

## Catalogue of American Amphibians and Reptiles.

IVERSON, JOHN B. 1977. *Sternotherus depressus*.

***Sternotherus depressus* Tinkle and Webb  
Flattened musk turtle**

*Sternotherus depressus* Tinkle and Webb, 1955:53. Type-locality, "Mulberry Fork of the Black Warrior River, 9 miles east of Jasper, Walker County, Alabama, near the bridge crossing of U. S. Highway 78." Holotype: Tulane Univ. Mus. 16171, an immature male collected August 11-12, 1953, by Robert G. Webb and Donald W. Tinkle (not examined by author).

*Sternotherus depressus*: Tinkle, 1958:7.

*Sternotherus minor depressus*: Wermuth and Mertens, 1961:35.

• CONTENT. No subspecies are recognized.

• DEFINITION. Adults are 75-115 mm in carapace length. The juvenile carapace is round in outline with a well defined median keel and occasionally faint indications of a pair of lateral keels. Adults possess a low, flat carapace, without keels and ovate in outline. Carapace angle formed by the mid-dorsal line at the junction of the second the third vertebral scutes and the second pleural scutes is more than eight times carapace height; carapace width more than 2.2 times carapace height. The first vertebral scute never touches the second marginal, and at least three vertebral scutes are wider than long. The axillary is in contact with the inguinal. The inguinal contacts the seventh marginal but not the eighth. The tenth and eleventh marginal scutes are elevated above the preceding marginals. Gular scute is single and small. Interpectoral seam length is more than 40% of median plastral forelobe length. A poorly developed plastral hinge lies between the pectoral and the abdominal scutes. Nasal scale is furcate behind in adults. The carapace is greenish brown to olive drab with dark seams. The imbricated carapacial scutes are flecked or streaked with brown or black. The immaculate plastron, organically stained brown in many individuals, is pink in very young specimens and yellows with age. The skin is yellow green with dark brown or black markings. Barbels are present on the chin only. Adult females possess short stubby tails, whereas males possess long, thickened tails with terminal spines and have a patch of tuberculate scales on the posterior surface of the crus and thigh of each hind leg.

• DESCRIPTIONS. General descriptions are in Tinkle and Webb (1955), Tinkle (1958), Ernst and Barbour (1972), and Mount (1975). Detailed anatomical descriptions include skull (Tinkle, 1958), carapacial seam arrangements (Tinkle, 1962), and penial morphology (Zug, 1966).

• ILLUSTRATIONS. Black and white photographs of the adult appear in Tinkle and Webb (1955), Estridge (1970), Ernst and Barbour (1972), Conant (1975), and Mount (1975); of the hatchling, Estridge (1970). Black and white photographs of the holotype and an adult paratype are in Tinkle and Webb (1955).

• DISTRIBUTION. *Sternotherus depressus* is restricted to permanent streams of the Black Warrior River system of Alabama above the Fall Line.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. General accounts of the biology are in Tinkle (1958), Ernst and Barbour (1972), and Mount (1975). Other important references are: taxonomy (Tinkle and Webb, 1955; Tinkle, 1958; Wermuth and Mertens, 1961); reproduction (Tinkle, 1958; Estridge, 1970); sex ratio (Gibbons, 1970); ecology or habitat preferences (Tinkle, 1958; Estridge, 1970; Mount, 1975); hybridization with *S. minor* (Estridge, 1970); food and feeding (Tinkle, 1958); biogeography (Tinkle, 1958; Iverson, 1977); choanal structure (Parsons, 1968); osteology (Chilcott and Johnson, 1970).

• ETYMOLOGY. The name *depressus* (Latin for pressed down or low) refers to the dorsoventrally flattened carapace of this species.

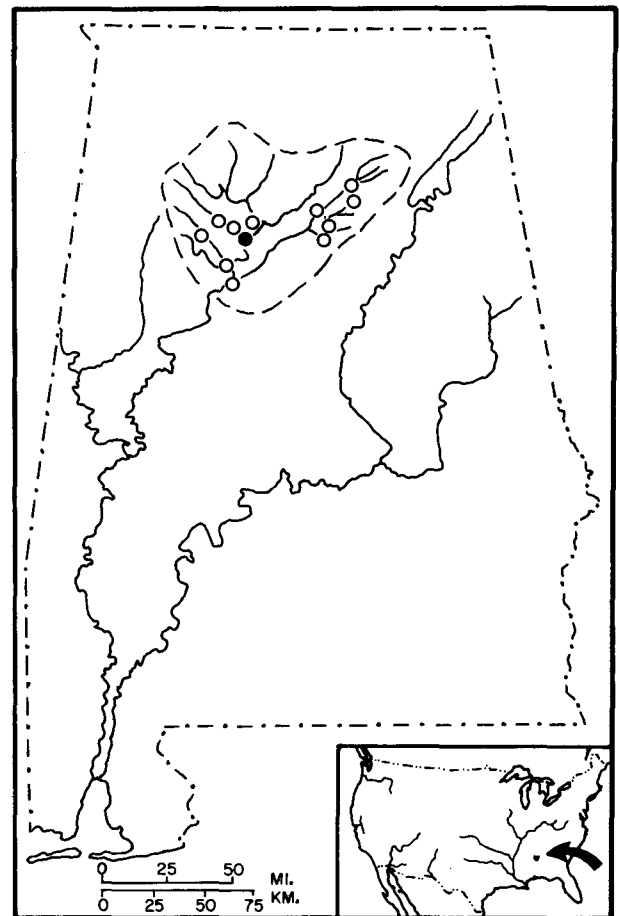
## COMMENT

*Sternotherus depressus* is considered a full species by Tinkle and Webb (1955), Tinkle (1958), Cochran and Goin (1970), Leviton (1972), Conant (1975), and Iverson (1977); Wermuth and Mertens (1961), Ernst and Barbour (1972), and Mount (1975)

regard *depressus* as a subspecies of *S. minor*. Specimens of typical *S. minor* and *S. depressus* as well as a few apparently intermediate examples, have been collected together in the North River, a tributary of the Black Warrior River just above the Fall Line (Estridge, 1970). This sympatry and apparent interbreeding may well be due to the breakdown of the isolation factors that were probably very important during the initial divergence of *S. minor* and *S. depressus*, i.e., the ecological dissimilarity of the coastal streams and those above the Fall Line. The elimination of fast water environments over the shale substrates of the upper Black Warrior by extensive impounding can account for the present range overlap and might also account for the breakdown of the integrity of the two species.

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MAP. The solid circle marks the type-locality; open circles indicate other selected localities. The broken line encloses the upper drainage of the Black Warrior River.

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