

RETICULATED FLATWOODS SALAMANDER

Ambystoma bishopi

Order: Caudata
Family: Ambystomatidae
FNAI Ranks: G2/S1
U.S. Status: Endangered
FL Status: Endangered



Description: A small to medium-sized (to 4.5 in. = 11.5 cm) salamander with a delicate white to silvery-gray pattern that may resemble nets or narrow lines and rings on a black background. Belly very dark with grayish specks; head relatively small with no groove between nostril and upper lip; tail thick. Aquatic larva to nearly 3 in. (7.5 cm) in length, with bushy red gills, a dorsal tail fin, and on each side a pair of dark stripes, including one that passes through eye.

Similar Species: The frosted flatwoods salamander (*Ambystoma cingulatum*) is best distinguished by its range, only living east of the Apalachicola River. It can also be identified by color pattern, which features a less distinct dorsal pattern but more discrete spotting on the belly. Several comparably sized terrestrial salamanders share this species' range. Marbled salamanders (*A. opacum*) have about a dozen bold white or silver crossbars on back and tail, but sides are black and head is large. Mole salamanders (*A. talpoideum*) are plump and plain brown to black with occasional light flecking. Tiger salamanders (*A. tigrinum*) are typically larger and have many irregular yellowish to olive blotches covering body. Larvae of all three lack the bold pair of dark stripes on sides. Slimy salamanders (*Plethodon grobmani*) are black with many small, white spots, have a larger head with a faint groove running from nostril to lip, and leave a sticky residue when touched.

Habitat: Mesic flatwoods, wet flatwoods and wet prairie communities with wiregrass groundcover and scattered wetlands often dominated by cypress or gum. Breeds in ponds that lack predatory fish and which usually have some emergent herbaceous vegetation. Not highly tolerant of disturbance.

Seasonal Occurrence: Breeds October–December, with adults moving overland to and from ponds at this time. Aquatic larvae remain in ponds for 2–3 months. Outside of breeding season, post-larval individuals typically occupy

underground burrows, including those of crayfish.

Florida Distribution: Occurs as isolated populations across the western half of the Panhandle, west of the Apalachicola River.

Range-wide Distribution: Lower Southeastern Coastal Plain west of the Apalachicola-Flint rivers; chiefly northwestern Florida but also including southwestern Georgia and formerly southern Alabama (from which no recent occurrences are known).

Conservation Status: The species is considered federally Endangered because of its small range and few remaining extant occurrences, most of which are clumped near the western end of the range on Eglin Air Force Base. Many historic populations have been extirpated by habitat loss or degradation, and remaining populations may be relatively small. Potential exists for high mortality when adults and juveniles attempt to cross roads in association with breeding migrations.

Protection and Management: Establish appropriate special designations on Eglin Air Force Base to assure that all occupied habitat within its boundaries is managed to promote continued viability of populations of this species. Protect native pine flatwoods habitats and associated wetlands from intensive forestry that disrupts soil and groundcover vegetation. To maintain the open nature of such habitats, allow growing-season fires, either natural or prescribed, to burn through occupied sites (including dry wetland basins). Avoid dormant-season fires which promote woody shrub growth. Prevent draining, deepening, pollution (from livestock, pesticides, or stormwater), fire exclusion, and introduction of fish in isolated wetlands. Protect natural upland habitat, with no paved roads or firebreaks, for at least 1.5 mi. (2.5 km) around breeding ponds, and maintain broad natural connections among breeding sites. Because of the risk of spreading diseases that affect amphibians, researchers should take care to avoid cross-pond contamination when sampling multiple sites.

References: Moler 1992, Mount 1975, Pauly et al. 2007, Petranka 1998, Powell et al. 2016, U.S. Fish and Wildlife Service 1999.



adult © John Jensen