

PLATE II. (a) *Macrophthalmus setosus* (Z.D.U.Q.) ♂ dorsal surface.  
(b) *Macrophthalmus pacificus* (A.M. No. P15124) ♂ dorsal surface.  
(c) *Macrophthalmus crinitus* (A.M. No. P15163) ♂ dorsal surface.  
(d) *Macrophthalmus japonicus* (W.A.M. No. 655-65) ♂ dorsal surface.

1. *Macrophthalmus (Mopsocarcinus) boscii* Audouin/Savigny, 1825

(Plate 3(a), Fig. 9)

*Synonymy*

*Macrophthalmus boscii* Audouin, 1825, Plate 2, Fig. 1; Krauss, 1843, p. 40, Plate, 2, Fig. 5; Lenz & Richters, 1881, p. 425; Kemp, 1919, p. 383, Plate 24; Balss, 1935a, p. 141; Barnard, 1950, p. 103, Fig. 20; Fourmanoir, 1954, p. 3, Fig. 3; Crosnier, 1965, p. 134, Figs 244–8; Barnes, 1966b, p. 371.

*Euplax boscii*: H. Milne Edwards, 1852, p. 160; A. Milne Edwards, 1873a, p. 281; de Man, 1880a, p. 71; Miers, 1884, p. 540; 1886, p. 252; de Man, 1888a, p. 357; Ortmann, 1894b, p. 58; Lenz, 1905, p. 367; Nobili, 1906b, p. 319; Stebbing, 1910, p. 329; Tesch, 1918, p. 60; Sakai, 1939, p. 630, Fig. 100.

*Cleistostoma boscii*: Dana, 1852, p. 313, Plate 19, Fig. 3.

*Chaenostoma orientale* Stimpson, 1858, p. 97; 1907, p. 98.

*Chaenostoma crassimanus* Stimpson, 1858, p. 97; 1907, p. 98.

*Material examined.* 24 ♂♂ (6.25–13.0 mm); 15 ♀♀ (6.25–10.0 mm).

Queensland (Cooktown—Port Curtis); New Guinea (Daru Island); Solomon Islands (Guadalcanal); Santa Cruz Islands (Vanikoro); New Caledonia (Noumea & Oubatche).

*Description.* Front deflexed; slightly constricted between bases of ocular peduncles; with smooth margins; granular surface; slightly bilobed anterior margin; deep median furrow.

Upper orbital border curved, moderately backwardly sloping; margin studded with small granules, granules slightly increasing in size towards external orbital angle. Lower orbital border studded with wide-based, triangular granules throughout length, granules slightly increasing in size towards external orbital angle.

Two large and one small anterolateral teeth present. External orbital angle large, sub-rectangular, pointed anteriorly, directed outwards and forwards (so that tip of tooth is in same transverse plane as forward margin of upper orbital border); anterior margin concave, with continuation of granulation of upper orbital border; outer margin convex and with small granules, margins converging posteriorly; separated from second lateral tooth by distinct V-shaped incision. Second lateral tooth large, broad, bluntly pointed anteriorly, directed outwards and slightly forwards; outer margin slightly convex and with small granules; separated from third lateral tooth by small incision. Third lateral tooth small, pointed, hidden in carapace hair.

Carapace surface entirely covered with small, evenly scattered granules; with few scattered hairs, densest on branchial regions; with deep, distinct furrows, giving carapace 'lumpy' appearance; without distinct granular rows on branchial regions, (in some specimens, however, two indistinct, small, longitudinal rows of granules and hairs present on each branchial region, and very faint short row present above insertion of fourth pereopod). Greatest carapace breadth occurs across external orbital angles or second lateral teeth, behind which lateral margins subparallel, and with row of hairs.

Ocular peduncles slightly longer than breadth of front, stout; cornea extending to base of external orbital angle.

Male cheliped. (a) Merus. Inner, outer and upper margins with longitudinal rows of large tubercular granules, those of inner and outer margins largest distally, those of upper margin largest proximally; inner margin and carpal border with long hairs. Outer surface with few scattered granules; inner surface with very few small scattered granules and densely hairy towards inner margin; lower surface without granules, densely hairy towards inner margin.

(b) Carpus. Upper margin with row of small pointed granules; lower margin smooth. Outer surface smooth; inner surface with granules near joint with palm and with clump of hairs centrally.

(c) Palm. Inflated. Upper and lower margins with few scattered granules continuous with those on outer surface. Outer surface smooth to naked eye, microscopically with small granules, with longitudinal, feebly granular, ridge one-third height of palm from lower margin and subparallel to that margin; inner surface densely hairy, with scattered granules beneath the hair.

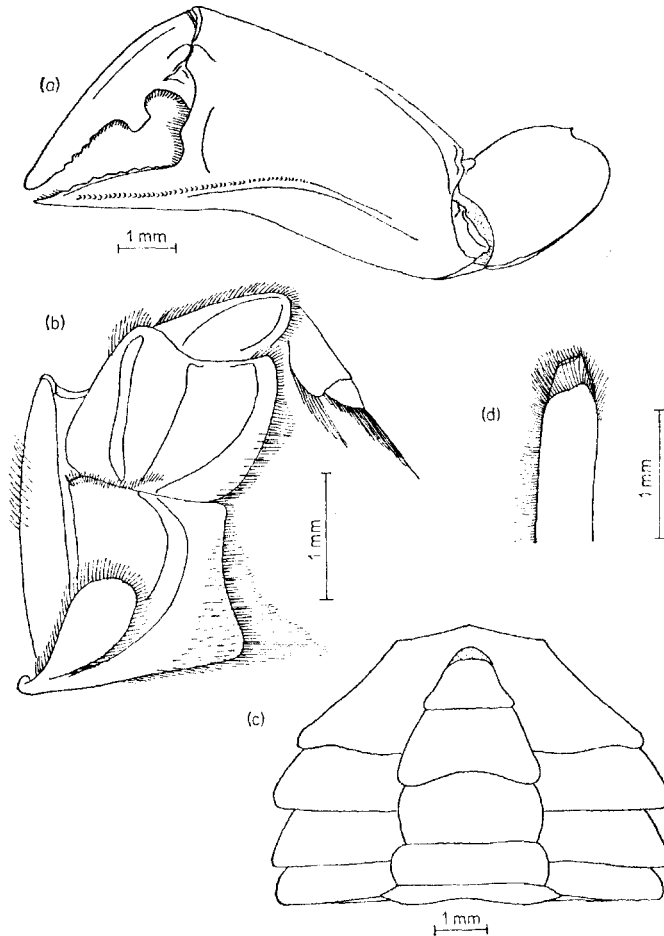


FIG. 9. *M. boscii*.

(a) Male chela (left), outer surface. (b) External maxilliped (right), outer surface. (c) Male abdomen and sternum. (d) 1st male pleopod (left), sternal surface.

(d) Immovable finger. Slightly deflexed. Outer surface smooth, except for continuation of longitudinal ridge on palm, latter strongly granular; inner surface hairy near cutting margin. Lower margin smooth; cutting margin without differentiated tooth but with granules along whole length (excepting spooned-tip).

(e) Dactylus. Curved. Outer surface smooth; inner surface densely hairy. Upper margin finely granular; cutting margin with large rectangular tooth in proximal third, distally with triangular granules.

Upper margins of pereopod meri with long hair.

Male abdomen. Lateral margins of fourth segment convex; of fifth segment slightly convex or straight; of sixth segment with convexity in morphologically anterior position; of seventh segment concave.

External maxilliped. Internal and external margins of ischium concave. Internal margin of merus convex; external margin straight.

First male pleopod slightly curved; with short terminal lobe, and hair on internal margin distally.

*Dimensions and relative proportions*

Carapace breadth (mm)	6.0	8.0	10.0
$\frac{\text{Carapace breadth}}{\text{Carapace length}}$	1.28	1.27	1.26
$\frac{\text{Length of chela}}{\text{Carapace breadth}}$	♂ 0.40 ♀ 0.33	0.62	0.71
		0.35	0.37
$\frac{\text{Carapace breadth}}{\text{Breadth of front}}$	4.61	4.57	4.35

*Distribution.* South Africa (Barnard, 1950); Madagascar (Crosnier, 1965); Red Sea (Nobili, 1906b); Indonesia (Tesch, 1918); Japan (Sakai, 1939); Australasia (A. Milne Edwards, 1873a; Miers, 1884; Balss, 1935a).

*Comments.* The relationships of this species to the genus *Euplax* has been dealt with by Barnes (1966b).

The relative decrease in breadth of the carapace and increase in breadth of the front, with increase in size, in the specimens examined is curious, representing a reversal of the usual trend seen in *Macrophthalmus*. Stress cannot, however, be placed on this feature, at the present time, in view of the small number of specimens examined.

2. *Macrophthalmus (Mopsocarcinus) punctulatus* Miers, 1884

(Plate 3(b), Fig. 10)

*Synonymy*

*Macrophthalmus punctulatus* Miers, 1884, p. 237, Plate 25, Fig. a; Tesch, 1915, p. 187; Snelling, 1959, p. 70.

*Material examined.* 38 ♂♂ (3.4–10.75 mm); 19 ♀♀ (4.1–8.75 mm).

Queensland (Moreton Bay); New South Wales (Trial Bay—Sydney).

*Description.* Front deflexed; not constricted between bases of ocular peduncles; with smooth margins; slightly bilobed anterior margin; median furrow; without granules on surface.

Upper orbital border curved and slightly backwardly sloping; margin smooth, without granules. Lower orbital border studded with large tubercular granules along whole length.

Two large and one small anterolateral teeth present. External orbital angle large, broad, pointed anteriorly, directed outwards and forwards (tip in adults on same transverse plane as base of front); anterior margin smooth, straight or slightly concave; outer margin straight, minutely serrated by small granules, two margins convergent posteriorly; separated from second lateral tooth by deep V-shaped incision. Second lateral tooth large,



broad, bluntly pointed anteriorly, directed outwards and slightly upwards; outer margin straight, or slightly convex, minutely serrated by small granules; separated from third lateral tooth by small incision. Third lateral tooth small but distinct, conical, directed outwards and upwards.

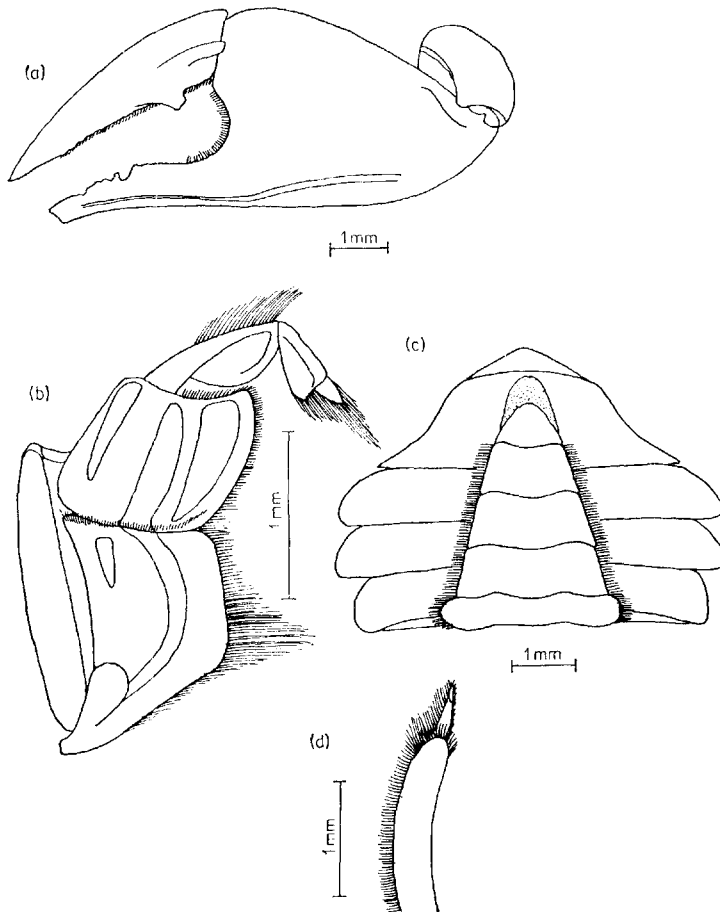


FIG. 10. *M. punctulatus*.

(a) Male chela (left), outer surface. (b) External maxilliped (right), outer surface. (c) Male abdomen and sternum. (d) 1st male pleopod (left), sternal surface.

Carapace surface completely without granules, shiny; with few scattered hairs, mainly on branchial regions; with indistinct furrows, excepting deep circumgastric; without rows of hairs on branchial regions. Greatest carapace breadth occurs across third lateral teeth or further posteriorly. Lateral margins with row of hairs.

Ocular peduncles subequal to, or less than, breadth of front, stout; cornea extending beyond base of external orbital angle but falls short of tip of latter.

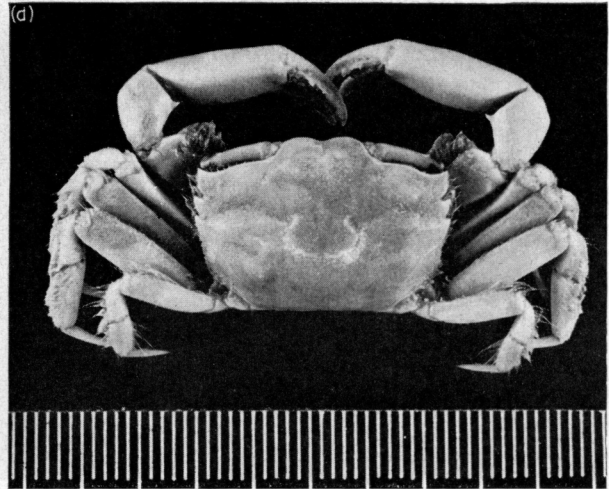
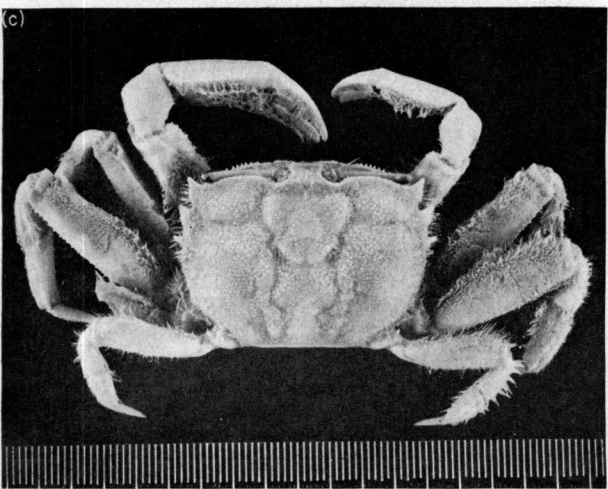
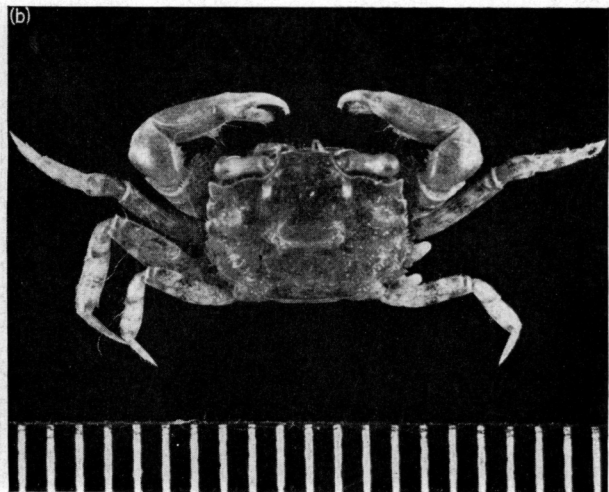
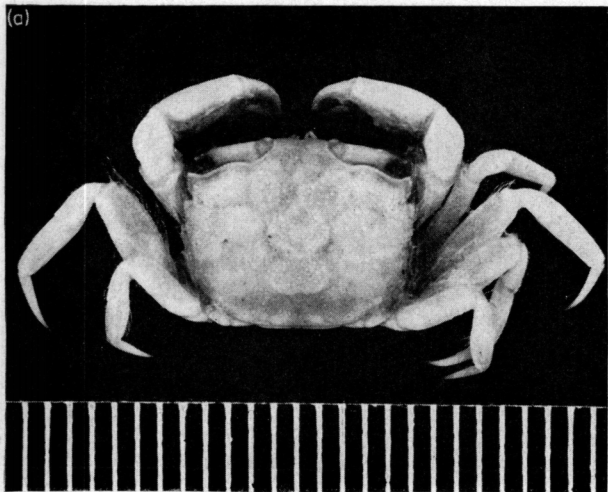


PLATE III. (a) *Macrophthalmus boscii* (A.M. No. P10409) ♂ dorsal surface.  
(b) *Macrophthalmus punctulatus* (A.M. No. P15154) ♂ dorsal surface.  
(c) *Macrophthalmus latreillei* (W.A.M. No. 648-65) ♂ dorsal surface.\*  
(d) *Macrophthalmus hirtipes* (A.M. No. P9958) ♂ dorsal surface.

\*Right chela atypical—partially regenerated.