

GEORGIA BLIND SALAMANDER

Eurycea wallacei



Order: Caudata
Family: Plethodontidae
FNAI Ranks: G1G2/S1S2
U.S. Status: none
FL Status: Threatened

Description: *Eurycea wallacei*, formerly assigned to its own genus *Haideotriton*, is a small (to 3 in. = 7.6 cm), white to yellowish or pinkish-white blind cave salamander. Eyes are absent (tiny dark spots in young), the feathery external gills long and red, the head relatively long and somewhat flattened, and the skin slightly translucent; juveniles may exhibit many small pigment spots on the dorsal and lateral surfaces. These salamanders have four very slender legs, and the tail is laterally flattened with a conspicuous fin (Petranka 1998, Jensen et al. 2008, Powell et al. 2016, Krysko et al. 2019).

Similar Species: This is the only blind, white cave salamander in Florida. A somewhat similar cave salamander occurs in Tennessee and northern Alabama but has functional eyes.

Habitat: The species inhabits subterranean waters of caves formed in limestone, including in caves used by bats. It is most easily seen resting on bottom sediments in small pools, but extent of use of less accessible waters in the aquifer is unknown. Specimens have also been pumped from deep groundwater wells.

Seasonal Occurrence: Salamanders are present in cave waters year-round; whether they make seasonal or age-related movements is unknown. The species is paedomorphic (does not undergo metamorphosis). Little has been documented about the breeding cycle other than the presence of gravid females in May and November (Petranka 1998).

Florida Distribution: Georgia blind salamanders are known from caves and springs in the Marianna Lowlands of Jackson and Calhoun counties, as well as along Holmes Creek/Choctawhatchee River in Washington County (Morris 2006, Krysko et al. 2019).

Range-wide Distribution: The global range of this species is restricted to a very small region, the Dougherty Plain and Marianna Lowlands physiographic provinces, of

southwestern Georgia and adjacent panhandle Florida (Krysko et al. 2019).

Conservation Status: Some occupied Florida caves are within Florida Caverns State Park and a nearby state environmental unit; however, this does not fully protect the local aquifer inhabited by these salamanders. The species is listed by both Florida and Georgia as threatened, and non-permitted collection is prohibited. The U.S. Fish and Wildlife Service (2023) declined to list the species at the federal level, citing the presumed wide dispersal in the aquifer and lack of immediate substantial threats.

Protection and Management: Protect inhabited caves and surrounding terrestrial landscapes from undue disturbance. Limit pollution by retaining pesticide and fertilizer contaminants on the surface; to the extent possible, avoid use of biocides on landscapes that overlie the regional aquifer(s). Maintain water table stability through measures such as establishing crops that do not require center pivot irrigation. Regularly monitor populations for evidence of pathogens, including chytrid fungi. Maintain threatened species status to prevent collecting or other forms of harm.

References: Ashton and Ashton 1988a, Bartlett and Bartlett 1999, Fenolio 2013, Jensen et al. 2008, Krysko et al. 2019, Moler 1992, Moler et al. 2017, Morris 2006, Petranka 1998, Powell et al. 2016, U.S. Fish and Wildlife Service 2023.



Adult lacking eyespots and freckling (© Barry Mansell).



Immature with eyespot and freckling (© Danté Fenolio).



Closeup of head and gills (© Danté Fenolio).