatham petrel's population, which is already very small, estimated at 900 to 1,100 individuals (Factor E). Although the NZDOC has been actively working to protect Chatham petrel nest sites from the broad-billed prion, only a small proportion of Chatham petrel breeding burrows have been located and protected (Taylor 1999, as cited in BirdLife International 2000, p. 55). This threat is magnified by the fact that the impacted area is the Chatham petrel's primary breeding location (South East Island), and the breeding area is extremely small, less than 1 mi^2 (2.5 km^2) in size. The only other location where the species has been documented to breed is the 98.8-ac (40-ha) enclosed area on Pitt Island where Chatham petrels were reintroduced. It is currently uncertain whether the species will maintain this portion of its range as a breeding area. As of 2006, one pair breeding in this area had successfully reared a chick, and in 2008, there were six pairs breeding in the predator-proof reserve (Chatham Islands Conservation News 2008e; NZDOC, in litt. 2008, p. 5).

The regulatory protections conferred by the New Zealand Wildlife and Reserves Acts in combination with the actions implemented for the conservation of the Chatham petrel by the NZDOC under the 2001 recovery plan have significantly reduced the threats to the species from predation by introduced species and competition with the broad-billed prion. However, these threats still exist, and despite the efforts undertaken in New Zealand to address the threats to the Chatham petrel, the species has not recovered (Factor D).

In general, the fewer the number of populations and the smaller the size of each population, the higher the probability of extinction (Franklin 1980, pp. 147–148; Gilpin and Soulé 1986, p. 25; Meffe and Carroll 1996, pp. 218–219; Pimm *et al.* 1998, pp. 757–785; Raup 1991, pp. 124–127; Soulé 1987, p. 181). The Chatham petrel's small population, combined with its restricted breeding range and colonial nesting habits, makes the species particularly vulnerable to the threat of random, naturally occurring events. These catastrophic events, such as cyclones and fire, are known to occur in New Zealand and have the potential to destroy breeding individuals and their breeding habitat (Factor E).

Section 3 of the Act defines an ''endangered species'' as ''any species which is in danger of extinction throughout all or a significant portion of its range'' and a ''threatened species'' as ''any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' Because the survival of the Chatham petrel is dependent on recruitment of chicks from its breeding range, the severity of threats to the species within its breeding range, as described above, puts the species in danger of extinction throughout all of its range. Therefore, on the basis of the best available scientific and commercial information, we determine that the Chatham petrel meets the Act's definition of endangered and warrants protection as an endangered species under the Act.

II. Fiji petrel (*Pseudobulweria macgillivrayi*)

Species Information

The Fiji petrel (*Pseudobulweria macgillivrayi*) is a small, dark brown gadfly petrel that is endemic to Fiji (BirdLife International 2008b). The species was first taxonomically described by G.R. Gray in 1860 (Sibley and Monroe 1990, p. 321). In our December 17, 2007, proposal (72 FR 71298), we listed the scientific name of the Fiji petrel as *Pterodroma macgillivrayi,* with *Pseudobulweria macgillivrayi* as a synonym. However, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) standard taxonomic and nomenclatural reference for birds (Dickinson 2003, p. 75), as well as BirdLife International (2008b), recognizes the species as *Pseudobulweria macgillivrayi.* Therefore, we accept the species as *Pseudobulweria macgillivrayi,* which also follows the Integrated Taxonomic Information System (ITIS 2009).

Habitat and Life History

Very little information is available on the Fiji petrel and its life history. However, Fiji petrels are considered pelagic, occurring on the open sea generally out of sight of land, where they feed year round. During the breeding season, they return to nesting sites on islands where they nest in colonies (Pettingill 1970, p. 206).

There have only been 12 substantiated sightings of the Fiji petrel on land since 1965, and a total of 13 historically. These sightings have all been of single individuals on Gau Island (BirdLife International 2000, p. 55; BirdLife International 2008b; Carlile and Priddel, in litt. 2008, p. 3; Priddel *et al.* in draft), a 52.55 mi^2 (136.1 km^2) island in Fiji's Lomaiviti archipelago.

Based on the locations of Fiji petrel sightings on Gau Island, researchers have speculated that the species' breeding habitat is most likely to be undisturbed, mature forest on rocky, mountainous ground within the island's cloud forest highlands (del Hoyo *et al.* 1992, p. 248; RARE Conservation 2006a). It has been suggested that, based on the nesting habits of other colonial seabirds, Fiji petrels nest in close proximity to collared petrels (*Pterodroma leucoptera*), which nest on the ground in this rugged terrain of interior Gau Island (Watling and Lewanavanua 1985, p. 233).

Recently, Priddel *et al.* (in draft) and Carlile and Priddel (in litt. 2008, p. 3) reviewed the available information regarding the attempts to discover the nesting sites of this elusive bird. All surveys to date have focused on the interior summit area of Gau Island within the island's cloud forest highlands. These authors suggest that, as no nests or birds have been found in the upland area, other possible sites should be considered for surveys. According to Jenkins (1986, as cited in Priddel *et al.* in draft), in 1925, Rollo Beck trekked to the summit of the island with the island's chief who indicated that the petrels nested not in the summit area but down below in dense canyons on the eastern side of the island.

Therefore, according to Priddel *et al.* (in draft) and Carlile and Priddel (in litt. 2008, p. 3), future surveys should focus on the unsurveyed catchment of the main waterway of the island, particularly the headwaters of the Waiboteigau Creek on the eastern side of Gau. This remote lowland area is uncleared and lacks roads or trails. According to Carlile and Priddel (in litt. 2008, pp. 2–3), an intensive survey of this area for potential breeding sites is planned for July 2009.

Range and Distribution

Although little is known about the Fiji petrel and its life history, based on general information common to all other Procellariid species, we know that the range of the Fiji petrel changes intra-annually based on an established breeding cycle. During the breeding season, breeding birds return to breeding colonies to breed and nest. During the nonbreeding season, birds migrate far from their breeding range, where they remain at sea until returning to breed.

BirdLife International (2008b) estimates the range of the Fiji petrel to be 59,460 mi^2 (154,000 km^2); however, BirdLife International (2000, pp. 22, 27) defines ''range'' as the ''Extent of Occurrence, the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred, or projected sites of present occurrence of a species, excluding cases of vagrancy.'' Therefore, this reported range includes a large area of nonbreeding habitat (*i.e.,* the sea).

Although the nesting area of this species has not been located (Carlile and Priddel, in litt. 2008, p. 3; Priddel *et al.* in draft), the information available indicates that the species breeds only on Gau Island, Fiji, where the few recorded sightings of this species on land have occurred (Onley and Scofield 2007, p. 161; Priddel *et al.* in draft; RARE Conservation 2006a; Watling and Lewanavanua 1985, p. 230). BirdLife International (2008b) suggests that this species may occur on other islands in Fiji, but Priddel *et al.* (in draft) found no records to support this suggestion. The species was originally known from just one specimen collected in 1855 on Gau Island. There were no additional confirmed sightings of the species until 1984, when an extensive, 16-month search on Gau Island revealed one additional sighting. The researchers used spotlights and recorded collared petrel calls in an attempt to attract petrels to the highlands area where the researchers were searching. On the first night of spotlighting, a single Fiji petrel flew into the researchers' light. No additional birds were found on this search expedition (Watling 1986, p. 32; Watling and Lewanavanua 1985, p. 231). There have been an additional 16 reported sightings of this species on land, all on Gau Island, and 10 additional sightings at sea; however, many of these reports have not been substantiated (Priddel *et al.* in draft). In 2007, Priddel *et al.* (in draft) summarized all these records, specifying which records were credible. The researchers determined that of the 17 recorded sightings on land between 1965 and 2007, 12 were highly credible based on researchers' identification of dead specimens, photographs of specimens, or live specimens. In addition to the sightings on land, there have been 10 sightings at sea, all since 1960. However, none of these reports have been substantiated. Based on researcher observation or detailed descriptions, three of these reports are considered by Priddel *et al.* (in draft) to be credible.

We consider the evidence sufficient to conclude that the Fiji petrel breeds on Gau Island because: (1) All 12 substantiated sightings of the species on land have been on Gau Island; (2) Procellariids return to land only for breeding purposes; and (3) the original specimen of this species collected in 1855 was determined to be an immature bird, based on its feathers and skull morphology (Bourne 1981, as cited in Priddel *et al.* in draft; Priddel *et al.* in draft). It is therefore reasonable to believe that its nest was in the vicinity.

The Fiji petrel's range at sea is poorly known; the species has been recorded once at sea near Gau Island and once at sea 124.3 mi (200 km) north of Gau Island (Watling 2000, as cited in BirdLife International 2000, p. 55; Watling and Lewanavanua 1985, p. 230).

Population Estimates

The population of the Fiji petrel is believed to be very small. While BirdLife International (2008b) estimates the population to be fewer than 50 birds and showing a decreasing population trend, Carlile and Priddel (in litt. 2008, p. 3) and Priddel *et al.* (in draft) state that ''the population size is unknown but assumed to be very small (due to the lack of sightings)'' and that ''until surveys are carried out * * * population size will remain unknown.''

Conservation Status

The Fiji petrel is considered ''Critically Endangered'' by IUCN because it is ''estimated, given the paucity of recent records, that there is only a tiny population which is confined to a very small breeding area. Furthermore, it is assumed to be declining because of predation by cats, which may therefore threaten its long-term survival'' (BirdLife International 2008b).

Summary of Factors Affecting the Fiji Petrel

A. The Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range

Based on general information common to all other Procellariid species, we know that the range of the Fiji petrel changes intra-annually based on an established breeding cycle. During the breeding season, breeding birds return to breeding colonies to breed and nest. During the nonbreeding season, birds migrate far from their breeding range, and they remain at sea until returning to breed. Therefore, our analysis of Factor A is separated into analyses of: (1) The species' breeding habitat and range; and (2) the species' nonbreeding habitat and range.

In 1985, it was estimated that over 27 mi^2 (70 km^2) of forest habitat up to 2,346 ft (715 m) in elevation was potentially suitable for breeding and nesting of Fiji petrels on Gau Island (Watling and Lewanavanua 1985, p. 232). Unlike the lowlands of Gau Island, which have been cleared to a large extent for settlement, agriculture, and forest plantations, the upland interior forests have not been logged (Priddel *et al.* in draft.; Veitayaki 2006, p. 242). The only maintained inland trail leads to a telecommunication tower on a mountain peak just below Delaco. The 3,115 inhabitants of Gau Island live in coastal villages, where the majority live by subsistence fishing and farming, and maintain gardens up to 990 ft (300 m) in elevation. Although low-level forestry activities occur in lowland areas, no other intensive industry or agriculture is practiced on the island (Priddel *et al.* in draft). Veitayaki (2006, p. 242) noted that the practice of shifting cultivation on Gau Island using improved machinery and the indiscriminant use of fire is rapidly progressing toward the cloud forests within the interior of the island. However, no information was provided to show this is actually occurring.

Veitayaki (2006, p. 239) described a community-based conservation project on Gau Island that has been in place since 2001, whereby villagers in the district of Vanuaso Tikina are collaborating with the University of the South Pacific to sustainably manage

their environmental resources. Goals of the project include preservation of the upland cloud forest, adoption of sustainable land use practices, protection of drinking water, and development of alternative sources of livelihood. The success of this project has provided momentum beyond the Vanuaso Tikina district, as there is interest in incorporating the same sustainable-use practices in the other villages on Gau Island (Veitayaki 2006, p. 239).

In 2003, the World Resources Institute (WRI) reported that less than 1 percent (0.88 percent) of Fiji's total land area is protected to such an extent that it is preserved in its natural condition (EarthTrends 2003). Gau Island, however, is relatively pristine compared to most areas of Fiji due to the semi-subsistence lifestyle (Veitayaki 2006, p. 241). The Fiji people show great pride in the Fiji petrel; it is the emblem of the national airline (Air Fiji) and appears on the Fijian $50 banknote (Priddel *et al.* in draft). Legislation has been drafted to protect the Fiji petrel's habitat on Gau Island, once nesting colonies have been located (RARE Conservation 2006a) (see Factor D). Gau Island's upland forest habitat, where the species may breed, remains in a pristine condition and does not appear to be threatened with destruction or modification. In their review of our December 17, 2007, proposal (72 FR 71298), Carlile and Priddel (in litt. 2008, pp. 2–3) suggested that a potential breeding site for the Fiji petrel is the unsurveyed catchment of the main waterway of the island, particularly the headwaters of the Waiboteigau Creek on the eastern side of Gau. According to these reviewers, this remote lowland area is unsurveyed, uncleared, and lacks roads or trails. Based on the information provided by the reviewers, the lowland area of the catchment of the main waterway of the island does not appear to be threatened with destruction or modification. Therefore, we find that the present or threatened destruction, modification, or curtailment of this species' purported breeding habitat or range in the upland forest or the lowland catchment area on the eastern side of Gau is not a threat to the species.

The Fiji petrel's range at sea is poorly known; the species has been recorded once at sea near Gau Island and once at sea 124.3 mi (200 km) north of Gau Island (Watling 2000, as cited in BirdLife International 2000, p. 55; Watling and Lewanavanua 1985, p. 230). We are not aware of any present or threatened destruction, modification, or curtailment of this species' current sea habitat or range.

Summary of Factor A

We are not aware of any scientific or commercial information that indicates that the present or threatened destruction, modification, or curtailment of the Fiji petrel's habitat or range poses a threat to this species. As a result, we do not consider the destruction, modification, or curtailment of the species' habitat or range to be a threat to the continued existence of the Fiji petrel.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

We are not aware of any scientific or commercial information that indicates that overutilization of the Fiji petrel for commercial, recreational, scientific, or educational purposes poses a threat to this species. As a result, we do not consider overutilization to be a threat to the continued existence of the Fiji petrel.

C. Disease or Predation

Disease

Although several diseases have been documented in other species of petrels (see Factor C for the Chatham petrel), disease has not been documented in the Fiji petrel. Therefore, we find that disease is not a threat to this species.

Predation

The greatest threat to the long-term survival of the Fiji petrel is thought to be predation on breeding birds and their eggs and chicks by introduced predators such as rats and feral cats on Gau Island (BirdLife International 2000, p. 55). Since nesting colonies of Fiji petrels have not been located, predation on the Fiji petrel has not been directly observed. However, cats and Pacific rats (*Rattus exulans*) have been found in the highland forests of Gau Island, one of the purported breeding areas of the petrel (Imber 1986, as cited in Priddel *et al.* in draft; Watling and Lewanavanua 1985, p. 233). The path to the telecommunications transmitter on the summit of Gau Island may have facilitated the movement of feral cats, and Pacific and brown rats (*R. norvegicus*), into this habitat (Watling 2000, as cited in BirdLife International 2000, p. 55). Feral cats and rats are present in all habitats on Gau Island from the coastal lowlands to the highest ridges and pose a threat to the Fiji petrel in its presumptive breeding sites, as feral cats and rats have caused local extirpations of many petrel species around the world (Moors and Atkinson 1984, as cited in Priddel *et al.* in draft; NZDOC, in litt. 2008, pp. 1–2, 5).

The remains of collared petrels have been found in feral cat scats and killings in the highland forests of Gau Island, where the Fiji petrel may breed. Despite this predation threat, it is suggested that the collared petrel nests successfully due to the species' synchronized nesting (*i.e.,* nesting that occurs at the same time). Synchronized nesting of collared petrels during the first half of the year produces a sudden abundance of eggs and chicks such that local predators (*i.e.,* cats) are unable to prey upon all of them. The collection of a first-flight young of the Fiji petrel on Gau Island in the month of October, however, indicates that this species has a more extended or later breeding season, putting this more sparsely populated species at greater risk of predation (Watling 1986, p. 32). In addition, according to Priddel *et al.* (in draft), there do not appear to be any cliffs or mountainous ledges where Fiji petrels could nest out of the reach of cats or rats.

A feral pig (*Sus scrofa*) population has recently established in southern areas of Gau Island and is considered an emerging threat to the Fiji petrel, as this area of Gau Island includes the main water catchment of the island, one of the purported breeding areas of the species (Priddel *et al.* in draft). Feral pigs have caused the local extinction of other species of seabirds on numerous islands (Moors and Atkinson 1984, as cited in Priddel *et al.* in draft; Carlile and Priddel, in litt. 2008, p. 4).

Protecting Fiji petrel nest sites from introduced predators by creating barriers around the nests is not possible at this time because the exact location of the nesting sites is unknown. There is no information indicating that predator eradication has been attempted on Gau Island. Even if a predator eradication program were to be implemented, protection of the nest sites would be difficult due to the permanent habitation of humans on the island and the concern for free-ranging livestock (Priddel *et al.* in draft). Even if cats were prohibited as pets, there is still a high potential for cats and rats to be transported to Gau Island in boats transporting humans or other shipments.

Because the threat of predation by introduced cats and rats has severely impacted closely related petrel species, and because there are records of these introduced predators as well as feral pigs on Gau Island from the coastal lowlands to the highland forests, the purported breeding sites of the Fiji petrel, we find that predation is a significant threat to the Fiji petrel.

We are unaware of any threats due to predation on Fiji petrels during the nonbreeding season while the species is at sea.

Summary of Factor C

On the basis of this analysis, we find that predation by nonnative predators, such as rats, feral cats, and feral pigs, is a threat to the continued existence of the Fiji petrel throughout all of its breeding range.

D. The Inadequacy of Existing Regulatory Mechanisms

The Fiji petrel is protected from international trade under Fijian law (Government of Fiji 2002, 2003). However, as discussed under Factor B, we do not consider overutilization of the species for commercial, recreational, scientific, or educational purposes, such as international trade, to be a threat to the Fiji petrel. Therefore, this law does not reduce any current threats to the species.

Community awareness of the conservation significance of the Fiji petrel has been promoted in Fiji. From 2002 to 2004, Milika Ratu, a local conservationist on Gau Island, led a ''Pride campaign'' (RARE Conservation 2006a), a constituency-building program developed by the conservation organization RARE (RARE Conservation 2006b). Ratu chose the Fiji petrel as the flagship mascot for this movement and used a series of high-profile activities to raise awareness of the conservation urgency of the species. This campaign resulted in a confirmed sighting of a Fiji petrel (RARE Conservation 2006a). A follow-up survey to the campaign revealed that 99 percent of the participants believed natural resource protection to be important, and 94 percent were aware that the Fiji petrel is at risk of extinction.

Based on increased public awareness of the Pride campaign, all 16 of Gau Island's village chiefs signed a formal agreement supporting the creation of a bird sanctuary for the species (Carlile and Priddel, in litt. 2008, p. 4; RARE Conservation 2006a).

The Australian Regional National Heritage Programme continues to fund the Pride campaign on Gau Island. The Wildlife Conservation Society, BirdLife International, and the National Trust of the Fiji Islands are collaborating to work towards implementation of conservation recommendations made by Ratu, including minimizing predators (RARE Conservation 2006a).

Since 2002, Carlile and Priddel (in litt. 2008, p. 2) have been working with several local organizations and agencies in Fiji, as well as with the people of Gau Island, conducting surveys for the Fiji petrel, developing a draft recovery plan for the petrel, and training the local people in the identification and handling of petrel species in general. The recovery plan, however, has not been officially adopted or sanctioned by the Fijian government and is not legally enforceable (Priddel *et al.* in draft).

Summary of Factor D

Although the Fiji petrel is protected from international trade by Fijian law (Government of Fiji 2002, 2003) and public awareness and support for the species' protection on Gau Island is strong, these conservation measures have not significantly reduced the threats to the species. Therefore, we find that the existing regulatory mechanisms and conservation measures are inadequate to mitigate the current threats to the Fiji petrel throughout its range.

E. Other Natural or Manmade Factors Affecting the Continued Existence of the Species

Small Population Size and Restricted Breeding Range

Because of the paucity of recorded sightings of the Fiji petrel (see Range and Distribution), the population is apparently very small. Although the population size is unknown, the IUCN estimates the population to be fewer than 50 individuals, with a decreasing trend due to predation by introduced predators (BirdLife International 2008b; Carlile and Priddel, in litt. 2008, p. 3; Priddel *et al.* in draft). Small population sizes render species vulnerable to any of several risks, including inbreeding depression, loss of genetic variation, and accumulation of new mutations. Inbreeding can have individual or population-level consequences either by increasing the phenotypic expression (the outward appearance or observable structure, function, or behavior of a living organism) of recessive, deleterious alleles or by reducing the overall fitness of individuals in the population (Charlesworth and Charlesworth 1987, p. 231; Shaffer 1981, p. 131). Small, isolated populations of wildlife species are also susceptible to demographic problems (Shaffer 1981, p. 131), which may include reduced reproductive success of individuals and chance disequilibrium of sex ratios.

A general approximation of minimum viable population size is the 50/500 rule (Shaffer 1981, p. 133; Soulé 1980, pp. 160–162). This rule states that an effective population (N_e) of 50 individuals is the minimum size required in the near term to avoid imminent risks from inbreeding. N_e represents the number of animals in a population that actually contribute to reproduction, and is often much smaller than the census, or total number of individuals in the population (N). Furthermore, the rule states that the long-term fitness of a population requires an N_e of at least 500 individuals, so that it will not lose its genetic diversity over time and will maintain an enhanced capacity to adapt to changing conditions. Therefore, an analysis of the fitness of this population would be a good indicator of the species' overall survivability.

Although the current population size of the Fiji petrel is unknown, we presume the population is very small, since recorded sightings of the Fiji petrel are few and IUCN estimates the population to be less than 50 individuals, with a decreasing trend (BirdLife International 2008b; Carlile and Priddel, in litt. 2008, p. 3; Priddel *et al.* in draft). As a result, we presume the size of the Fiji petrel population falls below the minimum effective population size required to avoid imminent risks from inbreeding ($N_e = 50$ individuals). We also presume the population size of the species falls below the upper threshold ($N_e = 500$) required for long-term fitness of a population that will not lose its genetic diversity over time and that will maintain an enhanced capacity to adapt to changing conditions. Therefore, we currently consider the Fiji petrel to be at risk due to lack of near- and long-term viability.

Species with such small population sizes are at greater risk of extinction. In general, the fewer the number of populations and the smaller the size of each population, the higher the probability of extinction (Franklin 1980, pp. 147–148; Gilpin and Soulé 1986, p. 25; Meffe and Carroll 1996, pp. 218–219; Pimm *et al.* 1998, pp. 757–785; Raup 1991, pp. 124–127; Soulé 1987, p. 181). This species' risk of extinction is further compounded by its restricted current breeding range, which according to the best available information is limited to Gau Island, where an estimated 27 mi^2 (70 km^2) of potential breeding habitat is available. However, based on what is known about the species, this is considered a relatively small amount of appropriate habitat for breeding, particularly since breeding pairs, eggs, and nestlings on Gau Island face the pervasive threat of predation by introduced species such as feral cats and rats.

Stochastic Events

The Fiji petrel's restricted breeding range combined with its colonial nesting habits and small population size (estimated to be fewer than 50 birds according to BirdLife International (2008b)) makes the species particularly vulnerable to the threat of adverse random, naturally occurring events (*e.g.,* cyclones, flooding, and landslides) that destroy breeding individuals and their breeding habitat. Fiji is vulnerable to the devastating effects of cyclones inter-annually between November and April. On average, 15 cyclones affect this country each decade (World Meteorological Organization 2004). The most severe cyclone within the past 100 years was cyclone Kina in January 1993, with wind speeds of 120 knots spanning an area 180 mi (290 km) from its center. The Government of Fiji declared the area a disaster, because virtually all areas of Fiji were impacted by this cyclone and the associated flooding (United Nations (UN) Department of Humanitarian Affairs 1993). Landslides are common in Fiji's mountainous areas during these severe weather conditions (World Meteorological Organization 2004), and would be particularly threatening to breeding Fiji petrels and their breeding habitat.

While species with more extensive breeding ranges or higher population numbers could recover from adverse random, naturally occurring events such as cyclones, the Fiji petrel does not have such resiliency. Its very small population size and restricted breeding range puts the species at higher risk for experiencing the irreversible adverse effects of random, naturally occurring events. One such event could destroy the entire breeding population on Gau Island.

Summary of Factor E

On the basis of this analysis, we find a combination of factors—the species' very small population size, the species' restricted breeding range, and the likelihood of adverse random, naturally occurring events—to be a significant threat to the continued existence of the Fiji petrel throughout its range.

Status Determination for the Fiji Petrel

We have carefully assessed the best available scientific and commercial information regarding the past, present, and potential future threats faced by the Fiji petrel. The species is at risk throughout all of its range primarily due to predation by introduced feral cats, pigs, and rats within the species' breeding range (Factor C). The probability of introduced predators preying on this species is high given that introduced feral cats and rats are present in all habitats on the island of Gau from coastal lowlands to the high interior ridges. Feral cats are documented to prey upon the closely related collared petrel in the interior forests of Gau Island, one of the purported breeding areas of the Fiji petrel. Furthermore, the devastating impact of predation by introduced species has been documented in several closely related species. There is no information indicating that predator eradication has been attempted on Gau Island. This threat is magnified by the fact that these predators likely threaten the species throughout its breeding range on Gau Island. A recently established feral pig population in the southern part of the island potentially threatens the Fiji petrel, particularly if the petrel's breeding habitat is in the main water catchment area of the island, which is in the southern part of Gau Island. Although the Fiji petrel is legally protected from international trade by Fijian law, and public awareness and support for the species' protection on Gau Island is strong, these measures have not significantly reduced the threats to the species (Factor D).

The Fiji petrel's population size is unknown, but, based on the paucity of sightings of this species over the last 150 years, it is believed to be extremely small. BirdLife International (2008b) estimates the population to be fewer than 50 individuals. This low population size puts the species at a high risk of extinction due to the lack of near- and long-term viability (Factor E). The low population size combined with its restricted breeding and colonial nesting habits, typical of all Procellariid species, makes the species particularly vulnerable to the threat of random, naturally occurring events (*e.g.,* cyclones) that are known to occur in Fiji and have the potential to destroy breeding individuals and their breeding habitat (Factor E). One such event, such as a cyclone, during the nesting season could significantly impact eggs and birds in residence at the time of the storm.

Section 3 of the Act defines an ''endangered species'' as ''any species which is in danger of extinction throughout all or a significant portion of its range'' and a ''threatened species'' as ''any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' Because the survival of the Fiji petrel is dependent on recruitment of chicks from its breeding range, the severity of threats to the species within its breeding range, as described above, puts the species in danger of extinction throughout all of its range. Therefore, on the basis of the best available scientific and commercial information, we determine that the Fiji petrel meets the Act's definition of endangered and warrants protection as an endangered species under the Act.

III. Magenta petrel (*Pterodroma magentae*)

Species Information

The magenta petrel (*Pterodroma magentae*) is a medium-sized, dark gray and white petrel that is native to Chatham Island, New Zealand (BirdLife International 2008c). The magenta petrel is locally known as ''Chatham Island Taiko.'' The species was first taxonomically identified by Giglioli and Salvadori in 1869 (Sibley and Monroe 1990, p. 323).

Habitat and Life History

In general, magenta petrels are considered pelagic, occurring on the open sea generally out of sight of land, where they feed year round. They return to nesting sites on islands during the breeding season where they nest in colonies (Pettingill 1970, p. 206). The limited feeding habits data show that the magenta petrel preys on squid (Heather and Robertson 1997, p. 218; BirdLife International 2008c).

The magenta petrel breeds exclusively on Chatham Island, New Zealand, within relatively undisturbed inland forests (Crockett 1994, pp. 53, 56; Imber *et al.* 1994a, p. 14). It has been reported that prior to 1900, indigenous Moriori and Maori harvested large numbers of petrel chicks for food (Crockett 1994, p. 57).

Range and Distribution

The range of the magenta petrel changes intra-annually based on an established breeding cycle. During the breeding season (September to May) (Imber *et al.* 1994b, p. 64; Taylor 1991, p. 8), breeding birds return to breeding colonies to breed and nest. During the nonbreeding season, birds migrate far from their breeding range where they remain at sea until returning to breed.

BirdLife International (2008c) estimates the range of the magenta petrel to be 7,568,000 mi^2 (1,960,000 km^2); however, BirdLife International (2000, pp. 22, 27) defines ''range'' as the ''Extent of Occurrence, the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred, or projected sites of present occurrence of a species,

excluding cases of vagrancy.'' Therefore, this reported range includes a large area of nonbreeding habitat (*i.e.,* the sea).

The magenta petrel breeds exclusively on Chatham Island, New Zealand (Crockett 1994, pp. 53, 56; Imber *et al.* 1994a, p. 14), the largest island in the Chatham Islands chain, covering 348 mi^2 (900 km^2) (Oceandots n.d.). Based on fossil evidence and historical records, it is believed that the magenta petrel was once the most abundant burrowing seabird on Chatham Island (NZDOC 2001a, p. 5). The type specimen for the magenta petrel was first collected at sea in 1867, and after 10 years of intensive searching the species was rediscovered in 1978 in the southeast corner of Chatham Island (Crockett 1994, pp. 50, 53). Since then, additional searches have resulted in the location and banding of 92 birds (BirdLife International 2008c).

Between 1987 and 2007, the NZDOC located 25 sites occupied by nonbreeding birds, and at least 19 breeding burrows all located near the Tuku-a-Tamatea River (BirdLife International 2007b; Brooke 2004, p. 352; Hilhorst 2000, p. 59; NZDOC, in litt. 2008, p. 2). Although some breeding burrows are on private land (Taylor 2000, p. 139), the majority of known breeding burrows are located within the Tuku Nature Reserve (Reserve) (Chatham Island Taiko Trust 2008d).

The magenta petrel's range at sea is poorly known; however, research has documented foraging behavior south and east of the Chatham Islands (Howell 2005, as cited in BirdLife International 2008c; Imber *et al.* 1994a, p. 14; Taylor 2000, p. 139). In addition, because the original specimen of this species was shot at sea eastwards in the temperate South Pacific Ocean, it is believed birds disperse there during the nonbreeding season.

Population Estimates

The magenta petrel population is extremely small, estimated at 120 to 150 individuals based on population surveys (BirdLife International 2008c; Hilhorst 2000, p. 59). Though the recent (1999–2007) discovery of new burrows and recruitment of birds banded as chicks back to the colony may indicate that the population has stabilized as a direct result of intensive management (NZDOC, in litt. 2008, p. 3), the long-term trend for the species is decreasing due to predation by introduced species (BirdLife International 2008c; NZDOC, in litt. 2008, p. 3).

Conservation Status

The magenta petrel is ranked as ''Nationally Critical'' by the New Zealand Department of Conservation, which is the highest threat category and signifies that the species has a very high risk of extinction in New Zealand (Hitchmough *et al.* 2005, p. 28; Townsend *et al.* 2008, p. 18). The species is considered ''Critically Endangered'' by IUCN because it has ''undergone an extremely rapid historical decline over three generations (60 years). It has an extremely small population and, although the long-term reduction in numbers may have begun to stabilize, it is premature to assume that there is not a continuing decline. Furthermore, it is restricted to just one extremely small location'' (BirdLife International 2008c).

Summary of Factors Affecting the Magenta Petrel

A. The Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range

The range of the magenta petrel changes intra-annually based on an established breeding cycle. During the breeding season (September to May) (Imber *et al.* 1994b, p. 64; Taylor 1991, p. 8), breeding birds return to breeding colonies to breed and nest. During the nonbreeding season, birds migrate far from their breeding range, and they remain at sea until returning to breed. Therefore, our analysis of Factor A is separated into analyses of: (1) The species' breeding habitat and range; and (2) the species' nonbreeding habitat and range.

The magenta petrel breeds exclusively on Chatham Island, New Zealand, within relatively undisturbed inland forests (Crockett 1994, pp. 53, 56; Imber *et al.* 1994a, p. 14). Between 1987 and 2007, the NZDOC located 25 sites occupied by nonbreeding birds, and at least 19 breeding burrows all located near the Tuku-a-Tamatea River (BirdLife International 2007b; Brooke 2004, p. 352; Hilhorst 2000, p. 59; NZDOC, in litt. 2008, p. 2). Although some breeding burrows are on private land (Taylor 2000, p. 139), the majority of known breeding burrows are located within the Tuku Nature Reserve (Reserve) (Chatham Island Taiko Trust 2008d). This Reserve was established in 1984 to protect 2,900 ac (1,238 ha) of habitat for the magenta petrel and other native Chatham Island birds (Chatham Island Taiko Trust 2008d). In 1993, 494 ac (200 ha) of contiguous forested land was added to the Reserve by covenant (Sweetwater Covenant), and a second covenant expected to be approved in the near future will protect an additional 2,718 ac (1,100 ha) of habitat adjacent to the Reserve (Chatham Island Taiko Trust 2008d).

In our December 17, 2007, proposal (72 FR 71298), we identified logging on private lands to be a threat to magenta petrel nest sites. However, based on information provided by the NZDOC during the public comment period, we believe that this activity is not a significant threat to the magenta petrel (NZDOC, in litt. 2008, p. 2). While breeding burrows have been located on private land, the risk of logging activities on these lands impacting magenta petrels is quite low (NZDOC, in litt. 2008, p. 2). The unprotected breeding sites are more than 3 mi (5 km) from existing roads, and the private landowners are fully supportive of the protection of these birds and, therefore, unlikely to log the areas with breeding burrows (NZDOC, in litt. 2008, p. 2). The risk of logging on private land, therefore, is not a threat to the magenta petrel.

On Chatham Island, the significant loss of magenta petrel burrows and colonies historically because of livestock grazing (Crockett 1994, p. 58) demonstrates that habitat alteration severely impacts magenta petrel populations. Natural fires are identified as a threat to the magenta petrel's breeding habitat (BirdLife International 2008c; NZDOC 2001a, p. 7; NZDOC, in litt. 2008, p. 2). Although the species' recovery plan identifies natural fires as a threat to the magenta petrel, it does not address mitigation of this threat (NZDOC 2001a, p. 7). The NZDOC deals with an average of 160 fires in New Zealand each year, suggesting that fires are relatively common in New Zealand (NZDOC n.d.(b)). Taylor (2000, p. 139) and others (Aikman *et al.* 2001, as cited in BirdLife International 2008c; NZDOC, in litt. 2008, p. 2) identify natural flooding of burrows as a threat, given that most known burrows are in wet areas in valley floors. Taylor (2000, p. 139) also notes that destruction of nest sites by pigs and by dogs accompanying pig hunters near the burrows threatens the magenta petrel's breeding habitat. These threats to the magenta petrel's breeding habitat are magnified by the species' restricted habitat area on Chatham Island. Because of the very small number of breeding pairs, any loss of breeders from the population would increase the species' threat of extinction. Therefore, we find that the present or threatened destruction, modification, or curtailment of the magenta petrel's breeding habitat to be a significant threat to the species.

The magenta petrel's range at sea is poorly known; however, research has documented foraging behavior south

and east of the Chatham Islands (Howell 2005, as cited in BirdLife International 2008c; Imber *et al.* 1994a, p. 14; Taylor 2000, p. 139). In addition, because the original specimen of this species was shot at sea eastwards in the temperate South Pacific Ocean, it is believed birds disperse there during the nonbreeding season. We are not aware of any present or threatened destruction, modification, or curtailment of this species' current sea habitat or range.

Summary of Factor A

On the basis of this analysis, we find that the present or threatened destruction, modification, or curtailment of the species' breeding habitat is a threat to the continued existence of the magenta petrel.

B. Overutilization for Commercial, Recreational, Scientific, or Educational

Purposes

We are not aware of any scientific or commercial information that indicates that overutilization of the magenta petrel for commercial, recreational, scientific, or educational purposes poses a threat to this species. As a result, we do not consider overutilization to be a contributing factor to the continued existence of the magenta petrel.

C. Disease or Predation

Disease

Although several diseases have been documented in other species of petrels (see Factor C for the Chatham petrel), disease has not been documented in the magenta petrel. Therefore, we find that disease is not a threat to this species.

Predation

The available information suggests that the most serious threat to the magenta petrel is predation on all life stages (eggs, chicks, and adults) of the species by introduced predators, including feral cats, pigs, rats, and weka (NZDOC, in litt. 2008, p. 2). Permanent eradication of these introduced predators from Chatham Island is difficult due to the permanent habitation of humans on the island. Since the 1980s, however, the NZDOC has monitored known breeding burrows and has implemented an intensive predator control program, including setting extensive trap lines and poisoning to remove introduced predators from the magenta petrel's breeding areas (NZDOC, in litt. 2008, p. 2; Taylor 2000, pp. 140–142). This effort has significantly reduced the threat of predation on adult petrels, with only two being found dead in 20 years, as of the year 2000 (Taylor 2000, p. 140). Loss of chicks by rat predation was a significant problem until 1996. Since then the NZDOC has implemented improved pest management techniques, and only one chick has been lost to predation in the last 11 years at monitored burrows (NZDOC, in litt. 2008, p. 2). The risk to eggs, chicks, and adults at unmonitored sites (undiscovered breeding sites), however, is still very high. In 2001, an adult bird was found dead from cat predation in a newly discovered breeding site (NZDOC, in litt. 2008, p. 2). As additional burrows have been located and protection from predation expanded over the years, breeding has increased and breeding success has improved. In 1994, only 4 breeding pairs were known, but in 2004, 15 breeding pairs were observed (Hilhorst 2000, p. 59; Taylor 2005, as cited in BirdLife International 2007b). The breeding population in the 2007–2008 season was 16 pairs. Last year (2008) was the most successful year to date for the magenta petrel as a record 13 chicks fledged (Chatham Islands Conservation News 2008g; NZDOC, in litt. 2008, p. 5). Seventeen chicks were known to have fledged between 1987 and 1999 (Taylor 2000, p. 138), and within a single year, 2002, a total of seven chicks fledged (BirdLife International 2007b). Eight chicks fledged in the 2005 season, 11 magenta petrel chicks fledged in the 2006 season, and 8 chicks fledged in 2007 (Chatham Island Taiko Trust 2006; NZDOC, in litt. 2008, p. 5).

Even though the predator control program has decreased the threat of predation to the magenta petrel, birds, especially chicks, are still killed by introduced predators, and only areas where petrels are known to breed are protected. Therefore, we find predation by introduced species to be a threat to the magenta petrel.

We are unaware of any threats due to predation on magenta petrels during the nonbreeding season while the species is at sea.

Summary of Factor C

On the basis of this analysis, we find that predation by nonnative predators, such as rats, feral cats, pigs, and weka, is a threat to the continued existence of the magenta petrel throughout all of its breeding range.

D. The Inadequacy of Existing Regulatory Mechanisms

The magenta petrel is protected from disturbance and harvest under New Zealand's Wildlife Act of 1953 and its Reserves Act of 1977. The petrel is designated as ''Nationally Critical'' by the NZDOC, which is the highest threat category and signifies that the species has a very high risk of extinction in New Zealand (Hitchmough *et al.* 2005, p. 28; Townsend *et al.* 2008, p. 18). Access to the breeding sites is strictly controlled (permitted access only for scientific or management purposes). While some illegal visits may occur to the breeding sites, the burrows of this species are located far away from roads on remote trails (more than 1 hour walking distance), and are unlikely to be disturbed (NZDOC, in litt. 2008, p. 3).

In 1998, the Chatham Island Taiko Trust was established to coordinate and administer the activities of the Chatham Island Taiko Expedition and personnel supporting research on the magenta petrel (Chatham Island Taiko Trust 2008b). In addition, the NZDOC developed a 10-year recovery plan for the magenta petrel in 2001, with the goals of preventing further loss of known breeding pairs, maximizing productivity at known breeding burrows, locating and protecting additional burrows, and establishing an additional predator-proof breeding area in southern Chatham Island (NZDOC 2001a, pp. 11–20). New Zealand has implemented management actions for the conservation of the species, including establishment of predator-proof breeding sites, hand-rearing and translocation of chicks to establish additional breeding sites, and broadcasting of magenta petrel calls to attract adults to protected breeding sites (Chatham Islands Conservation News 2008a,f; Chatham Island Taiko Trust 2008a-d; NZDOC 2001a; NZDOC, in litt. 2008, p. 5). A measure of success of the recovery plan has been demonstrated by the successful protection of breeding pairs and increased productivity resulting from predator control efforts (see Factor C). However, the threat of predation on magenta petrels by introduced species remains the greatest threat to the species.

In 2006, a second protected area was established near the southern coast of Chatham Island at a location where magenta petrels were known to have bred in reasonable numbers 90 years ago. This 18.5-ac (7.5-ha) area, protected by landowner covenant, has been fenced to exclude livestock in an effort to allow the forest to recover. Within this fenced area, 7 ac (3 ha) are enclosed by a predator-proof fence. Loudspeakers were placed on the site, and pre-recorded magenta petrel calls are being played to attract young males to the ground, where it is hoped they will begin to dig burrows and eventually find a mate to breed. Remote cameras installed at the Sweetwater Covenant predator-proof site captured the image

of an adult magenta petrel visiting the site in November 2007 (Chatham Islands Conservation News 2008f; NZDOC, in litt. 2008, p. 5). It is too early to know the success of this effort because it is anticipated that it will take several years for breeding to begin once young males start digging burrows. Captive rearing studies of the closely related grey-faced petrel (*Pterodroma macroptera gouldi*) have been undertaken, and its diet analyzed, to develop methods for captive rearing of magenta petrels in captivity should it ever be necessary to 'rescue' abandoned or malnourished magenta petrel chicks (Chatham Islands Conservation News 2008a,f; Chatham Island Taiko Trust 2008a–d; NZDOC 2001a, p. 13).

Summary of Factor D

We believe the regulatory protections conferred by the New Zealand Wildlife and Reserves Acts in combination with the actions implemented for the protection and conservation of the magenta petrel by the New Zealand government under the 2001 recovery plan and by the Chatham Island Taiko Trust provide significant protection to the species. As a result, we believe that existing regulatory protections have significantly reduced the threats from predation by rats, cats, pigs, and weka. However, these threats still exist. Therefore, we find that the inadequacy of existing regulatory mechanisms is a threat to the magenta petrel throughout its range.

E. Other Natural or Manmade Factors Affecting the Continued Existence of the Species

Small Population Size and Restricted Breeding Range

The magenta petrel population is extremely small, estimated at 120 to 150 individuals based on population surveys (BirdLife International 2008c; Hilhorst 2000, p. 59). Though the recent (1999–2007) discovery of new burrows and recruitment of birds banded as chicks back to the colony may indicate that the population has stabilized as a direct result of intensive management (NZDOC, in litt. 2008, p. 3), the long-term population trend for the species is decreasing due to predation by introduced species (BirdLife International 2008c; NZDOC, in litt. 2008, p. 3). The fact that it took 10 years of intensive searching to rediscover the species in 1978 is an indication of the rarity of the species.

Small population sizes render species vulnerable to any of several risks, including inbreeding depression, loss of genetic variation, and accumulation of new mutations. Inbreeding can have individual or population-level consequences either by increasing the phenotypic expression (the outward appearance or observable structure, function, or behavior of a living organism) of recessive, deleterious alleles or by reducing the overall fitness of individuals in the population (Charlesworth and Charlesworth 1987, p. 231; Shaffer 1981, p. 131). Small, isolated populations of wildlife species are also susceptible to demographic problems (Shaffer 1981, p. 131), which may include reduced reproductive success of individuals and chance disequilibrium of sex ratios.

In the absence of more species-specific life history data, the 50/500 rule (as explained under Factor E for the Fiji petrel) may be used to approximate minimum viable population sizes. The magenta petrel population is extremely small, estimated at 120 to 150 individuals based on population surveys (BirdLife International 2008c; Hilhorst 2000, p. 59). Although the estimated number of individuals is above the minimum effective population size (N_e = 50 individuals) required to avoid imminent risks from inbreeding according to the 50/500 rule, during the public comment period on our December 17, 2007, proposal (72 FR 71298), we received new species-specific information regarding the threat of inbreeding depression in magenta petrels. The NZDOC (in litt. 2008, p. 5) informed us that a recent conservation genetics study revealed that the magenta petrel gene pool is still fairly diverse but that the tendency for returning chicks to nest close to their natal burrows greatly increases the risk of close relatives interbreeding. The NZDOC has found that in recent seasons where close relatives have interbred, magenta petrels had poor fertility rates (NZDOC, in litt. 2008, p. 5). Furthermore, the estimated number of magenta petrels falls well below the upper threshold (N_e = 500) required for long-term fitness of a population that will not lose its genetic diversity over time and that will maintain an enhanced capacity to adapt to changing conditions. As such, we currently consider the magenta petrel to be at risk due to lack of near- and long-term viability.

Species with such small population sizes are at greater risk of extinction. In general, the fewer the number of populations and the smaller the size of each population, the higher the probability of extinction (Franklin 1980, pp. 147–148; Gilpin and Soulé 1986, p. 25; Meffe and Carroll 1996, pp. 218–219; Pimm *et al.* 1998, pp. 757–785; Raup 1991, pp. 124–127; Soulé 1987, p. 181). This species' risk of extinction is compounded by its restricted breeding range, which is limited to Chatham Island. Based on what is known about the species, the breeding habitat available on Chatham Island is a relatively small area, particularly since breeding pairs, eggs, and nestlings on Chatham Island continue to be threatened by introduced species such as feral cats and rats.

Stochastic Events

The magenta petrel's restricted breeding range combined with its colonial nesting habits and small population size of 120 to 150 birds makes the species particularly vulnerable to the threat of adverse random, naturally occurring events (*e.g.,* storms, fire) that destroy breeding individuals and their breeding habitat (NZDOC 2001a, p. 7; NZDOC, in litt. 2008, p. 2). Fire is a high risk in the Chatham Islands because the climate is very dry during the summer, and the vegetation becomes tinder dry. Burrow-nesting species such as the magenta petrel are at a high risk because they are likely to suffocate from smoke inhalation or to be lethally burned inside or while attempting to escape from their burrows (Taylor 2000, p. 24).

Another natural disaster, severe storms, has impacted New Zealand historically (see Factor E for the Chatham petrel), and so the likelihood of future impacts of storms is high. Although we are unaware of the impact of previous cyclones on the magenta petrel's population numbers or breeding habitat, the severity of the wind or windfalls created by such storms or flooding from rising streams associated with storms has the potential to significantly damage magenta petrel burrows (NZDOC, in litt. 2008, p. 3). These known burrows are particularly vulnerable to flooding because they are located on valley floors (NZDOC 2001a, p. 7).

While species with more extensive breeding ranges or higher population numbers could recover from adverse random, naturally occurring events such as fires or storms, the magenta petrel does not have such resiliency. Its very small population size and restricted breeding range puts the species at higher risk for experiencing the irreversible adverse effects of random, naturally occurring events. While one such event may not destroy the entire known breeding population on Chatham Island, it may significantly impact any eggs and birds in residence at the time of the storm (NZDOC, in litt. 2008, p. 3). Therefore, we find a combination of factors—the species' small population

size, the species' restricted breeding range, and the likelihood of adverse random, naturally occurring events—to be a significant threat to the magenta petrel.

Summary of Factor E

On the basis of this analysis, we find that due to the species' very small population size and restricted breeding range, the continued existence of the magenta petrel is threatened by inbreeding depression and adverse random, naturally occurring events (*e.g.,* storms, fire) that destroy breeding individuals and their breeding habitat.

Status Determination for the Magenta Petrel

We have carefully assessed the best available scientific and commercial information regarding the past, present, and potential future threats faced by the magenta petrel. The species is at risk throughout all of its range primarily due to predation by introduced species such as rats, feral cats and pigs, and weka (Factor C). These introduced predators are known to destroy magenta petrel eggs, chicks, and adults, reducing the species' population (NZDOC 2001a, p. 7; NZDOC, in litt. 2008, pp. 2–3), which is already very small (estimated at 120 to 150 individuals). The NZDOC has been actively working to protect magenta petrel nest sites from predation by introduced species, and only one chick has been lost to predation in the last 11 years at monitored burrows (NZDOC, in litt. 2008, p. 2). However, the risk to eggs, chicks, and adults at unmonitored sites (breeding burrows that have not yet been located) is still very high.

The regulatory protections conferred by the New Zealand Wildlife and Reserves Acts, in combination with the actions implemented for the protection and conservation of the magenta petrel by the New Zealand government under the 2001 recovery plan and by the Chatham Island Taiko Trust, have significantly reduced the threats from predation by introduced species. However, these threats still exist, and despite the efforts undertaken in New Zealand to address the threats to the magenta petrel, the species has not recovered (Factor D).

The threat of predation by introduced species is magnified by the fact that only a limited amount of breeding habitat is protected from habitat alteration or destruction (Factor A). However, the breeding habitat that is protected remains at risk from accidental fires and stochastic events such as storm-related windfalls and flooding (Factor E).

The magenta petrel's low population size of 120 to 150 individuals puts the species at a high risk of extinction due to the lack of near- and long-term viability (Factor E). The low population size combined with its restricted breeding habitat and colonial nesting habits makes the species particularly vulnerable to the threat of random, naturally occurring events (*e.g.,* fire, cyclones) that are known to occur in New Zealand and have the potential to destroy breeding individuals and their breeding habitat (Factor E). One such event, such as a cyclone during the nesting season, could significantly impact eggs and birds in residence at the time of the storm (NZDOC, in litt. 2008, p. 3).

Inbreeding depression is a potentially significant threat to the magenta petrel (Factor E). A recent genetics study revealed that the magenta petrel gene pool appears to be fairly diverse, although the tendency for returning chicks to nest close to their natal burrows greatly increases the risk of close relatives interbreeding (NZDOC, in litt. 2008, p. 5).

Section 3 of the Act defines an ''endangered species'' as ''any species which is in danger of extinction throughout all or a significant portion of its range'' and a ''threatened species'' as ''any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' Because the survival of the magenta petrel is dependent on recruitment of chicks in its breeding range, the severity of threats to the species within its breeding range, as described above, puts the species in danger of extinction throughout all of its range. Therefore, on the basis of the best available scientific and commercial information, we determine that the magenta petrel meets the Act's definition of endangered and warrants protection as an endangered species under the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness and encourages and results in conservation actions by Federal and State governments, private agencies and groups, and individuals.

Section 7(a) of the Act, as amended, and as implemented by regulations at 50 CFR part 402, requires Federal agencies to evaluate their actions within the United States or on the high seas with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. However, given that the Chatham petrel, Fiji petrel, and magenta petrel are not native to the United States, we are not designating critical habitat in this rule.

Section 8(a) of the Act authorizes the provision of limited financial assistance for the development and management of programs that the Secretary of the Interior determines to be necessary or useful for the conservation of endangered and threatened species in foreign countries. Sections 8(b) and 8(c) of the Act authorize the Secretary to encourage conservation programs for foreign endangered and threatened species and to provide assistance for such programs in the form of personnel and the training of personnel.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. As such, these prohibitions would be applicable to the Chatham petrel, Fiji petrel, and magenta petrel. These prohibitions, under 50 CFR 17.21, in part, make it illegal for any person subject to the jurisdiction of the United States to ''take'' (take includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any endangered or threatened wildlife species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 for endangered species. With regard to endangered wildlife, a permit may be issued for the following purposes: for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities.

Required Determinations

Paperwork Reduction Act of 1995

This rule does not contain any new collections of information that require approval by the Office of Management

and Budget (OMB) under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). This rule will not impose new recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

We have determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), need not be prepared in connection with regulations adopted under section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

A complete list of all references cited in this rule is available on the Internet at *http://www.regulations.gov* or upon request from the Branch of Listing, Endangered Species Program, U.S. Fish and Wildlife Service (see **ADDRESSES**).

Author

The primary authors of this final rule are staff members of the Division of Scientific Authority, U.S. Fish and Wildlife Service.

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Public Law 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. Amend § 17.11(h) by adding new entries for ''Petrel, Chatham,'' ''Petrel, Fiji,'' and ''Petrel, magenta'' in alphabetical order under ''Birds'' to the List of Endangered and Threatened Wildlife as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
BIRDS							
*	*	*	*	*	*		*
Petrel, Chatham	*Pterodroma axillaris*	Pacific Ocean—New Zealand (Chatham Islands).	Entire	E	763	NA	NA
Petrel, Fiji	*Pseudobulweria macgillivrayi*	Pacific Ocean—Fiji (Gau Island).	Entire	E	763	NA	NA
*	*	*	*	*	*		*
Petrel, magenta	*Pterodroma magentae*	Pacific Ocean—New Zealand (Chatham Islands).	Entire	E	763	NA	NA
*	*	*	*	*	*		*

Dated: August 31, 2009.

Daniel M. Ashe,

Deputy Director, U.S. Fish and Wildlife Service.

[FR Doc. E9–22033 Filed 9–11–09; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 222 and 223

[Docket No. 0809121212–91160–02]

RIN 0648–AX20

Endangered and Threatened Wildlife; Sea Turtle Conservation

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

ACTION: Final rule.

SUMMARY: The National Marine Fisheries Service (NMFS) currently requires the use of chain-mat modified dredge gear in the Atlantic sea scallop fishery south of 41° 9.0' North latitude from May 1 through November 30 each year. This gear is necessary to help reduce mortality and injury to endangered and threatened sea turtles captured in this fishery and to conserve sea turtles listed under the Endangered Species Act. NMFS issues this final rule to make minor modifications to these chain-mat requirements. This final rule clarifies where on the dredge the chain mat must be hung, excludes the sweep from the requirement that the side of each opening in the chain mat be less than or equal to 14 inches (35.5 cm); and adds definitions of the sweep and the diamonds, which are terms used to describe parts of the scallop dredge gear. Any incidental take of threatened sea turtles in Atlantic sea scallop dredge gear in compliance with the gear modification requirements and all other applicable requirements will be exempted from the ESA prohibition against takes.

DATES: Effective October 14, 2009.

ADDRESSES: Copies of the Supplement to the Environmental Assessment/ Regulatory Impact Review prepared for this final rule may be obtained by writing to Ellen Keane, NMFS, Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930.

FOR FURTHER INFORMATION CONTACT: Ellen Keane (ph. 978–282–8476, fax 978–281–9394, email *ellen.keane@noaa.gov*).