

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17****Endangered and Threatened Wildlife and Plants; Annual Notice of Findings on Resubmitted Petitions for Foreign Species; Annual Description of Progress on Listing Actions**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Review of findings on petitions.

**SUMMARY:** In this review, we announce our annual petition findings for foreign species, as required under section 4(b)(3)(C)(i) of the Endangered Species Act of 1973, as amended. When, in response to a petition, we find that listing a species is warranted but precluded, we must complete a new status review each year until we publish a proposed rule or make a determination that listing is not warranted. These subsequent status reviews and the accompanying 12-month findings are referred to as "resubmitted" petition findings.

Information contained in this review describes our status review of 56 foreign taxa that were the subjects of previous warranted-but-precluded findings. Based on our review, we find that 50 species continue to warrant listing, but that their listing remains precluded by higher-priority listing actions (see Table 1). For six species previously found to be warranted but precluded, listing is now warranted. We will promptly publish a listing proposal for those six species.

With this review, we are requesting additional status information for the 50 species that remain warranted-but-precluded by higher priority listing actions. We will consider this information in preparing listing documents and future resubmitted petition findings. This information will also help us to monitor the status of the taxa and in conserving them.

**DATES:** We will accept comments on these resubmitted petition findings at any time.

**ADDRESSES:** Submit any comments, information, and questions by mail to the Chief, Division of Scientific Authority, U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, Room 750, Arlington, Virginia 22203; by fax to 703-358-2276; or by e-mail to [ScientificAuthority@fws.gov](mailto:ScientificAuthority@fws.gov). Comments and supporting information will be available for public inspection, by appointment, Monday through Friday

from 8 a.m. to 4 p.m. at the above address.

**FOR FURTHER INFORMATION CONTACT:**

Marie T. Maltese at the above address, or by telephone, 703-358-1708; fax, 703-358-2276; or e-mail, [ScientificAuthority@fws.gov](mailto:ScientificAuthority@fws.gov); or through the Federal eRulemaking Portal at [www.regulations.gov](http://www.regulations.gov).

**SUPPLEMENTARY INFORMATION:****Background**

The Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), provides two mechanisms for considering species for listing. First, we can identify and propose for listing those species that are endangered or threatened based on the factors contained in section 4(a)(1). We implement this through the candidate program. Candidate taxa are those taxa for which we have sufficient information on file relating to biological vulnerability and threats to support a proposal to list the taxa as endangered or threatened, but for which preparation and publication of a proposed rule is precluded by higher-priority listing actions. None of the species covered by this review were assessed through the candidate program; they were the result of public petitions to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists), which is the other mechanism for considering species for listing. Under section 4(b)(3)(A), when we receive such a petition, we must determine within 90 days, to the maximum extent practicable, whether the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted (90-day finding). If we make a positive 90-day finding, we are required to promptly commence a review of the status of the species. Section 4(b)(3)(B) of the Act requires that we must make one of three findings within 12 months of the receipt of the petition (12-month finding).

The first possible 12-month finding is that listing is not warranted, in which case we need not take any further action on the petition. The second possibility is that we may find that listing is warranted, in which case we must promptly publish a proposed rule to list the species. Once we publish a proposed rule for a species, section 4(b)(5) and (6) govern further procedures, regardless of whether or not we issued the proposal in response to the petition. The third possibility is that we may find that listing is warranted but precluded. A warranted-but-precluded finding means that

immediate publication of a proposed rule to list a species is precluded by higher-priority listing proposals, and expeditious progress is being made to add and remove species from the Lists, as appropriate.

Pursuant to section 4(b)(3)(C)(i) of the Act, when, in response to a petition, we find that listing a species is warranted but precluded, we must make a new 12-month finding annually until we publish a proposed rule or make a determination that listing is not warranted. These subsequent 12-month findings are referred to as "resubmitted" petition findings. This notice contains our resubmitted petition findings for all foreign species that are currently the subject of outstanding petitions.

**Previous Notices**

The species discussed in this review were the result of three separate petitions submitted to the Service to list a number of foreign bird and butterfly species as threatened or endangered under the Act. We received petitions to list foreign bird species on November 28, 1980, and April 30, 1991 (46 FR 26464 and 56 FR 58664 respectively). On January 10, 1994, we received a petition to list 7 butterfly species as threatened or endangered (59 FR 24117).

We took several actions on these petitions, and to notify the public, we published earlier petition findings, status reviews, and petition finding reviews that included foreign species in the **Federal Register** on May 12, 1981 (46 FR 26464); January 20, 1984 (49 FR 2485); May 10, 1985 (50 FR 19761); January 9, 1986 (51 FR 996); July 7, 1988 (53 FR 25511); December 29, 1988 (53 FR 52747); January 6, 1989 (54 FR 554); November 21, 1991 (56 FR 58664); March 28, 1994 (59 FR 14496); May 10, 1994 (59 FR 24117), and January 12, 1995 (60 FR 2899). Our most recent review of petition findings was published on May 21, 2004 (69 FR 29354).

Since our last review of petition findings we have taken two listing actions related to this notice. On December 7, 2004, we published our 12-month finding on a petition to list seven foreign species of Swallowtail butterflies as threatened or endangered (69 FR 70580). We also published a proposed rule on November 22, 2006, to list six foreign bird species as endangered (71 FR 67530).

**Findings on Resubmitted Petitions**

This review describes our resubmitted petition findings for 56 foreign species for which we had previously found listing to be warranted but precluded. We have considered all of the new

information we have obtained since the previous findings. As a result of our review, we find that warranted-but-precluded findings remain appropriate for 50 species. We emphasize that we are not proposing these species for listing by this review, but we do anticipate developing and publishing proposed listing rules for these species in the future, with an objective of progressively and conclusively addressing all 50 foreign species within a reasonable time-frame.

Also as a result of this review, we find that for six species, listing is warranted. We will promptly publish proposals to list six species in the Family Procellariidae (tube-nosed seabirds). These species include: the Fiji petrel (*Pterodroma macgillivrayi*), the Chatham petrel (*Pterodroma axillaris*), Cook's petrel (*Pterodroma cookii*), the Galapagos petrel (*Pterodroma phaeopygia*), the magenta petrel (*Pterodroma magentae*), and Heinroth's shearwater (*Puffinus heinrothi*).

We selected these six species from the list of warranted-but-precluded species for two reasons. First, this group has more Priority 2 species than any other taxonomic family in our list of warranted-but-precluded-species. The Chatham petrel, Fiji petrel, Galapagos petrel, and magenta petrel are all classified as Priority 2 species. The two other species are classified as Priority 8 (Cook's petrel) and Priority 11 (Heinroth's shearwater). Although these two species are not of the highest priority under our listing priority ranking system, all six species face similar threats. With a minimum amount of additional effort and additional resources, we can proceed with developing the proposed listing for these two species concurrent with developing the proposed listing rule for the other four members of this family. As noted in our 1983 Listing Priority Guidance (48 FR 43098), the listing priority system provides such flexibility. We will be able to consult the same experts for species information, and perhaps have them act in a peer review capacity, because the scientists are likely to be knowledgeable about multiple taxa within the Procellariidae. This efficient use of resources also will allow us to make more expeditious progress in taking action on the species whose listing has been found to be warranted but precluded.

The other reason we selected the Procellarids for our next listing proposal over the other Priority 2 species is because of the significance of the threats to the species. Procellarids are pelagic species and spend much of their lives

on the wing at sea. The only time they spend any significant amount of time on land is to breed and rear young, and these species require specific islands for reproduction and rearing fledglings. Procellarids are long-lived species with low reproductive rates and juvenile mortality is often high due to predation by introduced mammalian species. As is common for all island nesting avian species, they are vulnerable to stochastic events, such as typhoons, which could result in rapid population declines or unforeseen species extinctions (BirdLife International 2006).

Based on information gathered and assessed since May 21, 2004 and December 7, 2004, we have updated our determinations of whether listing of these taxa continues to be warranted or warranted but precluded, or whether listing is no longer warranted. See Table 1 for a summary of these current determinations. Taxa in Table 1 of this notice are assigned to two status categories, noted in the "categories" column at the left side of the table. We identify the taxa for which we continue to find that listing is warranted but precluded by a "C" in the category column. The other category is for those species for which we find that listing is warranted and designate these taxa with an "L." For this notice, we have not determined that listing is no longer warranted for any species whose listing was previously found to be warranted but precluded. The column labeled "Priority" indicates the listing priority number (LPN) for all warranted or warranted-but-precluded taxa. We assign the LPN based on the immediacy and magnitude of threats, as well as taxonomic status. A complete description of our listing priority system was published on September 21, 1983 (48 FR 43098). Following the scientific name of each taxon (third column) is the family designation (fourth column) and the common name, if one exists (fifth column). The sixth column provides the known historical range for the taxon. The avian species in Table 1 are listed taxonomically.

#### Findings on Species for Which Listing Is Warranted

##### Birds

We will promptly prepare listing proposals for the Fiji petrel (*Pterodroma macgillivrayi*), the Chatham petrel (*Pterodroma axillaris*), Cook's petrel (*Pterodroma cookii*), the Galapagos petrel (*Pterodroma phaeopygia*), the magenta petrel (*Pterodroma magentae*), and Heinroth's shearwater (*Puffinus heinrothi*). These species are birds in the Family Procellariidae.

Fiji petrel (*Pterodroma macgillivrayi*)

The Fiji petrel is a marine species and presumably pelagic (del Hoyo *et al.* 1992). It was originally known from just one specimen collected in 1855 on Gau Island and more recently from eight records of sightings on the island since 1983 (BirdLife International 2000). The only other record is a reported sighting at sea over 200 km north of Gau (Watling 2000, as cited in BirdLife International 2000). The Fiji petrel's breeding grounds have not been discovered, but may be located in areas of undisturbed mature forest, on rocky, mountainous ground, or in the cloud forest highlands of Gau Island (del Hoyo *et al.* 1992, Rare 2006). The species is classified as Critically Endangered by the IUCN because it is inferred, given the paucity of recent records, that there is only a tiny population confined to an extremely small breeding area (IUCN 2006). The population is estimated at fewer than 50 individuals and is assumed to be declining because of predation by feral cats which are believed to prey upon nestling and fledgling petrels. The reduction in juvenile survival rates and declines in recruitment are believed to threaten the species' long-term survival (BirdLife International 2000). Very little is known about the species and its life history. It is protected under Fijian law, and priorities for the species include conducting surveys on Gau and other islands with suitable habitat and reinforcing existing community awareness (BirdLife International 2000). With the goal of strengthening community awareness in mind, from 2002–2004, a local conservationist on Gau Island, Milika Rati, conducted the Pride campaign (Rare 2006). Ms. Rati chose the Fiji petrel as the flagship mascot for the Pride campaign and used a series of high-profile activities to raise awareness of the plight of the endangered Fiji petrel. During the late stages of the campaign there was finally a confirmed sighting of a Fiji petrel (Rare 2006). A survey conducted at the close of the campaign found that 99 percent of participants thought natural resource protection was important and 94 percent knew that the Fiji petrel is threatened with extinction. The chiefs of all 16 villages on the island signed a formal agreement supporting the creation of a bird sanctuary on the island for the species (Rare 2006). 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 Fiji Islands are collaborating to follow

recommendations made by Ms. Rati at the end of the initial Pride campaign (Rare 2006).

The importance of raising public awareness of the species' threats and the recognition of the value of natural resource protection are intrinsic measures that are invaluable for species such as the Fiji petrel. Although resource economists frequently struggle to assign such intangible measures a monetary value, we recognize their importance and value in furthering the protection and conservation of threatened and endangered species. Creation of the bird sanctuary is an important initial step to preserve essential habitat for the Fiji petrel and the awareness of the value of natural resource protection should help to alleviate any future man-made threats. Public awareness alone cannot address population declines, the genetic effects of small populations, or stochastic events that can destroy an entire population during a single incident. However, the Fijian Pride campaign has united the island's efforts to preserve the Fiji petrel and its habitat; therefore, it is anticipated that current and potential measures will help to reduce the threats to the species as the campaign continues to broaden in scope.

The Fiji petrel does not represent a monotypic genus. The magnitude of threat to the species is high due to the species' small population size which has continued to decrease since our previous notice, and the immediacy of threat is imminent due to continued predation by feral cats. Therefore, it receives a priority rank of 2.

Chatham petrel (*Pterodroma axillaris*; Previously Referred to as *Pterodroma hypoleuca axillaris*)

The Chatham petrel is found only on South East Island (Rangatira) in the Chatham Islands of New Zealand (BirdLife International 2006). It is marine and presumably pelagic, and breeds on coastal lowlands and slopes in areas with low forest, bracken, or rank grass (del Hoyo *et al.* 1992). It nests in burrows amongst low vegetation and roots on flat to moderately sloping ground (Marchant and Higgins 1990). This species is classified as Critically Endangered by IUCN because it is restricted to South East Island and inferred to be continuing to decline due to competition from other native burrowing seabirds (IUCN 2006). The population estimate for this species is 800–1,000 birds with a decreasing population trend (BirdLife International 2000). There is intense competition for burrows on South East Island with the

abundant broad-billed prion (*Pachyptila vittata*), which may be the cause of low breeding success and the high rate of pair bond disruption (BirdLife International 2000). As a conservation measure, artificial nest sites have been provided, and burrows have been blocked to prevent occupation by *P. vittata* (BirdLife International 2000). Although these actions have greatly improved breeding success, only a small proportion of breeding burrows have been located (Taylor 2000).

This species does not represent a monotypic genus. It has a restricted range and its population is declining. The threat to the species is high and imminent because the threats are currently ongoing. Therefore, this species receives a priority rank of 2.

Cook's petrel (*Pterodroma cookii*)

Cook's petrel is endemic to New Zealand. It is marine and highly pelagic in temperate and subtropical waters, and rarely approaches land except for nesting (del Hoyo *et al.* 1992). Cook's petrel breeds on three islands: Little Barrier, Great Barrier, and Codfish Islands (del Hoyo *et al.* 1992), and occupies thickly forested high ridges and slopes, up to 700 m above sea level (BirdLife International 2000). This species is classified as Endangered by IUCN because it has a very small breeding range, and population numbers are decreasing (IUCN 2006). Furthermore, there is a danger that the Great Barrier Island population may soon be extirpated because only four nest burrows have been located in recent years and it is estimated that fewer than 20 pairs inhabit the island for breeding purposes (BirdLife International 2006). The population estimate for this species is 150,000–200,000 birds (BirdLife International 2006). Threats to the species are predominantly from invasive predator species such as feral cats, black rats (*Rattus rattus*), Pacific rats (*R. exulans*), and the weka (*Gallirallus australis*), which are major predators of adults and chicks (Heather and Robertson 1997; Taylor 2000). By 1980, feral cats were eradicated from Little Barrier Island, and wekas were eradicated from Codfish Island between 1980 and 1985 (Taylor 2000). Pacific rats were successfully eradicated from Codfish Island in August 1998, and an eradication program on Little Barrier Island has been proposed (Conservation News 2002).

This species does not represent a monotypic genus, and has a fairly large population size; however, the population is decreasing. Primary threats to the species are a limited

breeding range and predation by introduced species. Loss of the Great Barrier Island population would lessen the overall species' range and distribution by one-third. The unique contributions of the Great Barrier Island population's gene pool would no longer be available to the species.

Although the threat of predation by introduced species has been reduced by targeted eradication programs, these programs are not completely successful and must be adequately funded to continue as a protective measure for the petrels. Finally, as is common for all island species, is concern for their vulnerability to stochastic events, such as typhoons, which could result in rapid population declines or extinction of the species.

Therefore, although the threat to the species is moderate due to the current large population estimate, it is imminent because the population is decreasing, an important segment of the population is likely to become extinct in the near future, and the threat from predation remains. We assigned this species a priority ranking of 8.

Galapagos petrel (*Pterodroma phaeopygia*; previously referred to as *Pterodroma phaeopygia phaeopygia*)

The Galapagos petrel is a pelagic marine bird endemic to the Galapagos Islands, Ecuador (BirdLife International 2006). It breeds on Santa Cruz, Floreana, Santiago, San Cristobal, Isabela, and possibly other islands in the Galapagos archipelago (Cruz and Cruz 1987; H. Vargas and F. Cruz *in litt.* 2000, as cited in BirdLife International 2006). This species is classified as Critically Endangered by IUCN because of its continuing history of declines (IUCN 2002). In the early 1980s, Galapagos petrel populations underwent extremely rapid declines; estimates of population declines are as high as 81 percent in 4 years, and it is likely to have declined by more than 80 percent in the last 60 years (three generations) (IUCN 2002). The total population estimate for this species is 20,000–60,000 birds with a decreasing population trend (BirdLife International 2000). Threats to survival include introduced dogs, feral cats, and pigs, which take eggs, young, and adults; black rats and brown rats (*R. norvegicus*), which take eggs and chicks; nest-site destruction by goats, donkeys, cattle, and horses; and predation by Galapagos hawks (*Buteo galapagoensis*) (Cruz and Cruz 1987; Cruz and Cruz 1996). Predator control and petrel monitoring programs are currently in place on Floreana, Santa Cruz, and Santiago Islands (H. Vargas and F. Cruz *in litt.* 2000, as cited in BirdLife

International 2006). The breeding areas on Santa Cruz, Floreana, and San Cristobal have been severely reduced due to vegetation clearance for agricultural land development and intensive grazing by cattle (Cruz and Cruz 1987; Cruz and Cruz 1996). Nearly half the species' breeding range on Santa Cruz Island is under cultivation (Baker 1980, as cited in BirdLife International 2000). The Galapagos Islands are a national park and were declared a World Heritage Site (WHS) in 1979 (BirdLife International 2006). The WHS designation encourages Ecuador to work carefully to enact suitable conservation laws and implement existing laws to protect the unique fauna and flora of the Galapagos Islands (UNESCO 2007).

This species does not represent a monotypic genus, but it is declining and has persistent threats that are high in magnitude, such as nest predation by feral animals. This and other threats are imminent because they are ongoing; for instance, loss of breeding habitat that has been cleared for agricultural purposes is a threat that is nearly impossible to resolve. Therefore, this species receives a priority rank of 2.

#### Magenta petrel (*Pterodroma magentae*)

The magenta petrel is known from Chatham Island, New Zealand. It breeds in a fragmented colony under dense forest, is a marine bird species, and presumably pelagic (BirdLife International 2000, del Hoyo *et al.* 1992). The magenta petrel was rediscovered in 1978 after 10 years of intensive searching (Crockett 1994, as cited in BirdLife International 2006). This species is listed as Critically Endangered by IUCN because it has undergone an historic decline that is assumed to be greater than 80 percent in 60 years, it has a very small population, and it is restricted to one extremely small location (IUCN 2002). The population is estimated to number 100–150 individuals. It is possible that the species' long-term decline may have begun to stabilize, but it is premature to assume that there is not a continuing decline until this information is verified (BirdLife International 2000). The species is predominantly threatened by introduced species that prey upon eggs, chicks, and adults for food; compete for burrows, or destroy nesting sites (BirdLife International 2000).

The magenta petrel does not represent a monotypic genus. The magnitude of threat to the species is high due to its historic rapid decline, the current estimate of a very small population, and a single, small breeding location. These threats render the species highly

vulnerable to extirpation during a single stochastic event. The magnitude is imminent because the threats are ongoing, and there is very little information available about the species' current population dynamics. It therefore receives a priority rank of 2.

#### Heinroth's shearwater (*Puffinus heinrothi*)

The Heinroth's shearwater is known from the Bismarck Archipelago, around Bougainville in Papua New Guinea, and Kolombangara in the Solomon Islands (Buckingham *et al.* 1995, as cited in BirdLife International 2000). It is a marine bird species, and presumably pelagic (del Hoyo *et al.* 1992). The Heinroth's shearwater is believed to breed on high, inaccessible mountains. Introduced rats, feral cats and dogs are considered potential threats to the species. BirdLife International has identified a number of target conservation actions for the species including: demographic surveys and an assessment of the presence of introduced mammals on potential breeding grounds (BirdLife International 2000). The Heinroth's shearwater is categorized as Vulnerable by the IUCN because it is believed to have a very small population and breeding range (IUCN 2002). The population estimate for this species is 250–999 birds with an unknown population trend (BirdLife International 2000). There is no substantial evidence of a decline (IUCN 2002).

Heinroth's shearwater does not represent a monotypic genus. There is no substantial evidence of a population decline; however, because of its small population size it faces threats that are moderate and non-imminent. This species was designated a priority rank of 11.

#### Findings on Species for Which Listing Is Warranted but Precluded

We have found that, for the following 50 bird species, issuance of proposed listing rules, even for species with the highest listing priority numbers, will continue to be precluded over the next year due to the need to complete pending proposals to determine if other species are threatened or endangered. We will continue to monitor the status of these species as new information becomes available. Our review of new information will determine if a change in status is warranted, including the need to emergency list any species or change the LPN of any of the species.

As explained in the previous section, one of our highest priorities in the coming year is to prepare proposed listing rules for the six species of

Procellariids. Over the next year the issuance of additional proposed listing rules will also be precluded due to the need to work on the following listing actions. We will be working on a final listing determination for the six foreign bird species that we proposed for listing on November 23, 2006. Reaching a final decision on this proposed rule is consistent with the statutory deadlines under section 4(b)(5) and is a high priority that takes precedence over proposed listings for additional warranted-but-precluded species.

A foreign government has petitioned us to delist a species that is under its jurisdiction and is listed under the Act. Mexico submitted a petition to delist the Morelet's crocodile (*Crocodylus moreletii*). The Morelet's crocodile petition was submitted by the Mexican government through the National Commission for the Understanding and Use of Biodiversity (CONABIO), and was received by the Service on May 26, 2005. A 90-day finding was published on June 28, 2006 (71 FR 36743) finding that the petitioned action may be warranted. The 12-month review is currently in progress and we must complete work on this petition consistent with our responsibilities under section 4(b)(3) of the Act.

We are also in the process of making a final determination on whether to delist the Mexican bobcat (*Lynx rufus escuinapae*). The United States, with support from Mexico and other countries, proposed to transfer the Mexican bobcat from Appendix I to Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), based on the bobcat's widespread and stable status in Mexico and the questionable taxonomy of the subspecies. The U.S. proposal was accepted and the change went into effect on November 6, 1992. On July 8, 1996, we received a petition from the National Trappers Association, Inc. to delist the Mexican bobcat. Our 12-month finding and proposed rule were published on May 19, 2005 (70 FR 28895). Under section 4(b)(6) of the Act, we have a statutory responsibility to complete this rule-making process.

We are also making a final determination on whether to delist the scarlet-chested parakeet (*Neophema splendida*) and the turquoise parakeet (*Neophema pulchella*). On September 22, 2000, we announced a review of all endangered and threatened foreign species in the Order Psittaciformes as part of a 5-year review under section 4(c)(2) of the Act (65 FR 57363). One commenter suggested we consider these two species for delisting. The individual

provided substantial scientific information, including information and correspondence with the government of Australia (the range country of these species) regarding the status of both species. Under section 4(b)(6) of the Act, we have a statutory responsibility to complete this rule-making process.

On January 4, 2005, we received a petition from 14 county officials representing 13 western States to list the Northern snakehead fish (*Channa argus*) as threatened or endangered under the Act, and further, to designate the Chesapeake Bay region as critical habitat. On March 5, 2005, we received a petition from a private individual to de-list the tiger (*Panthera tigris*). We have a statutory responsibility under section 4(b)(3) of the Act to process these petitions.

On November 29, 2006, we received a petition from the Center for Biological Diversity (CBD) to list 12 species of penguins as threatened or endangered under the Act. The petitioned species include the emperor penguin (*Aptenodytes forsteri*) as threatened; Southern rockhopper penguin (*Eudyptes chrysocome*) as threatened; Northern rockhopper penguin (*Eudyptes moseleyi*) as endangered; Fiordland crested penguin (*Eudyptes pachyrhynchus*) as endangered; snares crested penguin (*Eudyptes robustus*) as threatened; erect-crested penguin (*Eudyptes sclateri*) as endangered; macaroni penguin (*Eudyptes chrysolophus*) as threatened, or, if not listed as threatened, CBD requested that we consider the South Georgia and Marion populations as Distinct Population Segments, or as a "significant portion" of the species range; royal penguin (*Eudyptes schlegeli*) as threatened; white-flipped penguin (*Eudyptula albosignata*) as endangered; yellow-eyed penguin (*Megadyptes antipodes*) as endangered; African penguin (*Spheniscus demersus*) as endangered; and Humboldt penguin (*Spheniscus humboldti*) as endangered. We have a statutory responsibility under section 4(b)(3) of the Act to process this petition and are preparing our 90-day petition finding.

In addition to these listing actions, we are also currently preparing a 5-year notice of review of all foreign-listed wildlife species as required under section 4(c)(2) of the Act. During the coming year, we will also be working on the 2008 ANOR, which sets priorities for the next set of listing actions. Using our best efforts to meet our statutory responsibilities under the Act is a high priority.

Our ability to complete determinations on whether any species

is endangered or threatened is also a function of available resources. The number of species' proposals pending, and the rate at which we can process proposals and add more proposals, depends on the staff resources available. Listing of foreign species under the Act is carried out by a different Service program than the domestic Endangered Species program. The Division of Scientific Authority (DSA), within the Service's International Affairs program, is solely responsible for the development of all listing proposals for foreign species and promulgation of final rules, whether internally-driven or as the result of a citizen petition. Unlike the Service's domestic Endangered Species program, DSA does not have specific branch or field offices for endangered species functions. The DSA program consists of a Division Chief, a Branch Chief, two botanists, and three zoologists, when fully staffed. As of September 2005, DSA had one zoologist position vacant, and the Branch Chief position was vacant for most of 2006. Both positions were finally filled in August, 2006. We dedicate over 50 percent of our existing staff resources to foreign endangered species listing activities, including processing petitions, preparation of the ANOR, and listing species which have been designated as warranted.

In determining the resources available for listing actions under the Act, we must also balance these needs with the resources needed for completing the other non-discretionary activities that are the responsibility of DSA staff and that are funded under the International Wildlife Trade budget component of the International Affairs program. This budget is used for not only the ESA foreign listing activities, but also issuing permits under the Act, mandatory activities for U.S. implementation of CITES, implementing the Wild Bird Conservation Act of 1992, certain permitting provisions of the Marine Mammal Protection Act, and parts of the Pelly Amendment (Section 8 of the Fisherman's Protective Act).

The United States is a party to CITES; and has the responsibility under the Treaty to implement and enforce its provisions (see Article VIII, paragraph 1). CITES regulates and monitors listed species in trade through a system of permits. Species are listed based on the level of threat to the species and that species' need for conservation in international trade. Section 8A of the Act designates the Service, through its Scientific Authority and Management Authority, to carry out the United States' CITES responsibilities. As required under Articles III and IV of

CITES, the DSA staff is responsible for reviewing and making non-detriment findings for permits for the export of species listed in Appendix-I and Appendix-II of CITES, and the import of Appendix-I species. In 2004, DSA either provided written non-detriment findings or written non-detriment advice for approximately 3,192 permits that were issued by the Service's Division of Management Authority (DMA). In 2005, that number had increased to approximately 5,854 issued permits. These figures do not include the number of non-detriment findings made for permit applications that were denied, abandoned, or withdrawn. DSA's other CITES responsibilities include proposing species for listing or delisting at the biennial meeting of the Conference of the Parties (CoP) (see Article XI), and participating in the CITES Plants and Animals Committee meetings, between each CoP, for the dissemination of biological information and other Treaty business.

The Division of Management Authority (DMA), which also operates under the International Wildlife Trade budget, is responsible for issuing permits under the Act, other ESA activities such as conducting section 7 consultations, certain permitting provisions of the Marine Mammal Protection Act, issuing Injurious Wildlife permits under the Lacey Act, and implementing parts of the Pelly Amendment (section 8 of the Fisherman's Protective Act). DMA also manages CITES implementation obligations. DMA and DSA share responsibilities for implementation of the Wild Bird Conservation Act of 1992. Therefore, the resources available for ESA listing actions for foreign species is limited by these competing non-discretionary activities funded from the International Wildlife Trade budget. If additional resources become available, it will be our highest priority in the coming year to prepare proposed listing rules for additional priority 2 warranted-but-precluded species.

#### Birds

##### Junin flightless grebe (*Podiceps taczanowskii*)

The Junin flightless grebe is found only at Lake Junin, which is located 4,080 m above sea level in central Peru (Fjelds  1981, as cited in O'Donnell and Fjelds  1997). The lake covers approximately 14,320 hectares bordered by extensive reed marshes and reaches a depth of 10 m at the center. The reed marshes are continuous in some areas of the lake shore, but they also form a mosaic with stretches of open water in

other areas. Considerable stretches of the lake are shallow, supporting dense growth of stonewort (*Chara* spp.) (del Hoyo *et al.* 1992). The Junin grebe prefers open lake habitat and remains in the center of the lake when it is not breeding. During the breeding season, however, it nests in areas of tall *Scirpus californicus tatora* or bays and channels along the outer edge of the 2–5 km-wide reed marshes surrounding the lake (O'Donnel and Fjedså 1997). The Junin grebe feeds predominantly on fish (*Orestias* spp.), which constitute approximately 90% of its diet (del Hoyo *et al.* 1992).

The Junin grebe experienced a dramatic decline during the 20th Century. The species was considered abundant in 1938, and common in 1961, with population estimates of several thousand birds (del Hoyo *et al.* 1992). Current population estimates for the Junin grebe range between 50 and 249 birds, with a decreasing population trend (BirdLife International 2006). As a result of the species' decline, and because it is endemic to a single Andean lake, the Junin grebe qualifies as Critically Endangered on the IUCN Red List (IUCN 2006). Current population numbers have been known to fluctuate considerably from year to year. Population fluctuations are believed to be tied to relatively unstable climatic conditions recently linked to El Niño/Southern Oscillation (ENSO) events, with population numbers lowest during dry years. Although the species appears able to recover in good years, it remains unclear whether this process can be sustained, particularly in the face of other, continuing threats (IUCN 2006). The original decline of this species was brought about by declines in water quality of Lake Junin due to local mining activities and variations in water levels of up to 7 m, which are linked to electrical power generation by a local hydroelectric power station. The water level draw-downs reduced nesting and foraging areas (BirdLife International 2000), and in 1969, the vegetation of Lake Junin appeared to be dyed yellow with breakdown products of sulphuric acids and toxic fumes from a copper mine (del Hoyo *et al.* 1992). Of less significance, perhaps, was the introduction of non-native trout species in the 1930s, which have replaced native fish species. Since 1975, several conservation measures have been implemented; Lake Junin was declared a protected reserve, and the Peruvian Government nationalized the mines of Cerro del Pasco in an attempt to prevent pollution by the mine (del Hoyo *et al.* 1992). Since that time, however, there

has been rapid expansion of the mine, and no available information to indicate that pollution controls have been put in place (Mbendi 2007).

The Junin flightless grebe does not represent a monotypic genus. It faces threats that are high in magnitude, such as oscillations in ENSO conditions which can cause environmental conditions that are harmful to the species; and imminent because the declines in water quality are ongoing, and possibly increasing, as the result of increased production at the Cerro del Pasco mine. It therefore receives a priority rank of 2.

#### Greater adjutant stork (*Leptoptilos dubius*)

The greater adjutant stork was previously widespread and common, and found in much of South and Southeast Asia, from Pakistan through northern India, Nepal, and Bangladesh, to Myanmar, Thailand, Laos, Viet Nam, and Cambodia (BirdLife International 2006). However, during the 20th Century the species experienced a rapid decline, and currently the population estimate is 800–1,000 birds (BirdLife International 2006). Only two very small and highly disjunct breeding populations remain: one in Assam, India (Saikia and Bhattacharjee 1989, as cited in BirdLife International 2006), the other in Cambodia (Mundkur *et al.* 1995, as cited in BirdLife International 2006). During the 19th century, there were vast colonies of millions of greater adjutant storks in Burma, and del Hoyo *et al.* (1992) noted that in Calcutta there was “almost one [stork] on every roof.” The greater adjutant stork frequents marshes, lakes, paddy fields, and open forest, and may also be found in dry areas, such as grasslands and fields. It is commonly found feeding at carcasses and rubbish dumps at the edges of towns (BirdLife International 2006).

The greater adjutant stork is classified as Endangered by the IUCN (IUCN 2006). Major threats to the species include direct exploitation, such as hunting and egg collection from nesting colonies; habitat destruction, particularly lowland deforestation and the felling of nest trees; and drainage, agricultural conversion, pollution, and over-exploitation of wetlands. The Assam population is considered threatened by the loss of a readily available food source, due to the reduced number of open rubbish dumps for the disposal of carcasses and foodstuffs (BirdLife International 2006).

The greater adjutant stork does not represent a monotypic genus, but it faces threats that are high in magnitude and imminent because they are ongoing

and likely to remain so. Conversion of the species' habitat for agricultural purposes is not likely to cease; nor will the land, once cleared, be allowed to revert back to the wild habitat which is optimal for the storks. The loss of nesting trees lessens the number of available sites for nesting, mating, and recruitment of young to the population. Drainage of wetlands to be used for cultivation further impacts the stork's habitat needs, forcing the birds into inferior habitat which increases the threats to the species survival. It therefore receives a priority rank of 2.

#### Andean flamingo (*Phoenicopterus andinus*)

The Andean flamingo is restricted to high-altitude salt lakes in the Andes, mainly between 3,500 and 4,500 m, from southern Peru through Bolivia to northern Chile and northwestern Argentina (del Hoyo *et al.* 1992). Population assessments for this species vary greatly, but it is believed that 50,000–100,000 individuals existed until the mid-1980s (Rocha and Quiroga 1997, as cited in BirdLife International 2006). Commercial egg collection for food was intensive during the mid-20th Century and again in the early 1980s, with estimates of thousands of eggs being taken annually. Unfavorable water levels resulting from weather and human manipulation, mining activities, erosion of nest sites, and human disturbance are other factors that are affecting productivity. In 1997, the entire population was estimated at 34,000 individuals, indicating that the species had experienced a rapid population decline in less than 20 years (BirdLife International 2006). Very low breeding success has been reported for this species (Flamingo Action Plan Questionnaire 1998, as cited in BirdLife International 2006), and population declines may continue unabated for many years without an accurate understanding of the extent of decline because of the extensive longevity of the species (del Hoyo 1992, as cited in BirdLife International 2006). It is also difficult to quantify the number of juvenile birds that survive to adulthood and successfully produce viable offspring. Due to the species' reproductive history, recruitment uncertainty, and the abiotic threats to the species, an assessment of the population decline and the need for conservation measures to protect the species are challenging.

The Andean flamingo is categorized as Vulnerable by the IUCN (IUCN 2006) and is also listed in Appendix II of CITES (CITES 2006). Threats include ongoing exploitation of the species as a

result of egg collection and declining habitat quality (IUCN 2006). Local conservation actions are currently underway, such as habitat management, prevention of egg collecting, and raising public awareness about the species' decline and need for additional conservation measures (BirdLife International 2006). At this time, it is difficult to assess the effectiveness of these actions in alleviating the threats to the Andean flamingo, as they have only recently been put into place. Future assessments of the species will be more likely to include such information, after the conservation actions have had sufficient time to produce tangible results.

The Andean flamingo does not represent a monotypic genus. The threats to the species are high in magnitude, such as weather-related water levels at nesting sites. The threats are imminent because they continue to occur. Exploitation, egg collection, mining activities, human disturbance, and reductions in the quality of the species' habitat are all threats that could be addressed at the local level to protect the species, yet are ongoing. This species therefore receives a priority rank of 2.

#### Brazilian merganser (*Mergus octosetaceus*)

The Brazilian merganser is found in extremely low numbers at a few, highly disjunct localities in south-central Brazil, eastern Paraguay, and northeastern Argentina (BirdLife International 2006). The species inhabits shallow clear-water streams and rapid rivers, preferably surrounded by dense tropical forests. It is believed to be a highly-sedentary species and presumably maintains its territory all year (del Hoyo *et al.* 1992). The Brazilian merganser is a good swimmer and diver, and feeds primarily on fish, and occasionally on aquatic insects and snails (Collar *et al.* 1992).

Recent records from Brazil, and a newly discovered northern range extension, indicate that the status of this species is better than previously considered because several additional, highly disjunct populations were located in 2002 (BirdLife International 2006). However, the Brazilian merganser remains close to extinction and the IUCN categorizes the species as Critically Endangered (IUCN 2006). The population is estimated at 50–249 individuals and the trend is decreasing (BirdLife International 2006). Threats to the species include the perturbation and pollution of rivers, which are predominately the result of deforestation, agriculture, and diamond

mining in the Serra da Canastra area (Bartmann 1994 and 1996, as cited in BirdLife International 2006). Dam construction has destroyed suitable habitat, especially in Brazil and Paraguay. In Argentina, hunting and collecting specimens for exhibition are considered contributory factors to the species' decline (BirdLife International 2006). The Brazilian merganser is considered extirpated in Mato Grosso do Sul, Rio de Janeiro, Sao Paulo, and Santa Catarina (BirdLife International 2006). There is only one recent record of the species from Misiones, Argentina (Benstead 1994; Hearn 1994, as cited in Collar *et al.* 1994), and it was last recorded in Paraguay in 1984 (BirdLife International 2006). The species is legally protected in Brazil and it occurs in three Brazilian national parks (del Hoyo *et al.* 1992). The Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA) in Brazil has established eight committees to develop and monitor conservation strategies for specific endangered species, including the Brazilian merganser (Marinia and Garcia 2004).

This species does not represent a monotypic genus. It faces threats that are high in magnitude because the small populations are disjunct and geographically isolated, resulting in populations which are unable to exchange genetic material and, are therefore faced with the inbreeding depression common to small, endangered populations. Additionally, species with few remaining individuals are particularly vulnerable to stochastic events, such as large-scale storms that could eliminate the entire species at one time. The threats remain imminent because all of the factors contributing to the destruction of the merganser's habitat are ongoing and likely to be permanent. It therefore receives a priority rank of 2.

#### Cauca guan (*Penelope perspicax*)

The Cauca guan is endemic to the west slopes of the West and Central Andes (Risaralda, Quindio, Valle del Cauca, and Cauca), in Colombia (Collar *et al.* 1992). The stronghold for the species is the Ucumari Regional Park, Risaralda (BirdLife International 2006). The Cauca guan inhabits large, humid primary forests at 1,600–2,150 m (P.G.W. Salaman *in litt.* 1999 and 2000, as cited in BirdLife International 2006). Individuals have also been located at lower elevations of 900–1,600 m on exotic broadleaf tree plantations, secondary forest, and forest edge (Silva Arias 1996, as cited in BirdLife International 2006). The Cauca guan

was considered fairly common at the beginning of the 20th Century, but severe habitat loss has had a major deleterious impact on the species (del Hoyo *et al.* 1994). Population estimates for the species have fallen from 1,000–2,499 individuals in 2000 (BirdLife International 2000), to a current estimate of 250–999 individuals, with a decreasing trend (BirdLife International 2006). The bird is hunted for food even in protected areas, except Ucumari (BirdLife International 2006). IUCN categorizes the species as Endangered because it has a small contracted range composed of widely fragmented patches of habitat, which are declining (IUCN 2006).

This species does not represent a monotypic genus. Habitat loss is the greatest threat to the guan, and this threat is high in magnitude and imminent because the guan now appears to be utilizing sub-optimal habitat as the result of continuing habitat destruction. The species is also hunted for food everywhere except Ucumari Regional Park. This species therefore receives a priority rank of 2.

#### Southern helmeted curassow (*Pauxi unicornis*)

The southern helmeted curassow is known from central Bolivia and central and eastern Peru, where it inhabits dense, humid, lower montane forest and adjacent evergreen forest at 450–1,200 m (BirdLife International 2006). This species prefers nuts of the almendrillo tree (*Byrsonima wadsworthii*) as its major source of food. It also consumes other nuts, seeds, fruit, soft plants, larvae, and insects (BirdLife International 2006). The southern helmeted curassow was previously classified as Vulnerable by IUCN; however, after further assessment, it was uplisted in 2005 to Endangered (IUCN 2006). The species is estimated to be declining very rapidly due to uncontrolled hunting and habitat destruction. It has a small range and is known from few locations in a narrow elevational band, which continues to be subject to habitat loss (IUCN 2006). The population is estimated at 10,000–19,999 birds, with a decreasing population trend (BirdLife International 2006). Field surveys in portions of its range indicate gaps in species' distribution (BirdLife International 2006). The species is often hunted for meat and its casque, or horn (BirdLife International 2006), which is used to fashion native handicrafts (Cordier 1971, as cited in Collar *et al.* 1992). Other threats to the species include forest clearing for staple and export crops, road building, and rural

development. In Peru, oil exploration threatens the species' habitat and is opening the foothills to colonization and additional hunting (BirdLife International 2006). Large parts of the southern helmeted curassow's range are protected by inclusion in the Amboro and Carrasco National Parks which protects the species from hunting and declining habitat due to development and road building (BirdLife International 2006).

The southern helmeted curassow does not represent a monotypic genus. It faces threats that are moderate in magnitude as the population is fairly large; however, the population trend has been declining rapidly. The threats to the species are imminent and ongoing. Therefore, it receives a priority rank of 8.

#### Blue-billed curassow (*Crax alberti*)

The blue-billed curassow historically occurred in northern Colombia, from the base of the Sierra Nevada de Santa Marta west to the Sinu Valley and south in Magdalena Valley to north Tolima (BirdLife International 2006). It inhabits humid forest up to 1,200 m, but is more common below 600 m (del Hoyo *et al.* 1994), where it feeds on fruit, shoots, invertebrates, and possibly carrion (BirdLife International 2006).

The blue-billed curassow is categorized as Critically Endangered by IUCN (IUCN 2006) and is listed in Appendix III of CITES by Colombia (CITES 2006). The species was uncommon in the Santa Marta region at the beginning of the 20th Century; it was perhaps most numerous in the humid lowlands of the north coast of Colombia (Todd and Carriker 1922, as cited in Collar *et al.* 1992). The blue-billed curassow was becoming increasingly rare during the 20th Century (Haffner 1975, as cited in Collar *et al.* 1992), and by the 1980s, the species had disappeared from a large portion of its previous range (Estudillo Lopez 1986, as cited in Collar *et al.* 1992). In 1994, the population was estimated at 1,000–2,500 birds and local reports have indicated recent and rapid declines (BirdLife International 2006). The population trend for the species continues to be decreasing due to the substantial threats it faces (BirdLife International 2006). Earlier reports indicated that outside of a few forest patches bordering national parks, the species was nearly extinct (L.M. Renjifo, Z. Calle, D. Rodriguez personal communications, as cited in Brooks and Strahl 2000). However, additional sites which are believed to harbor the species have been identified in work supported by the World Pheasant Association

International (Cuervo and Salaman 1999, as cited in Brooks and Strahl 2000).

There is very little suitable foraging and nesting habitat remaining for use by the species after the rapid deforestation and logging that has occurred throughout its range. Additionally, oil extraction, gold mining, government defoliation of illegal drug crops, increased human encroachment, egg collecting, and hunting present serious threats to the survival of the blue-billed curassow, indicating it could undergo an extremely rapid population reduction over a very short time period (BirdLife International 2006). The blue-billed curassow is perhaps one of the most endangered species identified as an immediate conservation priority by the Cracid Specialist Group (Brooks and Strahl 2000). International trade in this bird may be an additional threat to survival of the species (J.V. Rodriguez personal communication, as cited in Brooks and Strahl 2000).

The blue-billed curassow does not represent a monotypic genus. The species faces significant threats that are high in magnitude. The curassow's habitat continues to be seriously degraded by processes and pollution associated with oil extraction, gold mining, and government defoliation of illegal drug crops. Increased human encroachment is resulting in the destruction of habitat as land is cleared for agricultural purposes. The species is further threatened by egg collecting and hunting, which continue unabated. The threats to the species are imminent and ongoing; extremely limited foraging and nesting habitat remains after the rapid deforestation of the area. Therefore it receives a priority rank of 2.

#### Cantabrian capercaillie (*Tetrao urogallus cantabricus*)

The Cantabrian capercaillie inhabits the Cantabrian Mountains of northern Spain (Storch 2000). It occupies forest and woodland habitats that consist largely of coniferous species, particularly *Pinus sylvestris*, conifers from the *Picea* and *Abies* genera, and isolated broad-leaved deciduous tree species (BirdLife International 2006). It prefers extensive areas of old-growth shady forest that include damp soil and interspersed bogs, areas of peat or glades, and a dense undergrowth of ericaceous plants (Garcia *et al.* 2004). The IUCN currently designates the species as Endangered (IUCN 2006). The population has been estimated at 250–300 adult males, equivalent to a total population size of fewer than 1,000, but it is more likely that only 600–750 birds currently exist (A. Lucio, personal

communication, as cited by Storch 2000). The Cantabrian Capercaillie Specialist Group estimates that population numbers have declined by 25–50 percent over the past 10–15 years (Storch 2000). Habitat loss, fragmentation, and degradation related to forestry and tourism, illegal hunting, and disturbance by human outdoor activities have been identified as the major causes of species' and habitat decline (J. Castroviejo, personal communication, as cited by Storch 2000). Recent studies indicate that habitat fragmentation may have a greater effect on the species than previously recognized (Suárez-Seoane and García-Rovés 2004, García *et al.* 2005, Quevedo *et al.* 2005a, and Quevedo *et al.* 2005b). There are concerns that the population, as compared to other grouse populations, exhibits very low values of allelic richness and heterozygosity which are commonly observed in endangered species. Combining such genetic factors with a high level of habitat fragmentation and consistent indications of low average fledging success suggests some degree of inbreeding depression may be affecting the population (Quevedo *et al.* 2005a).

This is a subspecies that faces threats that are high in magnitude due to the low number of individual animals, extensive habitat fragmentation, and very low allelic richness and heterozygosity values which are all negative survival factors for an already declining subspecies. The threats are imminent because habitat fragmentation, which this species is particularly vulnerable to, continues, and other man-made factors such as hunting, outdoor activities, and tourism are not likely to end in the near future. It receives a priority rank of 3.

#### Gorgeted wood-quail (*Odontophorus strophium*)

The gorgeted wood-quail occurs on the west slope of the east Andes of Colombia in Santander and Cundinamarca (Collar *et al.* 1992). It is found on the forest floor of temperate and subtropical forests at 1,500–2,050 m, especially those dominated by *Quercus humboldtii* (del Hoyo *et al.* 1994). The gorgeted wood-quail is probably dependent on primary-growth forest for at least part of its life cycle, although it has also been found in degraded habitats and secondary-growth forest (BirdLife International 2006). Since the 17th Century, the west slope of the East Andes has been extensively logged and converted to agriculture (Stiles *et al.* 1999). Forest habitat loss below 2,500 m has been almost complete (Stattersfield *et al.* 1998), with



habitat reduced in many areas to highly fragmented relict patches on steep slopes and along streams (Stiles *et al.* 1999). The species is classified as Critically Endangered by IUCN because it has an extremely small and highly-fragmented range, with existing population records from only two locations. Hunting and logging are likely to be causing continued declines in population and range (IUCN 2006). Current population estimates range from 250 to 999 individuals and the remaining population trend is declining (BirdLife International 2006). Additionally, until 1923, the species was known only from Cundinamarca, but there have been no reports of the species from that area since 1954 (Wege and Long 1995, in BirdLife International 2006). It has been discovered in suitable habitat in several areas since 1970, and appears to be restricted to the larger oak forest remnants in the eastern Cordillera. Both remnants have decreased considerably in size during the previous two decades (J. Velasquez and N. Silva *in litt.* 2004, as cited in BirdLife International 2006). It is possible that less disturbed forests that have not been recently censused in west Boyaca and Santander may retain populations of the species (BirdLife International 2006). In November 1993, 100 km<sup>2</sup> of forest at Virolin was gazetted as a reserve, the Guanenta-Alto Rio Fonce Flora and Fauna Sanctuary (Andrade and Repizzo 1994), which affords the species some protection from indiscriminate hunting (BirdLife International 2006).

This species does not represent a monotypic genus. The threat to the species is high in magnitude because few individuals are interspersed over a very highly-fragmented range. The threats are imminent because hunting and forest clearing, which have serious impacts on the species, has been ongoing since the 17th Century and continues. It receives a priority rank of 2.

#### Junin rail (*Laterallus tuerosi*)

The Junin rail is endemic to the Andean Highlands of central Peru along the shores of Lago de Junin (BirdLife International 2006). It is known from two sites on the southwest shore of the lake, but may occur in other portions of the approximately 150 km<sup>2</sup> of marsh surrounding the lake. The Junin rail inhabits rush marsh vegetation bordering the lake. Details regarding habitat preference are not fully known (Fjelds  1983, as cited in Collar *et al.* 1992); however, the rail has been observed in mosaics of *Juncus andecolus*, mosses, and low herbs in

open marsh landscapes (Fjelds  1983, as cited in BirdLife International 2006). This species is classified as Endangered by the IUCN because it has a very small range of marshland around a single lake where habitat quality is declining (IUCN 2006). The population trend is decreasing and the current population estimate for this species is 1,000–2,499 birds (BirdLife International 2006). Since 1955, Lago de Junin has been affected by pollution and human-induced water level changes, which may be adversely affecting the fringe vegetation (J. Fjelds  1987 personal communication, as cited in Collar *et al.* 1992). Reed marsh habitat has been destroyed due to frequent periods of desiccation resulting from drought conditions which may be linked to the ENSO, unsustainable water management by Electro Peru, and occasional flooding with highly acidic water from the Cerro de Pasco mines (J. Fjelds  *in litt.* to Taylor and van Perlo 1998, as cited in BirdLife International 2006). Although the lake is a national reserve, mining and dam-building activities persist along the lake shore, further altering the Junin rail's habitat.

The Junin rail does not represent a monotypic genus. It faces threats that are high in magnitude because the species lives along the shores of one lake, and is dependent on the declining quality of the lake's habitat. The threats are imminent because water level changes and management by Electro Peru are not made with the rail's needs in mind. Furthermore, Lago de Junin is subject to perturbations resulting from the presence of ENSO, which is ongoing and is a change that cannot be controlled by man. It therefore receives a priority rank of 2.

#### Bogota rail (*Rallus semiplumbeus*)

The Bogota rail is found in the East Andes of Colombia on the Ubat -Bogot  Plateau in Cundinamarca and Boyac . It occurs in the temperate zone, at 2,500–4,000 m (occasionally as low as 2,100 m) in savanna and p ramo marshes (BirdLife International 2006). This rail frequents wetland habitats with vegetation-rich shallows that are surrounded by tall, dense reeds and bulrushes. It feeds along the water's edge, in flooded pasture land, and along small overgrown dykes and ponds (Varty *et al.* 1986; Fjelds  and Krabbe 1990 as cited in BirdLife International 2006). This species is omnivorous, consuming a diet that includes aquatic invertebrates, insect larvae, worms, molluscs, dead fish, frogs, tadpoles, and plant material (Varty *et al.* 1986; BirdLife International 2006).

The Bogota rail is listed as Endangered by IUCN primarily because its range is very small and is contracting owing to widespread habitat loss and degradation. Furthermore, available habitat has become widely fragmented (IUCN 2006). The current population is estimated to range between 1,000–2,499 individuals and the trend is decreasing (BirdLife International 2006). Although the Bogota rail is declining, it is still uncommon to fairly common, with some notable populations, including nearly 400 birds at Laguna de Tota, some 50 territories at Laguna de la Herrera, approximately 110 birds at Parque La Florida, and other populations at La Conejera marsh and Laguna de Fuquene (BirdLife International 2006). Some of the birds occur in protected areas such as Chingaza National Park and Carpanta Biological Reserve. However, most savanna wetlands are virtually unprotected.

The Bogota rail does not represent a monotypic genus. It is subject to threats that are moderate in magnitude and imminent. Therefore, it receives a priority rank of 8.

#### Takahe (*Porphyrio hochstetteri*; Previously Referred to as *Porphyrio mantelli*)

The takahe is endemic to New Zealand and is the world's largest extant member of the rail family (del Hoyo *et al.* 1996). The species, *Porphyrio mantelli*, has been split into *P. mantelli* (extinct) and *P. hochstetteri* (extant) (Trewick 1996, as cited in BirdLife International 2006). BirdLife International (2000) incorrectly assigned the name *P. mantelli* to the extant form, while the name *P. hochstetteri* was incorrectly assigned to the extinct form. Fossils indicate that this bird was once widespread throughout the North and South Islands. However, when the species was rediscovered in 1948, it was confined to the Murchison Mountains in Fjordland (BirdLife International 2000). Originally, the species preferred forest and grass ecosystems; it is now limited to alpine tussock grasslands on the mainland and feeds primarily on juices from the bases of snow tussock and the rhizome of a fern species (BirdLife International 2006). The takahe is listed as Endangered by the IUCN because it has an extremely small population (IUCN 2006). The main cause of the species' decline has been competition for tussocks by grazing red deer, *Cervus elaphus*, which were introduced after the 1940s (BirdLife International 2006). Grazing also highly modified the habitat (del Hoyo *et al.* 1996). Predation by introduced stoats, *Mustela erminea* is

also believed to be a significant threat to the species (BirdLife International 2006). Other potential competitors or predators include the introduced brush-tailed possum, *Trichosurus vulpecula*, and the threatened weka, *Gallirallus australis* (New Zealand Department of Conservation 1997). Since the 1980s, the population has fluctuated between 100–160 birds (Maxwell in press, as cited in BirdLife International 2006). Populations have been established on four predator-free offshore islands—Kapiti, Mana, Tiritiri Matangi, and Maud-using birds that were translocated between 1984 and 1991 (BirdLife International 2006). Red deer have been controlled in the Murchison Mountains since the 1960s (BirdLife International 2006). Overall, population numbers are slowly increasing due to intensive management of the island populations, but fluctuations in the remnant mainland population continue to occur (IUCN 2006). Captive-breeding efforts have increased the rate of survival to one year of age from 50 percent to 90 percent (BirdLife International 2006). However, Takahe that have been translocated to the islands have higher rates of egg infertility and low hatching success, contributing to the slow increase in the islands populations. Researchers postulated that the difference in vegetation between the native mainland grassland tussocks and that found on the islands might be affecting reproductive success. After testing nutrients from all available food sources, they concluded that there was no effect, and advised that a supplementary feeding program for the birds was not necessary or recommended (Jamieson 2003).

There are grave concerns about inbreeding effects within this small population. Jamieson (2006) suggests that limiting the potential effects of inbreeding and loss of genetic variation should be integral to any management plan for a small, isolated, highly-inbred island species, such as the takahe. Failure to address these concerns may result in reduced fitness potential and much higher susceptibility to biotic and abiotic disturbances in the short term and an inability to adapt to environmental change in the long term (Jamieson *et al.* 2006).

The takahe does not represent a monotypic genus. It faces threats that are moderate in magnitude and imminent. Therefore, it receives a priority rank of 8.

Chatham oystercatcher (*Haematopus chathamensis*)

The Chatham oystercatcher is endemic to the Chatham Islands, New

Zealand (BirdLife International 2006). It prefers rocky shores, sand or gravel beaches, and nests in scrapes on the shore away from the waterline (F.A. Schmechel *in litt.* 1999, as cited in BirdLife International 2006). This species is classified as Endangered by the IUCN because it has an extremely small population (IUCN 2006). In 1988, based on past productivity information, it was feared that the species was at risk of extinction within 50–70 years (Davis 1988, as cited in Schmechel and Paterson 2005). Although the population is now slowly increasing due to intervention and management of the species (the Chatham Island group), population sizes can fluctuate as the result of stochastic events, with numbers on one island undergoing a long term decline (IUCN 2006). The total population has increased from approximately 50 birds in the early 1970s to 100–110 birds during the breeding season of 1987–1988, which included 44 breeding pairs (del Hoyo *et al.* 1996). A census conducted in 1998 revealed 140–150 birds, which represented a significant increase in total population size (BirdLife International 2006). In 2004, 266 birds were counted on the four islands in the Chatham group, representing an estimated population size of 310–325 birds (Moore 2005, as cited in BirdLife International 2006). However, the population on South East Island has gradually declined since the 1970s (Schmechel and O'Connor 1999, as cited in BirdLife International 2006). Introduced predators, as well as cattle and sheep, are a major threat on Pitt and Chatham Islands (B.D. Bell *in litt.* as cited in BirdLife International 2006). South East and Mangere Islands are free of mammalian predators, but oystercatcher populations are highly variable, and the reason for the decline occurring on South East Island is unknown (Schmechel and O'Connor 1999, as cited in BirdLife International 2006). The birds of the Chatham Island group are protected due to human intervention and management. Nest manipulation, fencing, signage, intensive predator control, and a research program aimed at assessing the effects of predators, flooding, and management on breeding success have been underway for several years (BirdLife International 2006).

The Chatham oystercatcher does not represent a monotypic genus. It faces threats that are moderate in magnitude and imminent, and therefore it receives a priority rank of 8.

Jerdon's courser (*Rhinoptilus bitorquatus*; previously referred to as *Cursorius bitorquatus*)

The Jerdon's courser is a rare local endemic in southern India, where it is principally found in the Eastern Ghats of southern Andhra Pradesh and extreme southern Madhya Pradesh (BirdLife International 2006). Historically, the species was also located in the Pennar and Godavari River valleys (Ripley and Beehler 1989; Ali and Ripley 1968–1998, as cited in BirdLife International 2006). It prefers sparse, thorny areas dominated by *Acacia*, *Zizyphus*, and *Carissa* (BirdLife International 2006). The courser may also inhabit scrub-forest consisting of *Cassia*, *Hardwickia*, *Dalbergia*, *Butea*, and *Anogeissus*, interspersed with patches of bare ground, in gently undulating rocky foothills (BirdLife International 2006). Historically, the courser was known from just a few records and assumed to be extinct until 1986, when it was rediscovered around Lankamalai (BirdLife International 2006).

Jerdon's courser is listed as Critically Endangered by the IUCN because it is a poorly-known species consisting of a single small, declining population (IUCN 2006). Threats include: exploitation of the scrub-forest, livestock grazing, disturbance by humans and livestock, and rock quarrying (IUCN 2006). Habitat modeling has shown that it is possible to ascertain an optimal level of grazing and woodcutting that would maintain or create suitable conditions for the species; however, additional study is necessary (Jeganathan *et al.* 2004). The population estimate for this species is 50–249 birds, with a decreasing population trend (BirdLife International 2006). Very few individuals have been recorded so far, mainly due to the species' nocturnal and retiring habits (BirdLife International 2006). Members of the Yanaadi community, who played a major role in the rediscovery of the species, were employed by the State Forest Department to locate individuals in other localities and habitats in the Eastern Ghats, but the results of this search remain unknown (Bhushan 1995, as cited in BirdLife International 2006).

Jerdon's courser does not represent a monotypic genus. The current threat to the species is high because there is only one small population in existence with a declining population trend and the species' historic range has diminished. Threats to the species are imminent because it is highly susceptible to human disturbance and livestock

grazing which are ongoing; therefore, it receives a priority rank of 2.

Slender-billed curlew (*Numenius tenuirostris*)

The slender-billed curlew migrates along a west-southwest route from Siberia through central and eastern Europe (predominantly Russia, Kazakhstan, Ukraine, Bulgaria, Hungary, Romania, and Yugoslavia) to southern Europe (Greece, Italy, and Turkey) and North Africa (Algeria, Morocco, and Tunisia) (BirdLife International 2006). The only confirmed observations of breeding activity were made between 1914 and 1924, near Tara, north of Omsk, in Siberia, Russia (del Hoyo *et al.* 1996). The few nests that were located at that time were found on the northern limit of the forest-steppe zone in habitat more typical of taiga marsh (BirdLife International 2006). During winter migration the curlew utilizes a wide variety of habitats, including steppe grassland, marshland, salt pans, brackish lagoons and wetlands, tidal mudflats, fish ponds, semi-desert, and sandy farmland near lagoons (BirdLife International 2006).

During the 19th Century, the slender-billed curlew was regarded as very common, but the species declined quite rapidly during the 20th Century (BirdLife International 2006). The IUCN designates the species as Critically Endangered because it has an extremely small population, the number of birds recorded annually continues to decline, and the population trend is continuing to decrease (IUCN 2006). The slender-billed curlew is listed in CITES Appendix I (CITES 2006). As recently as the 1960s and 1970s, flocks of more than 100 birds were recorded in Morocco (BirdLife International 2006). However, during the 1980s, only 103 observations were confirmed, totaling between 316 and 326 birds. The population continued to decline rapidly and by 1994, the population was estimated to range between 50–270 birds, and current records suggest it may now be lower. Sporadic sightings of 1–3 birds are reported now and then, with the exception of a flock of 19 birds in Italy in 1995 (BirdLife International 2006).

Historically, hunting levels have been high along the species' entire migratory flyway, but reports of hunting seemed to be the highest in Russia. Hunting is believed to be the primary factor for the species' decline (BirdLife International 2006). The likelihood of threats to the breeding grounds has not been adequately assessed because the location of breeding and moulting areas is unknown to date (BirdLife

International 2006). It has been suggested that the species' breeding areas might have been located in the steppe zone, which has been cultivated on a large scale, perhaps contributing to the rapid decline of the species (del Hoyo *et al.* 1996). Extensive draining of wetlands in North Africa, Iraq, and the entire Mediterranean Sea region has had a deleterious effect on this species, and many other wading bird species in Eurasia (BirdLife International 2006).

The slender-billed curlew does not represent a monotypic genus. The magnitude of threat to the species is high and imminent because the major threats, hunting and habitat loss, are ongoing. Although there has been no actual change in threats since we published our last Notice, habitat loss represents an ongoing and imminent threat to the slender-billed curlew. Therefore, to ensure consistency in the application of our listing priority guidance, we changed the listing priority number from 5 to 2 to reflect that the threats are imminent. Therefore, the priority rank for this species is 2.

Marquesan imperial-pigeon (*Ducula galeata*)

The Marquesan imperial-pigeon is endemic to Nuku Hiva in the Marquesas Islands, French Polynesia. The species prefers remote wooded valleys from 250 to 1,300 m in elevation in the west and north of the island. It also inhabits secondary forest and edge habitat near banana and orange plantations (Holyoak and Thibault 1984, as cited in BirdLife International 2006). The Marquesan imperial-pigeon is categorized as Critically Endangered by IUCN because it has a very small population on one diminutive island in an isolated volcanic island chain in the south Pacific (IUCN 2006).

Nuku Hiva was previously nearly inaccessible to hunters, introduced grazers, and rats because of its remote location. However, the local habitat has recently been modified and degraded by introduced vegetation and grazing by feral livestock (Evva 1998; Seitre and Seitre 1991, 1992; as cited in BirdLife International 2006). Fortunately for the species, the cattle have been eradicated, and the number of goats and pigs are decreasing (Evva 1998, as cited in BirdLife International 2006). Illegal hunting is one of two serious threats to the species (Evva 1998, as cited in BirdLife International 2006). The other threat is believed to come from a rapidly increasing introduced black rat (*Rattus rattus*) population which preys on eggs and the young of the species (Seitre and Seitre 1991, 1992; as cited in BirdLife International 2006).

Holyoak and Thibault (1984) estimated a population of 200–400 birds in 1975. In 1998, a maximum of 85 birds were located and the population was estimated at approximately 250 individuals (Evva 1998, as cited in BirdLife International 2006).

The Marquesan imperial-pigeon does not represent a monotypic genus. It faces threats that are high in magnitude because it is confined to one small island population which is extremely vulnerable to typhoons and volcanic eruption, stochastic events that could extirpate the entire species during one event. The threats to the species are imminent because there are no known controls on hunting, nor is there a rat eradication program that we are aware of; hence, these threats remain and are ongoing. Therefore, it receives a priority rank of 2.

Salmon-crested cockatoo (*Cacatua moluccensis*)

The salmon-crested cockatoo is endemic to the islands of Ambon, Haruku, Seram, Saparua and South Maluku, Indonesia. Currently, the species is believed to survive in one area on Ambon, while the remaining population lives on Seram. There are no recent records of the species on Haruku and Saparua (BirdLife International 2006). Lowland rain forest below 1,000 m in elevation and unlogged lowland forest below 300 m are the most productive habitat for the species (Marsden 1998). Studies conducted in 1998 suggested that habitat rich in strangler fig trees and *Octomeles sumatranus*, the tree species the cockatoos prefer for nesting, were also likely to produce the highest densities of cockatoos, but these studies need confirmation (Kinnaird *et al.* in prep., as cited in BirdLife International 2006). The diet of salmon-crested cockatoos consists of seeds, nuts, coconuts, berries, and insects and their larvae (Forshaw 1989).

The salmon-crested cockatoo was formerly a common species of the lowlands within its range (del Hoyo *et al.* 1997). This species is one of three threatened members of the suite of 14 bird species that are entirely restricted to the Seram Endemic Bird Area (BirdLife International 2006). The IUCN lists the species as Vulnerable (IUCN 2006), and current populations are estimated at 62,400 individuals with a decreasing population trend (BirdLife International 2006).

By the 1980s, salmon-crested cockatoo populations were declining rapidly due to uncontrolled trapping for the caged-bird trade (BirdLife International 2006). Concerns about

unrestricted trade of the species led to a CITES Appendix-II listing in 1981 (CITES 2006). After the CITES listing, some 74,509 individual salmon-crested cockatoos were exported from Indonesia from 1981–1990 (BirdLife International 2000). The level of imports from Indonesia from 1983–1988, as reported to CITES, averaged 9,571 birds per year (Marsden 1995, as cited in BirdLife International 2001). Considering unrecorded and undocumented international trade, domestic trade, and natural mortality, it is estimated that at least 10,000 birds were being removed from the Seram population annually during the 1980s (Kinnaird *et al.* [in prep.], as cited in BirdLife International 2001). In October 1989, the salmon-crested cockatoo was transferred to CITES Appendix-I. The change in listing status resulted in a decrease of legally traded birds to zero; however the domestic market remains high (BirdLife International 2006). Interviews in villages suggest that perhaps as many as 4,000 birds are still being captured each year (Kinnaird 1999, as cited in BirdLife International 2001).

In addition to the caged-bird trade, forest loss, ongoing habitat degradation and fragmentation resulting from timber extraction, human settlement, and hydroelectric power projects are additional threats to the species (BirdLife International 2006). In 2000, a program was launched to promote ecotourism which was linked to a local project to raise awareness about the plight of the salmon-crested cockatoo. The income produced through the ecotourism program was another incentive to protect and conserve the cockatoos (BirdLife International 2000). Current conservation measures suggest continuing and expanding the awareness program and using the salmon-crested cockatoo as the island's flagship species to reduce trapping pressure and encourage local support for the survival of the species (BirdLife International 2006).

The salmon-crested cockatoo does not represent a monotypic genus. It faces threats that are high in magnitude. Despite measures taken by CITES to reduce international trade of the species by transferring the cockatoo to Appendix I, trapping for the domestic pet market continues unabated. Ongoing habitat loss and degradation threaten the survival of the species, rendering these threats imminent and ongoing. Therefore, we have assigned the species a priority rank of 2.

#### Orange-fronted parakeet (*Cyanoramphus malherbi*)

The orange-fronted parakeet was treated as an individual species until it was proposed to be a color morph of *C. auriceps* in 1974 (Holyoak 1974, as cited in Snyder *et al.* 2000). Further taxonomic analysis suggests that it should once again be considered as a distinct species (Triggs and Daugherty 1996; Juniper and Parr 1998; ITIS 2006). Species' distribution during the 19th Century was limited to New Zealand and several offshore islands, including Three Kings, Hen, Big Chicken, Little Barrier, Great Barrier (rare), Kapiti (rare), the Chetwolde Islands, Stewart Island and satellite islets, Codfish, Solander, Ruapuke, and the Auckland Islands including Adams Island (Juniper and Parr 1998). The parakeet was previously believed to be most common on off-shore islands where predation by introduced animals was less prevalent than on mainland New Zealand (Juniper and Parr 1998). Currently, there are three remnant populations, all located within a 30 km radius in Arthur's Pass National Park and Lake Sumner Forest Park (New Zealand Department of Conservation [NZDOC] 2006). This species inhabits southern beech (*Nothofagus* spp.) forest (BirdLife International 2000; NZDOC 2006), with a preference for locales bordering stands of mountain beech (*N. solandri*) (Snyder *et al.* 2000). It requires mature trees with natural hollows or cavities for nesting, and breeding is linked with the irregular seed production by *Nothofagus* (BirdLife International 2000).

The orange-fronted parakeet has an extremely small population and limited range. There have only been a few sightings since 1966 (Triggs and Daugherty 1996), and previous assessments of its status have ranged from more common than originally thought (Harrison 1970) to near extinction (Mills and Williams 1980). The IUCN classifies the species as Critically Endangered (IUCN 2006) and it is listed in Appendix II of CITES (CITES 2006). The New Zealand Department of Conservation (NZDOC) (2006) considers the orange-fronted parakeet, or kākāriki, to be the rarest parakeet in New Zealand and because it is classified as "Nationally Critical" with a high risk of extinction NZDOC has been working intensively with the species to ensure its survival. The population is estimated at 100–200 individuals in the wild and declining (NZDOC 2006). There are several reasons for the species' decline; the most significant threats is predation by introduced species such as the brush-

tailed possum (*Trichosurus vulpecula*), stoats (*Mustela erminea*), and rats (*Rattus* spp.) (BirdLife International 2006). The NZDOC introduced "Operation ARK", an initiative to respond to predator problems in beech forests to prevent species extinctions, including orange-fronted parakeets. Predators are methodically controlled with traps, toxins in bait stations, bait bags, and aerial spraying, as necessary.

Hybridization with yellow-crowned parakeets (*C. auriceps*) has been observed at Lake Sumner (Snyder *et al.* 2000; Kearvell *et al.* 2002). Increased competition between the yellow-crowned parakeet and the orange-crowned parakeet in a habitat substantially modified by humans, competition with introduced finch species, and competition with wasp species for invertebrates as a dietary source are considered other threats to the species (Kearvell *et al.* 2002).

The NZDOC closely monitors all known populations of the orange-fronted parakeet. With such a limited population, NZDOC focuses the species program on monitoring the breeding of the wild population and captive-breeding efforts. Nest searches are conducted, nest holes are inspected, and surveys are carried out in other areas to look for evidence of other populations. In May 2003, surveys successfully located an additional orange-fronted parakeet population, and identified a new population in 2006 on the predator-free Chalky Island. NZDOC officials remove eggs from nests on the island so that foster parakeet parents could incubate the eggs and care for the hatchlings until they fledged. The juvenile birds were then transferred back to the island. Monitoring of these birds later in 2006 indicated that they had successfully nested and reared chicks. Additional birds will be added to Chalky Island to augment the population and to increase its genetic diversity.

The orange-fronted parakeet does not represent a monotypic genus. The current population ranges between 100 and 200 individuals, and the species' distribution has become limited. However, it faces threats that are moderate in magnitude because the NZDOC has taken important measures to aid in the recovery of the species. NZDOC implemented a successful captive-breeding program for the orange-fronted parakeet. Using captive-bred birds from the program, NZDOC established a population of the orange-fronted parakeet on a predator-free island (Chalky Island). Individuals from this population have successfully reproduced and reared young. The

NZDOC monitors wild nest sites, and is constantly looking for new nests and new populations, as evidenced by the 2003 discovery of a new population. The NZDOC recognizes that the most significant threat to the species is predation, and has initiated a successful program to remove predators. The threats of hybridization, competition for food, and highly altered habitat are imminent as they are ongoing. Therefore, this species is assigned a priority rank of 4.

#### Uvea parakeet (*Eunymphicus uvaensis*)

This species was previously known as *Eunymphicus cornutus*, but was split into *E. cornutus* and *E. uvaensis* following the treatment by Juniper and Parr (1998) (BirdLife International 2006). The Uvea parakeet is restricted to Uvea, New Caledonia. It is found primarily in forest habitat, notably, those dominated by *Agathis* and *Araucaria* and general woodlands, and feeds on the berries of vines and the flowers and seeds of native trees and shrubs (del Hoyo *et al.* 1997). The species is restricted to areas of old-growth forest with nesting holes, but the greatest number of birds occurs close to gardens with papayas which they can utilize as a food source (BirdLife International 2006).

Early population estimates were alarmingly low; 70–90 birds and declining (Hahn 1993). Surveys in 1993 yielded estimates of approximately 600 birds, and in 1998 some 750 birds were located (P. Primot, *in litt.* 1999, as cited in BirdLife International 2006). In 1999, it was believed that 742 individuals lived in northern Uvea, with 82 birds living in the south (Primot 1999, as cited in BirdLife International 2006). The IUCN classifies the species as Endangered because it occupies a very small, declining area of forest on one small island (IUCN 2006). The species was uplisted from Appendix II to Appendix I of CITES in July 2000, due to unsustainable trade of the species (CITES 2006). Habitat destruction during the last 30 years has caused a 30 to 50 percent decline in primary forest. The species is also threatened by the illegal pet trade, mainly for the domestic market (BirdLife International 2006). Nesting holes are cut open to extract nestlings, which render the holes unsuitable for future nesting. The increasing lack of nesting sites is believed to be a limiting factor for the species (BirdLife International 2006). Predation is also a threat to the survival of the species. Juveniles are taken by predators such as the native brown goshawk (*Accipiter fasciatus*). Introductions of the species to the

adjacent island of Lifou in 1925 and 1963 failed (BirdLife International 2006), possibly due to the presence of ship rats and Norwegian rats (*Rattus norvegicus*) (Snyder *et al.* 2000).

A recovery plan for the Uvea parakeet was prepared for the period 1997–2002, which included strong local participation in population and habitat monitoring (Snyder *et al.* 2000). The species has recently increased in popularity and is celebrated as an island emblem (Robinet and Salas 1997; BirdLife International 2006). Increased awareness of the plight of the species and improvements in law enforcement capability are helping to address illegal trade of the species. In 1998, a captive-breeding program was initiated to restock the southern portion of Uvea. Measures are now being taken to control predators and prevent further colonization by rats (BirdLife International 2006). Current Uvea parakeet numbers are increasing, but any relaxation of conservation efforts or introduction of rats or other predators could lead to a rapid decline of the species (IUCN 2006).

The Uvea parakeet does not represent a monotypic genus. It faces threats that are moderate because important management efforts have been put in place to aid in the recovery of the species. However, all of these efforts must continue to function, because this species is an island endemic with restricted habitat in one location. Threats to the species are imminent because illegal trade still occurs, and the removal of 30 to 50 percent of the old growth forest which the birds are dependent upon for nesting holes negatively impacts the reproductive requirements of the species. We assign this species a priority rank of 8.

#### Blue-throated macaw (*Ara glaucogularis*)

The blue-throated macaw is endemic to forest islands in the seasonally flooded Beni Lowlands (Lanos de Moxos) of Central Bolivia (Jordan and Munn 1993). It inhabits a mosaic of seasonally inundated savanna, palm groves, forest islands, and humid lowlands. This species is found in areas where palm-fruit food is available, especially *Attalea phalerata* (Hesse 1998, as cited in BirdLife International 2000). It inhabits elevations between 200 and 250 m (BirdLife International 2000). These macaws are not found to congregate in large flocks; but are seen most commonly traveling in pairs, and on rare occasions may be found in small flocks of up to five individuals (Collar *et al.* 1992). The blue-throated macaw nests between November and March in

large tree cavities where one to two young are raised (BirdLife International 2000).

The taxonomic status of this species was long disputed, primarily because the species was unknown in the wild to biologists until 1992 (del Hoyo *et al.* 1997). Trappers apparently discovered the species sometime during the late 1970s or early 1980s. Between the early 1980s and early 1990s, approximately 400–1,200 birds were exported from Bolivia, and many are now in captivity in the European Union and in North America (World Parrot Trust 2003). This species is severely threatened by previous trapping for the national and international cage-bird trade. Recent estimates indicate that there are between 75 and 150 individuals in the wild (Snyder *et al.* 2000). This species is categorized as Critically Endangered by the IUCN and is listed in Appendix I of CITES (IUCN 2006; CITES 2006). The species is legally protected in Bolivia (Juniper and Parr 1998). The Eco Bolivia Foundation patrols existing macaw habitat by foot and motorbike, and the Armonia Association of Santa Cruz is searching the Beni lowlands for more populations. Additionally, the Armonia Association is building an awareness campaign aimed at the cattlemen's association to ensure that these birds are not hunted by trappers on their property (Snyder *et al.* 2000).

The blue-throated macaw does not represent a monotypic genus. It faces threats that are moderate because wild birds are no longer taken for the legal wild-bird trade as a result of the species' CITES listing, and it is also legally protected in Bolivia. Wildlife managers in Bolivia are actively protecting the species and searching for additional populations. Threats to the species are imminent and ongoing because hunters still trap the birds for the illegal bird trade. We assigned this species a priority rank of 8.

#### Southeastern rufous-vented ground cuckoo (*Neomorphus geoffroyi dulcis*)

The southeastern rufous-vented ground cuckoo is a subspecies found in southeastern Brazil from Espirito Santo to Rio de Janeiro (del Hoyo *et al.* 1997). It is found in tropical lowland evergreen forests, where it feeds on large insects, scorpions, centipedes, spiders, small frogs, lizards, and occasionally seeds and fruit (del Hoyo *et al.* 1997). The subspecies is not globally threatened, although populations of ground cuckoos in southern Brazil appear to be under threat due to continuing deforestation (del Hoyo *et al.* 1997). It is a rare, local, solitary subspecies that is dependent upon large blocks of undisturbed forest

(del Hoyo *et al.* 1997). This extremely timid species is among the first to disappear if its primary forest habitat is altered, and in southeastern Brazil where it occurs, most of this type of forest has been destroyed (IUCN 1978–1979). It is poorly known, has a small range, and is highly sensitive to human disturbance (BirdLife International 2001). This subspecies is protected under Brazilian law (IUCN 1978–1979).

The threats to the subspecies are high in magnitude because human disturbance and habitat destruction are ongoing and constitute highly significant impacts on the cuckoo's survival. The subspecies is dependent upon large blocks of undisturbed forest habitat for its life-cycle requirements, and habitat destruction within the cuckoo's range results in a patchy landscape, reducing the availability of the type of forest habitat necessary for the subspecies. It therefore receives a priority rank of 3.

Margaretta's hermit (*Phaethornis malaris margarettae*; Previously Referred to as *Phaethornis margarettae*)

Margaretta's hermit was first described as a new species in 1972 by A. Ruschi (Sibley and Monroe 1990). Current taxonomic studies place Margaretta's hermit as a subspecies of the great-billed hermit (*Phaethornis malaris*) (Sick 1993), which is not considered globally threatened. This subspecies is found in the understory of inundated lowland forest, secondary growth, bamboo thickets, and shrubbery. Margaretta's hermit is found in coastal East Brazil and is limited to forest remnants; consequently, further habitat destruction is a threat to the subspecies (del Hoyo *et al.* 1999). The Margaretta's hermit is listed in Appendix II of CITES (CITES 2006).

Habitat destruction is a significant threat to Margaretta's hermit that is high in magnitude and imminent because it is ongoing and likely permanent due to the high pressure for coastal development in the area. Therefore, we assign the subspecies a priority rank of 3.

Black-breasted puffleg (*Eriocnemis nigrivestis*)

The black-breasted puffleg is now confined to the northern ridge crests of Volcan Pichincha and Volcan Atacazo, in Pichincha Province, northwest Ecuador (BirdLife International 2000). In 1983, there was a possible sighting of the species at Loma Gramalote on Pichincha, and an additional three individuals were located in 1993 at the same location (Collar *et al.* 1992, Krabb

*et al.* 1994a; as cited in IUCN Red List 1996). The species occurs in dwarf, humid elfin forest and paramo, at 3,100–4,500 m, from November through January and in humid temperate forest at about 2,400 m during the rest of the year (Philips 1989).

There are over 100 museum specimens of this species, suggesting it was more common in the past (Philips 1989). Between 1950 and 1993, the only confirmed sighting of the species was three individuals in 1980 (BirdLife International 2000). Recent fieldwork targeting the species has produced a few additional records, but it is clearly rare within a very limited range (Philips 1989). The population estimate for the species is 50–249 birds, with a decreasing population trend (BirdLife International 2006). This species is classified as Critically Endangered in the 2006 IUCN Red List and is listed in Appendix II of CITES (IUCN 2006; CITES 2006). It qualifies as Critically Endangered because it has an extremely small range and the population is restricted to one location where habitat is being rapidly converted and there is ongoing volcanic activity (BirdLife International 2006). The main threat to the species is conversion of trees in the elfin forest to charcoal, although media coverage of the species has encouraged authorities to control access to the forest and forbid charcoal production (Philips 1989). Potato cultivation and livestock grazing on ridge crests rapidly destroyed suitable habitat in these areas (Philips 1989). Some ridges are almost completely devoid of natural vegetation, and even if black-breasted pufflegs still occur in these areas, their numbers are most likely quite low (BirdLife International 2000). Recently, however, the Jocotoco Foundation has established the Yanacocha Reserve on the slopes of Volcan Pichincha, protecting 960 hectares of *Polylepis* woodland, as well as the entire range of the black-breasted puffleg in an effort to protect and conserve the species, which has become the “Emblem of the City of Quito” (WorldLand Trust 2005). The area will be managed by the Corporación Ornitológica de Ecuador (Ornithological Corporation of Ecuador, CECIA), a conservation organization which will also manage ecotourism, environmental education, and conservation initiatives including restoration of the *Polylepis* woodland (Fundacion Jocotoco 2005).

The black-breasted puffleg does not represent a monotypic genus. The long-term loss of habitat is the most significant threat to the species as loss of the species' elfin forest habitat to charcoal production and conversion to agriculture are ongoing. This threat is

high in magnitude and imminent because it is ongoing. Therefore, it receives a priority rank of 2.

Chilean woodstar (*Eulidia yarrellii*)

The Chilean woodstar is restricted to a very small area on the Pacific coast from Tacna, Peru, to extreme northern Antofagasta, Chile (Collar *et al.* 1992). It is only known to regularly breed in the Lluta and Azapa valleys, Arica Department, in extreme northern Chile (BirdLife International 2000). It inhabits desert river valleys and gardens, mainly from sea level to about 750 m (Collar *et al.*, 1992). The Chilean woodstar is usually a solitary feeder and has been reported feeding in gardens on *Lantana* and *Hibiscus* flowers (Collar *et al.* 1992), but it is comparatively rare in such habitats (Howell and Webb in prep., as cited in BirdLife International 2000).

The Chilean woodstar was reported to be common at the beginning of the 20th Century (Collar *et al.* 1992). More recently, surveys have found this species to be scarce to locally common (Howell and Webb in prep., as cited in BirdLife International 2000). It is unclear whether this represents a serious decline or previous observers did not identify flowering trees favored by this species (BirdLife International 2000). Indigenous plants favored by the Chilean woodstar may be severely threatened by agriculture (Collar *et al.* 1992). The population is estimated at 2,500–10,000 birds, with a decreasing population trend (BirdLife International 2000). The IUCN classifies the species as Endangered because it has a very small range, and all populations are confined to remnant habitat patches in two desert valleys. The desert valleys are heavily cultivated (IUCN 2006). The extent, area, and quality of suitable habitat are believed to be declining as a result of human encroachment (Collar *et al.* 1992). The Chilean woodstar is listed in Appendix II of CITES. All exports of hummingbirds from Peru and Chile are controlled (BirdLife International 2000).

The Chilean woodstar represents a monotypic genus. It faces threats that are high in magnitude because indigenous food sources utilized by the species are believed to be severely threatened by agricultural development. Furthermore, the species' range has been severely reduced due to human activity; all populations are now confined to remnant habitat patches in two desert valleys. The species' habitat continues to decline due to human encroachment. Although there has been no actual change in threats since our last Notice was published, habitat loss represents an ongoing and imminent threat to the Chilean woodstar.

Therefore, to ensure consistency in the application of our listing priority guidance, we changed the listing priority number from 4 to 2 to reflect that the threats are imminent. Therefore, we assign the species a rank of 2.

Esmeraldas woodstar (*Acestrura berlepschi*)

The Esmeraldas woodstar is restricted to a small area on the Pacific Slope of the Andes of western Ecuador (Esmeraldas, Manabi, and Guayas), where only very rare and localized populations are found (BirdLife International 2000). The woodstar generally prefers lowland, moist forest habitat (del Hoyo *et al.* 1999). It has also been recorded in the canopy of semi-humid secondary growth at 50–150 m in December through March, when it is believed to breed (Becker *et al.* 2000). The species has not been recorded in this habitat type at other times of year, and there is no evidence concerning its long-term ability to survive in this type of forest habitat (BirdLife International 2000).

The Esmeraldas woodstar inhabits one of the most threatened forest habitats within the Neotropics (del Hoyo *et al.* 1999). All forest types within the species' range have diminished rapidly due to logging and clearing for agriculture (Dodson and Gentry 1991, as cited in BirdLife International 2000). This species is classified as Endangered by the IUCN. The woodstar inhabits a very small and severely fragmented range, which is decreasing rapidly in size. Ongoing declines in the bird's population are linked to persistent habitat destruction (IUCN 2006). The species is listed in Appendix II of CITES (CITES 2006). The current population estimate for this species is 1,000–2,499 birds with a decreasing population trend (BirdLife International 2000). Persistent grazing by goats and cattle is a serious threat to the species because they damage the understory and prevent regeneration of the forest that this species utilizes (Dodson and Gentry 1991, as cited in BirdLife International 2000). Dodson and Gentry (1991) indicated that rapid habitat loss is continuing, at least in unprotected areas, and extant forests will soon be eliminated. In Manabi Province, the Esmeraldas woodstar occurs in Machalilla National Park (Collar *et al.* 1992), but it does not receive adequate protection because its habitat is threatened by illegal settlement, deforestation, livestock-grazing, and habitat clearance by people with land rights (BirdLife International 2004).

The Esmeraldas woodstar does not represent a monotypic genus; however,

it faces threats that significantly impact the species and are high in magnitude. These threats include persistent habitat destruction due to logging and clearing for agriculture. The species' range is decreasing rapidly, resulting in a very small and severely fragmented area available for the species. These threats are therefore imminent and ongoing, and likely to persist because the habitat on which the woodstar is dependent has been severely altered by human disturbance and is unable to regenerate due to the presence of grazing animals. Therefore, the species receives a priority rank of 2.

Helmeted woodpecker (*Dryocopus galeatus*)

The helmeted woodpecker is endemic to the southern Atlantic forest region of southeastern Brazil, eastern Paraguay, and northeastern Argentina (BirdLife International 2001). It is found in tall lowland and montane primary forest, in forest that has been selectively logged, and generally near large tracts of intact forest (BirdLife International 2001). This woodpecker feeds on beetle larvae which live beneath tree bark. The species forages primarily in the middle canopy of the forest interior (del Hoyo *et al.* 2002).

Recent field work on the helmeted woodpecker revealed that the species is less rare than once thought (BirdLife International 2000). It is listed as Vulnerable by the IUCN (IUCN 2006). The current population is estimated at no more than 10,000 individuals and decreasing (BirdLife International 2000). The greatest threat to the species is widespread deforestation. Numerous sightings since the mid-1980s includes a pair in the Brazilian State of Santa Catarina in 1998, where the species had not been seen since 1946 (del Hoyo *et al.* 2002). The helmeted woodpecker is protected by Brazilian law and populations occur in numerous protected areas throughout its range (BirdLife International 2000). Further studies are needed to clarify species distribution and status (del Hoyo *et al.* 2002).

The helmeted woodpecker does not represent a monotypic genus. The magnitude of threat to the species is moderate because the population is much larger than previously thought and imminent because the forest habitat which the species is dependent upon is constantly being altered by man. It therefore receives a priority rank of 8.

Okinawa woodpecker (*Dendrocopos noguchii*), Previously Known as (*Sapheopipo noguchii*)

The Okinawa woodpecker lives in the northern hills of Okinawa Island, Japan. Okinawa is the largest island of the Ryukyus Islands, a small island chain located between Japan and Taiwan (Winkler *et al.* 2005). This species is confined to Kunigami-gun, or Yambaru, with its main breeding areas located along the mountain ridges between Mt. Nishime-take and Mt. Iyu-take (BirdLife International 2006). It prefers mature, subtropical evergreen broadleaf forests, with tall trees greater than 20 cm in diameter (Research Center, Wild Bird Society of Japan 1993, as cited in BirdLife International 2001). Trees of this size are generally more than 30 years old and are confined to hilltops (Brazil 1991). The Okinawa woodpecker feeds on large arthropods, notably beetle larvae, spiders, moths, and centipedes, fruit, berries, seeds, acorns, and other nuts (Winkler *et al.* 2005). They forage in old-growth forests with large, often moribund trees, accumulated fallen trees, rotting stumps, debris, and undergrowth (Short 1993, as cited in BirdLife International 2001). This woodpecker often nests in hollow *Castanopsis cuspidata* trees (Research Center, Wild Bird Society of Japan 1993, as cited in BirdLife International 2001).

Prior to the rediscovery of the once-believed extinct ivory-billed woodpecker in Arkansas' Cache River National Wildlife Refuge in 2005 (USFWS 2005), the Okinawa woodpecker was considered the world's rarest extant woodpecker species (Winkler *et al.* 2005). The IUCN categorizes the species as Critically Endangered because it is comprised of a single diminutive, declining population, which is threatened by the continued loss of old-growth and mature forest to logging, dam construction, agricultural clearing, and golf course construction. Its limited range and tiny population make it vulnerable to extinction from disease and natural disasters such as typhoons (IUCN 2006). During the 1930s, the Okinawa woodpecker was considered nearly extinct. By the early 1990s, the breeding population was estimated to be about 75 birds, with a total estimated population ranging between 146 and 584 individuals (BirdLife International 2006). The species is legally protected in Japan and occurs in small protected areas on Mt. Ibu and Mt. Nishime (BirdLife International 2006). The Yambaru, a forest area in the Okinawa Prefecture, was designated as a national park in 1996, and conservation

organizations have purchased sites where the woodpecker occurs to establish private wildlife preserves (del Hoyo *et al.* 2002).

The Okinawa woodpecker represents a monotypic genus. This species faces threats that are moderate in magnitude because the species is legally protected in Japan, and its range occurs in several protected areas. However, the threats to the species are imminent because the old-growth habitat, upon which the species is dependent, continues to be removed, and preferable habitat continues to be altered for agriculture and golf courses. It therefore receives a priority rank of 7.

#### Yellow-browed toucanet (*Aulacorhynchus huallagae*)

The yellow-browed toucanet is known from only two localities in north-central Peru, La Libertad, where it is uncommon, and Rio Abiseo National Park, San Martin, where it is very rare (BirdLife International 2006). There have been recent reports of the species from Leymebamba (T. Mark *in litt.* 2003, as cited in BirdLife International 2006). It inhabits a narrow altitudinal range between 2,125 and 2,510 m, preferring the canopy of humid, epiphyte-laden montane forests, particularly areas that support *Clusia* trees (del Hoyo *et al.* 2002; Fjelds  and Krabbe 1990, as cited in BirdLife International 2006). This narrow distributional band may be related to the occurrence of the larger grey-breasted mountain toucan (*Andigena hypoglauca*) above 2,300 m, and the occurrence of the emerald toucanet (*Aulacorhynchus prasinus*) below 2,100 m (Schulenberg and Parker, as cited in Collar *et al.* 1992). The species' restricted range remains unexplained, and recent information indicates that both of the suggested competitors have wider altitudinal ranges which completely encompass the range of the yellow-browed toucanet (Collar *et al.* 1992 and J. Hornbuckle *in litt.* 1999; as cited in BirdLife International 2006). The yellow-browed toucanet does not appear to occupy all potentially suitable forest available within its range (Schulenberg and Parker 1997, as cited in BirdLife International 2006).

Deforestation has been widespread in this region, but has largely occurred below the toucanet's altitudinal range (BirdLife International 2006). However, coca growers have taken over forests within its altitudinal range, probably resulting in some reductions in the species' range and population (IUCN 2006). It is listed as Endangered by IUCN because of its very small range and extant population records from only

two locations (IUCN 2006). The current population size is unknown, but the population trend is believed to be decreasing (BirdLife International 2006).

The yellow-browed toucanet does not represent a monotypic genus. The magnitude of threat to the species is moderate and non-imminent. Therefore, it receives a priority rank of 11.

#### Royal cinclodes (*Cinclodes aricomae*)

The royal cinclodes occurs in the Andes of southeastern Peru (Cuzco, Apurimac, and Puno) and adjacent Bolivia (La Paz) (BirdLife International 2000). It is found in tiny humid patches of *Polylepis* woodland and montane scrub, mainly at 3,500–4,800 m (Parker *et al.* 1996). This species is classified as Critically Endangered by IUCN because it has an extremely small population that is restricted to a severely fragmented and rapidly declining habitat (IUCN 2006). In addition, no sub-population is thought to exceed 50 mature individuals (IUCN 2006). The population estimate for this species is 50–249 birds, with a decreasing population trend (BirdLife International 2000). The species' main threat is the inability of *Polylepis* to regenerate due to the uncontrolled use of fire and heavy grazing (Fjelds  and Kessler 1996, as cited in BirdLife International 2000). Harvesting for timber, firewood, and charcoal, although locally destructive, could be sustainable if regeneration was allowed to occur (Fjelds  and Kessler 1996, as cited in BirdLife International 2000).

The royal cinclodes does not represent a monotypic genus. The magnitude of threat to the species is high due to an extremely small population that inhabits a small, severely fragmented range. The immediacy of threat to the species is imminent resulting from the continuing fragmentation of habitat and lack of regeneration of the *Polylepis* forest. We therefore have assigned a priority rank of 2 to this species.

#### White-browed tit-spinetail (*Leptasthenura xenothorax*)

The white-browed tit-spinetail is restricted to a severely fragmented range in south-central Peru in the Runtacocha highland (Apurimac), the Nevado Sacsarayoc Massif, and the Cordillera Vilcanota (Cuzco) (BirdLife International 2000). These birds occur in small, widely scattered patches of humid *Polylepis* woodlands at 3,700–4,550 m (BirdLife International 2000). Since 2000, the IUCN categorizes the white-browed tit-spinetail as Endangered because of its extremely small population and limited,

fragmented range. The species' range continues to decline from habitat loss and a lack of habitat regeneration (IUCN 2006). The population is estimated at 250–999 individuals and declining (BirdLife International 2000).

Regeneration of *Polylepis* woodlands is prevented by uncontrolled fires, heavy grazing, harvest for fuel and construction, and the inadequacy of reforestation projects. Loss of *Polylepis* habitat is the greatest threat to the survival of the white-browed tit-spinetail (Fjelds  and Kessler 1996, as cited in BirdLife International 2000; Rome 2003). International non-government organizations (NGO's) have attempted to draw local attention to the plight of *Polylepis* woodlands in Cuzco, with the hope that it may lead to better environmental controls (Fjelds  and Kessler 1996, as cited in BirdLife International 2000). The American Bird Conservancy and the Peruvian Association for the Conservation of Andean Ecosystems have teamed together with Conservation International's Critical Ecosystem Partnership Fund (CEPF) to protect the *Polylepis* forests and develop alternatives for local consumption of fuel and timber. The joint program provides *Polylepis* saplings for forest regeneration, and *Eucalyptus* saplings for use as an alternative timber species. The villagers are paid to plant the saplings in a community aid program, ensuring stakeholder benefits for the *Polylepis* forest regeneration; and it is hoped, increased population numbers of the white-browed tit-spinetail and other endangered species that depend on this habitat (Rome 2003).

The white-browed tit-spinetail does not represent a monotypic genus. The magnitude of threat to this species is high as the population is very small and declining. The immediacy of threat to the species is imminent and continues due to continuing fragmentation of its *Polylepis* forest habitat. It has therefore received a priority rank of 2.

#### Black-hooded antwren (*Formicivora erythronotos*, Previously Referred to as *Myrmotherula erythronotos*)

The black-hooded antwren inhabits early successional secondary growth habitats, and the understory of remnant old-growth secondary forests in coastal southeastern Brazil (BirdLife International 2000; Harris and Pimm 2004). This antwren species was previously known only from twenty skins that were collected during the 19th Century (Buzzetti 1998, E. Mendonça and L.P. Gonzaga *in litt.* 2000, as cited in BirdLife International 2006), and was believed to be extinct until it was



rediscovered in 1987 (Harris and Pimm 2004). The IUCN classifies the species as Endangered because it has a very small and highly fragmented range. The black-hooded antwren appears to be declining rapidly in response to continuing habitat loss. Currently, it is known to inhabit seven sites (IUCN 2006). The population is estimated at 1,000–2,499 birds with a decreasing population trend (BirdLife International 2006). IUCN notes, however, that there is a serious need for new population demographic information because the species' current population size is unknown (IUCN 2006). The black-hooded antwren resides in one of the most densely populated regions of Brazil and deforestation has been occurring for more than 400 years (BirdLife International 2003). The main threats to the species include ongoing urbanization, industrialization, and agricultural expansion. The antwren's habitat has been reduced to less than 10 percent of its original extent (Brown and Brown 1992, as cited in BirdLife International 2003).

There have been recent reports that the species has been seen with increased frequency at a coastal reserve near Rio De Janeiro, the Reserva Ecológica de Jacarepiá (Worldtwitch 2006). The black-hooded antwren inhabits an Endemic Bird Area (EBA), which is an area BirdLife International selects for habitat-based conservation of birds. Designating a particular area or region as an EBA encourages national and local governments to increase and improve conservation measures for the EBA, and possibly, other areas of concern (BirdLife International 2003). This particular EBA is located in coastal southeast Brazil around the Baía Ilha Grande in south Rio de Janeiro, Brazil (BirdLife International 2001; BirdLife International 2006).

The black-hooded antwren does not represent a monotypic genus. It faces threats that are high in magnitude; the most significant threat is loss of habitat. The antwren prefers remnant old-growth secondary forests; however, it resides in one of the most densely populated regions of Brazil, where deforestation has occurred for centuries. Threats are imminent because degradation and loss of the species' habitat is a continuing problem as a result of urbanization, industrialization, and agricultural expansion. Therefore, the species receives a priority rank of 2.

#### Fringe-backed fire-eye (*Pyriglena atra*)

The fringe-backed fire-eye is known from the narrow coastal belt of Atlantic forest in the vicinity of Salvador, coastal Bahia (west of the town of Santo

Amaro), forest patches along the Linha Verde highway, and north to southern Sergipe (in the vicinity of Crasto and Santa Luzia de Itanhia), Brazil (Collar *et al.* 1992, Pacheco and Whitney 1995, J. Minns *in litt.* 1998, B.M. Whitney *in litt.* 1999, and J. Mazar Barnett *in litt.* 2000; all as cited in BirdLife International 2006). Recent fieldwork indicates that species' distribution is not as disjunct as previously considered because the species has been found in remnant forest and secondary-growth patches along the northern coast of Bahia at Conde and Jandaíra (Souza 2002, as cited in BirdLife International 2006). Although populations may have been vastly reduced over time, the species' preference for early successional secondary-growth habitat means its range is likely to have been underestimated (BirdLife International 2006). The fire-eye also favors the tangled, dense undergrowth of lowland forests as well as other semi-open habitats where horizontal perches are located close to the ground (BirdLife International 2006). Currently, the population is estimated at 1,000–2,499 individuals (BirdLife International 2006), an increase from the population estimate in 2000, which indicated between 250 and 999 individuals remained in the wild (BirdLife International 2000). The increase in population numbers may be attributed to recent fieldwork which indicates that distribution was not as disjunct as previously thought because the species was found to reside in habitat that had not been considered to contain the species (Souza 2002, as cited in BirdLife International 2006). From 2000–2004, the fringe-backed fire-eye was categorized as Critically Endangered by the IUCN because of its extremely small range and declining habitat, and because it was known from a few, highly-fragmented localities (IUCN 2002). The fringe-backed fire-eye is now classified as Endangered by the IUCN because the fieldwork has shown that the species' range is more extensive than previously known. It does, however, still have a very small, fragmented range within which the extent and quality of its habitat are continuing to decline, and where it is only known from a few localities (IUCN 2006). The species is protected under Brazilian law (BirdLife International 2006). The greatest threat to the species continues to be habitat loss (BirdLife International 2006).

The fringe-backed fire-eye does not represent a monotypic genus. The greatest threat to the species continues to be habitat loss. This threat is high in

magnitude because it has a significant impact on the species. Threats to the species are imminent because the species utilizes only a very small, fragmented range within which the extent and quality of its habitat are continuing to decline. It therefore receives a priority rank of 2.

#### Brown-banded antpitta (*Grallaria milleri*)

The brown-banded antpitta is endemic to the Volcan Ruíz-Tolima massif of the central Andes (Caldas, Risaralda, Quindío, and Tolima), Colombia (BirdLife International 2006). In Ucumari, this species has been recorded in three types of habitat with no significant difference in population density between the three: Early secondary growth vegetation with a high density of herbs and shrubs; the understory of 30-year-old alder (*Alnus*) plantations; and the understory of 30-year-old secondary forest (Kattan and Beltran 1997, as cited in BirdLife International 2006). Kattan and Beltran (2002) found that the species exhibited high site fidelity over a relatively small territory. Between 1911 and 1942, only ten specimens were collected at elevations of 2,745–3,140 m in Caldas and Quindío (Kattan and Beltrán 1997, BirdLife International 2006; as cited in BirdLife International 2006). The species was not seen for more than 50 years, until it was rediscovered in May 1994, in Ucumari Regional Park, Risaralda (Kattan and Beltran 1997, BirdLife International 2003; as cited in BirdLife International 2006). Surveys conducted between 1994 and 1997 along a narrow elevational band of 2,400–2,600 m discovered 11 more birds which were subsequently banded. Based on these surveys, it was estimated that 106 individuals were present in a 0.63 km<sup>2</sup> area (Kattan and Beltran 1997, 1999; as cited in BirdLife International 2006). Further observations of the species were made during 1998–2000 on the southeast slope of Volcán Tolima in the Río Toche Valley, where it is considered uncommon and local (López-Lanús *et al.* 2000, López-Lanús *in litt.* 2000, P.G.W. Salaman *in litt.* 1999, 2000; and Renjifo *et al.* 2002; as cited in BirdLife International 2006). In 1999 and 2000, the brown-banded antpitta was also found in the Río Blanco watershed (Caldas and near Roncesvalles (Tolima) (Renjifo *et al.* 2002, as cited in BirdLife International 2006).

The greatest threat to the brown-banded antpitta is conversion of habitat for agricultural purposes and habitat fragmentation (Wildlife Conservation Society 2006, BirdLife International

2006). Since the 1950s, forested land has been converted to agriculture in the Río Toche Valley and natural vegetation cover within a narrow elevational band, between 1,900 and 3,200 m where the species is most likely to be found, has been reduced to about 15 percent (BirdLife International 2006). The IUCN has classified the species as Endangered since 1994 because it is known from very few locations, in a very small range (IUCN 2006). This classification also takes into account continuing habitat loss and degradation within that limited range (IUCN 2006). Population estimates for this species range between 250–999 birds, with a decreasing population trend (BirdLife International 2006). It should be noted however, that Kattan and Beltran (2002) found that population densities are higher than previously assumed because the species is very secretive and difficult to locate in the forest understory. Significant numbers of brown-banded antpittas are protected in Ucumari Regional Park, Risaralda (Kattan and Beltran 1997, as cited in BirdLife International 2006), unlike the Río Toche watershed area which does not provide any form of legal protection for the species. The limited remaining forest within the watershed continues to diminish and has become increasingly fragmented (Lopez-Lanus *et al.* 2000).

The brown-banded antpitta does not represent a monotypic genus. The threats to the species are high in magnitude, and the conversion of habitat for agricultural purposes is the most significant threat. Previously forested land has been converted to agriculture, and natural vegetative cover within a narrow elevational band where the species is most likely to be found (between 1,900 and 3,200 m) has been reduced to about 15 percent of its former extent. Habitat fragmentation, range reduction, and the decline in habitat quality are imminent and ongoing threats to the species. It therefore receives a priority rank of 2.

#### Brasilia Tapaculo (*Scytalopus novacapitalis*)

The Brasilia tapaculo is found in swampy gallery forest, disturbed areas of thick streamside vegetation, and dense secondary growth of the bracken fern *Pteridium aquilinum*, from Goiás, the Federal District, and Minas Gerais, Brazil (Negret and Cavalcanti 1985, as cited in Collar *et al.* 1992; Collar *et al.* 1992; BirdLife International 2000). The Brasilia Tapaculo will occasionally colonize disturbed areas near streams (BirdLife International 2003). This species has only been recorded locally within Formas in Goiás, around Brasília.

Particular sites where the species has been located, at low densities, include Serra Negra (on the upper Dourados River) and the headwaters of the São Francisco, both in Minas Gerais; and Serra do Cipó and Caraça in the hills and tablelands of central Brazil (BirdLife International 2003).

Although the species was once considered rare (Sick and Texeira 1979, as cited in Collar *et al.* 1992), it is now found in reasonable numbers in certain areas of Brasília (D. M. Teixeira, *in litt.* 1987, as cited in Collar *et al.* 1992). The population is estimated at more than 10,000 birds, with a decreasing population trend (BirdLife International 2000). The IUCN categorizes *Scytalopus novacapitalis* as Lower Risk/near threatened (IUCN 2006). The species occupies a very limited range and is presumably losing habitat around Brasília. However, its distribution now appears larger than initially believed, and the swampy gallery forests where it is found are not conducive for clearance, protecting at least some of the species' habitat (D. M. Teixeira *in litt.* 1987, as cited in Collar *et al.* 1992). The Brasília tapaculo is currently protected by Brazilian law (Bernardes *et al.* 1990, as cited in Collar *et al.* 1992), and it is found in six protected areas (Machado *et al.* 1998, Wege and Long 1995; as cited in BirdLife International 2006). Annual burning of adjacent grasslands limits the extent and availability of suitable habitat, as does wetland drainage and the sequestration of water for irrigation (Machado *et al.* 1998, as cited in BirdLife International 2006).

The Brasília tapaculo does not represent a monotypic genus. The magnitude of threat to the species is moderate because the population is much larger than previously believed and preferred habitat is swampy and difficult to clear. Threats are imminent, however, because habitat is being drained for agricultural irrigation and grassland burning limits the extent of suitable habitat. Therefore, it receives a priority rank of 8.

#### Kaempfer's tody-tyrant (*Hemitriccus kaempferi*, Previously Referred to as *Idioptilon kaempferi*)

The Kaempfer's tody-tyrant is very rare and has a very small, extremely fragmented range which is estimated to be about 19 km<sup>2</sup> (BirdLife International 2006). The species is only known from three localities in Santa Catarina, Brazil: one record at Salto do Pirai near Villa Nova in 1929, one specimen that was collected at Brusque in 1950, and another in Reserva Particular do Patrimônio Natural de Volta Velha, near Itapoá in 1998 (Mazar Barnett *et al.* 2000, L.N.

Naka *in litt.* 1999; as cited in BirdLife International 2006). It inhabits humid lowland Atlantic forest. At one of these localities, Salto do Pirai, the species has typically been found in habitats which include forest edge, well-shaded secondary growth, and sections of low, epiphyte-laden open woodland near watercourses (Mazar Barnett *et al.* 2000, as cited by BirdLife International 2006). It feeds predominantly in the midstory of medium-sized trees, and mated pairs appear to remain within small well-defined areas (Mazar Barnett *et al.* 2000, as cited by BirdLife International 2006).

In 2004, the IUCN changed the Kaempfer's tody-tyrant's decade-long classification from Endangered to Critically Endangered because the species has an extremely small and fragmented range, with recent records from only two locations, and ongoing deforestation is occurring in the vicinity of these sites (IUCN 2006). The population estimate is 1,000–2,499 individuals and declining (BirdLife International 2006). The Atlantic forest has been extensively deforested, and the lowland forest continues to be cleared in the vicinity of the two remaining sites (BirdLife International 2006). The Kaempfer's tody-tyrant is protected by Brazilian law, occurring in one protected area, and in adjacent forest (BirdLife International 2006).

This species does not represent a monotypic genus. Threats to the species are high in magnitude because the Kaempfer's tody-tyrant displays specific habitat preferences that are becoming more difficult to locate over time. The species is adapted to specific areas within the forest, and mated pairs appear to remain within small, well-defined locales. However, ongoing deforestation has had a significant impact on the species' habitat and is limiting the species to a very small, extremely fragmented range. The threats to the species are imminent because deforestation of the Brazilian Atlantic forest is ongoing. Therefore, it has been assigned a priority rank of 2.

#### Ash-breasted tit-tyrant (*Anairetes alpinus*)

The ash-breasted tit-tyrant is confined to semi-humid *Polylepis-Gynoxys* woodlands in the high Andes in Peru and Bolivia (BirdLife International 2000). There are two widely disjunct populations: the subspecies *A. a. alpinus* occurs in the Cordilleras Central and Occidental, Peru, and *A. a. bolivianus* occurs in the Cordillera Oriental, Peru, and in the Cordillera Real, Bolivia (Collar *et al.* 1992; Fjeldså and Kessler 1996; BirdLife International 2000). It is relatively common in the

Runtacocha highland, Apurimac, and the Cordillera Vilcabamba, Cuzco (Fjelds  and Kessler 1996, as cited in BirdLife International 2000). The IUCN categorizes the ash-breasted tit-tyrant as Endangered because it has a very small population and is confined to a habitat which is severely fragmented and undergoing continuing decline in extent, area, and quality (IUCN 2006). The population is estimated at 250–999 individuals and declining (BirdLife International 2000). Extensive cattle grazing is the primary threat to the species, especially in Ancash, which, combined with the uncontrolled use of fire, prevents *Polylepis* regeneration (Fjelds  and Kessler 1996 and G. Servat *in litt.*, as cited in BirdLife International 2000). Additionally, recent changes from camelid to sheep and cattle farming, erosion, and soil degradation caused by agricultural projects and deforestation are contributing factors to the continued decline of the species (Fjelds  and Kessler 1996, as cited in BirdLife International 2000).

The Asociaci n Armon a, Conservaci n de Aves en Bolivia (Conservation of Birds in Bolivia), which is associated with BirdLife International, currently has two projects in the field to support the conservation of the ash-breasted tit-tyrant. The first, initiated in 2003, led to the discovery of several new sites for the ash-breasted tit-tyrant and the royal cinclodes. The goal of the project is to conduct ecological research on the ash-breasted tit-tyrant regarding its reproduction, territory size and behavior, which is essential for the species long-term conservation efforts. The other project involves meetings with local communities that live near the remaining fragments of *Polylepis* forests, to present information regarding the importance of these forest fragments. The project hopes to gain local support in developing methods to decrease threats to the forests and their associated fauna (Asociaci n Armon a 2005).

The ash-breasted tit-tyrant does not represent a monotypic genus. The threat is high in magnitude for this species because grazing cattle prevent regeneration of the *Polylepis* forest that is essential to the species. Threats to the species are imminent because habitat degradation is ongoing. Therefore, we have assigned it a priority rank of 2.

#### Peruvian plantcutter (*Phytotoma raimondii*)

The Peruvian plantcutter formerly inhabited the coastal region of northern Peru from Tumbus to Lima (BirdLife International 2006). There have only been records from two areas, near Talara

and Chiclayo in recent years (G. Engblom *in litt.* 1998, 1999, 2000; Flanagan and Ch avez-Villavicencio 2000; Begazo *et al.* 2001; as cited in BirdLife International 2006). Searches at other sites and in apparently suitable habitat have failed to locate the species (G. Engblom *in litt.* 1998, 1999, 2000; as cited in BirdLife International 2006). The species occurs in desert scrub at elevations up to 500 m, in areas of riparian thicket, and low dense, and open woodland dominated by *Prosopis* trees, with some *Acacia* spp. (G. Engblom *in litt.* 1998, 1999, 2000; as cited in BirdLife International 2006). The IUCN categorizes the Peruvian plantcutter as Endangered because of its extremely small and fragmented range, and its remaining habitat is subject to rapid and continuing destruction and degradation (IUCN 2006). The population is currently estimated at 500–1,000 individuals and declining (BirdLife International 2006). Threats include the near-complete conversion of coastal river valleys to cultivation, removal of the shrub layer by grazing goats, and burning and logging for firewood and charcoal (Engblom *in litt.* 1998, 1999, 2000; as cited by BirdLife International 2000).

A portion of the species habitat is located within an area that is owned by PetroPeru; the company prevents trespassing on its lands, and as a result, the species is afforded some protection. PetroPeru has also supported fieldwork and educational programs for the species (Elton 2004).

The Peruvian plantcutter does not represent a monotypic genus. Threats to the species are high in magnitude due to forest land conversion for agriculture, removal of the shrub layer by grazing goats, and burning and logging for firewood and charcoal. The threats are imminent because this land conversion is ongoing and continues to reduce the species' range. Therefore, it receives a priority rank of 2.

#### St. Lucia forest thrush (*Cichlherminia iherminieri sanctaeluciae*)

The St. Lucia forest thrush is found on the island of St. Lucia in the West Indies (Raffaele *et al.* 1998). It generally inhabits the undergrowth of mid- and high-altitude primary and secondary moist forest (Raffaele *et al.* 1998; Keith 1997, as cited in BirdLife International 2000). On St. Lucia, it is uncommon to rare, but was considered numerous in the late 19th Century (Keith 1997, as cited in BirdLife International 2000). It is currently treated as a subspecies of the forest thrush (*Cichlherminia iherminieri*), which is classified as Vulnerable by IUCN because of human-

induced deforestation and introduced predators (IUCN 2006). Habitat loss has occurred throughout the subspecies' range, and other threats include competition with the bare-eyed robin (*Turdus nudigenis*), brood parasitism by the shiny cowbird, hunting by humans for food, and predation by mongooses and other introduced predators (Raffaele *et al.* 1998).

This subspecies faces threats that are high in magnitude because of a declining population trend, and imminent resulting from ongoing deforestation, competition with other avian species, brood parasitism, and predation by animals and humans. It therefore receives a priority rank of 3.

#### Eiao Polynesian warbler (*Acrocephalus caffer aquilonis*)

The Eiao Polynesian warbler is restricted to dry forest on Eiao Island in the Marquesas Islands. Decker (1973) found that other races of the subspecies occupy a variety of habitats possessing trees or tall bushes, ranging from cultivated areas to dense forests. By 1960, only tiny remnants of woodland remained on the island, and after many years of grazing by introduced sheep and swine, it was described as being a barren desert of rock and orange clay. This warbler was apparently common in 1922, when the Whitney South Sea Expedition collected a number of specimens (Holyoak 1975, as cited by IUCN 1978–1979). Three more individuals were collected in 2 days in 1929, and it was still present in small numbers in 1968 (Holyoak 1975, as cited by IUCN 1978–1979). The population in 1987 was estimated at 100–200 individuals (Thibault, personal communication to Philippe Raust, Soci t e d'Ornithologie de Polyn sie 2003). Threats include predation by invasive mammals and a lack of habitat regeneration (Thibault, personal communication to Philippe Raust, Soci t e d'Ornithologie de Polyn sie 2003). This subspecies is also threatened by stochastic events, such as typhoons, which could extirpate this entire subspecies.

The most significant threat to the Eiao Polynesian warbler is habitat loss and its continued destruction due to grazing of introduced species. The threat is high in magnitude because the threat affects the entire population of this island endemic species. The threat is imminent as it is ongoing and is rendering the island largely barren of suitable habitat for the warbler. It therefore receives a priority rank of 3.

Codfish Island fernbird (*Bowdleria punctata wilsoni*)

The Codfish Island fernbird is found only in low scrub habitat on Codfish Island, off the northwest coast of Stewart Island, New Zealand (IUCN 1979). Codfish Island's native vegetation has been modified by introduced Australian brush-tailed possums (*Trichosurus vulpecula*). Fernbird populations have also been reduced due to predation by weka (*Gallirallus australis scotti*) and Polynesian rats (*Rattus exulans*) (Merton 1974, personal communication, as cited in IUCN 1979). In 1966, the status of this subspecies was considered relatively safe (Blackburn 1967, as cited in IUCN 1979), but estimates dating from 1975 indicated a gradually declining population numbering approximately 100 individuals (Bell 1975, as cited in IUCN 1979). At that time, the subspecies was absent from areas of Codfish Island that it had formerly occupied (Blackburn 1967, as cited in IUCN 1979). Several conservation measures have been undertaken on Codfish Island. An eradication program for the weka was carried out between 1980 and 1985 (Taylor 2000), and Polynesian rats were eradicated from Codfish Island in August 1998 (Conservation News 2002). The fernbird population is rebounding strongly with the removal of invasive predator species (Hayley Meehan, New Zealand Forest and Birds, personal communication, 2003).

The Codfish Island fernbird is a subspecies that is now facing threats that are low to moderate in magnitude because the removal of invasive predator species has allowed for a strong rebound in the subspecies' population. Threats are non-imminent because the conservation measures to prevent the invasion of predatory invasive species have proven to be very successful. It therefore receives a priority rank of 9.

Ghizo white-eye (*Zosterops luteirostris*)

The Ghizo white-eye is endemic to Ghizo in the Solomon Islands (BirdLife International 2006). Birds are locally common in the remaining tall or old-growth forests located on Ghizo (Buckingham *et al.* 1995 and Gibbs 1996, as cited in BirdLife International 2006). It is less common in scrub close to large trees and in plantations (BirdLife International 2006), and it is not known whether these two habitats can support sustainable breeding populations (Buckingham *et al.* 1995, as cited in BirdLife International 2006). The IUCN classifies this species as Endangered because of its very small

population that is inferred to be declining due to habitat loss (IUCN 2006). It further notes that the species would be classified as Critically Endangered if the species' range was judged to be severely fragmented (IUCN 2006). The population estimate for this species is 250–999 birds with a decreasing population trend (BirdLife International 2006). The very tall old-growth forest on Ghizo is still under threat from clearance for local use, firewood, and gardens, and the areas of other secondary growth, which are sub-optimal habitats for this species, are under considerable threat from clearance for agricultural land (BirdLife International 2006).

The Ghizo white-eye does not represent a monotypic genus. It faces threats that are moderate in magnitude and imminent. Threats are continuing because the old-growth forest which the species is dependent upon is still being cleared for local use and secondary growth is being converted for agricultural purposes. Therefore we assign the species a priority rank of 8.

Medium tree-finch (*Camarhynchus pauper*)

The medium tree-finch is endemic to Floreana in the Galapagos Islands, Ecuador (BirdLife International 2006). It is common in the highlands and considered uncommon to rare on the coast (Harris 1992). The finch prefers montane evergreen and tropical deciduous forest, the *Scalesia* zone, and humid scrub (Stotz *et al.* 1996). This poorly known species is considered Vulnerable by the IUCN because population trends are unknown; it has a very small range, and it is restricted to a single island where introduced species are a potential threat (IUCN 2006). Predator control is occurring on Floreana, Santa Cruz, and Santiago Islands (H. Vargus and F. Cruz (*in litt.*) 2000, as cited in BirdLife International 2006). The Galapagos Islands are a national park and were declared a World Heritage Site (WHS) in 1979 (BirdLife International 2006). When a specific area is designated a WHS it means that the area is considered globally important, and it is in the interest of the international community to preserve the site for future generations of humanity. The protection and conservation of the site becomes a concern of all the World Heritage countries. Furthermore, funds for certain conservation projects can be obtained through the World Conservation Fund by designees (UNESCO 2006).

The Government of Ecuador (GoE) has also been encouraged by the World

Heritage Committee and others to further protect the islands through enactment of the Special Law for Galapagos which includes: stricter controls on immigration to the site; creation of a quarantine system to combat alien species; the creation of a much larger marine reserve around the islands with improved legal protection; limitations on property rights and economic activities to make these consistent with the goal of conservation, and; increased national funding allocation to the site (WHS 2006). Designating the Galapagos Islands as a WHS, however, has also led to an increase in tourism, which has in turn produced a negative effect on the islands through the increased volume of waste generated by tourists, and more importantly for this species, the spread of invasive species.

The medium tree-finch does not represent a monotypic genus. The magnitude of threat to the species is moderate in magnitude as the species is common in the forested highlands and its habitat has not been highly degraded. The immediacy of threat is non-imminent because the species' habitat is protected by the area's national park and WHS status. We therefore give this species a priority rank of 11.

Cherry-throated tanager (*Nemosia rourei*)

The cherry-throated tanager is currently known from Fazenda Pindobas IV in Espirito Santo, Brazil, where small numbers have been recorded since 1998 (Bauer *et al.* 2000). Prior to 1998, the species was only known from one type specimen, collected around the mid-19th Century in Muriae, Minas Gerais, and from a flock of eight individuals seen in the region of Jatiboca, Espirito Santo, in 1941 (Collar *et al.* 1992). Unconfirmed sightings of the tanager at the Augusto Ruschi (Nova Lombardia) Biological Reserve in 1992 (Scott 1997) and Fazenda Pedra Bonita, Minas Gerais led to intensive fieldwork in an effort to document the presence of the species (Bauer *et al.* 2000). Two groups of *N. rourei* have been definitely located, a population of at least six individuals at Fazenda Pindobas IV and another of at least eight individuals at Caetes. Further observations of a low-density population from the reserve at Augusto Ruschi confirmed Scott's (1997) sightings of the species (Venturini *et al.* 2005).

The species inhabits the canopy of Atlantic dense ombrophylous montane forest at elevations of 850–1,200 m (Venturini *et al.* 2005). There is evidence of the species' occurrence in

coffee plantations and plantations of *Eucalyptus* sp. and *Pinus* spp., but these sightings are sporadic and believed to be related to movements between fragments through corridors of otherwise unsuitable habitat (Venturini *et al.* 2005). The cherry-throated tanager is categorized as Critically Endangered by IUCN because of its extremely small range and small population (IUCN 2006). The population is estimated at 50–249 individuals and declining (BirdLife International 2000). Extensive deforestation is believed to have had an adverse impact on the species (IUCN 2006). This species is protected by Brazilian law and its range may include protected areas (BirdLife International 2000). The owners of Fazenda Pindobas IV have expressed interest in protecting the remaining native forest on their property (Venturini, *in litt.* 2000, as cited in BirdLife International 2006). Fazenda Pindobas IV has been designated an Important Bird Area (IBA) by BirdLife International. The IBA program is a worldwide initiative to identify and protect a network of critical sites for the conservation of the world's birds. The owners of Fazenda Pindobas IV are cooperative with the scientists studying the species within their particular IBA (BirdLife International 2006).

The cherry-throated tanager does not represent a monotypic genus. Loss of habitat is the most significant threat to the species, and this threat is high in magnitude because there has been extensive deforestation within the species' extremely limited range. This threat is imminent because deforestation continues throughout the area. Therefore, the species receives a priority rank of 2.

Black-backed tanager (*Tangara peruviana*)

The black-backed tanager is endemic to the coastal Atlantic forest region of southeastern Brazil, with records from Rio de Janeiro, Sao Paulo, Parana, Santa Catarina, Rio Grande do Sul, and Espirito Santo (Argel-de-Oliveira, *in litt.* 2000, as cited in BirdLife International 2006). It is largely restricted to coastal sand-plain forest and littoral scrub, or restinga, and has also been located in secondary forests (BirdLife International 2006). The black-backed tanager is generally not considered rare within suitable habitat (BirdLife International 2006; IUCN 2006). It has a complex distribution with periodic local fluctuations in numbers owing to seasonal movements, at least in Rio de Janeiro and Sao Paulo (BirdLife International 1992; IUCN 2006). Clarification of the species' seasonal

movements will provide an improved understanding of the species' population status and distribution (IUCN 2006). Population estimates range from 2,500 to 10,000 individuals (BirdLife International 2006), and it is considered Vulnerable by the IUCN (IUCN 2006). The species is threatened by the rapid and widespread loss of habitat for beachfront development and occasionally appears in the illegal cage-bird trade (BirdLife International 2006).

The black-backed tanager does not represent a monotypic genus. The threat to the species is low to moderate in magnitude due to the species' fairly large population size and range. The threat is, however, imminent because the species is threatened by rapid and widespread loss of habitat due to beachfront development. Therefore, we give this species a priority rank of 8.

Lord Howe pied currawong (*Strepera graculina crissalis*)

The Lord Howe Island subspecies of the pied currawong is endemic to the Lord Howe Island group in New South Wales, Australia. The highest densities of nests are located on the slopes of Mt. Gower and in the Erskine Valley, with smaller numbers on the lower land to the north (Knight 1987, as cited in Garnett and Gabriel 2000). This subspecies is highly mobile, and individuals can be found anywhere on the island as well as on offshore islands such as the Admiralty group (Garnett and Gabriel 2000). Pied currawong territories include sections of streams or gullies that are lined by tall timber (Garnett and Gabriel 2000). They feed on dead rats, possibly chase and kill live rats, and have also been recorded taking seabird chicks, poultry, and the chicks of the Lord Howe woodhen (*Tricholimnas sylvestris*) and white terns (*Gygis alba*). The pied currawong will also consume fruits and seeds (Hutton 1991 and McFarland 1994, as cited Garnett and Gabriel 2000). Local residents have been known to kill currawongs that have attacked poultry, woodhens, or terns (Garnett and Gabriel 2000). However, it is unknown what effect this localized killing has on the overall population size and distribution of the subspecies (Garnett and Gabriel 2000). The Lord Howe pied currawong is listed as Endangered on the schedules of the New South Wales Threatened Species Conservation Act (Garnett and Gabriel 2000) because it has a limited range, only occurring on Lord Howe Island (New South Wales National Parks and Wildlife Service 2003). In the Action Plan for Australian Birds (2000), the population was estimated at approximately 80 mature individuals.

The Lord Howe pied currawong is a subspecies facing threats that are low in magnitude and non-imminent. Therefore, it receives a priority rank of 12.

*Invertebrates*

Harris' mimic swallowtail (*Eurytides [syn. Mimoides] lysithous harrisianus*)

Harris' mimic swallowtail is native to Brazil and may also occur in Paraguay (Collins and Morris 1985; Finnish University and Research Network (Funet) 2004). Two populations are confirmed in Rio de Janeiro and it is believed to be extant in Espirito Santo (Keith S. Brown, Jr., Livre-Docent, Universidade Estadual de Campinas, Brazil, pers. comm. 2004). Harris' mimic swallowtail occupies the sandy flats above the tidal margins of the coastal Atlantic Forest. The IUCN designated this subspecies as Endangered in 1988, 1990, and 1994 (IUCN 1996). However, it has not been re-evaluated using the 1997 criteria, nor has it been included on the 2006 IUCN Red List (IUCN 2006). The Brazilian Institute of the Environment and Natural Resources (Instituto Brasileiro do Meio Ambiente de do Recursos Naturais Renováveis; IBAMA) considers this subspecies to be critically imperiled.

The flight habits of the Harris' mimic swallowtail are such that individuals are very hard to locate (K. Brown, Jr., pers. comm. 2004). Only one of the two known populations in Rio de Janeiro has been well-studied. This population has varied in numbers ranging between 50–250 individuals over an eight year period, and in 2004, was reported to be viable, vigorous, and stable (Brown 1996; K. Brown, Jr., pers. comm. 2004). In 1997, a second population in Rio de Janeiro was located and confirmed in the Poço das Antas Biological Reserve, where it had not been seen for thirty years. Researchers believe that additional populations are likely to exist within the reserve (K. Brown, Jr., pers. comm. 2004).

The adult Harris' mimic swallowtail mimics at least three *Parides* spp. which are located within its range. Mimicry (being similar in appearance to other non-related species) can produce errors when attempting to determine the species' range, distribution, and existing population. Farther north along the coastal plain, the species is often confused with the Fluminense swallowtail (*Parides ascanius*) (K. Brown, Jr., pers. comm. 2004). It is possible that Harris' mimic swallowtail exists in Espirito Santo, but that it has been mistaken for the Fluminense swallowtail (Brown 1991; Otero and

Brown 1984; R. Robbins, Research Entomologist, National Museum of Natural History, Department of Entomology, Smithsonian Institution, Washington, DC pers. comm. 2004). IBAMA listed Harris' mimic swallowtail as "strictly protected" in 1989. Collection and trade of the species are prohibited under this listing (Brown 1996).

Habitat destruction due to urbanization, and air and water pollution are the main threats to this subspecies (Brown 1996; Central Intelligence Agency (CIA) 2006). The Poço das Antas Biological Reserve, where one population of the Harris' mimic swallowtail is known to exist, was established in 1974 and encompasses 5,300 hectares of inland Atlantic Forest territory (WWF 2006; Decree No. 73,791 1974). In the period between 1989 and 2002, the Reserve experienced at least six fires; however, there have been no recent reports of fires within the Reserve, and it appears that significant progress is being made in engaging private landowners in conservation efforts near the Reserve (Cullen *et al.* 2005; Matsuo 2005; WWF 2001a). Espirito Santo lies completely within the Atlantic Forest region. Only 8.4 per cent (less than 400,000 hectares) of the original forest remains and only 3 per cent (or 72,263 hectares) is managed and protected by the state or federal government (Critical Ecosystem Partnership Fund (CEPF) 2001; Roach 2002).

Harris' mimic swallowtail does not represent a monotypic genus, but it is a subspecies. The current threats to the species are low in magnitude because of the two known populations, one is considered to be viable, vigorous, and stable and the other population has been located and confirmed in the Poço das Antas Biological Reserve, where it had previously not been seen for thirty years. The threats are non-imminent because the species is strictly protected by Brazilian law. Furthermore, at least one population resides in the Poço das Antas Biological Reserve, where the species and its habitat are protected and preserved. Researchers presume that the species' distribution is larger than currently known, and are attempting to locate other populations inhabiting the Reserve and additional sites within the coastal Atlantic forest, including suitable areas in Paraguay. Therefore, the species is designated a priority rank of 12.

Jamaican kite swallowtail (*Eurytides marcellinus*)

The Jamaican kite swallowtail is endemic to Jamaica. The IUCN

designated this swallowtail as Vulnerable, but it has not been re-evaluated using the 1997 criteria (IUCN 2006). The species is protected under Jamaica's Wildlife Protection Act of 1998 and is included in Jamaica's National Strategy and Action Plan on Biological Diversity, which has established specific goals and priorities for the conservation of Jamaica's biological resources (Schedules of The Wildlife Protection Act 1998).

The Jamaican kite swallowtail appears to have a low population level, but occasionally becomes locally abundant during breeding season for a week or two at its breeding site. There is only one known breeding site being utilized by the species at this time. This area is located in Rozelle, where the swallowtails brood in early summer and occasionally again in early fall (Collins and Morris 1985; Garraway *et al.* 1993; Smith *et al.* 1994). Episodic population explosions have been recorded which are subsequently accompanied by significant westerly migrations of males when population numbers become high (Brown and Heineman 1972; Collins and Morris 1985; Garraway *et al.* 1993). Considerable numbers of Jamaican kite swallowtails were reported in western Jamaican parishes during the 1940s and 1950s (Bailey 1994; Garraway *et al.* 1993). Adult Jamaican kite swallowtails have recently been sighted as far away as St. Thomas, as well as westward to St. Andrew, St. Ann, Trelawny, and the extreme western coast Parish of Westmoreland. The species has reportedly migrated even as far as Florida (Bailey 1994; Funet 2004; Harris 2002; Smith *et al.* 1994; WRC 2001).

Under normal conditions, the Jamaican kite swallowtail disperses no farther than three kilometers from its breeding site, but considering the presence of the larval host-plant throughout the island (R. Robbins, pers. comm. 2004), it is likely that additional breeding sites exist. The only known larval food plant is West Indian lancewood (*Oxandra lanceolata*) (Bailey 1994; Xerces 2004); adult food preferences are unknown.

The John Crow Mountains, spanning several parishes where Jamaican kite swallowtail adults have been found, was declared a protected area in 1993. Cockpit Country (Trelawny Parish), where Jamaican kite swallowtail adults have recently been sighted, is described as nearly impenetrable to humans owing to its terrain (WRC 2002). In 2001, the area became part of the Parks-in-Peril project (The Nature Conservancy (TNC) 2004–06). In 2003, the National Environment and Planning Agency (NEPA) identified Cockpit Country and

Rozelle Beach as priority locations to receive protected area status within the next five to seven years (NEPA 2003).

In 2004, habitat destruction was considered a primary threat to the species. Rozelle has undergone extensive habitat modification for agricultural and industrial purposes (IUCN 2006). Mining operations, deforestation, and the lack of public awareness for conservation issues are threats throughout most of the island (WWF 2001a, 2001b, 2001c). Additionally, the West Indian lancewood, the larval stage's food plant, is a commercially desirable tree. Its wood is used to make fishing rods, pool cues, and other products (Windsor Plywood 2004). Harvesting the tree removes the larval stage's food source, and poses an additional threat because the swallowtail does not thrive in disturbed habitats (Collins and Morris 1985).

The Jamaican kite swallowtail is also subject to naturally occurring, high impact stochastic events. Jamaica lies within the Atlantic Ocean hurricane belt and is subject to severe tropical weather, such as tropical storms, and hurricanes (Mahlung 2001). In the last 18 years, Jamaica has been devastated by a tropical storm (Tropical Storm George in 1998), a Category 3 hurricane (Hurricane Gilbert in 1988), and four Category 5 hurricanes (Hurricane Mitch in 1998; Hurricane Ivan in 2004; Hurricane Dennis and Hurricane Emily in 2005). The hurricanes resulted in extensive damage throughout the island, particularly in Rozelle, which experienced 75 percent erosion in 1988 from Hurricane Gilbert, and extensive beach erosion in 2004 during Hurricane Ivan (The United Nations Environment Programme-Caribbean Environment Programme (UNEP-CEP) 1989; Go Local Jamaica 2004).

In 2000, the Jamaican kite swallowtail was identified as a species that was threatened by commercial trade in the European Union (EU); one female Jamaican kite swallowtail alone had a market value of US\$150 (Melisch 2000; Schütz 2000). This species is not listed under CITES, nor is it listed on the European Commission's Annex B (Eurex 2006), both of which regulate international trade in animals and plants of conservation concern. There is no captive breeding program for the Jamaican kite swallowtail at this time. Protection under the Wildlife Protection Act, which carries a maximum penalty of \$100,000 (Jamaican Dollars) or 12 months imprisonment, appears to be effectively protecting this species from illegal trade (NEPA 2005c).

The Jamaican kite swallowtail does not represent a monotypic genus. Threats to the species are moderate in magnitude because Jamaica has taken several important regulatory steps to preserve their native swallowtail species. Habitat destruction, however, is an ongoing problem. Although there has been no actual change in threats since this species was originally ranked in our December 7, 2004, 12-Month Finding on a Petition to List Seven Foreign Species of Swallowtail Butterflies as Threatened or Endangered (69 FR 70580), habitat loss represents an ongoing and imminent threat to the Jamaica swallowtail. Therefore, to ensure consistency in the application of our listing priority process, we changed the listing priority number from a 5 to an 8 to reflect that the threats are imminent. Therefore, it receives a priority rank of 8.

#### Fluminense swallowtail (*Parides ascanius*)

The Fluminense swallowtail is endemic to Brazil's restinga habitat (Thomas 2003). Restinga habitat, or Atlantic coastal forest, is a distinct type of coastal tropical and subtropical moist broadleaf forest found in Brazil. Restingas form on sandy, acidic, and nutrient-poor soils, and are characterized by medium sized trees and shrubs adapted to coastal conditions. Although the species has been reported in the three Brazilian states of Rio de Janeiro, Espirito Santo, and Sao Paulo where suitable habitat exists, the only confirmed populations are in Rio de Janeiro. The caterpillar feeds on a species in the Dutchman's pipe genus (*Aristolochia macroura*) (Otero and Brown 1984). Adult Fluminense swallowtails prefer nearshore environments, delta and estuarine forest and swamps, but have also been known to frequent scrub habitats and urban locations (Brown 1996; K. Brown, Jr., pers. comm. 2004).

Since 1988, the IUCN has designated this species as Vulnerable, based on a small distribution and a decline in the number of populations due to habitat fragmentation and decline. In 1973, the Fluminense swallowtail was the first invertebrate to be placed on Brazil's list of animals threatened with extinction. It was originally listed due to habitat destruction, and IBAMA continues to consider the species imperiled.

In Rio de Janeiro, the only Fluminense swallowtail population that was known for some time was located in Barro de São João. However, with large amounts of suitable habitat remaining to support Fluminense swallowtails, several large populations

have been located in Rio de Janeiro State (K. Brown, pers. comm. 2004). Recent information suggests that at least two additional populations may exist, one far inland within the Poço das Antas Biological Reserve, and another along the coast in the Restinga de Jurubatiba National Park (K. Brown, Jr., pers. comm. 2004). Although the species is generally sparsely distributed, it can be seasonally common, with sightings of up to 50 individuals in one morning (Otero and Brown 1984; Tyler *et al.* 1994). It is unknown whether the species can produce more than one brood per year. Populations are localized, and require a large area to maintain a viable population (Otero and Brown 1984).

Over an 8-year period (1984 to 1991), the population at Barro de São João was found to fluctuate widely each year (ranging from 20 to 100 individuals). Individuals can fly distances of up to 1000 m. Individuals from this viable population migrate widely in some years, which will likely enhance inter-population gene flow (K. Brown, Jr. pers. comm. 2004). Much less is known about the other two Fluminense swallowtail populations. The Poço das Antas Biological Reserve is considered the only protected area with suitable habitat that is large enough to maintain a viable Fluminense swallowtail colony. Researchers have located large numbers of the swallowtails in the Reserve, and all of the Reserve's populations are being actively monitored (Otero and Brown 1984; R. Robbins, pers. comm. 2004).

This species is threatened by habitat destruction and commercial trade. The range of the Fluminense swallowtail overlaps that of the Harris' mimic swallowtail and faces similar threats to its restinga habitat, including urbanization, land conversion for cultivation and cattle grazing, and fires in the Poço das Antas Biological Reserve. However, there have been efforts to alleviate threats through resolutions of land disputes, efforts to increase public awareness of the plight of the butterflies, and private landowner's agreements to participate in conservation measures for the species.

The population located near the Jurubatiba National Park may face threats from industrialization. The sandy-soiled Barro de São João, where the best-documented Fluminense swallowtail population is located, is within the Macaé River basin. This river basin provides the coastal drainage habitat preferred by the Fluminense swallowtail and marks the outer edge of the Jurubatiba National Park

(International Finance Corporation (IFC) 2002). Macaé has been an oil boom town since 1968, supporting offshore drilling rigs and the natural gas-fired Macaé Merchant Power Plant which was built in 2003 (IFC 2002). Prior to construction, United States-based El Paso had committed to several projects that would mitigate the environmental impacts of the power plant. These projects included promotion of environmental recovery, preservation of a mangrove preserve, and reforestation of native species within the Macaé river basin (IFC 2002). In April 2006, El Paso sold its interest in the power plant to Brazilian-based Petrobras (El Paso Corporation 2006). The current status and future disposition of the mitigation projects are unknown.

This species requires a large area to maintain a viable population; therefore, the Poço das Antas Biological Reserve is considered the species' best hope for conservation. Recent sightings of the Fluminense swallowtail in the Jurubatiba National Park, which is larger than Poço das Antas Biological Reserve, may bode well for the species. However, the management plan for the Jurubatiba National Park is not yet completed, and the Park is understaffed, lacks infrastructure, and has land ownership problems (Anonymous 2003).

Unlike Harris' mimic swallowtail, the Fluminense swallowtail is easy to capture. The species is strictly protected from commerce in Brazil, and a German market study in 2000 identified the Fluminense swallowtail as being commercially threatened in the EU (K. Brown, Jr., pers. comm. 2004; Melisch 2000; Schütz 2000). The species is not listed in the CITES Appendices, but it is listed on Annex B of the European Union's Council Regulation (EC) No. 338/97, which regulates imports of certain species into any country belonging to the European Union (Eur-Lex 2006). Import of an Annex B-listed species must be accompanied by information that demonstrates that the import will not detrimentally affect the conservation status of the species or its habitat (Eur-Lex 2006). There is no recent information regarding the current market for this species in the European Union.

The Fluminense swallowtail does not represent a monotypic genus. The current threats to the species are moderate in magnitude because three additional populations have been discovered recently, and it is believed that two additional populations are about to be located in the restinga. The species is desirable in trade, but it is strictly protected from international trade by Brazilian and EU regulation.

Threats to the species, however, are imminent and ongoing because habitat alteration and fragmentation continues due to increased urbanization, land conversion for cultivation and cattle grazing, and periodic fires. Therefore, it receives a priority rank of 5.

Hahnel's Amazonian swallowtail  
(*Parides hahneli*)

Hahnel's Amazonian swallowtail is endemic to two known populations along the tributaries of the middle and lower Amazon Basin of Amazonas and Pará States in Brazil (Collins and Morris 1985; New and Collins 1991; Tyler *et al.* 1994). The species occupies a wide range and is common in some areas, but is usually characterized as a species that is very local, rare and patchy in distribution due to its preference for highly specialized habitat (K. Brown, Jr., pers. comm. 2004). The swallowtail depends upon stranded beaches of river drainage areas. Wells *et al.* (1983) describes the habitat as ancient sandy beaches covered by scrubby or dense vegetation that is not floristically diverse. The larval host-plant is believed to be a species in the Dutchman's pipe genus, either *Aristolochia lanceolato-lorato* or *A. acutifolia*.

In 1983, the IUCN categorized this species as Rare; however, in 1996, when the species was most recently assessed, the IUCN determined that there was insufficient data to determine its status (Wells *et al.* 1983; IUCN 2006). In Brazil, Hahnel's Amazonian swallowtail is listed as a species under study, but it is not listed on the Brazilian list of animals threatened with extinction (MMA 2006), perhaps due to the species' wide range and tendency to be locally common (K. Brown, Jr., pers. comm. 2004).

Threats to the species include competition with other species, habitat destruction, and commercial trade. This species occupies the same range with another swallowtail butterfly, *Parides chabrias ygdrasilla*, and mimics at least two other genera that occupy the same area, *Methona* and *Thyrides* (Brown 1996). Previously, researchers believed that this species might suffer from host-plant competition with the other butterfly species in the region (Collins and Morris 1985; Wells 1983); however, this has not been demonstrated, nor has it been observed. The species has extremely limited habitat preferences; therefore, any type of river modification activity, such as impoundment, channelization, or levee construction would have an immediate and highly negative impact on the species (Wells *et al.* 1983; New and Collins 1991).

Commercial exploitation is considered to be a threat to Hahnel's Amazonian swallowtail (Melisch 2000; Schütz 2000). A survey of German markets found swallowtails to be among the most popular species being sold; Hahnel's Amazonian swallowtails sold for USD \$200 per pair (Schütz 2000). Currently, there is limited trade of the species over the internet. The species is not listed in the CITES Appendices, but it is listed on the European Commission's Annex B, which regulates imports of certain species into the EU. It is unclear how this listing has affected trade in the species; however, experts agree that species with restricted distributions or localized populations, such as the Hahnel's Amazonian swallowtail, are more vulnerable to over-collection than those with a wider distribution (K. Brown, Jr., pers. comm. 2004; R. Robbins, pers. comm. 2004).

Hahnel's Amazonian swallowtail does not represent a monotypic genus. The current threats to the species are low in magnitude and non-imminent; therefore, it receives a priority rank of 11.

Kaiser-I-Hind swallowtail (*Teinopalpus imperialis*)

The Kaiser-I-Hind swallowtail is native to the Himalayan regions of Bhutan, China, India, Laos, Myanmar, Nepal, Thailand, and Vietnam (Food and Agriculture Organization (FAO) 2001; Igarashi 2001; Masui and Uehara 2000; Osada *et al.* 1999). This swift species prefers undisturbed montane deciduous forests and flies at altitudes of 1500 and 3050 m (Bond 1964; Igarashi 2001; Tordoff *et al.* 1999). Although the species was first described in 1843, its life history was not well characterized until 1986 (Igarashi and Fukuda 2000). The Kaiser-I-Hind swallowtail produces two broods per year, the first in spring, and another in late summer (Igarashi 2001). Females of the species are much larger than males and males predominate in sex ratio calculations (Bond 1964). Larval host-plants may differ across the species' range, and include: *Magnolia campbellii* in China (Igarashi and Fukuda 2000; Sung and Yan 2005; Yen and Yang 2001); *Magnolia* spp. in Vietnam (Fune 2004); *Daphne* spp. in India, Nepal, and Myanmar (Fune 2004); and *Daphne nipalensis* also in India (Robinson *et al.* 2004).

In 1996, the IUCN categorized the Kaiser-I-Hind swallowtail as a species of Least Concern and it has not been re-evaluated using the 1997 criteria. The species remains in this category in the 2006 IUCN Red List (IUCN 2006). Despite its widespread distribution,

local populations are not abundant (Collins and Morris 1985). We were unable to locate current conservation or population status information for Bhutan, Laos and Myanmar, and information for the remaining range countries is limited.

In 1994, with no verified occurrences in 50 years, researchers considered the species to be in immediate danger of extinction in China. However, the species has since been reported in Fujian, Guangxi, Hubei, Jiangsu, Sichuan, and Yunnan Provinces (The United Nations Environment Programme-World Conservation Monitoring Center (UNEP-WCMC) 1999; Igarashi and Fukuda 2000; Sung and Yan 2005). The species is classified by the 2005 China Species Red List as Vulnerable (China Red List 2006).

In India, the species has previously been reported in Assam, Darjeeling, Manipur, Meghalaya, Sikkim, and West Bengal (Collins and Morris 1985; East-Himalaya.com 2006; Prime.travels.com 2006). However, we were unable to confirm the population status of the species in any of the regions except Sikkim, where a sighting was confirmed in 2003 (Ministry of Environment and Forests 2005). The Kaiser-I-Hind swallowtail is listed on Schedule II of the Indian Wildlife Protection Act of 1972 (Collins and Morris 1985; Indian Wildlife Protection Act 2006).

In Nepal, the Kaiser-I-Hind swallowtail has been reported along the southern border of Godavari and in the central region of Pokhara (Anonymous 2002; Environmental Law Alliance Worldwide (E-Law) 2002). The swallowtail reportedly produces one brood in the spring in Nepal, as opposed to the production of the normal two broods elsewhere throughout the species' range (Anonymous 2002). The Kaiser-I-Hind swallowtail is protected by the National Parks and Wildlife Conservation Act of 1973 (E-Law 2002; His Majesty's Government of Nepal (HMG) 2002; Shrestha 1999).

In Thailand, the species has been reported in Chang Mai province (Pornpitagpan 1999) but we have not been able to find additional locality or status information. The Kaiser-I-Hind swallowtail and 13 other invertebrates are listed under Thailand's Wildlife Reservation and Protection Act of 1992, which makes it illegal to collect wildlife (whether alive or dead) or to have the species in one's possession (FAO 2001; Hongthong 1998; Pornpitagpan 1999).

In Vietnam, the Kaiser-I-Hind swallowtail has been confirmed in three Nature Reserves (Tordoff *et al.* 1999; Trai and Richardson 1999), but there is no domestic regulatory protection for



the species. It is afforded some protection, however, because the Nature Reserves are considered to have low levels of disturbance (Tordoff *et al.* 1999; Trai and Richardson 1999).

Habitat destruction is the greatest threat to this species which prefers undisturbed high altitude habitat. In China and India, the Kaiser-I-Hind swallowtail populations are threatened by habitat modification and destruction due to commercial and illegal logging (Yen and Yang 2001; Maheshwari 2003). In Nepal, the two locations where the species has been confirmed are threatened by habitat disturbance and destruction resulting from mining, fuel wood collection and burning, and grazing animals (Baral *et al.* 2005; E-Law 2002). Nepal's Forest Ministry considers habitat destruction to be a critical threat to all biodiversity, including the Kaiser-I-Hind swallowtail (HMG 2002). Habitat degradation and loss caused by deforestation and land conversion for agricultural purposes is a primary threat to the species in Thailand (Hongthong 1998; FAO 2001).

Commercial utilization is another threat to the Kaiser-I-Hind swallowtail. The species is valued for its beauty, and thus, its marketability. In China, the Kaiser-I-Hind swallowtail is considered to be more valuable than the Southern tailed birdwing butterfly (*Ornithoptera meridionalis*), which was reportedly valued at U.S. \$8,700 per pair, in 2000 (Schütz 2000; Watanabe 1997). According to the Nepal Forestry Ministry, the high commercial value of endangered species on the local and international market may result in local extinctions of many of Nepal's most endangered plants and animals, including this species (HMG 2002). Unsustainable collection for the souvenir trade is also a primary threat to the species in Thailand (FAO 2001), where villagers from Chang Mai province have nicknamed the Kaiser-I-Hind butterfly the "motorbike insect" because a "villager in this northern province [who is] lucky enough to catch one will earn enough money to buy a motorcycle" (Pornpitagpan 1999). In Vietnam, Kaiser-I-Hind swallowtails are reported to be among the most valuable of all butterflies (World Bank 2005).

The Kaiser-I-Hind swallowtails (both the Kaiser-I-Hind swallowtail and the Golden Kaiser-I-Hind swallowtail) were listed in CITES Appendix II in 1987 (UNEP-WCMC 2006a). Between 1991 and 2005, 160 Kaiser-I-Hind swallowtail specimens were exported in international trade (UNEP-WCMC 2006b). The United States is the largest importer of the butterflies and China exported the largest percentage of

Kaiser-I-Hind swallowtails (both countries account for more than 50 percent of the trade). In addition to China, India and Thailand are the only range countries that have been identified as sources of legal specimens in international trade. There are unconfirmed reports that the Kaiser-I-Hind swallowtail is being captive-bred in Taiwan (Yen and Yang 2001); however, according to CITES trade data, only one export of captive bred specimens has been reported since the 1987 listing, and those were *Teinopalpus* spp. eggs that were exported from the Philippines in 2002. Since 1993, there have been no reported seizures of Kaiser-I-Hind swallowtail in the United States (Office of Law Enforcement, U.S. Fish and Wildlife Service, Arlington, Virginia, pers. comm. 2006).

In summary, the Kaiser-I-Hind swallowtail is native to eight countries in southern and southeast Asia. Population status information is lacking throughout the species' range, except in Nepal and China, where the species is considered vulnerable and rare, respectively. Habitat degradation and conversion threaten the species in at least four range countries (China, India, Nepal, and Thailand), principally because the species prefers undisturbed habitat. The Kaiser-I-Hind swallowtail is collected for commercial trade in at least four range countries (China, India, Nepal, and Thailand), and three range countries have reported limited international trade in the species (China, India, and Thailand). At least three of the range countries (India, Nepal, and Thailand) have additional protective regulatory measures in place for conservation of the species.

The Kaiser-I-Hind swallowtail does not represent a monotypic genus. The current threat to the species is moderate to low in magnitude due to its wide distribution, conservation in international trade afforded by CITES, and additional protective regulatory measures that are in place in at least three of the five species' range countries. Threats are imminent because the Kaiser-I-Hind swallowtail is acutely affected by habitat disturbance and degradation, which is ongoing throughout its range. Additionally, considering the high prices reaped by the species in international trade, collection continues to be a threat to the species. Therefore, it receives a priority rank of 8.

#### Progress in Revising the Lists

As described in section 4(b)(3)(B)(iii)(II) of the Act, we must show that we are making expeditious

progress to add qualified species to the Lists of Endangered and Threatened Wildlife and Plants and to remove species from the lists for which the protections of the Act are no longer necessary. We are making expeditious progress in listing and delisting species as shown by the recent high-priority listing actions: our December 7, 2004, 12-month finding on a petition to list seven foreign species of swallowtail butterflies as threatened or endangered (69 FR 70580); publication of a 12-month petition finding and proposed rule to delist the Mexican bobcat (*Lynx rufus escuinapae*) on May 19, 2005 (70 FR 28895); our September 2, 2005, final rule listing the scimitar-horned oryx, addax, and dama gazelle as endangered (70 FR 52319); our March 29, 2006, final rule listing the Tibetan antelope as endangered (71 FR 15620); and our June 28, 2006, 90-day finding to a petition to delist the Morelet's crocodile (71 FR 36743). We also published a proposed rule to list six foreign birds as endangered on November 23, 2006 for which listing was found to be warranted in our 2004 ANOR (71 FR 67530). In addition to these actions, since publication of the 2004 ANOR, we promulgated a special rule to control the trade of threatened beluga sturgeon (*Huso huso*) on March 4, 2005 (70 FR 10493) and a final rule to manage U.S. captive bred scimitar-horned oryx, addax, and dama gazelle under the Act on September 2, 2005 (70 FR 52310).

Our ability to make progress in adding or removing qualified species to the Lists of Endangered and Threatened Wildlife and Plants is dependent upon resources available. As discussed previously, along with having this responsibility, the DSA must also carry out its other responsibilities under the Act, its responsibilities under CITES, and its responsibilities under the Wild Bird Conservation Act. Currently, more than 50 percent of DSA staff resources are devoted to listing activities under the Act. We will continue to make expeditious progress to add or remove species from the Lists consistent with our available staff and budget resources.

#### Monitoring

Section 4(b)(3)(C)(iii) of the Act requires us to "implement a system to monitor effectively the status of all species" for which we have made a warranted-but-precluded 12-month finding, and to "make prompt use of the [emergency listing] authority [under section 4(b)(7)] to prevent a significant risk to the well being of any such species." For foreign species, the Service's ability to gather information to monitor species is limited. While the

Service welcomes all information relevant to the status of these species, we have no ability to gather data in foreign countries directly and cannot compel another country to provide information. Thus, this ANOR plays a critical role in our monitoring efforts for foreign species. With each ANOR, we request information on the status of the species included in the notice. Information and comments on the annual findings can be submitted at any time. We review all new information received through this process as well as any other new information we obtain using a variety of methods. We collect information from the peer-reviewed scientific literature, unpublished literature, scientific meeting proceedings, and CITES documents (including species proposals and reports from scientific committees). We also obtain information through the permit application processes under CITES, the Act, and the Wild Bird Conservation Act. We also consult with staff members

of the Service's Division of International Conservation, the World Conservation Union species specialist groups (IUCN), and attend scientific meetings to obtain current status information for relevant species. As previously stated, if we identify any species for which emergency listing is appropriate, we will make prompt use of the emergency listing authority under section 4(b)(7) of the Act.

**Request for Information**

We request the submission of any further information on the species in this notice as soon as possible, or whenever it becomes available. We especially seek information: (1) Indicating that we should remove a taxon from warranted or warranted-but-precluded status; (2) indicating that we should remove a species from warranted or warranted-but-precluded status; (3) documenting threats to any of the included species; (4) describing the immediacy or magnitude of threats

facing these species; (5) pointing out taxonomic or nomenclatural changes for any of the species; (6) suggesting appropriate common names; or (7) noting any mistakes, such as errors in the indicated historical ranges.

**References Cited**

A list of the references used to develop this notice is available upon request (see ADDRESSES section).

*Authors*

The primary author of the bird portion of this notice is Marie T. Maltese and the primary author of the invertebrate portion of this notice is Dr. Patricia De Angelis. Both authors are in the Division of Scientific Authority, U.S. Fish and Wildlife Service (see ADDRESSES section).

*Authority*

This notice of review is published under the authority of the Endangered Species Act (16 U.S.C. 1531 *et seq.*).

TABLE 1.—CANDIDATE REVIEW  
[C=listing warranted but precluded; L=to be listed]

Birds status		Scientific name	Family	Common name	Historic range
Category	Priority				
C	2	<i>Podiceps taczanowskii</i>	Podicipedidae	Junin flightless grebe	Peru.
L	2	<i>Pterodroma macgillivrayi</i>	Procellariidae	Fiji petrel	Fiji.
C	2	<i>Pterodroma axillaris</i>	Procellariidae	Chatham petrel	Chatham Islands, New Zealand.
L	8	<i>Pterodroma cookii</i>	Procellariidae	Cook's petrel	New Zealand.
L	2	<i>Pterodroma phaeopygia</i>	Procellariidae	Galapagos petrel	Galapagos Islands, Ecuador.
L	8	<i>Pterodroma magentae</i>	Procellariidae	magenta petrel	Chatham Islands, New Zealand.
L	11	<i>Puffinus heinrothi</i>	Procellariidae	Heinroth's shearwater	Bismarck Archipelago, Papua New Guinea, Solomon Islands.
L	2	<i>Leptoptilos dubius</i>	Ciconiidae	greater adjutant stork	South Asia.
L	2	<i>Phoenicopterus andinus</i>	Phoenicopteridae	Andean flamingo	Argentina, Bolivia, Chile, Peru.
C	2	<i>Mergus octosetaceus</i>	Anatidae	Brazilian merganser	Brazil.
C	2	<i>Penelope perspicax</i>	Craciidae	Cauca guan	Colombia.
C	8	<i>Pauxi unicornis</i>	Craciidae	southern helmeted curassow.	Bolivia, Peru.
C	2	<i>Crax alberti</i>	Craciidae	blue-billed curassow	Colombia.
C	3	<i>Tetrao urogallus cantabricus</i> .	Tetraonidae	Cantabrian capercaillie	Spain.
C	2	<i>Odontophorus strophium</i>	Odontophoridae	gorgeted wood-quail	Colombia.
C	2	<i>Laterallus tuerosi</i>	Rallidae	Junin rail	Peru.
C	8	<i>Rallus semiplumbeus</i>	Rallidae	Bogota rail	Colombia.
C	8	<i>Porphyrio hochstetteri</i>	Rallidae	takahe	New Zealand.
C	8	<i>Haematopus chathamensis</i>	Haematopodidae	Chatham oystercatcher	Chatham Islands, New Zealand.
C	2	<i>Rhinoptilus bitorquatus</i>	Glareolidae	Jerdon's courser	India.
C	2	<i>Numenius tenuirostris</i>	Scolopacidae	slender-billed curlew	Africa, Algeria, Bulgaria, southern Europe, Greece, Hungary, Italy, Kazakhstan, Morocco, Romania, Russia, Tunisia, Turkey, Ukraine, and Yugoslavia.
C	2	<i>Ducula galeata</i>	Columbidae	Marquesan imperial-pigeon	Marquesas Islands, French Polynesia.
C	2	<i>Cacatua moluccensis</i>	Cacatuidae	salmon-crested cockatoo	South Moluccas, Indonesia.

TABLE 1.—CANDIDATE REVIEW—Continued  
[C=listing warranted but precluded; L=to be listed]

Birds status		Scientific name	Family	Common name	Historic range
Category	Priority				
C	4	<i>Cyanoramphus malherbi</i> .....	Psittacidae .....	orange-fronted parakeet .....	New Zealand.
C	8	<i>Eunymphicus uvaeensis</i> .....	Psittacidae .....	Uvea parakeet .....	Uvea, New Caledonia.
C	8	<i>Ara glaucogularis</i> .....	Psittacidae .....	blue-throated macaw .....	Bolivia.
C	3	<i>Neomorphus geoffroyi dulcis</i> .	Cuculidae .....	southeastern rufous-vented ground cuckoo.	Brazil.
C	3	<i>Phaethornis malaris margaretae</i> .	Trochilidae .....	Margaretta's hermit .....	Brazil.
C	3	<i>Eriocnemis nigrivestis</i> .....	Trochilidae .....	black-breasted puffleg .....	Ecuador.
C	2	<i>Eulidia yarrellii</i> .....	Trochilidae .....	Chilean woodstar .....	Chile, Peru.
C	2	<i>Acestrura berlepschi</i> .....	Trochilidae .....	Esmeraldas woodstar .....	Ecuador.
C	8	<i>Dryocopus galeatus</i> .....	Picidae .....	helmeted woodpecker .....	Argentina, Brazil, Paraguay.
C	7	<i>Dendrocopos noguchii</i> .....	Picidae .....	Okinawa woodpecker .....	Okinawa Island, Japan.
C	11	<i>Aulacorhynchus huallagae</i> ..	Ramphastidae .....	yellow-browed toucanet .....	Peru.
C	2	<i>Cinclodes aricomae</i> .....	Furnariidae .....	royal cinclodes .....	Bolivia, Peru.
C	2	<i>Leptasthenura xenothorax</i> ..	Furnariidae .....	white-browed tit-spinetail .....	Peru.
C	2	<i>Formicivora erythronotos</i> .....	Thamnophilidae .....	black-hooded antwren .....	Brazil.
C	2	<i>Pyriglena atra</i> .....	Thamnophilidae .....	fringe-backed fire-eye .....	Brazil.
C	2	<i>Grallaria milleri</i> .....	Formicariidae .....	brown-banded antpitta .....	Colombia.
C	8	<i>Scytalopus novacapitalis</i> .....	Conopophagidae .....	Brasilia tapaculo .....	Brazil.
C	2	<i>Hemitriccus kaempferi</i> .....	Tyrannidae .....	Kaempfer's tody-tyrant .....	Brazil.
C	2	<i>Anairetes alpinus</i> .....	Tyrannidae .....	ash-breasted tit-tyrant .....	Bolivia, Peru.
C	2	<i>Phytotoma raimondii</i> .....	Phytotomidae .....	Peruvian plantcutter .....	Peru.
C	3	<i>Cichlherminia iherminieri sanctaeluciae</i> .	Turdidae .....	St. Lucia forest thrush .....	St. Lucia Island, West Indies.
C	3	<i>Acrocephalus caffer aquilonis</i> .	Sylviidae .....	Eiao Polynesian warbler .....	Marquesas Islands, French Polynesia.
C	9	<i>Bowdleria punctata wilsoni</i>	Sylviidae .....	Codfish Island fernbird .....	Codfish Island, New Zealand.
C	8	<i>Zosterops luteirostris</i> .....	Zosteropidae .....	Ghizo white-eye .....	Solomon Islands.
C	11	<i>Camarhynchus pauper</i> .....	Thraupidae .....	medium tree-finch .....	Floreana Island, Galapagos Islands, Ecuador.
C	2	<i>Nemosia rourei</i> .....	Thraupidae .....	cherry-throated tanager .....	Brazil.
C	8	<i>Tangara peruviana</i> .....	Thraupidae .....	black-backed tanager .....	Brazil.
C	12	<i>Strepera graculina crissalis</i>	Cracticidae .....	Lord Howe pied currawong	Lord Howe Islands, New South Wales.

  

Invertebrates status		Scientific name	Synonyms	Common name	Historic range
Category	Priority				
C	12	<i>Eurytides lysithous harrisianus</i> .	<i>Graphium lysithous harrisianus</i> ; <i>Mimoides lysithous harrisianus</i> .	Harris' mimic swallowtail .....	Brazil, Paraguay.
C	8	<i>Eurytides marcellinus</i> .....	<i>Graphium marcellinus</i> ; <i>Neographium marcellinus</i> ; <i>Protographium marcellinus</i> (nom. inv.); <i>Protesilaus marcellinus</i> .	Jamaican kite swallowtail .....	Jamaica.
C	5	<i>Parides ascanius</i> .....	n/a .....	Fluminense swallowtail .....	Brazil.
C	11	<i>Parides hahneli</i> .....	n/a .....	Hahnel's Amazonian swallowtail.	Brazil.
C	8	<i>Teinopalpus imperialis</i> .....	n/a .....	Kaiser-I-Hind swallowtail .....	Bhutan, China, India, Laos, Myanmar, Nepal, Thailand, Vietnam.

Dated: April 13, 2007.

H. Dale Hall,

Director, Fish and Wildlife Service.

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