

Some Intestinal Parasites of Robins from Marion County, Indiana

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Abstract

A sample of twenty-eight robins, *Turdus migratorius*, was collected in Marion County, Indiana, during March, April, and May, 1967, and examined for intestinal parasites. Nearly half (49.9 percent) of the birds were parasitized. The worms identified were the cestodes *Dilepis undula* and *Hymenolepis* sp.; *Tetrameres pusilla*, a nematode; and *Mediorhynchus sipocotensis*, an acanthocephalan.

There are few reports in the literature concerning endoparasites of the robin, *Turdus migratorius*. Among the workers who have published on robin parasites are Cram (2) in New Jersey; Hughes (5 and 6) in Oklahoma; Ransom (13) from a wide range in North America; Rayner (14) in Quebec, Canada; and Webster (19) in New York. The most recent reports are from Mettrick (10) in North American robins and Slater (17) who studied a Colorado population. Apparently there are no reports of internal parasites from Indiana robins.

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Materials and Methods

A sample collection of robins was made in Marion County, Indiana, during March, April, and May, 1967. All twenty-eight specimens collected were mature adults, seventeen males and eleven females. The robins were shot, placed temporarily in a portable cooler, and later frozen. The parasites were removed from the intestine by curreting with a curved probe, and examined with a binocular microscope. The parasites are now in the Indiana State University collection.

Results

Nearly half (49.9 percent) of the robins examined were parasitized by intestinal parasites, 28.5 percent being males and 21.4 percent females.

List of Parasites

Class Cestoda

Eight tapeworms representing the genera, *Dilepis* and *Hymenolepis*, were found.

Dilepis undula belongs to the family Dilepididae, characterized by a double row of rostellar hooks and unilateral gonopores (15). *D. undula* contains numerous testes and a persistent sacciform or lobulated uterus (4).

Three specimens representing the genus *Hymenolepis* could not be

identified to species because the diagnostic scoleces were missing. The genus was determined by the presence of three testes and both external and internal seminal vesicles. This tapeworm parasite occurs primarily in birds, especially passerine, anseriform, gallinaceous, and wading birds (9).

Hymenolepis serpentulus was found in robins by Ransom (13). Jones (7) described a subspecies *Hymenolepis serpentulus turdii* from Virginia, and Ogren (12) reported *Dilepis undula* in Illinois robins.

Class Nematoda

One nematode was collected, *Tetrameres pusilla*. This parasite has previously been reported in robins by Travassos (18). This species is placed in the subfamily Tetramerinae. A few of the synonyms for *Tetrameres* cited by Yorke and Maplestone (22) are *Tropisurus* (3), *Tropidurus* (20), *Asotum* (16), and *Acanthophrus* (8). *Tetrameres* shows great sexual dimorphism. The males are filiform, while the females are stout and spindle shaped. The females are usually reddish in color. The specimen collected in this study was a white filiform male. These parasites commonly infest the proventriculus of birds (22).

Phylum Acanthocephala

The thirty-one acanthocephalan worms collected represent the Order Archiacanthocephala. This taxon contains three genera known to infect birds, *Mediorhynchus*, *Heteracanthorhynchus*, and *Oligacanthorhynchus* (21). *Mediorhynchus sipocotensis* was found in the Marion County robins. One of the five parasitized birds contained twenty-one of these acanthocephalans. *M. sipocotensis* has a sac-like body with no spines on the trunk, large unfragmented epidermal nuclei, and a globular proboscis armed with concentric spines. Females have two ligament sacs, and the males possess eight cement glands (1). These spiny headed worms parasitize the intestinal tract of many vertebrates, and usually infect roaches and grubs as intermediate hosts (1). Yamaguti (21) was the first worker to report *M. sipocotensis* in birds. Moore (11) has reported *M. grandis* from robins in Ohio.

Avian parasitology is presently the most neglected branch of ornithology. With much new knowledge about the migrational patterns of birds, and with our increased awareness of possible avian vectors of human diseases, this area of investigation has become increasingly important, and a very fruitful one for study.

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