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RECORD OF *HOPLOPLEURA MALABARICA* WERNECK (ANOPLURK : HOPLOPLEURIDAE) FROM INDIA.

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ABSTRACT

Hoplopleura malabarica Werneck ex. *Bandicota* spp., known earlier from Sri Lanka and Thailand is recorded from *Baudicota bengalensis* for the first time from India. The adults are redescribed and illustrated.

INTRODUCTION

Hoplopleura malabarica was described by Werneck (1954) from *Bandicota bengalcnsis* of Sri Lanka. Subsequently, Johnson (1959) and Kim (1966) redescribed the species and recorded it from two more host species, *B. indica* and *B. malabarica* from Thailand. During present study, several specimens from *Bandicota bengalensis* were collected from various localities of West Bengal, India. The terminologies used herein follow Mishra (1981). The voucher materials are in the National Zoological Collection at Zoological Survey of India, Calcutta.

Hoplopleura malabarica Werneck 1954.

Hoplopleura malabarica Werneck, 1954, *Rev. Brazil Biol.*, **14** : 113-116.

Female : (Figs. 1-5). The mean body length 0.85 mm. ; range 0.84 to 0.88 mm. (4 specimens).

Head (Fig.2) : Approxmately 1.3 times as long as wide ; Post antennal angle rounded. All typical head setae present. OS 3 to 4 pairs. ADHS close to PDHS. MHS in straight line. Antennal sensoria contiguous.

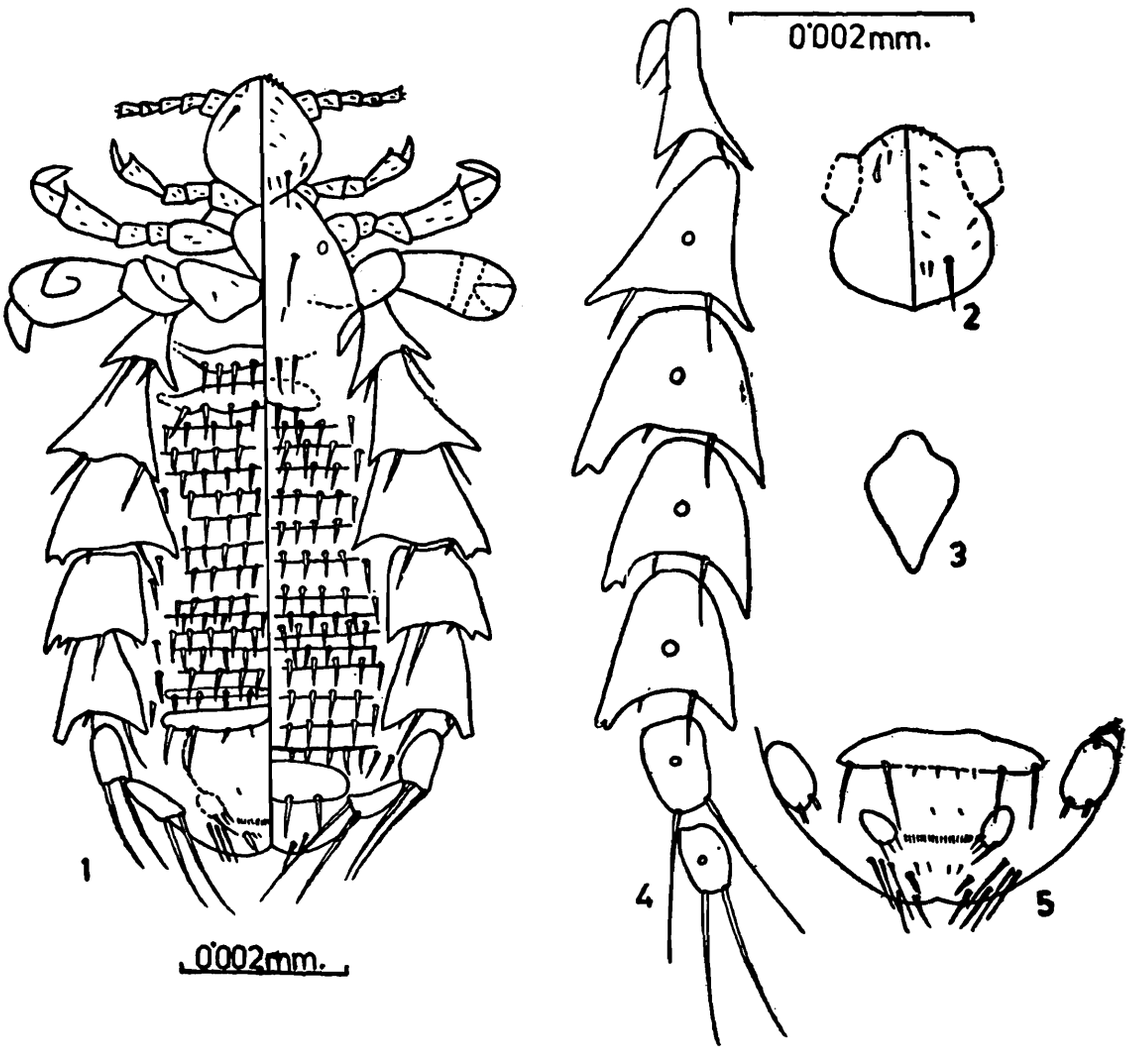
Thorax : Sternal plate (Fig.3) 0.12 mm. long, 0.08 mm. wide ; pearshapped with anterior process small ; posterior process rounded at apex. MDTS long, one pair. ADTS two pairs, minute. Legs : same as in other member of genus.

Abdomen. Dorsal : Segment II with a single tergite ; two rows of setae, anterior row with 2 minute setae posterior row with 2 pairs of thin and elongate setae, posterior row associated with tergite. Segment III with 3 tergites ; first distinct, others being narrow, having 4 to 6 setae each. Segment IV to VII each with 3 indistinct very narrow tergites, having 6 to 10 sword-shaped setae. Segment VIII and terminal segment each with

single tergite, having 4 setae. Setae off the plates between tergites and paratergites number 4 to 6 on each side (DAAS).

Ventral : Segment II with a single sternite, lateral extensions produced anterolaterally, articulating with corresponding paratergite, having 8 setae. Segment III with 4 sternites : first broad with lateral extensions, with 2 groups of 2 enlarged setae laterally and 3 narrow setae mesially ; remaining sternites very narrow, indistinct, having 7 or 8 setae. Segment IV to VI each with 3 very narrow indistinct sternites, having 6 to 9 setae each. Segment VII with 2 narrow sternites, anterior having 6 to 8 setae ; posterior with 2 pairs of long and 2 pairs of small setae. Remaining sternites modified to form genetalia. Setae off the plates between sternites and paratergites number 7 to 9 on each side (VAAS).

Lateral : Paratergites (Fig. 4) well developed. Paratergite II with long tapering posterior angles, ventral much longer than dorsal ; dorsal seta much longer than ventral side. Paratergite III with dorsal and ventral posterior angle long and acute ; both setae long Paratergite IV to VI each with dorsal posterior lobes notched ventral posterior



Figs. 1-5 : 1. *Hoplopleura malabarica* Werneck ; 2. Head ; 3. Thoracic sternal plate ; 4. Paratergites ; 5. Genetalia.

outer angle well developed and pointed ; ventral seta long, longer than lobes, dorsal seta minute. Parategites VII and VIII devoid of lobes ; each with 2 long setae.

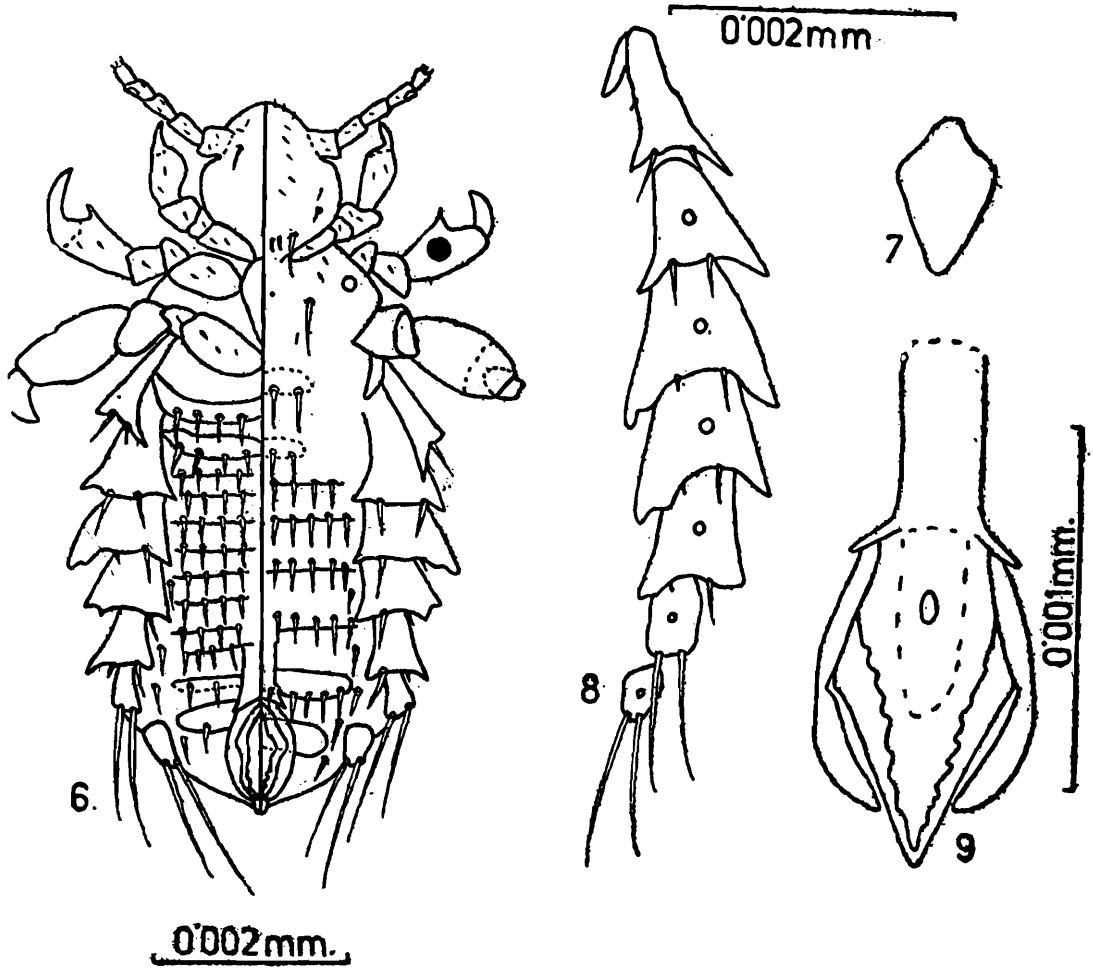
Genetalia (Fig. 5) : Genetal plate of segment VIII fused with posterior sternite of segment VII to form complete genital plate ; outline of the plate indistinct posteriorly, with 2 pairs of long and 4 pairs of minute setae. Gonopod paired, with 3 setae each. Genetal seta slightly enlarged. Opening of the vulva situated between the gonopods.

Male : (Figs. 6, 7, 8, 9). The mean body length 0.62 mm. ; range 0.61 to 0.64 mm. (4 specimens).

Head, Thorax and Legs as in female. Thoracie sternal plate (Fig. 7) 0.11 mm. long ; 0.07 mm. wide.

Abdomen. Dorsal : Segment II as in female. Segment III with 2 tergites, anterior tergite distinct, having 4 setae, posterior narrow indistinct, having 8 setae. Segment IV to VI, each with single narrow indistinct tergite, having 8-10 setae. Segment VII with narrow tergite, having 10 setae. Segment VIII with single tergite without setae. Setae off the plates between tergites and paratergites number 4 to 5 on each side (DAAS).

Ventral : Segment II as in female. Segment III with 3 sternites ; anteriormost as in



Figs. 6-9 : 6. *Hoplopleura malabarica* Werneck, male ; 7. Thoracic sternal plate ; 8. Paratergites ; 9. Genetalia.

female, remaining two, indistinct and narrow, with 7 or 8 setae each. Segment IV to VII each with 2 very narrow sternites, having 6 to 9 setae each. Segment VII and VIII, each with single sternite, former with 4, latter with 2 setae. Terminal segment with several minute setae. Setae off the plates between sternites and paratergites number 3 to 4 on each side (VAAS).

Lateral : Paratergites (Fig. 8) almost same as female except ventral posterior outer angle of paratergite VI not lobed.

Genetalia : (Fig. 9) parameres anteriorly notched, not strongly curved inword ; pseudopenis serrated.

Nymph : unknown.

Material Examined : 2 females, 1 male, Chandra, Midnapur dist., West Bengal, India, 10.9.1984. and 2 females, 3 males Susunia hill, Bankura Dist., West Bengal, India, 6.1.85.

Host : *Bandicota bengalensis* (Gray)

Remarks : The present specimens correspond with those described by Johnson (1959) and Kim (1966) from Sri Lanka and Thailand, but with following differences. PDHS long ; tergites and sternites of anterior and posterior segments both males and females distinct ; othersbeing indistinct and very narrow. Paratergites IV to VI with dorsal posterior lobes notched in both sexes. Ventral posterior outer angle of paratergite VI well developed only in females. Females with DAAS 4 to 6 pairs, VAAS 7 to 9 pairs. Males with DAAS 4 to 5 pairs, VAAS 3 to 4 pairs.

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References

Johnson, P. T. 1959. The rodent infesting Anoplura (Sucking lince) of Thailand, with remarks on some related species. *Proc. U. S. natn. Mus.* **110** : 569-598.

Kim, K. C. 1966a. A new species of *Hoplopleura* from Thailand with notes and description of nymphal stages of *Hoplopleura captiosa* Johnson (Anoplura). *Parasitology* ; **56** : 603-612.

Mishra, A. C. 1981. The Hoplopleurid lice of Indian subcontinent. *Rec. zool. Surv. India, Occ. Paper* **21** : 46-47.

Werneck, F. L. 1954. Contribution to the knowledge of Anoplura. *Rev. Brazil. Biol.*, **14** : 113-116.