

**On *Parathelphusa ceophallus* spec. nov.  
(Crustacea: Decapoda: Brachyura: Parathelphusidae)  
from Pulau Buton, Sulawesi**

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Ng, P.K.L. On *Parathelphusa ceophallus* spec. nov. (Crustacea: Decapoda: Brachyura: Parathelphusidae) from Pulau Buton, Sulawesi.

Zool. Med. Leiden 67 (11), 30.vii.1993: 179-183, figs. 1-2.— ISSN 0024-0672.

Key words: Crustacea; Decapoda; Parathelphusidae; *Parathelphusa ceophallus* spec. nov.; Sulawesi.

A new species of parathelphusid freshwater crab, *Parathelphusa ceophallus*, is described from Pulau Buton, a small island southeast of the island of Sulawesi in Indonesia. The species is differentiated from its allies in the *P. celebensis* complex by the form of its anterolateral margin, postorbital cristae, frontal median triangle, and male first pleopod.

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### Introduction

Among the unsorted collections in the Nationaal Natuurhistorisch Museum [previously Rijksmuseum van Natuurlijke Historie (RMNH)] was a specimen of an unidentified freshwater crab collected from an island south of Sulawesi (= Celebes) by the museum's entomological expedition there in 1989. The well preserved specimen, an adult male, is a member of the genus *Parathelphusa* H. Milne Edwards, 1853 (Parathelphusidae Alcock, 1910), but differs from all known congeners in the form of its carapace cristae, anterolateral armature and male first pleopod structure, and is clearly a representative of an undescribed species.

Bott (1970: 118) recognised two subgenera in *Parathelphusa*, *Parathelphusa* s. str. and *Mesotelphusa* Roux, 1915. The present new species is allied to *P. celebensis* de Man, 1892, and *P. pallida* Schenkel, 1902, and by Bott's (1970: 127, 128) classification, should be classified in *Mesotelphusa*. Ng (1988a: 96) however, had synonymised *Mesotelphusa* with *Parathelphusa*, noting that there were no major characters separating the two subgenera.

The present note serves to formally describe this new species, here named *Parathelphusa ceophallus* spec. nov. The abbreviations G1 and G2 are used for the male first and second pleopods respectively. Measurements are of the carapace width and length respectively.

### Description

Family Parathelphusidae Alcock, 1910  
Genus *Parathelphusa* H. Milne Edwards, 1853  
*Parathelphusa ceophallus* spec. nov.  
(figs. 1, 2)

Material.— Holotype, ♂, 23.1 by 18.1 mm, (RMNH D 42418), Jismil Camp, a few kilometres from Labuhan Tobela, along Sungai [river] Labuhan Tobela, rivulet through hardly disturbed primary evergreen rainforest, boulder covered with calcareous deposits, 150 metres above sea level, northern Pulau Buton, 4°26'30"S 122°59'E, Sulawesi, Indonesia, leg. J. van Tol, 12-18.xi.1989.

Diagnosis.— Carapace dorsal surfaces smooth; cervical groove shallow, narrow; H-shaped central depression pronounced; branchial regions slightly inflated. Epigastric and postorbital cristae continuous, sharp, subparallel to frontal margin, with slight cleft at the beginning of cervical groove; outer edge of cristae not reaching anterolateral margin, stopping before very shallow cleft separating first and second epibranchial teeth. Front slightly sinuous, entire; frontal median triangle distinct, but upper ridged margin does not join lateral margins, separated by small but distinct gap. Anterolateral margin arcuate, slightly cristae, external orbital angle broadly triangular, outer margin almost straight, about three times length of inner margin, first and second epibranchial teeth very low, lobiform, barely discernible. Posterolateral regions lined with distinct oblique striae. Suture between sternites two and three incomplete, gently concave towards buccal cavity. Palm of chelipeds slightly inflated, fingers longer than palm, pollex not pigmented black but dactylus pigmented black throughout length. Ambulatory legs relatively short, second pair longest. Dorsal margin of merus slightly cristate, gently serrated, without distinct subterminal spine. Male abdomen reaching imaginary line joining anterior edges of cheliped bases, T-shaped, segment 6 distinctly longer than segment 7; lateral margins of segment 7 gently concave; lateral margins of segment 6 subparallel, gently sinuous. G1 relatively straight, directed upwards, outer margin gently sinuous along distal two thirds, proximal part with very deep, V-shaped cleft; distal part tapering. G2 with well developed distal segment, about 0.57 times length of basal segment.

Remarks.— *Parathelphusa ceophallus* spec. nov. is allied to *Parathelphusa celebensis* and *P. pallida* from Sulawesi, but differs in the form and extent of the carapace cristae, frontal median triangle and structure of the G1. The taxonomy of *P. celebensis* and *P. pallida* is difficult, and despite Bott's (1970) conclusions, it is clear that there are more than two species in what is here referred to as the *P. celebensis* complex. Schenkel (1902), Roux (1904) and de Man (1892) described many forms of *P. celebensis*, all of which were synonymised under *P. celebensis* or *P. pallida* by Bott (1970: 127, 128). It does seem however that not all the synonymies are justified. I have examined large series of specimens of the *P. celebensis* complex collected by M. Kottelat and L. Deharveng, and a revision of this complex is currently underway (see also Ng, 1988b). The present specimen from Pulau Buton is so different from all the described "forms" of *P. celebensis*, *P. pallida* or other undescribed species (unpublished data) from the main Sulawesi island that its recognition as a separate species poses no problem.

*Parathelphusa ceophallus* differs from congeners in the *P. celebensis* complex in having the cristae stopping well before the anterolateral margin (against almost reaching the margin), having a cleft on the postorbital cristae where the cervical groove begins (against absent), the upper ridged margin of the frontal median triangle is separated from the lateral margins by a distinct gap (against the upper and lateral margins been fused and confluent), and the proximal outer margin of the G1 has a very distinct, broad and deep V-shaped cleft (against possessing only a shallow cleft or with

the margin appearing almost entire). Compared with most other members of the *P. celebensis* complex, *P. ceophallus* also has the epibranchial lobes much lower and less distinct.

Etymology.— The species name is derived from the Greek “keio” for cleft, and “phallus” for penis, alluding to the clefted proximal part of the male first pleopod. The name is used as a noun in apposition.

### Acknowledgements

Thanks are due to Charles Fransen and Lipke Holthuis for their generous help and kindness during my visit to the Leiden Museum, and for access to the specimen of the new species. The recognition of the present new species would not have been possible without the excellent series of specimens of the *P. celebensis* complex presented to the author by Maurice Kottelat and Louis Deharveng, and their help is gratefully acknowledged. This study has been partially supported by RP 900360 from the National University of Singapore.

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Received: 18.i.1993

Accepted: 19.i.1993

Edited: C.H.J.M. Fransen

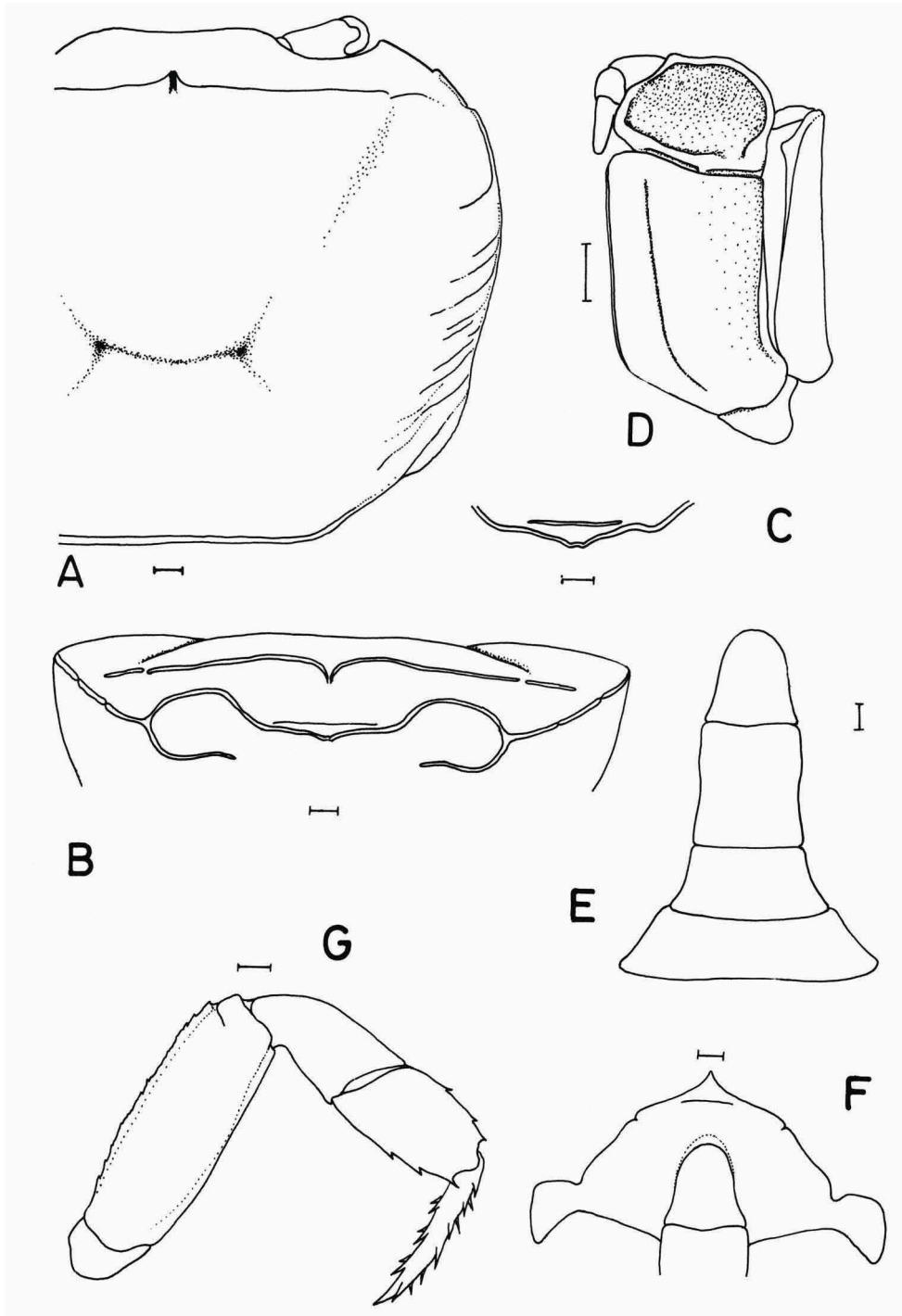


Fig. 1. *Paratethephusa ceophallus* spec. nov., holotype male, 23.1 by 18.1 mm. A, dorsal surface of carapace; B, frontal view of carapace; C, frontal median triangle; D, left third maxilliped; E, male abdominal segments 4-7; F, anterior part of sternum; G, right fourth ambulatory leg. Scales = 1.0 mm.

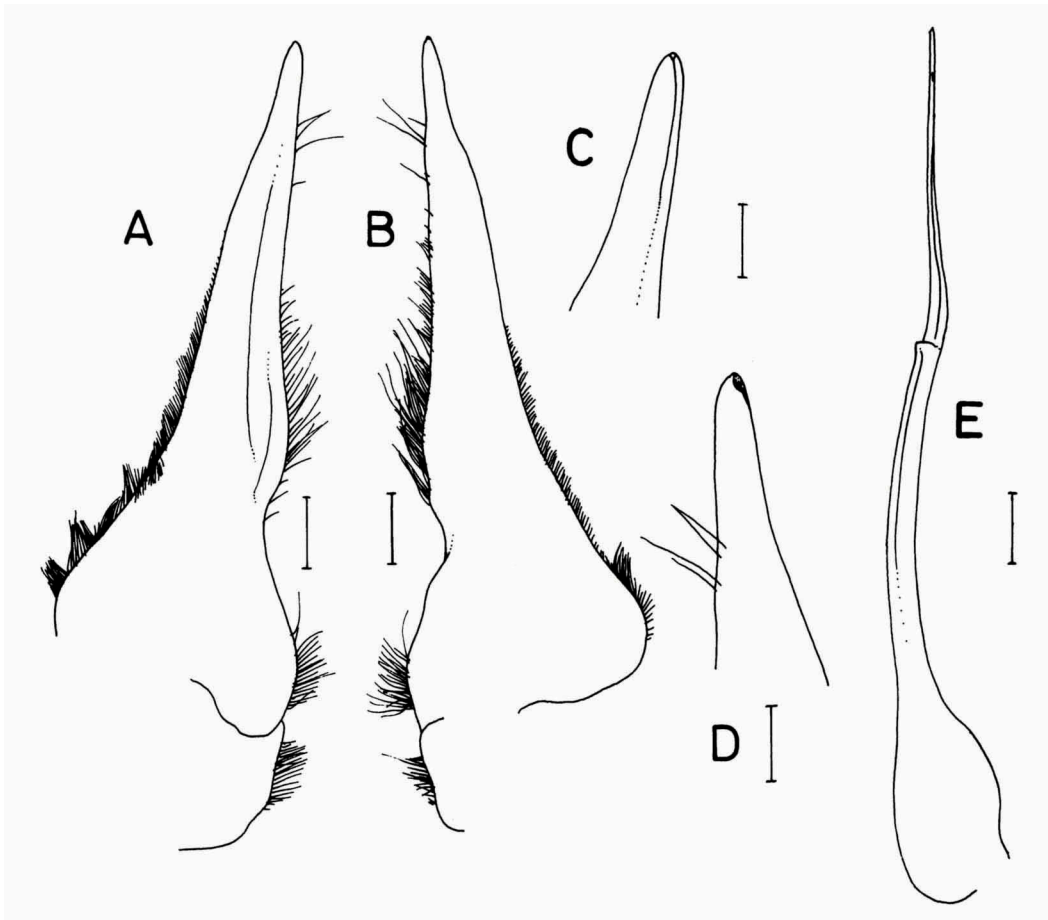


Fig. 2. *Parathelphusa ceophallus* spec. nov., holotype male, 23.1 by 18.1 mm. A, B, left G1; C, D, distal part of left G1; E, left G2. A, C, ventral view; B, D, dorsal view. Scales: A, B, E = 0.50 mm; C, D = 0.25 mm.