

(Catalog of Federal Domestic Assistance No. 97.022, "Flood Insurance.")

Dated: September 23, 2011.

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Deputy Associate Administrator for Mitigation, Department of Homeland Security, Federal Emergency Management Agency.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R9-ES-2011-0082; MO 92210-0-0010 B6]

Endangered and Threatened Wildlife and Plants; Red-Crowned Parrot

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12-month finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to list the red-crowned parrot (*Amazona viridigenalis*) as endangered or threatened under the Endangered Species Act of 1973, as amended (Act). After review of all available scientific and commercial information, we find that listing the red-crowned parrot as endangered or threatened is warranted. Currently, however, listing the red-crowned parrot is precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Upon publication of this 12-month petition finding, we will add the red-crowned parrot to our candidate species list. We will develop a proposed rule to list the red-crowned parrot as our priorities allow. We will make any determination on critical habitat during development of the proposed listing rule. During any interim period, we will address the status of the candidate taxon through our annual Candidate Notice of Review (CNOR).

DATES: The finding announced in this document was made on October 6, 2011.

ADDRESSES: This finding is available on the Internet at <http://www.regulations.gov> at Docket Number FWS-R9-ES-2011-0082. Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Branch of Foreign Species, Endangered Species Program, 4401 North Fairfax Drive, Room 420, Arlington, VA 22203. Please submit any

new information, materials, comments, or questions concerning this finding to the above street address.

FOR FURTHER INFORMATION CONTACT: Janine Van Norman, Chief, Branch of Foreign Species, Endangered Species Program, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 420, Arlington, VA 22203; telephone 703-358-2171. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(B) of the Act (16 U.S.C. 1531 *et seq.*) requires that, for any petition to revise the Federal List of Threatened and Endangered Wildlife and Plants that contains substantial scientific or commercial information that listing a species may be warranted, we make a finding within 12 months of the date of receipt of the petition. In this finding, we determine whether the petitioned action is: (a) Not warranted, (b) warranted, or (c) warranted, but immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Section 4(b)(3)(C) of the Act requires that we treat a petition for which the requested action is found to be warranted but precluded as though resubmitted on the date of such finding, that is, requiring a subsequent finding to be made within 12 months. We must publish these 12-month findings in the **Federal Register**.

Previous Federal Actions

On January 31, 2008, the Service received a petition dated January 29, 2008, from Friends of Animals, as represented by the Environmental Law Clinic, University of Denver, Sturm College of Law, requesting we list 14 parrot species under the Act. The petition clearly identified itself as a petition and included the requisite information required by the Service's implementing regulations for the Endangered Species Act (50 CFR 424.14(a)). On July 14, 2009 (74 FR 33957), we published a 90-day finding in which we determined that the petition presented substantial scientific and commercial information to indicate that listing may be warranted for 12 of the 14 parrot species. In our 90-day finding on this petition, we announced the initiation of a status review to list as

endangered or threatened under the Act the following 12 parrot species: Blue-headed macaw (*Primolius couloni*), crimson shining parrot (*Prosopeia splendens*), great green macaw (*Ara ambiguus*), grey-cheeked parakeet (*Brotogeris pyrrhoptera*), hyacinth macaw (*Anodorhynchus hyacinthinus*), military macaw (*Ara militaris*), Philippine cockatoo (*Cacatua haematuropygia*), red-crowned parrot (*Amazona viridigenalis*), scarlet macaw (*Ara macao*), white cockatoo (*Cacatua alba*), yellow-billed parrot (*Amazona collaria*), and yellow-crested cockatoo (*Cacatua sulphurea*). We initiated a status review to determine if listing each of the 12 species is warranted, and initiated a 60-day public comment period to allow all interested parties an opportunity to provide information on the status of these 12 species of parrots. The comment period closed on September 14, 2009.

On October 24, 2009, and December 2, 2009, the Service received a 60-day notice of intent to sue from Friends of Animals and WildEarth Guardians, for failure to issue 12-month findings on the petition. On March 2, 2010, Friends of Animals and WildEarth Guardians filed suit against the Service for failure to make timely 12-month findings within the statutory deadline of the Act on the petition to list the 14 species (*Friends of Animals, et al. v. Salazar*, Case No. 10 CV 00357 D.D.C.). On July 21, 2010, a settlement agreement was approved by the Court (CV-10-357, D. D.C.), in which the Service agreed to (in part) submit to the **Federal Register** by September 30, 2011, a determination whether the petitioned action is warranted, not warranted, or warranted but precluded by other listing actions for no less than four of the petitioned species. This **Federal Register** document complies with the second deadline in that court-ordered settlement agreement. We will announce the 12-month findings for the remaining parrot species for which a 90-day finding was made on July 14, 2009 (74 FR 33957) in subsequent **Federal Register** notices.

Biological Information

Species Description

The red-crowned parrot belongs to the *Amazona* genus within the parrot family Psittacidae. It is a mid-sized *Amazona* species, measuring approximately 33 centimeters (cm) (13 inches (in)) in length and weighing approximately 316 grams (g) (0.70 pounds) (Enkerlin and Hogan 1997, unpaginated). Average male and female wing length measures approximately

207.5 millimeters (mm) (8.2 in) and 200.4 mm (7.9 in), respectively. Average tail lengths for males and females measure 108.6 mm (4.3 in) and 102.4 mm (4.0 in), respectively (Forshaw 1989, p. 603). Adults have a bright green overall plumage distinguished by bright yellow-green cheek areas, bright red on the crown (top of head) and lores (area between eye and bill), and a violet-blue band extending from behind each eye down each side of the crown and neck. The back of the head and neck is scaled with black-tipped feathers. The flight feathers are bluish-black overall, with the outer secondary flight feathers also bearing a red patch. The tail feathers are tipped with yellowish green. The bill is cream-yellow colored, the iris is yellow, and the orbital ring and feet are pale gray. Juveniles are similar to adults except that the bright red feathers on the head are limited to the forehead and lores, and the violet-blue band on the sides of the crown tends to form a broad band over and behind the eye (Enkerlin and Hogan 1997, unpaginated; Foreshaw 1989, p. 603).

Range and Distribution

The red-crowned parrot is endemic to northeastern Mexico. In addition, several introduced populations occur in urban area of the United States, Puerto Rico, and Mexico. Evidence suggests populations in the Lower Rio Grande Valley consist, at least partly, of naturally occurring populations (Walker and Chapman 1992, pp. 38–39; Neck 1986, entire; Brush 2005, pp. 97–99; Arvin 1982, p. 872). Thus, in our status review we treat the Lower Rio Grande Valley populations as native populations. In Mexico, the species' distribution is confined to the lowland plains (Atlantic coastal plain) and the low eastern slopes of the Sierra Madre Oriental (Macias and Enkerlin 2003, p. 4; Collar *et al.* 1992, p. 423). Historically, the species is known from central and southern Tamaulipas, central Nuevo Leon, eastern San Luis Potosi, and northern and central Veracruz (Collar *et al.* 1992, p. 423; Enkerlin and Hogan 1997, unpaginated; Forshaw 1989, p. 603; Ridgely 1981, p. 351). Howell and Webb (1995, p. 342) also include small portions of eastern Queretaro, Hidalgo, and north-northeast Puebla as part of the natural range of the species.

A study to determine the current status of populations throughout the species' range in Mexico was conducted during 2002 and 2003. The study found that red-crowned parrots occur at only 19.2 percent of surveyed locations at which they were recorded historically (Macias and Enkerlin 2003, p. 17). The

species was present in Tamaulipas, eastern San Luis Potosi, and northern Veracruz, and absent in Nuevo Leon and central Veracruz (Macias and Enkerlin 2003, p. 3). The authors estimate the current range of the species in Mexico to be 32,500 square kilometers (km²) (12,548 square miles (mi²)), representing a 77 percent decrease from the species' estimated original range of 140,000 km² (54,054 mi²) (p. 14). Most of the species' current distribution occurs in Tamaulipas followed, in order of importance, by Veracruz and San Luis Potosi (p. 12), and habitat within this range is fragmented. As a result, the species occurs in only small, isolated populations across its range (Macias and Enkerlin 2003, p. 3). In addition to the results of Macias and Enkerlin's research, recent reports confirm the species' native occurrence in northeast Queretaro (p. 12). Within the LRGV, the red-crowned parrot occurs in Hidalgo and Cameron Counties, from Hidalgo, Mission, McAllen, and Edinburg east to Brownsville, Los Fresnos, and Harlingen (Hagne 2011, pers. comm.; Brush 2011, pers. comm.; McKinney 2011, pers. comm.). The species also occurs in some towns on the Mexican side of the Rio Grande (Hagne 2011, pers. comm.), although specific locations have not been reported.

Habitat

The red-crowned parrot generally occurs in tropical lowlands and foothills, inhabiting tropical deciduous forest, gallery forest, evergreen floodplain forest, Tamaulipan thornscrub, and semi-open areas. It generally occurs between sea level and 500 meters (m) (1,640 feet (ft)) elevation, with most birds found within 200–500 m (656–1,640 ft) (Macias and Enkerlin 2003, p. 10; Enkerlin and Hogan 1997, unpaginated). In winter, it sometimes visits dry pine and pine-oak forests up to 1,200 m (3,937 ft) elevation to forage (Macias and Enkerlin 2003, p. 10; Clinton-Eitniear 1986, p. 22; Clinton-Eitniear 1988, p. 28; Martin *et al.* 1954, p. 46). Enkerlin and Hogan (1997, unpaginated) describe typical habitat as being diverse deciduous tropical forest with a relatively open, 15–20 m (50–65 ft) high canopy layer, and dominant canopy vegetation that includes *Ficus cotinifolia* (strangler fig), *Bumelia laetevirens* (coma), *Pithecellobium flexicaule* (ebony), *Bursera simaruba* (gumbo-limbo), *Phyllostylon brasiliensis* (cerón), *Brosimum alicatrum* (ojite), and *Helietta parvifolia* (barreta). Gelbach *et al.* (1976, pp. 54–55) described a floodplain forest habitat as evergreen forest dominated by *Pithecellobium flexicaule* with *Ehretia*, *Bumelia*, and

Condalia subdominant. Altered habitats are also used. The species is known to occur in partially cleared and cultivated landscapes with woodlots and woodland patches (Collar *et al.* 1992, p. 425), and, in reduced numbers, in agricultural areas where a few large trees remain standing for nesting and roosting (Ridgely 1981, p. 351). In the LRGV, red-crowned parrots occur primarily in urban (town) areas (Hagne 2011, pers. comm.). Although little information on urban habitat use specific to the LRGV is available, in cities where the species is introduced it is reported to prefer areas with large trees that provide both food and nesting sites (Froke 1981, Hall 1988, in Enkerlin and Hogan 1997, unpaginated).

Movements

Red-crowned parrots are nonmigratory (Enkerlin and Hogan, unpaginated), but are apparently nomadic during the winter (non-breeding) season when large flocks range widely to forage (Collar *et al.* 1992, p. 426; Clinton-Eitniear 1986, pp. 22–23). Regional movements spanning up to “tens of kilometers” have been reported for Tamaulipas, Mexico (Aragon-Tapia 1986, in Enkerlin and Hogan, unpaginated).

Diet and Foraging

The red-crowned parrot usually forages in the crowns of trees, but will occasionally feed on low-lying bushes. Foraging appears to be opportunistic. Its diet includes a variety of primarily seeds and fruits, but also buds and flowers (Enkerlin and Hogan 1997, unpaginated; Sutton and Pettingill 1942, p. 14). In a study conducted in northeast Mexico, red-crowned parrots were observed feeding on 9 plant species (Enkerlin 1995, p. 113). They fed most frequently on the seeds of the most abundant trees in the study site: *Pithecellobium flexicaule* (Texas ebony), *Ficus cotinifolia* (strangler fig), and *Bumelia laetevirens* (woolly buckthorn). They also frequently fed on *Myrcianthes fragans* (Guyabillo) fruit. In Mexico, they have also been reported feeding on *Pinus* (pine) seeds (Martin *et al.* 1954, p. 46), *Ehretia anaqua* (anacua) berries (Gelbach 1976, p. 55), *Melia azederach* (chinaberry) berries, and acorns (Clinton-Eitniear 1988, p. 28), and have been reported to be pests in corn fields (Martin 1954, p. 46). Insects have also been found in crop (a structure in the digestive tract where food is stored) samples taken from chicks (Enkerlin and Hogan 1997, unpaginated). In Texas, as in Mexico, *Pithecellobium flexicaule* is a common food item, as is *Ehretia anaqua* (Brush 2005, p. 99).

Red-crowned parrots in Texas have also been observed eating the seeds and fruits, and leaves or flower buds, of a variety of other species (Brush 2005, p. 99).

Reproduction

As with other *Amazona* species, red-crowned parrots nest in pre-existing tree cavities, including those created by other birds and those resulting from tree decay. They will also use artificial cavities (Enkerlin and Hogan 1997, unpaginated). They've been reported nesting in a variety of tree species, including *Taxodium mucronatum* (Montezuma cypress), *Bumelia laetivirens*, and *Brosimum alicastrum* (breadnut) (Gelbach 1987, Perez and Equiarte 1989, in Collar *et al.* 1992, p. 426), as well as *Pithecellobium flexicaule*, *Ficus cotinifolia*, *Bumelia laetevirens*, *Helietta parvifolia*, *Bursera simaruba*, and others (Enkerlin 1995, p. 35). In a study in Tamaulipas within a habitat mosaic of forest, windbreaks, wooded pastures, and open pastures, the availability of suitable cavities for nesting did not appear to be limited, as parrots used only a small fraction of available cavities classified as suitable for nest sites (Enkerlin 1995, pp. 43–44, 54). Trees in which red-crowned parrot nests occurred ranged from 39–229 cm (15–90 in) diameter at breast height, and nest cavities were located 380–1,350 cm (150–531 in) above the ground (Enkerlin 1995, p. 36). Results of the same study show that red-crowned parrots appeared to preferentially select nests in open and wooded pastures rather than in heavily forested areas, but the effect of possible sample bias due to lower detectability of nests in forests could not be ruled out (Enkerlin 1995, pp. 43–44).

Nests of red-crowned parrots appear to be clumped because the nearest neighbor (the nest closest to the nest in question) tends to be a nest of the same species (Enkerlin 1995, p. 42). Fidelity to specific nest sites is lower than in other *Amazona* (Enkerlin 1995, p. 75), although individuals show attachment to a general area when selecting nests (Enkerlin 1995, p. 66). Nests in which greater than one young fledge have a greater likelihood of being reused (Enkerlin 1995, p. 69).

Nesting by red-crowned parrots occurs from March to August (Enkerlin and Hogan 1997, unpaginated). Second clutches are not known to occur, although evidence (i.e., late season clutches) suggests it may occur irregularly (Enkerlin 1995, p. 104). Clutch size ranges from 2 to 5 (average = 3.4) eggs, and eggs hatch after an average of 27 days, with young fledging an average of 53 days after hatching

(Enkerlin 1995, pp. 65, 86). Parents feed young for at least 10 weeks after the young fledge. In northeast Mexico, progression of the young to independence is assumed to occur within 3–4 months, as young are no longer with adults in November (Enkerlin and Hogan 1997, unpaginated).

Enkerlin (1995, p. 96) shows that, on average, a pair of red-crowned parrots within the species' native range in Mexico produced 3.4 eggs but fledged only 1.43 young, indicating that only 43 percent of eggs resulted in fledged young. As with most other parrots, there is a low proportion of breeding adults in red-crowned parrot populations and reproductive success is low, indicating that populations do not have the capacity to recover quickly from pressures to which they are subjected (Macias and Enkerlin 2003, p. 16).

In a study conducted by Enkerlin (1995, pp. 89–93) the main causes of egg and chick mortality were nest abandonment due to unknown causes, brood reduction, and predation. Most nest failure occurred during the early nestling period, and snakes, especially indigo snakes (*Drymarchon corais*), were a major source of predation. Other predators included hawks (*Buteo sp.*), which were observed preying on juveniles, and coati (*Nasua nasua*) and skunk (*Spilogale putorius*), which were documented preying on incubating females (Enkerlin and Hogan 1997, unpaginated).

Abundance

Historical numbers of red-crowned parrots are believed to have exceeded 100,000 (Enkerlin 1998, p. 8). Records up through the 1950s indicate the species was clearly relatively common in appropriate habitat from central Tamaulipas south to eastern San Luis Potosi and northern Veracruz, even being described in some areas as a "pest" species (Collar *et al.* 1992, p. 424). By the 1970s, Ridgely (1981, p. 351) noted that, although locally common, the consensus among long-term observers was that there had been a large overall decline in the species' numbers over the previous several decades, and that much of its range had been, or was being, modified for agricultural use. Ridgely (1981, p. 351) also reported that, where formerly hundreds could be seen, it was now only seen in scattered pairs or, at most, small flocks. The Mexico population in 1994 was estimated to be 3,000–6,500 birds (UNEP–WCMC 2002, in Macias and Enkerlin 2003, p. 15).

Density estimates of red-crowned parrots in Tamaulipas during the 1970s

to 1990s differ by an order of magnitude and have been cited as evidence for population declines (Birdlife International (BLI) 2011, unpaginated). Castro (1976, in Enkerlin 1995, p. 117) estimated a density of 25.2 birds per 100 hectares (ha) (247 acres (ac)) during the 1970s; Perez and Eguiarte (1989, in Enkerlin 1995, p. 117) 11.5 birds per 100 ha (247 ac) during 1985; Aragon-Tapia (1986, in Enkerlin 1995, p. 117) 4.72 birds per 100 ha (247 ac) in 1986; and Enkerlin (1995, p. 117) 5.7 birds per 100 ha (247 ac) during the period 1992–1994. These estimates, however, were made using different methodologies (Enkerlin 1995, p. 117) and therefore may reflect differences in methods used by different researchers rather than differences in abundance. Enkerlin (1995, p. 124) also suggests some of the variation in density estimates may be due to differences in the abilities of different researchers to distinguish red-crowned from red-ored parrots (*Amazona autumnalis*) in the field.

Partners in Flight (PIF), an international coalition of Federal and State agencies and non-government groups, uses a peer-reviewed process to assess the status of bird species (Rich *et al.* 2004, entire; Panjabi *et al.* 2005, entire). They base these assessments on "wild" populations of the species, which do not include populations known to be introduced (Panjabi 2011, pers. comm.). Their assessment of the status of red-crowned parrot includes populations within the species' historical range in Mexico and in the LRGV. PIF assessed the status of the global red-crowned parrot population, as well as the portion of the global population occurring within a defined "Bird Conservation Region." Bird Conservation Regions (BCRs) are "ecologically distinct regions in North America with similar bird communities, habitats, and resource management issues" (North American Bird Conservation Initiative (NABCI) undated, unpaginated). The BCR in which red-crowned parrots were assessed is the Tamaulipan Brushlands BCR. This BCR comprises the plain that extends from southern Texas into northeastern Mexico (NABCI 2000, p. 22). It includes the LRGV and northern portions of the Mexican states of Tamaulipas, Nuevo Leon, and Coahuila. PIF estimates the global population of red-crowned parrots to be fewer than 5,000 individuals and the recent population trend as having decreased greater than or equal to 50 percent over 30 years (Berlanga *et al.* 2010, pp. 38–39; PIF 2007, unpaginated; PIF 2005a, unpaginated). They estimate that

individuals within the Tamaulipan Brushlands BCR comprise 43 percent of the global population, and categorize the population trend as being highly variable or having an unknown change over 30 years, which they qualitatively define as an uncertain population trend (PIF 2005b, unpaginated). Numbers and trend of the species within the Texas portion of this BCR are largely unknown, and speculative (Hagne 2011, pers. comm.; Brush 2011, pers. comm.; McKinney 2011, pers. comm.), although an earlier PIF assessment (Rich *et al.* 2004, p. 70) estimated that approximately 50 percent of the rangewide population (not including introduced populations (Panjabi 2011, pers. comm.)) occurred in the United States.

Conservation Status

Red-crowned parrots are listed as endangered in Mexico (GOM 2002, p. 22), and are listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES; see *Factor D*). The species is classified by the IUCN as endangered (BLI 2008, unpaginated), and by the Service (2008, pp. 52, 66) as a Species of Concern. PIF has placed the species on its Watch List for Land Birds, and has classified it as a species of High Tri-national Concern (Rich *et al.* 2004, p. 17; Berlanga *et al.* 2010, pp. 38–39).

Summary of Information Pertaining to the Five Factors

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the Act, a species may be determined to be endangered or threatened based on any of the following five factors:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

In making this finding, information pertaining to the red-crowned parrot in relation to the five factors provided in section 4(a)(1) of the Act is discussed below.

In considering whether a species may warrant listing under any of the five factors, we look beyond the species' exposure to a potential threat or aggregation of threats under any of the

factors, and evaluate whether the species responds to those potential threats in a way that causes actual impact to the species. The identification of threats that might impact a species negatively may not be sufficient to compel a finding that the species warrants listing. The information must include evidence indicating that the threats are operative and, either singly or in aggregation, affect the status of the species. Threats are significant if they drive, or contribute to, the risk of extinction of the species, such that the species warrants listing as endangered or threatened, as those terms are defined in the Act.

Factor A: Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

Habitat destruction and modification is one of the main threats to the red-crowned parrot (Macias and Enkerlin 2003, p. 4). As a result of extensive deforestation, red-crowned parrot habitat has changed substantially since the early 1970s (Macias and Enkerlin 2003, p. 14). Over 80 percent of the species' lowland habitat in Tamaulipas, Mexico, has been lost (CITES 1997, p. 2; Macias and Enkerlin 2003, p. 14), and Rios (2002, in Macias & Enkerlin 2003, p. 14) estimates the species has lost 31 percent of its rangewide habitat. The habitat that remains is fragmented, occurring only in isolated patches in different parts of the species' range (Macias & Enkerlin 2003, p. 3). Further, according to PIF, extreme deterioration in the future suitability of conditions in the species' breeding and nonbreeding ranges is expected (Berlanga *et al.* 2010, pp. 38–39).

Mexico

Mexico has suffered extensive deforestation (conversion of forest to other land uses) and forest degradation (reduction in forest biomass through selective cutting, etc.) over the past several decades. In more recent decades, Mexico's deforestation has been rapid (Blaser *et al.* 2011, pp. 343–344). For example, between 1990 and 2000, Mexico lost forest at a net rate (which factors in natural regeneration of degraded forest and planting of forest in areas that previously did not have forest) of 344,000 ha (850,043 ac) per year (Food and Agriculture Organization (FAO) 2010, p. 21). During 1990–2010, Mexico lost approximately 6 million ha (approximately 15 million ac) of forest, and had one of the largest decreases in primary forests worldwide (FAO 2010, pp. 56, 233). Although Mexico's rate of forest loss has slowed in the past decade, it still continues. The current

rate of net forest loss in Mexico is 155,000 ha (383,013 ac) per year, with an estimated 250,000–300,000 ha (617,763–741,316 ac) per year degraded (Government of Mexico (GOM) 2010b, in Blaser *et al.* 2011, p. 344; FAO 2010, p. 233). Tamaulipas, the state with which the largest number of locations with recent records of the red-crowned parrot (Macias and Enkerlin 2003, p. 12), experienced a net loss of 0.1 to 0.3 percent of its forest area per year between 2003 and 2007. The other states in which the species primarily currently occurs, Veracruz and San Luis Potosi, experienced a net loss of greater than 0.6 percent, and a net gain of 0.1 to 0.3 percent of its forest area, respectively, during this period (Masek *et al.* 2011, pp. 9–10). Currently, Mexico has 64.8 million ha (160.1 million ac) of forest (FAO 2010, p. 228) and 50 percent of these forests are considered degraded (Masek *et al.* 2011, p. 9). By 2030, forest area in Mexico is projected to decrease, with anywhere from just under 10 percent to nearly 60 percent of mature forests lost, and approximately 0 to 54 percent of regrowth forests lost (Commission for Environmental Cooperation (CEC) 2010, pp. 45, 75).

Deforestation and forest degradation occur in all forest types in Mexico (GOM 2010, p. 22). Their main drivers are conversion of forest to pasture, slash and burn agriculture, and uncontrolled logging (overexploitation and illegal logging) (GOM 2010, pp. 22–24). Factors that put lands at greatest risk are favorable topographic conditions, road access, and proximity to human settlements (Munoz *et al.* 2003, in GOM 2010, p. 23).

Agriculture (Livestock and Crop Production)

Within Mexico, red-crowned parrot habitat is threatened primarily by conversion of forests to cultivated land and expansion of livestock grazing areas without attempting to preserve patches of native trees and vegetation (Berlanga *et al.* 2010, pp. 38–39; Enkerlin and Hogan 1997, unpaginated; Enkerlin 2000, in Macias and Enkerlin 2003, p. 18). The lowland area in which the large majority of the red-crowned parrot's range occurs is within the Gulf of Mexico coastal plain, one of the most productive regions of intensive agricultural use in Mexico, especially for cattle grazing (Vázquez & Aragón-Tapia 1993, in Enkerlin 1998, p. 79; GOM 2010, p. 22). In contrast to agriculture in many other parts of the country, many of the crop-producing farms in northern Mexico are large and mechanized. Consequently, large areas are cleared of forest and converted to

agricultural lands for production of cash crops such as sorghum (Rochin 1985, entire). Pastures differ in the amount of vegetation cleared, ranging from being completely cleared to being selectively cleared of only understory vegetation (Enkerlin 1995, p. 20). Consequently, the density of large trees that still remain in pastures varies between farms and between pastures within a ranch. However, few ranchers manage the land for maintenance of tree density or regeneration, resulting in a continuing decline of tree density within treed pastures (Enkerlin 1995, pp. 20–21; Enkerlin and Hogan 1997, unpaginated).

As with most parrots, the red-crowned parrot requires trees for nesting, feeding, and roosting. Deforestation via conversion of land to agricultural use is a threat to red-crowned parrots because it directly eliminates forest habitat, removing the trees that support the species' nesting, roosting, and dietary requirements. It also results in fragmented habitat that isolates red-crowned parrot populations (U.S. Agency for International Development (USAID) 2009, p. 48; Macias and Enkerlin 2003, pp. 3–4), potentially compromising the genetics of these populations through inbreeding depression and genetic drift. Forest degradation as a result of incomplete clearing, such as for grazing land, is also a threat to red-crowned parrots because in the absence of management for maintenance of tree density or regeneration, it eventually leads to full deforestation (GOM 2010, p. 32). With respect to the few ranches and farms that maintain large trees, although red-crowned parrots are known to use partially cleared and cultivated landscapes (Collar *et al.* 1992, p. 425), they are only able to do so if the landscape maintains enough large trees to support the species' nesting, feeding, and roosting requirements. A reduced number of trees will reduce the availability of adequate nest sites and food resources across the landscape, resulting in a reduction in the number of red-crowned parrots the landscape can support and, thus, a reduction in the red-crowned parrot population.

The indirect effects of deforestation and forest degradation due to conversion of land to agricultural use also pose a threat to red-crowned parrots. Clearing of land for agriculture use provides easier access by humans to the forests and trees the species uses, and thus increases the vulnerability of the species to illegal poaching, one of the leading threats to the species (Enkerlin and Hogan 1997, unpaginated) (see *Factor B* discussion) along with habitat destruction and modification.

Deforestation via forest conversion to agriculture uses remains a major driver of land transformation in Mexico (CEC 2008, p. 24). Agricultural production is projected to double within the country by 2030, with little variation in projections under different future scenarios (CEC 2010, pp. 34, 70). Although some of this increase in production is expected to be due to an increase in productivity on previously converted land, total agricultural land area in Mexico is projected to increase by 6,300 to 41,400 ha (15,568 to 102,302 ac) by 2030 (CEC 2010, p. 75).

Logging

Only 5 percent of Mexico's forested area is designated as production forest (FOA 2010, p. 244), although casual unsustainable tree removal by communities in the vicinity of forests also occurs, for example for firewood or charcoal production, or for timber for local use, rather than for large-scale trade (GOM 2010, p. 32). Almost all domestic timber production is currently supplied by low-management natural forests (Comisión Nacional Forestal 2008, in USAID 2009, p. 50). Commercial harvesting is mainly conducted via shelterwood (temporary maintenance of some canopy trees, to protect understory growing trees, until an even-aged stand is produced) or partial cutting of up to 40 percent of standing volume (Masek *et al.* 2011, p. 4). These, and other, logging practices reduce the number of large trees in harvested areas (Putz *et al.* 2000, p. 40), and alter forest structure and composition by the selective extraction of certain tree species (CEC 2008, p. 24). A reduced number of large trees may reduce the availability of suitable nest sites for the red-crowned parrot, and smaller trees may not possess cavities large enough for the species to nest in. Altering the composition of tree species, or reducing the size or number of trees (or both), may reduce the availability of food for the species. Thus, forests degraded by logging may result in a reduction in the number of individuals of the species the forest can support and therefore a further reduction in the population. Logging can also cause widespread collateral damage in the remaining forest (Putz *et al.* 2000, pp. 7–8). In addition to the direct removal of trees that could potentially support nesting or dietary requirements of parrots, an additional 5 to 50 percent of both soil and remaining trees are damaged by logging in tropical forests (Putz *et al.* 2000, p. 8), contributing to the total amount of forest degraded by human activities. The additional degradation could potentially further

contribute to shortages of red-crowned parrot food resources due to the death of damaged trees or lower tree recruitment due to damaged soils.

Indirectly, logging affects red-crowned parrot populations because logging roads increase access of forested areas to humans. An increase in access to forested areas also increases access to the species within those forests. As a result, logging operations multiply the harvest of animals from tropical forests (Putz *et al.* 2000, pp. 16, 23). Thus, logging is an indirect threat to red-crowned parrots because it increases the vulnerability of the species to illegal poaching, one of the leading threats to the species (see *Factor B* discussion). Logging also threatens the species because increased access to forests is also often followed by full deforestation as lands are cleared for agricultural use (Kaimowitz and Angelsen 1998, in Putz *et al.* 2000, p. 16) (see Agriculture (Livestock and Crop Production) above).

While logging, if conducted according to a well-designed forest management plan, can potentially protect ecosystem services and biodiversity, the compatibility of logging with biodiversity conservation is complicated (Putz *et al.* 2000, pp. 11, 7). Logging in tropical forests is carried out over a wide range of intensities, using a variety of techniques which may be applied carefully or in ways that result in extensive collateral damage (Putz *et al.* 2000, p. 7). In Mexico, most (53 percent to 80 percent (Perron 2010, p. 5)) natural forests are owned and managed by approximately 8,500 different communities (Blaser *et al.* 2011, p. 345). Use and management on community-owned property varies (Bray *et al.* 2005, in Masek pp. 14–15), and although some good examples of successful community forest management exist, most communities lack forest management plans (Sarukhan and Merino 2007, p. 1) and the organization and funding to implement sustainable forest management practices (Blaser *et al.* 2011, p. 351; GOM 2010, p. 24). Further, illegal logging, which is conducted without consideration for minimizing impacts on ecosystems or species, is widespread in Mexico, accounting for approximately 8 percent of the country's deforestation (USAID Center for International Forestry Research (CIFOR) 2010, p. 12; USAID 2009, pp. 56–57).

According to future scenarios evaluated by CEC (2010, p. 36), Mexico is projected to see a 5–10 percent decline in production of selected wood products by 2030, reflecting a greater emphasis on agricultural production. Although commercial wood production may decrease, we are not aware of any

information indicating that illegal logging or casual unsustainable removal of trees by communities, or the indirect effects of these activities, will decrease.

Texas

Within the past few decades, the LRGV has experienced rapid human population growth and subsequent rapid urbanization. In the two Texas counties in which the red-crowned parrot occurs, the human population increased by 36.1 percent (Hidalgo County) and 21.2 percent (Cameron County) between 2000 and 2010 (US Census Bureau 2011, unpaginated), and each county's population is projected to increase by about 50 percent between 2010 and 2040 (Texas State Data Center 2008, unpaginated). In a study investigating land cover and land use change in the region using analysis of satellite imagery, Huang *et al.* (2011, unpaginated) found that between 1993 and 2003, urbanization increased by 59.7 percent in Hidalgo County and 58.2 percent in Cameron County. Red-crowned parrots are known to colonize urban areas, as evidenced by their establishment as introduced populations in several urban areas of the United States and Mexico. Although red-crowned parrots occur in urban habitats within the LRGV, suggesting their population in the LRGV may increase with future increases in urbanization, it is also possible that continued population growth could result in current urban areas becoming more densely developed with more infrastructure and fewer trees, reducing the availability of red-crowned parrot nest sites and food resources. Although red-crowned parrot populations may be influenced by future growth in the LRGV, we found no information indicating whether future growth may positively or negatively affect the red-crowned parrot population in the region. Further, we found no information specifically regarding any other threats to red-crowned parrot habitat in the region.

Conservation Measures

Payment for Ecosystem Services (PES)

Mexico has initiated several PES programs that provide financial incentives to rural communities and private landowners for the design and implementation of carbon sequestration, biodiversity conservation, agroforestry, and watershed protection projects. These programs were designed to pay participating forest owners for the benefits of these environmental services where commercial forestry cannot compete, economically, with agriculture

and ranching, the primary causes of deforestation in Mexico (Munoz *et al.* 2008, pp. 725–726; Corbera *et al.* 2011, p. 54). Research on Mexico's PES programs has shown mixed results in relation to their impact on deforestation; while early analyses showed inconclusive results, recent work indicates a positive but not substantive reduction in net deforestation rates (Corbera *et al.* 2011, p. 17).

Reduced Emissions From Deforestation and Forest Degradation (REDD)

A related, new mechanism is emerging that may raise funds to protect forests from deforestation as well as mitigate climate change. This mechanism is known as "reduced emissions from deforestation and forest degradation" (REDD). As forests are destroyed for agriculture, logging, and other uses, the carbon stored in the trees is released as carbon dioxide, which adds to the concentration of greenhouse gases; 20 percent of global greenhouse gas emissions are thought to be from deforestation (Chatterjee 2009, p. 557). Lawmakers and businesspeople around the world are beginning to consider investing in REDD programs as a way to mitigate climate change. Under this type of program, developing countries would be paid to protect their forests and reduce emissions associated with deforestation. Funds would come from foundations, governments, or financial agencies such as World Bank; industries in developed countries would receive credits for saving trees in developing countries (Chatterjee 2009, p. 557). If REDD projects are able to generate revenue comparable to those of activities such as logging and agriculture, and revenues are distributed equally among stakeholders, this would give standing forests value and an incentive for forest conservation (Hajek *et al.* 2011, in press). Mexico has been very active in REDD discussions under the United Nations Framework Convention on Climate Change, is developing a national REDD strategy, and is working on the design and implementation of regional and local pilot projects (USAID CIFOR 2010, p. 34; Corbera *et al.* 2011, p. 316). However, we do not yet know how successful Mexico's REDD strategy or projects will be.

Forest Certification

Another program being implemented is certification of forests. The basis for certification is for consumers to be assured by a neutral third-party that forest companies are employing sound practices that will ensure sustainable forest management. By being certified, a

company can differentiate their products and potentially acquire a larger share of the market (Duery and Vlosky 2005, p. 12). To be certified companies must follow standards set by the Forest Stewardship Council (FSC). Certification companies not only certify forests, but also forest products that come from well-managed forests, and may also provide a means to track logs and remove illegally logged trees from the market (Duery and Vlosky 2005, pp. 13–14; Kometter *et al.* 2004, p. 9). As of February 2011, approximately 614,000 ha (1,517,227 ac) (9 percent) of Mexico's forest were certified, mostly outside the tropics (Blaser *et al.* 2011, p. 348). Only about 32,600 ha (79,074 ac) of tropical forest were certified, most of which was planted forest (Blaser *et al.* 2011, p. 348).

Protected Areas

Conservation strategies in Mexico rely heavily on natural protected areas, and Biosphere Reserves comprise most of the designated protected area in the country (Figueroa and Sanchez 2008, pp. 3324, 3234). The red-crowned parrot is protected in or near two biosphere reserves: the Reserva de la Biosfera El Cielo, in Tamaulipas; and the Reserva de la Biosfera Sierra Gorda, in Querétaro (Macias and Enkerlin 2003, p. 22). However, the best conserved portions of habitat in these two reserves are at elevations greater than 500 m (1,640 ft), while the red-crowned parrot occurs primarily below 500 m (1,640 ft) (see Habitat). Further, in a study of the effectiveness of Mexico's protected areas for preventing land use and land cover change, Figueroa and Sanchez (2008, entire) found that Sierra Gorda Biosphere Reserve was ineffective (as opposed to effective or weakly-effective). They did not evaluate El Cielo Biosphere Reserve, but they found that, overall, approximately 54 percent of protected areas, including 65 percent of Biosphere Reserves, were effective.

Summary of Factor A

Forest loss and degradation due to the conversion of forest to grazing and farm land have caused extensive red-crowned parrot habitat loss in the past. These activities are still occurring within the range of the species and the fact that (1) these activities are projected to increase in Mexico, and (2) the Gulf of Mexico coastal plain, in which a large portion of the red-crowned parrot's historical range occurs, is one of the most productive regions of agricultural use in Mexico, indicates these activities will continue within the species' range into the foreseeable future. It is unlikely that the direct effects of logging are threat to

the species, as red-crowned parrots are known to use degraded habitats. However, the indirect effects of logging, including increased human access to forests, which increases the vulnerability of the species to poaching, and often leads to conversion of newly accessible forest to agriculture, appear to be a threat to the species. Although commercial logging is projected to decrease within Mexico, it is projected to continue albeit at a lower level. Also, illegal logging is widespread in Mexico, and we are not aware of any information indicating that the extent of illegal logging will be reduced in the future. Further, because many people within Mexico rely on forests for their livelihoods, and because sustainable practices are not used, it is likely that casual, unsustainable removal of trees by communities for purposes such as firewood and local timber use will also continue to degrade and ultimately deforest red-crowned parrot habitat in the future.

Habitat conservation measures within Mexico do not appear to be sufficient to stem future red-crowned parrot habitat losses. Programs for the payment of ecosystem services have yet to show substantive reductions in deforestation rates; only 9 percent of forests are certified as employing sustainable practices, most outside the tropics. The best habitat within the two Biosphere Reserves occupied by red-crowned parrots is above the elevation at which the species usually occurs. Further, at least one of these two Biosphere Reserves is ineffective with respect to prevention of land-use change within its boundaries.

Currently the population of red-crowned parrots is extremely small (less than 5,000 individuals) and fragmented, and a large portion (approximately half) of the population occurs within the species' historical range in Mexico. Activities causing or leading to deforestation in Mexico are likely to continue to result in red-crowned parrot habitat loss within the country. Therefore, based on the best available scientific and commercial data available, we find that the present and threatened destruction, modification, or curtailment of the red-crowned parrot's habitat is a threat to the species.

Factor B: Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Parrots have been traded commercially in Mexico for centuries and capture of adults and nestlings for the pet trade represents one of the main threats to the red-crowned parrot (Macias and Enkerlin 2003, p. 18). In

terms of populations, capturing individuals for trade essentially mimics mortality in that it removes individuals from the wild population. Parrots, in general, have long lifespans and low reproductive rates. Consequently, they are particularly sensitive to increased mortality because their populations are slow to recover from it (Lee 2010, p. 3; Thiollay 2005, p. 1121; Wright *et al.* 2001, p. 711); removal of individuals year after year can stop population growth and cause local extirpations (Cantu *et al.* 2007, p. 14).

Mexico's proximity to the United States, the largest pet market in the world, resulted in extensive legal and illegal export of several *Amazona* species to the United States during the 1960s to 1990s. Between 1970 and 1982, 16,490 red-crowned parrots, mostly nestlings, were legally exported from Mexico to the United States. A similar number is estimated to have been illegally exported during this period, with pre-export mortality estimated at greater than 50 percent. Combining legal and illegal trade, and their associated mortality, the approximate minimum level of harvest during this time was estimated to be 5,000 individuals per year (Inigo and Ramos 1991, in Enkerlin and Hogan 1997, unpaginated; Enkerlin and Packard 1993, in Macias and Enkerlin 2003, p. 20). Population declines were first noted for the species during this period (see Abundance).

Legal Trade

Imports of red-crowned parrots into the United States were restricted by passage of the Wild Bird Conservation Act (WBCA; 16 U.S.C. 4901 *et seq.*) in 1992, and international trade in general was restricted by the listing of the species in Appendix II of CITES in 1981 and, in 1997, its transfer to the more restrictive Appendix I. The WBCA banned the import into the United States of specimens of most CITES-listed bird species, including restricting U.S. imports of red-crowned parrots (see *Factor D* discussion). CITES, an international agreement between governments, ensures that the international trade of CITES-listed plant and animal species does not threaten those species' survival in the wild. There are currently 175 CITES Parties (member countries or signatories to the Convention). Under this treaty, CITES Parties regulate the import, export, and re-export of specimens, parts, and products of CITES-listed plants and animal species (see *Factor D* discussion). Trade must be authorized through a system of permits and certificates that are provided by the designated CITES Scientific and

Management Authorities of each CITES Party (CITES 2010, unpaginated). In 1981, the red-crowned parrot was listed in Appendix II of CITES, which includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival (CITES 2010, unpaginated; CITES 2011, unpaginated). In June of 1997, the species was proposed for transfer from Appendix II to Appendix I based on extensive illegal trade in the species and habitat loss. It was placed in Appendix I in September of 1997. An Appendix-I listing includes species threatened with extinction whose trade is permitted only under exceptional circumstances, which generally precludes commercial trade. The import of an Appendix-I species requires the issuance of both an import and export permit. Import permits for Appendix-I species are issued only if findings are made that the import would be for purposes that are not detrimental to the survival of the species in the wild and would not be for primarily commercial purposes (CITES Article III(3)). Export permits for Appendix-I species are issued only if findings are made that the specimen was legally acquired and trade is not detrimental to the survival of the species in the wild, and if the issuing authority is satisfied that an import permit has been granted for the specimen (CITES Article III(2)).

Based on CITES trade data obtained from United Nations Environment Programme—World Conservation Monitoring Center (UNEP-WCMC) CITES Trade Database, from the time the red-crowned parrot was placed in CITES Appendix I in 1997 through 2009, 1,297 specimens of this species were reported in international trade. These included 297 live birds, 5 bodies, 6 eggs, 7 feathers, 1 skin, and 981 generically labeled "specimens," with the latter category typically referring to parts or pieces of an animal—for example, blood samples collected for laboratory analysis—rather than whole birds. In analyzing these reported data, several records appear to be overcounts due to slight differences in the manner in which the importing and exporting countries reported their trade, and it is likely that the actual numbers of specimens of red-crowned parrots reported to UNEP-WCMC in international trade from the time the species was placed in CITES Appendix I in 1997 through 2009 was 1,218, including 261 live birds, 5 bodies, 6 eggs, 7 feathers, 1 skin, and 938 "specimens."

Because the red-crowned parrot is listed as an Appendix-I species under

CITES, commercial legal international trade is very limited. Of the 1,218 specimens that were likely in trade between 1997 (when the species was placed in CITES Appendix I) and 2009, 1,014 were wild specimens and an additional 53 specimens were from sources unspecified in the data. Of these specimens, 94 percent (953) were specimens traded for scientific purposes (937 of the generically labeled "specimens", 6 eggs, 7 feathers, and 3 bodies). The remaining were 113 live birds (59 of wild origin and 54 from sources unspecified in the data) and 1 "specimen" from a source unspecified in the data. Of these 113 live birds, 12 were reported as imported into Mexico for re-introduction into the wild, 11 as being for personal use, 5 as being for commercial purposes, 31 as being previously seized specimens traded for law enforcement purposes, 8 as being specimens born or obtained prior to the listing of the species under CITES (pre-Convention), and 46 that were seized or refused entry into the United States.

Although 1,218 specimens of red-crowned parrot were reported in trade, most (953, or 78 percent) were scientific specimens traded for scientific purposes, and the large majority of these (98 percent) were generically labeled "specimens," rather than whole birds. Of the 265 non-scientific specimens traded, 154 (58 percent) were live birds that were captive-bred, captive-born, or pre-Convention.

Because the majority of the specimens of this species reported in international trade are generically labeled scientific "specimens," or are captive-bred, captive-born, or pre-Convention birds, we have determined that legal international trade controlled via valid CITES permits is not a threat to the species. However, the number of live wild birds reported as seized or refused entry into the United States due to lack of CITES certification or WBCA authorization suggests reason for concern with respect to the illegal trade of the species.

Illegal Trade

Illegal trade in wildlife and wildlife products is extensive in Mexico because of their high demand and lucrative profits (Valdez *et al.* 2006, p. 276). According to Valdez *et al.* (2006, p. 276), the greatest percentage of this trade is sold to the United States. The number of red-crowned parrots illegally exported from Mexico since the species was listed in Appendix I of CITES is unknown. The Service inspects approximately 25 percent of declared wildlife shipments at the U.S. border. It generally does not inspect undeclared

shipments except during planned investigations, during seasonal periods when certain illegally obtained wildlife have a higher probability of being imported into the United States, or if they have reason to suspect that the shipment could be contraband (Congressional Research Service 2008, p. 24). As a result, it is likely that the 46 wild red-crowned parrots that were reported as seized or refused entry into the United States since the species was listed in CITES Appendix I represent only a portion of those smuggled out of Mexico. Also, as pre-export mortality of captured red-crowned parrots is estimated to be greater than or equal to 50 percent (Enkerlin and Packard 1993, in Macias and Enkerlin 2003, p. 20), it is also likely that smuggled birds represent only half (or less) of the number removed from the wild for illegal export. Further, Cantu *et al.* (2007, pp. 58–59) report that, although the overall illegal export of parrots from Mexico into the United States appears to have decreased since 2000, with only an estimated 4–14 percent of parrots now exported out of the country, illegal exports of some species, including the red-crowned parrot, appear to be on the rise.

With respect to domestic trade, commercial trade of red-crowned parrots has been illegal in Mexico since 1982 (CITES 1997, pers. comm.). Other species of parrots were legally traded in Mexico until 2008, but due to a lack of enforcement of laws and regulations controlling this trade, the illegal parrot trade in Mexico has been extensive (Cantu *et al.* 2007, entire). The office of the Procuraduría Federal de Protección al Ambiente (PROFEPA; Federal Prosecutor for Environmental Protection) is responsible for enforcing environmental laws, regulations, and legal standards in Mexico, including those pertaining to the parrot trade. PROFEPA employs a little over 500 inspectors for the entire country, and they are responsible for enforcement of wildlife, forestry, industrial pollution, marine environment, and other environmental laws, regulations, and standards (Cantu *et al.* 2007, p. 45). Although capacities for law enforcement have been increasing in Mexico since the late 1990s, PROFEPA still lacks the funding and human resources to effectively enforce wildlife and other environmental laws (USAID CIFOR 2010, p. 46; GOM 2010, p. 24; Valdez *et al.* 2006, p. 276).

As a result of the lack of enforcement capacity, the laws and regulations for controlling the parrot trade in Mexico, including illegal trade in red-crowned parrots, have not been effective (Cantu

et al. 2007, entire). For instance, prior to 2008, when Article 602 of Mexico's General Wildlife Law (see below, and *Factor D* discussion) went into effect, only parrot species authorized by the government for trade in any given year could be legally trapped and traded that year (Cantu *et al.* 2007, pp. 9, 24–25). No parrot trapping had been authorized by wildlife officials between 2003 and late 2006, yet unsustainable capture of wild parrots, including red-crowned parrots and other at-risk species, continued unabated (Cantu *et al.* 2007, p. 7). Based on interviews with parrot trappers and trapper unions in Mexico during 2005 and 2006, Cantu *et al.* (2007, pp. 35, 57) estimated that 65,000–75,000 parrots were illegally captured each year in Mexico, mostly (86–96 percent) for Mexico's domestic market. Red-crowned parrots were among the species illegally captured and traded as evidenced by the studies of Macias and Enkerlin (2003, pp. 18–19, 22) and Cantu *et al.* (2007, pp. 35, 45–59). Macias and Enkerlin (2003, p. 19), during a study conducted from 2002–2003, found that 28 percent of local people interviewed within the historical range of the red-crowned parrot reported that "looting" of red-crowned parrot chicks from nests for the pet trade occurred in their community at a rate of 1–10 chicks per year. The greatest proportion of reports was from Veracruz, where 48 percent of those interviewed reported that taking of chicks occurred in their community. With respect to adult birds, 15 percent of community members interviewed reported adult red-crowned parrots were captured for trade in their community and that capture rates ranged from 25–50 adults per year to 50–100 adults per year. Cantu *et al.* (2007, p. 35) estimate fewer than 600 red-crowned parrots are captured per year based on interviews with trappers, trapper unions, and others, although they indicate that their estimates for some species are very conservative and may be underestimates.

In October 2008, Mexico passed Article 602 of its General Law Wildlife Law. The article bans the capture, export, import, and re-export of any species of the Psittacidae (parrot) family whose natural distribution is within Mexico (see *Factor D* discussion). The law could potentially reduce the number of red-crowned parrots illegally traded domestically. It could also potentially reduce the number illegally traded internationally by making it more difficult for smugglers to capture the species within Mexico and transport them to the U.S. border. Based on an

increased number of citizen complaints to authorities about illegal parrot sales and a decreased number of seizures of parrots by authorities during 2008–2010, Cantu and Sanchez (2011, entire) conclude that illegal trade in parrots in Mexico has decreased since the law took effect. However, this conclusion assumes that law enforcement effort increased with the increased number of complaints filed, and it is unknown if, or to what extent, this was the case. Although the parrot trade in Mexico may have decreased since Article 60 2 was implemented, without data on the relationship between filed complaints and enforcement, we are unable to determine whether a decrease occurred or, if it did, the extent of such a decrease. We also do not know whether or not such a decrease would necessarily pertain to the red-crowned parrot. Cantu *et al.* (2007, p. 59) report that illegal exports of the red-crowned parrot appear to be increasing.

Also, according to USAID CIFOR (2010, p. 46), there are areas in Mexico where government officials have limited access due to the presence of organized groups of illegal loggers, guerrilla groups challenging local and federal authorities, and drug traffickers (USAID CIFOR 2010, p. 46). The latter is particularly relevant to red-crowned parrots. Mexico's northeast states have experienced dramatic increases in narcotics-related violence in the past 2 years (U.S. Department of State 2011, unpaginated; Rios and Shirk 2011, p. 1). The levels of violence have been such that the U.S. Department of State has issued several travel warnings for the area including recommendations for U.S. citizens to defer nonessential travel to the entire state of Tamaulipas and parts of San Luis Potosi, and exercise caution in parts of Nuevo Leon. Considering much of the red-crowned parrot's historical range, and many of the locations with recent records of the species, are within the state of Tamaulipas, and that smaller portions of the species' historical range occur in San Luis Potosi and Nuevo Leon, it is reasonable to conclude that levels of violence in these areas are likely hindering wildlife law enforcement efforts, at least to some degree.

For all of these reasons, we consider the study by Cantu and Sanchez (2011, entire) to be inconclusive regarding the effects of Mexico's new parrot law on the levels of trade of red-crowned parrots. Further, we are unaware of any other evidence that may indicate the level of trade in the species has decreased in recent years, or will decrease in the foreseeable future, in Mexico.

We are unaware of any information indicating that trade is a threat to red-crowned parrots within the LRGV of Texas.

Recreational, Scientific, or Educational Use

We are unaware of any information indicating that recreational, scientific, or educational use of the red-crowned parrot is a threat to the species.

Summary of Factor B

Red-crowned parrots currently are estimated to number fewer than 5,000 individuals within their native range, and these individuals occur in fragmented and isolated populations. Further, red-crowned parrot populations do not have the capacity to respond quickly to increased levels of mortality. For these reasons, increased mortality can out-pace the species' reproductive rate, causing reductions in the species' population. Evidence indicates that, relative to the size of the species' current population and low reproductive rate, large numbers (hundreds) of red-crowned parrots are removed from the wild for the illegal pet trade and that these include potentially 100 or more breeding birds (adults) per year. Evidence also indicates that illegal export of the species to the United States appears to have increased in recent years. Further, we are not aware of any reliable evidence indicating that the level of illegal capture and trade of the red-crowned parrot has declined since Mexico's ban on native parrot species was implemented in 2008. Although we are unaware of information indicating that capture of wild individuals for trade is a threat to the red-crowned parrot in the LRGV of Texas, populations of the species in Mexico represent half or more of the species' small global population. Further, it is possible that the viability of the LRGV population may rely on occasional supplementation from populations in Mexico (see Biological Information). For these reasons, we conclude that overutilization for commercial, recreational, scientific, or educational purposes is a threat to the red-crowned parrot.

Factor C: Disease or Predation

Infectious diseases can pose many direct threats to individual birds as well as entire flocks (Abramson *et al.* 1995, p. 287). Most of the available research on disease in parrots addresses captive-held birds; information on the health of parrots in the wild is scarce (Karesh *et al.* 1997, p. 368). Further, few studies on diseases affecting the red-crowned parrot, specifically, exist. In one study,

Stone *et al.* (2005, entire) sampled 10 red-crowned parrot nestlings from 4 nests of free-ranging red-crowned parrots in Tamaulipas, Mexico, as part of a study to provide baseline data for species at high risk of exposure to disease. The population sampled was in a densely human-populated region of Mexico, where poultry and captive parrots (both potential disease risks) are numerous. Each bird sampled was visually examined for external parasites; had blood samples taken and tested for antibodies to psittacid herpesvirus-1, polyomavirus, and avian influenza; and had fecal samples collected and examined for the eggs and oocysts (egg cells) of internal parasites. All blood and fecal samples tested were negative. Stone *et al.* (2005, pp. 246–247) indicate that negative results of tests on the blood and fecal samples could indicate absence of disease or parasites, but could also potentially be a result of the methods used or the stage during the nestling cycle in which samples were taken. External parasites found on nestlings were adult lice (*Paragoniocolletes mexicanus*) and adult hematophagous nest mites (*Ornithonyssus sylvianus*), but the effect of these parasites on nestling health is uncertain (Stone *et al.* 2005, p. 247).

A second study sampled 16 red-crowned parrots and 21 yellow-headed parrots (*Amazona oratrix*) maintained in captivity from 1 to 7 years. In that study, birds were tested for several diseases including avian influenza, avian polyomavirus, psittacine circovirus, Newcastle disease virus, psittacid herpesvirus-1, and psittacosis (*Chlamydophila psittaci*). All results were negative. Examination and tests for protozoa or helminthes also showed no evidence of these in sampled birds (Paras and Lamberski 1997, in Stone *et al.* 2005, pp. 245–246).

Although many diseases, such as those mentioned above, and others, could negatively affect parrots in captivity and in the wild, the studies conducted specifically on red-crowned parrots did not indicate disease may be limiting the population. We are unaware of any information indicating that any diseases are impacting the red-crowned parrot at a level which may affect the status of the species as a whole and to the extent that it is considered a threat to the species.

Snakes, red-tailed hawks (*Buteo jamaicensis*), roadside hawks (*B. magnirostris*), gray hawks (*B. nitidus*), coatis, and skunks have been reported to prey on red-crowned parrots. Of these, only snakes, particularly the indigo snake, appear to be a major source of

predation (Enkerlin and Hogan 1997, unpaginated). In a study of three *Amazona* species in southern Tamaulipas, which included the red-crowned parrot, Enkerlin (1995, p. 89–98) found that approximately 10 percent of the chicks lost were lost via predation by indigo snakes. Although red-crowned parrots are subject to predation, and indigo snakes may be a major source of that predation, we found no evidence that predation is occurring at a level which poses a threat to the species.

Summary of Factor C

We are not aware of any scientific or commercial information that indicates disease or predation poses a threat to red-crowned parrots, either now or in the foreseeable future. Therefore, based on our review of the best available scientific and commercial information, we find that neither disease nor predation is a threat to the species.

Factor D: Inadequacy of Existing Regulatory Mechanisms

Trade

As discussed above under Factor B, the red-crowned parrot is listed in Appendix I of CITES. CITES is an international treaty among 175 nations, including Mexico and the United States, which entered into force in 1975. In the United States, CITES is implemented through the U.S. Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) The Secretary of the Interior has delegated the Department's responsibility for CITES to the Director of the Service and established the CITES Scientific and Management Authorities to implement the treaty. Under this treaty, member countries work together to ensure that international trade in animal and plant species is not detrimental to the survival of wild populations by regulating the import, export, and re-export of CITES-listed animal and plant species.

The import of red-crowned parrots into the United States is also regulated by the Wild Bird Conservation Act (WBCA) (16 U.S.C. 4901 *et seq.*), which was enacted on October 23, 1992. The purpose of the WBCA is to promote the conservation of exotic birds by ensuring that all imports to the United States of exotic birds are biologically sustainable and are not detrimental to the species. The WBCA generally restricts the importation of most CITES-listed live or dead exotic birds, except for certain limited purposes such as zoological display or cooperative breeding programs. Import of dead specimens is allowed for scientific specimens and museum specimens. The Service may

approve cooperative breeding programs and subsequently issue import permits under such programs. In addition to other approved purposes, wild-caught birds may be imported into the United States if they are subject to Service-approved management plans for sustainable use. At this time, the red-crowned parrot is not part of a Service-approved cooperative breeding program and does not have an approved management plan for wild-caught birds.

Within Mexico, the red-crowned parrot is considered an endangered species as per *Norma Oficial Mexicana* (NOM; Official Mexican Standard) *NOM-059-ECOL-2001*. Endangered and threatened species are regulated under the general terms of the *Ley General del Equilibrio Ecológico y Protección al Ambiente* (LGEEPA; General Law of Ecological Balance and Environmental Protection), the *Ley General de Vida Silvestre* (LGVS; General Wildlife Law), and also under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to which Mexico is a Party (CEC 2003, unpaginated). *NOM-059-ECOL-2001* establishes a list of wildlife species classified as either in danger of extinction (endangered), threatened, under special protection, and probably extinct in the wild (GOM 2002, p. 6). All use and development of endangered and threatened species requires a special permit from the Secretaría del Medio Ambiente y Recursos Naturales (SEMARNAT; Secretariat of the Environment and Natural Resources). Under the General Wildlife Law, the use of at-risk species, including the red-crowned parrot, may be authorized only when priority is given to the collection and capture for restoration, repopulation, and reintroduction activities (CEC 2003, unpaginated; Comisión Nacional Para El Conocimiento Y Uso De La Biodiversidad 2009, unpaginated). Further, in October 2008, Mexico passed Article 60 2 of the General Wildlife Law. The article bans the capture, export, import, and re-export of any species of the Psittacidae (parrot) family whose natural distribution is within Mexico. It allows for authorizations for removal of individuals from the wild to be issued only for conservation purposes, or to accredited academic institutions for scientific research (Animal Legal & Historical Center 2008, unpaginated).

As discussed above under Factor B, we consider illegal trade to be a threat impacting the red-crowned parrot. As a result, we consider the inadequacy of the laws and regulations discussed above to be a threat to the red-crowned parrot. We are not aware of any

information indicating that the regulatory mechanisms controlling illegal trade, or extent of enforcement of these mechanisms, will change in the future. Therefore, we consider the inadequacy of these regulatory mechanisms to be a threat to the red-crowned parrot now and in the foreseeable future.

Habitat Destruction and Modification

The *Ley General de Desarrollo Forestal Sustentable* (LGDFS; *General Law on Sustainable Forest Management*), passed in 2003, governs forest ecosystems in Mexico, including red-crowned parrot habitat. This law formalizes the incorporation of the forest sector in a broader environmental framework. Under this law, harvesting of forests requires authorization from SEMARNAT. It also requires that authorizations to forest owners for harvesting forests be based on a technical study and a forest management plan (GOM 2010, p. 24). A number of additional laws complement the 2003 law in regulating forest use. The LGEEPA regulates activities for protecting biodiversity and reducing the impact on forests and tropical areas of certain forest activities; the LGVS governs the use of plants and wildlife found in the forests; *Ley General de Desarrollo Rural Sustentable* (the General Law on Sustainable Rural Development) provides guidance for activities aimed at protecting and restoring forests within the framework of rural development programs; and *Ley Agraria* (the Agrarian Law) governs farmers' ability to use forest resources on their land (Anta 2004, in USAID 2011, unpaginated).

Another law regulating portions of the red-crowned parrot's habitat is the *Sistema Nacional de Áreas Naturales Protegidas* (SINANP; *National System of Protected Natural Areas*). These Protected Natural Areas are created by Presidential decree and the activities on them are regulated under the LGEEPA, which requires that the Protected Natural Areas receive special protection for conservation, restoration, and development activities (Comisión Nacional de Áreas Naturales Protegidas (CONANP) 2011, unpaginated). These natural areas are categorized as: Biosphere Reserves, National Parks, Natural Monuments, Areas of Natural Resource Protection, Areas of Protection of Flora and Fauna, and Sanctuaries (CONANP 2011, unpaginated). The red-crowned parrot is known to occur in two biosphere reserves: Reserva de la Biosfera El Cielo, in Tamaulipas; and Reserva de la Biosfera Sierra Gorda, in

Querétaro (Macias & Enkerlin 2003, p. 22) (see *Factor A* discussion).

As discussed above under Factor A, we consider the destruction and modification of red-crowned parrot habitat to be a threat impacting the red-crowned parrot. Therefore, we consider the laws and regulations discussed above that address this threat to be inadequate regulatory mechanisms for protection of red-crowned parrot habitat and, consequently, a threat to the species. We are not aware of any information indicating that the regulatory mechanisms controlling habitat destruction or modification, or the extent of enforcement of these mechanisms, will change in the future. Therefore, we consider the inadequacy of these regulatory mechanisms to be a threat to the red-crowned parrot now and in the foreseeable future.

Summary of Factor D

As discussed above under Factors A and B, we consider destruction and modification of habitat and illegal trade to be threats to the red-crowned parrot in Mexico. As a result, based on a review of the best available scientific and commercial information, we consider the inadequacy of existing mechanisms that regulate these threats to also be a threat to the red-crowned parrot.

Factor E: Other Natural or Manmade Factors Affecting the Species' Continued Existence

We are not aware of any scientific or commercial information that indicates other natural or manmade factors pose a threat to this species. As a result, we find that other natural or manmade factors are not threats to the red-crowned parrot now or in the foreseeable future.

Finding

As required by the Act, we conducted a review of the status of the species and considered the five factors in assessing whether the red-crowned parrot is endangered or threatened throughout all or a significant portion of its range. We examined the best scientific and commercial information available regarding the past, present, and future threats faced by the red-crowned parrot. We reviewed the petition, information available in our files, and other available published and unpublished information.

In considering whether a species may warrant listing under any of the five factors, we look beyond the species' exposure to a potential threat or aggregation of threats under any of the factors, and evaluate whether the

species responds to those potential threats in a way that causes an actual impact to the species. The identification of threats that might impact a species negatively may not be sufficient to compel a finding that the species warrants listing. The information must include evidence indicating that the threats are operative and, either singly or in aggregation, affect the status of the species. Threats are significant if they drive, or contribute to, the risk of extinction of the species, such that the species warrants listing as endangered or threatened, as those terms are defined in the Act.

This status review identified threats to the red-crowned parrot attributable to Factors A, B, and D. The primary threats to the red-crowned parrot are habitat loss, illegal capture for the pet trade, and the inadequacy of regulatory mechanisms that address these threats. Habitat destruction and modification (Factor A) in the form of conversion of native forest to crop and grazing land and deforestation due to the indirect effects of logging are likely occurring throughout the species' range in Mexico. Illegal capture for the pet trade (Factor B) is also likely occurring throughout the species' range in Mexico, and is exacerbated by deforestation because deforestation increases access to the species. Regulatory mechanisms (Factor D) are inadequate to prevent further loss of forest habitat and continued capture and trade of the species throughout the red-crowned parrot's range.

The global population of red-crowned parrots has experienced a large (greater than 50 percent) decline in recent decades (Berlanga *et al.* 2010, pp. 38–39), primarily due to habitat destruction and modification and capture for the pet trade within Mexico (Macias and Enkerlin 2003, p. 3). As a result, the current global population is estimated to be fewer than 5,000 individuals. Half or more of the global population, most of the current range, and all of the historical range of the red-crowned parrot occurs in Mexico. As a result, threats that impact the species within Mexico have had and will continue to have impacts on the rangewide status of the species. Although population numbers and trends are uncertain outside of Mexico (i.e., within the LRGV of Texas), historical records indicate that the species occurred periodically in the LRGV prior to occurring year-round in the region (see Biological Information), indicating periodic occurrence in the region of birds from Mexico. Therefore, it is possible that birds from Mexico still periodically occur in the LRGV. It is also, therefore, possible that the viability of the LRGV

population is dependent on periodic influxes of birds from Mexico.

Given (1) the large extent of the decline in the global population of the species in recent decades due to habitat destruction and modification and capture for the illegal pet trade, (2) that these threats likely continue within the range of the red-crowned parrot, (3) that existing regulatory mechanisms addressing these threats are inadequate, and (4) we found no information indicating that these threats will be ameliorated in the foreseeable future, we find that these threats are likely to continue to cause declines in the red-crowned parrot population into the future.

On the basis of the best scientific and commercial information available, we find that the petitioned action to list the red-crowned parrot as endangered or threatened is warranted. We will make a determination on the status of the red-crowned parrot as endangered or threatened when we complete a proposed listing determination. However, as explained in more detail below, an immediate proposal of a regulation implementing this action is precluded by higher priority listing actions, and progress is being made to add or remove qualified species from the Lists of Endangered and Threatened Wildlife and Plants.

We have reviewed the available information to determine if the existing and foreseeable threats render the species at risk of extinction now such that issuing an emergency regulation temporarily listing the species in accordance with section 4(b)(7) of the Act is warranted. We have determined that issuing an emergency regulation temporarily listing the red-crowned parrot is not warranted for this species at this time because there are no impending actions that might result in extinction of the species that would be addressed and alleviated by emergency listing. However, if at any time we determine that issuing an emergency regulation temporarily listing the red-crowned parrot is warranted, we will initiate this action at that time.

Listing Priority Number

The Service adopted guidelines on September 21, 1983 (48 FR 43098), to establish a rational system for utilizing available resources for the highest priority species when adding species to the Lists of Endangered or Threatened Wildlife and Plants or reclassifying species listed as threatened to endangered status. These guidelines, titled "Endangered and Threatened Species Listing and Recovery Priority Guidelines," address the immediacy

and magnitude of threats, and the level of taxonomic distinctiveness by assigning priority in descending order to monotypic genera (genus with one species), full species, and subspecies (or equivalently, distinct population segments (DPSES) of vertebrates). We assign the red-crowned parrot a listing priority number (LPN) of 2, based on our determination that the primary threats are high in magnitude and imminent. These threats include habitat destruction and modification, capture for the illegal pet trade, and inadequate regulatory mechanisms. Our rationale for assigning the red-crowned parrot an LPN of 2 is outlined below.

Under the Service's LPN Guidance, the magnitude of threat is the first criterion we look at when establishing a listing priority. The guidance indicates that species with the highest magnitude of threat are those species facing the greatest threats to their continued existence. These species receive the highest listing priority. The primary threats to the red-crowned parrot (habitat loss and modification, capture for the illegal pet trade, and inadequate regulatory mechanisms) are affecting a large portion of the species' population throughout the historical range of the species in Mexico, and we have no information on threats or population trends in the species' remaining range in the LRGV. For Factors A, B, and D, we consider the magnitude high because the current population is small, a large portion of the population is affected, and these factors may lead to extirpation in Mexico. Further, we have no information indicating the LRGV populations can persist in the absence of the Mexico populations. Because we find that threats under these three factors (A, B, and D) are high, we find the overall threats that the red-crowned parrot is facing to be high in magnitude.

Under our LPN Guidance, the second criterion we consider in assigning a listing priority is the immediacy of threats. This criterion is intended to ensure that the species that face actual, identifiable threats are given priority over those for which threats are only potential or that are intrinsically vulnerable but are not known to be presently facing such threats. Factors A, B, and D are considered imminent because they are occurring now and are expected to continue to occur in the future. These actual, identifiable threats are covered in detail under the discussion of Factors A, B, and D of this finding. Because we find that threats under the three factors (A, B, and D) are imminent, we find the overall threats that the red-crowned parrot is facing to be imminent.

The third criterion in our LPN guidance is intended to devote resources to those species representing highly distinctive or isolated gene pools as reflected by taxonomy. The red-crowned parrot is a valid taxon at the species level, and therefore receives a higher priority than subspecies or DPSES, but a lower priority than species in a monotypic genus. The red-crowned parrot faces high magnitude, imminent threats, and is a valid taxon at the species level. Thus, in accordance with our LPN guidance, we have assigned the red-crowned parrot an LPN of 2.

We will continue to monitor the threats to the red-crowned parrot, and the species' status on an annual basis, and should the magnitude or the imminence of the threats change, we will revisit our assessment of the LPN.

Work on a proposed listing determination for the red-crowned parrot is precluded by work on higher priority listing actions with absolute statutory, court-ordered, or court-approved deadlines and final listing determinations for those species that were proposed for listing with funds from Fiscal Year 2011. This work includes all the actions listed in the tables below under expeditious progress.

Preclusion and Expeditious Progress

Preclusion is a function of the listing priority of a species in relation to the resources that are available and the cost and relative priority of 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 listing proposal regulation or whether promulgation of such a proposal is precluded by higher priority listing actions.

The resources available for listing actions are determined through the annual Congressional appropriations process. The appropriation for the Listing Program is available to support work involving the following listing actions: Proposed and final listing rules; 90-day and 12-month findings on petitions to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists) or to change the status of a species from threatened to endangered; annual "resubmitted" petition findings on prior warranted-but-precluded petition findings as required under section 4(b)(3)(C)(i) of the Act; critical habitat petition findings; proposed and final rules designating critical habitat; and litigation-related, administrative, and program-management functions (including preparing and allocating

budgets, responding to Congressional and public inquiries, and conducting public outreach regarding listing and critical habitat). The work involved in preparing various listing documents can be extensive and may include, but is not limited to: gathering and assessing the best scientific and commercial data available and conducting analyses used as the basis for our decisions; writing and publishing documents; and obtaining, reviewing, and evaluating public comments and peer review comments on proposed rules and incorporating relevant information into final rules. The number of listing actions that we can undertake in a given year also is influenced by the complexity of those listing actions; that is, more complex actions generally are more costly. The median cost for preparing and publishing a 90-day finding is \$39,276; for a 12-month finding, \$100,690; for a proposed rule with critical habitat, \$345,000; and for a final listing rule with critical habitat, \$305,000.

We cannot spend more than is appropriated for the Listing Program without violating the Anti-Deficiency Act (see 31 U.S.C. 1341(a)(1)(A)). In addition, in FY 1998 and for each fiscal year since then, Congress has placed a statutory cap on funds that may be expended for the Listing Program, equal to the amount expressly appropriated for that purpose in that fiscal year. This cap was designed to prevent funds appropriated for other functions under the Act (for example, recovery funds for removing species from the Lists), or for other Service programs, from being used for Listing Program actions (see House Report 105-163, 105th Congress, 1st Session, July 1, 1997).

Since FY 2002, the Service's budget has included a critical habitat subcap to ensure that some funds are available for other work in the Listing Program ("The critical habitat designation subcap will ensure that some funding is available to address other listing activities" (House Report No. 107-103, 107th Congress, 1st Session, June 19, 2001)). In FY 2002 and each year until FY 2006, the Service has had to use virtually the entire critical habitat subcap to address court-mandated designations of critical habitat, and consequently none of the critical habitat subcap funds have been available for other listing activities. In some FYs since 2006, we have been able to use some of the critical habitat subcap funds to fund proposed listing determinations for high-priority candidate species. In other FYs, while we were unable to use any of the critical habitat subcap funds to fund proposed listing determinations, we did use some

of this money to fund the critical habitat portion of some proposed listing determinations so that the proposed listing determination and proposed critical habitat designation could be combined into one rule, thereby being more efficient in our work. At this time, for FY 2011, we plan to use some of the critical habitat subcap funds to fund proposed listing determinations.

We make our determinations of preclusion on a nationwide basis to ensure that the species most in need of listing will be addressed first and also because we allocate our listing budget on a nationwide basis. Through the listing cap, the critical habitat subcap, and the amount of funds needed to address court-mandated critical habitat designations, Congress and the courts have in effect determined the amount of money available for other listing activities nationwide. Therefore, the funds in the listing cap, other than those needed to address court-mandated critical habitat for already listed species, set the limits on our determinations of preclusion and expeditious progress.

Congress identified the availability of resources as the only basis for deferring the initiation of a rulemaking that is warranted. The Conference Report accompanying Pub. L. 97-304 (Endangered Species Act Amendments of 1982), which established the current statutory deadlines and the warranted-but-precluded finding, states that the amendments were "not intended to allow the Secretary to delay commencing the rulemaking process for any reason other than that the existence of pending or imminent proposals to list species subject to a greater degree of threat would make allocation of resources to such a petition [that is, for a lower-ranking species] unwise." Although that statement appeared to refer specifically to the "to the maximum extent practicable" limitation on the 90-day deadline for making a "substantial information" finding, that finding is made at the point when the Service is deciding whether or not to commence a status review that will determine the degree of threats facing the species, and therefore the analysis underlying the statement is more relevant to the use of the warranted-but-precluded finding, which is made when the Service has already determined the degree of threats facing the species and is deciding whether or not to commence a rulemaking.

In FY 2011, on April 15, 2011, Congress passed the Full-Year Continuing Appropriations Act (Pub. L. 112-10), which provides funding through September 30, 2011. The Service has \$20,902,000 for the listing

program. Of that, \$9,472,000 is being used for determinations of critical habitat for already-listed species. Also \$500,000 is appropriated for foreign species listings under the Act. The Service thus has \$10,930,000 available to fund work in the following categories: compliance with court orders and court-approved settlement agreements requiring that petition findings or listing determinations be completed by a specific date; section 4 (of the Act) listing actions with absolute statutory deadlines; essential litigation-related, administrative, and listing program-management functions; and high-priority listing actions for some of our candidate species. In FY 2010, the Service received many new petitions and a single petition to list 404 species. The receipt of petitions for a large number of species is consuming the Service's listing funding that is not dedicated to meeting court-ordered commitments. Absent some ability to balance effort among listing duties under existing funding levels, the Service is only able to initiate a few new listing determinations for candidate species in FY 2011.

In 2009, the responsibility for listing foreign species under the Act was transferred from the Division of Scientific Authority, International Affairs Program, to the Endangered Species Program. Therefore, starting in FY 2010, we used a portion of our funding to work on the actions described above for listing actions related to foreign species. In FY 2011, we anticipate using \$1,500,000 for work on listing actions for foreign species, which reduces funding available for domestic listing actions; however, currently only \$500,000 has been allocated for this function. Although there are no foreign species issues included in our high-priority listing actions at this time, many actions have statutory or court-approved settlement deadlines, thus increasing their priority. The budget allocations for each specific listing action are identified in the Service's FY 2011 Allocation Table (part of our record).

For the above reasons, funding a proposed listing determination for the red-crowned parrot is precluded by court-ordered and court-approved settlement agreements, and listing actions with absolute statutory deadlines.

Based on our September 21, 1983, guidelines for assigning an LPN for each candidate species (48 FR 43098), we have a significant number of species with a LPN of 2. Using these guidelines, we assign each candidate an LPN of 1 to 12, depending on the magnitude of

threats (high or moderate to low), immediacy of threats (imminent or nonimminent), and taxonomic status of the species (in order of priority: monotypic genus (a species that is the sole member of a genus); species; or part of a species (subspecies, or distinct population segment)). The lower the listing priority number, the higher the listing priority (that is, a species with an LPN of 1 would have the highest listing priority).

Because of the large number of high-priority species, we have further ranked the candidate species with an LPN of 2 by using the following extinction-risk type criteria: International Union for the Conservation of Nature and Natural Resources (IUCN) Red list status/rank, Heritage rank (provided by NatureServe), Heritage threat rank (provided by NatureServe), and species currently with fewer than 50 individuals, or 4 or fewer populations. Those species with the highest IUCN rank (critically endangered), the highest Heritage rank (G1), the highest Heritage threat rank (substantial, imminent threats), and currently with fewer than 50 individuals, or fewer than 4 populations, originally comprised a group of approximately 40 candidate species ("Top 40"). These 40 candidate species have had the highest priority to receive funding to work on a proposed listing determination. As we work on proposed and final listing rules for those 40 candidates, we apply the ranking criteria to the next group of candidates with an LPN of 2 and 3 to determine the next set of highest priority candidate species. Finally, proposed rules for reclassification of threatened species to endangered species are lower priority, because as listed species, they are already afforded the protections of the Act and implementing regulations. However, for efficiency reasons, we may choose to work on a proposed rule to reclassify a species to endangered if we can combine this with work that is subject to a court-determined deadline.

With our workload so much bigger than the amount of funds we have to accomplish it, it is important that we be as efficient as possible in our listing process. Therefore, as we work on proposed rules for the highest priority species in the next several years, we are preparing multi-species proposals when appropriate, and these may include species with lower priority if they overlap geographically or have the same threats as a species with an LPN of 2. In addition, we take into consideration the availability of staff resources when we determine which high-priority species will receive funding to minimize the amount of time and

resources required to complete each listing action.

As explained above, a determination that listing is warranted but precluded must also demonstrate that expeditious progress is being made to add and remove qualified species to and from the Lists of Endangered and Threatened Wildlife and Plants. As with our “precluded” finding, the evaluation of

whether progress in adding qualified species to the Lists has been expeditious is a function of the resources available for listing and the competing demands for those funds. (Although we do not discuss it in detail here, we are also making expeditious progress in removing species from the list under the Recovery program in light of the resource available for delisting, which is

funded by a separate line item in the budget of the Endangered Species Program. So far during FY 2011, we have completed delisting rules for three species.) Given the limited resources available for listing, we find that we are making expeditious progress in FY 2011 in the Listing Program. This progress included preparing and publishing the following determinations:

FY 2011 COMPLETED LISTING ACTIONS

Publication date	Title	Actions	FR Pages
10/6/2010	Endangered Status for the Altamaha Spiny mussel and Designation of Critical Habitat.	Proposed Listing Endangered	75 FR 61664–61690
10/7/2010	12-Month Finding on a Petition to list the Sacramento Splittail as Endangered or Threatened.	Notice of 12-month petition finding, Not warranted.	75 FR 62070–62095
10/28/2010	Endangered Status and Designation of Critical Habitat for Spikedace and Loach Minnow.	Proposed Listing Endangered (uplisting)	75 FR 66481–66552
11/2/2010	90-Day Finding on a Petition to List the Bay Springs Salamander as Endangered.	Notice of 90-day Petition Finding, Not substantial.	75 FR 67341–67343
11/2/2010	Determination of Endangered Status for the Georgia Pigtoe Mussel, Interrupted Rocksnail, and Rough Hornsnail and Designation of Critical Habitat.	Final Listing Endangered	75 FR 67511–67550
11/2/2010	Listing the Rayed Bean and Snuffbox as Endangered.	Proposed Listing Endangered	75 FR 67551–67583
11/4/2010	12-Month Finding on a Petition to List <i>Cirsium wrightii</i> (Wright's Marsh Thistle) as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 67925–67944
12/14/2010	Endangered Status for Dunes Sagebrush Lizard.	Proposed Listing Endangered	75 FR 77801–77817
12/14/2010	12-Month Finding on a Petition to List the North American Wolverine as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 78029–78061
12/14/2010	12-Month Finding on a Petition to List the Sonoran Population of the Desert Tortoise as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 78093–78146
12/15/2010	12-Month Finding on a Petition to List <i>Astragalus microcymbus</i> and <i>Astragalus schmolliae</i> as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 78513–78556
12/28/2010	Listing Seven Brazilian Bird Species as Endangered Throughout Their Range.	Final Listing Endangered	75 FR 81793–81815
1/4/2011	90-Day Finding on a Petition to List the Red Knot subspecies <i>Calidris canutus roselaari</i> as Endangered.	Notice of 90-day Petition Finding, Not substantial.	76 FR 304–311
1/19/2011	Endangered Status for the Sheepnose and Spectaclecase Mussels.	Proposed Listing Endangered	76 FR 3392–3420
2/10/2011	12-Month Finding on a Petition to List the Pacific Walrus as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 7634–7679
2/17/2011	90-Day Finding on a Petition To List the Sand Verbena Moth as Endangered or Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 9309–9318
2/22/2011	Determination of Threatened Status for the New Zealand-Australia Distinct Population Segment of the Southern Rockhopper Penguin.	Final Listing Threatened	76 FR 9681–9692
2/22/2011	12-Month Finding on a Petition to List <i>Solanum conocarpum</i> (marron bacora) as Endangered.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 9722–9733
2/23/2011	12-Month Finding on a Petition to List Thorne's Hairstreak Butterfly as Endangered.	Notice of 12-month petition finding, Not warranted.	76 FR 9991–10003
2/23/2011	12-Month Finding on a Petition to List <i>Astragalus hamiltonii</i> , <i>Penstemon flowersii</i> , <i>Eriogonum soredium</i> , <i>Lepidium ostleri</i> , and <i>Trifolium friscanum</i> as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded & Not Warranted.	76 FR 10166–10203
2/24/2011	90-Day Finding on a Petition to List the Wild Plains Bison or Each of Four Distinct Population Segments as Threatened.	Notice of 90-day Petition Finding, Not substantial.	76 FR 10299–10310

FY 2011 COMPLETED LISTING ACTIONS—Continued

Publication date	Title	Actions	FR Pages
2/24/2011	90-Day Finding on a Petition to List the Unsilvered Fritillary Butterfly as Threatened or Endangered.	Notice of 90-day Petition Finding, Not substantial.	76 FR 10310–10319
3/8/2011	12-Month Finding on a Petition to List the Mt. Charleston Blue Butterfly as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 12667–12683
3/8/2011	90-Day Finding on a Petition to List the Texas Kangaroo Rat as Endangered or Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 12683–12690
3/10/2011	Initiation of Status Review for Longfin Smelt	Notice of Status Review	76 FR 13121–13122
3/15/2011	Withdrawal of Proposed Rule to List the Flat-tailed Horned Lizard as Threatened.	Proposed rule withdrawal	76 FR 14210–14268
3/15/2011	Proposed Threatened Status for the Chiricahua Leopard Frog and Proposed Designation of Critical Habitat.	Proposed Listing Threatened; Proposed Designation of Critical Habitat.	76 FR 14126–14207
3/22/2011	12-Month Finding on a Petition to List the Berry Cave Salamander as Endangered.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 15919–15932
4/1/2011	90-Day Finding on a Petition to List the Spring Pygmy Sunfish as Endangered.	Notice of 90-day Petition Finding, Substantial ..	76 FR 18138–18143
4/5/2011	12-Month Finding on a Petition to List the Bearmouth Mountainsnail, Byrne Resort Mountainsnail, and Meltwater Lednian Stonefly as Endangered or Threatened.	Notice of 12-month petition finding, Not Warranted and Warranted but precluded.	76 FR 18684–18701
4/5/2011	90-Day Finding on a Petition To List the Peary Caribou and Dolphin and Union population of the Barren-ground Caribou as Endangered or Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 18701–18706
4/12/2011	Proposed Endangered Status for the Three Forks Springsnail and San Bernardino Springsnail, and Proposed Designation of Critical Habitat.	Proposed Listing Endangered; Proposed Designation of Critical Habitat.	76 FR 20464–20488
4/13/2011	90-Day Finding on a Petition To List Spring Mountains Acastus Checkerspot Butterfly as Endangered.	Notice of 90-day Petition Finding, Substantial ..	76 FR 20613–20622
4/14/2011	90-Day Finding on a Petition to List the Prairie Chub as Threatened or Endangered.	Notice of 90-day Petition Finding, Substantial ..	76 FR 20911–20918
4/14/2011	12-Month Finding on a Petition to List Hermes Copper Butterfly as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 20918–20939
4/26/2011	90-Day Finding on a Petition to List the Arapahoe Snowfly as Endangered or Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 23256–23265
4/26/2011	90-Day Finding on a Petition to List the Smooth-Billed Ani as Threatened or Endangered.	Notice of 90-day Petition Finding, Not substantial.	76 FR 23265–23271
5/12/2011	Withdrawal of the Proposed Rule to List the Mountain Plover as Threatened.	Proposed Rule, Withdrawal	76 FR 27756–27799
5/24/2011	90-Day Finding on a Petition To List the Spotted-tailed Earless Lizard as Endangered or Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 30082–30087
5/26/2011	Listing the Salmon-Crested Cockatoo as Threatened Throughout its Range with Special Rule.	Final Listing Threatened	76 FR 30758–30780
5/31/2011	12-Month Finding on a Petition to List Puerto Rican Harlequin Butterfly as Endangered.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 31282–31294
6/2/2011	90-Day Finding on a Petition to Reclassify the Straight-Horned Markhor (<i>Capra falconeri jerdoni</i>) of Torghar Hills as Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 31903–31906
6/2/2011	90-Day Finding on a Petition to List the Golden-winged Warbler as Endangered or Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 31920–31926
6/7/2011	12-Month Finding on a Petition to List the Striped Newt as Threatened.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 32911–32929
6/9/2011	12-Month Finding on a Petition to List <i>Abronia ammophila</i> , <i>Agrostis rossiae</i> , <i>Astragalus proimanthus</i> , <i>Boechera (Arabis) pusilla</i> , and <i>Penstemon gibbensii</i> as Threatened or Endangered.	Notice of 12-month petition finding, Not Warranted and Warranted but precluded.	76 FR 33924–33965
6/21/2011	90-Day Finding on a Petition to List the Utah Population of the Gila Monster as an Endangered or a Threatened Distinct Population Segment.	Notice of 90-day Petition Finding, Not substantial.	76 FR 36049–36053

FY 2011 COMPLETED LISTING ACTIONS—Continued

Publication date	Title	Actions	FR Pages
6/21/2011	Revised 90-Day Finding on a Petition To Re-classify the Utah Prairie Dog From Threatened to Endangered.	Notice of 90-day Petition Finding, Not substantial.	76 FR 36053–36068
6/28/2011	12-Month Finding on a Petition to List <i>Castanea pumila</i> var. <i>ozarkensis</i> as Threatened or Endangered.	Notice of 12-month petition finding, Not warranted.	76 FR 37706–37716
6/29/2011	90-Day Finding on a Petition to List the Eastern Small-Footed Bat and the Northern Long-Eared Bat as Threatened or Endangered.	Notice of 90-day Petition Finding, Substantial ..	76 FR 38095–38106
6/30/2011	12-Month Finding on a Petition to List a Distinct Population Segment of the Fisher in its United States Northern Rocky Mountain Range as Endangered or Threatened with Critical Habitat.	Notice of 12-month petition finding, Not warranted.	76 FR 38504–38532
7/12/2011	90-Day Finding on a Petition to List the Bay Skipper as Threatened or Endangered.	Notice of 90-day Petition Finding, Substantial ..	76 FR 40868–40871
7/19/2011	12-Month Finding on a Petition to List <i>Pinus albicaulis</i> as Endangered or Threatened with Critical Habitat.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 42631–42654
7/19/2011	Petition To List Grand Canyon Cave Pseudoscorpion.	Notice of 12-month petition finding, Not warranted.	76 FR 42654–42658
7/26/2011	12-Month Finding on a Petition to List the Giant Palouse Earthworm (<i>Drilolerius americanus</i>) as Threatened or Endangered.	Notice of 12-month petition finding, Not warranted.	76 FR 44547–44564
7/26/2011	12-Month Finding on a Petition to List the Frigid Ambersnail as Endangered.	Notice of 12-month petition finding, Not warranted.	76 FR 44566–44569
7/27/2011	Determination of Endangered Status for <i>Ipomopsis polyantha</i> (Pagosa Skyrocket) and Threatened Status for <i>Penstemon debilis</i> (Parachute Beardtongue) and <i>Phacelia submutica</i> (DeBeque Phacelia).	Final Listing Endangered, Threatened	76 FR 45054–45075
7/27/2011	12-Month Finding on a Petition to List the Gopher Tortoise as Threatened in the Eastern Portion of its Range.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 45130–45162
8/2/2011	Proposed Endangered Status for the Chupadera Springsnail (<i>Pyrgulopsis chupaderae</i>) and Proposed Designation of Critical Habitat.	Proposed Listing Endangered	76 FR 46218–46234
8/2/2011	90-Day Finding on a Petition to List the Straight Snowfly and Idaho Snowfly as Endangered.	Notice of 90-day Petition Finding, Not substantial.	76 FR 46238–46251
8/2/2011	12-Month Finding on a Petition to List the Redrock Stonefly as Endangered or Threatened.	Notice of 12-month petition finding, Not warranted.	76 FR 46251–46266
8/2/2011	Listing 23 Species on Oahu as Endangered and Designating Critical Habitat for 124 Species.	Proposed Listing Endangered	76 FR 46362–46594
8/4/2011	90-Day Finding on a Petition To List Six Sand Dune Beetles as Endangered or Threatened.	Notice of 90-day Petition Finding, Not substantial and substantial.	76 FR 47123–47133
8/9/2011	Endangered Status for the Cumberland Darter, Rush Darter, Yellowcheek Darter, Chucky Madtom, and Laurel Dace.	Final Listing Endangered	76 FR 48722–48741
8/9/2011	12-Month Finding on a Petition to List the Nueces River and Plateau Shiners as Threatened or Endangered.	Notice of 12-month petition finding, Not warranted.	76 FR 48777–48788
8/9/2011	Four Foreign Parrot Species [crimson shining parrot, white cockatoo, Philippine cockatoo, yellow-crested cockatoo].	Proposed Listing Endangered and Threatened; Notice of 12-month petition finding, Not warranted.	76 FR 49202–49236
8/10/2011	Proposed Listing of the Miami Blue Butterfly as Endangered, and Proposed Listing of the Cassius Blue, Ceraunus Blue, and Nickerbean Blue Butterflies as Threatened Due to Similarity of Appearance to the Miami Blue Butterfly.	Proposed Listing Endangered, Similarity of Appearance.	76 FR 49408–49412
8/10/2011	90-Day Finding on a Petition To List the Saltmarsh Topminnow as Threatened or Endangered Under the Endangered Species Act.	Notice of 90-day Petition Finding, Substantial ..	76 FR 49412–49417

FY 2011 COMPLETED LISTING ACTIONS—Continued

Publication date	Title	Actions	FR Pages
8/10/2011	Emergency Listing of the Miami Blue Butterfly as Endangered, and Emergency Listing of the Cassius Blue, Ceraunus Blue, and Nickerbean Blue Butterflies as Threatened Due to Similarity of Appearance to the Miami Blue Butterfly.	Emergency Listing Endangered, Similarity of Appearance.	76 FR 49542–49567
8/11/2011	Listing Six Foreign Birds as Endangered Throughout Their Range.	Final Listing Endangered	76 FR 50052–50080
8/17/2011	90-Day Finding on a Petition to List the Leona’s Little Blue Butterfly as Endangered or Threatened.	Notice of 90-day Petition Finding, Substantial ..	76 FR 50971–50979
9/01/2011	90-Day Finding on a Petition to List All Chimpanzees (<i>Pan troglodytes</i>) as Endangered.	Notice of 90-day Petition Finding, Substantial ..	76 FR 54423–54425
9/6/2011	12-Month Finding on Five Petitions to List Seven Species of Hawaiian Yellow-faced Bees as Endangered.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 55170–55230
9/8/2011	12-Month Petition Finding and Proposed Listing of <i>Arctostaphylos franciscana</i> as Endangered.	Notice of 12-month petition finding, Warranted; Proposed Listing Endangered.	76 FR 55623–55638
9/8/2011	90-Day Finding on a Petition To List the Snowy Plover and Reclassify the Wintering Population of Piping Plover.	Notice of 90-day Petition Finding, Not substantial.	76 FR 55638–55641
9/13/2011	90-Day Finding on a Petition To List the Franklin’s Bumble Bee as Endangered.	Notice of 90-day Petition Finding, Substantial ..	76 FR 56381–56391
9/13/2011	90-Day Finding on a Petition to List 42 Great Basin and Mojave Desert Springsnails as Threatened or Endangered with Critical Habitat.	Notice of 90-day Petition Finding, Substantial and Not substantial.	76 FR 56608–56630

Our expeditious progress also includes work on listing actions that we funded in FY 2010 and FY 2011 but have not yet been completed to date. These actions are listed below. Actions in the top section of the table are being conducted under a deadline set by a court. Actions in the middle section of the table are being conducted to meet

statutory timelines, that is, timelines required under the Act. Actions in the bottom section of the table are high-priority listing actions. These actions include work primarily on species with an LPN of 2, and, as discussed above, selection of these species is partially based on available staff resources, and when appropriate, include species with

a lower priority if they overlap geographically or have the same threats as the species with the high priority. Including these species together in the same proposed rule results in considerable savings in time and funding, when compared to preparing separate proposed rules for each of them in the future.

ACTIONS FUNDED IN FY 2010 AND FY 2011 BUT NOT YET COMPLETED

Species	Action
Actions Subject to Court Order/Settlement Agreement	
4 parrot species (military macaw, yellow-billed parrot, red-crowned parrot, scarlet macaw) ⁵	12-month petition finding.
4 parrot species (blue-headed macaw, great green macaw, grey-cheeked parakeet, hyacinth macaw) ⁵	12-month petition finding.
Longfin smelt	12-month petition finding.
Actions with Statutory Deadlines	
Casey’s June beetle	Final listing determination.
5 Bird species from Colombia and Ecuador	Final listing determination.
Queen Charlotte goshawk	Final listing determination.
Ozark hellbender ⁴	Final listing determination.
Altamaha spiny mussel ³	Final listing determination.
6 Birds from Peru & Bolivia	Final listing determination.
Loggerhead sea turtle (assist National Marine Fisheries Service) ⁵	Final listing determination.
2 mussels (rayed bean (LPN = 2), snuffbox No LPN) ⁵	Final listing determination.
CA golden trout ⁴	12-month petition finding.
Black-footed albatross	12-month petition finding.
Mojave fringe-toed lizard ¹	12-month petition finding.
Kokanee-Lake Sammamish population ¹	12-month petition finding.
Cactus ferruginous pygmy-owl ¹	12-month petition finding.
Northern leopard frog	12-month petition finding.
Tehachapi slender salamander	12-month petition finding.
Coqui Llanero	12-month petition finding/Proposed listing.
Dusky tree vole	12-month petition finding.

ACTIONS FUNDED IN FY 2010 AND FY 2011 BUT NOT YET COMPLETED—Continued

Species	Action
Leatherside chub (from 206 species petition)	12-month petition finding.
Platte River caddisfly (from 206 species petition) ⁵	12-month petition finding.
3 Texas moths (<i>Ursia furtiva</i> , <i>Sphingicampa blanchardi</i> , <i>Agapema galbina</i>) (from 475 species petition)	12-month petition finding.
3 South Arizona plants (<i>Erigeron piscaticus</i> , <i>Astragalus hypoxylus</i> , <i>Amoreuxia gonzalezii</i>) (from 475 species petition)	12-month petition finding.
5 Central Texas mussel species (3 from 475 species petition)	12-month petition finding.
14 parrots (foreign species)	12-month petition finding.
Mohave Ground Squirrel ¹	12-month petition finding.
Western gull-billed tern	12-month petition finding.
OK grass pink (<i>Calopogon oklahomensis</i>) ¹	12-month petition finding.
Ashy storm-petrel ⁵	12-month petition finding.
Honduran emerald	12-month petition finding.
Eagle Lake trout ¹	90-day petition finding.
32 Pacific Northwest mollusks species (snails and slugs) ¹	90-day petition finding.
Spring Mountains checkerspot butterfly	90-day petition finding.
10 species of Great Basin butterfly	90-day petition finding.
404 Southeast species	90-day petition finding.
American eel ⁴	90-day petition finding.
Aztec gilia ⁵	90-day petition finding.
White-tailed ptarmigan ⁵	90-day petition finding.
San Bernardino flying squirrel ⁵	90-day petition finding.
Bicknell's thrush ⁵	90-day petition finding.
Sonoran talussnail ⁵	90-day petition finding.
2 AZ Sky Island plants (<i>Graptopetalum bartrami</i> & <i>Pectis imberbis</i>) ⁵	90-day petition finding.
I'iwi ⁵	90-day petition finding.
Humboldt marten	90-day petition finding.
Desert massasauga	90-day petition finding.
Western glacier stonefly (<i>Zapada glacier</i>)	90-day petition finding.
Thermophilic ostracod (<i>Potamocypris hunteri</i>)	90-day petition finding.
Sierra Nevada red fox ⁵	90-day petition finding.
Boreal toad (eastern or southern Rocky Mtn population) ⁵	90-day petition finding.

High-Priority Listing Actions

20 Maui-Nui candidate species ² (17 plants, 3 tree snails) (14 with LPN = 2, 2 with LPN = 3, 3 with LPN = 8)	Proposed listing.
8 Gulf Coast mussels (southern kidneyshell (LPN = 2), round ebonyshell (LPN = 2), Alabama pearlshell (LPN = 2), southern sandshell (LPN = 5), fuzzy pigtoe (LPN = 5), Choctaw bean (LPN = 5), narrow pigtoe (LPN = 5), and tapered pigtoe (LPN = 11)) ⁴ .	Proposed listing.
Umtanum buckwheat (LPN = 2) and white bluffs bladderpod (LPN = 9) ⁴	Proposed listing.
Grotto sculpin (LPN = 2) ⁴	Proposed listing.
2 Arkansas mussels (Neosho mucket (LPN = 2) & Rabbitsfoot (LPN = 9)) ⁴	Proposed listing.
Diamond darter (LPN = 2) ⁴	Proposed listing.
Gunnison sage-grouse (LPN = 2) ⁴	Proposed listing.
Coral Pink Sand Dunes Tiger Beetle (LPN = 2) ⁵	Proposed listing.
Lesser prairie chicken (LPN = 2)	Proposed listing.
4 Texas salamanders (Austin blind salamander (LPN = 2), Salado salamander (LPN = 2), Georgetown salamander (LPN = 8), Jollyville Plateau (LPN = 8)) ³ .	Proposed listing.
5 SW aquatics (Gonzales Spring Snail (LPN = 2), Diamond Y springsnail (LPN = 2), Phantom springsnail (LPN = 2), Phantom Cave snail (LPN = 2), Diminutive amphipod (LPN = 2)) ³ .	Proposed listing.
2 Texas plants (Texas golden gladecress (<i>Leavenworthia texana</i>) (LPN = 2), Neches River rose-mallow (<i>Hibiscus dasycalyx</i>) (LPN = 2)) ³ .	Proposed listing.
4 AZ plants (<i>Acuna cactus</i> (<i>Echinomastus erectocentrus</i> var. <i>acunensis</i>) (LPN = 3), Fickeisen plains cactus (<i>Pediocactus peeblesianus fickeiseniae</i>) (LPN = 3), Lemmon fleabane (<i>Erigeron lemmonii</i>) (LPN = 8), Gierisch mallow (<i>Sphaeralcea gierischii</i>) (LPN = 2)) ⁵ .	Proposed listing.
FL bonneted bat (LPN = 2) ³	Proposed listing.
3 Southern FL plants (Florida semaphore cactus (<i>Consolea corallicola</i>) (LPN = 2), shellmound applecactus (<i>Harrisia</i> (= <i>Cereus</i>) <i>aboriginum</i> (= <i>gracilis</i>)) (LPN = 2), Cape Sable thoroughwort (<i>Chromolaena frustrata</i>) (LPN = 2)) ⁵ .	Proposed listing.
21 Big Island (HI) species ⁵ (includes 8 candidate species—6 plants & 2 animals; 4 with LPN = 2, 1 with LPN = 3, 1 with LPN = 4, 2 with LPN = 8).	Proposed listing.
12 Puget Sound prairie species (9 subspecies of pocket gopher (<i>Thomomys mazama</i> ssp.) (LPN = 3), streaked horned lark (LPN = 3), Taylor's checkerspot (LPN = 3), Mardon skipper (LPN = 8)) ³ .	Proposed listing.
2 TN River mussels (fluted kidneyshell (LPN = 2), slabside pearlymussel (LPN = 2)) ⁵	Proposed listing.
Jemez Mountain salamander (LPN = 2) ⁵	Proposed listing.

¹ Funds for listing actions for these species were provided in previous FYs.² Although funds for these high-priority listing actions were provided in FY 2008 or 2009, due to the complexity of these actions and competing priorities, these actions are still being developed.³ Partially funded with FY 2010 funds and FY 2011 funds.⁴ Funded with FY 2010 funds.⁵ Funded with FY 2011 funds.

We have endeavored to make our listing actions as efficient and timely as possible, given the requirements of the relevant law and regulations, and 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. Given our limited budget for implementing section 4 of the Act, these actions described above collectively constitute expeditious progress.

The red-crowned parrot will be added to the list of candidate species upon publication of this 12-month finding. We will continue to monitor the status of this species as new information becomes available. This review will

determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures.

We intend that any proposed listing action for the red-crowned parrot will be as accurate as possible. Therefore, we will continue to accept additional information and comments from all concerned governmental agencies, the scientific community, industry, or any other interested party concerning this finding.

References Cited

A list of all references cited in this document is available at <http://www.regulations.gov>, at Docket No. FWS-R9-ES-2011-0082, or upon request from the U.S. Fish and Wildlife

Service, Endangered Species Program, Branch of Foreign Species (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this notice are staff members of the Branch of Foreign Species, Endangered Species Program, U.S. Fish and Wildlife Service.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: September 27, 2011.

Rowan W. Gould,

Acting Director, Fish and Wildlife Service.

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