

A new cymothoid isopod of the genus *Nerocila* Leach (Crustacea: Isopoda: Flabellifera) parasitic on marine fishes of Waltair coast, India

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Summary

A new cymothoid isopod *Nerocila priacanthusi* is reported. The new isopod is collected from the marine fish *Priacanthus hamrur* of Waltair coast, Andhra Pradesh, India. *Nerocila priacanthusi* sp. nov. is compared with *N. serra* Schioedte and Meinert, 1881, *N. phaeopleura* Schioedte and Meinert, 1881, *N. madrasensis* Ramakrishna and Venkata Ramaniah, 1978 and *N. sundaica* Chidambaram and Menon, 1945.

Key Words: Cymothoid; new species; *Nerocila priacanthusi*.

Resumen

Se aporta una nueva especie de isópodo cymotoideo, *Nerocila priacanthusi*. Este nuevo isópodo se recolectó en un pez marino, *Priacanthus hamrur*, de la costa de Waltair, Andhra Pradesh, India. *Nerocila priacanthusi* se compara con *N. serra* Schioedte y Meinert, 1881, *N. phaeopleura* Schioedte y Meinert, 1881, *N. madrasensis* Ramakrishna y Venkata Ramaniah, 1978 y *N. sundaica* Chidambaram y Menon, 1945.

Palabras Clave: Cymotoideos, *Nerocila priacanthusi*, nueva especie.

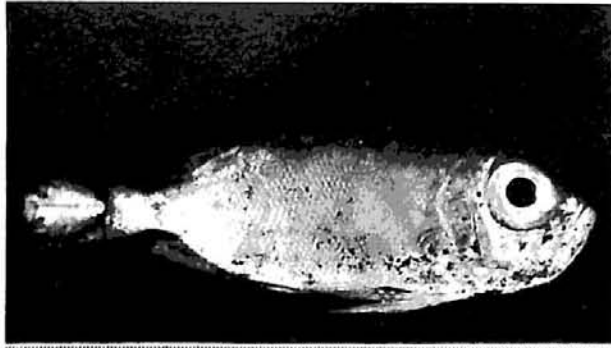
Introduction

While collecting parasitic marine isopods from Waltair off-shore fishing harbour, some interesting new specimens of the genus *Nerocila* were collected. These cymothoid isopods were attached to the caudal fin of marine fish *Priacanthus hamrur* as ectoparasites and were collected in the months of December, 1985, January and February, 1986. The isopods of the genus *Nerocila* have so far been reported by four species from India. Chidambaram and Menon¹ observed *Nerocila sundaica* infested on west coast food fishes *Engraulis mystax*, *Ololithus ruber*, *Serranus gilberti*, *Pellona indica*, *Therapon jarbua* and *Sardinella fimbriata*. A new cymothoid *N. madrasensis* was reported by Ramakrishna and Venkata Ramaniah³ from the gills of the fish *Hemiramphus* sp. from Madras. Mary² collected *N. serra* from the fishes *Johnius carutta*, *Priacanthus hamrur*,

Apogon sp. and *N. phaeopleura* from *Pseustes indicus* and *Megalopsis cordyla*. Based on 26 specimens, the taxonomical and morphological features are reported as a new species *Nerocila priacanthusi*.

Material and Methods

After collecting the infested fishes from off-shore fishing harbour to the laboratory, the isopod parasites were carefully detached from their respective hosts with a forceps. Then the specimens were preserved in specimen bottles with 70% alcohol. The colour of the parasite and the name of the host was noted before preservation. For camera lucida drawings, required appendages were removed with needles under the binocular microscope and placed on a glass slide with a drop of glycerine.



Nerocila priacanthusi sp. nov.

Fig. 1.: Female attached on the caudal fin of fish *Priacanthus hamrur*.



Nerocila priacanthusi sp. nov.

Fig. 2.: Dorsal view of female.

SYSTEMATIC ACCOUNT

Family: CYMOTHOIDAE Leach, 1818
Genus: *Nerocila* Leach, 1818

Material examined - Holotype: 1 ♀, 10 December, 1985 from the fish *Priacanthus hamrur*, Bay of Bengal, Waltair coast. Paratypes: 1 ♀, 11 December, 1985, from *P.*

hamrur; 3 ♀♀, 18 December, 1985 from *P. hamrur*; 3 ♀♀, 30 December, 1985 from *P. hamrur*; 7 ♀, 31 December, 1985 from *P. hamrur*; 1 ♀, 9 January, 1986 from *P. hamrur*; 2 ♀♀, 3 February, 1986 from *P. hamrur*; 8 ♀, 6 February, 1986 from *P. hamrur*.

Nerocila priacanthusi sp. nov.

Adult female (Figs. 1-13)

Specific description:

a) Measurements - Length 24 mm, breadth 14 mm.

b) Colour - Light yellow coloured body with brown band on mid-dorsal region.

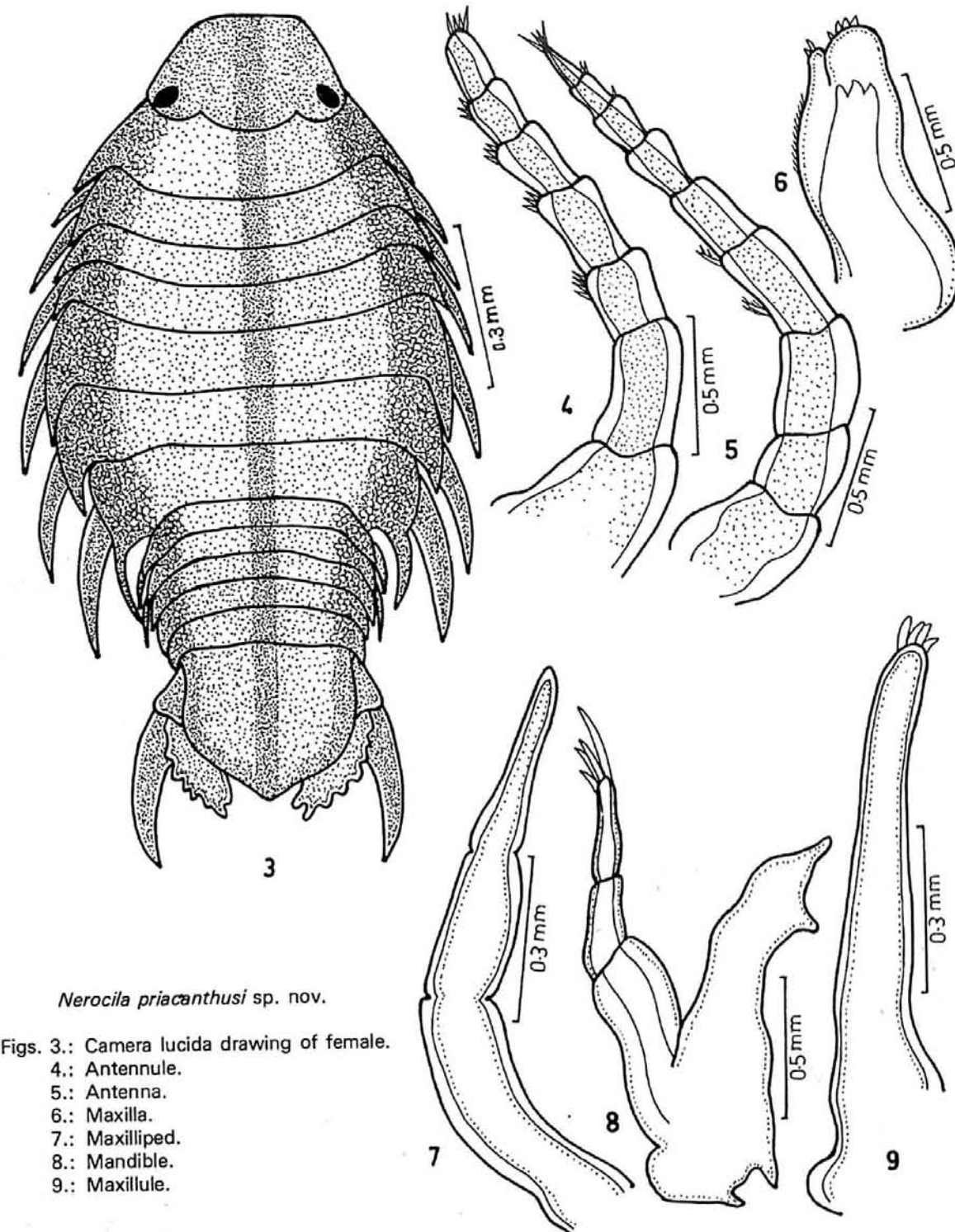
c) Body oval, nearly two times longer than wide, more or less flattened, dorsal surface slightly convex and smooth, lacking tubercles or rugae.

d) Cephalon quadrate, anterior margin truncate, posterior margin trilobed, median lobe twice that of lateral lobes, lateral lobes more prominent than median lobe. Eyes small, oval, black and situated at lateral lobes of cephalon.

e) Antennule small, stout and composed of 7 articles and extend up to anterior edge of pereonite 1, basal article broader than remaining articles. Antennae somewhat slender than antennule and made up of 9 articles; extending up to middle of pereonite 1, last 4 articles slender than others and decrease in size.

f) Maxillulae terminate into 4 strong hooks. Maxillae composed of 2 lobes; inner lobe provided with 2 hooks and outer lobe with 4 hooks. Mandibular palp composed of 3 articles, terminal article provided with 5 spines of which one a very long and other very short. Maxilliped composed of 3 articles.

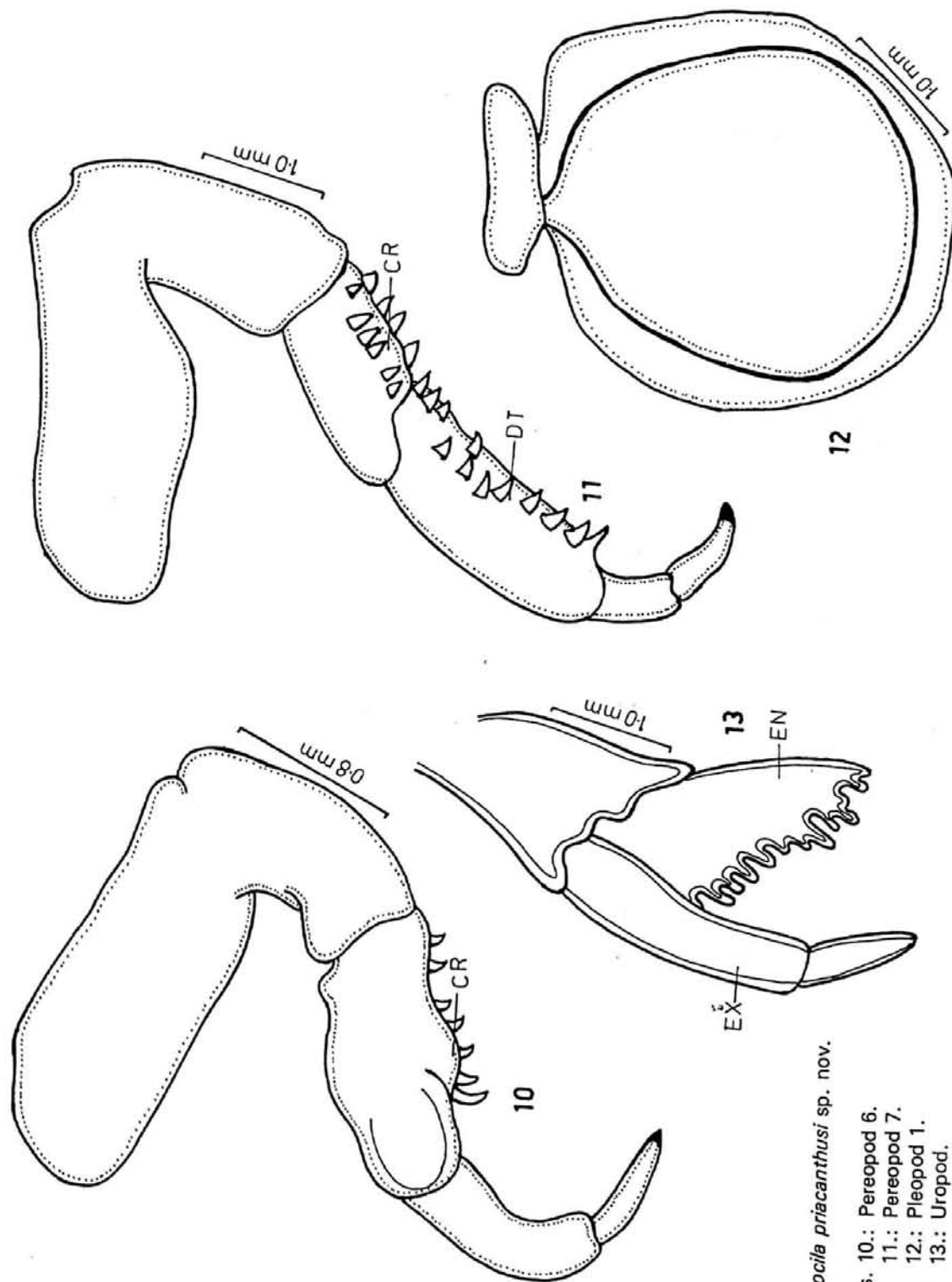
g) Pereon roughly twice as long as pleon. All pereonites distinct. Pereonite 1 broader than pereonites 2-4. Pereonites 2-5 sub-equal. Pereon broadest at pereonite 6, decrease in size at either ends gradually postero-lateral angles of all pereonites acutely produced and extend beyond middle of all pereonites. Coxae of pereonites 1-7 distinct, elongate, narrow and sharp, gradually



Nerocila priacanthusi sp. nov.

Figs. 3.: Camera lucida drawing of female.

- 4.: Antennule.
5.: Antenna.
6.: Maxilla.
7.: Maxilliped.
8.: Mandible.
9.: Maxillule.



Nerocila priacanthusi sp. nov.

Figs. 10.: Pereopod 6.
11.: Pereopod 7.
12.: Pleopod 1.
13.: Uropod.

increase in length. All coxae cover postero-lateral angles of respective pereonites. Coxae of pereonites 6 and 7 extend postero-lateral angles of both pereonites. Coxae of pereonite 7 extend middle of telson.

h) Pereopods 1-7 gradually increase in length posteriorly. Pereopods 1-5 devoid of spines. Pereopod 6 provided with 7 stout spines on carpus. Pereopod 7 covered with 2 rows of stout spines on carpus and dactylus.

i) Pleon composed of 6 distinct pleonite. Postero-lateral angles of pleonite 1 and 2 very elongate. All pleopods almost rounded.

j) Telson or pleonite 6 almost rounded posteriorly and roughly acuminate at mid-posterior region. Uropods as long as telson. Exopod bi-articulate, longer than endopod and recurved. Endopod broader at proximal, outer margin dentate.

Type host: *Priacanthus hamrur* (Forsk.)

Location: Caudal fin

Type locality: Waltair coast, Bay of Bengal, India.

Type materials: The Holotype (females) are lodged in Zoology Department, Andhra University, India. They will be deposited in the collection of the Zoological Survey of India, Calcutta.

Males: Not found

Etymology: The species name is derived from its host generic name *Priacanthus*.

Discussion

Nerocila priacanthusi sp. nov. resembles *Nerocila serra* Schioedte and Meinert⁴, in structure of maxillulae, maxilliped, and telson, but differs in body form, structure of pereonites, pereopods, uropods and coxae, stout antennule with 7 articles, slender antennae with 9 articles and biarticulate exopod. It also shows some similarities with *N. phaeopleura* Schioedte and Meinert⁴, in general body shape and structure of cephalon.

The present new species also resembles *N. madrasensis* Ramakrishna and Venkata Ramaniah³, in the shape of body and telson, but differs greatly from it in the structure of antennule, antenna, maxilla, structure of pereon, presence of acutely produced coxae on all pereonites and uropods.

N. priacanthusi sp. nov. shows slight similarity with *N. sundaica* Chidambaram and Menon¹, in possessing stout antennule with 7 articles but can be easily distinguished by its differently shaped body, maxillule, maxilla and uropods. However, it differs from the above species in respect of shape and size of coxae or pereonites, structure of appendages, specially the antennae, antennule, maxilla and exopod of uropod.

Acknowledgements

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