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MARINE FISH TREMATODES OF WEST PAKISTAN

Part VII.—*Ectenurus crenidensis* n. sp. from *Crenidens indicus* Day, from the Karachi coast*

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Ectenurus crenidensis sp. n. is described from the gills of *Crenidens indicus* (Day), from the Karachi coast, West Pakistan. *Ectenurus crenidensis* is characterised by possessing (1) a transversely elongate, ovate or distinctly bilobed ovary, (2) a well developed shell gland, (3) small ovate eggs, (4) nearly symmetrical testes, (5) an elongate seminal vesicle, (6) an elongate pyriform sinus sac with a well developed sinus organ, (7) a compact mass of prostatic glands at the base of sinus sac, (8) a genital pore ventral to pharynx, and (9) vitelline tubes frequently extending into the ecsoma. *Ectenurus crenidensis* is the first species of the genus recorded from Pakistan and from the gills of a fish.

Four species *Ectenurus lepidus* [2,6] *E. lemeriensis*,[3] *E. tiegsi*,[5] and *E. virgula*,[1] are known in the genus *Ectenurus* Looss, 1907. All are parasitic in the stomachs of fishes. Three other species,[5] originally described in *Ectenurus*, are now included in *Uteroversiculurus* Skrjabin et Guschanskaja.[6] Neither of these genera has previously been reported from Pakistan.

During 1969–1970, eleven specimens of *Crenidens indicus* Day, collected from the Karachi coast were examined for helminths. A new species of *Ectenurus* was recovered from the gills and is described herein.

Description is based on permanent preparations of specimens fixed in a 70% alcohol–glacial acetic acid mixture (95:5) and stained with borax carmine or acetocarmine. Diagrams were made with the aid of a camera lucida; measurements are in mm, given length by width.

Ectenurus crenidensis, sp. n.

Host: *Crenidens indicus* Day; Location on host: Gills; Locality: Karachi coast, West Pakistan; Number studied: 15 (3 immature) from 3 hosts, 11 hosts examined. Type specimens: Holotype, USNM Helm. Coll. No.

Paratypes, USNM Helm. Coll. No. 72132

Length 1.6–2.4, greatest width 0.4–0.5 in acetabular or ovovitelline region, ecsoma 0.39–0.79 long. Preoral lobe 0.08–0.11 long. Oral sucker 0.11–0.14×0.15–0.17. Pharynx ovate, 0.05–0.08×0.05–0.07. Esophagus 0.034–0.068 long. Acetabulum subsequatorial, 0.29—0.34×0.30–0.36; sucker ratio 1:2–1:2.1. Ceca usually extend into ecsoma. Testes postacetabular, ovate, broader than long; right testis 0.07–0.12×0.08–0.14, left 0.68–0.10×0.10–0.12. Seminal vesicle a dilation of vas deferens, posterodorsal, dorsolateral or lateral to acetabulum, 0.17–0.19×0.06–0.10. Vas deferens long, delicate. A compact rounded or irregular mass of prostate glands surround vas deferens at base of sinus sac (Figs. 1A, 1B). Sinus sac elongate or pyriform (Fig. 2), 0.17–0.24 long; sinus organ well developed; genital atrium inconspicuous. Genital pore ventral, slightly posterior to oral sucker. Ovary irregular (Fig. 1C), bilobed (Fig. 1E), or transversely elongated (Fig. 2), 0.10–0.12×0.12–

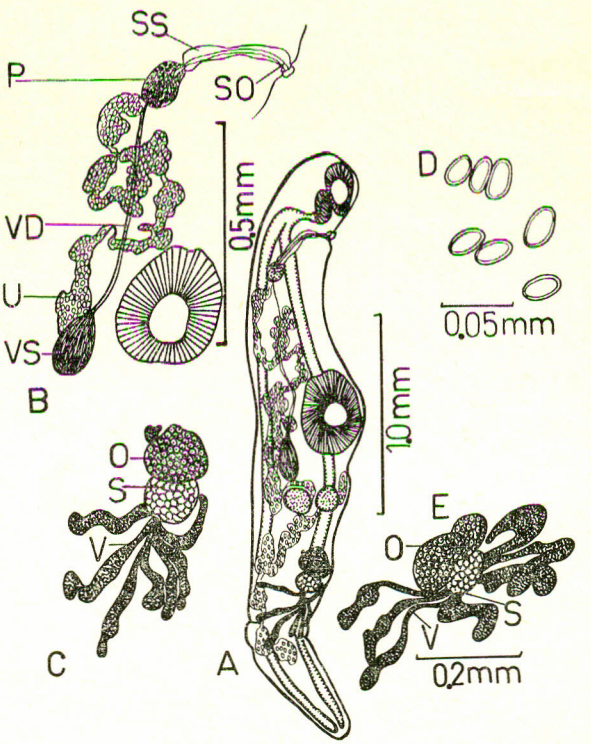

Fig. 1 A.—*Ectenurus crenidensis*, sp. n., holotype, whole mount. B. Anterior genital ducts. C. Ovary and associated structures. D. Eggs. E. Ovary and associated structures of paratype 1. Figs. C and E are drawn to the same scale.

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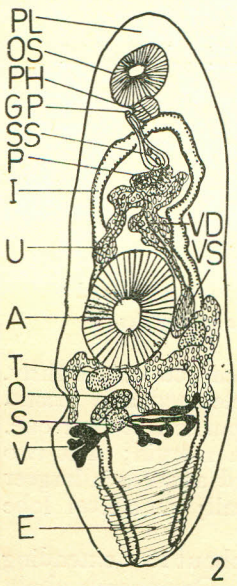

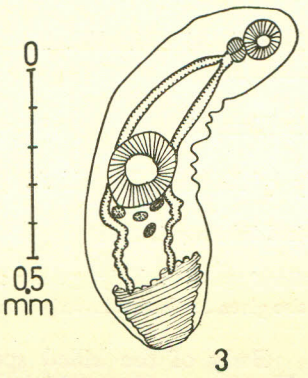

Fig. 2.—Paratype 2; Fig. 3.—Immature form.

Abbreviations

A, acetabulum; E, ecsoma; GP, genital pore; I, intestinal ceca; O, ovary; OS, oral sucker; P, prostatic mass; PH, pharynx; PL, preoral lobe; S, shell gland; SO, sinus organ; SS, sinus sac; T, testes; U, uterus; V, vitellaria; VD, vas deferens; VS, seminal vesicle.

0.18. Shell gland postovarian, well differentiated, 0.05–0.09×0.09–0.11. Vitellaria of 7 variable tubules in groups of 3 and 4 posterior to shell gland; tubes may extend into ecsoma (Fig. 1 A). Uterus a thin-walled coiled tube containing ovate eggs, 0.020–0.028 ×0.01–0.15 (Fig. 1D). Excretory tubes united anteriorly. Immature forms less than 1.6 long, with developing tests and ovary.

Remarks.—*Ectenurus crenidensis* sp. n. differs from the other species of the genus by having vitelline tubes frequently extending into the ecsoma; an oval bilobed or transversely elongate ovary; a well developed shell gland; a compact mass of prostate glands at the base of the sinus sac; a sinus organ; and a genital pore at varying levels ventral to pharynx. Although *E. tiegsi* also possesses a sinus organ, it is further separated from *E. crenidensis* by having a different sucker ratio. *Ectenurus crenidensis* differes from *E. lemeriensis* by possessing a postovarian loop of the uterus, larger eggs, and a smaller body size.

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