

SOME OBSERVATIONS ON THE THALASSINID SHRIMP,
EUTRICHOCHELES MODESTUS (HERBST, 1796) FROM SOUTH VIETNAM
(THALASSINIDEA, AXIIDAE), WITH REMARKS ON *EUTRICHOCHELES*
CROSNIERI NGOC-HO, 1998

BY

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ABSTRACT

The rare thalassinid shrimp, *Eutrichocheles modestus* (Herbst, 1796) is now recorded from South Vietnam. It was previously collected in Thailand and Malaysia, and was dealt with in Ngoc-Ho (1998) and Ngoc-Ho et al. (2005).

The Vietnamese specimens are described in detail and variations are discussed. They are compared with specimens from Thailand and Malaysia, and with the female holotype of *Eutrichocheles crosnieri* Ngoc-Ho, 1998, also from Vietnam. Additional remarks, especially on the status of the latter species, are presented.

A note on the habitat, fishery, and economic importance of *E. modestus* in Vietnam is provided.

This study shows that the only female of *E. modestus* from Vietnam, as well as the one from Thailand, differ from the holotype of *E. crosnieri* by certain features, and no males examined can be assigned to this latter species. The two species are here kept separate, pending a future study of additional material, especially from the type locality of *E. crosnieri*.

RÉSUMÉ

La rare crevette thalassinide *Eutrichocheles modestus* (Herbst, 1796) est maintenant récoltée au Sud Vietnam. Elle a été signalée auparavant en Thaïlande et Malaisie et traitée dans Ngoc-Ho (1998) et Ngoc-Ho et al. (2005).

Les spécimens du Vietnam sont décrits en détail et les variations sont discutées. Ils sont comparés à ceux de Thaïlande et Malaisie et à la femelle holotype d'*Eutrichocheles crosnieri* Ngoc-Ho, 1998, celle-ci aussi originaire du Vietnam. Quelques remarques, spécialement sur le statut de cette dernière espèce, sont présentées.

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Une note sur l'habitat, la pêche et l'importance économique d'*E. modestus* du Vietnam est fournie.

Cette étude montre que la seule femelle d'*E. modestus* du Vietnam, comme celle de Thaïlande, se distingue de l'holotype d'*E. crosnieri* par certains caractères et aucun mâle étudié ne peut être attribué à cette dernière espèce. Ces deux espèces sont ici séparées en attendant un apport supplémentaire de matériel, provenant de la localité type d'*E. crosnieri* spécialement.

INTRODUCTION

The genus *Eutrichocheles* Wood Mason, 1876 has been known from Vietnam with the species *Eutrichocheles crosnieri* Ngoc-Ho, 1998 from Ha-tien, southwestern Vietnam. Lately, several specimens of *Eutrichocheles modestus* (Herbst, 1796) were collected in Can Gio, near Vung Tau (Cap St. Jacques), a coastal district of Ho Chi Minh City, in southeastern Vietnam.

This material, briefly reported before (Van Xuân, 2004), is here described in detail by the first author and variations are discussed. Four specimens deposited in the MNHN, Paris are compared with those from Thailand and Malaysia, on which previous works by Ngoc-Ho (1998) and Ngoc-Ho et al. (2005) were based, and also with the female holotype and only known specimen of *E. crosnieri*. Additional remarks, especially on the status of the latter species, are provided by the second author.

A note on the habitat, fishery, and economic importance of the species is presented. The abbreviation tl. is used for the total length measured from the tip of the rostrum to that of the telson in the fully stretched animal; cl. is used for the carapace length measured from the post-orbital edge to the apex of the postero-medial border of the carapace.

The material of *E. modestus* from Vietnam includes one female (MNHN Th 1499) and three males deposited in the Museum national d'Histoire naturelle, Paris (MNHN Th 1500), four specimens that have been lost, and the rest, 11 males, are in the first author's collection. Other material examined belongs to the collection of the Nationaal Natuurhistorisch Museum, Leiden (RMNH) and the National Taiwan Ocean University (NTOU).

***Eutrichocheles modestus* (Herbst, 1796) (figs. 1-3, 4a-b)**

Material examined. — All specimens were collected in Dong Hoa, Can Gio district, 21 km north of Vung Tau (Cap St. Jacques), southeastern Vietnam: 1 female, cl. 26 mm, tl. 75 mm (only right pereopod 1 present), 5 males, cl. 25-28 mm, tl. 71-81 mm, by trammel net, 4-5 km off the coast, 10-15 m depth, 7 April 2000; 9 males, cl. 23.5-26.5 mm, tl. 71.5-80 mm by conical set net, 6-8 m depth, muddy bottom, 24 August 2000; 4 males (lost during shipping to National Museum of Natural History, Leiden), tl. 73-80 mm, by trammel net, in an estuarine region formed by the confluence of two large rivers, 7-8 km off the coast, 5-6 m depth, 7 January 2000.

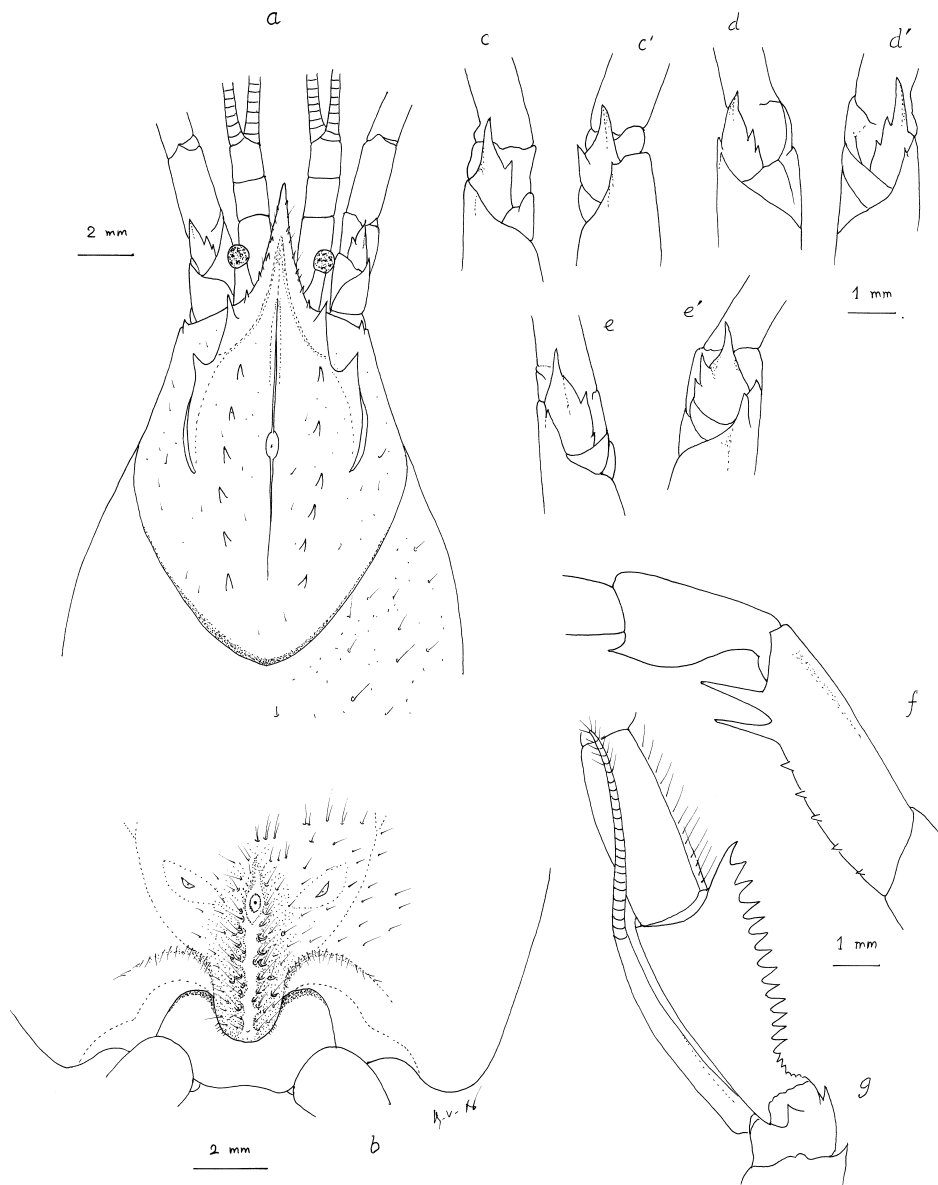


Fig. 1. *Eutrichocheles modestus* (Herbst, 1796) from Vietnam. a-b, carapace in dorsal view; a, anterior part of male, cl. 25 mm; b, posterior part of male, cl. 28 mm; c-e, antennal acicle, c, c', bifid in male cl. 28 mm and female cl. 26 mm; d, d', trifold on right and left side in male cl. 29 mm; e, e' bifid with tubercle added on left side, trifold on right side in male cl. 25.5 mm; f, merus and carpus of maxilliped 3; g, ischial crest and exopod.

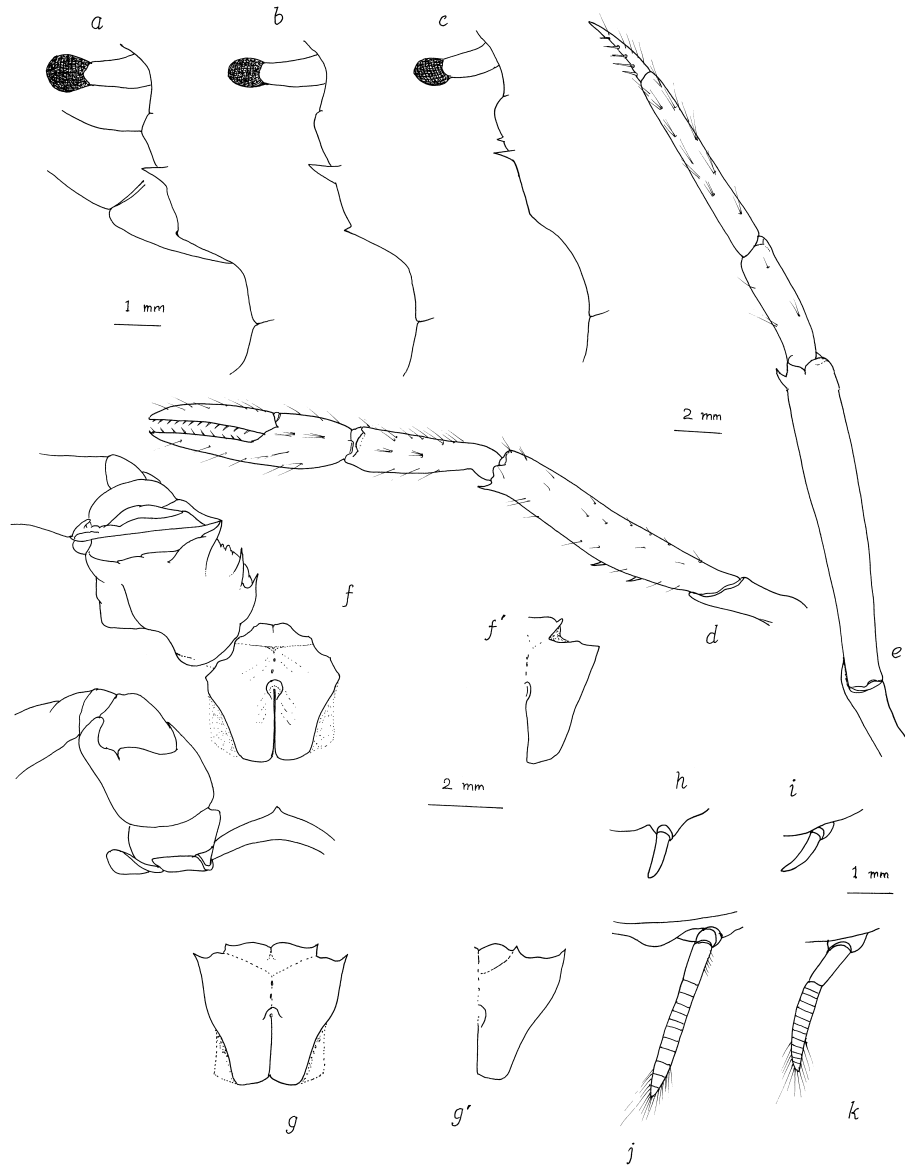


Fig. 2. *Eutrichocheles modestus* (Herbst, 1796) from Vietnam. a-c, anterolateral border of carapace; a, with spine and tubercle; b, with two spines; c, with two spines close to each other; d-e, left pereopod 2 and 3, respectively, in male cl. 27.5 mm; f, f', g, g', posterior part of 4th thoracic sternite, ventral and lateral view respectively; f, f', in female; g, g', in male cl. 25 mm; h-k, pleopod 1; h, i, in male cl. 26.5 mm and 25 mm, respectively; j, in hermaphrodite cl. 28 mm; k, in female.

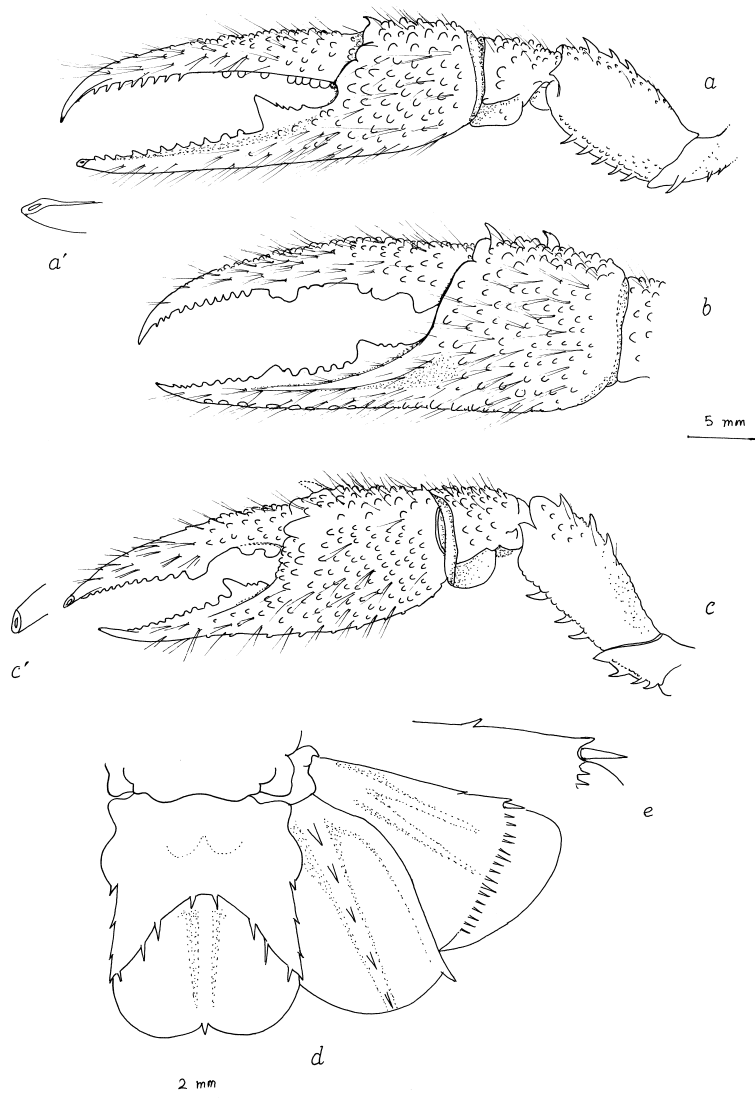


Fig. 3. *Eutrichocheles modestus* (Herbst, 1796) from Vietnam. a-b, male cl. 23.5 mm; a, small pereopod 1, inner view; a', broken tip of fixed finger; b, chela of large pereopod 1, lateral view; c, right pereopod 1 of female, inner view; c' eroded tip of dactylus; d, telson and uropods; e, distal spine on exopod.

Other material examined. — *Eutrichocheles modestus*. Gulf of Thailand: Prat province, S. Chaiti-amvong don. 1980: 1 female, cl. 30 mm, tl. 70.5 mm (RMNH D 38354). — Phuket, Thailand, Andaman Sea, P.K.L. Ng coll., April 1999: 1 female, cl. 33 mm, tl. 84 mm (all pereopods missing) (NTOU, formerly ZRC 1999. 0088). — Ketam Island, Salangor, Malaysia, E.R. Alfred coll., 2 July 1961: 1 male, cl. 29 mm, tl. 71 mm (RMNH D 17656). — Singapore, fish market, Dr. Falshawn coll., January 1914: 1 male, cl. 33 mm, tl. 83.5 mm (MNHN Th 1267).

Eutrichocheles crosnieri Ngoc-Ho, 1998. Ha-tien, southwestern Vietnam, collected by fishermen, 22 August 1995: 1 female, holotype, cl. 33 mm, tl. 83.5 mm (MNHN Th 1314).

Description. — Rostrum (fig. 1a) triangular, with pointed tip reaching or nearly reaching end of second article of antennular peduncle. Dorsal surface somewhat concave with deep median triangular groove; lateral border with four to six denticles and one or two tubercles distally. Carapace (fig. 1a) covered with numerous tiny tubercles and setae, tubercles more conspicuous in postcervical region, each bearing one or more setae. Gastric region similar to that of *E. crosnieri* (see Ngoc-Ho, 1998: 372, fig. 5A): median carina starting at rostral base with subconical blunt tubercle near midlength; submedian carina represented by row of five to six (sometimes seven on one side) strong spines; lateral carina (fig. 1a) prominent, continuous with lateral border of rostrum and carrying two large spines separated by an interspace with inconspicuous tubercles (interspace with small tubercles in *E. crosnieri*). Cervical groove well defined.

Post cervical region carrying short median dorsal carina on posterior quarter or fifth (fig. 1b) with the following structure: it is blunt, somewhat sinuous and bumpy on its lateral sides, with small tubercles each bearing one or a few setae. It ends anteriorly with a prominent, rounded tubercle or drops downward at this level and extends a little further. At some distance of the median tubercle, the carina is flanked on either side by a smaller, irregularly-shaped tubercle, placed on top of a swollen area. The lateral tubercles are large in large males and prominent among those of the posterodorsal region of the carapace. Both median and lateral tubercles are light-orange coloured and stay so for several months in alcohol-preserved specimens. These features are constant in all specimens of both sexes from Vietnam and do not seem to be present in those from Thailand and Singapore (see Ngoc-Ho et al., 2005: 203, fig. 1B).

Anterolateral border of carapace usually armed with two spinules, the upper sharply pointed and larger than the lower, which is triangular and short (fig. 2b), or reduced to a tubercle (fig. 2a), or absent (fig. 2c). One male out of the 15 specimens examined has two spinules on the right side, one spinule and one tubercle on the left side. Thus, the armature of the anterolateral border of the carapace is variable.

The antennal acicle has the following shape: among the 19 specimens examined (including the four specimens lost during shipment), 14 males and one female have a bifid antennal acicle both on the right and the left side (fig. 1c, 1c'), three males with a bifid acicle on one side, trifold on the other, one male with a trifold acicle on one side, bifid plus one tubercle on the other (fig. 1e, 1e'); finally one male has a trifold acicle on both sides (fig. 1d, 1d'). The antennal acicle, therefore, shows a transitional change from the bifid to the trifold form. The tips, either bifid or trifold, are orange coloured and easily recognizable.

Maxilliped 3 ischium with six to eight lower spinules, mesial surface with strong crest bearing three to four tubercles and small spines proximally, and 12 or 13 large spines (fig. 1g); merus with four or five lower spinules proximally and two to three large distal spines (fig. 1f); carpus with single lower distal spine (fig. 1f) and thus more similar to *E. crosnieri* (see Ngoc-Ho, 1998: 372, fig. 5) than to *E. modestus* from Thailand, with the carpus bearing one distal and one subdistal spine (see Ngoc-Ho et al., 2005: 202, fig. 2E); exopod slightly overreaching distal border of merus, flagellum multisegmented (fig. 1g).

Pleura of third, fourth, and fifth abdominal somites pointed ventroposteriorly, with spinule on anterior margin. Spinules are larger and stronger in males than in the only female of our collection, in which the spinules on the fourth and fifth abdominal pleura are blunt, those of the third are reduced to a tubercle.

Pereopods 1 strongly or slightly subequal in males, larger either on right or left side. Small pereopod 1 of males (fig. 3a) with ischium bearing one lower tubercle and two to three spines; merus with weak upper crest carrying tubercles and two to five (usually three) upper spines; five spines on lower border; carpus with numerous tubercles; propodus 0.8 times as long as its widest part, with tubercles and an upper subdistal spine; fixed finger with large conical tooth proximally preceded by a few denticles, and many small teeth, either blunt or with pointed tip, on the rest of the cutting edge, decreasing in size distally; dactylus more than three times as long as propodus, with curved tip, cutting edge with small blunt teeth on proximal half and sharply pointed teeth distally. Large pereopod 1 of males with ischium bearing one tubercle and two or three (sometimes four on one appendage) spines; merus with weak longitudinal upper crest, armed with tubercles and three strong curved spines; carpus with numerous tubercles; propodus (fig. 3b) 0.7-0.9 times as long as its widest part, covered with tubercles and bearing two upper spines, one subdistal, the other near midlength; fixed finger with prominent conical tooth proximally, as in material from Thailand or Malaysia (see Ngoc-Ho, 1998, fig. 6C or Ngoc-Ho et al., 2005, fig. 1D) and small rounded teeth on the rest of the cutting edge, those of distal half closely set and decreasing in size; dactylus with curved tip and often bearing two or three large proximal round teeth, along with another one near midlength of cutting edge, and small round teeth on distal half, decreasing in size distally. Female pereopod 1 (fig. 3c) smaller than that of male but similar in morphology; ischium with three lower spines; merus with upper longitudinal tuberculate crest and three spines; propodus with tubercles and one upper subdistal spine (here broken); both fixed finger and dactylus slightly arcuate, with curved tip, fixed finger shorter than dactylus with large proximal tooth and small round teeth on the rest of cutting edge; dactylus with two quadrate proximal teeth and another one near midlength of cutting edge and small teeth on distal half, as in the male. Pereopods 1 of both sexes in Vietnamese specimens agree with the

description given by Ngoc-Ho et al. (2005) and therefore are similar to or at least not significantly different from those from Thailand or Malaysia.

Second pereopod (fig. 2d) dactylus 1.7 times as long as propodus, palm 1.5 times as long as wide; merus twice as long as palm, 4.8 times as long as its widest part, and constantly bearing, in both sexes, a lower distolateral spine and one to three (usually two) other lower spines, one near midlength, the other near the proximal fourth. This morphology is similar to that of *E. crosnieri* (see Ngoc-Ho, 1998: 374, fig. 5E), whereas the lower distal spine was not mentioned in the material from Thailand (Ngoc-Ho et al., 2005: 206, fig. 2I).

Pereopod 3 (fig. 2e) merus in both sexes provided with a lower distal spine, which is absent in the material from Thailand ("pereopods 3-5 unarmed", Ngoc-Ho et al., 2005: 206) and not mentioned for *E. crosnieri* (cf. Ngoc-Ho, 1998: 304); dactylus one-third as long as propodus, slender, pointed distally, and bearing five long slender spinules besides numerous setae.

Pereopod 4 in both sexes similar to pereopod 3 but smaller. Pereopod 5 unarmed as in material from Thailand and Malaysia.

Posterior part of fourth thoracic sternite of female with no lateral spine (fig. 2f, f') as in the female of *E. crosnieri*; lateral spine present in males (fig. 2g, g'), sharp and outwardly directed.

All the 14 males examined have an appendix masculina on pleopod 2, but three of them (apparently hermaphrodites) bear a gonopore on the coxae of both pereopods 3 and 5. Except for two specimens, the male pleopod 1 is short, slightly depressed, and with somewhat rounded tip (fig. 2h), or cylindrical and tapering distally to a pointed tip (fig. 2i). Two specimens among the three apparent hermaphrodites bear a pleopod 1 (fig. 2j) similar to that of the female (fig. 2k) with a basal article and a faintly segmented flagellum (of about 12 or 13 segments) bearing distal setae.

Telson (fig. 3d) about 1.3-1.45 as long as wide in males, 1.3 times as long as wide in the female, with four spinules on lateral border, posterior border with median notch carrying spine, oblique dorsal carina with four spines.

Uropods (fig. 3d) about as long as telson, with rounded posterior border; exopod having about 17 spinules along suture, two or three lateral spinules at distal third, large movable distal spine (fig. 3e); endopod with distal lateral spine (sometimes with an additional one), median dorsal carina with five spines. The telson and uropods, therefore, are similar to those of the material of *E. modestus* from Thailand and Malaysia.

DISCUSSION

Specimens of *Eutrichocheles modestus* collected from southeastern Vietnam, in the South China Sea, agree with the description of material from Thailand and

Singapore in: (1) the shape of the rostrum; (2) the anterolateral border of the carapace with a spinule and a tubercle; (3) the postcervical region of the carapace with a short median dorsal carina in the posterior quarter; (4) abdominal pleurae 3-5 pointed posteroventrally, with an anterior spine; (5) a bifid antennal acicle; (6) the posterior part of the 4th thoracic sternite with a spine in males; (7) the fixed finger of pereopod 1 with at least one large tooth on the cutting edge; (8) the presence of hermaphrodites in the population; (9) the shape and spinulation of the telson and uropods.

A few specimens are similar to the holotype of *E. crosnieri* from Ha-tien in having: (1) the anterolateral border of the carapace with two spinules; (2) a trifid antennal acicle (in males); (3) the posterior part of the 4th thoracic sternite unarmed (in the female); (4) the maxilliped 3 carpus with one lower distal spine; (5) the pereopod 2 merus with a lower lateral distal spine.

However, a close examination of the specimens in hand reveals many morphological variations, which can be separated into two groups:

The first group includes characters that might reflect a form transitional between *E. modestus* and *E. crosnieri*: (1) the anterolateral border of the carapace bears a spinule and a tubercle or two spinules or, as in one male (fig. 2c), no tubercle but two spinules close to each other near the orbital margin; (2) in the only female examined, the spinule on the anterior border of the abdominal pleura 3 is reduced to a tubercle; (3) the antennal acicle varies from being bifid, to bifid with a tubercle added, and finally to trifid; (4) the posterior part of the 4th thoracic sternite is armed with a lateral spine in the males, unarmed in the female.

The second group of characters is special to the present material from Vietnam: (1) the median dorsal carina of the postcervical region of the carapace with a tubercle near the anterior end and a smaller one at some distance on either side; (2) the merus of pereopods 3 and 4 with a lower lateral distal spinule (fig. 2e); (3) the particular pleopod 1 (fig. 2j), recorded for the first time in the genus *Eutrichocheles*, in two hermaphroditic specimens indicating that they probably are protandric.

Nevertheless, though having the posterior part of the 4th thoracic sternite unarmed (fig. 2f, f') and a lower distal spinule on the maxilliped 3 carpus, the only female studied (MNHN Th 1499) cannot be assigned to *E. crosnieri* for the following features: (1) bifid antennal acicle; (2) anterior spinule on abdominal pleura 3-5; (3) short dorsal carina on the postcervical region; (4) the armature of the pereopod 1 fingers.

Similarly, the only male with a trifid antennal acicle and a lower distal spinule on the maxilliped 3 carpus cannot be assigned to *E. crosnieri* for having: (1) anterior spinules on abdominal pleurae 3-5; (2) a short dorsal carina on the postcervical region; (3) lateral spinules on the posterior part of the 4th thoracic sternite (fig. 2g,

g'); (4) the lower distal spine on the merus of pereopod 3 and 4 (fig. 2e). It is not known, however, whether or not sexual dimorphism exists in *E. crosnieri*.

REMARKS

(by NGUYEN NGOC-HO)

Examination of material of *Eutrichocheles modestus* from Vietnam, Thailand, and Malaysia, and of the holotype of *E. crosnieri*, reveals certain characters that were overlooked in previous works by Ngoc-Ho (1998) and Ngoc-Ho et al. (2005). These are: (1) the pereopod 3 and 4 merus bear a small lower distal spine in all specimens of *E. modestus* as well as *E. crosnieri*; (2) the number of lower distal spinules on the maxilliped 3 carpus is variable; (3) the median dorsal carina on the posterior quarter of the carapace is more prominent in the males than in the female. It bears an anterior tubercle accompanied by another one (small sometimes) on either side in all specimens of *E. modestus* from Thailand and Malaysia, and also in the holotype of *E. crosnieri*.

A close examination actually shows a very short and faint median dorsal carina on the posterior quarter of the carapace in the latter specimen with a minute tubercle. This carina was overlooked previously in Ngoc-Ho (1998: 376) and Ngoc-Ho et al. (2005: 206) and is here figured (fig. 4c) in comparison with that of the female of *E. modestus* from Vietnam (fig. 4a) and from the Gulf of Thailand (fig. 4b). It is prominent and longest in the female of *E. modestus* from Vietnam, shorter and less conspicuous in the female from Thailand, very short and nearly unnoticeable in the holotype of *E. crosnieri*. Yet, as it is present in both *E. modestus* and *E. crosnieri*, it is not considered here as a differentiating character for these two species.

The 4th thoracic sternite carries a lateral spine in all male *E. modestus* studied and also in the female from the Gulf of Thailand, but not in the females from Phuket and Vietnam: this character is, therefore, variable.

The two females of *E. modestus* from Thailand and the one from Vietnam, i.e., all females so far reported of this species, and the female holotype of *E. crosnieri* were compared. The specimen of *E. modestus* from the Gulf of Thailand has a slender pereopod 1 similar to that of the holotype of *E. crosnieri* (see Ngoc-Ho et al., 2005, fig. 1C, vs. Ngoc-Ho, 1998, fig. 5D), but differs by having a lateral spine on the 4th thoracic sternite. In this respect, the female of *E. modestus* from Vietnam and the one from Phuket are similar to the holotype of *E. crosnieri* by their unarmed 4th thoracic sternite, but the female from Vietnam differs by a stouter pereopod 1 with a slightly arcuate dactylus, whilst pereopod 1 is missing in the female from Phuket.

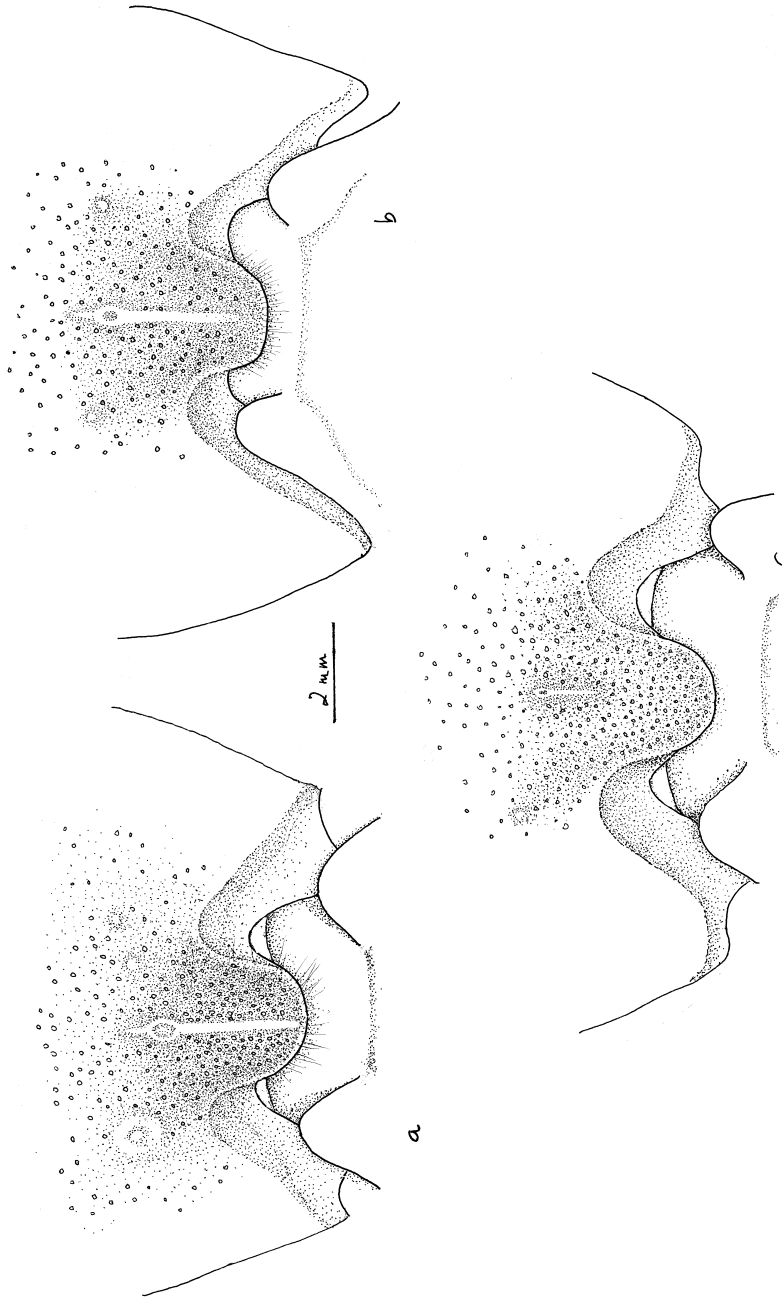


Fig. 4. Posterior part of carapace with carina, in dorsal view. a-b, female of *Eutrichocheles modestus* (Herbst, 1796) from Vietnam and Gulf of Thailand, respectively; c, female holotype of *E. crosnieri* Ngoc-Ho, 1998.

The three females of *E. modestus* mainly differ from the holotype of *E. crosnieri* by: (1) the antennal acicle is bifid in *E. modestus* (trifid in *E. crosnieri*); (2) abdominal pleura 3-6 are pointed posteroventrally, pleura 3-5 with an anterior spinule in *E. modestus*, though small in the specimen from Vietnam (see Ngoc-Ho et al., 2005, fig. 1A) [(abdominal pleura 3-6 rounded posteroventrally, pleura 3-5 unarmed in *E. crosnieri* (see Ngoc-Ho, 1998: fig. 4)]; (3) the pereopod 1 propodus bears one upper spine, the dactylus is slightly arcuate with three round proximal teeth in *E. modestus* (fig. 3c, also Ngoc-Ho et al., 2005, fig. 1C) [(pereopod 1 propodus with two upper spines, dactylus not arcuate, with no large proximal tooth in *E. crosnieri* (see Ngoc-Ho, 1998, fig. 5D)].

These differences, together with a nearly absent median dorsal carina on the posterior quarter of the carapace in *E. crosnieri* permit, for the time being, to separate the two species. But this can only be confirmed when more material of *E. crosnieri* is obtained, especially from Ha-tien, its type locality.

It can be noted that Ha-tien is situated on the western part of South Vietnam, facing the Gulf of Thailand, and is a rather isolated area, near the Cambodian border. The species occurring there, though closely related to *E. modestus* from the eastern part of South Vietnam, is likely to be distinct.

SIZE, ECONOMIC IMPORTANCE, AND DISTRIBUTION

The maximum size found for the male is 81 mm in total length. The species has no economic importance, and is discarded by fishermen after capture. The material reported has been found in the Can-Gio area, near Vung Tau (Cap St. Jacques), southeastern Vietnam. This record extends the known geographical distribution of the species to the southern part of the South China Sea.

HABITAT AND BEHAVIOUR

Eutrichocheles modestus is likely to be a burrowing species, as many specimens have the body covered with mud and granules of sand. Often at least one tip of the pereopods 1 fingers is broken (fig. 3a') or eroded obliquely (fig. 3c') and the subdistal spine on the propodus is broken in some specimens, which may show that the pereopods 1 are used for digging.

The favourite habitat seems to be in the estuarine areas of large rivers at about 4-15 m depth, with a sandy or muddy flat nearby. During the past years, this species was frequently taken by conical set net together with the penaeid shrimps, *Solenocera crassicornis* (H. Milne Edwards, 1837), *Parapenaeopsis sculptilis* (Heller, 1862), *P. hardwickii* (Miers, 1878), *Fenneropenaeus silasi* (Muthu & Motoh, 1979), *F. merguensis* (De Man, 1888), *Metapenaeus brevicornis* (H. Milne

Edwards, 1837), *M. ensis* (De Haan, 1844), *M. lysianassa* (De Man, 1888), the sergestid shrimps, *Acetes indicus* H. Milne Edwards, 1830 and *A. japonicus* Kishinouye, 1905, the palaemonid carideans, *Macrobrachium equidens* (Dana, 1852), *Macrobrachium* sp., *Exopalaemon vietnamicus* Nguyen van Xuân, 1992, *Palaemon curvirostris* Nguyen van Xuân, 1992, *Palaemon sewelli* (Kemp, 1925), *Periclimenes grandis* (Stimpson, 1860), the pasipheid *Leptochela* (*Leptochela*) *gracilis* Stimpson, 1860, the alpheid *Alpheus crassimanus* Heller, 1865, *Thuyllamea camelus* Nguyen van Xuân, 2001 (sometimes), *Alpheus* sp., the hippolytid shrimps, *Hippolysmata vittata* Stimpson, 1860, *Latreutes anoplonyx* Kemp, 1914, *Mimocaris heterocarpoides* (Nobili, 1903) (sometimes), the stomatopods, *Chloridopsis scorpio* (Latreille, 1828), *Lysiosquilla tredecimdentata* Holthuis, 1941 (sometimes), and the horseshoe crabs, *Tachypleus gigas* (O.F. Muller, 1785), *Carcinoscorpius rotundicauda* (Latreille, 1925), the flower moon crab *Matuta planipes* Fabricius, 1798, as well as numerous species of brackish water fish like *Plotosius canius* Hamilton & Buchanan, 1822, *Lates calcarifer* (Bloch, 1790), *Scatophagus argus* (Linnaeus, 1766), *Mugil* sp., and the fire worm, *Chloeia flava* (Pallas, 1766).

According to a local fisherman, this species was also caught by trammel net (entangling net) in a coral bed with boulders of *Octocorallia* at a depth of about 10-15 m and 5-6 km off Cap St. Jacques (Vung Tau) together with the spiny lobster, *Panulirus polyphagus* (Herbst, 1793), adults of *Fenneropenaeus silasi*, *F. merguensis*, the crab, *Parthenope* sp., the moon crab, *Matuta planipes*, and the marine fish *Epinephelus* sp.

From another fisherman, it was noted that this species was also collected in areas with compact muddy bottom and detritus, together with adult penaeid shrimps.

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