

THE HEAT IS ON

Species feeling the effects of climate change



PHOTO COURTESY FLORIDA MUSEUM/JEFF GALE (CAPTIVE)

Miami Blue Butterfly

Cyclargus thomasi bethunebakeri

Region:

Southeast

Area affected:

South Florida

Climatic change:

Severe weather

Impact:

Mortality

ABOUT THIS SPECIES

The Miami blue butterfly was once fairly common in south Florida. Unfortunately, development and profligate use of insecticides for mosquito control have taken an enormous toll on the species. The Miami blue is now critically endangered and considered to be one of the rarest insects in the country. Extirpated from the mainland and 99 percent of its former range, the butterfly is now found only at a state park and a national wildlife refuge in the Florida Keys. Like many butterflies, the Miami blue depends on a small number of preferred host plants. Females lay eggs on the foliage or flower buds of nickerbean or balloonvine. The larvae feed on the plant for several weeks, pupate for a few more weeks and then emerge as adults about the size of a quarter, colored blue on top and gray on the underside. In the semi-tropical climate of south Florida, Miami blue butterflies can breed year-round, and they appear to have the ability to delay emergence in winter if conditions are cold.

DESCRIPTION OF IMPACT

For seven long years, the Miami blue butterfly was believed to have been driven extinct by Hurricane Andrew, which hit the butterfly's habitat as a Category 4 storm with 165 mile-per-hour winds in 1992. Area butterfly enthusiasts logged over 1,000 hours searching sites where the species had previously been found before finally discovering a colony of 50 individuals at Bahia Honda Key in 1999. Then in 2005, Bahia Honda was hit by a succession of four hurricanes, which destroyed many of the plants the butterfly uses for food and larval development. In 2017, the Miami blue was dealt yet another devastating blow when Hurricane Irma hit. In the weeks after the storm, only a single butterfly was found. **Although history has shown that more survivors could turn up, the species is clearly hanging by a thread.** Captive breeding efforts are underway, but past efforts to re-establish the Miami blue in the wild have not been successful.

References

Pittman, C. 2017. Florida's most endangered butterfly may not have survived Hurricane Irma. *Tampa Bay Times*. October 27. http://www.tampabay.com/news/environment/wildlife/Florida-s-most-endangered-butterfly-may-not-have-survived-Hurricane-Irma_162065835

U.S. Fish and Wildlife Service. 2012. Listing of the Miami Blue Butterfly as Endangered Throughout Its Range. 77 Fed. Reg. 20948. <https://www.gpo.gov/fdsys/pkg/FR-2012-04-06/pdf/2012-8088.pdf>



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