

FIG. 5. *Cryptopodia queenslandi* Rathbun, 1918 (QMW18309). A, dorsal view. B, ventral view. Scale line in mm.



FIG. 6. *Cryptopodia queenslandi* Rathbun, 1918, spotted variant (QMW18981): A, dorsal view. B, ventral view. Scale line in mm.

(14.2mm c.b., rostrum damaged), 19°03.6'S, 119°00.6'E, Stn 01B11BT, 81m, 13.02.1983. QMW18464, ♂ (23.8mm c.b., rostrum damaged), 19°57.9'S, 117°49.3'E, Stn 03D07BT, 40m, 26.06.1983. QMW18465, ♂ (15.5 x 11.7mm), 19°03.2'S, 119°02'E, Stn 06B12TN, 78-80m, 11.12.1982. QMW18466, ♀ (14.6 x 11.1mm), 19°29.4'S, 118°51.5'E, Stn 05D07BT, 40m, 25.10.1983. QMW18467, ♂ (22.1 x 15.1mm), 19°04.6'S, 118°57.9'E, Stn 03B10BT, 81-82m, 30.06.1983. QMW18468, ♂ (15.1 x 11.0mm), 19°30'S, 118°52'E, Stn 05D05S, 36-37m, 25.10.1983. QMW18469, 2♂ (22.3 x 15.3; 10.2 x 8.1mm), 20°00.4'S, 117°00.4'E, Stn 04B17BT, 52m, 04.09.1983. QMW18470, ♀ (14.8 x 10.8mm), 19°05.3'S, 118°54.0'E, Stn 03B04BT, 82m, 29.06.1983. QMW18471, ♀ (12.7 x 10.7mm), 18°59.1'S, 118°45.9'E, Stn 06B05TN, 84m, 07.12.1982. QMW18472, 1 juv. (7.1 x 6.6mm), 19°42.0'S, 117°57'E, Stn 01B15S, 56m, 20.02.1983. QMW18473, ♂ (23.4 x 16.6mm), 19°24.8'S, 118°57.6'E, Stn 06B08TN, 47-48m, 08.12.1982. QMW18475, ♀ (13.1mm c.l., lateral margin damaged), 19°59.1'S, 117°51.6'E, Stn 04B01BT, 42m, 27.08.1983. QMW18463, ♀ (carapace damaged), 19°56.7'S, 117°53.6'E, Stn 05B02BT, 40m, 26.10.1983. QMW18462, ♂ (21.0 x 14.2mm), 19°04.9'S, 118°50.6'E, Stn 05B05BT, 81m, 30.10.1983. QMW18461, ♂ (13.8 x 10.2mm), ♀ (17.1 x 12.7mm), 19°05'S, 118°50.5'E, Stn 03B05BT, 83-84m, 29.06.1983.

REMARKS

This study, and that of Tan & Richer de Forges (1993), greatly extends the known distribution of this species. Our specimens agree closely with the description of Laurie (1906). In many specimens, the exposed surface of the ischium of the third maxilliped is completely covered in large, squamous granules, and in a few specimens, the granules are more or less coalesced over the outer two-thirds. This differs from Laurie's (1906) type description, where he said that only the inner third of the ischium is covered in such granules.

DISTRIBUTION

Sri Lanka (type locality); northern Australia, from the North West Shelf; New Caledonia. Bathymetric range: 28 to 84m.

Cryptopodia queenslandi Rathbun, 1918 (Figs 1C, D; 5A, B; 6A, B, 7A, B)

Cryptopodia fornicata: Haswell, 1879: 454, 1882: 37 [not *C. fornicata* (Fabricius, 1781)].

Cryptopodia Queenslandi Rathbun 1918: 26, pl. 12.

Cryptopodia fornicata var. *Queenslandi*: Flipse, 1930: 65-66, 78, 82.

MATERIAL EXAMINED

CSIRO, R.V. *Soela*, North West Shelf: QMW18322, ♀ (22.8 x 15.7mm), 19°29.8'S, 118°52.3'E, Stn 05D08BT, 37-38m, 25.10.1983. QMW18323, ♂ (17.1 x 11.2mm), 19°29.4'S, 118°52.1'E, Stn 02B08BT, 38-39m, 26.04.1983. QMW18324, 3♂ (16.0 x 10.9 - 24.3 x 15.7mm), 3♀ (16.8 x 11.0 - 30.6 x 20.1mm), 19°30.8'S, 118°49.3'E, Stn 04B07BT, 38-39m, 30.08.1983. QMW18325, ♂ (24.5 x 15.5mm), 19°28.4'S, 118°55.2'E, Stn 04B09BT, 39m, 31.08.1983. QMW18326, ♂ (17.4 x 11.4mm), 2♀ (18.1 x 11.7; 13.0 x 8.7mm), 19°30.6'S, 118°49.4'E, Stn 03B07BT, 37-38m, 28.06.1983. QMW18327, 4♂ (22.5 x 14.7 - 37.6 x 22.7mm), 2♀ (37.3 x 23.6; 40.8 x 24.6mm), 19°29.4'S, 118°52.4'E, Stn 05D02BT, 37-38m, 24.10.1983. QMW18328, 2♂ (33.5 x 20.6; 33.5 x 20.3mm), 2♀ (22.5 x 14.7; 20.7 x 13.7mm), 19°29.5'S, 118°52.2'E, Stn 05D01BT, 37m, 24.10.1983. QMW18329, 2♂ (16.4 x 11.3; 13.3 x 12.4mm), 2♀ (16.8 x 11.1; 20.2 x 12.5mm), 19°28.1'S, 118°55.2'E, Stn 03B09BT, 38-40m, 28.06.1983. QMW18330, ♀ (11.7 x 8.1mm), 19°30.9'S, 118°48.7'E, Stn 02B07BT, 39-40m, 26.04.1983. QMW18331, 4♀ (8.4mm c.l., lateral margin damaged; 10.2 x 7.2mm; 8.1mm c.l., lateral margin damaged; 10.8 x 7.6mm), 19°28.6'S, 118°55'E, Stn 02B09S, 38-40m, 26.04.1983. QMW18332, ♂ (7.5mm c.l., lateral margin damaged), 19°55.5'S, 117°55.5'E, Stn 02B03BT, 42m, 22.04.1983. QMW18333, 2♀ (11.4 x 7.9mm; 11.2 x 7.9mm), 19°29.9'S, 118°52'E, Stn 02B08S, 38-39m, 26.04.1983. QMW18334, ♀ (carapace damaged), 19°58.3'S, 117°49.4'E, Stn 03D01S, 43m, 25.06.1983. QMW18335, 3 juveniles (3.1 x 2.6 - 5.1 x 4.9mm), 19°29.3'S, 118°52.6'E, Stn 01B08RevS, 36m, 15.02.1983. QMW18336, 1 juvenile (5.1 x 4.5mm), 19°58.9'S, 117°51.7'E, Stn 04B01S, 42m, 27.08.1983. QMW18337, ♀ (8.2 x 6.0mm), 19°58.1'S, 117°49.2'E, Stn 03D07S, 40m, 26.06.1983. QMW18338, 2 juveniles (4.9 x 4.0; 3.3 x 3.0mm), 19°29'S, 118°53.5'E, Stn 01B08S, 40m, 12.02.1983. QMW18312, 3♂ (7.8 x 6.0 - 26.4 x 16.7mm), 5♀ (10.0 x 7.1 - 24.3 x 15.1mm), 19°30.9'S, 118°48.7'E, Stn 02B07BT, 39-40m, 26.04.1983. QMW18313, ♀ (32.0 x 20.6mm), 19°53.1'S, 118°03.9'E, Stn 06B01S, 36-38m, 05.12.1982. QMW18314, 2♂ (20.2mm c.l., lateral margin damaged; carapace damaged), 19°29.9'S, 118°52.0'E, Stn 05D01S, 37m, 24.10.1983. QMW18315, ♂ (23.1 x 15.1mm), 2♀ (26.9 x 17.4; 20.7 x 13.4mm), 19°30.9'S, 118°49.2'E, Stn 05B07BT, 38-39m, 25.10.1983. QMW18316, ♀ (16.5 x 11.9mm), 19°56.7'S, 117°53.6'E, Stn 05B02BT, 40m, 26.10.1983. QMW18317, ♂ (37.2 x 22.9mm), 2♀ (21.2 x 15.0; 22.4 x 14.4mm), 19°29.4'S, 118°52.4'E, Stn 05D09BT, 38m, 25.10.1983. QMW18318, ♂ (25.5 x 16.7mm), 19°29.6'S, 118°52.2'E, Stn 04B08BT, 38-39m, 30.08.1983. QMW18319, ♀ (16.1 x 10.9mm), 19°56.8'S, 117°53.5'E, Stn 03B02BT, 44m, 25.06.1983. QMW18320, ♀ (14.0mm c.l., lateral margin damaged), 19°55.6'S, 117°56.0'E, Stn 04B03BT, 43-44m, 26.08.1983. QMW18321, ♂ (17.5 x

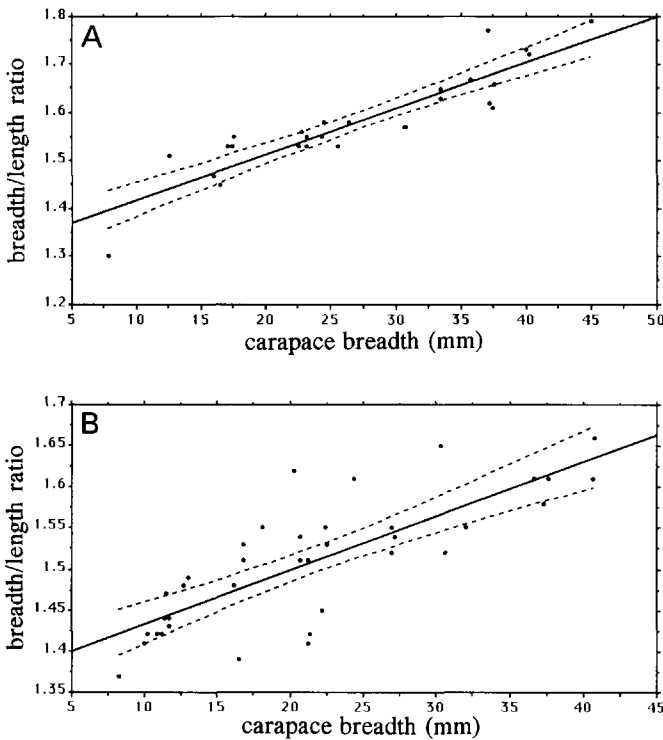


FIG. 7. Allometric growth equations for *C. queenslandi*. A, males: $y=0.1x+1.32$, $r^2=0.82$, $n=27$. B, females: $y=0.007x+1.37$, $r^2=0.63$, $n=37$. Dashed lines represent the 95% confidence interval for the true mean of y .

11.3mm), 19°30.8'S, 118°49.1'E, Stn 03B07S, 37-38m, 28.06.1983.

CSIRO, R.V. *Southern Surveyor*, Gulf of Carpentaria: QMW18307, ♂ (35.8 x 21.5mm), 13°40.1'S, 136°45.6'E, Stn 30, 22m, 23.11.1991. QMW18309, 2♂ (45.0 x 25.1; 40.3 x 23.4mm), 10°52.6'S, 136.12.1'E, Stn 12, 42m, 21.11.1991. QMW18308, ♀ (21.3 x 15.0mm), 10°57.6'S, 140°23'E, Stn 58, 54m, 29.11.1991. QMW18310, ♀ (36.7 x 22.8mm), 11°50.8'S, 136°33.9'E, Stn 4, 33m, 18.11.1991. QMW18311, 2♀ (40.7 x 25.2; 26.9 x 17.7mm), 13°02.8'S, 141°27.7'E, Stn 45, 21m, 26.11.1991. QMW18300, ♂ (26.2mm c.l., lateral margin damaged), 11°58.5'S, 140°41.4'E, Stn 63, 53m, 04.12.1991. QMW18301, ♂ (21.9mm c.l., lateral margin damaged), 10°33.4'S, 138°42.6'E, Stn 83, 53m, 09.12.1991. QMW18302, ♂ (40.0 x 23.1mm), 11°09.2'S, 139°41.8'E, Stn 82, 55m, 08.12.1991. QMW18303, ♀ (37.6 x 23.4mm), 15°00.9'S, 140°12'E, Stn 43, 48m, 30.11.1990. QMW18304, 2♂ (30.8 x 19.6mm; 21.4mm c.l., lateral margin damaged), 2♀ (30.3 x 18.4; 27.2 x 17.7mm), 16°01.8'S, 140°11.9'E, Stn 41, 31m, 29.11.1990. QMW17316, ♂ (37.1 x 21.0mm), 14°27.5'S, 138°42'E, Stn 97, 52m,

12.12.1991. QM unreg., ♂ (22.8 x 14.7mm), 143°08.6'S, 11°49.9'E, Stn 007, 22m, 13.1.93.

OTHER MATERIAL: QMW1495, ♂ (48.8 x 28.5mm), Green Island, Moreton Bay, 27°26'S, 153°14'E. QMW18981, ♂ (22.8 x 14.6mm), Shelburne Bay, 11°51.9'S, 143°08.9'E, Stn 7, 22m, 13.01.1993, CSIRO, F.R.V. *Southern Surveyor*.

REMARKS

Flipse (1930) suggested that *C. queenslandi* is a variety of *C. fornicata*. However, there are differences between these two species which warrant *C. queenslandi* being recognised as a separate species from *C. fornicata*. There are significant differences in the male G1. In *C. fornicata*, the apex of the G1 is produced into two nearly symmetrical lobes (Dai & Yang, 1991: fig. 90), whereas in *C. queenslandi*, these lobes are highly asymmetrical, with one being much smaller (Fig. 1C, D). Also, in *C. fornicata*, the G1 tapers more rapidly than in *C. queenslandi*. In these respects, the G1 of our specimens are like those of Campbell & Stephenson (1970), collected from Moreton Bay, Queensland. The chelipeds of *C. fornicata* are considerably less than twice the length

of the carapace (Alcock, 1895), whereas in *C. queenslandi* they are twice the length (Rathbun, 1918). On average, *C. fornicata* appears to be a larger species, with the specimens examined by Dai & Yang (1991) being 34% larger than the largest crabs (females and males) examined in this paper. Considering the large amount of material available for our study this seems significant. Rathbun's (1918) adult male holotype of *C. queenslandi* was 28% smaller than that of Dai & Yang's (1991) specimen. The only specimens of *C. queenslandi* that approach the size of Dai & Yang's (1991) specimen are those described by Flipse (1930) from Indonesia (89% for males and 95% for females); and it would be desirable in a generic revision to check the identity of his specimens.

The degree of concavity of the posterior margin seems unreliable for separating the two species. Rathbun (1918) described the posterior rim of *C. queenslandi* as concave in its middle two-fifths;