

# **Miami Blue Butterfly Emergency Listing as Endangered Questions and Answers**

## **What action is the U.S. Fish and Wildlife Service taking?**

The U.S. Fish and Wildlife Service (Service) is listing the Miami blue butterfly (*Cyclargus thomasi bethunebakeri*) as endangered under the Endangered Species Act's (ESA) emergency provisions. Only one known population of the species now exists. The action immediately protects the butterfly for 240 days. At the same time, the Service is inviting public comment for 60 days on a proposed rule to permanently list the Miami blue as endangered.

Under the emergency provisions of the ESA, the Service is also listing the cassius blue butterfly, ceraunus blue butterfly, and nickerbean blue butterfly as threatened throughout their natural ranges due to their similarity of appearance to the Miami blue. These three butterflies overlap in range with the Miami blue in south Florida, but their entire natural ranges include the Cayman Islands, Bahamas, Cuba and Greater Antilles.

## **What will emergency listing do?**

Emergency listing provides immediate federal protection for 240 days. Conservation measures provided to species listed as endangered or threatened under the ESA include recognition, recovery actions, requirements for federal protection, and prohibitions against certain practices. The ESA prohibits "take" of listed species by any individual, corporation, or government. "Take" is defined as meaning "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" is further defined under Department of the Interior regulations as "any act which actually kills or injures fish or wildlife." The regulations emphasize that "such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns (breeding, feeding and sheltering) of fish or wildlife."

## **Why is the Service emergency listing this subspecies?**

The Miami blue is imminently endangered by the combined influences of habitat destruction or modification, impacts by exotic green iguanas (*Iguana iguana*), accidental harm by humans, restricted range, small population size, loss of genetic exchange, illegal collection, and catastrophic environmental events. Predation and disease may also be threats due to the small population sizes.

If found elsewhere in its historic range, additional threats include: habitat loss and fragmentation, pesticide application from mosquito control practices, displacement of native host plants by invasive exotic species, detrimental land management practices, inadequate regulatory protection, and restricted genetic exchange. Climatic changes, including sea level rise, are significant long-term threats that are expected to substantially reduce the butterfly's habitat in its current and historic range. Emergency listing will immediately address the threat of collection of Miami blues, and require that any federal action potentially impacting the butterfly be reviewed to ensure it will not jeopardize the continued existence of the subspecies.

## **What's the history on this species' Federal listing/non-listing history?**

The Miami blue was first recognized as a federal candidate in 1984, as a category 2 candidate (i.e., species for which information in the Service's files indicated that listing may be appropriate, but for which additional data were needed to support a listing proposal). In 1991, the Miami blue was downgraded from a category 2 to category 3c candidate, due to an unknown trend (meaning additional survey work was required to determine the current population trend). Category 3C species are those that proved to be more abundant or widespread than previously believed and/or those that are not subject to any identifiable threat. In 1996, the Miami blue was removed from the list.

On June 15, 2000, the Service received a petition from the North American Butterfly Association (NABA) to emergency list the Miami blue as endangered with critical habitat pursuant to the ESA. The petition cited habitat loss and fragmentation, influence of mosquito control chemicals, unethical butterfly collection, and human-caused changes to habitat occupied by the subspecies' only known population.

On January 3, 2002 (67 FR 280), the Service announced a 90-day finding for this petition, initiated a status review, and sought data and information from the public. In this finding, the Service indicated the Miami blue may be in danger of extirpation. However, the Service did not believe the threats to be so great that extirpation was imminent, requiring the agency to provide emergency protection to the butterfly through the emergency listing provisions. The Service indicated that the agency could issue an emergency rule when an immediate threat posed a significant risk to the well-being of the subspecies.

On May 11, 2005, the Service recognized the Miami blue butterfly as a Federal candidate subspecies in the Service's annual Candidate Notice of Review (70 FR 24872). This action constituted a 12-month finding for the subspecies in which it was determined that the subspecies was warranted but precluded for listing by other higher priority listing actions. On November 9, 2009, in the Service's annual Candidate Notice of Review (74 FR 57809), the agency changed the Listing Priority Number (LPN) for the Miami blue from 6 to 3 due to increased and more immediate threats.

On August 10, 2010, the Service received a renewed petition from the NABA for emergency listing of the Miami blue butterfly as endangered. This petition stated that the entire remaining population is in significant and immediate danger because it exists in a single location and is subject to hurricanes, iguanas, and human impacts given that the area is remote and difficult to patrol. On January 11, 2011, the Service received a separate petition for emergency listing of the Miami blue butterfly with critical habitat from the Center for Biological Diversity.

The Service's decision to emergency list the Miami blue butterfly resulted from a careful review of the status of the subspecies and the threats it faces. The Service based this decision on information in the agency's files or otherwise available (including the results of recent status surveys) as well as information contained in the original petition (2000), the renewed petition (2010), the new petition (2011), and information referenced in the petitions.

### **Why are other butterflies being listed due to similarity of appearance and how will this affect others?**

There are only slight differences between the Miami blue and the cassius blue, ceraunus blue, and nickerbean blue, making it difficult to differentiate between the species, especially due to their small size. This poses a problem for federal and state law enforcement agents trying to prevent illegal collection and trade in the Miami blue.

It is possible that collectors seeking similar species may inadvertently (or purposefully) collect the Miami blue butterfly thinking it was one of the other three similar butterflies, which also occur in the same geographical area and habitat type. The potential inadvertent collection of the Miami blue poses an additional threat to this butterfly that only remains in a small, localized area. The listing of these similar blue butterflies as threatened due to similarity of appearance eliminates the ability of amateur butterfly enthusiasts and private and commercial collectors to purposefully or accidentally misrepresent the Miami blue as one of these other species and will facilitate enforcement of the Act.

The listing of these other similar blue butterflies only pertains to collection, possession, and trade and is solely intended to reduce these threats to the Miami blue. The listing of similar butterflies should not be cause for concern for most people, including land managers and mosquito control districts, since it will have no effect on land management activities or other incidental take.

### **What does the listing of the three other butterflies by similarity of appearance mean for butterfly collectors, enthusiasts and researchers?**

Most butterfly enthusiasts will not be affected by this action. The listing of other similar butterflies only affects collection, possession, and trade in the United States and is solely intended to reduce these threats to the Miami blue. Those interested in the cassius blue, ceraunus blue, or nickerbean blue butterflies may be affected, depending upon the nature and location of activity. Collection, possession, trade, and sale of these butterflies would no longer be permitted without appropriate permits and authorization. Butterfly collectors, enthusiasts, and researchers are encouraged to contact this office with questions and guidance on how to apply for necessary permits.

### **What is the difference between an emergency listing and a standard listing? And what are the steps in the emergency listing process and how long will it take?**

An emergency listing rule provides federal protection pursuant to the Endangered Species Act for a period of 240 days. The Act provides that the Service may issue an emergency listing regulation that becomes immediately effective upon publication in response to any emergency posing a significant risk to the well-being of a plant, fish or wildlife species. The Service may also withdraw the emergency regulation at any time if substantial evidence exists that such regulation is not warranted.

### **Would declaring critical habitat help in the Service's efforts to save this species?**

The Service has carefully weighed the pros and cons of designating critical habitat, and found that designation is not prudent. While the designation of critical habitat would provide some benefits, such as educating stakeholders and the public on those areas that are important for the conservation of the species, it also would put the subspecies at increased risk of collection. Due to the few remaining metapopulations, small population size, restricted range, and remoteness of occupied habitat, the Service believes that collection has the potential to be a serious threat to the subspecies at any time.

Even limited collection from the small, remaining population could have deleterious effects on reproductive and genetic viability, and thus could contribute to its extinction.

Identification of critical habitat would increase the severity of this threat by depicting exactly where the subspecies can be found and more widely publicizing specific location information, exposing the fragile population and its habitat to greater risks. For more information on the Service's "not prudent" determination, please see the "Critical Habitat and Prudency Determination" section of the proposed rule.

### **How many of these butterflies are left? What's the viable population size for an insect?**

The Miami blue's historic range, which once extended from the Dry Tortugas north along the Florida coasts to about St. Petersburg and Daytona, has been severely reduced. In 2009, there were two known populations, one at Bahia Honda State Park (BHSP) and one within Key West National Wildlife Refuge (KWNWR). The population at KWNWR was believed to be several hundred in 2007, possibly more, with fewer reported in 2009-2010. Size of this population is not currently known, but estimated in the hundreds. From 1999 to 2009, the population at BHSP appeared to be restricted to a couple hundred individuals at most. This population may no longer exist. No adults have been seen at BHSP since July 2010. A population of 1,000 has been suggested as marginally viable for an insect, although this is likely highly dependent upon type of species. Butterfly populations of less than 200 adults per generation would have difficulty surviving over the long-term.

### **What impact will this emergency listing have on mosquito spraying in Florida?**

The Mosquito Control Districts in south Florida will likely be concerned about their ability to apply mosquito control pesticides. The Service believes concerns will generally be restricted to Monroe County, as this is the only county that currently supports the Miami blue. However, occupied areas are not currently treated. Therefore, no changes in mosquito control will be required. In addition, BHSP is not aerially treated with pesticides. Therefore, no conflict should occur if the butterfly reestablishes itself at this location.

If the Miami blue listed, the Service does not envision additional mosquito control restrictions in Monroe County or elsewhere in the Miami blue's historic range. Rather, the Service anticipates building upon its evolving partnerships and encouraging stakeholders to, wherever possible, avoid or minimize pesticide application in suitable habitat to increase the likelihood of potential survival and recovery. Similarly, the Service plans to work with other stakeholders and partners to reduce other threats.

### **When was the last time the Service emergency listed a species?**

The last time the Service emergency listed a species was the California tiger salamander on July 22, 2002.

### **Can comments be submitted?**

The Service is inviting public comment on the proposed rule to permanently list the Miami blue. The Service is seeking all available scientific or commercial information concerning existing threats, including collection and trade of the Miami blue butterfly. Other information, such as locations of any

additional populations or habitat, as well as biological data, is also being sought. The finding will publish in the *Federal Register* on August 10, 2011.

Written comments and information concerning the proposed rule can be submitted by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments to Docket No. [FWS–R4–ES–2011–0043].
- U.S. mail or hand-delivery: Public Comments Processing, Attn: Docket No. [FWS–R4–ES–2011–0043]; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

Comments must be received within 60 days, on or before October 11, 2011. The Service will post all comments on <http://www.regulations.gov>. This generally means the agency will post any personal information provided through the process. The Service is not able to accept email or faxes. Following the public comment period, the Service will decide if the proposed rule should be approved, revised, or withdrawn.

#### **Where can more information be found?**

For more information about the Miami blue butterfly, the emergency listing and proposed rule, please visit <http://www.fws.gov/southeast/> or <http://www.fws.gov/verobeach/>.

To learn more about the Endangered Species Program, visit <http://www.fws.gov/endangered/>.