

# FIRST RECORD OF *PHYLLODISTOMUM SOLIDUM* RANKIN 1937 (TREMATODA: GORGODERIDAE) IN THE DUSKY SALAMANDER (*DESMOGNATHUS FUSCUS*) FROM SOUTHERN ILLINOIS

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## ABSTRACT

Of 473 dusky salamanders (*Desmognathus fuscus*) examined for urinary bladder digenetic flukes, 2 (0.5%) were infected with *Phyllodistomum solidum*. This constitutes the first report of this parasite in *Desmognathus fuscus* from Illinois.

## INTRODUCTION

Little is known concerning the helminth parasites of salamanders in the mid-western region of the contiguous United States and especially so in Illinois. Although the biology and habitats of several species of salamanders in Illinois have been investigated comprehensive surveys conducted on their helminth parasites have been few. Landewe (1963) examined 11 species of salamanders from various localities in southern Illinois, but unfortunately did not publish the results of his studies. Dyer and Brandon (1973) studied the intestinal helminths of three sympatric species of cave-dwelling salamanders *Plethodon dorsalis*, *P. glutinosus* and *Eurycea lucifuga* collected in Equality Cave, five miles southwest of Equality, Saline County, Illinois. A checklist of similar helminths from salamanders reported from other areas of the contiguous United States is also included in this report. Later, Dyer et al. (1980) investigated the relationship of prevalence and intensity of helminth parasitism to age and sex of *Desmognathus fuscus*. Price and St. John (1980) listed the helminths from *Ambystoma texanum* captured in Williamson County.

The present report includes information on a digenetic fluke heretofore unreported in *Desmognathus fuscus* in Illinois.

## MATERIALS AND METHODS

Four hundred seventy-three *Desmognathus fuscus* (USNM 210200-210672) were collected in Pulaski County, southern Illinois between September 7, 1974, and April 14, 1978, as part of a study of their reproductive ecology. The study area in Chestnut Hills Nature Preserve is characterized by spring-fed streams in a mature forest of beech and oak in deep ravines fronting the Ohio River. Salamander collections were made under permits from the Illinois Department of Conservation, the Illinois Nature Preserves Commission, and the Illinois Endangered Species Protection Board.

The animals were killed in Chlorotone, fixed in 10% formalin, and preserved in 70% ethyl alcohol. Trematodes detected in the urinary bladder were stained with Harris' hematoxylin, cleared in beechwood creosote, and mounted in Canada balsam according to standard parasitological procedures as given by Meyer and Olsen (1977).

## RESULTS AND DISCUSSION

Two specimens of *Phyllodistomum solidum* (0.5%) were detected in the urinary bladder of 473 *Desmognathus fuscus*. This digenetic fluke was first described from the urinary bladder of *Desmognathus f. fuscus* from Durham, North Carolina (Rankin, 1937). Goodchild (1940) in a research note, briefly indicated its life cycle. Later, Groves (1945) elaborated with a detailed ecological study of this fluke, reporting it in 4.7% of 966 *D. f. fuscus* from Licking County, Ohio. This parasite has also been reported from *Eurycea bislineata*. The finding of *P. solidum* in *D. fuscus* from Illinois represents the first report of this fluke in *P. solidum* in the state and constitutes an extension of its known geographic range.

## LITERATURE CITED

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