

## Incidental Aquatic Zoonoses

Author: HOFFMAN, GLENN L.

Source: Journal of Wildlife Diseases, 6(4) : 272

Published By: Wildlife Disease Association

URL: <https://doi.org/10.7589/0090-3558-6.4.272>

---

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](http://www.bioone.org/terms-of-use).

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

# Incidental Aquatic Zoonoses

GLENN L. HOFFMAN

Eastern Fish Disease Laboratory  
Bureau Sport Fisheries and Wildlife  
Leetown (P.O. Kearneysville) W. Va. 25430

## Abstract

The following incidental aquatic zoonoses are discussed: eosinophilic meningitis caused by *Angiostrongylus cantonesis*, the Guinea worm (*Dracunculus medinensis*), *Anisakis* infections, *Cryptocotyle lingua*, eye fluke (*Philophthalmus*), the tapeworm *Diplogonoporus grandis*, and shellfish-borne hepatitis.

This report deals with incidental aquatic zoonoses not covered by other contributors to this symposium, Zoonoses of Fish and Other Aquatic Animals. They are: *Angiostrongylus cantonesis*, *Dracunculus medinensis*, *Cryptocotyle lingua*, *Philophthalmus*, *Diplogonoporus*, and shellfish-borne hepatitis.

### 1. Miscellaneous nematodes.

Human eosinophilic meningitis, caused by the larval nematode, *Angiostrongylus cantonesis*, can be acquired by ingestion of a molluscan intermediate host or carrier hosts, such as marine and freshwater fishes in the Indo-Pacific area.<sup>2</sup>

The Guinea worm, *Dracunculus medinensis*, may be acquired by drinking water containing infected *Cyclops*. It has been reported from man in Africa and Asia.

According to Vik,<sup>6</sup> eosinophilic phlegmonous enteritis caused by *Anisakis* infections can be avoided by cleaning the fish soon after capture, or by freezing them for 24 hours before use.

### 2. Miscellaneous trematodes.

*Cryptocotyle lingua*, a heterophyid metacercaria of marine fish, has been reported from man in northern Europe.<sup>1</sup>

Two cases of eye infection with freshwater *Philophthalmus* have occurred.<sup>5</sup>

### 3. Miscellaneous cestodes.

Larval tapeworms, *Diplogonoporus grandis*, infective to man, occur in marine fishes of Japan.<sup>5</sup>

### 4. Shellfish-borne diseases.

Hepatitis<sup>2,3,4</sup> can be acquired from improperly cooked oysters and clams obtained from polluted waters.

## Literature Cited

1. CHRISTENSEN, N., and H. ROTH. 1949. Investigations on internal parasites of dogs. Kgl. Vet.-og Land-bohojskole. Ars., pp. 1-73.
2. DISMUKES, W. E., et al. 1968. An outbreak of gastroenteritis and infectious hepatitis attributed to raw clams. Amer. J. Epidemiology. 89: 555-561.
3. MASON, J. O., and McLEAN, W. R. 1962. Infectious hepatitis traced to the consumption of raw oysters. Amer. J. Hygiene. 75: 90-111.
4. RUDDY, S. J., et al. 1969. An epidemic of clam associated hepatitis. J. Amer. Med. Assn. 298: 649-655.
5. SINDERMAN, C. J. 1970. Principal diseases of marine fish and shellfish. Academic Press. 369 pp.
6. VIK, R. 1966. *Anisakis* larvae in Norwegian food fishes. Proc. 1st Intern. Congr. Parasitol., Rome, 1964. 1: 568-569. Pergamon Press, Oxford.