A NEW ERGASILID COPEPOD PARASITIC ON THE FRESHWATER SPINY EEL, *Mastacembelus armatus* Lacépède, 1800 FROM THE RIVER GODAVARI, INDIA

BY

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ABSTRACT

A new ergasilid copepod of the genus *Neoergasilus* Yin, 1956 (Copepoda, Ergasilidae) parasitic on the freshwater spiny eel, *Mastacembelus armatus* Lacépède, 1800 from the river Godavari, India, is described. *Neoergasilus indicus* sp. nov. is characterized by an ergasilidiform body and can be differentiated from other species of its genus in having a blunt, knob-like extension on the inner distal corner of the basal segment of the exopod of leg 1; the leg armature; a deep incision in the caudal lamina; and the host.

RÉSUMÉ

Un nouveau copépode de la famille des Ergasilidae, appartenant au genre *Neoergasilus* Yin, 1956 (Copepoda, Ergasilidae), est décrit, parasite de l’anguille *Mastacembelus armatus* Lacépède, 1800 de la rivière Godavari, Inde. L’espèce *Neoergasilus indicus* sp. nov. est caractérisée par son corps ergasilidiforme, et peut être différenciée des autres espèces du genre par la présence d’une extension en forme de bouton émoussé à l’angle distal interne du segment basal de l’exopodite de la première paire de pattes; par l’armature des pattes; par une incision profonde dans la lame caudale; et par l’hôte.

INTRODUCTION

*Mastacembelus armatus* Lacépède, 1800 is the most commonly occurring fish from the family Mastacembelidae in the southern part of India. It supports an economically important inland water fishery due to its great palatability. This fish occurs in large numbers in the river Godavari and is known as ‘Mudi bommidai’ in the area. *M. armatus* makes a host for many metazoan parasites and it harbours all
the major groups of parasites, like monogeneans, digeneans, cestodes, nematodes, acanthocephalans, and copepods. Yet, only little work has been carried out on the ectoparasitic fauna of this fish. In the present study, a new species of parasitic copepod, *Neoergasilus indicus* sp. nov. is described from the fish. The generic identification was performed with the aid of standard books by Yamaguti (1954) and literature pertaining to it.

**MATERIAL AND METHODS**

In the present study, fish were collected from some fishery locations and local markets of Rajahmundry, a town near the river Godavari, and brought to the laboratory. Gills were carefully removed, the gill filaments were carefully teased, and the contents were observed under a stereo microscope. Copepod parasites were collected and fixed in 10% formalin. For the purpose of identification, the parasites were kept in cavity blocks with a few drops of lactic acid for 12-24 hours for clearing, and drawings were made with the aid of a camera lucida. Measurements are given in millimetres unless mentioned otherwise.

**RESULTS**

Family **ERGASILIDAE** Nordmann, 1832  
Genus *Neoergasilus* Yin, 1956  
*Neoergasilus indicus* sp. nov. (figs. 1-12)

Material examined. — A total of 110 female parasites from the gills of 283 *Mastacembelus aramitus*, collected during 2005-2007. Live colour brown. Only one or two parasites were obtained from each fish. Holotypes and paratypes of the parasites are deposited in the Museum of the Department of Zoology, Andhra University, Visakhapatnam (Collection No. AUMDZ 128), and are further likely to be transferred to the Zoological Survey of India, Hyderabad.

Female. — Body ergasilidiform, short and stout, tapering posteriorly, and measuring 0.53-0.58 × 0.16-0.19. Cephalothorax long and broadening backwards, 0.36-0.41 in length. Cephalon fused and clearly demarcated from first thoracic somite and measuring 0.22-0.26. Nauplius eye present in the rostral plate. First four thoracic somites free, pedigerous, decreasing in size posteriorly; first somite 0.04-0.05 × 0.05-0.06, second 0.03-0.05 × 0.07-0.09, third 0.04-0.05 × 0.07-0.09, fourth 0.04-0.05 × 0.06-0.07. Fifth thoracic somite relatively small and less wide than the genital somite; 0.02-0.03 × 0.05-0.06. Genital somite barrel-shaped, with a pair of genital slits or orifices on the dorsolateral surface; 0.03-0.04 × 0.05. Each egg sac contains large, polygonal eggs in three rows; 18-20 eggs per sac and measuring 0.07-0.08 × 0.03-0.04. Abdomen three-segmented, short, with each...