SEAL SALAMANDER
Desmognathus monticola

Order: Caudata
Family: Plethodontidae
FNAI Ranks: G5/SH
U.S. Status: none
FL Status: none

Description: A medium-sized (to 4.5 in. = 11.5 cm), stout-bodied, semi-aquatic salamander with a dark brown, faintly patterned back but a plain or lightly blotched, pale belly and lower sides, usually with fairly sharp demarcation between. Hind legs are larger than the front, and there is a light diagonal patch below each eye. Dorsal pattern ranges from variable black markings on a brown, gray, or buff background to nearly patternless in adults; there is often a row of light dots on the sides between the legs. The tail is somewhat flattened from side to side, especially near the tip, and is about one half of total length. Eyes are protruding, with head often held high. Young are brownish with four or more pairs of chestnut spots on the back, more on the tail. Larvae have small gills and a flattened tail.

Similar Species: All dusky salamanders (*Desmognathus*) share the large hind legs and diagonal patch beneath eye. Holbrook's southern dusky salamander (*D. auriculatus*; see species account) is dark, including the belly. The common dusky salamander's (*D.* cf. *D. fuscus*) belly is mottled with black and gold flecks; there are often 6–8 large, yellowish to rusty spots, sometimes connected, on the back, though old males are plain brown. Neither of these two species has a row of light dots on the sides. The Apalachicola dusky salamander (*D. apalachicolae*) has 10–14 black-bordered chevrons on the dorsum and a pale belly with dark flecks.

Habitat: Cool, well-shaded ravines with spring seepages that support small, permanent streams. The substrate may contain sandstone and clay. Large compact 'rocks' of Citronelle clay or sandstone are often present. Overstory vegetation is typical of mixed-hardwood slope forest. The understory is dominated by star anise (*Illicium floridanum*). Salamanders usually hide beneath cover objects or in burrows during the day. Larvae are aquatic and live along shallow stream edges and in seepages.

Seasonal Occurrence: Present year-round but may descend below ground during extended droughts and cold weather. Larvae hatch in early fall, probably metamorphose in spring.

Florida Distribution: *D. monticola* is known from a single locality (Canoe Creek) in northern Escambia County, but the population may now be extirpated (Holzheuser and Means 2021). The Florida occurrence is disjunct, relictual, and represents the southernmost record of this generally southern Appalachian species. The nearest population is 82 km away in Alabama.

Range-wide Distribution: Appalachian Mountains and Piedmont from Pennsylvania to northern Georgia and Alabama, with disjunct populations continuing southward to the Florida Panhandle.

Conservation Status: The only known site in Florida is on private land, but the population may now be extirpated (Holzheuser and Means 2021).

Protection and Management: The lone occurrence needs to be monitored regularly, perhaps every 2–3 years. Because streams depend on seepage, it is imperative that no pollutants be discharged in overlying uplands, which also should remain forested or vegetated to prevent erosion and siltation. Avoid further clearcutting and restore previously clearcut habitats with native tree species. Discontinue the practice of collecting specimens, collecting photographic vouchers instead. The site of the lone occurrence as well as any others that may be discovered in the future need to be protected, minimally by landowner registry, preferably by conservation easement, and ultimately by acquisition by an agency or organization dedicated to natural resource protection.

References: Ashton and Ashton 1988, Bartlett and Bartlett 1999, Holzheuser and Means 2021, Means 1989, Means and Longden 1970, Moler (ed.) 1992, Mount 1975, Petranka 1998, Powell et al. 2016.

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