

ON A NEW SPECIES OF THE GENUS
OLIGACANTHORHYNCHUS
TRAVASSOS, 1915 (ACANTHOCEPHALA
OLIGACANTHORHYNCHIDAE) FROM INDIA

By

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(With one Text-figure)

INTRODUCTION

Three juvenile specimens were found encysted on the mesentery of a *Ptyas mucosus* and these, when freed and closely examined, were found to represent a new species of the genus *Oligacanthorhynchus* which is being reported for the first time from India. The blades of the hooks were grossly attenuated presumably due to the prolonged encystment in the paratenic host. It is common with the *Acanthocephalan* juveniles that the hooks degenerate first of all if the paratenic host is not taken up by the final host for a long time. However, from the presence of the basal parts of the hooks with their powerful roots and large anterior manubria, it is evident that the hooks were present. On the other hand it could never be that the hooks were in the stages of growth in the fully metamorphosed juvenile. Van Cleave (1937) states that by the time the larvae get fully metamorphosed into juveniles, they possess the definitive number, shape and size of hooks. Das, (1952, 1953, 1957) observed that in the developmental stages of certain *Palaeacanthocephalan* species, hooks and spines appear first and foremost during the course of morphogenesis and attain their shape and size by the time the metamorphosis is complete.

SYSTEMATIC ACCOUNT

Oligacanthorhynchus indicus, sp. n.

(Text-fig. 1)

Material and methods: Three ♀♀ juveniles. One was treated with lactophenol and preserved. The proboscis of the other was pressed under the cover slip for a close examination of the structure of the hooks

and their roots, the remaining part of its body was sectioned to observe the structure of the proboscis receptacle. The third with retracted proboscis was dissected to confirm certain observations.

Diagnosis : Globular proboscis, hooks subequal, 3 spiral rows of 6-8 hooks each.

Description : The female juvenile 5.75 mm. long; narrow anteriorly (0.95 mm. wide), broad posteriorly (1.60 mm. wide); surface wrinkled. Proboscis 0.80 × 0.79 mm. Hooks with large anterior manubria and powerful roots, roots of anterior hooks larger than those of posterior hooks, the largest root with manubrium 0.55 × 0.18 mm. Non-spinose region of proboscis 0.25 × 0.45 mm. Proboscis receptacle 1.0 × 0.75 with thick muscular wall. Lemnisci filiform, looped, posteriorly tapering, each about 5.1 mm. long, provided with a few giant nuclei, each about 100 microns in diameter.

Discussion : The description of the juveniles conform to the diagnostic characters of the genus *Oligacanthorhynchus*, cited by Yamaguti (1963) and revised by Schmidt (1972), consequently the juveniles belong to the family Oligacanthorhynchidae. This species can be separated (Table 1) from other *Oligacanthorhynchus* species recorded by Yamaguti (1963).

Table 1. — Number of rows and hooks in species of *Oligacanthorhynchus*

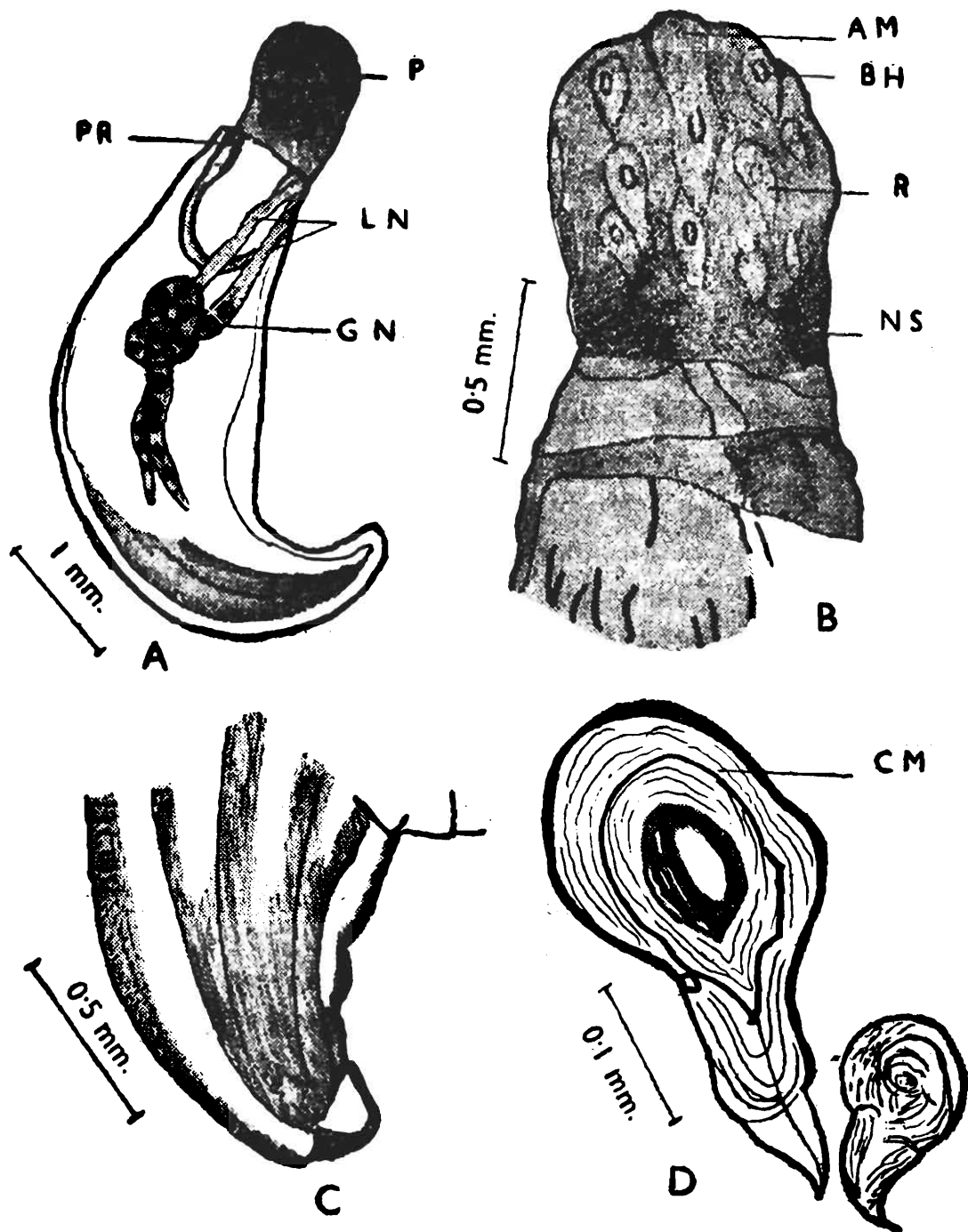
Species	No. of hooks
1. <i>O. compressus</i> (Rudolphi, 1802)	6 7 transverse rows
2. <i>O. iheringi</i> Travassos, 1917	6 spiral rows of 3 each
3. <i>O. lagaenaeformis</i> (Westrumb, 1821)	5 - 6 spiral rows
4. <i>O. oligacanthus</i> Rudolphi, 1819	6 × 2-4
5. <i>O. manifestus</i> (Leidy, 1851)	—————
6. <i>O. ricinoides</i> Rudolphi, 1808	12 × 3
7. <i>O. taenoides</i> Diesing, 1851	6 spiral rows of 3 each
8. <i>O. thumbi</i> Haffner, 1939	6 × 6
9. <i>O. indicus</i> , sp. n.	3 spiral rows of 6-8 hooks each; roots sub-equal

O. indicus, sp. n. differs from all other known species of the genus in having 3 spiral rows of 6-8 hooks each. This is also the first record of the occurrence of a species belonging to *Oligacanthorhynchus* in India.

Type-specimen : Holotype: (♀) deposited in the collection of the Department of Zoology, Vidharba Mahavidyalaya, Amravati. Registered No. A O/I, mounted on a slide.

Type-locality : Amravati, Maharashtra, INDIA.

Type-host : *Ptyas mucosus*



Text-fig.1. — *Oligacanthorhynchus indicus*, sp. nov.

A — Female juvenile; B — Proboscis enlarged; C — Posterior part of the ♀ juvenile; D — Basal part of a hook with root and anterior manubrium.

AM — anterior manubrium; *BH* — basal part of the attenuated hook; *CM* — concentric muscles embedding the manubrium and the root; *GN* — giant nuclei; *LN* — lemnisci; *NS* — non-spinose region of the proboscis; *P* — proboscis; *PR* — proboscis receptacle; *R* — root.

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SUMMARY

A new species of the Acanthocephalan parasite *Oligacanthorhynchus indicus* (family Oligacanthorhynchidae) is described. Through this species, the genus *Oligacanthorhynchus* is recorded for the first time in India.

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