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The family Hyalidae (Crustacea: Amphipoda: Talitroidea) from Korean waters. 1. Genus *Ptilohyale* Bousfield & Hendrycks, 2002

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Abstract

Two species of the genus *Ptilohyale* were collected from shallow coastal waters of Korea. One species is identified as a new species: *Ptilohyale brevicrus* sp. nov. The morphology of gnathopod 2, pereopods, uropods and mandible are the major characteristics which differentiate the new species from its congeners. The remaining species, *P. barbicornis* (Hiwatari & Kajihara, 1981) is recorded for the first time from Korea. Both species are fully described and illustrated. A key to the family Hyalidae and species of *Ptilohyale* from Korea is also provided.

Key words: Crustacea, Amphipoda, Hyalidae, *Ptilohyale*, Korea, new species, *barbicornis*, *brevicrus*

Introduction

Hyalid amphipods, along with amphipod species, are widely distributed and dominant components of invertebrate communities on macroalgae in Korean littoral waters. For these reasons, hyalid amphipods provide an informative barometer for revealing the conditions and changes of marine ecosystems. Even though the family Hyalidae plays an important ecosystem role, only 3 genera and 4 species (*Apothyale punctata* (Hiwatari & Kajihara, 1981), *Prothyale pumila* (Hiwatari & Kajihara, 1981), *P. triangulata* (Hiwatari, 2003) and *Ptilohyale bisaeta* (Kim & Kim, 1991)) have been reported from Korean waters (Kim & Kim, 1987; Kim & Kim, 1991; Shin & Kim, 2012; Jung & Yoon, 2013). In contrast, 6 genera and 21 species have been reported from Japan, in close proximity to Korea (Derzhavin, 1937; Ishimaru, 1995; Bousfield & Hendrycks, 2002; Hiwatari, 2002; Hiwatari, 2003). For the above reasons, we have been concentrating on taxonomic studies of Korean hyalids collected from shallow coastal waters. In this paper, we deal with the Korean ptilohyalid species. Future papers will treat the remaining genera belonging to the family Hyalidae.

Recent systematic studies of the family Hyalidae were carried out by Bousfield & Hendrycks (2002), Hiwatari (2003), Hughes & Lowry (2006) and Serejo (2004; 2009). Among these studies, Bousfield & Hendrycks (2002) established new generic concepts and family reconstitution on a world-wide basis for hyalid amphipod species using many newly recognized characters. They subdivided the family into three component subfamilies, the Hyalinae, the Hyacheliinae and the Kuriinae and reported 5 new genera and 18 new species. In 2004 Serejo elevated the Kuriinae from the family Hyalidae, resurrecting Kuriidae Barnard (1964) mainly based on the parachelate condition of gnathopods 1–2. As a result of these studies, the family Hyalidae is subdivided into two subfamilies with 12 genera and more than 110 species worldwide (Bousfield & Hendrycks, 2002; Hiwatari, 2003; Serejo, 2004; WoRMS, 2013).

The genus *Ptilohyale* was established by Bousfield & Hendrycks (2002) with *Allorchestes plumulosa* Stimpson, 1857 as its type species. *Ptilohyale* is easily recognized by the strongly plumose-setose posteromedial margin of the flagellum and peduncular segment 5 of antenna 2. Ptilohyalids are distributed in brackish water in the low intertidal of estuaries (Bousfield & Hendrycks, 2002) and the genus currently contains 12 species. Only

- Pereopods 3–7, basis less than 2 x as long as ischium–dactylus combined; uropod 1, peduncular distomedial spine about 0.5 x inner ramus *Ptilohyale brevicrus* **sp. nov.**
- 2. Coxae 1–4 marginal cusps slightly rounded; uropod 1, outer ramus with 5–6 dorsal spines; uropod 3, ramus with short terminal spines (much shorter than ramus) *P. bisaeta* (Kim & Kim, 1991)
- Coxae 1–4 marginal cusps subacute; uropod 1, outer ramus with 3 dorsal spines; uropod 3, ramus with 2 long terminal spines (subequal to ramus) and short terminal spines *P. barbicornis* (Hiwatari & Kajihara, 1981)

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