

琉球大学学術リポジトリ

コブシガニ上科6種の琉球列島からの記録

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Records of six leucosioid crab species from the Ryukyu Archipelago, Japan

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Abstract. Six species of leucosioid crabs are reported from the Ryukyu Islands in this paper: *Arcania sagamiensis* Sakai, 1969, *Ebalia stellaris* Naruse & Ng, 2006, *Ebaliopsis erosa* (A. Milne-Edwards, 1873), *Myra eudactylus* (Bell, 1855), *Urnalana elata* (A. Milne-Edwards, 1874) (Leucosiidae); and *Iphiculus spongiosus* Adams & White, 1849 (Iphiculidae). *Ebaliopsis erosa* are recorded from Japanese waters for the first time; all but *Ebalia stellaris* and *M. eudactylus* are recorded from the Ryukyu Islands based on the specimens for the first time. Taxonomic notes are also provided for some selected species.

Introduction

Recent intensive field works mainly by the second author have contributed much to the discovery of a number of taxonomically and/or biogeographically interesting brachyuran crabs from the Ryukyu Islands (e.g. Naruse & Maenosono 2014; Maenosono 2015a; 2015b; 2016; Maenosono & Naruse 2015; 2016a; 2016b; Maenosono et al. 2015). In this paper, we report on six species of the superfamily Leucosioidea, *Arcania sagamiensis* Sakai, 1969, *Ebalia stellaris* Naruse & Ng, 2006, *Ebaliopsis erosa* (A. Milne-Edwards, 1873), *Myra eudactylus* (Bell, 1855), *Urnalana elata* (A. Milne-Edwards, 1874) (Leucosiidae), and *Iphiculus spongiosus* Adams & White, 1849 (Iphiculidae). *Ebaliopsis erosa* is recorded from Japanese waters for the first time; all but *Ebalia stellaris* and *M. eudactylus* are recorded from the Ryukyus for the first time.

Material examined are deposited in the Department of Zoology (NSMT-Cr) and the Showa Memorial Institute (NSMT-R), the National Museum of Nature and Science, Tsukuba; Ryukyu University Museum, Fujukan (RUMF), University of the Ryukyus, Japan; and the Wakayama Prefectural Museum of Natural History (WMNH), Wakayama.

Measurements refer to as carapace length (CL; distance between levels of frontal margin or distal ends of spines and posterior margin or distal ends of spines) × carapace width (CW; maxima width, including spines if any) in millimeters.

Species account

Superfamily Leucosioidea Samouelle, 1819

Family Leucosiidae Samouelle, 1819

***Arcania sagamiensis* Sakai, 1969**

[Japanese name: Sagami-toge-kobushi]

(Fig. 1A)

Material examined. RUMF-ZC-3785, 1 ovigerous female, 12.1 × 11.8 mm, Sumuide, Yagaji Island, adjacent to Okinawa Island, intertidal, coll. T. Maenosono, 23 Apr. 2016; RUMF-ZC-4266, 1 male, 9.3 × 8.9 mm, Yakena, Okinawa Island, coll. J. Nawa, 15 Jul. 2007; RUMF-ZC-4267, 1 juvenile, 6.2 × 5.6 mm, Kaichu-doro, off Okinawa Island, intertidal; RUMF-ZC-4282, 1 male, 11.3 × 10.5 mm, Yakata, Onna, Okinawa Island, intertidal, coll. T. Maenosono, 10 Apr. 2009; RUMF-ZC-4283, 1 male, 9.1 × 9.1 mm, Yabuchi Island, adjacent to Okinawa Island, intertidal, coll. T. Maenosono, 26 Apr. 2009; RUMF-ZC-4284, 1 female, 13.0 × 12.9 mm, Ukaji, Onna, Okinawa Island, subtidal (> -2 m), coll. T. Maenosono, 31 Mar. 2010; RUMF-ZC-4285, 1 juvenile, 4.8 × 4.7 (damaged) mm, Sesoko Island, adjacent to Okinawa Island, subtidal (> -2 m), coll. T. Maenosono, 11 May 2010; RUMF-ZC-4286, 1 male, 7.5 × 7.2 mm, Kaichu-doro, off Okinawa Island, intertidal, coll. T. Maenosono, 28 Oct. 2011.

Comparative material. *Arcania sagamiensis*: WNHN-NA-Cr.0191, 1 male, 10.2 × 10.0 mm, 1 female, 13.3 × 13.1 mm, dry, Kamiura, Kushimoto, Wakayama Prefecture, intertidal, 10 Aug 1979, coll. S. Nagai; WNHN-NA-Cr.0191, 1 male, 11.8 × 11.7 mm, dry, Ogasawara Islands, coll. Mr. Ozato, Jun. 1988.

Coloration. Fig. 1A. Carapace and pereopods

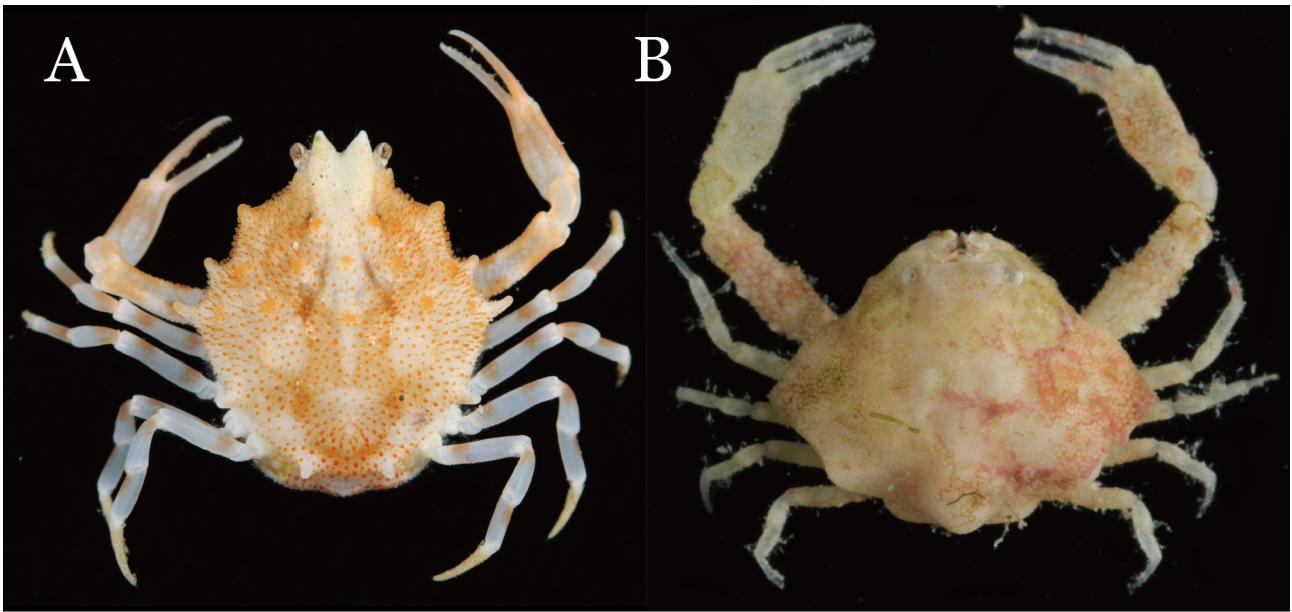


Fig. 1. *Arcania sagamiensis* Sakai, 1969, and *Ebalia stellaris* Naruse & Ng, 2006. A, *A. sagamiensis* (RUMF-ZC-3785, CL 12.1 mm, ovigerous female, Yagaji Island); B, *E. stellaris* (RUMF-ZC-4307, CL 2.5 mm, ovigerous female, between Iriomote and Hatoma Islands).

図 1. サガミトゲコブシとホシズナエバリア. A, サガミトゲコブシ (RUMF-ZC-3785, CL 12.1 mm, 抱卵雌, 屋我地島産); B, ホシズナエバリア (RUMF-ZC-4307, CL 2.5 mm, 抱卵雌, 西表-鳩間島沖産).

with whitish base color. Top of both small and large granules on the dorsal surface of the carapace orange, except for whitish granules on posterolateral to posterior margins.

Habitat. The present specimens were all collected from lower intertidal to shallow subtidal sandy substratum around seagrass beds, usually mixed with dead coral gravels.

Distribution. China (Hainan Island); Taiwan (Siaoliuciou Island); Japan (Okinawa Island; Kii Peninsula; Manazuru Peninsula, Sagami Bay [type locality]; Ogasawara Islands); Fiji; Western Samoa (Sakai 1969; Marumura 1985; Dai et al. 1986; Galil 2001a; Marumura & Kosaka 2003; Lin et al. 2014; present study).

Remarks. *Arcania sagamiensis* was described based on the specimens collected from Manazuru, Sagami Bay (Sakai 1969). The specimens examined in this study morphologically agree well with the original description as well as the specimen from mainland Japan.

Although *A. sagamiensis* is rather common in the above habitat in Okinawa Island, there are only a few distributional records from the northwestern to southwestern Pacific.

***Ebalia stellaris* Naruse & Ng, 2006**

[Japanese name: Hoshizuna-Ebalia]
(Fig. 1B)

Material examined. RUMF-ZC-4307, 1 ovigerous female, 2.5 × 3.7 mm, between Iriomote and Hatoma Island, 24°26.514'N 123°49.237'E -32 m – 24°26.517'N 123°49.234'E -35 m, dredge, coll. T. Naruse et al., 18 Jul. 2014.

Comparative material. *Ebalia stellaris*: NSMT-Cr 21751, 1 male, 2.5 × 3.1 mm, south off Nagannu Island, Kerama Island group, Ryukyu Islands, 26°14.34' N 127°32.66' E – 26°14.42' N 127°32.50' E, -41.4–46.0 m, dredge, TRV *Toyoshio Maru* 2007 cruise, stn 8, coll. H. Komatsu, 25 May 2008; NSMT-Cr 21752, 1 young female, 3.0 × 2.3 × 3.0 mm, Ankyaba, Kakeroma Island, Amami Island group, Ryukyu Islands, -12 m, sandy bottom, SCUBA, TRV *Toyoshio Maru* 2003 cruise, coll. T. Akiyama, 26 May 2003.

Ebalia humilis Takeda, 1977: NSMT-Cr 11298, 1 male, 2.9 × 3.4 mm, Miyanojima, Chichi-jima Island, Ogasawara Islands, -25 m, SCUBA, coll. H. Tachikawa, 5 Jan. 1993; NSMT-Cr 18305, 1 ovig. female, 2.9 × 3.6 mm, Takinoura, Ani-jima Island, Ogasawara Islands, -8 m, SCUBA, coll. H. Tachikawa, 3 April 1994.

Coloration. Fig. 1B. Ivory overall. Also see Naruse & Ng (2006) for different color pattern.

Habitat. The specimen examined in this study was collected by dredging on the seabed of dead coral gravels. Naruse & Ng (2006) noted that the holotype was collected from very fine sandy substratum. Range of the depths of known habitat is

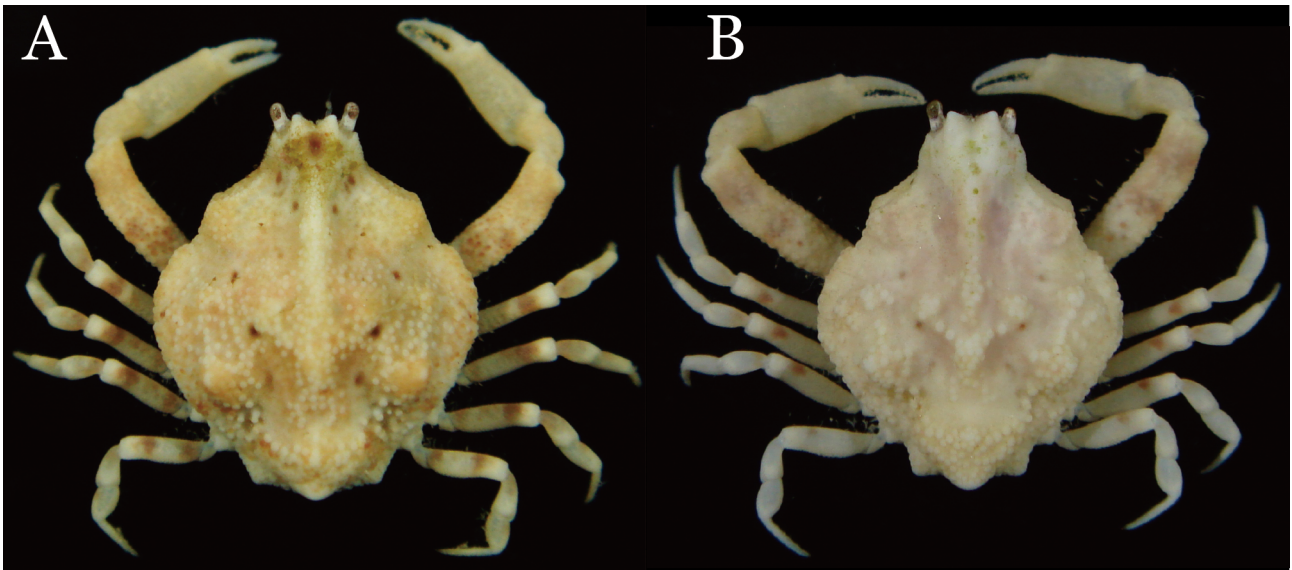


Fig. 2. *Ebaliopsis erosa* (A. Milne-Edwards, 1873). A, RUMF-ZC-4277 (CL 10.0 mm, female, Okinawa Island); B, RUMF-ZC-4279 (CL 8.6 mm, male, Okinawa Island).

図3. クルミコブシ (新称). A, RUMF-ZC-4277 (CL 10.0 mm, 雌, 沖縄島産); B, RUMF-ZC-4279 (CL 8.6 mm, 雄, 沖縄島産).

-12–46 m (Naruse & Ng 2006; Komatsu et al. 2011; this study).

Distribution. Ryukyu Islands (known from around islands of Kakeroma, Nagannu, Okinawa (Nakagusuku Bay) and Iriomote) (Naruse & Ng 2006; Komatsu et al. 2011; this study).

Remarks. *Ebalia stellaris* had been known by an only female holotype until Komatsu et al. (2011) reported additional one male and one female specimens. They showed a striking sexual dimorphism for *E. stellaris* and allied *E. humilis* and reassessed the diagnostic characters of the two species; “*E. stellaris* can be distinguished from *E. humilis* by the carapace being 1.5 times broader than long in female (vs. 1.2 times in *E. humilis*); the lateral angle of the carapace is smaller than metabranchial tooth (vs. larger); the male telson is elongate-triangular (vs. tongue-shaped); the distal part of G2 is straight and directed mesially (vs. curled abdominally)” (Komatsu et al. 2011). The female specimen collected from off Iriomote Island has diagnostic characters that are applicable for the female and is identified here as *E. stellaris*.

The specimen from Iriomote carries 44 eggs (diameter ca. 0.31 mm).

***Ebaliopsis erosa* (A. Milne-Edwards, 1873)**

[New Japanese name: Kurumi-kobushi]

(Fig. 2)

Material examined. RUMF-ZC-4259, 1 female, 11.5 × 9.8 mm, Senaga Island, adjacent to Okinawa

Island, intertidal, coll. T. Maenosono, 8 Apr. 2008; RUMF-ZC-4260, 1 female, 11.4 × 10.6 mm, Omine Coast, Naha, Okinawa Island, intertidal, coll. T. Maenosono, 7 May 2008; RUMF-ZC-4261, 1 female, 10.0 × 8.7 mm, Horikawa, Tamagusuku, Okinawa Island, intertidal, coll. T. Maenosono, 21 Aug. 2008; RUMF-ZC-4262, 1 male, 6.4 × 5.3 mm, Noho Island, adjacent to Iheya Island, subtidal, coll. T. Maenosono, 24 Sep. 2008; RUMF-ZC-4263, 1 male, 4.6 × 3.9 mm, Yamada, Onna, Okinawa Island, intertidal, coll. T. Maenosono, 16 Oct. 2008; RUMF-ZC-4264, 1 female, 10.8 × 9.2 mm, Omine Coast, Naha, Okinawa Island, intertidal, coll. T. Maenosono, 12 Oct. 2008; RUMF-ZC-4265, 1 female, 6.2 × 5.6 mm, Yabuchi Island, adjacent to Okinawa Island, intertidal, coll. T. Maenosono, 26 Oct. 2008; RUMF-ZC-4275, 1 female, 11.1 × 9.7 mm, Seragaki, Onna, Okinawa Island, intertidal, coll. T. Maenosono, 12 Feb. 2009; RUMF-ZC-4276, 1 male, 7.6 × 6.3 mm, Yakata-katabaru, Onna, Okinawa Island, intertidal, coll. T. Maenosono, 10 Apr. 2009; RUMF-ZC-4277, 1 female, 10.0 × 8.7 mm, Ukaji, Onna, Okinawa Island, subtidal (> -2 m), coll. T. Maenosono, 31 Mar. 2010; RUMF-ZC-4278, 1 female, 11.2 × 9.6 mm, Minatogawa, Urasoe, Okinawa Island, intertidal, coll. T. Maenosono, 12 Jul. 2010; RUMF-ZC-4279, 1 male, 8.6 × 7.2 mm, Minatogawa, Urasoe, Okinawa Island, intertidal, coll. T. Maenosono, 9 Sep. 2010; RUMF-ZC-4280, 1 male, 7.1 × 6.0 mm, Kita-nashiro, Itoman, Okinawa Island, intertidal, coll. T. Maenosono, 19 Dec. 2010.

Coloration. Fig. 2. Beige to ivory overall.

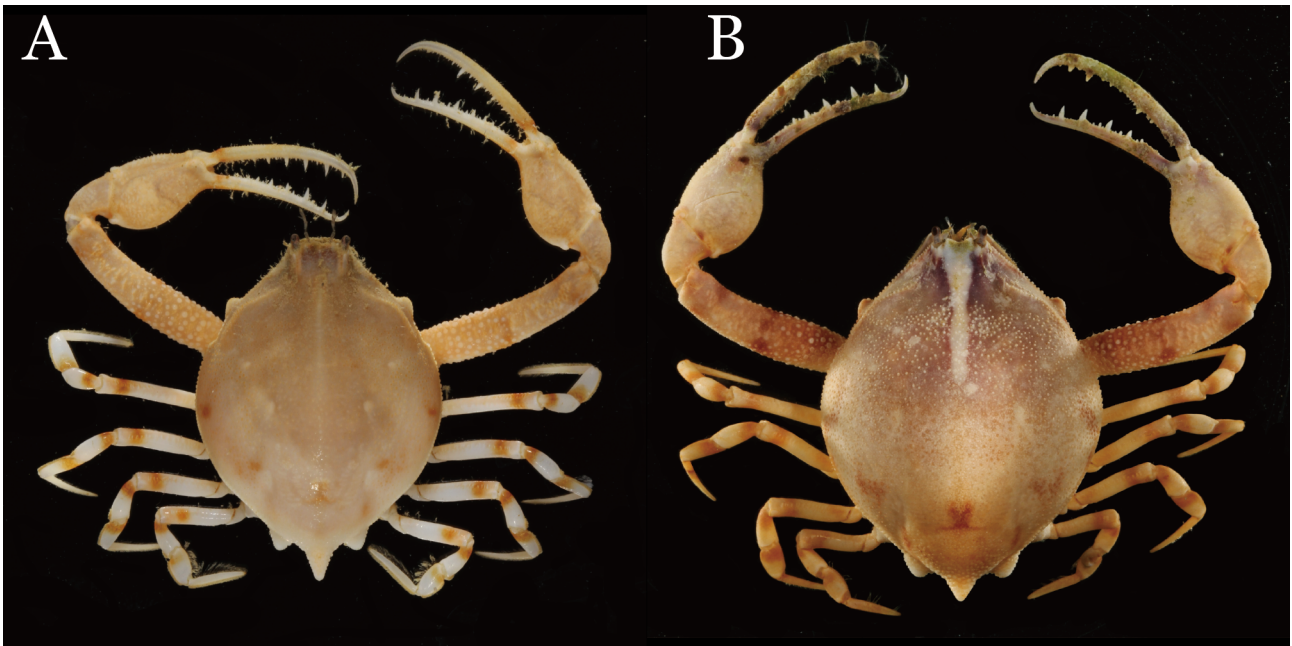


Fig. 3. *Myra eudactylus* (Bell, 1855). A, RUMF-ZC-2862 (CL 21.5 mm, male, Okinawa Island); B, RUMF-ZC-3924 (CL 24.6 mm, female, Okinawa Island).

図 3. ノコバテナガコブシ. A, RUMF-ZC-2862 (CL 21.5 mm, 雄, 沖縄島産); B, RUMF-ZC-3924 (CL 24.6 mm, 雌, 沖縄島産).

Habitat. Similar habitat to that of *Arcania sagamiensis*.

Distribution. Mauritius; Maldive Archipelago; Laccadive Archipelago; Minicoy Lagoon; Andaman Islands; Indonesia [Balabalagan (=Paternoster) Islands; Banda Sea; Pulau Rote (=Rotti); Pulau Geser (=Gisser Island)]; Philippines (Marinduque); Japan (Okinawa Island); Australia [Bass Strait [type locality]; Queensland]; New Caledonia; Fiji; Funafuti, Tuvalu (A. Milne-Edwards 1873; 1874; Ortmann 1892; Alcock 1896; Borradaile 1900; 1903; Bouvier 1915; Ihle 1918; McNeil & Ward 1930; Komatsu et al. 2004; present study).

Remarks. *Ebaliopsis* Ihle, 1918, contains two species, *E. erosa* (A. Milne-Edwards, 1873) [type locality: Bass Strait] and *E. vadieri* Ward, 1942 [type locality: Mauritius]. The specimens examined in this study agree with the descriptions of *E. erosa* (A. Milne-Edwards 1873; 1874; Ortmann 1892; Ihle 1918), especially in anteriorly smooth and posteriorly granulated dorsal surface of the carapace. When Ward (1942) described *E. vadieri*, he compared it with *E. erosa* from off Michaelmas Bay, near Cairnes, Queensland. He noted that “the upper surface of the manus are finely granulated in *E. vadieri*, whereas they are coarsely so in *E. erosa*” (Ward 1942: 67). However, such condition of the manus of *E. erosa* is neither observed in the specimens from the Ryukyus nor described in other articles including the original description (A. Milne-

Edwards 1873; 1874; Komatsu et al. 2004). Instead, merus of the cheliped is rather coarsely granulated. It is uncertain whether Ward’s (1942) “*E. erosa*” has a different condition in cheliped manus or he misdescribed merus as manus. The present study refers the Ryukyu specimens to *E. erosa*. Komatsu et al. (2004) redescribed the morphology in detail.

This record represents the first record of the genus and the species from Japan and expands the distributional range of the species to the north.

The standard Japanese name “Kurumi-kobushi” is proposed here. RUMF-ZC-4279 is designated as a standard specimen for the Japanese name of *E. erosa*.

Myra eudactylus (Bell, 1855)

[Japanese name: Nokoba-tenaga-kobushi]

(Fig. 3)

Material examined. RUMF-ZC-2862, 1 male, 21.5 × 15.7 mm, Off Sedake, Oura Bay, Okinawa Island, -20 m, coll. D. Uyeno, 9 Feb. 2013; RUMF-ZC-3924, 1 female, 24.6 × 19.2 mm, Awa, Nago Bay, Okinawa Island, -10–15 m, muddy substratum, coll. N. Shirakawa, 6 Nov. 2014.

Comparative material. RUMF-ZC-2868, 1 female, 41.9 × 32.7 mm, Masbate, Philippines, coll. local fisherman, taken with tangle net (50–100 m depth).

Coloration. Fig. 3. Carapace beige, anterior half becomes slightly darker (Fig. 3A) to purplish (Fig.

3B), with narrow to wide longitudinal white line from around front, and orange dots on mesobranchial, meta branchial, cardiac regions, subdistal portion of ambulatory meri, and proximal portions of ambulatory carpi and propodi.

Distribution. Gulf of Aden; Andamans; Singapore; Gulf of Thailand; off Sarawak; Nha Trang; Gulf of Tonkin; Philippines (Luzon Island; Corregidor; Balicasag Island); Japan (Miyako Island; Okinawa Island); Saleh-Bucht, Sumbawa; Tanah-Djampeah, Flores Sea; North West Shelf, Western Australia; off SW Merauke, New Guinea; Darnley Island; Great Barrier Reef; Coral Sea; South Sea; New Caledonia (White 1847; Bell 1855b; A. Milne Edwards 1874; Miers 1886; Ortmann 1892; Alcock 1896; Rathbun 1910; Ihle 1918; Serène 1955; Zarenkov 1990; Chen 1996; Galil 2001b; Marumura & Takeda 2004; Galil & Ng 2007).

Remarks. *Myra eudactylus* (Bell, 1855) was described based on material from the Philippines. The species is distinctive in the genus in having short and rounded palm with slender and distally incurved fingers that are about twice the length of the palm (Galil 2001b).

***Urnalana elata* (A. Milne-Edwards, 1874)**

[Japanese name: Sagami-kobushi]

(Fig. 4)

Material examined. RUMF-ZC-3786, 1 male, 9.6 × 9.1 mm, Sumuide, Yagaji Island, adjacent to Okinawa Island, intertidal, coll. T. Maenosono, 23 Apr. 2016; RUMF-ZC-4268, 1 female, 5.9 × 6.0 mm, Odo Coast, Itoman, Okinawa Island, intertidal, coll. T. Maenosono, 30 Oct. 2008; RUMF-ZC-4269, 1 female, 8.3 × 8.2 mm, Kaichu-doro, off Okinawa Island, intertidal, coll. T. Maenosono & T. Naruse, 11 Jan. 2009; RUMF-ZC-4270, 1 male, 9.0 × 8.5 mm, Kaichu-doro, off Okinawa Island, intertidal, coll. T. Maenosono, 15 Nov. 2008; RUMF-ZC-4271, 2 males, 5.3 × 5.3, 7.3 × 7.0 mm, Futami, Nago, Okinawa Island, intertidal, coll. T. Maenosono, 14 Apr. 2009; RUMF-ZC-4272, 1 male, 9.2 × 8.8 mm, Ukaha Island, off Okinawa Island, subtidal (> -2 m), coll. T. Maenosono, 10 May 2010; RUMF-ZC-4273, 1 male, 6.7 × 6.5 mm, Kaichu-doro, off Okinawa Island, intertidal, coll. T. Maenosono, 2 Jan. 2011; RUMF-ZC-4274, 1 male, 7.2 × 6.9 mm, Cape Chinen, Nanjo, Okinawa Island, intertidal, coll. T. Maenosono, 8 May 2011; RUMF-ZC-4281, 1 male, 7.8 × 7.6 mm, Inanse, Urasoe, Okinawa Island, subtidal (> -2 m), coll. T. Maenosono, 22 Dec. 2010.

Comparative material. *Urnalana elata*: NSMT-R 2699, holotype of *Leucosia sagamiensis*, male,

10.3 × 10.4 mm, Hayama, Sagami Bay, coll. the late Emperor Hirohito; WNHN-NA-Cr.0240, 1 female, 10.8 × 11.1 mm, Ategi? Island, Ehime Prefecture, Japan, -9 m, coll. 7 Aug. 1988.

Coloration. Fig. 4A. Carapace and chelipeds with beige base color, medially paler, mottled with orange pattern. Ambulatory legs whitish, with orange marks on middle of anterior margin of meri, proximo-outer portions of carpi and propodi. Some small individuals have much paler orange marks and look almost whitish overall.

Habitat. Similar habitat with that of *Arcania sagamiensis*.

Distribution. Comoro Islands, Western Australia (Dampier Archipelago; Port Hedland; Broome; Coulomb Point); Goram Is.; Hansa Bay, Papua New Guinea; Philippines (Panglao); Japan (Okinawa Island; Shimabara Peninsula, Nagasaki; Ehime; Osaka Bay; Shionomisaki; Sagami Bay) Bikini Atoll, Marshall Islands; New Caledonia [type locality]; Samoa (A. Milne-Edwards 1874; Sakai 1961; 1965a; 1983; Takeda 1979; Ovaere 1987; Marumura & Kosaka 2003; Galil 2005; Galil & Ng 2007; present study).

Remarks. Sakai (1961) described *Leucosia sagamiensis* on the basis of the male holotype from Hayama, Sagami Bay, and a female from Shimabara Peninsula. He differentiated it from morphologically close *L. elata* A. Milne-Edwards, 1874 [type locality: New Caledonia], by “the broader carapace, shorter neck and much larger tubercles on the anterior border of the merus of the cheliped” (Sakai 1961: 134). Later Galil (2005) synonymized *L. sagamiensis* and *L. bikiniensis* Sakai, 1983 [type locality: Bikini Atoll] with *L. elata* A. Milne-Edwards, 1874, and also established a new genus *Urnalana* [type species: *Leucosia haematosticta* Adams & White, 1849] to accommodate *L. elata*, other 12 species previously assigned to *Leucosia*, and her three new species.

Galil (2005) examined the syntypes of *Urnalana elata* and provided a photograph of a topotypic specimen (Galil 2005: fig. 1D, male, CL 9.2 mm, Touho, New Caledonia, coll. Sep. 1993) (Galil, personal communication). Considering the difference in A. Milne-Edwards’s (1874: pl. 2, fig. 2) drawing of the syntype and the photograph of the topotypic specimen (Galil 2005: fig. 1D), as Galil (2005) mentioned, the former may be inaccurate in its relatively narrow and long front.

We have examined a number of specimens from the Ryukyus (see Material examined), and they did not show any particular variations on the shape of the carapace and chelipeds in association with sex and

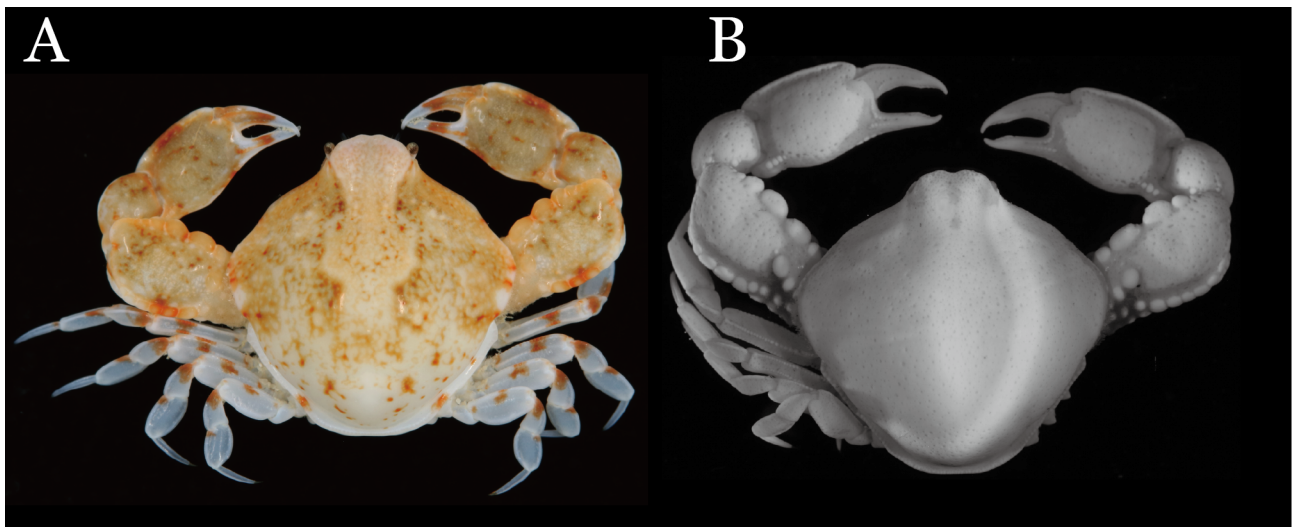


Fig. 4. *Urnalana elata* (A. Milne-Edwards, 1874). A, RUMF-ZC-3786 (CL 9.6 mm, male, Yagaji Island); B, NSMT-R 2699 (holotype of *Leucosia sagamiensis* Sakai, 1961, CL 10.3 mm, male, Sagami Bay).

図 4. サガミコブシ. A, RUMF-ZC-3786 (CL 9.6 mm, 雄, 屋我地島産); B, NSMT-R 2699 (*Leucosia sagamiensis* Sakai, 1961 のホロタイプ, CL 10.3 mm, 雄, 相模湾産).

size differences. Examination of the holotype of *Leucosia sagamiensis* (Fig. 4B) confirms that the holotype and the Ryukyuan material are conspecific. These specimens from Japan are morphologically very close to the photograph of the topotypic specimen (Galil 2005: fig. 1D). A possible difference observed is the presence of large granules on the proximal-middle portion of the upper surface of cheliped merus (Fig. 4B), which is hard to recognize in Galil (2005: fig. 1D) although it may be due to limited resolution of the photograph. The present study prefers to maintain the current status of *L. sagamiensis* and identifies Ryukyuan material as *U. elata*.

Urnalana elata becomes the fourth *Urnalana* species recorded from the Ryukyu Islands. The other three species are *U. pulchella* (Bell, 1855) (by Takeda 1989, as *Leucosia alcocki* Ovaere, 1987), *U. insularis* Takeda & Kurata, 1976, and *U. purarensis* (Ovaere, 1987) (both by Komatsu & Takeda 2009). See Galil (2005) for their distinguishing characters.

Family Iphiculidae Alcock, 1896

Iphiculus spongiosus Adams & White, 1849

[Japanese name: Nokoha-kobushi]

(Fig. 5)

Material examined. RUMF-ZC-3925, 1 male, 8.9 × 14.1 mm, gut contents of a Freckled goatfish, *Upeneus tragula*, purchased at Yonashiro Fisheries Cooperative, Henza Island, coll. S. Samejima, 14 Jun. 2010.

Comparative material. *Iphiculus spongiosus*:

WMNH-Na-Cr. 0208, 2 females, 10.7 × 16.6, 14.6 × 22.7 mm, dry, off Uragami, Nachi-Katsuura, Wakayama Prefecture, trawl, -120–150 m, coll. S. Nagai, Feb. 1980; RUMF-ZC-2865, 1 male, 11.6 × 18.5 mm, dry, Lio-an, Cebu, Philippines, tangle net, coll. 2014.

Preserved color. Fig. 5A. Ocher overall.

Distribution. Djibouti; Red Sea; Persian Gulf; Gulf of Oman; Mekran Coast; Bay of Bengal; Andamans; Singapore; Gulf of Thailand; Nhatrang; Gulf of Tonkin, South China Sea; Guangdong; near Hong Kong; Philippines (Manila Bay to Lubang Island; Off NE Luzon; N Lungsod ng Roxas, Panay Island; Ragay Gulf; Panglao); Taiwan; Japan (Okinawa; Kochi; Wakayama; Manazuru); Indonesia (Madura; Teluk Bima; North Sulawesi; Kai Islands); Western Australia; Arafra Sea; Rendova, Solomon Islands (Adams & White 1849; Miers 1884; Alcock 1896; Lanchester 1900; Nobili 1906; Stimpson 1907; Rathbun 1910; Ihle 1918; Stephensen 1946; Lin 1949; Serène 1955; Sakai 1965b; Zarenkov 1969; Serène & Vadon 1981; Miyake 1983; Dai et al. 1986; Chen 1989; Marumura & Kosaka 2003; Naderloo & Sari 2005; Galil 2007; Galil & Ng 2007; 2009; Poore et al. 2008).

Remarks. The genus *Iphiculus* Adams & White, 1849 is represented by two species, *I. spongiosus* and *I. convexus* Ihle, 1918. The former species is easily recognized by the prominent lateral teeth on the carapace. The lateral carapace teeth appear to grow proportionally longer in larger individuals (Fig. 5).

The specimen examined in this study (Fig. 5A) was collected from the gut contents of *Upeneus*

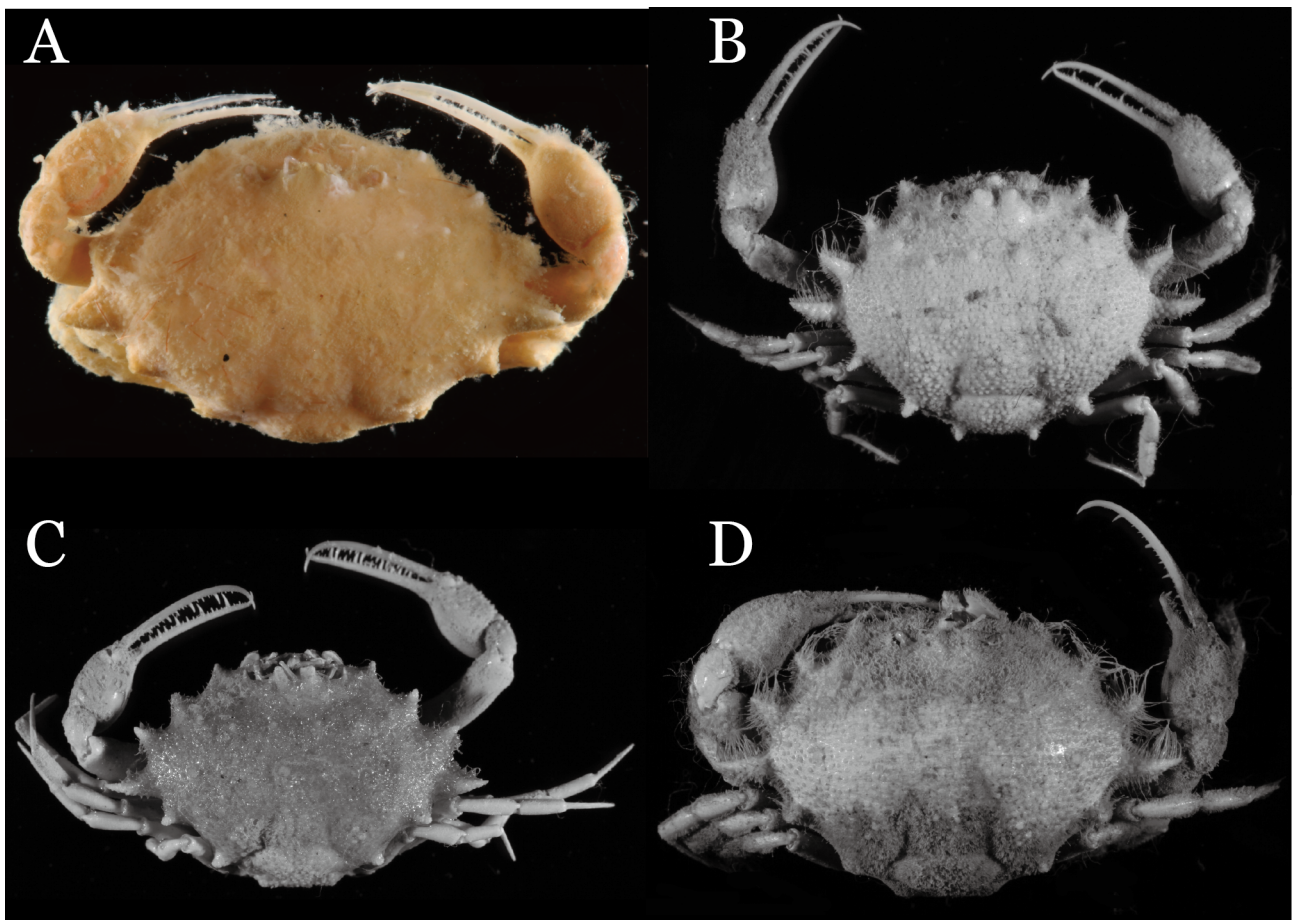


Fig. 5. *Iphiculus spongiosus* Adams & White, 1849. A, RUMF-ZC-3925 (CL 8.9 mm, male, Henza Island); B, WMNH-Na-Cr. 0208 (CL 10.7 mm, female, Wakayama); C, RUMF-ZC-2865 (CL 11.6 mm, male, Cebu); D, WMNH-Na-Cr. 0208 (CL 14.6 mm, female, Wakayama).

図 5. ノコハコブシ. A, RUMF-ZC-3925 (CL 8.9 mm, 雄, 平安座島産); B, WMNH-Na-Cr. 0208 (CL 10.7 mm, 雌, 和歌山産); C, RUMF-ZC-2865 (CL 11.6 mm, 雄, セブ島産); D, WMNH-Na-Cr. 0208 (CL 14.6 mm, 雌, 和歌山産).

tragula.

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コブシガニ上科 6 種の琉球列島からの記録

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要旨. 琉球列島より得られたコブシガニ上科 6 種 (サガミトゲコブシ *Arcania sagamiensis*, ホシズナエバリア *Ebalia stellaris*, *Ebaliopsis erosa*, ノコバテナガコブシ *Myra eudactylus*, サガミコブシ *Urnalana elata*, ノコハコブシ *Iphiculus spongiosus*) の標本を記録した. それらのうち, *Ebaliopsis erosa* は日本より初めて, サガミトゲコブシ・サガミコブシ・ノコハコブシは琉球列島より初めて, それぞれ標本を基に報告された. また, *Ebaliopsis erosa* には新標準和名クルミコブシを与え, 和名の基準とする標本に RUMF-ZC-4279 を指定した. さらに, 各種の近似種との識別形質や潜在的な分類学的問題点について概説した.

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