

RESEARCH ABSTRACT

Principal Investigator(s): Albert G. Wilson, Jr.

Department of Zoology
Washington State University
Pullman, WA 99164-4236
(509) 335-3553

Study Title: Distribution of Van Dyke's salamander (*Plethodon vandykei*).

Key Words:	terrestrial	animal	upland	vertebrate	amphibian
salamander	plethodon	habitat	variation	archives	

Abstract: A survey is being conducted to document the distribution of *Plethodon vandykei* and factors correlated with its occurrence. This will entail visiting all known populations in Mount St. Helens National Volcanic Monument, searching for additional populations in the Monument, and recording aspects of the habitat associated with each population visited. By providing a more complete picture of the distribution of the salamander than is presently available, the proposed study will permit monitoring and further study of this species' populations and also enhance understanding of its habitat associations.

Type of Measurement(s): Salamander localities: longitude/latitude, elevation (m), % overhead canopy with spherical densiometer, aspect with compass, moisture source associated with site (e.g. spring), types of substrates associated with salamanders, number of salamanders, distances of salamanders from moisture sources.

Frequency of Measurement(s): Field work in the Monument will be performed from late May through November of 1990 and 1991.

Data Storage: Data are in field notebooks and on magnetic computer tapes in Wilson's possession.

Long-term plans: Data available for collaborative efforts: Another study Wilson would eventually like to conduct in the Monument involves an analysis of activity cycles of *P. vandykei* and other salamanders. The above-ground activity season of populations can be established through counts performed during nighttime visits. Counts can be compared to climatic variables to reveal the effect of climate upon activity. This will permit estimation of salamander activity seasons in the Monument and reveal climatic factors that influence appearance above ground. Such information will be useful in interpreting dispersal of salamanders in the impact zone and also permit development of a search profile that will be useful in optimally timing future study of the salamanders.