



***Kabutos*, a new genus for the western Pacific leucosiid crab, *Merocryptus durandi* Serène, 1955 (Crustacea: Decapoda: Brachyura)**

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Abstract

A new genus of the family Leucosiidae, *Kabutos* n. gen., is described for *Merocryptus durandi* Serène, 1955, from the western Pacific. *Kabutos* n. gen. is differentiated from other leucosiid genera by the combination of morphological features in the orbit, third maxilliped, chela and abdomen. *Kabutos durandi* is redescribed and the affinities with allied genera are discussed.

Key words: Brachyura, Leucosiidae, *Kabutos* n. gen., new genus, western Pacific

Introduction

The genus *Merocryptus* A. Milne-Edwards, 1873, currently contains four species: *M. boletifer* A. Milne-Edwards & Bouvier, 1894, *M. durandi* Serène, 1955, *M. lambriformis* A. Milne-Edwards, 1873, and *M. obsoletus* A. Milne-Edwards & Bouvier, 1898 (Ng *et al.* 2008). The genus was established for *M. lambriformis* and was described on the basis of one male specimen collected from the island of Upolu, Samoa, in the south-central Pacific (A. Milne-Edwards, 1873: 261, pl. 2 fig. 1). It is a senior synonym of *Ebalia rugosa* Yokoya, 1933, described from three males and eight females from several locations in Japan. Two of the species are from the eastern Atlantic: *M. boletifer* described from one male from the Azores (A. Milne-Edwards & Bouvier, 1894: 56, pl. 4 figs. 1–9) and *M. obsoletus* described from apparently a single male from the Cape Verde (A. Milne-Edwards & Bouvier, 1898: 34). Serène (1955: 146, fig. 3, pl. 6 figs. 1–3) described *M. durandi* on the basis of a single female specimen from Vietnam. Sakai (1963) recognised a new genus and new species from Japan, *Merocryptoides frontalis* Sakai, 1963, which he argued was close to *Merocryptus*. However, a revision by Komatsu & Takeda (2001), who described two new species from Japan, argued that *Merocryptoides* is actually closer to the small species of *Nursia* Leach, 1817, e.g., *N. elegans* Ihle, 1918, *N. japonica* Sakai, 1935, and *N. alata* Komatsu & Takeda, 1999.

Examination of a series of specimens of *M. durandi* collected in the central Philippines and Vanuatu (see Bouchet *et al.* 2009) showed that its retention in the genus is untenable; the differences in the structures of the orbit and antenna, third maxilliped, as well as the form of the male and female abdomens were too substantial. These characters also argue against the transfer of *M. durandi* to similarly looking genera such as *Merocryptoides* Sakai, 1963, or *Oreotlos* Ihle, 1918. A new genus, *Kabutos*, is here established for the species.

Material examined is deposited in the Philippine National Museum (Crustacean Collection), Manila, Philippines (NMCR); Muséum national d'Histoire naturelle, Paris, France (MNHN); Zoological Reference Collection of the Raffles Museum of Biodiversity Research, National University of Singapore (ZRC); and the National Museum of Nature and Science, Tokyo, Japan (NSMT). Measurements provided, in millimeters, are of the carapace length and width, respectively. The following abbreviations are used: G1 = male first pleopod; G2 = male second pleopod; R = fused abdominal somites; s = thoracic sternal suture (e.g., s3/4 = suture between sternites 3 and 4); stn = station; T = telson.

Taxonomy

Family Leucosiidae

Kabutos n. gen.

Diagnosis. Carapace distinctly broader than long, dorsal surface with distinct median, epibranchial ridges; front produced; mesogastric region longitudinally positioned, broadly convex; gastro-cardiac region raised, with 2 gastric tubercles, single cardiac tubercle; intestinal region produced; branchial region expanded laterally, gently sloping anterolaterally from ridge. Basal segment of antennule not occupying entire fossa when closed. Basal segment of antenna lodged in orbital hiatus. Maxillule with tongue-shaped endopod. First, second maxillipeds with exopodal flagellum. Third maxilliped exopod with triangular tooth at proximal end of lateral margin. Chelipeds relatively slender, not elongate. Ambulatory legs relatively short. Thoracic sternum covered with numerous rounded granules; sutures between s3/4, s4/5, s5/6, s6/7, s7/8 interrupted medially; medial suture absent. Male abdomen with first, second somites free, third to fifth somites completely fused, sixth somite, telson free. Female abdomen with second, third somites free, fourth to sixth somites fused, telson free. G1 relatively slender, straight, compressed. G2 short, about 0.3 times as long as G1.

Type species. *Merocryptus durandi* Serène, 1955, by monotypy.

Etymology. The name of the genus is derived from *kabuto*, the Japanese word for a Samurai helmet, alluding to the form of the carapace. Gender masculine.

Remarks. Serène (1955) discussed the characters and composition of *Merocryptus* at length. He commented that while there existed substantial variation in the form of the antero- and posterolateral margins and the structure of the carapace regions in the four species (including *M. durandi*), they are nevertheless related and the differences are only in degree. The main generic characters according to Serène (1955) are the adjoined base of the orbit to the elongated antennular peduncle; the 5-lobed lateral margins of carapace; the well developed pterygostomial region forming a distinct tooth or lobe; and the swollen or raised branchial regions forming a prominent lateral lobe or projection on the carapace. He noted that the diagnosis for the genus by A. Milne-Edwards (1873), later modified by Miers (1886), was generally effective, but with the description of *M. durandi*, the posterior carapace margin may be entire (not with two teeth or projections) and the anterior distal margin of the endostome may be emarginated (not entire).

Comparison of the present material with the type species, *M. lambriformis*, however, revealed major differences between the two species, indicating they are not congeneric. In *M. durandi*, the basal segment of the antenna fills the orbital hiatus (leaves a gape in the orbital hiatus in *M. lambriformis*), the exopod of the third maxilliped has a well developed tooth on the lateral margin (absent in *M. lambriformis*), and the arrangement of the fused male and female abdominal somites are quite different (Table 1). These characters, together with the different carapace features, argue for the establishment of a separate genus for *M. durandi* Serène, 1955. On the basis of the type descriptions of the Atlantic *M. boletifer* and *M. obsoletus* (see also Guinot & Ribeiro 1962; Manning & Holthuis 1981), their key generic diagnostic characters are the same as those of *M. lambriformis*. Forest & Guinot (1966) had suggested that the Atlantic genus *Atlantotlos* Doflein, 1904 (type and only species *A. rhombifer* Doflein, 1904) was synonymous with *Merocryptus* but Manning & Holthuis (1981) argued that there were several notable differences, especially in the form of the G1, that indicated both were distinct genera. These differences are also valid for *Kabutos* n. gen.

Table 1. Comparison of *Kabutos* n. gen. with its allied genera. Abbreviations: R = fused somites; T = telson.

	<i>Kabutos</i> n. gen.	<i>Merocryptus</i>	<i>Merocryptoides</i>	<i>Oreotlos</i>
Orbital hiatus	filled with basal segment of antenna	leaving a gape	filled with basal segment of antenna	filled with basal segment of antenna
Second maxilliped exopod	with flagellum	with flagellum	without flagellum	with flagellum
Third maxilliped exopod	with triangular tooth	without tooth	with triangular tooth	without tooth
Chela	normal	normal	normal	blade-like
Male abdomen	1+2+R+6+T	2+R+T	1+2+R+T	1+2+R+6+T
Female abdomen	2+3+R+T	1+2+R+T	2+R+T	2+3+R+T
References	Serène, 1955; present study	Serène, 1955; present study	Komatsu & Takeda, 2001	Tan & Ng, 1995

Kabutos n. gen. shows intermediate morphological features between *Merocryptoides* Sakai, 1963, and *Oreotlos* Ihle, 1918, but can be differentiated from them by the structure of their second and third maxillipeds and chelae as well as the degree of fusion of male and female abdominal somites (see Tan & Ng 1995; Komatsu & Takeda 2001; Ng *et al.* 2009) (Table 1).

Comparative material. *Merocryptus lambriformis* A. Milne-Edwards, 1873: 1 male (10.0 × 12.0 mm), 1 ovigerous female (12.3 × 15.0 mm), NSMT-Cr 13196, Tosa Bay, Japan, 153–155 m, coll. RV *Kotaka Maru*, 21 January 1998. *Merocryptoides frontalis* Sakai, 1963: 2 males (3.5 × 3.7 mm, 4.8 × 4.4 mm), 1 ovigerous female (5.3 × 6.6 mm), NSMT-Cr 10406, off Kisami, Shimoda, Japan, 18–45 m, coll. K. Nakamura, 23 August 1982. *Oreotlos angulatus* (Rathbun, 1906): 1 ovigerous female (10.7 × 16.5 mm), NSMT-Cr S 928, Chichi-jima I., Ogasawara Is., Japan, 27°04.55'N 142°09.16'E – 27°04.73'N 142°09.31'E, 83–81 m, coll. RV *Koyo*, 28 October 2008. *Oreotlos heuretios* Tan & Ng, 1995: 1 male (4.1 × 6.0 mm), 1 ovigerous female (7.5 × 12.3 mm), NSMT-Cr S 931, northwest of Ototo-jima I., Ogasawara Is., Japan, 27°13.09'N 142°09.19'E – 27°13.19'N 142°09.23'E, 135.8–135.5 m, dredge, coll. RV *Koyo*, 15 July 2009.

***Kabutos durandi* (Serène, 1955) n. comb.**

(Figs. 1–3)

Merocryptus durandi Serène, 1955: 146, fig. 3, pl. 6 figs. 1–3; Ng *et al.* 2008: 91 (list).

Material examined. VIETNAM: 1 female (3.1 × 4.4 mm), NSMT-Cr 15335, Tam I., Nhatrang, 5 m, from dead coral, coll. Ho & T. Kubodera, 16 January 2002. PHILIPPINES: 2 ovigerous females (2.7 × 3.8 mm, 2.7 × 3.8 mm), ZRC 2011.0072, stn B4, Panglao I., BBC Point, 24 m, reef slope with overhangs, 9°33.2'N, 123°48.3'E, coll. underwater coral brushing, 1 June 2004. — 1 female (2.8 × 4.0 mm), ZRC 2011.0073, stn B8, Panglao I., Napaling, 3 m, subtidal reef platform, 9°37.1'N, 123°46.1'E, coll. underwater coral brushing, 7 June 2004. — 1 young female (2.9 × 3.8 mm), ZRC 2011.0074, stn B9, Panglao I., Napaling, 8–10 m, caves in the reef wall, 9°33.1'N, 123°44.0'E, coll. underwater coral brushing, 8 June 2004. — 2 young females (2.4 × 3.2 mm, 2.6 × 3.4 mm), ZRC 2011.0075, stn B9, Panglao I., Napaling, 8–10 m, caves in reef wall, 9°33.1'N, 123°44.0'E, coll. underwater coral brushing, 8 June 2004. — 1 ovigerous female (3.0 × 4.0 mm), ZRC 2011.0076, stn B10, Panglao I., Momo Beach, 3–14 m, reef wall with small caves, 9°36.5'N, 123°45.6'E, coll. underwater coral brushing, 10 June 2004. — 1 ovigerous female (2.8 × 4.0 mm), 1 female (2.9 × 4.0 mm), ZRC 2011.0077, 1 young female (2.4 × 2.9 mm), NMCR, stn B10, Panglao I., Momo Beach, 3–14 m, reef wall with small caves, 9°36.5'N, 123°45.6'E, coll. underwater coral brushing, 10 June 2004. — 1 female (3.3 × 4.7 mm), 1 young female (3.1 × 4.2 mm), ZRC 2011.0078, stn B11, Pamilacan I., 2–4 m, coral rubble, 9°29.4'N, 123°56.0'E, coll. underwater coral brushing, 11 June 2004. — 1 ovigerous female (3.2 × 4.3 mm), 1 female (3.2 × 4.2 mm), 1 young female (2.7 × 3.6 mm), ZRC 2011.0079, stn B13; Bohol I., Baclayon Takot, 3–5 m, coral rubble, 9°37.1'N, 123°52.6'E, coll. underwater coral brushing, 15 June 2004. — 2 ovigerous females (3.3 × 4.5 mm, 3.3 × 4.5 mm), 1 female (3.3 × 4.7 mm), 1 young female (3.3 × 4.7 mm), ZRC 2011.0080, stn B14, Panglao I., Sungcolan Bay, 2–4 m, coral rubble, 9°38.5'N, 123°49.2'E, coll. underwater coral brushing, 16 June 2004. — 1 ovigerous female (3.1 × 4.1 mm), MNHN, stn B16, Panglao I., Bingag, 20 m, coral rubble on sand and gravel, 9°37.6'N, 123°47.3'E, coll. underwater coral brushing, 17 June 2004. — 1 young female (2.9 × 4.0 mm), ZRC 2011.0081, stn B20, Bohol I., Ubajan, 2–8 m, rocks and corals with sand and mud, 9°41.5'N, 123°51.0'E, coll. underwater coral brushing, 23 June 2004. — 1 ovigerous female (2.9 × 3.9 mm), 1 female (2.8 × 4.0 mm), ZRC 2011.0082, stn B32, Panglao I., Looc, 20 m, reef wall, 9°35.8'N, 123°44.6'E, coll. underwater coral brushing, 26 June 2010. — 1 ovigerous female (2.7 × 4.1 mm), ZRC 2011.0083, stn B35, Panglao I., North of Doljo, 31 m, reef wall, 09°35.9'N, 123°44.5'E, coll. underwater coral brushing, 1 July 2004. — 1 female (4.1 × 5.9 mm), NSMT-Cr 21463, stn D13, Tagbilaran channel between Panglao and Bohol I., 2–3 m, sand, 9°38.0'N, 123°51.4'E, coll. dredge, 29 June 2004. — 1 young female (3.3 × 4.2 mm), ZRC 2011.0084, stn M7, Panglao I., Momo Beach, 0–3 m, reef platform with seagrass, 9°36.1'N, 123°45.2'E, hand-collected, 1 June 2004. — 1 young male (1.7 × 2.0 mm), ZRC 2011.0085, stn S2; Bohol I., Baclayon, 4–5 m, hard bottom with small pockets of sediment, 9°37.4'N, 123°54.5'E, coll. underwater suction, 3 June 2004. — 2 young females (1.7 × 2.0 mm, 2.2 × 2.7 mm), ZRC 2011.0086, stn S2, Bohol I., Baclayon, 4–5 m, hard bottom with small pockets of sediment, 9°37.4'N, 123°54.5'E, coll. underwater suction, 3 June 2004. — 1 ovigerous female (2.9 × 4.0 mm), 2 females (2.7 × 3.9 mm, 3.0 × 4.3 mm), 1 young female (2.4 × 3.1 mm), NSMT-Cr 21464, stn S5, Panglao I., Napaling, 2–4 m,

rock and coral patches, brown algae, 9°37.1'N, 123°46.1'E, coll. underwater suction, 8 June 2004. — 5 young females (1.6 × 2.2–2.6 × 3.3 mm), MNHN, stn S5, Panglao I., Napaling, 2–4 m, rock and coral patches, brown algae, 9°37.1'N, 123°46.1'E, coll. underwater suction, 8 June 2004. — 1 female (3.3 × 4.2 mm), ZRC 2011.0087, stn S12, Pamilacan I., 6–8 m, coral plateau with fine sand, 9°29.4'N, 123°56.0'E, coll. underwater suction, 14 June 2010. — 1 female (3.1 × 4.0 mm), ZRC 2011.0088, stn S13, Bohol I., Baclayon Takot, 8–15 m, reef wall with dead coral sand and mud, 9°37.1'N, 123°52.6'E, coll. underwater suction, 15 June 2004. — 1 ovigerous female (3.0 × 4.1 mm), 1 young female (2.5 × 3.3 mm), ZRC 2011.0089, stn S21, Bohol I., Manga, 4–12 m, reef slope with silt, 9°41.7'N, 123°50.9'E, coll. underwater suction, 20 June 2004. — 1 female (3.1 × 4.4 mm), NMCR, stn S22, Pamilacan I., 15–20 m, hard ground covered with sand, 9°29.4'N, 123°56.0'E, coll. underwater suction, 21 June 2004. — 1 young female (2.0 × 2.5 mm), ZRC 2011.0090, stn S24, Panglao I., Momo Beach, 2–4 m, subtidal platform, 9°36.1'N, 123°45.0'E, coll. underwater suction, 22 June 2004. — 1 young female (3.5 × 5.0 mm), ZRC 2011.0091, stn S26, Bohol I., Ubajan, 21 m, mud, 9°41.5'N, 123°51.0'E, coll. underwater suction, 23 June 2004. — 1 young female (2.4 × 3.0 mm), ZRC 2011.0092, stn S32, Panglao I., Looc, 2–3 m, hard plateau with sand covering rocks, 9°35.8'N, 123°44.6'E, coll. underwater suction, 28 June 2004. — 1 young male (1.8 × 2.2 mm), ZRC 2011.0093, stn S39, Tagbilaran - Panglao channel, 3–4 m, muddy sand, beds of *Modiolus*, 9°38.1'N, 123°51.4'E, coll. underwater suction, 30 June 2004. — 1 male (3.3 × 4.3 mm), ZRC 2011.0094, stn S39, Tagbilaran - Panglao channel, 3–4 m, muddy sand, beds of *Modiolus*, 9°38.1'N, 123°51.4'E, coll. underwater suction, 30 June 2004. — 1 ovigerous female (2.7 × 3.6 mm), ZRC 2011.0095, stn S42, Pamilacan I., 15–20 m, sand on hard-ground, 9°30.1'N, 123°55.5'E, coll. underwater suction, 1 July 2004. VANUATU: 4 females (1.8 × 2.9 mm, 2.3 × 3.9 mm, 2.4 × 3.2 mm, 2.4 × 4.0 mm, 2.7 × 3.1 mm), ZRC 2011.0096, stn DB12, Santo I., south of Aoré I., 10–18 m, on sand, with dead corals, 15°36.6'S, 167°10.1'E, coll. 13 September 2006. — 2 females (1.6 × 2.3 mm, 2.2 × 3.9 mm), ZRC 2011.0097, stn NS36, Santo I., vicinity of Maritime College, 2–3 m, sand with branches of dead corals, 15°31.7'S, 167°09.5'E, coll. 2 Oct 2006. — 1 female (2.9 × 4.1 mm, photographed), ZRC 2011.0098, stn DB8, Santo I., Bruat Channel, 18 m, sand and corals on submarine hill, 15°37.1'S, 167°07.5'E, coll. 2 October 2006. — 1 female (3.8 × 5.6 mm), MNHN, stn FB52, Santo I., Malokilikili, 7 m, dead coral patches with algae, 15°42.7'S, 167°15.1'E, coll. 5 October 2006. — 1 female (3.0 × 4.4 mm), MNHN, stn EP36, Santo I., east of Aoré I., Aimbué Bay, 20–60 m, 15°33.1/33.3'S, 167°12.4/12.7'E, coll. tangle net, 15 October 2006. — 6 females (1 crushed, 1.7 × 3.2 mm, 2.9 × 3.8 mm, 3.2 × 4.2 mm, 3.3 × 4.1 mm, 3.4 × 4.8 mm), ZRC 2011.0099, stn FB80, Santo I., Segond Channel, NW coast of Aoré I., 2 m, sand, gravel & dead coral branches, 15°33.1'S, 167°09.6'E, coll. 14 October 2006.

Description. Carapace (Figs. 1, 2) suboctagonal in outline, 1.3 times broader than long in single male examined, 1.3–1.4 times broader than long in females, armed with postfrontal, median, obliquely running epibranchial ridges; upper surface entirely covered with flattened, round granules, granules conspicuous in small specimens. Front strongly produced, concave medially; margin divided into 2 lobes by broadly V-shaped, median notch; post-frontal ridge beaded, posteriorly angled at midlength. Mesogastric region broadly convex, continuous from frontal region, with beaded line on both sides. Hepatic region scarcely convex, with hepatic facet; margin rimmed with beaded line, situated inside from pterygostomian margin in dorsal view. Pterygostomian margin convex, with triangular median tooth, tooth vestigial in large females. Gastro-cardiac region raised, with 2 tubercles on gastric region, 1 tubercle on cardiac region, tubercles covered with cluster of granules; cardiac tubercle absent in large specimens. Intestinal region well demarcated, rectangular, elevated posteriorly, fringed with beaded line on lateral, posterior margins. Epibranchial region rectangular, projecting laterally, anteriorly sloping from epibranchial ridge; margin forming right angle, with triangular, median tooth on lateral margin; epibranchial ridge conspicuous, running obliquely from gastric tubercle to posterolateral angle of epibranchial region, lined with granules, broad in small specimens. Metabranial region deeply concave between epibranchial ridge, intestinal region; margin strongly curved inwards, with median, low, broadly triangular projection. Posterior margin lower than intestinal margin, meta-branial regions, distinctly bilobed, lobes triangular.

Ocular peduncle very short. Orbit with 2 straight fissures on dorsal roof, with broadly V-shaped notch on infraorbital margin; orbital hiatus closed with basal segment of antenna. Antennule folded into oblique fossa; basal segment occupying ventral 0.6 of fossa. Basal segment of antenna subrectangular, filled in orbital hiatus. Afferent channel with V-shaped notch on anterior margin.

Mandible (Fig. 3A, B) well calcified; cutting edge triangular in outline, pointed medially; endopod palp 3-segmented, terminal segment fringed with short setae. Maxillule (Fig. 3C): coxal endite missing; basal endite triangular, with stout, thin setae on mesial margin; endopod thin, tongue-shaped, directed laterally. Maxilla (Fig. 3D) with

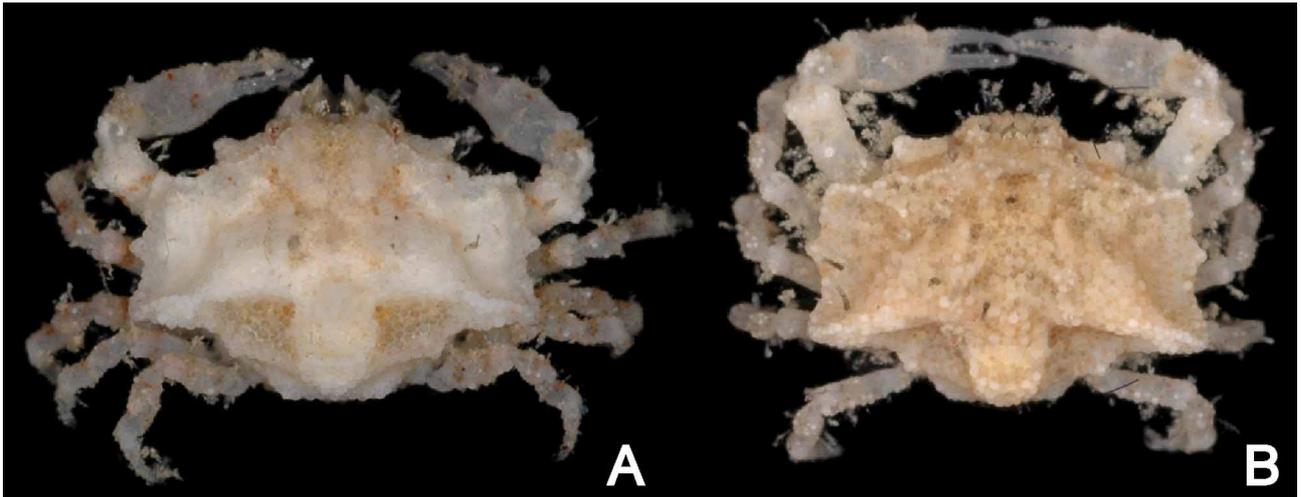


FIGURE 1. Colours in life. *Kabutos durandi* (Serène, 1955). A, female (2.9 × 4.1 mm), stn DB8, ZRC 2011.0098, Vanuatu; B, female (one of four specimens), stn DB12, ZRC 2011.0096, Vanuatu.

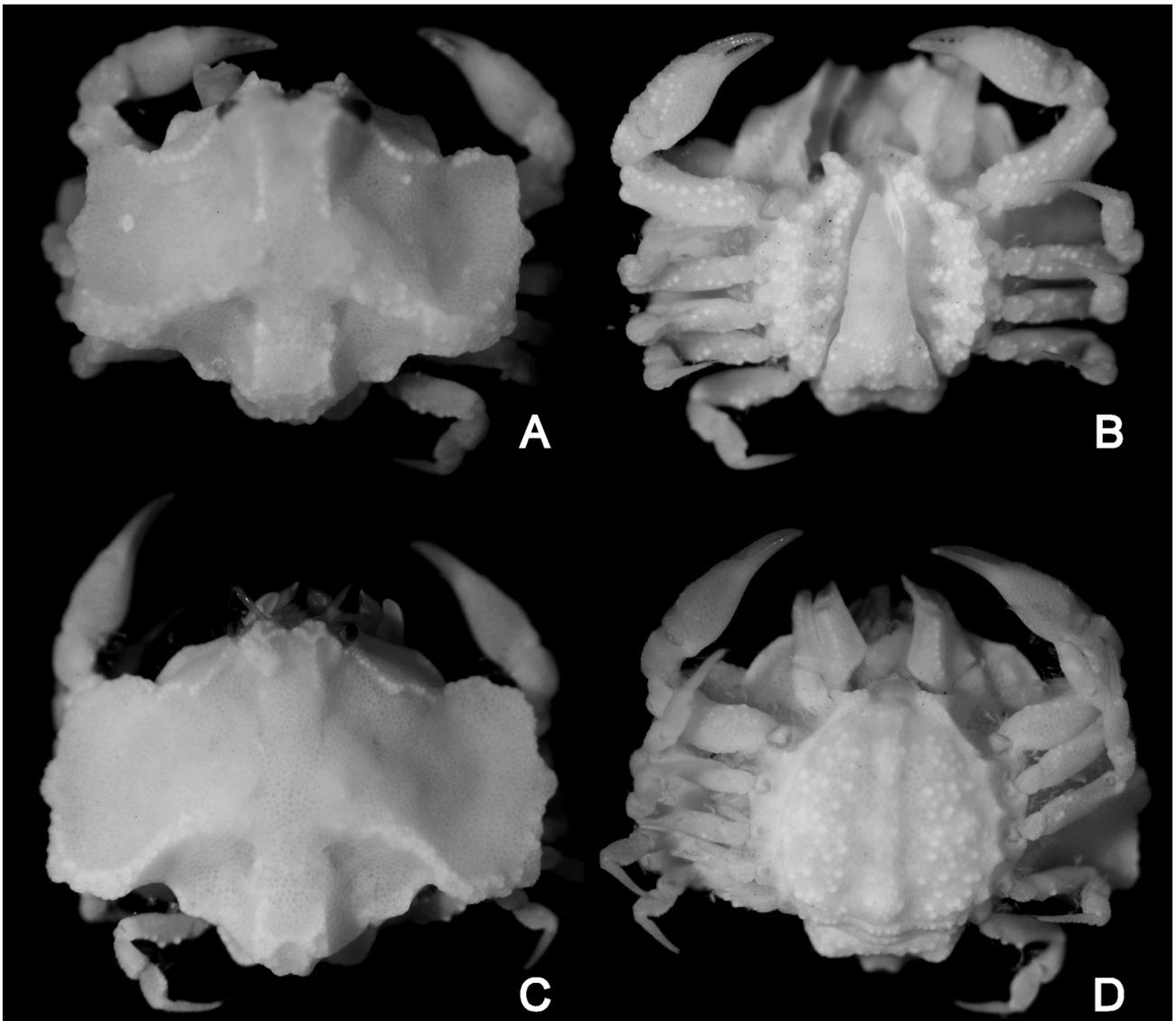


FIGURE 2. *Kabutos durandi* (Serène, 1955). A, B, male (3.3 × 4.3 mm), ZRC 2011.0094, Philippines; C, D, female (4.1 × 5.9 mm), NSMT-Cr 21463, Philippines.

small rounded coxal endite; basal endite thin, tongue-shaped, with some terminal setae; endopod tongue-shaped; exopod (scaphognathite) broken on anterior part, longitudinally expanded into ovate structure, entirely fringed with short plumose setae. First maxilliped (Fig. 3E): coxal endite semiglobular, with dense setae; basal endite lobular, triangular, fringed with long, plumose setae; endopod lobular, longitudinally expanded, fitting in efferent channel; exopod longitudinally filiform, with long setae on distal part of mesial margin, bearing flagellum with long terminal setae. Second maxilliped (Fig. 3F): endopod with long setae along inner margins of ischium, merus, densely setose around outer margin of propodus, dactylus fringed with stout setae around tip; exopod filiform, tapering distally, with long setae on distal portion of mesial margin, with flagellum.

Third maxilliped (Fig. 3G, H) covered with granules of various sizes; ischium longitudinally convex in lateral 0.7; merus slightly bent dorsally in situ, 0.9 times as long as ischium along mesial margin, concave in distal 0.7; exopod with rounded triangular tooth at proximal end of lateral margin; internal exopodal ridge prominent.

Cheliped (Figs. 1, 2) relatively slender, not enlarged or elongated, 0.9–1.2 times as long as carapace, measured along outer margin from merus to tip of movable finger, proportionally shorter in larger specimens, entirely covered with round, flattened granules except on fingers; coxal condyle small, rounded in both sexes; merus subcylindrical, scattered with round granules; carpus short; palm convex dorsally; fingers subconical, 1.1–1.2 times as long as palm along outer margin; both cutting edges of fingers finely dentate, meeting only at tips when closed.

Ambulatory legs (Figs. 1, 2) short, not completely covered by carapace; similar in shape, gradually decreasing in length from first to fourth, covered with round, flattened granules; coxal condyles small, rounded in both sexes; merus subcylindrical, with conspicuous, rounded granules on ventral surface; carpus, propodus subcylindrical; dactylus subconical, slightly incurved, with distinct dactylo-propodal locks on proximal borders of dorsal surfaces, inner, outer margins rimmed with microscopic granules.

Male thoracic sternites coarsely covered with rounded granules of various sizes, concave between sternites, episternites not divided entirely; first to third sternites completely fused; abdominal cavity not reaching to buccal cavern, not ridged on margin; sutures between s4/5, s5/6, s6/7, s7/8 interrupted medially; medial suture absent.

Female thoracic sternites covered with low rounded granules of various sizes; first to third sternites fused; abdominal cavity reaching to buccal cavern; sutures between s4/5, s5/6, s6/7, s7/8 interrupted medially; medial suture absent.

Male abdomen (Fig. 2B) covered with round granules; first somite very short, transversely linear; second somite short, transversely subrectangular; third to fifth somites completely fused, elongate, rhomboidal, constricted medially; sixth somite free, longitudinally rectangular, slightly convergent distally; telson elongate, triangular, with rounded tip.

Female abdomen (Fig. 2D) entirely covered with closely set, vesicular granules of various sizes, with scattered rounded granules; first somite very short, transversely linear, completely concealed beneath carapace in adult female; second, third somites short, transversely subrectangular; fourth to sixth somites completely fused, ovate, moderately convex ventrally, divided by pair of deep, longitudinal grooves; telson tongue-shaped, fringed with short setae around tip, directed antero-dorsally in situ.

G1 (Fig. 3I) slender, almost straight, compressed, with short setae on distal half of both margins; tip acuminate, with short stiff setae on mesial margin. G2 (Fig. 3J) short, about 0.3 times as long as G1, distal segment rounded.

Variation. In larger specimens (Fig. 2), the upper surface of the carapace is less granular and appears almost smooth; the pterygostomial and cardiac tubercles are relatively inconspicuous; the posterior surface of the intestinal region is more protruded and divided into facets by a beaded line; and the female abdomen is relatively more elongated. However, none of these differences are significant and probably only associated with size.

Colour. The colour in life is dirty white to pale yellow (Fig. 1).

Remarks. This species was known only from its original description (Serène 1955), which was based on a single 6.4 mm (carapace width) female specimen from Nhatrang, Vietnam. This is the second record of the species and the first record of a male specimen. Although the holotype female is larger than the largest full grown female specimen in the present collection and differs in the granular carapace, presence of a cardiac tubercle, relatively less well developed intestinal region and posterior lobe, and rounded female abdomen (Serène 1955: fig. 3, pl. 6 figs. 1–3), they all share the same suite of key morphological features of the species, notably in the presence of broad median and granular branchial ridges and the expanded branchial region with a triangular tooth on each lateral margin. We are therefore certain that the specimens from Vietnam, Philippines and Vanuatu are conspecific.

Distribution. Vietnam, Philippines and Vanuatu, occurring at the depths of 0–31 m (Serène 1955; present study).

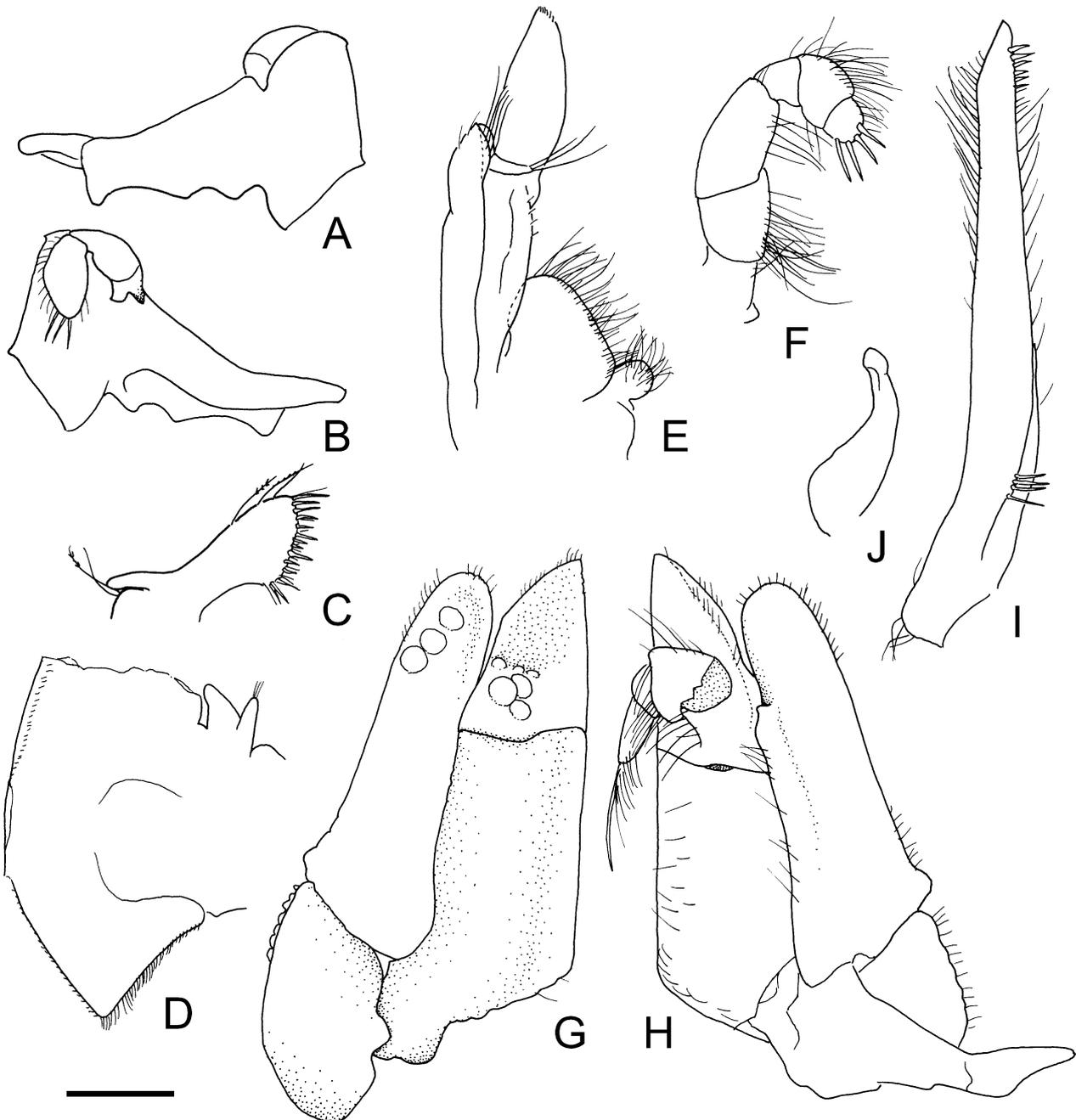


FIGURE 3. *Kabutos durandi* (Serène, 1955), male (3.3 × 4.3 mm), ZRC 2011.0094, Philippines. A, mandible, external; B, same, internal; C, maxillule, external; D, maxilla (broken on anterior part of exopod), external; E, first maxilliped, external; F, second maxilliped (exopod missing), external; G, third maxilliped, external; H, same, internal; I, right G1, abdominal; J, right G2, abdominal. Scale = 0.25 mm.

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