

Fig. 11. *Stereomastis phosphorus* (Alcock), female, cl. 42.5 mm, AM P20664, lateral view.

in having two spines on the antero-external angle of the basal antennular segment instead of one, and nine to thirteen spines on the lateral edges of the carapace (behind the cervical groove) instead of six or seven. The spinal formula is thus 5-7:3-4:9-13. De Man's specimen of *S. phosphorus* from the *Siboga* Expedition differed similarly. The east Australian specimens also differ in having a conical tooth, quite large in some specimens, projecting from the frontal wall of the carapace but concealed by dense setae.

**Colour.** (Based on AM P20664 and P21065.) Uniformly rose pink except for some grey patches on branchial regions (extending up to the gastric regions) of the carapace. All pereopods rose pink. Ischium of cheliped rose pink; merus white on proximal half and rose pink distally; carpus, propodus and fingers rose pink, distal portions of fingers shading to white. Joints between merus and carpus, carpus and propodus, proximal portion of merus and tips of the fingers whitish.

**Distribution.** Indo-Pacific Ocean: Arabian Sea, Andaman Sea, Bay of Bengal, Gulf of Mannar, Laccadive Sea, Island of Rotti, western and eastern Australia, Hawaiian Islands; 101-1479 m.

#### *Stereomastis sculpta* (Smith)

*Polycheles sculptus* Smith, 1880a: 346, pl. 7.—Smith, 1880b: 270, figs 1-4.—Alcock, 1901: 168 (key), 170.—Stebbing, 1902: 36.—Hansen, 1908: 41.—Selbie, 1914: 11 (key), 18, pl. 2 figs 1-9.—Bouvier, 1917: 35 (key), 51, pl. 3 fig. 1.—Bouvier, 1925: 438, figs 11,12, pl. 7 fig. 1.—Barnard, 1964: 12.

*Pentacheles sculptus*.—Smith, 1882: 23, pls 3,4.—Smith, 1884: 358.—Smith, 1887: 650.—Alcock & Anderson, 1899: 289.

*Stereomastis sculpta*.—de Man, 1916: 7 (key), 8.—Calman, 1925: 18.—Barnard, 1950: 572, fig. 105d.—Kensley, 1968: 293.—Kensley, 1981: 29.—Wenner, 1979: 441.

*Pentacheles spinosus* Milne Edwards, 1880: 66.

**Material examined.** One ovigerous female, cl. 41.5 mm, AM P40363, north-east of Cape Hawke, 32°06'S 153°08'E to 32°02'S 153°09'E, 1025-1080 m, 4 May 1988, FRV *Kapala*, stn K88-08-04; 1 female, cl. 25.5 mm, AM P40364, north-east of Cape Hawke, 32°04'S 153°10'E, 1034-1079 m, 15 June 1989, FRV *Kapala*, stn K89-12-04; 2 females, cl. 23 and 49.5 mm, 1 male, cl. 27 mm, AM P40365, east of Broken Bay, 33°27'S 152°09'E to 33°25'S 152°11'E, 882-914 m, 8 December 1977, FRV *Kapala*, stn K77-23-13; 1 ovigerous female, cl. 54 mm, AM P40366, east of Shoalhaven Bight, 34°56'S 151°13'E to 34°53'S 151°14'E, 905-924 m, 11 April 1984, FRV *Kapala*, stn K84-04-09.

**Remarks.** The rostrum is bifid, the orbital notches broad U-shaped, with a single spine on the inner orbital angle. The anterior margin of the ocular peduncle bears only a minute, barely-discernible blunt spine. There are two spines on the basal antennular segment. The mid-dorsal carina of the carapace, behind the rostral spines, has spinal formula 1,2,1 before the cervical groove and 2,2,2 behind it. The posterior margin of the carapace is granular. The spinal formula of the lateral margins of the carapace is 6:3:7-8. There are five spines on the slightly sinuous sublateral ridge of the branchial region; the last spine is larger than the others.

The median carina of abdominal segments 1 to 5 is produced into a spine, that of the fourth segment being the largest. The double carina of segment 6 is low, smooth and united posteriorly. There is a single blunt nodule on the anterior portion of the telson. There is no spine on the anterior midpoint of the second abdominal pleuron.

The number of spinules on the upper margin of the cheliped merus varies. There are three in the 27 mm male, one in the 25.5 mm female, two in the 41.5 mm female and none in the 49.5 mm and 54 mm females. Both chelipeds of the 23 mm female are missing.

Faxon (1895) described a subspecies, *S. sculpta pacifica*, which differed in general shape of the carapace, the presence of a spine on the branchial region level with the second spine of the submarginal carina, a larger spine on the ophthalmic lobe and a slightly different shape to the second abdominal pleuron. In all these

respects, the east Australian material corresponds to the original description of the Atlantic form, rather than to the east Pacific subspecies.

**Distribution.** North and South Atlantic Ocean; Mediterranean Sea; Indo-West Pacific Ocean: Indonesia, eastern Australia; 457–2836 m.

*Stereomastis suhmi* (Bate)

Figs 12–15

*Pentacheles Suhmi* Bate, 1878: 278.

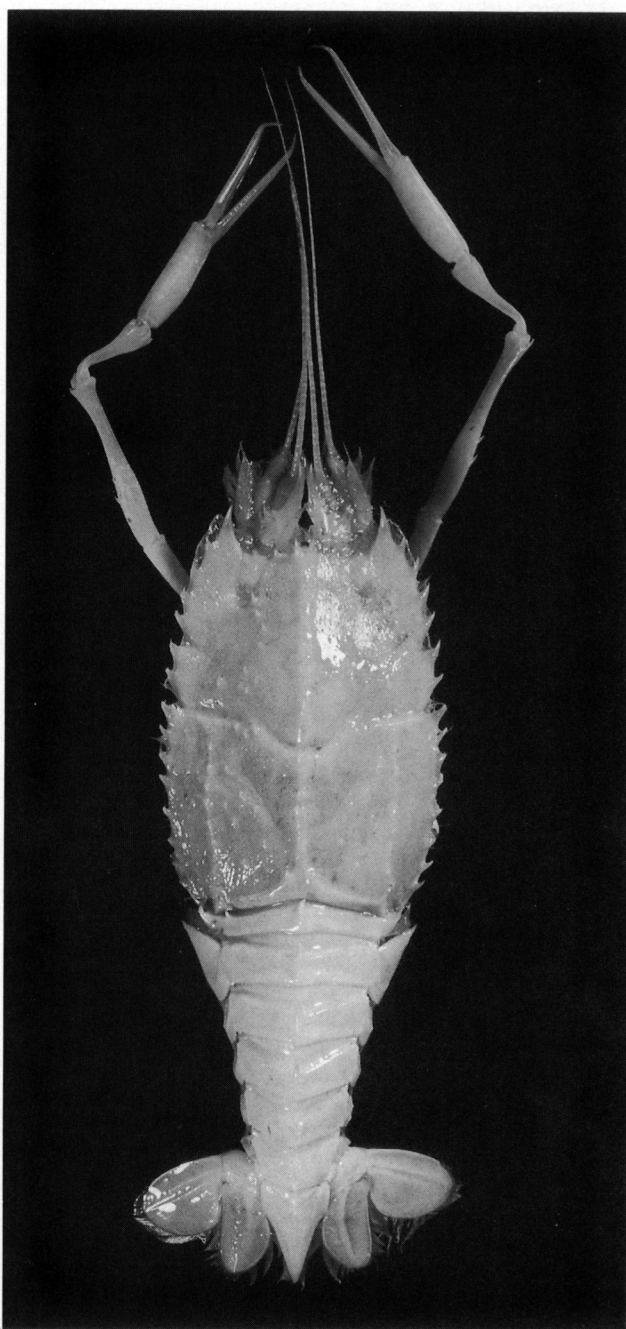
*Stereomastis suhmi*.—Bate, 1888: 154; figs 37,38; pl. 15 figs 3,4.—de Man, 1916: 5 (list).—Sund, 1920: 223.—Calman, 1925: 19, pl. 3 fig. 9.—Barnard, 1950: 574, fig. 105f.—Holthuis, 1952b: 78.—Bernard, 1953: 87.—Firth & Pequegnat, 1971: 63 (key), 72.

*Polycheles suhmi*.—Bouvier, 1917: 35 (list).

**Material examined.** One female, cl. 25 mm, AM P20640, south-east of Port Stephens, 32°46'S 152°46'E to 32°51'S 152°42'E, 585–576 m, 7 May 1971, FRV *Kapala*, stn K71-09-01; 1 male, cl. 21 mm, AM P26805, south-east of Port Hunter, 33°08'S 152°27'E to 33°10'S 152°24'E, 594 m, 7 December 1977, FRV *Kapala*, stn K77-23-09; 1 male, cl. 27.5 mm, 1 female, cl. 30.5 mm, AM P26756, south-east of Port Hunter, 33°11'S 152°24'E to 33°09'S 152°25'E, 732 m, 7 December 1977, FRV *Kapala*, stn K77-23-10; 1 female, cl. 28 mm, AM P20641, between Broken Bay and Port Jackson, 33°30'S 150°50'E to 33°50'S 152°03'E, 585 m, 9–10 October 1972, FRV *Kapala*, stns K72-05-09 to K72-05-11; 1 male, cl. 27.5 mm, AM P26771, south-east of Broken Bay, 33°40'S 151°56'E to 33°37'S 151°56'E, 732 m, 6 December 1977, FRV *Kapala*, stn K77-23-06; 1 male, cl. 19 mm, AM P39744, east of Long Reef Point, 33°47'S 151°10'E to 33°45'S 151°52'E, 503–567 m, 19 May 1983, FRV *Kapala*, stn K83-01-08; 1 male, cl. 28.5 mm, AM P40361, east of Port Jackson, 33°49'S 151°51'E to 33°45'S 151°52'E, 640 m, 30 April 1984, FRV *Kapala*, stn K84-06-01; 1 female, cl. 17 mm, AM P18996, north-east of Botany Bay, 34°00'S 151°43'E to 33°54'S 151°47'E, 720 m, 6 November 1972, FRV *Kapala*, stn K72-07-01; 1 female, cl. 25 mm, AM P25046, east of Wollongong, 34°24'S 151°25'E to 34°23'S 151°25'E, 720–756 m, 13 December 1976, FRV *Kapala*, stn K76-23-01; 1 female, cl. 39 mm, AM P38726, north-east of Shoalhaven Bight, 34°42'S 151°16'E to 34°38'S 151°18'E, 760–855 m, 3 December 1987, FRV *Kapala*, stn K87-23-03; 1 male, cl. 30.5 mm, 1 female, cl. 31.5 mm, AM P40362, east of Gerringong, 34°45'S 151°15'E, 732–786 m, 4 July 1989, FRV *Kapala*, stn K89-14-02.

**Remarks.** These specimens show little difference from Bate's (1888) description and figures of *Stereomastis suhmi*. There are two rostral spines and a sharp spine on the internal orbital angle. The orbital notch is smooth, subtriangular and deep; there is no spine at the external orbital angle.

The spinal formula of the lateral edge of the carapace is 4–6:2:8–10, most commonly 5:2:8. The spine forming the anterolateral angle of the carapace is larger than the following lateral spines and inwardly curved. The mid-



**Fig. 12.** *Stereomastis suhmi* (Bate), female, cl. 25 mm, AM P25046, dorsal view.

dorsal carina of the carapace (excluding the rostral spines) has a spine formula of 1,1,2,1 before the cervical groove and 2,2,2 behind the groove. Sund (1920) pointed out that the two small spines on the mid-dorsal carina behind the cervical groove, figured by Bate as single spines, are in fact paired in all of the *Challenger* type specimens. The crest of the posterior border of the carapace is granulate except for two spines, one on each side of the mid-dorsal carina.

The gastro-orbital ridge is formed by three or four small spines, the first the largest, in an oblique row