



Separation of *Pleuroxus pamirensis* (Werestschagin, 1923) from *P. annandalei* (Daday, 1908) (Cladocera: Chydoridae)

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Abstract

Lateral horns on valves are found in few representatives from different families of the Anomopoda (Crustacea: Cladocera). We found that populations of "horned" *Pleuroxus* Baird, 1843 from mountains of Central Asia belong to two different species, *P. pamirensis* (Werestschagin, 1923) present in Pamirs, and *P. annandalei* (Daday, 1908), occurring in Tibetan Plateau, Baikal Rift System and Mongolian Altai. Redescriptions and a list of differences between the species are presented. Genera *Cornuella* Werestschagin, 1923 and *Sinopleuroxus* Chiang Sieh-chih, 1963 are suggested junior synonyms of *Pleuroxus*.

Key words: Branchiopoda, Anomopoda, taxonomy, fauna, Central Asia

Introduction

Lateral horns on valves are found in few representatives from different families of the Anomopoda (Crustacea: Cladocera), i.e. Daphniidae (*Simocephalus lusaticus* Herr, 1917), Ilyocryptidae (*Ilyocryptus cornutus* Mordukhai-Boltovskoi & Chirkova, 1972 and *I. paranaensis* Paggi, 1989), and Macrothricidae (*Macrothrix pennigera* Shen Chia-Jui, Sung Ta-hsiang & Chen Kou-hsiao, 1961) (Smirnov 1976; Orlova-Bienkowskaja 2001). Function of these horns is unknown (Kotov 2006). Frey (1982) speculated that they probably protect the "horned" animals from predators; Paggi (1989) proposed that they are anchoring structures of benthic animals.

Among numerous species from the chydorid subfamily Chydorinae, lateral horns are known in only a few representatives of two genera, namely *Chydorus* Leach, 1916 and *Pleuroxus* Baird, 1843 (Smirnov 1971, 1996). Smirnov (1996) concluded that there is only a single species of *Pleuroxus* with lateral projections on valves in the world fauna, namely *P. pamirensis* (Werestschagin, 1923). However, in our studies we found that populations of "horned" *Pleuroxus* from mountains of Central Asia belong to two different species, *P. pamirensis*, present in the Pamirs, and also *P. annandalei* (Daday, 1908), occurring in Tibet and Mongolian Altai.

This revision continues the series of publications on mountain endemics, which have recently become the objects of special attention (Smirnov *et al.* 2006).

Material and methods

Specimens were selected from formalin preserved samples under a compound microscope, and studied under an optical microscope *in toto* in a drop of a glycerol-formaldehyde mixture. Ten adult parthenogenetic females