

First record of *Candacia bispinosa* (Crustacea: Calanoida: Candaciidae) from Korea

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Candacia bispinosa (Claus, 1863) was collected from the East China Sea and reported for the first time in Korean fauna. Male of *Candacia bispinosa* is distinguishable from the other species by having the 18th segment swollen on the right antennule.

Keywords: *Candacia bispinosa*, Korean fauna

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INTRODUCTION

The family Candaciidae Giesbrecht, 1893 was composed of two genera, *Candacia* Dana, 1846, and *Paracandacia* Grice, 1963. Grice (1963) established genus *Paracandacia* Grice, 1963 on the basis of the finger-like terminal process on the apical segment of the female leg 5 and the non-chelate form of the male right leg 5 with its apical plumose seta. However, von Vaupel Klein and Gassmann (1998) demonstrated that three species of *Paracandacia* represent a terminal cluster within a larger clade which also contains species of *Candacia*. For this reason, *Paracandacia* was united with *Candacia* by Boxshall and Halsey (2004).

To date, 8 species of *Candacia* have been reported from Korean waters (Yoo, 1995; Soh, 2014). In the present study, *Candacia bispinosa* (Claus, 1863) is reported for the first time as a member of the Korean calanoid fauna.

MATERIALS AND METHODS

Samples were collected by vertical tows with a conical zooplankton net. Specimens were preserved in 95% ethanol immediately after collection. The specimens were dissected in glycerol on a slide glass under a stereomicroscope (Olympus SZX-7; Olympus, Tokyo, Japan) and observed using a light microscope (Leica DM 2500; Leica Microsystems, Wetzlar, Germany). All drawings were made with the aid of a drawing tube. The descriptive

terminology follows that of Huys and Boxshall (1991). Voucher specimen is deposited in the National Institute of Biological Resources (NIBR), Incheon, Korea.

SYSTEMATIC ACCOUNTS

Order Calanoida Sars, 1903 긴노요각목
Family Candaciidae Giesbrecht, 1893 장방노벌레과
Genus *Candacia* Dana, 1846 장방노벌레속

Candacia bispinosa (Claus, 1863)

두가시장방노벌레 (Fig. 1)

Candace bispinosa Claus, 1863 (p. 191, figs. F, M).

Paracandacia bispinosa: Grice, 1963 (p. 173, figs. F, M);

Chihara and Murano, 1997 (p. 755, Pl. 79, 80: F, M).

Candacia bispinosa: Boxshall and Halsey, 2004 (p. 84).

Material examined. 1 adult male (NIBRIV0000557580), East China Sea (31°30'N, 127°04'E), Feb. 2012, coll. S.H. Yoon.

Diagnosis of male. Body (Fig. 1A) robust (1.88 mm). Rostrum poorly developed, lacking filaments. Cephalosome anteriorly flat and narrow. Cephalosome separated from first pedigerous somite; fourth and fifth pedigerous somites fused; posterior corners of last pedigerous somite with processes. Urosome 5-segmented. Caudal rami symmetrical and with 6 setae. Segments 16 and 18 of right antennule with knob-like protrusion. Leg 5 (Fig. 1C) asymmetrical. Right leg 3-segmented; first segment elongate and unarmed; second segment with 1 outer

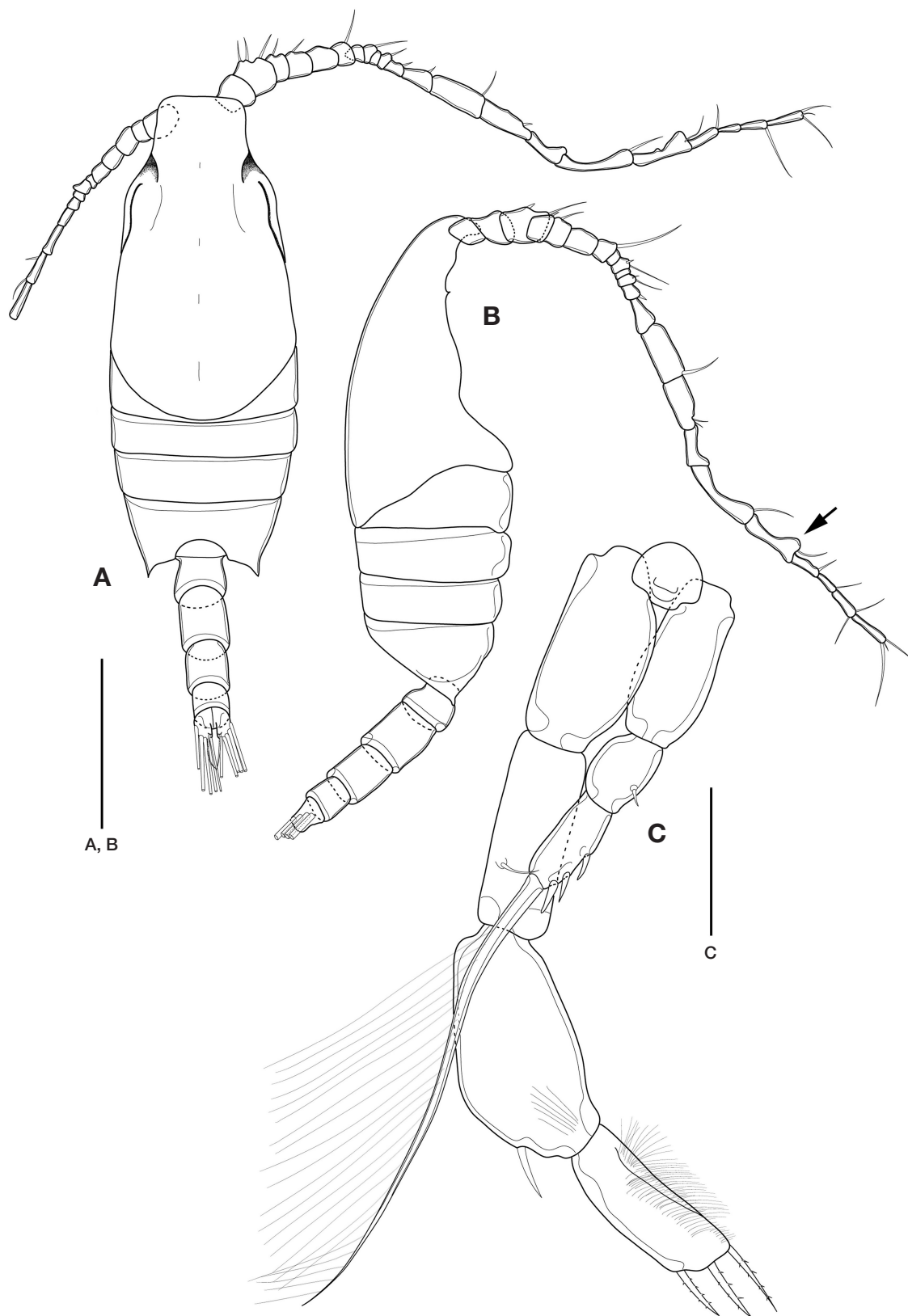


Fig. 1. *Candacia bispinosa* (Claus), male: A, habitus, dorsal view; B, habitus, lateral view; C, leg 5, posterior view. Scale bars = 0.5 mm (A, B), 0.1 mm (C).

spine on middle margin; third segment with 3 small outer spines and 1 long plumose seta. Left leg 4-segmented; first segment unarmed; second segment with subdistal seta; third exopodal segment, swollen, with subdistal seta; fourth segment with hairs along inner margin and 3 terminal setae.

Female. Not found.

Distribution. East China Sea, Atlantic and Indo-Pacific Oceans.

Remarks. *Candacia bispinosa* resembles *C. worthingtoni* (Grice, 1981) in the absence of chelate form of the male right leg 5 and fourth segment of left leg 5 with 3 terminal setae.

This species differs from *C. worthingtoni* in the following characters: genital segment of female with spines (versus no spine in *C. worthingtoni*); and segment 18 of right antennule swollen in the male (versus not swollen segment).

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