



Fig. 7. *Polycheles typhlops typhlops* Heller, male, cl. 34.4 mm, AM P21799, carapace.

Distribution. Atlantic Ocean; Mediterranean Sea; Caribbean Sea; Gulf of Mexico; Indian Ocean; Western Pacific Ocean, western and eastern Australia; 183–2195 m.

Stereomastis Bate, 1888

The genus contains twelve species, of which nine are known from the Indo-West Pacific region. Two species have been previously recorded from Australian waters: *Stereomastis phosphorus* (Alcock, 1894) from north-western Australia (George, 1983; Wadley & Evans, 1991) and *S. nana* (Smith, 1884), also from north-western Australia (George, 1983).

Stereomastis andamanensis (Alcock)

Pentacheles andamanensis Alcock, 1894a: 233 (key), 239.–Alcock & Anderson, 1896: pl. 10 fig. 3.
Polycheles andamanensis.—Alcock, 1901: 167 (key), 169.–Bouvier, 1917: 35 (list).—Ramadan, 1938: 124.
Stereomastis andamanensis.—de Man, 1916: 4 (list), 8 (key), 16, pl. 1 fig. 2.—Bernard, 1953: 87.—Takeda & Hanamura, 1994: 31.

Material examined. One male, cl. 34.5 mm, AM P40367, Coral Sea, 10°34.28'S 144°13.33'E, beam trawl, 815–825 m, P. Hutchings & party on RV *Franklin*, 20–21 August 1988, stn FR0688-4; 1 male, cl. 22 mm, AM P40368, Lord Howe Rise, western Tasman Sea, 27°39.8'S 161°46.3'E, beam trawl, 1423 m, J.K. Lowry & party on RV *Franklin*, 6 May 1989, stn FR0589-31; 1 ovigerous female, cl. 43.5 mm, AM P40370 and 1 female, cl. 37 mm, AM P40371, Lord Howe Rise, western Tasman Sea, 27°59.3'S 162°48.6'E, beam trawl, coarse ooze with pumice, 1250 m, J.K. Lowry & party on RV *Franklin*, 5 May 1989, stn FR0589-27; 2 ovigerous females, cl. 38.5 and 40.5 mm, AM P40369, north-east of Tuncurry, 32°04'S 153°10'E, beam trawl, 1034–1079 m, 15 June 1989, FRV *Kapala*, stn K89-12-04; 1 ovigerous female, cl. 41.5 mm, AM P40373, north-east of Tuncurry, 32°06'S 153°08'E to 32°02'S 153°09'E, beam trawl, 1025–1080 m, 4 May 1988, FRV *Kapala*, stn K88-08-04; 1 ovigerous female, cl. 42 mm, AM P40374, north-east of Port Hunter, 32°50'S 152°50'E, 1079–1097 m, 8 June 1989, FRV *Kapala*, stn K89-11-01; 1 ovigerous female, cl. 39 mm, AM P40375, east of Port Hunter, 32°55'S 152°45'E, 1043–1061 m, 11 April 1989, FRV *Kapala*, stn K89-06-02; 1 female, cl. 44.5 mm, AM P40376, south-east of Cape Hawke, 33°26'S 152°14'E, 1134–1189 m, 10 May 1989, FRV *Kapala*, stn K89-08-02; 1 ovigerous female, cl. 44.5 mm, AM P40377, east of Broken Bay, 33°28'S 152°12'E to 33°33'S 152°10'E, 1080–1135 m, 31 August 1988, FRV *Kapala*, stn K88-17-04; 1 female, cl. 30.5 mm, AM P38725, off Shoalhaven Bight, 34°55'S 151°15'E to 34°51'S 151°17'E, trawl, 1170–1207 m, 2 August 1984, FRV *Kapala*, stn K84-11-09.

Remarks. The rostrum is bifid, the orbital notches broad V-shaped, with a single sharp spine at the internal orbital angle. The ocular peduncle has a short, laterally-directed spine on the centre of its anterior margin. There are two spines on the basal antennular segment, as in the type specimen. The posterior spine is about half the length of the anterior spine and usually hidden by fine setae. De Man (1916) found only a single spine on each side in the *Siboga* material, except in one small female.

The mid-dorsal carina of the carapace, behind the rostral spines, has spinal formula 1,1,2,1 before the cervical groove and 2,2,2 behind it. One specimen, a 44.5 mm ovigerous female (AM P40376), has a mid-dorsal spinal formula of 1,1,2,1,1,1. However, two of the three posterior spines are irregularly spaced and appear to be abnormal.

The spinal formula of the lateral edge of the carapace is 5–6:3–4:6–8. All specimens except one have five spines along the slightly sinuous sublateral ridge of the branchial region, as in the type specimen. De Man (1916) recorded seven or eight sublateral spines in most of the *Siboga* material.

The median carina of abdominal segments 1 to 5 is produced into a spine. The spine on segment 5 is slightly smaller than that on segment 4. The spine on segment 4 is smoothly curved, as in Alcock & Anderson's (1896) plate 10 figure 3a, rather than de Man's (1916) plate 1 figure 2a. The double carina of segment 6 is strongly nodular and united posteriorly by a taller nodule. There is a low, double-peaked nodule on the telson. The merus of the cheliped has one small spine about midway

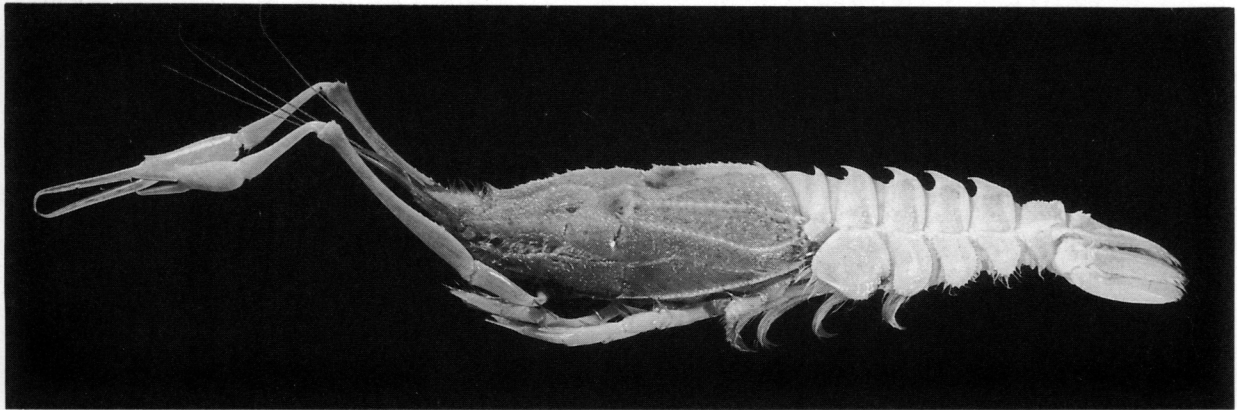


Fig. 8. *Polycheles typhlops typhlops* Heller, male, cl. 34.4 mm, AM P21799, lateral view.

along the upper margin. Alcock (1894a) recorded two spines and de Man (1916) mentioned two to three. The lower margin has no spines but is finely spinulose on its distal half.

One specimen, a 34.5 mm male (AM P40367) differs from the other material in several small points. The left antennular basal segment has only one spine; the right has two spines, but the posterior one is larger than the anterior one; the spine on the ophthalmic peduncle is very short and blunt; there are seven spines on the sublateral ridge of the branchial region, which is not sinuous; there are no spinules on the posterior margin of the carapace. This specimen thus agrees with de Man's description of the *Siboga* material in aspects which differ slightly from the type specimen. It is interesting to note that this specimen is from the Coral Sea whereas the rest of the present material is from much further south, in the Tasman Sea.

Six of the specimens (AM P40371, P40373 to P40376) have a slender spine, arising between the bases of the two rostral spines, at the extreme anterior edge of the carapace. This spine is almost as long as, and projects at much the same angle as, the rostral spines. The other six specimens do not have such a spine and there are no intermediate forms. This subrostral spine is not the "small, obtuse tubercle" mentioned by de Man (1916: 19). Such a tubercle also occurs in all the present material. It is small and arises low down on the frontal wall of the carapace, unlike the prominent conical tooth of *S. phosphorus*. The subrostral spine of the present material seems to be the same as that described by Smith (1884: 15) in *S. nana*. *Stereomastis nana* is similar to *S. andamanensis* but can be distinguished from it by the absence of any spine on the internal orbital angle in *S. nana*. Also, in *S. nana* the large antrorse spine of the fifth abdominal segment is at least as large as the fourth, whereas in *S. andamanensis* the fifth spine is smaller than the fourth.

The six specimens with extra subrostral spine and three of those without (AM P38725, P40368 and P40370) have slender spinules, rather than granules, on the posterior border of the carapace. De Man (1916: 18)

suggested that spinules occur in smaller specimens and granules in the larger specimens. However, in our material the specimens with spinules are ovigerous females and an adult male.

Distribution. Indo-West Pacific Ocean: Arabian Sea, northern Indian Ocean, Indonesia, Coral Sea, western Tasman Sea; 724–2000 m.

Stereomastis helleri (Bate)

Polycheles Helleri Bate, 1878: 277 (in part).

Polycheles helleri.—Bate, 1888: 138 (in part), pl. 14 fig. 2 (not female from station 170, pl. 15 fig. 1, = *S. kermadecensis* Sund, 1920).—Sund, 1920: 224.

Material examined. One male, cl. 19 mm, AM P40360, Coral Sea, 11°33.02'S 145°19.34'E, 1611–1584 m, P. Hutchings & party on RV *Franklin*, 22 August 1988, stn FR0688-11.

Remarks. This single specimen agrees well with Bate's (1888) description and figures of the small male type specimen. The rostrum is bifid, the orbital notches deep U-shaped; there is no spine on either side of the inner or outer orbital angle. The spine on the ophthalmic peduncle is strong and directed slightly laterally. There are two spines on the basal antennular segment. The mid-dorsal carina, behind the rostral spines, has spinal formula 1,1,2,1 before the cervical groove and 2,2,2 behind it. The posterior margin of the carapace has a series of low but distinct, regularly spaced granules. The spinal formula of the right lateral margin is 6:3:2–3, that is, on the margin posterior to the cervical groove the anterior and posterior teeth are distinct, but between these teeth there are indistinct granules, just as described by Bate. The left margin is damaged. The sublateral carinae of the branchial region are similarly armed, having five to six distinct spines interspersed, particularly in the middle, with indistinct granules. The most posterior spine is strongest, as noted by Bate.