

A NEW SPECIES OF TREMATODE WORM OF THE GENUS ORNITHOBILHARZIA FROM A CANADIAN GOOSE

By RUDOLF WETZEL,

College of Veterinary Medicine, Hannover, Germany

Price (1929) has recently published a synopsis of the trematode family Schistosomidae, including in it descriptions of three new genera and species from North American hosts. In the present paper an additional new species is described. This schistosome was collected from a Canadian goose (*Branta canadensis canadensis*) forwarded to the Zoological Division of the Bureau of Animal Industry by Mr. W. L. McAtee of the Bureau of Biological Survey, the bird having been caught at Back Bay, Virginia. This fluke belongs to the subfamily Schistosominae Stiles and Hassall, 1898, and to the genus *Ornithobilharzia* Odhner, 1912. For this species the name *Ornithobilharzia pricei* is proposed. The description is based upon three males and three females, one of the latter being immature and another incomplete.

The characters of the genus as given by Price (1929) are as follows:

ORNITHOBILHARZIA Odhner, 1912

Synonym.—*Macrobilharzia* Travassos, 1923.

Generic diagnosis.—Schistosominae: Female shorter than male. Male with well formed gynaecephoric canal, formed by an infolding of the lateral edges of the body. Suckers present. Cuticle covered with spines. Digestive tract similar to that in *Schistosoma*; intestinal ceca long and showing a tendency to form several anastomoses before finally uniting to form the common cecum. Testes numerous (60 or more), commonly a short distance caudad of acetabulum, and extending into posterior half of body. Cirrus pouch rudimentary or absent. Seminal vesicle free in parenchyma; prostate absent. Genital pore small and situated immediately caudad of acetabulum. Female elongate, slender, and flattened. Ovary elongated, loosely or tightly coiled, and situated in anterior third of body. Vitellaria

extensive, occupying about two-thirds of the body length. Laurer's canal present (at least in some species). Uterus short and containing but one egg at a time.

Type species.—*Ornithobilharzia intermedia* Odhner, 1912.

ORNITHOBILHARZIA PRICEI, new species

Plate 1, Figures 1-4

Specific diagnosis.—*Ornithobilharzia*:

Male 5.3 to 6.2 mm. long and with a maximum width of 600 to 625 μ . The lateral edges of the body are infolded ventrally to form a deep gynaeceophoric canal. The cuticle is covered with small blunt spines. Oral sucker cup-like, subterminal, and 125 to 150 μ in diameter; acetabulum circular, 185 μ in diameter, and situated from 232 to 300 μ caudad of the oral sucker. Both suckers are covered with fine spines. The esophagus is simple, weakly muscular, and bifurcates immediately in front of the acetabulum. The intestinal ceca are sinuous, provided with small diverticula, and unite about one-fifth of the body length from the posterior end. The common cecum runs a zig-zag course and terminates about 60 μ from the posterior end of the body. The testes, 28 in number, are arranged in two alternating rows in the median line and occupy the second fifth of the body length; they originate about 450 μ caudad of the acetabulum and extend backward as far as 1.5 mm. from it. The seminal vesicle is oval in shape and lies midway between the first testis and the acetabulum. A cirrus pouch appears to be absent. The genital pore is situated 175 μ caudad of the acetabulum and to the left of the median line. The excretory pore is terminal; the details of the excretory system could not be made out.

Female longer than male. The cylindrical body is 9 mm. long, slender, having a thinner anterior part, about 50 μ wide, which gradually becomes thicker and attains its maximum width of 112 μ in the region of the ovary. The cuticle is covered with very fine spines. Oral sucker subterminal, poorly developed; acetabulum prominent, 60 to 70 μ in diameter, and situated about 505 μ caudad of the oral sucker. The esophagus is simple and bifurcates immediately in front of the acetabulum. The intestinal ceca are relatively short and sinuous, and unite about 3.1 mm. caudad of the oral sucker. The slender common cecum is very long, occupying about two-thirds of the body length. The elongated ovary is loosely coiled and occupies the second fifth of the body length; it originates about 1.8 mm. from the anterior end of the body, is 1.3 mm. long when measured in a straight line and disregarding the total length of the spiral, and terminates near the union of the ceca. The oviduct arises from the posterior pole of the ovary and runs ventral to it in

a sinuous manner to the ootype. The vitellaria consist of paired follicles extending from a short distance caudad of the union of the ceca to near the posterior end of the body. The vitelline duct extends anteriorly in a sinuous manner and joins the oviduct at the ootype. The uterus is muscular, short, and slightly coiled; no eggs were present in the specimens available for study. The genital pore is in the median ventral line immediately caudad of the acetabulum. Eggs collected from the intestinal contents are oval, 63 to 69 μ long by 48 to 51 μ wide, thin-shelled, provided with a small terminal spine, and contain active miracidia.

Host.—*Branta canadensis canadensis*.

Location.—Branches of portal and mesenteric veins.

Distribution.—North America (United States; collected at Washington, D. C., from a host from Back Bay, Va.).

Type specimens.—United States National Museum Helminthological Collection No. 29718; paratypes No. 29719.

This species differs from the other members of the genus *Ornithobilharzia* mainly in two points: (1) The number of testes is smaller; and (2) the females are longer than the males. On the other hand this fluke resembles *Ornithobilharzia intermedia* Odhner, 1912, the type of the genus, in many respects, especially as regards the elongated, loosely coiled ovary in the female. In order to bring the generic diagnosis given above in accordance with the characters of the new species, the following emendation is proposed: Female shorter or longer than male. Testes numerous (28 or more), extending into posterior half of body or confined to the anterior half.

For the purpose of separating *Ornithobilharzia pricei* from the other species of the genus the following key is appended:

KEY TO THE SPECIES OF THE GENUS ORNITHOBILHARZIA

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|---|----------------------------|
| 1. Parasitic in mammals..... | 2. |
| Parasitic in birds..... | 3. |
| 2. Cuticle of male smooth; testes 70 to 80 in number; egg 72 to 74 μ by 22 to 26 μ , with a spinous process at each pole..... | <i>O. turkestanicum</i> . |
| Cuticle of male tuberculate; testes 61 in number; egg 100 to 136 μ by 44 to 60 μ , with a spine at one pole..... | <i>O. bomfordi</i> . |
| 3. Species inadequately described..... | 4. |
| Species adequately described..... | 5. |
| 4. Male 14 mm. long; oral sucker 364 μ in diameter; acetabulum 560 μ in diameter; female unknown; in <i>Hydrocoloeus melanocephalus</i> | <i>O. kowalewskii</i> . |
| Male 16 mm. long; oral sucker 312 μ by 104 to 160 μ ; acetabulum 450 μ in diameter; female shorter than male; in <i>Thylasseus maximus</i> (= <i>Sterna galericulata</i>)..... | <i>O. canaliculata</i> . |
| 5. Male 40 to 57 mm. long; testes 230 to 250 in number; female unknown. | |
| | <i>O. macrobilharzia</i> . |
| Male 11 mm. or less in length; female known..... | 6. |

6. Male 5.3 to 6.2 mm. long; testes 28 in number and confined to anterior half of body; female longer than male.....*O. pricei*.
 Testes extending into posterior half of body; female shorter than male.....7.
7. Male 8 to 10.6 mm. long; testes 90 to 110 in number; intestinal ceca in female united immediately caudad of ovary.....*O. intermedia*.
 Male 6 to 7 mm. long; testes 65 in number; intestinal ceca in female unite a considerable distance caudad of ovary.....*O. odhneri*.

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REFERENCE

PRICE, EMMETT W.

1929. A synopsis of the trematode family Schistosomidae, with descriptions of new genera and species. Proc. U. S. Nat. Mus., Wash., (2789), vol. 75, art. 18, pp. 1-39, pls. 1-15.

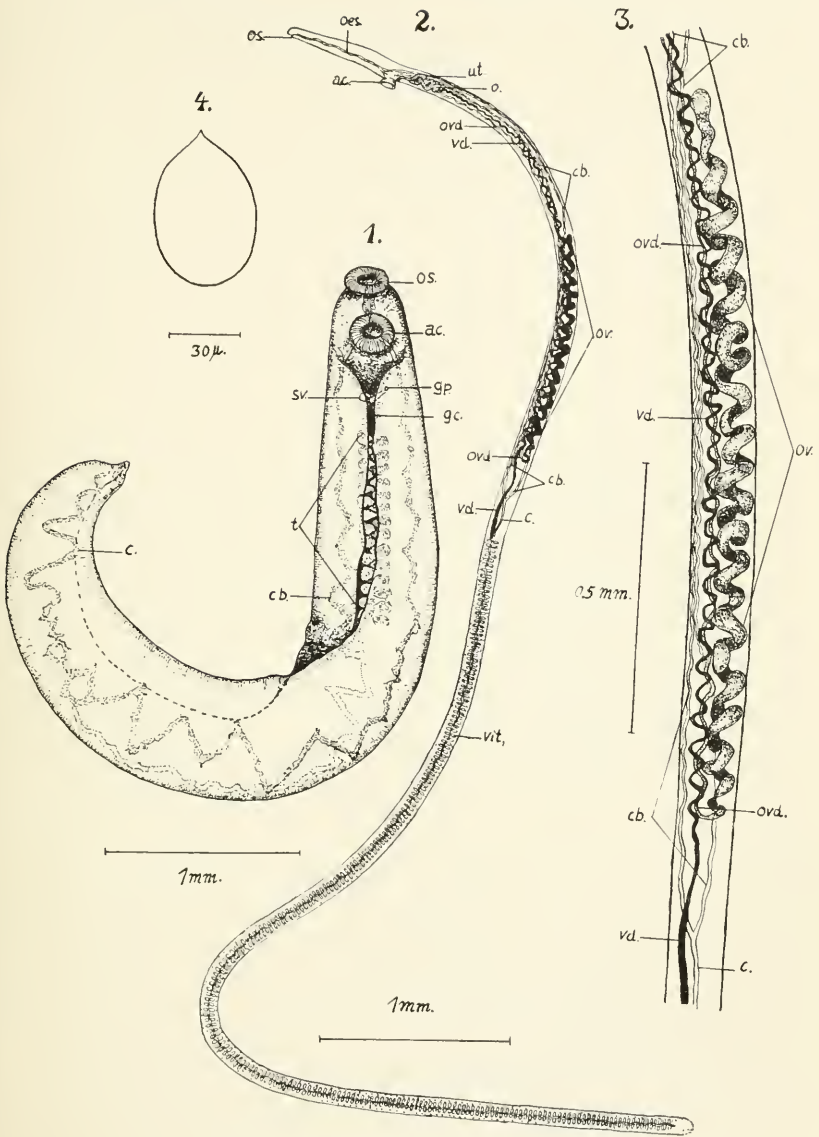
EXPLANATION OF PLATE

Ornithobilharzia pricei, new species

- FIGURE 1. Male; ventral view.
 2. Female; lateral view.
 3. Female; genital system; lateral view.
 4. Egg.

ABBREVIATIONS

ac., acetabulum.	ov., ovary.
c., common cecum.	ovd., oviduct.
cb., cecal branches.	sv., seminal vesicle.
gc., gynaecophoric canal.	t., testes.
gp., genital pore.	ut., uterus.
o., ootype.	vd., vitelline duct.
oes., esophagus.	vit., vitellaria.
os., oral sucker.	



ORNITHOBILHARZIA PRICEI, NEW SPECIES

FOR EXPLANATION OF PLATE SEE PAGE 4