

***Glypturus motupore*, a New Callianassid Shrimp (Crustacea: Decapoda) from Papua New Guinea with Notes on its Ecology**

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ABSTRACT. A new callianassid shrimp, *Glypturus motupore*, is described from Papua New Guinea and compared with *G. acanthochirus*, *G. armatus* and *G. laurae*, three similar species of the genus from the Caribbean and Indo-West Pacific. *Glypturus motupore* is found intertidally and subtidally to depths of 30 m. The species processes large quantities of sediment and subtidally builds volcano-shaped mounds up to 46 cm high. Burrows are complex, extending up to 1.5 m deep and 2 m laterally. Burrows are lined with fine-grained sediments and include subsurface chambers accumulating coarse sediment.

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Only a single species of callianassid shrimp has been recorded from the nation of Papua New Guinea, *Callianassa novaebritanniae* Borradaile from the island of New Britain (De Man, 1928). However, De Man recorded 16 species from the family in the Indonesian archipelago. Three of these also occur in tropical Australia with two other species (Poore & Griffin, 1979). In addition, at least two undescribed species of callianassid shrimp are known from the Great Barrier Reef of Australia. It is probable therefore that the callianassid fauna of Papua New Guinea includes several species already described but the relatively abundant and newly discovered specimens described here could not be placed in a known species. This contribution describes the new species and provides some preliminary information about its ecology.

The diagnosis of this new species is based on that of the closely-related species *Glypturus laurae* (de Saint Laurent, in de Vaugelas & de Saint Laurent, 1984). The description follows the format used for several species in the family used by le Loeuff & Intes

(1974) and by de Saint Laurent & le Loeuff (1979). However, the generic placement of the new species differs from that of these authors who followed de Saint Laurent's (1973) concepts of callianassid genera. They included *G. laurae* and *G. armatus* (Milne Edwards) in *Callichirus* Stimpson. Manning & Felder (1986) have restricted *Callichirus* to *C. major* Say and three related species.

Manning (1987) revived and diagnosed *Glypturus* Stimpson for *G. acanthochirus* Stimpson and it is clear that our material can be assigned to this genus. Manning hesitated to include four other Indo-West Pacific species in *Glypturus*. They differ from the type species primarily in not having the anterolateral spines separated from the carapace by a non-calcified membrane. In a specimen from the Tuamotu Archipelago (nominally *G. armatus*) examined by GCBP the articulation was weak. The character would seem to be not important in the light of the many other similarities shared by this complex.

Type material is lodged in the Museum of Victoria, Melbourne (NMV), the Australian Museum, Sydney