

Abdominal segments 1 to 5 have the median carina produced into an anteriorly projecting spine, that on segment 5 being the largest. The double carina of segment 6 is low, irregular, united posteriorly. There is a single low but long nodule on the anterior portion of the telson. The anterior margin of abdominal pleuron 2 is broadly rounded proximally, without any spine, but obliquely angled on its lower half. There are a few small blunt spinules on the posteroventral margin of pleura 3 to 6.

Both chelipeds are missing from the specimen.

This species is very similar to *S. nana* (Smith, 1884) from the Atlantic and eastern Pacific (Faxon, 1895), especially in the absence of a spine on the inner orbital angle and in the distribution of spines on the lateral margin of the carapace. The material from north-western Australia reported by George (1983) as *S. nana* is possibly *S. helleri*.

Distribution. South-west Pacific Ocean: north of Papua New Guinea, Coral Sea; 1611–1957 m.

Stereomastis phosphorus (Alcock)

Figs 9–11

Pentacheles phosphorus Alcock, 1894a: 240.–Alcock, 1894b: pl. 8 fig. 2.

Polycheles phosphorus.–Alcock, 1901: 167 (key), 168.–Rathbun, 1906: 898.–Kemp & Sewell, 1912: 24.–Bouvier, 1917: 35 (list).

Stereomastis phosphorus.–de Man, 1916: 4 (list), 15.–Bernard, 1953: 87.–Firth & Pequegnat, 1971: 64 (key), 68.

Stereomastis cf. *phosphorus*.–Wadley & Evans, 1991: 28, unnumbered figs.

Material examined. One juvenile, cl. 21 mm, AM P44919, Torres Strait, 10°34.28'S 144°13.33'E, beam trawl, 815–825 m, P. Hutchings & party on RV *Franklin*, 21 August 1988, stn FR0688-4; 1 male, cl. 30.5 mm, AM P44920, Torres Strait, 10°37.17'S 144°21.99'E, beam trawl, 990–1053 m, P. Hutchings & party on RV *Franklin*, 21 August 1988, stn FR0688-54; 1 female, cl. 61.7 mm, QM W14294, 23°40'S 153°56.9'E, 530 m, G. Smith on MV *Iron Summer*, 22 November 1982; 1 ovigerous female, cl. 50.5 mm, 3 males, cl. 41, 50 and 55.3 mm, QM W14355, south-east Queensland, 26°31'S 153°48'E, 570 m, G. Smith on MV *Iron Summer*, 13 December 1982; 1 ovigerous female, cl. 61.5 mm, QM W14328, 27°12.83'S 153°52.87'E, R. Morton on MV *Iron Summer*, 10 May 1983; 2 ovigerous females, cl. 50 and 70 mm, QM W14313, 27°13.00'S 153°52.53'E, 590 m, R. Morton on MV *Iron Summer*, 9 May 1983; 1 ovigerous female, cl. 50 mm, QM W14282, 27°13.52'S 153°53.46'E, 620 m, R. Morton on MV *Iron Summer*, 31 March 1983; 1 ovigerous female, cl. 70 mm, QM W14262, 27°13.69'S 153°54.93'E, 600 m, R. Morton on MV *Iron Summer*, 31 March 1983; 1 male, cl. 39.5 mm, QM W14381, 27°16'S 153°53'E, 540 m, G. Smith on MV *Iron Summer*, 13 August 1982; 1 male, cl. 51 mm (very damaged), QM W14344, 27°35.04'S 153°57.32'E, 545 m, R. Morton on MV *Iron Summer*, 31 March 1983; 1 ovigerous female, cl. 48 mm, QM W14367, 27°S 153°36'E, 540 m, P. Dutton on MV *Iron Summer*, 29 July 1982; 1 male, cl. 40 mm, QM

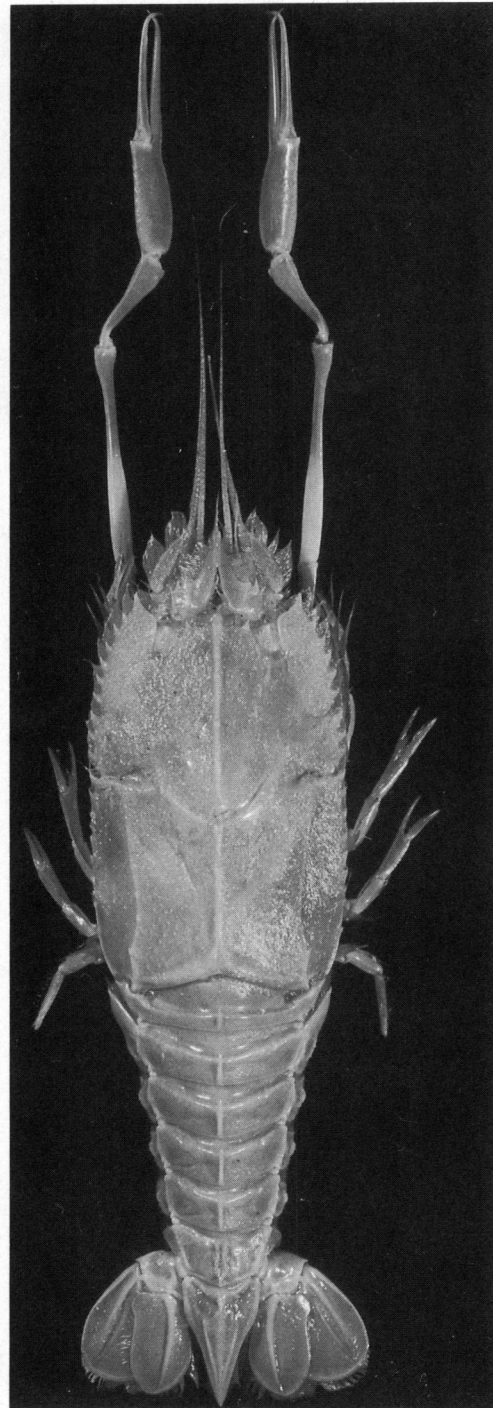


Fig. 9. *Stereomastis phosphorus* (Alcock), female, cl. 42.5 mm, AM P20664, dorsal view.

W14323, 27°59'S 154°00.5'E, S. Hyland on MV *Iron Summer*, 4 December 1982; 1 ovigerous female, 61.9 mm, QM W14276, 27°59.37'S 154°00'E, R. Morton on MV *Iron Summer*, 31 March 1983; 1 female, 67.5 mm, QM W14352, 28°01'S 154°01'E, 580 m, S. Hyland on MV *Iron Summer*, 4 December 1982; 4 females, 24, 30.5, 33.5 and 34 mm, 3 ovigerous females, cl. 45.5, 53 and 53.5 mm, 2 males, cl. 26.5 and 48.5 mm, AM P44914, north-east of Point Danger,

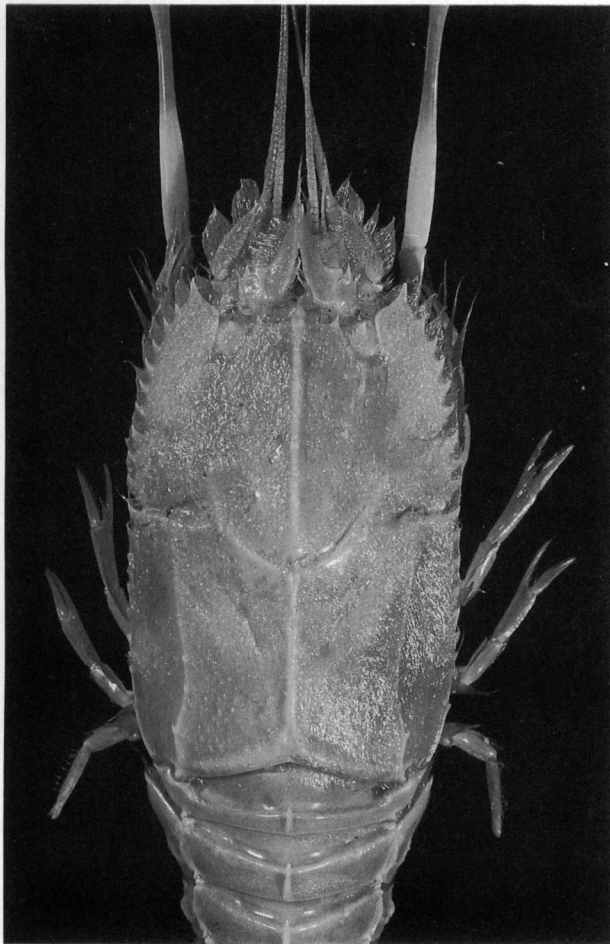


Fig. 10. *Stereomastix phosphorus* (Alcock), female, cl. 42.5 mm, AM P20664, carapace.

28°01'S 154°00'E, 548 m, 17 August 1978, FRV *Kapala*, stn K78-17-10; 1 female, cl. 49 mm, 1 male, cl. 42 mm, AM P44915, north-east of Point Danger, 28°03'S 154°04'E to 28°01'S 154°04'E, 732 m, 6 November 1978, FRV *Kapala*, stn K78-23-08; 1 female, cl. 54 mm, 1 ovigerous female, cl. 56 mm, AM P44913, east of Minnie Water, 29°45'S 153°45'E to 29°42'S 153°46'E, 505 m, 19 April 1978, FRV *Kapala*, stn K78-05-06; 1 female, cl. 49.5 mm, AM P39732, north-east of Woolli, 29°50'S 153°43'E to 29°48'S 153°44'E, 503 m, 25 April 1978, FRV *Kapala*, stn K78-06-02; 1 ovigerous female, cl. 70 mm, AM P21687, north-east of Woolli, 29°52'S 153°43'E to 29°46'S 153°45'E, 505 m, 10 October 1975, FRV *Kapala*, stn K75-09-03; 2 males, cl. 28.5 and 36.5 mm, AM P26554, north-east of Woolli, 29°53'S 153°42'E, 485 m, 23 August 1977, FRV *Kapala*, stn K77-13-12; 1 female, cl. 44.5 mm, 3 males, cl. 28.5, 34.5 and 38.5 mm, 2 juveniles, cl. 17 and 25 mm, AM P26804, south-east of Newcastle, 33°08'S 152°27'E to 33°10'S 152°24'E, 594 m, 7 December 1977, FRV *Kapala*, stn K77-23-09; 3 males, cl. 20, 29 and 35.5 mm, AM P26757, south-east of Newcastle, 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 male, cl. 31 mm, AM P44918, east of Budgewoi, 33°11'S 152°25'E, 722–768 m, 12 April 1989, FRV *Kapala*, stn K89-06-05; 1 female, cl. 30 mm, AM P20661, north-east of Broken Bay, 33°30'S 152°05'E to 33°26'S

152°08'E, 549 m, 5 October 1972, FRV *Kapala*, stn K72-05-08; 2 females, cl. 37.5 and 45 mm, AM P39733, east of Broken Bay, 33°32'S 152°07'E, 732–795 m, 17 May 1989, FRV *Kapala*, stn K89-09-06; 2 females, cl. 29.5 and 42.5 mm, 1 male, cl. 41.4 mm, AM P21065, east of Broken Bay, 33°32'S 152°04'E to 33°38'S 152°00'E, 823 m, 19 August 1975, FRV *Kapala*, stn K75-05-05; 1 female, cl. 31.5 mm, AM P39736, east of Broken Bay, 33°34'S 152°04'E to 33°31'S 152°06'E, 725 m, 4 December 1979, FRV *Kapala*, stn K79-20-04; 1 male, cl. 30 mm, AM P39734, east of Broken Bay, 33°34'S 151°57'E, 549–568 m, 10 September 1984, FRV *Kapala*, stn K84-15-02; 1 female, cl. 41 mm, 1 male, cl. 29.5 mm, AM P20663, between Broken Bay and Port Jackson, approx. 33°40'S 150°59'E, 594 m, 9 October 1972, FRV *Kapala*, stns K72-05-09 to 72-05-11; 1 female, cl. 29 mm, AM P44917, south-east of Broken Bay, 33°39'S 151°58'E, 636–647 m, 25 September 1984, FRV *Kapala*, stn K84-16-03; 2 females, cl. 29 and 41 mm, AM P26775, south-east of Broken Bay, 33°40'S 151°56'E to 33°37'S 151°56'E, 714–732 m, 6 December 1977, FRV *Kapala*, stn K77-23-06; 1 female, cl. 26 mm, 1 male, cl. 34 mm, AM P18985, south-east of Broken Bay, 33°43'S 151°55'E to 33°37'S 152°02'E, 775 m, 19 October 1972, FRV *Kapala*, stn K72-06-04; 2 females, cl. 27 and 43.5 mm, AM P18982, south-east of Broken Bay, 33°44'S 151°55'E to 33°40'S 151°58'E, 720 m, 9 November 1972, FRV *Kapala*, stn K72-07-04; 1 male, cl. 38 mm, AM P39735, east of Long Reef Point, 33°47'S 151°50'E to 33°45'S 151°52'E, 503–567 m, 19 May 1983, FRV *Kapala*, stn K83-01-08; 1 male, cl. 26 mm, AM P20662, east of Port Jackson, 33°50'S 150°50'E to 33°46'S 150°52'E, 594 m, 9 October 1972, FRV *Kapala*, stn K72-05-09; 1 male, cl. 41.5 mm, AM P18984, east of Port Jackson, 33°51'S 151°51'E to 33°45'S 151°55'E, 775 m, 19 October 1972, FRV *Kapala*, stn K72-06-03; 1 male, cl. 41.5 mm, AM P18019, east of Port Hacking, 34°11'S 151°36'E to 34°05'S 151°41'E, 720 m, 23 June 1971, FRV *Kapala*, stn K71-10-01; 1 ovigerous female, cl. 40 mm, AM P39737, east of Shoalhaven Heads, 34°50'S 151°15'E, 914–950 m, 10 October 1984, FRV *Kapala*, stn K84-18-03; 1 female, cl. 42.5 mm, AM P20664, east of Shoalhaven Bight, 34°54'S 151°11'E to 34°59'S 151°09'E, 732–805 m, 4 June 1975, FRV *Kapala*, stn K75-02-08; 1 male, cl. 28.5 mm, AM P44916, east of Shoalhaven Bight, 34°55'S 151°13'E to 34°53'S 151°14'E, 823 m, 12 December 1978, FRV *Kapala*, stn K78-27-05; 1 female, cl. 45.5 mm, 3 males, cl. 40, 43 and 45 mm, AM P39738, east of Beecroft Peninsula, 35°03'S 151°08'E, 695–768 m, 18 April 1989, FRV *Kapala*, stn K89-07-01.

Remarks. In most specimens the mid-dorsal carina of the carapace (excluding the rostral spines), has spinal formula of 1,1,2,1 in front of the cervical groove and 2,2,2 behind the groove, characteristic of the species. However, three specimens (AM P21687, P39738 and QM W13313), all large females, have four single spines in front of the cervical groove; they are otherwise good examples of *S. phosphorus*. The gastro-orbital carina is composed of three small spines in an oblique row; there are one or two spines mesially on the gastric region and a spine on the cervical groove at the junction of the two branches.

The cervical groove has a spine approximately midway along the posterior border and the superior branchial carina bears a few spines. The surface of the carapace is generally very pubescent. The east Australian specimens differ from Alcock's original description of *S. phosphorus*