

BOG DWARF SALAMANDER

Eurycea sphagnicola



Order: Caudata

Family: Plethodontidae

FNAI Ranks: G1G2/S1S2

U.S. Status: none

FL Status: none

Description: A very small (to 2.6 in. = 6.7 cm), slender terrestrial salamander with only four toes on the hind foot, 12–14 costal grooves, and no constriction at the base of the tail, which at the base is square-like in cross-section, round posteriorly, and lacks a keel. Color and patterning highly variable. Dorsal coloration copper, bronze, gold, or brownish-orange, and ranging from patternless to bearing a mid-dorsal stripe or being marked with a faint to bold herring bone pattern; dorsolateral stripe usually black to dark gray, narrow anteriorly and widening toward the tail. Gray, white, or bluish flecking sometimes on head and adjacent to dorsolateral stripe and onto tail. Ventral surface of head white, which extends onto body, commonly becoming silvery but replaced by yellow by mid-body (sometimes) and beneath tail (always). Cirri (a pair of fleshy protruberances below the nostrils) present in males during breeding season.

Similar Species: The southeastern dwarf salamander, *E. quadridigitata*, which also inhabits the Florida panhandle and from which this recently named species was split, has a silver to light gray belly (and undertail) with diffused flecking, 14–17 costal grooves, a body length up to 9 cm (3.5 in.), and usually an obvious keel on the tail, which is square-like to wedge-shaped in cross-section. The related *E. hillisi*, which may have a non-overlapping range with *E. sphagnicola*, has a number of features that distinguish the two (see companion field guide account). However, definitive identification of species within this complex may require genetic testing. The only other terrestrial salamander in the panhandle with four toes on the hind foot, the four-toed salamander (*Hemidactylium scutatum*), has a constriction at the tail base and a white belly with black spots. All others have five toes on the hind foot, including the somewhat similarly colored southern two-lined (*E. cirrigera*) and three-lined (*E. guttolineata*) salamanders; the latter also is substantially larger and bears a conspicuous mid-dorsal stripe in addition to lateral ones.

Habitat: A wetland species mainly found in hillside seepage bogs and commonly associated with pitcher plants and sphagnum moss.

Seasonal Occurrence: Metamorphs and adults are found in wet sphagnum mats at all times of year. Females bear eggs in January and February; gilled larvae have been found from February to June.

Florida Distribution: Thus far known only from the far western end of the Panhandle, west of the Choctawhatchee River drainage, but this may be refined with additional research.

Range-wide Distribution: Outside of Florida, the species is known only from the Lower Southeastern U.S. Coastal Plain in southern Alabama and Mississippi.

Conservation Status: Its highly restricted range, both state and global, coupled with loss of Lower Coastal Plain pitcher plant bogs that are its primary habitat, make this a species of high conservation concern in need of further distributional and population data. Potentially, the species may merit threatened species status at federal or state levels. At least some populations occur on federal and state lands in the panhandle, notably Eglin Air Force Base and Blackwater River State Forest, although this does not assure their perpetuation.

Protection and Management: Protect private lands known to support, or which contain appropriate habitat for, populations of this species. Maintain native longleaf pine forests on slopes and uplands above seepage bogs, especially with appropriate prescribed burning, and prevent siltation and pollution that may emanate from upslope roads, bridges, and culverts. Avoid drainage of bogs and associated wetlands. Efforts to eliminate or control feral hogs may be important, at least at some sites. Consider listing as a state and/or federally threatened species.

References: Means 2018b, Wray et al. 2017.



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