

ON THE CRANGONIDAE (CRUSTACEA: DECAPODA: CARIDEA) OF THE PHILIPPINES FROM THE PANGLAO 2004 AND PANGLAO 2005 EXPEDITIONS

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ABSTRACT. – Eleven species of the caridean family Crangonidae are reported from the material collected by the Philippine PANGLAO 2004 and PANGLAO 2005 expeditions. Although they have been reported from the Philippines before, all the species have their colouration described and illustrated here for the first time.

KEY WORDS. – Crangonidae, Philippines, taxonomy.

INTRODUCTION

Nineteen species of Crangonidae have been recorded from the Philippines. Chace (1984) reported 12 crangonid species, belonging to seven genera from the RV ALBATROSS Philippine Expedition. Chan (1996), in a worldwide revision of the genera *Aegaeon*, *Parapontocaris* and *Pontocaris*, reported 10 species from these genera from the Philippines. Kim & Chan (2005) reported *Prionocrangon ommatostres* Wood-Mason & Alcock, 1891 and *P. demani* Kim & Chan, 2005, from the Philippines, while Komai (2006) added *Lissosabinea ecarina* Komai, 2006, to the Philippine fauna.

The marine biodiversity expedition PANGLAO 2004 organized by the Muséum national d'Histoire naturelle, Paris (MNHN) and the University of San Carlos, Cebu City, extensively collected shallow water invertebrates around Panglao Island in the Bohol Sea. The PANGLAO 2005 expedition, organized by the MNHN and the Philippines Bureau of Fisheries and Aquatic Resources (BFAR), was a deep-sea research cruise supplement to the PANGLAO 2004 expedition, sampling the deep-sea macrobenthos in the Bohol Sea and the eastern part of the Sulu Sea. Among the material collected by the two expeditions were many crangonid

shrimps. Except for the genus *Parapontophilus* and some *Philocheras* species that will be reported in separate revision works by T. Komai, the present report deals with all the other crangonid material collected during these two expeditions. This material contains 11 species in five genera. Although all these species have previously been recorded from the Philippines, their colouration is described and illustrated here for the first time.

The synonymies given are restricted to important works on the species and local reports. Full synonymies of the species can be found in De Man (1920), Chace (1984) and Chan (1996). In the following accounts, carapace length (cl) refers to the postorbital carapace length; stn. = Station; CP = 4 m beam trawl; CA = traps; P = tangle net; T = one metre beam trawl; S = vacuum suctioning; MNHN = Muséum national d'Histoire naturelle, Paris; ZRC = Zoological Reference Collection, Raffles Museum of Biodiversity Research, National Museum of Singapore; NTOU = the National Taiwan Ocean University, Keelung; IOCAS = the Institute of Oceanology, Chinese Academy of Sciences, Qingdao.

Species are arranged in alphabetical order.

SYSTEMATIC ACCOUNT

CRANGONIDAE Haworth, 1825

Aegaeon lacazei (Gourret, 1887)
(Figs. 1A–C, 2A)

Crangon lacazei Gourret, 1887: 1033.

Pontocaris habereri Doflein, 1902: 620, Fig. A, Pl. 1: Figs. 3–4;

Fujino & Miyake, 1970: 298, Fig. 22.

Pontocaris lacazei – Crosnier & Forest, 1973: 250; Chace, 1984: 42; Kensley et al., 1987: 327.

Aegaeon lacazei – Holthuis, 1993: Fig. 282; Chan, 1996: 278, Fig. 3.

Material examined. – **PANGLAO 2004:** 1 female (cl 9.6 mm) (NTOU), stn. P1 [9°36.1'N 123°45.0'E], 90–200 m, 30 May 2004. **PANGLAO 2005:** 2 females (cl 8.0, 9.0 mm) (IOCAS), stn. CP2331 [9°39.2'N 123°47.5'E], 255.6–262.8 m, muddy, 22 May 2005; 1 female (cl 8.9 mm) (IOCAS), stn. CP2341 [9°24.5'N 123°49.7'E], 712–888 m, sandy/muddy, 23 May 2005; 8 males (cl 5.8–8.2 mm), 3 females (cl 8.5, 10.0 mm), 2 females or juveniles (cl 3.6, 4.3 mm) (NTOU), stn. CP2343 [9°27.4'N 123°49.4'E], 273–302 m, sandy/muddy, 23 May 2005; 1 male (cl 7.2 mm), 3 females (cl 10.3–10.9 mm) (MNHN), stn. CP2348 [9°29.6'N 123°52.5'E], 164–196 m, sandy/muddy, 24 May 2005; 1 female (cl 6.0 mm) (IOCAS), stn. CP2349 [9°31.6'N 123°55.7'E], 229–240 m, sandy/muddy, 24 May 2005; 1 female (cl 5.9 mm) (IOCAS), stn. CP2359 [8°49.9'N 123°34.9'E], 437–443 m, sandy, 26 May 2005; 1 female (cl 11.5 mm) (IOCAS), stn. CP2372 [8°38.7'N 123°16'E], 231–255 m, sandy/muddy, 27 May 2005; 5 males (cl 4.5–8.2 mm), 3 females (cl 8.4–9.3 mm) (MNHN), stn. CP2380 [8°41.3'N 123°17.8'E], 163–271 m, sandy/muddy, 28 May 2005; 11 males (cl 4.7–8.6 mm), 20 females (cl 5.2–12.7 mm) (ZRC), stn. CP2381 [8°43.3'N 123°19'E], 275–

280 m, sandy, 28 May 2005; 2 females (cl 10.2, 12.6 mm) (IOCAS), stn. CP2383 [8°44.7'N 123°18.5'E], 351–367 m, sandy, 29 May 2005; 2 males (cl 9.3, 10.8 mm), 1 female (cl 9.0 mm) (IOCAS), stn. CP2392 [9°29'N 123°41.1'E], 400–436 m, sandy/muddy, 30 May 2005; 2 females (cl 8.6, 9.5 mm), 1 female or juvenile (cl 4.2 mm) (MNHN), stn. CP2409 [9°44.8'N 123°44.8'E], 257–269 m, sandy/muddy, 1 Jun.2005.

Colouration. – A large female (cl 9.0 mm) from station 2331 with the anterior part of the carapace is whitish, the posterior part is red brown, the abdominal somites are red-brown with pale dots; and the distal ends of spines on the carapace and the abdominal somites are whitish. The eyes are dark brown. The first pereopod with the distal end of the palm is whitish. The tail fan with the anterior part is pale and the posterior part is red-brown (Fig. 2A).

Distribution. – Type locality: Gulf of Marseille, France. Known also from the Mediterranean, southwest Ireland, Morocco, Mauritania, Cape Verde Island, Angola, South Africa, Madagascar, Zanzibar, India, Japan, East China Sea, Taiwan, South China Sea, Philippines, Indonesia, Australia, New Caledonia, New Zealand and Hawaii, at depths of 90–758 m.

Remarks. – The specimens agree well with the descriptions and illustrations of Chace (1984) and Chan (1996). Variations are seen in the armament of the carapace and abdomen: one female specimen (stn. 2381, cl 11.2 mm) having three (versus usually four) dorsal teeth on the carapace (Fig. 1A); one male specimen (stn. 2380, cl 8.2 mm) having two (versus usually one) teeth anterior to the hepatic groove on the right second

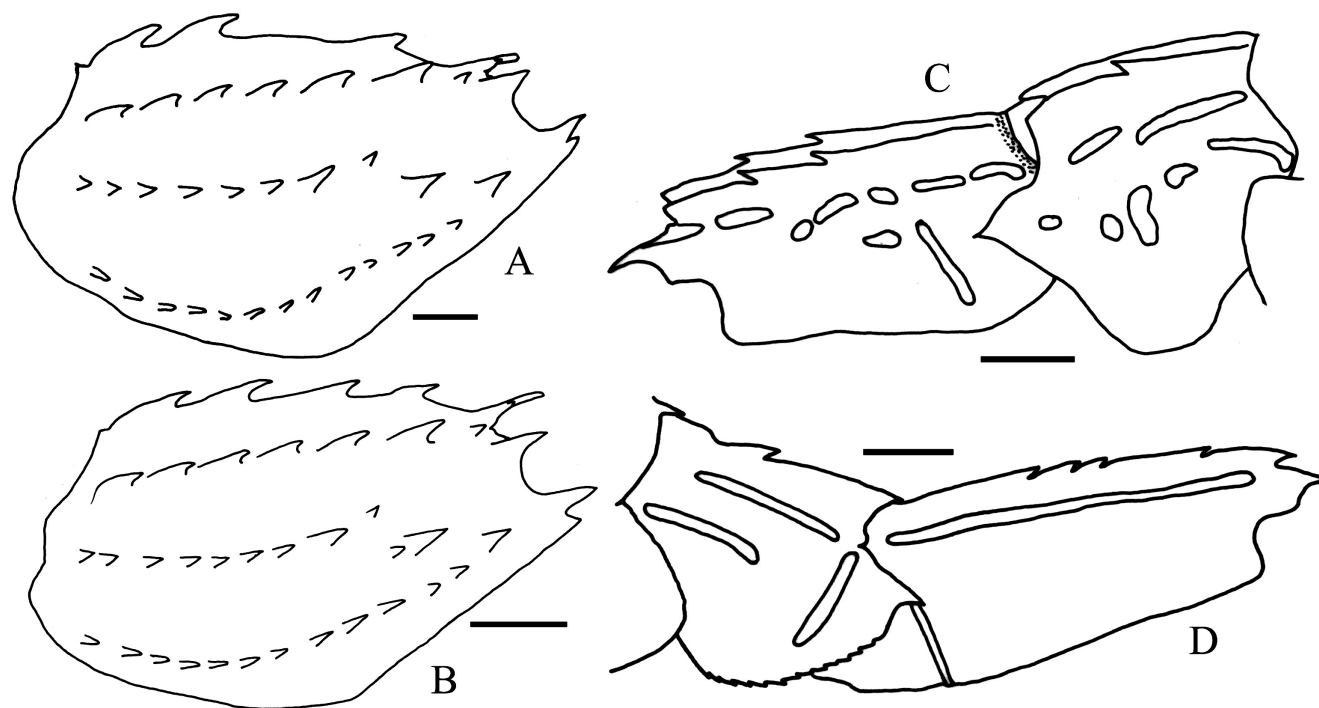


Fig. 1. A–C, *Aegaeon lacazei* (Gourret, 1887), A, carapace, lateral view, female (cl 11.2 mm), stn. CP2381; B, same, male (cl 8.2 mm), stn. CP2380; C, abdominal somites V–VI, lateral view, male (cl 7.6 mm), stn. CP2343. D, *Parapontocaris levigata* Chace, 1984, abdominal somites V–VI, lateral view, ovig. female (cl 15.4 mm), stn. CP2332. Scale bars = 2 mm (A, B, D); 1 mm (C).

lateral carina (Fig. 1B); one male specimen (stn. 2343, cl 7.6 mm) having one (versus usually absent) dorsolateral spine on the right carina of the fifth abdominal somite (Fig. 1C); two female specimens (stn. 2348, cl 10.5 mm, left carina; stn. 2381, cl 10.3 mm, right carina) having nine (versus usually five to eight) teeth on the posterior part of the second carina on carapace and one male specimen (stn. 2392, cl 10.8 mm) having 17 (versus usually 12–16) spines on the third carina of the carapace (this specimen with a bopyrid in its right branchia).

Chan (1996) noted that the body colouration of *Aegaeon lacazei* varies from yellow to brown, the carapace having a broad transverse pale or white (in brown specimens) subanterior band; the eyes are dark brown; the first pereopod has a whitish distal end of the palm; the pleopods are pale yellow; and the tail fan is with the subanterior part whitish and the posterior part having a broad, red brown, transverse band. The colouration of the large female specimen from station 2331 agrees with Chan's (1996) description.

Aegaeon orientalis Henderson, 1893
(Fig. 2B)

Aegaeon orientalis Henderson, 1893: 446, Pl. 40: Figs. 16–17; Kemp, 1916: 378; De Man, 1920: 293.
Aegaeon orientalis – Chan, 1996: 284, Fig. 5.

Material examined. – PANGLAO 2004: 3 females (cl 5.9–7.1 mm) (the largest specimen deposited in IOCAS, other two in NTOU), stn. T6 [9°35.1'N 123°51.2'E], 34–82 m, coarse muddy sand with large sponges, 2 Jun.2004.

Colouration. – The body, including the antennal flagella is whitish to reddish. The carapace has a broad pale transverse band at the middle part. The eyes are brownish. The first pereopod with the distal end of the palm is whitish. The tail fan is with the anterior part whitish, the posterior part has a broad, reddish, transverse band (Fig. 2B).

Distribution. – Type locality: Gulf of Martaban, Myanmar. Known also from the Gulf of Aden, Persian Gulf, Maldives, India, Andaman Sea, Singapore, the South China Sea, Chesterfield Islands and New Caledonia, at depths of 12–300 m.

Lissosabinea indica (De Man, 1918)
(Fig. 2C)

Sabinea indica De Man, 1918: 304; 1920: 303, Pl. 25: Fig. 75a–i; Chace, 1984: 59; Takeda & Hanamura, 1994: 30.
Lissosabinea indica – Christoffersen, 1988: 48; Kim & Natsukari, 2000: 35, Fig. 1a, b; Komai, 2006: 37, Figs. 1–4.

Material examined. – PANGLAO 2005: 1 ovig. female (cl 7.0 mm)(NTOU), stn. CP2368 [8°56.1'N 123°16.6'E], 316–318 m, sandy, 27 May 2005.

Colouration. – The body is pale pink, with many small and dense darker dots all over and dark brown spots scattered on

the anterior half of the carapace and the first abdominal tergite, and with a dark brown band between the dorsal carina and the first lateral carina anterior to the second dorsal spine and on the posterior part of the second to fifth abdominal tergites. The eyes are orange. The tail fan is somewhat whitish, with the outer margin of the uropodal exopod and the tip of telson being brownish (Fig. 2C).

Distribution. – Type locality: Flores Sea, north of Pulau Tanahjampea, Indonesia. Known also from Pacific coast of southern Japan, Philippines, New Caledonia, at depths of 146–700 m.

Parapontocaris aspera Chace, 1984
(Fig. 2D)

Parapontocaris aspera Chace, 1984: 30, Figs. 9–11; Chan, 1996: 320.

Material examined. – PANGLAO 2005: 1 male (cl 18.3 mm) (IOCAS), stn. CP2340 [9°29.4'N 123°44.4'E], 291–318 m, sandy/muddy, 23 May 2005; 1 male (cl 11.3 mm), 1 female (cl 12.0 mm) (NTOU), stn. CP2381 [8°43.3'N 123°19'E], 275–280 m, sandy, 28 May 2005; 1 male (cl 14.6 mm), 1 ovig. female (cl 23.5 mm) (IOCAS), stn. CP2383 [8°44.7'N 123°18.5'E], 351–367 m, sandy, 29 May 2005; 1 ovig. female (cl 20.3 mm) (NTOU), stn. CP2392 [9°29'N 123°41.1'E], 400–436 m, sandy/muddy, 30 May 2005.

Colouration. – A male specimen (cl 18.3 mm) from stn. 2340 with the body is red-brown, the ridges and carinae on the body are red with orange dots; the eyes are dark brown; the pereopods are pale or white, with small and dense red dots (Fig. 2D).

Distribution. – Type locality: Albay Gulf, east of southern Luzon, Philippines. Known also from Taiwan, Indonesia, New Caledonia, Madagascar, at depths of 215–525 m.

Remarks. – The specimens agree well with the descriptions and illustrations of Chace (1984) and Chan (1996). Chan (1996) noted that *Parapontocaris aspera* the body and antennal flagella are brownish-yellow to red-brown (more often), the ridges and carinae on the body reddish-brown; the eyes dark brown; the anteromesial part of the scaphocerite whitish; and the eggs pale yellow. The colouration of the male specimen (cl 18.3 mm) from station 2340 agrees with Chan's (1996) description.

Parapontocaris levigata Chace, 1984
(Figs. 2E, F)

Parapontocaris levigata Chace, 1984: 34, Figs. 12–14; Holthuis, 1993, Fig. 292; Chan, 1996: 324; Kim & Natsukari, 2000, 37, Fig. 1c.

Material examined. – PANGLAO 2005: 6 males (cl 10.2–13.1 mm), 4 females (cl 9.1–15.3 mm), 8 ovig. females (cl 13.7–17.1 mm) (IOCAS), stn. CP2332 [9°38.8'N 123°45.9'E], 418–477 m, muddy, 22 May 2005; 6 males (cl 9.9–13.1 mm), 5 females (cl 11.8–13.5 mm) (NTOU), stn. CP2333 [9°38.2'N 123°43.5'E], 565.5–596

m, muddy, 22 May 2005; 2 males (cl 10.5, 11.3 mm) (ZRC), stn. CP2334 [9°37.458'N 123°40.224'E], 631.2–659 m, sandy, 22 May 2005; 1 female (cl 10.0 mm) (NTOU), stn. CP2340 [9°29.4'N 123°44.4'E], 291–318 m, sandy/muddy, 23 May 2005; 1 male (cl 9.5 mm), 3 females (cl 9.3–14.6 mm) (ZRC), stn. CP2343 [9°27.4'N 123°49.4'E], 273–302 m, sandy/muddy, 23 May 2005; 1 female (cl 14.2 mm) (ZRC), stn. CP2358 [8°52.1'N 123°37.1'E], 569–597 m, sandy, 26 May 2005; 1 female (cl 8.8 mm) (ZRC), stn. CP2359 [8°49.9'N 123°34.9'E], 437–443 m, sandy, 26 May 2005; 18 males (cl 6.9–11.7 mm), 22 females (cl 7.0–15.8 mm), 4 ovig. females (cl 15.9–18.1 mm) (MNHN), stn. CP2360 [8°48.9'N 123°37.6'E], 357–364 m, sandy, 26 May 2005; 1 female (cl 14.6 mm) (ZRC), stn. CP2363 [9°6'N 123°25'E], 380–437 m, sandy, 26 May 2005; 1 male (cl 11.2 mm), 4 females (cl 10.5–16.9 mm), 1 ovig. female (cl 16.5 mm) (IOCAS), stn. CP2372 [8°38.7'N 123°16'E], 231–255 m, sandy/muddy, 27 May 2005; 3 males (cl 11.7–12.5 mm), 7 females (cl

10.2–15.5 mm), 2 ovig. females (cl 16.1, 16.3 mm) (NTOU), stn. CP2383 [8°44.7'N 123°18.5'E], 351–367 m, sandy, 29 May 2005; 3 males (cl 8.8–9.6 mm), 9 females (cl 6.4–21.8 mm), 2 ovig. females (cl 12.5, 13.0 mm) (ZRC), stn. CP2392 [9°29'N 123°41.1'E], 400–436 m, sandy/muddy, 30 May 2005.

Colouration. – The body colour varies from pale or white to reddish, with small brown dots. The eyes are dark brown. The eggs are pale orange (Figs. 2E, F).

Distribution. – Type locality: Balayan Bay, southern Luzon, Philippines. Known also from Madagascar, New Caledonia, Indonesia, the South China Sea, Taiwan, Japan and probably also Zanzibar, at depths of 217–659 m.

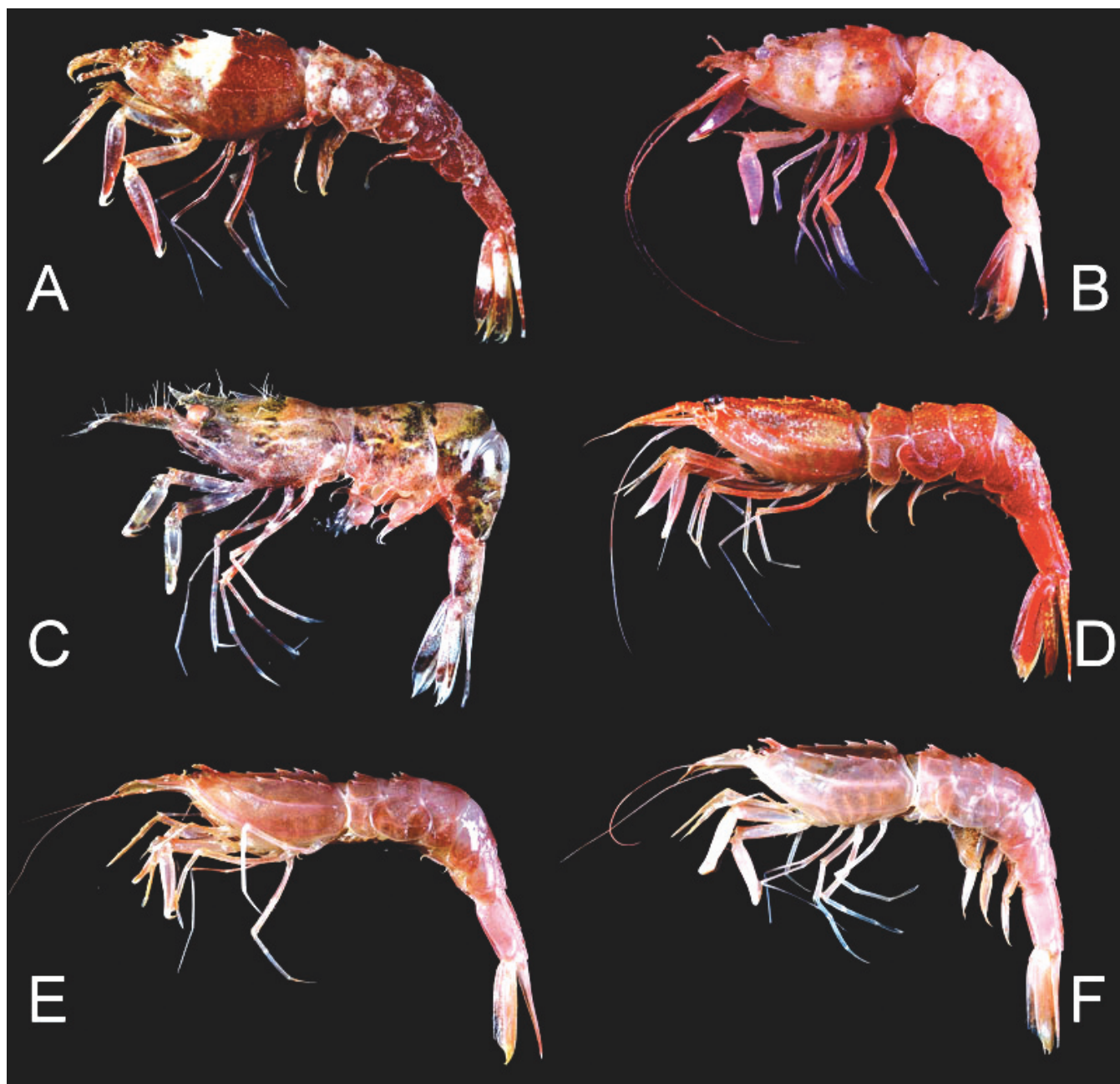


Fig. 2. A, *Aegaeon lacazei* (Gourret, 1887), lateral view, female (cl 9.0 mm), stn. 2331; B, *Aegaeon orientalis* Henderson, 1893, lateral view, female (cl 7.1 mm), stn. T6; C, *Lissosabinea indica* (De Man, 1918), lateral view, ovigerous female (cl 7.0 mm), stn. CP2368; D, *Parapontocaris aspera* Chace, 1984, lateral view, male (cl 18.3 mm), stn. CP2340; E–F, *Parapontocaris levigata* Chace, 1984, E, lateral view, ovig. female (cl 15.4 mm), stn. CP2332; F, lateral view, ovig. female (cl 17.1 mm), stn. CP2332.

Remarks. – The specimens agree well with the descriptions and illustrations of Chace (1984) and Chan (1996). The largest female (cl 21.8 mm, stn. 2392) is larger than the previous record of cl 20.1 mm (Chan, 1996). The ovigerous female of stn. 2332 (cl 15.4 mm) has a pair of dorsolateral spines on the fifth somite (Fig. 1D); the female of stn. 2332 (cl 9.2 mm) has six spines on both side of the first lateral carina on the carapace, more than the three to five spines in the samples of Chace (1984) and Chan (1996).

Philocheras incisus (Kemp, 1916)
(Figs. 3A, B)

Pontophilus incisus Kemp, 1916: 357, Fig. 1, Pl. 8: Fig. 1; Fujino & Miyake, 1970: 287, Fig. 18.
Philocheras incisus – Chace, 1984: 40.

Material examined. – PANGLAO 2004: 1 male (cl 3.2 mm), 4 females (cl 3.8–4.7 mm), 3 ovig. females (cl 3.3, 3.9 mm) (IOCAS), stn. T4 [9°33.0'N 123°48.5'E], 82 m, many large sponges, 1 Jun.2004; 2 ovig. females (cl 3.1, 3.3 mm) (ZRC), stn. T5 [9°35.3'N 123°52.2'E], 84–87 m, coarse muddy sand, 2 Jun.2004; 1 female (cl 3.3 mm) (MNHN), stn. T6 [9°35.1'N 123°51.2'E], 34–82 m, coarse muddy sand with large sponges, 2 Jun.2004; 3 males (cl 2.7–3.0 mm), 5 females (cl 2.9–3.9 mm), 2 ovig. females (cl 3.0, 3.5 mm) (NTOU), stn. T28 [9°35.0'N 123°51.4'E], 80 m, muddy sand, 1 Jul.2004; 2 males (cl 3.0, 3.1 mm), 1 female (cl 3.2 mm) (ZRC), stn. T29 [9°34.5'N 123°50.6'E], 77–84 m, muddy, 1 Jul.2004; 4 males (cl 3.3–3.5 mm) (MNHN), stn. T36 [9°29.3'N 123°51.5'E], 95–128 m, sand on echinoderms bed, 4 Jul.2004.

Colouration. – The carapace is brownish to yellow, with brown dots all over. The colour of the abdominal tergites varies from whitish to reddish. The eyes are deep brown. The first pereopod is with the distal end of the palm whitish. The tail fan is whitish, the subanterior and posterior parts have a broad, brownish to yellow, transverse band (Figs. 3A, B).

Distribution. – Type locality: Port Blair, Andaman Islands. Known also from the Arabian Sea, Bay of Bengal, Indonesia, the Philippines and East China Sea, at depths of 3–128 m.

Philocheras japonicus (Doflein, 1902)
(Figs. 3C–D)

Pontophilus japonicus Doflein, 1902: 621, Fig. B, Pl. 3: Fig. 6; De Man, 1920: 286, Pls. 23, 24: Fig. 69–69j; Fujino & Miyake, 1970: 290, Fig. 19.
Philocheras japonicus – Chace, 1984: 40.

Material examined. – PANGLAO 2004: 1 ovig. female (cl 3.0 mm) (NTOU), stn. T2 [9°32.4'N 123°47.8'E], 152 m, coarse sand, 31 May 2004.
PANGLAO 2005: 1 ovig. female (cl 4.1 mm) (NTOU), stn. CA2337 [9°31.5'N 123°41.7'E], 336 m, sandy/muddy, 22 May 2005.

Colouration. – The body colour varies from orange to reddish, with small and dense dark dots. The eggs are orange. The tail fan colour varies from whitish to brown (Figs. 3C–D).

Distribution. – Type locality: southern Sagami Nada, Japan. Known also from the Bohol and Sulu Seas, at depths of 152–522 m.

Pontocaris hilarula (De Man, 1918)
(Fig. 3E–F)

Aegeon propensalata var. *hilarula* De Man, 1918: 301; 1920: 296, Pl. 24: Fig. 71–71f.
Pontocaris hilarula – Chan, 1996: 299, Fig. 10.

Material examined. – PANGLAO 2004: 1 ovig. female (cl 6.8 mm) (IOCAS), stn. T19 [9°42.2'N 123°50.8'E], 10–26 m, muddy, 20 Jun.2004; 1 female (cl 8.2 mm) (NTOU), stn. T23 [9°42.2'N 123°50.6'E], 35–45 m, 21 Jun.2004; 1 male (cl 4.5 mm) (NTOU), 1 female (cl 7.1 mm) (IOCAS), stn. S25 [9°41.5'N 123°51.0'E], 21 m, muddy, 23 Jun.2004.

Colouration. – The body is reddish. The ventral parts of the abdominal pleura are whitish. The tail fan has a white transverse band at the middle part. The eggs are orange.

Distribution. – Type locality: Flores Sea, north of Pulau Tanahjampea, Indonesia. Known also from the Philippines and New Caledonia, at depths of 10–70 m.

Remarks. – The specimens agree well with the descriptions and illustrations of De Man (1918) and Chan (1996). The smallest ovigerous female cl is 6.8 mm.

Pontocaris major Chan, 1996
(Fig. 4A)

Pontocaris major Chan, 1996: 304, Fig. 13.

Material examined. – PANGLAO 2005: 2 males (cl 11.3, 12.7 mm), 1 female (cl 10.6 mm) (IOCAS), stn. CP2407 [9°41.3'N 123°48.5'E], 204–256 m, sandy/muddy, 1 Jun.2005; 1 female (cl 12.4 mm) (NTOU), stn. CP2409 [9°44.8'N 123°44.8'E], 257–269 m, sandy/muddy, 1 Jun.2005.

Colouration. – The body is brownish-yellow, covered with narrow dark red transverse bands posterior to the orbit. The eyes are orange. The ventral parts of the abdominal pleura and sometimes the lower carapace are whitish. The tail fan is whitish, the posterior part has a broad and reddish transverse band (Fig. 4A).

Distribution. – Type locality: the Philippines. Known only from the Philippines, at depths of 116–457 m.

Pontocaris pennata Bate, 1888
(Fig. 4B)

Pontocaris pennata Bate, 1888: 499, Pl. 91; Ortmann, 1895: 175; Chace, 1984: 43; Chan, 1996: 313, Figs. 16–17.

Material examined. – PANGLAO 2004: 1 female (cl 8.5 mm) (NTOU), stn. T26 [9°43.3'N 123°48.8'E], 123–135 m, muddy, 24 Jun.2004.

PANGLAO 2005: 1 male (cl 8.8 mm), 1 female (cl 8.7 mm), 1 ovig. female (cl 10.5 mm) (NTOU), 1 male (cl 8.0 mm), 5 females (cl 5.8–9.8 mm) (MNHN), 2 males (cl 7.1–7.4 mm), 4 females (cl 8.3–9.4 mm) (ZRC), stn. CP2377 [8°40.6'N 123°20.3'E], 82.4–85.3 m, sandy, 28 May 2005.

Colouration. – The body is reddish with pale spots all over, covered with narrow pale transverse bands on the branchiostegal spines, mid-carapace, first and third abdominal somites. The eyes are brownish. The lower parts of the

abdominal pleura are whitish. The tail fan has a transverse white band at the middle part. The eggs are orange (Fig. 4B).

Distribution. – Type locality: Arafura Sea. Known also from Japan, the South China Sea, the Philippines and Indonesia, at depths of 17–165 m.

Remarks. – The specimens agree well with the descriptions and illustrations of Chace (1984) and Chan (1996). The largest male (cl 8.8 mm) is larger than the previous record of cl 7.6 mm by Chan (1996).

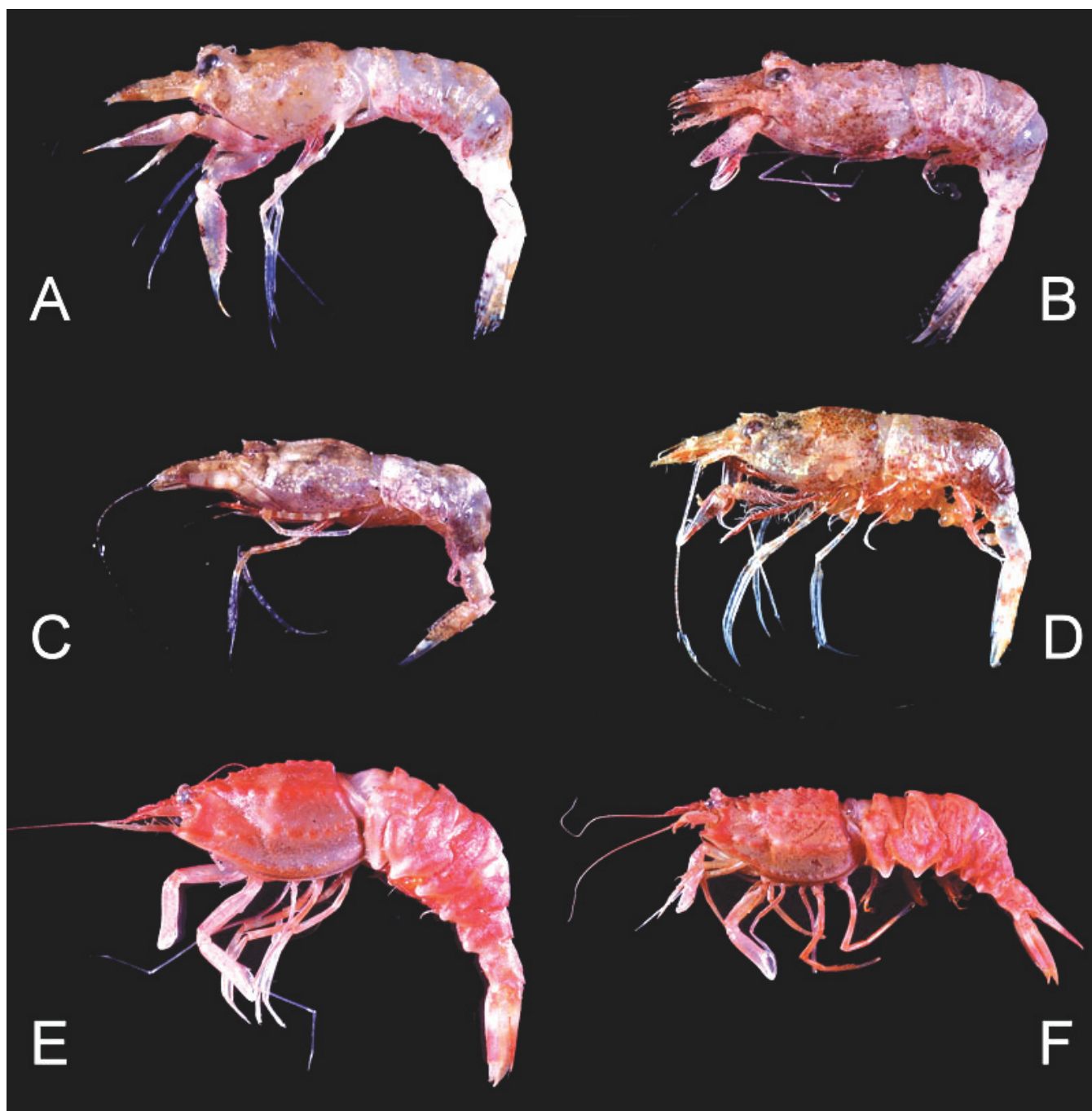


Fig. 3. A–B, *Philocheras incisus* (Kemp, 1916), A, lateral view, female (cl 4.7 mm), stn. T4; B, lateral view, ovigerous female (cl 3.1 mm), stn. T5; C–D, *Philocheras japonicus* (Doflein, 1902), C, lateral view, ovig. female (cl 3.0 mm), stn. T2; D, lateral view, ovig. female (cl 4.1 mm), stn. CA2337; E–F, *Pontocaris hilarula* (De Man, 1918), E, lateral view, ovig. female (cl 6.8 mm), stn. T19; F, lateral view, female (cl 8.2 mm), stn. T23.

Pontocaris sibogae (De Man, 1918)
(Fig. 4C)

Aegaeon sibogae De Man, 1918: 302; De Man, 1920: 298, Pl. 24: Fig. 72–72f.

Pontocaris sibogae – Fujino & Miyake, 1970: 301; Chace, 1984: 44; Chan, 1996: 309, Fig. 15.

Material examined. – PANGLAO 2004: 2 female (cl 6.5, 10.2 mm), 2 ovig. females (cl 11.8, 12.5 mm) (NTOU), stn. T10 [9°33.4'N 123°51.5'E], 117–124 m, mud and fine sand, 15 Jun.2004; 1 male (cl 8.7 mm) (NTOU), stn. T25 [9°41.1'N 123°49.3'E], 160–210 m, fine sand and mud, 24 Jun.2004; 2 males (cl 6.7, 10.4 mm) (NTOU), stn. T26 [9°43.3'N 123°48.8'E], 123–135 m, muddy, 24 Jun.2004; 5 males (cl 5.8–10.2 mm), 5 females (cl 5.4–10.7 mm), 1 ovig. female (cl 12.8 mm) (NTOU), stn. T27 [9°33.4'N 123°51.0'E], 106–137 m, fine sand and mud with Echinoderms, 25 Jun.2004.

PANGLAO 2005: 1 male (cl 9.6 mm) (MNHN), stn. CP2408 [9°43.5'N 123°47.1'E], 137–153 m, sandy/muddy, 1 Jun.2005; 1 male (cl 9.8 mm), 2 females (cl 8.0, 9.8mm) (ZRC), 1 female (cl 11.2 mm) (MNHN), stn. CP2409 [9°44.8'N 123°44.8'E], 257–269 m, sandy/muddy, 1 Jun.2005.

Colouration. – The body colour varies from orange to red, covered with broad, pale, transverse bands on the branchiostegal spines and the middle part of the carapace; the tips of most spines are white, sometimes with pale spots all over. The tips of the branchiostegal spines are dark red. The eyes are brownish. The ventral margins of all the abdominal pleura and sometimes the whole first two abdominal somites are whitish. The tail fan is whitish, the

posterior part has a broad red transverse band. The eggs are orange (Fig. 4C).

Distribution. – Type locality: Bali Sea, south of Kangeang, Indonesia. Known also from Japan, the East and South China Seas, the Philippines, New Caledonia and Loyalty Islands, at depths of 70–812 m.

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Fig. 4. A, *Pontocaris major* Chan, 1996, lateral view, male (cl 11.3 mm), stn. CP2407; B, *Pontocaris pennata* Bate, 1888, lateral view, ovig. female (cl 10.5 mm), stn. CP2377; C, *Pontocaris sibogae* (De Man, 1918), lateral view, ovig. female (cl 12.8 mm), stn. T27.

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