

SHOOP, C. ROBERT. 1964. *Ambystoma talpoideum*, p. 8. In W. J. Riemer (ed.), Catalogue of American Amphibians and Reptiles. American Society of Ichthyologists and Herpetologists, Kensington, Maryland.

*Ambystoma talpoideum* (Holbrook)  
Mole salamander

*Salamandra talpoidea* Holbrook, 1838: 117, pl. 29. Type-locality, "sea islands on the borders of South Carolina." Holotype not known to exist. Collector, "Mr. Burden." Date of collection not given.

*Ambystoma ? talpoideum*: Gray, 1850: 36. Transfer of *S. talpoidea* to *Ambystoma*. The question mark is that of Gray; it indicates that Gray was uncertain whether *S. talpoidea* belonged in *Ambystoma*, *Xiphonura*, or some other genus.

*Ambystoma Talpoideum*: Gray, Duméril, Bibron, & Duméril (1854:109) cite Gray as author of the combination.

*Ambystoma talpoideum*: Cope, 1868:172. Emended generic name. Cope erroneously credits Gray as author of this combination.

*Ambystoma talpoideum*: Hay, 1892:582.

• CONTENT. No subspecies are recognized at present. Smith (1961) examined specimens from Illinois, South Carolina, and Louisiana and found no differences of taxonomic significance.

• DEFINITION. Adults range in snout-vent length from 46 to 68 mm, and from 81 to 122 mm in total length. Costal grooves number 10 or 11. Premaxillary teeth are in a single row; vomerine teeth are in three transverse series with the central series posterior and medial to the internal nares and the lateral series behind the nares. Lingual plicae are radiate. Toes overlap when limbs are adpressed. The dorsum of adults varies from dark gray to blue black or bluish liver, often with flecks or lichenlike markings of light gray or blue gray. In breeding adults, light brown or tan areas are present on the dorsum of the tail and occasionally on the parotoid region. A dark median stripe is present on the venter of recently metamorphosed individuals, young adults, and neotenes adults. Older specimens, except neotenes, have a blue-gray venter.

• DESCRIPTIONS. The eggs and capsules have been described by Mosimann & Uzzell (1952); larvae by Orton (1942), and Bishop (1943); developmental stages of larvae by Volpe & Shoop (1963); spermatophores by Shoop (1960); adults by Holbrook (1838), Cope (1868), Carr (1940), Bishop (1943), Shoop (1960), and Smith (1961); neotenic individuals by Carr & Goin (1943). Many regional guides and keys include descriptions of this species.

• ILLUSTRATIONS. Holbrook (1838: pl. 29) includes an illustration in color in his original description. Photographs of adults may be found in Bishop (1943), Parmalee (1954), Conant (1958), Shoop (1960), and Smith (1961). Orton (1942) and Volpe & Shoop (1963) have illustrations of larvae.

• DISTRIBUTION. This species is reported from the Coastal Plain of South Carolina through central Florida to Texas, and northward in the Mississippi Basin to extreme southeastern Oklahoma and southern Illinois. In Georgia it ranges at least a short distance into the Piedmont. Populations in the Cumberland and Tennessee River drainages may be continuous with those of the Mississippi Valley, while those in eastern Tennessee and western North Carolina appear disjunct. Evidence of occurrence in southern Arkansas and southeastern Missouri is lacking.

For literature records of localities, in addition to the works previously mentioned, see Parker (1947, Arkansas), Van Hyning (1933, Florida), Neill (1947, Georgia), Cagle (1942, Illinois), Rossman (1960, Illinois), Strecker & Frierson (1935, Louisiana), Burt (1946, Louisiana), Boyd & Vickers (1963, Mississippi), Brimley (1910, Mississippi and Georgia; 1939-1943, North Carolina), Blair (1941, Oklahoma), Schmidt (1924, South Carolina), Blanchard (1922, Tennessee), Nicholls (1950,

Tennessee), Endsley (1954, Tennessee), and Baldauf & Truett (1964, Texas).

Terrestrial adults live in ground burrows, or hide under logs, debris, and leaf litter in flatwoods and bottomland forests. Populations are often localized around suitable breeding ponds. Larvae may inhabit crawfish burrows (Neill, 1951).

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Aspects of the life history and reproductive biology are described by Bishop (1943), Shoop (1960), and Smith (1961). The time of oviposition is mentioned by Allen (1932) and Gentry (1955). Tihen's (1958) study of the osteology and phylogenetic affinities of the Ambystomatidae should also be noted.

• ETYMOLOGY. The name *talpoideum* refers to the burrowing habits of this form (Latin *talpa*, "mole"; *oides*, "like").

## COMMENT

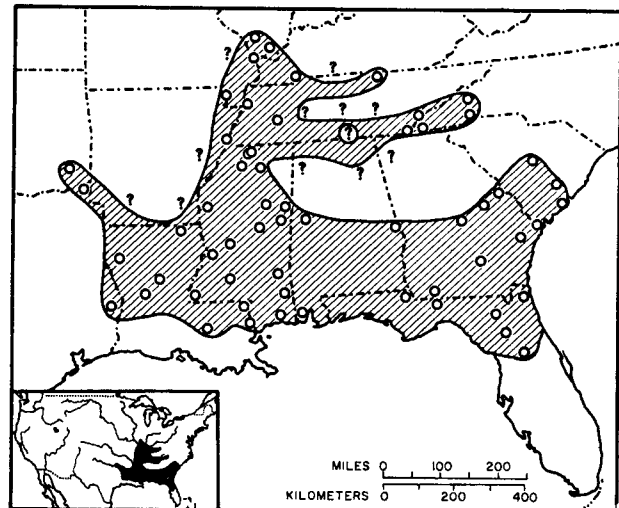
The geographic range needs to be determined in many areas. Larval sampling may be a useful method of filling distributional gaps.

This species may be an autumn breeder in northerly parts of its range (Smith, 1961).

Neoteny is infrequent in *Ambystoma* in the eastern United States, but it may be widespread in this species. Neoteny is reported from Florida (Carr & Goin, 1943) and from Mississippi (Boyd & Vickers, 1963). Additional information is needed.

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MAP. The type-locality is not sufficiently restricted to be shown. Circles mark selected localities. The encircled question mark represents a doubtful locality. Other question marks show uncertain boundaries.

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