

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

Faculty Publications from the Harold W. Manter  
Laboratory of Parasitology

Parasitology, Harold W. Manter Laboratory of

---

1949

## The Occurrence of *Platynosomum illiciens* (Braun, 1901) in a North American Hawk.

J. Fred Denton

*University of Georgia School of Medicine, Augusta, Georgia*

Robert Rausch

*University of Wisconsin, Madison, Wisconsin*

Follow this and additional works at: <http://digitalcommons.unl.edu/parasitologyfacpubs>



Part of the [Parasitology Commons](#)

---

Denton, J. Fred and Rausch, Robert, "The Occurrence of *Platynosomum illiciens* (Braun, 1901) in a North American Hawk." (1949).  
*Faculty Publications from the Harold W. Manter Laboratory of Parasitology*. 849.  
<http://digitalcommons.unl.edu/parasitologyfacpubs/849>

This Article is brought to you for free and open access by the Parasitology, Harold W. Manter Laboratory of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Faculty Publications from the Harold W. Manter Laboratory of Parasitology by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

**The Occurrence of *Platynosomum illiciens* (Braun, 1901)  
in a North American Hawk.**

J. FRED DENTON

University of Georgia School of Medicine, Augusta, Georgia

and

ROBERT RAUSCH

Department of Veterinary Science, University of Wisconsin, Madison, Wisconsin

A series of 160 hawks of 12 species from ten states and the Province of Manitoba has been examined for dicrocoeliid trematodes. Only one species of dicrocoeliids was found in them indicating the infrequency with which North American hawks are infected with trematodes of this group.

Of the 160 hawks examined 4 were broad-winged hawks. *Buteo platypterus*, 2 of which, collected in Ohio and Wisconsin, harbored in their bile ducts 3 and 8 specimens respectively of a trematode of the genus *Platynosomum*. These specimens, after comparison with both the original and the recently expanded description by Travassos (1944, Monogr. Inst. Oswaldo Cruz, No. 2, 357 pp.) of *P. illiciens* (Braun, 1901), have been assigned to that species. Since this is the first time this trematode has been reported from a host outside of Brazil, and in order to help delimit the variation within the species, a description of this material is presented.

The 8 specimens from one hawk, though sexually mature, had not attained their maximum growth. After fixation they measure only 2.69–2.87 mm. long by 0.80–0.93 mm. wide, about half the size of the fully mature specimens from the second hawk. However, there is no question that they belong to the same species as the larger worms since both agree in shape of body, ratio of sucker sizes and position of acetabulum, length of ceca, shape and relative positions of gonads, position of genital pore and extent of vitellaria, characters which are more significant in identifying dicrocoeliids than simple measurements. The measurements of two of the larger worms are given in the description that follows.

Body (Fig. 1) fairly thick and muscular, slightly contracted, 5.10–5.38 mm. long by 1.95–1.96 mm. wide; widest near anterior end of vitellaria. Cuticle thick, without spines. Oral sucker subterminal, 0.420 mm. long by 0.395–0.434 mm. wide. Acetabulum large, muscular, with deep cup-shaped lumen, 0.495–0.546 mm. long by 0.580–0.585 mm. wide, situated in anterior third of body. Ratio of width of oral sucker to acetabulum 1: 1.33–1.48. Prepharynx absent. Pharynx

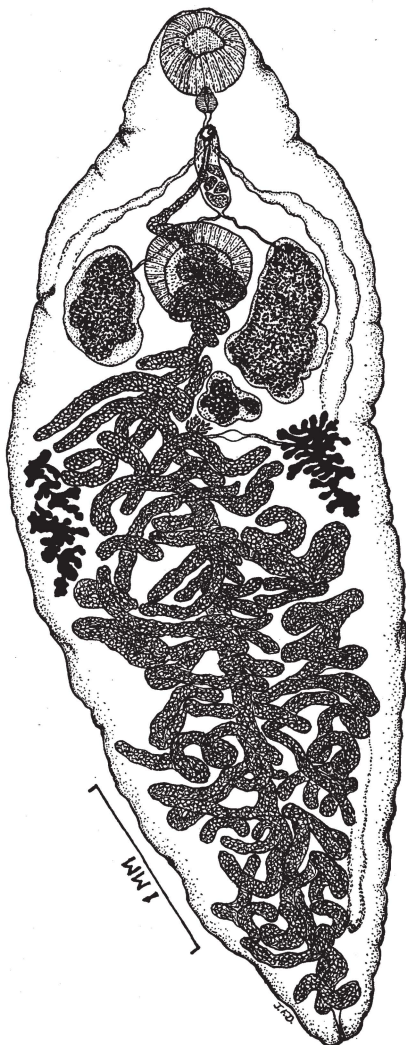


FIG. 1. *Platynosomum illiciens* (Braun, 1901), ventral view.

globular, muscular, 0.120–0.127 mm. long by 0.107–0.111 mm. wide. Esophagus thin-walled, fairly wide, approximately 0.150–0.160 mm. long, bifurcating about midway between suckers. Ceca thin-walled, narrow and slightly wavy in young specimens, wider and more voluminous in older ones, passing lateral to testes, dorsal to inner margins of vitellaria to terminate just a short distance from posterior end of body. Excretory pore terminal; remainder of system not observed.

Genital pore median, located ventral to intestinal bifurcation in relaxed specimens, about midway esophagus in specimens with contracted anterior end. Testes elongated oval in shape with smooth to slightly irregular margins in young specimens, with more irregular to lobed margins in old specimens, 0.602–0.868 mm. long by 0.462–0.520 mm. wide, situated directly opposite so that from one-third to one-half of their anterior extremity lies within acetabular zone. Vasa efferentia arising from dorsomedial surfaces of testes and passing antero-medially to unite as they enter cirrus sac. Cirrus sac elongated oval, 0.266–0.448 mm. long by 0.137–0.154 mm. wide, containing a much convoluted seminal vesicle, ejaculatory duct, a few prostatic gland cells and eversible cirrus. Cirrus sac with posterior end touching acetabulum in young specimens or situated slightly in front of it in old specimens. Ovary distinctly lobed, equal in size to testes in young specimens, from one-half to one-third size of testes in old specimens, 0.266–0.350 mm. long by 0.336–0.350 mm. wide, situated immediately postero-mesially to either left or right testis; behind left in 4 specimens, behind right in 5. Seminal receptacle relatively small, approximately 0.072 mm. in diameter, lying dorsal to mesial half of ovary. Mehlis' gland small and diffuse, situated in midline at posterior level of ovary. Laurer's canal not observed. Vitellaria composed of numerous irregular follicles joined together in dendritic masses, 0.60–1.02 mm. long, occupying zone immediately posterior to ovary. Vitelline ducts arising about one-third distance from anterior end of vitellaria. Uterus much convoluted, filling most of body posterior to gonads, then passing between testes and dorsal to acetabulum where it forms 2–3 lateral loops before ascending to genital pore by undulating course. Mature ova numerous, dark brown, 41–47  $\mu$  long by 26–31  $\mu$  wide.

A specimen, No. 46378, has been placed in the Helminthological Collection of the U. S. National Museum.