



Article

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Description of a new species of the hippolytid shrimp genus *Eualus* Thallwitz, 1892 from Japan, and clarification of the status of *E. kikuchii* Miyake & Hayashi, 1967 (Crustacea: Decapoda: Caridea)

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Abstract

This study reports on two species of the hippolytid shrimp genus *Eualus* Thallwitz, 1892 from Japan. The first, *Eualus ctenomerus* n. sp., is described on the basis of six specimens from off southern Kyushu. The new species appears closest to *E. cteniferus* (Barnard, 1950) from South Africa, *E. drachi* Noël, 1978 from the Mediterranean, *E. lebourae* Holthuis, 1951 from the eastern Atlantic, and *E. pectiniformis* Hanamura, 2008 from southeastern Australia. The second is referred to *E. kikuchii* Miyake & Hayashi, 1967, which has been considered to be synonymous with *E. bulychevae* Kobjakova, 1955, described from the South Kuril Islands, Far East Russia. *Eualus kikuchii* is redescribed as a valid species on the basis of the holotype and additional specimens from various Japanese localities. Both species occurred in the whale-fall ecosystems located off Cape Nomamisaki, Kyushu, Kagoshima Prefecture.

Key words: Crustacea, Decapoda, Caridea, Hippolytidae, *Eualus*, new species, Japan

Introduction

The hippolytid genus *Eualus* Thallwitz, 1892 currently contains 37 species from the world oceans, including the Arctic and Antarctic seas, though poorly represented in the tropics (De Grave & Fransen 2010). From Japanese waters about 14 species are known (Hayashi 1993; Komai & Yakovlev 2000; Komai & Hayashi, 2002).

Fujiwara et al. (2007) investigated whale-fall ecosystems, based on mass sinking of whale carcasses artificially implanted at shelf depths off Cape Nomamisaki, Kagoshima Prefecture, southwestern Japan. They reported the occurrence of five caridean species in this environment, amongst which was *Eualus* sp. cf. *kikuchii* Miyake & Hayashi, 1967 (Hippolytidae). Examination of the voucher specimens used in Fujiwara et al. (2007) and subsequently collected specimens from the same location in 2007 revealed that two species were actually represented in the samples. One of these is here described as new, *E. ctenomerus* n. sp., and the second is referred to *E. kikuchii*. The status of the latter taxon has been unclear, considered to be synonymous with *E. bulychevae* Kobjakova, 1955, described from the Kuril Islands by Miyake (1982) and (Hayashi 1993), while listed as a valid species in Chace (1997) and De Grave & Fransen (2010). Therefore, we attempted to clarify the status of *E. kikuchii*, herein considered to be a valid species. Detailed descriptions are provided for the two species. The new species appears closest to *E. cteniferus* (Barnard, 1950), *E. drachi* Noël, 1978, *E. lebourae* Holthuis, 1951, and *E. pectiniformis* Hanamura, 2008, all known from outside of the northwestern Pacific.

The material examined in this study is deposited in the Japan Agency of Marine-Earth Science and Technology (JAMSTEC), the Kitakyushu Museum of Natural History and Human History (KMNH-ZLKU) the National Museum of Nature and Science, Tokyo (NSMT), and the Natural History Museum and Institute, Chiba (CBM). Carapace length (cl) represents specimen size, measured from the posterior margin of the orbit to the midpoint of the posterodorsal margin of the carapace.