Stomatopod Crustacea from the Dampier Archipelago, Western Australia

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Abstract – The stomatopod Crustacea collected principally from the Dampier Archipelago, containing 14 species from four families and nine genera, are reported. Seven species are newly recorded from the Dampier Archipelago and two species, Gonodactylidus dianae and Acanthosquilla melissae, are described as new. Anchisquilla subfasciata (Tate, 1883), previously regarded as a synonym of Anchisquilla fasciata (de Haan, 1844), is removed from synonymy and recognised for all Australian records previously attributed to the latter species.

INTRODUCTION

Recent expeditions to the Dampier Archipelago in 1998 and 1999, coordinated by the Western Australian Museum, resulted in the present collection of shallow water Stomatopoda. Although the Australian Stomatopoda was recently revised (Ahyong, 2001), including material from northwestern Australia, the fauna of the Dampier Archipelago has not been specifically studied. The present series includes 14 species, divided among four families and nine genera. Two new species are described and a third is removed from synonymy.

MATERIALS AND METHODS

Terminology and size descriptors follow Ahyong (2001). Abbreviations: antennule (A1); antenna (A2); abdominal somite (AS); thoracic somite (TS); juvenile (juv.), station (stn). All measurements are in millimetres (mm). Unless otherwise indicated, measurements given for specimens indicate total length (TL), measured along the midline from the tip of the rostrum to the apices of the submedian teeth. Carapace length (CL) is measured along the midline and excludes the rostrum plate. Corneal index (CI) is given as 100CL/cornea width. Synonymies are restricted to regional, primary and major works. Propodal index (PI) is given as 100CL/propodus length. The abdominal-width carapace-length index (AWCL) is given as 1000 times width of AS divided by carapace length. Specimens are deposited in the collections of the Australian Museum, Sydney (AM), the National Natuurhistorisch Museum, Leiden (NNM), the Northern Territory Museum of Arts and Sciences, Darwin (NTM), the South Australian Museum (SAM) and the Western Australian Museum, Perth (WAM).

SYSTEMATICS

Family Gonodactylidae Giesbrecht, 1910

Gonodactylaceus falcatus (Forskal, 1775)
Cancer falcatus Forskal, 1775: 96 [type locality: Djeddah, Red Sea, by neotype selection (Manning and Lewinsohn, 1981)].

Gonodaetylus graphurus.
White, 1847: 85 [part, not G. graphurus Miers, 1875].

Gonodaetylus ehiragara var. mutatus Lanchester, 1903: 450 [type locality: Furnadu Velu, Miladummadulu Atoll, Maldive Is, 6°00'N, 73°10'E].

Gonodaetylus glabrous.

Gonodaetylus aloha Manning and Reaka, 1981a: 190-200, figs. 1-3 [type locality: Oahu, Hawaiian Is].

Gonodaetylus insularis Manning and Reaka, 1982: 347-351, figs. 1, 2 [type locality: Kidreneren L, Enewetak, 11°22'50"N, 162°10'30"E].
Gonodactylus takedai Moosa, 1989: 227, fig. 1 [type locality: Miyanohama, Chichi-jima, Ogasawara ls].

Gonodactylus gravieri Manning, 1995: 42, 43, 46-48, fig. 13 [type locality: Poulo Condore, Vietnam].


Material examined


Remarks

In the adult specimens, the median carinule on AS6 is present but low. Gonodactylus falcatus was reported from northwestern Australia by Ahyong (2001), although the present records are the first for the Dampier Archipelago.

Distribution

Widely distributed in the Indo-West Pacific, from the Red Sea to Australia, New Caledonia, Indonesia, the South China Sea to Japan and Hawaii (Ahyong, 2001).

Gonodactylus graphurus (Miers, 1875)

Gonodactylus graphurus White, 1847: 85 [nomen nudum].


Material examined


Remarks

Gonodactylus graphurus was reported from the Dampier Archipelago by Ahyong (2001). The transverse abdominal grooves, diagnostic for the species, are developed in all specimens. In the 14
mm female (WAM C 25775), the anterolateral corners of the rostral plate are rounded instead of angular, and the median carinule on A56 is undeveloped instead of distinct, features related to its small size.

**Distribution**

Tropical Australia, Southern Indonesia and New Hebrides (Ahyong, 2001).

Gonodactylellus affinis (de Man, 1902)

Gonodactylus chiragra var. affinis de Man, 1902: 912 [type locality: Ternate, Molucca Is., Indonesia, 0°48'N, 120°20'E].

Gonodactylus chiragra var. confinis de Man, 1902: 912, pi. 27, fig. 66 [type locality: Ternate, Molucca Is., Indonesia, 0°48'N, 120°20'E].

Gonodactylus chiragra var. segregatus Lanchester, 1903: 448, pi. 23, figs. 6, 7 [type locality: Minikoi, Laccadive Is., restricted by lectotype designation (Ahyong, 2001)].


**Material examined**

Western Australia, Dampier Archipelago. WAM C 27591 (1 male, 11 mm), stn DA3/99/21, Eaglehawk Is. (20°38.98'S, 116°26.21'E), 2.0-3.0 m, 03.09.1999.

**Remarks**

Ahyong (2001) reported G. affinis from the Dampier region. In the present series, sexual dimorphism in the degree of telson inflation resembles that reported by Moosa and Cleva (1984a) and Ahyong (2001). The posterior spine on the median carina of the telson is present on all individuals, though the posterior spine on the accessory median and anterior submedian carinae is present only in specimens exceeding 10 mm TL. An incipient granule is usually evident on the posterior margin of the accessory median carina of specimens of 10 mm TL or smaller. In several adult specimens, the posterior spines on the accessory median and anterior submedian carinae are indicated by a shallow pit, having probably been damaged in agonistic encounters.

**Distribution**

Western Pacific Ocean to the Philippines, Macclesfield Bank, South China Sea, Vietnam, Thailand, Indonesia and Australia (Ahyong, 2001).

Gonodactylellus rubriguttatus Erdmann and Manning, 1998


**Material examined**

Western Australia, Dampier Archipelago. WAM C 27591 (1 male, 11 mm), stn DA3/99/21, Eaglehawk Is. (20°38.98'S, 116°26.21'E), 2.0-3.0 m, 03.09.1999.

**Remarks**

Gonodactylellus rubriguttatus was reported from northwestern Australia, as far south as the Abrolhos Islands (Ahyong, 2001). The petasma is well developed in the single specimen examined.

**Distribution**

Indonesia, Australia, and New Caledonia (Ahyong, 2001).
**Gonodactylellus dianae sp. nov.**

Figure 1

**Gonodactylellus snidvongsi.**—Ahyong, 2001: 61–63, fig. 30.—Ahyong and Davie, 2002: 46 [misspelling; Australian specimen, not G. snidvongsi (Naiyanetr, 1987)].

**Material examined**

**Holotype**

Western Australia, Dampier Archipelago. WAM C 27599 (male, 19 mm), stn DA3 (precise station uncertain).

**Paratypes**

Western Australia. WAM C 25414 (1 female, 9 mm), stn DA1/98/06, Haiy I. (20°25.723'S, 116°57.580'E), low relief limestone pavement with shallow sandy gullies, few loose rocks, very little coral cover, very silty, 19.10.1998; WAM C 25620 (2 juveniles, 10–12 mm), stn DA1/98/09, Haiy I. (20°28.692'S, 116°47.950'E), 2–3 m, limestone platform with sand cover and protruding pavement, scattered flat rocks, patchy algal growth, strong current and surge, 20.10.1998; WAM C 29365 (1 juvenile, 8 mm), stn DA1/98/09, Haiy I. (20°28.692'S, 116°47.950'E), 2–3 m, 20.10.1998; NTM (1 male, 11 mm), Pt Samson (20°38'S, 117°11'E), shore reef, 09.02.1988.

**Diagnosis**

Ocular scales low, fused, anterior margin transverse. Rostral plate with transverse or slightly concave anterior margins; anterolateral corners angular; lateral margins divergent anteriorly; median spine longer than base. Mandibular palp 2-segmented. Raptorial claw dactylus with proximal notch. AS6 with posterolateral spine. Telson with spiniform submedian denticles; intermediate teeth slender, elongate, apices extending posteriorly well beyond midlength of submedian teeth; lateral teeth sharp, projecting well off margin of telson. Telson median carina and accessory median carinae, together with a group of 6 posterior spines in adults (2 spines on median, lower longest; 2 spines on each accessory median); anterior submedian carina flanked by low rounded carina and terminating in 2 distal conical spines, upper largest; submedian tooth with 2 large, conical, dorsal spines in transverse row, outer spine longer than half length of tooth; intermediate tooth with large, conical, dorsal spine, longer than half length of tooth; knob absent; submedian and intermediate teeth with ventral carina. Uropodal protopod terminal spines with length subequal; upper proximal surface with obtuse swelling behind dorsal carina. Uropodal exopod proximal segment outer margin with 9–11 (usually 10) movable spines, distal-most slightly exceeding apex of distal segment; inner margin smooth, non-setose; distal margin with ventral spine; exopod distal segment with outer margin setose, inner margin smooth, non-setose. Uropodal endopod length 2.48–2.87 breadth; distal half of outer margin setose, remainder smooth, non-setose.

**Description**

Eyes elongate; cornea subconical. Ocular scales low, fused, anterior margin transverse. A1 peduncle length 0.61–0.68 CL. Dorsal and ventral distal teeth of A2 protopod with acute apices; scale length 0.38–0.44 CL. Rostral plate as long as or slightly longer than broad; basal portion with transverse or slightly concave anterior margins; anterolateral corners angular except in juveniles 10 mm TL or smaller; lateral margins divergent anteriorly; median spine longer than base, laterally flattened, with obtusely angular ventral keel. Raptorial claw dactylus with proximal notch; propodus with proximal movable spine, opposable margin sparsely pectinate proximally. Mandibular palp 2-segmented. Maxillipeds 1–5 with epipod. TS6–7 lateral processes subequal to or slightly broader than that of TS6; lower margins subtruncate. TS8 anterior lateral margin unarmored. AWCLI 792–846. Submedian, intermediate and lateral bosses of AS6 with posterior spine. Telson slightly broader than long; with 10–14 spiniform submedian denticles; intermediate teeth slender, elongate, apices extending posteriorly well beyond midlength of submedian teeth; lateral teeth with sharp apex, projecting well off margin of telson, indicated by a wide, V-shaped notch. Telson median carina tumid in males, but not obscuring accessory median carinae, together with a group of 6 posterior spines in adults (2 spines on median, lower longest; 2 spines on each accessory median); anterior submedian carina flanked by low rounded carina and terminating in 2 distal conical spines, upper largest; submedian tooth with 2 large, conical, dorsal spines in transverse row, outer spine longer than half length of tooth; intermediate tooth with large, conical, dorsal spine, longer than half length of tooth; knob absent; submedian and intermediate teeth with ventral carina. Uropodal protopod terminal spines with length subequal; upper proximal surface with obtuse swelling behind dorsal carina. Uropodal exopod proximal segment outer margin with 9–11 (usually 10) movable spines, distal-most slightly exceeding apex of distal segment; inner margin smooth, non-setose; distal margin with ventral spine; exopod distal segment with outer margin setose, inner margin smooth, non-setose. Uropodal endopod length 2.48–2.87 breadth; distal half of outer margin setose, remainder smooth, non-setose.

**Colour in alcohol**

Faded to dull green; with scattered black spots on median surface of TS6, AS1, 4 and 5.

**Measurements of the holotype**

TL 19 mm, CL 3.60 mm, A1 peduncle length 2.30 mm, A2 scale length 1.50 mm, AS5 width 2.85 mm.
Figure 1  *Gonodactylellus dianae* sp. nov., Dampier Archipelago. A–L, male holotype TL 19 mm (WAM C 27599); M, N, male paratype TL 10 mm (WAM C 25620); O, P, male paratype TL 12 mm (WAM C 25620). A, anterior; B, ocular scales; C, eyes, right lateral view; D, rostral plate, right lateral view; E, right A2 protopod; F, right raptorial claw, lateral view; G, T5–8, right lateral view; H, A5–6, telson and uropod; I, left uropod, ventral view; J, telson, right lateral view; K, telson, ventral view; L, right pleopod endopod, anterior view; M, O, telson; N, P, rostral plate. Scale A–D, F–K, M–P = 1.0 mm. E, I = 0.5 mm.
Etymology

Named for Diana Jones, Western Australian Museum, for her central role in coordinating the study of the Dampier marine fauna.

Remarks

_Gonodactylellus dianaë_ sp. nov. (Figure 1) most closely resembles _G. snidvongsi_ (Naiyanet, 1987) (Figure 2, type locality: Ko Kangkao, Chonburi Province, Thailand) differing in subtle aspects of the ocular scales, telson shape and spination. The ocular scales in adult _Gonodactylellus dianaë_ are fused medially with a transverse margin, whereas in _G. snidvongsi_, the ocular scales, whilst low, are separated by a shallow but distinct emargination. The telson of _G. dianaë_ has a less triangular general outline than _G. snidvongsi_ owing to the proportionally more elongate and more slender primary teeth (compare Figures 1H, K and Figure 2C). Notably, the apices of the lateral teeth on the telson of _G. dianaë_ reach posteriorly to a level slightly beyond the base of the sinus between the submedian teeth. In contrast, the apices of the lateral teeth in _G. snidvongsi_ fall distinctly short of the sinus between the submedian teeth. The most obvious differences between adult _G. dianaë_ and _G. snidvongsi_, however, are in overall telson spination, in which the dorsal spines are larger but fewer in number in the new species. In _G. dianaë_ the submedian primary teeth of the telson bear two proximal dorsal teeth, of which the outer exceeds half the length of the submedian tooth. In _G. snidvongsi_ of 16 mm or larger, a cluster of occasionally two, but usually three or more spines is present at the base of each submedian primary tooth; none of the dorsal spines approach half the length of the submedian primary teeth. Similarly, the single dorsal spine on the anterior intermediate carina in _G. dianaë_ exceeds half the length of the intermediate primary tooth. In _G. snidvongsi_ of 16 mm or larger, however, two or more spines are present on the intermediate primary teeth and none approach half the length of the intermediate tooth.

The telson and rostral plate of the 10 mm and 12 mm paratypes (WAM C 25620) are shown in Figure 1M–P. At 10 mm, the corners of the rostral plate are rounded and telson spination is rudimentary, with only the posterior spine on the median carina and dorsal spine on each submedian tooth developed. By 12 mm, the rostral corners are angular as in adults, the intermediate primary teeth also bear a dorsal spine, and the anterior submedian and accessory median carinae are posteriorly armed. In the juvenile specimens, telson spination is not fully developed and the intermediate primary telson teeth have not reached full length. The telson outline in juvenile _G. dianaë_ resembles that of _G. snidvongsi_. As such, small specimens of _G. dianaë_ could presumably be confused with similarly size _G. snidvongsi_ as with the 11 mm specimen reported by Ahyong (2001) as the latter. Unfortunately, juvenile _G. snidvongsi_ are yet to be studied. Owing to the differences in telson spination between adults of _G. snidvongsi_ and _G. dianaë_, however, differences in juvenile spination will likely be found when small specimens of both species can be compared. It should be noted that the ocular scales in the figure of this 11 mm specimen (Ahyong, 2001: fig. 30) were incorrectly rendered as separate rather than fused and anteriorly transverse, confirmed by reexamination of the specimen.

_Gonodactylellus dianaë_ was collected from shore or near-shore reef habitats to a depth of 2–3 m. Reefs consisted of silted, low relief, limestone pavement or platforms with rubble, rocks and patchy coral or algal cover.

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Figure 2  _Gonodactylellus snidvongsi_ (Naiyanet, 1987). NNM S1041, female holotype TL 16 mm, Ko Kangkao, Chonburi Province, Thailand. A, ocular scales; B, rostral plate; C, AS6, telson and uropod; D, TS6-8, right lateral. Scale = 1.0 mm.
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**Distribution**
Presently known only from the Dampier Archipelago.

**Gonodactylus chiragra** (Fabricius, 1781)

*Squilla chiragra* Fabricius, 1781: 515 [type locality: restricted to Ambon, Indonesia, 3°43'S, 128°12'E, by neotype selection (Manning, 1981: 217)].


**Material examined**

Western Australia, Dampier Archipelago. WAM C 25316 (1 female, 31 mm), sin DAI/98/14, Unnamed l. (20°26.58'S, 116°48.79'E), 2-3 m, 20.10.1998; WAM C 25622 (1 male, 33 mm), Searipple Passage (20°31.230'S, 116°51.182'E), intertidal, 21.10.1998.

**Remarks**

Ahlyong (2001) reported *G. smithii* from the Dampier Archipelago and the present specimens agree well those already reported. In both specimens, the inner margin of the uropodal endopod is convex. As indicated by Ahlyong (2005), however, *G. smithii* as presently understood is heterogeneous and presently subject of further study (in prep.). The 33 mm male (WAM C 25369) is parasitized on TS by the gastropod, *Caledoniella*.

**Distribution**
Reported from South Africa to Australia, the South China Sea, Japan and New Caledonia (Ahlyong, 2005).

**Protosquillidae Manning, 1980**

**Haptosquilla corrugata** Ahlyong, 2001

*Haptosquilla trispinosa*.—Rathbun, 1914: 663-664, fig. 11 [not *P. trispinosa* (stn na, 1852)].

**Protosquilla pulchellae**.—Stephenson, 1962: 35 [not *G. pulchellae* Miers, 1880].

**Protosquilla trispinosa**.—Alexander, 1916: 9.—
Material examined


Remarks

*Haptosquilla corrugata* was reported from the Dampier Archipelago by Ahyong (2001).

**Distribution**

Australia, from Gove, Northern Territory to northwestern Australia (Ahyong, 2001).

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**Haptosquilla glyptocercus** (Wood-Mason, 1875)


*Gonodactylus stoliums.*--McNeill, 1926: 317-318, fig. 2 [not *G. stoliums* Muller, 1886].


Material examined

**Western Australia, Dampier Archipelago.** WAM C 27598 (1 female, 12 mm), stn DA2/99/16, Enderby I. (20°35.20'S, 116°30.91'E), from rock, 01.09.1999; WAM C 25619 (1 female, 12 mm), stn DA1/98/06, Hauy I. (20°25.725'S, 116°57.580'E), low relief limestone pavement with shallow sandy gullies, few loose rocks, very little coral cover, very silty, 19.10.1998.

Remarks

*Haptosquilla glyptocercus* was reported as far south as Northwest Cape, Western Australia, by Ahyong (2001), although the present specimens are the first records for the Dampier Archipelago.

**Distribution**

Andaman Sea to Japan, Vietnam, the Philippines, Australia, New Caledonia, Guam, the Marshall Islands and Fiji (Ahyong and Erdmann, 2003).

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**Nannosquillidae Manning, 1980**

*Acanthosquilla melissae* sp. nov.

**Acanthosquilla derijardi.**--Ahyong, 2001: 144. -- Ahyong and Davie, 2002: 55 [Shelburne Bay specimens only; not *A. derijardi* Manning, 1970].

Material examined

**Holotype**

**Western Australia, Dampier Archipelago.** WAM C 27142 (male, 23 mm), stn DA2/99/10, NE corner of Delambre I. (20°23.97'S, 116°04.82'E), 15.07.1999.

**Remarks**

*Acanthosquilla derijardi* was reported from the Dampier Archipelago by Ahyong (2001).
Figure 3  *Acanthosquilla melissae* sp. nov., male holotype TL 33 mm (WAM C 27142), Cape Legendre, Dampier Archipelago: A, anterior; B, right eye; C, right raptorial claw, lateral view; D, T56–8, right dorsal view; E, right pereopod 1; F, right pereopod 2; G, right pereopod 3; H, ASS, 6, telson and uropod; I, telson, ventral; J, right uropod, ventral view; K, right pleopod 1 endopod, anterior view. Scale A, C–J = 2.0 mm, B, K = 1.0 mm.

**Paratypes**

Queensland. AM P 54463 (1 female, 46 mm), Shelburne Bay (11°41.4'S, 143°00.4'E), 33 m, 01.1993; AM P 54464 (1 male, 38 mm), near Jardine Is, Shelburne Bay (11°23.4'S, 143°55.8'E), 12.1991.

**Diagnosis**

Mesial lobe of cornea conical. Rostral plate with trapezoid proximal portion and long apical; trapezoid proximal portion half total rostral length. Raptorial claw dactylus with 6 teeth; outer proximal margin with small proximal lobe and larger, triangular distal lobe reaching distally only as far as base of first occlusal tooth; PI 115 (male), 113 (female). Telson with 2 pairs of slender, fixed primary teeth; with 4 spiniform intermediæ denticles in same plane; with 1 spiniform lateral denticle; dorsal surface with pair of mid-dorsal pits and 7 well spaced posteriorly directed spines in transverse row above marginal armature.
Description

Eye with cornea slightly inclined laterally on stalk, mesial lobe conical; stalk elongate, extending almost to end of antennular peduncle segment 3. Ophthalmic somite anterior margin rounded. Ocular scales rounded, separate, inclined anteriorly. A1 peduncle 0.45–0.48CL. A2 protopod with 1 ventral papilla; A2 scale 0.34–0.40CL. Rostral plate longer than broad, with trapezoid proximal portion and long apical; trapezoid proximal portion half total rostral length; dorsal and ventral surfaces smooth. Raptorial claw dactylus with 6 teeth; penultimate tooth slightly shorter than adjacent teeth; outer proximal margin with small proximal lobe and larger, triangular distal lobe reaching distally only as far as base of first occlusal tooth. PI 115 (male), 113 (female). Mandibular palp 3-segmented. Maxillipeds 1–5 each with epipod. TS6–7 with lateral margins truncate, rounded anterolaterally and posterolaterally. TS8 rounded; sternal keel obsolete. Endopod of male pleopod 1 with elongate tube process and short, blunt hook process. AS6 posterior margin smooth; posterolateral spine long, slender; with slender ventrolateral spine and short blunt angular lobe anterior to uropodal articulation; sternum posterior margin unarmed. Telson with 2 pairs of slender, fixed primary teeth; with 3 or 4 submedian denticles either side of midline forming inverted V-shaped row; with 4 spiniform intermediate denticles in same plane; with 1 spiniform lateral denticle. Dorsal surface with pair of mid-dorsal pits and 7 well spaced posteriorly directed spines in transverse row above marginal armature; spine either side of posteromedian spine on slightly lower plan than other spines of transverse row. Uropodal protopod inner margin unarmed adjacent to endopod articulation; exopod proximal segment outer margin with 6 movable spines, most distal exceeding midlength of distal segment; distal margin with short ventral spine; exopod distal segment pale; endopod with median dorsal carina.

Colour in alcohol


Measurements of holotype

TL 33 mm, CL 6.25 mm, A1 peduncle length 2.90 mm. A2 scale length 2.10 mm, raptorial claw propodus length 5.45 mm.

Etymology

Named for Melissa Titelius, Western Australian Museum, who collected most of the specimens used in this study.

Remarks

In reporting A. derijardi from Australia, Ahyong (2001) noted two specimens from Shelburne Bay, Queensland, that were atypical in the size of the distal lobe on the outer proximal margin of the dactylus of the raptorial claw, and in having an unusual rostral plate in which the basal trapezoid portion was proportionately short, with a long apical spine. The distal lobe on the outer proximal margin of the dactylus of the raptorial claw in A. derijardi sensu stricto is massive, extending distally as far as the base of the fourth or fifth occlusal tooth whereas in the Shelburne Bay specimens, the lobe is considerably smaller, extending only to the base of the first occlusal tooth. The rostral plate in A. derijardi sensu stricto comprises a long proximal trapezoid portion and short rostral spine (not exceeding one-quarter of the total rostral length). In contrast, the proximal trapezoid portion of rostral plate in the Shelburne Bay specimens is only half the total rostral length, with the median spine comprising the other half. Those specimens from Shelburne Bay and the present Dampier specimen are herein referred to a new species, Acanthosquilla melissae sp. nov. Acanthosquilla melissae further differs from A. derijardi in having only seven spines on the upper posterior margin of the telson whereby the ‘typical’ five spines in other species of Acanthosquilla are present as well as a single spine on either side of (and slightly lower than) the median spine. In A. derijardi sensu stricto, two clusters of two or more spines are present either side of the median spine. The propodi of the raptorial claws in A. melissae are also proportionally longer than in A. derijardi with PI 113–115 vs 122–141 respectively, and the distal segment of the uropodal exopod is pale instead of black on the inner half.

Three nominal species are presently in the synonymy of A. derijardi (type locality: Grand Recif, Tulear, Madagascar): A. multispinosa Blumstein, 1974 (type locality: Vietnam), A. manningi Makarov, 1978 (type locality: Vietnam), and A. sirindhorn Naiyanetr, 1995 (type locality: Pattani, Gulf of Thailand). Acanthosquilla sirindhorn corresponds to A. derijardi sensu stricto, but the two Vietnamese species appear to be valid. Acanthosquilla manningi is characterised by the presence of a field of numerous small spines.
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on the upper posterior surface of the telson, instead of a transverse row of spines, and A. multispinosa bears telson spination as in A. derijardi, but only a small outer distal lobe on the proximal margin of the raptorial dactylus. Acanthosquilla melissae is not referable to any of the synonyms of A. derijardi.

Under the account of A. derijardi, Ahyong (2001) also reported on a specimen from Sandakan, Borneo, with a similar raptorial claw to A. melissae but with telson spination resembling A. derijardi sensu stricto. The Sandakan specimen is possibly referable to A. multispinosa. The species of the A. derijardi complex are presently under study.

Distribution
Shelburne Bay, Queensland, and Dampier Archipelago, Western Australia.

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Figure 4  Anchisquilla subtasciata (Tate, 1883), male holotype TL 56 mm (SAM C 182), Gulf Saint Vincent, South Australia. Scale = 3 mm.
Squillidae Latreille, 1802

Anchisquilla subfasciata (Tate, 1883) comb. novo

Figure 4

Anchisquilla subfasciata Tate, 1883: 52, pl. 2, figs 1a–d [type locality: Gulf St. Vincent, South Australia].


Anchisquilla fasciata.—Ahyong, 2001: 196–198, fig. 96.—Ahyong and Davie, 2002: 72–73 [not A. fasciata (de Haan, 1844)].

Material examined

Western Australia, Dampier Archipelago. WAM C 27151 (1 male, 54 mm), DA2/99/34, 20°32.65′S (116°39.14′E, 19.07.1999); WAM C 27156 (1 female, 56 mm), stn DA2/99/48, Rocky Head, Enderby I. (20°37.43′S, 116°24.08′E), 20.07.1999.

Remarks

Ahyong (2001) reported Australian specimens referable to A. fasciata to differ from material from Thailand, Taiwan and Japan (topotypic) in having more numerous ventral telson carinae. Although the Australian specimens might be referable to a separate species, Ahyong (2001) further noted that study of specimens from intermediate localities was required. Specimens reported as A. fasciata from Indonesia by Holthuis (1941) in the Zoological Museum, Amsterdam, and Moosa and Cleva (1984b) in the Muséum national d’Histoire Naturelle, Paris (MNHN), were studied and proved referable to A. chani Ahyong, 2001. Specimens reported by Moosa (1991) from New Caledonia (MNHN) are also referable to A. chani. Material from Singapore reported by Tweedie (1934) in the Raffles Museum of Biodiversity Research, Singapore, and those reported by Moosa (1986) from the Philippines proved referable to A. fasciata sensu stricto. Hence, A. fasciata sensu stricto is not known south of the equator, and records of Anchisquilla from localities immediately adjacent to Australia are based on A. chani. Australian specimens consistently differ from other species of Anchisquilla and are herein regarded as distinct from A. fasciata sensu stricto. Squilla subfasciata Tate, 1883 (type locality Gulf St. Vincent, South Australia), presently a synonym of A. fasciata, is herein removed from synonymy and recognised for Australian ‘A. fasciata’. Anchisquilla subfasciata is distinguished from A. fasciata by the presence of 4 or 5 instead of 1 or 2 carinae flanking the postanal carina. The holotype of Anchisquilla subfasciata is illustrated in Figure 2.

The present specimens constitute the first records of the species from Western Australia. Meristic counts are within the reported range (Ahyong, 2001) with 11 or 12 spines on the inner margin of the uropodal protopod, eight movable spines on the outer margin of the proximal segment of the uropodal exopod, telson denticles (submedian 4, intermediate 7–8, lateral 1) and abdominal spination: submedian 6, intermediate 3–6, lateral 1–6, marginal 1–5.

Distribution

Australia, from Queensland north to Western Australia and Gulf Saint Vincent, South Australia.

Carinosquilla carita Ahyong, 2001


Carinosquilla carita Ahyong, 2001: 210–212, fig. 102 [type locality: 43 km NNE of Dampier, Western Australia].—Ahyong and Davie, 2002: 74.

Material examined


Remarks

Carinosquilla carita was first described from the vicinity of Dampier by Ahyong (2001).

Distribution


Clorida obtusa Ahyong, 2001

Squilla granti.—Stephenson, 1953b: 33 [not Squilla granti Stephenson, 1953b].


Material examined

Western Australia, Dampier Archipelago. WAM C 25784 (1 male, 22 mm), DA2/99/61 (20°35.33′S, 116°42.78′E), 22.07.1999; WAM C 27166 (1 male, 21 mm), stn DA2/99/69, SE point of Goodwyn I. (20°34.34′S, 116°34.67′E), 24.07.1999.

Remarks

Clorida obtusa was reported from northwestern Australia by Ahyong (2001), though the present specimens constitute the first records of the species from the Dampier Archipelago and a southern record for Western Australia. The specimens agree...
well with the type description and meristic counts are within the range reported: the dactyli of the raptorial claws bear four teeth, the inner margin of the uropodal protopod is armed with five spines, the outer margin of the distal uropodal exopod segment bears six movable spines and the abdominal spine formula is submedian 6, intermediate 5-6, lateral 5-6, marginal 5.

**Distribution**

Mackay, Queensland, the Gulf of Carpentaria, and the Northwest Shelf, Western Australia (Ahyong, 2001).

**Levisquilla jurichi** (Makarov, 1979)

*Clorida jurichi* Makarov, 1979: 40, fig. 1 [type locality: Tonkin Bay, Vietnam, 21°13.5'N, 109°45.8'E].


**Material examined**


**Remarks**

*Levisquilla jurichi* was recorded from northwestern Australia by Ahyong (2001) and the present specimens agree well with those already reported. Abdominal spination is as follows: submedian 6, intermediate 5-6, lateral 6, marginal 5. The inner margin of the uropodal protopod bears seven spines, and the outer margin of the proximal segment of the uropodal exopod bears seven to 10 movable spines. The present specimens represent the first records from the Dampier Archipelago and the southernmost records for Western Australia.

**Distribution**

New Caledonia, Vietnam, the Andaman Sea and Australia (Ahyong, 2001).

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Stomatopod Crustacea from the Dampier Archipelago


