



Common Name: PIGEON MOUNTAIN SALAMANDER

Scientific Name: *Plethodon petraeus* Wynn, Highton, and Jacobs

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Plethodontidae

Rarity Ranks: G2/S2

State Legal Status: Rare

Federal Legal Status: none

Description: A large terrestrial salamander reaching 18 cm (7 inches) total length, the adult Pigeon Mountain salamander has an irregularly-bordered reddish-brown, brown, or olive-brown dorsal pattern on the head, back, and anterior portion of the tail. This coloration may be limited to a relatively small band down the center of the back or more typically extends onto each side of the body. The sides, legs, and tail are mostly black with sparsely scattered, white and brassy spots of varying sizes and shapes. These spots are also present, though to a lesser extent, on the head and back. The underside of the belly and tail is black; however, the chin, throat, and chest are typically mottled with brown or yellowish pigment. The dorsal pattern of juveniles is reduced to 3-12 alternate or opposite spots, which are usually more brassy in color than the dorsal pattern of adults. Otherwise, juveniles are very similar to the larger adults. The slightly webbed feet of Pigeon Mountain salamanders have toes with bluntly tipped, expanded pads.

Similar Species: Although live Pigeon Mountain salamanders are unmistakable, preserved specimens lose the characteristic dorsal coloration and pattern and become similar in appearance to the slimy salamander (*Plethodon glutinosus*). Examination of the toe characters will easily distinguish preserved specimens.

Habitat: This species is strongly associated with the extensive cave systems and associated rock outcroppings on Pigeon Mountain. Mesic deciduous forests, primarily of oak, hickory, and maple, surround the rock outcroppings and cave entrances inhabited by this species.

Diet: Beetles, both adults and larva, and ants are the favored prey, but many other invertebrates are also consumed.

Life History: The existence of this enigmatic species was unknown until 1972 when a Georgia Department of Natural Resources biologist first discovered it within a cave entrance on Pigeon Mountain. The description of the species followed its rediscovery in 1986. Pigeon Mountain salamanders are active throughout the late spring, summer, and early fall, especially on warm, damp evenings. During winter, this species becomes extremely difficult to find. Aided by the wall-clinging adaptations of their toes, individuals forage along rock faces, within horizontal and vertical crevices of outcroppings, and throughout the twilight zones of caves. Very little is known about the reproductive biology of this species, though it probably lays its eggs on land like other members of its genus. Eggs likely hatch directly into miniature replicas of the adults, omitting the aquatic larval stage of most native salamanders.

Survey Recommendations: Visual surveys of caves and rock-outcrops are recommended, aided by use of a flashlight to peer into rock crevices and caves. Salamanders are most readily observed at night in outcrops and during the day in caves. Warm temperatures and high humidity (following a recent rainfall) provide the best survey conditions.

Range: The Pigeon Mountain salamander is an endemic species known to occur only on the eastern slope of Pigeon Mountain in Walker and Chattooga counties at altitudes ranging 220-500 m (720-1,640 feet). A large portion of this species' range is within the state-owned Crockford-Pigeon Mountain Wildlife Management Area. Efforts to locate this species on adjacent Lookout Mountain in both Georgia and Alabama have thus far been unsuccessful.

Threats: The Pigeon Mountain salamander is currently very abundant in the few localities from which it is known, often outnumbering other species of salamanders that share its habitat. However, any species with such a limited geographic range is highly vulnerable to a number of threats such as habitat alteration or change in land use.

Georgia Conservation Status: Several populations occur within Crockford-Pigeon Mountain Wildlife Management Area.

Conservation and Management Recommendations: Due to the very limited life history information available for this species, further studies are highly recommended. Preservation of the relatively closed-canopied, deciduous forest on the eastern slope of Pigeon Mountain is essential for maintaining sufficient soil moisture. The establishment of conservation easements

on private lands where this species is found, or the acquisition of these lands by conservation agencies or organizations, would greatly benefit the Pigeon Mountain salamander.

Selected References

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J. Jensen, Dec. 2007: original account

K. Owers, Sept. 2009: updated status and ranks, added picture