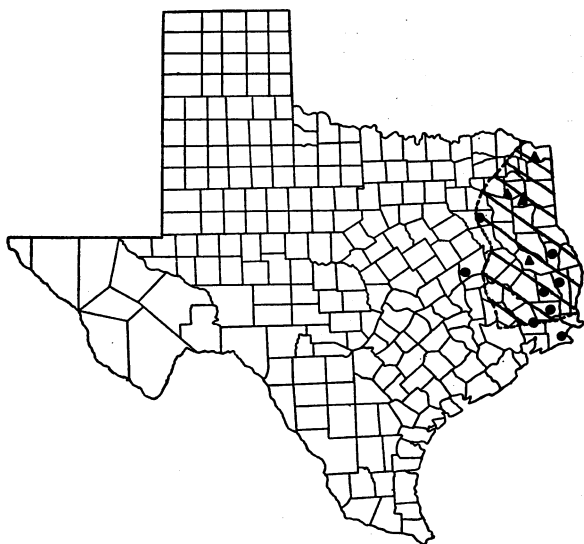


The Striped Water Snake, *Natrix rigida* (Say), in Texas

Lawrence Curtis & Donald Tinkle

Stejneger and Barbour (1943) give the range of the striped water snake as "New Kent County, Virginia and South Carolina to Western Louisiana, excluding peninsular Florida." It was first recorded from Texas four years ago when Brown (1947) listed specimens from Leon (6 mi. nw. of Normangee), Jasper (12 mi. w. of Jasper), Henderson (7 mi. e. of Athens), and Hardin (4 mi. w. of Silsbee)



counties. Later Brown (1950) noted specimens from Jefferson (2 mi. n. of Sabine Pass), Liberty (Daisetta), San Augustine (no specific locality), and Tyler (near Warren) counties.

Four specimens are now deposited in the Southern Methodist University collection which extend the range a considerable distance into northeast Texas. The scalation of these specimens is tabulated below:

TABLE I. SCALATION OF FOUR *NATRIX RIGIDA*.

No.	Sex	Scale Rows	Ventrals	Caudals	Supra-labials	Infra-labials	Temporals	Anal	Total Len. ¹	Tail Len. ¹
SMU 263	f	19-17-17	136	69	7-7	10-10	1+2	2	533.5	127.0
SMU 261	m	19-18-17	136	54	7-7	10-10	1+2	2	546.0	123.0
SMU 13	f	19-19-17	137	32 ²	7-7	10-11	1+2	2	558.0	88.5 ²
SMU 140	f	19-19-17	138	65	7-7	10-10	1+2	2	184.0	44.0

¹In millimeters

²Tail incomplete

Locality notes and other information are as follows: UPSHUR COUNTY: DOR 3.9 mi. e. of Hawkins, U.S. Hwy. 80, May 14, 1950. Howell Daly coll. (SMU 263). GREGG COUNTY: DOR 4 mi. sw. of Longview, crossing of Sabine River, State Hwy. 26, Aug. 28, 1950. Don Sellers coll. (SMU 261). BOWIE COUNTY: DOR 1 mi. w. of Corley, crossing of Rice Creek, U.S. Hwy. 67, April 30, 1950. Don Tinkle coll. (SMU 13). ANGELINA COUNTY: 4 mi. e. of Lufkin, State Hwy. 103, Sept. 8, 1950. Curtis & Tinkle coll. (SMU 140). It was hiding in a rotten stump at edge of a small lake, and taken during the afternoon. The fresh navel-scar on this specimen shows it to be a recently born young. Schmidt (1941) states that the breeding habits of *Natrix rigida* are unknown. A complete description of this specimen is of interest. Its pattern is similar to that of the other specimens in this series, except for the addition of five rather distinct dark brown lines against the light ground-color of each side. The lines occur in sequence between the ventrals and the first,¹ first and second, second and third, third and fourth scale rows, and on the lower margin of the fifth scale row.

The light ground color appears $1\frac{1}{2}$ scale rows wide between the fifth dark line and the characteristic dark parallel dorsal stripes. These stripes are from one to two scale rows wide and are separated by a light area $1\frac{1}{2}$ scale rows wide. On the tail the first dark line is continuous, the second discontinuous, the third and fourth fused and then discontinuous at a point one-third the length of the tail from the anus, and the fifth discontinuous. On the tail the dorsal stripes with intervening light area are each reduced to approximately one scale-row. Beginning with the third ventral is a row of black midventral spots; these divide at the thirteenth ventral to form two parallel rows. An irregular median dark stripe is on the under side of the tail. The three other specimens are similar, but the dark lateral lines are lacking or indistinct except on "SMU 13", which has a prominent dark line between scale-rows 1 and 2.

These Texas records for this species show that the range of *Natrix rigida* in the State is within the Austroriparian biotic province as delimited by Dice (1943). They occur mainly in the Pine Belt of East Texas, but occasionally

¹This lowermost line begins about a third the length from the head, whereas the others begin just behind the head.

extend into the adjacent Post Oak Belt (Leon County) and the Marsh and Salt Grass Region (Liberty County) [See Map I]. *Natrix rigida* clearly is not endemic to any one vegetation region in Texas.

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MAP I. RECORDED LOCATION OF NATRIX RIGIDA IN TEXAS. Hatched area is Pine Belt (after Carter, 1931.) Circles represent previous records from the literature; triangles represent records cited in this paper.

Notes on Texas Compositae — VII

Lloyd H. Shinnners¹

ELEPHANTOPUS NUDATUS Gray. This species may be recorded for the first time as occurring in Texas. JEFFERSON Co.: 16 miles southwest of Beaumont, *Shinnners 7704*, May 15, 1945. The two species previously known from the state are both much more widespread: *E. tomentosus* L., west and north to Harris and Wood counties; *E. carolinianus* Raeschel, commonest of the three, to Galveston, Brazos, Johnson, and Denton counties.

LIATRIS PYCNOSTACHYA Michx. var. *lasiophylla* Shinnners, var. nov. Tardiflora, foliis utrinque villosulis pilis patentibus. Late-flowering (August-early October, instead of June-August as in the species itself), the leaves rather villous with spreading hairs on both surfaces. TYPE: 3 miles east of Sour Lake, Hardin Co., Texas, *V. L. Cory 54953*, Sept. 29, 1948. Though stem pubescence is rather generally variable, leaf pubescence shows geographic localization. The very hairy-leaved, late-flowering race of the East Texas Pine Region warrants varietal recognition. It has appeared frequently in the herbarium as *L. Langloisii* (Greene) Cory, which was not originally described as hairy-leaved (by Greene, under *Lacinaria*, in *Pittonia* 5: 58, 1902; type from Louisiana), nor does the type specimen in the Greene Herbarium show this peculiarity.

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