Occurrence of Helminth Parasites in Avian Hosts from South Bass Island, Ohio

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OCCURRENCE OF HELMINTH PARASITES IN AVIAN HOSTS FROM SOUTH BASS ISLAND, OHIO

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ABSTRACT

Necropsy of specimens of 10 species of birds from South Bass Island, Ottawa County, Ohio, yielded 15 species of helminth parasites. New host and geographic records resulting from this study include Brachylaemus euphonae from the Cedar Waxwing, Bombycilla cedrorum; Apophallus brevis and Tetrameres crami from the Sora Rail, Porzana carolina; and Paruterina reynoldsi from the Slate-colored Junco, Junco h. hyemalis. Mosesia chordeliesia, Parabascus imanensis, Dilepis undula, Dispharynx nasuta, and Syngamus trachea are recorded for the first time from the Red-headed Woodpecker, Melanerpes e. erythrocephalus. Brachylaemus euphonae and Parabascus imanensis are reported for the first time from any North American host.

During 1969 and 1970, 12 accidently killed or fatally injured birds found by residents or tourists on South Bass Island, Ottawa County, Ohio, were examined for helminth parasites. In addition, 5 Red-headed Woodpeckers, Melanerpes e. erythrocephalus, collected from the Ohio Biological Survey trap on the island were similarly examined. Complete necropsies of the 17 birds were conducted at the Stone Laboratory Research Facility on South Bass Island. One Catbird, Dumetella carolinensis, 1 Cedar Waxwing, Bombycilla cedrorum, 1 Great Blue Heron, Ardea h. herodias, 1 Kingbird, Tyrannus tyrannus, 3 Red-headed Woodpeckers, 2 Ring-necked Pheasants, Phasianus colchicus, 1 Slate-colored Junco, Junco h. hyemalis, and 1 Sora Rail, Porzana carolina, were found to be infected with helminth parasites. One Barn Swallow, Hirundo rustica erythrogaster, 2 Kingbirds, 2 Red-headed Woodpeckers, and 1 Redstart, Setophaga ruticilla, were free of helminth parasites.

Eight species of trematode, two species of cestode, four species of nematode and one species of acanthocephalan parasites were collected. Incidence, intensity, and site of infection of each parasite are listed below. Reference specimens have been filed in the USNM Helminthological Collection. The accession number of each respective specimen is listed.

TREMATODA

1. Posthodiplostomum minimum (MacCallum, 1921); 40 specimens were collected from the intestine of one adult Great Blue Heron. USNM Helm. Coll. No. 72632
2. Brachylaemus euphonae Yamaguti, 1941; 12 specimens were collected from the intestine of one adult Cedar Waxwing. USNM Helm. Coll. No. 72688
3. Notocotylus porzanae Harwood, 1939; 3 specimens were collected from the intestine of one juvenile Sora Rail. USNM Helm. Coll. No. 72601
4. Brachylecithum seiuricum Denton and Byrd, 1951; 86 specimens were collected from the gall bladder of one adult Kingbird. USNM Helm. Coll. No. 72629
5. Zonorchis alveyi (Martin and Gee, 1949); 6 specimens were collected from the gall bladder of one adult Slate-colored Junco. USNM Helm. Coll. No. 72695
6. Mosesia chordeliesia McMullen, 1936; 3 specimens were collected from the intestine of one adult Red-headed Woodpecker. USNM Helm. Coll. No. unavailable
7. Parabascus imanensis (Oshmarin and Dosenko, 1951); 7 specimens were collected from the cloaca of one Red-headed Woodpecker. USNM Helm. Coll. No. 72630
8. Apophallus brevis Ransom, 1920; 73 specimens were collected from the intestine of one juvenile Sora Rail. USNM Helm. Coll. No. 72687

CESTODA

1. Dilepis undula (Schrank, 1788); one specimen was collected from the intestine of one adult Slate-colored Junco. USNM Helm. Coll. No. 72711
2. Paruterina reynoldsi Daly, 1958; 4 specimens were collected from the intestine of one adult Slate-colored Junco. USNM Helm. Coll. No. 72685

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1. *Syngamus trachea* (Montagu, 1811); 3 pairs of specimens were collected from one adult Red-headed Woodpecker and 2 pairs of specimens were collected from one juvenile Ring-necked Pheasant. The trachea was the site of infection in both birds. The specimens from the Pheasant were filed in the USNM Helm. Collection. USNM Helm. Coll. No. 72687

2. *Heterakis gallinae* (Gmelin, 1790); 28 specimens were collected from the gastric caeca of one juvenile Ring-necked Pheasant. USNM Helm. Coll. No. 72086

3. *Tetrameres crami* Swales, 1933; 12 specimens were collected from the proventriculus of one juvenile Sora Rail. USNM Helm. Coll. No. 72686

4. *Dispharynx nasuta* (Rudolphi, 1819); 2 specimens were collected from the proventriculus of one Red-headed Woodpecker. USNM Helm. Coll. No. 72712

**ACANTHOCEPHALES**

1. *Plagiorhynchus formosus* Van Cleave, 1918; one specimen was collected from the intestine of one adult Catbird. USNM Helm. Coll. No. 72702

This report records *Brachylaemus euphonae* for the first time from any North American host species. *Brachylecithum setircum* from the Kingbird, *Apopallus brevis* and *Tetrameres crami* from the Sora Rail, and *Paruterina reynoldsi* from the Slate-colored Junco are reported for the first time from each respective host species and from any host species in Ohio. *Mosesia chordelia*, *Parabascus imanensis*, *Dilepis undula*, *Syngamus trachea* and *Dispharynx nasuta* are recorded for the first time from Red-headed Woodpeckers. Ellis (1963) reported *Ornithodendrium* sp. (= *Parabascus*) from a single Kingbird in Iowa. *Parabascus imanensis, sensu strictu*, is reported from the Red-headed Woodpecker for the first time and for the first time from any North American host species.

**ACKNOWLEDGMENTS**

The author wishes to express his appreciation for the courtesy and assistance of Dr. L. S. Putnam, Director, and Dr. M. Miskimen, Supervisor of Blackbird Migration Studies, of Franz Theodore Stone Laboratory, The Ohio State University. The tutelage of Dr. John L. Crites, Department of Zoology, The Ohio State University, made this study possible.

**Table 1**

*Published and unpublished records of helminth parasites from the Red-headed Woodpecker*

<table>
<thead>
<tr>
<th>Parasite</th>
<th>Record</th>
<th>Locality</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Zonorchis petiolatum</em></td>
<td>Denton and Byrd (1951)</td>
<td>Mississippi</td>
</tr>
<tr>
<td><em>Plagiorchis sp</em></td>
<td>Blankenspoor (1970)</td>
<td>Iowa</td>
</tr>
<tr>
<td><em>Mosesia chordelia</em></td>
<td>present study</td>
<td>Ohio</td>
</tr>
<tr>
<td><em>Parabascus imanensis</em></td>
<td>present study</td>
<td>Ohio</td>
</tr>
<tr>
<td><em>Raillietina comitata</em></td>
<td>Ransom (1909)</td>
<td>Iowa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ohio</td>
</tr>
<tr>
<td><em>Raillietina rhynchota</em></td>
<td>Ransom (1909)</td>
<td>Iowa</td>
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<tr>
<td></td>
<td></td>
<td>Maryland</td>
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<td>Nebraska</td>
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<td></td>
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<td>Ohio</td>
</tr>
<tr>
<td><em>Dilepis undula</em></td>
<td>present study</td>
<td>Ohio</td>
</tr>
<tr>
<td><em>Syngamus trachea</em></td>
<td>present study</td>
<td>Ohio</td>
</tr>
<tr>
<td><em>Oxyspirura pustilla</em></td>
<td>Pence (1972)</td>
<td>Louisiana</td>
</tr>
<tr>
<td><em>Dispharynx nasuta</em></td>
<td>present study</td>
<td>Ohio</td>
</tr>
<tr>
<td><em>Displotroessa sp.</em></td>
<td>Walton (1927)</td>
<td>Brazil</td>
</tr>
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</table>
LITERATURE CITED


