

Description of *Moraria (Baikalomoraria) utulikensis* sp. n. from Lake Baikal (Harpacticoida: Canthocamptidae)

T.D. Evstigneeva

Evstigneeva, T.D. 2001. Description of *Moraria (Baikalomoraria) utulikensis* sp. n. from Lake Baikal (Harpacticoida: Canthocamptidae). *Zoosystematica Rossica*, **10**(1): 41-46.

A new species of the *Moraria (Baikalomoraria) werestchagini* group (Borutzky, 1949) is described from Southern Baikal. It differs from other congeneric species in the characteristic shape of leg 5 and ornamentation of the caudal rami in the female and endopodite of legs 3 and 4 in the male.

Limnological Institute, Siberian Branch of the Russian Academy of Sciences, P.O. Box 4199, 664033 Irkutsk-33, Russia.

Introduction

The subgenus *Baikalomoraria* has been described by Borutzky (1931) for Baikalian species of the genus *Moraria* Scott, 1893 with the following diagnostic features: rostrum wide; apical setae of the endopodite of leg 1 long, curved; caudal rami with a rib on dorsal side. Currently, the subgenus comprises at least 21 species, all of them endemics of Lake Baikal (Okuneva, 1989).

The *M. (B.) werestchagini* group has been separated within the subgenus by Borutzky (1949) for 4 new species (*M. stylata*, *M. coronata*, *M. magna*, *M. werestchagini*) having a massive apical tooth on the proximal segment of the male leg 2 and distinct serration on posterior dorsal margins of the body somites. Okuneva (1981, 1983) described further two species of this group: *M. linevitchi* and *M. mazepovi*.

In species of the subgenus *Baikalomoraria*, caudal rami are extremely variable between species (Okuneva, 1989; Boxshall & Evstigneeva, 1994): *M. coronata* has two longitudinal rows of spinules and a row of spinules near the base of apical setae, *M. linevitchi* has two teeth at the rib on the caudal rami, etc.

The collected material was preliminarily examined alive, than fixed in 4% formaldehyde. After dissection, species were identified using the key by Borutzky (1952). Figures were made with camera lucida.

The setal formula of legs 1-4 is given according to Huys et al. (1996) and the setation of caudal rami, according to Huys & Boxshall (1991).

Moraria (Baikalomoraria) utulikensis sp. n. (Figs 1-17)

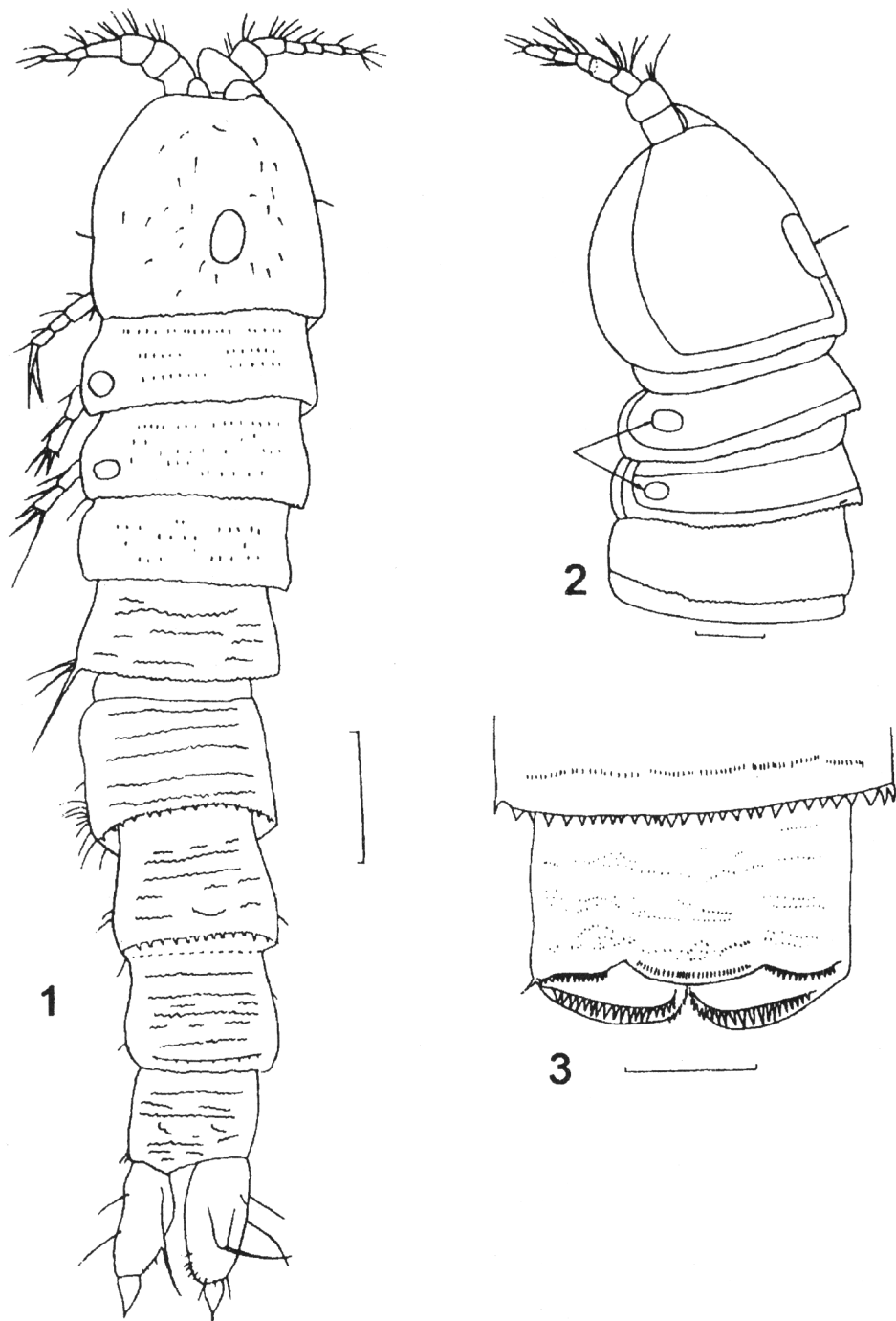
Holotype (microscope slide no. 26). ♀, **Russia**, *Irkutsk Prov.*, southern part of Lake Baikal, near mouth of the Utulik River, depth of 8-10 m, coarse-grained sand, 13.VII.1996 (T. Evstigneeva), collection of the Limnological Institute, RAS, Irkutsk.

Paratypes (microscope slides No 27-30). 3 ♀, 1 ♂, same data as holotype.

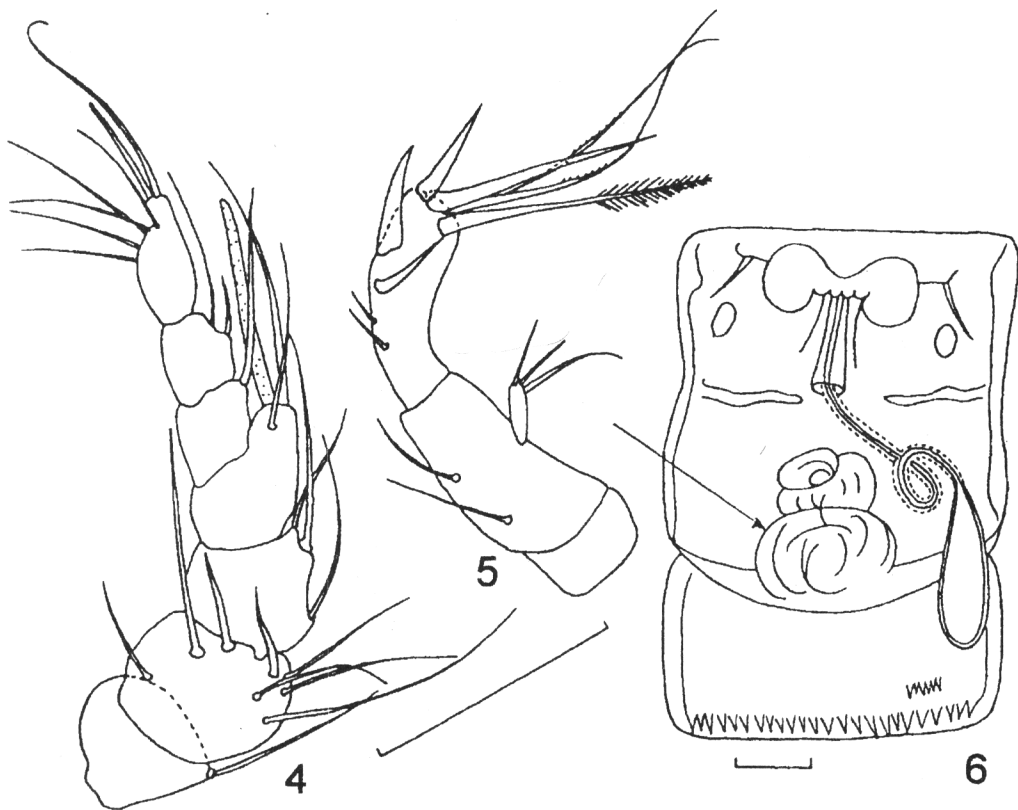
Description. Female. Body large, vermiform, without distinct subdivision into prosome and urosome (Fig. 1), dark orange when alive. Length, including rostrum and caudal rami, 894 µm (830-894, n = 4). Rostrum well developed, separated from cephalothorax. All body somites dorsally with serrate posterior margins. Cephalothorax with dorsal nuchal organ; coupled accessory nuchal organs present on somites bearing legs 2 and 3 (Fig. 2). Anal operculum (in both sexes!) oval, with very fine serration (Figs 3, 16, 17). Caudal rami elongate oval, twice as long as wide. Setae IV and VI very short, stick-shaped; seta V bulbiform. Posterior margin of caudal rami with a row of fine hairs. Apex of each caudal ramus dorsally with three acute spinules. Setae VII situated at apex of the rib (Fig. 16).

Genital double-somite (Fig. 6) with lateral sclerotized ridge. Posterior part of genital somite with a light brown patch – an inclusion of an uncertain shape probably related with the reproductive system (arrowed in the figure).

Antennule (Fig. 4) 7-segmented, with the following setation: 1, 8, 3, 2 + aesthetasc, 1, 2, 6 + aesthetasc. Proximal segments are shorter than terminal segments.



Figs 1-3. *Moraria utulikensis* sp. n., female. 1, habitus, dorsal view; 2, prosome with dorsal nuchal organ and accessory nuchal organs of free prosomites (arrowed); 3, anal somite with anal operculum. Scales: 100 μ m (Fig. 1); 50 μ m (Figs 2, 3).



Figs 4-6. *Moraria utulikensis* sp. n., female. 4, antennule; 5, antenna; 6, genital double-somite and postgenital somite, ventral view. Scales: 50 μ m (Figs 4, 5); 25 μ m (Fig. 6).

Antenna (Fig. 5) with allobasis bearing two setae. Endopodite one-segmented, bearing on distal margin two geniculate and one plumose seta. Exopodite with three setae.

Leg I (Fig. 7). Basis with internal solid spine and a row of small spinules at bases of rami. Endopodite a little longer than exopodite. First segment of endopodite longer and wider than second, without inner seta; second segment with two curved setae and a spine at apex. Distal segment of exopodite with three long and one spine-like seta.

Legs 2-4 (Figs 8-10). Exopodite 3-segmented; endopodite 2-segmented.

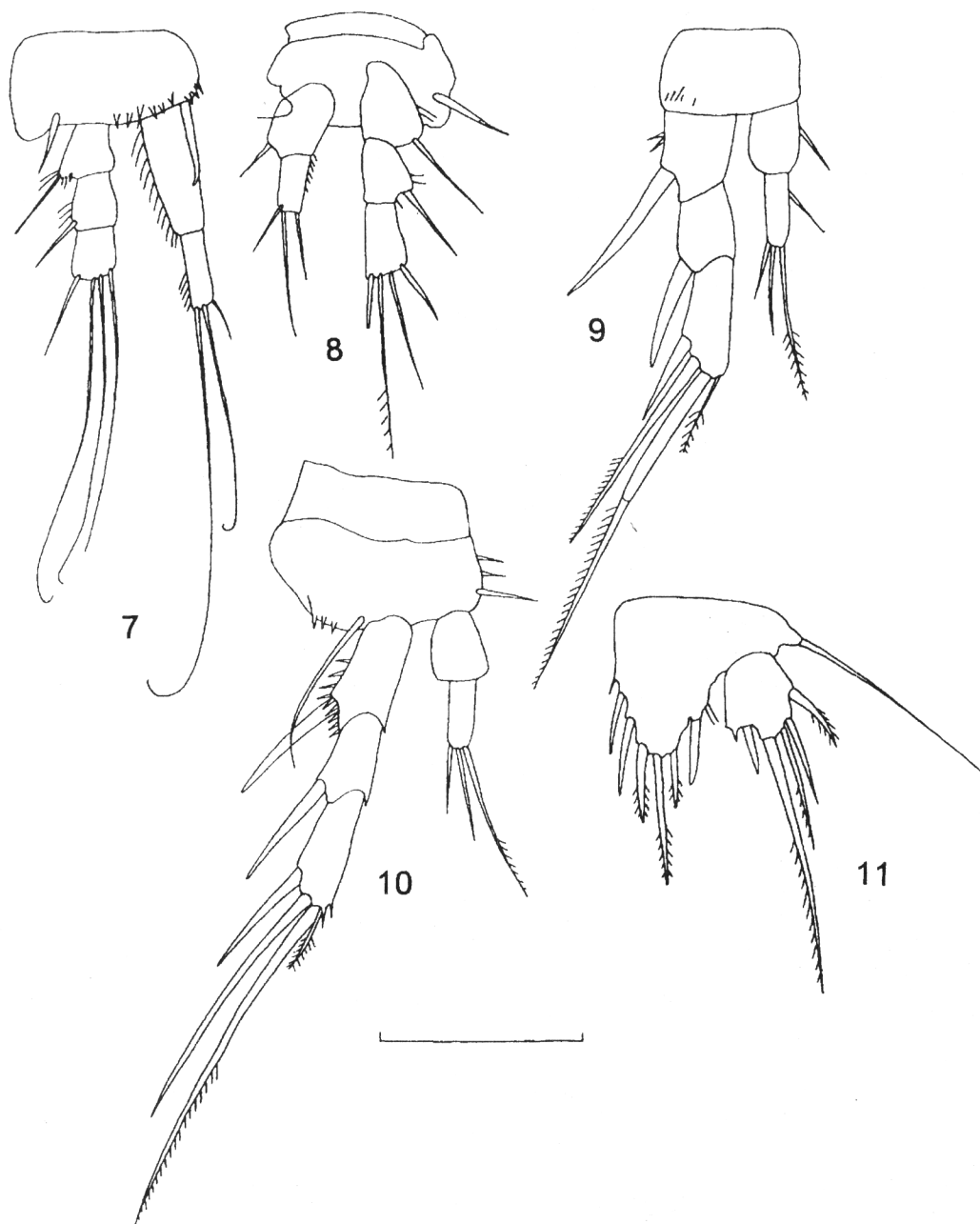
Setal formula 0.0.022 in exopodites of legs 1-4 and 0.120, 1.111, 1.121, 0.021, respectively, in endopodites of legs 1-4.

Leg 5 (Fig. 11). Exopodite with five setae, the second inner one the longest, setose at apex. Baseoendopod with six spine-like setae, the fourth inner one the longest. External seta of baseoendopod very long. Internal margin of endopod with a spinule.

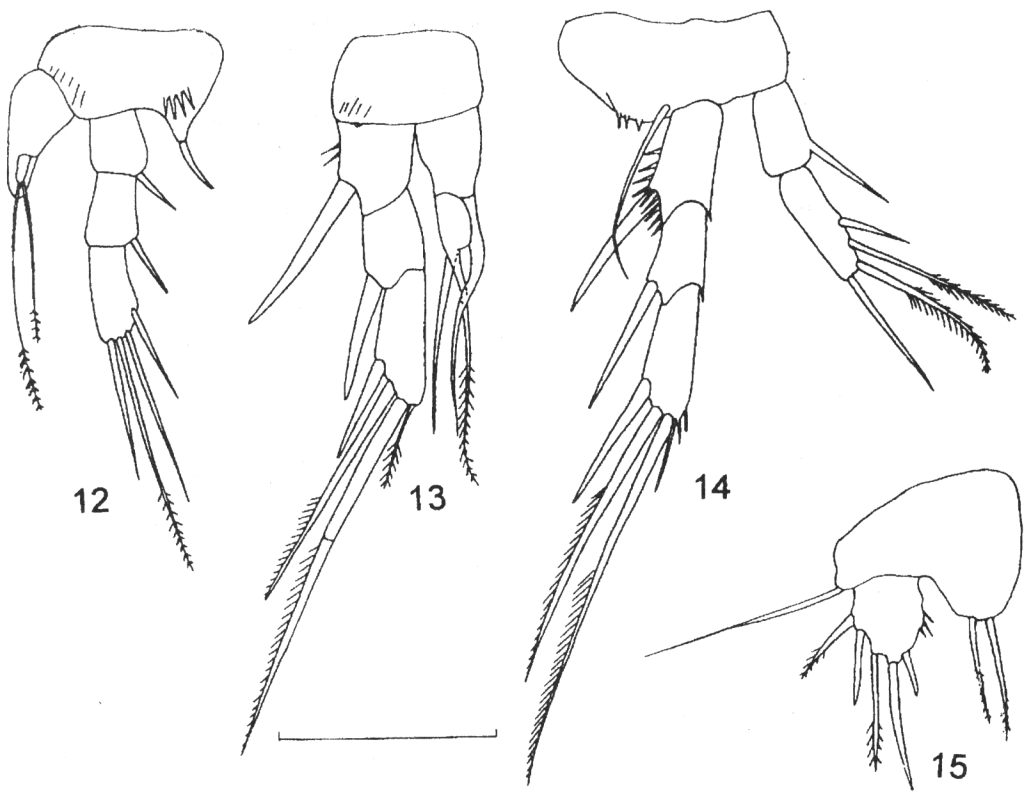
Male. Body large, dark orange; somites clearly separated from each other. Length, including rostrum and caudal rami, 820 μ m. Caudal rami elongate, tapering at apex; caudal setae, especially setae V, well developed (Fig. 17). All body somites serrated on dorsal posterior margins and with small spinules on ventral side.

Legs 2-4 (Figs 12-14). Exopodites as in female. Endopodite of leg 2 with massive apical tooth on proximal segment and two apical plumose setae. Endopodite of leg 3 two-segmented, modified; first segment with long hook-like spine on inner edge; second segment with a long plumose and a naked seta. First segment of leg 4 endopodite with a long inner spine, second segment with inner spine, two plumose setae, and a long naked terminal seta. Baseoendopod of leg 5 (Fig. 15) with two setae; exopodite with five setae and three spinules at inner part.

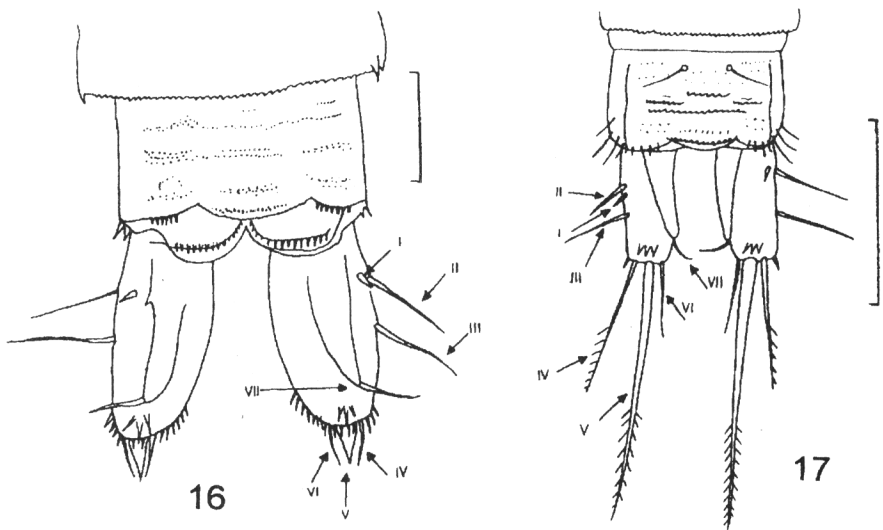
Etymology. The species is named after the type locality.



Figs 7-11. *Moraria utulikensis* sp. n., female. 7, leg 1, ventral view; 8, leg 2, dorsal view; 9, leg 3, ventral view; 10, leg 4, ventral view; 11, leg 5, ventral view. Scale: 50 μ m.



Figs 12-15. *Moraria utulikensis* sp. n., male, legs in ventral view. 12, leg 2; 13, leg 3; 14, leg 4; 15, leg 5. Scale: 50 μ m.



Figs 16-17. *Moraria utulikensis* sp. n., anal somite and caudal rami, dorsal view (setal numeration according to Huys & Boxshall, 1991). 16, female; 17, male. Scales: 50 μ m (Fig. 16); 100 μ m (Fig. 17).

Comparison. The new species is clearly distinguishable from *M. (B.) werestchagini* and *M. (B.) stylata* by the number of setae on exopodite of leg 5 in female (5 vs 4) and much longer external spine on distal segment of leg 4 endopodite in male. It differs from four other species of the group in the structure of leg 5 and armament of caudal rami, as well as in the armament of legs 3 and 4 in male.

Acknowledgements

I express my special thanks to Dr. Gisela Moura (Oldenburg University, Germany) for critical comments and useful recommendations for improvement of the manuscript. This work is supported by RFBR-Baikal grant no. 01-04-97230.

References

- Borutzky, E.V.** 1931. The freshwater and brackwater harpacticoids of the USSR. In: Behning, A.L. (ed.). *Opredeliteli organizmov presnykh vod SSSR. Presnovodnaya fauna* [Keys to freshwater organisms of the USSR. Freshwater fauna], **3**: 1-246. Moscow & Leningrad. (In Russian).
- Borutzky, E.V.** 1949. Materials to the fauna of Copepoda – Harpacticoida from Lake Baikal. Genus *Moraria*. *Dokl. Akad. Nauk SSSR*, **64**(6): 873-876. (In Russian).
- Borutzky, E.V.** 1952. Freshwater Harpacticoida. *Fauna SSSR, Crustacea*, **3**(4): 1-426. Akad. Nauk SSSR, Moscow & Leningrad. (In Russian).
- Boxshall, G.A. & Evstigneeva, T.D.** 1994. The evolution of species flocks of copepods in Lake Baikal: a preliminary analysis. *Arch. Hydrobiol.*, **44**: 235-245.
- Huys, R. & Boxshall, G.A.** 1991. Copepod Evolution. *Ray Soc. Publ.*, **159**: 1-468.
- Huys, R., Gee, J.M., Moore, C.G. & Hamond, R.** 1996. Marine and brackish water harpacticoid copepods. Part 1. Keys and notes for identification of species. *Synopses of the British fauna* (n. s.), **51**(1): 1-352.
- Okuneva, G.L.** 1981. A new species of the genus *Moraria* (Copepoda, Harpacticoida) from the Middle Baikal. *Zool. Zh.*, **60**(6): 930-933. (In Russian).
- Okuneva, G.L.** 1983. New species of Copepoda (Harpacticoida) in the Baikal Lake fauna. *Zool. Zh.*, **62**(9): 1343-1352. (In Russian).
- Okuneva, G.L.** 1989. *Garpaktikoidy ozera Baikal* [Harpacticoids of Lake Baikal]: 1-150. Izd. Irkutsk. Univ. (In Russian).

Received 11 April 2000