



## A new brooding feather star of the genus *Dorometra* (Echinodermata: Crinoidea: Comatulida: Antedonidae) from the Ryukyu Islands, southwestern Japan

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### Abstract

A new comatulid of the family Antedonidae, *Dorometra sesokonis* n. sp., is described from coral reefs of the Ryukyu Islands, southwestern Japan. The new species is extremely small with ten short arms and a unique pinnulation in which some proximal pinnules are absent or poorly developed in most specimens. Additionally, cirrals and brachials of *D. sesokonis* are elongated and partly colorless. The combination of these morphological characters makes the new species appear like juvenile specimens, regardless of sexual maturity. This species also has remarkable reproductive habits, exhibiting both external brooding and hermaphroditism.

**Key words:** Comatulid, *Dorometra sesokonis*, new species, external brooding, hermaphroditism

### 要旨

琉球列島の沖縄島および瀬底島沿岸から採集されたヒメウミシダ科の一種を、新種 *Dorometra sesokonis* として記載した。本種は非常に小型であり、基部羽枝の発達が不十分で、いくつかの基部羽枝を欠く個体が多い。また、巻枝節と末部腕板は長く、体色を欠く。一般にウミシダ類では、これらの形質は幼若個体に見られる特徴であるが、本種の場合、成熟個体であってもこのような形質が維持されている。また本種は、外部保育性かつ同時的雌雄同体という独特な繁殖様式を示す。本種は礁斜面の転石下に生じた間隙に生息し、瀬底島沿岸海域では、成体と幼体が混在した高密度個体群が観察される。なお、本種の新標準和名として、本種の発見地にちなみ、セソコヒメウミシダを提唱した。

### Introduction

The crinoid family Antedonidae currently includes 45 genera (Clark & Clark, 1967; Messing & White, 2001). Within the family, the genus *Dorometra* A.H. Clark 1917 contains eight Indo–West Pacific species as follows: *Dorometra aegyptica* (A.H. Clark, 1911), *D. andromacha* A.H. Clark, 1938, *D. aphrodite* (A.H. Clark, 1912), *D. briseis* (A.H. Clark, 1907), *D. clymene* A.H. Clark, 1911, *D. mauritiana* (A.H. Clark, 1911), *D. nana* (Hartlaub, 1890) and *D. parvicirra* (Carpenter, 1888) (Clark & Clark, 1967; Liao & Clark, 1995). Four species, *D. aphrodite*, *D. briseis*, *D. nana*, *D. parvicirra*, have been reported from Japanese waters (Utinomi & Kogo, 1965; Kogo, 1998; Kogo, 2002; Kogo & Fujita, 2005). *Dorometra* is defined morphologically by having the third pinnule, the longest and stoutest pinnule on each arm, and having medium-sized cirri with distally flared segments.