DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R9-ES-2009-0057]
[90100 16641FLA-B6]

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: Notice of review.

SUMMARY: In this notice of 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 by higher priority listing actions, 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 notice describes our status review of 20 foreign taxa that were the subjects of previous warranted-but-precluded findings, most recently summarized in our 2008 Notice of Review. Based on our current review, we find that 20 species (see Table 1) continue to warrant listing, but that their listing remains precluded by higher priority listing actions.

With this annual notice of review (ANOR), we are requesting additional status information for the 20 taxa that remain warranted but precluded by higher priority listing actions. We will consider this information in preparing listing documents and future resubmitted petition findings for these 20 taxa. This information will also help us to monitor the status of the taxa and in conserving them.

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

ADDRESSES: This notice is available on the Internet at *http://www.regulations.gov*, and *http://endangered.fws.gov/*. Supporting information used in preparing this notice is available for public inspection, by appointment, during normal business hours at the Branch of Listing, 4401 N. Fairfax Drive, Room 420, Arlington, Virginia 22203. Please submit any new information, materials, comments, or questions concerning this notice to the above address.

FOR FURTHER INFORMATION CONTACT: Chief, Branch of Listing, Endangered Species Program, (see **ADDRESSES**); by telephone at 703-358-2171; or by facsimile at 703-358-1735). Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339.

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) of the Act. We implement this mechanism 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. The second mechanism for considering species for listing is for the public to petition to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists). The species covered by this notice were assessed through the petition process.

Under section 4(b)(3)(A) of the Act, when we receive a listing 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, whereby, in accordance with section 4(b)(3)(B) of the Act 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, sections 4(b)(5) and 4(b)(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 on a petition to list means that listing is warranted, but that the immediate proposal and timely promulgation of a final regulation is precluded by higher priority listing actions. In making a warranted-but precluded finding under the Act, the Service must demonstrate that expeditious progress is being made to add and remove species from the lists of endangered and threatened wildlife and plants.

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 foreign species previously described in the 2008 Notice of Review (73 FR 44062; July 29, 2008) and that are currently the subject of outstanding petitions.

Previous Notices

The species discussed in this notice were the result of three separate petitions submitted to the U.S. Fish and Wildlife Service (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 24, 1980, and May 6, 1991 (46 FR 26464; May 12, 1981, and 56 FR 65207; December 16, 1991, respectively). On January 10, 1994, we received a petition to list 7 butterfly species as threatened or endangered (59 FR 24117; May 10, 1994).

We took several actions on these petitions. To notify the public on these actions, we published petition findings, listing rules, status reviews, and petition finding reviews that included foreign species in the **Federal Register** on the following dates:

Date	FR Citation
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 52746
April 25, 1990	55 FR 17475
September 28, 1990	55 FR 39858
November 21, 1991	56 FR 58664
December 16, 1991	56 FR 65207
March 28, 1994	59 FR 14496
May 10, 1994	59 FR 24117
January 12, 1995	60 FR 2899
May 21, 2004	69 FR 29354
April 23, 2007	72 FR 20184

Our most recent review of petition findings was published on July 29, 2008 (73 FR 44062).

Since our last review of petition findings in July 2008, we have taken four listing actions related to species previously included in this notice (see Preclusion and Expeditious Progress section for additional listing actions that were not related to this notice). On December 8, 2008, we published two proposed rules to list species under the Act: One to list the medium tree finch (73 FR 74434), and the other to list the black-breasted puffleg (73 FR 74427). On December 24, 2008, we published a proposed rule to list the Andean flamingo, the Chilean woodstar, and the St. Lucia forest thrush (73 FR 79226). On July 7, 2009, we published a proposed rule to list the blue-billed curassow, the brown-banded antpitta, the Cauca guan, the gorgeted wood-quail, and the Esmeraldas woodstar (74 FR 32307).

Findings on Resubmitted Petitions

This notice describes our resubmitted petition findings for 20 foreign species for which we had previously found proposed listing to be warranted but precluded. We have considered all of the new information that we have obtained since the previous findings, and we have reviewed the listing priority number (LPN) of each taxon for which proposed listing continues to be warranted but precluded, in accordance with our Listing Priority Guidance published September 21, 1983 (48 FR 43098). Such a priority ranking guidance system is required under section 4(h)(3) of the Act. Using this guidance, we assign each taxon an LPN of 1 to 12, whereby we first categorize based on the magnitude of the threat(s) (high versus moderate-to-low), then by the immediacy of the threat(s) (imminent versus nonimminent), and finally by taxonomic status; the lower the listing priority number, the higher the listing priority (i.e., a species with an LPN of 1 would have the highest listing priority).

As a result of our review, we find that warranted-but-precluded findings remain appropriate for these 20 species. We emphasize that we are not proposing these species for listing by this notice, but we do anticipate developing and publishing proposed listing rules for these species in the future, with an objective of making expeditious progress in addressing all 20 of these foreign species within a reasonable timeframe.

Table 1 (see end of this notice) provides a summary of all updated determinations of the 20 taxa in our review. All taxa in Table 1 of this notice are ones for which we find that listing is warranted but precluded and are referred to as ''candidates'' under the Act. The column labeled ''Priority'' indicates the LPN. 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 historic range for the taxon. The avian species in Table 1 are listed taxonomically.

Findings on Species for Which Listing Is Warranted but Precluded

We have found that, for the 20 taxa discussed below, publication of proposed listing rules will continue to be precluded over the next year due to the need to complete pending, higher priority listing actions. We will continue to monitor the status of these species as new information becomes available (see **Monitoring**, below). 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. In the following section, we describe the status of and threats to the individual species.

Birds

Southern helmeted curassow (*Pauxi unicornis*)

The southern helmeted curassow is one of the least frequently encountered South American bird species because of the inaccessibility of its preferred habitat and its apparent intolerance of human disturbance (Herzog and Kessler 1998). The southern helmeted curassow is known only from two distinct populations in central Bolivia and central Peru (BirdLife International 2009a).

The Bolivian population of the nominate species (*Pauxi unicornis unicornis)* remained unknown to science until 1937 (Cordier 1971). Subsequently, it has been observed in the adjacent Amboró and Carrasco National Parks (Brooks 2006; Herzog and Kessler 1998), and has recently been found in Isiboro-Secure Indigenous Territory and National Park (TIPNIS), along the western edge of the Mosetenes Mountains, Cochabamba, Bolivia. Recent surveys have located few southern helmeted curassows across the northern boundary of Carrasco National Park, where it was historically found (MacLeod 2007 as cited in BirdLife International 2009a). In Amboró National Park, the southern helmeted curassow is regularly sighted on the upper Rio Saguayo (Wege and Long 1995). Extensive surveys over the last several years have failed to locate the species in Madidi National Park, La Paz (Hennessey 2004a as cited in BirdLife International 2009a8; Maccormack *in litt.* 2004 as cited in BirdLife International 2008; MacLeod *in litt.* 2003 as cited in BirdLife International 2009a), on the eastern edge of the Mosetenes Mountains in Cochabamba, and in the Rio Tambopata area near the Bolivia/Peru border.

In Peru, a subpopulation (*Pauxi unicornis koepckeae*) is known only from the Sira Mountains in Huanuco (Tobias and del Hoyo 2006). In 2005, a team from the Armonia Association (BirdLife in Bolivia) saw one and heard three southern helmeted curassow in the Sira's: the first sighting of the distinctive endemic Peruvian race since 1969 (BirdLife International 2008). Limited reports suggest that the southern helmeted curassow is rare here (MacLeod *in litt.* 2004 as cited in BirdLife International 2008; Maccormack *in litt.* 2004 as cited in BirdLife International 2009a; Mee *et al.* 2002), and evidence suggests the population is declining (Gastañaga and Hennessey 2005 as cited in BirdLife International 2009a). The southern helmeted curassow occurs at densities up to 20 individuals/square kilometer (km^2); however, in recent surveys only 1 or 2 individuals have been observed (Macleod 2007 as cited in BirdLife International 2008).

According to the International Union for Conservation of Nature and Natural Resources (IUCN) /Species Survival Commission (SSC) Cracid Specialist Group the southern helmeted curassow is critically endangered and should be given immediate conservation attention (Brooks and Strahl 2000).

The southern helmeted curassow inhabits dense, humid, lower montane forest and adjacent evergreen forest at 450 to 1,200 meters (m) (Cordier 1971; Herzog and Kessler 1998). It prefers eating nuts of the almendrillo tree (*Byrsonima wadsworthii* (Cordier 1971)), but also consumes other nuts, seeds, fruit, soft plants, larvae, and insects (BirdLife International 2008). Clutch size of the southern helmeted curassow is probably two, as in other *Cracidae.* However, the only nest found contained only one egg (Banks 1998; Cox *et al.* 1997; Renjifo and Renjifo 1997 as cited in BirdLife International 2008).

The southern helmeted curassow was previously classified as ''Vulnerable'' on the IUCN Red List. In 2005, it was uplisted to its current status as ''Endangered'' (BirdLife International 2009a; BirdLife International 2004). Southern helmeted curassow populations are estimated to be declining very rapidly due to

uncontrolled hunting and habitat destruction; this species has a small range and is known only from a few locations, which continue to be subject to habitat loss and hunting pressures. The total population of mature southern helmeted curassow is estimated to be between 1,000 and 4,999 individuals (BirdLife International 2009a). The subspecies in Peru is estimated to have fewer than 400 individuals (Gastañaga *in litt.* 2007 as cited in BirdLife International 2009a). Estimated decline in the overall population over 10 years or 3 generations past is 50 to 79 percent. However, the quality of this estimate is poor (BirdLife International 2009b). The Rio Leche area in Peru experienced a 100 percent population decline in less than 5 years because of hunting pressures. Similar human pressures are ongoing throughout the species' range. The observed decline likely infers that a 50-percent population loss occurred between 1995 and 2005. Unless threats are mitigated this trend will probably continue for the next several years (Macleod *in litt.* 2005). Hunting is probably the biggest threat to southern helmeted curassow in all parts of its range (Gastañaga 2006 as cited in BirdLife International 2009a). The species is often hunted for meat and its casque, or horn (Collar *et al.* 1992), which the local people use to fashion cigarette-lighters (Cordier 1971). In the Amboró region of Bolivia, the bird's head is purportedly used in folk dances (Hardy 1984 as cited in Collar 1992).

In Bolivia, forests within the range of the southern helmeted curassow are being cleared for crop cultivation by colonists from the altiplano (Maillard 2006 as cited in BirdLife International 2009a). Rural development, including road building, inhibits its dispersal (Fjeldså *in litt.* 1999 as cited in BirdLife International 2008; Herzog and Kessler 1998). In Peru, in addition to hunting, southern helmeted curassow habitat is threatened by subsistence agriculture (MacLeod *in litt.* 2000 as cited in BirdLife International 2009a), forest clearing by colonists, illegal logging, mining, and oil exploration (BirdLife International 2009a). The southern helmeted curassow is dependent upon pristine habitat. Therefore, its presence is critical for determining priorities for conservation (Brooks 2006).

In Bolivia, large parts of southern helmeted curassow habitat are ostensibly protected by inclusion in the Amboro and Carrasco National Parks and in the Isiboro-Secure Indigenous Territory and National Park. However, pressures on the species' populations continue (BirdLife International 2009a; BirdLife International 2000). In recent years, extensive field surveys of southern helmeted curassow habitat have resulted in little success in locating the species (Hennessey 2004a; MacLeod in litt. 2004 as cited in BirdLife International 2009a; Maccormack *in litt.* 2004 as cited in BirdLife International 2009a; MacLeod *in litt* 2003 as cited in BirdLife International 2009a; Mee *et al.* 2002). The Association Armonia has been attempting to estimate southern helmeted curassow population numbers to identify its most important populations, and is evaluating human impact on the species' natural habitat. In addition, Armonia is carrying out an environmental awareness project to inform local people about the threat to southern helmeted curassow (BirdLife International 2009a) and is conducting training workshops with park guards to help improve chances for its survival (Llampa 2007 as cited in BirdLife International 2009a).

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 ongoing and, therefore, imminent. Thus, we have assigned this species a priority rank of 8.

Bogota rail (*Rallus* semiplumbeus)

The Bogota rail is found in the East Andes of Colombia on the Ubaté–Bogotá Plateau in Cundinamarca and Boyacá. In Cundinamarca, the Bogota rail has been observed in at least 21 locations. It occurs in the temperate zone, at 2,500–4,000 m (occasionally as low as 2,100 m) in savanna and páramo marshes (BirdLife International 2008; BirdLife International 2007). Bogota rail frequent wetland habitats with vegetation-rich shallows that are surrounded by tall, dense reeds and bulrushes (Stiles *in litt.* 1999 as cited in BirdLife International 2009). It inhabits the water's edge, in flooded pasture and along small overgrown dykes and ponds (Salaman *in litt.*1999 as cited in BirdLife International 2009; Fjeldså 1990 as cited in BirdLife International 2009; Fjeldså and Krabbe 1990 as cited in BirdLife International 2009; Varty *et al.* 1986 as cited in BirdLife International 2009). Nests have been recorded adjoining shallow water in beds of *Scirpus* and *Typha* spp. (Stiles *in litt.* 1999 as cited in BirdLife International 2009). The Bogota rail is omnivorous, consuming a diet that includes aquatic invertebrates, insect larvae, worms, mollusks, dead fish, frogs, tadpoles, and plant material (BirdLife International 2009; Varty *et al.* 1986 as cited in BirdLife International 2009; BirdLife International 2006).

The Bogota rail is listed as endangered by IUCN primarily because its range is very small and is contracting because of widespread habitat loss and degradation. Furthermore, available habitat has become widely fragmented (BirdLife International 2007). Wetland drainage, pollution, and siltation on the Ubaté-Bogotá plateau have resulted in major habitat loss and few suitably vegetated marshes remain. All major savanna wetlands are threatened, predominately because of draining, but also by agricultural runoff, erosion, dyking, eutrophication caused by untreated sewage effluent, insecticides, tourism, hunting, burning, reed harvesting, fluctuating water levels, and increasing water demand. Additionally, road construction may result in colonization and human interference, including introduction of exotic species in previously stable wetland environments (Cortes *in litt.* 2007 as cited in BirdLife International 2009). The current population is estimated to range between 1,000–2,499 individuals, though numbers are expected to decline over the next 10 years or 3 generations by 10 to 19 percent (BirdLife International 2009). Although the Bogota rail population is declining, it is still uncommon to fairly common, with a few notable populations, including nearly 400 birds at Laguna de Tota, approximately 50 bird territories at Laguna de la Herrera, approximately 110 birds at Parque La Florida, and populations at La Conejera marsh and Laguna de Fuquene (BirdLife International 2009). Some Bogota rails occur in protected areas such as Chingaza National Park and Carpanta Biological Reserve. However, most savanna wetlands are virtually unprotected (BirdLife International 2009).

The Bogota rail does not represent a monotypic genus. It is subject to threats that are moderate in magnitude and ongoing and, therefore, imminent. We have assigned a priority rank of 8 to this species.

Takahe (*Porphyrio* hochstetteri, previously known as *P. mantelli*)

The Takahe, a flightless rail endemic to New Zealand, 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). 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. The Takahe was thought to be extinct by the 1930s until its rediscovery in 1948 in the Murchison Mountains, Fjordland (South Island) (Bunin and Jamieson 1996; New Zealand Department of Conservation (NZDOC) 2009b). Soon after its rediscovery, a Takahe Special Area of 193 square miles (mi^2) (500 km^2) was set aside in Fiordland National Park for the conservation of Takahe (Crouchley 1994; NZDOC 2009c). Today, the species is present in the Murchison and Stuart Mountains and has been introduced to four island reserves (Kapiti, Mana, Tiritiri Mantangi, and Maud) (Collar *et al.* 1994). The population in the Murchison Mountains is important because it is the only mainland population that has the potential for sustaining a large, viable population (NZDOC 1997).

Originally, the species occurred throughout forest and grass ecosystems. Today, Takahe occupy alpine grasslands (BirdLife International 2007). They feed on tussock grasses during much of the year, with snow tussocks (*Chionochloa pallens*, *C. flavescens*, and *C. crassiuscula*) being their preferred food (Crouchley 1994). By June, the snow cover usually prevents feeding above tree line, and birds move into forested valleys in the winter and feed mainly on the rhizome of a fern (*Hypolepis millefolium*). Research by Mills *et al.* (1980) suggested that Takahe require the high-carbohydrate concentrations in the rhizomes of the fern to meet the metabolic requirement of thermoregulation in the mid-winter, subfreezing temperatures. The island populations eat introduced grasses (BirdLife International 2007). Takahe form pair bonds that persist throughout life and generally occupy the same territory throughout life (Reid 1967). Their territories are large, and Takahe defend them aggressively against other Takahe, which means that they will not form dense colonies even in very good habitat. They are long-lived birds, probably between 14 and 20 years (Heather and Robertson 1997) and have a low reproductive rate, with clutches consisting of 1 to 3 eggs. Only a few pairs manage to consistently rear chicks each year. Although under normal conditions this is generally sufficient to maintain the population, populations recover slowly from catastrophic events (Crouchley 1994).

The Takahe is listed as ''Endangered'' on the IUCN Red List because it has an extremely small population (BirdLife International 2006). When rediscovered in 1948, it was estimated that the population was about 260 pairs (del Hoyo 1996; Heather and Robertson 1997). By the 1970s, Takahe populations had declined dramatically, and it appeared that the species was at risk of extinction. In 1981, the population reached a low at an estimated 120 birds. Since then, the population has fluctuated between 100 and 180 birds (Crouchley 1994). At first, translocated populations increased only slowly, probably due to young pair-bonds and the quality of the founding population (Bunin *et al.* 1997). In recent years, the total Takahe population has had significant growth; in 2004, there was a 13.6 percent increase in the number of adult birds, with the number of breeding pairs up 7.9 percent (BirdLife International 2005). As of August 2007, birds in the Takahe Special Area had increased to 168, and the current national population was 297. However, this mainland population was thought to be at carrying capacity (Greaves 2007), and Island reserves also appeared to be at carrying capacity (NZDOC 2007). Thus, a high priority of the recovery program is to establish a second viable mainland population to further increase the total population size (Greaves 2007). Overall, population numbers are slowly increasing due to intensive management of the island reserve populations, but fluctuations in the remnant mainland population continue to occur (BirdLife International 2000).

The main cause of the species' historical decline was competition for tussock grasses by grazing red deer (*Cervus elaphus*), which were introduced after the 1940s (Mills and Mark 1977). The red deer overgrazed the Takahe's habitat, eliminating nutritious plants and preventing some grasses from seeding (del Hoyo *et al.* 1996). The NZDOC has controlled red deer through an intensive hunting program in the Murchison Mountains since the 1960s, and now the tussock grasses are close to their original condition (BirdLife International 2005).

Predation by introduced stoats (*Mustela erminea*) is believed to be a current risk to the species (Bunin and Jamieson 1995; Bunin and Jamieson 1996; Crouchley 1994). The NZDOC is running a trial stoat control program in a portion of the Takahe Special Area to measure the effect on Takahe survival and productivity. Initial assessment indicates a positive influence (NZDOC 2007). Other potential competitors or predators include the introduced brush-tailed possum (*Trichosurus vulpecula*) and the threatened weka (*Gallirallus australis*), a flightless woodhen endemic to New Zealand (BirdLife International 2008). In addition, severe weather is a natural limiting factor to this species (Bunin and Jamieson 1995). Weather patterns in the Murchison Mountains vary from year to year. High chick and adult mortality may occur during extraordinarily severe winters, and poor breeding may result from severe stormy weather during spring breeding season (Crouchley 1994). Research confirms that severity of winter conditions adversely affects survivorship of Takahe in the wild, particularly of young birds (Maxwell and Jamieson 1997).

Since 1983, the NZDOC has been involved in managing a captive-breeding and release program to boost Takahe recovery. Excess eggs from wild nests are managed to produce birds suitable for releasing back into the wild population in the Murchison Mountains. Some of these captive-reared birds have also been used to establish four predator-free offshore island reserves. Since 1984, these birds have increased the total population on islands to about 60 birds (NZDOC 2009a). Captive-breeding efforts have increased the rate of survival of chicks reaching 1 year of age from 50 to 90 percent (NZDOC 1997). However, Takahe that have been translocated to the islands have higher rates of egg infertility and low hatching success when they breed, 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). Further research on Takahe established on Tiritiri Matangi Island estimated that the island can support up to 8 breeding pairs, but suggested that the ability of the island to support Takahe is likely to decrease as the grass/shrub ecosystem reverts to forest. The researchers concluded that, although the four island populations fulfilled their role as an insurance against extinction on the mainland at the time of the study, given impending habitat changes on the islands, it is unclear whether these island populations will continue to be viable in the future without an active management plan (Baber and Craig 2003a; Baber and Craig 2003b). Maxwell and Jamieson (1997) studied survival and recruitment of captive-reared and wild-reared Takahe on Fiordland. They concluded that captive rearing of

Takahe for release into the wild increases recruitment of juveniles into the population.

There is growing evidence that inbreeding can negatively affect small, isolated populations. Jamieson *et al.* (2006) suggested 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.

The Takahe does not represent a monotypic genus. The current wild population is small, and the species' distribution is extremely limited. It faces threats that are moderate in magnitude because the NZDOC has taken measures to aid the recovery of the species. The NZDOC has implemented a successful deer control program and implemented a captive-breeding and release program to augment the mainland population and establish four offshore island reserves. Predation by introduced species and reduced survivorship resulting from severe winters, combined with the Takahe's small population size and naturally low reproductive rate are threats to this species that are imminent and ongoing. Therefore, we have assigned this species a priority rank of 8.

Chatham oystercatcher (*Haematopus* chathamensis)

Chatham oystercatcher is the rarest oystercatcher species in the world (DOC 2001). It is endemic to the Chatham Island group (Marchant and Higgins 1993; Schmechel and Paterson 2005), which lies 534 mi (860 km) east of mainland New Zealand. The Chatham Island group comprises two large, inhabited islands (Chatham and Pitt) and numerous smaller islands. Two of the smaller islands (Rangatira and Mangere) are nature reserves, which provide important habitat for the Chatham oystercatcher. The Chatham Island group has a biota quite different from the mainland. The remote marine setting, distinct climate, and physical makeup have led to a high degree of endemism (Aikman *et al.* 2001). The southern part of the Chatham oystercatcher range is dominated by rocky habitats with extensive rocky platforms. The northern part of the range is a mix of sandy beach and rock platforms (Aikman *et al.* 2001).

Pairs of Chatham oystercatchers occupy their territory all year, while juveniles and subadults form small flocks or occur alone on a vacant section of the coast. The nest is a scrape usually on a sandy beach just above spring-tide and storm surge level or among rocks above the shoreline and are often under the cover of small bushes or rock overhangs (Heather and Robertson 1997).

Chatham oystercatcher is classified as 'Endangered' on the IUCN Red List because it has an extremely small population (BirdLife International 2009). It is listed as 'critically-endangered' by the New Zealand Department of Conservation (DOC 2008a), making it a high priority for conservation management (DOC 2007). In the early 1970s the Chatham oystercatcher population was approximately 50 birds (del Hoyo 1996). In 1988, based on past productivity information, it was feared that the species was at risk of extinction within 50 to 70 years (Davis 1988 as cited in Schmechel and Paterson 2005). However, the population increased by 30 percent overall between 1987 and 1999, except trends varied in different areas of the Chatham Islands (Moore *et al.* 2001). Surveys taken over a 6–year period recorded an increase in Chatham oystercatchers from approximately 100 individuals in 1998 (Marchant and Higgins 1993) to 320 individuals (including 88 breeding pairs) in 2005 (Moore 2005a). Although the overall population has significantly increased over the last 20 years, the population on South East Island (Rangatira), an island free of mammalian predators, has gradually declined since the 1970s. The reason for the decline is unknown (Schmechel and O'Connor 1999).

Predation, nest disturbance, invasive plants, and spring tides and storm surges are factors threatening the Chatham oystercatcher population (DOC 2001, Moore 2005). Feral cats (*Felis catus*) have become established on two of the Chatham Islands after being introduced as pets. Severe reduction in Chatham oystercatcher numbers is attributed in part by heavy cat predation. Another predator, the weka (*Gallirallus australis*), an endemic New Zealand rail, introduced to the Chatham Islands in the early 1900s, is not considered as much a threat to the Chatham oystercatcher as feral cats because they only prey on eggs when adult oystercatchers are not present. Other potential predators include the Norway rat (*Rattus norvegicus*), the ship rat (*R. rattus*), Australian brush-tailed possum (*Trichsurus vulpeculs*), and hedgehog (*Erinaceus europaeus*). However, these species are not considered a serious threat because of the large size of the oystercatcher eggs. Native predators include the red-billed gull (*Larus scopulinus*), and southern black-backed gull (*L. dominicanus*) (Moore 2005b). Nest destruction and disturbance is caused by people fishing, walking, or driving, and by livestock. When a nesting area is disturbed, adult Chatham oystercatchers often abandon their eggs for up to an hour or more, leaving the eggs vulnerable to opportunistic predators. Eggs are also trampled by livestock (Moore 2005a).

Another obstacle to Chatham oystercatcher populations is marram grass (*Ammophila arenaria*), introduced to New Zealand from Europe to protect farmland from sand encroachment. It has spread to the Chatham Islands where it binds beach sands forming tall dunes with steep fronts. In many marram-infested areas, the strip between the high tide mark and the foredunes narrows as the marram advances seaward. Consequently, the Chatham oystercatcher is forced to nest closer to shore where nests are vulnerable to tides and storm surges. The dense marram grass is unsuitable for nesting (Moore and Davis 2005). In a study done by Moore and Williams (2005), the authors found that, along the narrow shoreline, many eggs were washed away and the adults would not successfully breed without human intervention. Oystercatcher eggs could easily be moved away from the shoreline by fieldworkers and placed in hand-dug scrapes surrounded by tidal debris and kelp. Video cameras placed to observe nests indicated that feral cats are a major nest predator. After three summers of video recording, 13 of the 19 nests recorded were predated by cats. When a cat was present eggs usually lasted only one or two days. Of the remaining six nest failures, weka were responsible for three; red-billed gull, one; sheep-trampling, one; and sea wash, one (Moore 2005b).

The birds of the Chatham Island group are protected. The NZDOC focused conservation efforts in the early 1990s on predator trapping and fencing to limit domestic stock access to nesting areas. In 2001, the NZDOC published the Chatham Island oystercatcher recovery plan 2001–2011 (DOC 2001), which outlines actions such as translocation of nests away from the high tide mark and nest manipulation to further the conservation of this species. These actions may have helped to increase hatching success (DOC 2008b). Artificial incubation has been tried but did not increase productivity. Additionally, livestock have been

fenced and signs erected to reduce human and dog disturbance. Marram grass control has been successful in some areas. Intensive predator control combined with nest manipulation has resulted in a high number of fledglings (BirdLife International 2009).

The Chatham oystercatcher does not represent a monotypic genus. The current population has 311 individuals, and the species only occurs on the small Chatham Island group. It faces threats that are moderate in magnitude because the NZDOC has taken measures to aid the recovery of the species. Threats are ongoing and, therefore, imminent. We have assigned this species a priority rank of 8.

Orange-fronted parakeet (*Cyanoramphus* malherbi)

The orange-fronted parakeet, also known as Malherbe's parakeet, was treated as an individual species until it was proposed to be a color morph of the yellow-crowned parakeet, *C. auriceps*, in 1974 (Holyoak 1974). Further taxonomic analysis suggested that it should once again be considered a distinct species (Kearvell *et al.* 2003; ITIS 2008).

At one time, the orange-fronted parakeet was scattered throughout most of New Zealand, although the two records from the North Island are thought to be dubious (Harrison 1970). This species has never been common (Mills and Williams 1979). During the nineteenth century, the species' distribution included South Island, Stewart Island, and a few other offshore islands of New Zealand (NZDOC 2009a). Currently, there are four known remaining populations, all located within an 18.6-mi (30-km) radius in beech (*Nothofagus* spp.) forests of upland valleys within Arthur's Pass National Park and Lake Sumner Forest Park in Canterbury, South Island (NZDOC 2009a), and two populations established on Chalky and Maud Islands (Elliott and Suggate 2007). This species inhabits southern beech forests, with a preference for locales bordering stands of mountain beech (*N. solandri*) (del Hoyo 1997; Snyder *et al.* 2000; Kearvell 2002). It is reliant on old mature beech trees with natural cavities or hollows for nesting. Breeding is linked with the irregular seed production by *Nothofagus*; in mast years with a high abundance of seeds, parakeet numbers can increase substantially. In addition to eating seeds, the orange-fronted parakeet feeds on fruits, leaves, flowers, buds, and invertebrates (BirdLife International 2009).

The orange-fronted parakeet has an extremely small population and limited range. The species is listed as ''Critically Endangered'' on the IUCN Red List, ''because it underwent a population crash following rat invasions in 1990–2000, and it now has a very small and severely fragmented population that has declined during the past ten years'' (BirdLife International 2009). It is listed in Appendix II of the Convention on International Trade in Endangered Species (CITES) as part of a general listing for all parrots (CITES 2008). The NZDOC (2009b) considers the orange-fronted parakeet, or käkäriki, to be the rarest parakeet in New Zealand. Because it is classified as ''Nationally Critical'' with a high risk of extinction, the NZDOC has been working intensively with the species to ensure its survival. The population is estimated at 100 to 200 individuals in the wild and declining (NZDOC 2009a).

There are several reasons for the species' continuing decline; one of the most prominent risks to the species is believed to be predation by introduced species, such as stoats (*Mustela erminea*) and rats (*Rattus* spp.) (BirdLife International 2009). Large numbers of stoats and rats in beech forests cause large losses of parakeets. Stoats and rats are excellent hunters on the ground and in trees. When they exploit parakeet nests and roosts in tree holes, they particularly impact females, chicks, and eggs (NZDOC 2009c). 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, when necessary (NZDOC 2009d). Despite these controls, predation by introduced species is still a threat because they have not been eradicated from this species' range.

Habitat loss and degradation are also considered threats to the orange-fronted parakeet (BirdLife International 2007b). Large areas of native forest have been felled or burnt, decreasing the habitat available for parakeets (NZDOC 2009c). Silviculture of beech forests aims to harvest trees at an age when few will become mature enough to develop suitable cavities for orange-fronted parakeets (Kearvell 2002). The habitat is also degraded by brush-tailed possum (*Trichosurus vulpecula*), cattle, and deer browsing on plants, which changes the forest structure (NZDOC 2009c). This is a problem for the orange-fronted parakeet, which uses the ground and low-growing shrubs while feeding (Kearvell *et al.* 2002).

Snyder *et al.* (2000) reported that hybridization with yellow-crowned parakeets had been observed at Lake Sumner. Other risks include increased competition between the orange-fronted parakeet and the yellow-crowned parakeet for nest sites and food in a habitat substantially modified by humans, competition with introduced finch species, and competition with introduced wasps (*Vespula vulgaris* and *V. germanica*) for invertebrates as a dietary source (Kearvell *et al.* 2002).

The NZDOC closely monitors all known populations of the orange-fronted parakeet. Nest searches are conducted, nest holes are inspected, and surveys are carried out in other areas to look for evidence of other populations. In fact, the surveys successfully located another orange-fronted parakeet population in May 2003 (NZDOC 2009d). A new population was established in 2006 on the predator-free Chalky Island. Eggs were removed from nests in the wild, and foster parakeet parents incubated the eggs and cared for the hatchlings until they fledged and were transferred to the island. Monitoring later in the year (2006) indicated that the birds had successfully nested and reared chicks. Additional birds will be added to the Chalky Island population, in an effort to increase the genetic diversity of the population (NZDOC 2009d). A second self-sustaining population has been established on Maud Island (NZDOC 2008).

The orange-fronted parakeet does not represent a monotypic genus. The current wild population ranges between 100 and 200 individuals, and the species' distribution is extremely limited. It faces threats that are moderate in magnitude because the NZDOC has taken important measures to aid in the recovery of the species. The NZDOC implemented a successful captive-breeding program for the orange-fronted parakeet. Using captive-bred birds from the program, NZDOC established two self-sustaining populations of the orange-fronted parakeet on predator-free islands. 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. Finally, the NZDOC determined that the species' largest threat is predation and initiated a successful program to remove predators. The threats of competition for food and highly altered habitat are ongoing and, therefore, imminent. Thus, we have assigned this species a priority rank of 8.

Uvea parakeet (*Eunymphicus* uvaeensis)

The Uvea parakeet, previously known as *Eunymphicus cornutus*, is currently

treated as two species: *E. cornutus* and *E. uvaeensis* (Boon *et al.* 2008; BirdLife International 2007). The Uvea parakeet is found only on the small island of Uvea in the Loyalty Archipelago, New Caledonia (Territory of France). The island is only 42 mi^2 (110 km^2) (Juniper and Parr 1998). The Uvea parakeet is found primarily in old-growth forests, notably, those dominated by the pine tree *Agathis australis* (del Hoyo *et al.* 1997). Most birds occur in about 7.7 mi^2 (20 km^2) of forest in the north, although some individuals are found in strips of forest on the northwest isthmus and in the southern part of the island, with a total area of potential habitat of approximately 25.5 mi^2 (66 km^2) (BirdLife International 2009, CITES 2000b). Uvea parakeets feed on the berries of vines and the flowers and seeds of native trees and shrubs (del Hoyo *et al.* 1997). They also feed on limited crops in adjacent cultivated land. The greatest number of birds occurs close to gardens with papayas (BirdLife International 2009). Uvea parakeet nest in cavities of native trees, and have a clutch size of 2 to 3 eggs with some double clutches (Robinet and Salas 1999).

Early population estimates of Uvea parakeet were alarmingly low—70 to 90 individuals (Hahn 1993). Surveys in 1993 by Robinet *et al.* (1996) yielded estimates of approximately 600 individuals. In 1999, it was believed that 742 individuals lived in northern Uvea, and 82 in the south (Primot 1999 as cited in BirdLife International 2009). Six surveys conducted between 1993 and 2007 indicated a steady increase in population numbers in both areas (Verfaille *in litt.* 2007 as cited in BirdLife International 2009). Even though populations are currently increasing, any reduction in conservation efforts or introduction of invasive species (particularly the ship rat, *Rattus rattus* and the Norway rat, *R. norvegicus*) could lead to rapid declines (Robinet *et al.* 1998, BirdLife International 2009). Although the Uvea parakeet has a number of predators, the absence of the ship rat and Norwegian rat on Uvea is a major factor contributing to its survival. Norway rats are prolific invaders of islands and can rapidly establish large populations (Russell 2007). Additionally, impacts of the rat appear to be more severe on smaller islands (Martin *et al.* 2000). In one study, it was determined that the low rate of predation on nest sites of Uvea parakeet was related to the absence of ship rat and Norwegian rat. However, these rat species are present on the other Loyalty Islands and on Grande Terre (Robinet and Salas 1996). Experimental egg predation rates were four times higher on Lifu where *R. rattus* occurs (Robinet *et al.* 1998).

Preventive measures have been taken at the port and airport to prevent introduction of invasive rats and should continue to be reinforced (Robinet and Salas 1996), but there is concern that these rats may be introduced in the future (CITES 2000b). However, as of 2007, the island remained rat free (Verfaille *in litt.* 2007 as cited in BirdLife International 2009). Introductions of Uvea parakeets to the adjacent island of Lifou (to establish a second population) in 1925 and 1963 failed (Robinet *et al.* 1995 as cited in BirdLife International 2009), possibly because of the presence of ship rats and Norwegian rats (Robinet *in litt.* 1997 as cited in Snyder *et al.* 2000). Robinet *et al.* (1998) studied the impact of rats in Uvea and Lifou on the Uvea parakeet and concluded that Lifou is not a suitable place for translocating Uvea parakeet unless active habitat management is carried out to protect it from invasive rats. They also suggested it would be valuable to apply low-intensity rat control of the Polynesian rat (*R. exulans*) in Uvea immediately before the parakeet breeding season.

Uvea parakeet is threatened by habitat loss, capture of juveniles for the pet trade, and predation (BirdLife International 2009). The forest habitat of the Uvea parakeet is threatened by clearance for agriculture and logging. In 30 years, approximately 30 to 50 percent of primary forest has been removed (Robinet *et al.* 1996). The island has a young and increasing human population of almost 4,000 inhabitants. The increase in population will most probably lead to more destruction of forest for housing, cultivated fields, and plantations, especially coconut palms, the island's main source of income (CITES 2000a). The species is also threatened by the illegal pet trade, mainly for the domestic market (BirdLife International 2007). Nesting holes are cut open to extract nestlings, which renders the holes unsuitable for future nesting. The lack of nesting sites is believed to be a limiting factor for the species (BirdLife International 2009). Also, Robinet *et al.* (1996) suggested that the impact of capture of juveniles on the viability of populations is not obvious with long-lived species that are capable of re-nesting, such as Uvea parakeet. The current capture of 30 to 50 young Uvea parakeets each year for the pet trade may be unsustainable. In a study of the reproductive biology of Uvea parakeet, Robinet and Salas (1999) found that the main causes of chick death were starvation of the third chick within the first week after hatching, raptor (presumably the native brown goshawk (*Accipiter fasciatus*) predation of fledglings, and human harvest for the pet trade.

Additionally, the invasion of bees into Uvea in 1996 has resulted in competition with Uvea parakeet over nesting sites. This has resulted in a reduction of known Uvea parakeet nesting sites by 10 percent between 2000 and 2002 (Barré *in litt.* 2003 as cited in BirdLife International 2009). Studies by Robinet *et al.* (2003) indicate the density of breeding Uvea parakeet is positively related to the distribution of suitable trees. Consequently, the number of suitable trees may limit the number of breeding pairs. In two cases, Robinet *et al.* (2003) observed successful nesting after human restoration of former nest sites that had been destroyed by illegal collectors. This further indicates the deleterious effect of nest-site limitation. Additionally, forest fragmentation as a result of increased numbers of coconut plantations acts as a barrier to dispersal. This could possibly explain the lack of recolonization in southern Uvea (Robinet *et al.* 2003). Uvea parakeet was uplisted from Appendix II to Appendix I of CITES in July 2000 because of its small population size, restricted area of distribution, loss of suitable habitat, and the illegal pet trade (CITES 2000b).

A recovery plan for the Uvea parakeet was prepared for the period 1997–2002, which included strong local participation in population and habitat monitoring (Robinet *in litt.* 1997 as cited in Snyder *et al.* 2000). The species has recently increased in popularity and is celebrated as an island emblem (Robinet and Salas 1997, Primot *in litt.* 1999 as cited in BirdLife International 2009). Conservation actions, including *in situ* management (habitat protection and restoration), recovery efforts (providing nest boxes and food), and public education on the protection of Uvea parakeet and its habitat are ongoing (Robinet *et al.* 1996). Increased awareness of the plight of the Uvea parakeet and improvements in law enforcement capability are helping to address illegal trade of the species. A captive-breeding program has been discussed but not begun (BirdLife International 2009). A translocation program to restock this species into the southern portion of Uvea was cancelled under a new recovery plan (2003) because the population is considered viable and is expected to increase naturally (Barré *in litt.* 2003, Anon 2004 as cited in BirdLife International 2009). Measures are now being taken to control

predators and prevent further colonization by rats (BirdLife International 2009). Current Uvea parakeet numbers are increasing, but any relaxation of conservation efforts or introduction of nonnative rats or other predators could lead to a rapid decline (BirdLife International 2009). The Société Calédonienne d'Ornithologie (SCO) received funding to test artificial nests, and BirdLife Suisse (ASPO) is continuing to destroy invasive bees nests and is placing hives in forested areas to attract bees for removal (Verfaille *in litt.* 2007 as cited in BirdLife International 2009).

The Uvea parakeet does not represent a monotypic genus. The Uvea parakeet 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 depend on for nesting holes, negatively impacts the reproductive requirements of the species. We have assigned 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 Mojos) of Central Bolivia (Jordan and Munn 1993; Yamashita and de Barros 1997). 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 motacu palm (*Attalea phalerata*) (Jordan and Munn 1993; Yamashita and de Barros 1997), and it depends on motacu palms for nesting (Birdlife International 2008d). It inhabits elevations between 656 and 984 ft (200 and 300 m) (BirdLife International 2008c; Brace *et al.* 1995; Yamashita and de Barros 1997). 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 (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. Previously it was considered an aberrant form of the blue-and-yellow macaw (*A. ararauna*), but the two species are now known to occur sympatrically without interbreeding (del Hoyo *et al.* 1997). BirdLife International (2008b) estimated the total wild population to be between 250 and 300 and noted the population has some fragmentation. Surveys indicate the population may now be slowly increasing following dramatic declines in the 1970s and 1980s. Biologists surveying for this species in 2004 found more birds than in previous surveys by searching specific habitat types – palm groves and forested islands – and predicted more birds would be found by concentrating searches in these areas (Herrera *et al.* 2007). Through a population viability analysis (PVA) of this species, Strem (2008) found that, while there was a low probability of extinction over the next 50 years, the small population size, as well as low population growth rates, makes this species very vulnerable to any threat. The low probability of extinction is not unexpected given that the blue-throated macaw is a long-lived species and the 50–year simulation timeframe is relatively short for such species. However, Strem (2008) found that impacts such as habitat destruction and harvesting had significant negative effects on the probabilities of extinction (increasing the probability of extinction), which reemphasizes the importance of addressing these threats for this species.

The blue-throated macaw was historically at risk from trapping for the national and international cage-bird trade, and some illegal trade may still be occurring. Between the early 1980s and early 1990s, an estimated 1,200 or more wild-caught individuals were exported from Bolivia, and many are now in captivity in the European Union and in North America (BirdLife International 2008b, World Parrot Trust 2003). In 1984, Bolivia outlawed the export of live parrots (Brace *et al.* 1995). However, in 1993 (Jordan and Munn 1993) investigators reported that an Argentinean bird dealer was offering illegal Bolivian dealers a high price for blue-throated macaws. Armonia Association (BirdLife in Bolivia) monitored the wild birds that passed through a pet market in Santa Cruz from August 2004 to July 2005. Although nearly 7,300 parrots were recorded in trade, the blue-throated macaw was absent in the market during the monitoring period, which may point to the effectiveness of the ongoing conservation programs in Bolivia (BirdLife International 2007). There are a number of blue-throated macaws in captivity, with over 1,000 registered in the North American studbook. Because these birds are not too difficult to breed, the supply of captive-bred birds has increased (Waugh 2007), helping to alleviate pressure on illegal collecting of wild birds, but not completely eliminating illegal collection.

The blue-throated macaw is also at risk from habitat loss and possible competition from other birds, such as other macaws, toucans, and large woodpeckers (BirdLife International 2008b; World Parrot Trust 2008). Until recently, all known sites of the blue-throated macaw were on private cattle ranches, where local ranchers typically burn the pasture annually (del Hoyo 1997). This results in almost no recruitment of palm trees, which are central to the ecological needs of the blue-throated macaw (Yamashita and de Barros (1977)). In addition, in Beni many palms are cut down by the local people for firewood (Brace *et al.* 1995). Thus, although the palm groves are more than 500 years old, Yamashita and de Barros (1977) concluded that the palm population structure suggests long-term decline.

Despite some recent surveys that indicate the population may be slowly increasing, this species remains categorized as ''Critically Endangered'' on the 2009 IUCN Red List, ''because its population is extremely small and each isolated subpopulation is probably tiny and declining as a result of illegal trade'' (BirdLife International 2009). It is listed in Appendix I of CITES (CITES 2006) and 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 is searching the Beni lowlands for more populations (Snyder *et al.* 2000). Additionally, the Armonia Association is building an awareness campaign aimed at the cattlemen's association to ensure that the protection and conservation of these birds is at a local level (e.g., protection of macaws from trappers and the sensible management of key habitats, such as palm groves and forest islands, on their property) (BirdLife International 2008a; Llampa 2007; Snyder *et al.* 2000). In October 2008, Armonia Association announced it had purchased a large 8,785-acre (3,555-hectare) ranch for the purpose of establishing a protected area for the blue-throated macaw (BirdLife International 2008d). The new Barba Azul Nature Reserve protects excellent savanna habitat and 20 blue-throated macaws are known to nest here. The organization has also been experimenting with artificial nest boxes;

the macaws have been using these, and this promises to be a way to boost breeding success while habitat restoration is under way in the new reserve.

The blue-throated macaw does not represent a monotypic genus. It faces threats that are moderate in magnitude 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, and the species is now protected in one nature reserve. Threats to the species are ongoing and, therefore, imminent because hunters still trap the birds for the illegal bird trade and annual burning on private ranches continues. Therefore, we have assigned this species a priority rank of 8.

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 2009). It is found in tall lowland Atlantic and primary and mature montane forest and has been recorded in degraded and small forest patches. However, it is usually found near large forest tracts (Chebez 1995b as cited in BirdLife International 2009; Clay *in litt.* 2000 as cited in BirdLife International 2009). Helmeted woodpecker forage primarily in the middle story of the forest interior (Brooks *et al.* 1993 cited in BirdLife International 2009; Clay *in litt.* 2000 as cited in BirdLife International 2009).

Recent field work on the helmeted woodpecker revealed that the species is less rare than once thought (BirdLife International 2009), although its range is highly restricted (Mattsson *et al.* 2008). It is listed as Vulnerable by the IUCN (IUCN 2008). The current population is estimated at between 10,000 and 19,999 individuals and decreasing. Because the helmeted woodpecker is difficult to locate except when vocalizing and is silent most of the year, its numbers are probably underestimated. The overall status of the helmeted woodpecker is unclear. However, it is not common anywhere it is known to exist (BirdLife International 2009), and in one of the few remaining large fragments of Atlantic forest in Paraguay it is considered to be near threatened (Alberto *et al.* 2007). The greatest threat to the helmeted woodpecker is widespread deforestation (BirdLife International 2009; Cockle 2008 as cited in BirdLife International 2009). Numerous sightings since the mid-1980s include one 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 (Chebez *et al.* 1998 as cited in BirdLife International 2009; Lowen *et al.* 1996 as cited in BirdLife International 2009; Wege and Long 1995 as cited in BirdLife International 2009). 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 upon which the species is dependent is constantly being altered by humans. We, therefore, have assigned this species 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 (Brazil, 1991; Stattersfield *et al.* 1998; 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, although it also nests in well-forested coastal areas (Research Center, Wild Bird Society of Japan 1993, as cited in BirdLife International 2001). It prefers undisturbed, mature, subtropical evergreen broadleaf forests, with tall trees greater than 7.9 in (20 cm) in diameter (del Hoyo 2002; Short 1982). Trees of this size are generally more than 30 years old and are confined to hilltops (Brazil 1991). Places with conifers appear to be avoided (Short 1973; Winkler *et al.* 1995). The Okinawa woodpecker has been sighted just south of Tanodake in an area of entirely secondary forest that was too immature for use by woodpeckers to excavate nest cavities, but Brazil (1991) thought this may have involved birds displaced by the clearing of mature forests. The Okinawa woodpecker feeds on large arthropods, notably beetle larvae, spiders, moths, and centipedes, fruit, berries, seeds, acorns, and other nuts (del Hoyo 2002; Short 1982; Winkler *et al.* 2005). They forage in old-growth forests with large, often moribund trees, accumulated fallen trees, rotting stumps, debris, and undergrowth (Brazil 1991; Short 1973). This woodpecker nests in holes excavated in large old trees, often a hollow in *Castanopsis cuspidate* and *Machilus thunbergii* trees (del Hoyo 2002; Ogasawara and Ikehara 1977; Short 1982).

Until recently the Okinawa woodpecker was considered to belong to the monotypic genus *Sapheopipo*. This view was based on similarities in color patterns, external morphology, and foraging behavior. Winkler *et al.* (2005) analyzed partial nucleotide sequences of mitochondrial genes and concluded that this woodpecker belongs in the genus *Dendrocopos*. Given the other species in this genus, scientists no longer consider the Okinawa woodpecker to belong to a monotypic genus.

The Okinawa woodpecker is considered one of the world's rarest extant woodpecker species (Winkler *et al.* 2005). The elimination of forests by logging and the cutting and gathering of wood for firewood are the main causes of its small and lessening numbers (Short 1982), but the greatest danger to this woodpecker is the fragmentation of its population into scattered tiny colonies and isolated pairs (Short 1973). The species is categorized on the IUCN Red List as ''Critically Endangered,'' because it comprises a single diminutive, declining population, which is put at risk 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 (BirdLife International 2008). Feral dogs and cats and the introduced Javan mongoose (*Herpestes javanicus*) and weasel (*Mustela itatsi*) are possible predators of the woodpecker. Additionally, feral pigs damage potential ground-foraging sites (BirdLife International 2003). During the 1930s, the Okinawa woodpecker was considered nearly extinct. By the early 1990s, the breeding population was estimated to be about 75 birds (BirdLife International 2008a). The current population estimate ranges between 146 and 584 individuals, with a projected future 10–year decline of 30 to 49 percent (BirdLife International 2008b). The species is legally protected in Japan and occurs in small protected areas on Mt. Ibu and Mt. Nishime (BirdLife International 2008a). The Yambaru, a forest area in the Okinawa Prefecture, was proposed to be designated as a national park in 1996, and conservation organizations have purchased sites where the woodpecker occurs to establish private wildlife preserves (BirdLife International 2008; del Hoyo *et*

al. 2002). However, information from the Japanese Ministry of Environment shows that the national park has not been established (Japanese Ministry of Environment 2009), and conservationists recommend that a major protected area be created to protect all the area's remaining natural forest (BirdLife International 2003).

The Okinawa woodpecker 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. Therefore, we have assigned this species a priority rank of 8.

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 2009; del Hoyo *et al.* 2002; Wege and Long 1995). Its estimated range is only 174 mi^2 (450 km^2) (BirdLife International 2009). There have been recent reports of yellow-browed toucanet from Leymebambe (T. Mark *in litt.* 2003, as cited in BirdLife International 2009). It inhabits a narrow altitudinal range between 6,970 and 8,232 ft (2,125 and 2,510 m), preferring the canopy of humid, epiphyte-laden montane cloud forests, particularly areas that support *Clusia* trees (del Hoyo *et al.* 2002; Fjeldså and Krabbe 1990; Schulenberg and Parker 1997). This narrow distributional band may be related to the occurrence of the larger grey-breasted mountain toucan (*Andigena hypoglauca*) above 7,544 ft (2,300 m) and to the occurrence of the emerald toucanet (*Aulacorhynchus prasinus*) below 6,888 ft (2,100 m) (Schulenberg and Parker 1997). The restricted range of yellow-browed toucanet remains unexplained, and recent information indicates that both of the suggested competitors have wider altitudinal ranges that completely encompass that of yellow-browed toucanet (Clements and Shany 2001, as cited in BirdLife International 2008; Collar *et al.* 1992; del Hoyo *et al.* 2002; J. Hornbuckle *in litt.* 1999, as cited in BirdLife International 2009). The yellow-browed toucanet does not appear to occupy all potentially suitable forest available within its range (Schulenberg and Parker 1997).

Deforestation has been widespread in this region, but has largely occurred at lower elevations than habitat occupied by the yellow-browed toucanet (BirdLife International 2009; Barnes *et al.* 1995). However, coca growers have taken over forests within its altitudinal range, probably resulting in some reductions in this species' range and population (BirdLife International 2009; Plenge *in litt.* 1993, as cited in BirdLife International 2009). Nevertheless, much forest remains, though forest at all elevations has likely been affected (Plenge *in litt.* 1993, as cited in BirdLife International 2009). Most of the area is only lightly settled by humans (Schulenberg and Parker 1997). However, the human population surrounding the Rio Abiseo Park was steadily increasing during the 15 years prior to 2002, primarily because of the advent of mining operations in the area (Obenson 2002).

The yellow-browed toucanet is listed as 'Endangered' on the IUCN Red List because of its very small range and extant population records from only two locations (BirdLife International 2009). The current population size is unknown, but the population trend is believed to be decreasing (BirdLife International 2009).

The yellow-browed toucanet does not represent a monotypic genus. The magnitude of threat to the species is moderate and nonimminent given that the majority of deforestation has not yet occurred at the elevations occupied by this species. Therefore, we have assigned this species a priority rank of 11.

Brasilia Tapaculo (*Scytalopus novacapitalis*)

The Brasilia tapaculo is a small bird 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 2008). 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 (Collar *et al.* 1992).

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 Brasilia (D. M. Teixeira, *in litt.* 1987, as cited in Collar *et al.* 1992). Silviera (1998) found this species to be very common in and around Serra da Canastra National Park in Minas Gerais. The population is estimated at more than 10,000 birds, with a decreasing population trend (BirdLife International 2008). The IUCN categorizes Brasilia tapaculo as ''Near Threatened'' (BirdLife International 2008). The species occupies a very limited range and is presumably losing habitat around Brasilia. Its distribution now appears larger than initially believed, and the swampy gallery forests where it is found are not conducive for forest clearing, leaving the species' habitat less vulnerable to this threat than previously thought. However, dam building for irrigation on rivers that normally flood gallery forests is an emerging threat (Antas 2007; D. M. Teixeira *in litt.* 1987, as cited in Collar *et al.* 1992). The majority of locations of this species lie within established reserves, and both fire risk and drainage impacts are reduced in these areas (Antas 2007). The Brasilia 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, as cited in BirdLife International 2008; Wege and Long 1995). However, 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 2008).

The Brasilia 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 or dammed for agricultural irrigation, and grassland burning limits the extent of suitable habitat. Therefore, we have assigned this species a priority rank of 8.

Codfish Island fernbird (*Bowdleria* punctata wilsoni)

The Codfish Island fernbird is found only on Codfish Island—a Nature Reserve of 3,448 acres (ac) (1,396 hectares (ha))—located 1.8 mi (3 km) off the northwest coast of Stewart Island, New Zealand (IUCN 1979, McClelland 2007). There are five subspecies of *Bowdleria punctata*, each restricted to a

single island and its outlying islands. The North and South Islands' subspecies are widespread and locally common. The Stewart Island and the Snares' subspecies are moderately abundant (Heather and Robertson 1997). In 1966, the status of the Codfish Island subspecies (*B. punctata wilsoni*) was considered relatively safe (Blackburn 1967), but estimates dating from 1975 indicated a gradually declining population numbering approximately 100 individuals (Bell 1975 as cited in IUCN 1979). McClelland (2007) wrote that in the past the Codfish Island fernbird was restricted to low shrubland on the top of Codfish Island with a few individuals around the coastal shrubland; the birds are thought to have been eliminated from forest habitat by the Polynesian rat (*Rattus exulans*) (McClelland 2007). The IUCN (1979) concluded that the absence of the fernbird from areas of Codfish Island that it had formerly occupied in the mid-1970s evidenced a decline.

Fernbirds are sedentary and their flight is weak. They are secretive and reluctant to leave cover. They feed in low vegetation or on the ground, eating mainly caterpillars, spiders, grubs, beetles, flies, and moths (Heather and Robertson 1997).

Codfish Island's native vegetation has been modified by the introduced Australian brush-tailed possum (*Trichosurus vulpecula*). Codfish Island fernbird populations have also been reduced due to predation by weka (*Gallirallus australis scotti*) and Polynesian rats (Merton 1974, personal communication, as cited in IUCN 1979). Several conservation measures have been undertaken by the New Zealand DOC. The weka and possum were eradicated from Codfish Island in 1984 and 1987, respectively (McClelland 2007). The Polynesian rat was eradicated in 1997 (Conservation News 2002, McClelland 2007). The Codfish Island fernbird population has been rebounding strongly with the removal of invasive predator species. Additionally, it has successfully colonized the forest habitat, which greatly expanded its range. Although there is no accurate estimate on the current size of the Codfish Island fernbird population (estimates are based on incidental encounter rates in the various habitat types on the island), the current population is believed to be several hundred. Thus, McClelland (2007) concluded that is it likely that the population has peaked and is now stable.

To safeguard the Codfish Island fernbird, the New Zealand DOC established a second population on Putauhinu Island—a small 356-ac (144 ha), privately owned island located approximately 25 mi (40 km) south of Codfish Island. The Putauhinu population established rapidly, and McClelland (2007) reported that it is believed to be stable. While there are no accurate data on the population size or trends on Putauhinu, the numbers are estimated to be 200 to 300 birds spread over the island (McClelland 2007). Even with a second population, the fernbird remains vulnerable to naturally occurring storm events because of its restricted range and small population size.

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 and the establishment of a second population have allowed for a strong rebound in the subspecies' population. Threats are nonimminent because the conservation measures to prevent the invasion of predatory invasive species have proven to be very successful. We have, therefore, assigned this subspecies a priority rank of 12.

Ghizo white-eye (*Zosterops* luteirostris)

The Ghizo white-eye is endemic to Ghizo, a very densely populated island in the Solomon Islands in the South Pacific (BirdLife International 2008). Birds are locally common in the remaining tall or old-growth forest, which is very fragmented and comprises less than 0.39 mi^2 (1 km^2). It is less common in scrub close to large trees and in plantations (Buckingham *et al.* 1995 and Gibbs 1996, as cited in BirdLife International 2008), and it is not known whether these two habitats can support sustainable breeding populations (Buckingham *et al.* 1995, as cited in BirdLife International 2008). The IUCN Red List classifies this species as ''Endangered,'' because of its very small population that is considered to be declining due to habitat loss. It further notes that the species would be classified as ''Critically Endangered'' if the species' range was judged to be severely fragmented (BirdLife International 2008). The population estimate for this species is 250 to 999 birds. Biologists recommended that systematic surveys be conducted for this species to verify its conservation status (Sherley 2001). While there are no data on population trends, the species is suspected to be declining due to habitat degradation (BirdLife International 2008). The very tall old-growth forest on Ghizo is still under some threat from clearance for local use as timber, firewood, and gardens, and the areas of other secondary growth, which are suboptimal habitats for this species, are under considerable threat from clearance for agricultural land (BirdLife International 2008).

The Ghizo white-eye does not represent a monotypic genus. It faces threats that are moderate in magnitude because forest clearing, while a concern, does not appear to be proceeding at a pace to rapidly denude the habitat. Threats are imminent 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 have assigned this species a priority rank of 8.

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 2008). It is largely restricted to coastal sand-plain forest and littoral scrub, or restinga, and has also been located in secondary forests (BirdLife International 2008). The black-backed tanager is generally not considered rare within suitable habitat (BirdLife International 2008). It has a complex distribution with periodic local fluctuations in numbers owing to seasonal movements in response to the ripening of areoira *Schinus* fruit, at least in Rio de Janeiro and Sao Paulo (BirdLife International 2008). This species is more common in Sao Paulo during the winter and records from Espirito Santo are only from the winter season. Clarification of the species' seasonal movements will provide an improved understanding of the species' population status and distribution, but currently populations appear small and fragmented and are probably declining rapidly in response to extensive habitat loss (BirdLife International 2008). Population estimates range from 2,500 to 10,000 individuals (BirdLife International 2008), and it is considered ''Vulnerable'' by the IUCN (BirdLife International 2008). The species is negatively impacted by the rapid and widespread loss of habitat for beachfront development and occasionally appears in the illegal cage-bird trade (BirdLife International 2008). Only small portions of the tanager's range occur in six protected areas, none of which have effective protection (BirdLife International 2008).

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 put at risk by ongoing rapid and widespread loss of habitat due to beachfront development. Therefore, we have assigned this species a priority rank of 8.

Lord Howe pied currawong (*Strepera* graculina crissalis)

The Lord Howe pied currawong is a separate subspecies from the five mainland pied currawongs (*Strepera graculina spp.*). It is endemic to the Lord Howe Island, New South Wales, Australia. The Lord Howe pied currawong can be found anywhere on the 7.7-mi² (20-km²) island (Hutton 1991), as well as on offshore islands such as the Admiralty group (Garnett and Crowley 2000). The Lord Howe pied currawong breeds in rainforests and palm forests, particularly along streams. Its territories include sections of streams or gullies that are lined by tall timber (Garnett and Crowley 2000). The highest densities of Lord Howe pied currawong 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 Crowley 2000). The nest is placed high in a tree and is made of a cup of sticks lined with grass and palm thatch (Department of Environment & Climate Change (DECC) 2005). Most of the island is still forested, and the removal of feral animals has resulted in the recovery of the forest understory (World Wildlife Fund (WWF) 2001).

The Lord Howe pied currawong is omnivorous and eats a wide variety of food, including native fruits and seeds (Hutton 1991), and is the only remaining native island vertebrate predator (DECC 2005). It has been recorded taking seabird chicks, poultry, and chicks of the Lord Howe woodhen (*Tricholimnas sylvestris*) and white tern (*Gygis alba*). It also feeds on dead rats and has been observed catching live rats to eat (Hutton 1991). A Department of Environmental Conservation (DEC) scientist observed that food brought to Lord Howe pied currawong nestlings was, in decreasing order: invertebrates, fruits, reptiles, and nestlings of other bird species (Lord Howe Island Board (LHIB) 2006).

The Lord Howe pied currawong is listed as 'Vulnerable' under the New South Wales Threatened Species Conservation Act of 1995 because it has a limited range, only occurring on Lord Howe Island (DECC 2004). It also is listed as 'Vulnerable' under the Commonwealth Environment Protection and Biodiversity Conservation Act of 1999. These laws provide a legislative framework to protect and encourage the recovery of vulnerable species (DEC 2006a). The Lord Howe Island Act of 1953, as amended, established the LIHB, made provisions for the LHIB to care, control, and manage the island, and established 75 percent of the land area as a Permanent Park Preserve (DEC 2007). In 1982, the island was inscribed on the World Heritage List for its outstanding natural universal values (Department of the Environment and Water Resources 2007).

In the Action Plan for Australian Birds 2000 (Garnett and Crowley 2000), the Lord Howe pied currawong population was estimated at approximately 80 mature individuals. In 2006, initial results from a color band survey suggested that the population size was 180 to 200 in number (LHIB 2006). Complete results reported by the Foundation for National Parks & Wildlife (2007) estimated the breeding population of the Lord Howe pied currawong was 80 to 100 pairs, with a nesting territory in the tall forest areas of about 12 acres (ac) (5 hectares (ha)) per pair. The population size is limited by the amount of available habitat and the lack of food during the winter (Foundation for National Parks & Wildlife 2007).

The Lord Howe Island Biodiversity Management Plan was finalized in 2007, and is the formal National and NSW Recovery Plan for threatened species and communities of the Lord Howe Island Group (DEC 2007a). The main threat identified for the Lord Howe pied currawong is habitat clearing and modification (DEC 2007b). Lord Howe Island is unique among inhabited Pacific Islands in that less than 10 percent of the island has been cleared (WWF 2001) and less than 24 percent has been disturbed (DEC 2007a). Although large-scale clearing of native vegetation no longer occurs on Lord Howe Island, the impact of vegetation clearing on a small scale needs to be assessed (DEC 2007a). A lesser threat to the Lord Howe pied currawong is human interaction with the species. Prior to the 1970s, locals would shoot this currawong because it preys on nestling birds (Hutton 1991). The Lord Howe pied currawong remains unpopular with some residents. It is unknown what effect this localized killing has on the overall population size and distribution of the species (Garnett and Crowley 2000). Also, the Lord Howe pied currawong often preys on ship (black) rats (*Rattus rattus*) and may be subject to nontarget poisoning during rat-baiting programs (DEC 2007b). Close monitoring of the population is needed because this small, endemic population is susceptible to catastrophic events, such as disease or introduction of a new predator (Garnett and Crowley 2000).

The Lord Howe pied currawong is a subspecies facing threats that are low in magnitude and nonimminent because of the conservation efforts taken for the island as a whole. Therefore, we have assigned this subspecies a priority rank of 12.

Invertebrates

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

Harris' mimic swallowtail is a subspecies endemic to Brazil (Collins and Morris 1985). Although the *species'* range includes Paraguay, the *subspecies* has not been confirmed there (Collins and Morris 1985; Finnish University and Research Network (Funet) 2004). Occupying the lowland swamps and sandy flats above the tidal margins of the coastal Atlantic Forest, the subspecies prefers alternating patches of strong sun and deep shade (Brown 1996; Collins and Morris 1985). This subspecies is polyphagous, meaning that its larvae feed on more than one plant species (Kotiaho *et al.* 2005). Information on preferred hostplants and adult nectar-sources was published in the 12–month finding (69 FR 70580; December 7, 2004). This subspecies mimics at least three *Parides* species, including the fluminense swallowtail; details on mimicry were provided in the 12–month finding (69 FR 70580; December 7, 2004) and in the 2007 Notice of Review (72 FR 20184; April 23, 2007). Researchers believe that this mimicry system may cause problems in distinguishing this subspecies from the species that it mimics (Brown, in litt. 2004; Monteiro *et al.* 2004).

Harris' mimic swallowtail was previously known in Espirito Santo and Rio de Janeiro (Collins and Morris 1985; New and Collins 1991). However, there are no recent confirmations in Espirito Santo. In Rio de Janeiro, Harris' mimic swallowtail has recently been confirmed in three localities. Two colonies are located on the east coast of Rio de Janeiro, at Barra de São João and Macaé, and the other in Poço das Antas Biological Reserve, further inland. The Barra de São João colony is the best-studied. Since 1984, it has maintained a stable size, varying between 50 to 250 individuals (Brown 1996; K. Brown, Jr., *in litt.* 2004; Collins and Morris 1985), and was reported to be viable, vigorous, and stable in 2004 (K. Brown, Jr., in litt. 2004). There are no estimates of the size

of the colony in Poço das Antas Biological Reserve, where it had not been seen for 30 years prior to its rediscovery there in 1997 (K. Brown, Jr., *in litt.* 2004). Population estimates are lacking for the colony at Macaé, where the subspecies was netted in Jurubatiba National Park in the year 2000, after having not been seen in the area for 16 years (Monteiro *et al.* 2004). The Brazilian Institute of the Environment and Natural Resources (Instituto Brasileiro do a Meio Ambiente de do Recursos Naturais Renováveis; IBAMA) considers this subspecies to be critically imperiled (MMA 2003; Portaria No. 1,522 1989) and ''strictly protected,'' such that collection and trade of the subspecies are prohibited (Brown 1996). Harris' mimic swallowtail was categorized on the IUCN Red List as ''Endangered'' in the 1988, 1990, and 1994 IUCN Red Lists (IUCN 1996). However, it has not been reevaluated using the 1997 IUCN Red List criteria, nor has it been incorporated into the 2007 IUCN Red List database (IUCN 2007).

Habitat destruction is the main threat to this subspecies (Brown 1996; Collins and Morris 1985), especially urbanization in Barra de São João, industrialization in Macaé (Jurubatiba National Park), and previous fires in the Poço das Antas Biological Reserve. As described in detail for the fluminense swallowtail (below), Atlantic Forest habitat has been reduced to 5 to 10 percent of its original cover. More than 70 percent of the Brazilian population lives in the Atlantic forest, and coastal development is ongoing throughout the Atlantic Forest region (Butler 2007; Conservation International 2007; Critical Ecosystem Partnership Fund (CEPF) 2007a; Höfling 2007; Hughes *et al.* 2006; The Nature Conservancy 2009; Peixoto and Silva 2007; Pivello 2007; World Food Prize 2007; WWF 2007).

Both Barra de São João and the Poço das Antas Biological Reserve, two of the known Harris' mimic swallowtail localities, lie within the São João River Basin. The current conditions at Barra de São João appear to be suitable for long-term survival of this subspecies. The Barra de São João River Basin encompasses a 535,240-ac (216,605-ha) area, 372,286 ac (150,700 ha) of which is managed as protected areas. The preferred environment of open and shady areas (Brown 1996; Collins and Morris 1985) continues to be present in the region, with approximately 541 forest patches averaging 314 ac (127 ha) in size, covering nearly 68,873 ha (170,188 ac), and a minimum distance between forest patches of 0.17 mi (276 m) (Teixeira 2007). In studies between 1984 and 1991, Brown (1996) determined that Harris' mimic swallowtails in Barra de São João flew a maximum distance of 0.62 mi (1000 m); it follows that the average flying distance would be less than this figure. Thus, the average (0.17 mi (276 m)) distance between forest patches in the Barra de São João River Basin is clearly within the flying distance of this subspecies. The colony at Barra de São João has maintained a stable population for 20 years, indicating that the conditions available there remain suitable.

Harris' mimic swallowtail ranges within two protected areas: Poço das Antas Biological Reserve and Jurubatiba National Park. These protected areas are described in detail for the fluminense swallowtail below. The Poço das Antas Biological Reserve (Reserve) was established to protect the golden lion tamarin (*Leontopithecus rosalia*) (Decree No. 73,791 1974), but the Harris' mimic swallowtail, which occupies the same range, may benefit indirectly by efforts to conserve golden-lion-tamarin habitat (De Roy 2002; Teixeira 2007; WWF 2003). Habitat destruction caused by fires in Poço das Antas Biological Reserve appears to have abated, and the revised management plan indicates that the Reserve will be used for research and conservation, with limited public access (CEPF 2007a; IBAMA 2005). The Jurubatiba National Park (Park) is located in a region that is undergoing continuing development pressures from urbanization and industrialization (Brown 1996; CEPF 2007b; IFC 2002; Khalip 2007; Otero and Brown 1984; Savarese 2008), and there is no management plan in place for the Park (CEPF 2007b). However, as discussed for the fluminense swallowtail, the Park is considered to be in a very good state of conservation (Rocha *et al.* 2007).

Harris' mimic swallowtail is a subspecies and does not represent a monotypic genus. Based on the above information, we have determined that habitat destruction is a threat to the subspecies. The magnitude of the threat is low because suitable habitat continues to exist for this polyphagous subspecies; the best-studied colony has maintained a stable and viable size for nearly two decades; an additional locality has been confirmed; the subspecies is strictly protected by Brazilian law; and two colonies are located within protected areas. While the protected areas in which this subspecies is found continue to be threatened with potential habitat destruction from urbanization and industrialization, the threat of habitat destruction is nonimminent because such destruction within those protected areas is not ongoing at this time. Therefore, we have assigned the subspecies a priority rank of 12.

Jamaican kite swallowtail (*Eurytides* marcellinus)

The Jamaican kite swallowtail is endemic to Jamaica, preferring wooded, undisturbed habitat containing the only known larval hostplant West Indian lancewood (*Oxandra lanceolata*); adult preferences have not been reported (Bailey 1994; Collins and Morris 1985). Since the 1990s, adult Jamaican kite swallowtails have been observed in the Parishes of St. Thomas and St. Andrew in the east; westward in St. Ann, Trelawny, and St. Elizabeth; and, in the extreme western coast Parish of Westmoreland (Bailey 1994; Harris 2002; Möhn 2002; Smith *et al.* 1994; WRC 2001). There is only one known breeding site in the eastern coast town of Rozelle (St. Thomas Parish) (Bailey 1994; Collins and Morris 1985; Garraway *et al.* 1993; Smith *et al.* 1994), although it is possible that other sites exist given the widely dispersed nature of the larval food plant (R. Robbins, *in litt.* 2004). Rozelle may also be referred to in the literature as Roselle (e.g., Anderson *et al.* 2007). The Jamaican kite swallowtail maintains a low population level. It occasionally becomes locally abundant in Rozelle during the breeding season in early summer and again in early fall (Bailey 1994; Brown and Heineman 1972; Collins and Morris 1985; Garraway *et al.* 1993; Smith *et al.* 1994), and experiences episodic population explosions, as described in the 12–month finding (69 FR 70580; December 7, 2004) and in the 2007 ANOR (72 FR 20184; April 23, 2007). 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). Since 1985, the Jamaican kite swallowtail was categorized on the IUCN Red List as 'Vulnerable' it has not been reevaluated using the 1997 criteria (IUCN 2008; Gimenez Dixon 1996).

Habitat destruction has been considered a primary threat to the Jamaican kite swallowtail. In Rozelle, there has been extensive habitat modification for agricultural and industrial purposes, such as mining (Gimenez Dixon 1996; WWF 2001). The Jamaican kite's larval food plant, West Indian lancewood, is threatened by clearing for cultivation and by felling for the commercial timber industry (Collins

and Morris 1985; Windsor Plywood 2004). Monophagous butterflies tend to be more threatened than polyphagous species, in part due to their specific habitat requirements (Kotiaho *et al.* 2005), and harvest and clearing reduces the availability of the only known larval food plant. Habitat modification poses an additional threat because the swallowtail does not thrive in disturbed habitats (Collins and Morris 1985). Rozelle is also subject to naturally occurring, high-impact stochastic events, such as regularly-occurring hurricanes, as elaborated in the 2007 ANOR (72 FR 20184; April 23, 2007). According to the Economic Commission for Latin America and the Caribbean (ECLAC), United Nations Development Programme (UNDP), and Planning Institute of Jamaica (PIOJ) (2004), hurricane-related weather damage in the last two decades along the coastal zone of Rozelle has resulted in the erosion and virtual disappearance of the once-extensive recreational beach. Most recently, Hurricane Ivan, a Category 5 hurricane that hit the island in 2004, caused severe local damage to Rozelle Beach, including road collapse caused by the erosion of the cliff face and shoreline. The estimated restoration cost from Hurricane Ivan damage was $23 million U.S. Dollars (US$) ($1.6 million Jamaican Dollars (J$) (ECLAC *et al.* 2004). Thus, while we do not consider stochastic events to be a primary threat factor for this species, we believe that the damage caused by hurricanes is contributing to habitat loss.

Habitat destruction in western Parishes also threatens adult Jamaican kite swallowtails. Cockpit Country, encompassing 30,000 ha (74,131 ac) of rugged forest-karst (a specialized limestone habitat) terrain, spans four Western Parishes, including Trelawny and St. Elizabeth, where adult Jamaican kite swallowtails have been observed (Gordon and Cambell 2006). Eighty-one percent of this region remains forested, although fragmentation is occurring as a result of human-induced activities (Tole 2006). Current threats to Cockpit Country include bauxite mining, unregulated plant collecting, extensive logging, conversion of forest to agriculture, illegal drug cultivation, and expansion of human settlements. These activities contribute to threats to the hydrology system from in-filling, siltation, accumulation of solid waste, and invasion by nonnative, invasive species (Cockpit Country Stakeholders Group and JEAN (Jamaica Environmental Advocacy Network 2007; Gordon and Cambell 2006; Tole 2006)).

Currently, the Blue and John Crow Mountains National Park, located on the inland portions of St. Thomas and St. Andrew and the southeast portion of St. Mary Parishes, is the only protected area in which adult Jamaican Kite swallowtails have been observed (Bailey 1994; Jamaica Conservation and Development Trust (JCDT) 2006). Created in 1993, this Park encompasses 122,367 ac (49,520 ha) of mountainous, forested terrain that ranges in elevation from 492 to 7,402 ft (150 m to 2,256 m) and is considered one of the best-managed protected areas in Jamaica (JCDT 2006). Deforestation is currently a threat in the Blue Mountains (Tole 2006). In 2003, the Jamaican National Environment and Planning Agency identified Rozelle and Cockpit Country (which spans at least four Western Parishes, including Trelawny and St. Elizabeth, where adult Jamaican kites have been observed) as priority locations to receive protected area status within the next 5 to 7 years (NEPA 2003). The status of this proposal is not included in the 2007 Environmental Action Plan Status Report (NEPA 2007).

The Jamaican kite swallowtail has been collected for commercial trade (Collins and Morris 1985; Melisch 2000; Schütz 2000) and has been protected under the Jamaican Wildlife Protection Act since 1998. This Act carries a maximum penalty of US$1439 (J$100,000) or 12 months imprisonment for violating provisions of the Act, which appears to be effectively protecting this species from illegal trade (NEPA 2005). This species is not listed under CITES, nor is it listed on the European Commission's Annex B (Eur-Lex 2008), both of which regulate international trade in animals and plants of conservation concern. However, we are not aware of any recent seizures or smuggling in this species into or out of the United States (Office of Law Enforcement, U.S. Fish and Wildlife Service, Arlington, Virginia, *in litt.* 2008). Therefore, we believe that overutilization is not currently a contributory threat factor for the Jamaican kite swallowtail.

The Jamaican kite swallowtail does not represent a monotypic genus. The current threat to the species is moderate in magnitude because habitat destruction is occurring at the species' only known breeding site, but Jamaica has taken regulatory steps to preserve their native swallowtail species and their habitat. The threat is imminent because habitat destruction is ongoing and stochastic events are unpredictable. Therefore, we have assigned this species a priority rank of 8.

Fluminense swallowtail (*Parides ascanius*)

The fluminense swallowtail is endemic to Brazil's ''restinga'' habitat within the Atlantic Forest region (Thomas 2003). Restingas form on sandy, acidic, and nutrient-poor soils in the tropical and subtropical moist broadleaf forests of coastal Brazil. Restinga habitat, also referred to as ''fluminense vegetation,'' is characterized by medium-sized trees and shrubs that are adapted to coastal conditions (Kelecom 2002). The species is monophagous (Otero and Brown 1984), meaning that its larvae feed only on a single plant species (Kotiaho *et al.* 2005); information on larval hostplant preferences is provided in the April 23, 2007 Notice of Review (72 FR 20184).

The historical range of this species has probably always been limited to coastal Rio de Janeiro State (Gelhaus *et al.* 2004), but it was historically reported in Rio de Janeiro, Espirito Santo, and Sao Paulo. However, there are no recent confirmations in Espirito Santo or Sao Paulo. In Rio de Janeiro, the species is reported in five localities, including: Barra de São João and Macaé (in the Restinga de Jurubatiba National Park), along the coast; and, Poço das Antas Biological Reserve, further inland (Keith S. Brown, Jr., Livre-Docent, Universidade Estadual de Campinas, Brazil, *in litt.* 2004; Soler 2005). Uehara-Prado and Fonseca (2007) recently reported a verified occurrence within Área de Tombamento do Mangue do rio Paraíba do Sul. Fluminense swallowtail has also been reported in Parque Natural Municipal do Bosque da Barra (Instituto Iguacu 2008).

The fluminense swallowtail is sparsely distributed throughout its range, reflecting the patchy distribution of its preferred habitat (Otero and Brown 1984; Tyler *et al.* 1994; Uehara-Prado and Fonseca 2007). However, the species can be seasonally common, with sightings of up to 50 individuals in one morning in the Barra de São João location. The population estimate in Barra de São João ranges from 20 to 100 individuals (Otero and Brown 1984). The colony within Poço das Antas Biological Reserve (Reserve) was rediscovered in 1997, after a nearly 30–year absence from this locality (K. Brown, Jr., in litt. 2004). Researchers noted only that ''large numbers'' of swallowtails were observed (K. Brown, Jr., *in litt.* 2004; Dr. Robert Robbins, Research Entomologist, National Museum of Natural History, Department of Entomology, Smithsonian Institution, Washington, D.C., *in litt.* 2004). There are no population estimates for the other

colonies. However, individuals from the viable population in Barra de São João migrate widely in some years, which is likely to enhance interpopulation gene flow among existing colonies (K. Brown, Jr., in litt. 2004).

Brazil considers the fluminense swallowtail to be ''Imperiled'' (MMA 2003; Portaria No. 1,522 1989). According to the 2008 IUCN Red List (Gimenez Dixon 1996), the fluminense swallowtail has been categorized as ''Vulnerable'' since 1983, based on its small distribution and a decline in the number of populations caused by habitat fragmentation and loss. However, this species has not been reevaluated using the 1997 IUCN Red List categorization criteria.

Habitat destruction has been the main threat to this species (Brown 1996; Collins and Morris 1985; Gimenez Dixon 1996). Monophagous butterflies tend to be more threatened than polyphagous species (Kotiaho *et al.* 2005), and the restinga habitat preferred by fluminense swallowtails is a highly specialized environment that is restricted in distribution (K. Brown, Jr., *in litt.* 2004; Otero and Brown 1986; Ueraha-Prado and Fonseca). Moreover, fluminense swallowtails require large areas to maintain viable populations (K. Brown, Jr., *in litt.* 2004; Otero and Brown 1986; Ueraha-Prado and Fonseca). The Atlantic Forest habitat, which once covered 540,543 mi^2 (1.4 million km^2), has been reduced 5 to 10 percent of its original cover and harbors more than 70 percent of the Brazilian population (Butler 2007; Conservation International 2007; Critical Ecosystem Partnership Fund (CEPF) 2007a; Höfling 2007; The Nature Conservancy 2009; World Wildlife Fund (WWF) 2007). The restinga habitat upon which this species depends has been reduced by 6.56 mi^2 (17 km^2) each year between 1984 and 2001, equivalent to a loss of 40 percent of restinga vegetation over the 17–year period (Temer 2006). The major ongoing human activities that have resulted in habitat loss, degradation, and fragmentation include conversion for agriculture, plantations, livestock pastures, human settlements, hydropower reservoirs, commercial logging, subsistence activities, and coastal development (Butler 2007; Hughes *et al.* 2006; Pivello 2007; The Nature Conservancy 2007; Peixoto and Silva 2007; World Food Prize 2007; WWF 2007).

Uehara-Prado and Fonseca (2007) estimated that Rio de Janeiro contains 4,140,127 ac (1,675,457 ha) of suitable habitat (Uehara-Prado and Fonseca 2007). While the presence of suitable habitat should not be used to infer the presence of a species, this research should facilitate more focused efforts to identify and confirm additional localities and the conservation status of the fluminense swallowtail (Uehara-Prado and Fonseca 2007). Analyzing the correlation between the distribution of fluminense swallowtail and the existing protected areas within Rio de Janeiro, Uehara-Prado and Fonseca (2007) found that only two known occurrences of the fluminense swallowtail correlated with protected areas, including the Poço das Antas Biological Reserve. The researchers concluded that the existing protected area system may be inadequate for the conservation of this species.

The Poço das Antas Biological Reserve and the Jurubatiba National Park are the only two protected areas considered large enough to support viable populations of the fluminense swallowtail (K. Brown, Jr., *in litt.* 2004; Otero and Brown 1984; R. Robbins, *in litt.* 2004). The Poço das Antas Biological Reserve (Reserve), established in 1974, encompasses 13,096 ac (5,300 ha) of inland Atlantic Forest habitat (CEPF 2007a; Decree No. 73,791 1974). According to the 2005 revised management plan (IBAMA 2005), the Reserve is used solely for protection, research, and environmental education. Public access is restricted, and there is an emphasis on habitat conservation, including protection of the Río São João. This river runs through the Reserve and is integral to creating the restinga conditions preferred by the fluminense swallowtail. The Reserve was plagued by fires in the late 1980s through the early 2000s, but there have been no recent reports of fires. Between 2001 and 2006, there was an increase in the number of private protected areas near or adjacent to the Poço das Antas Biological Reserve and Barra de São João (Critical Ecosystem Partnership Fund (CEPF) 2007a). Corridors are being created between existing protected areas and 13 privately protected forests, by planting and restoring habitat previously cleared for agriculture or by fires (De Roy 2002).

The Jurubatiba National Park (14,860 ha; 36,720 mi^2), located in Macaé and established in 1998 (Decree of April 29 1998), is one of the largest contiguous restingas (specialized sandy, coastal habitats) under protection in Brazil (CEPF 2007b; Rocha *et al.* 2007). The Macaé River Basin forms the outer edge of the Jurubatiba National Park (Park) (International Finance Corporation (IFC) 2002) and creates the restinga habitat preferred by the fluminense swallowtail (Brown 1996; Otero and Brown 1984). Rocha *et al.* (2007) described the habitat as being in a very good state of conservation, but lacking a formal management plan. Threats to the Macaé region include industrialization for oil reserve and power development (IFC 2002) and intense population pressures (including migration and infrastructural development) (Brown 1996; CEPF 2007b; IFC 2002; Khalip 2007; Otero and Brown 1984; Savarese 2008).

Commercial exploitation has been identified as a potential threat to the fluminense swallowtail (Collins and Morris 1985; Melisch 2000; Schütz 2000). The species is easy to capture, and species with restricted distributions or localized populations, such as the fluminense swallowtail, tend to be more vulnerable to overcollection than those with a wider distribution (K. Brown, Jr., *in litt.* 2004; R. Robbins, in litt. 2004). This species has not been formally considered for listing in the Appendices of CITES (*http://www.cites.org*). However, the European Commission listed fluminense swallowtail on Annex B of Regulation 338/97 in 1997 (Dr. Ute Grimm, German Scientific Authority to CITES (Fauna), Bonn, Germany, *in litt.* 2008), and the species continues to be listed on this Annex (Eur-Lex 2008). This listing requires that imports from a non-European Union country be accompanied by a permit that is only issued if the Scientific Authority has made a positive nondetriment finding, a determination that trade in the species will not be detrimental to the survival of the species in the wild (U. Grimm, *in litt.* 2008). There has been no legal trade in this species into the European Union since its listing on Annex B (U. Grimm, *in litt.* 2008), and we are not aware of any recent reports of seizures or smuggling in this species into or out of the United States (Office of Law Enforcement, U.S. Fish and Wildlife Service, Arlington, Virginia, *in litt.* 2008). The fluminense remains strictly protected from commerce in Brazil (K. Brown, Jr., *in litt.* 2004). For the reasons outlined above, we believe that overutilization is not currently a threat factor for the fluminense swallowtail.

Parasitism could be a factor threatening the fluminense swallowtail. Recently, Tavares *et al.* (2006) discovered four species of parasitic chalcid wasps (*Brachymeria* and *Conura* species; Hymenoptera family) associated with fluminense swallowtails. Parasitoids are species whose immature stages develop on or within an insect host of another species, ultimately killing the host (Weeden *et al.* 1976). This is the first report of parasitoid association with fluminense swallowtails (Tavares *et al.* 2006). To date, there is no information as to the

extent and effect that these parasites are having on the fluminense swallowtail.

Although Harris' mimic swallowtail and the fluminense swallowtail face similar threats, there are several dissimilarities that influence the magnitude of these threats. Fluminense swallowtails are monophagous (Otero and Brown 1984), meaning that its larvae feed only on a single plant species (Kotiaho *et al.* 2005). In contrast, Harris' mimic swallowtail is polyphagous (Brown 1996; Collins and Morse 1985), such that its larvae feed on more than one species of plant (Kotiaho *et al.* 2005). In addition, although their ranges overlap, Harris' mimic swallowtails tolerate a wider range of habitat than the highly specialized restinga habitat preferred by fluminense swallowtail. Also unlike the Harris' mimic swallowtail, fluminense swallowtails require a large area to maintain a viable population (K. Brown, Jr., *in litt.* 2004; Monteiro *et al.* 2004).

The fluminense swallowtail does not represent a monotypic genus. The species is currently at risk from habitat destruction and potentially from parasitism; however, we have determined that overutilization is not currently a threat factor for the fluminense swallowtail. The current threat of habitat destruction is of high magnitude because the species: (1) occupies highly specialized habitat; (2) requires large areas to maintain a viable colony; and (3) is only found within two protected areas considered to be large enough to support viable colonies. However, additional populations have been reported, increasing previously known population numbers and distribution. The threat of habitat destruction is nonimminent because most habitat modification is the result of historical destruction that has resulted in fragmentation of the current landscape; however, the potential for continued habitat modification exists, and we will continue to monitor the situation. On the basis of this information, we have assigned the fluminense swallowtail a priority rank of 5.

Hahnel's Amazonian swallowtail (*Parides* hahneli)

Hahnel's Amazonian swallowtail is endemic to Brazil and is found only on sandy beaches where the habitat is overgrown with dense scrub vegetation (Collins and Morris 1985; New and Collins 1991; Tyler *et al.* 1994). Hahnel's Amazonian swallowtail is likely to be monophagous. Information on larval and adult hostplant preferences was provided in the **Federal Register** 12–month finding (69 FR 70580; December 7, 2004) and in the 2007 ANOR (72 FR 20184; April 23, 2007).

Hahnel's Amazonian swallowtail is known in three localities along the tributaries of the middle and lower Amazon River basin in the states of Amazonas and Pará (Collins and Morris 1985; New and Collins 1991; Tyler *et al.* 1994; Brown 1996). Two of these colonies were rediscovered in the 1970s (Collins and Morris 1985; Brown 1996). Hahnel's Amazonian swallowtail is highly localized, reflecting the distribution of its highly specialized preferred habitat (Brown *in litt.* 2004). The population size of Hahnel's Amazonian swallowtail is not known. However, within the area of its range, Hahnel's Amazonian swallowtail populations are small (Brown *in litt.* 2004). Hahnel's Amazonian swallowtail is not nationally protected (MMA 2003; Portaria No. 1522 1989), although Pará has listed it as endangered on its newly created list of threatened species (Resolução 054 2007; Decreto No. 802 2008; Secco and Santos 2008). Hahnel's Amazonian swallowtail continues to be listed as 'Data Deficient' by the IUCN Red List (Gimenez Dixon 1996).

Competition is a potential threat to Hahnel's Amazonian swallowtail. Researchers have posited that it might suffer from host-plant competition with any of three other butterfly species that occupy a similar range (Collins and Morris 1985, Wells 1983, Brown 1996, ANOR 2007, 72 FR 20184; April 23, 2007). However, there is insufficient information to conclude that competition is a factor affecting this species.

Habitat alteration (e.g., for dam construction and waterway crop transport) and destruction (e.g., clearing for agriculture and cattle grazing) are ongoing in Pará and Amazonas, where this species is found (Fearnside 2006; Hurwitz 2007). Current research on population declines is lacking. However, researchers believe that, because Hahnel's Amazonian swallowtail has extremely limited habitat preferences, any sort of river modification would have an immediate and highly negative impact on the species (Wells *et al.* 1983; New and Collins 1991).

Hahnel's Amazonian swallowtail has been collected for commercial trade (Collins and Morris 1985; Melisch 2000; Schütz 2000). Although not strictly protected from collection throughout Brazil, the state of Pará recently declared the capture of Hahnel's Amazonian swallowtail for purposes other than research to be forbidden (Decreto No. 802 2008). There continues to be limited trade in the species over the internet. However, it has not been ascertained whether this trade represents new collections or older, established ones (DSA 2008). Hahnel's Amazonian swallowtail is listed on Annex B of Regulation 338/97 (Eur-Lex 2008), and there has been no legal trade in this species into the European Union since its listing on Annex B in 1997 (Grimm *in litt.* 2008). Hahnel's Amazonian swallowtail has not been formally considered for listing in the Appendices of CITES (*http://www.cites.org*). Additionally, recent seizures or smuggling of Hahnel's Amazonian swallowtail into or out of the United States have not been reported (Office of Law Enforcement, U.S. Fish and Wildlife Service, Arlington, Virginia *in litt.* 2008). Species with restricted distributions or localized populations, like Hahnel's Amazonian swallowtail, are more vulnerable to overcollection than those with a wider distribution (Brown *in litt.* 2004; Robbins *in litt.* 2004).

Hahnel's Amazonian swallowtail does not represent a monotypic genus. The primary threat of habitat destruction is moderate because of the species' specialized habitat requirements. However, the threat is imminent because habitat alteration is ongoing. Illegal collection and trade have not been reported. Therefore, we have assigned this species a priority rank of 8.

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 (Baral *et al.* 2005; Food and Agriculture Organization (FAO) 2001; FRAP 1999; Igarashi 2001; Masui and Uehara 2000; Osada *et al.* 1999; Shrestha 1997; TRAFFIC 2007; Tordoff *et al.* 1999; Trai and Richardson 1999). This species prefers undisturbed (primary), heterogeneous, broad-leaved-evergreen forests or montane deciduous forests, and flies at altitudes of 4,921 to 10,000 ft (1,500 to 3,050 m) (Collins and Morris 1985; Igarashi 2001; Tordoff *et al.* 1999). Information on this polyphagous species' biology and food plant preferences is provided in the 2007 Notice of Review (72 FR 20184). It should be noted that Collins and Morris (1985) reported that the adult Kaiser-I-Hind swallowtails do not feed. This is a correction to the 2007 Notice of Review (72 FR 20184), which stated that the adult food plant preferences were unknown. Since 1996, the Kaiser-I-Hind swallowtail has been categorized on the

IUCN Red List as a species of ''Lower Risk/near threatened''; it has not been reevaluated using the 1997 criteria (Gimenez Dixon 1996). The species is considered ''Rare'' by Collins and Morris (1985). Despite its widespread distribution, local populations are not abundant (Collins and Morris 1985). The known localities and conservation status of the species within each range country follows:

Bhutan: The species was reported to be extant in Bhutan (Gimenez Dixon 1996; FRAP 1999), although details on localities or status information were not provided.

China: The species has been reported in Fuji, Guangxi, Hubei, Jiangsu, Sichuan, and Yunnan Provinces (Collins and Morris 1985; Gimenez Dixon 1996; Igarashi and Fukuda 2000; Sung and Yan 2005; United Nations Environment Programme – World Conservation Monitoring Center (UNEP – WCMC) 1999). The species is classified by the 2005 China Species Red List as ''Vulnerable'' (China Red List 2006).

India: Assam, Manipur, Meghalaya, Sikkim, and West Bengal (Bahuguna 1998; Collins and Morris 1985; Gimenez Dixon 1996; Ministry of Environment and Forests 2005). There is no recent status information on this species (N. Chaturvedi, Curator, Bombay Natural History Society, Mumbai, India, *in litt.* 2007).

Laos: The species has been reported (Osada *et al.* 1999), but no further information is available (Southiphong Vonxaiya, CITES Coordinator, Vientiane, Lao, *in litt.* 2007).

Myanmar: The species has been reported in Shan, Kayah (Karen) and Thaninanthayi (Tenasserim) states (Collins and Morris 1985; Gimenez Dixon 1996). There is no status information.

Nepal: The species has been reported in Nepal (Collins and Morris 1985; Gimenez Dixon 1996), in the Central Administrative Region at two localities: Phulchoki Mountain Forest (Baral *et al.* 2005; Collins and Morris 1985) and Shivapuri National Park (Nepali Times 2002; Shrestha 1997). There is no status information.

Thailand: The species has been reported in the northern province of Chang Mai (Pornpitagpan 1999). The Scientific Authority of Thailand recently confirmed that the species has limited distribution in the high mountains (>1,500 m (4,921 ft)) of northern Thailand and is found within three national parks. However, no biological or status information was available (S. Choldumrongkul, Forest Entomology and Microbiology Group, Department of National Parks, Bangkok, Thailand, *in litt.* 2007).

Vietnam: The species has been confirmed in three Nature Reserves (Tordoff *et al.* 1999; Trai and Richardson 1999), and the species is listed as ''Vulnerable'' in the 2007 Vietnam Red Data Book, due to declining population sizes and area of occupancy (Dr. Le Xuan Canh, Director of the Institute of Ecology and Biological Resources, CITES Scientific Authority, Hanoi, Vietnam, in litt. 2007).

Habitat destruction is the greatest threat to this species, which prefers undisturbed high-altitude habitat (Collins and Morris 1985; Igarashi 2001; Tordoff *et al.* 1999). In China and India, the Kaiser-I-Hind swallowtail populations are at risk from habitat modification and destruction due to commercial and illegal logging (Yen and Yang 2001; Maheshwari 2003). In Nepal, the species is at risk from habitat disturbance and destruction resulting from mining, fuel wood collection, agriculture, and grazing animals (Baral *et al.* 2005; Collins and Morris 1985; Shrestha 1997). Nepal's Forest Ministry considered habitat destruction to be a critical threat to all biodiversity, including the Kaiser-I-Hind swallowtail, in the development of their biodiversity strategy (HMGN 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). The species is afforded some protection from habitat destruction in Vietnam, where it has been confirmed in three Nature Reserves that have low levels of disturbance (Tordoff *et al.* 1999; Trai and Richardson 1999).

The Kaiser-I-Hind swallowtail is highly valued and has been collected for commercial trade, despite range country regulations prohibiting or restricting such activities (Collins and Morris 1985; Schütz 2000). In China, where the species is protected by the Animals and Plants (Protection of Endangered Species) Ordinance (1989), which restricts import, export, and possession of the species, species purportedly derived from Sichuan were being advertised for sale on the internet for 60 U.S. Dollars (USD). In India, the Kaiser-I-Hind swallowtail is listed on Schedule II of the Indian Wildlife Protection Act of 1972, which prohibits hunting without a license (Collins and Morris 1985; Indian Wildlife Protection Act 2006). However, between 1990 and 1997, illegally collected specimens were selling for 500 Rupees (12 USD) per female and 30 Rupees (0.73 USD) per male (Bahuguna 1998). In Nepal, the Kaiser-I-Hind swallowtail is protected by the National Parks and Wildlife Conservation Act of 1973 (His Majesty's Government of Nepal (HMGN) 2002). However, the Nepal Forestry Ministry determined in 2002 that the high commercial value of its ''Endangered'' species on the local and international market may result in local extinctions of species such as the Kaiser-I-Hind (HMGN 2002).

In Thailand, the Kaiser-I-Hind swallowtail and 13 other invertebrates are listed under Thailand's Wild Animal Reservation and Protection Act (WARPA) of 1992 (B.E. 2535 1992), which makes it illegal to collect wildlife (whether alive or dead) or to have the species in one's possession (S. Choldumrongkul, *in litt.* 2007; FAO 2001; Hongthong 1998; Pornpitagpan 1999). In addition to prohibiting possession, WARPA prohibits hunting, breeding, and trading; import and export are only allowed for conservation purposes (Jeerawat Jaisielthum, CITES Management Authority, Bangkok, Thailand, *in litt.* 2007). According to the Thai Scientific Authority, there are no captive breeding programs for this species; however, the species is offered for sale by the Lepidoptera Breeders Association (2009), being marketed as derived from a captive breeding program in Thailand, although specimens were recently noted as being ''out of stock'' (Lepidoptera Breeders Association 2009).

In Vietnam, Kaiser-I-Hind swallowtails are reported to be among the most valuable of all butterflies (World Bank 2005). In 2006, the species was listed on Schedule IIB of Decree No. 32 on ''Management of endangered, precious and rare forest plants and animals.'' A Schedule IIB-listing restricts the exploitation or commercial use of species with small populations or considered by the country to be in danger of extinction (L.X. Canh, *in litt.* 2007). In a recent survey conducted by TRAFFIC Southeast Asia (2007), of 2000 residents in Hanoi, Vietnam, the Kaiser-I-Hind swallowtail was among 37 Schedule IIB-species that were actively being collected, and the majority of the survey respondents were unaware of legislation prohibiting collection of Schedule IIB-species. Thus, overutilization for illegal domestic and possibly international trade via the internet is a threat to this species, and within-country protections are inadequate to protect the species from illegal collection throughout its range.

The Kaiser-I-Hind swallowtail has been listed in CITES Appendix II since 1987 (UNEP-WCMC 2008a). Between 1991 and 2005, 160 Kaiser-I-Hind

swallowtail specimens were traded internationally under CITES permits (UNEP WCMC 2006), and between 2000 and 2008, 157 specimens were traded (UNEP WCMC 2009). The most recent CITES trade data are available for the year 2008. Reports that the Kaiser-I-Hind swallowtail is being captive-bred in Taiwan (Yen and Yang 2001) remain unconfirmed. Since 1993, there have been no reported seizures or smuggling of this species into or out of the United States (Office of Law Enforcement, U.S. Fish and Wildlife Service, Arlington, Virginia, *in litt.* 2008). Therefore, on the basis of global trade data, we do not consider legal international trade to be a contributory threat factor to this species.

The Kaiser-I-Hind swallowtail does not represent a monotypic genus. The current threats of habitat destruction and illegal collection are moderate to low in magnitude due to the species' wide distribution, but imminent due to ongoing habitat destruction, high market value for specimens, and inadequate domestic protections for the species or its habitat. Therefore, we have assigned this species a priority rank of 8.

Preclusion and Expeditious Progress

This section describes the actions that continue to preclude the immediate proposal of listing rules for the 20 species described above. In addition, we summarize the expeditious progress we are making, as required by section 4(b)(3)(B)(iii)(II) of the Act, to add qualified species to the lists of endangered or threatened species and to remove from these lists species for which protections of the Act are no longer necessary.

Section 4(b) of the Act states that the Service may make warranted-but-precluded findings only if it can demonstrate that (1) An immediate proposed rule is precluded by other pending proposals and that (2) expeditious progress is being made on other listing actions. Preclusion is a function of the listing priority of a species in relation to the resources that are available and competing demands for those resources. Thus, in any given fiscal year (FY), multiple factors dictate whether it will be possible to undertake work on a proposed listing regulation or whether promulgation of such a proposal is warranted but precluded by higher priority listing actions.In FY 2009, we have begun to transfer the listing of foreign species under the Act from the Division of Scientific Authority, within the Service's International Affairs program, to the domestic Endangered Species Program. In addition to the responsibility for development of listing proposals and promulgation of final rules for domestic species, whether internally driven or as the result of a petition, the Listing Branch within the Washington Office of the Endangered Species program will have responsibly for listing determinations for foreign species as well. During this transition period (the remainder of FY 2009) the DSA and WO Endangered Species Program are sharing the work on listing actions for foreign species. The work on foreign species is being funded from a separate account than the work on domestic species. Starting in FY 2010, the Service anticipates that the WO Endangered Species program will have full responsibility for foreign species ESA listing actions. In FY 2009, we have limited funds to work on foreign species listing determinations. All funds available are being used to complete the pending listing actions listed below. These actions are either the subject of a court-approved settlement agreement or subject to an absolute statutory deadline and, thus, are higher priority than work on proposed listing determinations for the 20 species described above. Therefore, in the upcoming year, publication of proposed rules for the 20 species described above is precluded.

ESA FOREIGN SPECIES LISTING ACTIONS FUNDED IN FY 2009 BUT NOT YET COMPLETED

Species	Action
Actions Subject to Court Order/ Settlement Agreement	
3 species of Procellarids	Final listing determination
3 other species of Procellarids	Final listing determination
7 bird species from Brazil	Proposed listing determination
Salmon crested cockatoo	Proposed listing determination
6 bird species from Peru	Proposed listing determination
6 bird species from Asia & Eurasia	Proposed listing determination
Actions with Statutory Deadlines	
14 species of parrots	12–month petition finding
Morelet's crocodile	12–month petition finding and Proposed delisting determination

Despite the priorities that preclude publishing proposed listing rules for these 20 species described in this notice, we are making expeditious progress in adding to and removing species from the Federal lists of threatened and endangered species. Our expeditious progress since publication of the 2008 Notice of Review, July 29, 2008, to the current date includes preparing and publishing the following:

ESA FOREIGN SPECIES LISTING ACTIONS PUBLISHED IN FY 2009

Publication Date	Title	Actions	FR Pages
8/19/2008	90-Day Finding on a Petition To List the Northern Snakehead Fish (*Channa argus*)	Notice 90–day petition finding; not substantial	73 FR 48359-48362
12/8/2008	Listing the Medium Tree Finch (*Camarhynchus pauper*) as Endangered Throughout Its Range	Proposed Listing, Endangered	73 FR 74434-74445
12/8/2008	Proposed Rule To List Black-Breasted Puffleg as Endangered Throughout Its Range	Proposed Listing, Endangered	73 FR 74427-74434

ESA FOREIGN SPECIES LISTING ACTIONS PUBLISHED IN FY 2009—Continued

Publication Date	Title	Actions	FR Pages
12/18/2008	12-Month Finding on a Petition To List southern rockhopper penguin (*Eudyptes chrysocome*), northern rockhopper penguin (*Eudyptes moseleyi*), macaroni penguin (*Eudyptes chrysolophus*), and emperor penguin (*Aptenodytes forsteri*) and Proposed Rule To List southern rockhopper penguin as Threatened in the Campbell Plateau Portion of Its Range	Notice 12–month petition finding, Not warranted; Proposed Listing, Threatened	73 FR 77264-77302
12/18/2009	12-Month Finding on a Petition and Proposed Rule To List the yellow-eyed penguin (*Megadyptes antipodes*), white-flippered penguin (*Eudyptula minor albosignata*), Fiordland crested penguin (*Eudyptes pachyrhynchus*), Humboldt penguin (*Spheniscus humboldti*), and erect-crested penguin (*Eudyptes sclateri*) as Threatened Throughout Their Range	Notice 12–month petition finding, Warranted; Proposed Listing, Threatened	73 FR 77303-77332
12/18/2008	12-Month Finding on a Petition and Proposed Rule To List the African Penguin (*Spheniscus demersus*) as Endangered Throughout Its Range	Notice 12–month petition finding, Warranted; Proposed Listing, Threatened	73 FR 77332-77341
12/24/2008	Listing Three Foreign Bird Species From Latin America and the Caribbean as Endangered Throughout Their Range	Proposed Listing, Endangered	73 FR 79226-79254
2/03/2009	Notice of 90–day petition finding and initiation of status review of the wood bison to determine if reclassification of this subspecies is warranted under the Act	Notice 90–day petition finding; substantial	73 FR 5908-5910
7/ 07/2009	Proposed Rule to List Five Foreign Bird Species in Colombia and Ecuador, South America, under the Endangered Species Act	Proposed Listing, Endangered	74 FR 32307 32349
7/14/2009	90-Day Finding on a Petition to List 14 Parrot Species as Threatened or Endangered	Notice 90–day petition finding; substantial	74 FR 33957 33960

Our expeditious progress also includes work on pending listing actions described above in our ''precluded finding,'' but for which decisions had not been completed at the time of this publication.

We have endeavored to make our listing actions as efficient and timely as possible, given the requirements of the relevant law and regulations and the constraints relating to workload and personnel. We are continually considering ways to streamline processes or achieve economies of scale, such as by batching related actions together. Despite higher listing priorities that preclude us from issuing listing proposals for the 20 species described in this Notice of Review, the actions described above collectively constitute expeditious progress.

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. The Service welcomes all information relevant to the status of these species, because 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 directly from range countries by correspondence, 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 and the IUCN species specialist groups, and we 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 consideration for listing; (2) documenting threats to any of the included taxa; (3) describing the immediacy or magnitude of threats facing these taxa; (4) identifying taxonomic or nomenclatural changes for any of the taxa; or (5) noting any mistakes, such as errors in the indicated historic ranges.

References Cited

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

Authors

This Notice of Review was authored by the staff of the Endangered Species Program, 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.*).

Date: July 29, 2009.

James J. Slack

Acting Director, Fish and Wildlife Service.

TABLE 1. – ANNUAL NOTICE OF REVIEW

(C = listing warranted but precluded)

Status		Scientific name	Family	Common name	Historic range
Category	Priority				
BIRDS					
C	8	*Pauxi unicornis*	Craciidae	southern helmeted curassow	Bolivia, Peru
C	8	*Rallus semiplumbeus*	Rallidae	Bogota rail	Colombia
C	8	*Porphyrio hochstetteri*	Rallidae	Takahe	New Zealand
C	8	*Haematopus chathamensis*	Haematopodidae	Chatham oystercatcher	Chatham Islands, New Zealand
C	8	*Cyanoramphus malherbi*	Psittacidae	orange-fronted parakeet	New Zealand
C	8	*Eunymphicus uvaeensis*	Psittacidae	Uvea parakeet	Uvea, New Caledonia
C	8	*Ara glaucogularis*	Psittacidae	blue-throated macaw	Bolivia
C	8	*Dryocopus galeatus*	Picidae	helmeted woodpecker	Argentina, Brazil, Paraguay
C	8	*Dendrocopus noguchii*	Picidae	Okinawa woodpecker	Okinawa Island, Japan
C	11	*Aulacorhynchus huallagae*	Ramphastidae	yellow-browed toucanet	Peru
C	8	*Scytalopus novacapitalis*	Conopophagidae	Brasilia tapaculo	Brazil
C	12	*Bowdleria punctata wilsoni*	Sylviidae	Codfish Island fernbird	Codfish Island, New Zealand
C	8	*Zosterops luteirostris*	Zosteropidae	Ghizo white-eye	Solomon Islands
C	8	*Tangara peruviana*	Thraupidae	black-backed tanager	Brazil
C	12	*Strepera graculina crissalis*	Cracticidae	Lord Howe pied currawong	Lord Howe Islands, New South Wales
INVERTEBRATES					
C	12	*Eurytides* (= *Graphium* or *Mimoides*)*lysithous harrisianus*	Paplionidae	Harris' mimic swallowtail	Brazil, Paraguay
C	8	*Eurytides* (= *Graphium* or *Neographium* or *Protographium* or *Protesilaus*) *marcellinus*	Paplionidae	Jamaican kite swallowtail	Jamaica
C	5	*Parides ascanius*	Paplionidae	Fluminense swallowtail	Brazil
C	8	*Parides hahneli*	Paplionidae	Hahnel's Amazonian swallowtail	Brazil
C	8	*Teinopalpus imperialis*	Paplionidae	Kaiser-I-Hind swallowtail	Bhutan, China, India, Laos, Myanmar, Nepal, Thailand, Vietnam

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 218

[Docket No. 0906101030–91038–01]

RIN 0648–AX88

Taking and Importing Marine Mammals; Navy Training Activities Conducted within the Northwest Training Range Complex

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

ACTION: Notice; proposed rule; extension of comment period.

SUMMARY: On July 13, 2009, the NMFS published its proposed regulations to govern the take marine mammals incidental to training activities conducted within the U.S. Navy's Northwest Training Range Complex (NWTRC) for the period of February 2010 through February 2015. The **Federal Register** notice indicated written comments were due by August 12, 2009, allowing 30 days for public input. In response to a request from a public interest organization, NMFS is extending the public comment period by 7 days, to August 19, 2009.

DATES: The public comment period for this action has been extended from August 12 to August 19, 2009. Written comments and information must be received no later than August 19, 2009.

ADDRESSES: You may submit comments, identified by 0648–AX88, by any one of the following methods:

- Electronic Submissions: Submit all electronic public comments via the Federal eRulemaking Portal *http://www.regulations.gov*
- Hand delivery or mailing of paper, disk, or CD-ROM comments should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225.

Instructions: All comments received are a part of the public record and will generally be posted to *http://www.regulations.gov* without change. All Personal Identifying Information (e.g., name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Jolie Harrison, Office of Protected Resources, NMFS, 301–713–2289.

SUPPLEMENTARY INFORMATION: On August 3, 2009, NMFS received a request from Friends of the Earth, a non-profit environmental advocacy organization, requesting a 30–day extension of the comment period on the NWTRC proposed rule. NMFS has considered this request along with the critical military readiness training needs of the Navy and the need for timely MMPA compliance and will provide an additional seven days for public comment. Further postponement of the MMPA authorization process and the establishment of the necessary protective measures would risk a delay in the Navy's critical military readiness training.

Moreover, the public has had numerous opportunities to comment on the Navy's proposed action and potential environmental consequences through the National Environmental Policy Act process [Northwest Training Range Complex Draft Environmental Impact Statement/Overseas Environmental Impact Statement, December 2008 (DEIS)]. The activities and potential environmental effects described in NMFS' NWTRC proposed rule are similar to, if not identical to, those considered in the Navy's DEIS. In particular, the public comment period for the DEIS was extended twice, providing a total of 105 days for public review, and several public meetings were added.

Background information concerning the proposed regulations can be found in the July 13, 2009 **Federal Register** notice (74 FR 33828), and is not repeated here. For additional information regarding the proposed regulations and the Navy's associated Environmental Impact Statement, please visit NMFS' website at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*

Dated: August 6, 2009.

P. Michael Payne,

Chief, Division of Permits, Conservation, and Education, Office of Protected Resources, National Marine Fisheries Service.

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