

OVERVIEW OF THE STATUS OF THE CHEAT MOUNTAIN SALAMANDER

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Plethodon nettingi, the Cheat Mountain salamander, is endemic to the high elevations of the Allegheny Mountains in eastern West Virginia. In 1938, N.B. Green named the species from specimens collected at Barton Knob, Randolph County, in honor of his friend and colleague Graham Netting. Highton and Grobman considered *P. nettingi* a subspecies of the ravine salamander, *P. richmondi*, but subsequently Highton and Larson assigned it full species status. In 1989, the U.S. Fish and Wildlife Service listed *P. nettingi* as a threatened species.

Approximately 80 disjunct populations have been located throughout the total range, which extends about 93 km from Blackwater River Canyon (Tucker County) in the north to Thorny Flat on Snowshoe Mountain (Pocahontas County) in the south. The west to east range varies in distance from less than 0.8 km at the southern tip of the range to 30.5 km near the northern end. Vertically, populations tend to reach lower elevations in the northern part of the range than in the southern part. The highest elevation with *P. nettingi* is Spruce Knob (1,482 m) and the lowest is Blackwater River Canyon (609 m). Seasonally, the earliest date *P. nettingi* has been found on the surface is March 24 (1979 at Stuart Knob) and latest is October 19 (1943 at Gaudineer Knob). Mating occurs in late April or May, but there may be an abbreviated mating period in late September and early October. Females lay eggs in late April or May in well decayed red spruce logs or under rocks and logs. Females attend the nest and eggs hatch in about 4 months.

The disjunct distribution of *P. nettingi* appears to be the result of forest and ground fires that occurred between 1870 and 1930. These fires were, for the most part, the result of careless actions of lumbermen when the original forest was cut. Today, *P. nettingi* has a tenuous existence. Of the approximately 80 known populations, 60 are located on state or federal lands, which afford them more protection than those on private lands. Unfortunately, many populations on public lands are bisected into subpopulations by roads, hiking trails, utility rights-of-way, or ski slopes. Given these disturbances and competitive stress from *P. cinereus* (eastern red-backed salamander) and *Desmognathus ochrophaeus* (Allegheny Mountain dusky salamander), many of these disjunct populations could be imperiled.

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