

RECORDS OF TROPICAL HARPACTICOID *ONYCHOCAMPTUS BENGALENSIS* (SEWELL, 1934) (CRUSTACEA, COPEPODA) IN THE ARAL SEA REGION.

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Onychocamptus mohammed Blanchard et Richard, 1891 was the only representative of the genus *Onychocamptus* known from Central Asia (Borutzky, 1952; Mukhamediev, 1986; Alekseev, 1995). In course of hydrobiological survey of waterbodies of the Amudarya River basin we found another species of the genus, *Onychocamptus bengalensis* (Sewell, 1934). In this note we present data on the morphology and distribution of this species in Uzbekistan.

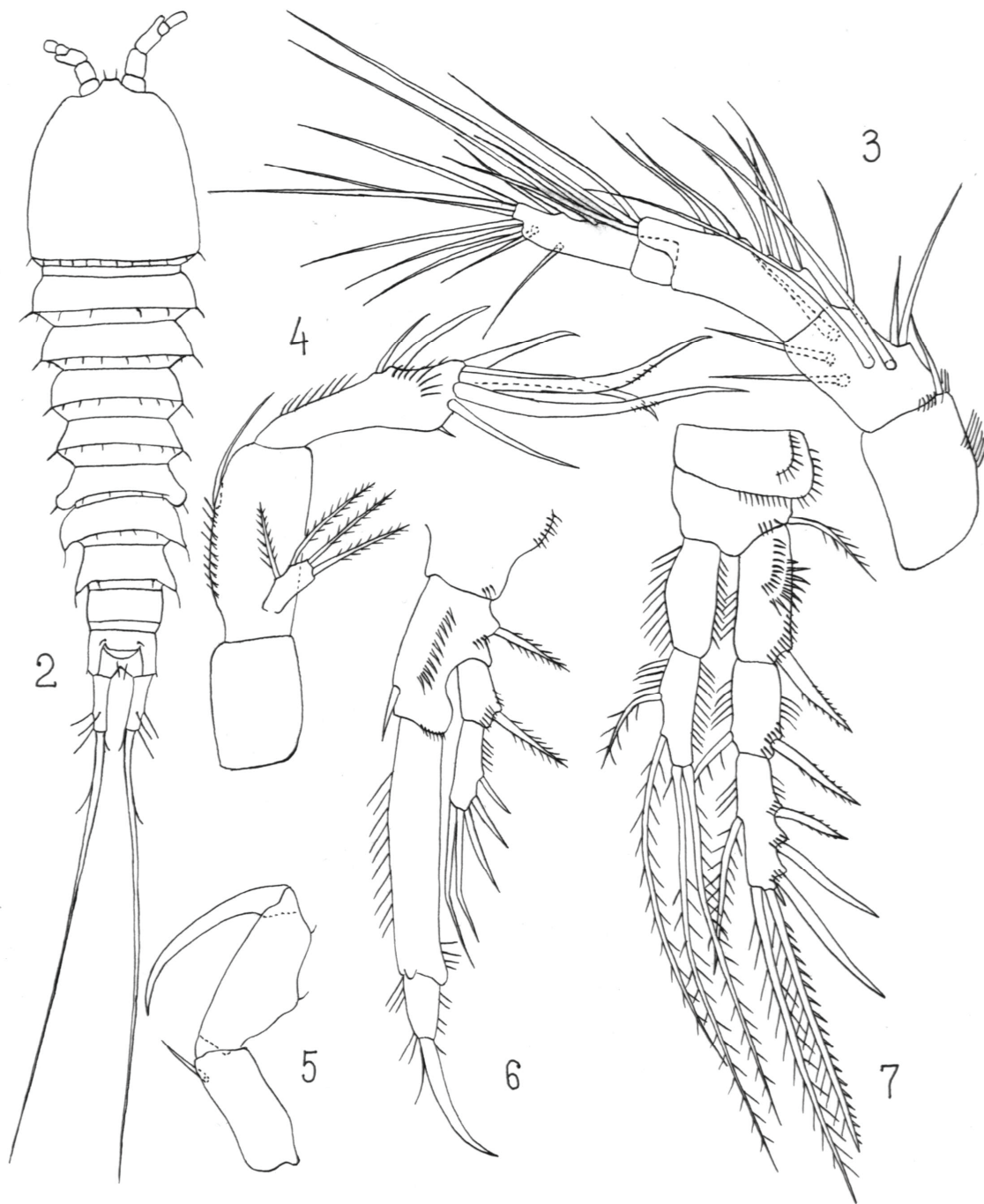
MATERIAL AND METHODS

More than 400 samples from various waterbodies of Uzbekistan were collected and studied. *Onychocamptus bengalensis* was recorded in the following localities (the numbers as in Fig. 1):

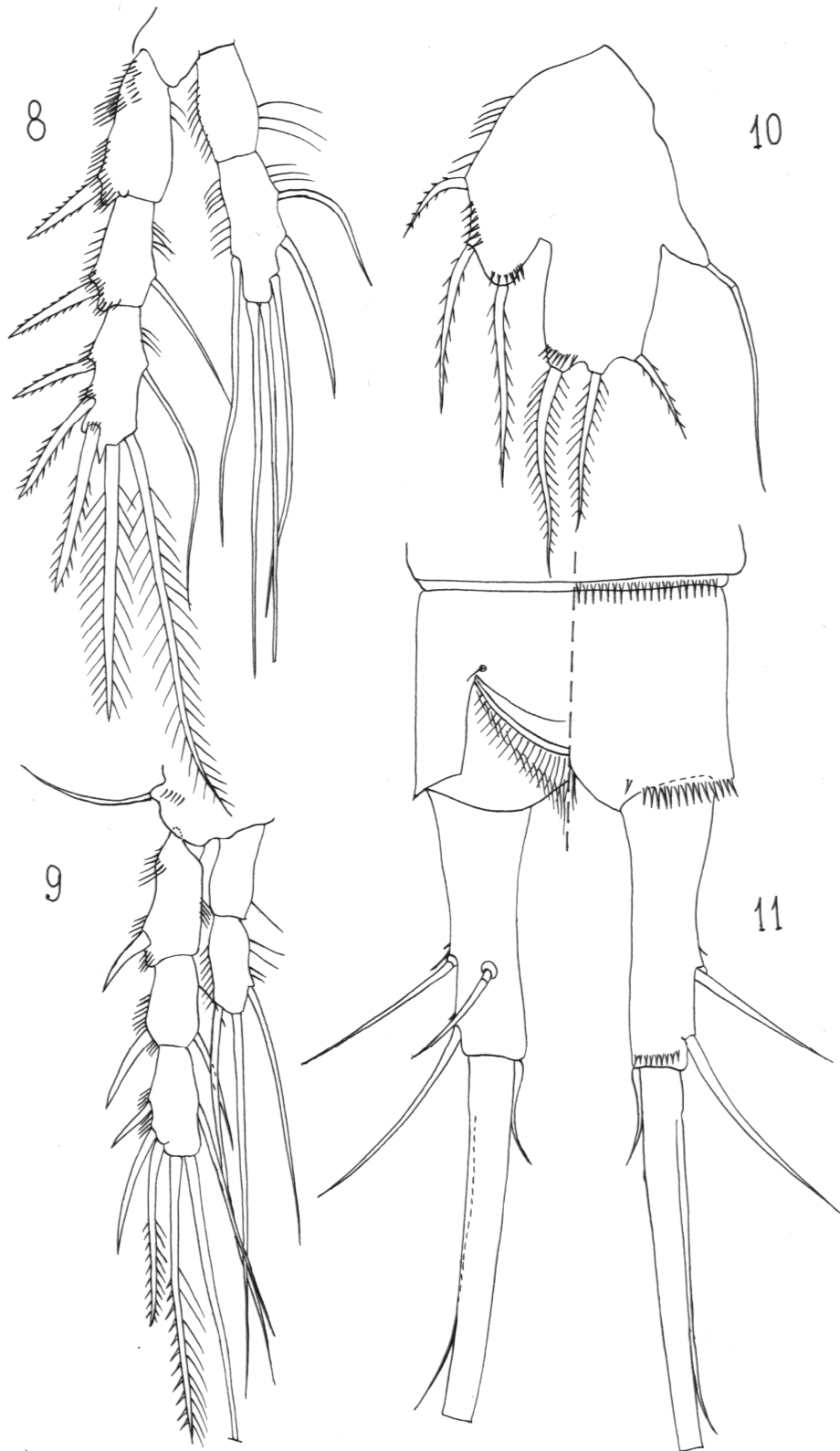
1. Lake Ayazkul, Karakalpak Autonomous Republic; 28.07.1990, mineralization 22.5 g/l;
2. Lake Akchakul, Karakalpak Autonomous Republic; 2.07.1990, mineralization 4.5 g/l;
3. Lake Ashikul, Karakalpak Autonomous Republic; 6.07.1993;
4. Lake Esen-Karaganda, Karakalpak Autonomous Republic; 3.08.1961;
5. Lake Akpetke, Karakalpak Autonomous Republic; 2.07.1990; mineralization 3.1 g/l,
6. Lake Aybugir, Karakalpak Autonomous Republic; 1.07.1990; mineralization 13.4 g/l;
7. Lake Sudochoye, Karakalpak Autonomous Republic; 22.05.1987; 27.07.1990, mineralization 6.0 g/l; 17.10.1999, mineralization 4.0-18.0 g/l.
8. Lake Karatereng, Karakalpak Autonomous Republic; 17.05.1987; mineralization 3.1 g/l.
9. Lake Dengizkul, Bukhara Prov.; 19.06.1993; mineralization 15.5 g/l.
10. A ditch near town Yangi-Arik (Khorezm Prov.); 25.05.1993; mineralization 9.3 g/l.



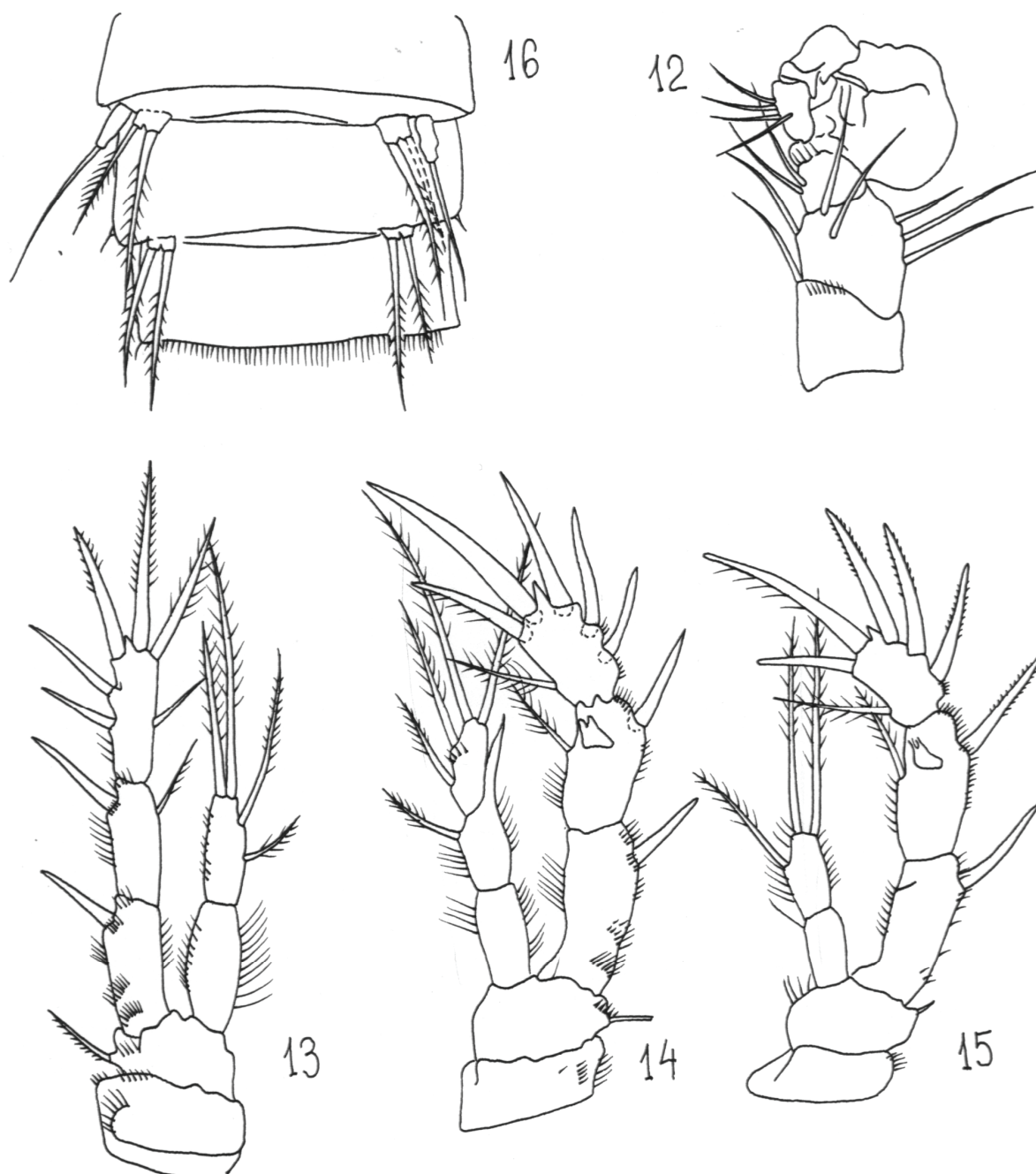
Fig. 1. Records of *Onychocamptus bengalensis* in Uzbekistan (the numbers of localities as in the text).



Figs. 2-7. *Onychocamptus bengalensis*, female. 2. Habitus. 3. Antennule. 4. Antenna. 5. maxilliped. 6. P1. 7. P2.



Figs. 8-11. *Onychocamptus bengalensis*, female. 8. P3. 9. P4. 10. P5. 11. Furcal ramus.



Figs. 12-16. *Onychocamptus bengalensis*, male. 12. Antennule. 13. P2. 14. P3. 15. P4. 15. P5 and P6.

Description was made using specimens from Lake Ayazkul. All drawings were made using a camera lucida.

DESCRIPTION

Female. Body consisting of cephalon, 4 free thoracic somites, genital somite, 4 abdominal somites and furcal ramus (Fig. 2). Anterior margin of cephalon bearing truncated rostrum. Genital somite with rounded lateral lobes. First and second abdominal somites are produced into sharp points. Abdominal somites are all provided along their posterior margins with a row of minute spinules. Anal somite with parallel lateral margins. Anal operculum deeply curved.

Furcal rami about 4.0 times as long as wide. Insertions of lateral and outermost terminal furcal setae provided with spinules. Lateral furcal seta inserted about at 60% of length of caudal rami. Lateral and outermost terminal furcal setae shorter than furcal rami and longer than dorsal and innermost terminal furcal setae. Medial terminal furcal setae are fused in proximal parts (Fig. 11).

Antennules 5-segmented. Third segment is produced at its anterior distal angle in a stout process bearing 2 setae and one aesthetasc (Fig. 3).

Antennae with 1-segmented exopodite bearing 4 setae (Fig. 4).

Maxilliped with a strong claw (Fig. 5).

P1 with 2-segmented exopodite whose terminal segment bearing 3 spines and 2 setae, and penultimate segment bearing 1 seta. Long two-segmented endopodite bears terminal claw and thin accessory seta (Fig. 6).

P2-P4 with 3-segmented exopodites and 2-segmented endopodites (Figs. 7-9).

P5 with fused rami bearing 6 setae (Fig. 10).

Male. Antennules are modified (Fig. 12). P2 is very much resemble those of female (Fig. 13). P3 and P4 with strongly developed curved exopodites (Figs. 14, 15). Free segments of P5 and P6 bearing 2 setae (Fig. 16).

DISCUSSION

Morphology of *Onychocamptus bengalensis* from Uzbekistan readily corresponds to the description of the species from India (Sewell, 1934) and Australia (Hamond, 1973). However, Hamond figured more hairy P5 and longer furcal ramus that may point out to a more complicated taxonomic structure of *Onychocamptus bengalensis* or presence of species group.

It is probably that the species reported from northern Africa by Kiefer (1949) as *O. mohammed* is in fact *O. bengalensis*. Fused rami of P5 and more long caudal ramus of this species (Kiefer, 1949. Figs. 28-29, 36) much more resemble the corresponding structures of *O. bengalensis* than those of *O. mohammed*.

Differential diagnosis. *Onychocamptus bengalensis* (Sewell, 1934) can be easily separated from *Onychocamptus mohammed* (Blanchard et Richard) using the following characters:

- fused segments of P5;
- longer furcal rami;
- inhabiting more brackish water (mineralization more 5 g/l).

REFERENCES

- Alekseev, V.R., 1995.** Cyclopoida. In: *Key to freshwater invertebrates of Russia and adjacent lands. (Opredelitel presnovodnykh bespozvonochnykh Rossii i sopredelnykh territoriy)*, S.-Petersburg, 2: 109-119 (in Russian).
- Borutzky, 1952.** Freshwater Harpacticoida (Harpacticoida presnykh vod). *Fauna of the USSR. Crustacea*, 3 (4): 1-424 (in Russian).
- Hamond R., 1973.** The Harpacticoid Copepods (Crustacea) of the Saline Lakes in Southeast Australia, with special reference to the Laophontidae. *Rec. Australian Mus.*, 28: 393-420.
- Kiefer F., 1949.** The Armstrong College Zoological Expedition to Siwa Oasis (Libyan Desert) 1935. Freilebende Ruderfusskrebse (Crustacea Copepoda). *Proceed. Egypt. Acad. Sci.*, 4: 62-88.
- Mukhamediev A.M., 1986.** Crustacea of the Ferghana Valley (Rakoobraznye Ferganskoy doliny). *Tashkent, Fan: 1-150* (in Russian).
- Sewell R.B.S., 1934.** A study of the fauna of the Salt Lakes, Calcutta. *Rec. Indian Mus.* 36: 45-121.

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РЕЗЮМЕ

Мирабдуллаев И. М., Ишида Т. Обнаружение тропического вида харпактикоид (*Onychosamptus bengalensis* (Sewell, 1934) (Crustacea, Copepoda) в бассейне Аральского моря

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