

A new species of the genus *Paramisophria* (Copepoda, Calanoida, Arietellidae) from the China Seas

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Abstract—Holotypic and Paratype specimens (female) of the present new species, *Paramisophria sinica* n. sp. were collected from the waters of the southeastern South Huanghai Sea and northern South China Sea, respectively. Compared with the previously known congeneric species, this new species remarkably differs from any one of them in some characters, such as in female: each side of posterolateral margin of last thoracic segment with two pointed processes; the genital segment asymmetrical and with fusion line clearly visible; leg 5, endopod with four plumose setae, exopod with three or four outer marginal and one terminal spines.

Key words *Paramisophria sinica* n. sp., new species, China Seas

INTRODUCTION

A new species of *Paramisophria* has been found in the copepod samples from the southern Huanghai Sea (1977) and the northern South China Sea (1979). As the type specimens of this new species were first obtained in the China Seas, it is named *Paramisophria sinica* n. sp. The diagnostic characters of the new species and its comparison with the similar species are given in the present paper.

Paramisophria sinica n. sp. (Fig. 1)

Type specimens

Holotype, female, No. TIO-Y1977C 1 ♀, collected from the southeastern South Huanghai Sea (33.00°N, 124.50°E), depth of 67 m, on 4 February, 1977; paratype, female, No. TIO-S1979 C2 ♀, collected from the coastal waters off northeastern Hainan Island in the northern South China Sea (20.00°N, 111.25°E), depth of 18 m, on 15 September, 1979. Type speci-

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Female

Body length 3.12~3.44mm. Cephalothorax robust and elliptical in form. The forehead broadly round. Rostrum large, with a pair of rostral filaments (Fig. 1-1, 2, 4). Cephalosome separated from the first thoracic segment, the fourth and fifth segments completely fused. Each side of the posterior margin of the last thoracic segment with one acute dorsolateral and another acute ventrolateral processes; both sides slightly asymmetrical, the left ventrolateral process longer than the right one, former reaching nearly the end of genital segment, the latter only reaching the middle or two-thirds of the genital segment (Fig. 1-1~3, 13). Abdomen 4-segmented; the genital segment asymmetrical, right side rather swollen on the proximal and with fusion line clearly visible on the dorsal middle to right lateral margin (Fig. 1-1~3, 13); the anal segment very short. Caudal ramus somewhat asymmetrical, left rami broader; the third and fourth furcal setae coarser and longer (Fig. 1-1, 13).

The first antennae 22-segmented; segments 1~8 bearing a row of long hairs along the posterior margin; left 1st antenna longer than the right one, extending to the end of the cephalosome (Fig. 1-1, 5). The second antennae with 6-segmented exopod and 2-segmented endopod. The cutting edge of mandibular bifurcated, having a strong ventral tooth, and three dorsal teeth of which proximal bearing two tufts of spinules (Fig. 1-6). Mandibular palp having 1-segmented rudimentary endopod, and with two setae of unequal lengths on the end. First maxilla: the first inner lobe with five strong-spines and one spinule; the second inner lobe only with a long seta; outer lobe with eight setae; endopod 1-segmented, small knob-like and with two small setae of unequal lengths on the tip; exopod 1-segmented and fused with basipod segment 2, wing-like and bearing three long apical setae (Fig. 1-7). Setation and spinulation of the second maxilla and maxilliped are the same as *Paramisophria japonica* (Ohtsuka *et al.*, 1991.)

The first leg: outer margin of basipod segment 1 with a small blunt process and minute-hairs; distal exopod segment with two outer marginal spines; each outer distal angles of endopod segments 1 to 3 produced into acute processes (Fig. 1-8). The 2nd to 4th legs: inner distal angles of 2nd basipod segments each with a triangular acute processes; outer distal angles of second endopod segments each with a stout acute processes; distal endopod segments having 8, 8 and 7 setae, respectively (Fig. 1-9~11). The fifth pair of legs has 1-segmented endopod and exopod, in former fused with basipod segment 2 and bearing four plumose setae, of which two on the inner and other two on the end; the latter separated from the basipod segment 2, with three or four outer marginal and one terminal spines, as well as one terminal process (Fig. 1-12, 14).

Comparison

Although this new species *Paramisophria sinica* n. sp. closely resembles *P. japonica*

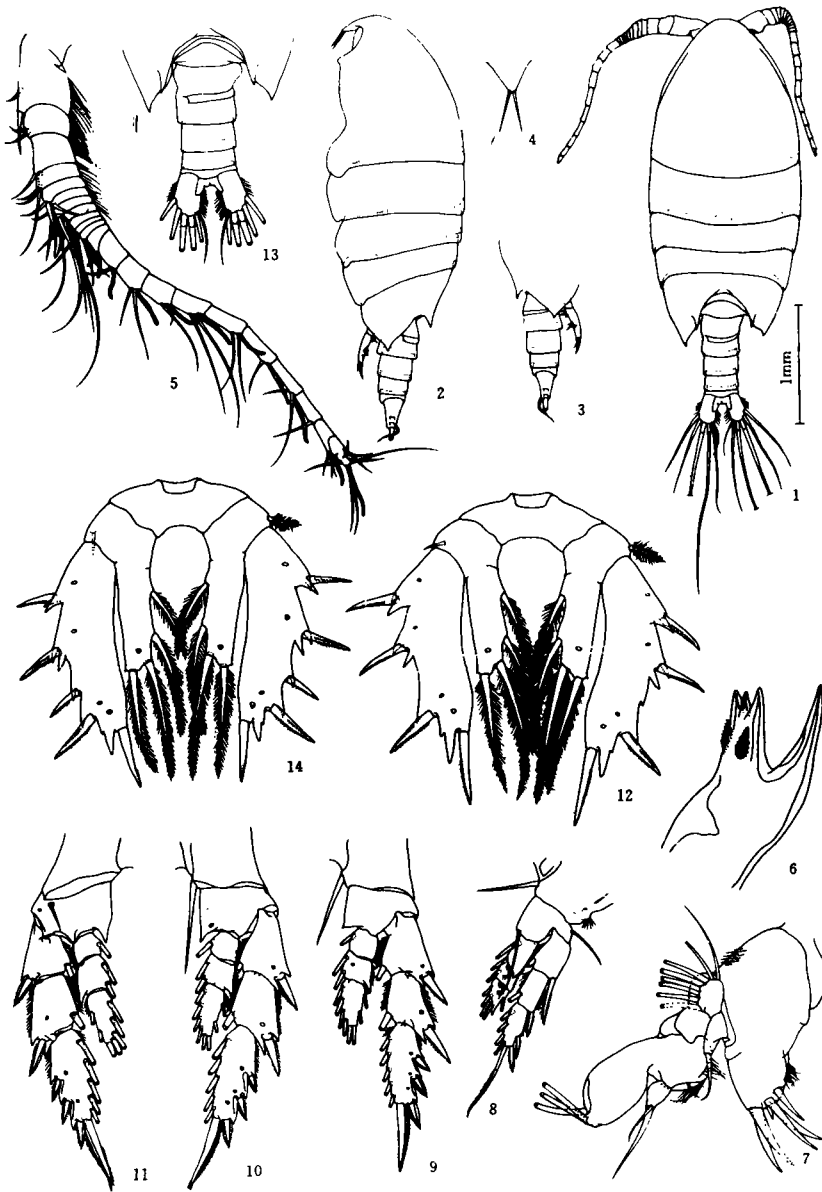


Fig. 1. *Paramisophria sinica* n. sp. (female, Holotype; 1~12; Paratype; 13, 14). 1. habitus, dorsal view; 2. habitus, left lateral view; 3. last thoracic segment and abdomen, right lateral view; 4. rostrum and rostral filaments, frontal view; 5. left 1st antenna, dorsal view; 6. cutting edge of left mandibular; 7. left 1st maxilla; 8. left leg 1, anterior surface; 9. left leg 2, anterior surface; 10. left leg 3, anterior surface; 11. left leg 4, posterior surface; 12. fifth pair of legs, anterior surface; 13. last thoracic segment and abdomen, dorsal view; 14. fifth pair of legs, anterior view.

(Ohtsuka *et al.*, 1991) and *P. giselae* (Campaner, 1977), but there still remain some remarkable characteristic differences between them, as shown in Table 1.

Table 1

Characters (female)	<i>P. sinica</i> n. sp.	<i>P. japonica</i> (Ohtsuka <i>et al.</i> , 1991)	<i>P. giselae</i> (Campaner, 1977)
Body length (mm)	3.12~3.44	1.98	2.55~2.60
Forehead (dorsal view)	broadly rounded	obtuse rounded	narrower, obtuse triangle
Posterolateral margin of last thoracic segment			
ventrolateral process	acute	broadly rounded	obtuse process
mediolateral process	absent	obtuse rounded	absent
dorsolateral acute process	large	smaller	large
Genital segment:			
dorsal view	asymmetrical, swollen on proximal right side	nearly symmetrical	nearly symmetrical
fusion line	clearly visible	absent	absent
No. of segments with long hairs along proximal posterior margin of 1st antenna	8	8	11
Maxilla 1:			
No. of endopod setae second inner lobe	2 with one long seta	3 with one spinule	3 with one long seta
Leg 5:			
No. of endopod setae	4	2	2
No. of exopod segments	1, separated from basipod segment 2	2, separated from basipod segment 2	1, fused with basipod segment 2
No. of terminal spines on exopod	1	2	2

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