

# First Record of the Genus *Abludomelita* (Crustacea, Amphipoda, Melitidae) from Korea, with Description of Two Newly Recorded Species

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## ABSTRACT

Two newly recorded species of melitid amphipod, *Abludomelita japonica* (Nagata, 1965) and *A. okhotensis* Labay, 2016 belonging to the family Melitidae Bousfield, 1973 were collected from Korean waters. To date, only two genera, *Dulichchiella* Stout, 1912 and *Melita* Leach, 1814, of the 28 genera of Melitidae have been recorded in Korea, so this is the first record of the genus *Abludomelita* from Korea. The genus *Abludomelita* Karaman, 1981 is morphologically similar to *Melita* Leach, 1814, however they are distinguished by having oblique row of setae on inner lobe of maxilla 2. Both newly recorded species are fully illustrated and compared with related species.

**Keywords:** Melitidae, *Abludomelita japonica*, *Abludomelita okhotensis*, new record species, Korea

## INTRODUCTION

Amphipods of the family Melitidae Bousfield, 1973 are abundant and common in coastal and brackish water areas. This family is composed of 28 genera distributed around the world (Horton et al., 2022). Among the genera, the genus *Abludomelita* is morphologically close to *Melita* Leach, 1814, but these two genera were defined based on dorsal oblique row of setae on inner lobe of maxilla 2 and usually by 2-segmented outer ramus of uropod 3 (Karaman, 1981). To date 16 described species in the genus *Abludomelita* (Horton et al., 2022) are known, of which nine *Abludomelita* species have been reported at the Northwest Pacific Ocean: *Abludomelita breviararticulata*, *A. huanghaiensis*, and *A. rotundactyla* (Ren, 2012) from Eastern China, *A. denticulate*, *A. japonica* (Nagata, 1965), and *A. unamoena* (Hirayama, 1987) from Japan, *A. klitinii*, *A. okhotensis* Labay, 2016, and *A. somovae* (Bulyčeva, 1952) from Sakhalin Island, Russia. Hitherto, only six species, *Dulichchiella appendiculata* (Say, 1818), *Melita anmyeonensis* Shin et al., 2013, *M. bingoesis* Yamato, 1987, *M. koreana* Stephensen, 1944, *M. rylova* Bulyčeva, 1955, and *M. setiflagella* Yamato, 1988, of the two genera, *Dulichchiella* and *Melita* belonging to the family Melitidae have been recorded in Korea (Kim et al., 1992; Korean Society of Systematic Zoology,

1997; Shin and Kim, 2011; Shin et al., 2013). In this paper we added the newly recorded genus *Abludomelita* and two newly recorded species, *A. japonica* and *A. okhotensis* to the Korean melitid amphipods fauna.

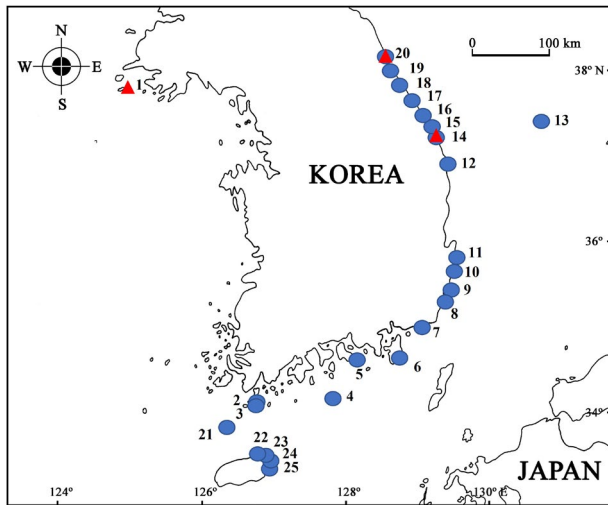
## MATERIALS AND METHODS

Specimens were collected by SCUBA diving, light trap, hand net, and D-frame net from the shallow and sublittoral waters in Korea during the period 1994–2022 (Fig. 1). Specimens were fixed in 70–80% ethanol and dissected in glycerol on Cobb's aluminum hole slides. Permanent mounts were made using polyvinyl lactophenol with lignin pink added. Pencil drawing and measuring were performed with the aid of drawing tube, mounted on SZX 12 stereomicroscope (Olympus, Japan) and BX 51 interference contrast compound microscope (Olympus). Line drawings were produced using the program Clip Studio. Body length was measured from the tip of the rostrum to the posterior end of the urosome, along the dorsal parabolic line of the body. Nomenclature of the terms 'tooth' and 'seta' follows Watling (1989). Examined specimens are deposited at the National Institute of Biological Resources (NIBR), Incheon, Korea and Department of

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**Fig. 1.** Distribution of the *Abludomelita* species (●: *A. japonica* (Nagata, 1965), ▲: *A. okhotensis* Labay, 2016; 1, Baengnyeong-do Island; 2, Nohwa-do Island; 3, Soan-do Island; 4, Geomundo Island; 5, Mijo-myeon; 6, Geojedo-do Island; 7, Dadaepo Port; 8, Jejeon Port; 9, Bangeojin Port; 10, Yangpo Port; 11, Guryongpo Port; 12, Jukbyeon Port; 13, Ulleungdo Island; 14, Samcheok Port; 15, Eodal-ri; 16, Hagwangjeong-ri; 17, Naksan Port; 18, Bongpo Port; 19, Gonghyeonjin Port, 20, Gajin port; 21, Chujado Island; 22, Woljeong Port; 23, Jongdal-ri; 24, Shinyang Port; 25, Seongsanpo Port.

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## SYSTEMATIC ACCOUNTS

Order Amphipoda Latreille, 1816

Family Melitidae Bousfield, 1973

<sup>1</sup>\*Genus *Abludomelita* Karaman, 1981

<sup>2</sup>\**Abludomelita japonica* (Nagata, 1965) (Figs. 2A, 3–5)

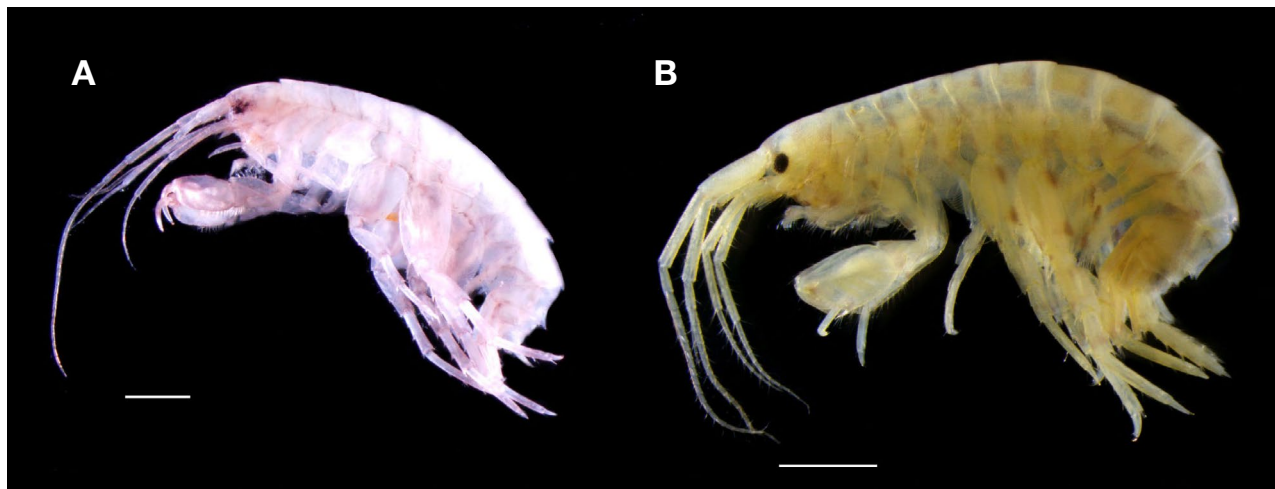
*Melita japonica* Nagata, 1965; 298, fig. 30; Hirayama, 1987: 7.

*Abludomelita japonica* Karaman, 1981: 40.

**Material examined.** Korea: 1 indiv. Jeju-do: Seogwipo-si, Seongsanpo Port, 33°22'56"N, 126°52'56"E, 6 May 1994, Kang BJ; 6 indivs, Gyeongsangbuk-do: Ulleung-gun, Ulleung-eup, Jeodong-ri, 37°29'49"N, 130°54'44"E, 19 Jul 1994, Kang BJ; 25 indivs, Gangwon-do: Samcheok-si, Wondeok-eup, Imwon Port, 37°13'35"N, 129°20'38"E, 5 Aug 1994, Kang BJ; 1 ♀, Gyeongsangnam-do: Geoje-si, Ilun-myeon, Wahyeon Beach, 34°48'41"N, 128°42'21"E, 27 Jun 1995, Kang BJ; 10 indivs, Ulsan: Dong-gu, Bangeo-

dong, Bangeojin Port, 35°28'54"N, 129°25'44"E, 5 Aug 1995, Kang BJ; 3 indivs, Jeollanam-do: Wando-gun, Nohwa-eup, Nohwa-do Island, 34°11'09"N, 126°35'28"E, 23 May 1998, Lee CM; 15 indivs, Wando-gun, Soan-myeon, Soan-do Island, 34°09'5"N, 126°38'01"E, 24 May 1998, Lee CM; 2 ♀♀, Gyeongsangnam-do: Geoje-si, Jangseungpo-dong, Jangseung Port, 34°50'21"N, 128°42'31"E, 3 Jul 1998, Kim YH; 1 ♂, Tongyeong-si, Sanyang-eup, Samdeok-ri, Mireuk-do Island, 34°47'26"N, 128°25'21"E, 11 Jul 1998, Lee CM; 4 indivs, Jeju-do: Seogwipo-si, Seongsan-eup, Shinyang Port, 33°25'40"N, 126°55'06"E, 10 Aug 1998, Kim YH; 1 ♀, Gyeongsangnam-do: Namhae-gun, Mijo-myeon, 34°42'35"N, 128° 02'50" E, 15 Jul 1999, Kim YH; 1 indiv., Busan: Saha-gu, Dadae-dong, Dadaepo Port, 35°3'23"N, 128°58'44"E, 28 Jul 2000, Kim YH; 1 indiv., Gangwon-do: Samcheok-si, Geundeok-myeon, Jangho-ri, 37°16'50"N, 129°19'36"E, 22 Aug 2001, Kim YH; 8 indivs, Samcheok-si, Wondeok-eup, Imwon Port, 37°13'42"N, 129°20'39"E, 22 Aug 2001, Kim YH; 10 indivs, Gyeongsangbuk-do: Pohang-si, Nam-gu, Guryongpo-eup, Guryongpo Port, 35°59'22"N, 129°33'28"E, 23 Aug 2001, Kim YH; 1 ♀, Uljin-gun, Jukbyeon-myeon, Jukbyeon Port, 37°03'22"N, 129°25'20"E, 9 Jul 2002, Kim YH; 46 ♂♂ 49 ♀♀, Jeju-do: Jeju-si, Gujwa-eup, Jongdal-ri, 33°29'02"N, 126°54'21"E, 29 Jul–1 Aug 2004, Shin MH; 2 indivs, Gyeongsangnam-do: Tongyeong-si, Sanyang-eup, Punghwa-ri, 34°49'36"N, 128°22'33"E, 24 Aug 2005, Kim YH; 17 ♂♂ 4 ♀♀, Gyeongsangbuk-do: Pohang-si, Nam-gu, Janggi-myeon, Yangpo Port, 35°52'47"N, 129°31'15"E, 25 Aug 2005, Kim YH; 2 indivs, Gangwon-do: Goseong-gun, Jukwang-myeon, Gajin Port, 38°22'00"N, 128°30'42"E, 22 Jul 2006, Kim YH; 1 ♂, Donghae-si, Eodal-dong, Eodal-ri, 37°33'42"N, 129°07'13"E, 11 Aug 2006, Lee KS; 2 ♂♂ 1 ♀, Goseong-gun, Jukwang-myeon, Gajin Port, 38°22'00"N, 128°30'40"E, 22 Feb 2007, Kim YH; 1 ♀, Goseong-gun, Toseong-myeon, Bongpo-ri, Bongpo Port, 38°15'04"N, 128°34'05"E, 23 Feb 2007, Kim YH; 8 indivs, Goseong-gun, Jukwang-myeon, Gajin Port, 38°22'01"N, 128°30'43"E, 3 Aug 2007, Kim YH; 2 indivs, Yangyang-gun, Ganghyeon-myeon, Jeonjin-ri, Naksan Port, 38°07'21"N, 128°37'59"E, 11 Apr 2014, Kim YH; 2 indivs, Goseong-gun, Jukwang-myeon, Gonghyeonjin-ri, Gonghyeonjin Port, 38°21'16"N, 128°30'47"E, 4 Aug 2007, Kim YH; 5 indivs, Ulsan: Gyu-dong, Buk-gu, Jejeon-port, 35°36'26"N, 129°27'32"E, 12 Sep 2017, Kim YH; 5 indivs, Gyeongsangbuk-do: Pohang-si, Gupyeong-ri, 35°56'35"N, 129°32'08"E, 13 Sep 2017, Kim YH; 3 indivs, Gyeongsangnam-do: Geoje-si, Dongbu-myeon, Hakdong-ri, Gochon breakwater, 34°46'38"N, 128°39'08"E, 19 Sep 2017, Kim YH; 1 indiv, Jeollanam-do: Yeosu-si, Geomun-do, Guroba, 34°03'09"N, 127°16'31"E, 9 Jul 2019, Kim YH; 50 indivs,

Korean name: <sup>1</sup>\*별난멜리타옆새우속 (신칭), <sup>2</sup>\*별난멜리타옆새우 (신칭)



**Fig. 2.** *Abludomelita japonica* (Nagata, 1965), A, Adult male, 8.8 mm; *A. okhotensis* Labay, 2016, B, Adult male, 10.8 mm; Scale bars: A, B = 1.0 mm.

Gangwon-do: Yangyang-gun, Hagwangjeong-ri, 38°01'22"N, 128°43'42"E, 28 Apr 2021, Kim YH; 2 indivs, Goseong-gun, Jukwang-myeon, Gajin Port, 38°21'59"N, 128°30'41"E, 29 Apr 2021, Kim YH; 1 indiv, Goseong-gun, Daejin-ri, Daejin Port, 38°29'58"N, 128°25'34"E, 30 Apr 2021, Kim YH; 2 indivs, Jeju-do: Jeju-si, Chuja-myeon, Daeseo-ri, Nabalon Cliff, 33°57'18"N, 126°17'32"E, 29 Aug 2021, Kim YH; 18 indivs, Jeju-si, Gujwa-eup, Jongdal-ri, Jongdal Port, 33°29'46"N, 126°54'42"E, 5 Feb 2022, Kim YH; 18 indivs, Jeju-si, Gujwa-eup, Woljeong-ri Woljeong Port, 33°33'26"N, 126°47'43"E, 7 Feb 2022, Kim YH.

**Description. Adult male** (cat No. NIBRIV0000900869): Body (Figs. 2A, 3A) smooth, 8.8 mm long. Head (Fig. 3A) subequal to pereonites 1, 2 combined; rostrum not elongated; lateral cephalic lobe roundly protruded; eye round, small.

Antenna 1 (Fig. 3B) slightly longer than half of body length; peduncular article 1 subrectangular, slightly shorter than article 2, with 3 robust setae posteriorly; length ratio of peduncular articles 1–3 = 1.00 : 1.08 : 0.37; flagellum 15-articulate, 1.24 times as long as peduncle; accessory flagellum present, 5-articulate, article 5 minute.

Antenna 2 (Fig. 3C) 0.61 times as long as antenna 1; peduncular articles 4 and 5 slender, subequal in length; flagellum 9-articulate, length 0.57 times as long as peduncle.

Lower lip (Fig. 3D) well developed, inner and outer lobes rounded with patch of pubescence apically, outer lobe with row of feeble setae medially, mandibular lobe produced.

Left mandible (Fig. 3E), incisor with 5 teeth, lacinia mobiles with 4 blunt teeth, molar medium, triturative, with 1 pappose seta, between molar and lacinia mobiles with 9 accessory setule row; palp 3-articulate, proximal article 1 short, article 2 shorter than article 3, with 5 setae.

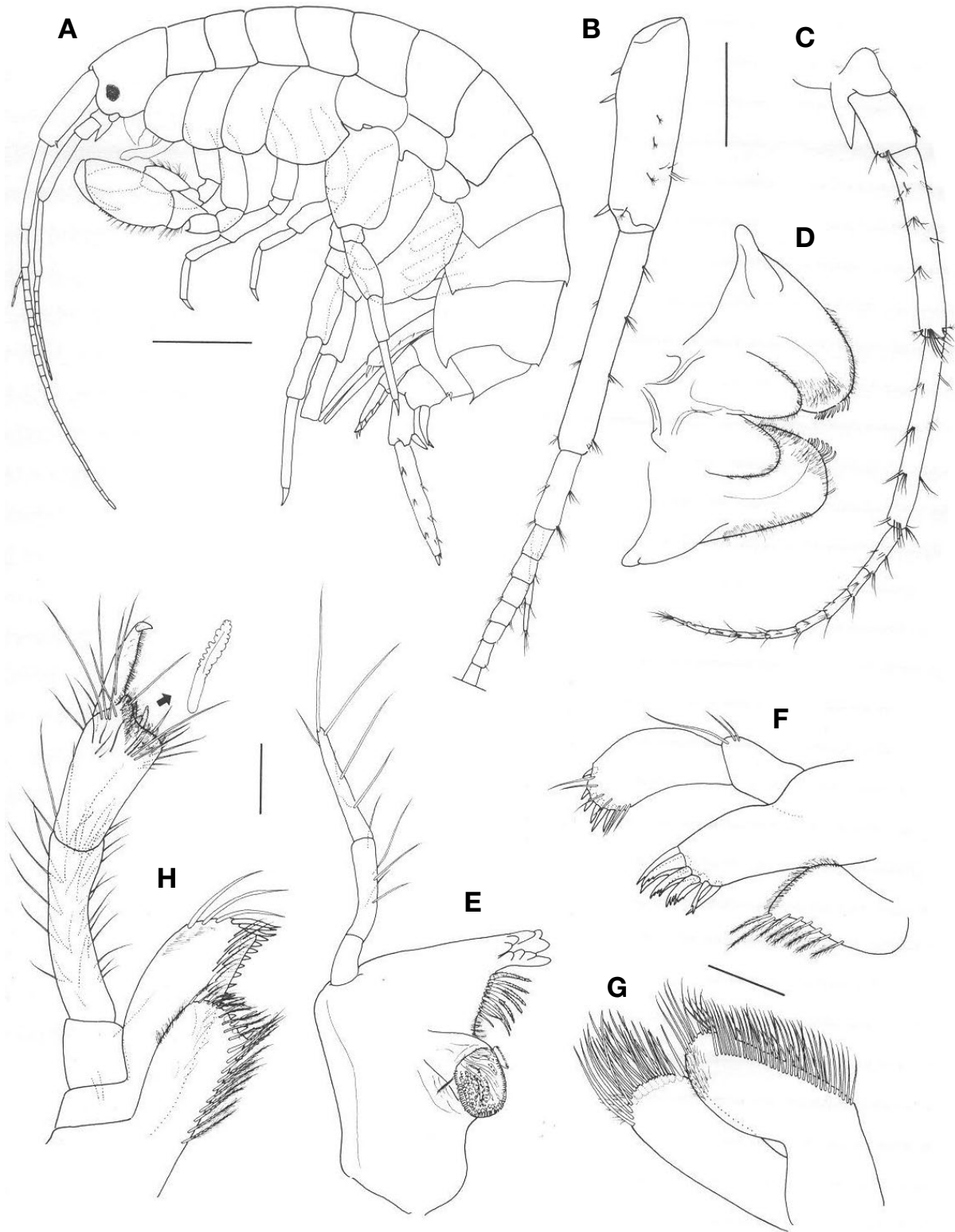
Maxilla 1 (Fig. 3F), inner plate medium with 8 plumose setae medially; outer plate with 9 setal-teeth apically; palp bi-articulate, distal article with 6 robust setae and 7 simple setae apically.

Maxilla 2 (Fig. 3G), inner plate slightly shorter than outer plate, with oblique row of 34 plumose setae medially and unequal setae medial and apical margins.

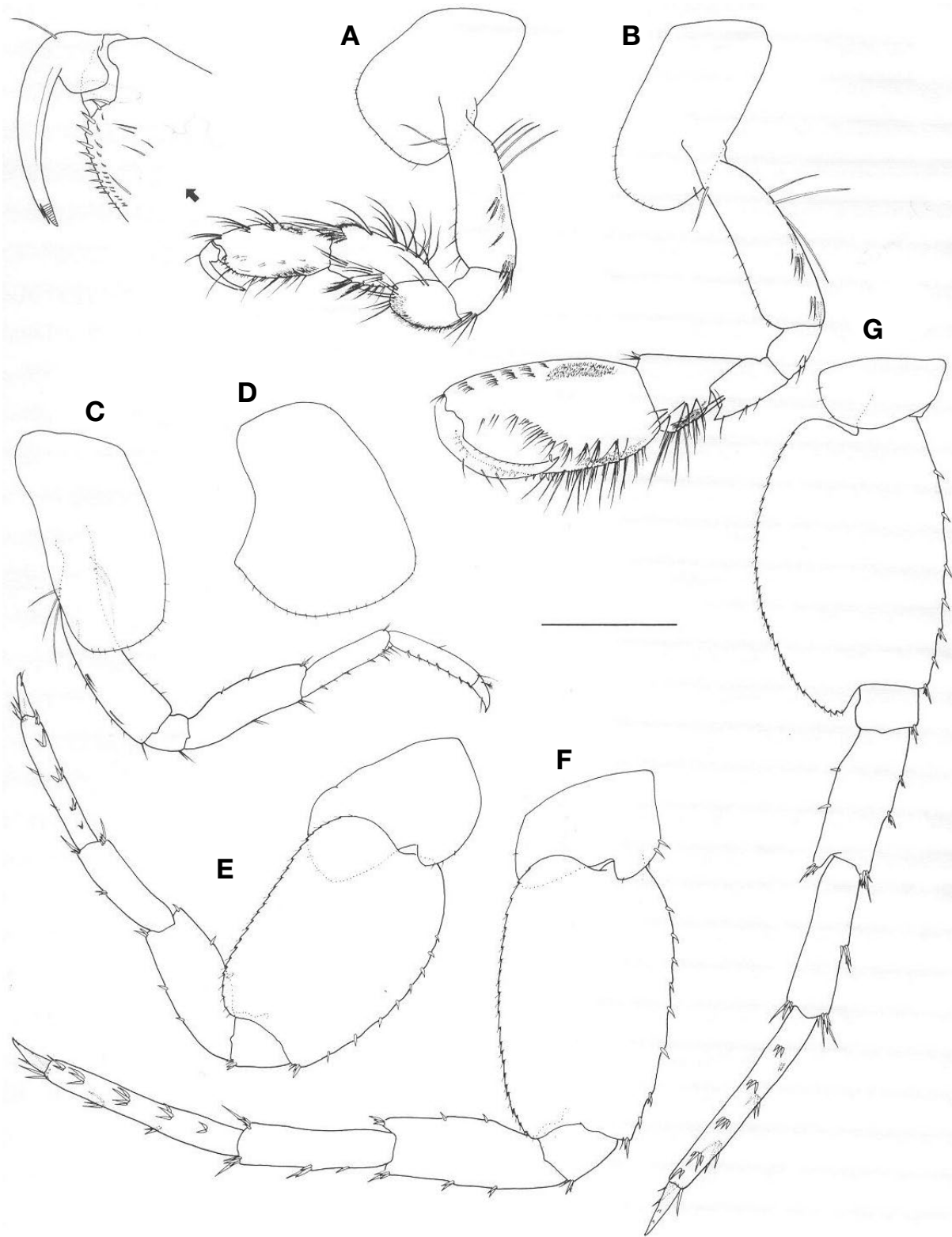
Maxilliped (Fig. 3H), inner plate subrectangular, about half length of outer plate, with 10 plumose setae on medial margin, 3 conical robust setae and 9 plumose setae apically; outer lobe broad, medial margin with 1 conical teeth; palp 4-articulate, article 1 quadrate, short; article 2 longer than article 3, with unequal setae exteriorly; article 3 broadening distally, apex with 2 clavate robust setae, numerous setae, and pubescence; article 4 slender, long, with numerous setules on mesial margin and nail on apex.

Gnathopod 1 (Fig. 4A) subchelate, coxa trapezoidal, gradually widening, with a row of setules ventrally; basis subrectangular, narrowing proximally, with 4 long setae, 2 clusters of pinnate setae posteriorly; merus slightly longer than ischium, densely pubescent ventrally; carpus subequal in length to propodus; propodus subrectangular with rounded corner, palm rounded, oblique, with 2 rows of small robust setae; dactylus falcate.

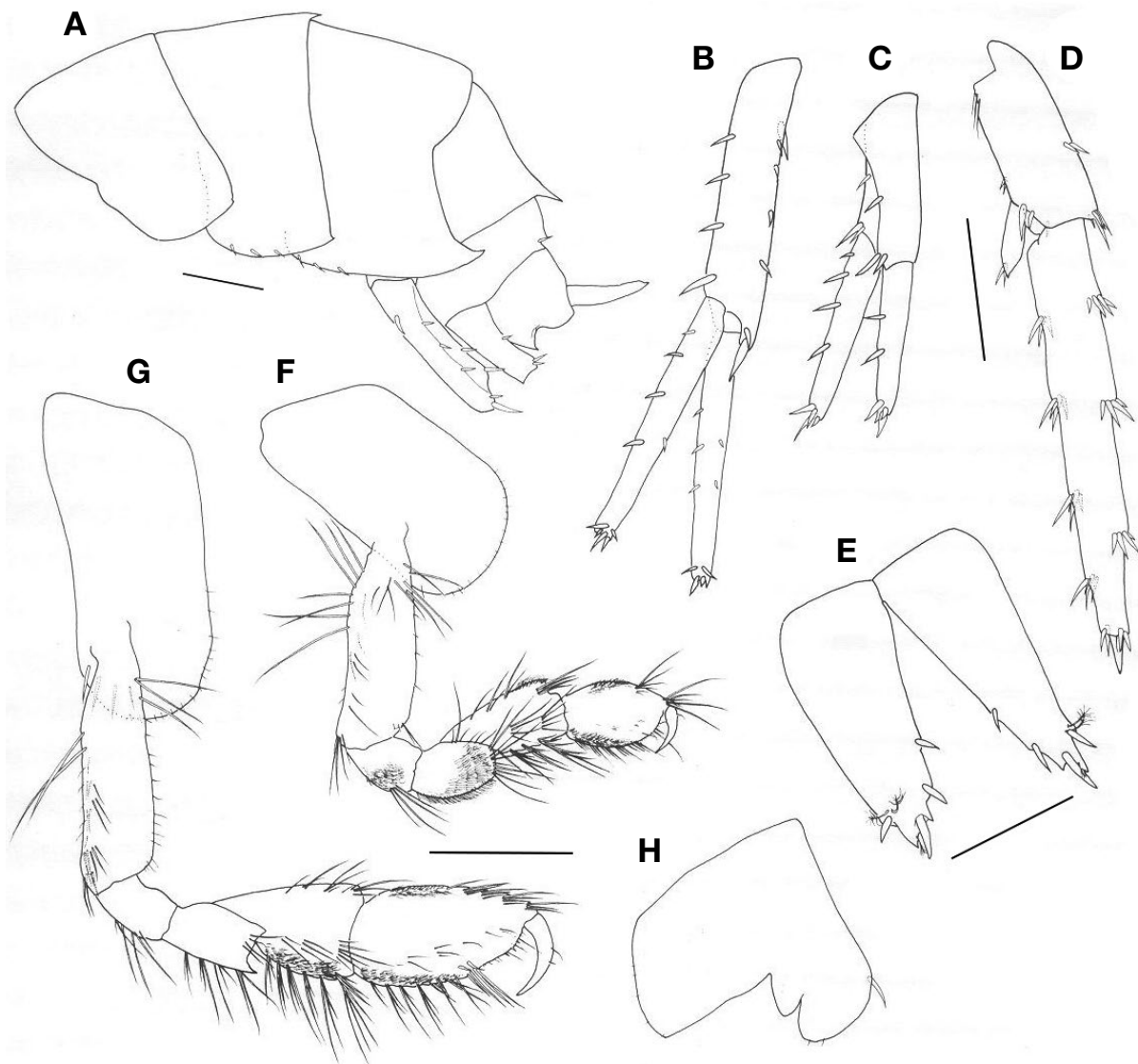
Gnathopod 2 (Fig. 4B) subchelate, coxa subrectangular, ventral margin rounded, with a row of setules; basis and ischium similar to those of gnathopod 1; merus 1.33 times as long as ischium, distoventral corner acutely produced; carpus subtriangular, with simple setae and numerous pubescence ventrally; propodus elongate-ovate, twice length of carpus, distal half of dorsal portion with 6 clusters of simple setae, interior and ventral portions with unequal simple setae; palm roundly



**Fig. 3.** *Abludomelita japonica* (Nagata, 1965), adult male, 8.8 mm; A, Habitus; B, Antenna 1; C, Antenna 2; D, Lower lip; E, Mandible; F, Maxilla 1; G, Maxilla 2; H, Maxilliped. Scale bars: A=1.0 mm, B, C=0.4 mm, D, E, H=0.2 mm, F, G=0.1 mm.



**Fig. 4.** *Abludomelita japonica* (Nagata, 1965), adult male, 8.8 mm; A, Gnathopod 1; B, Gnathopod 2; C, Pereopod 3; D, Coxa 4; E, Pereopod 5; F, Pereopod 6; G, Pereopod 7. Scale bar: A–G=0.6 mm.



**Fig. 5.** *Abludomelita japonica* (Nagata, 1965), adult male, 8.8 mm; A, Pleonites and urosomites; B, Uropod 1; C, Uropod 2; D, Uropod 3; E, Telson; female, 7.6 mm; F, Gnathopod 1; G, Gnathopod 2; H, Coxa 6. Scale bars: A-D, F-H=0.4 mm, E=0.2 mm.

oblique, with a row of short robust setae; dactylus falcate with 3 setae.

Pereopod 3 (Fig. 4C), coxa subrectangular, ventral margin with a row of setules; basis curved proximally; carpus 0.74 times as long as merus, posterior margin with 4 short robust setae and setules; propodus subequal in length to carpus, posterior margin with row of robust setae.

Pereopod 4 similar to pereopod 3, but coxa (Fig. 4D) excavate posteroproximally; merus, carpus, and propodus slightly shorter than those of pereopod 3.

Pereopod 5 (Fig. 4E), coxa subrectangular, bilobate, anterior lobe protruding roundly downward; basis subovate, with a row of 8 robust setae on anterior margin, posterior margin

serrulate; merus 1.43 times as long as carpus; propodus rectangular, 1.25 times as long as carpus, with 2-3-3-2-2 robust setae in formula.

Pereopod 6 (Fig. 4F) similar to pereopod 5, but longer, coxa smaller than coxa 5, anterodistal margin with 2 robust setae.

Pereopod 7 (Fig. 4G), coxa small, unilobate; basis subovate, roundly produced posteriorly, anterior margin with a row of robust setae, posterior margin serrulate.

Pleonites and urosomites (Fig. 3A, 5A) characteristic in form; pleonite 2 to urosomite 2 with 1 dorsocentral process, especially process of urosomite 1 larger and elongate; urosomite 2 with 2 dorsodistal processes and 1 robust seta on each dorsal margin; epimeron 2 subrectangular, ventral mar-

gin with 3 robust setae, posteroventral corner with small cusp; epimeron 3 produced posteroventrally, anteroventral margin with 3 robust setae.

Uropod 1 (Fig. 5B), peduncle rectangular, slightly longer than rami; both rami subequal in length, with row of robust setae on both margins and 4 small robust setae on apex.

Uropod 2 (Fig. 5C), peduncle subequal to inner ramus; outer ramus 0.81 times as long as inner ramus, both rami with robust setae dorsally and 3 small robust setae on apex.

Uropod 3 (Fig. 5D) variramous, peduncle slightly shorter than half of outer ramus; outer ramus elongate, biarticulated, distal article short, 0.11 times as long as proximal article; inner ramus short, 0.17 times as long as outer ramus.

Telson (Fig. 5E) deeply cleft; each lobe with 2 robust setae on distomesial margin, apical portion pointed, with robust and penicillate setae.

**Female** (cat No. DKUAMP202204): Body smooth, 7.6 mm long, similar to male in shape, but propodus of gnathopod 1 (Fig. 5F) ovoid, shorter and stouter than that of male; propodus of gnathopod 2 (Fig. 5G) shorter than that of male; coxa 6 (Fig. 5H) bilobate, anterior lobe protruding roundly downward, with 1 robust seta and 2 rounded posterior lobes.

**Remarks.** *Abludomelita japonica* (Nagata, 1965) is characteristic in having dorsocentral processes on pleonite 2 to urosomite 2. Among the processes, the process of pleonite 3 is often smaller or absent. This species is similar to *Tegano shiodamari* (Yamato, 1995) which was transferred from *Melita shiodamari* by Lowry and Springthorpe (2009), in having dorsocentral processes in pleonites and biarticulated uropod 3. As shown in Table 1, *A. japonica* is easily distinguished from *T. shiodamari* by the following characteristics: (1) Maxilla 2, inner lobe with an oblique row of setae; (2) antennae 1, 2 not setose, without long setae. Our Korean specimens are in good agreement with the previous descriptions of Labay (2016) and Nagata (1965).

**Distribution.** Japan, Korea (East Sea, South Sea, Jeju Island).

<sup>1</sup>\****Abludomelita okhotensis* Labay, 2016 (Figs. 2B, 6–8)**  
*Abludomelita okhotensis* Labay, 2016; 39, figs. 2, 16–20, 28d.

**Material examined.** Korea: 5 indivs, Incheon: Ongjin-gun, Baengnyeong-myeon, Baengnyeong-do Island, Yeonhwa-ri, 37°58'58"N, 124°36'40"E, 12 Aug 2020, Kim YH, Lee SG; 1♂ Gangwon-do: Samcheok-si, Geundeok-myeon, Deoksan-ri, Deoksan Port, 37°22'35"N, 129°15'15"E, 26 Apr 2021, Kim YH, Choi JH, Shin SY, Kim KW; 3 indivs, Goseong-gun, Jukwang-myeon, Gajin Port, 38°21'59"N, 128°30'41"E, 29 Apr 2021, Kim YH, Choi JH, Shin SY, Kim KW.

**Description. Adult male** (cat No. NIBRIV0000895335):

Body (Figs. 2B, 6A) 10.8 mm long. Head (Fig. 6A) slightly longer than pereonites 1, 2 combined, lateral cephalic lobe broad and apically rounded, with a notch on posterior margin; eye round, ommatidia compacted.

Pleonites (Fig. 6B) dorsomarginally serrate; pleonites 1–3 with small central process and 3 lateral processes on each side accompanied by setae; urosomite 1 with 3 subequal processes dorsomarginally; urosomite 2 with pair of lateral acute processes on each side; urosomite 3 produced posteriorly, posterior margin concave, with 3 acute teeth.

Lower lip (Fig. 6C), inner lobes well defined, coalescent basally, rounded apically; outer lobes subrounded, with row of feeble setae medially, mandibular lobe produced.

Maxilla 1 (Fig. 6D), inner plate medium with 9 plumose setae medially; outer plate with 3 setal-teeth apically; palp biarticulate, distal article with 2 rows of 9–10 simple setae apically.

Maxilla 2 (Fig. 6E), inner plate slightly shorter than outer plate, inner lobe numerous simple setae, located submarginally, covered with numerous simple setae on apex; outer plate with numerous simple setae on apex.

Left mandible (Fig. 6F), incisor with few teeth, lacinia mobiles with 4 blunt teeth, molar medium, tritritative; between molar and lacinia mobiles with 10 accessory setal row; palp 3-articulate, length ratio of articles 1–3 = 1.00 : 1.70 : 2.60.

Right mandible (Fig. 6G) between malar and lacinia mobiles with accessory robust setae row; the other morphological characters generally similar to left mandible.

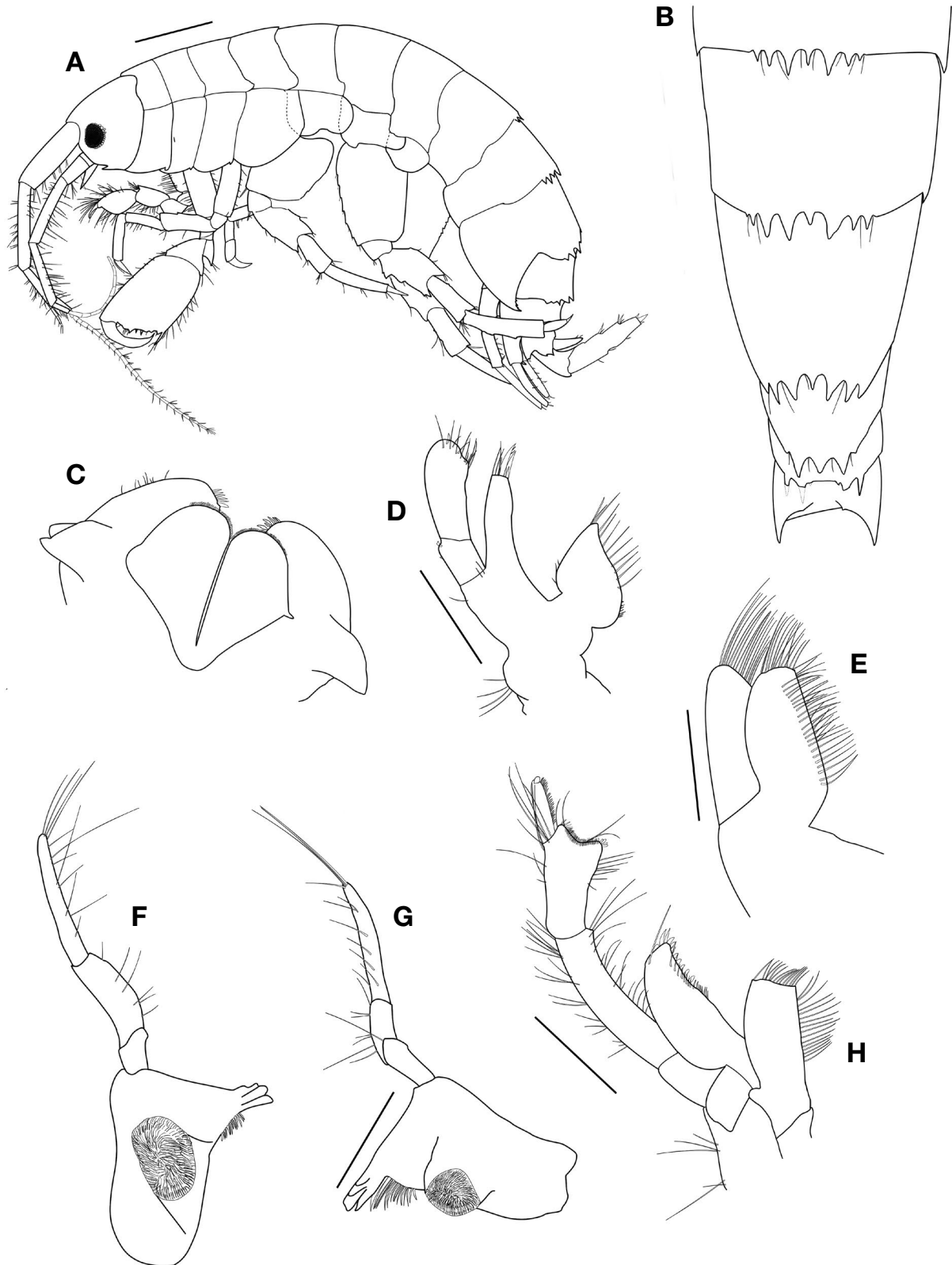
Maxilliped (Fig. 6H), inner plate subrectangular, medial margin with 16 long simple setae; outer plate; palp 4-articulate, article 2 elongate, both margins with unequal simple setae; article 3 broadening distally, apex with dense pubescence; article 4 slender, with numerous setules on mesial margin and nail on apex; length ratio of palp articles 2–4 = 1.00 : 2.64 : 1.82.

Antenna 1 (Fig. 7A) slightly longer than half of body length; peduncular article 1 subrectangular, slightly shorter than article 2, with row of 6 robust setae on posteriorly; length ratio of peduncular articles 1–3 = 1.00 : 1.06 : 0.41; flagellum 28-articulate; accessory flagellum 6-articulate.

Antenna 2 (Fig. 7B) 0.58 times as long as antenna 1; gland cone well developed; peduncular articles 4 and 5 slender, subequal in length; flagellum 12-articulate.

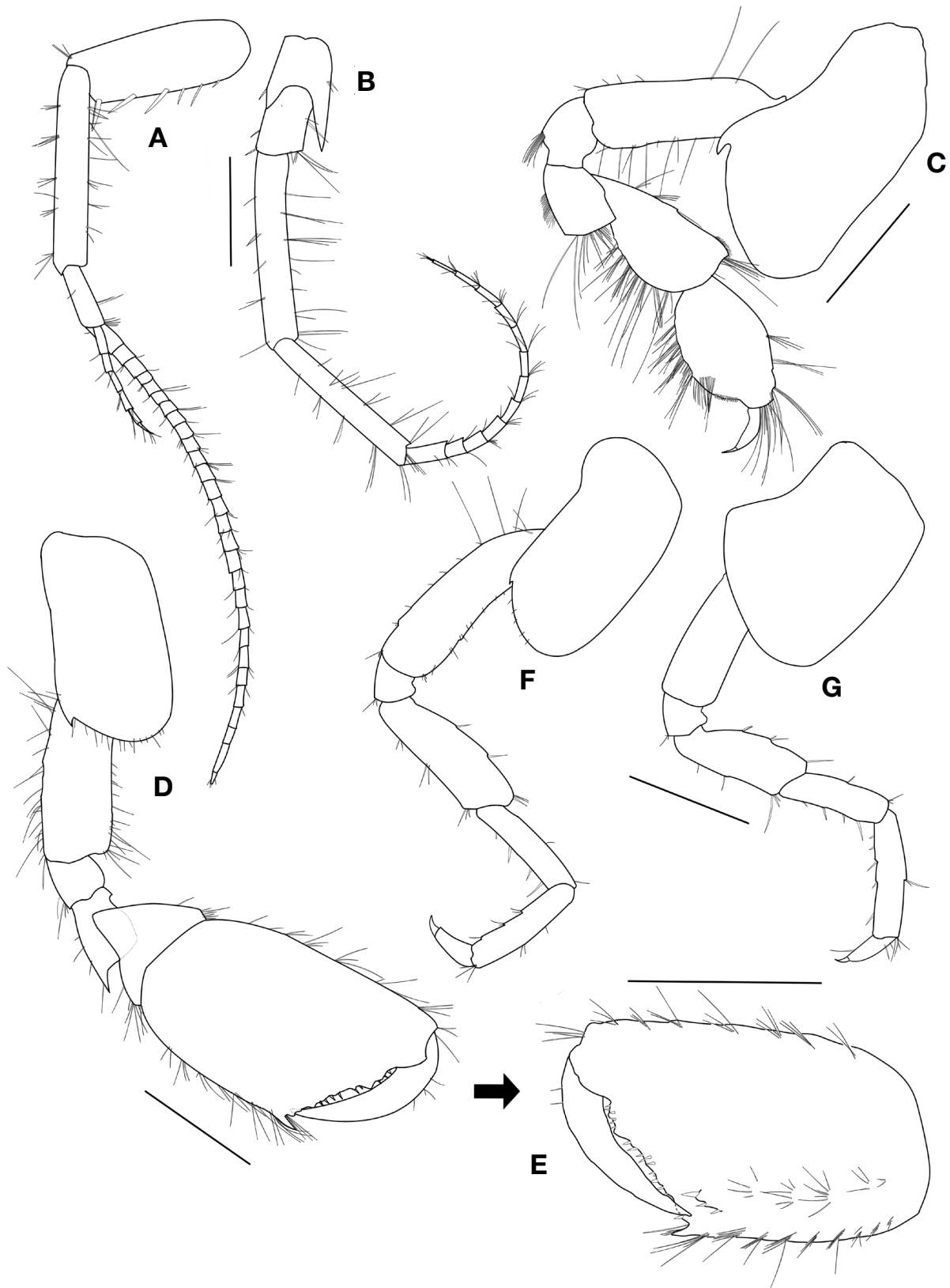
Gnathopod 1 (Fig. 7C), subchelate; coxa large, gradually widening, posteroventral corner notched; basis subrectangular, narrowing proximally, with 10 simple setae anteriorly, 7 simple setae posteriorly; merus with pubescence posteriorly and simple setae posterodistally; carpus posteriorly rounded, width 0.34 times length, slightly longer than propodus, with 7



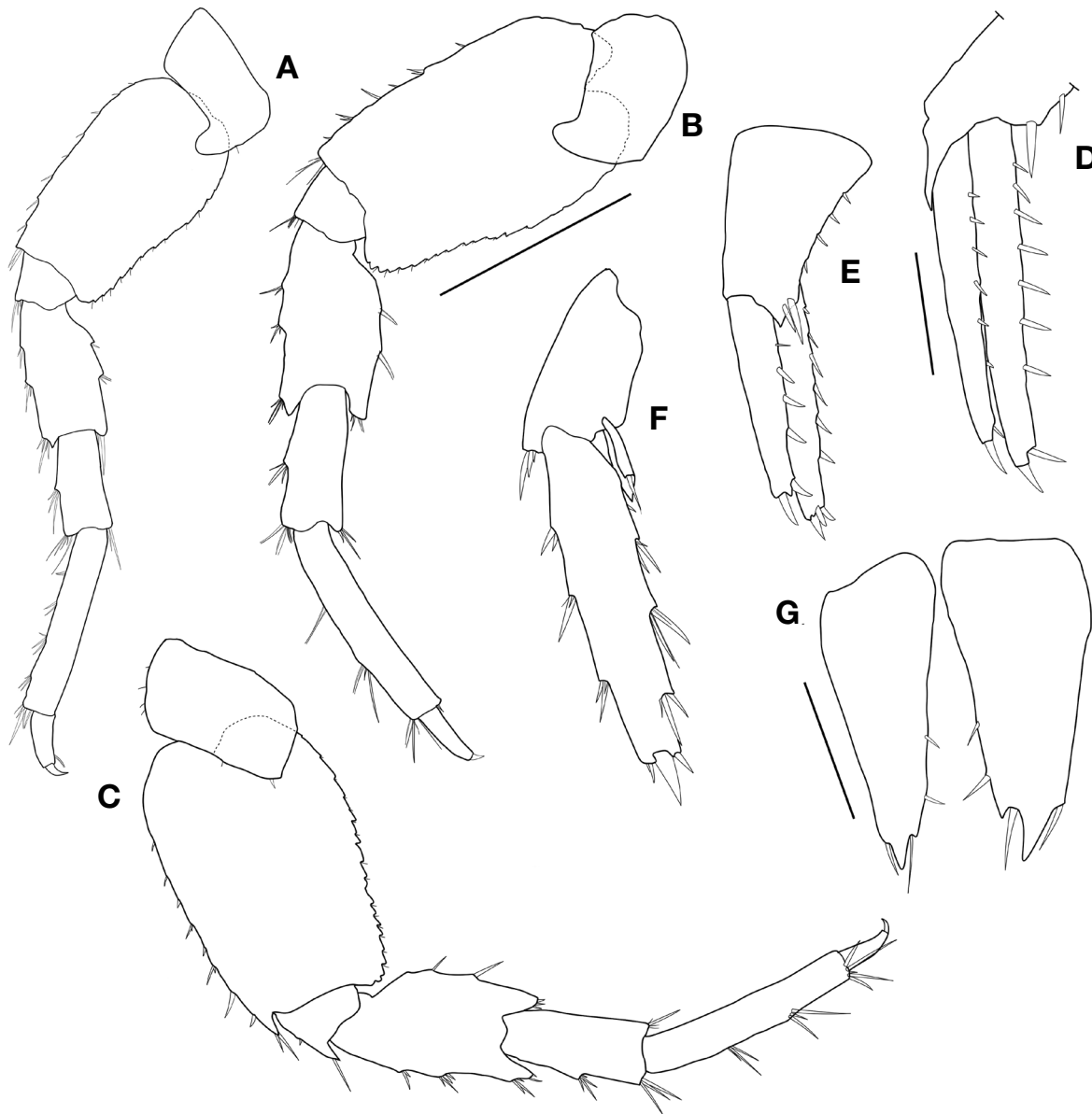


**Fig. 6.** *Abludomelita okhotensis* Labay, 2016, adult male, 10.8 mm; A, Habitus; B, Pleonites, Dorsal view; C, Lower lip; D, Maxilla 1; E, Maxilla 2; F, Left mandible; G, Right mandible; H, Maxilliped. Scale bars: A, B=1.0 mm, C, D, F, G=0.2 mm, E=0.5 mm, H=0.1 mm.





**Fig. 7.** *Abludomelita okhotensis* Labay, 2016, adult male, 10.8 mm; A, Antenna 1; B, Antenna 2; C, Gnathopod 1; D, Gnathopod 2; E, Gnathopod 2, Inner view; F, Pereopod 3; G, Pereopod 4. Scale bars: A-G=1.0 mm.



**Fig. 8.** *Abludomelita okhotensis* Labay, 2016, adult male, 10.8 mm; A, Pereopod 5; B, Pereopod 6; C, Pereopod 7; D, Uropod 1; E, Uropod 2; F, Uropod 3; G, Telson. Scale bars: A–C=1.0 mm, D–F=0.4 mm, G=0.2 mm.

clusters of setae ventrally, pubescence anterodistally; propodus ovate, palm rounded, oblique; dactylus falcate, fit in palm.

Gnathopod 2 (Fig. 7D) large, subchelate; coxa subrectangular, posteroventral corner notched; basis and ischium similar to those of gnathopod 1; merus distoventral corner acutely produced; carpus subtriangular; propodus (Fig. 7E) massive, subrectangular, both margins nearly parallel, with unequal setae on both margins; palm oblique, with small robust setae along the inner margin, defined by acute process; dactylus falcate, acute, slightly shorter than palm, 0.69 times as long as propodus.

Pereopod 3 (Fig. 7F), coxa similar to that of gnathopod 2, except posterodistal notch minute; basis slightly curved proximally; merus subrectangular, broaden distally; propodus subrectangular, slightly longer than merus; dactylus falcate, with acute nail.

Pereopod 4 (Fig. 7G) similar to pereopod 3, but coxa broader and posterodistally produced.

Pereopod 5 (Fig. 8A), coxa subrectangular, bilobate; basis subrectangular, anterior margin with row of robust setae, posterior margin weakly serrulate; merus broad; propodus subrectangular, anterior margin with 2 group of setae; dactylus

**Table 1.** Morphological characters of *Abludomelita japonica* and *A. okhotensis* with related species

Characters	<i>Abludomelita japonica</i>	<i>Tegano shiodamari</i>	<i>A. okhotensis</i>	<i>A. rotundactyla</i>
Body length (mm)	8.8	5.6	10.8	11.0
Pleon 1- Urosome 2 ratio of dorsodistal process	0-1-1-1-4	1-1-1-1-0	7-7-7-3-4	7-9-9-3-4
Gnathopod 2, propodus	Elongate-ovate, longer than wide	Trapezoid, longer than wide	Subrectangular, longer than wide	Subquadrate, width subequal to length
Gnathopod 2, palmar process	Absent	Absent	Present	Present
Gnathopod 2, dactylus	Falcate	Falcate	Falcate	Blunt
Distribution	Seto Inland Sea, Japan; Korea	Nishitani beach, Japan	Shelf of Sakhalin Island, Russia; Korea	Shelf of Sakhalin Island, Russia
Reference	Nagata (1965), present study	Yamato (1995)	Labay (2016), present study	Labay (2016)

falcate, with acute nail.

Pereopod 6 (Fig. 8B) similar to pereopod 5, but more elongated; merus broader.

Pereopod 7 (Fig. 8C) similar to pereopod 6, but coxa subrectangular; basis and ischium pointed posterodistally.

Uropod 1 (Fig. 8D), peduncle lost, with strong distoventral spur; inner ramus slightly longer than outer one; rami with row of robust setae on both margins.

Uropod 2 (Fig. 8E), peduncle slightly shorter than inner ramus, with acute protrusion at the distal margin; inner ramus slightly shorter than outer ramus.

Uropod 3 (Fig. 8F) peduncle short, 0.42 times as long as outer ramus; outer ramus elongate, biarticulated, distal article short, 0.15 times as long as proximal article; inner ramus scale-like, much shorter than outer ramus.

Telson (Fig. 8G) cleft; each lobe with 2 robust setae on inner margin, 2 robust setae distally.

**Remarks.** Labay (2016) mentioned that *Abludomelita okhotensis* is similar to *A. rotundactyla*. However, *A. okhotensis* is distinguished from *A. rotundactyla* based on the characters listed in Table 1 and the following characteristics; (1) gnathopod 2, propodus subrectangular, longer than wide; (2) gnathopod 2, palm oblique, with palmer corner with a large acute process; (3) dactylus without obtuse tip. *Abludomelita okhotensis* is characterized by having (1) 7 dorso-marginal processes on pleonites 1–3; (2) acute process on palmar corner of gnathopod 2; (3) three acute teeth on the posteroventral portion of epimeron 3 (Labay, 2016). Our Korean specimens agree with the original description by Labay (2016). However, the following morphological differences were found between our material and the original description: (1)

gnathopod 2 palm with 2 slight protuberances at the proximal half and dactylus falcate; (2) coxa 4 without posteroventral notch; (3) pereopods 5–7, meri more broadened.

**Distribution.** Russia, Korea (Baengnyeong-do Island, Gajin, Samcheok).

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## CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

## ACKNOWLEDGMENTS

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 (NIBR No. 2015O1201 and NIBR202130202).

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Received October 19, 2022  
 Revised October 25, 2022  
 Accepted October 27, 2022