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BRACHYURA (CRUSTACEA) OF THE ANAMBAS EXPEDITION 2002

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***ABSTRACT.* –** The brachyuran crabs collected by the 2002 scientific expedition to the Anambas and Natuna islands in the South China Sea are reported upon. A total of 87 species from 15 families are recorded. Noteworthy are the discovery of two new species, one pilumnid, *Heteropilumnus satriai*, and one sesarmid, *Parasesarma anambas*.

***KEY WORDS.* –** Taxonomy, Anambas, South China Sea, *Heteropilumnus*, *Parasesarma*, new species, records.

INTRODUCTION

In March 2002, Expedition Anambas, was conducted in the southern part of the South China Sea, as part of the regional workshop process in resolving conflicts through confidence building measures. The expedition, which lasted a fortnight, centred on the relatively poorly explored Indonesian islands of Anambas and Natuna, and included scientific participants from Indonesia, Singapore, Malaysia, Philippines, Thailand, Vietnam, China and Chinese-Taipei. Specimens were obtained by trawling, as well as by hand-collecting during diving and intertidal beach-combing.

The present paper reports on the brachyuran crabs collected as a result of this expedition. A total of 87 species from 15 families are documented (see Appendix 1). The material examined is also listed in Appendix 1, and the datasets associated with this material are presented in the Scientific Overview chapter by Ng et al. (2004) (in the present volume). Specimens are deposited in the Museum Zoologicum Bogoriense (MZB), Cibinong, Indonesia; and Zoological Reference Collection (ZRC) of the Raffles Museum of Biodiversity Research, National University of Singapore. Measurements provided in the text are of the carapace breadth and length respectively. The abbreviations G1 and G2 are used for the male first and second pleopods respectively. Only the taxonomy of new species or those of specific interest are treated in detail in this paper (marked in Appendix 1 by an asterisk).

TAXONOMIC NOTES

FAMILY MAJIDAE SAMOUELLE

Austrolibinia pincerna Wagner, 1992

Remarks. – The taxonomy of this characteristic species has been discussed in depth by Wagner (1992) and Rahayu & Ng (2000). The type locality is in the South China Sea, near the Anambas (Wagner, 1992), and the rediscovery of the species here is thus noteworthy. It has also been reported from the Indonesian part of the Straits of Malacca (Rahayu & Ng, 2000).

FAMILY PORTUNIDAE RAFINESQUE

Subfamily Portuninae Rafinesque

Portunus (*Xiphonectes*) *tenuipes* (De Haan, 1835)

Remarks. – The present specimens from Anambas are clearly referable to *Portunus tenuipes* s. str., matching the description

and illustrations of the holotype by De Haan (1835: Pl. 1 fig. 4) and Yamaguchi & Baba (1993: Fig. 138) very well. In addition, the ZRC has some *P. tenuipes* specimens collected from the Gulf of Thailand (see *Comparative Material* below) that agree well with the present Anambas material (see De Haan, 1835: Pl. 1 fig. 4; Sakai, 1976: Fig. Pl. 120 fig. 3; Yamaguchi & Baba, 1993: Fig. 138).

Stephenson & Campbell (1959) and Stephenson (1972) describe *P. tenuipes* as possessing only a single spine on the carpus (on the inner margin) of the cheliped; and their identification keys distinguish *P. tenuipes* from the closely related *P. rugosus* by the presence of an inner spine only on the carpus of the cheliped (versus presence of both inner and outer spine). However, the present specimens, which match the illustrations of *P. tenuipes* in Stephenson & Campbell (1959) and Stephenson (1972), do possess a spine each on both the inner and outer margins of the carpus of the cheliped, although the outer margin spine is relatively low. The holotype similarly possesses a low but distinct spine on the outer margin of the carpus of the cheliped (see De Haan, 1835: Pl. 1 fig. 4; Yamaguchi & Baba, 1993: Fig. 138). It is possible that the Australian specimens of *P. tenuipes* were described as such by Stephenson & Campbell (1959) and Stephenson (1972) because of the orientation of the cheliped during examination, drawing or photographing causing the already low spine to almost disappear from dorsal view. Alternatively, if the absence of the outer carpal spine is real and consistent, Stephenson & Campbell (1959) and Stephenson (1972) might well be dealing with another species altogether. A re-examination of the Australian *P. tenuipes* specimens is needed to resolve this.

We also examined a good series of comparative material collected from Singapore, which had been identified as *P. tenuipes*. These, however, consistently differ from the present Anambas and Thai material as well as from illustrations of De Haan (1835: Pl. 1 fig. 4), Stephenson (1972), Sakai (1976: Fig. Pl. 120 fig. 3), and Yamaguchi & Baba (1993: Fig. 138), in G1 structure, carapace sculpturing, and limb length and proportions. In addition, they appear to be generally smaller in size. A female specimen from Singapore ([ZRC 1965.7.5.37) is already ovigerous at 31.2 by 14.7 mm (versus an immature female specimen from Thailand [ZRC 1992.10341], with the abdomen not fully expanded, measuring 30.4 by 17.0 mm). The smallest male specimen from among the Singapore material (ZRC 1965.7.5.46), measuring 22.8 by 10.5 mm, possessed fully developed G1s and abdomen (versus an immature male from among the Thai material [ZRC 1992.10346], with incompletely developed G1s and abdomen, measuring 26.0 by 14.0 mm). It is possible that the Singapore material might represent an undescribed or poorly known species, but this is outside the scope of the present paper, and will need to be dealt with in a separate work.

Comparative material. – *Portunus tenuipes* (De Haan, 1835) – **THAILAND**: 1 male (43.9 by 25.8 mm) (ZRC 1970.2.19.3), Gulf of Thailand, coll. Fisheries Research Laboratory, Bangkok, 1970; 1 immature male (26.0 by 14.0 mm), 4 immature females (largest 30.4 by 17.0 mm) (ZRC 1992.10341-10346), Thailand, off Pattaya, coll. P. K. L. Ng & L. B. Holthuis, 1991. **SINGAPORE**: 4 males (largest 34.7 by 22.6 mm), 4 females (including 1 ovigerous, 31.2 by 14.7 mm) (ZRC 1965.7.5.37-46), Siglap, coll. M. W. F. Tweedie, 1934; 2 males (larger 36.2 by 22.0 mm) (ZRC 1985.896-897), Siglap, coll. M. W. F. Tweedie, 1934; 1 juvenile (ZRC 1991.9575), Pulau Semakau, coll. 1990; 1 juvenile (ZRC 1991.16181), Pulau Sakra, coll. 1991.

FAMILY PILUMNIDAE SAMOUELLE

Subfamily Rhizopinae Stimpson

Heteropilumnus satriai, new species

Material examined. – Holotype - male (19.3 by 13 mm) (MZB), St. EA-D 11, Natuna: rocky islet southeast of Pulau Laut, 16 Mar.2002.

Description. – Carapace 1.4 times broader than long, more or less flat across mesogastric and branchial regions; convex fore and aft over frontal third. Carapace surface with scattered granules on metagastric region, with denser granules on posterolateral region; scarce short setae on metagastric region, denser anterolaterally and posterolaterally. Regions relatively poorly defined, with only gastric region being moderately distinct.

Front deflexed, bilobed, a median cleft with groove present; margin sinuous with obtuse preorbital angle; postfrontal with transverse row of minutes granules. Supraorbital margin sinuous, granular, with two fissures. Infraorbital margin minutely granular. Ocular peduncles short, corneas small, darkly pigmented. Antennules relatively short, folding into oblique fossae. Antennae with basal segment just touching front. Anterolateral margin consisting of 4 lobes including exorbital angle with slightly raised rim. Exorbital angle small, subacute, with small accessory granules on outer margin; 2nd lobe large, margin with several granules; third and fourth lobes about the same size, large, margin with several granules. Greatest carapace width between 4th anterolateral lobe. Posterolateral margin longer than anterolateral, rounded, converging posteriorly. Posterior margin straight, with slightly raised rim.

Third maxilliped with merus 1.5 times wider than long and 0.7 times as long as ischium; distal margin straight; ischium about 1.4 times longer than wide, inner margin straight.

Chelipeds subequal, right slightly larger. Merus short, trihedral, with row of minutes spines on ventral anterior margin; outer surface with few granules near upper border, scarcely setose; upper border smooth, with long dense setae distally, inner border with long dense setae distally. Carpus unarmed, inner angle blunt; surface covered with large, blunt tubercles and short setae. Palm excluding fixed finger c. 1.2 times longer than high; fingers relatively short, fixed finger about as long as palm, down turn. Dactyl1.2 length of palm; both fingers with tips obtuse, cutting edges with large, obtuse teeth, distal half of fingers darkly pigmented. Entire outer

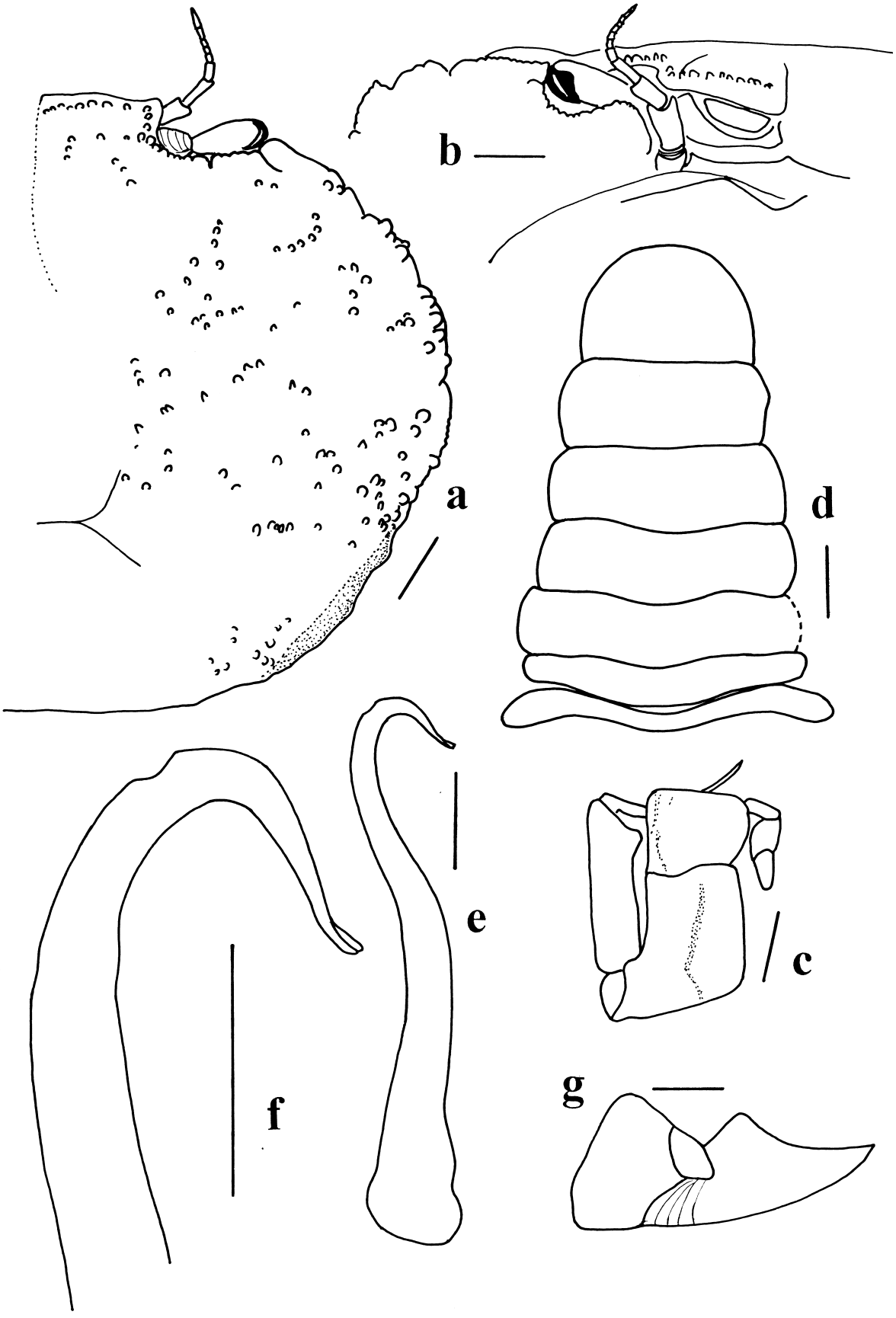

Fig. 1. *Heteropilumnus satriai*, new species. a. right anterolateral margin. b. right orbital area, ventral view, c. right third maxilliped, d. abdomen, e, f. left G1, g. right coxa of fifth walking leg. Scale 1 mm.

surface covered with large, obtuse tubercles and scarce short, stiff setae.

Walking legs fringed with long setae on dorsal and ventral margins; upper lateral half of propodi, lateral surface of carpi and meri with scattered long and short setae. Second and third walking legs longest, about as long as carapace width. Dactyli styliform, about as long as propodi. Merus of third walking leg 3.3 times longer than wide. Small projecting scale on upper surface of coxae of all four pairs of walking legs.

Thoracic sternum and abdomen scarcely setose. Telson longer than other segments. Segment 1 widest, shortest. G1 sinuous, apical part relatively long, curved; G2 sigmoid, very short.

***Etymology.* –** The species is named in honour of Mr Satria Djambek (Indonesian Department of Foreign Affairs), whose tireless and patient efforts have helped make the expedition a clear success.

***Remarks.* –** The new species is only tentatively referred to *Heteropilumnus* De Man, 1895, owing to the distinctly more ovate carapace (rather than the usual rectangular to subrectangular form) and the sparsely setose carapace in which most of the surface is visible. In all other *Heteropilumnus* species, the carapace is covered with a dense coat of long and/or short setae such that much of the carapace surface is obscured. In many species, the setae are also much longer and denser on the anterior part of the carapace, so much so that the orbits and eyes are not visible from dorsal view. The anterolateral margin of the present species is also distinctly convex (vs. gently convex) with very low lobes throughout. This combination of features easily distinguishes this species from all congeners (see also Ng & Tan, 1988; Ng & Davie, 1991; Davie & Humpherys, 1997), and is here described as new, *Heteropilumnus satriai*.

Heteropilumnus satriai on the other hand, bears a marked resemblance to some species of *Cryptolutea* Ward, 1936 (type species *Cryptolutea lindemanensis* Ward, 1936). Especially with regards to the carapace shape, anterolateral margin armature and sparsely setose carapace, *H. satriai* resembles *C. arafurensis* Davie & Humpherys, 1997, and *C. sagamiensis* (Sakai, 1935). However, *H. satriai* does not have the dorsal part of the ambulatory coxa prominently produced to partially cover the basis-ischium and with the lateral margin distinctly serrated. In *H. satriai*, the ambulatory coxa has the dorsal part slightly produced outwards (more so than in other *Heteropilumnus* species examined) but clearly not overlapping the adjacent segments, and the lateral margin is smooth. Moreover, in *Cryptolutea* species, the enlarged coxal plate is distinct on all the ambulatory legs, whereas in *H. satriai*, the slightly enlarged coxa is only discernible on the last leg. For this reason, we keep it in *Heteropilumnus*. In any case, it has been commented before that *Heteropilumnus* (type species *Heteropilumnus stormi* De Man, 1895), currently with 18 valid species, is heterogeneous (see Ng, 1987), and all indications are that a revision will split it into several genera. When this is done, the generic position of *H. satriai* can be re-evaluated.

The only specimen available for this study is infected by a *Sacculina* (Rhizocephala), and as such, its abdomen is not normal. It possesses both male and female pleopods, and the G1 is here figured, although it may be somewhat abnormal. The parasite, however, does not affect the other characters used in this study.

FAMILY SESARMIDAE DANA

Parasesarma anambas, new species

***Material examined.* –** Holotype - 1 male (8.1 by 6.9 mm) (MZB), St.EA-DW 04, Anambas: Pulau Jemaja: Teluk Jebung: northern mangrove inlet, 13 Mar.2002.

Paratypes – 1 male (8.1 by 7.1 mm), 1 female (4.2 by 3.4 mm) (ZRC), 2 females (4.9 by 3.8 mm; 4.8 by 4.0 mm) (MZB), St. EA-JL 05, Anambas, eastern Pulau Siantan: Teluk Baruk: Sungei Temburun, waterfall (= Air Terjun), 15 Mar.2002.

***Description.* –** Carapace 1.25 broader than long; mesogastric and cardiac regions well defined, intestinal region moderately defined; lateral carapace surface lined with strong oblique striae; carapace surface very finely granular, with scarce setae on epigastric region. Postfrontal region separated into 4 lobes by narrow grooves, median lobes larger than lateral lobes. Front deflexed downward, margin bilobed in dorsal view, each lobe broadly convex, separated by very broad median concavity. Supraorbital margin gently convex, entire. External orbital tooth triangular, directed obliquely outwards and representing point of greatest width; fused with entire lateral carapace margin; antero- and posterolateral margins not demarcated, without trace of tooth or indentation; lateral margin gently sinuous, subparallel along most of length before curving to join straight posterior carapace margin. Eyes extending slightly beyond edge of external orbital tooth. Antennal and antennular basal segments adjacent, not separated by septum; basal antennular segment swollen. Antennal flagellum moderately long, entering orbit.

Ischium of third maxilliped with shallow median sulcus, merus with distinct submedian ridge; exopod slender, tip reaching to half length of outer margin of merus, flagellum long. Inner margin of merus and ischium with long setae, proximal outer margin of ischium and base of exopod with long, dense setae.

Cheliped subequal, robust. Merus with posterior border carinate, minutely tuberculate, without subdistal spine; anterior border with minute spines ending in large subdistal spine; outer surface with oblique striation, inner surface with scarce setae. Carpus with inner angle not produced, outer margin and dorsal surfaces striated. Upper surface of palm with 3 transverse pectinated crests; primary crest composed of 19 tall narrow teeth; secondary crest well developed, shorter than primary, with 10, broader and more widely spaced teeth; tertiary crest composed of 7 much lower, broader, widely spaced teeth, followed by several blunt tubercles. Area below crests with rows of small tubercles. Outer surface of palm striated proximally, smooth distally,

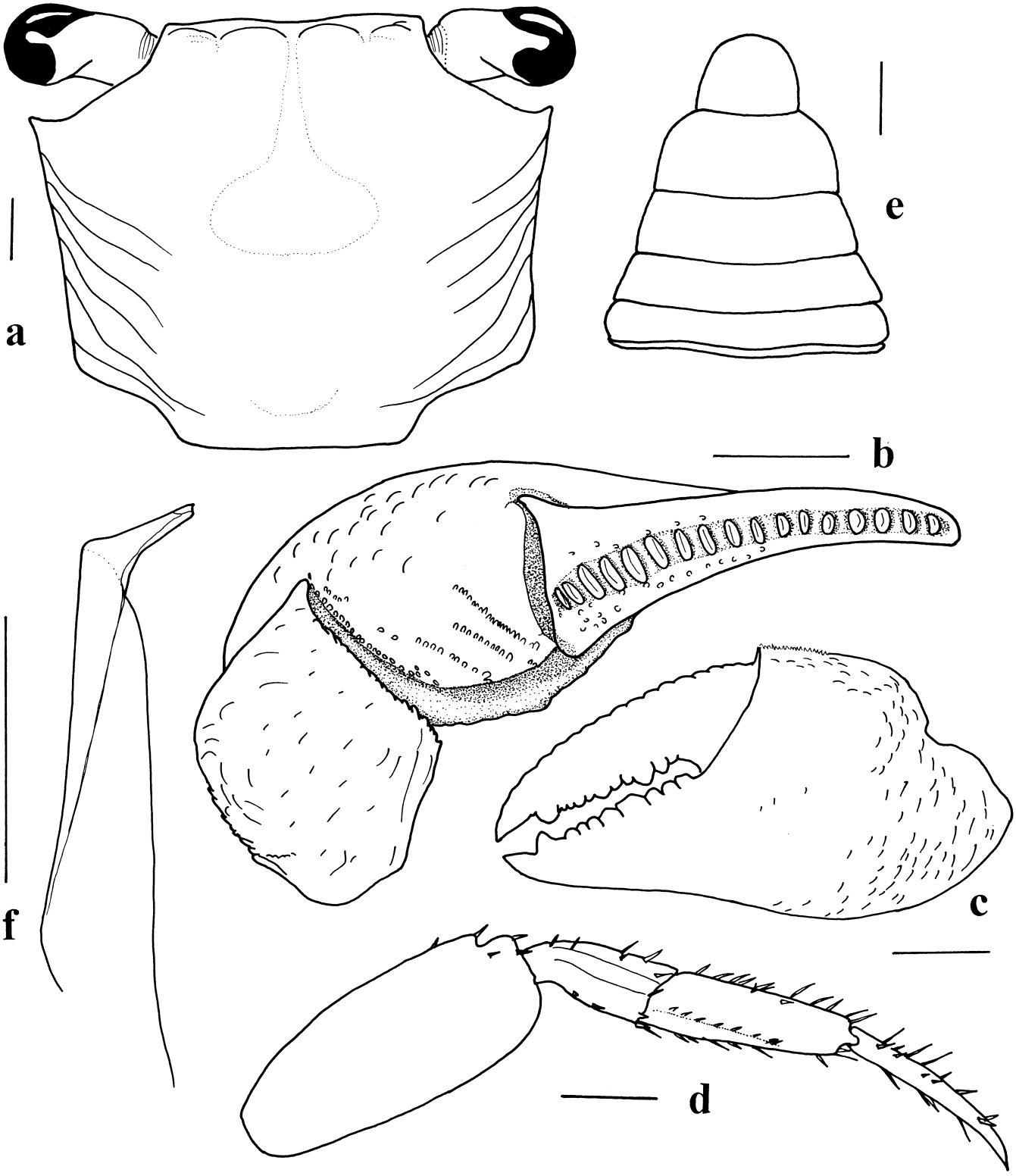

Fig. 2. *Parasesarma anambas*, new species. a. carapace. b, c. left cheliped, d. fifth right walking leg, e. left G1. Scale 1 mm.

naked; inner surface of palm with several tubercles. Fixed finger rounded, smooth on outer surface; without ventral ridge, moderately long. Cutting edge of fixed finger and dactyl with small teeth, larger teeth medially and distally. Dorsal surface of dactyl with 17 symmetrical tubercles, all distinct, small, moderately spaced proximally, becoming larger and more widely spaced distally. Several low tubercles on proximal third of inner edge of dorsal surface. Fingers with tips chitinous; males with narrow gape when fingers closed.

Walking legs long, slender, flattened; second and third pairs subequal, longer than others, about 1.7 times carapace width. Merus of third leg 2.4 times as long as wide; anterior margin of merus with acute subdistal spine. Meri of legs 1-4 with transverse striae on upper surfaces. Carpi of legs 1-4 with 2 accessory carinae on outer surface. Propodus of third leg about 3 times as long as wide with accessory carina on inferior proximal portion of outer surface, dorsal and ventral margins with prominent long stiff setae. Dactyl of third leg about same length as propodus, slightly recurved, terminating in acute calcareous tip, dorsal and ventral margins with prominent long stiff setae.

Surface of thoracic sternite scarcely setose. Sternites 1-3 completely fused. Sternites 3 and 4 separated by low ridge lined with short, scarce, setae. Abdominal cavity reaching just below low ridge which separates sternites 3 and 4.

Male abdomen relatively broad. Telson semicircular, evenly rounded, as long as preceding segment; segment 6 about 0.4 times as long as wide, lateral margins slightly convex. Segments 3-5 progressively more trapezoidal, lateral margins of segment 3 and 6 slightly convex, lateral margins of segments 4 and 5 straight, segments 1 and 2 very narrow longitudinally.

G1 relatively slender, straight; apical process bent to form an angle of 45º, strongly produced, corneous part long with truncate tip. Setae long, simple, originating at base of apical process and palp. G2 very short.

Female with chelipeds relatively smaller, primary pectinated crest on palm distinct, secondary and tertiary crests not well developed, dactylar tubercles indistinct.

Etymology. **–** The species is named after the type locality; used as a noun in apposition.

Remarks. **–** The form of the G1 of this new species resembles *Parasesarma exquisetum* Dai & Song, 1986, in having the apical process bent at an angle of 45º, with the distal corneous part elongate with a truncate tip. However, the G1 of the latter species is proportionately stouter and the upper margin of the corneous part is convex, whereas in *P. anambas*, it is more slender and the upper margin of the corneous part is straighter (cf. Dai & Song, 1986). In addition, *P. exquistum* has two pectinated crests on the palm of the cheliped while *P. anambas* has three. The form of the dactylar tubercles, which are well spaced, also resemble those of *P. lenzi* De Man, 1895. However, there are three pectinated crests on the palm of the cheliped in *P. anambas* compared to only two in *P. lenzi*. Furthermore, in *P. lenzi*, the propodus of the third leg is about 1.6 times the length of the dactyl, while in *P. anambas*, the third dactyl is as long as the propodus (compared to specimens of *P. lenzi* in the ZRC from Singapore and Thailand).

FAMILY PLAGUSIIDAE DANA

Plagusia squamosa (Herbst, 1790)

Remarks. – This is a well known and widely distributed Indo-West Pacific species previously known as *P. tuberculata* Lamarck, 1818. Schubart & Ng (2000) recently demonstrated that *P. squamosa* (Herbst, 1790) is an older name.

FAMILY GECARCINIDAE MACLEAY

Cardisoma carnifex (Herbst, 1796)

Ecological note. **–** Despite its occurrence in mangroves, *Cardisoma carnifex* was thought to have strongly terrestrial habits, preferring to avoid being submerged in water. However, specimens in the present study were collected from both dry as well as inundated parts of a small patch of sandy mangrove, adjacent to a small river mouth. Collection was carried out at night during a rapidly rising tide, and during this time, numerous individuals in the local population of *C. carnifex* were observed to be submerged in water up to 50 cm deep, foraging and sheltering amongst debris, apparently without inhibition (DCJY, pers. observ.).

GENERAL DISCUSSION

While the number of species collected by the expedition is not very substantial, it is still interesting as two new species were discovered. Most of the species reported here have wide geographic distributions in the Indo-West Pacific and their presence in the Anambas and Natuna islands is not surprising. In any case, there are few historical records of decapod crustaceans from these islands and their nearby areas. Bott (1970) described an endemic freshwater crab from Pulau Natuna Besar (formerly Pulau Bunguran or Bunguran Island), *Balssiathelphusa natunaensis* Bott, 1970 (Parathelphusidae), while Ng (1986) reported a new species, *Geosesarma insulare* (Sesarmidae), from Anambas; but otherwise, hardly anything is known about the freshwater and marine fauna. We have on hand, good material of freshwater crabs and prawns from these islands, and there are a good number of new genera, new species and new records that will be reported later in a separate paper.

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Appendix 1. Checklist of Crustacea Brachyura of the Anambas Expedition. For station data, see Ng et al., 2004 (in present volume). Species treated in detail in present study under Taxonomic Notes marked by an asterisk(*).

FAMILY/SPECIES	STATION (NUMBER OF SPECIMENS, DEPOSITORY)
FAMILY DORIPPIDAE MACLEAY	
Subfamily Dorippinae MacLeay	
Dorippe quadridens (Fabricius)	EA-TT 04 (1 female, MZB)
FAMILY LEUCOSIIDAE SAMOUELLE	
Subfamily Ebaliinae Stimpson	
Arcania undecimspinosa De Haan	EA-TT 08 (1 male, 1 female, MZB)
FAMILY MAJIDAE SAMOUELLE	
Subfamily Majinae Samouelle	
Cyclax spinicinctus Heller	EA-D 11 (1 female, ZRC)
Schizophrys aspera (H. Milne Edwards)	EA-D 11 (2 males, MZB; 1 male, 1 female, ZRC)
Subfamily Pisinae Dana	
Austrolibinia pincerna Wagner *	EA-TT 01 (1 male, ZRC); EA-TT 06 (1 female, MZB)
Hyastenus diacanthus (De Haan)	EA-TT 01 (1 male, MZB); EA-TT 03 (1 male, ZRC)
Lahaina ovata Dana	EA-D 11 (5 males, 2 females, MZB; 5 males, 1 female, ZRC)
Phalangipus longipes (Linnaeus)	EA-TT 01 (2 males, MZB); EA-TT 04 (1 female, MZB); EA-TT 08 (1 male, 2 females, ZRC)
Tylocarcinus styx (Herbst)	EA-D 03 (2 males, 2 females, ZRC); EA-D 11 (2 males, MZB)
Subfamily Epialtinae MacLeay	
Xenocarcinus depressus Miers	EA-D 11 (4 males, 2 females, MZB; 5 males, 2 females, ZRC)
Subfamily Mithracinae MacLeay	
Micippa platipes Rüppell	EA-ZJ 10 (1 female, MZB)
FAMILY PORTUNIDAE RAFINESQUE	
Subfamily Portuninae Rafinesque	
Portunus (*Monomia*) *argentatus argentatus* (White)	EA-TT 01 (1 male, 1 female, MZB); EA-TT 02 (1 female, ZRC); EA-TT 06 (7 males, 9 females, MZB; 5 males, 5 females, ZRC); EA-TT 08 (3 males, 2 females, ZRC)
Portunus (*Monomia*) *rubromarginatus* (Lanchester)	EA-TT 01 (1 male, ZRC); EA-TT 03 (1 male, MZB); EA-TT 04 (2 males, 2 females, ZRC; 3 males, 2 females, MZB)
Portunus (*Portunus*) *pelagicus* (Linnaeus)	EA-D 13 (1 juvenile MZB); EA-DW 10 (1 male, ZRC)
Portunus (*Xiphonectes*) *gracilimanus* (Stimpson)	EA-TT 02 (1 male, MZB)
Portunus (*Xiphonectes*) *hastatoides* Fabricius	EA-TT 06 (2 males, 2 females, MZB; 1 male, 1 female, ZRC); EA-TT 08 (13 males, 13 females, MZB; 5 males, 5 females, ZRC)
Portunus (*Xiphonectes*) *pulchricristatus* (Gordon)	EA-TT 06 (1 male, MZB; 1 male, ZRC)
Portunus (*Xiphonectes*) *tenuipes* (De Haan) *	EA-TT 01 (3 males, 6 females, MZB); EA-TT 04 (4 males, 4 females, ZRC); EA-TT 06 (1 female, MZB)
Scylla olivacea (Herbst)	DW 0205 (2 males, MZB); EA-DW 02A (2 males, ZRC); EA-DW 09 (1 male, MZB; 1 juvenile ZRC)
Subfamily Caphyrinae Paul'son	
Caphyra rotundifrons (A. Milne-Edwards)	EA-ZJ 09 (1 female, ZRC)
Lissocarcinus polybiodes Adams & White	EA-TT 03 (1 female, MZB)
Subfamily Thalamitinae Paul'son	
Charybdis (*Goniohellenus*) *truncata* (Fabricius)	EA-TT 06 (1 male, 1 female, MZB); EA-TT 08 (5 males, 5 females, MZB; 5 males, 2 females, ZRC)
Thalamita admete (Herbst)	EA-JL 01 (3 males, 1 female, MZB; 2 males, ZRC)
Thalamita crenata (Latreille)	EA-DW 04 (1 female, MZB); EA-DW 10 (1 male, ZRC); EA-JL 01 (3 males, 1 female, MZB); EA-JL 06 (1 male, 1 female, ZRC), ; EA-JL 07 (4 males, 3 females, MZB); EA-ZJ 01 (1 female, MZB); EA-ZJ 08 (1 male, ZRC); EA-ZJ 10 (1 female, MZB); EA-ZJ 11 (2 females, MZB)
Thalamita danae Stimpson	EA-JL 01 (1 female, MZB), 04 (1 male, ZRC), 07 (2 females, ZRC); EA-ZJ 01 (2 males, ZRC; 2 males, MZB), 04 (1 male, MZB), 11 (1 male, ZRC)
Thalamita spinicarpa Wee & Ng	EA-JL 03 (1 male, MZB)
Thalamitoides quadridens A. Milne-Edwards	EA-D 11 (1 female, MZB); EA-ZJ 12 (1 female, 1 juvenile ZRC)

FAMILY ERIPHIIDAE MACLEAY	
Subfamily Eriphinae MacLeay	
Eriphia smithii MacLeay	EA-ZJ 04 (1 female, MZB)
Eriphia sebana (Shaw & Nodder)	EA-ZJ 09 (1 male, 4 females, MZB); EA-ZJ 10 (1 male, 2 females, ZRC); EA-ZJ 11 (1 male, ZRC)
Subfamily Oziinae Dana	
Epixanthus dentatus (White)	EA-ZJ 05 (1 male, 1 female, MZB)
Ozius guttatus H. Milne Edwards	EA-JL 06 (1 female, MZB); EA-JL 07 (1 male, ZRC; 1 male, MZB)
Ozius tuberculosus H. Milne Edwards	EA-ZJ 09 (1 female, ZRC)
FAMILY CARPILIIDAE ORTMANN, 1893	
Carpilius maculatus (Linnaeus)	EA-ZJ 04 (1 female, ZRC); EA-D 11 (1 female, MZB)
FAMILY XANTHIDAE MACLEAY	
Subfamily Xanthinae MacLeay	
Leptodius exaratus (H. Milne Edwards)	EA-JL 07 (2 males, 1 female, MZB); EA-ZJ 07 (1 female, ZRC); EA-ZJ 11(1 male, ZRC)
Leptodius davaoensis Ward	EA-JL 01 (1 male, MZB)
Leptodius sanguineus (H. Milne Edwards)	EA-JL 07 (1 female ov., ZRC)
Subfamily Actaeinae Alcock	
Actaeodes hirsutissimus (Rüppell)	EA-D 04 (1 male, MZB)
Actaeodes tomentosus (H. Milne Edwards)	EA-JL 04 (1 male, 2 females, ZRC); EA-ZJ 04 (3 males, 2 females, MZB); EA-ZJ 06 (1 male, 1 female, ZRC)
Pseudoliomera granosimana (A. Milne-Edwards)	EA-ZJ 05 (1 female, MZB)
Subfamily Zosiminae Alcock	
Lophozozymus pulchellus A. Milne-Edwards	EA-D 11 (1 female, ZRC)
Subfamily Etisinae Ortmann	
Etisus laevimanus Randall	EA-JL 06 (1 female, MZB)
Subfamily Chlorodinae Dana	
Cyclodius granulatus (Targioni-Tozzetti)	EA-D 11 (1 female, MZB)
Pilodius nigrocrinitus Stimpson	EA-JL 04 (2 males, 1 female, ZRC); EA-JL 07 (1 male, 1 female, ZRC); EA-ZJ 01 (2 males, 1 female, MZB); EA-JL 03 (1 female, ZRC); EA-JL04 (1 male, ZRC); EA-JL 05 (1 male, 5 females, MZB); EA-JL 06 (1 male, MZB); EA-JL 07 (1 male, MZB)
Pilodius paumotensis Rathbun	EA-ZJ 01 (1 male, ZRC); EA-ZJ 03 (1 female, MZB)
FAMILY TRAPEZIIDAE MIERS	
Tetralia nigrolineata Serène & Pham	EA-D 03, EA-D 06 (1 male, 1 female, MZB)
Tetralia rubridactyla Garth	EA-D 11 (1 male, MZB)
Trapezia cymodoce (Herbst)	EA-D 03 (1 male, MZB)
Trapezia lutea Castro	EA-D 11 (1 male, 1 female, ZRC)
Trapezia septata Dana	EA-D 03 (1 male, 1 female, MZB); EA-D 11 (3 males, 2 females, ZRC)
FAMILY PILUMNIDAE SAMOUELLE	
Subfamily Pilumninae Samouelle	
Actumnus setifer (De Haan)	EA-TT 04 (1 female ov., ZRC)
Bathypilumnus sinensis (Gordon)	EA-TT 04 (1 female ov., MZB)
Glabropilumnus laevimanus (Dana)	EA-JL 02 (2 males, 1 female, ZRC); EA-JL 07 (4 males, 4 females, MZB); EA-ZJ 05 (1 male, MZB)
Pilumnus minutus De Haan	EA-TT 01 (1 male, 1 female, MZB); EA-TT 04 (1 male, MZB; 1 male, ZRC); EA-ZJ 05 (1 female,MZB); EA-D 11 (1 male, MZB)
Pilumnus scabriusculus Adams & White	EA-ZJ 05 (1 female, MZB; 1 female, ZRC)
Pilumnus vespertilio (Fabricius)	EA-DW 04 (1 female, ZRC); EA-JL 01 (2 males, 2 females, MZB); EA-JL 02 (1 female, ZRC); EA-JL 03 (1 male, 2 females, ZRC); EA-JL 06 (1 male, MZB); EA-JL 07 (1 female, ZRC); EA-ZJ 01 (1 male, 3 females, ZRC); EA-ZJ 04 (1 female, ZRC)
Subfamily Rhizopinae Stimpson	
Heteropilumnus satriai, new species *	EA-D 11 (1 male, MZB)
Subfamily Tanaochelinae Ng & Clark	
Tanaocheles bidentata (Nobili)	EA-JL 01 (2 females, MZB); EA-JL 03 (1 female, ZRC)

Subfamily Eumedoninae Dana	
Zebrida adamsii White	probably TT-06 (this specimen was photographed on site but lost subsequently)
FAMILY OCYPODIDAE RAFINESQUE	
Subfamily Ocypodinae Rafinesque	
Ocypode ceratophthalmus (Pallas)	EA-ZJ 01 (1 male, ZRC); EA-ZJ 10 (2 males, 2 females, MZB)
Ocypode cordimanus Latreille	EA-JL 07 (1 male, MZB); EA-ZJ 03 (1 male, MZB); EA-ZJ 10 (1 male, MZB)
Uca annulipes (H. Milne Edwards)	EA-DW 05 (1 male, 2 females, MZB; 1 male, 1 female, ZRC)
Uca forcipata (Adams & White)	EA-DW 04 (1 male, ZRC); EA-JL 01(1 male, 1 female, MZB; 2 males, 1 female, ZRC),
Uca perplexa (H. Milne Edwards)	EA-JL 01 (46 males, 40 females, ZRC); EA-JL 05 (13 males, 6 females, MZB); EA-JL 09 (4 males, 1 female, MZB); EA-ZJ 08 (1 male, 1 females, ZRC); EA-DW 04 (1 male, ZRC)
Uca triangularis (A. Milne-Edwards)	EA-JL 01 (4 males, 1 female, MZB; 4 males, 1 female, ZRC)
Uca vocans (Linnaeus)	EA-JL 01 (2 males, 1 female, MZB); EA-JL 03 (1 male, 3 females, ZRC); EA-JL 06 (4 males, 4 females, MZB; 1 male, 1 female, ZRC); EA-ZJ 01 (1 male, 5 females, ZRC)
Subfamily Macrophthalminae Dana	
Macrophthalmus (*Chaenostoma*) *boscii* Audouin	EA-JL 01 (1female, ZRC) EA-ZJ 01 (1 male, MZB)
Macrophthalmus (*Macrophthalmus*) *convexus* Stimpson	EA-ZL 01 (2 females, MZB)
Macrophthalmus (*Macrophthalmus*) *crassipes* H. Milne Edwards	EA-ZJ 08 (1 female, MZB)
Macrophthalmus (*Macrophthalmus*) *telescopicus* Owen	EA-ZJ 01 (1 female, MZB; 1 female, ZRC)
Subfamily Scopimerinae Alcock	
Scopimera globosa (De Haan)	EA-DW 05 (2 males, MZB; 1 male, ZRC)
FAMILY GRAPSIDAE MACLEAY	
Grapsus albolineatus Lamarck	EA-JL 07 (1 male, 1 female, MZB); EA-ZJ 08 (3 males, 2 females, ZRC); EA-ZJ 09 (1 male, 6 female, ZRC); EA-ZJ 10 (4 males, 4 females, MZB); EA-ZJ 11(1 male, ZRC)
Metopograpsus frontalis Miers	EA-JL 02 (1 female, MZB)
Metopograpsus oceanicus (Hombron & Jacquinot)	EA-JL 01 (12 males, 19 females, ZRC); EA-JL 02 91 female, ZRC); EA-JL 03 (2 males, 2 females, ZRC); EA-JL 05 (1 male, ZRC); EA-JL 07 (2 males, 3 females, MZB); EA-ZJ 03 (4 males, 1 female, ZRC); EA-ZJ 06 (6 males, 7 females, MZB); EA-ZJ 07 (1 male, ZRC); EA-ZJ 08 (2 males, ZRC); EA-ZJ 10 (1 male, 1 female, ZRC); EA-ZJ 11 (2 males, ZRC)
Pachygrapsus minutus A. Milne-Edwards	EA-JL 07 (1 female, MZB)
Pachygrapsus planifrons De Man	EA-JL 07 (1 female ov., MZB)
FAMILY VARUNIDAE H. MILNE EDWARDS	
Ilyograpsus paludicola (Rathbun)	EA-DW 04 (2 females ov., ZRC)
Ptychognathus barbatus (A. Milne-Edwards)	EA-ZJ 11 (1 female ov., MZB)
Utica borneensis De Man	EA-DW 04 (2 males, 3 females, ZRC)
Varuna yui Hwang & Takeda	EA-DW 02 (2 males, MZB; 1 male, 1 female, ZRC); EA-DW 03 (1 female, MZB); EA-DW 09 (1 female, MZB)
FAMILY SESARMIDAE DANA	
Episesarma sp. (juvenile)	EA-JL 08 (4 females, ZRC)
Parasesarma anambas, new species *	EA-DW 04 (1 male, MZB); EA-JL 05 (1 female, MZB; 1 male, 2 females, ZRC)
Perisesarma eumolpe (De Man)	EA-JL 01 (3 females, MZB)
Perisesarma indiarum (Tweedie)	EA-JL 01, EA-JL 05 (3 males, 10 females, MZB)
Perisesarma sp.	EA-JL 06, EA-JL 09 (8 females, ZRC)
Pseudosesarma bocourti (A. Milne-Edwards)	EA-DW 14 (4 females, MZB)
FAMILY PLAGUSIIDAE DANA	
Plagusia squamosa (Herbst) *	EA-ZJ 10 (1 male, MZB)
FAMILY GECARCINIDAE MACLEAY	
Cardisoma carnifex (Herbst) *	DW 0205 (3 males, ZRC; 3 males, MZB)