

TWO NEW OHIO LOCALITIES FOR THE RED-BELLIED WATER SNAKE

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Until recent years thriving colonies of *Natrix erythrogaster neglecta* existed in Hardin County near Mt. Victory and in Williams County near Blakeslee. These were the only known stations in Ohio for this snake (Conant, 1934, 1938). Drainage and agricultural activities have now so altered both localities, however, that it is a fair assumption they no longer are inhabited by *neglecta*, which is a northern relict race of a species that ranges widely through the southern states and into northern Mexico.

It is heartening, therefore, to report two new localities for this rather rare water snake, both in Williams County and both made known through the energies of O. E. Ehrhart, amateur naturalist of Antwerp, Ohio. Mr. Ehrhart has very kindly sent me three specimens (two of them alive) for my examination, together with notes and photographs of the habitat. I am also indebted to Dr. Edward S. Thomas, of the Ohio State Museum, who has visited both areas and who has supplied descriptions of them as quoted below. The two new localities are:

I—Mud Lake, in the northern portion of Secs. 33 & 34, Northwest Township, Williams County, Ohio.

Mr. Ehrhart first encountered the "copperbelly" in this locality on June 27, 1951, when he collected one specimen and observed another which eluded him. Taken at the same time were two ribbon snakes, *Thamnophis sauritus sauritus*, and a common water snake, *Natrix sipedon sipedon*. All were at the edge of the water. On May 31, 1953, Ehrhart saw, but did not obtain, two additional "red-bellies." He caught one on September 7, 1953. This and the original specimen are preserved in his private collection.

Mud Lake "is a glacial kettle lake surrounded by a rather extensive boreal relict bog-meadow. From the absence of sphagnum and cranberry and the presence of shrubby cinquefoil, *Spirea alba*, and Kalm's lobelia, one may conclude that it is an alkaline or 'marl' bog rather than an acid one. Among the conspicuous boreal relict plants, in addition to those mentioned, are: swamp thistle, tamarack (a few only), poison sumac, marsh fern, and red-osier dogwood." (Thomas, in *litt.*)

II—Florence Township, Williams County, Ohio.

This locality is in the northwest portion of section 6, Florence Township, about one-half mile east of the Indiana line and approximately two miles south of U. S. highway 20. Ehrhart collected two specimens of *neglecta* there on May 3, 1953, and he has presented both to the Ohio State Museum (OSM 976, 979).

This locality was described on September 13, 1953, by Thomas (in *litt.*) as follows: "A marshy swale in the Wabash Moraine, about ten acres in area. Swamp forest of about equal area on opposite (north) side of road. The marsh consisted largely of herbaceous vegetation, but there were many scattered shrubs of *Cornus obliqua*, *Spirea alba*, Buttonbush (*Cephalanthus occidentalis*), and saplings of soft maple. There were large areas covered with a mixture of cut-grass and arrow-leaf tear-thumb, much of it waist high, which made tough going. Sizable colonies of *Aster puniceus*, *Boehmeria cylindrica*, Wool-grass, *Carex lacustris* (?), *Solidago altissima* (*canadensis* ?), and fragrant goldenrod. Other conspicuous plants:

Sensitive fern, *Iris* sp., cattail, *Eupatorium maculatum*, *Calamagrostis*, *Scutellaria lateriflorus*, cardinal flower and *Persicaria Muhlenbergia* (along road)."

At the time the two snakes were collected the marsh was filled with standing water, but none was present when the locality was revisited by Ehrhart on July 26, and by Thomas on September 13, 1953. Hence, in this respect, the habitat is similar to those formerly existing near Mt. Victory and Blakeslee where *neglecta* was encountered in the water in the spring but was found as much as 200 yards from the ponds during mid-summer. Apparently, *neglecta* is able to tolerate considerable desiccation of its habitat, becoming terrestrial in warm weather and seeking its food (largely frogs?) by wandering well away from the shallow ponds or swales that are concentration points in the spring.

The much more widely distributed and common water snake, *Natrix s. sipedon*, is rather closely restricted to streams and other permanent bodies of water. It was a rarity at Mt. Victory and Blakeslee, and has not as yet been reported from the Florence Township locality.

The relative abundance of *neglecta* and *sipedon* at Mud Lake is unknown, but the surrounding boreal relict bog may serve as a suitable habitat for *neglecta* whereas the more aquatic *sipedon* may be more closely restricted to the perimeter of the Lake.

The only other locality for *neglecta* with which I am familiar is at Olivet, Michigan. Here Clark (1903) found *erythrogaster* (= *neglecta*) abundant in a tract of low land bordering a creek which connects Pine Lake with the Olivet mill pond. Within this tract *sipedon* was not often encountered. Elsewhere in the general vicinity *sipedon* was extremely common (according to Clark) and the "copperbelly" was not found at all.

From the limited evidence at hand it would appear that these two rather similar water snakes may occupy almost mutually exclusive habitats, at least in Ohio and possibly also in Michigan: (1) *neglecta*, a relict, occurs in scattered colonies in areas not readily tolerated by *sipedon*; and (2) *sipedon* is wide-ranging and most abundant near permanent bodies of water. Once its habitat is destroyed, *neglecta* disappears, whereas *sipedon* conceivably could move to any nearby stream or pond and find a suitable environment.

The three specimens of *neglecta* which I have examined (two from Florence Township and one from Mud Lake) are all males and all are typically colored—uniform very dark brown or very dark grey above and bright orange red below. Considerable dark pigmentation from the dorsum invades the antero-lateral portions of the ventrals. All three have maxima of 23 rows of scales. In the specimen from Mud Lake the ventral count is 150; in the other two the counts are 145 and 147, the lowest recorded for any Ohio snakes of the species.

Robert Kavanagh, of Columbus, reports having killed six or more red-bellied "black" snakes in former years in Washington Township, Union County, about one-half mile from the Logan County line and about two miles south of the Hardin County line. This would place the locality approximately four miles south of Mt. Victory. He has not seen one in this area for twenty years, however; the habitat has probably been destroyed. Other localities where *neglecta* may have formerly occurred were reviewed recently (Conant, 1951, p. 229). Other reports on past or present distribution of *Natrix erythrogaster neglecta* in Ohio or elsewhere would be appreciated.

REFERENCES

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