A NEW TREMATODE OF THE GENUS UROTREMA FROM BATS

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A trematode that appears to be a new species is described in this paper. This fluke belongs to the family Urotrematidae Poche, 1926, and to the genus *Urotrema* Braun, 1900. Three specimens were collected by the writer in June, 1931, from the intestine of a red bat (*Lasiurus borealis*) captured in Washington, D. C.

UROTREMA LASIURENSIS, new species

FIGURE 1

Specific diagnosis.—Urotrema: Body elongated, 3 mm to 3.5 mm long by 890μ to 967μ wide in middle region of body, flattened dorsoventrally; anterior end attenuated and posterior end bluntly rounded. Cuticular spines present on anterior two-thirds of body and absent on posterior third of body. Oral sucker subterminal, 124μ to 156μ long by 140μ to 156μ wide. Prepharynx apparently absent; pharynx 78μ to 93μ long by 68μ to 76μ wide; esophagus 91μ to 106μ long; intestinal ceca sinuous in outline, terminating 358μ to 390μ from posterior end of body. Acetabulum 156μ long by 156μ to 162μ wide, situated 234μ to 312μ from posterior margin of oral sucker. Testes subspherical to oval, tandem or slightly oblique, and situated in posterior half of the body. Anterior testis 296μ to 374μ long and 452μ to 483μ wide, and posterior testis 343μ to 405μ long and 468μ to 561μ wide; testes approximated or separated by a space of 15μ. Cirrus pouch 327μ to 358μ long by 171μ wide, somewhat spindle-shaped, directed slightly oblique to left of long axis of body and situated at posterior end of body. Cirrus pouch contains a large seminal vesicle and a relatively short, slender, unarmed cirrus. Genital pore subterminal and ventral, situated at base of cirrus pouch. Ovary transversely ovoid, 187μ to 234μ long by 249μ to 280μ wide, situated in median line 31μ to 124μ caudad of acetabulum. Shell gland well defined, caudad to and left of ovary. Receptaculum seminis well developed and situated slightly to left of median line caudad of

ovary. Vitellaria composed of small follicles situated laterally, extending from base of acetabulum to about the level of anterior margin of anterior testis. Uterus long and consisting of irregular coils; the portion of the uterus containing immature eggs is limited to the intercecal space, while the portion containing mature eggs may extend into the extracecal space; uterus coils to right side of anterior testis, and to left side of posterior testis, and terminates in a well-defined metraterm, which extends dorsally and to left of cirrus pouch and opens into genital aperture. Eggs oval, brown, 23μ to 26μ long by 12μ wide.

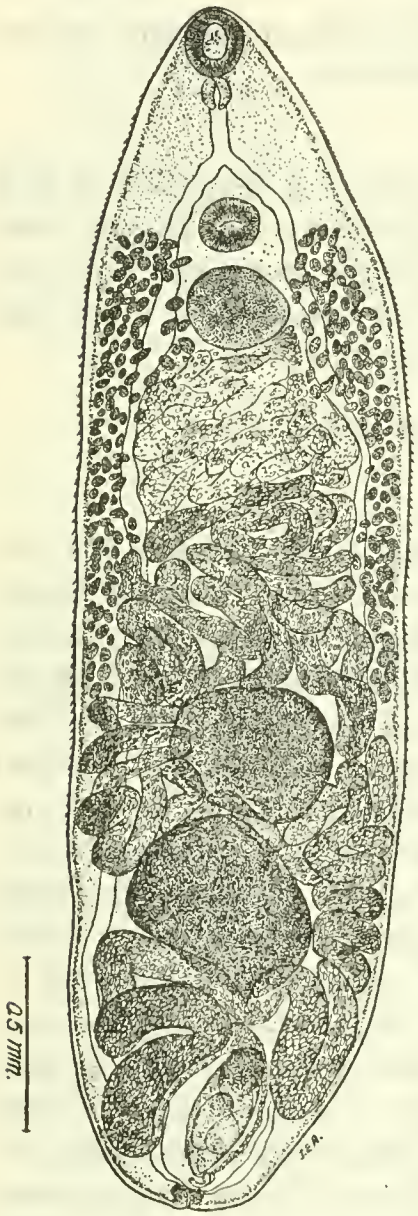

FIGURE 1.—*Urotrema lasiurensis*, new species. Ventral view

Type host.—Lasiurus borealis. This species also occurs in the bat *Nycticeius humeralis* and in an undetermined species of bat from Texas.

Location.—Small intestine.

Locality.—United States; type locality, District of Columbia.

Type specimens.—U.S.N.M. Helm. Coll. No. 30117; paratypes No. 30118.

Remarks.—Urotrema lasiurensis is the only species of the genus known to occur in bats in this country. Price (1931) reported finding a species identical with or closely related to *U. scabridum* from bats in Texas. Specimens of the form from the Texas bat and other specimens collected by Price from a bat (*Nycticeius humeralis*) at Glen Dale, Md., have been placed at the writer's disposal, and a careful comparison has shown them to be identical with the species described here as *U. lasiurensis.* The description of *U. lasiurensis* is based largely upon three mature specimens collected from one bat.

This species apparently occupies a position intermediate between *U. scabridum* Braun, 1900, and *U. shillingeri* Price, 1931. In *U. scabridum* the vitellaria extend from the base of the acetabulum to about three-fourths of the distance between the ovary and the an-

TABLE 1.—*Measurements of species of Urotrema*

Species	Size	Oral sucker	Acetabulum	Distance between oral sucker and acetabulum	Prepharynx	Pharynx	Length of esophagus
		Microns	*Microns*	*Microns*		*Microns*	*Microns*
U. scabridum Braun [1]	4 mm long; 830μ wide	187 long; 240 wide	271 long; 260 wide	1,000	Small	104 long; 125 wide	150
U. shillingeri Price	2.6 mm long; 418μ wide	112 long; 112 wide		487	37μ long	67 long; 90 wide	52
U. lasiurensis, new species	3–3.5 mm long; 890μ–967μ wide.	124–156 long; 140–156 wide.	156 long; 156–162 wide.	234–312	Absent	78–93 long; 68–76 wide	91–106

Species	Ovary	Anterior testis	Posterior testis	Extent of vitellaria	Cirrus pouch	Eggs
	Microns	*Microns*	*Microns*		*Microns*	*Microns*
U. scabridum Braun [1]		Up to 450 long	Up to 450 long	From base of acetabulum to about three-fourths distance between ovary and anterior testis.		18 long; 9 wide.
U. shillingeri Price	150 long; 120 wide	172 long; 142 wide	187 long; 97 wide	From level of anterior margin of acetabulum to short distance caudad of ovary.	202 long; 75 wide.	22 long; 15 wide.
U. lasiurensis, new species	187–234 long; 249–280 wide.	296–374 long; 452–483 wide.	343–405 long; 468–561 wide.	From base of acetabulum to about level of anterior margin of anterior testis.	327–358 long; 171 wide.	23–26 long; 12 wide.

[1] The measurements in this table for *U. scabridum* are taken from Braun (1900b). In an earlier paper, Braun (1900a) gave the size of *U. scabridum* as 3.5 mm long and 800μ wide; oral and ventral suckers as equal in size, both 229μ.

terior testis. According to the measurements given by Braun (1900b), in *U. scabridum* the distance between the oral sucker and the acetabulum is more than three times the corresponding distance in *U. lasiurensis*. The diameter of the ovary of *U. scabridum*, as figured by Braun (1900b), is about the same as that of the acetabulum, while in *U. lasiurensis* the diameter of the ovary is considerably larger than that of the acetabulum. The oral and ventral suckers are also considerably smaller in *U. lasiurensis* than those in *U. scabridum*.

U. lasiurensis may be differentiated from *U. shillingeri* on the basis of the body size and the extent of the vitellaria. *U. shillingeri* is much smaller than the species discussed in this paper, and its vitellaria extend from the level of the anterior margin of the acetabulum to a short distance caudad of the ovary.

Comparisons of the more important characters of the species of *Urotrema* are given in Table 1.

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