

A Systematico-Faunistical Survey of the Trematode Fauna of Hungarian Bats II.

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The Helminthological fauna of our home bat species has been further investigated in 1967. In the course of the year, we succeeded to dissect bat species as yet unexamined parasitologically. For the sake of extending investigations, we have dissected also further individuals of species already examined in the past.

The present paper contains the description of three Trematode species and a list of new hosts, as yet unpublished in literature, of certain parasitic taxa.

I should like to thank Dr. G. DUBOIS for his help in allowing to study some type-specimens.

Family: **Lecithodendriidae** ODHNER, 1911, emend. MEHRA, 1935.

Subfamily: **Prosthodendriinae** YAMAGUTI, 1958.

Prosthodendrium (P.) parvouterus (BHALERAO, 1926) (Fig. 1)

Syn: *Lecithodendrium cordiforme parvouterus* BHALERAO, 1926; *L. cordiforme* MÖDLINGER, 1930, nec BRAUN, 1900; *L. pyramidum* LUKASIAK, 1939, nec LOOSS, 1896; *Prosthodendrium pusphai* BHALERAO, 1936 nec BRAUN; *P. pyramidum orientale* YAMAGUTI & ASADA, 1942; *P. pyramidum forma maroccano* DOLLFUS, 1954; *P. cordiforme* YEH, 1957, nec BRAUN; *P. maroccanum* DOLLFUS, 1958.

Hosts: *Rhinolophus ferrumequinum*, *Eptesicus nilsoni*, *Nyctinomus plicatus*, *Miniopterus schreibersi*, *Pipistrellus pipistrellus*.

Distribution: Czechoslovakia, Poland, Hungary, Rumania, India, Marocco.

A characteristic, round-bodied Trematode. Length 0.512–0.608 mm, greatest width 0.518–0.544 mm. Cuticle smooth. Oral sucker terminal, circular, nearly protruding from body. Diameter 0.089–0.101 × 0.108–0.121 mm. Pharynx relatively small, circular. Esophagus absent, gut dividing immediately behind pharynx. Caeca extending to testes. Ventral sucker circular, smaller than oral sucker, 0.070–0.086 × 0.070–0.075 mm. Testes large, situated symmetrically and preacetabularly. Right testis 0.147–0.190 × 0.185–0.190 mm; left testis 0.179–0.160 × 0.185–0.160 mm. Prostatic complex situated between caeca and anteriorly to ventral sucker, diameter 0.102–0.139 × 0.153–0.160 mm. Sphaerical ovarium situated between testes, largely at same level. Diameter 0.075–0.080 × 0.069–0.075 mm, smaller than testes.

Two vitellarial groups, consisting of numerous minute follicles, extending in space between testes and oral sucker.

Uterus looping, full with eggs, filling posterior section of body, between ventral

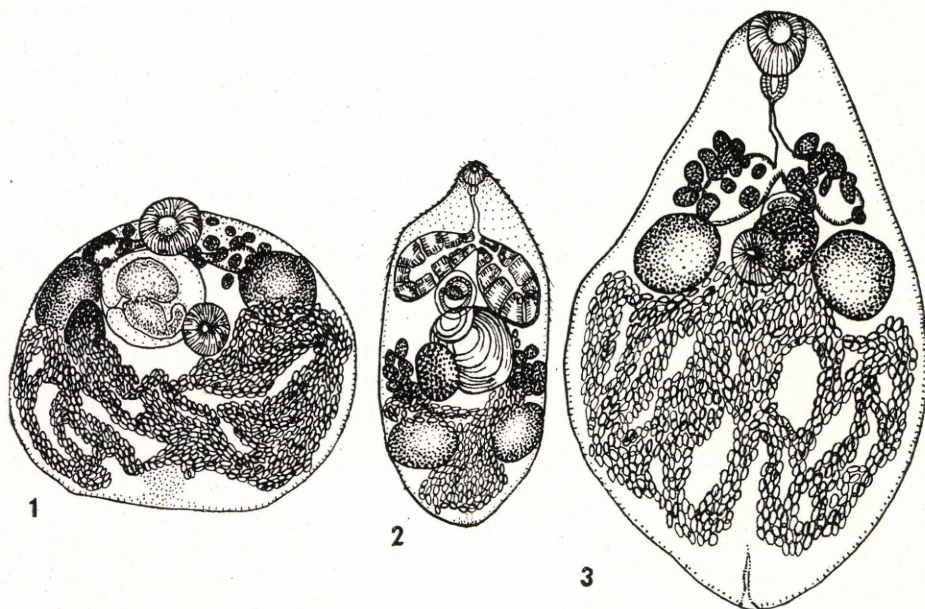


Fig. 1. *Prosthodendrium parvouterus* (BHALERAO, 1926). — Fig. 2. *Pycnoporus megacotyle* (OGATA, 1938). — Fig. 3. *Prosthodendrium aelleni* DUBOIS, 1956.

sucker and testes. Eggs dark yellowish, $0.016-0.020 \times 0.018-0.040$ mm. Eight specimens deposited in our collections.

*Myotis oxygnathus**, Hévíz, 8 July, 1958, 7 specimens — 2 *Miniopterus schreibersi* males, István Cave, Lillafüred, 12 March, 1967, one worm specimen each.

Prosthodendrium (P.) *aelleni* DUBOIS, 1956 (Fig. 3).

Hosts: *Eptesicus nilssoni*, *Rhinolophus ferrumequinum*.

Distribution: Switzerland, Czechoslovakia, Rumania.

A small, pyriform, smooth Trematode. Length 0.608 mm, greatest width 0.384 mm.

Oral sucker subterminal, 0.064×0.059 mm.

Circular, muscular pharynx 0.025×0.028 mm, emitting a comparatively long esophagus dividing into two short caeca of wide lumen. Caeca decurrent toward sides of body.

Ventral sucker slightly bigger than oral sucker, 0.070×0.064 mm.

Two oval testes situated at level of ventral sucker, on its two sides. Right testis 0.086×0.096 mm, left testis 0.092×0.083 mm. Extensive prostatic complex surrounded by two caeca; diameter 0.076×0.070 mm. Ovary para- and praeacetabularly situated, 0.083×0.064 mm, partly covering prostatic complex.

Uterus looping, full with eggs, filling body behind acetabulum. Eggs 0.019×0.009 mm.

*Bat species marked by an asterisk are new hosts for the parasite.

Position of two groups of vitellaria characteristic of species. Follicles situated in area of two caeca, ventrally of caeca. Some follicles covering even anterior margin of testes.

There is one specimen in our material, deriving from the small intestine of *Myotis daubentoni*, collected in the Abaliget Cave, 19 December, 1967.

Subfamily: **Pycnoporinae** YAMAGUTI, 1958

Pycnopus megacotyle (OGATA, 1938) (Fig. 2).

Syn.: *Lecithodendrium megacotyle* OGATA, 1938; *Pycnopus* sp. HŮRKOVÁ, 1958; *Prosthodendrium* (*P.*) *megacotyle* YAMAGUTI, 1958.

Hosts: *Nyctalus noctula*, *Pipistrellus nathusii*, *Barbastella barbastellus*.

Length 0.934 mm, greatest width 0.454 mm. Cuticle finely spinose in anterior part of body. Oral sucker terminal, 0.044×0.070 mm. Diameter of small, circular pharynx 0.025×0.025 mm. Esophagus relatively long, dividing into two spacious, sacculiform caeca.

Ventral sucker large, circular, diameter 0.190×0.190 mm.

Testes situated in posterior third of body, oval or slightly angular. Right testis 0.137×0.190 , left testis 0.134×0.160 mm.

Cirrus sac situated between two caeca, anteriorly to acetabulum, diameter 0.121×0.121 mm.

Oval ovarium on left side of body, paraacetabularly and anteriorly to testes. Diameter 0.105×0.153 mm. Uterus containing comparatively few eggs largely in space behind testes, but also extending between testes to posterior portion of acetabulum, indeed, its terminal section reaching anteriorad to genital pore on left side of acetabulum. Eggs minute, 0.0016×0.0009 mm. Vitellaria comprising two groups. Glandular groups consisting of 7 and 9 follicles respectively, situated adjacent to margin of body, on both sides of acetabulum and in front of testes.

Two specimens found in the small intestine of *Miniopterus schreibersi*, István Cave, Lillafüred, 12 March, 1967. One specimen strongly damaged during preparation. *Miniopterus schreibersi* is a new host for the species.

List of new hosts

Subfamily: **Prosthodendriinae** YAMAGUTI, 1958

Prosthodendrium (*P.*) **carolinum** HŮRKOVÁ, 1959

Myotis oxygnathus, female, Ördöglyuk Cave, Pilisszentkereszt, 26 Jan., 1967, 1 ex. — *Myotis myotis*, female, Baradla Cave, Aggtelek, 16 Dec., 1966, 1 ex.

Prosthodendrium (*P.*) **hurkovae** DUBOIS, 1960.

Myotis mystacinus, male, Mánfa, 1 Febr., 1967, 1 ex.

Lecithodendrium (*L.*) **granulosum** LOOSS, 1907.

Myotis oxygnathus, male, Pálvölgyi Cave, Budapest, 12 Jan., 1967, 8 ex. — *Myotis bechsteini*, male, Csörgölyuk Cave, Mts. Mátra, 6 March, 1967, 12 ex.

Subfamily: **Parabascinae** YAMAGUTI, 1958

Parabascus lepidotus LOOSS, 1907

Myotis oxygnathus, male, Pálvölgyi Cave, Budapest, 12 Jan., 1967, 5 ex. — *Myotis nattereri*, male, Legény Cave, Mts. Pilis, 15 Febr., 1967, 3 ex. — *Myotis daubentoni*, Herman Ottó Cave, Lillafüred, 7 March, 1967, 3 ex.

Parabascus semisquamosus (BRAUN, 1900)*Miniopterus schreibersi*, Cave, Ördöglyuk Pilisszentkereszt, 26 Jan., 1967, 4 ex.**Parabascus duboisi** (HŮRKOVÁ, 1961).*Eptesicus serotinus*, female, Legény Cave, Mts. Pilis, 15 Febr., 1967, 1 ex. — 2 *Nyctalus noctula*, males, Budapest, 14 Sept., 1967, 3 ex.Subfamily: **Pycnoporinae** YAMAGUTI, 1958.**Pycnoporus heteroporus** (DUJARDIN, 1845).*Eptesicus serotinus*, male, Legény Cave, Mts. Pilis, 15 Febr., 1967, 1 ex.Subfamily: **Allassogonoporinae** SKARBILOVICH, 1947.**Allassogonoporus amphoraeformis** (MÖDLINGER, 1930)*Miniopterus schreibersi*, female, Szarvaskő, 25 July, 1967, 6 ex.

Summary

The author discusses three Trematode species parasitising bats: *Prosthodendrium parvouterus* (BHALERAO, 1926), *Pr. aelleni* (DUBOIS, 1956), and *Pycnoporus megacotyle* (OGATA, 1938). The latter two species are new for the fauna of Hungary. Also a list of host species new for some Trematode taxa is given.

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