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The Occurrence Of Ornithodiplostomum Ptychocheilus (Faust) (Trematoda: Strigeida) In Fish And Birds

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THE OCCURRENCE OF *ORNITHODIPLOSTOMUM PTYCHOCHEILUS* (FAUST) (TREMATODA: STRIGEIDA) IN FISH AND BIRDS

The metacercaria of *Ornithodiplostomum ptychocheilus* has been reported by Faust (1918; Illinois Biol. Monogr. **4** (1): 1–120) from mesenteries of the squawfish, *Ptychocheilus oregonensis* (Richardson), and by Hughes and Piszcek (1928; Jour. Parasit. **15**: 58–62) and Van Haitsma (1930; Tr. Amer. Micr. Soc. **49**: 140–153) in the northeastern sand shiner, *Notropis deliciosus stramineus* (Cope). Van Haitsma (1930) found the adults in mergansers, *Mergus americanus, M. serrator, Lophodytes cucullatus,* and the old squaw duck, *Harelda hyemalis.* He also reared the metacercaria to the adult in young domestic ducks. Lyster (1940; Can. J. Research **18D**: 79–82) reported this worm as a cyathocotylid, *Paracoenogonimus katsuradi* n. sp., from *L. cucullatus* in Canada, but Dubois (1946; Ext. Actes Soc. Helvet. Sci. Nat. Zurich: 153–154) placed this name in synonymy with *O. ptychocheilus.*

During an examination of fish from Turtle River, Arvilla, North Dakota, the writer found the metacercariae of *O. ptychocheilus* sparingly (0–52, usually 1 or 2) in the mesenteries of four new hosts: the northern common shiner, *Notropis cornutus frontalis* (Agassiz), 6 of 7 infected; the central bigmouth shiner, *Notropis d. dorsalis* (Agassiz), 7 of 17; the northern fathead minnow, *Pimephales p. promelas* (Raf.), 1 of 3; and the northern creek chub, *Semotilus a. atromaculatus* (Mitchell), 17 of 19. All except *N. d. dorsalis* were infected with *Posthodiplostomum m. minimum* in the same location, i.e., encysted in the mesenteries. However, *P. minimum* was not found in a total of 41 *N. d. dorsalis* examined. The cysts of *O. ptychocheilus* were also found in the extra-dural space of the cranial cavity of 7 of 12 *N. c. frontalis,* but none were found in that location in any of the other 8 spp. of fish examined from Turtle River. They were found, however, in the cranial cavity of *P.p. promelas* from the English Coulee and Kelly's Slough, Grand Forks, North Dakota. The metacercariae from this unusual location appeared to be identical with the others. The number of larvae present ranged from 0 to 10. Dr. L. O. Nolf and I have also observed this metacercaria in cyprinids at Woodruff, Wisconsin, in 1948.

To verify the species, the metacercariae of *O. ptychocheilus* were reared to egg-producing adults in unfed chicks in 2 days, following the method of Ferguson (1938; Jour. Parasitol. **24** (6) Suppl.: 31). The adults differed from the description of Van Haitsma (1930) only in the variation of the "strigeid constriction." He stated that the hindbody is not distinctly set off by a groove from the forebody and did not report his fixing methods or state if the worms were observed alive. In my material the constriction is evident but not pronounced in the living worms; there is a suggestion of it after hot A.F.A. fixation but it is lost following cold fixation and freezing. Because of the confusion this characteristic causes under different conditions, the description should be amended slightly to read "strigeid constriction reduced but evident when alive and following hot fixation."

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