

## A SECOND OF *HEMIDACTYLIUM SCUTATUM*, THE FOUR-TOED SALAMANDER, IN KENTUCKY

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**Abstract.**—The occurrence of the salamander *Hemidactylium scutatum* in Mammoth Cave National Park is reported, along with information on the probable date of egg deposition.

Five females and eggs of *Hemidactylium scutatum* were observed on May 1-2, 1959 and April 21, 1961 near the older campground in Mammoth Cave National Park. The site is along the bank of an intermittent stream which runs through open, deciduous woods at an elevation of 740 feet on the north west edge of Mammoth Cave Ridge, Edmonson County, Kentucky.

The female found on May 1 was coiled on top of a nest of eggs under damp leaves and approximately six inches above the water level of a pool in the stream. On May 2, three more females and their eggs were found nearby under a mat of moss about one foot above the water level; all were in separate nests within an area of about one-half square foot. Two years later, on April 21, 1961, a female and eggs were found in the same locality.

One female (44 mm body length, 62 mm total length), now University of Illinois Museum of Natural History no. 57547, and a few eggs were returned to the laboratory. Five eggs were kept at about 20° C and hatched three days later into larvae 14 mm long. Deposi-

tion of these eggs probably occurred in early to middle March, if their incubation period is comparable to that of 52-63 days recorded in New York (Bishop, 1941). The large size of the larvae hatched in the laboratory indicates that they did not hatch prematurely. The New York larvae averaged 12.5 mm at hatching, and ranged from 11-14 mm.

Since the range of *H. scutatum* is strikingly discontinuous along its southern and western limits (Neill, 1963), individual records are of considerable interest. This species was not included in Hibbard's (1937) list of amphibians and reptiles in the proposed Mammoth Cave National Park. Except for Green's (1941) report of *H. scutatum* in Carter County, about 185 miles to the northeast, no record of its occurrence in Kentucky has been reported. In his contribution to the American Society of Ichthyologists and Herpetologists' Catalogue Neill (1963) showed records in southwestern Indiana and at the type locality, Nashville, Tennessee. On his range map, a continuous range was indicated between these two localities; however, no record in central Kentucky was actually known (Neill, pers. comm.).

### LITERATURE CITED

- BISHOP, S. C. 1941. The salamanders of New York. New York St. Mus. Bul., 324:1-365.

- GARRETT, N. B. 1941. The four-toed salamander in Kentucky. *Copeia* 1941:48.
- HINEARD, C. W. 1937. The amphibians and reptiles of Mammoth Cave National Park proposed. *Trans. Kansas Acad. Sci.* 39: 277-281.
- NEILL, W. T. 1963. *Hemidactelium scotatum*. In W. J. Rieker (ed.), *Catalogue of American Amphibians and Reptiles*. American Society of Ichthyologists and Herpetologists, Bethesda, Maryland, p. 2.

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