



## A review of candonid ostracods (Crustacea: Ostracoda: Podocopida) from East Asia, with descriptions of five new species from South Korea\*

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### Abstract

Seven species of the family Candonidae Kaufmann, 1900 are reported from South Korea. Five species are described as new, all belonging to the subfamily Candoninae Kaufmann, 1900 and the tribe Candonini Kaufmann, 1900: *Candona quasiakaina* sp. nov., *C. sillae* sp. nov., *Fabaeformiscandona koreana* sp. nov., *Typhlocypris choi* sp. nov., and *Schellencandona tea* sp. nov. A very close resemblance between *Candona sillae* and the European *C. improvisa* Ostermeyer, 1937 prompted a redescription of the latter species based on the type material, and designation of the lectotype. One species of the tribe Candonopsini, *Candonopsis transgrediens* Brehm, 1923, previously known only from China, is reported from Korean freshwater habitats, and its first redescription is provided, along with a key to the world representatives of the genus *Candonopsis* Vávra, 1820. One species of the subfamily Paracypridinae, *Dolerocypris mukaishimensis* Okubo, 1980, previously known only from Japan, is redescribed from Korean brackish water habitats, and some notes on its variability are provided. A checklist of the Candonidae ostracods from East Asia is also provided, but only for those species that have been well-documented and taxonomically described.

**Key words:** Biodiversity, review, new species, taxonomy, Candonidae

### Introduction

The family Candonidae Kaufmann, 1900 counts approximately 500 Recent species (Karanovic, 2012). It is divided into three subfamilies: Candoninae Kaufmann, 1900, Cyclocypridinae Kaufmann, 1900 and Paracypridinae Sars, 1923. The first two subfamilies live exclusively in freshwater ecosystems, while the last one inhabits mostly brackish and marine waters. The subfamily Candoninae is well known for its diversity in subterranean waters around the world (Danielopol 1978, Karanovic 2007) and, at the moment, is divided into eight tribes and 40 genera (Karanovic 2007). Some of the tribes are endemic to certain zoogeographic regions, like, for example Humphreyscandonini Karanovic, 2005, known only from subterranean waters of Western Australia (Karanovic 2005a). With the exception of the genera *Candonopsis*, Vávra, 1820 (of the tribe Candonopsini), *Candona* Baird, 1845, *Fabaeformiscandona* Krstic, 1972, and *Typhlocypris* Vejdovský, 1882 (all belonging to Candonini), which have a wide distribution and are known from more than one continent, all of the other 36 genera are known from one continent only, where they have a very restricted distribution (Karanovic 2012). The Candoninae fauna is well documented only from Europe (Meisch 2000) and to a lesser extent from North America (Karanovic 2006), while it is very poorly known from other continents, and especially from South America (Karanovic & Darty 2009). Systematic research on certain regions always raises the number of known Candoninae taxa dramatically; such are the examples from Japan (Smith & Kamiya 2007, Smith & Janz 2008) and Australia (Karanovic & Marmonier 2002, 2003; Karanovic 2003a, b, 2005a, 2007, Karanovic & Marmonier 2002, 2003). Members of the Candoninae are easily distinguished from other representatives of the family by the complete absence of swimming setae on the second antenna, which are present (but sometimes reduced) in Cyclocypridinae