

**NEMATODE PARASITES OF OCEANICA.
OESOPHAGOSTOMUM (CONOWEBERIA) SELFI SP. N.,
 (NEMATODA: TRICHONEMATIDAE), FROM *RATTUS*
COXINGA COXINGA SWINHOE**

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Oesophagostomum (Conowebertia) selfi sp. n. is described from rats, *Rattus c. coxinga*, from Taiwan. It has equal spicules only 430 μ long and lacks a cervical groove and a gubernaculum. This is the only species in the genus known to mature in *Rattus*.

MATERIALS AND METHODS

This report is based on specimens collected in 1961 by the second author and his associates of U. S. Naval Medical Research Unit No. 2 (NAMRU-2) at Chuei-feng, Nan-tou Hsien, Taiwan. The nematodes were killed and fixed in hot alcohol and stored in 70 percent alcohol and glycerine until studied. The following description is based on one mature male and two gravid females, all in perfect condition. All measurements are in microns unless otherwise stated. The species is named in honor of Professor J. Teague Self, who has devoted a lifetime to research and teaching in parasitology.

RESULTS

Oesophagostomum (Conowebertia) selfi sp. n.
 (Figs. 1-7)

DESCRIPTION

Medium-sized, stout worms, with thick cuticle bearing faint cross-striations. Anterior end (Figs. 1, 2) with short, swollen ring surrounding mouth. Lips, alae, and cervical groove absent. Four large, finger-like papillae surrounding mouth at same level as conspicuous amphids. Buccal capsule with sclerotized walls, wider at base than at top. External leaf crown with 20 slender petals. Internal leaf crown with 20 very small petals, each between bases of two adjacent petals of external leaf crown. Three large, blunt, recurved teeth in lumen of anterior end of esophagus (Fig. 3). Esophagus very muscular, swollen at posterior end. Esopha-

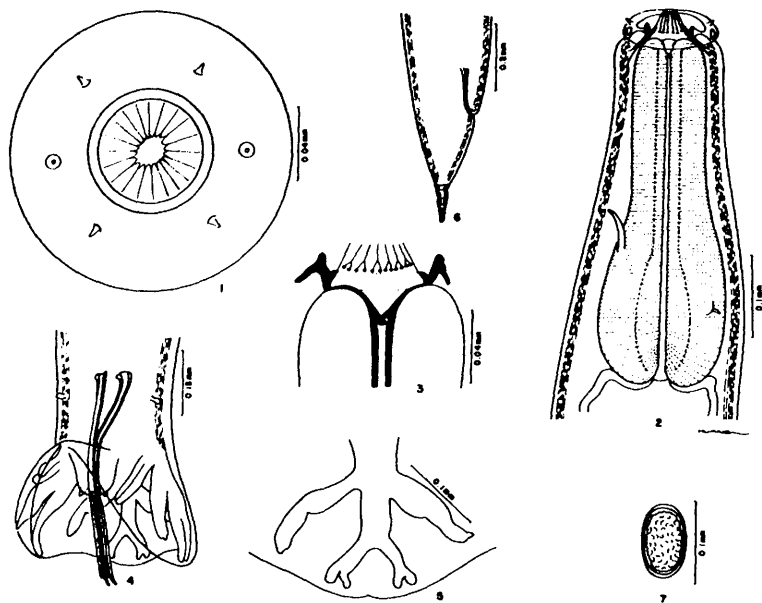
geal glands extend far past posterior end of esophagus. Deirids simple, about one-third from posterior end of esophagus.

MALE: 10.5 mm long, 360 maximum width at middle of body. Head collar 32 long, 120 wide. Buccal capsule 35 deep, 50 wide at base. Esophagus 440 long, 165 greatest width. Nerve ring 205, excretory pore 260, deirids 385 from anterior end.

Bursa (Fig. 4) symmetrical, with rounded lateral lobes and weakly developed dorsal lobe. Ventral rays equal, juxtaposed, reaching margin of bursa. Anterolateral ray shorter and stouter than other lateral rays, curving slightly anteriorly, away from other two, not reaching bursa margin. Mediolateral and posterolateral rays juxtaposed, reaching margin of bursa. Externodorsal rays emerging about 40 from base of dorsal ray, widely divergent, not reaching margin of bursa. Dorsal ray (Fig. 5) split about one-third from distal end, each ramus splitting into short, simple branches near its tip. Genital cone well developed, with two large, blade-like papillae on its dorsal tip, and a single, sessile, median papilla on its ventral tip. Prebursal papillae prominent.

Spicules equal, 430 long, with wide alae bearing conspicuous cross-striations. Gubernaculum apparently absent.

FEMALE: 18.0 to 19.0 mm long, 545 to 575 greatest width at middle of body. Head collar 40 long, 130 to 140 wide. Buccal capsule 35 deep, 48 to 58 wide at base. Esophagus 520 long, 225 greatest width. Nerve ring 225 to 230, excretory pore 280



FIGURES 1-7. *Oesophagostomum (C.) selfi* sp. n. from *Rattus coxinga coxinga* in Taiwan. 1. En face of paratype female. 2. Lateroventral view of anterior end of holotype male. 3. Anterior end of esophagus, showing teeth and inner circle of petals. 4. Posterior end of holotype male. 5. Dorsal ray of holotype male. 6. Posterior end of allotype female. 7. Egg.

to 290, deirids 400 from anterior end. Vulva 1.8 to 1.84 mm from posterior end. Tail (Fig. 6) 320 to 325, ending in blunt point. Eggs (Fig. 7) in morula stage when laid, 74 to 76 long, 44 to 46 wide.

Type host: spinous country rat, *Rattus c. coxinga* Swinhoe (R.E.K. host number PF 12494)

Location: small intestine

Type locality: Chuei-feng, Nan-tou Hsien, Taiwan, Republic of China

Type specimens: USNM holotype male no. 72987, allotype female no. 72988, paratype female (lacking head) no. 72989.

DISCUSSION

Oesophagostomum species with three teeth in the lumen of the upper esophagus are placed in the subgenus *Conowseberia*

Ihle, 1922. They are parasites of primates except for *O. (C.) maplestonesi* Schwartz, 1931, from a pig; *O. (C.) ventri* Thornton, 1924, from a cat; *O. (C.) xeri* Ortlepp, 1922, and *O. (C.) susannae* Le Roux, 1929, from African rodents. *Oesophagostomum selfi* sp. n. is easily differentiated from all other species in the subgenus in lacking a cervical groove. Further, no species has spicules nearly as small. A gubernaculum could not be seen from dorsal, ventral, or lateral view using brightfield, darkfield or phase contrast microscopy, making this the only species in the subgenus to lack one. It is the only species in the genus known to mature in a murine rodent.

Le Roux (1) found several species of oesophagostomes from warthogs to lack a cervical groove, and proposed a new genus, *Daubneyia*, for them. Ortlepp (2) objected strongly to the concept, and described two

new and several poorly known species from warthogs and bushpigs, all of which had cervical grooves. Most other authors have not accepted *Daubneyia*, although Troncy *et al.* (3) give a key to 14 species in the genus. All of these species were previously placed in subgenera of *Oesophagostomum* other than *Conoweberia*. The finding of a species lacking a cervical groove in this subgenus supports the rejection of *Daubneyia* as a valid generic concept.

ACKNOWLEDGMENTS

We wish to thank Dr. J. Ralph Lichtenfels, National Animal Parasite Laboratory, Beltsville, Maryland, for his advice and

assistance. Initial work for this study was supported by funding under Public Law 480, Section 104(c), by funds provided by the Bureau of Medicine and Surgery, Navy Department Work Unit MR 005.20-0098 and by contract NR 103-690/N0014-66-C0094, between the Office of Naval Research, Department of the Navy, and the Southwest Foundation For Research and Education.

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