Journal of Species Research 12(4):294-298, 2023

A newly record species *Orientomaera incisa* (Crustacea, Amphipoda, Maeridae) from East Sea, Korea

Jae-Hong Choi and Young-Hyo Kim*

Department of Biological Sciences, Dankook University, Cheonan 31116, Republic of Korea

**Correspondent: yhkim@dankook.ac.kr*

A newly recorded species *Orientomaera incisa* Ariyama, 2020, belonging to the family Maeridae Krapp-Schickel, 2008, was collected from the sublittoral waters of the East Sea, Korea. Previously, only one species, *O. brevispina* (Kim and Kim, 1991), was reported in Korea. This species morphologically similar to *O. brevispina* however, the species can be easily distinguished from the *O. brevispina* by having two distinct teeth on palm of gnathopod 2. The newly recorded species is described and fully illustrated in the present study.

Keywords: Amphipoda, Korea, Maeridae, new record, *Orientomaera incisa*

DOI:10.12651/JSR.2023.12.4.294

Introduction

The family Maeridae Krapp-Schickel, 2008, is abundant and common in costal and sublittoral waters. The genus *Orientomaera* Ariyama, 2018 is composed of five species distributed around the world (Horton *et al*., 2023). Initially, the genus *Orientomaera* was first described as *Maera* Leach, 1814, containing *Maera brevispina* Kim and Kim, 1991, as it was similar to *Quadrimaera vigota* (Barnard, 1969) (Kim and Kim, 1991). Later, 18 years after its initial description, Krapp-Schickel renamed this genus as *Maeropsis*, as she believed it was morphologically distinct from the genus *Maera*. Subsequently, Ariyama renamed this genus as *Orientomaera* with *Maera brevispina* as the type species, and added three new species, *O. decipiens*, *O. obliquua*, and *O. rotundicoxa* (Ariyama, 2018). The genus *Orientomaera* is morphologically similar to *Maeropsis* Chevreux, 1919, however, these two genera were defined based on the shape of their mandibular palp article 1 and gnathopod 2 palm (Ariyama, 2018). *Orientomaera incisa* was first described by Ariyama with a type locality in Tagurazaki coast, Japan (Ariyama, 2020). Hitherto, only one species, *O. brevispina* belonging to the genus *Orientomaera* have been recorded in Korea (Kim and Kim, 1991). In this paper, we added a newly recorded species, *O. incisa* Ariyama, 2020 in the Korean maerid amphipod fauna.

Materials and Methods

Specimens were collected with SCUBA diving from subtidal waters of the Gyeongsangbuk-do, East Sea, Korea (Fig. 1). The specimens were fixed in 70−80% ethanol and dissected in glycerol on Cobb's aluminum hole slides. The materials were examined using stereoscope (Olympus SZX 10) and compound microscopes (Olympus BX 51), and drawings and measurements were performed with the aid of a drawing tube. Body length was measured from the end of the rostrum to the end of the urosome, along the dorsal parabolic line of the body. The nomenclature of the terms 'tooth' and 'seta' follows Watling (1989). We defined 'robust seta' as a blunt, inflexible seta. The examined spe-

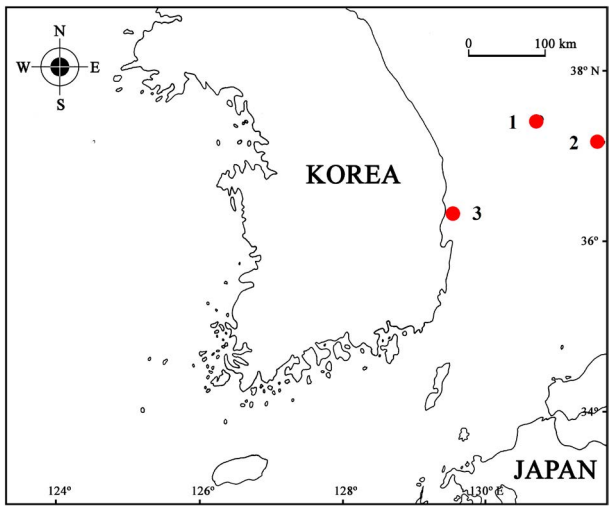

Fig. 1. Distribution of the *Orientomaera incisa* (●: 1, Ulleungdo Island; 2, Dokdo Island; 3, Wangdolcho Rock).

cimens are deposited at the National Institute of Biological Resources (NIBR), Incheon, Korea, Chungcheongnam-do, Korea, and the Department of Biological Science, Dankook University (DKU), Cheonan, Korea.

Systematic Accounts

Order Amphipoda Latreille, 1816
Family Maeridae Krapp-Schickel, 2008
Genus *Orientomaera* Ariyama, 2018
동양마에라속 (신칭)

***Orientomaera incisa* Ariyama, 2020 (Figs. 2–4)**
갈래손마에라옆새우 (신칭)
Orientomaera incisa Ariyama, 2020: 471, figs. 16–20.

Material examined. 6♂ (cat No. NIBRIV0000904520), Keungajaebawi Rock, Dokdo-ri, Ulleung-eup, Ulleung-gun, Gyeongsangbuk-do, Korea, 37°14′50″N, 131°51′47.37″E, 13 June 2018; 5♂ 5♀, Wangdolcho Rock, Hupo-ri, Hupo-myeon, Uljin-gun, Gyeongsangbuk-do, Korea, 36°39′58″N, 129°30′55″E, 14 August 2018; 5♂, Neunggeol, Sadong-ri, Ulleung-eup, Ulleung-gun, Gyeongsangbuk-do, Korea, 37°26′55″N, 130°52′30″E, 13 September 2018; 3 inds, Jukdo island, Jeodong-ri, Ulleung-eup, Ulleung-gun, Gyeongsangbuk-do, Korea, 37°31′38″N, 130°55′58″E, 13 September 2018. The specimens were collected by a SCUBA diving, collected by S.H. Kim.

Description. Adult male, body (Figs. 2, 3A) 7.2 mm long (cat No. NIBRIV0000904520), dorsally smooth. Head, eyes black, ovate to reniform, ommatidia compacted; lateral cephalic lobe subrounded, anteroventral corner acute.

Fig. 2. *Orientomaera incisa*, Ariyama, 2020, adult male, 7.2 mm, habitus. Scale bar = 1.0 mm.

Antenna 1 (Fig. 3B) elongated; peduncular article 1 elongated, with 8 or more robust setae on posterior margin, group of setae on dorsal margin; peduncular article 2 subrectangular and slender; length ratio of peduncular articles 1–3 = 1.00 : 1.00 : 0.38; flagellum 13-articulate, shorter than peduncular articles; accessory flagellum 7-articulate.

Antenna 2 (Fig. 3C) elongated; peduncular article 3–5 with row of setae ventrally; length ratio of peduncular articles 3–5 = 1.00 : 2.00 : 1.87; flagellum 7-articulate.

Gnathopod 1 (Fig. 3D) subchelate; coxa subquadrate, width subequal in length, anterodistal corner produced acutely; basis subrectangular, with 9 short setae anteriorly, 4 long and 2 short setae posteriorly; ischium with 4 long setae posteriorly; carpus subequal in length to propodus, with group of setae ventrally, oblique row of setae posterodistally; propodus subovate, half of anterodistal margin with a group of long setae, posterior margin with several clusters of long setae; palm oblique, with a row of short setae; dactylus falcate, fitting palm, with accessory setule on dorsal margin.

Gnathopod 2 (Fig. 3E) large, massive, subchelate; coxa subquadrate, 0.64 times as wide as long; basis subrectangular, narrowed posteroproximally, with small hump anterodistally; carpus subtriangular, with a robust seta anterodistally; propodus subquadrate, 0.78 times as wide as long, with several clusters of setae on both margins; palm transverse, middle portion with 2 large triangular processes, palmer margin with two rows of robust setae, palmer corner with two unequal small processes; dactylus falcate, fitting palm, with a setule on anterior margin.

Pereopod 3 (Fig. 3F), coxa subquadrate, width subequal in length; basis subrectangular, narrowed posteroproximally; merus to dactylus slender, with sparse setae.

Pereopod 4 similar to pereopod 3, except coxa 4 slightly longer than that of pereopod 3.

Pereopod 5 (Fig. 3G), basis subovate, anterior margin with 4 short setae, posterodistal corner roundly produced; merus subrectangular, moderate, both margins with sparse setae; carpus and propodus slender, subrectangular; dactylus falcate, length 0.40 times as long as propodus.

Pereopod 6 similar to pereopod 5, but slightly longer than pereopod 5.

Pereopod 7 (Fig. 4A), basis subovate, anterior margin nearly straight, with a row of 8 short robust setae, posterior margin roundly expanded, with sparse short setae; merus somewhat dilated posteriorly, both margins with unequal setae; carpus and propodus slender, subrectangular, with several clusters of setae anteriorly; dactylus falcate.

Uropod 1 (Fig. 4B), peduncle subrectangular, subequal in length to rami, with a row of 3 dorsolateral, 4 dorsomedial, a ventromedial, and a basofacial robust setae; inner ramus subequal to outer one, with 6 dorsal robust setae, 2 subapical robust setae, and a robust seta on apex; outer ramus with 4 dorsal robust setae, 2 subapical slender setae,

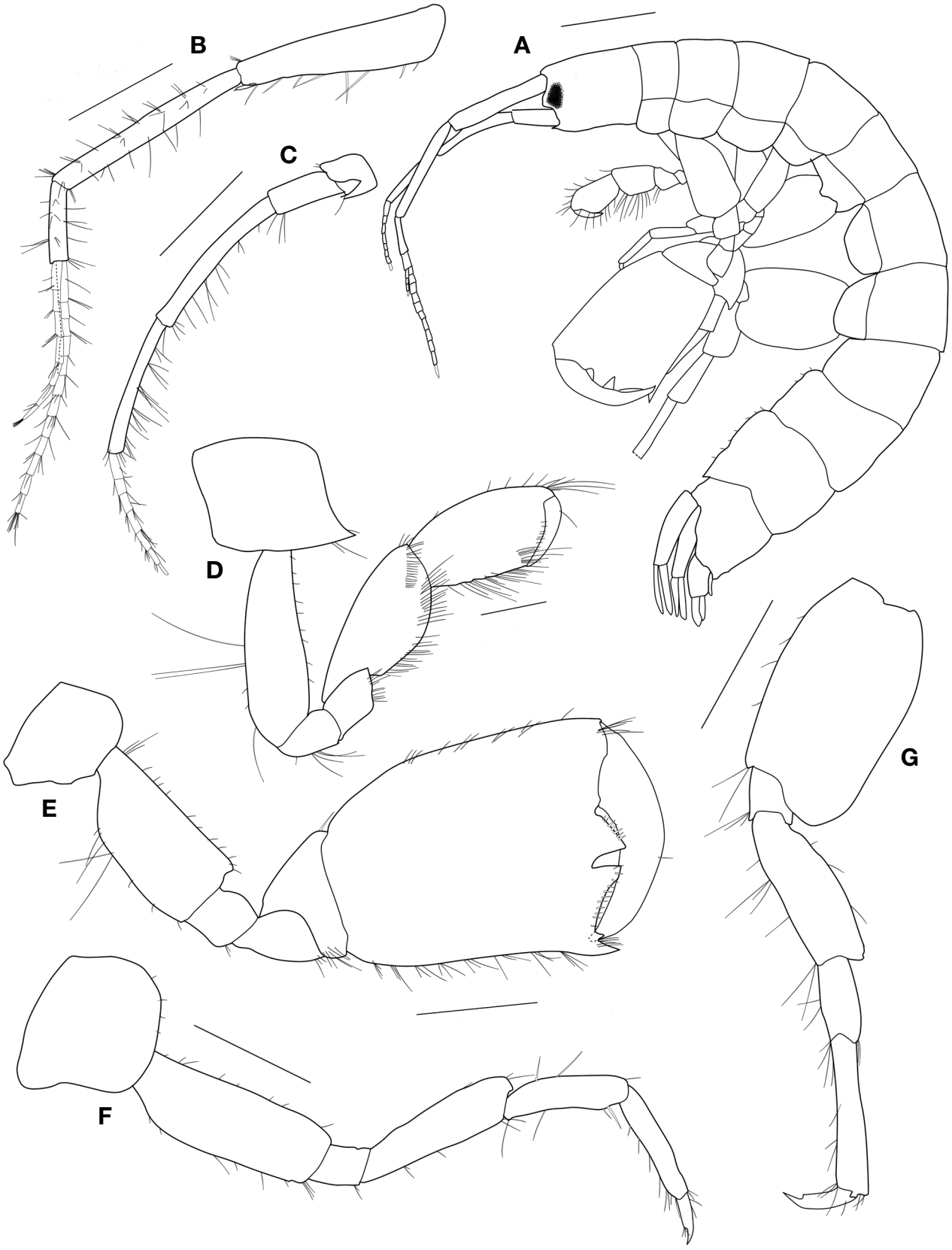

Fig. 3. *Orientomaera incisa*, Ariyama, 2020, adult male, 7.2 mm. A, habitus; B, antenna 1; C, antenna 2; D, gnathopod 1; E, gnathopod 2; F, pereopod 3; G, pereopod 5. Scale bars: A = 1.0 mm, B–G = 0.5 mm.

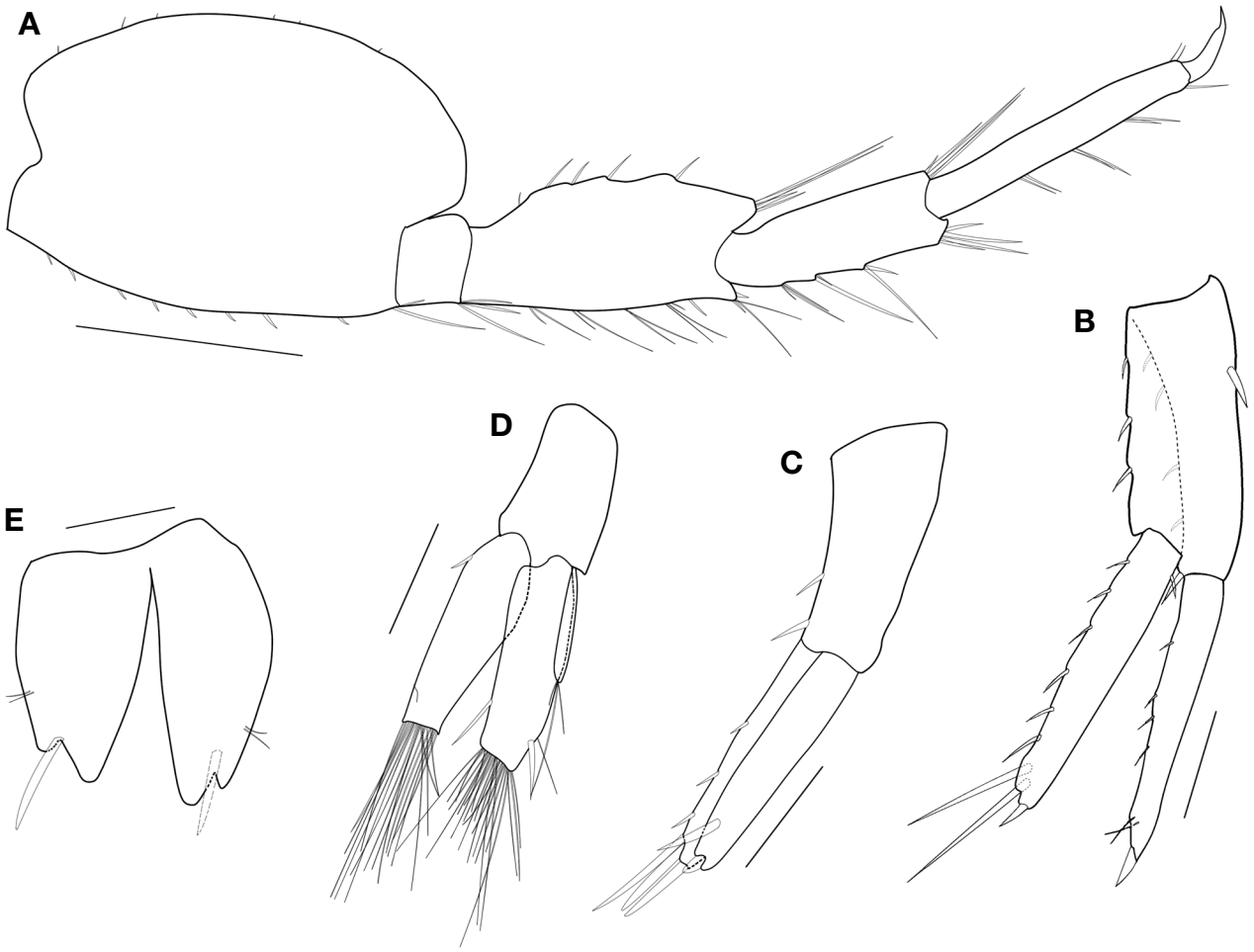

Fig. 4. *Orientomaera incisa*, Ariyama, 2020, adult male, 7.2 mm. A, pereopod 7; B, uropod 1; C, uropod 2; D, uropod 3; E, telson. Scale bars: A = 1.0 mm, B–E = 0.2 mm.

and a robust seta on apex.

Uropod 2 (Fig. 4C), peduncle subrectangular, subequal in length to rami, with 2 robust setae on dorsolateral margin; inner ramus subequal to outer one.

Uropod 3 (Fig. 4D), peduncle subrectangular, short, length 0.77 times as long as inner ramus; both rami subequal in length, apex covered with group of unequal setae.

Telson (Fig. 4E) wider than deep, cleft 90% medially, lateral margins convex, each lobe with 2 setae laterally, distal margins of lobes with 2 processes each, inner process longer than outer process, with a robust seta between processes.

Female (DKUAMP202302), Body length 5.2 mm long, morphologically similar to male in shape, but distinguished from male by having narrow oostegites.

Distribution. Japan, Korea (East Sea).

Remarks. *Orientomaera incisa* is similar to *O. brevispina*, however, it can be easily distinguished by the presence of two distinct teeth on the palm of gnathopod 2. According to Ariyama (2020), *O. incisa* apparently possesses the characters of the genus *Orientomaera*, except for the shape of the gnathopod 2 palm. Our Korean specimens closely agree with the original description by Ariyama (2020), however, the following morphological differences were found between our material and the original description: 1) antenna 2 less setose; 2) pereopod 3 dactylus more angled.

Acknowledgements

This work was supported by a grant from the National Institute of Biological Resources (NIBR), funded by the Ministry of Environment (MOE) of the Republic of Korea (NIBR202102203 and NIBR202231206).

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Submitted: May 2, 2023
Revised: June 7, 2023
Accepted: June 21, 2023