

***Periclimenaeus pulitzerfinali* sp. nov. (Crustacea: Decapoda: Palaemonidae), a new pontoniine shrimp from East Africa**

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ABSTRACT

A small pontoniine shrimp, *Periclimenaeus pulitzerfinali*, from Shelly Beach, Mombasa, Kenya, is described as new and illustrated. An appendix presents a complete list of *Periclimenaeus* species recorded from East Africa (Kenya, Zanzibar, Tanganika).

KEYWORDS: *Periclimenaeus pulitzerfinali* sp. nov., Crustacea, Decapoda, Pontoniinae, Mombasa, Kenya, sponge associate.

INTRODUCTION

The genus *Periclimenaeus* Borradaile, 1915 is the second most speciose genus of the subfamily Pontoniinae with at present 70 described species – 55 from the Indo-west Pacific region, 4 from the eastern Pacific and 11 from the Atlantic region. The various species are associated with sponge or ascidian hosts, although the hosts of a number of species have not yet been reported or identified. The present report describes and illustrates a further new species from an East African sponge host, increasing the number of Indo-west Pacific species known to 56. The single specimen is deposited in the collection of the Museum and Art Gallery of the Northern Territory, Darwin.

The names Tanganyika and Zanzibar are used in their geographical sense only, as the two entities are now politically united as Tanzania.

Abbreviations used: CL refers to the postorbital carapace length; NTM, Museum and Art Gallery of the Northern Territory, Darwin (formerly Northern Territory Museum).

SYSTEMATICS

Family Palaemonidae Rafinesque, 1815

Subfamily Pontoniinae Kingsley, 1879

Genus *Periclimenaeus* Borradaile, 1915

Gender masculine. Type species, by subsequent designation of Borradaile (1917: 378), *Periclimenaeus* [originally spelling *Periclimenæus*] *robustus* Borradaile, 1915. Recent, Amirante Islands, Indian Ocean. Genus placed on the Official List of Generic Names in Zoology under Opinion 470 dated 1957.

***Periclimenaeus pulitzerfinali* sp. nov.**

(Figs 1–5)

Material examined. HOLOTYPE – NTM Cr.17287 (previously AJB # 2098), ovigerous ♀, CL 5.2 mm, reef front off Shelly Beach, Mombasa, Kenya, SCUBA, 16 m, coll. J. Wood, 23 January 1974.

Diagnosis. Rostral dentition 7/0, without supraorbital spines or tubercles, first abdominal segment tergite with small narrow anterior median lobe, scaphocerite tooth not exceeding lamella, first pereopod slender, fingers stout, semi-spatulate, half palm length, major second pereopod with feeble molar process, palm and merus ventrally spinulate, minor second pereopod dactyl elongate, extending well beyond fixed finger, cutting edge convex, entire, tip strongly bifid, fixed finger short, cutting edge grooved, edges entire, third pereopod dactyl robust, biunguiculate, ventral corpus minutely denticulate, telson with dorsal spines well developed, at 0.15 and 0.53 of telson length, exopod of uropod with distolateral tooth and spine only.

Description. Female holotype, a small-sized pontoniine shrimp of subcylindrical, slightly compressed body form, complete with both second pereopods.

Rostrum (Fig. 1A) slender, compressed, without distinct midrib, slightly depressed, about 0.33 of CL, reaching to about distal margin of proximal segment of antennular peduncle, with 7 slender acute teeth extending over whole of rostral length, fifth tooth longest, with numerous long setae interspersed, tip acute, ventral margin feebly convex, unarmed, non-setose.

Carapace (Fig. 1B,C) slightly compressed, glabrous, without epigastric, supraorbital or hepatic spines, with feeble postorbital ‘shoulders’, antennal spine well developed,

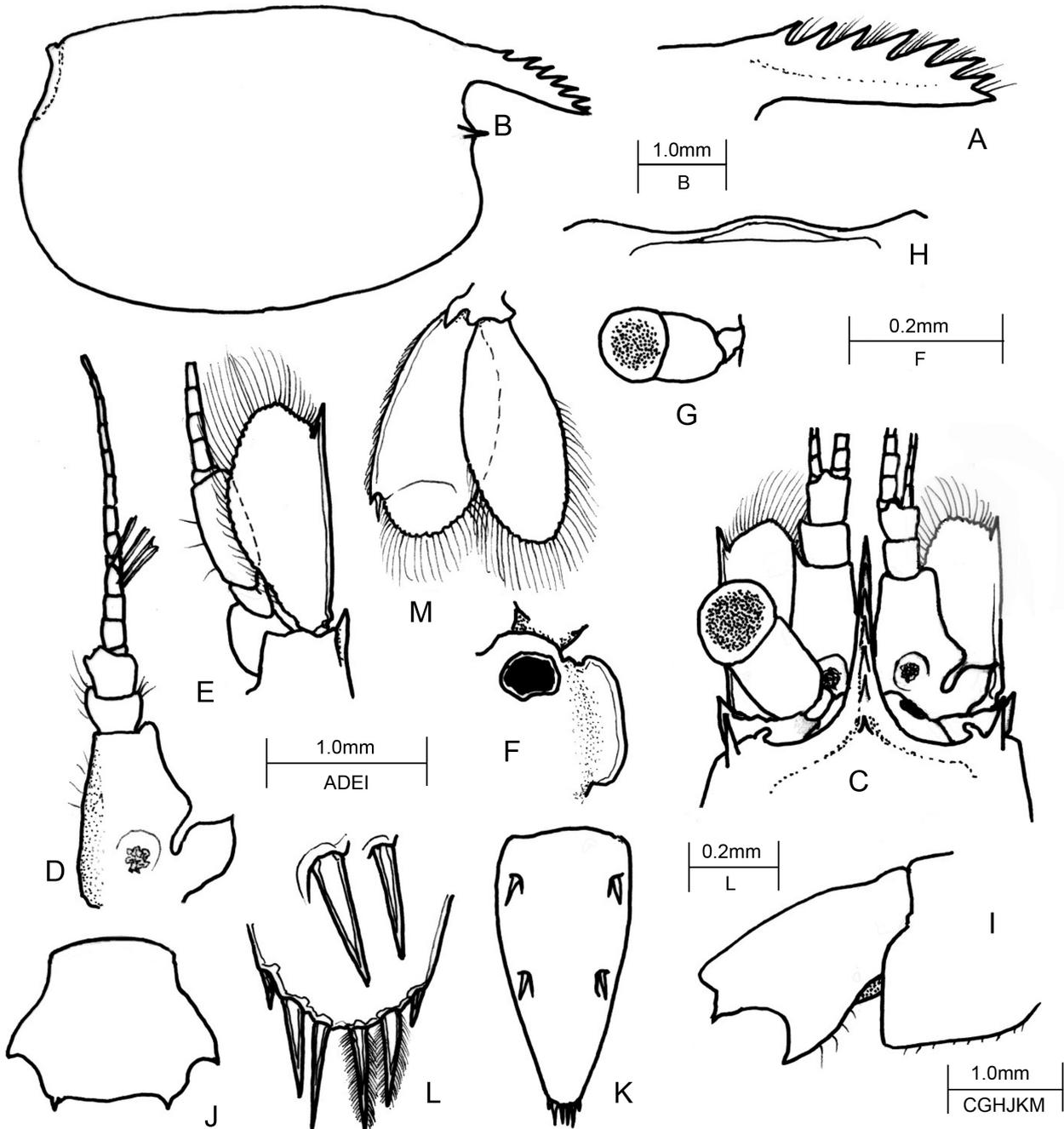


Fig. 1. *Periclimenaeus pulitzerfinali* sp. nov., holotype female, Mombasa, Kenya, NTM Cr.17287: A, rostrum; B, carapace and rostrum; C, anterior carapace and appendages; D, antennule; E, antenna; F, ophthalmic somite, lateral; G, eye, dorsal; H, first abdominal tergite, anterior margin, dorsal; I, fifth pleuron and sixth abdominal somite; J, sixth abdominal segment, dorsal; K, telson; L, same, posterior spines, dorsal spines inset, anterior spine left, posterior spine right; M, uropod.

submarginal, inferior orbital angle small rounded, curved medially, anterolateral margin of branchiostegite feebly produced, rounded.

Abdomen glabrous, first segment tergite with small anterior median lobe (Fig. 1H), sixth segment (Fig. 1I,J) length about 1.5 times length of fifth, depressed, about 1.2 times longer than anterior width, posterolateral angle small, rounded, with small acute tooth, postero-ventral angle large, broadly acute; first to fourth pleura enlarged, rounded, fifth postero-ventrally subrectangular (Fig. 1I), margin feebly setose.

Telson (Fig. 1K) about 1.8 times sixth segment length, 0.5 of CL, 2.0 times longer than anterior width, lateral

margins feebly convex, posteriorly convergent, dorsal telson spines about 0.10 of telson length, at 0.15 and 0.53 of telson length, anterior pair slightly longer than posterior, posterior margin (Fig. 1L) broadly convex without median point, 0.25 of anterior telson width, lateral posterior spines small, about 0.4 of intermediate spine length, intermediate spines short, about 0.08 of telson length, 2.5 times lateral spine length, submedian spines slightly longer and more slender than intermediate spines, densely setulose.

Ophthalmic somite (Fig. 1F) anteriorly with median vertical carina.

Eye (Fig. 1G) with large globular cornea, diameter about 0.1 of CL, well-pigmented, without obvious accessory

pigment spot, stalk short, about as broad as long, 0.8 of corneal diameter, length about 0.8 of corneal diameter.

Antennule (Fig. 1D) of normal form, damaged on right, proximal peduncular segment about twice as long as central width, distally tapering, anterolateral margin with well-developed acute tooth on left, abnormal, rounded on right, lateral margin expanded proximally, rounded, medial margin straight, thickened, sparsely setose, with well-developed ventromedial tooth at about half length, stylocerite large, broadly phylliform, distally acute, sparsely setose laterally, statocyst normal with granular statolith; intermediate segment short, about 0.16 of proximal segment length, longer than wide, distal segment similar, upper flagellum biramous, right abnormal, 2 proximal segments fused, short ramus with single segment, about 4 groups of long aesthetascs, left with 7 segments fused, shorter ramus with 2 segments, with 5 groups of aesthetascs, longer ramus slender, with 10 segments, lower flagellum similar, slender with 19+ segments.

Antenna (Fig. 1E) of normal form, basicerite short, with acute tooth laterally, carpoperite subcylindrical, about 3.0 times longer than width, reaching to about 0.75 of scaphocerite length, few short setae medially; scaphocerite 2.5 times longer than wide, greatest width distally at about 0.5 of length, anterior margin bluntly angular, lateral margin straight, with well-developed distal tooth at about 0.85 of

scaphocerite length, reaching level of distal margin of lamella.

Thoracic sternites with third and fourth broad, unarmed, posterior sternites narrow and unarmed.

Mouthparts of normal *Periclimenaeus* morphology.

Mandible (Fig. 2A) with corpus stout, without palp; incisor process (Fig. 5A) slender, tapering, transversely truncate distally, with 4 slender subequal acute teeth, medial margin entire; molar process (Fig. 5BC) robust, subcylindrical, obliquely truncate distally, with 4 stout marginal teeth, with 2 small brushes of short simple setae.

Maxillula (Fig. 2B) with feebly bilobed palp (Fig. 5D), upper lobe short, glabrous, lower lobe stouter, with small simple spinule; upper lacinia moderately broad, dorsal margin strongly convex, distal margin (Fig. 5E) with 10 short robust spines, feebly denticulate on ventral surface (Fig. 5F), lateral surface with several oblique rows of slender spiniform setae; lower lacinia short, subcylindrical, distally rounded, with numerous long terminal setae.

Maxilla (Fig. 2C) with simple tapering palp, proximal lateral margin with several short plumose setae, distally rounded, shorter than basal endite, basal endite bilobed, dorsal lobe expanded with dense simple setae, distolateral margin with several transverse rows of simple setae, ventral lobe smaller and shorter than dorsal lobe, with numerous simple setae distally; coxal endite obsolescent,

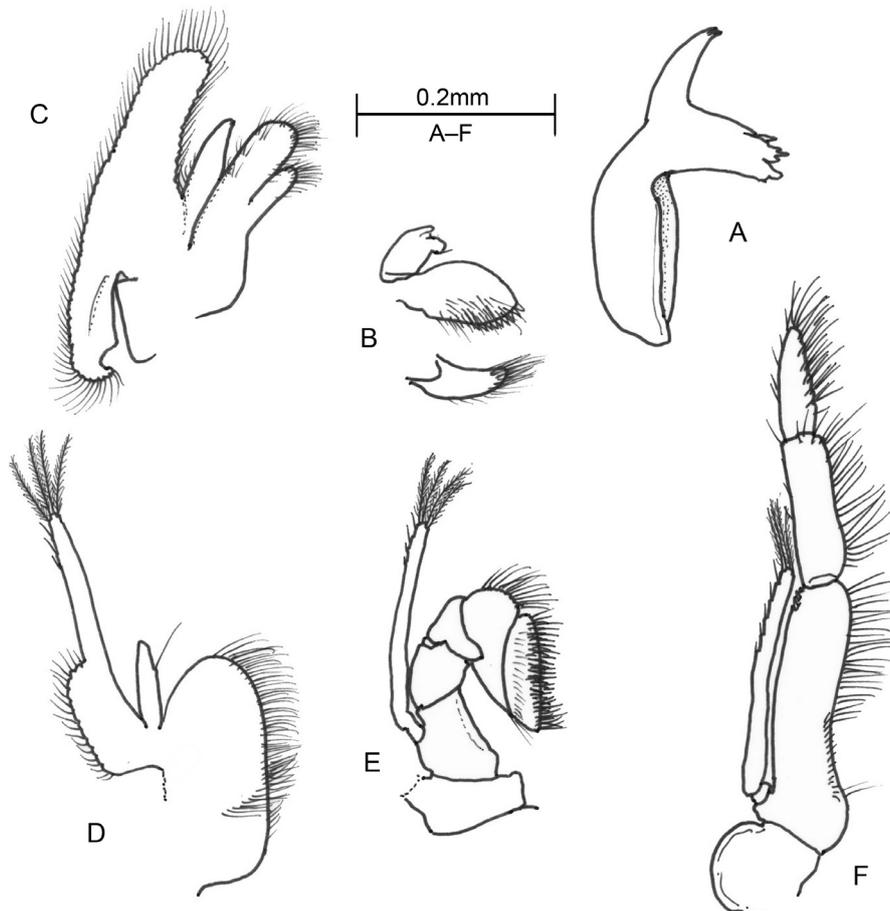


Fig. 2. *Periclimenaeus pulitzerfinali* sp. nov., holotype female, Mombasa, Kenya, NTM Cr.17287: A, mandible; B, maxillula; C, maxilla; D, first maxilliped; E, Second maxilliped; F, third maxilliped.

medial margin slightly produced, convex, non-setose; scaphognathite well developed, narrow, about 3.4 times longer than central width, anterior lobe narrow, rounded, medial margin slightly excavate, posterior lobe well developed, one third of scaphocerite length.

First maxilliped (Fig. 2D) with elongate flattened subcylindrical tapering palp, about 5.0 times longer than central width, reaching anterior margin of basal endite, with single preterminal plumose seta medially; basal endite fused with coxal endite, combined medial margin straight, distal margin produced, rounded, margins with numerous long spiniform setae; exopod with normal flagellum with 4 plumose terminal setae, some short plumose setae distolaterally, caridean lobe small; epipod lost in dissection.

Second maxilliped (Fig. 2E) with normally developed endopod, dactylar segment narrow, about 3.0 times longer than central depth, medial margin straight, with numerous serrulate spines, propodal segment normal, distomedial margin not produced, with several robust spines and shorter spiniform setae, carpus, merus and ischiobasis without special features; coxa medially produced; exopod normally developed with 4 plumose terminal setae; epipod lost in dissection, small.

Third maxilliped (Fig. 2F) with endopod reaching to about middle of carapocerite, ischiomerus fully fused to basis, point of junction on medial margin indicated by small marginal swelling, combined segment about 4.6 times longer than central width, basal region slightly expanded, medially rounded, without marginal setae, with submarginal row of 17 short plumose setae (Fig. 5H), distolateral angle (Fig. 5G) with 2 short simple submarginal spines, ischiomerus portion with numerous long slender spiniform marginal setae; penultimate segment about 0.32 of antepenultimate segment length, 3.0 times longer than wide, with numerous long simple setae medially; terminal segment about 0.75 of penultimate segment length, tapering distally, without strong terminal spine, with several transverse rows of spiniform setae medially; exopod normally developed with 4 plumose terminal setae, several short plumose marginal setae distolaterally, coxa not medially produced, with low rounded lateral plate, without arthrobranch.

First pereopods (Fig. 3A) moderately slender, exceeding carapocerite by distal fifth of merus, chela (Fig. 3B,C) with palm subcylindrical, moderately compressed, 2.5 times longer than deep, dorsal and ventral margins feebly tuberculate, fingers (Fig. 3D) 0.43 of palm length, robust, subspatulate, with groups of short stiff setae, dactylus 2.2 times longer than basal width, dorsal margin convex, tip hooked, with stout medial tooth flanked by 2 smaller teeth, cutting edges robust, entire; carpus 1.6 of chela length, 5.5 times longer than distal width, tapering proximally, dorsal and ventral margins feebly tuberculate; merus subequal to carpus length, 5.9 times longer than maximal width, tapering slightly distally; ischium about 0.62 of merus length; basis without special featured, and coxa with small setose distoventral process.

Second pereopods grossly unequal, dissimilar. Major second pereopod (Fig. 4A) with massive chela, about 1.33 times CL, chela (Fig. 4B) with palm minutely tuberculate (Fig. 5I), oval in section, twice as long as deep, tapering slightly distally, dactylus (Fig. 4C,D) with tip missing, about 0.42 of palm length, strongly compressed, 2.5 times longer than depth, proximal cutting edge with low elongated molar process, with posterior end projecting, distal cutting edge concave, entire; fixed finger about 1.1 times longer than proximal depth, robust, with shallow fossa proximally, distally grooved, medial margin with acute tooth proximally, lateral margin with rounded setose process, tip feebly hooked, distinctly bidentate, preterminal tooth rounded, terminal tooth acute; carpus about 0.33 of palm length, 1.3 times longer than wide, tapering strongly proximally, distally slightly excavate, unarmed; merus (Fig. 4E) 0.37 of palm length, 1.6 times longer than broad, slightly expanded centrally, ventral margin tuberculate (Fig. 5J); ischium (Fig. 4E) subequal to meral length, distally broadened, about 2.8 times longer than distal width, ventral margin strongly tuberculate (Fig. 5K); basis and coxa robust, without special features.

Minor second pereopod (Fig. 4F) with chela about 0.6 of CL, 0.53 of major chela length, palm oval in section, dorsally convex, smooth, ventrally straight, finely tuberculate, 2.2 times longer than deep, tapering slightly distally, projecting slightly posteriorly, sparsely setose distoventrally; dactylus (Fig. 4G,H) extending well beyond tip of fixed finger (Fig. 4G), 2.12 times longer than deep, strongly compressed, dorsal margin strongly convex, cutting edge convex, sharp, entire, tip robust, feebly hooked, distally bidentate; fixed finger short, stout, about as long as deep proximally, with small acute tip separated by small notch from cutting edge, cutting edge grooved, edges concave, entire; carpus short, stout, about 0.25 of palm length, distally expanded, tapering proximally, unarmed; merus about 0.33 of palm length, 1.5 times longer than deep, with ventral margin with numerous acute tubercles; ischium about 0.38 of palm length, twice as long as wide, tapering proximally, ventral margin with numerous subacute tubercles; basis and coxa robust, without special features.

Ambulatory pereopods robust; third pereopod (Fig. 3E–G) reaching to end of scaphocerite, with dactyl (Fig. 3H) 0.29 of propod length, unguis distinctly demarcated, 2.5 times longer than basal width, curved, unarmed ventrally, corpus compressed, about 1.6 times longer than basal width, tapering strongly distally, dorsal margin moderately convex, ventral margin with acute distal slightly preterminal anteroverged accessory tooth, ventral margin feebly convex, with 4 minute denticles, without basal process; propod about 0.25 of CL, 3.6 times longer than proximal width, tapering slightly distally, distoventral angle armed with 2 stout spines, slightly unequal, longer spine subequal to dorsal corpus length, ventral margin with 4 spaced spines, lengths decreasing slightly proximally; carpus about 0.7 of propod length, 2.5 times longer than

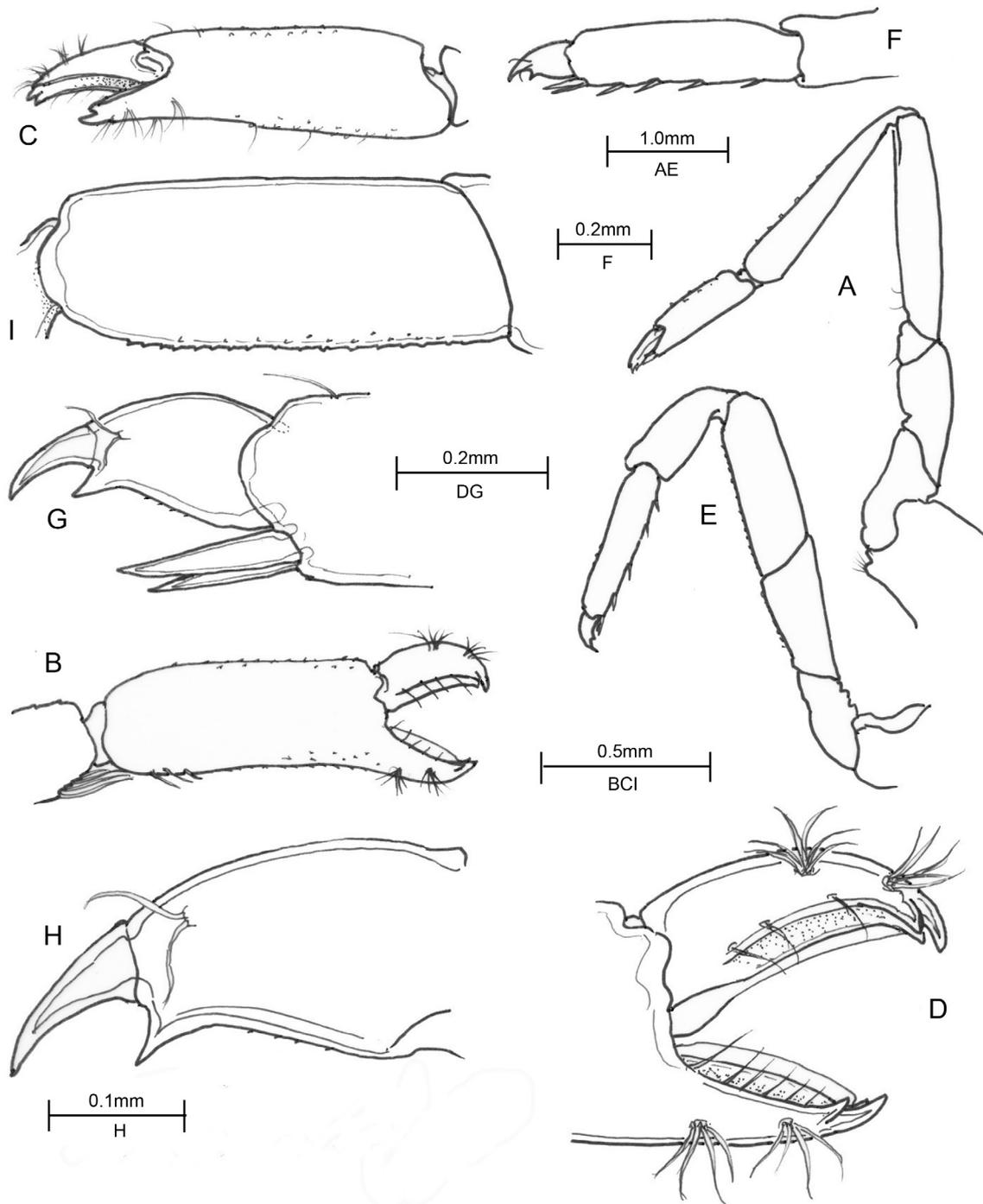


Fig. 3. *Periclimenaeus pulitzerfinali* sp. nov., holotype female, Mombasa, Kenya, NTM Cr.17287: **A**, first pereopod; **B**, same, chela; **C**, same, oblique; **D**, same, fingers; **E**, third pereopod; **F**, same, propod and dactyl; **G**, same, distal propod and dactyl; **H**, same, dactyl; **I**, same, merus.

central depth, tapering proximally, unarmed; merus (Fig. 3I) 1.1 times propod length, 3.1 times longer than central depth, ventral margin with numerous subacute tubercles (Fig. 5L); ischium 0.9 of propod length, 0.8 of meral length, ventral margin with numerous subacute tubercles, basis and coxa robust, without special features.

Fourth pereopod similar to third, subequal in length, more slender, about 4.4 times third propod length, 4.5 times longer than proximal width, tapering slightly distally, with similar spination, spines slightly smaller.

Fifth pereopod similar, propod 1.2 times third propod length, 6.0 times longer than proximal width, with single

distoventral spine only, several distal transverse rows of cleaning setae; fourth and fifth dactyls similar to third, but no ventral denticles discernible.

Uropod (Fig. 1M) with protopodite posterolaterally acute; exopod about 0.8 of telson length, 2.0 times longer than broad, lateral margin slightly convex, with numerous submarginal ventral setae, with small acute tooth distally, with adjacent straight spine, about 2.0 times longer than tooth, diaeresis distinct; endopod subequal to exopod, 2.6 times longer than broad.

Measurements (mm). Female holotype, postorbital carapace length, 5.2; carapace and rostrum, 6.8; total body

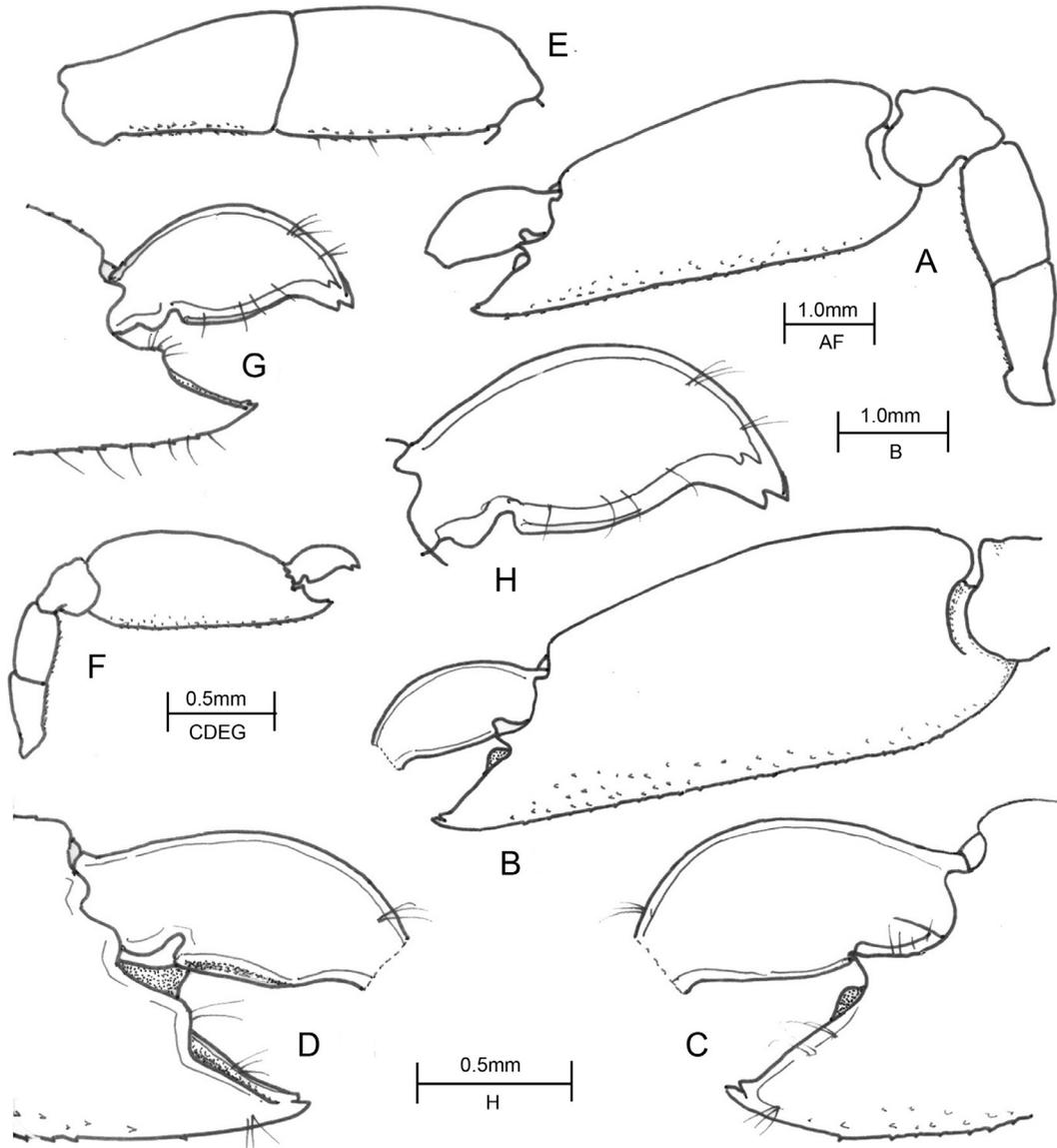


Fig. 4. *Periclimanaeus pulitzerfinali* sp. nov., holotype female, Mombasa, Kenya, NTM Cr.17287: A, major second pereiopod; B, same, chela; C, same, fingers, medial; D, same, lateral; E, same, merus and ischium; F, minor second pereiopod; G, same, fingers; H, same, dactylus.

length (approx.), 17.0; major second pereiopod chela, 6.7; minor second pereiopod chela, 5.7.

Colouration. Uniform bright yellow.

Host. *Spirastrella* sp., undescribed species [Porifera: Spirastrellidae], det. G. Pulitzer-Finali, 7 January 1975.

Etymology. Named in honour of Gustavo Pulitzer-Finali (Trieste, October 1915 – Rapallo, 21 November 2006), in recognition of his studies on the systematics of the Porifera, of which he described 260 species (pers. comm. J.N.A. Hooper), and his assistance in the identification of sponge shrimp hosts from East African waters.

Systematic position. *Periclimanaeus pulitzerfinali* is a typical member of its genus without major morphological differences from other species of the genus, while still being readily distinguishable from all the other species.

Of the 54 Indo-west Pacific species of *Periclimanaeus*, only six have the carapace without supraorbital tubercles, the first pereiopod with fingers of the chela simple, cutting edges entire, the minor second pereiopod dactyl with a

simple cutting edge, the third ambulatory pereiopod dactyl biunguiculate with the unguis unarmed, the ventral corpus denticulate and lacking a basal process, and the exopod of the uropod with a distolateral tooth and a mobile spine only. Of these six species that fully meet this character list, all can be distinguished from *P. pulitzerfinali* as follows:

Periclimanaeus garthi Bruce, 1976 scaphocerite with distolateral tooth small, falling far short of distal lamella margin; first pereiopod fingers as long as palm, tips simple; third pereiopod dactyl with stout recurved access tooth.

Periclimanaeus hebedactylus Bruce, 1970 second pereiopod fingers distally truncate, lateral posterior telson spines preterminal.

Periclimanaeus lobiferus Bruce, 1978 with large antero-medial dorsal lobe on first abdominal tergite, dactyl of first pereiopod with conspicuous dorsal tuft of long setae.

Periclimanaeus nielbrucei Bruce, 2006 rostral dentition 11/0, with distal teeth divergent, corpus of third ambulatory dactyl with robust denticles.

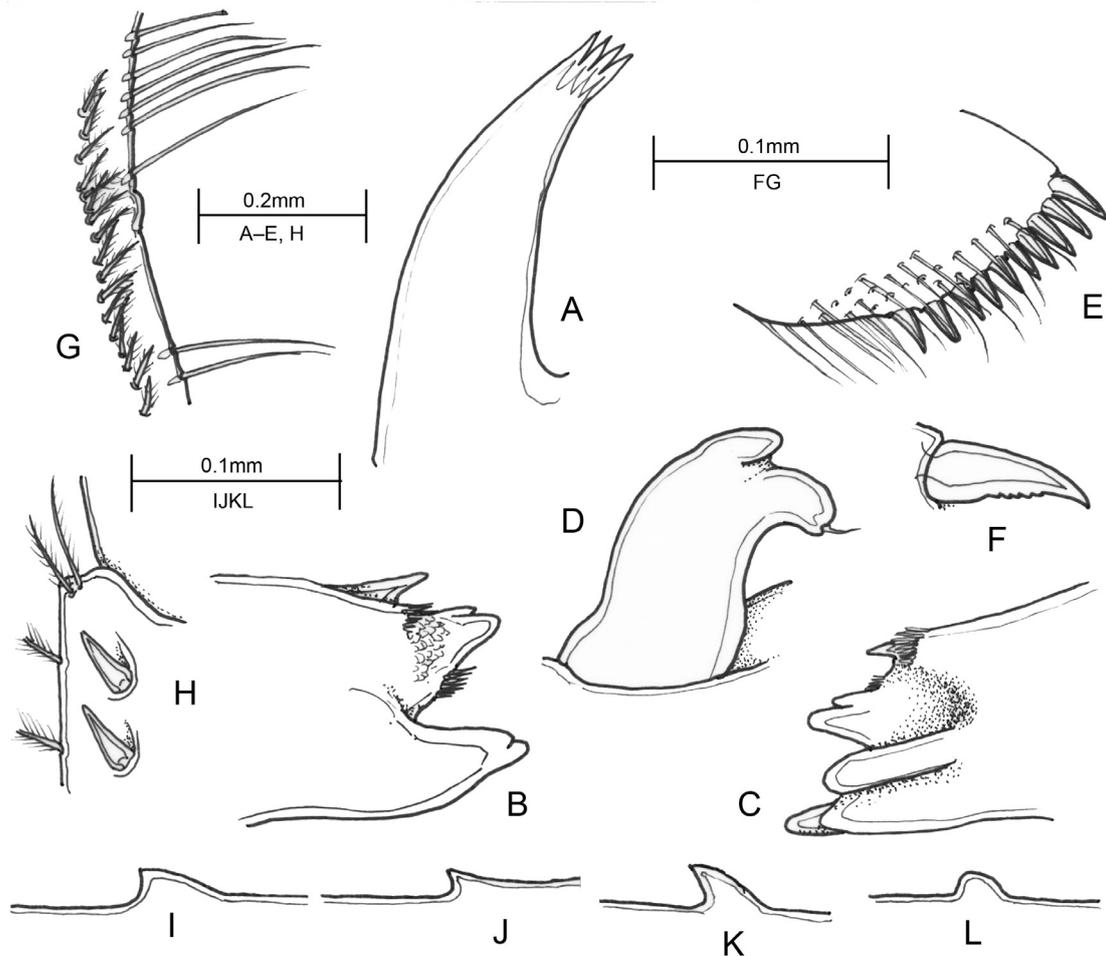


Fig. 5. *Periclimenaeus pulitzerfinali* sp. nov., holotype female, Mombasa, Kenya, NTM Cr.17287. Mouthpart details: **A**, incisor process; **B**, molar process, dorsal; **C**, same, ventral; **D**, maxillula, palp; **E**, same, distal upper lacinia; **F**, same, marginal spine; **G**, third maxilliped, distolateral ischiomerus; **H**, same, proximomedial ischiomerus. Ventral pereiopodal tuberculations; **I**, major second pereiopod, palm; **J**, same, merus; **K**, same, ischium; **L**, third pereiopod, merus.

Periclimenaeus solitus Bruce & Coombes, 1995 rostral dentition 3/0; scaphocerite with distolateral tooth small, exceeding lamella margin, first pereiopod fingers more than half palm length, palm and carpus non-tuberculate, minor second pereiopod fixed finger simple, third pereiopod merus ventrally non-tuberculate.

Periclimenaeus usitatus Bruce, 1969 with ventral rostral tooth, dentition 5/1, major second pereiopod with fixed finger grooved, edges of grooves covered with minute acute tubercles, corpus of third ambulatory dactyl with corpus without ventral denticulations.

Periclimenaeus pulitzerfinali most closely resembles *P. solitus* Bruce & Coombes, 1995 from the Cobourg Peninsula, Northern Territory, Australia, and known only from the holotype specimen. It differs in having a rostral dentition of 7/0 (versus 3/0), the scaphocerite with a strong distolateral tooth reaching to the distal margin of the lamella (versus a small tooth, slightly exceeding the lamella), the first pereiopod with the palm and propod minutely tuberculate (versus non-tuberculate), the major second pereiopod with the fixed finger bidentate (versus simple), third pereiopod propod ventrally minutely tuberculate (versus non-tuberculate), distoventral spines simple (versus

minutely dentate), dactyl with unguis about 0.5 of corpus length (versus 0.8), corpus with 4 acute ventral denticles, (versus 3 more robust small teeth), distal accessory tooth more acute, slender, 0.28 of unguis length (versus more robust, 0.15 of unguis length), dorsal telson spines shorter, 0.1 of telson length (versus 0.18).

Remarks. Of the 54 presently known Indo-west Pacific species of *Periclimenaeus*, 32 are known only from the type material. Of these, 23 are known only from the holotype specimen only. *Periclimenaeus* species generally are found in small sponges or ascidians as heterosexual pairs. The males, being smaller than the females, seem to be frequently overlooked. Five species are known from heterosexual pairs only, and more numerous specimens may occur in larger hosts. *Periclimenaeus echinimanus* Đuriš, *et al.*, 2011 is unusual in that the type material consists of 16 specimens, from six sponge hosts. Where numerous specimens of a species are available they show a high degree of morphological consistency in small details. Consequently an unidentified specimen can be readily distinguished on the basis of its morphology. Indeed, the author has a 'cheat-sheet' atlas of the third pereiopod dactyls of the Indo-west Pacific species of *Periclimenaeus* which generally

allows, with occasional exceptions, the almost immediate identification of a specimen so that only confirmation by comparison with the original or more modern description is required.

The number of *Periclimenaeus* species known from the waters of Kenya, Zanzibar and Tanganyika is now 19 and a list is appended below, with their original references and other major descriptive reports. This region includes the type localities for six species and five species are not known from elsewhere in the Indo-West Pacific region.

LIST OF CENTRAL EAST AFRICAN
PERICLIMENAEUS SPECIES
(KENYA, ZANZIBAR, TANGANYIKA)

***Periclimenaeus arabicus* (Calman, 1939)**

Periclimenes (*Periclimenaeus*) *arabicus* Calman, 1939: 210–211, fig. 4.

Periclimenaeus arabicus. – Holthuis 1952: 13, 130.

Kenya: Mombasa (Bruce 1976b); North Kenya Banks, 82 m, Wasin Island, Wasin Channel; Mombasa, Old Port (Bruce 1976c). **Zanzibar:** Prison Island; Bawi Island; Chawamba Reef (Bruce 1976c). **Tanganyika:** Kunduchi (Bruce 1976c). Also known from Oman to Fijian Islands.

***Periclimenaeus ardeae* Bruce, 1970**

Periclimenaeus ardeae Bruce, 1970: 310–312; 2005: 395, 397, fig. 5.

Kenya: Mombasa, Ras Iwatine (Bruce 1976b). Also known from type locality, Heron Island, Great Barrier Reef, Australia.

***Periclimenaeus bidentatus* Bruce, 1970**

Periclimenaeus bidentatus Bruce, 1970: 305–307; 1991: 254–255, fig. 18.

Kenya: Mombasa, Shelly Beach (Bruce 1976b). **Zanzibar:** Bawi Island, type locality (Bruce 1970); Zanzibar Harbour; Mkokotoni Harbour (Bruce 1976c). Also known from Papua New Guinea, New Caledonia and Australia.

***Periclimenaeus djiboutensis* Bruce, 1970**

Periclimenaeus djiboutensis Bruce, 1970: 307–308; 1978: 256–259, figs 28–29.

Zanzibar: Mangapwani, in *Plakinastrella ceylonica* (Dendy, 1905) (Bruce 1976c). Also known from Israel, Jibuti, Madagascar, Vietnam and Queensland.

***Periclimenaeus fawatu* Bruce, 2006**

Periclimenaeus fawatu Bruce, 2006a: 33–43, figs 1–6.

Zanzibar: Fungu Fawatu, Unguja, type locality (Bruce 2006a). Known from type locality only.

***Periclimenaeus hebedactylus* Bruce, 1970**

Periclimenaeus hebedactylus Bruce, 1970: 308–310.

Zanzibar: Makunduchi, 91.5 m, type locality (Bruce, 1970). Known from type locality only.

***Periclimenaeus hecate* (Nobili, 1904)**

Coralliocaris hecate Nobili, 1904: 232; 1906: 58, pl. 3, fig. 2.

Periclimenaeus hecate. – Bruce 1974: 1574–1577, figs. 11–12, 13e; 1976b: 22–30, figs 8–11. **Kenya:** Watamu (Bruce 1976a), in *Diplosoma* cf. *modestum*. Also reported also from Jibouti to Tahiti.

***Periclimenaeus leptodactylus* Fujino & Miyake, 1968**

Periclimenaeus leptodactylus Fujino & Miyake, 1968: 90–95, figs 3–5.

Zanzibar: Grave Island, Chumbe Island, Shangani (Bruce 1976c). **Kenya:** Wasin Channel (Bruce 1976c). Otherwise known only from the type locality in Amami Islands, Japan.

***Periclimenaeus minutus* Holthuis, 1952**

Periclimenaeus minutus Holthuis, 1952: 134–137, figs. 57–59; Bruce 2010a: 9, fig. 6F–L.

Zanzibar: Mbweni; Fuwatu Reef (Bruce 1976c). Type locality, Banda Island, Indonesia. Also reported from Somalia, Philippines and Western Australia

***Periclimenaeus* aff. *minutus* Holthuis, 1952**

Periclimenaeus minutus. – Bruce 2010a: 9 (not *P. minutus* Holthuis, 1952).

Tanganyika: Pangani Bay (Bruce 1976c).

***Periclimenaeus pulitzerfinali* sp. nov.**

Kenya: Mombasa: present report.

***Periclimenaeus quadridentatus* (Rathbun, 1906)**

Coralliocaris quadridentatus Rathbun, 1906: 920, fig. 69, pl. 24, fig. 1.

Periclimenaeus quadridentatus. – Bruce 1976c: 473.

Kenya: Mombasa, Shelly Beach (Bruce 1976b, as *P. stylirostris*). Type locality, Auau Channel, Hawaiian Islands, 51–79 m (Rathbun 1906). Also reported from Mariana Islands.

***Periclimenaeus rhodope* (Nobili, 1904)**

Coralliocaris (*Onycocaris*) *rhodope* Nobili, 1904; 1906: 61, pl. 2 fig. 8.

Periclimenaeus rhodope. – Holthuis 1952: 125–129, figs 54, 55, 55bis; Bruce 1974: 1558–1562, figs 1–2, 3A,B, 7A,B.

Zanzibar: Chwaka, Makunduchi, Chumbe Island (Bruce 1976c). **Tanganyika:** Kunduchi (Bruce 1976c). **Kenya:** Shimoni, Ras Iwatine, Banburi, Jadini, Mombasa Island (Bruce 1976c). Also known from Somalia, Seychelle Islands, and Queensland, possibly from China (South China Sea).

***Periclimenaeus robustus* Borradaile, 1915**

Periclimenaeus robustus Borradaile, 1915: 213; 1917: 324, 278, pl. 55, fig. 20; Bruce 1976c: 473; 2005: 390–395, figs 1–3.

Kenya: Mombasa, Ras Iwatine, 119–141m (Bruce 1976c). Also known from type locality, Seychelle Islands.

***Periclimenaeus trispinosus* Bruce, 1969**

Periclimenaeus trispinosus Bruce, 1969: 169–170; 2001: 147–152, figs 1–3.

Zanzibar: Mkokotoni, type locality (Bruce 1969). Known from type locality only.

***Periclimenaeus tuamotae* Bruce, 1969**

Periclimenaeus tuamotae Bruce, 1969: 170–172.

Kenya: Mombasa Island, Fort Jesus; Wasin Island (Bruce 1976b). **Tanganyika:** Kunduchi (?) (Bruce 1969). Type locality: Mururoa Atoll, Tuamotu Islands. Also reported from Northern Territory and Queensland, Australia.

***Periclimenaeus uropodialis* Barnard, 1958**

Periclimenaeus uropodialis Barnard, 1958: 18–20, fig. 6.

Kenya: Mombasa, Old Port; Wasin Channel (Bruce 1976c). **Zanzibar:** Mkokotoni (Bruce 1976b). **Tanganyika:** Mafia Island (Bruce 1976c). Type locality: Delagoa Bay, Mozambique. Also reported from Queensland, Australia.

***Periclimenaeus usitatus* Bruce, 1969**

Periclimenaeus usitatus Bruce, 1969: 172–174; 2010b: 28–29, fig. 6.

Zanzibar: Off Unguja: 7°46'48"S. 39°42'36"E, 20 m, type locality (Bruce 1969). Known from type locality only.

***Periclimenaeus zanzibaricus* Bruce, 1969**

Periclimenaeus zanzibaricus Bruce, 1969: 174–175; 2006b: 15–20, figs 8–9.

Kenya: Ras Iwatine; Mombasa (Bruce 1976b). **Zanzibar:** Uroa, type locality (Bruce 1969); Marumbi (Bruce 1976c). Otherwise reported only from Queensland, Australia.

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