

New hyalellids (Crustacea, Amphipoda, Hyalellidae) from Lake Titicaca

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Received 22 October 2004; accepted 2 November 2005

Abstract

Two new species of hyalellid amphipods, *Hyalella crawfordi* and *H. gauthieri*, are described from Lake Titicaca; *H. echinus* (Faxon, 1876) is redescribed. The *H. echinus* group of species is newly proposed for these three species, and a group diagnosis is provided. A key to the three species in the group is provided.

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Keywords: Freshwater; Taxonomy; New species; *Hyalella echinus*; *Hyalella crawfordi*; *Hyalella gauthieri*

Full article published online at <http://www.senckenberg.de/odes/06-10.htm>.

Introduction

The full species descriptions, including illustrations, are given in the accompanying Organisms Diversity and Evolution Electronic Supplement (www.senckenberg.de/odes/06-10.htm).

The type material of the new species is deposited at the Natural History Museum (NHM), London.

Taxonomic section

Diagnosis of the *Hyalella echinus* group of species

Male

Head with a pair of teeth anteriorly and a subocular tooth on both sides. Body with teeth on each segment:

two to three dorsal and one lateral on each side. Pleonites with or without posterolateral marginal teeth. Eyes pigmented. Antenna 1 shorter than antenna 2. Antenna 2 less than half body length. Mandible incisor toothed. Maxilla 1 palp longer than wide, reaching more than half length of distance between base of palp and tips of setae on outer plate; inner plate slender, with two strong and pappose apical setae. Maxilla 2 inner plate with one strong pappose seta on inner margin. Lateral faces of coxal plates of pereopods one to five ridged or sculptured. Gnathopod 1 propodus less than twice as long as wide (quadrangular), hammer-shaped, inner face with approximately ten pappose setae, posterodistal and anterodistal margins without setose scales. Gnathopod 2 propodus ovate, palm longer than posterior margin, slope slightly oblique, anterior edge smooth. Uropod 3 peduncle with some strong distal setae; ramus shorter than peduncle, tapering distally. Telson longer than wide, apically rounded, with some long simple setae that are distributed asymmetrically on the apical margin. Sternal gills on segments three to seven.

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Female

Gnathopod 1 subequal to gnathopod 2. Gnathopod 2 differs from that of the male in the shape and smaller size; propodus length less than twice maximum width, subchelate, palm transverse.

H. gauthieri* n. sp.*Etymology**

This species is named for our dear colleague and friend Dr. Gauthier Chapelle, who has studied the

Key to the species of the *H. echinus* group

- (1) Pereon with three rows of dorsal processes *H. crawfordi* n. sp.
 — Pereon with only two rows of dorsal processes 2
 (2) Posterolateral margins of pleon epimera with teeth *H. gauthieri* n. sp.
 — Posterolateral margins of pleon epimera without teeth *H. echinus* (Faxon, 1876)

H. crawfordi* n. sp.*Etymology**

This species is named for Mr. George Crawford, for his tremendous efforts to collect and sort much of the material treated in this study.

Type material

Holotype (NHM 2005.90; spirit specimen, two slides): male, 9.5 mm; Molinopampa; station P. 23, GIC 868/1, 869/1; 5.6–8 m, ex coll. Crawford. Paratypes (sampling data as holotype): allotype ovigerous female, 6 mm (NHM 2005.89; spirit specimen, one slide); two females, two males (NHM 2005.91–94; spirit specimens).

Diagnosis

See the above diagnosis and key for the *H. echinus* species group.

gigantism of Baikal amphipods for years and compared his findings with the Lake Titicaca species flock.

Type material

Holotype (NHM 2005.95; spirit specimen, two slides): male, 7 mm; Lake Titicaca, Uruñi Bay, station G. 41, GIC 689, 0.9 m, 9.8.1937, “in Potamogeton”, ex coll. Crawford. Paratypes: 14 females, five males (NHM 2005.96–105; spirit specimens), as holotype; one male (“specimen a”; see the Electronic Supplement) from unknown locality in Lake Titicaca, ex coll. Dejoux.

Diagnosis

See the above diagnosis and key for the *H. echinus* species group.