

MYSIDACEA (CRUSTACEA) FROM THE SOUTH-EASTERN ANDAMAN SEA WITH DESCRIPTIONS OF SIX NEW SPECIES

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ABSTRACT

Thirty-seven species of Mysidacea were collected from the south-eastern Andaman Sea during the ‘Biodiversity of Crustacea in the Andaman Sea’ project. Of these, six species are new to science and are here described; these are *Erythroops phuketensis*, *Hypererythroops validiseta*, *Acanthomysis brucei*, *Acanthomysis longispina*, *Heteromysis thailandica* and *Pseudomysidetes nudus*. Three species belonging to the genera *Anchialina*, *Erythroops* and *Pleurerythroops* remain unnamed because of their badly damaged condition or absence of adult males. Eight species, *Gnathophausia zoea* Willemoes-Suhm, 1875, *Paralophogaster macrops* Colosi, 1934, *Hypererythroops semispinosa* Wang, 1998, *Pleurerythroops monospinosa* Liu and Wang, 1986, *Mysidopsis kempii* W.M. Tattersall, 1922, *Paraleptomysis xenops* (W.M. Tattersall, 1922), *Acanthomysis quadrispinosa* Nouvel, 1965, and *Anisomysis bifurcata* W.M. Tattersall, 1912, are recorded from this area for the first time. Supplemental information is given for six species: *Rhopalophthalmus macropsis* Pillai, 1964, *Erythroops minuta* Hansen, 1910, *Hypererythroops semispinosa* Wang, 1998, *Hypererythroops spinifera* (Hansen, 1910), *Acanthomysis platycauda* (Pillai, 1964) and *Lycomysis spinicauda* Hansen, 1910. A key to the species of Mysidacea recorded in the Andaman Sea and Malacca Strait is presented.

INTRODUCTION

The Mysidacea of the Andaman Sea and Malacca Strait has been reported on by W.M. Tattersall (1922), O.S. Tattersall (1957, 1965, and 1967), Pillai (1973) and Murano (1995), and 49 species are known from the region. The mysids collected during the BIOSHELF and BIODEEP research projects, forming part of the material for the ‘Biodiversity of Crustacea in the Andaman Sea’ workshop held at the Phuket Marine Biological Center consist of 37 species, 20 of these having been previously recorded from the area. Six new species are described herein. Three probable new species remain unnamed because of their badly damaged condition or the absence of the males

that provide important specific characters. Supplemental information is given for six species: *Rhopalophthalmus macropsis* Pillai, 1964, *Erythroops minuta* Hansen, 1910, *Hypererythroops semispinosa* Wang, 1998, *Hypererythroops spinifera* (Hansen, 1910), *Acanthomysis platycauda* (Pillai, 1964) and *Lycomysis spinicauda* Hansen, 1910.

MATERIALS AND METHODS

Body length was measured from the tip of the rostrum to the posterior end of the telson excluding apical spines. All specimens including type material are lodged in the Reference Collection of the Phuket Marine Biological Center (PMBC) and the National Science Museum, Tokyo (NSMT).

**LIST OF SPECIES REPRESENTED IN
THE COLLECTION**

(New records from the Andaman Sea and Malacca Strait is indicated by *)

Suborder Lophogastrida

Family Lophogastridae

**Gnathophausia zoea* Willemoes-Suhm, 1875

Lophogaster intermedius Hansen, 1910

**Paralophogaster macropsis* Colosi, 1934

Suborder Mysida

Family Mysidae

Subfamily Siriellinae

Tribe Siriellini

Hemisiriella parva Hansen, 1910

Siriella dubia Hansen, 1910

Siriella gracilis Dana, 1852

Siriella vulgaris Hansen, 1910

Subfamily Rhopalophthalminae

Rhopalophthalmus macropsis Pillai, 1964

Subfamily Gastrosaccinae

Anchialina dentata Pillai, 1964

Anchialina typica orientalis Nouvel, 1971

Anchialina sp.

Gastrosaccus dunckeri Zimmer, 1915

Haplostylus bengalensis (Hansen, 1910)

Haplostylus pacificus (Hansen, 1912)

Pseudanchialina pusilla (G.O. Sars, 1883)

Subfamily Mysinae

Tribe Erythropini

Erythroops minuta Hansen, 1910

**Erythroops phuketensis* sp. nov.

**Erythroops* sp.

**Hypererythroops semispinosa* Wang, 1998

Hypererythroops spinifera (Hansen, 1910)

**Hypererythroops validisaeta* sp. nov.

Pleurerythroops inscita Ii, 1964

**Pleurerythroops monospinosa* Liu and Wang, 1986

*?*Pleurerythroops* sp.

Tribe Leptomysini

Dioptromysis proxima Nouvel, 1964

Mysidopsis indica W.M. Tattersall, 1922

**Mysidopsis kempi* W.M. Tattersall, 1922

**Paraleptomysis xenops* (W.M. Tattersall, 1922)

Tribe Mysini

Acanthomysis platycauda (Pillai, 1964)

**Acanthomysis quadrispinosa* Nouvel, 1965

**Acanthomysis brucei* sp. nov.

**Acanthomysis longispina* sp. nov.

Lycomysis spinicauda Hansen, 1910

**Anisomysis bifurcata* W.M. Tattersall, 1912

Anisomysis tattersallae Pillai, 1973

Tribe Heteromysini

**Heteromysis thailandica* sp. nov.

**Pseudomysidetes nudus* sp. nov.

SYSTEMATICS

Suborder Lophogastrida

Family Lophogastridae

***Gnathophausia zoea* Willemoes-Suhm, 1875**

Gnathophausia zoea Willemoes-Suhm, 1875: 32–33 (type locality: Atlantic Ocean).– G.O. Sars, 1885: 44–46, pl. 6, figs 6–10.– Ortmann, 1906: 42.– Hansen, 1910: 17–18; 1912: 186, pl. 2, fig. 2.– Illig, 1930: 408–409, figs 13–14.– W.M. Tattersall, 1939: 226–227, figs 1–2.– Fage, 1941: 34–39.– W.M. Tattersall, 1951: 29–31.– W.M. Tattersall and O.S. Tattersall, 1951: 82–88, figs 3–5.– O.S. Tattersall, 1955: 38–39.– Gordan, 1957: 333–334 (list).– Mauchline and Murano, 1977: 57 (list).– Lagardère and Nouvel, 1980: 377–382, figs 1–10.– Lagardère, 1983: 811.– Băcescu, 1991: 84–86, figs 1L–M, 2C–D.– Müller, 1993: 6 (list).

Gnathophausia willemoesii G.O. Sars, 1883: 1; 1885: 38–41.– Ortmann, 1905: 969.

Gnathophausia sarsi Wood-Mason and Alcock, 1891: 187.– Ortmann, 1905: 969.– Illig, 1906: 321–322.

Gnathophausia cristata Illig, 1906: 319, figs A, B.

Gnathophausia zoea sarsi.– Ortmann, 1906: 42–47.

Material examined

PMBC 14664, 2 females, 75.3 mm and damaged, BIOSHELF St. U3, 06°57'N, 097°22'E, TD, 651 m, coll. S. Bussarawit, 17.04.1997.

Geographical distribution

Tropical to temperate waters of world.

***Lophogaster intermedius* Hansen, 1910**

Lophogaster typicus. –Ortmann, 1905: 967–968 (in part).

Lophogaster intermedius Hansen, 1910: 14–15, pl. 1, fig. 1a–e (type locality: Indonesia).– W.M. Tattersall, 1922: 448.– Illig, 1930: 554 (key).– Fage, 1942: 31–32, fig. 20.– W.M. Tattersall, 1951: 20, fig. 1c.– Gordan, 1957: 334 (list).– O.S. Tattersall, 1960b: 534, fig. 2.– Băcescu, 1985: 357–360, fig. 1. –Müller, 1993: 10 (list).– Casanova, 1996: 138–140, fig. 6a–d; 1997: 96–97, fig. 2F.

Lophogaster hawaiiensis Fage, 1940: 325–326 (type locality: Hawaii Islands); 1942: 30–31, fig. 19.– W.M. Tattersall, 1951: 17, 242–243.– Gordan, 1957: 334 (list).– O.S. Tattersall, 1960b: 537–539, fig. 4.– Müller, 1993: 10 (list).

Material examined

NSMT-Cr 13253, 1 female, 16.5 mm, 142 juveniles, 3.8–6.5 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; PMBC 14666, 1 male, 18.8 mm, 1 female, 16.2 mm, 17 juveniles, 4.1–6.3 mm, BIOSHELF St. A2, 09°29'N, 097°52'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13254, 1 female, 20.2 mm, BIOSHELF St. A4, 09°30'N, 097°28'E, BC, 116 m, coll. S. Bussarawit and C. Aungtonya, 19.04.1996; PMBC 14667, 1 juvenile, 6.3 mm, BIOSHELF St. C1, 09°00'N, 098°02'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; NSMT-Cr 13256, 3 juveniles, 4.3–5.8 mm, BIOSHELF St. C2, 09°00'N, 097°56'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; PMBC 14668, 12 juveniles, 5.1–7.8 mm,

BIOSHELF St. E2, 08°31'N, 098°00'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14669, 1 juvenile, 6.0 mm, BIOSHELF St. F2, 08°15'N, 098°03'E, OS, 66 m, coll. S. Bussarawit and C. Aungtonya, 16.02.1998; PMBC 14670, 14 juveniles, 4.5–6.8 mm, BIOSHELF St. G1, 08°00'N, 098°12'E, OS, 49 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14671, 1 juvenile, 5.4 mm, BIOSHELF St. G3, 08°00'N, 097°54'E, OS, 77 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; PMBC 14672, 6 males, 13.3–17.8 mm, 1 immature male, 11.2 mm, 5 females, 14.0–16.1 mm, 1 immature female, 10.5 mm, 10 juveniles, 4.2–11.0 mm, BIOSHELF St. H1, 07°45'N, 098°16'E, OS, 35 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; NSMT-Cr 13252, 1 male, 13.3 mm, BIOSHELF St. I1, 07°30'N, 098°55'E, OS, 42 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14673, 2 males, 16.8 and 18.6 mm, 3 females, 13.0–16.0 mm, 3 juveniles, 4.5–8.8 mm, BIOSHELF St. I2, 07°30'N, 098°30'E, OS, 59 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14674, 1 male, 19.0 mm, BIOSHELF St. I2, 07°31'N, 098°30'E, TD, 58 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14675, 15 juveniles, 4.0–6.0 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; NSMT-Cr 13257, 7 juveniles, 4.7–9.7 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14676, 3 males, 16.5–17.3 mm, 5 females, 14.2–16.5 mm, 1 immature female, 13.7 mm, 85 juveniles, 4.5–7.7 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13258, 4 males, 13.5–18.2 mm, 2 females, 15.0 and 16.0 mm, 81 juveniles, 5.0–12.0 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14677, 1 male, 13.5 mm, 7 juveniles, 5.3–9.6 mm, BIOSHELF St. J2, 07°15'N, 098°51'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; PMBC 14678, 3 males, 14.0–17.2 mm, 3 females, 13.8–15.1 mm, 7 juveniles, 3.8–4.0 mm, BIOSHELF

St. J2, 07°15'N, 098°48'E, OS or TD, 63 m, coll. S. Bussarawit and C. Aungtonya, 23.02.1998; NSMT-Cr 13259, 1 male, 14.7 mm, 35 juveniles, 4.6–8.1 mm, BIOSHELF St. J3, 07°15'N, 098°36'E, OS, 77 m, coll. S. Bussarawit and C. Aungtonya, 23.02.1998; PMBC 14679, 1 juvenile, 6.6 mm, BIOSHELF St. K1, 07°00'N, 099°16'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14680, 3 males, 15.0–18.3 mm, 1 juvenile, damaged, BIOSHELF St. K2, 07°00'N, 099°04'E, OS, 53 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14681, 1 male, 12.5 mm, 8 juveniles, 4.3–5.8 mm, BIOSHELF St. K3, 06°59'N, 098°42'E, OS, 82 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14682, 16 juveniles, 6.3–10.5 mm, BIOSHELF St. K3, 07°02'N, 098°49'E, OS, 76 m, coll. S. Bussarawit and C. Aungtonya, 24.05.1998; NSMT-Cr 13260, 1 female, 17.2 mm, 2 juveniles, 4.7 and 5.8 mm, BIOSHELF St. L1, 06°49'N, 099°21'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14683, 2 males, 15.3 and 18.8 mm, 1 immature female, 13.7 mm, 18 juveniles, 7.0–7.9 mm, BIOSHELF St. L2, 06°43'N, 099°03'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 25.02.1998; PMBC 14684, 1 juvenile, 5.9 mm, BIOSHELF St. NBA, 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; NSMT-Cr 13261, 1 female, 14.7 mm, 4 juveniles, 4.2–11.5 mm, BIOSHELF St. NBB, 07°40'N, 098°20'E, OS, 60 m, coll. N. Bruce and G. Dinesen, 27.11.1997; NSMT-Cr 13262, 1 juvenile, 9.0 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; PMBC 14685, 1 male, 19.5 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; PMBC 14686, 1 juvenile, 5.9 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 29 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13263, 5 males, 12.0–16.5 mm, 2 immature females, 10.5 and 11.7 mm, BIOSHELF St. PB7, 07°44'N, 098°41'E, OS, 32 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14687, 2 males, 15.5 and 16.0 mm, 8 females, 11.7–15.5 mm, 8 juveniles, 4.5–11.0 mm, BIOSHELF St. RN1, 07°30'N, 098°22'E, OS, 64

m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; PMBC 14688, 1 immature female, 13.0 mm, 3 juveniles, 4.4–5.6 mm, BIOSHELF St. RN1, 07°30'N, 098°22'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; NSMT-Cr 13264, 2 males, 11.6 and 18.9 mm, 3 females, 10.6–16.1 mm, 16 juveniles, 4.3–7.4 mm, BIOSHELF St. RN2, 07°26'N, 098°18'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; NSMT-Cr 13255, 2 males, 18.0 mm and damaged, 2 females, 15.8 and 17.0 mm, between Kai Is. and Dok Mai Is., T, 27.02.1998; PMBC 14665, 1 male, 17.0 mm, 1 juvenile, 7.7 mm, between Mai Thon Is. and PMBC, 07°48'N, 098°31'E, T, 24 m, coll. S. Bussarawit and C. Aungtonya, 27.02.1998; NSMT-Cr 13251, 3 males, 13.3–16.5 mm, 3 females, 14.4–15.6 mm, BIOSHELF St. J2–J1, 23.02.1998.

Geographical distribution

Indonesia (Hansen, 1910), the Andaman Sea (W.M. Tattersall, 1922; present study), Hawaii (Fage, 1940), Japan (W.M. Tattersall, 1951), the Philippines (Băcescu, 1985), New Caledonia (Casanova, 1996), and Madagascar (Casanova, 1997).

Paralophogaster macrops Colosi, 1934

Paralophogaster macrops Colosi, 1934: 43–44, figs 1–2 (type locality: Red Sea).– Coifmann, 1936: 11–12, fig. 4.– Gordan, 1957: 335 (list).– Mauchline and Murano, 1977: 69 (list).– Müller, 1993: 15 (list).

Material examined

PMBC 14689, 1 male, 7.1 mm, 2 juveniles, 5.1 mm and damaged, BIOSHELF St. A2, 09°29'N, 097°52'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; PMBC 14690, 1 juvenile, 5.2 mm, BIOSHELF St. D3, 08°45'N, 097°43'E, OS, 80 m, coll. S. Bussarawit and C. Aungtonya, 19.02.1998; PMBC 14691, 1 male, 9.5 mm, BIOSHELF St. E2, 08°31'N, 098°00'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; NSMT-Cr 13265, 1 male, 11.6 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S.

Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13266, 3 juveniles, 4.1–5.3 mm, BIOSHELF St. L3, 06°46'N, 098°45'E, OS, 83 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; NSMT-Cr 13267, 3 males, 7.7–9.3 mm, 1 female, 9.7 mm, BIOSHELF St. RN1, 07°30'N, 098°22'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; PMBC 14692, 5 males, 6.7–8.0 mm, 3 females, 7.8–9.0 mm, BIOSHELF St. RN2, 07°26'N, 098°18'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Geographical distribution

The Red Sea (Colosi, 1935; Coifmann, 1936) and the Andaman Sea (present study).

Suborder Mysida

Family Mysidae

Subfamily Siriellinae

Tribe Siriellini

Hemisiriella parva Hansen, 1910

Hemisiriella parva Hansen, 1910: 47–48, pl. 6, fig. 2 (type locality: Indonesia).– Zimmer, 1918: 16–17, figs 5–7.– Colosi, 1919: 6; 1920: 236–237.– W.M. Tattersall, 1922: 456–457; 1936: 147; 1943: 66; 1951: 80.– Illig, 1930: 565 (key).– Gordan, 1957: 352 (list).– Pillai, 1964: 13–15, fig. 7.– Ii, 1964: 161–166, figs 42–43.– Pillai, 1965: 1694.– O.S. Tattersall, 1965: 78.– Pillai, 1973: 53–56, figs 22–23.– Mauchline and Murano, 1977: 58 (list).– Müller, 1993: 39 (list).– Wang and Liu, 1994: 89–91, fig. 13.

Material examined

NSMT-Cr 13268, 4 males, 5.3–6.2 mm, 1 female, 7.2 mm, 1 immature female, 4.0 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC

14693, 12 males, 4.2–5.2 mm, 15 females, 4.8–6.3 mm, 2 immature females, 4.2 and 4.5 mm, 1 juvenile, 4.1 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; PMBC 14694, 2 immature males, 3.9 and 5.5 mm, BIOSHELF St. J2, 07°15'N, 098°51'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; PMBC 14695, 1 immature female, 4.3 mm, BIOSHELF St. K3, 06°59'N, 098°42'E, OS, 82 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14696, 2 males, 6.4 and 6.5 mm, 5 females, 5.4–7.7 mm, BIOSHELF St. L2, 06°44'N, 099°05'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; NSMT-Cr 13269, 1 male, damaged, 1 female, 5.3 mm, BIOSHELF St. L3, 06°46'N, 098°45'E, OS, 83 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14697, 1 immature male, damaged, BIOSHELF St. NBB, 07°40'N, 098°20'E, OS, 60 m, coll. N. Bruce and G. Dinesen, 27.11.1997; PMBC 14698, 1 female, 6.1 mm, BIOSHELF St. NBC, 07°43'N, 098°24'E, OS, 43 m, coll. N. Bruce and G. Dinesen, 03.12.1997; PMBC 14699, 1 immature male, 4.9 mm, 1 immature female, 6.2 mm, BIOSHELF St. PB8, 07°4'N, 098°51'E, OS, 19 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1997; NSMT-Cr 13270, 1 male, 5.0 mm, 1 female, damaged, BIOSHELF St. RN1, 07°30'N, 098°22'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; NSMT-Cr 13271, 1 immature male, 4.9 mm, BIOSHELF St. RN1, 07°30'N, 098°22'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Geographical distribution

Indonesia (Hansen, 1910; Zimmer, 1918), Sri Lanka (Colosi, 1919; 1920), the Andaman Sea (W.M. Tattersall, 1922; Pillai, 1973; present study), the Great Barrier Reef (W.M. Tattersall, 1936), Micronesia, Polynesia (W.M. Tattersall, 1943), the Philippines (W.M. Tattersall, 1951), Indian Ocean (Pillai, 1964; 1973), the South China Sea (Ii, 1964; Wang and Liu, 1994), and the Strait of Malacca (O.S. Tattersall, 1965).

***Siriella dubia* Hansen, 1910**

Siriella dubia Hansen, 1910: 44–45, pl. 5, fig. 4 (type locality: Indonesia).– W.M. Tattersall, 1922: 455–456, fig. 5; 1936: 146–147, fig. 1; 1951: 79–80.– Illig, 1930: 560 (key).– Gordan, 1957: 379 (list).– Pillai, 1964: 7–8, fig. 2; 1965: 1688–1689, fig. 8.– Ii, 1964: 131–135, fig. 35.– O.S. Tattersall, 1965: 77–78.– Mauchline and Murano, 1977: 76 (list).– Müller, 1993: 46 (list).– Wang and Liu, 1994: 76–78, fig. 7.

Material examined

PMBC 14700, 1 immature female, 4.9 mm, BIOSHELF St. H1, 07°45'N, 098°16'E, OS, 35 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; NSMT-Cr 13272, 1 male, 5.7 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; PMBC 14701, 2 males, 5.5 and 7.0 mm, 2 females, 5.7 and 8.0 mm, BIOSHELF St. J2, 07°15'N, 098°51'E, OS, 42 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; NSMT-Cr 13273, 1 immature female, 5.3 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC 14702, 1 immature female, 5.6 mm, BIOSHELF St. L1, 06°46'N, 099°21'E, OS, 38 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC 14703, 1 male, 7.0 mm, 2 immature males, 5.1 and 5.7 mm, 2 females, 5.7 and 7.2 mm, 1 immature female, 5.6 mm, 2 juveniles, 3.8 mm and damaged, BIOSHELF St. NBA 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; NSMT-Cr 13274, 1 male, 7.6 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13275, 1 male, 7.3 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 29 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr, 13276, 2 males, 6.0 and 6.4 mm, 4 females, 5.8–6.4 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; PMBC 14704, 7 males, 6.0–6.6 mm, 4 females, 5.3–6.7 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997.

Geographical distribution

Indonesia (Hansen, 1910), the Andaman Islands (W.M. Tattersall, 1922), the Great Barrier Reef (W.M. Tattersall, 1936), the Philippines (W.M. Tattersall, 1951), the Arabian Sea (Pillai, 1964), the South China Sea (Ii, 1964; Wang and Liu, 1994), the Strait of Malacca (O.S. Tattersall, 1965), and the Andaman Sea (Present study).

***Siriella gracilis* Dana, 1852**

Siriella gracilis Dana, 1852: 685 (type locality: Pacific Ocean).– G.O. Sars, 1885: 209–210, pl. 36, figs 25–28.– Ortmann, 1894: 107; 1905: 972.– Hansen, 1910: 31–32; 1912: 193–194.– Colosi, 1919: 6; 1920: 235–236.– Illig, 1930: 419, 561 (key).– Coifmann, 1936: 25–26, fig. 14.– W.M. Tattersall, 1951: 62.– O.S. Tattersall, 1955: 86.– Gordan, 1957: 379 (list).– Pillai, 1964: 6–7.– Ii, 1964: 72–78, fig. 16.– Pillai, 1965: 1693–1694; 1973: 41–42, fig. 12.– Mauchline and Murano, 1977: 76 (list).– Müller, 1993 : 47 (list).– Wang and Liu, 1994: 78–80, fig. 8.

Material examined

PMBC 14705, 1 male, 5.2 mm, BIOSHELF St. E2, 08°31'N, 098°00'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996.

Geographical distribution

The Arafura Sea, north of New Guinea (G.O. Sars, 1885), the Philippines (G.O. Sars, 1885; W.M. Tattersall, 1951), Galapagos, south-east of Acapulco, Mexico (Ortmann, 1894), Hawaii (Ortmann, 1905), Indonesia (Hansen, 1910; Colosi, 1920), East Pacific (Hansen, 1912), Torres Strait (Colosi, 1919), Cocos Islands, Chagos Islands, Gulf of Aden (Illig, 1930), Red Sea (1936), north-west of the Seychelles (O.S. Tattersall, 1955), Arabian Sea, south off India (Pillai, 1964), north-east off Japan (Ii, 1964), the South China Sea (Wang and Liu, 1994), and the Andaman Sea (present study).

***Siriella vulgaris* Hansen, 1910**

Siriella vulgaris Hansen, 1910: 34–35, pl. 3, fig. 2 (type locality: Indonesia).– W.M. Tattersall, 1922: 454.– Colosi, 1924: 3.– W.M. Tattersall, 1928: 105; 1936: 145.– Coifmann, 1937: 3.– W.M. Tattersall, 1943: 65; 1951: 62–63.– Gordan, 1957: 381 (list).– O.S. Tattersall, 1960a: 166–167; 1965: 76–77.– Mauchline and Murano, 1977: 77 (list).– Murano, 1990: 193–194, fig. 5.– Müller, 1993: 56 (list).– Fukuoka and Murano, 1997: 521–522, fig. 2F–G.

Material examined

NSMT-Cr 13277, 1 female, 7.8 mm, BIOSHELF St. G1, 08°00'N, 098°14'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya, 24.04.1996; PMBC 14706, 2 immature females, 4.6 and 4.7 mm, BIOSHELF St. NBA, 07°34'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.12.1997; PMBC 14707, 1 male, 7.4 mm, BIOSHELF St. H2, 07°45'N, 098°15'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 09.05.1996; NSMT-Cr 13278, 1 male, 6.7 mm, 2 females, 6.5 mm and damaged, BIOSHELF St. J2, 07°15'N, 098°51'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; PMBC 14708, 1 immature male, 4.2 mm, 1 female, damaged, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC 14709, 1 immature female, 5.2 mm, BIOSHELF St. K1, 07°00'N, 099°15'E, OS, 45 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC 14710, 1 female, 6.1 mm, BIOSHELF St. L1, 06°46'N, 099°21'E, OS, 38 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; NSMT-Cr 13279, 1 male, 7.5 mm, 1 female, 8.6 mm, BIOSHELF St. L2, 06°44'N, 099°05'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; NSMT-Cr 13280, 2 juveniles, 3.4 mm and damaged, BIOSHELF St. NBA, 07°37'N, 098°17'E, 50 m, OS, coll. N. Bruce and G. Dinesen, 23.11.1997; NSMT-Cr 13281, 1 male, 4.3 mm, 1 immature female, 3.8 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, 40 m, OS, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13282, 1 male, damaged, 1 female, 4.6 mm, 2 immature females, 3.7 and

3.8 mm, 14 juveniles, 2.3–3.0 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, 28 m, OS, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14711, 1 male, 7.0 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, 29 m, OS, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14712, 1 female, 6.2 mm, 3 immature females, 3.8–5.0 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, 31 m, OS, coll. S. Bussarawit, 22.04.1997; PMBC 14713, 3 females, 5.3–6.5 mm, 1 immature female, 4.5 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; NSMT-Cr 13283, 5 males, 4.4–6.5 mm, 2 immature males, 4.4 and 5.3 mm, 9 females, 5.5–5.7 mm, 1 immature female, 5.0 mm, 16 juveniles, 3.5–4.3 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; PMBC 14714, 15 males, 5.5–6.5 mm, 7 immature males, 3.8–4.3 mm, 8 females, 5.2–6.7 mm, 7 immature females, 3.9–4.1 mm, 9 juveniles, 2.2–4.2 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997.

Geographical distribution

Indonesia (Hansen, 1910; O.S. Tattersall, 1965), Andaman Islands (W.M. Tattersall, 1922), Arabian Sea (Colosi, 1924), Australia (W.M. Tattersall, 1928; 1936), Samoa, Guam (W.M. Tattersall, 1943), the Philippines (W.M. Tattersall, 1951), the Strait of Singapore (O.S. Tattersall, 1960), Japan (Murano, 1990; Fukuoka and Murano, 1997), and the Andaman Sea (present study).

Subfamily Rhopalophthalminae***Rhopalophthalmus macropsis* Pillai, 1964**

Rhopalophthalmus macropsis Pillai, 1964: 15–17, fig. 8 (type locality: Arabian Sea).– Ii, 1964: 180–185 (in part), fig. 47N.– Pillai, 1965: 1697, fig. 26; 1973: 56–57, fig. 24.– Mauchline and Murano, 1977: 75 (list).– Müller, 1993: 60 (list).

Rhopalophthalmus longipes Ii, 1964: 180–185 (in part), figs 46, 47A–M (type locality: Japan).–

Mauchline and Murano, 1977: 75 (list).— Müller, 1993: 60 (list).— Wang and Liu, 1994: 91–93, fig. 14; 1997: 204–205.

Material examined

PMBC 14715, 2 males, 7.2 and 8.0 mm, 1 female, 8.0 mm, 1 immature female, 6.2 mm, BIOSHELF St. C1, 09°00'N, 098°03'E, BC, 40 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996.

Remarks

Pillai (1964) described *Rhopalophthalmus macropsis* from a single male specimen collected from the Arabian Sea. In the same year, Ii described *Rhopalophthalmus longipes* based on specimens from Japanese waters, also identifying specimens from the South China Sea as this species. There remained some doubts about the South China Sea specimens, because the lateral spines of the telson were somewhat fewer in number and more stout than those of the type specimens (Ii, 1964). In 1973, Pillai judged that the atypical specimens reported by Ii (1964) belonged to *R. macropsis* and not to *R. longipes*, and emphasised that there were clear differences in the shape and armature of the telson between the two species *R. macropsis* and *R. longipes*. Later, Wang and Liu (1994) reported *R. macropsis* to be a synonym of *R. longipes*, but *R. macropsis* is a valid species for the principle of priority.

Geographical distribution

The Arabian Sea (Pillai, 1964), Japan (Ii, 1964), the South China Sea (Ii, 1964; Wang and Liu, 1994), the Strait of Malacca (Pillai, 1973), the East China Sea (Wang and Liu, 1997), and the Andaman Sea (present study).

Subfamily Gastrosaccinae

Anchialina dentata Pillai, 1964

Anchialina dentata Pillai, 1964: 19–21, fig. 11 (type locality: Arabian Sea); 1965: 1702; 1973: 70–72, figs 33–34.— Mauchline and Murano, 1977: 46 (list).— Murano, 1990: 195.

Anchialina parva Ii, 1964: 196–201, figs 50–51 (type locality: South China Sea).— O.S. Tattersall, 1965: 83.

Material examined

NSMT-Cr 13284, 1 male, 4.4 mm, 1 immature male, 3.3 mm, 1 immature female, 3.6 mm, 3 juveniles, 2.5–2.8 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; PMBC 14717, 1 female, 4.4 mm, BIOSHELF St. C1, 09°00'N, 097°56'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; NSMT-Cr 13285, 2 males, 3.8 and 3.9 mm, 3 immature males, 3.4–3.6 mm, 5 females, 3.8–4.7 mm, 1 immature female, 3.4 mm, BIOSHELF St. E2, 08°31'N, 098°00'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; NSMT-Cr 13286, 1 male, 4.6 mm, BIOSHELF St. F2, 08°15'N, 098°03'E, OS, 66 m, coll. S. Bussarawit and C. Aungtonya, 16.02.1998; NSMT-Cr 13287, 1 immature male, 4.1 mm, 1 female, 6.0 mm, BIOSHELF St. G1, 08°00'N, 098°14'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya, 24.04.1996; PMBC 14718, 2 males, 4.2 and 4.3 mm, 2 immature males, 3.7 and 3.8 mm, 2 females, 3.8 and 4.5 mm, 3 immature females, 3.0–3.3 mm, 1 juvenile, 2.5 mm, BIOSHELF St. G2, 08°00'N, 098°10'E, OS, 63 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; PMBC 14719, 2 females, 4.8 and 4.8 mm, BIOSHELF St. G3, 08°00'N, 097°54'E, OS, 77 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; NSMT-Cr 13288, 4 males, 3.6–4.6 mm, 2 immature males, 4.3 mm and damaged, 6 females, 3.3–4.8 mm, 1 immature female, 3.0 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; PMBC 14720, 1 female 4.9 mm, BIOSHELF St. J3, 07°15'N, 098°36'E, OS, 79 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; NSMT-Cr 13289, 2 males, 4.3 mm and damaged, BIOSHELF St. K3, 06°59'N, 098°42'E, OS, 82 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14721, 1 female, 4.2 mm, BIOSHELF St. L2, 06°46'N, 099°04'E, BC, 59 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; NSMT-Cr 13290, 8 males, 4.6–4.7 mm, 2 immature males, 3.2 and

4.3 mm, 5 females 4.3–4.5 mm, 2 immature females, 3.3 and 4.0 mm, BIOSHELF St. L3, 06°46'N, 098°45'E, OS, 83 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14716, 1 female, 4.2 mm, 1 juvenile, 4.9 mm, BIOSHELF St. NBA, 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; PMBC 14722, 2 immature males, 4.6 and 5.0 mm, 6 females, 4.1–5.0 mm, 5 immature females, 3.3–3.7 mm, BIOSHELF St. NBB, 07°40'N, 098°20'E, OS, 60 m, coll. N. Bruce and G. Dinesen, 27.11.1997; PMBC 14723, 1 immature female, 5.0 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; PMBC 14724, 1 immature male, 3.7 mm, 1 female, 3.9 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 27.11.1997; NSMT-Cr 13291, 1 male, 4.8 mm, 1 immature male, 4.2 mm, 1 female, 4.3 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 27.11.1997; NSMT-Cr 13292, 2 juveniles, 2.6 and 3.1 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 31 m, coll. S. Bussarawit, 22.04.1997; PMBC 14725, 3 males, 4.1–4.9 mm, 1 female, 3.8 mm, BIOSHELF St. RN1, 07°30'N, 098°22'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; NSMT-Cr 13293, 1 female, 4.6 mm, BIOSHELF St. RN3, 07°30'N, 098°17'E, BC, 72 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Geographical distribution

The Arabian Sea (Pillai, 1964), the South China Sea (Ii, 1964), Indonesia (Ii, 1964), the Strait of Malacca (O.S. Tattersall, 1965), India (Pillai, 1973), the Andaman Sea (Pillai, 1973; present study), south off Java (Pillai, 1973), and Japan (Murano, 1990).

Anchialina typica orientalis Nouvel, 1971

Anchialina typica.— Hansen, 1910: 52–53, pl. 7, fig. 2; 1912: 196.— W.M. Tattersall, 1936: 96.— Pillai, 1964: 18–19, fig. 10.— Ii, 1964: 188–195, figs 48–49.— Pallai, 1973: 69–70, fig. 32.

Anchialina typica orientalis Nouvel, 1971: 328–329, figs 2–9.— Fukuoka and Murano, 1997: 523, fig. 3E.

Material examined

PMBC 14726, 1 male, 4.0 mm, 1 female, 3.3 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, BC, 43 m, coll. S. Bussarawit and C. Aungtonya, 18.04.1996; NSMT-Cr 13294, 1 female, 5.0 mm, 1 immature female, 3.4 mm, 1 juvenile, 3.0 mm, BIOSHELF St. C1, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; NSMT-Cr 13295, 2 males, 3.3 and 3.7 mm, 26 females, 3.6–4.4 mm, 1 immature female, 3.0 mm, 1 juvenile, 2.5 mm, BIOSHELF St. E20m, 08°30'N, 098°12'E, OS, 20 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14727, 4 males, 3.4–3.8 mm, 1 female, 3.4 mm, BIOSHELF St. G2, 08°00'N, 098°10'E, OS, 63 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; NSMT-Cr 13296, 1 male, 4.6 mm, BIOSHELF St. H2, 07°45'N, 098°15'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 09.05.1996; NSMT-Cr 13297, 1 male, 4.2 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; NSMT-Cr 13298, 3 immature males, 3.0–4.3 mm, 10 females, 3.1–6.5 mm, 4 immature females, 2.6–4.1 mm, 2 juveniles, 2.2 and 3.0 mm, BIOSHELF St. NBA, 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; NSMT-Cr 13299, 1 immature male, 3.1 mm, 2 females, 3.5 mm and damaged, 3 juveniles, 2.7–3.2 mm, BIOSHELF St. NBB, 07°40'N, 098°20'E, OS, 60 m, coll. N. Bruce and G. Dinesen, 27.11.1997; NSMT-Cr 13300, 2 males, 3.8 and 4.1 mm, 1 female, 3.5 mm, 1 immature female, 3.1 mm, BIOSHELF St. NBC, 07°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; NSMT-Cr 13301, 1 female, 3.4 mm, BIOSHELF St. NBC, 07°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; PMBC 14728, 1 male, 4.3 mm, 1 immature male, 3.1 mm, 2 females, 3.3 and 4.2 mm, 1 juvenile, 2.7 mm, BIOSHELF St. NBD, 07°43'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; PMBC 14729, 1 juvenile, 2.5 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce

and G. Dinesen, 09.12.1997; PMBC 14730, 1 male, 4.5 mm, 1 female, 3.7 mm, 3 juveniles, 1.9–2.0 mm, BIOSHELFF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14731, 12 males, 2.3–3.5 mm, 12 females, 2.7–3.3 mm, 33 juveniles, 2.0–2.5 mm, BIOSHELFF St. PB3, 07°51'N, 098°31'E, OS, 20 m, coll. S. Bussarawit, 23.04.1997; NSMT-Cr 13302, 3 males, 4.0–4.2 mm, 7 immature females, 2.6–3.1 mm, BIOSHELFF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; PMBC 14732, 1 immature male, 3.7 mm, 2 immature females, 2.8 and 3.4 mm, 1 juvenile, 2.3 mm, BIOSHELFF St. PB6, coll. S. Bussarawit and C. Aungtonya, 22.04.1997; PMBC 14733, 1 immature female, 3.7 mm, 2 juveniles, 2.1 and 2.2 mm, BIOSHELFF St. PB7, 07°45'N, 098°41'E, 32 m, OS, coll. S. Bussarawit,

22.04.1997; PMBC 14734, 3 males, 4.5, 4.6 mm and damaged, 2 females, 3.3 and 3.4 mm, BIOSHELFF St. PB7, 07°45'N, 098°41'E, BC, 29 m, coll. S. Bussarawit, 22.04.1997; NSMT-Cr 13303, 15 males, 3.1–4.4 mm, 5 immature males, 2.6–2.7 mm, 13 females, 3.3–3.4 mm, 9 immature females, 2.7–2.9 mm, 12 juveniles, 1.7–2.7 mm, BIOSHELFF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997; PMBC 14735, 1 immature male, 2.7 mm, BIOSHELFF St. RY3, 007°36'N, 098°25'E, BC, 49 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Geographical distribution

Indian Ocean (Hansen, 1910; 1912; Pillai, 1964; 1973), the South China Sea (Ii, 1964), Japan (Fukuoka and Murano, 1997), and the Andaman Sea (present study).

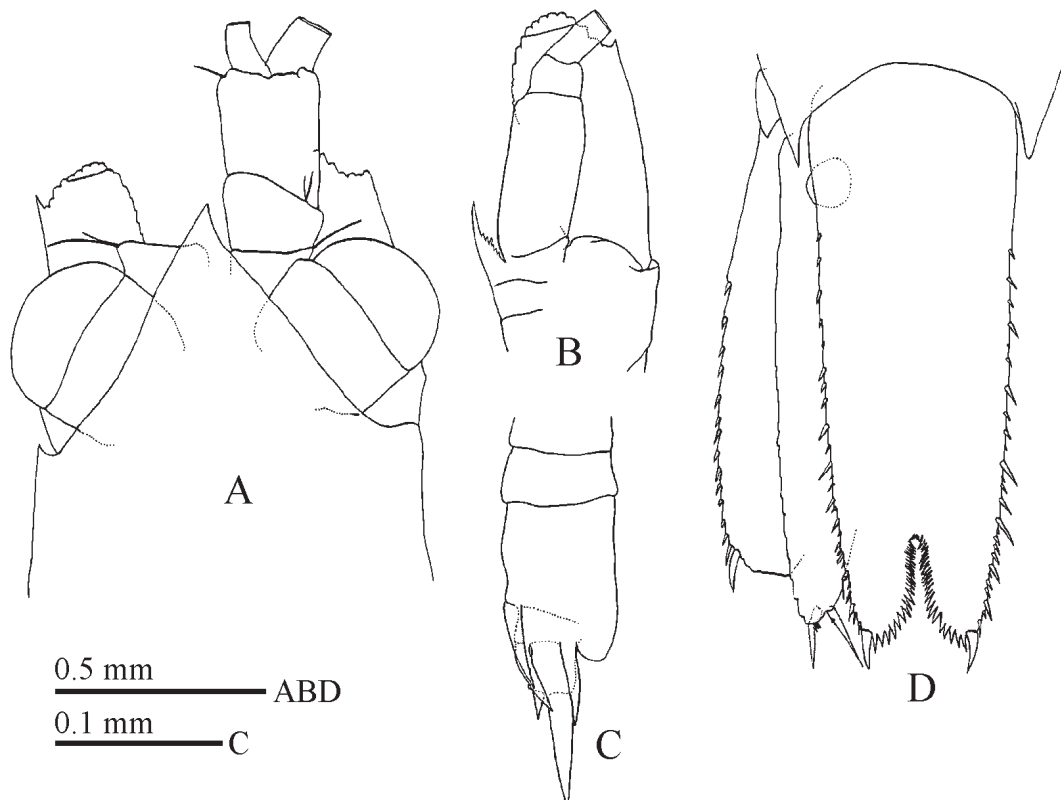


Figure 1 *Anchialina* sp. A, female (5.7 mm), PMBC-14742, BIOSHELFF St. NBD; B, female (5.7 mm), NSMT-Cr 13311, BIOSHELFF St. RN2; C, D, immature male (damaged), PMBC 14737, BIOSHELFF St. G1. A, anterior part of body in dorsal view; B, antenna; C, distal end of exopod of third pleopod; D, uropod and telson.

Anchialina sp.

(Fig. 1)

Material examined

PMBC 14736, 1 female, 5.4 mm, BIOSHELFF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13304, 2 female, 5.0 and 6.3 mm, BIOSHELFF St. C1, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14737, 1 immature female, damaged, BIOSHELFF St. G1, 08°00'N, 098°14'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya, 24.04.1996; NSMT-Cr 13305, 1 immature female, 3.0 mm, BIOSHELFF St. G2, 08°00'N, 098°10'E, OS, 63 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; NSMT-Cr 13306, 1 immature male, 5.4 mm, 1 female, damaged, 3 juvenile, 3.2–4.5 mm, BIOSHELFF St. H1, 07°45'N, 098°16'E, OS, 35 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14738, 1 female, 6.7 mm, 3 immature females, 4.0–4.8 mm, BIOSHELFF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; PMBC 14739, 1 immature male, 4.2 mm, BIOSHELFF St. K2, 07°00'N, 099°04'E, OS, 53 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14740, 2 immature males, 3.1 and 4.4 mm, 7 females, 5.5–6.8 mm, 9 immature females, 3.0–4.5 mm, 5 juveniles, 2.2–4.1 mm, BIOSHELFF St. NBA, 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; PMBC 14741, 1 female, 7.5 mm, BIOSHELFF St. NBB, 07°40'N, 098°20'E, OS, 60 m, coll. N. Bruce and G. Dinesen, 27.11.1997; NSMT-Cr 13307, 2 females, 4.0 and 5.7 mm, 2 juveniles, 3.2 and 3.3 mm, BIOSHELFF St. NBC, 07°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; NSMT-Cr 13308, 1 female, 5.2 mm, BIOSHELFF St. NBC, 07°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; PMBC 14742, 1 female, 5.7 mm, 1 immature female, 5.2 mm, 2 juveniles, 3.1 and 3.7 mm, BIOSHELFF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13309, 1 immature female, 5.0 mm, BIOSHELFF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13310, 1 immature female,

3.4 mm, BIOSHELFF St. PB6, 07°45'N, 098°32'E, OS, 30 m, coll. S. Bussarawit, 22.04.1997; PMBC 14743, 1 female, 6.5 mm, BIOSHELFF St. RN1, 07°30'N, 098°22'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; NSMT-Cr 13311, 1 female, 5.7 mm, 1 immature female, 4.2 mm, BIOSHELFF St. RN2, 07°26'N, 098°18'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Remarks

The present specimens comprise several immature males and numerous adult and immature females. The termination of the exopod of the third pleopod in immature male specimens indicates that this species belongs to the *grossa*-group. Specific identification is difficult because of the absence of the mature males that show the species-diagnostic characters.

***Gastrosaccus dunckeri* Zimmer, 1915**

Gastrosaccus dunckeri Zimmer, 1915: 165–167, figs 13–18.– W.M. Tattersall, 1922: 459.– Illig, 1930: 567 (key).– O.S. Tattersall, 1952: 175 (key).– Gordan, 1957: 3349 (list).– Pillai, 1957: 7, fig. III, 1–7.– O.S. Tattersall, 1958, 375–376; 1960a: 170–173, fig. 2.– Pillai, 1964: 17–18, fig. 9.– Li, 1964: 235–237, fig. 59.– Pillai, 1965: 1699, fig. 30.– Shyamasundari, 1973: 394–395.– Mauchline and Murano, 1977: 55 (list).– Müller, 1993: 75 (list).– Wang and Liu, 1997: 208.

Material examined

PMBC 14755, 1 immature male, 4.1 mm, BIOSHELFF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13223, 1 male, 6.7 mm, 1 immature male, 4.7 mm, BIOSHELFF St. PB3, 07°51'N, 098°31'E, OS, 20 m, coll. S. Bussarawit, 23.04.1997; PMBC 14756, 1 female, 6.6 mm, BIOSHELFF St. PB4, 07°52'N, 098°41'E, 32 m, coll. S. Bussarawit, 22.04.1997; PMBC 14757, 1 female, 5.4 mm, BIOSHELFF St. PB4, 07°52'N, 098°41'E, OS, 29 m, coll. S. Bussarawit and C.

Aungtonya, 21.02.1998; PMBC 14758, 2 males, 4.8 and 4.9 mm, 2 females, 4.4 and 6.0 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 31 m, coll. S. Bussarawit, 22.04.1997; NSMT-Cr 13224, 2 females, 6.5 and 7.2 mm, BIOSHELF St. PB7, 07°45'N, 098°41'E, BC, 29 m, coll. S. Bussarawit, 22.04.1997.

Geographical distribution

Sri Lanka to New Guinea (Zimmer, 1915), Orissa, the Bay of Bengal (W.M. Tattersall, 1922), India (Pillai, 1957; Shyamasundari, 1973), Mozambique (O.S. Tattersall, 1958), Singapore (O.S. Tattersall, 1960), the Arabian Sea (Pillai, 1964), the South China Sea (Ii, 1964), the East China Sea (Wang and Liu, 1997), and the Andaman Sea (present study).

Haplostylus bengalensis (Hansen, 1910)

Gastrosaccus bengalensis Hansen, 1910: 58–59 (type locality: Bay of Bengal).– Zimmer, 1915: 164–165.– W.M. Tattersall, 1922: 462.– Illig, 1930: 568 (key).– O.S. Tattersall, 1952: 176 (key); 1965: 81–82.– Gordan, 1957: 349 (list).– Ii, 1964: 256–261, figs 67–68.– Pillai, 1973: 59–61, figs 26–27.– Mauchline and Murano: 55 (list).– Băcescu and Udrescu, 1982: 88–89.– Murano, 1983: 82.– Müller, 1993: 73 (list).– Wang and Liu, 1997: 207–208.

Gastrosaccus bengalis.– Zimmer, 1918: 15.

Gastrosaccus philippinensis W.M. Tattersall, 1951: 90–93, fig. 25 (type locality: Philippines).

Haplostylus bengalensis.– Fenton, 1990: 449 (key).– Fukuoka and Murano, 1997: 525.

Material examined

NSMT-Cr 13312, 1 male, 4.3 mm, BIOSHELF St. C1, 09°00'N, 098°02'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; PMBC 14744, 1 male, 5.7 mm, 1 female, 5.9 mm, BIOSHELF St. G1, 08°00'N, 098°14'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya, 24.04.1996; NSMT-Cr 13313, 2 females, 4.9 and 5.4 mm, BIOSHELF St. G2, 08°00'N, 098°10'E,

OS, 63 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; PMBC 14745, 2 males, 5.6 and 6.8 mm, BIOSHELF St. H2, 07°45'N, 098°15'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 09.05.1996; NSMT-Cr 13315, 1 male, 5.2 mm, 2 immature females, 3.7 and 4.2 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; NSMT-Cr 13316, 1 male, 5.2 mm, BIOSHELF St. J2, 07°15'N, 098°51'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; PMBC 14746, 28 males, 4.3–5.8 mm, 3 immature males, 3.1–4.0 mm, 23 females, 5.2–6.5 mm, 2 immature females, 3.8 and 4.7 mm, 1 juvenile, 2.8 mm, BIOSHELF St. NBA, 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; PMBC 14747, 7 males, 4.9–5.8 mm, 1 immature male, 3.5 mm, 3 females, 5.7–6.0 mm, 1 immature female, 4.2 mm, BIOSHELF St. NBB, 07°40'N, 098°20'E, OS, 60 m, coll. N. Bruce and G. Dinesen, 27.11.1997; PMBC 14748, 1 female, 4.0 mm, BIOSHELF St. NBB, same data as PMBC 14747; NSMT-Cr 13317, 1 male, 4.0 mm, 4 females, 4.6–5.3 mm, 1 juvenile, 2.8 mm, BIOSHELF St. NBC, 07°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; PMBC 14749, 2 females, 5.8 and 6.2 mm, 1 immature female, 3.8 mm, BIOSHELF St. NBC, 07°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; NSMT-Cr 13318, 1 male, 4.8 mm, BIOSHELF St. NBC, 07°42'N, 098°25'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; NSMT-Cr 13319, 1 male, 5.2 mm, 1 juvenile, 2.8 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13320, 5 males, 4.0–5.7 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 31 m, coll. S. Bussarawit, 22.04.1997; PMBC 14750, 3 females, 4.6–5.7 mm, BIOSHELF St. PB7, 07°45'N, 098°41'E, OS, 32 m, coll. S. Bussarawit, 22.04.1997; NSMT-Cr 13322, 15 males, 4.4–5.1 mm, 1 immature male, 3.4 mm, 6 females, 4.2–4.8 mm, 1 immature female, 3.5 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997; PMBC 14751, 1 male, 4.8 mm, BIOSHELF St. RN1, 07°30'N, 098°22'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya,

08.05.1996; PMBC 14752, 1 male, 5.3 mm, BIOSHELF St. RN2, 07°26'N, 098°18'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996; NSMT-Cr 13314, 1 male, 4.4 mm, 1 juvenile, 3.5 mm, BIOSHELF St. H1, 07°45'N, 098°16'E, OS, 35 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; NSMT-Cr 13321, 4 males, 4.1–5.3 mm, 1 female, 6.4 mm, 2 immature females, 3.7 and 3.8 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997.

Geographical distribution

The Bay of Bengal (Hansen, 1910), Sri Lanka to New Guinea (Zimmer, 1915), off Taiwan (Zimmer, 1918), the Andaman Sea (W.M. Tattersall, 1922; Pillai, 1973; present study), the Philippines (W.M. Tattersall, 1951), the South China Sea, Indonesia (Ii, 1964), the Strait of Malacca (O.S. Tattersall, 1965), Moreton Bay, Australia (Băcescu and Udrescu, 1982), Enewetak Lagoon, Micronesia (Murano, 1983), Japan (Fukuoka and Murano, 1997), and the East China Sea (Wang and Liu, 1997).

Haplostylus pacificus (Hansen, 1912)

Gastrosaccus pacificus Hansen, 1912: 198–199, pl. 2, fig. 3 (type locality: Gilbert Islands).– W.M. Tattersall, 1922: 461–462, fig. 8; 1951: 90.– Gordan, 1957: 350 (list).– Ii, 1964: 255–256.– Mauchline and Murano, 1977: 56 (list).

Haplostylus pacificus.– Băcescu, 1979: 143.– Murano, 1990: 195–196.– Müller, 1993: 83 (list).– Fukuoka and Murano, 1997: 525–526.

Material examined

PMBC 14753, 2 males, 4.1 and 4.6 mm, 1 immature male, 3.4 mm, 1 juvenile, 3.5 mm, BIOSHELF St. E20m, 08°30'N, 098°12'E, OS, 20 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14754, 1 female, 6.0 mm, BIOSHELF St. RY2,

07°40'N, 098°24'E, OS, 44 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Geographical distribution

The Gilbert Islands (Hansen, 1912), the Andaman Islands (W.M. Tattersall, 1922), the Philippines (W.M. Tattersall, 1951), the Great Barrier Reef (Băcescu, 1979), Japan (Murano, 1990; Fukuoka and Murano, 1997), and the Andaman Sea (present study).

Pseudanchialina pusilla (G.O. Sars, 1883)

Promysis (?) *pusilla* G.O. Sars, 1883: 42 (type locality: Celebes Sea).

Anchialus pusillus.– G.O. Sars, 1885: 200–201, pl. 35, figs 19–20.

Pseudanchialina pusilla.– Hansen, 1910: 60–61, pl. 8, fig. 4, pl. 9, fig. 1.– W.M. Tattersall, 1936: 149.– Pillai, 1957: 9–10, fig. 4.– Gordan, 1957: 374 (list).– O.S. Tattersall, 1960a: 176–178, fig. 4.– Pillai, 1964: 21–22, fig. 12.– Ii, 1964: 217–218.– Shyamasundari, 1973: 396–397, pl. 4, figs 26–29.– Mauchline and Murano, 1977: 72 (list).– Wang and Liu, 1987: 228–229, fig. 12.– Müller, 1993: 86 (list).– Wang and Liu, 1994: 95.– Fukuoka and Murano, 1997: 525.

Material examined

PMBC 14759, 1 male, 2.4 mm, BIODEEP St. U10, 07°25'N, 096°18'E, TD, 878 m, coll. S. Bussarawit, 12.04.1997.

Geographical distribution

The Celebes Sea (G.O. Sars, 1883; 1885), Indonesia, the Bay of Bengal (Hansen, 1910; Pillai, 1973), the Great Barrier Reef (W.M. Tattersall, 1936), India (Pillai, 1957; Shyamasundari, 1973), the Strait of Malacca (O.S. Tattersall, 1960), the Arabian Sea (Pillai, 1964; 1973), the South China Sea (Wang and Liu, 1987; 1994), Japan (Fukuoka and Murano, 1997), and the Andaman Sea (present study).

Subfamily Mysinae**Tribe Erythropini***Erythropus minuta* Hansen, 1910

Erythropus minuta Hansen, 1910: 63 (type locality: Gulf of Thailand).— W.M. Tattersall, 1922: 462–463, fig. 9.— Illig, 1930: 576 (key).— Gordan, 1957: 348 (list).— O.S. Tattersall, 1960a: 178.— Ii, 1964: 352–355, fig. 89.— Pillai, 1965: 1704–1705, fig. 49.— O.S. Tattersall, 1965: 87.— Pillai, 1973: 77–79, figs 38–39.— Mauchline and Murano, 1977: 54 (list).— Liu and Wang, 1986: 161–162, fig. 1.— Shen *et al.*, 1989: 201–202, fig. 6.— Müller, 1993: 105 (list).— Wang and Liu, 1997: 212.

Erythropus sp. Pillai, 1964: 22–24, fig. 13; 1965: 1705, fig. 50.

Material examined

PMBC 14760, 1 male, 2.8 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; PMBC 14761, 1 female, 2.5 mm, BIOSHELF St. J1, 07°15'N, 099°04'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 23.02.1998; NSTM-Cr 13225, 2 males, 2.6 and 2.7 mm, 4 juveniles, 2.2–2.4 mm, BIOSHELF St. K2, 07°00'N, 099°04'E, OS, 53 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14762, 1 male, 2.7 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13226, 2 males, 2.2 and 2.3 mm, 6 females, 2.0–2.3 mm, 2 juveniles, 2.5 and 3.0 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13227, 4 males, 2.3–2.9 mm, BIOSHELF St. PB7, 07°44'N, 098°41'E, OS, 32 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14763, 16 males, 2.6–2.7 mm, 29 females, 2.2–2.5 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997.

Remarks

Ii (1964) described a slight modification to the setae on the penultimate and antepenultimate

segments of the endopod of the fourth male pleopod. In present specimens, the presence of these setae is confirmed.

Geographical distribution

The Gulf of Thailand (Hansen, 1910), the Gulf of Manaar (W.M. Tattersall, 1922), Singapore (O.S. Tattersall, 1960), the Arabian Sea (Pillai, 1964; 1973), Taiwan (Ii, 1964), the Strait of Malacca (O.S. Tattersall, 1965), the South China Sea (Liu and Wang, 1986), the Yellow Sea (Shen *et al.*, 1989), the East China Sea (Wang and Liu, 1997), and the Andaman Sea (present study).

Erythropus phuketensis sp. nov.
(Fig. 2)

Material examined

Holotype: PMBC 14651, 1 male, 3.2 mm, BIOSHELF St. I2, 07°30'N, 098°30'E, OS, 59 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998.

Paratype: NSMT-Cr 13328, 1 male, 3.4 mm, same data as holotype.

Description

Integument smooth. Male thoracic somites without sternal processes.

Carapace short, leaving eyes and antennular peduncles uncovered, anterior margin slightly produced into triangular rostrum with broadly rounded apex and concave lateral margins (Fig. 2A); anterolateral corner rounded; posterior margin emarginate, leaving last thoracic somite exposed dorsally.

Eye dorsoventrally depressed; cornea reniform in dorsal view, wider than eyestalk; eyestalk with small papilliform process on dorsal surface (Fig. 2A).

Antennular peduncle robust, proximal segment with outer distal corner produced, extending beyond distal margin of second segment, tipped with several setae (Fig. 2A).

Antennal scale slightly overreaching distal margin of antennular peduncle, 4.4 times as long as broad, outer margin parallel to inner margin over almost entire length, nearly straight, naked, termi-

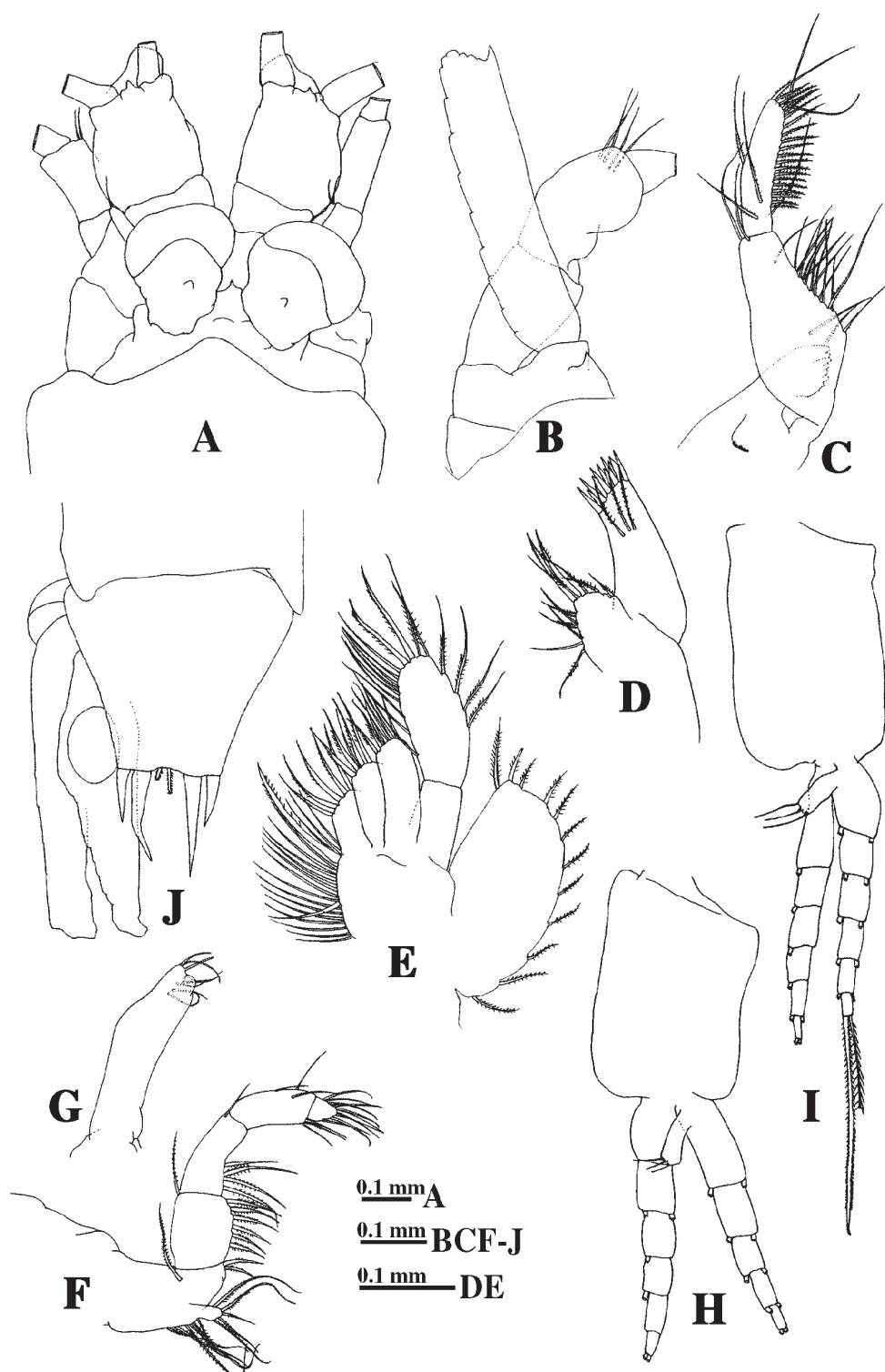


Figure 2 *Erythropis phuketensis* sp. nov. Holotype (male). A, anterior part of body in dorsal view; B, antenna; C, mandible; D, maxillule; E, maxilla; F, endopod of first thoracic limb; G, penis in lateral view; H, second pleopod; I, fourth pleopod; J, uropod and telson.

nating in acute spine, that does not extend beyond apex of scale (Fig. 2B). Antennal peduncle extending to distal 2/5 of scale, third segment longest, 1.1 times as long as second (Fig. 2B). Antennal sympod with spiniform process at outer angle (Fig. 2B).

Labrum without spine on anterior margin. Mandibular palp and maxillule as shown in Fig. 2C and D, respectively. Maxilla with second segment of endopod twice as long as broad; exopod large, armed with 12 plumose setae on outer and apical margins (Fig. 2E).

Endopod of first thoracic limb as shown in Fig. 2F. Endopod of second to eighth thoracic limbs missing.

Penis of male cylindrical, armed on distal margin with about 7 setae curved medially (Fig. 2G).

First to fifth abdominal somites subequal in length, sixth somite 1.5 times as long as fifth.

Pleopods of male well-developed, biramous; second pair with 5-segmented endopod and 6-seg-

mented exopod, that are almost equal in length (Fig. 2H); fourth pair with 6-segmented endopod, ultimate segment armed with 2 terminal setae, outer one more robust, terminating in small hook, armed with minute setae except for distal 1/9 naked, exopod 6-segmented, longer than endopod (Fig. 2I); fifth pair with 7-segmented endopod, exopod broken off. First and third pairs broken off. Pseudobranchial lobe of male pleopods narrowly rectangular (Fig. 2H, I).

Exact details of uropod unknown due to damage; endopod without spines on inner margin of statocyst region.

Telson trapezoidal (Fig. 2J), about half of sixth abdominal somite in length, about 5/6 length of maximum breadth at base; lateral margin slightly concave, unarmed with spines, very weakly serrated; distal margin truncate, about half as broad as at base, armed with pair of median plumose setae and 2 pairs of spines, inner pair of spines long, stout, about twice as long as outer, nearly half as long as telson (Fig. 2J).

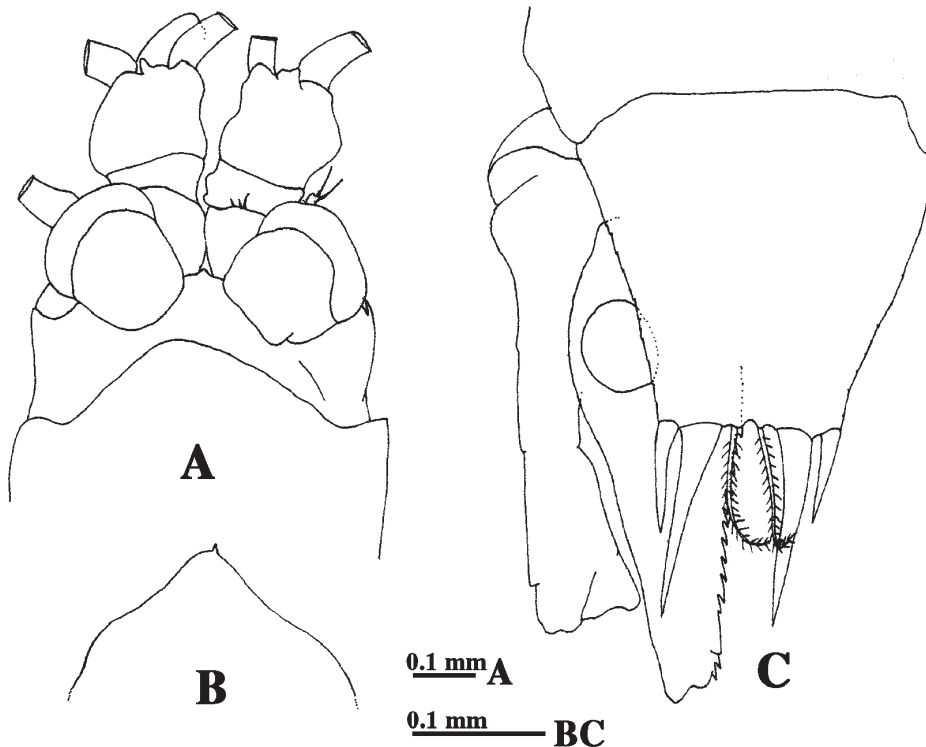


Figure 3 *Erythropis* sp. Immature male (2.7 mm), PMBC-14768, BIOSHELF St. I2. A, anterior part of body in dorsal view; B, anterior part of labrum in ventral view; C, uropod and telson.

Etymology

The specific name is derived from the type locality, Phuket Island.

Remarks

Erythroops phuketensis is closely allied to *Erythroops frontieri* Nouvel, 1974, but differs from the latter species as follows. (1) The apex of the antennal scale slightly overreaches the apex of the terminal spine of the lateral margin in *E. phuketensis*, whereas it does not reach the middle of the terminal spine in *E. frontieri*. (2) The endopod of the male fourth pleopod is armed with a modified seta on only the ultimate segment in *E. phuketensis* while modified setae arise from both the penultimate and antepenultimate segments in *E. frontieri*. (3) The endopod of the uropod of male does not bear spines or denticles in the statocyst region in *E. phuketensis*, but there are denticles in *E. frontieri*.

***Erythroops* sp.**
(Fig. 3)

Material examined

NSMT-Cr 13329, 1 immature female, 2.2 mm, BIOSHELF St. A2, 09°29'N, 097°52'E, 61 m, OS, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; PMBC 14764, 1 male, 2.8 mm, 1 female, 2.5 mm, BIOSHELF St. B1, 09°14'N, 098°00'E, OS, 45 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; NSMT-Cr 13330, 2 females, 2.8 and 3.3 mm, BIOSHELF St. C1, 09°00'N, 098°02'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; PMBC 14765, 3 females, 3.0–3.3 mm, 2 juveniles, 2.0 and 2.7 mm, BIOSHELF St. D3, 08°45'N, 097°43'E, OS, 80 m, coll. S. Bussarawit and C. Aungtonya, 19.02.1998; PMBC 14766, 9 females, 2.5–3.3 mm, BIOSHELF St. G1, 08°00'N, 098°12'E, OS, 49 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14767, 1 immature female, 2.9 mm, BIOSHELF St. G2, 07°59'N, 098°08'E, OS, 72 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14768, 2 males, 3.0 and 3.5 mm, 7 immature males, 2.0–2.8 mm, 2 females, 2.9 and 3.0 mm, 4 immature females,

2.4–2.7 mm, 14 juveniles, 1.5–2.5 mm, BIOSHELF St. I2, 07°30'N, 098°30'E, OS, 59 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13331, 1 male, 3.4 mm, 8 females, 2.5–2.8 mm, BIOSHELF St. I3, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13332, 1 male, 3.7 mm, 9 females, 2.7–3.4 mm, 17 juveniles, 2.0–3.0 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14769, 4 juveniles, 2.7–3.0 mm, BIOSHELF St. K2, 07°00'N, 099°04'E, OS, 53 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; NSMT-Cr 13333, 4 females, 2.3–3.3 mm, BIOSHELF St. T1, 07°02'N, 098°50'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14770, 1 immature female, 3.3 mm, BIOSHELF St. T2, 06°43'N, 098°57'E, 72 m, coll. S. Bussarawit and C. Aungtonya, 25.02.1998; NSMT-Cr 13334, 1 female, 2.2 mm, BIOSHELF St. PB6, 07°43'N, 098°33'E, OS, 37 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998.

Remarks

This species is closely allied to *Erythroops phuketensis* in having an anteriorly short carapace and in the armature and shape of the telson, but differs slightly from the latter species as follows: (1) the eyestalk is provided with a small papilla in *E. phuketensis*, but these are absent in the present species (Fig. 3A); (2) the labrum of the present species is armed with a minute median spine on the anterior margin (Fig. 3B), whereas it is rounded and unarmed with spines in *E. phuketensis*; and (3) the endopod of the uropod of the present species is armed with serrulation along the inner margin (Fig. 3C), while it is unarmed in *E. phuketensis*.

This species is distinguished from the other species of *Erythroops* by the following combination of characters—rostral plate broadly rounded (Fig. 3A), antennal scale with a single spine terminating the naked outer margin, labrum with a median minute spine on the anterior margin, endopod of the uropod with the serrulated inner margin, and the spine arrangement of the telson.

Unfortunately, the present specimens do not include mature males, and all are damaged. Further examination of mature males is needed to decide the taxonomic position of this species.

Hypererythrops semispinosa Wang, 1998
(Fig. 4)

Hypererythrops semispinosa Wang, 1998: 216–218, fig. 8 (type locality: northern South China Sea).

Material examined

NSMT-Cr 13337, 1 male, 4.5 mm, BIOSHELF St. A2, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; PMBC 14771, 1 male, 3.8 mm, 2 females, 3.3 and 4.1

mm, BIOSHELF St. B1, 09°14'N, 098°00'E, OS, 45 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; PMBC 14772, 1 male, 4.7 mm, 3 female, 3.5–3.8 mm, BIOSHELF St. C2, 09°00'N, 097°56'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; PMBC 14773, 1 immature male, 4.0 mm, BIOSHELF St. G2, 07°59'N, 098°08'E, OS, 72 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; NSMT-Cr 13335, 1 male, 4.8 mm, 1 female, 3.4 mm, BIOSHELF St. I2, 07°30'N, 098°30'E, OS, 59 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13338, 2 immature females, 3.7–3.8 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13336, 1 female, 4.5 mm, BIOSHELF St. T1, 07°02'N, 098°50'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998.

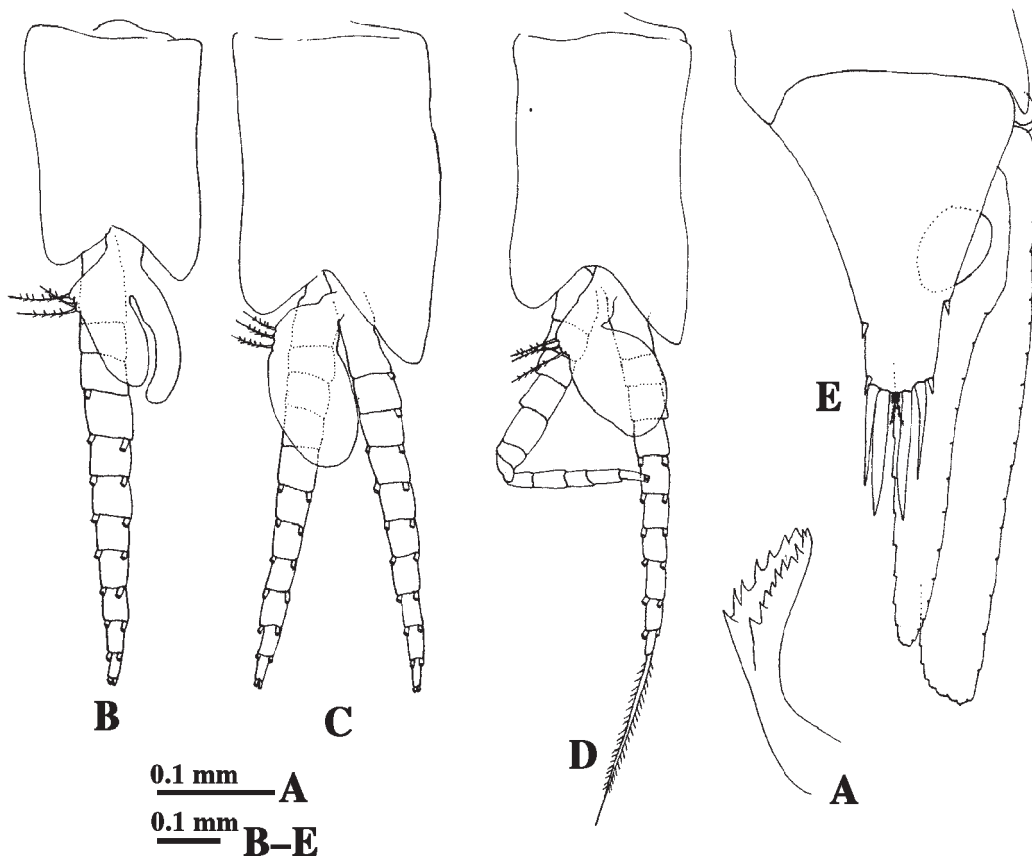


Figure 4 *Hypererythrops semispinosa* Wang, 1998. Male (4.7 mm), PMBC-14772, BIOSHELF St. C2. A, sternal process of fifth thoracic somite; B, first pleopod; C, second pleopod; D, fourth pleopod; E, uropod and telson.

Supplementary description

In male each of second to sixth thoracic somites with sternal process (Fig. 4A).

Eyestalk bear a papilla on dorsal surface.

Antennal sympod with single spiniform process at outer distal angle.

Labrum with tiny median spine on frontal margin.

Penis armed with several spiniform setae on distal margin.

Marsupium composed of 2 pairs of brood lamellae.

First pleopod of male biramous; endopod reduced to unsegmented lobe with pseudobranchial lobe largely expanded posteriorly; exopod 11-segmented (Fig. 4B). Second and third pleopods of male biramous; exopod 11-segmented, endopod 10-segmented, pseudobranchial lobe expanded posteriorly (Fig. 4C). Fourth pleopod of male biramous; ultimate segment of endopod armed with 1 modified seta terminally, which is more robust than other setae and naked for distal 1/5 (Fig. 4D).

Telson 4/5 length of sixth abdominal somite, 1.1 times as long as broad in male and 1.3 times as long as in female; lateral margin slightly concave, armed with 1 spine at about distal 1/4; distal margin less than 1/3 of telson width at base, armed with 4 pairs of spines, innermost pair of spines tiny, outermost pair of spines small, subequal to lateral spine, 2 middle pairs of spines long, inner middle pair of spines 5.5 times as long as outermost spine and 1.3 times longer than outer middle pair, median plumose setae present (Fig. 4E).

Remarks

The presence of the modified seta on the endopod of the male fourth pleopod in *Hypererythropros* was described first in the present species by Wang (1998).

The present specimens differ slightly from the original description as follows. (1) The modified seta of the endopod of the male fourth pleopod is armed with minute setae except for the distal 1/5 as against to the distal 1/3 to 2/3 in the type specimens [judged from Wang's Fig. 8 (12)]. (2) In the present specimens, the telson is armed medially with a pair of tiny spines and a pair of plumose

setae, whereas these spines and setae are not described nor drawn by Wang (1998).

Geographical distribution

The South China Sea (Wang, 1998), and the Andaman Sea (present study).

Hypererythropros spinifera (Hansen, 1910)
(Fig. 5)

Erythropros spinifera Hansen, 1910: 62–63, pl. 9, fig. 3 (type locality: Ceram Sea, Indonesia).—Gordan, 1957: 348 (list).

Hypererythropros spinifera.—W.M. Tattersall, 1922: 464–466, fig. 11.—Illig, 1930: 575 (list).—W.M. Tattersall, 1936: 150.—Gordan, 1957: 354 (list).—Pillai, 1964: 24–25, fig. 14.—Ii, 1964: 328–330, fig. 85.—Pillai, 1965: 1705, fig. 51.—O.S. Tattersall, 1965: 89–90.—Mauchline and Murano, 1977: 61 (list).—Valbonesi and Murano, 1980: 215.—Liu and Wang, 1986: 164–165, fig. 3.—Müller, 1993: 117 (list).—Wang and Liu, 1994: 96–97.—1997: 210.

Material examined

NSMT-Cr 13339, 1 female, 4.2 mm, BIOSHELF St. A2, 09°29'N, 097°52'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13340, 1 male, 3.8 mm, 2 females, 3.3 and 4.1 mm, BIOSHELF St. B1, 09°14'N, 098°00'E, OS, 45 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; PMBC 14774, 1 female, damaged, BIOSHELF St. C2, 09°00'N, 097°56'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; NSMT-Cr 13341, 1 male, 4.3 mm, 2 females, 4.0 and 4.7 mm, BIOSHELF St. C1, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; NSMT-Cr 13342, 1 immature male, 4.3 mm, 2 females, 4.6 and 4.8 mm, 3 immature females, 3.7–4.8 mm, 1 juvenile, 2.8 mm, BIOSHELF St. D3, 08°45'N, 097°43'E, OS, 80 m, coll. S. Bussarawit and C. Aungtonya, 19.02.1998; NSMT-Cr 13343, 3 females, 4.0–4.5 mm, 1 juvenile, 2.8 mm, BIOSHELF St. E2, 08°31'N, 098°00'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14775, 1 male, 5.1

mm, 8 females, 2.9–5.1 mm, BIOSHELF St. G1, 08°00'N, 098°12'E, OS, 49 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14776, 1 female, 4.2 mm, BIOSHELF St. G2, 07°59'N, 098°08'E, OS, 72 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14777, 1 female, 4.3 mm, 1 juvenile, 2.3 mm, BIOSHELF St. G3, 08°00'N, 097°54'E, OS, 77 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; PMBC 14778, 1 male, 5.2 mm, BIOSHELF St. H1, 07°46'N, 098°16'E, OS, 40 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14779, 1 male, 4.9 mm, BIOSHELF St. I2, 07°30'N, 098°30'E, OS,

59 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13344, 3 females, 3.3–3.8 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; NSMT-Cr 13345, 1 male, 4.4 mm, 4 females, 4.3–5.7 mm, 4 juveniles, 3.2–3.3 mm, BIOSHELF St. I3, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14780, 2 females, 3.3 and 4.0 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14781, 1 male, damaged, 1 female, damaged, BIOSHELF St. I3–I2, same data

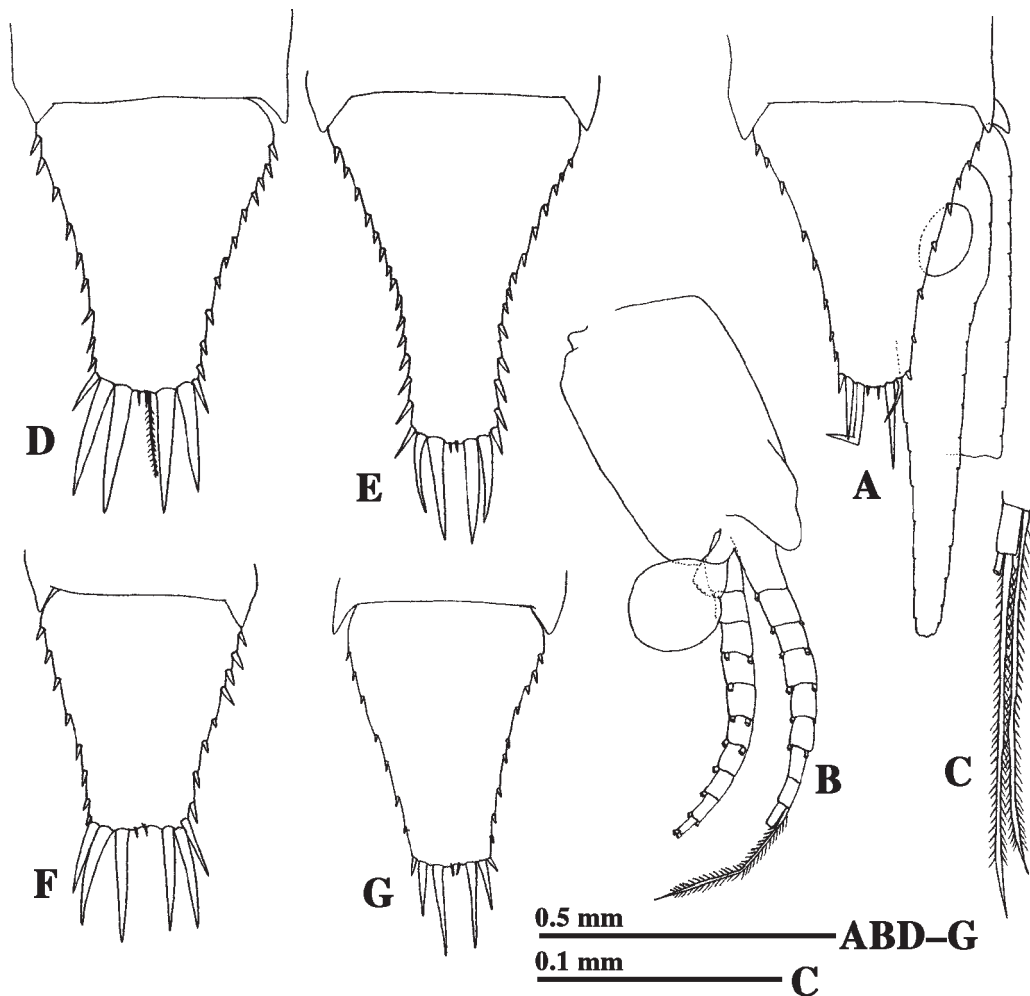


Figure 5 *Hypererythrops spinifera* (Hansen, 1910). A–C, male (4.3 mm), NSMT-Cr 13341, BIOSHELF St. C1; D, male (5.1 mm), PMBC-14775, BIOSHELF St. G1; E, male (4.9 mm), PMBC-14779, BIOSHELF St. I2; F, male (4.3 mm), NSMT-Cr 13342, BIOSHELF St. D3; G, male (4.0 mm), PMBC-14788, BIOSHELF St. L2. A, uropod and telson; B, fourth pleopod; C, distal part of endopod of fourth pleopod; D–G, telson.

as PMBC 14780; PMBC 14782, 1 immature female, 4.6 mm, BIOSHELF St. J1, 07°15'N, 099°04'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 23.02.1998; PMBC 14783, 2 males, 4.0 and 4.2 mm, BIOSHELF St. J2, 07°15'N, 098°51'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; NSMT-Cr 13346, 1 immature female, 3.8 mm, BIOSHELF St. J3, 07°15'N, 098°36'E, OS, 77 m, coll. S. Bussarawit and C. Aungtonya, 23.02.1998; PMBC 14784, 1 immature female, 4.0 mm, BIOSHELF St. K3, 06°59'N, 098°42'E, OS, 82 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14785, 2 juveniles, 2.9 and 3.8 mm, BIOSHELF St. T1, 07°02'N, 098°50'E, OS, 75 m coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14786, 1 immature female, 4.0 mm, BIOSHELF St. L1, 06°46'N, 099°21'E, OS, 38 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC 14787, 1 female, damaged, BIOSHELF St. L1, 06°49'N, 099°21'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14788, 3 males, 4.2–4.4 mm, 3 females, 4.0–4.6 mm, BIOSHELF St. L2, 06°44'N, 099°05'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14789, 1 immature female, 3.8 mm, BIOSHELF St. NBA, 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; NSMT-Cr 13347, 2 juvenile, 2.4 and 3.8 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13348, 1 male, 4.4 mm, 1 juvenile, 2.3 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13349, 1 female, 4.2 mm, BIOSHELF St. PB6, 07°43'N, 098°33'E, OS, 37 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14790, 2 females, 3.8 and 3.9 mm, 3 immature females, 3.1–3.2 mm, 2 juveniles, 1.9 and 2.3 mm, BIOSHELF St. PB7, 07°44'N, 098°41'E, OS, 32 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14791, 1 immature female, 3.8 mm, BIOSHELF St. RN2, 07°26'N, 098°18'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Remarks

W.M. Tattersall (1922) noted the differences compared to the original description (Hansen, 1910) with respect to the armature of the telson of the specimens collected from the Port Blair, the Andaman Islands. In the type specimens the lateral margin of the telson has 10–13 spines spaced at regular intervals, while in some specimens from the Port Blair the lateral margin is armed with 5–9 spines arranged at irregular intervals. Furthermore, two pairs of the long apical spines of the telson varied in length (W.M. Tattersall, 1922), *i.e.* in some specimens the outer spine was slightly shorter than the inner, but in other specimens the outer spine was considerably shorter than the inner. W.M. Tattersall judged this to be intraspecific variations. O.S. Tattersall (1965) also noted similar variations in her specimens from the northern Strait of Malacca. Pillai (1964), who examined *H. spinifera* collected from the Arabian Sea, observed that the lateral spines of the telson lengthened successively towards the terminal end.

In present material there is also some variation in the shape and armature of the telson (Fig. 5A, D–G). The lateral margin varies from almost straight to slightly concave, and the number of lateral spines from 6–14 spaced at regular or irregular intervals. The apicalmost spines of the lateral margin vary from being as long as other lateral spines to 2.5 times as long, and the outer pair of the apical spines also varies from being half as long as inner pair to slightly less than as long.

Each of the ultimate and the penultimate segments of the endopod of the male fourth pleopod is armed with a modified seta, which is non-tapered and naked in the distal portion (Fig. 5B, C).

Geographical distribution

The Ceram Sea, Indonesia (Hansen, 1910), the Andaman Islands (W.M. Tattersall, 1922), the Great Barrier Reef (W.M. Tattersall, 1936), the Arabian Sea (Pillai, 1964), Japan (Ii, 1964; Valobonesi and Murano, 1980), the Strait of Malacca (O.S. Tattersall, 1965), the South China Sea (Liu and Wang, 1986; Wang and Liu, 1994), the East China Sea (Wang and Liu, 1997), and the Andaman Sea (present study).

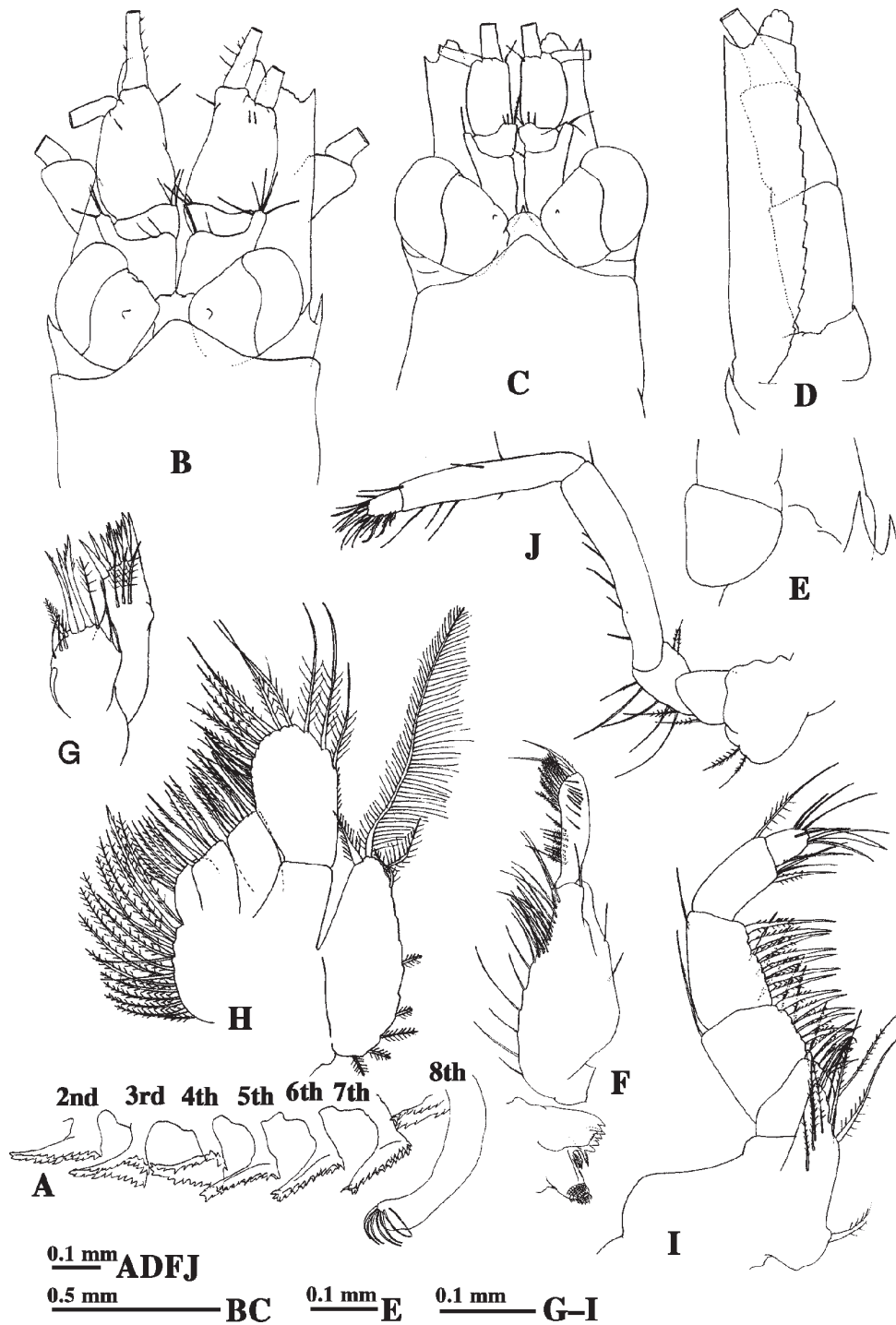


Figure 6 *Hypererythropus validisaeta* sp. nov. A, B, D–I, holotype (male); C, paratype (female), PMBC-14653. A, second to seventh sternal processes and penis in lateral view; B, C, anterior part of body in dorsal view; D, antenna; E, sympod of antenna; F, mandible; G, maxillule; H, maxilla; I, endopod of first thoracic limb; J, endopod of second thoracic limb.

Hypererythrops validisaeta sp. nov.
(Figs 6, 7)

Material examined

Holotype: PMBC 14652, 1 male, 4.8 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998.

Paratypes: PMBC 14653, 1 female, 4.3 mm; PMBC 14654, 3 males, 4.5–4.8 mm, 2 females, 4.4 and 4.7 mm; NSMT-Cr 13350, 3 males, 4.5–4.8 mm, 2 females, 4.2–4.4 mm; all same data as holotype.

Other material: PMBC 14792, 1 male, 4.5 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13351, 10 immature males, 3.0–5.2 mm, 27 females, 3.4–5.2 mm, 4 immature females, 3.3–3.4 mm, 31 juveniles, 2.0–3.3 mm, BIOSHELF St. A1, same data as PMBC 14792; PMBC 14793, 5 males, 4.1–4.8 mm, 1 immature male, 3.3 mm, 10 females, 3.5–4.8 mm, 1 immature female, 3.0 mm, 15 juveniles, 1.3–2.8 mm, BIOSHELF St. A2, 09°29'N, 097°52'E, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13352, 1 immature male, 3.8 mm, BIOSHELF St. D3, 08°45'N, 097°43'E, OS, 80 m, coll. S. Bussarawit and C. Aungtonya, 19.02.1998; NSMT-Cr 13353, 1 male, 3.8 mm, BIOSHELF St. E2, 08°31'N, 098°00'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 22.05.1996; NSMT-Cr 13354, 1 female, 4.7 mm, BIOSHELF St. G2, 07°59'N, 098°08'E, OS, 72 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; NSMT-Cr 13355, 2 males, 4.2 and 4.9 mm, 2 females, 4.2 and 4.4 mm, BIOSHELF St. H1, 07°46'N, 098°16'E, OS, 40 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14794, 2 males, 4.3 and 4.7 mm, 1 female, 4.1 mm, BIOSHELF St. H2, 07°45'N, 098°15'E, BC, 59 m, coll. S. Bussarawit and C. Aungtonya, 09.05.1996; NSMT-Cr 13356, 1 male, 4.6 mm, BIOSHELF St. H2, 07°45'N, 098°15'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 09.05.1996; PMBC 14795, 4 males, 4.5–4.7 mm, 7 females, 3.5–3.8 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; NSMT-Cr 13357, 1 male, 4.0 mm, BIOSHELF St. I2, 07°30'N, 098°30'E, OS, 59 m,

coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14796, 1 female, 3.7 mm, BIOSHELF St. L1, 06°49'N, 099°21'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14797, 2 males, 5.0 and 5.4 mm, 2 females, 4.2 and 4.8 mm, BIOSHELF St. NBA, 07°37'N, 098°17'E, OS, 50 m, coll. N. Bruce and G. Dinesen, 23.11.1997; PMBC 14798, 1 male, 4.7 mm, BIOSHELF St. NBB, 07°40'N, 098°20'E, OS, 60 m, coll. N. Bruce and G. Dinesen, 27.11.1997; PMBC 14799, 1 male, 4.3 mm, 1 female, 3.6 mm, BIOSHELF St. NBC, 077°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; NSMT-Cr 13358, 1 male, 4.7 mm, 2 immature females, 3.8 and 4.8 mm, BIOSHELF St. NBD, 07°43'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13359, 1 male, 4.4 mm, 1 female, 4.4 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; PMBC 14800, 1 immature male, 3.0 mm, 6 females, 3.8–4.3 mm, 2 juveniles, 2.5 and 3.0 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998.

Description

Body smooth. Second to eighth thoracic somites of male armed ventromedially with sternal process, which is widened distally with a plate-shaped distal end with serrated edge (Fig. 6A). Carapace produced anteriorly forming short and broad triangular rostral plate with rounded apex, not extending to bases of antennular peduncles (Fig. 6B, C); anterolateral corner rounded; posterior margin emarginate, leaving last thoracic somite exposed dorsally.

Eye depressed dorsoventrally; cornea occupying 2/5 of eye, slightly wider than eyestalk; eyestalk with small papilla on dorsal surface (Fig. 6B, C).

Antennular peduncle of male more robust than that of female, first segment with outer distal corner strongly projecting anteriorly into narrow lobe tipped with several setae, third segment 1.3 times as long as proximal two segments combined (Fig. 6B); in female third segment as long as first excluding lateral projection (Fig. 6C).

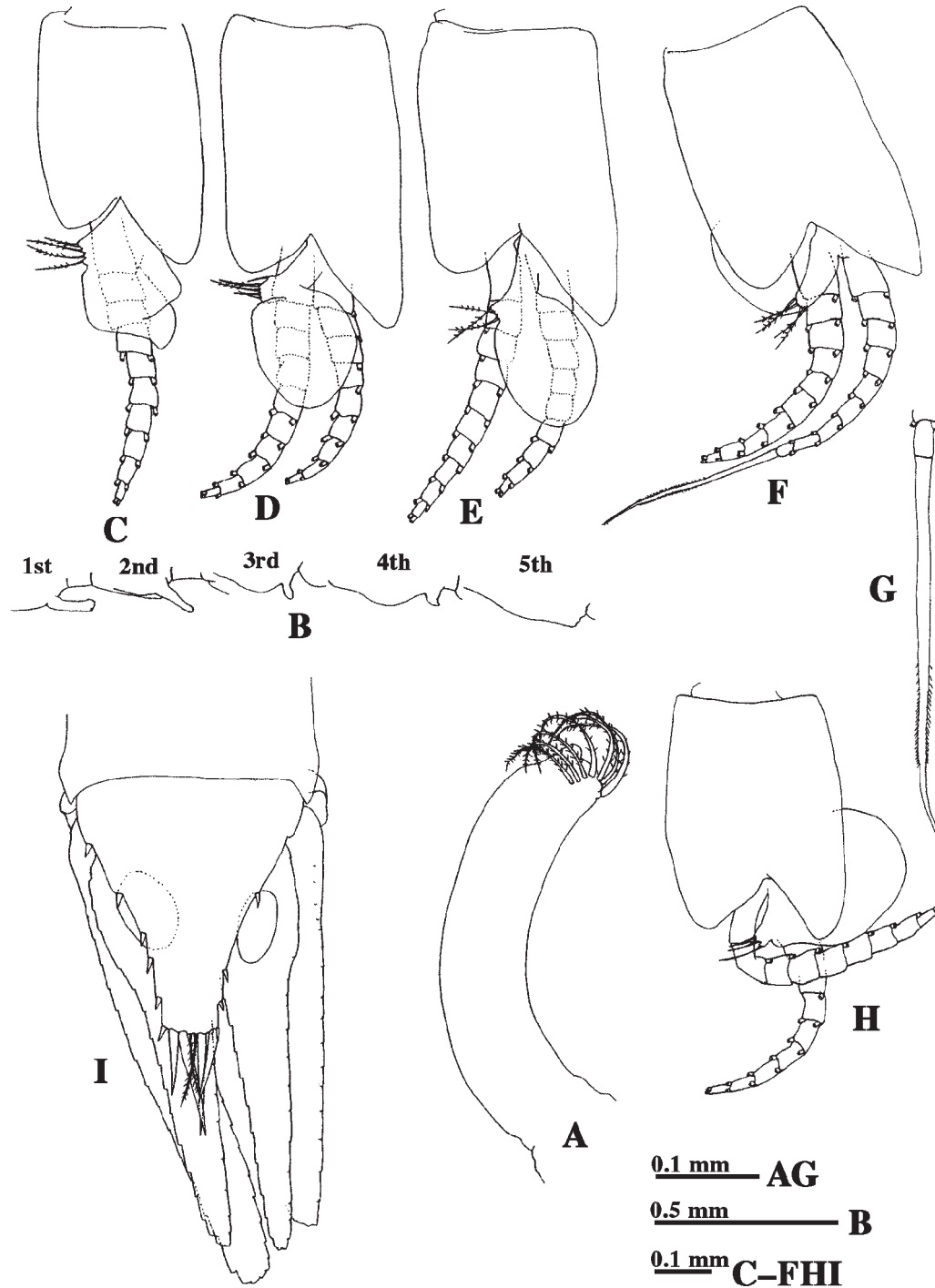


Figure 7 *Hypererythrops validisaeta* sp. nov. Holotype (male). A, penis in lateral view; B, first to fifth abdominal processes along ventral median line in lateral view; C–F, first to fourth pleopods; G, terminal seta of endopod of fourth pleopod; H, fifth pleopod; I, uropod and telson.

Antennal scale slightly longer than antennular peduncle, 4.5 times as long as broad in male and 5.5 times as long in female, outer margin glabrous, straight, terminating in spiniform process, apical lobe twice as long as outer spiniform process, suture present at about distal 1/13 (Fig. 6D). Antennal peduncle extending to distal 1/5 of scale; second segment longest, 1.2 times as long as third segment (Fig. 6D). Antennal sympod with 2 spiniform processes at outer angle (Fig. 6E).

Labrum with small median spine on anterior margin. Mandibular palp with second segment densely armed with setae packed on distal half of inner margin, there setae less dense in proximal half (Fig. 6F). Maxillule with outer lobe bearing 13 strong spines on distal margin and 3 plumose setae, lateral margin with small hump (Fig. 6G). Maxilla; distal segment of endopod 1.5 times as long as broad; exopod extending slightly beyond distal margin of proximal segment of endopod, 2.3 times as long as broad, armed with about 10 plumose setae on outer margin and 1 extremely long and 1 short robust plumose setae on apex (Fig. 6H).

Endopod of first and second thoracic limbs as shown in Fig. 6I and J, respectively. Endopod of third to eighth thoracic limbs missing, not examined.

Penis cylindrical, curved forward, armed with about 7 medially curved plumose setae on distal margin (Fig. 7A).

Marsupium composed of 2 pairs of oostegites.

First to fifth abdominal somites subequal in length, with pair of blunt processes on ventral posterolateral end of each somite gradually become smaller posteriorly (Fig. 7B); sixth somite 1.5 times as long as fifth, without blunt process.

Pleopods of male well-developed, biramous; first pair with unsegmented endopod and 10-segmented exopod (Fig. 7C); second to fourth pairs with 9-segmented endopod and 10-segmented exopod, exopod slightly longer than endopod (Fig. 7D–F). Endopod of fourth pair terminating in single modified robust seta, which is spiniform with blunt apex armed with several minute setae, naked in proximal half, armed with minute setae in succeeding 1/4 and then naked again (Fig. 7F, G).

Fifth pair with 8-segmented endopod and 9-segmented exopod (Fig. 7H). Pseudobranchial lobe of male pleopods expanded to form circular lobe (Fig. 7C–F, H). Pleopods of female reduced to unsegmented lobe.

Endopod of uropod long, tapering, overreaching posterior end of telson for half of its length (Fig. 7I), without spines on inner margin; exopod 1.1 times longer than endopod (Fig. 7I).

Telson 4/5 length of sixth abdominal somite, 1.1 times as long as broad at base; lateral margin concave, armed with 4 or 5 small, subequal-sized spines along entire length, intervals between spines gradually decreasing distally; distal margin truncate, 1/5 of telson width at base, armed with pair of median plumose setae and 4 pairs of spines, innermost pair of spines tiny, second inner spines longest, 2/5 of telson length, third inner spines about 1/4 of telson length, 3/4 of second inner spines in length, outermost spines small, as long as lateral spines (Fig. 7I).

Etymology

Derived from the Latin *validus* meaning strong in combination with *saeta* meaning stiff hair, referring to the robust modified seta on the fourth pleopod of male.

Remarks

Hypererythroptus validisaeta is closely allied to *Hypererythroptus spinifera* in the antennal scale with the apex overreaching the terminal spine of the outer margin, and the telson armed with spines along the entire length of the lateral margins. *Hypererythroptus validisaeta*, however, is distinguished from the latter species as follows. (1) The endopod of the male fourth pleopod is armed on the ultimate segment with a modified seta in *H. validisaeta*, while a modified seta is present on each of the ultimate and penultimate segments in *H. spinifera*. The modified seta of *H. validisaeta* is also more robust compared to those in *H. spinifera*. (2) The lateral margin of the telson is concave and armed with four or five spines in *H. validisaeta*, whereas it is almost straight or slightly concave and armed with 6–14 spines in *H. spinifera*. (3) The distal margin of the telson is less than one-fourth as broad

as at base in *H. validisaeta* compared to one-third to half as long in *H. spinifera*.

Hypererythrops validisaeta also resembles *Hypererythrops elegantula* Nouvel, 1974, described from Madagascar, with respect to the armature of the telson. The former species differs from the latter in the following aspects: (1) the rostrum of *H. validisaeta* is broad and triangular with a rounded apex, whereas that of *H. elegantula* is triangular with an acutely pointed apex and deeply concave lateral margins armed with a pair of supraocular spiniform processes; and (2) a modified seta on the endopod of the male fourth pleopod is present on the ultimate segment in *H. validisaeta*, while it is present on each of the ultimate and penultimate segments in *H. elegantula*.

Pleurerythrops inscita Ii, 1964

Pleurerythrops inscita Ii, 1964: 323–325, fig. 84 (type locality: Strait of Carimata, Indonesia).—O.S. Tattersall, 1965: 88–89, fig. 4.—Mauchline and Murano, 1977: 71 (list).—Liu and Wang, 1986: 166–168, fig. 4.—Müller, 1993: 130 (list).—Wang and Liu, 1997: 210.—Panampunnayil, 1998: 624–629, figs 23–48.

Material examined

NSMT-Cr 13360, 1 female, 3.1 mm, 1 juvenile, 2.1 mm, BIOSHELF St. A2, 09°29'N, 097°52'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13361, 2 males, damaged, 1 immature male, 1.8 mm, BIOSHELF St. E2, 08°31'N, 098°00'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14801, 1 female, 2.9 mm, BIOSHELF St. G1, 08°00'N, 098°12'E, OS, 49 m, coll. S. Bussarawit and C. Aungtonya, 20.02.1998; PMBC 14802, 1 immature female, 2.7 mm, BIOSHELF St. G2, 08°00'N, 098°10'E, OS, 63 m, coll. S. Bussarawit and C. Aungtonya, 23.04.1996; NSMT-Cr 13362, 1 male, 3.0 mm, 4 females, 2.2–3.6 mm, 4 juveniles, 1.3–2.0 mm, BIOSHELF St. I2, 07°30'N, 098°30'E, OS, 59 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14803, 1 female, 3.2 mm,

BIOSHELF St. I3, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; PMBC 14804, 2 immature females, 2.6–2.7 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998; NSMT-Cr 13363, 1 male, 3.0 mm, 1 immature female, 2.4 mm, 1 juvenile, 2.0 mm, BIOSHELF St. K2, 07°00'N, 099°04'E, OS, 53 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998; PMBC 14805, 1 immature female, 2.3 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; PMBC 14806, 2 males, 2.0 and 2.4 mm, 7 females, 2.2–2.8 mm, 9 immature females, 2.2–2.8 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14807, 1 male, 2.4 mm, 2 females, 2.0 and 2.7 mm, BIOSHELF St. PB7, 07°44'N, 098°41'E, OS, 32 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998.

Geographical distribution

Near Borneo, the Strait of Carimata (Ii, 1964), the Strait of Malacca (O.S. Tattersall, 1965), the South China Sea (Liu and Wang, 1986), the East China Sea (Wang and Liu, 1997), India (Panampunnayil, 1998), and the Andaman Sea (present study).

Pleurerythrops monospinosa Liu and Wang, 1986

Pleurerythrops monospinosa Liu and Wang, 1986: 168–169, fig. 5 (type locality: South China Sea).—Müller, 1993: 130 (list).

Material examined

PMBC 14808, 1 immature female, 3.4 mm, BIOSHELF St. T1, 07°02'N, 098°50'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 24.02.1998.

Geographical distribution

The South China Sea (Liu and Wang, 1986), and the Andaman Sea (present study).

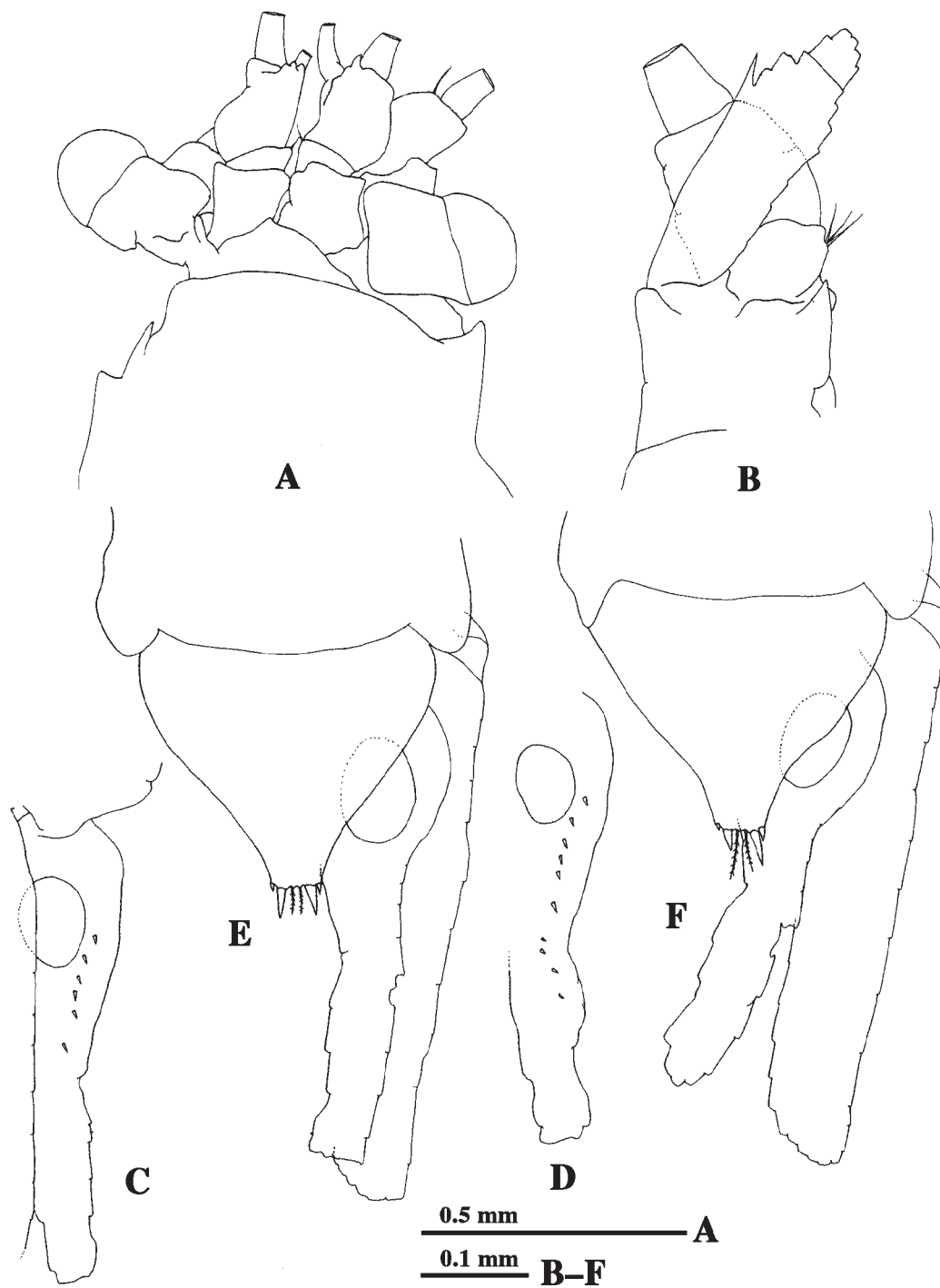


Figure 8 ?*Pleurerythrops* sp. A–C, E, immature female (2.7 mm), PMBC-14810, BIOSHELF St. I3–I2; D, F, juvenile (2.1 mm), PMBC-14809, BIOSHELF St. A2. A, anterior part of body in dorsal view; B, antenna; C, D, endopod of uropod in ventral view; E, F, uropod and telson in dorsal view.

?Pleurerythrops sp.
(Fig. 8)

Material examined

PMBC 14809, 1 juvenile, 2.1 mm, BIOSHELF St. A2, 09°00'N, 097°52'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13364, 1 immature female, 2.6 mm, BIOSHELF St. B1, 09°14'N, 098°00'E, OS, 45 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; PMBC 14810, 1 immature female, 2.7 mm, BIOSHELF St. I3–I2, 07°33'N, 098°19'E, OS, 55 m, coll. S. Bussarawit and C. Aungtonya, 22.02.1998.

Remarks

The following characters allow recognition of this species. (1) The body is constricted between the thorax and abdomen. (2) The eye is not depressed dorsoventrally. (3) The proximal segment of the antennular peduncle does not produce to a projection at the outer distal corner (Fig. 8A). (4) The spiniform process terminating the naked outer margin of the antennal scale is located at the distal third of the scale (Fig. 8B). (5) The endopod of the uropod is armed with a spine row along the ventral inner margin (Fig. 8C, D). (6) The telson is triangular in shape, shorter than broad, and having the naked lateral margins, and the apex is narrowly truncate and armed with two pairs of spines and a pair of median plumose setae (Fig. 8E, F).

The three related genera *Pleurerythrops*, *Parerythrops*, and *Meterythrops* are distinguished from each other by the character of the male pleopods. The specimens of *?Pleurerythrops* sp. are all female, so that correct generic placement cannot be determined. Here we provisionally place this species in *Pleurerythrops* on the basis of having the dorsoventrally depressed body, although this species differs distinctly from the species belonging to *Pleurerythrops* in having the telson shorter than broad.

Tribe Leptomysini

Diopromysis proxima Nouvel, 1964

Diopromysis proxima Nouvel, 1964: 114–122, figs 24–52 (type locality: Madagascar).–Mauchline and Murano, 1977: 53 (list).–Müller, 1993: 149 (list).

Material examined

NSMT-Cr 13365, 6 males, 4.5–4.7 mm, 18 females, 3.1–5.0 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14811, 1 male, damaged, BIOSHELF St. C2, 09°00'N, 097°56'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; NSMT-Cr 13366, 4 females, 3.3–4.3 mm, BIOSHELF St. E20m, 08°30'N, 098°12'E, OS, 20 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; NSMT-Cr 13367, 1 immature male, 3.2 mm, 1 immature female, 3.0 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; NSMT-Cr 13368, 1 female, 4.6 mm, BIOSHELF St. NBC, 07°43'N, 098°24'E, OS, 45 m, coll. N. Bruce and G. Dinesen, 03.12.1997; PMBC 14812, 13 males, 4.3–5.3 mm, 11 immature males, 3.3–4.2 mm, 12 females, 3.3–5.0 mm, 26 immature females, 3.2–4.1 mm, 67 juveniles, 2.1–3.8 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14813, 1 female, 4.4 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; PMBC 14814, 1 immature male, 4.2 mm, 2 immature females, 4.0 and 4.2 mm, BIOSHELF St. PB7, 07°45'N, 098°41'E, OS, 32 m, coll. S. Bussarawit, 22.04.1997; PMBC 14815, 6 males, 3.9–4.0 mm, 1 immature male, 3.3 mm, 4 females, 4.0–4.6 mm, 2 immature females, 3.0 and 3.6 mm, BIOSHELF St. PB7, 07°44'N, 098°41'E, OS, 32 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13369, 1 immature male, damaged, 1 female, 3.7 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997.

Geographical distribution

Madagascar (Nouvel, 1964) and the Andaman Sea (present study).

Mysidopsis indica W.M. Tattersall, 1922

Mysidopsis indica W.M. Tattersall, 1922: 466–468, fig. 12 (type locality: Andaman Islands).– Illig, 1930: 586 (key).– Ii, 1964: 398–402, fig. 100.– Pillai, 1965: 1713, fig. 72; 1967: 121–124, figs 1–13.– O.S. Tattersall, 1969: 67 (key).– Mauchline and Murano, 1977: 66 (list).– Liu and Wang, 1986: 177–178, fig. 10.– Müller, 1993: 172 (list).– Wang and Liu, 1997: 213.

Material examined

PMBC 14816, 1 female, 2.6 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997.

Geographical distribution

The Andaman Islands (W.M. Tattersall, 1922), the Java Sea (Ii, 1964), the South China Sea (Liu and Wang, 1986), the East China Sea (Wang and Liu, 1997), and the Andaman Sea (present study).

Mysidopsis kempii W.M. Tattersall, 1922

Mysidopsis kempii W.M. Tattersall, 1922: 468–470, fig. 13 (type locality: Gulf of Manaar).– Illig, 1930: 586 (key).– Gordan, 1957: 362 (list).– Ii, 1964: 402–405, fig. 101.– Pillai, 1965: 1715, fig. 73.– O.S. Tattersall, 1969: 68 (key).– Mauchline and Murano, 1977: 67 (list).– Liu and Wang, 1986: 179–180, fig. 11.– Müller, 1993: 173 (list).

Material examined

NSMT-Cr 13370, 1 female, 4.6 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14817, 3 immature females, 3.4–3.6 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya,

06.05.1996; PMBC 14818, 1 male, 5.3 mm, BIOSHELF St. L2, 06°44'N, 099°05'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996; PMBC 14819, 1 female, 4.3 mm, BIOSHELF St. NBD, 07°44'N, 098°24'E, OS, 40 m, coll. N. Bruce and G. Dinesen, 09.12.1997; NSMT-Cr 13371, 1 female, 2.8 mm, 1 immature female, 2.1 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13372, 1 male, 3.9 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997.

Geographical distribution

The Gulf of Manaar, India (W.M. Tattersall, 1922), the Strait of Carimata, Indonesia (Ii, 1964), the South China Sea (Liu and Wang, 1986), and the Andaman Sea (present study).

Paraleptomysis xenops (W.M. Tattersall, 1922)

Leptomysis apiops?.– Zimmer, 1915: 167, fig. 19. *Leptomysis xenops* W.M. Tattersall, 1922: 470–472, fig. 14 (type locality: Andaman Islands).– Illig, 1930: 582 (key).– Pillai, 1965: 1712, fig. 69.– Băcesce, 1966: 136 (key).– Mauchline and Murano, 1977: 62 (list).

Paraleptomysis xenops.– Liu and Wang, 1983: 206–207, fig. 2.– Wittmann, 1986: 154, fig. 7.– Liu and Wang, 1986: 177.– Müller, 1993: 180 (list).

Material examined

NSMT-Cr 13373, 2 males, 5.5 and 6.1 mm, 1 female, 6.0 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13374, 1 female, 5.3 mm, BIOSHELF St. C1, 09°00'N, 098°02'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 17.02.1998; NSMT-Cr 13375, 1 male, 6.7 mm, 1 female, 6.3 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, 39 m, OS, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14820, 1 male, 7.7 mm, BIOSHELF St. E1, 08°30'N, 098°06'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; NSMT-Cr 13376, 1

female, 6.5 mm, BIOSHELF St. G1, 08°00'N, 098°06'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 24.04.1996; PMBC 14821, 1 male, 5.1 mm, BIOSHELF St. J2, 07°15'N, 098°51'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 04.05.1996; PMBC 14822, 1 female, 6.8 mm, BIOSHELF St. L1, 06°46'N, 099°21'E, OS, 38 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC 14823, 2 males, 6.2 and 6.3 mm, BIOSHELF St. L2, 06°44'N, 099°05'E, OS, 56 m, coll. S. Bussarawit and C. Aungtonya, 05.05.1996.

Geographical distribution

The Andaman Islands (W.M. Tattersall, 1922), the South China Sea (Liu and Wang, 1983), and the Andaman Sea (present study).

Tribe Mysini

Acanthomysis platycauda (Pillai, 1964)

Lycomysis platycauda Pillai, 1964: 32–36, figs 19–20 (type locality: Arabian Sea); 1965: 1725, fig. 92.

Acanthomysis platycauda.—Pillai, 1973: 109–110, fig. 60.—Mauchline and Murano, 1977: 45 (list).—Liu and Wang, 1986: 194–195, fig. 19.—Müller, 1993: 196 (list).

Material examined

NSMT-Cr 13377, 2 males, 5.7 and 7.2 mm, 1 female, 6.0 mm, BIOSHELF St. G1, 08°00'N, 098°14'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya, 24.04.1996; NSMT-Cr 13378, 1 male, 4.5 mm, 1 female, 4.0 mm, 2 immature females, 3.0 and 3.7 mm, 3 juveniles, 2.5–3.2 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC-14824, 3 males, 4.4–5.3 mm, 7 females, 3.0–5.0 mm, 4 immature females, 3.3–3.4 mm, 40 juveniles, 2.1–3.5 mm, BIOSHELF PB3, 07°51'N, 098°31'E, OS, 20 m, coll. S. Bussarawit, 23.04.1997; NSMT-Cr 13379, 5 males, 4.8–6.3 mm, 18 females, 4.6–5.7 mm, 3 females, 2.5–3.8 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit

and C. Aungtonya, 21.02.1998; NSMT-Cr 13380, 2 males, 5.7 mm and damaged, 1 female, 4.7 mm, 11 immature females, 3.2–3.8 mm, 1 juvenile, 2.8 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 31 m, coll. S. Bussarawit, 22.04.1997; NSMT-Cr 13381, 4 males, 5.1–5.4 mm, 16 females, 3.9–5.3 mm, 4 immature females, 3.7–4.0 mm, 1 juvenile, 2.7 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; PMBC 14825, 3 males, 4.6–5.7 mm, 2 females, 4.2 and 4.2 mm, 1 immature female, 3.2 mm, BIOSHELF St. PB6, 07°45'N, 098°32'E, coll. S. Bussarawit, 22.04.1997; PMBC 14826, 1 female, 4.7 mm, BIOSHELF St. PB7, 07°45'N, 098°41'E, coll. S. Bussarawit, 22.04.1997; PMBC 14827, 12 males, 3.8–5.8 mm, 30 immature males, 2.8–3.6 mm, 41 females, 4.2–5.0 mm, 127 immature females, 3.0–4.2 mm, 72 juveniles, 2.0–2.9 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997.

Remarks

Holmquist (1979, 1980, 1981a and 1981b) redefined *Acanthomysis* s. str. in a series of taxonomic works on *Acanthomysis* s. lat. and included passively *Acanthomysis platycauda* in *Acanthomysis* s. str. on the basis of past published date (Holmquist, 1981b).

Here we can confirm that *A. platycauda* belong in *Acanthomysis* s. str. by having the following characters, which have not previously been described in detail: (1) the anterolateral corner of the carapace is rounded; and (2) the apical spiniform setae of the exopod of the male fourth pleopod are unequal in length and naked in the distal portion.

Geographical distribution

India (Pillai, 1964; 1973), the South China Sea (Liu and Wang, 1986) and the Andaman Sea (present study).

Acanthomysis quadrispinosa Nouvel, 1965

Acanthomysis quadrispinosa Nouvel, 1965: 456–464, figs 23–40 (type locality: Madagascar).—

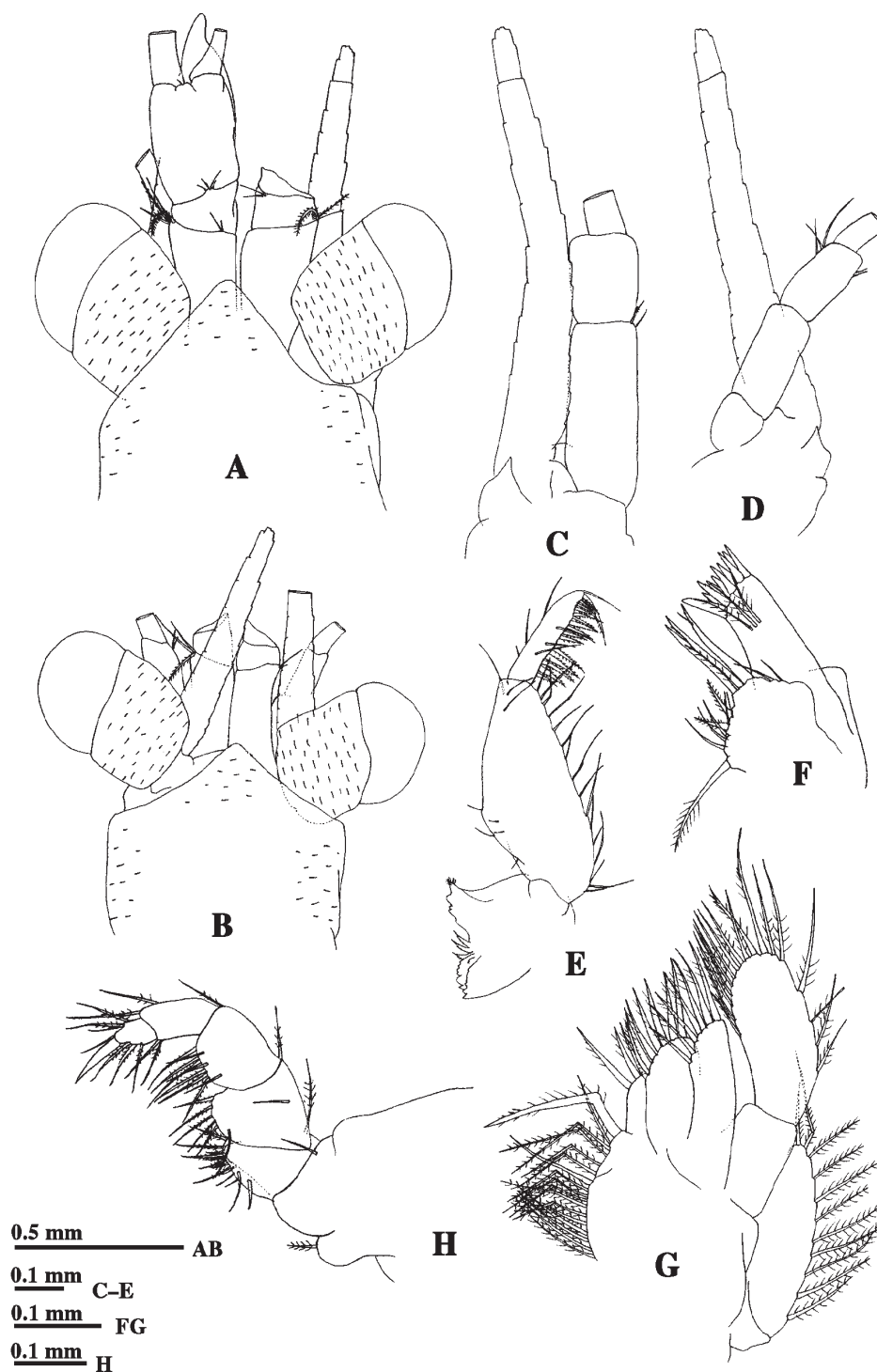


Figure 9 *Acanthomysis brucei* sp. nov. A, C, E–H, holotype (male); B, D, paratype (female), PMBC-14656. A, B, anterior part of body in dorsal view; C, D, antenna; E, mandible; F, maxillule; G, maxilla; H, endopod of first thoracic limb.

Mauchline and Murano, 1977: 45 (list).— Liu and Wang, 1986: 191–192, fig. 17.— Murano, 1991: 89–91, fig. 5.— Müller, 1993: 187 (list).— Wang and Liu, 1997: 216.— Fukuoka and Murano, 2000: 25–28, fig. 1F–O.

Material examined

PMBC 14828, 17 males, 5.0–7.8 mm, 4 immature males, 3.6–4.1 mm, 18 females, 4.0–6.6 mm, 3 immature females, 3.0–4.1 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14829, 1 male, damaged, BIOSHELF St. C2, 09°00'N, 097°53'E, OS, 64 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14830, 1 male, 4.6 mm, BIOSHELF St. E20m, 08°30'N, 098°12'E, OS, 20 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14831, 1 female, 5.1 mm, BIOSHELF St. E1, 08°30'N, 098°06'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14832, 2 females, 3.6 and 4.1 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, BC, 21 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; NSMT-Cr 13382, 5 males, 3.3–5.4 mm, 25 females, 3.8–4.5 mm, 14 juveniles, 2.5–3.3 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; NSMT-Cr 13383, 2 males, 5.4 and 5.8 mm, 2 immature males, 3.5 and 4.3 mm, 5 females, 4.0–6.1 mm, 2 immature females, 3.8 and 4.3 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13384, 2 males, 5.1 and 5.6 mm, 7 females, 4.0–6.2 mm, 7 immature females, 3.1–3.8 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 31 m, coll. S. Bussarawit, 22.04.1997; PMBC 14833, 63 males, 3.4–5.8 mm, 92 females, 4.2–5.7 mm, 3 immature females, 3.2–4.4 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; PMBC 14834, 1 male, 4.5 mm, BIOSHELF St. PB6, 07°45'N, 098°32'E, OS, 30 m, coll. S. Bussarawit, 22.04.1997; NSMT-Cr 13385, 8 males, 4.6–6.0 mm, 2 immature males, 2.8 and 2.9 mm, 11 females, 3.9–4.5 mm, 6 juveniles, 2.7–4.2 mm, BIOSHELF St. PB7, 07°45'N, 098°41'E, OS, 32 m, coll. S. Bussarawit, 22.04.1997; PMBC 14835,

many males, up to 5.4 mm, many females, up to 6.1 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997; NSMT-Cr 13386, 1 male, 5.3 mm, BIOSHELF St. RN2, 07°26'N, 098°18'E, OS, 75 m, coll. S. Bussarawit and C. Aungtonya, 08.05.1996.

Geographical distribution

Madagascar (Nouvel, 1965), the South China Sea (Liu and Wang, 1986; Wang and Liu, 1997), Japan (Murano, 1991; Fukuoka and Murano, 2000) and the Andaman Sea (present study).

Acanthomysis brucei sp. nov.

(Figs 9, 10)

Material examined

Holotype: PMBC 14655, 1 male 6.5 mm, BIOSHELF St. E20m, 08°30'N, 098°12'E, coll. S. Bussarawit and C. Aungtonya, 22.04.1996.

Paratypes: PMBC 14656, 1 female, 5.7 mm, BIOSHELF St. L1, 06°46'N, 099°21'E, OS, 38 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; PMBC 14657, 2 males, 4.0 and 4.7 mm, 1 female, 5.7 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; NSMT-Cr 13387, 1 male, 5.6 mm, 2 females, 4.5 and 5.3 mm, BIOSHELF St. G1, 08°00'N, 098°14'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14658, 1 female, 5.8 mm, BIOSHELF St. E1, 08°30'N, 098°06'E, OS, 41 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996.

Description

Integument hispid.

Carapace anteriorly produced forming triangular rostral plate with narrowly rounded apex and slightly concave lateral margins, extending to middle of proximal segment of antennular peduncle in male and slightly extending beyond base of antennular peduncle in female (Fig. 9A, B); anterolateral corner rounded; posterior margin emarginate, leaving last thoracic somite exposed dorsally.

Eye 1.3–1.4 times as long as broad; cornea occupying 1/3–2/5 of eye in dorsal view; eyestalk

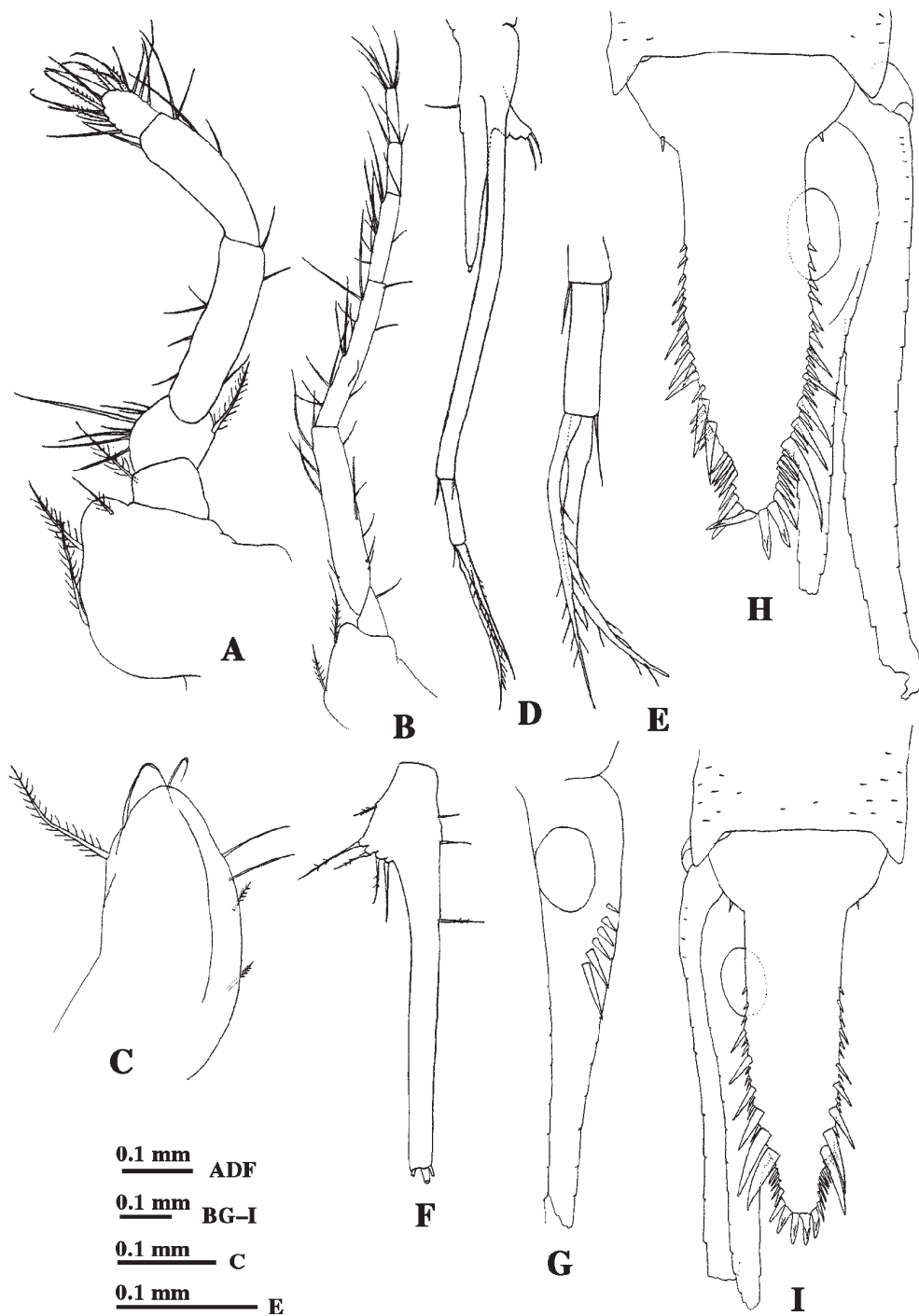


Figure 10 *Acanthomysis brucei* sp. nov. A–H, holotype (male); I, paratype (female), PMBC-14656. A, endopod of second thoracic limb; B, endopod of fourth thoracic limb; C, penis in lateral view; D, fourth pleopod; E, distal part of endopod of fourth pleopod; F, fifth pleopod; G, endopod of uropod in ventral view; H, I, uropod and telson in dorsal view.

hispid, as broad as cornea, without papilla on dorsal surface (Fig. 9A, B).

Antennular peduncle of male more robust than that of female, third segment slightly shorter than proximal two segments combined (Fig. 9A); in female third segment broken off (Fig. 9B).

Antennal scale extending beyond apex of antennular peduncle, lanceolate with rounded apex, slightly curved outwardly, about 7.5 times as long as broad, setose on all margins, distal suture marked off at about distal 1/8 (Fig. 9C, D). Antennal peduncle extending to middle of scale, second segment longest (Fig. 9C, D). Antennal sympod with spiniform process at outer distal angle (Fig. 9C, D).

Labrum with long spiniform process on anterior margin. Mandibular palp with second segment unarmed with denticles on inner margin (Fig. 9E). Maxillule outer lobe armed with 12 stout spines on distal margin and 3 plumose setae subterminally, outer margin hump proximally (Fig. 9F). Maxilla with distal segment of endopod about twice as long as broad; exopod not reaching distal margin of proximal segment of endopod, armed with 11 plumose setae on outer margin and 2 plumose setae on apex (Fig. 9G).

Endopod of first and second thoracic limbs as shown in Fig. 9H and 10A, respectively; endopod of third to eighth thoracic limbs with carpopropodus divided into 3 subsegments by transverse articulation (Fig. 10B).

Penis curved; posterior margin armed with short plumose setae as shown, and 2 long naked setae on distal 1/3; distal margin armed with 2 medially curved, naked setae; anterior margin armed with 1 long plumose seta near apex (Fig. 10C).

Marsupium composed of 2 pairs of oostegites.

First to fifth abdominal somites subequal in length, sixth somite 1.2 times as long as fifth.

First, second, third and fifth pleopods of male reduced to unsegmented lobe, gradually increasing in length posteriorly; fifth pleopod long, about twice as long as third (Fig. 10F). Fourth male pleopod extending posteriorly to middle of last abdominal somite, biramous; exopod without articulation between protopod, 2-segmented, proxi-

mal segment long, armed with short seta on each side of distal margin, distal segment short, 1/6 of proximal segment in length, armed with 1 seta at inner distal angle, and 2 long, unequal spiniform barbed setae, the shorter seta more slender, unarmed in distal 1/6; endopod not divided by articulation from protopod, reduced to unsegmented lobe, about half as long as proximal segment of exopod (Fig. 10D, E). All pleopods of female reduced to unsegmented lobe. Pseudobranchial lobe well-developed (Fig. 10D, F).

Endopod of uropod extending beyond distal end of telson for 1/6 of its length, overreaching apex of apical spines of telson (Fig. 10H, I), armed on inner ventral margin of statocyst region with 5 or 6 spines that gradually become longer posteriorly (Fig. 10G).

Telson 1.3 times as long as last abdominal somite, linguiform with expanded basal portion, distal 1/6 narrowing toward rounded apex (Fig. 10H, I). Lateral margin of proximal 2/5 smooth except 1 small spine near end of basal expanded portion, of distal 3/5 with 2 spine rows lined in different plane, spines of lower row composed of 20–24 spines, rather small, those of upper row composed of 5–7 spines, strong, gradually increasing in length distally, apicalmost spine about 3 times longer than lower row spines (Fig. 10H, I). Apical margin armed with 3 pairs of subequal-sized spines, about half as long as apicalmost spine of upper row of lateral margin, slightly flattened distally (Fig. 10H, I).

Etymology

This species is named in honour of Dr. Niel Bruce who gave us the opportunity to examine this material.

Remarks

Acanthomysis brucei clearly belongs to *Acanthomysis* s. str., defined by Holmquist (1981b), by the following characters: the endopod of the third to eighth thoracic limbs with a three-segmented carpopropodus; the exopod of the fourth male pleopod terminates in two unequal setae with slender spiniform apical portion; the fifth pleopod of both sexes is considerably longer than

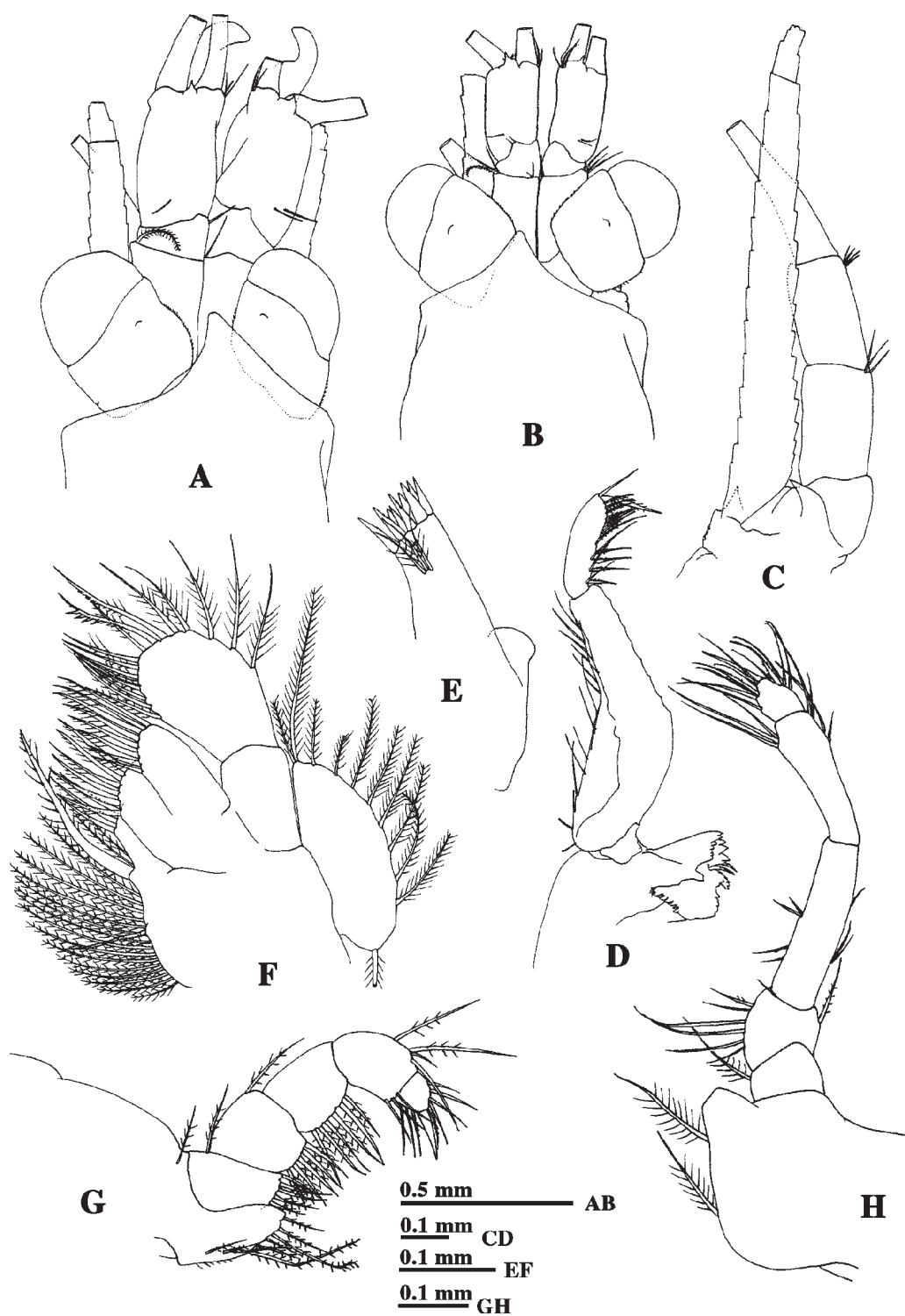


Figure 11 *Acanthomysis longispina* sp. nov. A, C–H, holotype (male); B, paratype (female). A, B, anterior part of body in dorsal view; C, antenna; D, mandible; E, outer lobe of maxillule; F, maxilla; G, endopod of first thoracic limb; H, endopod of second thoracic limb.

the third pleopod; the telson is linguiform with expanded basal portion. This species is easily distinguished from the other species belonging to *Acanthomysis* by the shape and armature of the telson.

Acanthomysis longispina sp. nov.
(Figs 11, 12)

Material examined

Holotype: PMBC 14659, 1 male, 6.5 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, coll. S. Bussarawit and C. Aungtonya, 20.04.1996.

Paratype: PMBC 14660, 1 immature female, 4.3 mm, same data as holotype.

Description

Integument smooth.

Anterior margin of carapace produced into triangular rostral plate with narrowly rounded apex and concave lateral margins, extending to middle of proximal segment of antennular peduncle (Fig. 11A, B). Anterolateral corner of carapace rounded. Posterior margin of carapace emarginate, leaving last thoracic somite exposed dorsally.

Eye 1.2–1.4 times as long as broad; cornea as broad as eyestalk, occupying about 2/5 of eye; eyestalk spinulose on almost whole surface, with tiny blunt papilla on dorsal surface (Fig. 11A, B).

Antennular peduncle of male more robust than that of female, distal segment almost as long as combined length of proximal two segments (Fig. 11A); in female, slender, distal segment almost as long as proximal one (Fig. 11B).

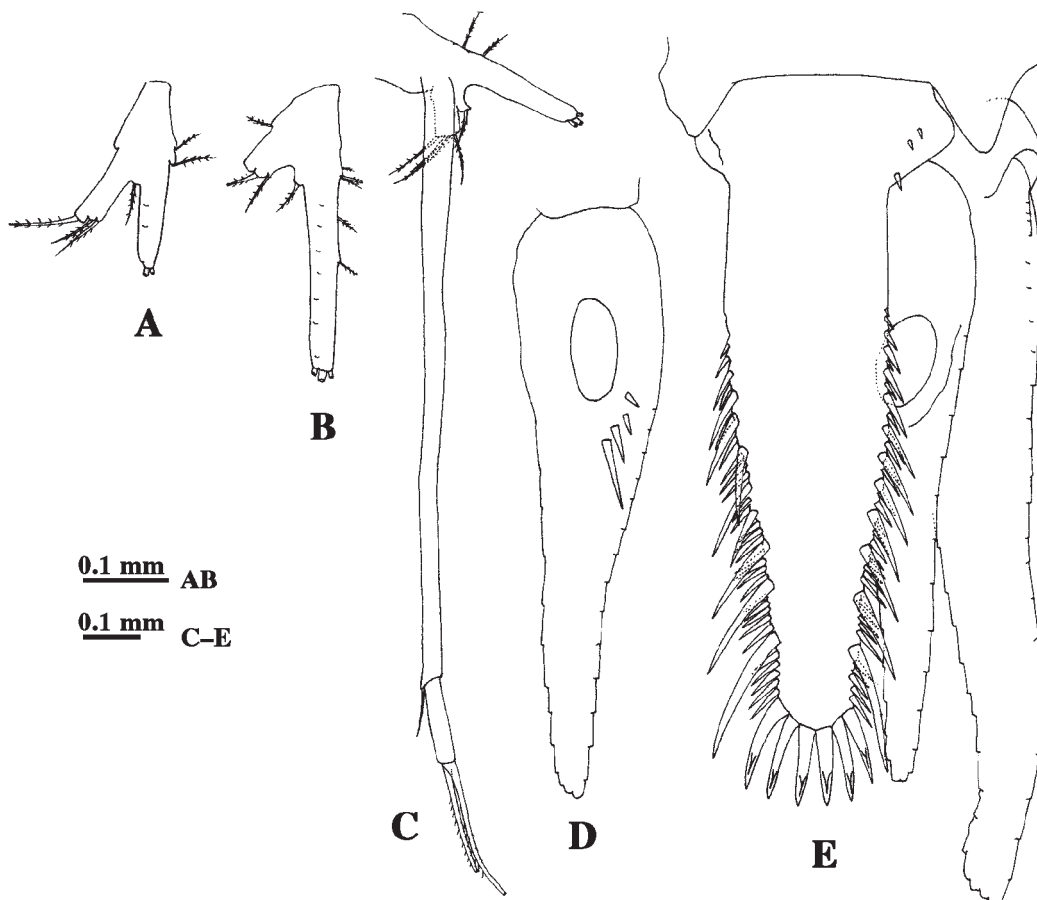


Figure 12 *Acanthomysis longispina* sp. nov. Holotype (male). A, first pleopod; B, fifth pleopod; C, fourth pleopod; D, endopod of uropod in ventral view; E, uropod and telson in dorsal view.

Antennal scale lanceolate with rounded apex, straight, not reaching apex of antennular peduncle, about 10 times as long as broad, setose on all margins, suture present at distal 1/9 (Fig. 11C). Antennal peduncle extending to middle of scale, third segment almost as long as second in male and slightly shorter than in female (Fig. 11C). Antennal sympod armed with spiniform process at outer distal angle and several small spines on lateral margin (Fig. 11C).

Labrum with forward directed, long, spiniform process on anterior margin. Second segment of mandibular palp with 6–8 tiny pointed protuberances on distal half of inner margin (Fig. 11D). Outer lobe of maxillule armed with 12 robust spines on distal margin and 3 plumose setae on surface, outer margin with prominent median hump (Fig. 11E). Maxilla with second segment of endopod 1.4 times as long as broad; exopod not reaching distal margin of proximal segment of endopod, armed with 9 plumose setae on outer margin and 2 plumose setae at apex (Fig. 11F).

Endopod of first and second thoracic limbs as shown in Fig. 11G and H, respectively; endopod of third to eighth thoracic limbs broken off.

Penis armed with 6 medially curved simple setae on distal margin and 2 long plumose setae on distal 1/3 of anterior margin.

All abdominal somites subequal in length; only third, or third and fourth somites with dorsomedian transverse groove.

First, second, third and fifth male pleopods reduced to unsegmented lobe, increasing in length posteriorly (Fig. 12A, B); fifth pleopod long, 1.5 times as long as third (Fig. 12B). Fourth male pleopod biramous; endopod reduced to unsegmented lobe; exopod elongate, extending to near distal 1/4 of telson, 2-segmented, proximal segment long, armed at outer distal corner with 1 seta extending beyond middle of distal segment, distal segment short, 1/7 of proximal one in length, armed terminally with 2 spiniform robust setae but exact length unknown due to damage (Fig. 12C). All pleopods of female reduced to unsegmented lobe, lengthened posteriorly; fifth pleopod 1.4 times as long as fourth. Pseudobranchial lobe of endopod developed, rectangular (Fig. 12A–C).

Uropod setose all round; endopod tapering, extending beyond apex of telson but not beyond apex of apical spines, armed on inner ventral surface of statocyst region with 4 spines increasing in length posteriorly (Fig. 12D); exopod 1.1–1.2 times as long as endopod (Fig. 12E).

Telson 1.6–1.8 times as long as sixth abdominal somite, 2.5 times as long as broadest part, expanded in basal portion, abruptly narrowing towards basal 1/6, parallel-sided for about 1/5 length of telson, then gradually narrowing towards rounded apex, 2 or 3 small spines present on dorsal surface near margin of basal expanded portion (Fig. 12E). Lateral margin armed on posterior 2/3 with spine rows arranged in 2 different planes, upper row composed of 8–12 strong spines arranged sparsely and gradually increasing in length posteriorly, apicalmost spine 3–3.4 times as long as spines of lower row and 1.7 times as long as apical spines; lower row composed of more than 20 subequal spines arranged densely (Fig. 12E). Apical margin armed with 3 pairs of subequal spines, which are 2–2.3 times as long as spines of lower row and rather flattened distally (Fig. 12E).

Etymology

From the Latin *longe*, long, and *spina*, spine, referring to the long lateral spines of the telson.

Remarks

This species obviously belongs to *Acanthomysis* s. str. by virtue of the shape and armature of the fourth pleopod of male, the long fifth pleopod of both sexes, the developed pseudobranchial lobe of the pleopods, and the shape and armature of the telson.

Acanthomysis longispina is allied to *Acanthomysis platycauda* but differs from the latter species as follows: (1) the body surface is smooth (hispid in *A. platycauda*); (2) the second segment of the mandibular palp has tiny protuberances on the inner margin (absent in *A. platycauda*); and (3) the longest lateral spine of the telson is about twice as long as the apical spines (subequal to the apical spines in *A. platycauda*).

Acanthomysis longispina differs from the other species belonging to *Acanthomysis* s. str. by the long exopod of the male fourth pleopod.

Lycomysis spinicauda Hansen, 1910
(Fig. 13)

Lycomysis spinicauda Hansen, 1910: 77, pl. 11, fig. 3, pl. 12, fig. 2 (type locality: Butung Strait, Indonesia).—Colosi, 1916: 194, fig. 1; 1919, 10; 1920: 251–253.—W.M. Tattersall, 1922: 492–495, fig. 25.—Gordan, 1957: 356 (list).—Ii, 1964: 544–545.—Pillai, 1965: 1725.—Mauchline and Murano, 1977: 63 (list).—Liu and Wang, 1986: 196–198, fig. 20.—Müller, 1993: 225 (list).

Lycomysis pusilla Zimmer, 1915: 175–177, figs 30–37.

Material examined

NSMT-Cr 13388, 1 male, 5.4 mm, 9 females, 4.0–4.2 mm, 1 juvenile, 3.1 mm, BIOSHELF St. C1, 09°01'N, 098°03'E, OS, 39 m, coll. S. Bussarawit and C. Aungtonya, 20.04.1996; PMBC 14836, 1 immature male, 3.4 mm, BIOSHELF St. E20m, 08°30'N, 098°12'E, OS, 20 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1996; PMBC 14837, 6 males, 4.9–5.8 mm, 5 females, 4.5–6.5 mm, BIOSHELF St. G1, 08°00'N, 098°14'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya,

24.04.1996; NSMT-Cr 13389, 1 male, 4.8 mm, BIOSHELF St. I2, 07°30'N, 098°29'E, OS, 60 m, coll. S. Bussarawit and C. Aungtonya, 03.05.1996; PMBC 14838, 2 males, 3.9 and 4.2 mm, 2 females, 3.8 and 4.0 mm, 4 juvenile, 2.9–3.1 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996; NSMT-Cr 13390, 1 male, 4.4 mm, BIOSHELF St. PB3, 07°51'N, 098°34'E, OS, 28 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; NSMT-Cr 13391, 1 male, 4.0 mm, 1 juvenile, 2.6 mm, BIOSHELF St. PB3, 07°51'N, 098°31'E, OS, 20 m, coll. S. Bussarawit, 23.04.1997; NSMT-Cr 13392, 3 males, 4.3–4.8 mm, 3 females, 4.1–4.8 mm, 1 immature female, 3.0 mm, BIOSHELF St. PB4, 07°52'N, 098°41'E, OS, 31 m, coll. S. Bussarawit and C. Aungtonya, 22.04.1997; PMBC 14839, 1 male, 3.4 mm, 10 females, 3.0–4.6 mm, BIOSHELF St. PB5, 07°52'N, 098°48'E, BC, 21 m, coll. S. Bussarawit, 22.04.1997; PMBC 14840, 1 immature female, 3.7 mm, BIOSHELF St. PB7, 07°44'N, 098°41'E, OS, 32 m, coll. S. Bussarawit and C. Aungtonya, 21.02.1998; PMBC 14841, 1 immature female, 3.3 mm, BIOSHELF St. PB7, 07°45'N, 098°41'E, OS, 32 m, coll. S. Bussarawit, 22.04.1997; PMBC



Figure 13 *Lycomysis spinicauda* (Hansen, 1910). Lateral view of intersexual individual (4.8 mm), PMBC-14843, BIOSHELF St. K20m. The distal part of the endopod of the fourth pleopod is broken.

14842, 9 males, 4.0–5.8 mm, 7 immature males, 3.2–3.3 mm, 45 females, 3.3–4.5 mm, 21 immature females, 3.0–3.3 mm, 23 juveniles, 2.7–3.1 mm, BIOSHELF St. PB8, 07°45'N, 098°51'E, OS, 19 m, coll. S. Bussarawit, 22.04.1997; PMBC 14843, 1 intersexual individual, 4.8 mm, BIOSHELF St. K20m, 07°00'N, 099°24'E, OS, 22 m, coll. S. Bussarawit and C. Aungtonya, 06.05.1996.

Remarks

One intersexual individual was found (Fig. 13) in the material examined. It possesses two masculine characters, the sexual appendage of the antennular peduncle and the elongate fourth pleopod, and one feminine character, the developed oostegites. Intersexuality has been commonly observed in *Neomysis integer* (Leach, 1814) (Kinne, 1955; Holmquist, 1957; Hough *et al.*, 1992; Mees *et al.*, 1995), though the frequency is always low (Mees *et al.*, 1995). It is here reported for the first time in *Lycomysis*.

Geographical distribution

The Strait of Butung, Indonesia (Hansen, 1910), during the voyage from Sri Lanka to New Guinea (Zimmer, 1915), the South China Sea (Colosi, 1919; Liu and Wang, 1986), and Andaman Islands (W.M. Tattersall, 1922) and the Andaman Sea (present study).

Anisomysis bifurcate W.M. Tattersall, 1912

Anisomysis bifurcate W.M. Tattersall, 1912: 126–127, pl. 7, figs 1–6 (type locality: north of Chagos Islands).– Gordon, 1957: 340 (list).– Mauchline and Murano, 1977: 47 (list).– Müller, 1993: 201 (list).

Material examined

PMBC 14844, 1 male, 4.2 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998.

Geographical distribution

Chagos Islands and Farquhar Island, Indian Ocean (W.M. Tattersall, 1912) and the Andaman Sea (present study).

Anisomysis tattersallae Pillai, 1973

Anisomysis tattersallae Pillai, 1973: 115–117, figs 64–65 (type locality: Andaman Sea).– Mauchline and Murano, 1977: 47 (list).– Müller, 1993: 207 (list).

Material examined

PMBC 14845, 1 immature male, 2.0 mm, 3 females, 3.2–3.4 mm, BIOSHELF St. A2, 09°29'N, 097°52'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998; NSMT-Cr 13393, 1 immature female, 1.6 mm, BIOSHELF St. D3, 08°45'N, 097°43'E, OS, 80 m, coll. S. Bussarawit and C. Aungtonya, 14.02.1998; NSMT-Cr 13394, 1 male, 3.7 mm, BIOSHELF St. F2, 08°15'N, 098°03'E, OS, 66 m, coll. S. Bussarawit and C. Aungtonya, 16.02.1998; PMBC 14846, 1 male, 3.6 mm, 2 females, 3.0 and 3.5 mm, BIOSHELF St. F1, 08°15'N, 098°10'E, OS, 43 m, coll. S. Bussarawit and C. Aungtonya, 16.02.1998.

Geographical distribution

The Andaman Sea (Pillai, 1973; present study).

Tribe Heteromysini

Heteromysis (Olivemysis) thailandica sp. nov.
(Figs 14, 15)

Material examined

Holotype: PMBC 14661, 1 male, 3.4 mm, BIOSHELF St. E3, 08°31'N, 097°46'E, BC, 81 m, coll. S. Bussarawit and C. Aungtonya, 24.04.1996.

Description

Body smooth. In male second to seventh thoracic somites with sternal processes along ventral median line; process of second somite club-shaped, somewhat expanded distally, with spinules on distal end; that of third somite enlarged, directed backward, with numerous spinules on anterior surface; in fourth and fifth thoracic somites process small, triangular, directed backward; those of sixth and seventh thoracic somites similar to that of second somite (Fig. 14A).

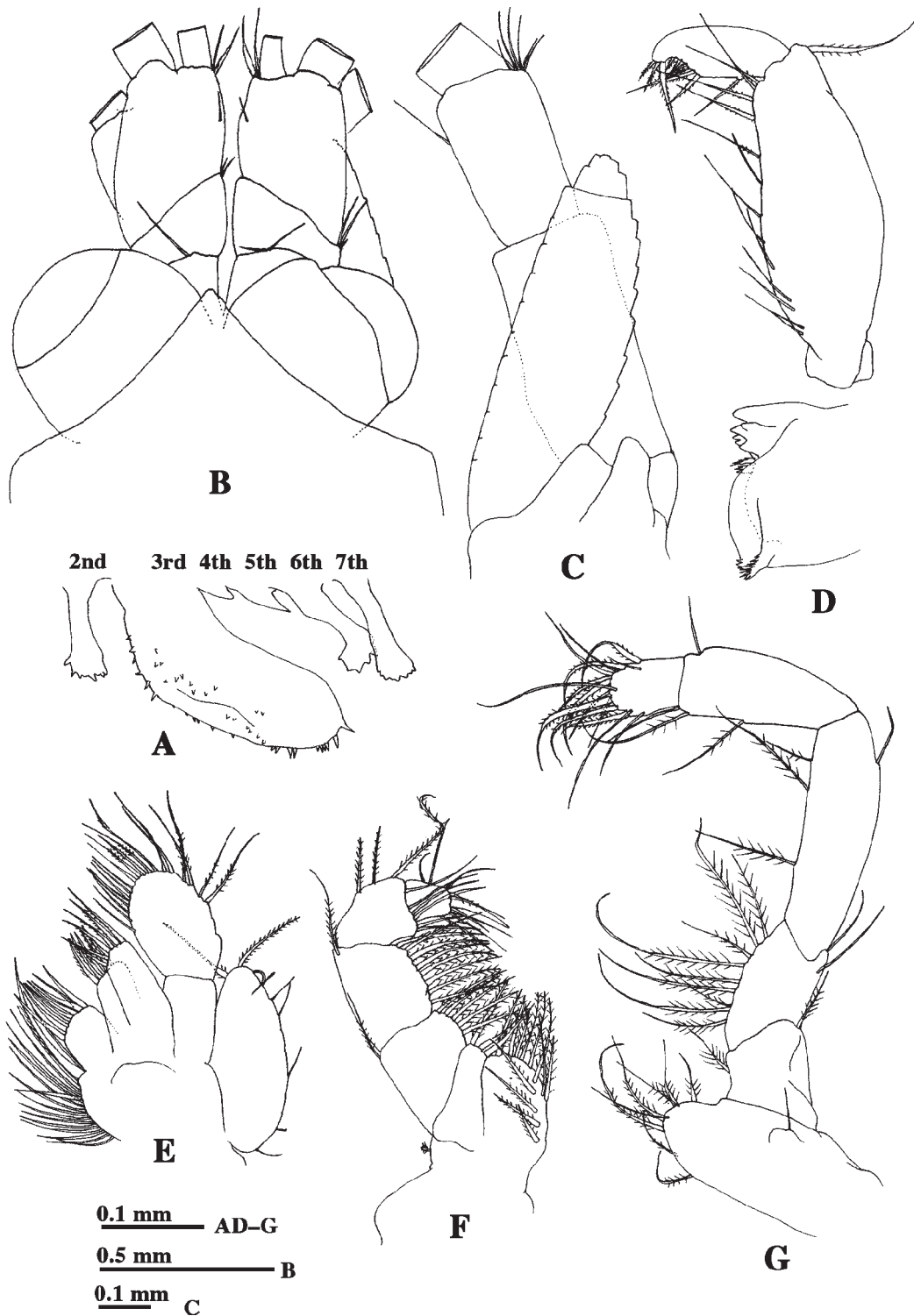


Figure 14 *Heteromysis thailandica* sp. nov. Holotype (male). A, sternal processes of second to seventh thoracic somites in lateral view; B, anterior part of body in dorsal view; C, antenna; D, mandible; E, maxilla; F, endopod of first thoracic limb; G, endopod of second thoracic limb.

Anterior margin of carapace produced in triangular rostral plate with bluntly pointed apex of concave lateral margins, extending to middle of proximal segment of antennular peduncle (Fig. 14B); anterolateral corner rounded; posterior margin emarginate, leaving last two thoracic somites exposed dorsally.

Eye developed; cornea located in distal end of eyestalk, small, occupying 1/3 of eye in dorsal view; eyestalk wider than cornea, without spine at distal end of anterior margin, papilla absent on dorsal surface (Fig. 14B).

Antennular peduncle of male robust; third segment obliquely connected with second, armed at inner distal corner with 2 setae, one broad, flattened with subterminal flagellum, other slender (Fig. 14B).

Antennal scale extending to middle of third segment of antennular peduncle, lanceolate with rounded apex, 3.3 times as long as broad, setose all around, medial margin convex, lateral margin straight, suture marked off at about distal 1/10 (Fig. 14C). Antennal peduncle 1.3 times as long as scale; second segment longest, 1.5 times as long as third, 2.1 times as long as broad (Fig. 14C). Antennal sympod with triangular lobe on ventral surface (Fig. 14C).

Labrum without anterior spine. Mandibular palp with second segment armed with setae on inner margin, anterior margin naked except for 1 long seta at distal end, third segment 2/5 of second in length (Fig. 14D). Maxilla with distal segment of endopod oval, 1.6 times as long as broad; exopod narrow, extending beyond distal margin

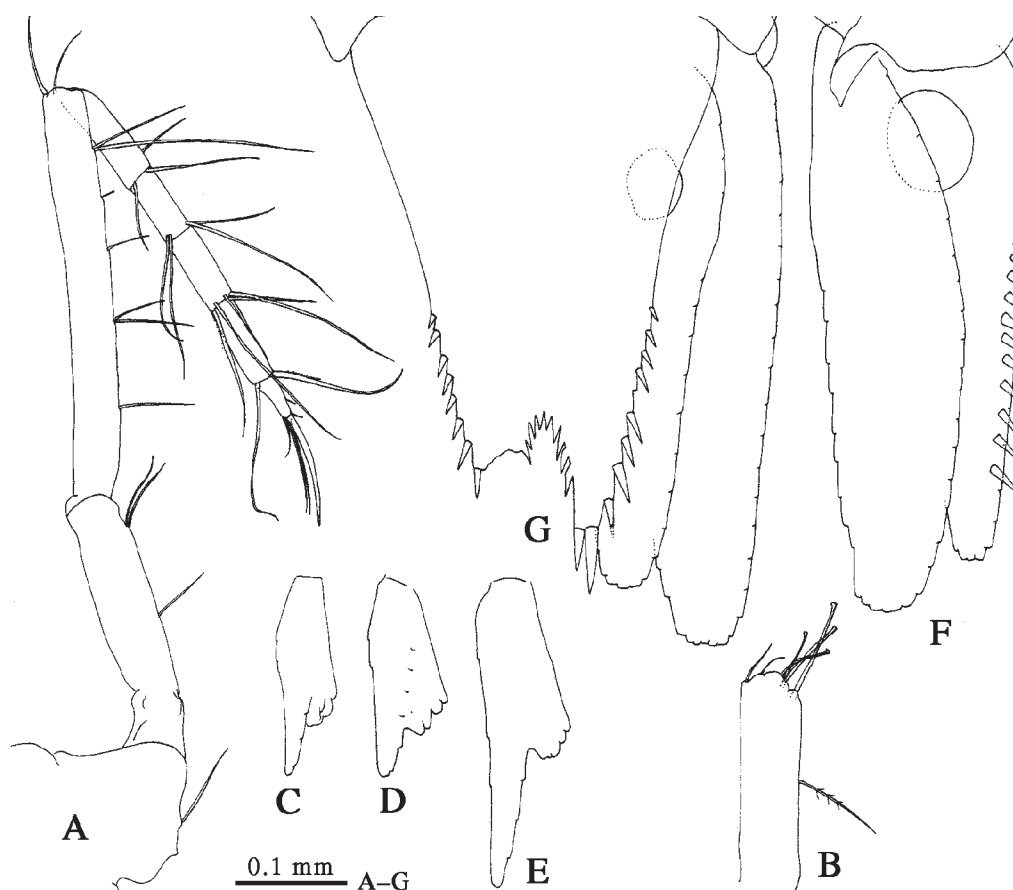


Figure 15 *Heteromysis thailandica* sp. nov. Holotype (male). A, endopod of fourth thoracic limb; B, penis in lateral view; C–E, third to fifth pleopods; F, uropod in ventral view; G, uropod and telson in dorsal view.

of proximal segment of endopod, armed with 11 plumose setae on outer margin, 1 long plumose seta at apex, and 1 long plumose seta on inner margin near apex (Fig. 14E).

Endopod of first and second thoracic limbs as shown in Fig. 14F and G, respectively; endopod of fourth thoracic limb long, slender, carpopropodus divided into 4 subequal subsegments, terminal claw long, slender, more than 2.5 times as long as dactylus (Fig. 15A); endopod of other thoracic limbs missing.

Penis club-shaped, 3.7 times as long as broad in lateral view, posterior margin armed with 1 long seta on middle, apex globular, armed with 6 setae (Fig. 15B).

First to fifth abdominal somites subequal in length, sixth somite 1.5 times as long as preceding one.

All pleopods of male reduced to unsegmented lobe, not modified (Fig. 15C–E).

Endopod of uropod broad, extending to tip of apical spine of telson (Fig. 15G), armed with 13 spines along inner margin from proximal 1/4 to distal 1/6, spines somewhat irregular in size except proximal 2 being small (Fig. 15F). Exopod of uropod 1.1 times as long as endopod (Fig. 15G).

Telson triangular with apical cleft, 1.2 times as long as sixth abdominal somite, 1.4 times as long as broad at base; lateral margin slightly concave, armed on distal 2/5 with 9 spines increasing gradually in length distally; apex of either side of the cleft armed with 2 robust spines, outer spine 1.5 times as long as inner spine, inner spine almost as long as lateral longest spine; cleft about 1/4 of telson length, armed with 5 spines on proximal 3/5 of each side (Fig. 15G).

Etymology

The specific name is derived from the type locality, Thailand.

Remarks

Heteromysis thailandica is allied to *Heteromysis macropsis* Pillai, 1961. The former species is, however, distinguished from the latter by the characters in the body length, endopod of third to eighth thoracic limbs, uropodal endopod and telson. The body length is 3.4 mm in adult male of *H.*

thailandica compared to 4–5 mm in immature specimens of *H. macropsis*. The carpopropodus of the endopod of the fourth thoracic limb is divided into four subsegments in *H. thailandica* compared to five in *H. macropsis*. The endopod of the uropod is armed with 13 spines along the inner margin in *H. thailandica* as against eight in *H. macropsis*. The spines on each side of the telson cleft are located in the proximal three-fifths in *H. thailandica*, whereas these are located over almost of the entire length in *H. macropsis*.

Heteromysis thailandica is distinguished from other species belonging to *Heteromysis* by a combination of the characters in the eye, male pleopods, uropodal endopod and telson.

Pseudomysidetes nudus sp. nov. (Figs 16, 17)

Material examined

Holotype: PMBC 14662, 1 male, 6.1 mm, BIOSHELF St. A2, 09°29'N, 097°52'E, OS, 61 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998.
Paratype: PMBC 14663, 1 female, 5.3 mm, BIOSHELF St. A1, 09°30'N, 097°57'E, OS, 46 m, coll. S. Bussarawit and C. Aungtonya, 18.02.1998.

Description

Integument smooth.

Carapace with broadly rounded anterior margin with angular apex, not extending to base of antennular peduncles (Fig. 16A, B); anterolateral corner rounded; posterior margin emarginate, leaving last two or three thoracic somites exposed dorsally.

Eyes set widely apart, almost as long as broad; cornea occupying distal 2/5 of eye; eyestalk without papilliform process (Fig. 16A, B).

Antennular peduncle more robust in male than in female, proximal segment as long as broad in male and longer than in female, with hump on middle of outer margin, distal segment 1.1 times as long as broad in both sexes (Fig. 16A); sexual appendix arising from ventral surface of middle of distal segment, developed, armed densely with setae.

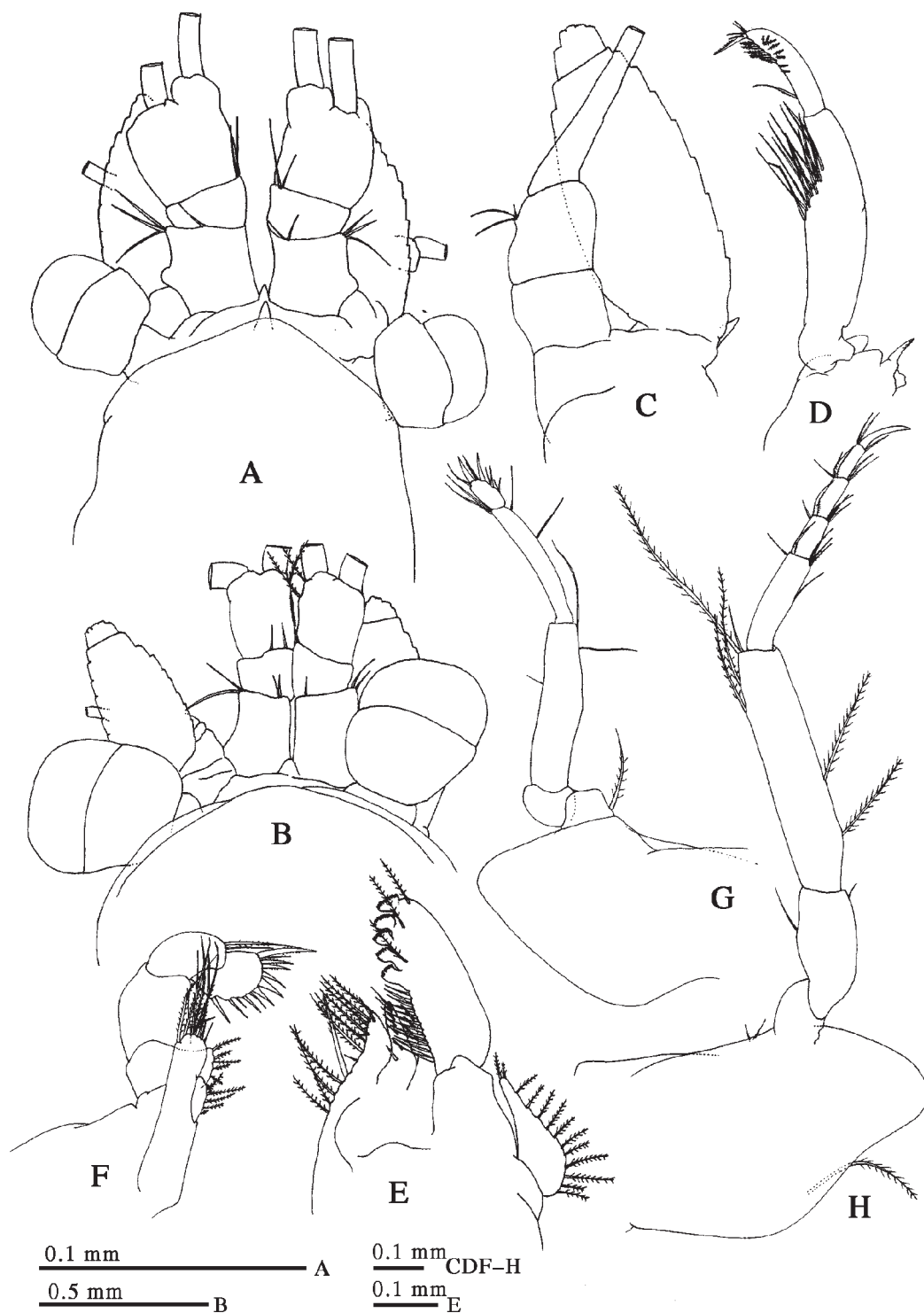


Figure 16 *Pseudomysidetes nudus* sp. nov. A, C–H, holotype (male); B, paratype (female). A, B, anterior part of body in dorsal view; C, antenna; D, mandible; E, maxilla; F–H, endopod of first to third thoracic limbs.

Antennal scale elongate, elliptical, not reaching apex of antennular peduncle, 2.4 times as long as broad, setose on all margins, distal suture marked off at distal 1/9 (Fig. 16C). Antennal peduncle extending to distal 2/5 of scale, third segment longest, 1.2 times as long as second (Fig. 16C). Antennal sympod with spiniform process at outer distal corner (Fig. 16C).

Labrum broad, without anterior spine. Mandibular palp with second segment narrow, 3.5 times as long as broad, armed densely with long setae on distal 2/5 to 1/5 of outer margin, third segment about 2/5 of second segment in length

(Fig. 16D). Maxilla: distal segment of endopod 2.7 times as long as broad, outer margin naked, inner margin armed in proximal half with long dense setae, distal half with 5 powerful peculiar lobes, which are triangular to rectangular in shape and with serrated distal margins; exopod small, tapering, not extending to distal margin of proximal segment of endopod, armed with 11 plumose setae on outer margin and 2 plumose setae on apex (Fig. 16E).

Endopod of first thoracic limb short and robust, lobe from basis slender, with group of setae on apex, dactylus expanded broadly, with about

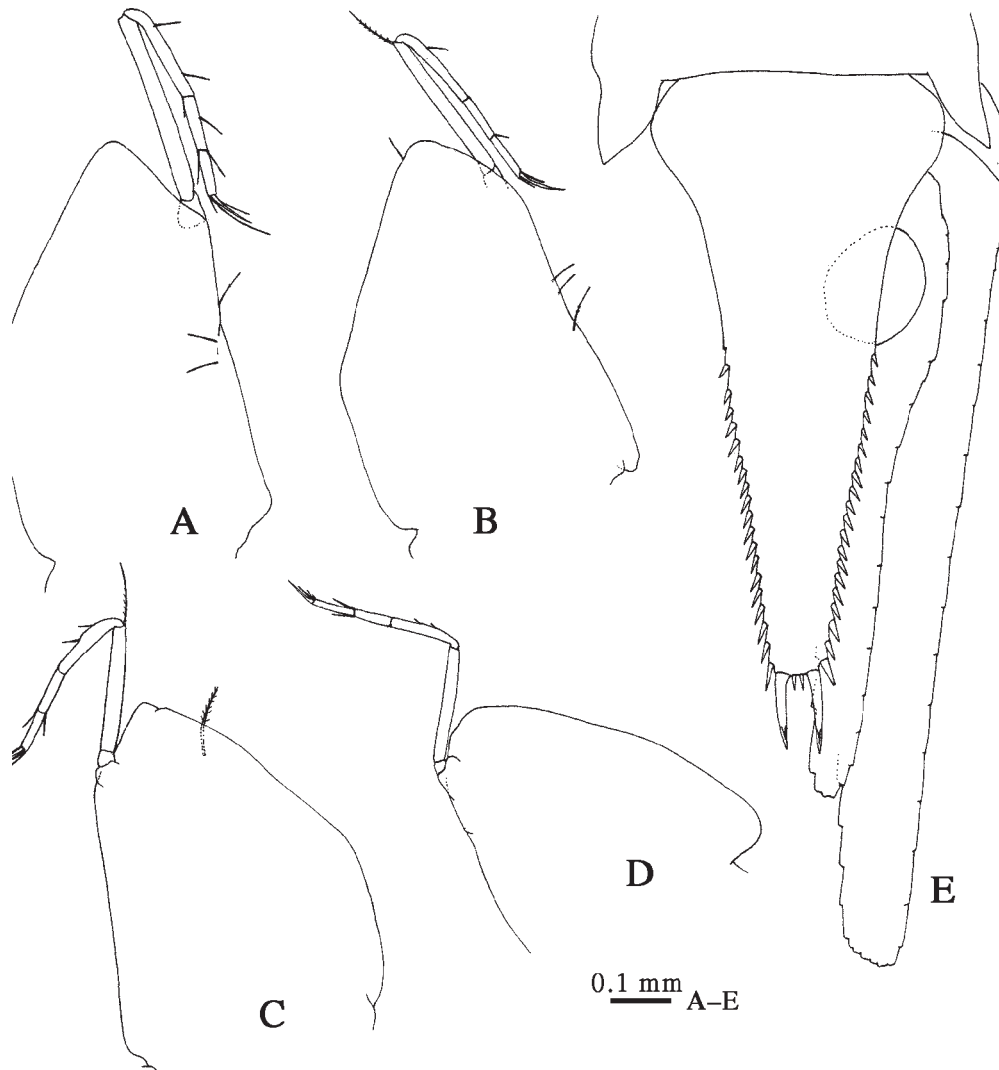


Figure 17 *Pseudomysidetes nudus* sp. nov. Holotype (male). A–D, endopod of fifth to eighth thoracic limbs; E, uropod and telson.

10 spines and setae (Fig. 16F). Endopod of second thoracic limb slender, weakly built, carpopropodus narrower and shorter than merus, dactylus $2/7$ length of carpopropodus, twice as long as broad, with strong claw on apex (Fig. 16G). Endopod of third thoracic limb long and slender, with carpopropodus divided into 4 subsegments with proximal subsegment longest, distal three subsegments subequal and $2/5$ of proximal one in length, dactylus and terminal claw fused, robust (Fig. 16H). Endopod of fourth thoracic limb broken off. Endopod of fifth to eighth thoracic limbs slender, feeble, becoming smaller towards posterior pairs; merus longest, slightly shorter than combined length of succeeding segments, carpopropodus divided into 3 subsegments, proximal subsegment equal to combined length of succeeding two subsegments in fifth and sixth limbs, slightly shorter in seventh and eighth limbs; claw fused with dactylus, slender (Fig. 17A–D).

Penis cylindrical directed downward, not reaching distal margin of basis of endopod of eighth thoracic limb, 4 times as long as broad in lateral view, armed with 1 short seta on median anterior margin.

Abdominal somites smooth; first to fifth somites subequal in length, sixth somite 1.3 times as long as fifth.

All pleopods of both sexes reduced to unsegmented lobe, increasing in length posteriorly.

Endopod of uropod 1.2 times as long as telson (Fig. 17E), without spines on inner margin; exopod straight, 1.2 times longer than endopod (Fig. 17E).

Telson 1.8 times as long as sixth abdominal somite, 2.1 times as long as broad, expanded laterally in basal portion, abruptly narrowing towards basal $1/5$, then narrowing progressively toward truncate apex; lateral spines beginning beyond in

mid region, 20 in number, gradually increasing in length distally; apical margin about $1/6$ of maximum width at base, armed with 2 pairs of spines, outer pair long and robust, 2.4 times as long as adjacent pair of lateral spines, inner pair of small apical spines $3/5$ as long, without median plumose setae (Fig. 17E).

Etymology

The epithet is derived from the Latin *nudus*, naked, in reference to the endopod of the uropod without spines.

Remarks

Pseudomysidetes nudus is closely allied to *Pseudomysidetes japonicus* Bravo and Murano, 1996, in the shape of the maxilla, penis and telson, but is distinguished from the latter species as follows; (1) in *P. nudus* the carpopropodus of the endopod of the third thoracic limb is divided into four subsegments compared to five in *P. japonicus*; and (2) the endopod of the uropod is unarmed with spines on the middle of inner margin in *P. nudus*, whereas it is armed with two spines in *P. japonicus*.

Pseudomysidetes nudus also resembles *Pseudomysidetes russelli* W.M. Tattersall, 1936 in that the endopod of the uropod is without spines. However, the new species differs from *P. russelli* as follows; (1) the distal segment of the endopod of the maxilla does not have the distal spine in *P. nudus*, whereas it is armed with a spine in *P. russelli*, (2) the penis is short and directed downward in *P. nudus*, while it extends forward to almost as far as the mouth in *P. russelli*, and (3) the basal part of the lateral margin of the telson is rounded in *P. nudus*, while it exhibits the well-marked shoulder defined by a blunt process in *P. russelli*.

Key to the species of Mysidacea in the Andaman Sea and Malacca Strait.

1. Branchiae present on at least some of thoracic limbs. All pleopods in both sexes with both rami well-developed and unmodified. Statocyst absent on endopod of uropod. Marsupium composed of 7 pairs of lamellae. (Suborder Lophogastrida).....2
 - Branchiae absent. Female pleopods reduced to single unsegmented lobe except for some of the family Petalophthalmidae and families Lepidomysidae and Stygiomysidae. Male pleopods variable. Statocyst present or absent. Marsupium composed of 7 or 2–3 pairs of lamellae. (Suborder Mysida).....4
2. Luminous organ present. Telson with apex armed with 2 strong curved spines connected at base to form a crescent (pseudofurca).....*Gnathopausia zoea*
 - Luminous organ absent. Telson not forming pseudofurca at apex.....3
3. Antennal scale triangular, outer margin with 4–6 teeth. Exopod of uropod undivided.....*Lophogaster intermedius*
 - Antennal scale lanceolate with lateral margins parallel-sided, armed with 1 spine at end of naked outer margin. Exopod of uropod 2-segmented.....*Paralophogaster macrops*
- 4a. Marsupium composed of 7 pairs of lamellae. Exopod of uropod undivided, outer margin with proximal part naked, with 1–2 small spines marking end of naked portion. (Subfamily Boreomysinae)*Boreomysis kistnae*
- b. Marsupium composed of 2–3 pairs of lamellae. Exopod of uropod 2-segmented.....5
- c. Marsupium composed of 2–3 pairs of lamellae. Exopod of uropod undivided.....15
5. Endopod of uropod undivided. (Subfamily Siriellinae).....6
 - Endopod of uropod 2-segmented, with 1 strong spine on ventral surface close to statocyst. (Subfamily Rhopalophthalminae).....12
6. Endopod of third thoracic limb almost same as following limbs in shape.....7
 - Endopod of third thoracic limb extremely elongated, almost twice as long as following limbs.....11
7. Pseudobranchial lobe on second to fourth male pleopods straight.....*Siriella aequiremis*
 - Pseudobranchial lobe on second to fourth male pleopods spirally coiled or at least G-shaped.....8
8. Third and fourth male pleopods with modified setae. Exopod of uropod armed on outer margin of proximal segment with both of spines and setae.....*Siriella dubia*
 - All male pleopods without modified setae. Exopod of uropod on outer margin of proximal segment spinose only.....9
9. Exopod of uropod longer than endopod.....*Siriella vulgaris*
 - Exopod of uropod shorter than endopod.....10
10. Eye large, slightly longer than broad. Antennal scale long and slender, extending to distal end of antennular peduncle. Apex of telson armed with 2 pairs of stout spines and 3 median small spines.....*Siriella thompsoni*

- Eye small, about 1.6 times as long as broad. Antennal scale short, extending slightly beyond middle of third segment of antennular peduncle. Apex of telson armed with 1 pair of stout spines and 3 median small spines.....*Siriella gracilis*
11. Telson conspicuously constricted near base, with 2 stout spines on each lateral margin near base.....*Hemisiriella parva*
- Telson scarcely constricted near base, with 3 slender spines on each lateral margin near base.....*Hemisiriella pulchra*
12. Antennal sympod armed at inner distal angle with 3 rather long graduated spines. Inner pair of apical spines of telson slightly shorter than outer pair.....*Rhopalophthalmus egregius*
- Antennal sympod armed at inner distal angle with 2 long spines and 2 short graduated spines. Inner pair of apical spines of telson slightly longer than outer pair..... 13
13. Eye not extending to second segment of antennular peduncle. Telson narrow in distal half.....*Rhopalophthalmus macropsis*
- Eye extending to distal margin of second segment of antennular peduncle. Telson moderately broad in distal half..... 14
14. Endopod of third to seventh thoracic limbs with 2-segmented propodus. Endopod of eighth thoracic limb in both sexes very long, straight and unsegmented.....*Rhopalophthalmus kemp*
- Endopod of third thoracic limb with 2-segmented propodus. Endopod of fourth to seventh limbs with 3-segmented propodus. Endopod of eighth thoracic limb 2-segmented in male and unsegmented in female.....*Rhopalophthalmus orientalis*
15. Exopod of uropod armed on outer margin with spines but without setae. (Subfamily Gastrosaccinae)..... 16
- Exopod of uropod armed on outer margin with setae but without spines. (Subfamily Mysinae)..... 27
16. Posterior margin of carapace slightly concave or rounded. Inner base of antennal peduncle bearing process furnished with spinules..... 17
- Posterior margin of carapace deeply emarginate. Antennal peduncle not bearing process on inner base..... 22
17. Exopod of uropod armed on outer margin with 1–2 spines..... 18
- Exopod of uropod armed on outer margin with many spines..... 19
18. Exopod of male second pleopod 2-segmented. Endopod of uropod unarmed with spines. Telson armed with 6–9 spines on lateral margins.....*Pseudanchialina pusilla*
- Exopod of male second pleopod unsegmented. Endopod of uropod armed with 1 spine. Telson armed with 3–7 spines on lateral margins.....*Pseudanchialina inermis*
19. Exopod of male third pleopod with lobose process distally.....*Anchialina grossa*
- Exopod of male third pleopod without lobose process distally..... 20
20. Rostral projection long, triangular and straight. Exopod of male third pleopod with modified seta straight.....*Anchialina dentata*
- Rostral projection short, obtuse and bent downward. Exopod of male third pleopod with specialised bent outer setae..... 21

21. Specialised bent setae arising from fourth to sixth segments counted from distal end, outer distal angle of third segment not projecting laterally.....*Anchialina typica typica*
 — Specialized bent seta arising from fifth to seventh or eighth segments, outer distal angle of third segment strongly projected laterally.....*Anchialina typica orientalis*
22. Exopod of male third pleopod greatly elongated with complicated termination, endopod unsegmented.....*Eurobowmaniella simulans*
 — Exopod of male third pleopod greatly elongated with simple termination, endopod uni- to multi-segmented.....23
23. Endopod of male third pleopod multi-segmented. All female pleopods uniramous.....*Gastrosaccus dunckeri*
 — Endopod of male third pleopod uni-segmented or fused with exopod. In female, first pleopod biramous, second to fifth pleopods uniramous.....24
24. Endopod of male second pleopod uni- or 2-segmented.....25
 — Endopod of male second pleopod 6- or 7-segmented.....26
25. Endopod of male second pleopod uni-segmented. Endopod of male third pleopod fused with exopod and represented by oblong process near base.....*Haplostylus indicus*
 — Endopod of male second pleopod 2-segmented. Endopod of male third pleopod fused with exopod and represented by short triangular process.....*Haplostylus pacificus*
26. Ultimate segment of exopod of male third pleopod divided from penultimate segment by oblique articulation.....*Haplostylus bengalensis*
 — Ultimate segment of exopod male third pleopod divided from penultimate segment by transverse articulation.....*Haplostylus pusillus*
27. All of or a part (fourth or third and fourth pairs) of male pleopods developed into long, multi-segmented organ; all of female pleopods reduced in single unsegmented lobe.....28
 — All pleopods in both sexes reduced in single unsegmented lobe.....60
28. Antennal scale with outer margin smooth or with spines.....29
 — Antennal scale setose all around.....40
29. Cornea of eye divided in two portions.....30
 — Cornea of eye undivided.....31
30. Body covered with spines. Telson armed with 3 spines on lateral margin.....*Euchaetomera typica*
 — Body not covered with spines. Telson unarmed with spines on lateral margin.....*Euchaetomera* sp. Pillai, 1973
31. Lateral margin of telson unarmed with spines.....32
 — Lateral margin of telson armed with spines.....38
32. Eye dorsoventrally depressed.....33
 — Eye not depressed.....36
33. Antennal scale with 3–5 spines on outer margin.....*Erythropros minuta*
 — Antennal scale with outer margin smooth.....34

34. Telson armed on apex with 3 pairs of spines and pair of median plumose setae.....*Erythrops nana*
 — Telson armed on apex with 2 pairs of spines and pair of median plumose setae.....35
35. Inner margin of endopod of uropod not serrated.....*Erythrops phuketensis* sp. nov.
 — Inner margin of endopod of uropod serrated.....*Erythrops* sp.
36. Telson short, 3/4 as long as broad at base.....?*Pleurerythrops* sp.
 — Telson long, 1.2–1.6 times as long as broad at base.....37
37. Endopod of male fifth pleopod armed with long seta on each of ultimate and penultimate segments. Endopod of uropod armed with 11–19 spines along inner margin.....*Pleurerythrops inscita*
 — Endopod of male fifth pleopod unarmed with modified setae. Endopod of uropod armed with 1 spine on ventral surface of statocyst region.....*Pleurerythrops monospinosa*
38. Telson armed with 2–3 spines on distal 1/4 of lateral margin.....*Hypererythrops semispinosa*
 — Telson armed with spines on entire length of lateral margin.....39
39. Endopod of male fourth pleopod armed with modified seta on each of ultimate and penultimate segments. Lateral margin of telson straight or slightly concave, armed with 6–14 spines.....*Hypererythrops spinifera*
 — Endopod of male fourth pleopod armed with modified seta on ultimate segment. Lateral margin of telson concave, armed with 4–5 spines.....*Hypererythrops validisaeta* sp. nov.
40. Second to fifth pleopods in male biramous and multi-segmented.....41
 — At least first and second pleopods in male rudimentary. Exopod of male fourth pleopod elongate and modified.....50
41. Eye with accessory eye on dorsal lateral side.....42
 — Eye without accessory eye.....43
42. Endopod of male fifth pleopod with narrow lobe tipped with 1 plumose seta on first segment in addition to pseudobranchial lobe.....*Dioptrymysis proxima*
 — Endopod of male fifth pleopod without such narrow lobe on first segment.....*Dioptrymysis perspicillata*
43. Telson without apical cleft or with shallow hollow.....44
 — Telson with apical cleft.....46
44. Cornea of eye divided into two parts, facets on posterior cornea large and elongate, those of anterior part normal.....*Paraleptomysis xenops*
 — Cornea of eye undivided.....45
45. Telson armed with 2 spines on lateral margin near base, apical end shallowly hollow, armed with 2 pairs of spines.....*Mysidopsis indica*
 — Telson linguiform with broader rounded apex, armed with spines on entire length of lateral margin and with 4 pairs of long spines on apex.....*Mysidopsis kemp*
46. Cleft of telson unarmed with spines.....47
 — Cleft of telson armed with spines.....48

47. Antennal scale exceedingly long and narrow, 13 times as long as broad. Telson armed with about 40 spines on lateral margin, apical lobes expanded laterally.....*Prionomysis stenolepis*
- Antennal scale 7 times as long as broad. Telson armed with 10-15 spines on lateral margin; apical lobes becoming narrower distally.....*Promysis orientalis*
48. Second segment of endopod of maxilla triangular in shape, distal margin armed with longer and shorter spines.....*Afromysis* sp. O.S. Tattersall, 1965
- Second segment of endopod of maxilla broader than long, trapezoidal in shape, distal margin armed with same-sized spines.....49
49. Telson armed with 13 spines on lateral margin, apical cleft 1/3 of telson length, armed with 15 spinules on each side, apical lobes more or less equal width throughout, apex rounded, armed with 4 subequal spines.....*Doxomysis littoralis*
- Telson armed with 7-8 spines on lateral margin, apical cleft 1/5 of telson length, armed with 6 spinules on each side, apical lobes becoming narrower towards narrow apex in which 1 long and 2 short spines.....*Doxomysis anomala*
50. Male antennular peduncle with long hirsute lobe and extra lobe distally. Male third pleopod biramous, endopod unsegmented, exopod 2-segmented, shorter than endopod. Male fourth pleopod biramous, endopod minute, exopod long, 3-segmented.....*Mesopodopsis orientalis*
- Male antennular peduncle without extra lobe distally. Male third pleopod rudimentary. Male fourth pleopod biramous, endopod unsegmented, exopod long.....51
51. Exopod of male fourth pleopod 2-segmented.....52
- Exopod of male fourth pleopod 3-segmented.....57
52. Endopod of uropod narrow, armed with 13–14 large spines on inner margin from statocyst region to apex. Telson long and very narrow, nearly 4 times as long as broad at base, lateral margin armed along distal 4/5 with 12–14 regularly spaced spines, these spines arising from ventral surface near lateral margins, directed downwardly and curved in aberrant manner and appear to be distorted.....*Acanthomysis ornata*
- Endopod of uropod armed with 3–6 spines on ventral surface of statocyst region. Telson triangular or linguiform, marginal spines normal.....53
53. Two setae terminating exopod of male fourth pleopod considerably different in length, longer seta more than 3 times as long as shorter. Telson triangular.....*Notacanthomysis hodgarti*
- Two setae terminating exopod of male fourth pleopod subequal in length, longer seta less than 1.5 times as long as shorter. Telson linguiform.....54

- 54a. Body smooth. Inner margin of second segment of mandibular palp weakly serrated on distal half. Exopod of male fourth pleopod overreaching posterior end of last abdominal somite.....*Acanthomysis longispina* sp. nov.
- b. Body smooth. Inner margin of second segment of mandibular palp strongly serrated. Exopod of male fourth pleopod reaching middle of last abdominal somite.....*Acanthomysis quadrispinosa*
- c. Body hispid. Inner margin of second segment of mandibular palp not serrated. Exopod of male fourth pleopod reaching middle of last abdominal somite.....55
55. Telson armed with 1 spine on expanded basal part, longer spines arming lateral margin increasing conspicuously in length posteriorly, longest spine on lateral margin about twice as long as those on apical margin.....*Acanthomysis brucei* sp. nov.
- Telson armed with 3 spines on expanded basal part, longer spines arming lateral margin subequal or gradually increasing in length posteriorly, longest spine on lateral margin almost as long as those on apical margin.....56
56. Rostral projection with pointed apex. Two setae terminating exopod of male fourth pleopod subequal in length.....*Acanthomysis indica*
- Rostral projection with rounded apex. Two setae terminating exopod of male fourth pleopod somewhat different in length.....*Acanthomysis platycauda*
57. Endopod of male fourth pleopod of usual type having side lobe; exopod with single extremely long terminal seta.....*Lycomysis spinicauda*
- Endopod of male fourth pleopod reduced to small knob-like; exopod with two terminal setae, one slender and another thick in proximal half.....58
58. Cornea of eye globular, not divided in tow portions. Telson with apical cleft.....*Anisomysis bifurcata*
- Cornea of eye divided in tow portions. Telson without apical cleft.....59
59. Body hispid. Telson constricted laterally at distal 1/3, apical margin arched, armed with 4 pairs of spines.....*Anisomysis hispida*
- Body not hispid. Telson not constricted laterally, apical margin armed with pair of spines.....*Anisomysis tattersallae*
60. Endopod of fifth to eighth thoracic limbs developed. Telson cleft apically.....*Heteromysis thailandica* sp. nov.
- Endopod of fifth to eighth thoracic limbs slender and feeble. Telson long, not cleft apically.....*Pseudomysidetes nudus* sp. nov.

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