

Antenna strong, apex of distal segment grooved. Maxillule composed of a basal part carrying two dissimilar lobes, each terminating in a spine. Distal segment of maxilla rather long and slender, borders of the unguis and distal inner part of distal segment toothed. Maxilliped stout, distal segment strongly falcate.

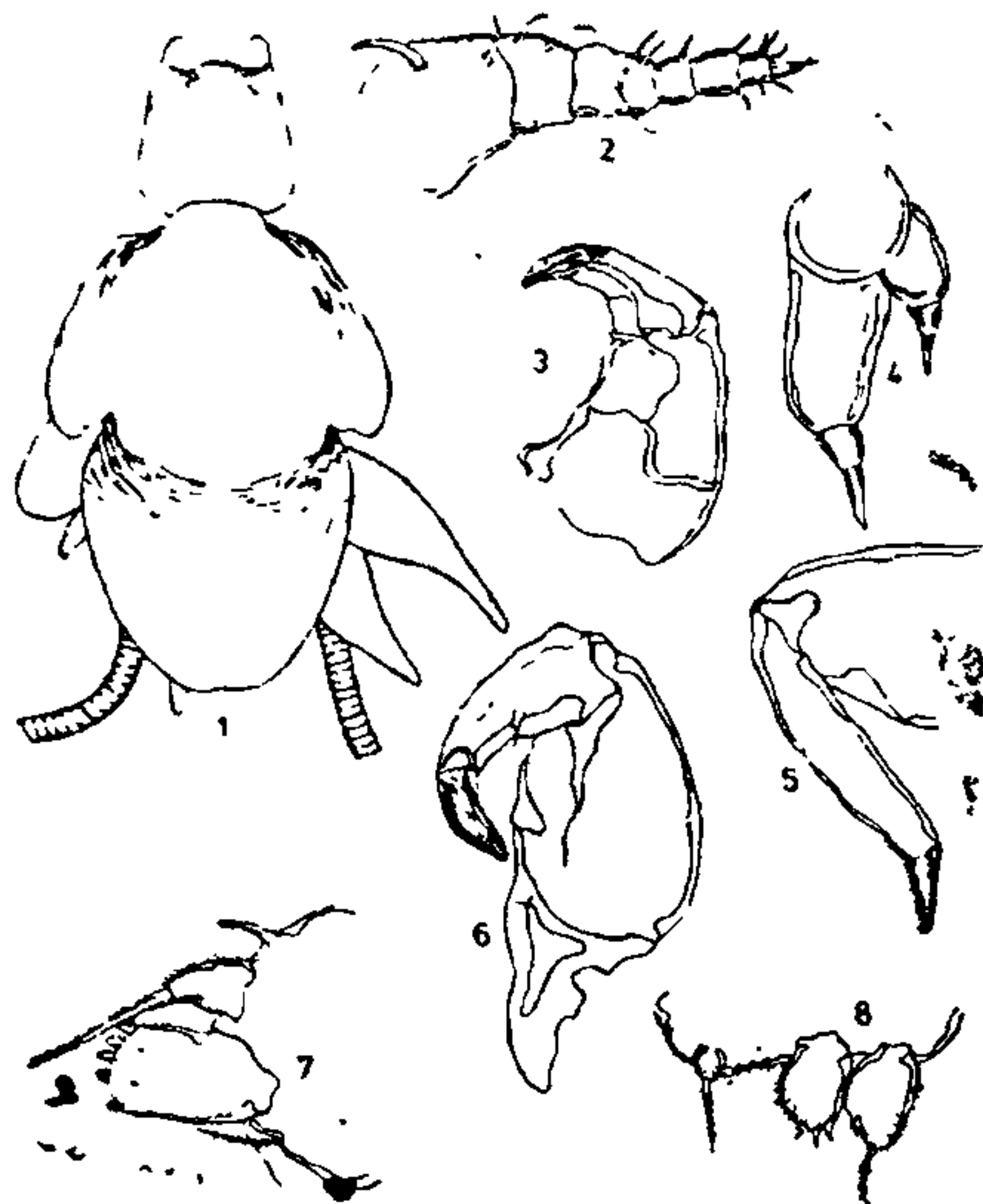


FIG. 1. *Lernanthropus koenigii* Stp. & Lutk. (1) Female, dorsal view; (2) Antennule; (3) Antenna; (4) Maxillule; (5) Maxilla; (6) Maxilliped; (7) First leg; (8) Second leg.

First pair of legs biramous, each ramus composed of a single segment. Exopod somewhat rectangular, with five teeth on distal border, endopod a conical lobe terminating in a very long barbed spine. Basipod with an outer slender seta and inner stouter seta. Both rami with scattered spinules. Second pair of legs similar to first but smaller. Basipod with a small outer lobe carrying a fairly long spine-like seta. Exopod with a row of five spines, endopod nearly as large as exopod, with a single long spine-like seta, much shorter than the corresponding seta of first leg. Third pair of legs large, foliaceous and cutiously twisted. Fourth legs biramous, with flattened rami, abruptly narrowing distally, only slightly projecting beyond the hind end of the body. Fifth leg uniramous, narrower than the rami of leg four.

Gnanamuthu² noted that the antennule is 7-jointed and the distal joint alone carries setae. The stout seta on the large basal segment has probably been missed by him. The antenna is more robust than shown in

the figure. Figures of the first two pairs of legs are unsatisfactory. The exopod of first leg is described as two-jointed. But this ramus, as in all other species of *Lernanthropus*, is only one-jointed. In figures of the dorsal view of the animal the antennular area is incorrectly shown as being separated from the carapace by a partition. Similarly a partition on the trunk behind the hind border of the head and a second septum separating the anterior division of the trunk from the dorsal plate are marked. These are not evident in the specimens before us. According to Gnanamuthu this transverse partition is not clear in preserved specimens and that is the reason why Steenstrup and Lutken failed to notice it. The dorsal plate is, in fact, a backward extension of the trunk protecting the delicate hind legs, the genital segment and the abdomen.

Distribution: Tranquebar, Madras.

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ON THE OCCURRENCE OF THE TREMATODE *HEMIPERA OVOCAUDATA*

Of the four species dealt under the genus *Hemipera* Nicoll¹ by Yamaguti², none has been reported so far from India and from the present host. A single specimen of the trematode, *Hemipera ovocaudata* Nicoll¹ (*Hemimuridae*) has been recorded from the stomach of the fish, *Channa (Ophiocephalus) punctatus* from Kudi (Jodhpur), Rajasthan, on April 9, 1977.

Measurements (Fig. 1)

Body elongate, 2.04 mm long and 0.57 mm maximum wide in ventral sucker region. Cuticle non-spinose. Oral sucker subterminal, surmounted by a preoral lobe and 0.27 × 0.28 mm in size. Prepharynx absent. Pharynx small, 0.02 × 0.03 mm. Oesophagus not distinct. Intestinal caeca long, terminating at posterior end of the body. Ventral sucker postequatorial, larger than the oral sucker and 0.52 mm in diameter, lying at 0.88 mm from the anterior extremity.

Genital pore median, ventral, postpharyngeal and 0.58 mm behind the anterior end. Testes two, ovoid, lying side by side in the posterior extremity but the right one displaced slightly anterior to the left one, measuring 0.16 × 0.13 mm and 0.17 × 0.13 mm, respectively. Cirrus pouch encloses only the ejaculatory duct and the pars prostatica. Seminal vesicle saccular and comparatively small.

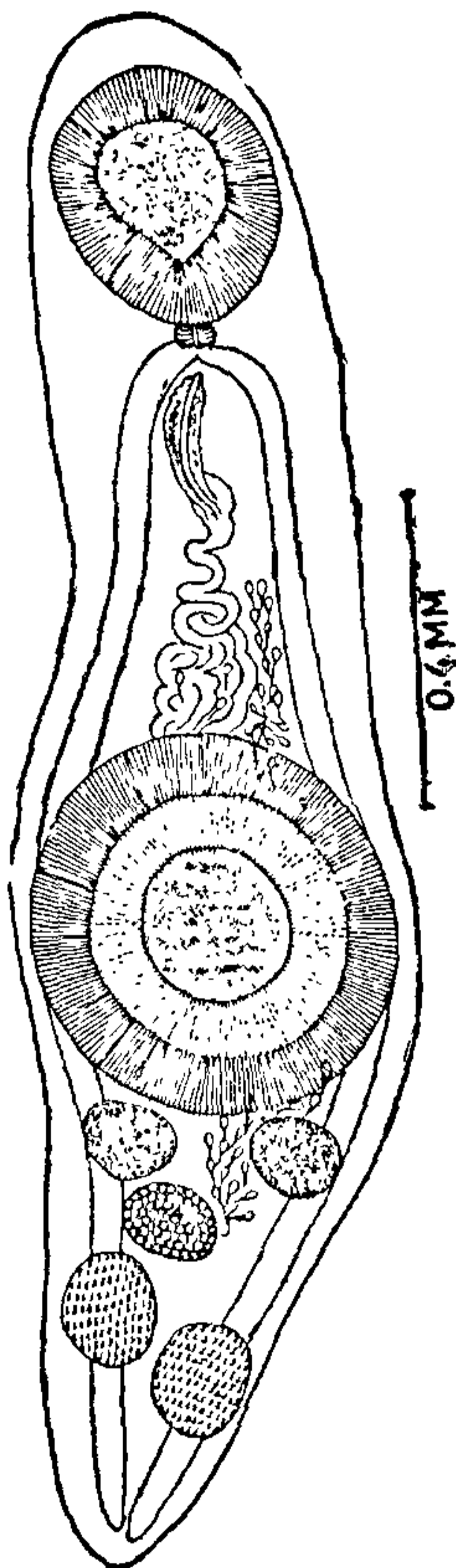


FIG. 1. *Hemipera ovocaudata*.

Ovary 0.12 × 0.14 mm, lying in front of the testes but behind the vitellaria. Vitellaria two, compact, rounded bodies, 0.12 mm in diameter and situated behind the ventral sucker and just above the ovary on either side. Uterus coiled, intercaecal with its main bulk lying anterior to the ventral sucker. Eggs oval, slightly curved, 0.035-0.040 × 0.010-0.012 mm with a filament at the anoperculate pole.

Though the members of the genus *Hemipera* have not been reported earlier from India and from the

present host yet the general topography of the organs and finding of only one specimen direct to recognise it as *Hemipera ovocaudata*, despite some differences in measurements of different organs and in the location of the ovary which is not intervittarian as shown by Skrjabin³ and Dawes⁴ but postvittarian (present form) which may be due to faulty preservation.

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LATERAL LINE SYSTEM IN THE TADPOLE OF THE INDIAN FROG *RANA TIGRINA* (DAUD)

LATERAL line system is a part of the acoustico-lateral or neuromast system and is present in all craniates from cyclostomes to man. While typically developed only in aquatic forms, it survives in others as the ear (internal), for it becomes differentiated into two parts: (1) the neuromasts of the lateral line system proper, and the related superficial organs, and (2) the auditory labyrinth and its contained sensory organs. The first is stimulated by slow vibrations of the watery environment^{2,3} and serves for the orientation of the body in relation to waves and currents¹¹. The second has two distinct functions—equilibrium in space or balance, and hearing.

Among the Salientia the lateral line system is present in the aquatic larvae but usually absent in the adults. They are found in the adults of Pipidae⁴ and of such aquatic types as *Bombina* and *Ceraxophrys laevis*.

The morphology and physiology of the amphibian lateral line system have been described by several workers¹⁻¹² but nothing is known of this system in the Indian frogs. This author has been working on the Indian Anuran amphibians for quite some time now, and