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## SPHAERIDIOTREMA FLUKES, THE CAUSE OF ULCERATIVE ENTERITIS IN A CYGNET (*Cygnus olor*)

GUNTER SPECKMANN, ALEXANDER ROBERTSON, and W. ALLAN WEBSTER

Animal Pathology Division, Health of Animals Branch, Canada Department of Agriculture, P.O. Box 1400, Hull, Quebec.

**Abstract:** A 5-week-old cygnet died of severe ulcerative enteritis caused by *Sphaeridiotrema globulus* (Rudolphi 1814). Environmental conditions under which the cygnet was raised and pathological findings are described.

### CASE HISTORY

On July 13, 1970, a 5-week-old female cygnet (*Cygnus olor*) was submitted to this laboratory for necropsy. The cygnet had been anorectic for 2 days prior to its death on July 11. This was one of four cygnets hatched by two pairs of swans, i.e. two cygnets per pair. They lived under identical environmental conditions and received similar feed. Each family had

occupied its own quarters in an outside pool divided by wire mesh during the hatching and early brooding period. Water in the pool was stagnant and muddy. When the cygnets were approximately 1 month old, digital amputation was performed to render them flightless, and the two families were moved to several small lagoons communicating with each other and with the Rideau River in Ottawa, Ontario. Both families

This One



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were kept separated by wire mesh partitions. Water in the lagoons appeared to be stagnant. There the birds fed on naturally occurring feeds and on lettuce, apple, bread and other tid-bits provided by visitors or the attendant. None of the other cygnets were clinically affected nor had the disease occurred in previous hatches subsequent to importation of the original adult stock from the Thames River, England, in 1967. Furthermore, the disease was not detected in ducks and geese kept in other pens of the same pool.

#### PATHOLOGICAL AND PARASITOLOGICAL FINDINGS

At necropsy the cygnet was well fleshed, but the digestive tract was devoid of feed. Lesions were confined to the small and large intestines, being most severe in the posterior part of the small intestine, and consisted of acute hemorrhagic inflammation with ulceration. The lumen contained casts of blood and fibrin. The cecal mucosa was hyperemic, but lacked

the marked inflammatory changes noted elsewhere in the gut. Microscopic examination of deep scrapings of intestinal mucosa revealed large numbers of immature trematodes. They were identified as *Sphaeridiotrema*, presumably *S. globulus* (Rudolphi 1814), and were considered to be the principal cause of the enteritis.

#### DISCUSSION

Mortality in wild waterfowl in North America caused by *S. globulus* was first reported by Price<sup>6</sup> in 1929 who identified the parasite in wild ducks. Since then additional observations have been reported in wild ducks by Price,<sup>7</sup> Gower,<sup>2</sup> and Cornwell and Cowan.<sup>1</sup> The trematode has also been described in American coots by Trainer and Fischer.<sup>8</sup> The life cycle and disease relations of the trematode have been studied by Macy et al.<sup>3,4,5</sup> To our knowledge, *S. globulus* has not been reported in swans in North America. It may have been introduced to the lagoons by the imported swans or by other waterfowl.

#### LITERATURE CITED

1. CORNWELL, G. W., and A. B. COWAN. 1963. Helminth populations of the canvasback (*Aythya valisineria*) and host-parasite-environmental interrelationships. Trans. N. Amer. Wildl. and Nat. Resources Conf. 28: 173-199.
2. GOWER, W. C. 1938. Studies on the trematode parasites of ducks in Michigan with special reference to the mallard. Mich. State Coll. Agr. Exp. Sta. Mem. 3, 94 pp.
3. MACY, R. W., and J. R. FORD. 1964. The psilostome trematode *Sphaeridiotrema globulus* (Rud.) in Oregon. J. Parasitol. 50: 93.
4. MACY, R. W. 1966. Studies on the life cycle and disease relations of the psilostome trematode *Sphaeridiotrema globulus* (Rudolphi). Proc. Int. Congr. Parasitol. (1st), Rome. 1: 537-538.
5. MACY, R. W., A. K. BERNTZEN, and M. BENZ. 1968. In vitro excystation of *Sphaeridiotrema globulus* metacercariae, structure of cyst, and the relationship to host specificity. J. Parasitol. 54: 28-38.
6. PRICE, E. W. 1929. Losses among wild ducks due to a species of trematode of the genus *Sphaeridiotrema*. J. Parasitol. 16: 103-104. (Abstr.).
7. PRICE, E. W. 1934. Losses among wild ducks due to infestation with *Sphaeridiotrema globulus* (Rudolphi) (Trematoda; Phisostomidae). Proc. Helminthol. Soc. Wash. 1: 31-34.
8. TRAINER, D. O., and G. W. FISCHER. 1963. Fatal trematodiasis of coots. J. Wildlife Management. 27: 483-486.

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