

to operate in traffic, it should be accompanied by escort vehicles or in some other way separated from the public traffic. This equipment may also be subject to State or local permit requirements with regard to escort vehicles, special markings, time of day, day of the week, and/or the specific route.

*§ 383.3 Question 7 and § 390.5*

**Question 8:** What types of equipment are included in the category of off-road motorized construction equipment?

**Guidance:** The definition of off-road motorized construction equipment is to be narrowly construed and limited to equipment which, by its design and function is obviously not intended for use, nor is it used on a public road in furtherance of a transportation purpose. Examples of such equipment include motor scrapers, backhoes, motor graders, compactors, tractors, trenchers, bulldozers and railroad track maintenance cranes.

The FMCSA proposes to issue new regulatory guidance to address implements of husbandry, consistent with the approach used for off-road motorized construction equipment. The Agency requests public comment on this issue and the following proposal. Specifically, the Agency requests comments on whether there are specific examples of implements of husbandry that should be included in the guidance to assist the enforcement community and the industry in achieving a common understanding of how to apply the safety regulations.

*Proposed Regulatory Guidance: Applicability of the FMCSRs to Implements of Husbandry*

*§ 383.5 Question 13 and § 390.5 Question 33*

**Question:** Do implements of husbandry meet the definitions of "commercial motor vehicle" as used in 49 CFR 383.5 and 390.5?

**Guidance:** No. Implements of husbandry are outside the scope of these definitions when operated: (1) At a farm; or (2) on a public road open to unrestricted public travel, provided the equipment is not designed or used to travel at normal highway speeds in the stream of traffic. This equipment, however, must be operated in accordance with State and local safety laws and regulations as required by 49 CFR 392.2 and may be subject to State or local permit requirements with regard to escort vehicles, special markings, time of day, day of the week, and/or the specific route.

**Question:** What types of equipment are included in the category of implements of husbandry?

**Guidance:** The term implements of husbandry should be narrowly construed and limited to equipment which, by its design and function is obviously not designed or used to travel at normal highway speeds in the stream of traffic. Examples of such equipment include, but are not limited to, farm tractors, subsoilers, cultivators, reapers, binders, combines, cotton module builders, planters, and discs.

**Request for Comments**

FMCSA requests public comment on: (1) The distinction between interstate and intrastate commerce in making the determination whether certain transportation by CMVs, within the boundaries of a single State, is subject to the FMCSRs; (2) the relevance of the distinction between direct and indirect compensation in deciding whether certain farm vehicle drivers working under a crop share arrangement are subject to the Agency's CDL regulations; and, (3) the determination whether certain off-road farm equipment and implements of husbandry operated on public roads for limited distances should be considered CMVs and subject to the Agency's vehicle safety equipment regulations.

The Agency will consider all comments received by close of business on June 30, 2011. Comments will be available for examination in the docket at the location listed under the "Addresses" section of this notice. The Agency will consider to the extent practicable comments received in the public docket after the closing date of the comment period.

Issued on: May 20, 2011.

**Anne S. Ferro,**  
Administrator.

[FR Doc. 2011-13035 Filed 5-27-11; 8:45 am]

**BILLING CODE 4910-EX-P**

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**[Docket No. FWS-R4-ES-2010-0026; MO 92210-0-0008]**

**Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List Puerto Rican Harlequin Butterfly as Endangered**

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

**ACTION:** Notice of 12-month petition finding.

**SUMMARY:** We, the Fish and Wildlife Service (Service), announce a 12-month

finding on a petition to list the Puerto Rican harlequin butterfly (*Atlantea tulita*) as endangered and to designate critical habitat under the Endangered Species Act of 1973, as amended. After reviewing all available scientific and commercial information, we find that the listing of the Puerto Rican harlequin butterfly is warranted. Currently, however, listing the Puerto Rican harlequin butterfly 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 Puerto Rican harlequin butterfly to our candidate species list. If an emergency situation develops with this species that warrants an emergency listing, we will act immediately to provide additional protection. We will develop a proposed rule to list the Puerto Rican harlequin butterfly 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 May 31, 2011.

**ADDRESSES:** This finding is available on the Internet at <http://www.regulations.gov> at Docket Number FWS-R4-ES-2010-0026. 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, Caribbean Ecological Services Field Office, Road 301, Km. 5.1, Boquerón, PR 00622. Please submit any new information, materials, comments, or questions concerning this finding to the above street address.

**FOR FURTHER INFORMATION CONTACT:** Ms. Marelisa Rivera, Assistant Field Supervisor, Caribbean Ecological Services Field Office, P.O. Box 491, Boquerón, PR 00622; by telephone at (787) 851-7297; or by facsimile at (787) 851-7440. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339.

**SUPPLEMENTARY INFORMATION:**

**Background**

Section 4(b)(3)(B) of the Endangered Species Act of 1973, as amended (Act)(16 U.S.C. 1531 *et seq.*), requires that for any petition to revise the Lists of Endangered and Threatened Wildlife and Plants that contains substantial scientific and commercial information indicating that listing the 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 the 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 February 25, 2009, we received a petition dated February 24, 2009, from Mr. Javier Biaggi-Caballero requesting that we list the Puerto Rican harlequin butterfly as endangered and designate critical habitat under the Act. The petition clearly identified itself as such and included the requisite identification information for the petitioner, as required in 50 CFR 424.14(a). In an April 9, 2009, letter to the petitioner, we responded that we had received the petition. We stated that we would make a finding, to the maximum extent practicable within 90 days, as to whether or not the petition presented substantial information.

In that letter, we also stated that if the initial finding concludes that the petition presents substantial information indicating that the requested action may be warranted, we must commence a review of the status of the species concerned and at the conclusion of our status review, we would prepare and publish our 12-month finding on the petition to list the Puerto Rican harlequin butterfly as endangered or threatened and, if prudent and determinable, designate critical habitat under the Act.

On April 26, 2010, we published a 90-day finding (75 FR 21568) in which we concluded that the petition provided substantial information that listing of the Puerto Rican harlequin butterfly may be warranted, and we initiated a status review. To assist us in that status review, we requested comments and information from the public and asked that they be submitted on or before June 25, 2010. This notice constitutes the 12-month finding on the February 24, 2009, petition to list the Puerto Rican harlequin butterfly as endangered.

#### Species Information

##### Taxonomy and Species Description

The Puerto Rican harlequin butterfly is endemic to Puerto Rico and is one of the four species endemic to the Greater Antillean genus *Atlantea* (Biaggi-Caballero 2009, p. 1). The species was described by German lepidopterist Dr. Herman Dewitz in 1877, from specimens collected by Dr. Leopold Krug in the Municipality of Quebradillas, Puerto Rico.

The Puerto Rican harlequin butterfly has a wing span of about 2 to 2.5 inches (in) (6 centimeters (cm)) wide. Female and male harlequin butterflies are similar in color patterns and size. This butterfly is brownish black at the dorsal area with deep orange markings and confused black markings at the half basal anterior wing. The posterior wing has a wide black border enclosing a set of reddish-bronze sub-marginal points. The ventral side of the anterior wing is similar to the dorsal anterior wing, and the posterior is black with orange basal spots and a complete postdiscal beige band with a band of reddish spots distally and sub-marginal white half-moons. The costa, the most anterior (leading) edge of a wing, in males is gray and wide.

Females are multivoltine ovipositors (they produce several broods in a single season) (Biaggi-Caballero 2009, p. 2).

##### Habitat

The Puerto Rican harlequin butterfly occurs within the subtropical moist forest life zone on limestone-derived soil in the Northern karst Region (Ewel and Whitmore 1973, p. 25) and in the subtropical wet forest on serpentine-derived soil in the Maricao Commonwealth Forest (Ewel and Whitmore 1973, p. 32). The subtropical moist forest life zone on limestone-derived soil covers about 1.15 percent (10,338 ha (25,545.75 ac)) of the total area of Puerto Rico (USDA 2008, p. 21), however, the subtropical wet forest on serpentine-derived soil cover about 0.04 percent (358 ha (884.63 ac)) of the total area of Puerto Rico (USDA 2008, p. 20). It has been observed on a forest associated with the coastal cliffs of the area in Quebradillas and on sclerophyllous forest (type of vegetation characterized by hard, leathery, evergreen foliage that is specially adapted to prevent moisture loss) in Maricao Commonwealth Forest. The vegetation in the Puerto Rican harlequin butterfly's habitat in Quebradillas consists of *Oplonia spinosa* (prickly bush), *Cocoloba uvifera* (sea grape), *Boureria succulenta* (palo de vaca), *Lantana camara* (cariacillo), *Lantana*

*involutrata* (cariacillo), *Randia aculeate* (tintillo), *Vernonia albicaulis* (no common name), *Poitea paucifolia* (no common name), *Leucaena leucocephala* (leucaena), *Eupatorium odoratum* (no common name), *Erithalis fructifera* (no common name), *Distictis lactifolia* (no common name), *Bidens pilosa* (no common name), *Croton rigidus* (adormidera), *Staehytarpeta jamaicensis* (no common name), *Stigmaphyllon emargiatum* (bull reed), and *Tabebuia heterophylla* (roble).

The Puerto Rican harlequin butterfly has only been observed utilizing the *Oplonia spinosa* (prickly bush) as its host plant (plant used for laying the eggs and serves as a food source for the development of the larvae). *Oplonia spinosa* is a common tropical coastal shrub and is widely distributed in Puerto Rico. The Puerto Rican harlequin butterfly only lays eggs in the vegetative (green) stems on the apical zone (the tenderest zone on *Oplonia spinosa* new growth) (Biaggi-Caballero 2010, p. 2). No other stage of host plant is used for oviposition (action of laying eggs). The chrysalis is also attached to dried twigs of the host plant (Biaggi-Caballero 2009, p. 3). The adult butterflies feed from the nectars of the flowers available at the site but have not been observed feeding from the prickly bush. The majority of the individuals were found feeding on flowers of sea grape, palo de vaca, and cariacillo.

Carrión-Cabrera (2003, p. 40) states that the dispersion of the species is limited by the monophagus habit of the larvae (only utilizes the prickly bush). Additionally, the butterfly flies slowly and is weak and fragile; the species is considered relatively sedentary (not able to move or disperse in a given environment) (Carrión-Cabrera 2003, p. 51).

##### Distribution

The historic range of the Puerto Rican harlequin butterfly includes the Northern karst Region, the Central-western Volcanic Region, and the Southern karst Region of Puerto Rico. Within these three regions, the species historically had been reported from five municipalities: (1) In the Northern karst Region, the species was reported from the Municipalities of Quebradillas and Arcibo; (2) in the Central-western Volcanic Region, the species was reported from the Municipalities of Maricao and Sabana Grande; and (3) in the Southern karst Region, the species was reported from the Municipality of Peñuelas (Carrión-Cabrera 2003, p. 32).

Recently, the Puerto Rican harlequin butterfly has been reported from two populations in two regions: (1) The

Quebradillas population in the Northern karst Region, and (2) the Maricao population in the Central-western Volcanic-Serpentine Region (Pérez-Asso *et al.* 2009, p. 94). The Quebradillas population occurs in approximately 144 ha (356 acres) strip of forested habitat located on the northern coastal cliff between the Municipalities of Isabela, Quebradillas, and Camuy (Biaggi-Caballero 2009, p. 4). Here, the species' habitat is limited to the east by the Bellacas Creek, to the west by the Guajataca River, to the north by the Atlantic Ocean, and to the south by Puerto Rico (PR) Highway 2 (a state road that runs parallel to the north coast from Aguadilla to San Juan) and deforested areas utilized for agricultural practices such as cattle grazing. Within the Northern karst Region, the Puerto Rican harlequin butterfly occurs in:

- 10 scattered patches in the Terranova and San José wards in the Municipality of Quebradillas that occupy an area of 1.05 ha (2.6 acres (10,525 square meters)) (Monzón-Carmona 2007, p. 42);
- One patch in the forested cliff of Coto ward in the Municipality of Isabela (Monzón-Carmona 2007, p. 41) that

occupy an area of 0.26 ha (0.65 acres (2,630.5 square meters)); and

- One small patch in Puerto Ermina in the Municipality of Camuy (Biaggi-Caballero 2010, pers. comm.).

The Quebradillas population occurs in private lands and public lands. Five of the 10 patches known in the Municipality of Quebradillas fall within El Merendero, a public land managed for recreation (Monzón-Carmona 2007, p. 84). The other 7 patches, including the patch in the Municipality of Isabela and the patch in the Municipality of Camuy are located in private lands.

In the Central-western Volcanic-Serpentine Region, the Puerto Rican harlequin butterfly occurs in the Maricao Commonwealth Forest, a public forest managed for conservation by the Puerto Rico Department of Natural and Environmental Resources. The Maricao Commonwealth Forest is located between the Municipalities of Maricao and Sabana Grande in the central-west section of the island to the west of Mayaguez, approximately 108.88 kilometers (km) (67.66 miles (mi)) from San Juan (Pérez-Asso *et al.* 2009, p. 94). The discrete population of Puerto Rican harlequin butterflies occurs near PR Highway 120, a state road that provides

access from the Municipality of Maricao to the Municipality of Sabana Grande.

The Puerto Rican harlequin butterfly has not been found in the Southern karst Region since 1926 (Biaggi-Caballero 2010, p. 4).

Carrión-Cabrera (2003, p. 60) observed only 235 Puerto Rican harlequin butterfly imagoes (mature adult stage) in 12 months of surveys (2 sample days per month) on 0.82 acre in Quebradillas. However, more recently, Biaggi-Caballero (2009, p. 4) estimated the population to be 45 or fewer adults on any given day in the Municipality of Quebradillas. Larva counts were reported to be between 10 and 100 per census day (2 man-hours of search efforts), and the presence of more than one generation confirms the species' multivoltine (producing several broods in a season) nature. From July to December, the larva population is lower than during the rest of the year.

Since 2002, only 3 imagoes (Biaggi-Caballero 2010, p. 5) and 12 larvae (H. Torres 2010, pers. comm.) of the Puerto Rican harlequin butterfly have been reported in the Maricao Commonwealth Forest between the 16.0-km (9.94-mi) and 16.8-km (10.44-mi) points of PR Highway 120.

TABLE 1—CURRENT DISTRIBUTION OF THE PUERTO RICAN HARLEQUIN BUTTERFLY IN PUERTO RICO (USFWS, 2011)

Regions of Puerto Rico	Municipalities	Estimated populations	Hectare (ha) (acres)	Species presence
Northern Karst Region .....	Isabela, Quebradillas and Camuy.	45 or less imagoes/10 to 100 larva (Carrión-Cabreara 2003, p. 34).	1.3 ha (3.2 acres) (Monzón-Carmona 2007, p. 44).	Current population (Biaggi-Caballero 2010, p. 4).
Central-western Volcanic-Serpentine Region.	Maricao .....	No more than 5 imagoes/ no more than 10 larva (Carrión-Cabrera 2003, p. 48).	Not determinate (unknown)	Current population (Pérez-Asso <i>et al.</i> 2009, p. 94).
	Sabana Grande .....	Unknown .....	Unknown .....	Not observed since 1980's (Biaggi-Caballero 2010, p. 4).
Southern Karst Region .....	Peñuelas .....	Unknown .....	Unknown .....	Not observed since 1926 (Biaggi-Caballero 2010, p. 4).

The Puerto Rican harlequin butterfly population has been estimated at around 50 imagoes in the Northern karst Region (Biaggi-Caballero 2009, p. 4) and fewer than 20 imagoes in the Volcanic-serpentine center mountain of the island (Carrión-Cabrera 2003, p. 48).

**Summary of Information Pertaining to the Five Factors**

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR 424) set forth procedures for adding species to, removing species from, or reclassifying species on 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 education 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 Puerto Rican harlequin butterfly in relation to the five factors

provided in section 4(a)(1) of the Act is discussed below.

In considering what factors might constitute threats to a species, we must look beyond the exposure of the species to a particular factor to evaluate whether the species may respond to that factor in a way that causes actual impacts the species. If there is exposure to a factor and the species responds negatively, the factor may be a threat and, during the status review, we attempt to determine how significant a threat it is. The threat is significant if it drives, or contributes 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. However, the identification of the factors that could impact a species negatively may not be sufficient to compel a finding that the species warrants listing. The information must include evidence sufficient to suggest that these factors are operative threats that act on the species to the point that the species may meet the definition of endangered or threatened under the Act.

*Factor A: The Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range*

Habitat modification and habitat fragmentation have been identified by species experts as the main threat to the Puerto Rican harlequin butterfly (Carrión-Cabrera 2003, p. 44; Monzón-Carmona 2007, p. 54; Biaggi-Caballero 2009, p. 1; Pérez-Asso *et al.* 2009, p. 11; DNER 2010, p. 11). The consequences of the loss and fragmentation of natural habitat for the species is detrimental because the species: (a) Is sedentary, (b) has limited distribution, (c) has highly specialized ecological requirements (discussed in more detail under Factor E), and (d) is considered a specialist species because of the larvae's monophagous habit of feeding only on *Oplonia spinosa* (Carrión-Cabrera 2003, p. 40).

The Puerto Rican harlequin butterfly faces significant threats from the existing and imminent destruction, modification, and curtailment of its habitat and geographic range in the Municipalities of Isabella, Quebradillas, and Camuy. Most of the suitable habitat for the species, especially in the Municipality of Quebradillas, is currently fragmented by urban development. Dr. Stuart Ramos reported that, in 1997, one of the healthiest populations of the species showed a drastic decrease after the use of heavy equipment to clear vegetation in the Puente Blanco area (Carrión-Cabrera 2003, p. 13). Biaggi-Caballero (2010, p. 3) expects that between 2010 and 2011 more than 30 percent of existing habitat in the Municipality of Quebradillas would be lost as a result of urban development. In areas where undeveloped land remains, the species' larval food plant is likely to be affected by existing agricultural practices that result in deforestation to increase grass lands, such as cattle grazing.

Currently, the Puerto Rican harlequin butterfly is threatened by large-scale residential and tourist projects, which are planned within and around its habitat in northern Puerto Rico. For instance, in the municipalities of Isabella and Quebradillas, occupied

suitable habitat is within an area classified by both municipalities and the Puerto Rico Planning Board (PRPB) as a "Zone of Tourist Interest" (PRPB 2009, online data at <http://www.jp.gobierno.pr>). Zone of Tourist Interest is an area that by its natural features and historic value has the potential to be developed to promote tourism. Further, the coastline of Isabella and Quebradillas is under pressure of urban and tourist development, with only small remnants of coastal vegetation conserved in the steeper areas of the northern cliff. In this area, landowners clear vegetative cover to the edge of the cliff so that potential buyers have a better view of the property and its landscape (Biaggi-Caballero 2010, p. 9). According to the PRPB, 11 development projects are under evaluation around the species' habitat, possibly affecting 74.8 cuerdas (29.4 ha (72.6 ac)) in Quebradillas (PRPB 2010, online data). Urban development in or around the Puerto Rican harlequin butterfly's habitat would directly and indirectly fragment and impact its habitat and would limit its population expansion in the area.

Additionally, the establishment of residential and tourist developments is expected to increase traffic and therefore is likely to require road improvements in proximity to the Puerto Rican harlequin butterfly's habitat. The biological effects to the species of the existing roads have not been studied and are not understood in Quebradillas and Maricao. However, increasing vehicle traffic on the roads within the essential habitat of a species with difficulties to move or disperse can result in mortality due to collisions and, in some instances, can be catastrophic to the population and should not be underestimated (Glista 2007, p. 85). The combination of habitat fragmentation and high road density may negatively impact the species and its habitat.

*Summary of Factor A*

Based on the above, we believe that the Puerto Rican harlequin butterfly is currently threatened by residential and tourist development and habitat fragmentation. Development and habitat fragmentation within suitable habitat would substantially affect the distribution and abundance of the species, as well as its habitat, throughout its range. The scope and timing of this factor are considered by the Service to be high and imminent because the known populations occur in areas that are subject to development, increased traffic, and increased road maintenance and construction. Therefore, based on the existing and

likely future trends in habitat loss and fragmentation from development, we find that the Puerto Rican harlequin butterfly is threatened by the present or threatened destruction, modification, or curtailment of its habitat or range.

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

An unknown number of Puerto Rican harlequin butterflies have been collected for scientific purposes and deposited in universities and private collections (J. Biaggi-Caballero 2011, pers. comm.). However, at the present time, only a few researchers are working with the Puerto Rican harlequin butterfly, and collection of the species is regulated by Puerto Rico Department of Natural and Environmental Resources (DNER).

We are not aware of any information that indicates the butterflies are being sought by collectors or collected for other purposes. Therefore, we do not find that overutilization for commercial, recreational, scientific, or educational purposes threatens the Puerto Rican harlequin butterfly.

*Factor C: Disease or Predation*

Biaggi-Caballero (2010, p. 8) suggests the abundance of spiders (*Misumenus bubulcus*, *Peucea viridians*, *Argiope argentata* and *Nephila clavipes*) as a possible source of predation to the Puerto Rican harlequin butterfly. He also mentions lizards (*Anolis cristatellus* and *Anolis striatus*) and birds (*Tyrannus dominguensis*, *Dendrocincla adelaida adelaida*, and *Quiscalus brachypterus*) as possible predators. Although no predator has been documented attacking and eating imagoes, larvae, or eggs, the sudden disappearance of larvae under observation suggests depredation (Biaggi-Caballero 2010, p. 8). Although the Puerto Rican harlequin butterfly may face predation by spiders, lizards, and birds, we are not aware of any data that indicate that predation is a significant threat to the species.

We are not aware of any information regarding any impacts from either disease or predation on the Puerto Rican harlequin butterfly. Therefore, we do not find that disease or predation threatens the Puerto Rican harlequin butterfly.

*Factor D: The Inadequacy of Existing Regulatory Mechanisms*

The Puerto Rico Department of Natural and Environmental Resources (DNER) designated the Puerto Rican harlequin butterfly as Critically Endangered under Commonwealth Law

241 and Regulation 6766 on February 11, 2004 (DNER 2007, p. 42; DNER 2010, p. 1). Article 2 of Regulation 6766 includes all prohibitions and states that the designation as 'critically endangered' prohibits any person to take the species; including harm, possess, transport, destroy, import or export individuals, nests, eggs, or juveniles without previous authorization from the Secretary of DNER (DNER 2007, p. 28). At the present time, the DNER has not designated critical habitat for the species under Regulation 6766. Therefore, protection of the species' habitat does not exist at this time.

Although the Commonwealth Law 241 and Regulation 6766 provide adequate protection for the species, however the lack of effectiveness of enforcement makes them inadequate for the protection of the habitat of the Puerto Rican harlequin butterfly, and particularly its host plant (Biaggi-Caballero 2010, p. 9). Biaggi-Caballero (2010, p. 9) states that constant violation of the law occurs when the species' habitat is modified, destroyed, or fragmented by urban development and vegetation-clearing activities. The host plant is considered a common species associated with edges of forested lands and is not protected by Commonwealth Law 241 or Regulation 6766. Under Factor A and Factor E, we discuss in more detail certain cases of lack of enforcement that have led to threats to the species and its habitat. For these reasons, we conclude that existing regulatory mechanisms may be inadequate to protect the habitat of the Puerto Rican harlequin butterfly.

#### Summary of Factor D

Commonwealth Law 241 and Regulation 6766 provide protection for the Puerto Rican harlequin butterfly but not to its habitat. Based on the above information, we conclude that the Puerto Rican harlequin butterfly is threatened by the inadequacy of existing regulatory mechanisms.

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

Based on a review of the best available information, we have determined that the Puerto Rican harlequin butterfly may also be threatened by: Its limited distribution, low reproductive capacity, and ecological requirements; human-induced fire; use of herbicides and pesticides; vegetation management; and climate change.

#### Limited Distribution

The Puerto Rican harlequin butterfly is vulnerable to extinction due to low population numbers and restricted distribution (only two isolated colonies), coupled with habitat alteration or loss, and the monophagous habit of its larvae (Carrión-Cabrera 2003, p. 40). The Quebradillas population occupy about 0.9 percent of the total area of the forested habitat located on the northern cliff between the Municipality of Isabela, Quebradillas and Camuy. For instance, in Quebradillas, where the most significant population occurs, the species occupies only 10,525 square meters (m<sup>2</sup>) (2.6 ac<sup>2</sup> (1.05 ha<sup>2</sup>)) distributed in 10 scattered patches that fluctuate from 77 m<sup>2</sup> (0.019 ac<sup>2</sup> (0.007 ha<sup>2</sup>)) to 3,287 m<sup>2</sup> (0.812 ac<sup>2</sup> (0.387 ha<sup>2</sup>)) (Monzón-Carmona 2007, p. 44). Its small range may reflect a remnant population of a once widely-distributed butterfly whose habitat has been altered or lost due to previous land uses. Dr. Hernan Torres, entomologist at the University of Puerto Rico, suggests that its limited distribution may be an effect of deforestation for agricultural practices and of pesticides uses for pest and mosquito control (H. Torres 2010, pers. comm.).

Although the host plant *Oplonia spinosa* has been found widely distributed throughout Puerto Rico, the Puerto Rican harlequin butterfly was only detected in two localities (Carrión-Cabrera 2003, p. 39). Additionally, Monzón-Carmona (2007, p. 43) suggests that although the species can disperse several hundred meters (approximately 800 meters (2,625 feet)) and has the capacity to colonize adjacent patches of *Oplonia spinosa*, it also shows the smallest geographic range of any butterfly in Puerto Rico. This information suggests that the current limited distribution of the Puerto Rican harlequin butterfly is based on an undetermined ecological requirement of the species found in these particular sites at Isabela, Quebradillas, Camuy and Maricao.

#### Low Reproductive Capacity and Highly Specialized Ecological Requirements

The Puerto Rican harlequin butterfly's low reproductive capacity and its highly specific ecological requirements for reproduction are a threat to the species because it has been reduced from a larger historical range and population size, and these characteristics make the species less resilient and resistant to stressors that may impact existing populations. Carrión-Cabrera (2003, p. 60) conducted a species survey where only 235 adult individuals were

observed in 12 months. Eggs and larvae have been found only on *Oplonia spinosa* (Biaggi-Caballero 2010, p. 2). Its broods generally contain 50 to 150 eggs, with an average of 102 eggs per brood (Carrión-Cabrera 2003, p. 38). The author also found that the number of larvae decreased as the number of adult individuals increased. This information suggests that the population dynamic of the species may be synchronized with an undetermined environmental factor (Carrión-Cabrera 2003, p. 46).

#### Human-Induced Fire

Human-induced fire is a current threat for the species at Quebradillas and at Maricao (Biaggi-Caballero 2009 p. 5; Biaggi-Caballero 2010, p. 10). Fire may kill adult, young and larva of Puerto Rican harlequin butterfly, and temporarily/permanent eliminates its habitat. The Maricao Commonwealth Forest had been subjected to human-induced fire, affecting habitat potentially used by the species. At the Maricao Commonwealth Forest, the species occurs in the driest section of the forest near PR Road 120. On February 25, 2005, arson burned more than 400 acres with unknown effects to the Puerto Rican harlequin butterfly population (Biaggi-Caballero 2010, p. 10). This fire likely had at least temporary effects on the butterfly's habitat, but we have no information regarding these effects and whether or not they were permanent. In Quebradillas, the species' habitat in the Puente Blanco area (which is where the most significant population occurs) is threatened by fires associated with clandestine garbage dumps on Road 4485 (DENR 2010, unpublished data, p. 23).

#### Use of Herbicides and Pesticides

The use of herbicides is a current threat to the species and its host plant, *Oplonia spinosa*, which is found at the edges of roads and open areas. The use of herbicides is a current practice implemented by neighborhoods to eliminate vegetation along the access road to Puente Blanco (Road 4485) and private properties, and it affects an undetermined number of *Oplonia spinosa* plants in Quebradillas (C. Pacheco, USFWS, personal observation 2009).

Further, fumigation programs are being implemented by the Commonwealth of Puerto Rico and local health officials at Terranova and San José wards to control dengue fever (a virus-based disease spread by mosquitoes) (Biaggi-Caballero 2010, p. 9). The area where this population occurs in Quebradillas is surrounded by

residential development. No pesticide use guidelines have been developed where the species occurs (Biaggi-Caballero 2010, p. 9).

#### Vegetation Management

Vegetation management at El Merendero in Quebradillas (public land managed as a recreational area and where the species currently occurs) may adversely affect the Puerto Rican harlequin butterfly and its host plant. *Oplonia spinosa* grows on both sides of the existing hiking trails and around the picnic areas. Maintenance personnel frequently trim the new growth of *Oplonia spinosa* to remove vegetation from the trails and picnic areas. The Puerto Rican harlequin butterfly uses the tenderest vegetative branches of new growth of the host plant for bearing its eggs and feeding during the larval stages (Biaggi-Caballero 2010, p. 2). Trimming the host plant and clearing the vegetation in these areas may result in mortality of the Puerto Rican harlequin butterfly's eggs and larvae. Currently, no guidelines about vegetation management and clearing have been developed to avoid or minimize effects to the species and its host plant.

#### Climate Change

The Intergovernmental Panel on Climate Change (IPCC) concluded that evidence of warming of the climate system is unequivocal (IPCC 2007a, p. 30). Numerous long-term climate changes have been observed, including changes in arctic temperatures and ice, and widespread changes in precipitation amounts, ocean salinity, wind patterns, and aspects of extreme weather, including droughts, heavy precipitation, heat waves, and the intensity of tropical cyclones (IPCC 2007b, p. 7). While continued change is certain, the magnitude and rate of change is unknown in many cases.

Species that are dependent on specialized habitat types, that are limited in distribution or that have become restricted to the extreme periphery of their range will be most susceptible to the impacts of climate change. As previously mentioned, the Puerto Rican harlequin butterfly is only known from the North karst Region and the central-western Volcanic-serpentine Region of Puerto Rico, and requires a very specialized habitat type. Therefore, we found the data to be restrictive and did not find any site-specific climate change information for the Puerto Rican harlequin butterfly or its habitat. We searched for studies and literature related to the effects of climate change throughout the Puerto Rican harlequin butterfly's historical and currently

known range and did not identify any data related to the effects of climate change on the species. We also searched for similar data related to the prickly bush and did not find any data. Additionally, there is no information regarding naturally occurring fires, wind patterns, and extreme weather (including droughts, heavy precipitation, heat waves, and the intensity of tropical cyclones) as a result of weather. Potential effects of climate change on the species and its habitat are currently unknown. Therefore, at this time, we do not consider climate change to be a threat to the species and its habitat.

#### Summary of Factor E

The primary natural or manmade threats to the Puerto Rican harlequin butterfly appear to be the species' limited distribution and its highly specialized ecological requirements. The scope of these threats is considered high and imminent. These threats may promote susceptibility to declines and affect the species' populations directly during all life stages. In combination or by themselves, the primary natural or manmade threats explained above may exacerbate the intensity, duration, and exposure level of any other threats acting upon the species, including the use of herbicides and pesticides, vegetation management, and human-induced fires. Based on this information, we conclude that other natural or manmade factors affecting the continued existence of the species constitute a threat to the Puerto Rican harlequin butterfly now, and that this threat is expected to continue and potentially increase 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 Puerto Rican harlequin butterfly 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 species. We reviewed the petition, information available in our files, other available published and unpublished information, and we consulted with Puerto Rican harlequin butterfly experts and other Federal and State agencies.

This status review identified threats to the species attributable to Factors A, D, and E. One of the primary threats to the species comes from the destruction, modification, or curtailment of its habitat (Factor A) in the form of past,

current, and future urban, agricultural, and commercial development. Available information indicates that a substantial portion of the Puerto Rican harlequin butterfly's habitat will be affected in the near future. One of the surviving populations is located on private lands and the other population is located in the Maricao Commonwealth Forest. Any habitat modification that results in loss or fragmentation may cause irreversible damage to the species' natural habitat and will cause further declines in the number of individuals. Threats by modification of the natural habitat are evidenced by the decrease in individuals in recent years and by development pressure on Quebradillas (see Factor A).

The inadequacy of existing regulatory mechanisms (Factor D) is a threat because populations located on public and private lands lack effective enforcement of existing regulatory mechanisms to protect the Puerto Rican harlequin butterfly.

We also consider the Puerto Rican harlequin butterfly's limited distribution and specialized ecological requirements (Factor E) to be significant threats to the species and its habitat. The use of herbicides and hand-clearing of vegetation may change the conditions necessary for the species to complete its cycle or life, and may affect *Oplonia spinosa*'s seed germination or seedling recruitment at Quebradillas. However, at this time, we have no evidence of any regulation of pesticide or herbicide use, or of manual cutting of vegetation in and around the species' habitat. Additionally, the effects of fire on the population is unclear at Maricao (see Factor E). In addition, the low numbers of individuals per population, the specialist requirements of the species, and fragmented distribution may threaten the existence of the species (see Factor E).

The Service does not have information that suggests overutilization (Factor B) or disease and predation (Factor C) may threaten the continued existence of the species. In general, the majority of the factors mentioned in the five-factor analysis may adversely affect the known populations of the Puerto Rican harlequin butterfly. Depending on the intensity and the immediacy of such threats, these factors, either by themselves or in combination, are operative threats that act on the species and its habitat.

On the basis of the best scientific and commercial information available, we find that the listing of the Puerto Rican harlequin butterfly as endangered or threatened is warranted. Moreover, because of the small and restricted

populations of this species and because of the threats described above, the Puerto Rican harlequin butterfly should be listed as endangered or threatened throughout its entire range. We will make a determination on the status of the species as endangered or threatened during the proposed listing process. 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 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 determined that issuing an emergency regulation temporarily listing the species is not warranted for this species at this time, even though the threats are of a high magnitude and imminent. We base that decision on the existence of two populations known to occur in Puerto Rico. We do not have any information that these populations are at risk of extinction now. However, if at any time we determine that issuing an emergency regulation temporarily listing the species is warranted, we will initiate such 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 of vertebrates). We assigned the Puerto Rican harlequin butterfly a Listing Priority Number (LPN) of 2 based on our finding that the species faces threats that are of high magnitude and are imminent. These threats include the present or threatened destruction, modification, or curtailment of its habitat; the inadequacy of existing regulatory mechanisms; and other natural or manmade factors affecting the

species' continued existence. This is the highest priority that can be provided to this species under our guidance. Our rationale for assigning the Puerto Rican harlequin butterfly an LPN of 2 is outlined below.

Under the Service's LPN guidance, the magnitude of threats is the first criterion we look at when establishing a listing priority. The guidance indicates that species with the highest magnitude of threats are those species facing the greatest threats to their existence. These species receive the highest listing priority. We consider the threats to the Puerto Rican harlequin butterfly to be high in magnitude because many of the threats that we analyzed are present throughout the range and are likely to result in an adverse impacts to the status of the species because of its small population size and limited distribution.

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 species facing actual, identifiable threats are given priority over those for which threats are likely to occur in the future, or species that are intrinsically vulnerable but are not known to be presently facing threats. Not all threats to the Puerto Rican harlequin butterfly are imminent, but we do have evidence of some currently ongoing threats. Studies show that the Puerto Rican harlequin butterfly is limited by its lack of recruitment and low reproductive capacity, both of which are likely due to habitat fragmentation.

Threats under Factor A are high in magnitude and imminent because the known populations occur in areas subject to development, increased traffic, and increased road maintenance and construction. The potential for inadequacy of regulatory mechanisms (Factor D) due to enforcement is considered moderate in magnitude and imminent. The majority of the threats under Factor E are high in magnitude and imminent because they are currently occurring throughout the range of the species and result in the lack of successful recruitment. Threats under Factor E have occurred in the past and are clearly a threat today and in the near future. These impacts directly affect the species' ability to reproduce and expand to larger areas, and may promote susceptibility to population declines.

The third criterion in our LPN guidelines is intended to devote resources to those species representing highly distinctive or isolated gene pools as reflected by taxonomy. We have

carefully reviewed the available taxonomic information to reach the conclusion that Puerto Rican harlequin butterfly is a valid taxon at the species level. The Puerto Rican harlequin butterfly faces high magnitude, imminent threats. Thus, in accordance with our LPN guidance, we have assigned the Puerto Rican harlequin butterfly an LPN of 2.

We will continue to monitor the threats to the Puerto Rican harlequin butterfly, and the species' status, on an annual basis, and should the magnitude or the imminence of the threats change, we will revise the LPN accordingly.

Work on a proposed listing determination for the Puerto Rican harlequin butterfly 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 Preclusion and 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 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 do 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 Public Law 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 (see 16 U.S.C. 1533(b)(3)(A)), 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 9, 2011, Congress passed a continuing resolution which provides funding at the FY 2010 enacted level through April 15, 2011. Until Congress appropriates funds for FY 2011 at a different level, we will fund listing work based on the FY 2010 amount. Thus, at this time in FY 2011, the Service anticipates an appropriation of \$22,103,000 for the listing program based on FY 2010 appropriations. Of

that, the Service anticipates needing to dedicate \$11,632,000 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 \$9,971,000 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, it is unlikely that the Service will be able to initiate any new listing determination 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 administrative record).

For the above reasons, funding a proposed listing determination for the Puerto Rican harlequin butterfly is precluded by court-ordered and court-approved settlement agreements, listing actions with absolute statutory deadlines, work on final listing determinations for those species that were proposed for listing with funds from FY 2011, and work on proposed listing determinations for those candidate species with a higher listing priority.



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, distinct population segment, or significant portion of the range)). 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 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 one delisting rule.) 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 schmollii</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

## FY 2011 COMPLETED LISTING ACTIONS—Continued

Publication date	Title	Actions	FR pages
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 Sheepsnose 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 991–10003
2/23/2011 .....	12-Month Finding on a Petition to List <i>Astragalus hamiltonii</i> , <i>Penstemon flowersii</i> , <i>Eriogonum soledium</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
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 13121–31322
3/15/2011 .....	Withdrawal of Proposed Rule to List the Flat-tailed Horned Lizard as Threatened.	Proposed rule withdrawal .....	76 FR 14210–14268
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 .....	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

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
<b>Actions Subject to Court Order/Settlement Agreement</b>	
4 parrot species (military macaw, yellow-billed parrot, red-crowned parrot, scarlet macaw) <sup>5</sup> .....	12-month petition finding.
4 parrot species (blue-headed macaw, great green macaw, grey-cheeked parakeet, hyacinth macaw) <sup>5</sup> .	12-month petition finding.
4 parrots species (crimson shining parrot, white cockatoo, Philippine cockatoo, yellow-crested cockatoo) <sup>5</sup> .	12-month petition finding.
Utah prairie dog (uplisting) .....	90-day petition finding.

**Actions With Statutory Deadlines**

Casey's june beetle .....	Final listing determination.
6 Birds from Eurasia .....	Final listing determination.
5 Bird species from Colombia and Ecuador .....	Final listing determination.
Queen Charlotte goshawk .....	Final listing determination.
5 species southeast fish (Cumberland darter, rush darter, yellowcheek darter, chucky madtom, and laurel dace) <sup>4</sup> .	Final listing determination.
Ozark hellbender <sup>4</sup> .....	Final listing determination.
Altamaha spiny mussel <sup>3</sup> .....	Final listing determination.
3 Colorado plants ( <i>Ipomopsis polyantha</i> (Pagosa Skyrocket), <i>Penstemon debilis</i> (Parachute Beardtongue), and <i>Phacelia submutica</i> (DeBeque Phacelia)) <sup>4</sup> .	Final listing determination.
Salmon crested cockatoo .....	Final listing determination.
6 Birds from Peru & Bolivia .....	Final listing determination.
Loggerhead sea turtle (assist National Marine Fisheries Service) <sup>5</sup> .....	Final listing determination.
2 mussels (rayed bean (LPN = 2), snuffbox No LPN) <sup>5</sup> .....	Final listing determination.
CA golden trout <sup>4</sup> .....	12-month petition finding.
Black-footed albatross .....	12-month petition finding.
Mojave fringe-toed lizard <sup>1</sup> .....	12-month petition finding.
Kokanee—Lake Sammamish population <sup>1</sup> .....	12-month petition finding.
Cactus ferruginous pygmy-owl <sup>1</sup> .....	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.
5 WY plants ( <i>Abronia ammophila</i> , <i>Agrostis rossiae</i> , <i>Astragalus proimanthus</i> , <i>Boechere (Arabis) pusilla</i> , <i>Penstemon gibbensii</i> ) from 206 species petition.	12-month petition finding.
Leatherside chub (from 206 species petition) .....	12-month petition finding.
Frigid ambersnail (from 206 species petition) <sup>3</sup> .....	12-month petition finding.
Platte River caddisfly (from 206 species petition) <sup>5</sup> .....	12-month petition finding.
Gopher tortoise—eastern population .....	12-month petition finding.
Grand Canyon scorpion (from 475 species petition) .....	12-month petition finding.
<i>Anacroneuria wipukupa</i> (a stonefly from 475 species petition) <sup>4</sup> .....	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.
2 Texas shiners ( <i>Cyprinella</i> sp., <i>Cyprinella lepida</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.
Striped Newt <sup>1</sup> .....	12-month petition finding.
Fisher—Northern Rocky Mountain Range <sup>1</sup> .....	12-month petition finding.
Mohave Ground Squirrel <sup>1</sup> .....	12-month petition finding.
Puerto Rico Harlequin Butterfly <sup>3</sup> .....	12-month petition finding.
Western gull-billed tern .....	12-month petition finding.
Ozark chinquapin ( <i>Castanea pumila</i> var. <i>ozarkensis</i> ) <sup>4</sup> .....	12-month petition finding.
HI yellow-faced bees .....	12-month petition finding.
Giant Palouse earthworm .....	12-month petition finding.
Whitebark pine .....	12-month petition finding.
OK grass pink ( <i>Calopogon oklahomensis</i> ) <sup>1</sup> .....	12-month petition finding.
Ashy storm-petrel <sup>5</sup> .....	12-month petition finding.
Honduran emerald .....	12-month petition finding.
Southeastern pop snowy plover & wintering pop. of piping plover <sup>1</sup> .....	90-day petition finding.
Eagle Lake trout <sup>1</sup> .....	90-day petition finding.
32 Pacific Northwest mollusks species (snails and slugs) <sup>1</sup> .....	90-day petition finding.
42 snail species (Nevada & Utah) .....	90-day petition finding.
Spring Mountains checkerspot butterfly .....	90-day petition finding.

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

Species	Action
Bay skipper	90-day petition finding.
Eastern small-footed bat	90-day petition finding.
Northern long-eared bat	90-day petition finding.
10 species of Great Basin butterfly	90-day petition finding.
6 sand dune (scarab) beetles	90-day petition finding.
Golden-winged warbler <sup>4</sup>	90-day petition finding.
404 Southeast species	90-day petition finding.
Franklin's bumble bee <sup>4</sup>	90-day petition finding.
2 Idaho snowflies (straight snowfly & Idaho snowfly) <sup>4</sup>	90-day petition finding.
American eel <sup>4</sup>	90-day petition finding.
Gila monster (Utah population) <sup>4</sup>	90-day petition finding.
Leona's little blue <sup>4</sup>	90-day petition finding.
Aztec gilia <sup>5</sup>	90-day petition finding.
White-tailed ptarmigan <sup>5</sup>	90-day petition finding.
San Bernardino flying squirrel <sup>5</sup>	90-day petition finding.
Bicknell's thrush <sup>5</sup>	90-day petition finding.
Chimpanzee	90-day petition finding.
Sonoran talussnail <sup>5</sup>	90-day petition finding.
2 AZ Sky Island plants ( <i>Graptopetalum bartrami</i> & <i>Pectis imberbis</i> ) <sup>5</sup>	90-day petition finding.
I'iwi <sup>5</sup>	90-day petition finding.
Carolina hemlock	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 <sup>5</sup>	90-day petition finding.

## High-Priority Listing Actions

19 Oahu candidate species <sup>2</sup> (16 plants, 3 damselflies) (15 with LPN = 2, 3 with LPN = 3, 1 with LPN = 9).	Proposed listing.
19 Maui-Nui candidate species <sup>2</sup> (16 plants, 3 tree snails) (14 with LPN = 2, 2 with LPN = 3, 3 with LPN = 8).	Proposed listing.
Chupadera springsnail <sup>2</sup> ( <i>Pyrgulopsis chupaderae</i> ) (LPN = 2)	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)) <sup>4</sup> .	Proposed listing.
Umtanum buckwheat (LPN = 2) and white bluffs bladderpod (LPN = 9) <sup>4</sup>	Proposed listing.
Grotto sculpin (LPN = 2) <sup>4</sup>	Proposed listing.
2 Arkansas mussels (Neosho mucket (LPN = 2) & Rabbitsfoot (LPN = 9)) <sup>4</sup>	Proposed listing.
Diamond darter (LPN = 2) <sup>4</sup>	Proposed listing.
Gunnison sage-grouse (LPN = 2) <sup>4</sup>	Proposed listing.
Coral Pink Sand Dunes Tiger Beetle (LPN = 2) <sup>5</sup>	Proposed listing.
Miami blue (LPN = 3) <sup>3</sup>	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)) <sup>3</sup> .	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)) <sup>3</sup> .	Proposed listing.
2 Texas plants (Texas golden gladeblossom ( <i>Leavenworthia texana</i> ) (LPN = 2), Neches River rose-mallow ( <i>Hibiscus dasycalyx</i> ) (LPN = 2)) <sup>3</sup> .	Proposed listing.
4 AZ plants (Acuna cactus ( <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)) <sup>5</sup> .	Proposed listing.
FL bonneted bat (LPN = 2) <sup>3</sup>	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)) <sup>5</sup> .	Proposed listing.
21 Big Island (HI) species <sup>5</sup> (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)) <sup>3</sup> .	Proposed listing.
2 TN River mussels (fluted kidneyshell (LPN = 2), slabside pearlymussel (LPN = 2)) <sup>5</sup>	Proposed listing.
Jemez Mountain salamander (LPN = 2) <sup>5</sup>	Proposed listing.

<sup>1</sup> Funds for listing actions for these species were provided in previous FYs.

<sup>2</sup> 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.

<sup>3</sup> Partially funded with FY 2010 funds and FY 2011 funds.

<sup>4</sup> Funded with FY 2010 funds.

<sup>5</sup> 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 Puerto Rican harlequin butterfly 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 classification of the Puerto Rican harlequin butterfly 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 complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request

from the Caribbean Ecological Services Field Office (see **ADDRESSES**).

#### Authors

The primary authors of this notice are the staff members of the Caribbean Ecological Services Field Office (see **ADDRESSES**).

#### Authority

The authority for this section is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: May 15, 2011.

**Rowan W. Gould,**

*Acting Director, Fish and Wildlife Service.*

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