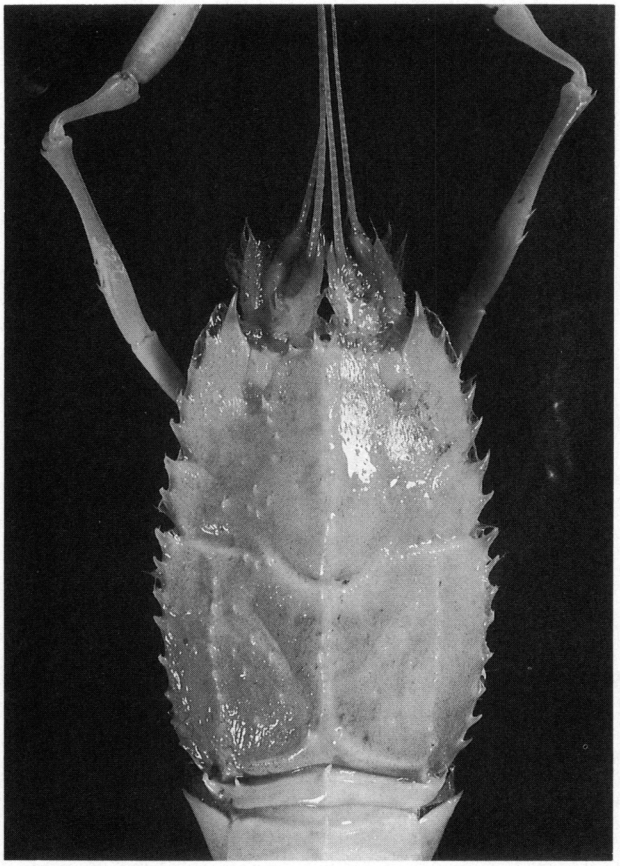

Fig. 13. *Stereomastis suhmi* (Bate), female, cl. 25 mm, AM P25046, carapace.

starting just behind the orbital notch; there is a cluster of spinules on the gastric region of the carapace as well as two or three small spinules laterally just behind the junction of the two branches of the cervical groove. The superior branchial carina is composed of seven to nine (most often eight) spinules.

The carina of abdominal segments 1 to 5 is produced into an antrorse spine; on segments 2 to 5 there is a cusp on the posterior part of the spine, low and smooth (seemingly worn) in some specimens, strong and sharp in others. The carina of the sixth segment is a double row of strong denticles. The telson has two strong denticles, one behind the other. The mid-anterior margin of the second abdominal pleuron is produced into a strong spine.

The merus of the cheliped has one or two fine spinules on the upper proximal margin.

One specimen, a 27.5 mm male (AM P26771), has three, rather than two, pairs of spines on the mid-dorsal carina. Two of the three pairs are very close together. In all other respects this specimen is a typical *S. suhmi*.

Colour. (Based on AM P25046). Carapace, abdominal segments and telson a uniform pale whitish pink; all spines of carapace and abdominal terga a darker rose pink. Endopods and inner three-quarters of exopods of

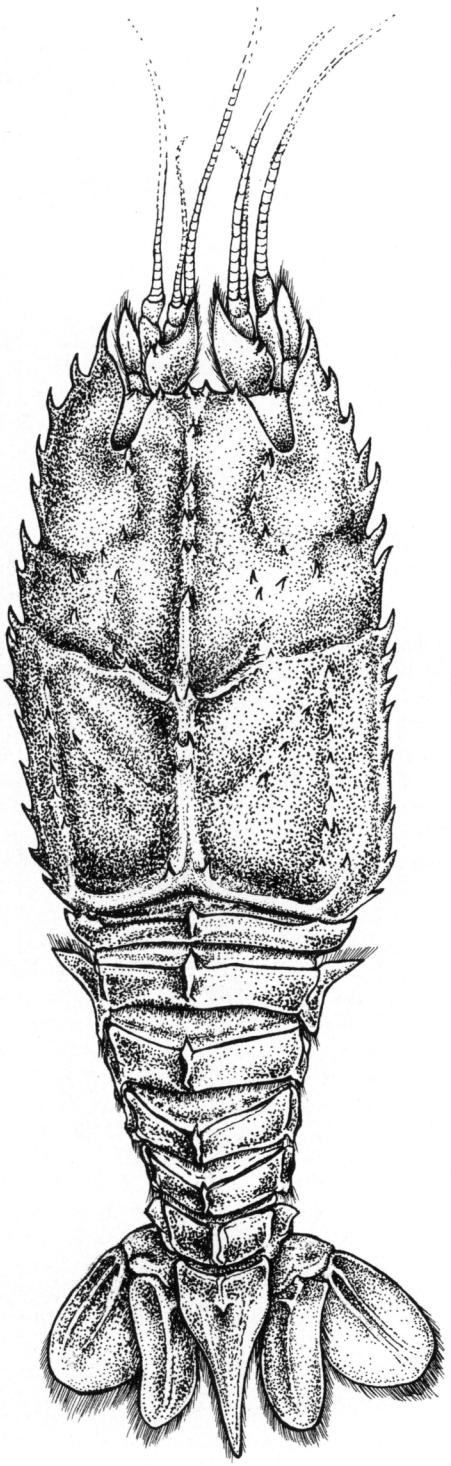

Fig. 14. *Stereomastis suhmi* (Bate), female, cl. 25 mm, AM P25046, dorsal view.

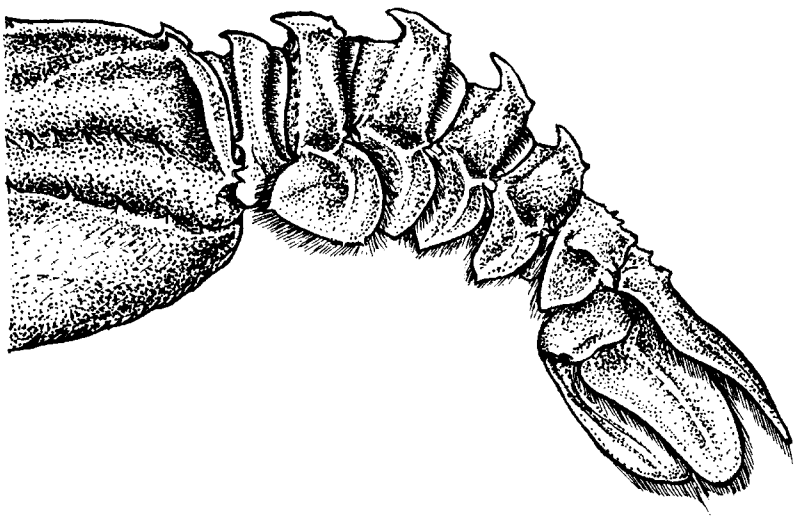

Fig. 15. *Stereomastis suhmi* (Bate), female, cl. 25 mm, AM P25046, lateral view of abdomen.

uropods whitish (almost transparent), entire outer edge of exopods trimmed in dark rose pink.

Ischium, anterior portion of merus and palm of propodus of cheliped pale, almost white; distal end of merus and carpus pale pink; fingers of cheliped also pale pink, fading to white at tips.

Distribution. South Atlantic Ocean: South Africa (Cape Point); western Pacific Ocean: south-eastern Australia; south-eastern Pacific Ocean: south-western coast of South America (west coast of Patagonia, coast of Chile); 293–2195 m.

Willemoesia Grote, 1873

The genus contains eight species, of which only one is known from the Indo-West Pacific region. One species, *Willemoesia leptodactyla* (Willemoes-Suhm, 1873) has been reported from Australia, but this material is shown here to be *W. bonaspei* Kensley, 1968.

Willemoesia bonaspei Kensley

Figs 16,17

Willemoesia leptodactyla. Bage, 1938: 9. (Not *W. leptodactyla* [Willemoes-Suhm, 1873]).

Willemoesia bonaspei Kensley, 1968: 294, figs 4, 5.–Kensley, 1981: 29.–Gore, 1984: 6 (table 2).

Material examined. One male, cl. 50 mm, total length 112 mm, AM P11316, south-west of Eyre Peninsula, South Australia, Great Australian Bight, 35°55.5'S 134°18'E, 3240 m, Station 13, Australasian Antarctic Expedition, 1911–1914, 24 February 1914.

Description. Although this specimen is not from eastern Australia it is included here because the single specimen described by Bage (1938) as *W. leptodactyla* is the only record of the genus from Australian waters and Bage's description of it was very brief.

Dorsal surface of carapace covered by numerous small, forwardly curved spinules. Rostral spine single, large (tip broken). Frontal margin of carapace produced, with a strong spine on internal orbital angle. Anterolateral angle of carapace formed by a large spine, the largest on the carapace; carapace in profile is slightly arched. Basal segment of antennular peduncle serrate along its medial edge, no spines or spinules on antero-external angle.

Spine formula of lateral edges of carapace 8–9:6:23–25. Spine formula of mid-dorsal carina (excluding the rostral spine) 1,1,1,2,1,1 before the cervical groove; irregularly paired spinules arranged irregularly behind groove, two or three slightly more prominent than others. Posterior edge of carapace smooth. Gastro-orbital carinae of carapace prominent and bearing spinules of the same kind as on rest of carapace. Superior branchial carina bearing 20–23 spines and spinules.

Abdominal terga smooth, with terga 2 to 4 bearing faint obliquely transverse grooves. All terga with a mid-dorsal carina; carinae of terga 1 to 4 culminating in an antrorse spine; spine of the fourth tergum reduced; dorsal surface of the first to third carinae slightly uneven; fifth carina a low blunt ridge; sixth carina a smooth hump. Surface of abdominal pleura smooth with weakly elevated curved ridges mesially; edges unarmed. Telson longer than uropods and sharply pointed. (Chelipeds missing from the specimen).

Remarks. Bate (1888) based his description of *W. leptodactyla* on a female specimen taken at *Challenger*

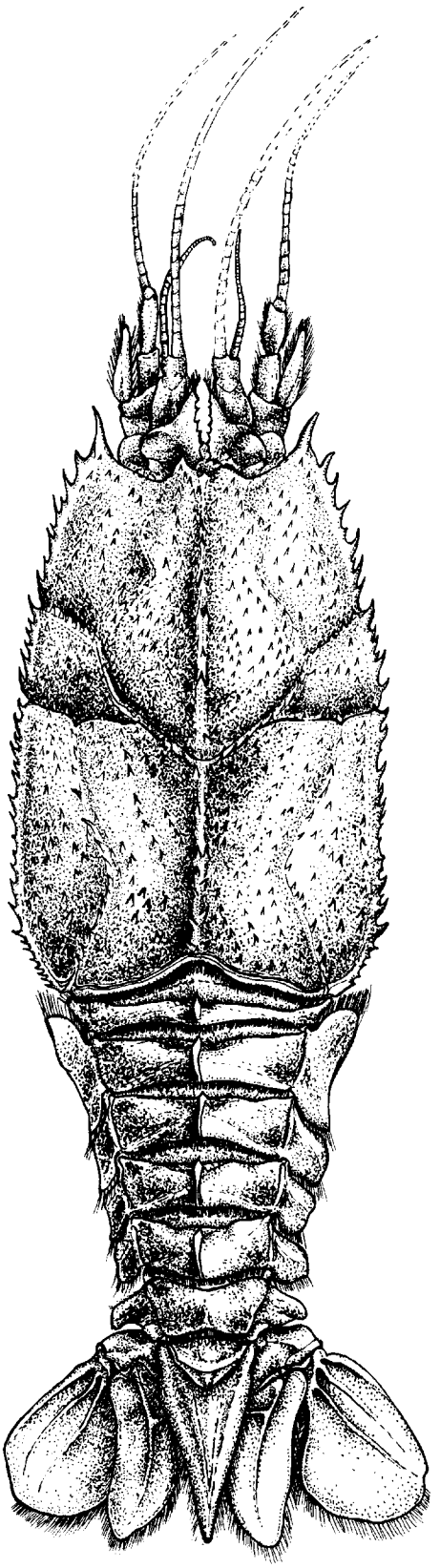

Fig. 16. *Willemoesia bonaspei* Kensley, male, cl. 50 mm, AM P11316, dorsal view.

station 13 (mid North Atlantic Ocean) and figured on plates 18 and 19C". Bate also briefly discussed what he called a "... decided variety of *Willemoesia leptodactyla*", a large male specimen collected at *Challenger* station 300 (off Valparaiso, south-east Pacific Ocean). The anterior portion of the dorsal carapace of this specimen is illustrated on plate 19 figure C (Bate, 1888). Sund (1920) made this specimen the type of a new species, *W. pacifica*. Kensley (1968) described *W. bonaspei* from off south-western South Africa. Bage's (1938) southern Australian specimen is clearly not *W. leptodactyla* but is very close to both *W. pacifica* and *W. bonaspei*. The overall length of the specimen, the finely spinulose dorsal surface, the number of spines on the lateral margins of the carapace, and the presence of tiny spines on the branchial ridge match both *W. pacifica* and *W. bonaspei*.

The shape of the frontal margin is more similar to that of *W. bonaspei* than to *W. pacifica*, especially the distinctly concave inner margins of the two large submedian spines. The spination of the mid-dorsal carina of the carapace fits to the range given for *W. bonaspei*, but not so well to that of *W. pacifica*. Sund (1920: 223) described the first abdominal somite of *W. pacifica* as having dorsally "a well-developed hook"; both *W. bonaspei* and Bage's specimen have a small forwardly-directed tooth.

This species is very close to *W. pacifica* and, as suggested by Kensley, may be found to be synonymous with it when more material becomes available.

Distribution. South-eastern Atlantic Ocean: west of Cape Point, South Africa; western Pacific Ocean: southern Australia; 2800–3520 m.

Family SCYLLARIDAE

Ibacus Leach, 1815

The genus contains six species, all known from the Indo-West Pacific region. Five species have been reported from Australia: *Ibacus alticrenatus* Bate, 1888, from western and north-western, eastern and southern Australia (Grant, 1905; George & Griffin, 1972; Holthuis, 1985; Wadley & Evans, 1991); *I. brucei* Holthuis, 1977, from eastern Australia (Holthuis, 1977, 1985); *I. ciliatus pubescens* Holthuis, 1960, from north-western Australia (Holthuis, 1985; Wadley & Evans, 1991); *I. novemdentatus* Gibbes, 1850, from western and north-western Australia (Phillips *et al.*, 1981; Holthuis, 1985); *I. peronii* Leach, 1815, from south-western, southern and south-eastern Australia (many authors, summarised in Holthuis, 1985).

Ibacus brucei has been taken in New South Wales waters by the FRV *Kapala*, but it has not been recorded below 190 m.

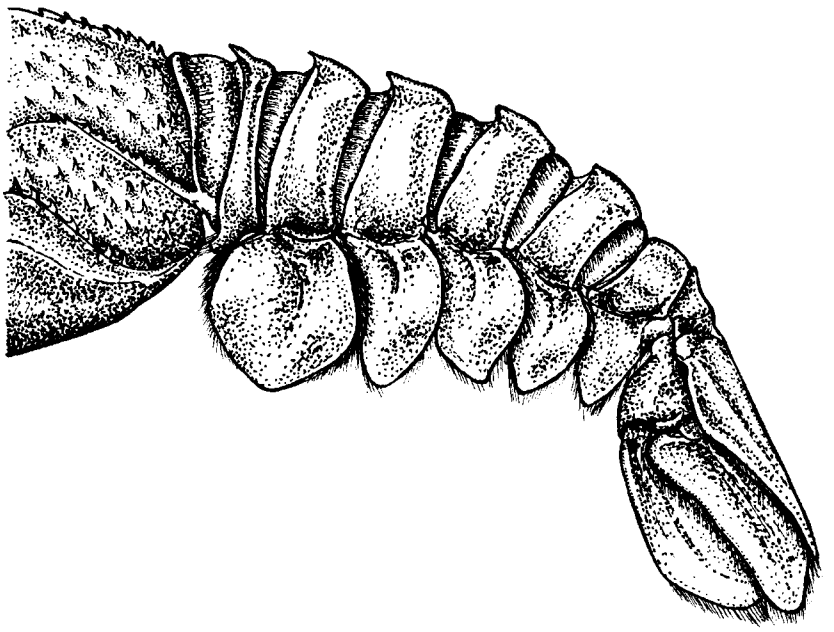

Fig. 17. *Willemoesia bonaspei* Kensley, male, cl. 50 mm, AM P11316, lateral view.

Ibacus alticrenatus Bate

Ibaccus alticrenatus Bate, 1888: 63, pl. 9 fig. 2.
Ibacus alticrenatus.–Powell, 1947: 37, fig. 184.–Dell, 1955: 148.–Yaldwyn, 1961: 3 (key).–Holthuis, 1985: 23 (key), 36, fig. 9.–Holthuis, 1991: 197 (key), 200, figs 376,382.
Ibacus alticrenatus septemdentatus Grant, 1905: 322, pl. 11 fig. 1.
Ibacus altricrenatus.–George & Griffin, 1972: 228.

Material examined. One ovigerous female, cl. 44 mm, 1 female, cl. 42 mm, 1 male, cl. 43 mm, AM P17911, east of Port Stephens, 32°46'S 152°42'E, 585–576 m, 7 May 1971, FRV *Kapala*, stn K71-09-01; 1 female, cl. 36 mm, AM P17908, north-east of Port Jackson, 33°41'S 151°55'E to 33°44'S 151°53'E, 540 m, 20 April 1971, FRV *Kapala*, stn K71-07-01; 4 females, cl. 37.5–43.5 mm, 3 males, cl. 25.5–37 mm, AM P18987, east of Port Jackson, 33°44'S 151°48'E to 33°48'S 151°45'E, 162 m, 10 August 1972, FRV *Kapala*, stn K72-02-13; 3 females, cl. 19–39 mm, 1 male, cl. 33.5 mm, AM P17964, south-east of Port Hacking, 33°15'S 151°25'E to 34°20'S 151°21'E, 261–279 m, 28 June 1971, FRV *Kapala*, stn K71-10-02; 1 male, cl. 33 mm, AM P17968, north-east of Jervis Bay, 34°56'S 151°06'E to 35°02'S 151°05'E, 300–297 m, 8 July 1971, FRV *Kapala*, stn K71-11-08; 1 male, cl. 16 mm, AM P19620, east of Port Jackson, 33°51'S 151°51'E to 33°15'S 151°55'E, 680 m, 19 October 1972, FRV *Kapala*, stn K72-06-03.

Remarks. *Ibacus alticrenatus* is well described and figured by Bate (1888) and Holthuis (1985).

Distribution. South-west Pacific Ocean: south-eastern Australia, New Zealand; 20–680 m, mainly between 175 and 540 m.

Scyllarus Fabricius, 1775

The genus contains about 40 species, 26 of which are known from the Indo-West Pacific region. Most are shallow-water species. One species, *Scyllarus mawsoni* (Bage, 1938), has been reported from deep water off south-eastern Australia.

Scyllarus mawsoni (Bage)

Arctus mawsoni Bage, 1938: 10, pl. 4 figs 2,2a.
Scyllarus mawsoni.–Hale, 1941: 272, pl. 3 figs 1,2.–Holthuis, 1946: 88.

Material examined. One ovigerous female, cl. 24.5 mm, 2 males, cl. 12 and 13 mm, AM P24397, AM P24396, north-east of Brush Island, 35°29'S 150°47'E to 35°32'S 150°45'E, 324 m, 8 June 1976, *Kapala*, K76-08-01; 4 females, cl. 17.5–18.5 mm, 1 male, cl. 15 mm, AM P25040, east of Brush Island, 35°30'S 150°45'E to 35°32'S 150°44'E, 324 m, 10 November 1976, FRV *Kapala*, stn K76-19-01; 2 females, cl. 15 and 17 mm, AM P25031, east of Brush Island, 35°32'S 150°45'E to 35°34'S 150°43'E, 270 m, 1 December 1976, FRV *Kapala*, stn K76-22-03; 1 ovigerous female, cl. 19 mm, AM P25043, 20 miles south of Lawrence Rocks, Portland, Victoria [approx. 38°21'S 141°36'E], 182–219 m, May 1976.

Remarks. Bage's (1938) original description of this species is very brief, and her figures do not show much detail. Hale (1941) made some additional comments and gave additional figures but the species is at present still inadequately described and figured. Dr Holthuis is dealing with this species in a forthcoming paper.

Distribution. South-west Pacific Ocean: south-eastern and southern Australia; 108–540 m.

Discussion

The lobster fauna comprises three groups: shallow-water tropical reef forms, especially species of *Panulirus* (spiny or rock lobsters); a variety of other species—mostly temperate shallow-water forms of palinurids and scyllarids; and a variety of deep-sea species. The twenty-three species reported here bring the total number of species of deep-sea lobsters known from Australia to thirty-five, increasing the known archibenthal fauna by ten species.

The deep-sea lobsters of Australia clearly constitute a typical archibenthal fauna, the genera represented and their zoogeographic affinities being essentially those found in the archibenthal lobster faunas of other regions. Twenty-five (71%) of the thirty-five species are contained in five (38%) genera (*Metanephrops, Nephropsis, Polycheles, Stereomastis* and *Ibacus*).

Of the 35 species recorded from Australia, 8 are known only from Australia; 19 from Australia and other Indo-West Pacific areas; 5 from Australia, the Indo-West Pacific and Atlantic Oceans; one from Australia, the Indo-West Pacific and North Central Pacific Ocean; one from Australia, the eastern Pacific and Atlantic Oceans; and one from Australia and the Atlantic Ocean. So far as it is known, the Australian deep-water lobster fauna is predominantly part of the general Indo-West Pacific fauna. Its outlying connections with the Atlantic Ocean are mostly via south-western Africa rather than via the eastern Pacific Ocean and southern South America.

Of the seven Australian species also known from the Atlantic Ocean, three (*Polycheles granulatus, P. typhlops* and *Stereomastis sculpta*) are geographically very widespread in both the Atlantic and Indo-West Pacific Oceans; the other four (*Projasus parkeri, Stereomastis nana, S. suhmi* and *Willemoesia bonaspei*) have a southern distribution, their Atlantic Ocean records all being from off south-western Africa. Only two of the eastern Australian deep-water lobster species (*Projasus parkeri* and *Ibacus alticrenatus*) are also found in New Zealand. The distribution of all reported Australian species is summarised in Table 1.

Key to species of lobsters recorded from Australian waters below 200 meters

(Based largely on keys provided in Holthuis [1991], Chan & Yu [1991] and Macpherson [1993])

1. Pereopod 3 chelate 2

—— Pereopod 3 not chelate 15

2. Pereopod 4 not chelate 3

—— Pereopod 4 chelate 25

3. Telson without spines. Eyes strongly reduced, without pigment. Chelipeds very unequal, the larger with fingers more than 4 times as long as palm ..... *Thaumastochelopsis wardi* Bruce

—— Telson with lateral and/or postlateral spines. Eyes well developed or reduced. Chelipeds equal or unequal, fingers less than 2 times as long as palm 4

4. Rostrum laterally compressed for most of its length, with dorsal teeth (ventral teeth present, lateral teeth absent). Carapace with branchiostegal spine. Lateral margins of telson with 6–12 spines ..... *Acanthacaris tenuimana* (Bate)

—— Rostrum dorsoventrally compressed, without dorsal teeth (ventral and lateral teeth present or absent). Carapace without branchiostegal spine. Lateral margins of telson with 3 or less small irregular spines 5

5. Scaphocerite absent. Carapace without postorbital spine. Abdominal sternites unarmed in both sexes. Second maxilliped without podobranch 6

—— Scaphocerite present. Carapace with distinct postorbital spine. Abdominal sternites 2 to 5 in male each with a sharp median spine. Second maxilliped usually with podobranch 11

6. Exopod of uropod with a diaeresis ..... *Nephropsis suhmi* (Bate)

—— Exopod of uropod without a diaeresis 7

7. Dorsal surface of telson with a well-developed spine ..... *Nephropsis acanthura* Macpherson

—— Dorsal surface of telson without a well-developed spine 8

8. Rostrum with two pairs of lateral spines ..... *Nephropsis sulcata* Macpherson

—— Rostrum with one pair of lateral spines 9

9. Abdominal somites with a median dorsal carina ..... *Nephropsis holthuisi* Macpherson

—— Abdominal somites without a median dorsal carina 10

10. Carapace with subdorsal carinae granular ..... *Nephropsis stewarti* Wood-Mason

—— Carapace with at least 3 with well-developed spines on each subdorsal carina ..... *Nephropsis serrata* Macpherson

11. Carapace smooth between the ridges and large spines 12

—— Carapace rather uniformly spinose 14

12. Chelae of first pereopods heavily ridged and spinulose ..... *Metanephrops velutinus* Chan & Yu

—— Chelae of first pereopods weakly ridged and finely granular 13

13. First pereopod with distinct spine in middle of inner margin of merus. Posterior margin of cervical groove with 4–7 spinules ..... *Metanephrops boschmai* (Holthuis)

—— First pereopod without a distinct spine in middle of inner margin of merus. Posterior margin of cervical groove smooth ..... *Metanephrops sibogae* (de Man)

14. Region of carapace between postrostral carinae heavily spinulose ..... *Metanephrops neptunus* (Bruce)

—— Region of carapace between postrostral carinae smooth *Metanephrops australiensis* (Bruce)

15. Antennal flagellum reduced to a single broad flat segment, similar to the peduncular segments 16

—— Antennal flagellum long, multi-articulate 20

16. Exopods of all maxillipeds with a multi-articulate flagellum. Carapace strongly depressed dorsoventrally. Lateral margin of carapace with deep cervical incision, without postcervical incision 17

—— Exopod of third and first maxilliped without a flagellum; flagellum of second maxilliped a single laminate segment. Carapace not strongly depressed dorsoventrally, rather high and vaulted. Lateral margin of carapace with shallow cervical and postcervical incisions ..... *Scyllarus* spp.

17. Merus of third maxilliped with ventral surface slightly concave, not swollen; inner margin sometimes crenulate but not with deep incisions 18

—— Merus of third maxilliped swollen; inner margin with deep incisions 19

18. Cervical incision wide, anterior margin forming posterior margin of anterolateral angle of carapace, thus no lateral margin between the anterolateral angle and the cervical incision. Carapace with 7–9 posterolateral teeth ..... *Ibacus alticrenatus* Bate

—— Cervical incision narrow, anterior margin reaching lateral margin some distance behind the anterolateral angle; toothed lateral margin present between the anterolateral angle and the cervical incision. Carapace with 11–13 posterolateral teeth ..... *Ibacus ciliatus pubescens* Holthuis

19. Anterior teeth of epistome directed forwards. Posterior branchial carinae of carapace straight or only slightly convex, lying in one line with anterior branchial carinae. Posterior incision of orbit without tubercle. Lateral margin of carapace with 8 (rarely 7) posterolateral teeth ..... *Ibacus novemdentatus* Gibbes

—— Anterior teeth of epistome directed ventrally. Posterior branchial carinae of carapace strongly convex, not lying in one line with anterior branchial carinae. Posterior incision of orbit with distinct tubercle. Lateral margin of carapace with 6 or 7 (rarely 8) posterolateral teeth ..... *Ibacus peronii* Leach

20. Epistome long, about 1/3 carapace length. Eyes on a median elevation of the cephalon ..... *Neoglyphea inopinata* Forest & de Saint Laurent

—— Epistome short, much less than 1/3 carapace length. Eyes not on elevation of the cephalon 21

21. Frontal horns fused to form a broad 2- or 4-spined median projection on anterior margin of carapace between the eyes. Antennal flagella straight, inflexible 22

—— Two distinct widely separated frontal horns present, with anterior margin visible between them. Antennal flagella flexible 23

22. Epistomal ridges coarsely granular, without an acute well-developed anterior tooth. Chitinous margin of male genital aperture with toothed median border and smooth lateral border ..... *Linuparus sordidus* Bruce

—— Epistomal ridges weakly granular, with an acute well-developed anterior tooth. Chitinous margin of male genital aperture toothed throughout its length ..... *Linuparus trigonus* (von Siebold)

23. Antennular plate distinct; a stridulating organ present. Carapace with median ridge behind the cervical groove; often with spines or tubercles but without submedian ridges 24

—— Antennular plate hardly, if at all, visible in dorsal view; stridulating organ absent. Carapace without a median ridge behind cervical groove; with 2 submedian ridges, each bearing a row of large, sharply pointed teeth or numerous spinules ..... *Projasus parkeri* (Stebbing)

24. Postorbital spine present. Median keel of carapace without teeth, with 6 postcervical and 6 intestinal tubercles. Tubercles on carapace low and mostly obscured by pubescence. Eyes large, much broader than long ..... *Puerulus velutinus* Holthuis

—— Postorbital spine absent. Median keel of carapace with 3–5 postcervical and 2–4 intestinal teeth. Tubercles on carapace distinct, not obscured by pubescence. Eyes small, longer than broad ..... *Puerulus angulatus* (Bate)

25. Frontal margin of carapace with 1 rostral spine 26

—— Frontal margin of carapace with 2 rostral spines 27

26. Anterior margin of carapace with deep V-shaped orbital notches divided into two parts by interlocking spines on the margins. Posterior margin of carapace spinose ..... *Polycheles typhlops* Heller

—— Anterior margin of carapace without deep orbital notches, with broad shallow non-spinose excavations. Posterior margin of carapace smooth ..... *Willemoesia bonaspei* Kensley

27. Lateral borders of carapace with more than 20 spines 28

—— Lateral borders of carapace with less than 20 spines 30

28. Posterior margin of carapace smooth ..... *Polycheles granulatus* Faxon

—— Posterior margin of carapace spinose 29

29. Anterior margin of carapace spinose between outer angle of orbital notch and anterolateral spine. Lateral margin of carapace, between postcervical groove and posterior margin, with 20–25 spines ..... *Polycheles baccatus* Bate

—— Anterior margin of carapace smooth, without spines, between outer angle of orbital notch and anterolateral spine. Lateral margin of carapace, between postcervical groove and posterior margin, with 13–16 spines ..... *Polycheles euthrix* (Bate)

30. Mid-dorsal carina of carapace, between rostral spines and cervical groove, with spine formula 1,1,2,1 31

—— Mid-dorsal carina of carapace, between rostral spines and cervical groove, with spine formula 1,2,1 ..... *Stereomastis sculpta* (Smith)

31. Dorsal carinae of abdominal segments 1 to 5 produced into an anteriorly projecting hook 32

—— Dorsal carinae of abdominal segments 1 to 4 produced into an anteriorly projecting hook ..... *Stereomastis phosphorus* (Alcock)

32. Anterior margin of carapace with small spine at inner angle of orbital notch ..... *Stereomastis andamanensis* (Alcock)

—— Anterior margin of carapace without spine at inner angle of orbital notch 33

33. Anteroventral margin of second abdominal pleuron broadly rounded ..... *Stereomastis nana* (Smith)

—— Anteroventral margin of second abdominal pleuron excavate ..... *Stereomastis helleri* (Bate)

ACKNOWLEDGMENTS. We thank Dr D.D. Francois (formerly of New South Wales State Fisheries), his staff, particularly Mr Ken Graham, and the crew of the FRV *Kapala* for kindly making material available for study. Mr Peter Davie (Queensland Museum) made available collections from Queensland waters and Dr Ray George (formerly Western Australian Museum) loaned material of *Linuparus sordidus* for study. Mr Greg Millen and Ms Heather McLennan (formerly Australian Museum) and Mr Roger Springthorpe (Australian Museum) took the photographs and colour slides of fresh specimens upon which the colour descriptions are based. Ms Charlotte Short (formerly Australian Museum) completed the drawings and Dr Penny Berents, Mrs Helen Tranter and other staff of the Australian Museum assisted in preparation of the manuscript.

Special thanks are due to Drs R.W. George, R.B. Manning (Smithsonian Institution, Washington), L.B. Holthuis (Nationaal Natuurhistorisch Museum, Leiden) and J.K. Lowry (Australian Museum, Sydney) for their useful comments on the manuscript.

References

Alcock, A.W., 1894a. Natural history notes from H.M. Indian Marine Survey Steamer 'Investigator', Commander R.F. Hoskyn, R.N., commanding. —Series II, No. 1. On the results of deep-sea dredging during the season 1890–91 (continued). Annals and Magazine of Natural History, Series 6, 13: 225–245.

Alcock, A.W., 1894b. Illustrations of the Zoology of the Royal Indian Marine Surveying Steamer *Investigator*, under the command of Commander A. Carpenter, R.N., D.S.O., of the late Commander R.F. Hoskyn, R.N., and of Commander C.F. Oldham, R.N. Crustacea. Part II. pl. 8. Government Printer, Calcutta.

Alcock, A.W., 1901. A Descriptive Catalogue of the Indian Deep-sea Crustacea Decapoda Macrura and Anomala, in the Indian Museum. Being a revised account of the deep-sea species collected by the Royal Indian Marine Survey Ship *Investigator*. Pp. 1–286, i–iv, pls 1–3. Trustees of the Indian Museum, Calcutta.

Alcock, A.W., & A.R. Anderson, 1894. Natural history notes from H.M. Indian Marine Survey Steamer 'Investigator', Commander C.F. Oldham, R.N., commanding. Series II, No. 14. An account of a recent collection of deep sea Crustacea from the Bay of Bengal and Laccadive Sea. Journal of the Asiatic Society of Bengal 63(2): 141–185, pl. 9.

Alcock, A.W., & A.R.S. Anderson, 1895. Illustrations of the Zoology of the Royal Indian Marine Surveying Steamer *Investigator*, under the command of Commander A. Carpenter, R.N., D.S.O., of the late Commander R.F. Hoskyn, R.N., and of Commander C.F. Oldham, R.N. Crustacea. Part III. pls 9–15. Government Printer, Calcutta.

Alcock, A.W., & A.R.S. Anderson, 1899. Natural history notes from H.M. Royal Indian Marine Survey Ship "Investigator", Commander T.H. Heming, R.N., commanding. —Series III, No. 2. An account of the deep-sea Crustacea dredged during the surveying-season of 1897–98. Annals and Magazine of Natural History, Series 7, 3: 278–292.

Alcock, A. & A.F. McArdle, 1903. Illustrations of the Zoology of the Royal Indian Marine Survey Ship *Investigator*, under the command of Commander T.H. Heming, R.N. Crustacea, Part 10, pls. 60–67.

Anderson, A.R.S., 1896. Natural history notes from the R.I.M. Survey Steamer 'Investigator', Commander C.F. Oldham, R.N., commanding. Series II, No. 21. An account of the deep sea Crustacea collected during the season 1894–95. Journal of the Asiatic Society of Bengal 65(2): 88–106.

Anonymous, 1984. Biology of Metanephrops species. Australian Fisheries 43(8): 46–47.

Baba, K., K.-I. Hayashi & M. Toriyama, 1986. Decapod Crustaceans from Continental Shelf and Slope Around Japan. Japan Fisheries Resource Conservation Association, Tokyo. 336 pp.

Bage, F., 1938. Crustacea Decapoda (Natantia and Reptantia in part). Australasian Antarctic Expedition 1911–14. Scientific Reports, Series C, 2 (6): 5–13, pl. 4.

Balss, H., 1925. Macrura der Deutschen Tiefsee-Expedition. 1. Palinura, Astacura and Thalassinidea. Wissenschaftliche Ergebnisse der Deutschen Tiefsee-Expedition auf dem Dampfer "Valdivia" 1898–1899, 20: 185–216, pls 18, 19.

Barnard, K.H., 1950. Descriptive catalogue of South African Decapod Crustacea. Annals of the South African Museum 38: 1–837.

Barnard, K.H., 1964. The work of the s.s. Pieter Faure in Natal waters, with special reference to the Crustacea and Mollusca; with descriptions of new species of Mollusca from Natal. Annals of the Natal Museum 16: 9–29.

Bate, C.S., 1878. On the *Willemoesia* group of Crustacea. Annals and Magazine of Natural History, series 5, 2: 273–283, pl. 13.

Bate, C.S., 1888. Report on the Crustacea Macrura collected by H.M.S. *Challenger* during the years 1873–76. Report on the Scientific Results of the Voyage of H.M.S. Challenger during the Years 1873–76, Zoology, 24: 1–942, pls 1–150.

Bernard, F., 1953. Decapoda Eryonidae. (*Eryoneicus* et *Willemoesia*). The Carlsberg Foundation's oceanographical expedition around the world 1928–30 and previous "Dana" expeditions, under the leadership of the late Professor Johannes Schmidt. Dana Reports 37: 1–93.

Berry, P.F., 1969. Rediscovery of the spiny lobster *Puerulus carinatus* Borradaile (Decapoda, Palinuridae). Crustaceana 17(3): 239–252, pls 1–3.

Berry, P.F. & R.W. George, 1972. A new species of the genus *Linuparus* (Crustacea, Palinuridae) from south-east Africa. Zoologische Mededelingen, Leiden 46(2): 17–23, pls 1,2.

Bonde, C. von, 1932. Report no. 9 for the year ending December 1931. Union of South Africa, Fisheries and Marine Biological Survey, Report 9: 4–128, charts 1–8.

Bonde, C. von & J.M. Marchand, 1935. The natural history and utilization of the Cape Crawfish, Kreef, or Spiny Lobster, Jasus (Palinurus) lalandii (Milne Edwards) Ortmann. Union of South Africa, Fishery Bulletin 1: 1–55, pls 1–8.

Borradaile, L.A., 1910. Penaeidea, Stenopidea, and Reptantia from the western Indian Ocean. Transactions of the Linnean Society of London, Series 2, Zoology, 13: 257–264, pl. 16.

Bouvier, E.L., 1917. Crustacés Décapodes (Macroures marcheurs) provenant des campagnes des yachts *Hirondelle* et *Princesse-Alice* (1885–1915). Résultats des Campagnes Scientifiques accompliés sur son yacht par Albert Ier, Prince Souverain de Monaco, 50: 1–140, pls 1–11.

Bouvier, E.L., 1925. Reports on the results of dredging under the supervision of Alexander Agassiz, in the Gulf of Mexico (1877–78), in the Caribbean Sea (1878–79), and along the Atlantic coast of the United States (1880), by the U.S. Coast Survey Steamer "Blake", Lieut.-Com. C.D. Sigsbee, U.S.N., and Commander J.R. Bartlett, U.S.N., commanding. XLVIII. Les macroures marcheurs. Memoirs of the Museum of Comparative Zoology, Harvard 47(5): 401–472, pls 1–11.

Bremner, H.A., 1985. CSIRO food researchers look at scampi. Australian Fisheries 44(3): 39–43.

Bruce, A.J., 1965a. On a new species of *Nephrops* (Decapoda, Reptantia) from the South China Sea. Crustaceana 9(3): 274–284.

Bruce, A.J., 1965b. A new species of the genus *Linuparus* White, from the South China Sea (Crustacea Decapoda). Zoologische Mededelingen, Leiden 41(1): 1–13, pls 1–2.

Bruce, A.J., 1966a. *Nephrops australiensis* sp. nov., a new species of lobster from northern Australia (Decapoda Reptantia). Crustaceana 10(3): 245–258, pls 25–27.

Bruce, A.J., 1966b. *Nephrops sinensis* sp. nov., a new species of lobster from the South China Sea. Crustaceana 10: 155–166.

Bruce, A.J., 1966c. *Hymenopenaeus halli* sp. nov., a new species of penaeid prawn from the South China Sea (Decapoda, Penaeidae). Crustaceana 11(2): 216–224.

Bruce, A.J., 1974. The occurrence of the nephropid lobster *Acanthacaris tenuimanus* Bate, in the southern South China Sea. Crustaceana 27(3): 303–305.

Bruce, A.J., 1988a. *Thaumastochelopsis wardi*, gen. et sp. nov., a new blind deep-sea lobster from the Coral Sea (Crustacea: Decapoda: Nephropidea). Invertebrate Taxonomy 2: 903–914.

Bruce, A.J., 1988b. Capture of a female living-fossil lobster *Neoglyphea inopinata* in the Arafura Sea. Search 19(4): 217–218.

Burukovsky, R.N. & Y.I. Musij, 1976. [*Acanthacaris opipara* Burukovsky & Musij, sp. n., a new abyssal lobster (Crustacea, Decapoda, Neophoberinae).] Zoologicheskii Zhurnal 55(12): 1811–1815. (in Russian).

Calman, W.T., 1909. The genus *Puerulus*, Ortmann, and the post-larval development of the spiny lobsters (Palinuridae). Annals and Magazine of Natural History, series 8, 3: 441–446.

Calman, W.T., 1925. On macrurous decapod Crustacea collected in South African waters by the S.S. "Pickle". Report of the Fisheries and Marine Biological Survey, Union of South Africa 4(3): 1–22, pls 1–4.

Carter, D., J.G.H. Maxwell & C. Bowtell, 1983. 'Cautious optimism' over potential for scampi fishery on NW shelf. Australian Fisheries 42(11): 2–12.

Chan, T.Y. & H.P. Yu, 1987. *Metanephrops formosanus* sp. nov., a new species of lobster (Decapoda, Nephropidae) from Taiwan. Crustaceana 52(2): 172–186.

Chan, T.Y. & H.P. Yu, 1989a. A deep-sea lobster of the genus *Puerulus* (Crustacea: Decapoda: Palinuridae) from Taiwan. Bulletin, Institute of Zoology, Academia Sinica 28(1): 1–6.

Chan, T.Y. & H.P. Yu, 1989b. Two blind lobsters of the genus *Polycheles* (Crustacea: Decapoda: Eryonoidea) from Taiwan. Bulletin, Institute of Zoology, Academia Sinica 28(3): 165–170.

Chan, T.Y. & H.P. Yu, 1989c. Occurrence of a rare spiny lobster *Linuparus sordidus* Bruce, 1965 (Crustacea: Decapoda: Palinuridae) in Taiwanese waters. Bulletin, Institute of Zoology, Academia Sinica 28(4): 289–293.

Chan, T.Y. & H.P. Yu, 1991. Studies on the *Metanephrops japonicus* group (Decapoda, Nephropidae), with descriptions of two new species. Crustaceana 60(1): 18–43, pls 1–8.

Davis, T.L.O. & T.J. Ward, 1984. CSIRO finds two new scampi grounds off the North West Shelf. Australian Fisheries 43(8): 41–45.

Dell, R.K., 1955. A record of *Latreillopsis petterdi* Grant (Crustacea, Brachyura) from New Zealand, with notes on some other species of Crustacea. Records of the Dominion Museum, Wellington 2(3): 147–149.

Fabricius, J.C., 1775. Systema entomologiae, sistens insectorum classes, ordines, genera, species, adiectis synonymis, locis, descriptionibus, observationibus. Flensburg and Leipzig, 832 pp.

Faxon, W., 1893. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California, in charge of Alexander Agassiz, carried on by the U.S. Fish Commission Steamer "Albatross", during 1891, Lieut.-Commander Z.L. Tanner, U.S.N., commanding. VI Preliminary descriptions of new species of Crustacea. Bulletin of the Museum of Comparative Zoology at Harvard College 24(7): 149–220.

Faxon, W., 1895. Reports on an exploration off the west coasts of Mexico, Central and South America and off the Galapagos Islands, in charge of Alexander Agassiz, by the U.S. Fish Commission Steamer "Albatross", during 1891, Lieut.-Commander Z.L. Tanner, U.S.N., commanding. XV. The Stalk-eyed Crustacea. Memoirs of the Museum of Comparative Zoology at Harvard College 18: 1–292, pls A–K, 1–57.

Firth, R.W. & W.E. Pequegnat, 1971. Deep-sea lobsters of the families Polychelidae and Nephropidae (Crustacea, Decapoda) in the Gulf of Mexico and Caribbean Sea. Texas A & M University, Texas. (mimeographed) pp. i–viii, 1–103.

Forest, J., 1989. Sur la découverte de *Neoglyphea inopinata* Forest et de Saint Laurent en mer de Timor (Crustacea Decapoda, Glypheidae). Bulletin du Muséum National d'Histoire Naturelle, Paris, Series 4, Section A, 11(2): 469–471.

Forest, J. & M. de Saint Laurent, 1975. Présence dans la faune actuelle d'un représentant du groupe mésozoïque des Glyphéidée: *Neoglyphea inopinata* gen. nov., sp. nov. (Crustacea Decapoda Glypheidae). Comptes Rendu Hebdomadaires des Séances de l'Academie des Sciences, Paris, D, 283: 935–938.

George, R.W., 1976. A new species of spiny lobster, *Projasus bahamondei* (Palinuridae "Silentes"), from the south east Pacific region. Crustaceana 30(1): 27–32, pl. 1.

George, R.W., 1983. New finds of deepwater "lobsters" on the Northwest Shelf. Fins 16(1): 16–20.

George, R.W. & A.R. Main, 1967. The evolution of spiny lobsters (Palinuridae): A study of evolution in the marine environment. Evolution 21(4): 803–820.

George, R.W. & D.J.G. Griffin, 1972. The shovel nosed lobsters of Australia. Australian Natural History 17: 227–231.

George, R.W. & J.R. Grindley, 1964. *Projasus*—a new generic name for Parker's crayfish, *Jasus parkeri* Stebbing (Palinuridae: "Silentes"). Journal of the Royal Society of Western Australia 47: 87–90.

Gibbes, L.R., 1850. On the carcinological collections of the cabinets of natural history in the United States. With an enumeration of the species contained therein, and descriptions of new species. Proceedings of the American Association for the Advancement of Science 3: 165–201.

Gilchrist, J.D.F., 1918. The Cape lobster and the Cape crawfish or spiny lobster. Province of the Cape of Good Hope, Marine Biological Report 4: 44–53, pls 1–2.

Gore, R.H., 1984. Abyssal lobsters, genus *Willemoesia* (Palinura, Polychelidae), from the Venezuela Basin, Caribbean Sea. Proceedings of the Academy of Natural Sciences of Philadelphia 136: 1–11.

Grant, F.E., 1905. Crustacea dredged off Port Jackson in deep water. Proceedings of the Linnean Society of New South Wales 30(2): 312–324, pls 10, 11.

Griffin, D.J.G. & D.E. Brown, 1976. Deepwater decapod Crustacea from eastern Australia: brachyuran crabs. Records of the Australian Museum 30: 248–271.

Grote, 1873. Nature 8: 485.

Haan, W. De, 1833–1850. Crustacea. **In** P.F. von Siebold, Fauna Japonica sive descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava Imperium tenent, suscepto, annis 1823–1830 collegit, notis, observationibus et adumbrationibus illustravit. J. Muller, Amsterdam. Pp. ix–xvi, vii–xvii, i–xxxi, 243, pls. 1–55, A–Q, (2).

Hale, H.M., 1941. Decapod Crustacea. Reports of the British Australian New Zealand Antarctic Research Expedition 1929–31, Series B, 4(9): 257–286, pl. 3.

Hansen, H.J., 1908. Crustacea Malacostraca. I. Danish Ingolf-Expedition 3(2): 1–120, pls 1–5.

Harada, E., 1980. *Puerulus angulatus* from the waters of Kii Peninsula, Japan. Publications of the Seto Marine Biological Laboratory 25: 243–251.

Hayashi, K.-I. & Y. Ogawa, 1985. A new record of *Acanthacaris tenuimana* Bate (Decapoda, Nephropidae) from the Japanese waters. Crustaceana 49(2): 220–223.

Heller, C., 1862. Beitrage zur naheren Kenntnis der Macrouren. Sitzungsberichte der Akademie Wissenschsften, Mathematisch-Naturwissenschaftliche Classe, Wien. 45(1): 389–426, 2 pls.

Holthuis, L.B., 1946. The Decapoda Macrura of the Snellius Expedition. I. The Stenopodidae, Nephropidae, Scyllaridae and Palinuridae. (Biological Results of the Snellius Expedition. XIV). Temminckia 7: 1–178, pls 1–11.

Holthuis, L.B., 1952a. Crustaces Decapodes Macrures. Résultats Scientifiques, Expédition Océanographique Belge dans les Eaux Côtières Africaines de l'Atlantique Sud (1948–1949) 3(2): 1–88.

Holthuis, L.B., 1952b. Reports of the Lund University Chile Expedition 1948–49. 5. The Crustacea Decapoda Macrura of Chile con resumen en Español. Lunds Universitets Årsskrift, New Series 2, 47(10): 1–110.

Holthuis, L.B., 1960. Preliminary descriptions of one new genus, twelve new species and three new subspecies of scyllarid lobsters (Crustacea Decapoda Macrura). Proceedings of the Biological Society of Washington 73: 147–154.

Holthuis, L.B., 1963. Preliminary descriptions of some new species of Palinuridea (Crustacea Decapoda, Macrura Reptantia). Koninklijke Nederlandse Akademie van Wetenschappen, Proceedings, Section C, 66(1): 54–60.

Holthuis, L.B., 1964. On some species of the genus *Nephrops* (Crustacea Decapoda). Zoologische Mededelingen, Leiden 39: 71–78.

Holthuis, L.B., 1966. On spiny lobsters of the genera *Palinurellus*, *Linuparus* and *Puerulus* (Crustacea Decapoda, Palinuridae). Proceedings of the Symposium on Crustacea, Marine Biological Association of India Symposium, Series 2, 1: 260–278.

Holthuis, L.B., 1975. Biological results of the University of Miami Deep-Sea Expeditions. 106. The lobsters of the superfamily Nephropidea of the Atlantic Ocean (Crustacea: Decapoda). Bulletin of Marine Science 24(4): 723–884.

Holthuis, L.B., 1977. Two new species of scyllarid lobsters (Crustacea Decapoda, Palinuridea) from Australia and the Kermadec Islands, New Zealand. Zoologische Mededelingen, Leiden. 52: 191–200, 2 pls.

Holthuis, L.B., 1985. A revision of the family Scyllaridae (Crustacea: Decapoda: Macrura). I. Subfamily Ibacinae. Zoologische Verhandelingen 218: 1–130.

Holthuis, L.B., 1991. FAO species catalogue. Vol. 13. Marine Lobsters of the World. An annotated and illustrated catalogue of species of interest to fisheries known to date. FAO Fisheries Synopsis, No. 125, Volume 13. FAO, Rome. 292 pp.

Holthuis, L.B. & T. Sakai, 1970. Ph. F. Von Siebold and Fauna Japonica—A History of Early Japanese Zoology. Academic Press of Japan, Tokyo. 323 pp., 32 pls.

Jenkins, R.J.F., 1972. *Metanephrops*, a new genus of late Pliocene to Recent lobsters (Decapoda, Nephropidae). Crustaceana 22(2): 161–177, pls 1,2.

Kemp, S. & R.B.S. Sewell, 1912. Notes on Decapoda in the Indian Museum. III. The species obtained by R.I.M.S.S. "Investigator" during the survey season 1910–11. Records of the Indian Museum 7: 15–32, pl. 1.

Kensley, B., H.A. Tranter & D.J.G. Griffin, 1987. Deepwater decapod Crustacea from eastern Australia (Penaeidea and Caridea). Records of the Australian Museum 39(5): 263–331.

Kensley, B.F., 1968. Deep sea decapod Crustacea from west of Cape Point, South Africa. Annals of the South African Museum 50 (12): 283–323.

Kensley, B.F., 1981. On the zoogeography of southern African decapod Crustacea, with a distributional checklist of the species. Smithsonian Contributions to Zoology 338: 1–64.

King, M.G., 1988. Deep-water benthic organisms caught near Madang, Papua New Guinea. Science in New Guinea 14(2): 107–110.

Kubo, I., 1939. A new species of lobster, *Puerulus gracilis*. Bulletin of the Japanese Society of Scientific Fisheries 7: 316–418.

Leach, W.E., 1815. The zoological miscellany: being descriptions of new, or interesting animals. 2: 1–154, pls 61–120.

Lewinsohn, C. & L.B. Holthuis, 1964. New records of decapod Crustacea from the Mediterranean coast of Israel and the eastern Mediterranean. Zoologische Mededelingen, Leiden 40(8): 45–63.

Macpherson, E., 1990. Crustacea Decapoda: On a collection of Nephropidae from the Indian Ocean and Western Pacific. **In** A. Crosnier (ed.). Résultats des Campagnes MUSORSTOM, Volume 6. Memoires du Museum National d'Histoire Naturelle, Paris (A) 145: 289–328.

Macpherson, E., 1993. New records for the genus *Nephropsis* Wood-Mason (Crustacea, Decapoda, Nephropidae) from northern Australia, with the description of two new species. The Beagle, Records of the Northern Territory Museum of Arts and Sciences 10(1): 55–66.

Man, J.G. de, 1916. The Decapoda of the Siboga Expedition. Part III. Families Eryonidae, Palinuridae, Scyllaridae and Nephropsidae. Siboga-Expeditie Monograph, 39 A2: 1–122, pls 1–4.

McNeill, F.A., 1949. Two crustacean oddities. Australian Museum Magazine 9(10): 337–339.

McNeill, F.A., 1953. Carcinological notes No. 2. Records of the Australian Museum 23(3): 89–96, pl. 7.

McNeill, F.A., 1956. A "barking" crayfish. Australian Museum Magazine 12: 52–53.

Melville-Smith, R., 1990. A first record of *Projasus parkeri* (Stebbing, 1902) (Decapoda, Palinuridae) in the Atlantic Ocean. Crustaceana 59(3): 314–316.

Milne Edwards, A., 1880. Reports on the reults of dredging under the supervision of Alexander Agassiz, in the Gulf of Mexico, and in the Caribbean Sea, 1877, '78, '79, by the U.S. Coast Survey Steamer "Blake", Lieut.—Commander C.D. Sigsbee, U.S.N., and Commander J.R. Bartlett, U.S.N., commanding. VIII. Études préliminaires sur les Crustacés. 1ere partie. Bulletin of the Museum of Comparative Zoology, Harvard 8: 1–68, pls 1,2.

Ng, K.L.P, 1992. New records of the spear lobsters *Linuparus somniosus* Berry & George, 1972, and *L. trigonus* (von Siebold, 1824) (Crustacea: Decapoda: Palinuridae) from the Straits of Malacca and Vietnam respectively. Raffles Bulletin of Zoology 40(2): 179–185.

Norman, A.M., 1882. Report on the Crustacea. **In** R.N. Tizard & J. Murray (eds). Exploration of the Faroe Channel during the summer of 1880. Proceedings of the Royal Society of Edinburgh 11: 683–689.

Ortmann, A., 1891. Die Decapoden-Krebse des Strassburger Museums, mit besonderer Berücksichtigung der von Herrn Dr. Döderlein bei Japan und den Liu-Kiu-Inseln gesammelten und z. Z. im Strassburger Museum aufbewahrten Formen. III. Theil. Die Abteilungen der Reptantia Boas: Homaridea, Loricata und Thalassinidea. Zoologische Jahrbücher Abtheilung für Systematik, Geographie und Biologie der Thiere. 6(1): 1–58, pl. 1.

Ortmann, A., 1897. On a new species of the palinurid genus *Linuparus* found in the upper Cretaceous of Dakota. American Journal of Science, Series 4, 4: 290–297.

Phillips, B.F., P.A. Brown, D.W. Rimmer & S.J. Braine, 1981. Description, distribution and abundance of late larval stages of the Scyllaridae (slipper lobsters) in the south-eastern Indian Ocean. Australian Journal of Marine and Freshwater Research 32: 417–437.

Powell, A.W.B., 1947. Native animals of New Zealand. Auckland Museum Handbook of Zoology. Unity Press, Auckland. 99 pp.

Prasad, R.R. & P.R.S. Tampi, 1969. On the distribution of palinurid and scyllarid lobsters in the Indian Ocean. Journal of the Marine Biological Association of India 10(1): 78–87.

Ramadan, M., 1938. The Astacura and Palinura. John Murray Expedition 1933–34, Scientific Reports 5(5): 123–145.

Rathbun, M.J., 1906. The Brachyura and Macrura of the Hawaiian Islands. Bulletin of the United States Fish Commission 23: 827–930, i–viii, pls 1–24.

Selbie, C.M., 1914. The Decapoda Reptantia of the coasts of Ireland. Part I. Palinura, Astacura, and Anomaura (except Paguridea). Department of Agriculture and Technical Instruction for Ireland. Fisheries Branch. Scientific Investigations 1914: 1–116, pls 1–15.

Siebold, Ph.F. von, 1824. De historiae naturalis in Japonia statu, nec non de augmento emolumentisque in decursu perscrutationum expectandis dissertatio, cui accedunt Spicilegia Faunae Japonicae, pp. 1–16. Edition published in Batavia.

Silvertsen, E. & L.B. Holthuis, 1956. Crustacea Decapoda (the Penaeidae and Stenopodidae excepted). Report on the Scientific Results of the *Michael Sars* North Atlantic Deep Sea Expedition, 1910, 5(12): 1–54, 4 pls.

Smith, S.I., 1880a. Notice of a new species of the 'Willemoesia group of Crustacea' (recent Eryontidae). Proceedings of the United States National Museum 2: 345–353, pl. 7.

Smith, S.I., 1880b. On some points in the structure of a species of the "*Willemoesia* group of Crustacea". Annals and Magazine of Natural History, Series 5, 5: 269–273.

Smith, S.I., 1882. Reports on the results of dredging, under the supervision of Alexander Agassiz, on the east coast of the United States, during the summer of 1880, by the U.S. Coast Survey Steamer "Blake", Commander J.R. Bartlett, U.S.N., commanding. XVII. Report on the Crustacea. Part I. Decapoda. Bulletin of the Museum of Comparative Zoology, Harvard 10: 1–108, pls 1–15.

Smith, S.I., 1884. Report on the decapod Crustacea of the *Albatross* dredgings off the east coast of the United States in 1883. United States Commission for Fish and Fisheries, Report of the Commissioner for 1882 10: 345–424, pls 1–10.

Smith, S.I., 1887. Report on the decapod Crustacea of the *Albatross* dredgings off the east coast of the United States during the summer and autumn of 1884. United States Commission for Fish and Fisheries, Report of the Commissioner for 1885 13: 605–701, pls 1–20.

Stebbing, T.R.R., 1902. South African Crustacea. Part II. Marine Investigations in South Africa 2: 1–92, pls 5–16.

Stebbing, T.R.R., 1910. General catalogue of South African Crustacea (Part V of S.A. Crustacea for the Marine Investigations in South Africa). Annals of the South African Museum 6: 281–593, pls 15–22.

Sund, O., 1920. The "Challenger" Eryonidea (Crustacea). Annals and Magazine of Natural History, Series 9, 6: 220–226.

Takeda, M. & Y. Hanamura, 1994. Deep-sea shrimps and lobsters from the Flores Sea collected by the R.V. *Hakuho-Maru* during KH-85-1 cruise. Bulletin of the National Science Museum, Tokyo, Series A, 20(1): 1–37.

Tung, Y. & B. Wang, 1985. A new species of Nephropsidea from the deep water of East China Sea. Acta Zootaxonomica Sinica 10(4): 379–380.

Wadley, V. & D. Evans, 1991. Crustaceans from the Deepwater Trawl Fisheries of Western Australia. CSIRO Division of Fisheries, Hobart. 44 pp.

Wallner, B. & B. Phillips, 1988. From scampi to deepwater prawns: developments in the North West Shelf deepwater trawl fishery. Australian Fisheries 47(9): 34–38.

Ward, T.J. & T.L.O. Davis, 1987. Diel periodicity of *Metanephrops australiensis* and other deep-water crustaceans of northwest Australia. Fisheries Research 5: 91–97.

Wassenberg, T.J. & B.J. Hill, 1989. Diets of four decapod crustaceans (*Linuparus trigonus, Metanephrops andamanicus, M. australiensis* and *M. boschmai*) from the continental shelf around Australia. Marine Biology 103: 161–167.

Webber, W.R. & J.D. Booth, 1988. *Projasus parkeri* (Stebbing, 1902) (Crustacea, Decapoda, Palinuridae) in New Zealand and description of a *Projasus* puerulus from Australia. National Museum of New Zealand Records 3(8): 81–92.

Wenner, E.L., 1979. Some aspects of the biology of deep-sea lobsters of the family Polychelidae (Crustacea, Decapoda) from the western North Atlantic. United States Department of Commerce, Fishery Bulletin 77(2): 435–444.

White, A., 1847. List of the Specimens of Crustacea in the Collections of the British Museum. British Museum, London, 143 pp.

Willemoes-Suhm, R. von, 1873. *Deidamia leptodactyla*. **In** C.W. Thomson, Notes from the "Challenger". II. Nature 8: 51–53.

Willemoes-Suhm, R. von, 1875. On some Atlantic Crustacea from the "Challenger" Expedition. Transactions of the Linnean Society of London (Zoology), Series 2, 1: 23–59, pls 6–13.

Williams, A.B., 1986. Lobsters—Identification, world distribution, and U.S. trade. Marine Fisheries Review 48(2): 1–36.

Williams, A.B., 1988a. Lobsters of the World—An Illustrated Guide. Lobsters of the World in U.S. Trade. Osprey Books, Huntington, New York, 186 pp.

Williams, A.B., 1988b. Indo-Pacific spiny lobsters in the U.S. National Museum of Natural History collected from 1963 to 1981 (Decapoda, Palinuridea). Crustaceana 55(3): 313–316.

Wood-Mason, J., 1873. On *Nephropsis Stewarti*, a new genus and species of macrurous crustaceans, dredged in deep water off the eastern coast of the Andaman Islands. Annals and Magazine of Natural History, Series 4, 12: 59–63.

Wood-Mason, J., 1892. Illustrations of the zoology of H.M. Indian Marine Surveying Steamer *Investigator*, under the command of Commander A. Carpenter, R.N., D.S.O., and of Commander R.F. Hoskyn, R.N. Crustaceans. Part I. pls 1–5. Government Printer, Calcutta.

Wood-Mason, J. & A. Alcock, 1891. Natural history notes from H.M. Indian Marine Survey Steamer 'Investigator', Commander R.F. Hoskyn, R.N., commanding.—No. 21. Note on the results of the last season's deep-sea dredging. Annals and Magazine of Natural History, Series 6, 7: 186–202.

Yaldwyn, J.C., 1961. A scyllarid lobster, *Arctides antipodarum* Holthuis, new to New Zealand waters. Records of the Dominion Museum, Wellington 4(1): 1–6.

Yamaguchi, T., 1993. A list of species described in the Crustacea volume of Fauna Japonica as belonging to the Japanese Fauna. Pp. 571–598. **In** T. Yamaguchi (ed.). Ph.F. von Siebold and Natural History of Japan. Crustacea. The Carcinological Society of Japan, Tokyo.

Yamaguchi, T. & K. Baba, 1993. Crustacean specimens collected in Japan by Ph.F. von Siebold and H. Bürger and held by the Nationaal Natuurhistorisch Museum in Leiden and other museums. Pp. 145–570. **In** T. Yamaguchi (ed.). Ph.F. von Siebold and Natural History of Japan. Crustacea. The Carcinological Society of Japan, Tokyo.

Zariquiey Alvarez, R. 1968. Crustáceos Decápodos Ibéricos. Investigación Pesquera 32: i–xv, 1–510.

Accepted 24 October, 1995.

Table 1. Geographical distribution of Australian deep-sea lobsters. AO: Atlantic Ocean; IO: Indian Ocean; In: south-east Asia, from South China Sea to Indonesia; WA: western and western southern Australia; EA: eastern and eastern southern Australia; WP: western Pacific Ocean other than eastern Australia; CP: north-central Pacific Ocean; EP: eastern Pacific Ocean.

Geographic region:	AO	IO	In	WA	EA	WP	CP	EP
GLYPHEIDAE								
Neoglyphea inopinata	–	–	×	×	–	–	–	–
NEPHROPIDAE								
Acanthacaris tenuimana	–	×	×	–	×	×	–	–
Metanephrops australiensis	–	–	–	×	–	–	–	–
Metanephrops boschmai	–	–	–	×	–	–	–	–
Metanephrops neptunus	–	–	–	×	–	–	–	–
Metanephrops sibogae	–	–	×	×	×	–	–	–
Metanephrops velutinus	–	–	×	×	×	–	–	–
Nephropsis acanthura	–	×	×	×	×	×	–	–
Nephropsis holthuisi	–	–	–	×	×	–	–	–
Nephropsis serrata	–	–	–	×	–	–	–	–
Nephropsis stewarti	–	×	×	×	–	×	–	–
Nephropsis suhmi	–	×	×	–	×	×	–	–
Nephropsis sulcata	–	×	×	–	×	×	–	–
PALINURIDAE								
Linuparus sordidus	–	–	–	×	×	×	–	–
Linuparus trigonus	–	–	–	×	×	×	–	–
Projasus parkeri	×	×	–	–	×	×	–	–
Puerulus angulatus	–	×	×	×	×	×	–	–
Puerulus velutinus	–	–	×	×	–	–	–	–
POLYCHELIDAE								
Polycheles baccatus	–	–	×	–	×	×	–	–
Polycheles euthrix	–	–	–	–	×	×	–	–
Polycheles granulatus	×	×	–	–	×	×	–	–
Polycheles typhlops typhlops	×	×	–	–	×	×	–	–
Stereomastis andamanensis	–	×	×	–	×	–	–	–
Stereomastis helleri	–	–	–	–	×	×	–	–
Stereomastis phosphorus	–	×	–	×	×	–	×	–
Stereomastis nana	×	–	–	×	–	×	–	–
Stereomastis sculpta	×	–	×	–	×	–	–	–
Stereomastis suhmi	×	–	–	–	×	–	–	×
Willemoesia bonaspei	×	–	–	–	×	–	–	–
SCYLLARIDAE								
Ibacus alticrenatus	–	–	–	×	×	×	–	–
Ibacus ciliatus pubescens	–	–	×	×	–	–	–	–
Ibacus novemdentatus	–	×	×	×	–	×	–	–
Ibacus peronii	–	–	–	×	×	–	–	–
Scyllarus mawsoni	–	–	–	–	×	–	–	–
THAUMASTOCHELIDAE								
Thaumastochelopsis wardi	–	–	–	–	×	–	–	–