# A new species, Callianassa poorei sp. nov. (Decapoda: Crustacea: Callianassidae) from Tasmania 

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#### Abstract

As part of my ongoing studies of the Callianassidae, Dr G. Poore of the Museum of Victoria, Australia, sent me four small specimens from Tasmania. These specimens, which include two ovigerous females, are closely allied to Callianassa lewtonae from the northern Great Barrier Reef, Queensland, Australia. They differ from that species because the merus of the chelipeds bears a triangular ventral lobe in the larger cheliped and a sharp ventral spine in the smaller cheliped; and the antennular peduncle is much longer than the antennal peduncle. Only Callianassa ceramica, C. arenosa, and C. australiensis have been previously recorded from Tasmanian waters.

Abbreviations used are: MV, Museum of Victoria, Australia; CL, carapace length; TL, whole length of the specimen from the tip of rostrum to the end of telson; A1, antennule; A2, antenna; P, pereiopod; Plp, pleopod.


## Callianassa poorei sp. nov.

Callianassa ceramica-Poore, 1975: 105, figure 8, map of distribution in Port Phillip Bay.

Material examined. MV J-44737, males, 17.0 mm TL, 4.4 mm CL (holotype); $21.0 \mathrm{~mm} \mathrm{TL}, 5.0 \mathrm{~mm}$ CL (paratype) and ovigerous in full females $20.0 \mathrm{~mm} \mathrm{TL}, 4.7 \mathrm{~mm} \mathrm{CL}$ (paratype); 22.0 mm TL , 5.0 mm CL (paratype), Australia, Tasmania, Great Oyster Bay, east coast of Tasmania. $42^{\circ} 09^{\prime} \mathrm{S}, 148^{\circ} 10^{\prime} \mathrm{E}, 22$ August 1997, 12.5 m , coll. C. MacLeod.

Description of male holotype. Rostrum triangular in dorsal view, reaching the middle of the eyestalks. Carapace smooth, dorsal oval distinct; cervical groove located in the posterior fifth to sixth of the carapace including rostrum. Linea thalassinica extending entire length of carapace. Abdominal somites smooth, glabrous dorsally; pleurites $3-5$ each with tuft of setae laterally; abdominal somite 6 with parallel lateral margins.

Telson (Figure 1 C ) subquadrate, slightly longer than broad; lateral margin gradually convergent posteriorly to a broadly rounded corner; posterior margin convex, setose and without a median tooth. Dorsal surface weakly elevated, medially with a transverse row of setae, followed by a shallow mid-dorsal depression extending to posterior margin. Uropodal endopod oval, 1.5 times as long as broad, truncate on posterior margin; dorsal surface convex and without longitudinal carina. Uropodal exopod broadened, less than 1.5 times as long as broad; dorsal surface provided with a low anterodorsal plate in its anterior half, which is setose on distal margin.

Eyestalk (Figure 1A,B) subtriangular, as long as broad, with an obtusely angular tip, slightly overreaching the distal end of antennular basal article; dorsal surface convex; cornea large, pigmented, occupying most of the middle part. Antennular peduncle shorter than antennal peduncle, terminal article about half length of penultimate. Antennal peduncle with a rudimentary oval dorsal scale; terminal article two-thirds length of penultimate. Maxilliped 3 (Figure 2A) without exopod; endopodal ischium-merus suboperculiform, about 1.5 times as long as broad, setose on mesial margin, ischium with crista dentata on internal surface; terminal three segments slender, with long setae on flexor margins.

Branchial formula including exopods as follows:

|  | Maxillipeds |  |  | Perciopods |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 |
| Exopods | 1 | 1 | - | - | - | - | - | - |
| Podobranchs | - | - | - | - | - | - | - | - |
| Arthrobranchs | - | - | 2 | 2 | 2 | 2 | 2 | - |
| Pleurobranchs | - | - | - | - | - | - | - | - |

Pl unequal in size and dissimilar in shape. Larger cheliped (Figure 2B) massive; ischium slender, superior margin unarmed, inferior margin with row of denticles; merus slightly shorter than ischium, about 1.6 times as long as high, superior margin slightly arcuate and with a spine proximally, inferior margin bearing a triangular lobe, which is armed with an anteriorly-directed denticle on ventral margin and with a denticle on distal margin, exterior surface medially swollen; carpus 1.2 times as high as long, and about four-fifths length of palm, superior margin almost straight and carinate, proximo-inferior margin regularly rounded, smooth and carinate in outline; chela slender, length about 1.8 times as long as height, superior margin of palm forming a keel, and inferior margin with smooth keel extending to base of fixed finger; fixed finger with prehensile margin slightly concave, with a row of fine serrations in its middle part; dactylus about as long as palm, prehensile margin sinuous and armed with a row of fine denticles, terminally with acute tip. Smaller cheliped (Figure 2C) more slender and less massive than larger cheliped; ischium narrow, inferior margin armed with row of three denticles, superior margin unarmed; merus subrectangular, distinctly shorter than ischium, length about twice height, inferior margin with an acute simple spine, external surface swollen medially; carpus subtriangular, proximo-inferior margin regularly divergent to distal angle, length 1.5 times as long as merus, and twice as long as high; chela about as long as carpus; palm subrectangular, length less than height; fixed finger distinctly shorter than dactylus, prehensile margin concave and finely serrated in middle part, gape unarmed; dactylus slightly longer than palm, conspicuously exceeding length of fixed finger, prehensile margin weakly sinuous and unarmed.
P2 chelate, ischium with sparsely distributed long setae on inferior margin; merus with more closely set setae on flexor margin; carpus with row of setae on superior and inferior


Figure 1. Male holotype MV J-44737: (A) whole body in lateral view; (B) carapace, dorsal view; (C) tail-fan, dorsal view.
margins; chela with long setae on superior and inferior margins and with elongate fingers.

P3 (Figure 1A) simple, merus rectangular, length more than 2.5 times height; carpus broadest distally, length 1.8 times height; propodus broadened in a paddle shape, and with long marginal setation; dactylus slender, external surface densely setose.

P4 (Figure 1A) simple, merus longer than carpus; propodus rectangular, lateral surface scattered with soft setae; dactylus slender, 0.5 times as long as propodus, external surface with a tuft of setae.

P5 subchelate, propodus forming a broad fixed finger inferodistally, interior surface with dense setation, dactylus more elongate than fixed finger, hooked towards external side of fixed finger, tip deflexed.

Male Plpl (Figure 1A) uniramous, two segmented. Male Plp 2 absent.

Female paratype. Morphological features of ovigerous females almost the same as males. Pl (Figure 2D,E) similar to that of males. Female Plpl uniramous, three-segmented, and female Plp2 biramous, endopod and exopod slender. Plp3-5 biramous, each endopod bearing stubby projecting appendix interna on mesial margin of endopod.

Remarks. Callianassa poorei sp. nov is closely related to C. lewtonae from the coral lagoon of the Great Barrier Reef, Queensland, Australia. In the present new species the Pl merus of the larger cheliped in males and females bears a large triangular lobe with a ventral subspine, and the merus of the smaller cheliped possesses a small simple spine on the inferior margin; the Al peduncle is longer than the A2 peduncle; and the P3 propodus has a broadly rounded posterior margin. Callianassa lewtonae is known only from a female, but the Pl merus lacks a lobe on the inferior margin; the Al peduncle is about as long as the A2 peduncle; and the P3 propodus is narrowly rounded on the posterior margin (Ngoc-Ho, 1994, figure li).


Figure 2. (A-C) Male holotype MV J-44737; (D, E) ovigerous female paratype ( 22.0 mm TL ) MV J-44737. (A) Third maxilliped, external surface; (B) male larger cheliped, external view; (C) male smaller cheliped, external view; (D) female larger cheliped, external view; (E) female smaller cheliped, external view.

Etymology. Named after the excellent Australian carcinologist, Dr Gary C.B. Poore, for his contribution to the study of thalassinideans.

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## REFERENCES

Fulton, S.W. \& Grant, F.E., 1906. Some little known Victorian decapod Crustacea, with descriptions of new species, no 3. Proceedings of Royal Society of Victoria, 19, 5-15.
Ngoc-Ho, N., 1994. Some callianassidae and Upogebiidae from Australia with description of four new species (Crustacea: Decapoda: Thalassinidea). Memoirs of the Museum of Victoria, 54, 51-78.
Poore, G.C.B., 1975. Systematics and distribution of Callianassa (Crustacea, Decapoda, Macrura) from Port Phillip Bay, Australia, with descriptions of two new species. Pacific Science, 29, 197-209.
Poore, G.C.B. \& Griffin, D.J.G., 1979. The Thalassinidea (Crustacea: Decapoda) of Australia. Records of the Australian Museum, 32, 217-321.

