

Catalogue of American Amphibians and Reptiles.

WEBB, ROBERT G. 1973. *Trionyx ater*.

Trionyx ater Webb and Legler
Black softshell turtle

Trionyx ater Webb and Legler, 1960:21. Type-locality, "16 kilometers south of Cuatro Ciénegas, Coahuila," Mexico. Holotype, Univ. Kansas Mus. Natur. Hist. 46903, female obtained by John M. Legler, Wendell L. Minckley, and Robert B. Wimmer, September 6, 1958 (examined by author).

• CONTENT. No subspecies are recognized.

• DEFINITION. *Trionyx ater* is a small species; females (maximum carapace length about 29 cm) are larger than males. Septal ridges are present on the snout. A marginal ridge is lacking. The anterior edge of the carapace is smooth, lacking tubercles. The overall dorsal coloration is dark gray or brown-black. Large females have non-contrasting, lichen-like patterns on the carapace, and usually an indistinct pattern on the head, neck and limbs. Adult males have a blackish, sandpapery or gritty carapace with small whitish dots posteriorly (rarely also in large females). The carapace of both sexes lacks a distinct pale marginal band. The rear margin of the carapace is rugose and the edge ragged, especially in large females. The ventral surfaces (plastron as well as lateral areas of carapace) usually have many black flecks. Osteological features are unknown but presumably not unlike those of *Trionyx spiniferus*.

• DESCRIPTIONS. The only descriptions of *T. ater* are in Webb and Legler (1960), Webb (1962), and Winokur (1968).

• ILLUSTRATIONS. Photographs of an adult male and female (holotype) accompany the type description (Webb and Legler, 1960). Winokur (1968) also provides photographs of adults as well as of the head, choanal papillae, and posterior margin of carapace (gross detail and histology). The habitat at the type locality is photographed by Webb (1962) and Taylor (1966). Underwater, colored photographs at other ponds are also provided by Taylor (1966).

• DISTRIBUTION. *Trionyx ater* is restricted to permanent, clear, warm-water ponds or "lagunas" (thermal limnocrenes) in the basin of Cuatro Ciénegas, central Coahuila, México. The different kinds of aquatic habitats in the basin are most thoroughly discussed by Minckley (1969). *Trionyx ater* and

the warm-water lagunas, however, do not occur throughout the basin (other lagunas have cooler water and different water chemistry). The known distribution of *T. ater* is confined to a small area that fringes the northernmost extension of the Sierra de San Marcos. Specific localities include the lagunas Tío Candido (type locality), El Mojarral (east laguna), and Posos de la Becerra, and a laguna-like part of the Río Mesquites near its warm subterranean headwaters at Rancho Tierra Blanca. The species doubtless occurs in the laguna Churince and probably in the laguna Juan Santos. See COMMENT.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Webb and Legler (1960) and Webb (1962) treated variation of *T. ater* and its relationship with other species. Winokur (1968) studied relationships with *Trionyx spiniferus emoryi*. Parsons (1968) included *T. ater* in his discussion of choanal structure of Recent turtles.

• REMARKS. The vernacular name, black softshell, alludes to the overall blackish soft body parts (dorsally) and carapace.

• ETYMOLOGY. The name *ater* (Latin) means black and refers to the overall dorsal blackish gray coloration.

COMMENT

Trionyx ater is most closely related to *Trionyx spiniferus emoryi*. Winokur (1968) deals with the relationships of *T. ater* and *T. s. emoryi* in the basin of Cuatro Ciénegas and concludes that the two species hybridize.

Trionyx ater probably was a Tertiary resident of warm-water lagunas (and interconnecting, some subterranean, channels) that occurred throughout the basin. *Trionyx s. emoryi* has gained access to the basin, probably in intermittent invasions, at least since Pleistocene times, and has effected hybridization with *T. ater*. In modern times the dispersal of *T. s. emoryi* within the basin has been aided by the construction of man-made canals, some of which drain the lagunas inhabited by *T. ater*. The two species seem to be ecologically separated with *T. ater* resisting genetic swamping because of its secretive habits and proclivity for the deep, warm-water lagunas. Hybrids are known mostly from "intermediate" habitats—deep, slow-moving, laguna-like parts of the Río Mesquites and Río Churince. Hybrids and specimens of *T. s. emoryi* are recorded from Posos de la Becerra with *T. ater*. The report of *T. s. emoryi* from the type locality of *T. ater*, Tío Candido (Webb and Legler, 1960; Webb, 1962) is most probably in error (Wendell L. Minckley, personal conversation).

All place-names mentioned in this account are geographically oriented in Minckley (1969).

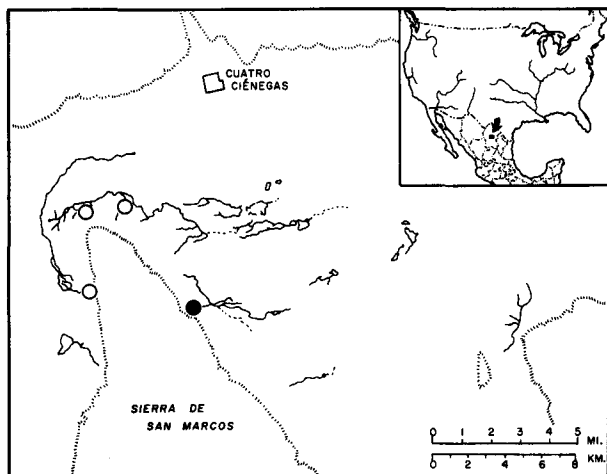
LITERATURE CITED

- Minckley, Wendell L. 1969. Environments of the Bolsón of Cuatro Ciénegas, Coahuila, México. Univ. Texas El Paso Sci. Ser. (2):1-65.
- Parsons, Thomas S. 1968. Variation in the choanal structure of Recent turtles. Canadian J. Zool. 46(6):1235-1263, pls. I-V.
- Taylor, Dwight W. 1966. A remarkable snail fauna from Coahuila, Mexico. Veliger 9(2):152-228.
- Webb, Robert G. 1962. North American Recent soft-shelled turtles (Family Trionychidae). Univ. Kansas Publ. Mus. Nat. Hist. 13(10):429-611.
- and John M. Legler. 1960. A new softshell turtle (genus *Trionyx*) from Coahuila, Mexico. Univ. Kansas Sci. Bull. 40(2):21-30.
- Winokur, Robert M. 1968. The morphology and relationships of the soft-shelled turtles of the Cuatro Ciénegas Basin, Coahuila, Mexico. M. S. Thesis, Arizona State University, ix + 88 p.

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MAP. Basin of Cuatro Ciénegas, central Coahuila, Mexico. Solid circle marks type-locality; hollow circles are other known localities. Base map prepared by Wendell L. Minckley.