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Authors: Wade, Susan E., Anderson, Wayne I., and Kidder, Jeffrey D.

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Eurytrema procyonis in a Raccoon (*Procyon lotor*) from New York State—A First Report

Susan E. Wade,[1] Wayne I. Anderson,[2] and Jeffrey D. Kidder,[3] [1] Department of Veterinary Microbiology, Immunology, and Parasitology; [2] Department of Pathology, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853, USA; [3] New York Cooperative Fish and Wildlife Research Unit, Department of Natural Resources, Cornell University, Ithaca, New York 14853, USA

ABSTRACT: The digenean, *Eurytrema procyonis*, found in the pancreatic ducts of the raccoon (*Procyon lotor*), is reported for the first time from a juvenile female raccoon captured in July 1987, in New York State (USA). The presence of >183 trematodes in the pancreatic ducts was an incidental finding at necropsy to an interstitial pneumonia which had caused emaciation, and for which the animal was euthanized. The pancreas, with the exception of the major pancreatic duct, was histologically normal. The duct, containing the parasites, was dilated and contained a diffuse subepithelial inflammatory infiltrate consisting primarily of eosinophils. Epithelial hyperplasia was present in tubulo-alveolar glands, and goblet cells were prominent.

Key words: *Eurytrema procyonis*, raccoon, *Procyon lotor*, pancreatic duct, case report.

Eurytrema procyonis was originally described from the pancreatic ducts of a raccoon (*Procyon lotor*) in Texas by Denton (1942). This digenean has been reported since from raccoons in Connecticut by Penner et al. (1954), in Georgia by Babero and Shepperson (1958) and Sawyer (1958), in Maryland by Herman et al. (1957), in North Carolina by Harkema and Miller (1964), in Tennessee by Bafundo et al. (1980) and Schaffer et al. (1981), in Texas by Chandler (1942), and in Virginia by Harkema and Miller (1964) and Schaffer et al. (1981).

This digenean has been reported also in a red fox from New York (Stunkard, 1947; Foley et al., 1987), a gray fox from Maryland (Herman et al., 1957), a red wolf-coyote hybrid from Texas (Custer and Pence, 1981), and in the domestic cat from several localities (Burrows and Lillis, 1960; Sheldon, 1966; Fox et al., 1981; Roudebush and Schmidt, 1982; Anderson et al., 1987).

This is the first report of *E. procyonis* in a raccoon from New York. A juvenile female raccoon captured in Ithaca, New York (42°50'N, 76°50'W) on 25 July 1987, was presented with a history of dyspnea of 7 days duration and was euthanized. At necropsy the animal was in poor body condition with little body fat. Ingesta was not present in the stomach or small intestine, and there was only a small amount of fecal material in the colon. An interstitial pneumonia with an eosinophilic and giant cell infiltrate was found histologically. The detection of *E. procyonis* in the pancreatic ducts was an incidental finding. Grossly, the pancreas appeared normal.

The presence of the digeneans was first determined by a routine fecal examination which revealed many ova. Greater than 183 specimens were removed from the pancreatic ducts at necropsy. Histologically, cross sections of several digeneans were present within a markedly dilated major pancreatic duct (Fig. 1). The ductual lamina propria contained a moderate diffuse inflammatory infiltrate consisting primarily of eosinophils, with lesser numbers of macrophages and lymphocytes. There was mild multifocal epithelial hyperplasia within tubulo-alveolar glands. Goblet cells were prominent. Multiple discrete mucous retention cysts were present. In one section, glandular epithelium was present within the ventral sucker of a digenean (Fig. 1). The remainder of the pancreas was histologically normal.

Unlike the reports of Penner et al. (1954) and Herman et al. (1957) which indicated that grossly the pancreas was enlarged and yellow-pink in color, the pancreas in this

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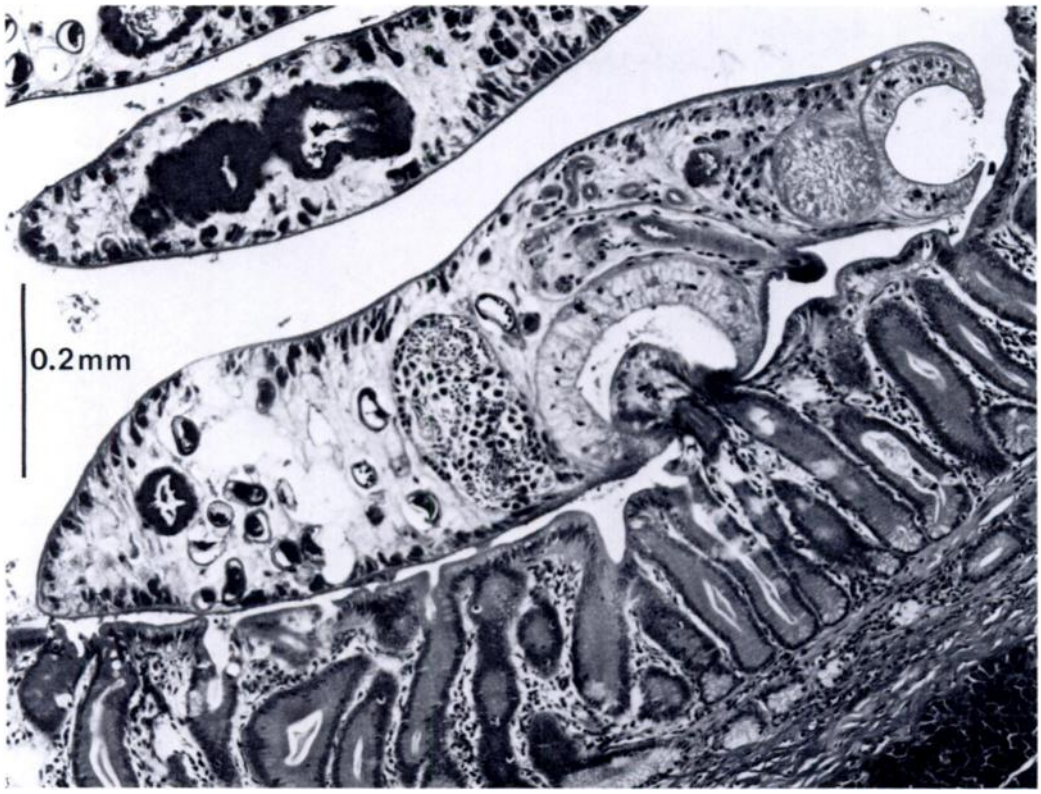


FIGURE 1. Pancreatic duct of a raccoon containing sections of *Eurytrema procyonis*. Note cellular infiltrate in lamina propria and epithelial hyperplasia. H&E.

raccoon appeared normal. The pancreatic ducts containing *E. procyonis* were dilated as in the above reports, but also contained a cellular infiltrate which has not been reported previously in raccoons.

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