AMPHIBIANS AND REPTILES OF CONNECTICUT AND ADJACENT REGIONS

Michael W. Klemens, Ph.D.
Department of Herpetology and Ichthyology
American Museum of Natural History
New York, NY

STATE GEOLOGICAL AND NATURAL HISTORY SURVEY OF CONNECTICUT

1993
Bulletin No. 112
ISBN No. 0-942081-04-8

3 Caudata/ Salamanders

INTRODUCTION

OVERVIEW

Salamanders are represented in southern New England by twelve species in four families, Ambystomatidae, Plethodontidae, Proteidae, and Salamandridae. These species are generally secretive and nocturnal, often best found under adverse conditions (e.g., late at night during torrential spring rainstorms) and by using specialized search and capture techniques. Consequently, their distributions are the least known of any of the New England herpetofauna.

Salamanders are adapted to cool, damp environments. However, unlike frogs, many species appear to be localized or restricted to specific regions, while other species may appear far more common at certain localities than at others. Although this survey has yielded many new localities for species previously thought to be quite rare, many species are not secure in southern New England. Salamanders appear quite sensitive to certain types of habitat alteration, nutrient, chemical and thermal pollution, as well as acidification of wetlands and forest habitat. Therefore, salamanders provide excellent indicators of changes in environmental quality. In an unpublished study (Klemens, 1985b) conducted in Quassaick Creek at Newburgh (NY), a serious pollution problem was confirmed by sampling both the species composition as well as the number of stream salamanders. In this study, significant differences were found above and below the pollution entry point. In southern New York, Wyman (1988) found that the distributions of four widespread salamanders were limited by soil acidity. Although more baseline information is needed both on soil pH and salamander distributions, increasingly acidic precipitation may pose a serious threat to terrestrial as well as aquatic and larval salamanders.

EXTRALIMITAL SPECIES

Two extralimital species, *Ambystoma tigrinum* and *Pseudotriton ruber,* were included in Babbitt's (1937) *Amphibia of Connecticut.* Babbitt had no records of the red salamander, *Pseudotriton ruber,* from Connecticut, but included it in the state's herpetofauna on

the basis of its occurrence "in the highlands along the Hudson River" in New York as well as Deckert's (1914) record from Silver Lake near White Plains (Westchester Co.). Bishop (1941) illustrated the New York distribution of *Pseudotriton ruber* as restricted to the west side of the Hudson River with two exceptions. He included Deckert's (1914) record of a single young (larval?) specimen from White Plains as well as Smith's (1882) report of two specimens found under a stone at Vassar College in Poughkeepsie (Dutchess Co.). Neither of these reports was documented with specimens. Salamanders, especially larvae and young, are quite variable and are frequently misidentified, even by knowledgeable individuals. Although *Pseudotriton ruber* was collected west of the Hudson River in Albany, Orange, and Ulster counties, I was unable to find any evidence of their natural occurrence east of the Hudson River, and concluded that Smith's (1882) and Deckert's (1914) identifications may be questionable. In summary, these vague, undocumented reports provide insufficient evidence to warrant extending the range of *Pseudotriton ruber* east of the Hudson River.

The eastern tiger salamander (*Ambystoma t. tigrinum*) is a coastal plain species reaching its northeastern range limit on Long Island (NY). A disjunct population probably occurred in the Albany Pine Bush (Stewart and Rossi, 1981). Babbitt (1937) stated that this species "has not yet been recorded as indigenous to the state, but may occur in southwestern Connecticut." I have no evidence that *Ambystoma tigrinum* is indigenous to Connecticut. Babbitt (1937) reported that "it has been successfully established around New Haven." A preserved *Ambystoma tigrinum* in Yale's collection (YPM 20) from Woodbridge (near New Haven) collected in 1938 is likely attributable to this introduction. The established populations referred to by Babbitt (1937) have apparently since died out, as no additional specimens have been reported.