



ascarid roundworm

Toxocara canis

Kingdom: Animalia
Division/Phylum: Nematoda
Class:
Order:
Family:

FEATURES

This ascarid roundworm lives as an adult in the small intestines of canids (dogs, foxes, coyotes). Its long, unsegmented, cylindrical body has tapered ends. The female adult is about three and one-half to seven inches in length, while the male is one and one-half to four inches in length. The body is bent ventrally, and the male has an obvious ventral curve. The eggs are spherical with a thick covering that has fine pits. The eggs are deposited outside the body of the host and are very resistant to disintegration. They may be able to infect a host even after several years in the soil. The female can produce 200,000 eggs per day, and the host is usually infected with several hundred worms.

BEHAVIORS

This roundworm may be found throughout Illinois wherever its hosts (dogs, foxes, coyotes) live. Eggs of this intestinal parasite are deposited with the feces of its host. Under favorable conditions, development to the infective larval stage occurs in about 15 days. Puppies less than three weeks old are particularly susceptible to infection. If a puppy ingests eggs with infective larvae, the larvae emerge in its

intestine, pass through the intestinal wall, enter the bloodstream, go to the liver and then to the lungs. At the lungs, the larvae pass through the blood vessels and enter the bronchial tree, trachea and pharynx. Here they are swallowed, molt in the stomach and return to the intestine. After a final molt, they reach the adult stage. This process takes about one month. The life span in the host's intestine is about four months, and most worms are expelled within six months of the initial infection. In older dogs, if the larvae are ingested, they follow basically the same path as in puppies until they reach the lungs. Then the larvae go through the pulmonary vein to the heart and are spread to other organs where they encyst and do not continue to develop. Larvae can be spread from an infected female to her developing young, so the pups can be infected at birth. She may also infect them with her milk. Infection tends to be serious only for pups within their first three weeks after birth.

HABITATS

- bottomland forests
- coniferous forest
- southern Illinois lowlands
- upland deciduous forest

ILLINOIS STATUS

- common
- endangered
- threatened
- native
- exotic

ILLINOIS RANGE

Permanent resident: statewide

Summer resident:

Migrant:

Winter resident:

BIBLIOGRAPHY

Illinois Department of Natural Resources. 1999.

Biodiversity of Illinois, Volume 2: Woodland Habitats CD-ROM.