Rec. zool. Surv. India, **86**(3&4) : 515-518, 1990

ON A NEW SPECIES OF COPEPOD, *NOTHOBOMOLOCHUS PULICATENSIS* SP. NOV., PARASITIC ON *HEMIRHAMPHUS GAIMARDI* VALENCIENNES FROM THE PULICAT LAKE, EAST COAST OF INDIA

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INTRODUCTION

On the parasitic copepoda of Indian Marine fishes lot of work had been done (Pillai, 1967). The bomolochids of Kerala coast have been studied by Pillai (1965 and 1973) and Pillai & Natarajan (1977). But estuarine and brackishwater lake fishes have not received as much attention. Babu (1975) studied all the endo- and ecto-parasites of the fishes of the Pulicat Lake. His general survey, obviously far from complete, yielded some very interesting parasites and indicated the vast potential of the field. During the course of a detailed study on the biology of some fishes of the Pulicat lake, number of piscicolous copepods were observed (Kaliyamurthy, 1982). One of the bomolochid copepods is described here as new.

DESCRIPTION OF THE SPECIES

Family BOMOLOCHIDAE

Genus ***Nothobomolochus*** Vervoort.

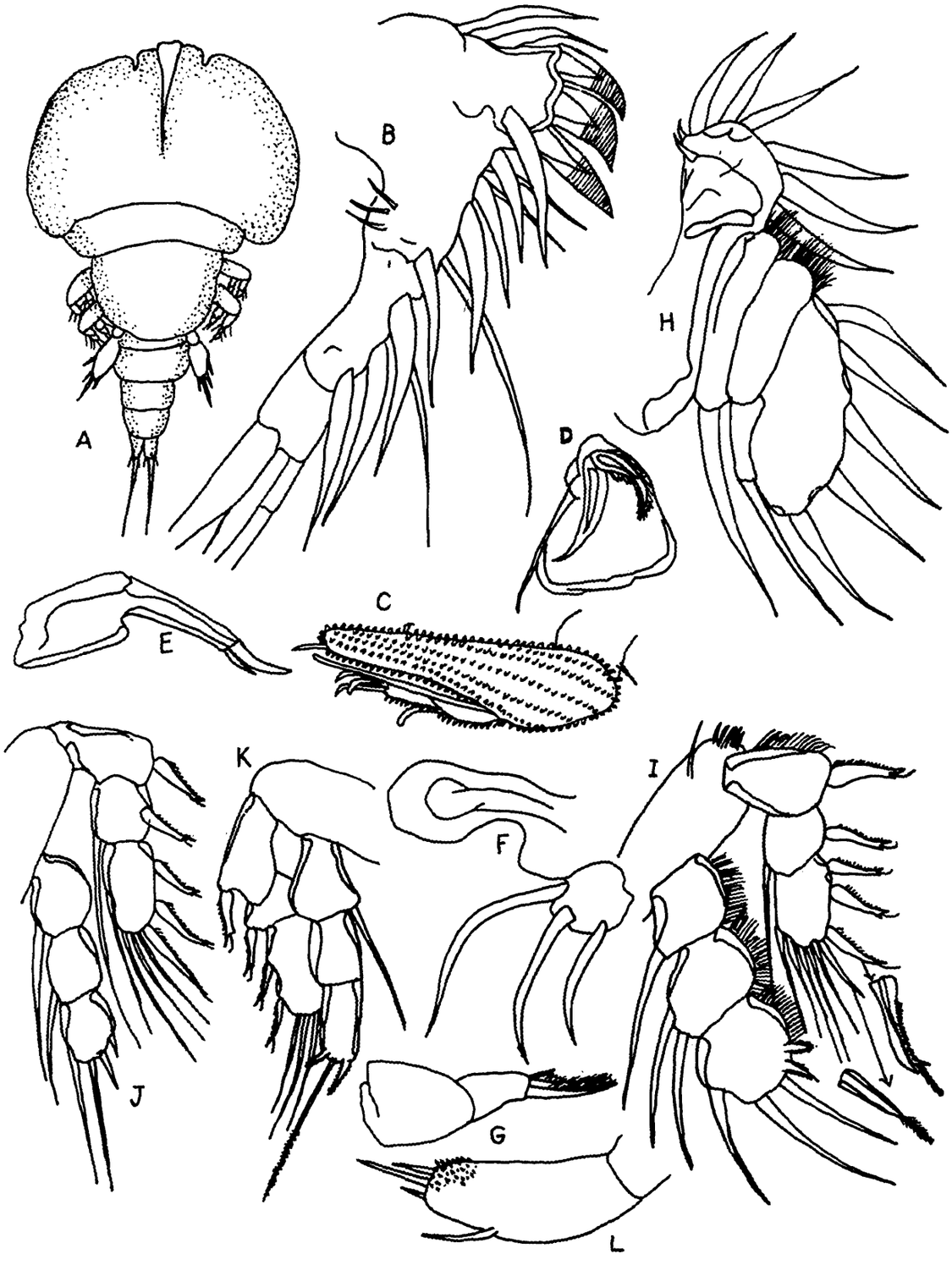
Nothobomolochus pulicatensis sp. nov.

Figs. A-L.

Material examined: : Five adult females from the inner surface of the opercles of *Hemirhampus gaimardi* Valenciennes.

Female : The carapace is nearly semicircular and the second thoracic segment is slightly narrower than carapace. The third segment is roughly semicircular and it overlaps the fourth segment. The fifth segment is much broader than long. The genital segment is slightly narrower than fifth segment. The abdomen is very short and three segmented. The caudal rami are short and their apical inner setae are stout and very long (Fig. A). The antennule is short with stumpy spines and setae (Fig. B); of the three processes, the first two are slightly shorter than the third and are bent towards the third.

All these spines are transversely wrinkled. Third segment of the antenna (Fig. C) is covered with blunt spines arranged into longitudinal ows. At the distal part there is a spine-fringed process, five hooks and a seta.



Figs. A-L. *Nothobomolochus pulicatensis*. A, female, dorsal view; B, antennule; C, antenna; D, maxilliped; E, mandible; F, maxillule; G, maxilla; H, leg-1; I, leg-2; J, leg-3; K, leg-4; L, leg-5.

The mandibles have upwardly curved blades with smooth edges (Fig. E). Maxillule has two large and one slightly smaller setae (Fig. F). The pragnath is rounded and smooth. Maxilla has two barbed blades and a small spine (Fig. G). Maxilliped is very characteristic and is triangular with a broad base (Fig. D). The claw is slender and slightly curved. The outer apical seta is chitinised, curved and spine like.

The segmentation of the endopod of first leg is not clear (Fig. H). The exopod carries two short spines and six setae. The outer margin of the first and second segments of endopod is hairy, and they have an inner seta each. The third segment carries five setae.

The outer margin of the first segment of exopod of second leg (Fig. I) is hairy with a single spine minutely barbed on the outer side. The second segment carries one outer spine and an inner seta. The last segment has four spines and five setae. The outer margins of the endopodal segments are hairy. The first segment has one seta, the second two and third three setae and two spines.

The first exopod segment of the third leg (Fig. J) has an outer spine. The second segment has one outer spine and an inner seta, and the third segment bears three spines and four setae. The endopodal segments one and two carry one inner seta each. The last segment has two setae and two small spines.

The first segment of the exopod of fourth leg (Fig. K) carries one spine, the outer side of which is serrated. The second segment carries one outer spine and an inner seta, while the third segment has three spines and five setae. The first segment of endopod has an inner seta, the second one is naked and the third carries three spines, the middle one being the longest.

The fifth leg (Fig. L) is narrow with a tappering end and has three spines and one seta. At its distal end a patch of spinules is seen.

Total length : 1.5 mm.

DISCUSSION

N. pulicatensis sp. nov. has a very characteristically short and broad body. There is a general reduction in the number of setae on the appendages. Second segment of endopod of fourth leg is completely devoid of setae. The shape of the maxilliped is triangular with a broad base and its apical outer seta is chitinised into a curved spine-seta, which is very peculiar to this species. All these characters clearly distinguish *N. pulicatensis* from the known species of *Nothobomolochus*. The wrinkled appearance of the three spines arming the antennule gives a remote resemblance to *N. denticulatus*.

SUMMARY

Nothobomolochus pulicatensis sp. nov. parasitic on *Hemirhamphus gaimardi* in the

Pulicat Lake, East coast of India is described in detail. It differs from the known species of *Nothobomolocus* in the general body shape, less number of setae on the appendages and in the modification of the apical outer seta on the maxilliped into a spineseta.

ACKNOWLEDGEMENTS

The author is grateful to Dr. A.V. Natarajan, Director for his kind interest and constant encouragement. His thanks are due to Dr. R.F. Cressey, Curator, Smithsonian Institution, Washington, U.S.A. and Dr. N. Krishna Pillai, Professor (Emeritus), Department of Aquatic Biology and Fisheries, University of Kerala, Trivandrum, for kindly examining the specimens and offering valuable suggestions in the identification of the parasite.

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