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A new species of the genus *Pleuroxus* Baird (Cladocera: Anomopoda: Chydoridae) from Jeju Island, South Korea

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Abstract

A new species of the genus *Pleuroxus* Baird (Cladocera: Anomopoda: Chydoridae) is described from Jeju Island, South Korea. *P. jejuensis* **sp. nov.** is the closest relative of the *aduncus*-like species from southern hemisphere instead of *P. aduncus* *s. str.* It shares with *P. wittsteini* Studer, 1878 in: (1) brown colour; (2) absence of denticles on postero-ventral portion of valve; (3) unusually short postpore distance; (4) grouped postanal teeth. *P. jejuensis* **sp. nov.** differs from *P. wittsteini* in: (1) smaller postpore distance; (2) submarginal setules on inner side of the posterior valve margin; (3) prominent postero-dorsal angle of the postabdomen; (4) only two postanal teeth in each group; (5) longer proximalmost basal spine of the postabdominal claw; (6) very short accessory seta on limb I. The *wittsteini*-like chydorines seem to be remnants of an old, pan-continental species group.

Key words: Cladocera, Anomopoda, Chydoridae, taxonomy, fauna, East Asia, Korean Peninsula

Introduction

During the last decade the studies of the Cladocera (Crustacea: Branchiopoda) in East Asia were significantly intensified. For example, in the Far East of Russia several new taxa of species rank as well as a new genus were described (Smirnov & Sheveleva 2010; Kotov *et al.* 2011a-b; Kotov & Sinev 2011). The previous list of the Korean Cladocera by Yoon (2010) included only 55 species. The cladoceran investigations in the southernmost portion of Korean Peninsula within the scope of the Discovery of Korean Indigenous Species Project, (National Institute of Biological Resources) resulted in 20 new records (Kotov *et al.* 2012), description of a new species from the genus *Ilyocryptus* Sars by Jeong *et al.* 2012, and some other undescribed new taxa.

It is important that the aforementioned studies in Russia and Korea revealed a faunistic complex characteristic of a relatively local region: Far East of Russia, Korea, and probably Japan and SE China. But we still have a limited information of the endemics in the East Asia due to lack of information on many regions (Kotov *et al.* 2012).

Within this frame, some islands could be important refuges for freshwater endemics. But cladocerans on small islands of the East Coast of Pacific Ocean have been studied insufficiently. For example, Kim (1988) reported only 10 species for Jeju Island (south to Korean Peninsula): *Ceriodaphnia reticulata* (Jurine), *Chydorus sphaericus* (O.F. Müller), *Daphnia psittacea* Baird, *Dunhevedia crassa* King, *Ilyocryptus agilis* Kurz, *Macrothrix rosea* (Jurine), *Moina macrocopa* (Straus), *Pleuroxus trigonellus* (O.F. Müller), *Scapholeberis mucronata* (O.F. Müller) and *Simocephalus vetulus* (O.F. Müller). Subsequently, *Moina weismanni* Ishikawa (Yoon & Kim 1992), *Daphnia obtusa* Kurz (Yoon *et al.* 1996), *Simocephalus mixtus* Sars and *Diaphanosoma dubium* Manujlova were added to this list by Yoon & Kim 2000a and Yoon & Kim 2000b. But still the list seems to be provisory. The aim of this paper is to describe a new species of the genus *Pleuroxus* Baird found in Jeju Island.