

Peer Review of Scientific Information

Proposed rule to list the Miami blue butterfly as endangered and the cassius blue, ceraunus blue, and nickerbean blue butterflies as threatened due to similarity of appearance (76 FR 49408)

Species:

Miami blue butterfly (*Cyclargus thomasi bethunebakeri*)
cassius blue butterfly (*Leptotes cassius theonus*)
ceraunus blue butterfly (*Hemiargus ceraunus antibubastus*)
nickerbean blue butterfly (*Cyclargus ammon*)

About the Document

Title: Proposed rule to list the Miami blue butterfly as endangered and the cassius blue, ceraunus blue, and nickerbean blue butterflies as threatened due to similarity of appearance

Summary: We, the U.S. Fish and Wildlife Service (Service), have emergency listed the Miami blue butterfly (*Cyclargus thomasi bethunebakeri*), as endangered under the Endangered Species Act of 1973, as amended (Act) (76 FR 49542). The Miami blue is a small, coastal, non-migratory butterfly endemic to south Florida. Its geographic range, which once extended from the Dry Tortugas north along the Florida coasts to about St. Petersburg and Daytona, has been severely reduced and undergone a substantial reduction in its historical range, with an estimated greater than 99 percent decline, and is now restricted to a few, small, remote islands within the Florida Keys. The Miami blue butterfly is imminently threatened by the combined influences of habitat destruction or modification, herbivory of host plants by exotic green iguanas (*Iguana iguana*), illegal collection, accidental harm from humans, restricted range, small population size, loss of genetic heterogeneity, and catastrophic environmental events. Predation and disease may also be threats due to the small population size. The Miami blue butterfly, if it is found to persist elsewhere in its historic range (i.e., outside of its most recent known occurrences), is threatened by 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, restricted genetic exchange, and vulnerability to extirpation from severe or catastrophic weather events in addition to the threats listed above. Environmental effects from climatic change, including sea level rise, are also significant long-term threats that are expected to substantially reduce the butterfly's habitat in both its current and historical range.

We have determined that designation of critical habitat is not prudent for the Miami blue. Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR

424.12), require that, to the maximum extent prudent and determinable, we designate critical habitat at the time we determine that a species is endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species. We have determined that both circumstances apply to the Miami blue butterfly. This determination involves a weighing of the expected increase in threats associated with a critical habitat designation against the benefits gained by a critical habitat designation. We have determined that the designation of critical habitat would increase the threat to the Miami blue butterfly from unauthorized collection and trade, and may further facilitate inadvertent or purposeful disturbance and vandalism to the Miami blue's habitat. At the same time, we believe that designation of critical habitat is likely to confer little measurable benefit to the subspecies beyond the protections provided by listing. Overall, we believe that the risk of increasing significant threats to the subspecies by publishing location information in a critical habitat designation greatly outweighs the benefits of designating critical habitat.

Under the emergency provisions of the Act, the Service has also listed the cassius blue butterfly (*Leptotes cassius theonus*), ceraunus blue butterfly (*Hemiargus ceraunus antibubastus*), and nickerbean blue butterfly (*Cyclargus ammon*) as threatened due to their similarity of appearance to the Miami blue throughout their natural ranges. 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. In addition, the Service is issuing a 4(d) special rule on these species to establish prohibitions on collection and commercial trade within the United States. This action also prohibits the import into, and export from, the United States of the three similar butterflies.

The emergency rule for the above butterflies expires after 240 days. Concurrent with the emergency listing of the above butterflies, we have published a proposed rule. If we finalize this rule as proposed, it would extend the Act's protections to these species, as specified in the emergency and proposed rules, which were published in the Federal Register on August 10, 2011, and are now available for review and public comment.

Proposed rule:

<http://www.fws.gov/verobeach/InvertPDFs/MiamibluebutterflyFRProposedRulepubliccomments.pdf>

Emergency rule:

http://www.fws.gov/verobeach/InvertPDFs/Miamibluebutterflyfederalregisternotice2011-19812_PI.pdf

Type of Review: Influential

Timeline of the Peer Review (Estimated Dates):

Draft document disseminated: August 10, 2011

Peer review initiated: August 15, 2011

Peer review completed by: October 11, 2011

Date document will be finalized: April 6, 2012

About the Peer Review Process: The Service solicited written comments from 14 independent scientific reviewers. Formal request for peer review was made by individual letters to experts from various backgrounds at several universities, institutions, and agencies. Reviewers have been selected by the Service for their recognized expertise with butterflies, particularly lycaenids, as well as general expertise with butterfly ecology and conservation. We are following our national policy on peer review and our regional approach for peer review for rulemakings. In selecting peer reviewers, we considered four key factors – expertise, balance, independence, and avoidance of conflict of interest. This review is occurring concurrently with the public comment period for the proposed action. The public comment period is now open and will close on October 11, 2011. The Service will use the information received from the peer review process, as appropriate, to develop the final listing rule for the species indicated above.

The Service has provided each peer reviewer with information necessary to complete the peer review. We have requested that reviewers use the Southeast Region's guidance to ensure that reviews comply with the 1994 policy statement for listing and critical habitat designation under the Act. Peer reviewers are expected to: review all material provided; identify, review, and provide other relevant data; and, provide written comments on relevance and soundness of data, analysis or assumptions of data, and whether we have used the best available science in making the proposed determination. Peer review comments will be public documents.

About Public Participation: Public comments on the proposed listing of the Miami blue as endangered, as well as the listing as threatened of the three similarity of appearance butterflies was sought with a Federal Register announcement on August 10, 2011, and by the distribution via email and press release of this announcement to interested parties. This comment period will end 60 days from the date it published in the Federal Register (October 11, 2011). The peer review plan is made available on this website to allow the public to comment and monitor our compliance with the Office of Management and Budget's "Final Information Quality Bulletin for Peer Review."

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