

ratio and genital pore location. I have deposited 64 specimens of *Ochetosoma* spp. in hopes they will aid a much-needed revision of the group.

This paper presents only the third report of the spirorchiid genus *Unicaecum* Stunkard, 1925. Stunkard (1925, *Ann. Parasitol. Hum. Comp.* 5:117–126) erected the genus for *U. ruszowskii* Stunkard, 1925 from *Chrysemys scripta* in North Carolina and Byrd (1939, *J. Tenn. Acad. Sci.* 14:116–161) described *U. dissimilis* from *Chrysemys troostii* in Reelfoot Lake, Tennessee. Spirorchiids have occasionally been reported from sites other than the circulatory system. I found one specimen of *U. ruszowskii* in the small intestine of a *Chrysemys scripta*, but all other specimens occurred in the mesenteric blood vessels. *Spirorchis elegans* collected from near Oxford, Mississippi all occurred in the esophageal submucosa, a finding consistent with results published by Schroeder and Ulmer (1959, *Proc. Iowa Acad. Sci.* 66:443–454).

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### *Research Note*

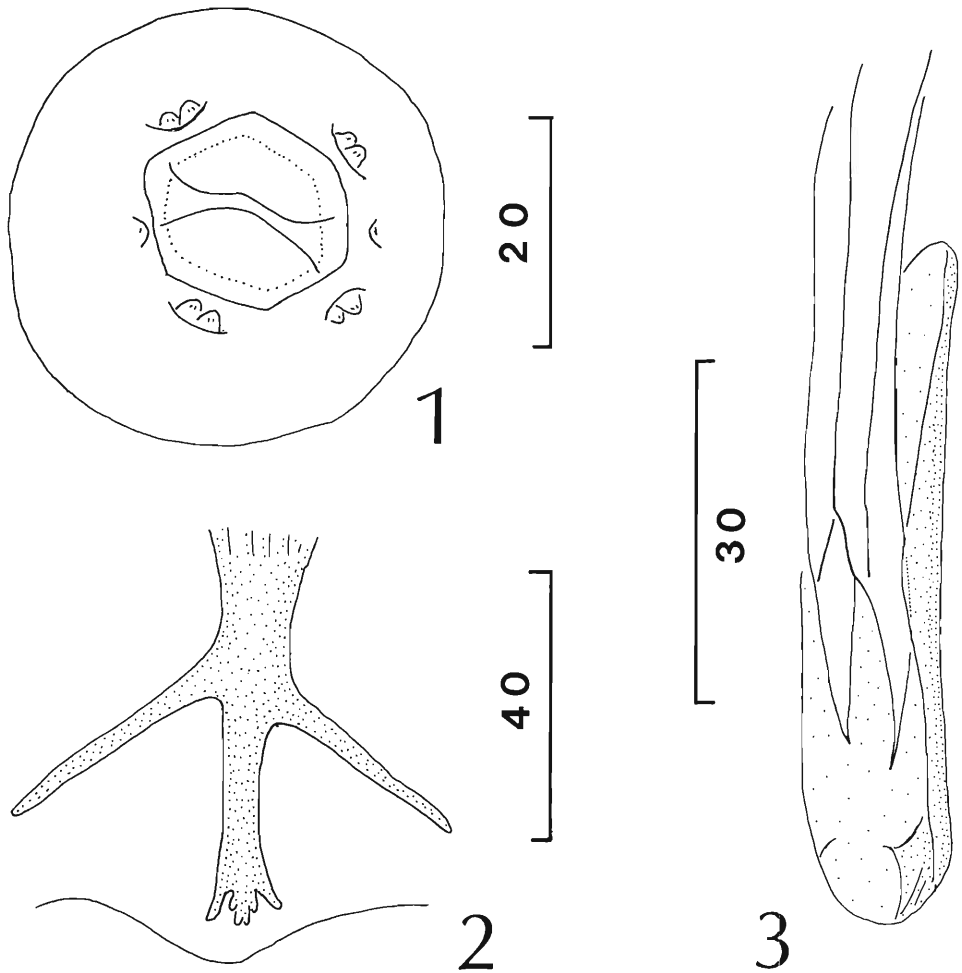
## **The Nematode Fauna of *Rana macrodon* Dumeril and Bibron with Supplementary Data on *Batrachonema synaptospicula* Yuen, 1965 (Nematoda: Amidostomatidae)<sup>1</sup>**

The intestinal tracts of 87 *Rana macrodon* collected along the Burong River, Tg. Karang, Malaysia were examined for nematodes from 1976–1977. Two nematode species were recovered: *Batrachonema synaptospicula* Yuen, 1965 (USNM Helm. Coll. No. 75173) and *Paracosmocera* sp. (USNM Helm. Coll. No. 75174). *Batrachonema synaptospicula* had a prevalence of 11.5% with intensities ranging from 7 to 35; while, *Paracosmocera* sp. had a prevalence of 41.3% with intensities ranging from 1 to 8. Concurrent infections were found in only two cases. Previously, only *Amplicaceum* sp. had been reported from this host (Myers and Kuntz, 1969, *J. Fish. Res. Bd. Can.* 26:793–797).

Our specimens of *Paracosmocerca* are similar to *P. mucronata* Kung and Wu, 1945, the only described species in the genus. However, we recovered only one

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Figures 1–3. *Batrachonema synaptospicula* Yuen, 1965. Measurements are in micrometers. 1. *En face* of female. 2. Details of externodorsal and dorsal rays. 3. Gubernaculum and bifid spicule tips.

damaged male which was not sufficient to positively identify our specimens as *P. mucronata*.

Yuen (1965, *Can. J. Zool.* 43:411–415) described *Batrachonema synaptospicula* from *Rana* sp. in Batu Berendam, Malacca (Malaysia). *Batrachonema* was originally placed in the Trichostrongylidae; however, Durette-Desset and Chabaud (1977, *Ann. Parasitol.* 52:539–558) believe that this genus should be placed in the Amidostomatidae. We have followed the latter classification. Yuen reported the absence of a gubernaculum, the dorsal ray with a bifurcated distal end, and an egg size, which differ from our specimens. Type specimens of *B. synaptospicula* were obtained from the British Museum (Natural History), instead of the Department of Zoology, University of Singapore where they had originally been deposited, and were found to be morphologically similar to our specimens. Because of the discrepancy between the original description and the actual speci-

mens, we are adding supplementary data to the description of *B. synaptospicula* by describing our specimens in detail.

Measurements are in microns, numbers in parentheses refer to data given by Yuen. Figures were drawn with the aid of a drawing tube and serve to illustrate previously unreported details. Specimens were cleared with phenol-alcohol.

***Batrachonema synaptospicula* Yuen, 1965**

(Figs. 1-3)

**GENERAL:** Body strongly coiled, with region of greatest width near midregion. Two liplike structures present. Cephalic papillae 8, in 4 paired groups forming a ring 45° from dorsoventral axis; amphids 2 at lateral axis. Mouth hexagonally shaped. Buccal capsule small, moderately sclerotized containing a single tooth. Cephalic vesicle inflated, striated, bullet shaped, originating at anterior portion of buccal capsule. Cuticle with fine striations approximately one apart. Esophagus muscular, claviform, with region of greatest width near base. Nerve ring near midregion of esophagus. Excretory pore located slightly posterior to or anterior to base of esophagus, posterior to nerve ring.

**MALE** (based on 14 mature specimens): Body 2.9-3.7 mm (1.8-3.4 mm) long by 36-39 wide at base of cephalic vesicle, increasing to 51-70 at junction of esophagus and intestine and between 84-96 (80-90) at level of greatest width, 33-43 times longer than wide. Buccal capsule 12-14 (16) long by 12-17 (13) wide. Cephalic vesicle 75-108 long by 39-46 wide, with between 27 and 32 transverse striations. Esophagus 334-377 (290-360) long by 39-46 (40-43) at widest point, 9-13% of body length. Nerve ring 176-212 (200-220) to cephalic end, 10-14 in height. Excretory pore located 321-381 from anterior end. Testis straight, beginning 358-485 from cephalic end. Spicules equal, fused along distal  $\frac{2}{3}$ , bifid at tip, 230-265 (260-270) long, 7-9% of body length. Gubernaculum scooplike, with distal end curved slightly dorsal, 60-70 long, 24-28% length of spicule. Bursa with wide lateral lobes and small dorsal lobe with distinct bulge at terminal margin. Anteroventral, posteroventral, anterolateral, and mediolateral rays equal, contiguous at their bases, reaching margin of bursa except for anterolateral ray. Posterolateral rays separate, about  $\frac{2}{3}$  as long as other rays. Externodorsal rays arise from common trunk with dorsal ray, slightly posterior to center of dorsal ray, not reaching margin of bursa. Dorsal ray divided at tip into four small fused distal rays and two longer separate proximal rays.

**FEMALE** (based on 14 mature specimens): Body 3.9-5.2 mm (3.4-4.8 mm) long by 39-43 wide at base of cephalic vesicle, increasing to 60-79 at junction of esophagus and intestine and between 99-111 (110-120) at level of greatest width, 38-49 times longer than wide. Buccal capsule 12-17 (16) long by 17-19 (15) wide. Cephalic vesicle 87-104 (110) long by 43-51 (50) wide with between 30-35 transverse striations. Esophagus 352-415 (370) long by 41-53 (43-46) at widest point, 8-9% of body length. Nerve ring 188-241 from cephalic end, 14-19 in height. Excretory pore located 334-426 from anterior end. Vulva with conspicuous lips situated postequatorial 800-1,100 (930-1,080) from posterior end, 3.0-4.1 mm from anterior end, 19-25% of body length from posterior end. Uteri amphidelphic, didelphic containing a single row of eggs. Ovaries both directed anteriorly, posterior ovary longer than anterior ovary. Eggs 58-65 (66-80) long by 31-43 (43-

53) wide. Rectum 36–58 long with 2–3 rectal glands. Tail 121–147 (130) long, tapering to a fine distal point.

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