Paragonimus kellicotti (Ward, 1908) IN A MINNESOTA SKUNK (Mephitis mephitis)

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Paragonimus kellicotti (Ward, 1908) IN A MINNESOTA SKUNK (Mephitis mephitis)

Lung fluke or *Paragonimus* infection is not a common parasitic condition of wild animals in Minnesota. *Paragonimus kellicotti,* (Ward, 1908) the American lung fluke has, however, been reported several times in the state. It was first reported in north central United States by Ward (1894, Vet. Mag. 1: 355-359) in a Michigan cat and locally in a domestic cat in Minneapolis (Nickerson, 1911, Science 33: 271). Since then other workers, including Wallace (1931, J.A.V.M.A., 78: 229-234) and Erickson (1946, Amer. Midl. Nat. 36: 494-509) have reported its presence in mink from this state where mink are considered to be the most important definitive host of this parasite. Natural infections with *P. kellicotti* have been seen in a number of other species of wild mammals in North America, including the muskrat (Ameel, 1932, Science 75: 382), opposum (Byrd, 1941, Science 93: 542), wildcat (Smith, 1911, Proc. Path. Soc. Phila, 14: 64), and ranch raised fox (Kennedy, 1950, Rep. Ont. Vet. Coll., pp. 132-137). Cabellero (1946, Mex (City) Univ. Nac. Int. Biol. An. 18: 137-167) reported recovering 18 specimens from a hooded skunk *(Mephitis macroura)* in Guatemala. These flukes were identified as *Paragonimus rudis* (Diesing, 1850) Stiles and Hassall, 1900, but Yokogawa, Cort and Yokogawa (1960, Exp. Parasit. 10: 81-205) quoting Miyazaki (1955, Med. Biol. (Tokyo) 37: 11-15) indicated that the Cabellero specimens were probably *P. kellicotti. Paragonimus* has not been reported from either the striped skunk *(Mephitis mephitis)* or the spotted skunk *(Spilogale putorius).*

In December 1969 a striped skunk was found in a garage in Princeton, Minnesota. Domestic animals were in the same area as the skunk and a dog was reportedly attacked. The skunk did not appear to fear either man or other animals and was shot as a rabies suspect. The carcass was submitted, intact, to the state veterinary diagnosis laboratory for rabies examination. During the course of the examination large cyst-like nodules were incidentally noted on the lungs. The cysts were excised and 12 mature trematodes were recovered from 6 cysts. One cyst contained 3 worms, another, 1 worm and the other 4 cysts, 2 worms each. No further examination of the lungs were made and the carcass was destroyed. Examination of two flattened, fixed and stained trematodes indicated that these flukes were *Paragonimus kellcotti.* The number and condition of the parasites recovered indicated that the skunk was a suitable definitive host.

Because skunks and mink are both members of the family Mustelidae and because of the wide host range of this parasite, it is interesting that *P. kellicotti* has not been previously reported from skunks in this country. One tentative explanation of this might be related to the feeding habits of the striped skunk. They are omnivorous animals, but they feed predominantly on insects, fruits and small mammals. In a study done in New York state (Hamilton, 1936, J. Mammal. 17: 240-246) involving the examination of 2,734 skunk stomachs, about one-half of which were *M. mephitis,* crayfish were found in only 2 animals. Dearborn (1932, Mich, School For. and Cons. Bull. 1: 8-52) in his survey of the visceral contents of 1700 *Mephitis* from Michigan, found that 80% contained insects and none had ingested crayfish. If these surveys are considered to be representative of the feeding habits of the northern striped skunk population, then the reason that the parasite has not previously been reported from this species of animal is that skunks rarely feed on crayfish and therefore do not ingest the infective metacercarial stage of *P. kellicotti.*

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