

The Occurrence of *Cotylogasteroides occidentalis* (Trematoda: Aspidobothrea) in Kentucky

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ABSTRACT

The occurrence of a single specimen of an aspidobothrean trematode *Cotylogasteroides occidentalis* in a snail *Goniobasis* sp. from Oldham County is the first record of occurrence of this parasite in Kentucky.

In the fall of 1974, during the examination of 120 specimens of the prosobranch snail *Goniobasis* sp. from Harrods Creek, about 230 m east of Covered Bridge Road in Oldham County, a single specimen of a mature, but nonovigerous aspidobothrean trematode was recovered from the tissue within the spire of one of the snails. The trematode was studied alive for several hours in 0.6 percent saline, then heat killed, fixed in AFA, stained with Harris' hematoxylin, cleared in terpeneol, and mounted in Euparal vert.

The specimen, 7.5 mm long and 1.5 mm wide, has 2 testes arranged in tandem in the posterior region of the opisthaptor or ventral sucker. The latter structure consists of 34 median and 108 marginal alveoli, and is 4.5 mm long and 1.5 mm wide. A cirrus pouch is absent, and the tubular vitellaria are predominantly lateral. These and other observed characters of taxonomic importance, as well as the specific snail host (Dickerman 1948, R. M. Cable, Purdue University, West Lafayette, Ind., pers. comm.) are considered sufficient to justify assignment of the trematode to *Cotylogasteroides occidentalis* Yamaguti, 1963.

C. occidentalis has been reported previously from *Goniobasis* sp. by Dickerman (1948) and Cable (pers. comm.). Kelly (1926) found several specimens in the freshwater clam *Lampsilis luteola*, and Nickerson (1902) initially reported the species as a parasite of the freshwater drum *Aplodinotus grunniens*.

It is noteworthy that the examination of more than 4,000 specimens of *Goniobasis* sp. and other operculate snails from Harrods Creek and other streams in Jefferson, Oldham, and Meade counties over the past 9 years has yielded only a single specimen of *C. occidentalis*.

Like a few other aspidobothrean trematodes which can become ovigerous in certain mollusks as well as in certain poikilothermic vertebrates, *C. occidentalis* can become gravid in both a snail *Goniobasis* sp. and a fish *Aplodinotus grunniens*, but primarily in the latter host (Dickerman 1948). The fish becomes infected by feeding on infected snails, but it is not known if the fish can acquire the parasite by ingesting the trematode eggs.

This report represents the first occurrence of *Cotylogasteroides occidentalis* in the snail *Goniobasis* sp. in Kentucky.

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