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## NOTES AND NEWS

### A RE-EXAMINATION OF THE TYPE MATERIAL OF *PENAEUS GRANULOSUS* HASWELL, 1879 (DECAPODA, PENAEIDAE)

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In 1879 Haswell described a number of species of penaeid prawns from Australia from material in the collections of the Macleay Museum (since 1888 part of the University of Sydney). The species were discussed by Schmitt (1926) in his account of some of the natant decapods taken by the F.I.S. "Endeavour". The penaeids of Australia have lately been revised systematically by Dall (1957) and by Racek & Dall (1965).

The types of decapod Crustacea in the Macleay Museum have recently been re-examined and listed (Griffin & Stanbury, in press). The present note deals with nine specimens used by Haswell in his description of *Penaeus granulosis* (now known as *Trachypenaeus granulosis*). The history of the specimens is outlined and a lectotype is chosen for this species.

Haswell's (1879: 41) original description of *Penaeus granulosis* is, he states, based on "the adult female". Haswell then continues, "From the same localities are a number of small male specimens, which seem to be the males of this species; they differ from the females..." Haswell clearly had several females and several males before him which he regarded as this species. The localities given in this original description are: "Darnley Island; Cape Grenville; Cape York (Chevert Exped.)". The dimensions of a female (3½ inches) and a male (2½ inches) are given.

Schmitt (1926: 353) was the next to comment on these specimens. He examined two females stated to be "paratypes" of *Penaeus granulosis*, locality Darnley Island, Torres Strait. A footnote over the name F. A. McNeill, then in charge of the Department of Invertebrates at the Australian Museum, states, "The late A. R. McCulloch, of the Australian Museum, examined Haswell's specimens of "*Penaeus granulosis*" and selected a specimen with 10 teeth above the rostrum, which he regarded as the holotype of the species". Schmitt thus considered three of the original type specimens of *P. granulosis* to be that species as redefined. These statements that A. R. McCulloch considered a certain specimen to be the holotype and others to be paratypes have no validity in nomenclature.

Following Schmitt, Dall (1957: 211) and Racek & Dall (1965: 94) include in the synonymy of *Trachypenaeus granulatus* only the "adult female" mentioned by Haswell.

However, Schmitt (1926: 340), in discussing "*Penaeus palmensis*" (which he considered synonymous with "*Penaeus Novae-guineae*"), stated, "I have also been enabled to examine several specimens of Haswell's "*Penaeus Palmensis*" from the Macleay Museum. Regarding these Mr McCulloch wrote, 'I identify as this species a large female 29 mm long from tip of rostrum to end of carapace, together with two smaller females and two small males, all from Darnley Island, which are forwarded for examination. These were confused with *P. granulatus* by Haswell, and the notes upon the males at the end of his description of that species are based upon these specimens...'"

Schmitt (1926: 344-348) comments on the identity of these five specimens under "*Penaeus palmensis*". As *Penaeopsis novaeguineae* he identified all the specimens except the smallest female. He gives the dimensions of the four specimens as ranging from 80 mm long to 32 mm from tip of rostrum to end of telson. The smallest female ("scarcely 33 mm long") he considered to be *Penaeopsis mogiensis* (Rathbun).

The available type material of *Penaeus granulatus* was examined in 1969 and identifications were checked by Dr A. A. Racek, University of Sydney. All specimens are in alcohol and in good condition.

The material consists of the following specimens.

- 1) In tube in jar — 1 specimen, female, total body length 72 mm with a note in F. A. McNeill's handwriting "agrees with Haswell's descr.... Possesses 10 teeth above the rostrum". This is the specimen which A. R. McCulloch considered was the holotype of *Penaeus granulatus* and is referred to in the footnote on p. 353 of Schmitt's report.
- 2) In a second tube in jar — 2 females, tbl 69 mm and 43 mm with a label "*Trachypenaeus granulatus* (Haswell)" and a note in F. A. McNeill's handwriting to the effect that these specimens were examined by Dr W. Schmitt; these are the specimens referred to as paratypes of *P. granulatus* by Schmitt. The identity of these is confirmed as *Trachypenaeus granulatus*.
- 3) In a third tube in the jar 2 males, tbl 39 mm and 44 mm and 1 female 70 mm. There is a note in the tube in F. A. McNeill's handwriting stating that these were identified as *Penaeopsis novaeguineae* (Haswell) by Schmitt. These three specimens have been identified as *Metapenaepsis palmensis* (Haswell). In a small tube inside this tube is another female, tbl 33 mm with a note by McNeill stating that the specimen was compared critically with the holotype of *Penaeus palmensis* (see Schmitt: 340, 344). This specimen is identified by Racek as *Metapenaepsis rosea* Racek & Dall.

All four specimens are the ones referred to by Schmitt in paragraph 2 on p. 340 (see also 5 below).

These three tubes in the jar, containing seven specimens in all, are accompanied by a note to the effect that they came from Darnley Island, Torres Strait and were the specimens seen by Haswell when he described *Penaeus granulatus*.

- 4) In a jar, 1 female with a label in F. A. McNeill's handwriting, "Trachypenaeus granulatus, Cape York"; tbl 39 mm. This specimen is identified as *Trachypenaeus anchoralis* (Bate). It was apparently not seen by McCulloch or Schmitt.
- 5) In a jar, 1 female, tbl 30 mm with an identification *Penaeopsis mogiensis* (Rathbun) and a note in F. A. McNeill's handwriting to the effect that the specimen was examined by Dr W. Schmitt and is part of the series on which *Penaeus granulatus* was based and that it comes from Darnley Island, Torres Strait.

This specimen is part of the series of five referred to by Schmitt on p. 340 (see also 3 above) and is commented upon in detail by Schmitt on pp. 346-70. The specimen is identified by Racek as *Metapenaeopsis hilarulus* (De Man) (see De Bruin, 1965: 81).

Thus, the type material of *Penaeus granulatus* now consists of nine specimens representing five species; the whereabouts of the specimen(s) from Cape Grenville are unknown. Haswell at no time mentions any one specimen as the "type"; all nine are therefore to be considered as syntypes and any one of them could be designated as the lectotype of *Penaeus granulatus*. In order to avoid any future confusion the 72 mm female from Darnley Island (the one which McCulloch is stated by McNeill to have considered the holotype — see 1 above) is here designated as the LECTOTYPE of *Penaeus granulatus* Haswell, 1879 and the smaller females, 43 mm and 69 mm tbl (the ones which Schmitt referred to as paratypes — see 2 above) are here selected as PARALLECTOTYPES. The specimens are at present in the collections of the Australian Museum, on permanent loan from the Macleay Museum.

I have to thank Dr. P. J. Stanbury, Macleay Museum, for making these specimens available and Dr. A. A. Racek for checking the identifications and commenting on the manuscript.

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