

**Two new species of the commensal shrimp genus *Periclimenaeus*
Borradaile, 1915, (Decapoda, Palaemonidae) from the Maldive Islands**

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(Accepted 4 February 1990)

Two new species of the commensal shrimp genus *Periclimenaeus* Borradaile, found in the waters of the Maldive Islands, Indian Ocean, are described and illustrated. *P. tchesunovi* sp. nov. is related to *P. rastrifer* Bruce. The former may be distinguished by its deeper rostrum, with dentition 6/1, the presence of supraorbital tubercles, and broad, spatulate fingers on the first pereopods. *P. zarenkovi* sp. nov. closely resembles *P. diplosomatis* Bruce in the presence of minute denticulations on the dactylar cutting edge of the major second pereopod, but differs from it by a deeper rostrum with 5 dorsal teeth, more robust chelae of the second pereopods, and small dorsal telson spines.

KEYWORDS: Crustacea, Decapoda, Palaemonidae, *Periclimenaeus* spp. nov., Indian Ocean, Maldive Islands

Introduction

Shrimps of the genus *Periclimenaeus* Borradaile, 1915, are known to be sponge- or ascidian-associated commensals (Bruce, 1969, 1970). Three specimens of this large genus, containing about forty species in the Indo-West Pacific, were collected in the waters of the Maldive Islands in 1980, during IXth cruise of the Soviet R/V *Akademik Petrovskii*. The three specimens represent three different species, but only one of them, *P. arabicus* (Calman), was previously known to science. This specimen was found in association with an antipatharian 'black coral' *Antipathes* sp. collected by SCUBA diving and lifted from a depth of 50 m (Genego Islet, North Nilandu Atoll) (Ďuriš, 1990) and presents the first record of the species from the Maldive Islands. The other two shrimps are described here as new species. They were collected from various corals, however other organisms of the coral epifauna are probably the true hosts of these species.

The specimens are deposited in the Zoological Museum collection, Moscow State University (ZMMSU).

***Periclimenaeus tchesunovi* sp. nov.**

(Figs 1-2)

Material. 1♀ (HOLOTYPE, ZMMSU Ma 2520); cruise IX, R/V *Akademik Petrovskii*, st. 34: Genego Islet, North Nilandu Atoll, Maldive Islands; outer reef-slope, 20 m, SCUBA, 9 March 1980; coll. A. V. Tchesunov.

Description. Small shrimp with body subcylindrical, smooth (Fig. 1).

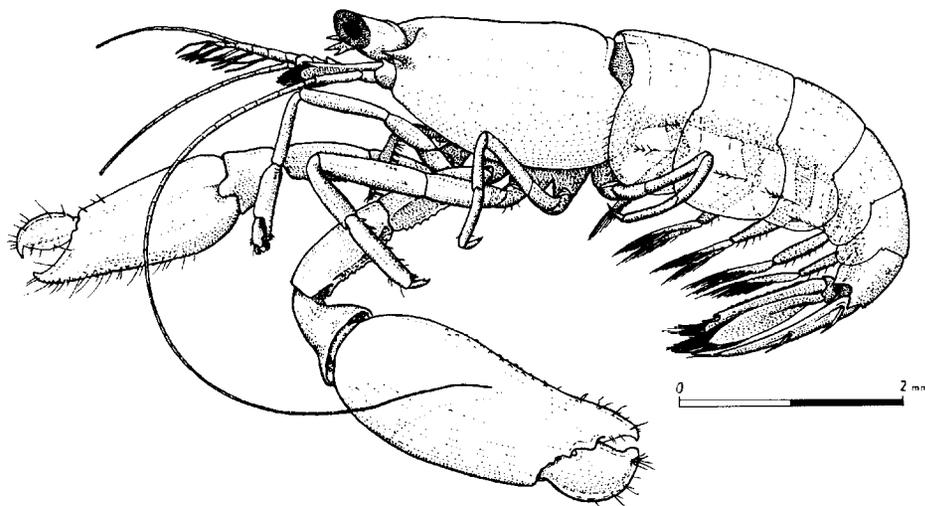


FIG. 1. *Periclimenaeus tchesunovi* sp. nov., HOLOTYPE, ♀. Lateral view. Scale in mm.

Carapace with rostrum short, well developed and slightly downcurved (Fig. 2(a)), slightly longer than half postorbital carapace length; dorsal margin with 6 teeth, proximal tooth situated anteriorly to posterior orbital margin, distal teeth longer and narrower, directed anteriorly; ventral margin nearly straight, without lamina, single ventral tooth placed distally; tip of rostrum acute, slightly stronger than distal dorsal or ventral teeth. Orbits well developed, without supraorbital tubercle, inferior orbital angle blunt, covered by stout antennal spine in lateral view; hepatic spine absent; anteroventral angle of carapace subrectangular and rounded.

Thoracic sternites (Fig. 2(e)) narrow, seventh sternite medially with compressed ventral tooth and low posterior median carina.

Abdominal segments (Fig. 1) smooth; anteroventral margin of first segment with row of scattered setae; abdominal pleurae I–V rounded, sixth segment with posterolateral and posteroventral angles subtriangular and acute; sixth segment nearly as long as fifth segment, width twice depth.

Telson (Fig. 2(f)) about twice length of sixth abdominal segment and 2 times longer than broad; lateral margins convex, proximal half nearly parallel, distally narrowing to convex posterior margin; two pairs of well developed long sharp dorsal spines, 0.22 of telson length, situated at 0.15 and 0.45 of telson length from anterior margin; posterior margin about 0.5 of anterior telson width, with three pairs of posterior spines: lateral spines small, about 0.15 of intermediate spine length, intermediate spines proportionally similar, subequal to dorsal spines, submedian spines slightly more slender, longer than intermediate spines, setulose.

Antennular peduncle (Fig. 2(b)) exceeding rostrum by length of distal segment; basal segment broad proximally, narrowing anteriorly to 0.6 of proximal width, outer and inner margins straight, anterolateral angle sharp, triangular, reaching to middle of intermediate segment, anterior margin setose; stylocerite short, reaching 0.45 length of basal segment; intermediate and distal segments short, combined length about 0.4 of proximal segment length; lower flagellum filiform, with about 13 articles; upper flagellum biramous, with fused part consisting of 4 articles, long free ramus filiform, with about 8 articles, short free ramus with 2 articles; 5 groups of aesthetascs present.

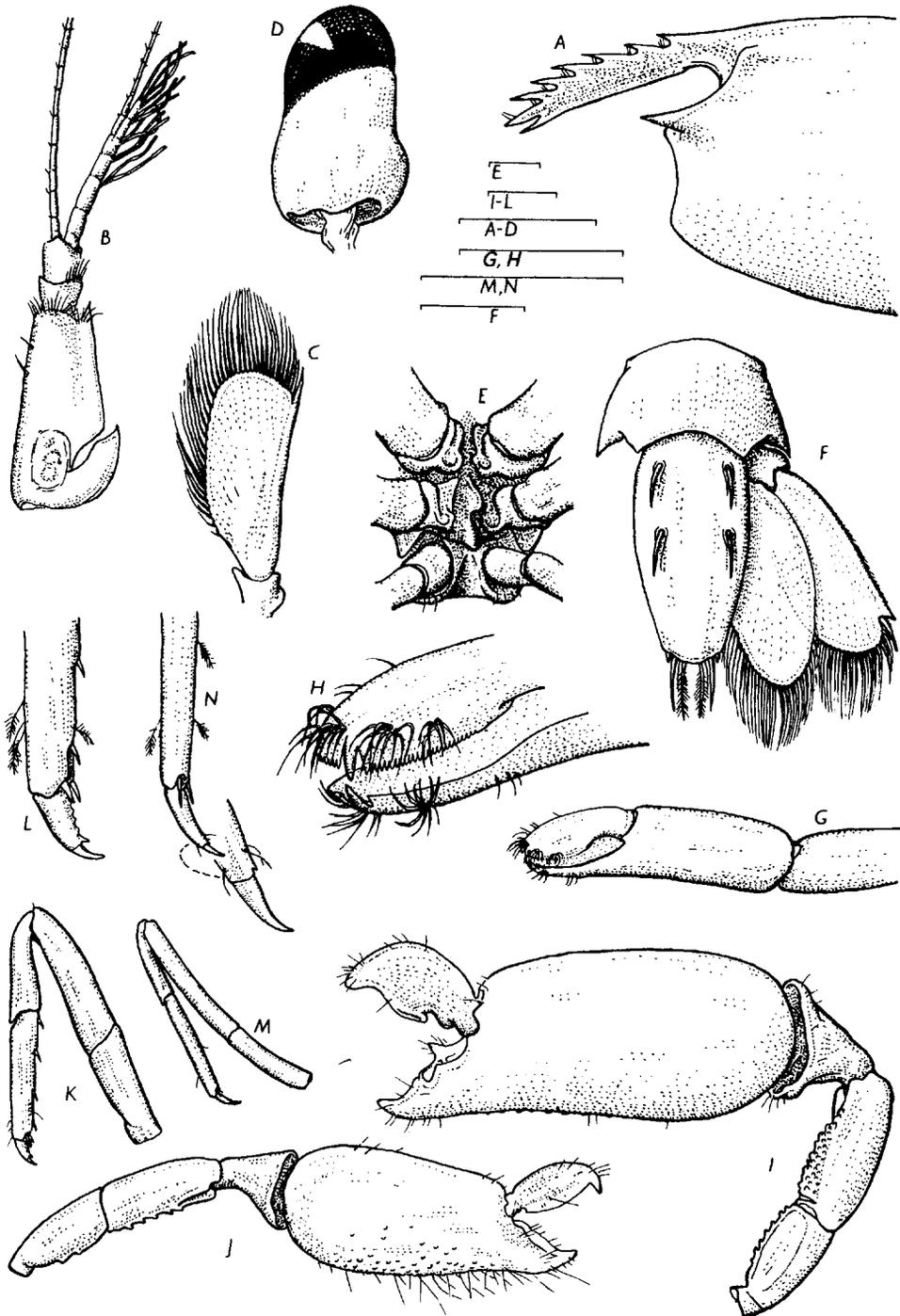


FIG. 2. *Periclimenaeus tchesunovi* sp. nov., HOLOTYPE ♀. (a) Anterior carapace, lateral aspect; (b) antenna; (c) scaphocerite; (d) eye, dorsal aspect; (e) sixth to eighth thoracic sternites; (f) sixth abdominal segment, telson, and uropod; (g) chela of first pereiopod; (h) same, fingers, anterolateral aspect; (i) major second pereiopod, lateral view; (j) minor second pereiopod; (k) third pereiopod; (l) same, distal propodus and dactylus; (m) fifth pereiopod; (n) same, distal propodus and dactylus. Scales: (a)–(g), (i)–(m) are 0.5 mm, (h) is 0.2 mm.

Basal antennal segment short, without lateral tooth; carpocerite long, slender, reaching to end of intermediate antennular segment; scaphocerite (Fig. 2(c)) subequal to antennular peduncle length, lateral margin feebly concave with terminal tooth exceeding anterior margin of lamina by distal third; two distal thirds of lamina broad, nearly 2.3 times longer than broad; anterior margin broadly rounded.

Eyes well developed (Fig. 2(d)); cornea subglobular, eyestalks stout, about twice length of cornea, swollen proximally.

Mouthparts not examined to avoid damage to the only specimen. Third maxillipeds short, not reaching to distal end of carpocerite.

First pereopods exceeding distal margin of scaphocerite by chela and carpus; chela (Fig. 2(g)) subcylindrical, with palm length twice depth; fingers occupying distal 0.35 of chela, depressed, rounded anteriorly and broadly spatulate on opposite faces; cutting edges of dactylus (Fig. 2(h)) finely denticulate, both fingers with terminal tooth separated by narrow notches; groups of short curved setae present distally on fingers along margins; carpus equal to chela, 3.3 times longer than deep distally and tapering proximally; merus 1.3 times longer than carpus, 5.5 times longer than deep; ischium and basis respectively 0.5 and 0.33 of merus length, wider than latter; coxa without special structures.

Second pereopods strong, dissimilar, unequal (Fig. 1). Major chela (Fig. 2(i)) stout, moderately compressed; palm 1.3 times longer than postorbital length of carapace and nearly as deep as latter, 1.7 times longer than deep; palmar surface smooth, excluding finely granulate ventral surface; fingers strongly compressed, slightly curved mesially, short, occupying distal 0.27 length of chela; dactylus, with dorsal margin carinate, semicircular in lateral view, 1.8 times longer than deep, distal end obtuse, cutting edge with strong molar process and a small proximal rounded tubercle opposing fossa on fixed finger when chela closed; fixed finger with strong subacute terminal tooth, with pair of triangular medial and lateral processes separated by deep fossa, inner tooth higher and narrower; fingers with scattered setae; carpus short, about 0.25 of palm length, narrowed proximally, subconical, concave in region of articulation with propodus; both merus and ischium slightly longer than carpus; ventral surface of merus and ventromesial margin of ischium granulate; basis and coxa short, coxa with large rounded tubercle anteriorly. Minor second pereopod (Fig. 2(j)) 0.65 length of whole major second pereopod; chela much compressed; palm slightly narrowing distally, 1.8 times longer than depth of proximal third; fingers occupying distal third of chela length, slightly curved mesially; dactylus ovate in lateral view, with strong, downcurved terminal tooth, dorsal margin rounded, carinate, cutting edge sharp, convex, with rectangular connection with terminal tooth; fixed finger broad near base, tapering distally to strong, slightly upcurved terminal tooth, cutting edge with narrow submarginal groove on outer side; when chela closed, distal tooth of fixed finger crosses terminal dactylar tooth, so that closure of fingers does not damage sharp dactylar edge; carpus conical, tapering proximally, about 0.5 of palm length; merus and propodus nearly subequal to carpus, both with some ventral granules.

Third pereopods distinctly stouter than both fourth or fifth pereopods (Fig. 1); third pereopods (Fig. 2(k)) exceeding end of carpocerite by distal end of merus; dactylus (Fig. 2(l)) short, compressed, with corpus length nearly twice depth, unguis slightly downcurved, sharp, dactylar corpus bearing row of four small ventral teeth and one longer tooth distally forming additional unguis of dactylus; propodus about 4 times longer than dactylus, 5.5 times longer than deep, ventral border with four single spines, and pair of subterminal spines; carpal length equal to about 0.7 of length of

propodus, short distal process placed over articulation with propodus; merus subequal to propodal length, distinctly deeper than distal segments, unarmed, tapering distally; ischium as deep as merus, but 0.8 of meral length; basis and coxa short, without special features.

Fourth and fifth pereopods (Fig. 2(*m*)) distinctly more slender than preceding pair. Dactyli narrower, with only small, inconspicuous distal accessory tooth on ventral margin of corpus, close to base of unguis (Fig. 2(*n*)); propodi respectively 5.9 and 6.2 times longer than deep and 0.9 and 0.8 of length of propodus of third pereopod; single ventral spines absent on propodi of fourth and fifth pereopods, terminal pair present.

Pleopods well developed; long plumose, anteriorly directed seta present on articulation of basipodites and carpopodites of first to fifth pleopods (Fig. 1).

Uropod (Fig. 2(*f*)) with feebly developed lateral lobe of protopod; rami subequal in length, reaching beyond distal end of telson; exopod 2.3 times longer than broad, with slightly convex lateral margin, rounded distal margin, distolateral angle triangular, sharp, movable spine long, about 3 times longer than distolateral angle, curved mesially; endopod ovate, subequal to exopod in both length and width.

No data are available on the colour of the specimen.

Measurements. Post-orbital length of carapace 1.7 mm; rostrum 0.9 mm; total length of body (excluding rostrum) 5.8 mm; first pereopod 3.9 mm; major second pereopod 5.4 mm; minor second pereopod 4.4 mm; third pereopod 3.9 mm.

Types. The present unique specimen, a female, is designated as holotype, and is deposited in the collection of the Zoological Museum of Moscow State University, Moscow, catalogue number Ma 2520.

Systematic position. *Periclimenaeus tchesunovi* sp. nov. appears most closely related to *P. rastrifer* Bruce, 1980, from which it may be distinguished by the following features (Bruce, 1980 b, 1982): 1. Rostral lamina deeper, not tapering distally, rostral dentition 6/1 (*P. rastrifer*, rostrum tapering distally, dentition 7/0-1); 2. Chelae of first pereopods longer, fingers occupying about 0.33 of their length (*P. rastrifer*, fingers longer than half length of chela); 3. Dactylus and palm of major second chela shorter and deeper, ratio of length to depth respectively 1.8:1 or 1.7:1 (*P. rastrifer*, ratios 2.3:1 for both the segments). The fingers of the first pereopods of *P. rastrifer*, as illustrated by Bruce (1982; fig. 21), are also spatulate, but rather narrower and with the dactylus terminating in two teeth. In the present species, the fingers are shorter, broadest near the middle of their length, with the anterior margin well rounded and terminating in a single tooth.

Etymology. This species is named in honour of Alexei V. Tchesunov (Moscow State University), who collected the rich and very interesting material of coral-inhabiting decapods and kindly gave it to me for study.

Habitat. The present specimen was collected from coral *Seriatopora* sp. with a colony diameter about 0.3 m, lifted by SCUBA divers from a depth of 20 m, on outer reef-slope. According the field notes of Dr A. V. Tchesunov, the host-coral colony was irregularly encrusted by reddish sponges, which may be the true host of the present specimens.

Associated fauna. The present specimen was associated in the coral colony with commensal shrimps: *Apopontonia falcistrostris* Bruce (3 specimens; the first record in the Maldive Islands), *Jocaste lucina* (Nobili) (1 specimen), 5 specimens of an undescribed palaemonid genus, *Synalpheus streptodactylus streptodactylus* Coutière (8 specimens), *S. hastilicrassus* Coutière (8 specimens), and *S. neptunus neptunus* Dana (1 specimen). Other commensals were represented by two specimens of galatheids, by seven

specimens of the porcellanid *Polyonyx triunguiculatus* Zehntner, and by 47 specimens of various crabs. Many ophiurids and gastropod 'cowries' were also present.

Distribution. *Periclimenaeus tchesunovi* sp. nov. is known only from the type locality, the Maldive Islands, in the Indian Ocean. Its closest relative, *P. rastrifer*, a sponge-associated shrimp, has been reported from the Pacific Ocean, occurring in New Caledonia, Hong Kong, and on the Great Barrier Reef (Bruce, 1980 b, 1982).

Periclimenaeus zarenkovi sp. nov.

(Figs 3–4)

Material. 1♂ (HOLOTYPE, ZMMSU Ma 2519); Cruise IX, R/V *Akademik Petrovskii*, st. 34; Genego Islet, North Nilandu Atoll, Maldive Islands, reef-flat, 0.7 m, 11 March 1980; coll. A. V. Tchesunov.

Description. Small shrimp with carapace and abdomen smooth.

Carapace (Fig. 3(a)) with rostrum moderately developed, straight, rostral length greater than half postorbital carapace length; rostrum compressed, tapering distally, with 5 dorsal, anteriorly directed teeth, distal tooth shorter than four preceding teeth, proximal tooth placed distinctly anterior to posterior orbital margin; lateral and ventral carinae absent; supraorbital tubercle feebly developed; antennal spine short, hepatic spine absent; orbit and inferior orbital angle feebly developed; anteroventral angle of carapace rounded, slightly produced anteriorly.

Thoracic sternites without special structures, anterior sternites narrow, posterior sternites broader.

Abdominal tergites smooth; anteroventral angle of first pleuron with short setae; pleura of first to fifth segments rounded, posterolateral and posteroventral angles of sixth segment triangular, acute; length of two posterior segments subequal, sixth segment 1.5 times longer than deep, 2.5 times broader than deep.

Telson (Fig. 3(e)) about twice length of sixth abdominal segment and its own maximal width, widest at proximal third; lateral margins convex; 2 pairs of minute dorsal spines at 0.33 and 0.7 of telson length measured from anterior margin; posterior margin broadly rounded, width 0.5 and 0.43 respectively of anterior and maximal width of telson; 3 pairs of posterior telson spines present, lateral spines minute, similar and subequal to dorsal spines, intermediate spines 4.5 times longer than lateral spines, submedian spines setulose, slightly shorter than intermediate spines.

Antennular peduncles (Fig. 3(c)) stout, exceeding rostrum by length of distal segment; basal segment with lateral lobe distal to stylocerite, mesial margin straight, without ventral tooth; anterior margin setose, with short lateral spine not reaching to middle of intermediate segment; stylocerite short, broad, not reaching to middle of basal segment, with rounded posterolateral margin; intermediate and distal peduncular segments broad, subequal, with combined length about half length of basal segment; lower flagellum filiform, short, with at least 10 articles; upper flagellum biramous, with proximal part stout, 8 proximal articles fused, stout, longer free ramus filiform, with 7 articles, shorter free ramus with only single article, with 10 groups of long aesthetascs.

Basal antennal segment (Fig. 3(b)) short and broad, without lateral tooth; carapocerite elongate, reaching the distal end of scaphocerite, 6 times longer than broad; antennal flagellum filiform, short, about 2.3 times longer than postorbital carapace length; scaphocerite short, reaching to distal end of intermediate segment of antennular peduncle, lateral margin straight with short distal tooth not overreaching anterior

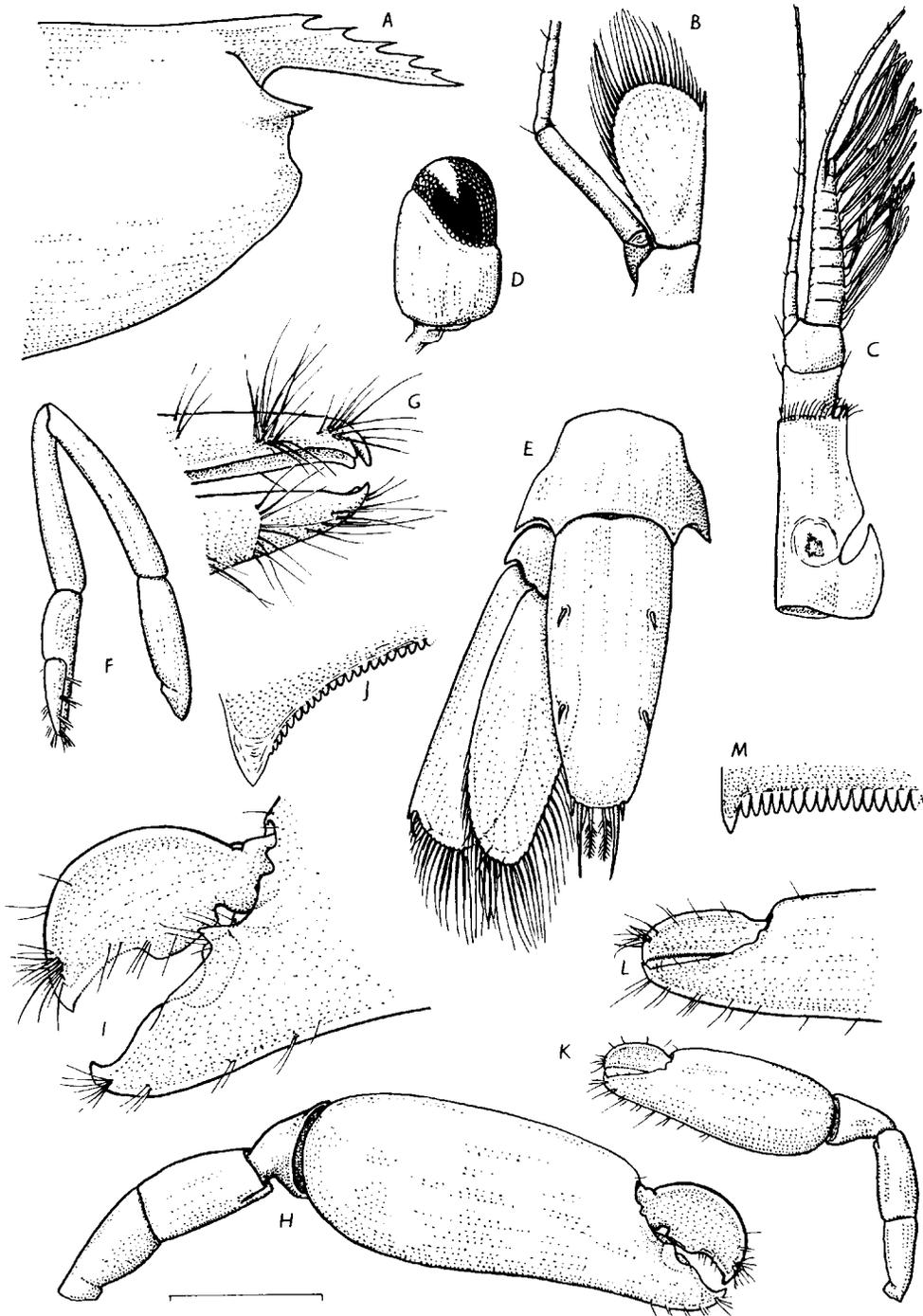


FIG. 3. *Periclimenaeus zarenkovi* sp. nov., HOLOTYPE, ♂. (a) Anterior carapace and rostrum, lateral aspect; (b) antenna; (c) antennula; (d) eye, dorsal aspect; (e) sixth abdominal segment, telson, and uropod; (f) first pereiopod; (g) same, tips of fingers; (h) major second pereiopod; (i) same, fingers, inner aspect; (j) same, distal cutting edge of dactylus; (k) minor second pereiopod; (l) same, fingers; (m) same, distal cutting edge of dactylus. Scales: (a), (e), (f), (i), (l) 0.5 mm; (b)–(d) 2 mm; (h), (k) 1 mm.

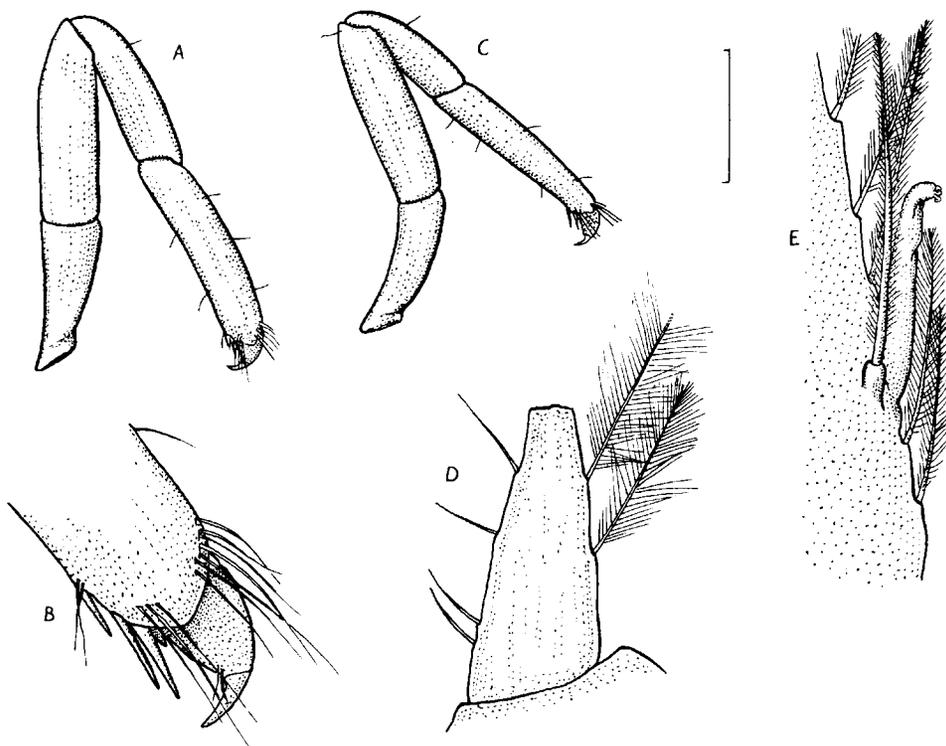


FIG. 4. *Periclimenaeus zarenkovi* sp. nov., HOLOTYPE ♂. (a) Third pereiopod; (b) same, distal propodus and dactylus; (c) fifth pereiopod; (d) endopod of male first pleopod; (e) appendices interna and masculina of male second pleopod. Scales: (a), (c) 0.5 mm; (b), (d), (e) 0.1 mm.

margin of lamina, lamina with length twice width and with broadly rounded anterior and mesial margins, maximally expanded at distal third.

Eyes (Fig. 3 (d)) placed obliquely (in dorsal view) on distinctly broader stalk; cornea subglobular, eyestalk short, subcylindrical.

Mouthparts of the unique specimen were not examined.

First pereiopods (Fig. 3 (f)) equal in size, exceeding scaphocerite by distal end of merus; palm subcylindrical, palmar length twice depth; fingers straight, tapering distally, only slightly longer than palm and occupying distal 0.56 of chela length; opposite sides of fingers formed by low longitudinal groove with simple cutting edges on both sides of fingers; tip of dactylus with downcurved terminal tooth and pair of smaller subterminal teeth, one on each side of terminal tooth, fixed finger with one terminal and one subterminal tooth (Fig. 3 (g)); groups of setae on distal parts of fingers laterally placed; carpus 1.1 times longer than chela, 4 times longer than distal width, tapering proximally; merus narrower, slightly curved, with concave ventral margin and subequal to carpal length, 5.6 times longer than deep; ischium broader than preceding segments, length equal to 0.7 of meral length; basis and coxa short; coxa broader, mesial margin deeply concave.

Second pereiopods (Figs 3 (h), (k)) dissimilar, unequal. Major chela (Fig. 3 (h)) on right; palm deep, slightly compressed, palmar length twice depth; maximal depth at 0.33 of palmar length and slightly tapering distally; fingers (Fig. 3 (i)) compressed, slightly curved mesially, short, occupying distal 0.25 of chela length; dactylar length

twice depth, dorsal margin semicircular, with distal carina, terminal tooth short, acute, ventral margin (Fig. 3(j)) denticulate on distal half, with about 30 short denticles with blunt tips diminishing proximally, proximal half of ventral margin with well developed large molar process; fixed finger with stronger upcurved pointed terminal tooth; large fossa present proximally on dorsal margin opposite to dactylar molar process, dorsal edges on each side of fossa sharp, mesial margin with high triangular process, lateral margin with lower rounded process, cutting edge concave but simple distal to fossa; fingers with subterminal group of setae; carpus short, broad, 0.3 of palm length, tapering proximally; merus length twice depth, about 0.3 of palm length; ischium length twice distal depth and 0.8 of merus length, tapering proximally; basis and coxa short, stout, without special ventral structures.

Chela of minor second pereiopod (Fig. 3(k)) 0.55 of major chela length; palm smooth, much compressed, only slightly tapering distally, palmar length twice proximal depth; fingers (Fig. 3(l)) compressed and short, 0.27 of chela length; dactylus with broadly rounded dorsal margin, 2.5 times longer than deep, tip with short ventrally directed tooth, cutting edge straight (Fig. 3(m)), denticulate along whole length, with about 40 acute denticles, larger than on major dactylus, and decreasing in size proximally; fixed finger narrowing distally, terminating in short, pointed, dorsally directed tooth, cutting edge straight and simple; dactylus and ventral propodus covered with scattered and moderately long setae; carpus broad distally, about 0.43 of palmar length; merus 2.5 times longer than deep, 0.5 of chela length; ischium as long and deep as merus, tapering proximally; basis and coxa short, without special features.

Walking legs similar, subequal, third pereiopods exceeding scaphocerite and antennular peduncle by distal end of merus; fourth and fifth pereiopods slightly more slender (Fig. 4(c)) than third. Third pereiopod (Fig. 4(a)) with dactylus (Fig. 4(b)) short, deep and compressed laterally, dactylar corpus only slightly longer than deep, both dorsal and ventral margins convex, ventral margin with small proximal tooth, dactylar unguis longer than half of corpus length, sharp and downcurved; propodus 4.4 times longer than both dactylar corpus length and propodal depth, latter being nearly uniform along whole length of segment, ventral margin with single short subterminal and pair of longer terminal spines, distal end with dorsal and ventral groups of setae on each side; carpus 0.64 of propodal length, nearly as deep as propodus, 2.3 times longer than deep and with short obtuse dorso-distal process over articulation with propodus; merus respectively 3.4 and 1.2 times longer than its own depth and propodal length; ischium 0.65 of merus length, narrowing proximally; basis and coxa short, without special structures. Fourth and fifth pereiopods with propodal length and depth ratios nearly equal to that of third pereiopod; propodi of last two walking legs slightly longer (respectively 1.05 and 1.1 times) than propodus of third pereiopod, slightly narrowing distally (Fig. 4(c)).

Male first pleopod with endopod (Fig. 4(d)) broad and short, about 2 times longer than broad, narrowing distally, apex straight, mesial border with 4 simple setae (2 setae and bases of 3 other lost setae indicate presence of 5 setae on other pleopod), distal marginal setae lost (probably 2-3), lateral border with 2 longer plumose setae. Male second pleopod with very short appendix masculina, length about 0.2 of normally developed appendix interna, and with a strong setose apical seta (Fig. 4(e)).

Uropodal protopod (Fig. 3(e)) without acute lateral lobe; exopodite with length twice width, with feebly convex lateral margin terminating in short triangular tooth and a mobile spine about twice length of tooth, distal margin broadly rounded, reaching to end of endopodite; latter ovate in dorsal view, 2.5 times longer than broad.

Colour. Field collector's note shows that the specimen differed from other commensal decapods on the coral colony only by a pale coloration.

Measurements. (HOLOTYPE male): post-orbital length of carapace, 1.3 mm; rostrum, 0.8 mm; total length of body (without rostrum), 4.3 mm; first pereiopod, 2.4 mm; major second pereiopod, 5.2 mm; minor second pereiopod, 3.8 mm; third pereiopod, 2.9 mm.

Types. The only specimen, a male, is designated as the holotype, and is deposited in the Zoological Museum of Moscow State University, Moscow, catalogue number Ma 2519.

Systematic position. The new species, *Periclimenaeus zarenkovi*, is closest morphologically to *P. diplosomatis* Bruce, 1980. Both species are easily distinguishable from other species of the genus by the presence of a denticulate distal cutting edge on the dactylus of the major chela. *P. zarenkovi* may be distinguished from *P. diplosomatis* by possessing a deeper rostrum with 5 dorsal teeth, while the latter species (see Bruce, 1980 a) has only 3 dorsal teeth. The eyes, in the present species, have the cornea placed obliquely on the eyestalks, while in *P. diplosomatis* the cornea are situated rather uniformly in a terminal position (Bruce's Fig. 3). *P. zarenkovi* also differs in having a broader scaphocerite with the distolateral spine not exceeding, as well as with the carapocerite, the anterior margin of the lamina. Dorsal telson spines of *P. diplosomatis* are well developed, longer than 0.1 of the telson length (see: Bruce, 1980 a, Fig. 3 (m)), while in the new species they are very short (less than 0.1 of the telson length). The pereiopods are stouter in *P. zarenkovi*. The fingers of second pereiopods occupy less than one-third of lengths of chelae whereas in *P. diplosomatis* they are longer. The dorsal dactylar margin of the major chela of the present species is rather semicircular, while in *P. diplosomatis* it is more elongate; the minor chela of the latter is also more elongate, the length/depth ratio being 2.7: 1 (see Bruce, 1980 a), by comparison, the new species has a ratio of 2.0: 1.

Both species show some affinity to *P. nobilii* Bruce, 1974. The features enumerated by Bruce (1980 a) for distinguishing *P. nobilii* from *P. diplosomatis* may also be used for separating the former species from *P. zarenkovi*. In part, they include the following features: 1. presence of 2 dorsal spines on the rostrum, 2. sinuous cutting edge on the dactylus of the minor second pereiopod, and 3. ventral dactylar border of walking legs concave between the proximal tooth and unguis, the latter being straighter (see: Bruce, 1974, 1980 a).

Etymology. The new species is named in honour of Dr Nikolai A. Zarenkov (Moscow State University) who has made invaluable contributions to our knowledge on crustacean biology.

Habitat. The single specimen of *P. zarenkovi* was found in a collection of coral-inhabiting crustaceans from a live coral head of *Pocillipora* sp., 10 cm in diameter. According to the collector's field notebook, there was no further data on this coral colony relating to presence or absence of any sponges or ascidians, usually considered to be the true hosts of shrimps of this genus (see above).

Associated fauna. The other decapods collected from the same coral head were the shrimps *Vir orientalis* Dana (1 specimen; the first record from the Maldive Islands) and *Synalpheus* sp. (1 specimen), and a pair of crabs *Trapezia cymodoce* (Herbst). Coral 'cysts' of cryptocirid crabs were present also on this coral colony.

Distribution. All three species mentioned are known only from the type localities. *P. zarenkovi* from the Maldive Islands, *P. diplosomatis* from Heron Island (Queensland, Australia) associated with a colonial ascidian of the genus *Diplosoma* (Bruce, 1980 a), and *P. nobilii* is known only from the Red Sea (Bruce, 1974).

Acknowledgements

I am deeply indebted to Dr A. J. Bruce (Northern Territory Museum, Darwin) for reading this manuscript and for invaluable help during my work. Dr A. V. Tchesunov (Moscow State University, Moscow) collected the material and kindly provided it for study. He and Dr B. G. Ivanov (All-Union Research Institute of Marine Fisheries and Oceanography, Moscow) read an early draft of this manuscript, and their notices, as well as the critical comments of two anonymous referees, contributed much to the development of the present paper.

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