

## Palaemonoid shrimps from the Dampier Archipelago (Crustacea: Decapoda), with a review of the Western Australian pontoniine shrimp fauna

A.J. Bruce

Queensland Museum, P.O. Box 3300, South Brisbane, Queensland, 4101 Australia.  
email: abruce@broad.net.au

**Abstract.** – Palaemonoid shrimps collected in the course of the Western Australian Museum 1998–2002 Dampier Archipelago Survey are reported upon. Thirty one taxa were found, all except three belonging to the subfamily Pontoniinae. One species of pontoniine shrimp is new: *Periclimenes burrup* sp. nov. is described and illustrated, and seven are new to the Western Australian fauna. The pontoniine shrimp fauna of Western Australia is summarised.

### INTRODUCTION

The marine palaemonoid fauna of Western Australia has attracted less attention than that of Australia's eastern seaboard. The fauna is dominated by shrimps of the subfamily Pontoniinae, usually small, often cryptic, and frequently inconspicuous associates of other marine invertebrate hosts, particularly sponges, coelenterates, echinoderms and sea squirts.

The first pontoniine shrimp recorded from Western Australia was *Anchistus custos* reported by Miers (1884) (as *Harpilius inermis*), from Shark Bay, collected during the voyage of H.M.S *Alert*, 1881–2. Mary Rathbun, in 1914, again recorded *Anchistus custos* (as *Anchistus inermis*) and *Periclimenes brevicarpalis* (as *P. hermitensis*) from the Monte Bello Islands. Later, Balss (1921), reporting on the results of Dr E. Mjöberg's Swedish Scientific Expedition to Australia, 1910–1914, recorded *Palaemonella tenuipes*, *Periclimenaeus hecate* (as ?*Coralliocaris hecate*) and *Periclimenes incertus* (as *Palaemonella biunguiculata*). Further studies had to wait until the second half of the 20<sup>th</sup> century. Recently Berggren (1997a, b, c) has studied the Western Australian caridean fauna and collected much new data, but unfortunately these collections remain unpublished. He has kindly provided access to this data, some of which is included in this report.

Prior to the present study, 52 pontoniine species were formally known from Western Australia, with a further 19 in unpublished reports. The present report adds a further 10 species to the Western Australian pontoniine fauna, all previously known from elsewhere in Australia, and one new species, making a total of 82 species (85 taxa). A checklist of

the pontoniine shrimps now known from Western Australia is provided and the results are summarised in Table 1.

Many more pontoniine (and other) shrimp species may be expected to be found in the future in Western Australian waters. The present total may be compared with that of a single small reef on the southern Great Barrier Reef, Heron I., with over 100 species (Bruce, 1981).

### MATERIALS AND METHODS

Restricted synonymies only are provided, primarily indicating name changes and major re-descriptions of early described species. Full synonymies are to be found in Li (2000) and Davie (2002). CL refers to the postorbital carapace length; C. for Cape; coll. to collected by; I. to Island, Is for Islands; ovig. for ovigerous; Pen. for Peninsula; Pt for Point; spm for specimen; stn for station.

The specimens are held in the collections of the Queensland Museum (QM), the Rijksmuseum von Natuurlijke Historie, Leiden, The Netherlands (RMNH) and the Western Australian Museum, Perth (WAM).

### LIST OF TAXA EXAMINED

- \* New to the Western Australian fauna
1. *Anchistioides compressus* Paul'son, 1875\*
  2. *Anchistioides willeyi* (Borradaile, 1900)\*
  3. *Palaemonetes atrinubus* Bray, 1976
  4. *Conchodytes meleagrinae* Peters, 1852
  5. *Conchodytes monodactylus* Holthuis, 1952
  6. *Coralliocaris nudirostris* (Heller, 1861)\*
  7. *Coralliocaris viridis* Bruce, 1974

8. *Harpiliopsis beaupresii* (Audouin, 1825)
9. *Harpilius bayeri* (Holthuis, 1981)
10. *Kemponia amymone* (De Man, 1902)
11. *Kemponia andamanensis* (Kemp, 1922)\*
12. *Kemponia elegans* (Paul'son, 1875)
13. *Kemponia grandis* (Stimpson, 1860)
14. *Kemponia* aff. *grandis* (Stimpson, 1860)
15. *Palaemonella pottsi* (Borradaile, 1915)
16. *Palaemonella rotumana* (Borradaile, 1898)
17. *Palaemonella spinulata* Yokoya, 1936\*
18. *Palaemonella* sp.
19. *Periclimenaeus arabicus* (Calman, 1939)
20. *Periclimenaeus hecate* (Nobili, 1904)
21. *Periclimenella spinifera* (De Man, 1902)
22. *Periclimenes affinis* (Zehntner, 1894)\*
23. *Periclimenes alegrias* Bruce, 1986
24. *Periclimenes burrup* sp. nov.
25. *Periclimenes holthuisi* Bruce, 1969\*
26. *Periclimenes incertus* Borradaile, 1915
27. *Periclimenes magnificus* Bruce, 1979\*
28. *Periclimenes novaffinis* Bruce and Coombes, 1997\*
29. *Periclimenes soror* Nobili, 1904
30. *Philarius gerlachei* (Nobili, 1905)
31. *Philarius imperialis* (Kubo, 1940)\*

## SYSTEMATICS

### Order DECAPODA Latreille, 1802

#### Infraorder Caridea Dana, 1852

#### Superfamily Palaemonoidea Rafinesque, 1815

#### Family Anchistioiidae Borradaile, 1915

#### Genus *Anchistioides* Paul'son, 1875

#### *Anchistioides compressus* Paul'son, 1875

*Anchistioides compressus* Paul'son, 1875: 115, pl. 19, fig. 5. – Davie, 2002: 220.

#### Material examined

**Western Australia, Dampier Archipelago.** WAM C 25839 (1 ovig. female), stn DA1/98/01, Dolphin I. (20°25.852'S, 116°52.953'E), 3.0–6.5 m, 17.10.1998.

#### Host

Unidentified purple sponge.

#### Remarks

This is a new record for Western Australia. The specimens present no special features. Rostral dentition 11/9.

#### Australian Distribution

**Queensland.** Heron I., Capricorn Is (Bruce, 1981); Heron I., Wilson I. and Moreton Bay (Bruce, 1983).

#### Further Distribution

Type locality: Red Sea. Also known from Zanzibar, Kenya, Andaman Islands, Japan, South China Sea, Australia and Tuamotu Islands.

#### *Anchistioides willeyi* (Borradaile, 1900)

*Palaemonopsis willeyi* Borradaile, 1900: 410, pls 36, 37, fig. 7.

*Amphipalaemon willeyi*. – Borradaile, 1917: 407, pl. 59, fig. 13.

*Anchistioides willeyi*. – Gordon, 1935: 435, figs 23a, 24a. – Holthuis, 1952: 18, 214, figs 106, 107. – Bruce, 1991: 269, figs 3g, 29, 30. – Davie, 2002: 221.

#### Material examined

**Western Australia, Dampier Archipelago.** WAM C 29238 (1 spm), stn DA2/99/68, off Bluff Pt, Enderby I. (20°40.93'S, 116°33.21'E to 20°40.63'S, 116°33.36'E), rake box dredge, 9.0–9.2 m, 23.07.1999.

#### Remarks

Previously reported specimens exhibit two morphological types of second pereopod chelae, long fingered and short fingered (Bruce, 1991). The present material belongs to the long fingered form, with a rostral dentition of 9/4. The species is a sponge associate and has been reported from depths to 127 m (Bruce, 1991).

This is a new record for Western Australia.

#### Australian Distribution

**Northern Territory:** Darwin Harbour (Bruce, 1988a). **Queensland:** Capricorn Is; Moreton Bay (Bruce, 1983a).

#### Further Distribution

Type locality: Ralun, New Britain. Known also from Kenya, Zanzibar, Tanganyika, Madagascar, Maldivé Islands, Singapore, Borneo, Indonesia, South China Sea, Philippines, New Caledonia and Chesterfield Islands.

#### Family Palaemonidae Rafinesque, 1815

#### Subfamily Palaemoninae Rafinesque, 1815

#### Genus *Palaemonetes* Heller, 1869

#### *Palaemonetes atrinubes* Bray, 1976

*Palaemonetes atrinubes* Bray, 1976: 65, figs 23–42. – Davie, 2002: 301.

#### Material examined

**Western Australia, Dampier Archipelago.** WAM C 29216 (1 ovig. female), stn DA3/99/62, East Lewis I. (20°37.499'S, 116°39.182'E), intertidal, 05.09.1999.

**Remarks**

The specimen, with a rostral dentition of 1+6/4, presents no special features.

**Australian Distribution**

**Western Australia.** Swan River; Exmouth Gulf; to Leschenault Inlet (Bray, 1976); West Governor I., Napier Broome Bay, eastern Kimberleys (Davie and Short, 1996).

**Further Distribution**

Type locality: Canning Bridge, Lower Swan River, Cockatoo Island. Also known from New Caledonia.

**Subfamily Pontoniinae Kingsley, 1878****Genus *Conchodytes* Peters, 1852*****Conchodytes meleagrinae* Peters, 1852**

*Conchodytes meleagrinae* Peters, 1852: 594. – Li, 2000: 25, fig. 26. – Davie, 2002: 307.

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 25302 (1 male, 1 ovig. female), stn DA1/98/03, Legendre I. (20°24.320'S, 116°56.108'E), 2.0–15.0 m, 18.10.1998.

**Host**

*Pinctada margaritifera* (Linnaeus, 1758), Black lipped pearl oyster [Bivalvia, Pteriidae].

**Remarks**

It seems remarkable that there appear to be no previous records of this well known species from Western Australia in view of the long history of the pearling industry in that state. Jones and Morgan (2002) provide a photograph of *Conchodytes* sp., but without indication of the locality of capture. The specimen, which may be of *C. meleagrinae*, has not been available for examination

This is the first published record of this species for Western Australia.

**Australian Distribution**

**Northern Territory:** Bathhurst I. (Shiino, 1942). **Queensland:** Torres Straits, Warrior Reef (Miers, 1884); Torres Straits (Bate, 1888); Thursday I. (Saville Kent, 1893, as *Alpheus avarus*); North West I., Capricorn Is, (McNeill, 1926, as *Pontonia tridacnae*); Swain Reefs (McMichael, 1963); Gillet Cay; One Tree I., Swain Reefs, (Bruce, 1977); Lodestone Reef, 5 m; Tjijou Reef, 2 m (Zann, 1980); Heron I., Capricorn Is (Bruce, 1981).

**Further Distribution**

Type locality: Ibo, Moçambique. Reported from Egypt, Yemen, Kenya, Moçambique, Madagascar, Seychelle Islands, Oman, Maldive Islands, Sri Lanka, Andaman Islands, Malaysia, Indonesia, Vietnam, China, Japan, Papua New Guinea, Caroline Islands, Marshall Islands, New Caledonia, Fijian Islands, Cook Islands, Tuamotu Islands, and Hawaiian Islands.

***Conchodytes monodactylus* Holthuis, 1952**

*Conchodytes monodactylus* Holthuis, 1952: 200, figs 96–98. – Li, 2000: 26, fig. 27. – Davie, 2002: 308.

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 28058 (1male, 1 ovig. female), stn DA3/99/39, Brigadier I. (20°25.411'S, 116°37.578'E), 15.0–27.0 m, 28.08.1999.

**Host**

*Pinna deltodes* Menke, 1843 [Bivalvia, Pinnidae].

**Remarks**

Third pereopod dactyls with rounded basal process, in male and female, as in material from Papua New Guinea (De Grave, 1998) but without small acute denticle present in types.

This is a new record for Western Australia.

**Australian Distribution**

**Western Australia.** Reported from Shark Bay by Bergren (1997b). **Queensland:** Magnetic I., Horseshoe Bay (Bruce, 1977c). **Northern Territory:** Cobourg Pen., Sandy I. No. 2 (Bruce, 1983d); Cobourg Pen. (Bruce and Coombes, 1995).

**Further Distribution**

Type locality: Kao Hsiung, Taiwan. Reported from Singapore, Indonesia, Hong Kong, Taiwan and Papua New Guinea.

**Genus *Coralliocaris* Stimpson, 1869*****Coralliocaris nudirostris* (Heller, 1861)**

*Oedipus nudirostris* Heller, 1861: 27; 1862: 279, pl. 3 fig. 25.

*Coralliocaris nudirostris*. – Borradaile, 1898: 385.

*Coralliocaris tahitoei* Boone, 1935: 180, pl. 49 fig. 12.

*Coralliocaris nudirostris*. – Li, 2000: 34, fig. 34.

*Coralliocaris nudirostris*. – Marin *et al.*, 2005: 201, fig. 2a–n.

Table 1

PONTONIINE SHRIMP SPECIES REPORTED FROM WESTERN AUSTRALIA		Previous WA records	Unpublished records	This report	Known only from Australia	WA only	New to WA
1.	<i>Anchistus custos</i> (Forsskål, 1775)	■					
2.	<i>Anchistus miersi</i> (De Man, 1888)	■					
3.	<i>Apopontonia orbitospinata</i> (Bruce, 1988)	■			■	■	
4.	<i>Araiopontonia odontorhyncha</i> Fujino and Miyake, 1970	■					
5.	<i>Carinopontonia paucipes</i> Bruce, 1988	■			■	■	
6.	<i>Conchodytes biunguiculatus</i> (Paulson, 1875)	■					
7.	<i>Conchodytes meleagrinae</i> Peters, 1852			■			■
8.	<i>Conchodytes maculatus</i> Bruce, 1989	■					
9.	<i>Conchodytes monodactylus</i> Holthuis, 1952			■			■
10.	<i>Conchodytes tridacnae</i> Peters, 1852	■					
11.	<i>Coralliocaris graminea</i> (Dana, 1852)	■					
12.	<i>Coralliocaris nudirostris</i> (Heller, 1861)			■			
13.	<i>Coralliocaris viridis</i> Bruce, 1974			■			■
14.	<i>Dasella ansoni</i> Bruce, 1983		■		■		■
15.	<i>Dasycaris zanzibarica</i> Bruce, 1969		■				■
16.	<i>Exoclimenella maldivensis</i> Duris and Bruce, 1995	■					
17.	<i>Exopontonia malleatrix</i> Bruce, 1988	■					
18.	<i>Hamodactylus aqabai</i> Bruce and Svoboda, 1983	■					
19.	<i>Hamodactylus boschmai</i> Holthuis, 1952		■				■
20.	<i>Hamodactylus noumeae</i> Bruce, 1970	■					
21.	<i>Hamopontonia corallicola</i> Bruce, 1970	■					
22.	<i>Hamopontonia</i> aff. <i>corallicola</i> (see Berggren, 1997c)		■				
23.	<i>Harpiliopsis beaupresii</i> (Audouin, 1825)	■		■			
24.	<i>Harpilius bayeri</i> (Holthuis, 1981)	■		■		■	
25.	<i>Harpilius consobrinus</i> (De Man, 1902)	■					
26.	<i>Ischnopontonia lophos</i> (Barnard, 1962)		■				■
27.	<i>Kemponia amymone</i> (De Man, 1902)	■		■			
28.	<i>Kemponia anacanthus</i> (Bruce, 1989)		■				
29.	<i>Kemponia andamanensis</i> (Kemp, 1922)			■			■
30.	<i>Kemponia elegans</i> (Paulson, 1875)	■		■			
31.	<i>Kemponia grandis</i> (Stimpson, 1860)	■		■			
32.	<i>Kemponia</i> sp., aff. <i>grandis</i>			■			
33.	<i>Kemponia</i> sp. aff. <i>suvadivensis</i> (see Davie and Short, 1995)		■				
34.	<i>Kemponia tenuipes</i> (Borradaile, 1898)	■					
35.	<i>Manipontonia psamathe</i> (De Man, 1902)		■				
36.	<i>Notopontonia platycheles</i> Bruce, 1991	■			■		
37.	<i>Palaemonella crosnieri</i> Bruce, 1978	■					
38.	<i>Palaemonella foresti</i> Bruce, 2002	■			■	■	
39.	<i>Palaemonella pottsi</i> Borradaile, 1915	■		■			
40.	<i>Palaemonella rotumana</i> (Borradaile, 1898)	■		■			
41.	<i>Palaemonella spinulata</i> Yokoya, 1936			■			■
42.	<i>Palaemonella tenuipes</i> Dana, 1852	■					
43.	<i>Parapontonia nudirostris</i> Bruce, 1968		■				■
44.	<i>Periclimenaeus arabicus</i> (Calman, 1939)			■			■

Table 1 (cont.)

PONTONINE SHRIMP SPECIES REPORTED FROM WESTERN AUSTRALIA		Previous WA records	Unpublished records	This report	Known only from Australia	WA only	New to WA
45.	<i>Periclimenaeus bidentatus</i> Bruce, 1970	■					
46.	<i>Periclimenaeus hecate</i> (Nobili, 1904)	■					
47.	<i>Periclimenaeus minutus</i> Holthuis, 1952		■				■
48.	<i>Periclimenaeus pachydentatus</i> Bruce, 1969	■					
49.	<i>Periclimenella spinifera</i> (De Man, 1902)	■		■			
50.	<i>Periclimenes aesiopus</i> (Bate, 1863)	■			■		
51.	<i>Periclimenes affinis</i> (Zehntner, 1894)			■			■
52.	<i>Periclimenes alegrias</i> Bruce, 1986	■		■	■		
53.	<i>Periclimenes amboinensis</i> (De Man, 1888)	■					
54.	<i>Periclimenes batei</i> Holthuis, 1959	■?					
55.	<i>Periclimenes brevicarpalis</i> (Schenkel, 1902)	■					
56.	<i>Periclimenes burrup</i> sp. nov.			■	■		■
57.	<i>Periclimenes commensalis</i> Borradaile, 1915		■				■
58.	<i>Periclimenes</i> aff. <i>crisimanus</i> (see Berggren, 1997c)		■				
59.	<i>Periclimenes holthuisi</i> Bruce, 1969			■			■
60.	<i>Periclimenes hongkongensis</i> Bruce, 1969		■				■
61.	<i>Periclimenes imperator</i> Bruce, 1967	■					
62.	<i>Periclimenes indicus</i> (Kemp, 1915)	■					
63.	<i>Periclimenes incertus</i> Borradaile, 1915	■		■			
64.	<i>Periclimenes inornatus</i> Kemp, 1922	■					
65.	<i>Periclimenes kemp</i> Bruce, 1969		■				■
66.	<i>Periclimenaeus kottae</i> Bruce, 2005	■			■	■	
67.	<i>Periclimenes magnificus</i> Bruce, 1979			■			■
68.	<i>Periclimenes mahei</i> Bruce, 1969	■					
69.	<i>Periclimenaeus matherae</i> Bruce, 2005	■			■	■	
70.	<i>Periclimenes novaffinis</i> Bruce and Coombes, 1997			■			■
71.	<i>Periclimenes</i> aff. <i>obscurus</i> (see Berggren, 1997c)		■				
72.	<i>Periclimenes seychellensis</i> Borradaile, 1915		■				■
73.	<i>Periclimenes soror</i> Nobili, 1904	■		■			
74.	<i>Periclimenes venustus</i> Bruce, 1990	■					
75.	<i>Periclimenes zanzibaricus</i> Bruce, 1967	■					
76.	<i>Periclimenoides odontodactylus</i> Fujino and Miyake, 1968	■					
77.	<i>Philarius gerlachei</i> (Nobili, 1905)	■		■			
78.	<i>Philarius imperialis</i> (Kubo, 1940)		■	■			■
79.	<i>Platycaris latirostris</i> Holthuis, 1952		■				■
80.	<i>Platypontonia hyotis</i> Hipeau-Jacquotte, 1971		■				■
81.	<i>Pontoniopsis comanthi</i> Borradaile, 1915	■					
82.	<i>Thaumastocaris streptopus</i> Kemp, 1922	■					
83.	<i>Typton nanus</i> Bruce, 1987	■			■	■	■
84.	<i>Typtonychus dimorphus</i> (Bruce, 1986)*	■			■	■	
85.	<i>Vir philippinensis</i> Bruce and Svoboda, 1984	■					

\* This taxon is now considered to be polyspecific

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 25814 (1 ovig. female), stn DA1/98/03, Legendre I., (20°24.320'S, 116°56.108'E), 2.0–15.0 m, 18.08.1998.

**Remarks**

The single specimen has the body very broad and depressed. The rostrum is slender, slightly up-curved distally, and exceeds the proximal segment of the antennular peduncle, reaching to *ca* 0.75 of the intermediate segment length, distally acute, dentition 0/0, without setation. The first pereopod has the fingers of the chela *ca* 0.4 of the palm length, and medially concave. The specimen unfortunately lacks both second pereopods, so the identification must be considered provisional. There is no trace of any colour pattern.

This is a new record for Western Australia.

**Australian Distribution**

**Queensland:** Orpheus and Lodestone (?) Is, Palm Is (*A. hyacinthus*, *millepora?*) (Vytopil and Willis, 2001).

**Further Distribution**

Type locality: Red Sea. Reported from Red Sea, Kenya, Zanzibar, Tanganyika, La Réunion, Mauritius, Seychelle Islands, Maldive Islands, Vietnam, Japan, Marshall Islands, Kiribati, and Society Islands.

***Coralliocaris viridis* Bruce, 1974**

*Coralliocaris viridis* Bruce, 1974: 222, fig. 1. – Li, 2000: 38, fig. 38. – Davie, 2002: 309.

**Material examined**

**Western Australia, Dampier Archipelago.** (1) WAM C 28050 (1 spm), stn DA3/99/36, Malus I. (20°30.050'S, 116°40.594'E), 6.0–14.0 m, 27.08.1999; (2) WAM C 29214 (1 ovig. female), stn DA3/99/42, Georgeff Reef (20°29.339'S, 116°36.798'E), intertidal, 28.08.1999.

**Host**

*Acropora* sp. (1) [Scleractinia, Acroporidae].

**Remarks**

Specimen (1) is preserved with a pair of detached second pereopods that are certainly not those of a *Coralliocaris* species. These appear identical with the chelae of *Philarius gerlachei* (Nobili) as illustrated by Kemp (1922, figure 75, as *Harpilius gerlachei*), another common associate of *Acropora* coral hosts (see below). The specimen has a well developed rostrum, extending well beyond the antennular peduncle, with 5 small acute similar

dorsal teeth and 1 smaller ventral tooth, more closely resembling the rostrum of *C. viridis* Bruce than any other species.

Specimen (2) has a slender rostrum, reaching to distal margin of intermediate segment of the antennular peduncle, *ca* 0.75 of CL, with a rostral dentition of 5/2, dorsal teeth of medium size. It is somewhat intermediate between typical *C. viridis* and *C. graminea*. The colour pattern is unknown. The single small second pereopod is *ca* 1.2 times the CL and is probably in the process of regeneration after autotomy.

This is a new record for Western Australia.

**Australian Distribution**

**Western Australia.** Reported from Shark Bay by Bergren (1997b). **Northern Territory:** Coral Bay; Orontes Reef; Oxley I., Cobourg Pen. (Bruce and Coombes, 1995). **Queensland:** One Tree I., Capricorn Is (Bruce, 1977a, 1983); Heron I., Capricorn Is (Bruce, 1981; 1983).

**Further Distribution**

Type locality: Mombasa Island, Kenya. Also reported from Moçambique, Seychelle Islands, Maldive Islands, Sri Lanka, Indonesia, Vietnam, Ryukyu Islands, Japan, Papua New Guinea and Tuamotu Islands.

**Genus *Harpiliopsis* Borradaile, 1917*****Harpiliopsis beaupresii* (Audouin, 1826)**

Figure 1A

*Palaemon Beaupresii* Audouin, 1826: 91.

*Harpilius Beaupresii*. – Heller, 1861: 27. – Borradaile, 1917: 324, 379, pl. 55 fig. 21. – Davie, 2002: 312.

**Material examined**

**Western Australia, Dampier Archipelago:** (1) WAM C 25879 (1 male), stn DA1/98/06, Haüy I. (20°25.725'S, 116°57.580'E), 0.5–2.0 m, 19.10.1998; (2) WAM C 25855 (1 ovig. female), stn DA1/98/06, Haüy I. (20°25.725'S, 116°57.580'E), 0.5–2.0 m, 19.10.1998; (3) WAM C 28078 (1 ovig. female), stn DA3/99/14, Unnamed I. (20°26.581'S, 116°48.790'E), intertidal, 22.10.1998; (4) WAM C 29213 (1 male, 1 ovig. female), stn DA3/99/36, Malus I. (20°30.050'S, 116°40.594'E), 6.0–14.0 m, 27.08.1999.

**Host**

*Pocillopora* sp., including *P. damicornis* (4) [Scleractinia, Pocilloporidae].

**Remarks**

The specimen (1) has the appendix masculina (Figure 1A) on the second pleopod short, not

exceeding the appendix interna, slightly curved medially, with ca 12 pairs of short slender simple spines along the ventrolateral margin, generally similar to that of *H. depressus*. The specimen (1), lacking both second pereopods, was found in association with *Periclimenes amymone*.

#### Australian Distribution

**Western Australia:** Pt Quobba and Rottneest I. (Prince and Black, 1983); Quobba (Jones, 1990); Cartier Reef (Bruce, 1992); Rottneest I. (Jones and Morgan, 1993); Shark Bay (Berggren, 1997b); Central Kimberleys: Rob Roy, Albert, East Montlivet, Wildcat reefs, Cassini, Jessieux, De Freycinet Is (Berggren, 1997c). **Northern Territory:** Cobourg Pen. (Bruce and Coombes, 1995). **Queensland:** Willis I.; Bet Reef; Restoration Rock; Heron I. and Wistari Reef, Capricorn Is (Patton, 1966); Heron I. (Bruce, 1981); Capricorn Is (Austin, Austin, and Sale, 1980).

#### Further Distribution

Type locality: Egypt. Reported from Egypt, Israel, Sudan, Eritrea, Djibouti, Yemen, Kenya, Zanzibar, Tanganyika, Moçambique, Madagascar, Seychelle Islands, Réunion, Mauritius, Maldives Islands, Chagos Islands, Sri Lanka, Andaman Islands, Singapore, Indonesia, Thailand, Vietnam, China, South China Sea, Japan, Philippine Islands, Papua New Guinea, Coral Sea, Marianas Islands, Marshall Islands, Fijian Islands, Society Islands, Tuamotu Islands, French Frigate Shoals, Johnson Atoll, Hawaiian Islands, and Easter Island.

### Genus *Harpilius* Dana, 1852

#### *Harpilius bayeri* Holthuis, 1981

*Periclimenes bayeri* Holthuis, 1981: 792, fig. 3a–h. – Davie, 2002: 324.

*Harpilius bayeri*. – Bruce, 2004: 5.

#### Material examined

**Western Australia, Dampier Archipelago.** WAM C 25911 (1 male, CL 2.7 mm), stn DA1/98/13, Hammersley Shoal (20°23.203'S, 116°46.691'E), 5.0 m, coll. D. Heald, 21.10.1998.

#### Host

*Pocillopora* sp. [Scleractinia, Pocilloporidae].

#### Remarks

Rostrum long and slender, dentition 7/3, tip well exceeding distal margin of scaphocerite. Fourth thoracic sternite with exceptionally long, slender, acute finger-like median process.

#### Australian Distribution

**Western Australia:** Cartier Reef (Bruce, 1992).

#### Further Distribution

Type locality: Ine Village, Arno Atoll, Marshall Islands. Known from Marshall Islands and Western Australia only.

### Genus *Kemponia* Bruce, 2004

#### *Kemponia amymone* (De Man, 1902)

Figure 1B

*Periclimenes amymone* De Man, 1902: 829, pl. 25 fig. 53. – Davie, 2002: 323.

*Kemponia amymone*. – Bruce, 2004: 11.

#### Material examined

**Western Australia, Dampier Archipelago.** (1) WAM C 26634 (1 male, 1 juv.), stn DA3/99/36, Malus I. (20°30.050'S, 116°40.594'E), 6.0–14.0 m, 27.08.1999; (2) WAM C 25818 (1 male), stn DA1/98/03, Dolphin I. (20°24.320'S, 116°56.108'E), 2.0–15.0 m, 17.10.1998; (3) WAM C 25759 (1 ovig. female), stn DA1/98/01, Dolphin I. (20°25.852'S, 116°52.953'E), 3.0–6.5 m, 17.10.1998; (4) WAM C 29300 (3 spms), stn DA3/99/36, Malus I. (20°30.050'S, 116°40.594'E), 6.0–14.0 m, 27.08.1999; (5) WAM C 25861 (1 ovig. female), stn DA1/98/08, Angel I. (20°29.180'S, 116°47.711'E), 2.0–8.0 m, 20.10.1998; (6) WAM C 25879 (1 male, 4 ovig. females), stn DA1/98/06, Haüy I. (20°25.725'S, 116°57.580'E), 0.5–2.0 m, 19.10.1998; (7) WAM C 25863 (7 juvs), stn DA1/98/06, Haüy I. (20°25.725'S, 116°57.580'E), 0.5–2.0 m, 19.10.1998; (8) WAM C 25767 (4 ovig. females), stn DA1/98/01, Dolphin I. (20°25.852'S, 116°52.953'E), 3.0–6.5 m, 17.10.1998; (9) WAM C 25675 (2 males), stn DA1/98/29, Legendre I. (20°24.566'S, 116°53.714'E), 4.5m, coll M. Hewitt, 27.10.1998.

#### Host

Generally *Pocillopora* spp, including *P. damicornis* [Scleractinia, Pocilloporidae], but (1) (2) were on *Acropora* sp. [Scleractinia, Acroporidae].

#### Remarks

The specimens present no special features. The dactyl of the third ambulatory pereopod (Figure 1B) of specimen (3) is illustrated to show the distoventral spinulation of the propod, with a single slender spine only. The propod is ca 8.5 times longer than wide, 4.1 times longer than dactyl. The rostral dentition is 1+6–7/2–3.

#### Australian Distribution

**Western Australia:** Quobba (Jones, 1990); Shark Bay (Berggren, 1997b); central Kimberleys, Rob Roy, Wildcat, Gibbings reefs, Lamarck I., Macleay, East Montlivet, Cassini, De Freycinet, Jesseux, Maret Is (Berggren, 1997c). **Northern Territory:** Darwin, East

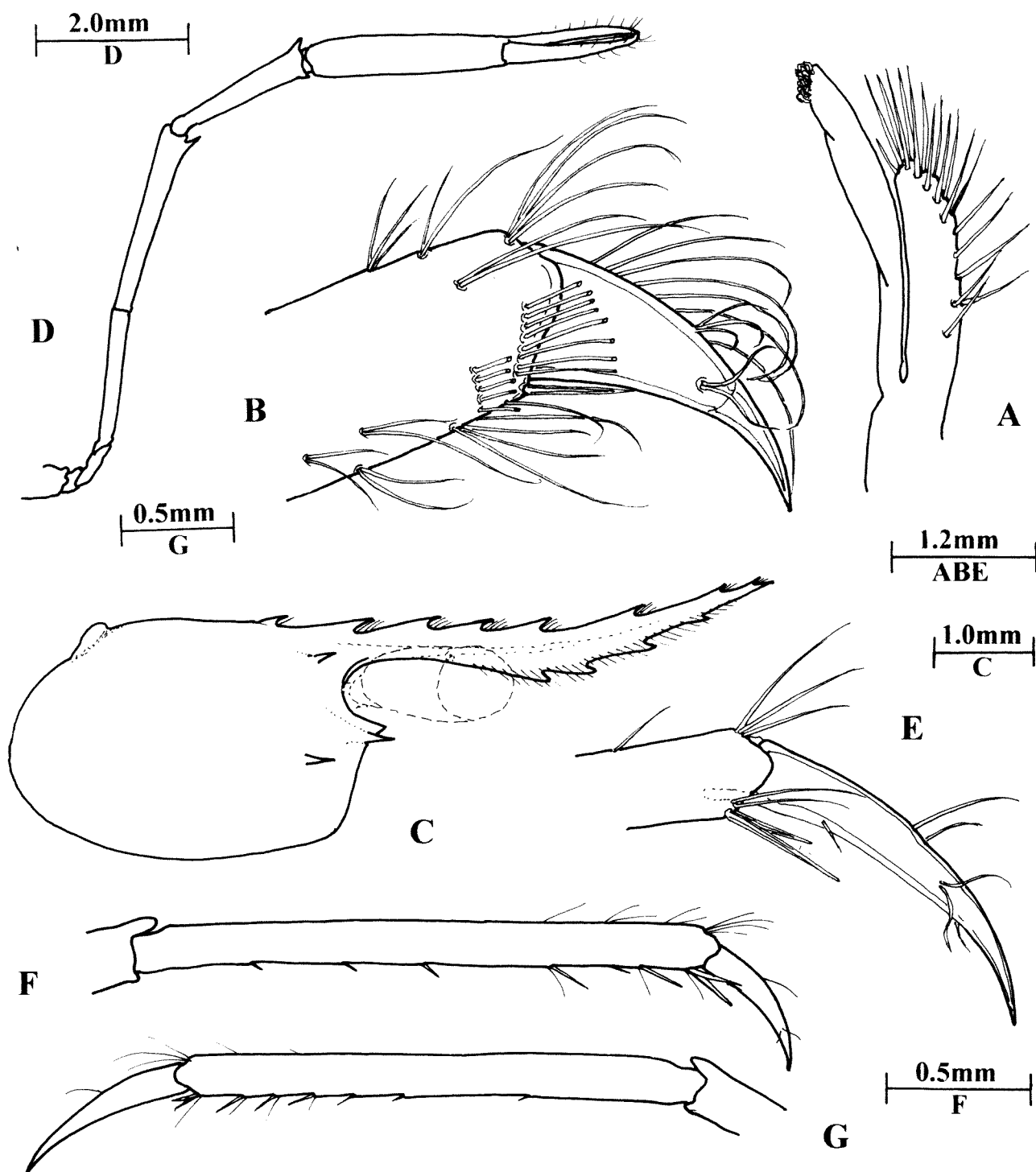


Figure 1 A, *Harpiliopsis beaupresii* (Audouin), male, WAM C 25879, second pleopod, appendices interna and masculina. B, *Kemponia amymone* (De Man), WAM C 25759, third pereiopod, distal propod and dactyl. C, *Kemponia andamanensis* (Kemp), WAM C 29309, carapace and rostrum. D, second pereiopod. E, third pereiopod, distal propod and dactyl. F, *Kemponia grandis* (Stimpson), WAM C 28096, third pereiopod, propod and dactyl. G, *Kemponia* aff. *grandis*, WAM C 28056, third pereiopod, propod and dactyl.

Pt (Bruce, 1983b, 1988a); Cobourg Peninsula (Bruce and Coombes, 1995). **Queensland:** Bet Reef, Restoration Rock; Heron I. and Wistari Reef, Capricorn Is; Myore, Moreton Bay (Patton, 1966); Heron I. (Bruce, 1981); One Tree I. (Bruce, 1977a); Orpheus and Lodestone (?) Is, Palm Is (Vytopil and Willis, 2001).

#### Further Distribution

Type locality: Ternate, Indonesia. Also known from the Nicobar Islands, Singapore, Vietnam, China, Indonesia, Papua New Guinea, Solomon Islands (?), Phillipines, and New Caledonia.



***Kemponia andamanensis* Kemp, 1922**

Figures 1C, D, E

*Periclimenes (Ancylocaris) andamanensis* Kemp, 1922: 204, figs. 54–57.*Periclimenes andamanensis*. – Davie, 2002: 323.*Kemponia andamanensis*. – Bruce, 2004: 12.**Material examined****Western Australia, Dampier Archipelago:** WAM C 29309 (1 male), stn DA2/99/75, off Goodwyn I. (20°32.16'S, 116°33.70'E to 20°31.70'S, 116°33.20'E), rake box dredge, 19.0–14.0 m, 25.07.1999.**Remarks**

Rostrum (Figure 1C) *ca* 1.8 times CL, slender up-curved, dentition 1+7/4, with submarginal plumose setae ventrally, carapace with supraorbital spine well developed. Second pereopods (Figure 1D) subequal, chela *ca* 1.8 times CL, fingers feebly armed, carpus shorter than merus, with well developed medial tooth distally. The third pereopod dactylus (Figure 1E) is *ca* 6.5 times longer than its basal width, as compared with 7.5–8.0 times in the type material (Kemp, 1922). The specimen corresponds well with Kemp's figure of a syntype, except that the rostrum is relatively longer. In Kemp's specimen it appears *ca* subequal to the post-orbital carapace length. In his description Kemp states that there are 2–3 ventral rostral teeth, but in his key he indicates 2–4, as in the present specimen. The material reported upon by Li (1996) from the Nansha Is had a shorter rostrum, as in Kemp's specimens, but also had a small supraorbital spine, as in the type of *P. suvativensis* Borradaile (Bruce, 1978b).

This is a new record for Western Australia.

**Australian Distribution****Queensland:** Morton Bay (Wadley, 1978; Young and Wadley, 1979).**Further Distribution**

Type locality: Port Blair, Andaman Islands. Known from Madagascar, Andaman Islands, China, South China Sea, Japan and Philippines.

***Kemponia elegans* (Paul'son, 1875)***Anchistia elegans* Paul'son, 1875: 113, pl. 17, fig. 1.*Periclimenes (Ancylocaris) elegans*. – Kemp, 1922: 215, figs 60–62.*Periclimenes elegans*. – Li, 2000: 178, fig. 225. – Davie, 2002: 326.*Kemponia elegans*. – Bruce, 2004: 14.**Material examined****Western Australia, Dampier Archipelago.** WAM

C 29306 (1 ovig. female), stn DA2/99/18, off Sloping Pt, Burrup Pen. (20°35.67'S, 116°54.97'E to 20°36.12'S, 116°55.09'E), rake box dredge, 10.0–10.5 m, 16.07.1999.

**Remarks**

CL 4.3 mm. 1+7/4.

**Australian Distribution**

**Western Australia:** Hibernia Reef (Bruce, 1992); Central Kimberleys: Cassini, East Montlivet, Lamarck, White Is (Berggren, 1997c). **Northern Territory:** East Pt, Darwin (Bruce, 1988a); Orontes Reef; Port Essington; Cobourg Pen.; Oxley I. (Bruce and Coombes, 1995); Channel I., Darwin Harbour (Bruce and Coombes 1997). **Queensland:** Northwest Islet (McNeill, 1926); Diamond Islets; West Cay, Swain Reefs, (Bruce, 1977a); Heron I., Capricorn Is (Bruce, 1981f); Mourilyan Harbour (Hoedt *et al.*, 2000).

**Further Distribution**

Type locality: Red Sea. Also known from Egypt, Sa'udi Arabia, Koweit, Aden, Kenya, Zanzibar, Tanganyika, Madagascar, Seychelle Islands, Minikoi, Pakistan (?), India, Sri Lanka, Andaman Islands, Nicobar Islands, Singapore, Indonesia, China, Hong Kong, Ryukyu Islands, Japan, Philippines, Papua New Guinea, Solomon Islands, Caroline Islands, Marshall Islands, Society Islands and Tuamotu Islands.

***Kemponia grandis* (Stimpson, 1860)**

Figure 1F

*Anchistia grandis* Stimpson, 1860: 39.*Periclimenes grandis*. – Borradaile, 1898: 382. – Li, 2000: 186, fig. 235. – Davie, 2002: 327.*Periclimenes (Ancylocaris) grandis*. – Kemp, 1922: 210, figs 58–59, pl. 7 fig. 10.*Kemponia grandis*. – Bruce, 2004: 16.**Material examined**

**Western Australia, Dampier Archipelago.** (1) WAM C 29303 (1 female), stn DA3/99/68, Nelson Rocks (20°27.998'S, 116°39.707'E), 6.0–24.0 m, 06.09.1999; (2) WAM C 28096 (1 male, 1 female), stn DA3/99/68, Nelson Rocks (20°27.998'S, 116°39.707'E), 6.0–24.0 m, 06.09.1999, [Figure 1F, P3 propod]; (3) WAM C 25648 (1 ovig. female), stn DA1/98/11, Dolphin I. (20°30.249'S, 116°49.335'E), intertidal, 21.10.1998; (4) WAM C 28065 (2 ovig. females), stn DA3/99/59, West Lewis I. (20°33.947'S, 116°38.334'E), intertidal, 04.09.1999; (5) WAM C 28065 (1 male, 2 juv. males), stn DA3/99/59, West Lewis I. (20°33.947'S, 116°38.334'E), intertidal, 04.09.1999; (6) WAM C 25645 (1 spm), stn DA1/98/

30, Burrup Pen. (20°31.586'S, 116°51.088'E), 1.0–10.0 m, 27.10.98; (7) WAM C 29302 (2 ovig. females), stn DA3/99/62, East Lewis I. (20°37.499'S, 116°39.182'E), intertidal, 05.09.1999.

### Remarks

The specimens present no special features and had rostral dentitions of 1+6–7/2–4.

The two juvenile males (5), WAM C 28065, with CLs 2.2, 1.7 mm, had a rostral dentition of 1+ 7/3; 1+ 7/2. The second pereopods had a very small distoventral meral tooth on the larger specimen and was without these teeth on the smaller. The propod and distal dactylus of the third pereopod (Fig. 1F) are illustrated for comparison with the following taxon. Both had well developed appendices masculinae. The larger male, CL 3.3 mm, had a rostral dentition of 1+6/3.

### Australian Distribution

**Western Australia:** Hibernia Reef (Bruce, 1992c); Caparelli I., southern Kimberleys (Davie and Short, 1995); Shark Bay (Berggren, 1997b); central Kimberleys, Hedley, Slate, Maret Is, East Montlivet (Berggren, 1997c). **Queensland:** Port Molle (?) (Miers, 1884); Magnetic I. (Bruce, 1977a). **Northern Territory:** Darwin (Bruce, 1987b); East Pt, Darwin (Bruce, 1988a); Trepang Bay; Port Essington; McCluer I., Cobourg Pen. (Bruce and Coombes, 1995); Bullocky Pt, Cameron Beach, Channel I., Nightcliffe, Dudley Pt, Lee Point, Shell I., Weed Reef, Darwin Harbour (Bruce and Coombes, 1997). **Queensland:** Abbot Point (Hoedt *et al.*, 2000).

### Further Distribution

Type locality: Oshima, Japan. Also known from Egypt, Israel, Jibuti, Yemen, Kenya, Zanzibar, Tanganyika, Moçambique, Comoro Islands, Madagascar, Seychelle Islands, Sri Lanka, Burma, Malaya, Singapore, Indonesia, Vietnam, China, Japan, Papua New Guinea, Japan, Caroline Islands, Marshall Islands, Fijian Islands, Tuvalu and Tuamotu Islands.

### *Kemponia* aff. *grandis*

Figure 1G

### Material examined

**Western Australia, Dampier Archipelago:** WAM C 28056 1 ovig. female, stn DA3/99/38, Malus Is (20°30.632'S, 116°38.788'E), intertidal, 27.08.1999.

### Remarks

The single example has a rostral dentition of 1+6/3. It differs slightly from the norm in that the third pereopod (Figure 1G) has a relatively longer dactyl, ca 0.36 of the propod length, as opposed to 0.24, and the propod is more heavily spinulate distally,

with a pair of distoventral spines and 5 spines on the distal half of the ventral margin, as opposed to a distoventral pair and 3 rather longer spines (cf. Figure 1F).

### Genus *Palaemonella* Dana, 1852

#### *Palaemonella pottsi* (Borradaile, 1915)

*Periclimenes (Falciger) pottsi* Borradaile, 1915: 212.

*Palaemonella pottsi*. – Kemp, 1922: 126. – Bruce, 1970: 279, figs. 1, 3–7, pl. 1a–d. – Li, 2000: 103, fig. 113. – Davie, 2002: 316.

### Material examined

**Western Australia, Dampier Archipelago.** (1) WAM C 25873 (1 male), stn DA1/98/10, Angel I. (20°28.410'S, 116°48.480'E), 0.0–2.0 m, 20.10.1998; (2) WAM C 28070, 2 juvs., stn DA3/99/47, Kendrew I. (20°28.936'S, 116°32.519'E), 4.0–5.0 m, coll. S. Morrison, 30.08.1999; (3) WAM C 25810 (1 male, 1+6/2, CL 3.0 mm), stn DA1/98/10, Angel I. (20°28.410'S, 116°48.480'E), 0.0–2.0 m, 20.10.1998; (4) WAM C 28093 (1 ovig. female, 3 juvs), stn DA3/99/68, Nelson Rocks (20°27.998'S, 116°39.707'E), 6.5 m, 07.09.1999; (5) WAM C 28052 (1 ovig. female), stn DA3/99/2 (20°30.632'S, 116°38.788'E), Malus I., 2.0–3.5 m, 27.08.1999; (6) WAM C 28077 (1 male, 1 ovig. female), stn DA3/99/55, Enderby I. (20°35.152'S, 116°35.631'E), 17.0 m, 02.09.1999; (7) WAM C 25802 (1 ovig. female), stn DA1/98/10, Angel I. (20°28.410'S, 116°48.480'E), 0.0–2.0 m, 20.10.1998; (8) WAM C 29205 (1 ovig. female), stn DA2/99/10, NE of Delambre I. (20°23.97'S, 117°04.82'E to 20°23.72'S, 117°04.70'E), rake box dredge, 38.0 m, 15.07.1999; (9) WAM C 25680 (1 male, 1 ovig. female), stn DA1/98/33, Angel I. (20°27.965'S, 116°49.692'E), 1.0–8.0 m, 29.10.1999.

### Hosts

*Oxycomanthus* sp.(1); *Comanthina variabilis* (Bell, 1882), (5) (7) (9); *Comanthus alternans* (Carpenter, 1881), (6); *Comatella maculata* (Carpenter, 1888), (2) [Crinoidea]. All appear to represent new host records. Also known to associate with *Comanthina schlegeli* (Carpenter, 1881), *Comanthus bennetti* (J. Müller), *C. parvicirrus* (J. Müller), *C. timorensis* (J. Müller), (Bruce, 1982b); *Comantheria* aff. *rotula* A.H. Clark, *Himerometra robustipinna* (Carpenter), (Bruce, 1983c); *Stephanometra oxyacantha*, *Comanthus briareus* (Bruce and Coombes, 1995) [Echinodermata, Crinoidea].

### Remarks

The larger specimen (2), CL 1.4 mm, from Stn 47, had a rostral dentition of 1+6/1, with the slender rostrum reaching to the end of the antennular peduncle, all rostral teeth are well developed but

the first tooth on the carapace is noticeably smaller; the post-orbital ridges are very well marked but lack a distinct tubercle; the hepatic spine is very small. The mandible has a small, single segmented palp and the third pereopod propod has short spines distally. The specimen is male and has a well developed, spiny appendix masculina on the second pleopod which clearly exceeds the endopod. The female (7) has a CL of 4.8 mm. The rostral dentition is 1+6-7/2. Specimen (5) lacks second pereopods.

#### Australian Distribution

**Western Australia:** southern Kimberleys, Leonie I. (Davie and Short, 1995); Shark Bay (Berggren, 1997b); central Kimberleys, Albert, Jamieson, Gibbings reefs, Cassini I. (Berggren, 1997c). **Northern Territory:** East Pt, Darwin (Bruce, 1988a); Cobourg Pen. (Bruce and Coombes, 1995). **Queensland:** Mabuaig and Murray (Borradaile, 1915; Potts, 1915); One Tree I. (Bruce, 1970; Bruce, 1977a); Heron I. (Bruce, 1981).

#### Further Distribution

Type locality: Murray Island, Torres Strait, Queensland. Reported from Zanzibar, Maldive Islands, Singapore, Indonesia, China, Japan, Philippine Islands, Papua New Guinea; Marshall Islands and New Caledonia.

#### *Palaemonella rotumana* (Borradaile, 1898)

*Periclimenes rotumanus* Borradaile, 1898: 383.

*Palaemonella vestigialis*. – Kemp, 1922: 123, figs 1–2, pl. 3 fig. 2. – Bruce, 1970: 276, pl. 1 e–f. – Li, 2000: 105, fig. 115. – Davie, 2002: 317.

#### Material examined

**Western Australia, Dampier Archipelago.** (1) WAM C 25904 (1 male), stn DA2/99/62, Flying Foam Passage, off Angel I. (20°30.69'S, 116°48.58'E to 20°31.17'S, 116°48.33'E), rake box dredge, 7.0–9.0 m, 22.07.1999; (2) WAM C 29211 (1 male, 1 female, 1+6/2, 1 v. damaged spm, NWK), stn DA2/99/36, off High Pt, West Lewis I. (20°33.58'S, 116°36.87'E to 20°33.88'S, 116°36.25'E), rake box dredge, 13.0 m, 19.07.1999; (3) WAM C 29299 (ex WAM C 25692), (1 male, 1 ovig. female), stn DA1/98/31, Searipple Passage (20°31.230'S, 116°51.182'E), intertidal, 28.10.1998; (4) WAM C 25665 (1 ovig. female), stn DA1/98/08, Angel I. (20°29.180'S, 116°47.711'E), 2.0–8.0 m, 20.10.1998; (5) WAM C 25419 (1 ?female), stn DA3/99/64, West Lewis I. (20°36.658'S, 116°36.956'E), 2.0–5.0 m, 06.09.1999.

#### Remarks

The specimens of this well known species, several of which lacked second pereopods, present no

special features. The rostral dentition is 1+6-7/2-3. Largest male, CL 4.5 mm. Specimen (5) is juvenile, with poorly developed supraorbital ridges:

#### Australian Distribution

**Western Australia:** Rottneest I. (Black and Prince, 1983); Shark Bay (Jones, 1990); Cartier and Hibernia Reefs (Bruce, 1992); Rottneest I. (Jones and Morgan, 1993); Sunday I.; Montgomery Reef; Whirlpool Pass, southern Kimberleys (Davie and Short, 1995); central Kimberleys, Wildcat, Gibbings reefs, Hedley I. (Berggren, 1997c). **Northern Territory:** Darwin Harbour (Bruce, 1983b); Weed Reef, Darwin Harbour (Bruce, 1987d); East Pt, Darwin (Bruce, 1988a); Burford I.; Port Bremer, Port Essington; Oxley I.; New Year I., Cobourg Pen. (Bruce and Coombes, 1995). **Queensland:** Moreton Bay; Low Is (Bruce, 1970); Herald Is, North East Cay; One Tree I. (Bruce, 1977a); Heron I. (Bruce, 1981); John Brewer Reef (Bruce, 1987d).

#### Further Distribution

Type locality: Rotuma Island, Fijian Islands. Reported from Israel (Haifa), Egypt, Suez, Yemen, Kenya, Zanzibar, Tanganyika, Moçambique, Madagascar, Comoro Islands, Seychelle Islands, Maldive Islands, Sri Lanka, Andaman Islands, Nicobar Islands, Burma, Malaya, Singapore, Vietnam, China, Hong Kong, South China Sea, Ryukyu Islands, Japan, Indonesia, Papua New Guinea, Philippines, New Caledonia, Marshall Islands, Mariannas Islands, Fijian Islands, and Hawaii(?). To depths of 120 m. Now also occurring in the eastern Mediterranean Sea.

#### *Palaemonella spinulata* Yokoya, 1936

Figures 2, 3

*Palaemonella spinulata* Yokoya, 1936: 135, fig. 4. – Li, 2000: 106. – Davie, 2002: 317.

Not *Palaemonella spinulata*. – Bruce, 1975: 177, figs 6–7. – Li, 2000: fig. 114.

#### Material examined

**Western Australia, Dampier Archipelago.** (1) WAM C 29308 (1 ovig. female), stn DA2/99/73, off Rocky Head, Enderby I. (20°40.14'S, 116°27.69'E to 20°39.93'S, 116°27.96'E), rake box dredge, 12.5 m, 24.07.1999; (2) WAM C 28094 (1 male, 1+ 7/2, CL 3.2mm, drawn), stn DA3/99/68, Nelson Rocks (20°27.998'S, 116°39.707'E), 6.5 m, 07.07.1999.

#### Diagnosis

Rostrum (Figure 2A) exceeding antennular peduncle, slightly upturned. Orbit obsolete; supraorbital spines present, small, ridges absent; hepatic spine larger; inferior orbital angle (Figure 2B) produced, acute; exceeded by antennal spine; R

1+7/2, ca 1.1 times CL. pleuron 4 (Figure 2I) bluntly rounded posteroventrally, pleuron 5 feebly acute. Mandibular palp 2-segmented; second maxilliped with rudimentary podobranch. Second pereopod (Figure 2F) with distoventral meral tooth, without ischial teeth; carpus (Figures 2G) with short blunt distolateral tooth. Third pereopod dactyl (Figure 3C) ca 0.27 of propod length (Figure 2H); dactyls ca 5 times longer than wide, ventral margin concave; propods ca 12 times longer than wide. Appendix masculina subequal to endopod length. Dorsal telson spines at 0.33 and 0.66 of length; posterior margin with acute median point.

### Type

The holotype specimen from Misaki is considered to be lost (Holthuis, 1952; Bruce, 1970; Okuno, pers. comm.). The designation of a neotype would appear useful but one from Japanese or nearby waters would be more appropriate than one of the present specimens.

### Remarks

(1) Supraorbital spine well developed, mandibular palp 2-segmented, CL 2.5 mm, 1+6/2. (2) large spm, CL 3.2 mm, with relatively small supraorbital spines; rostrum exceeding scaphocerite, tip acute, slightly deflected. The second pereopod is robust, the chela ca 2.1 times CL. The appendix masculina is slightly longer than endopod, with numerous spines, twice length of the appendix interna and the endopod.

The specimens referred to *P. spinulata* Yokoya by Bruce (1975) from Tanganyika and Kenya are now not considered to belong to this species. The taxon has now been provided with a new name (Bruce, 2002a).

This is a new record for Western Australia.

### Australian Distribution

**Queensland:** Heron I. (Bruce, 1981); Morton Bay, Dunwich (Bruce, 1983). **Northern Territory:** Cobourg Peninsula (Bruce and Coombes, 1995); Darwin Harbour, Fannie Bay (Bruce and Coombes, 1997).

### Further Distribution

Type locality: Misaki, Japan. Reported only from La Réunion, China and Japan.

### *Palaemonella* sp.

#### Material examined

**Western Australia, Dampier Archipelago.** WAM C 25659 (1 female), stn DA1/98/34, Tozer I. (20°27.684'S, 116°50.486'E), intertidal, 29.10.1998.

#### Remarks

The specimen, which lacks both second

pereopods, has a 2-segmented palp. The rostral dentition is 2+6/3, the rostrum ca 1.1 of CL, not exceeding the scaphocerite, and the supraorbital carina and tubercle, as in *P. pottsi* and *P. rotumana*, is obsolete. The posteroventral angle of the fourth pleuron is rounded, the fifth acute. The third ambulatory pereopod has a slender propod, ca 15 times longer than wide, with a pair of unequal distoventral spines and 4 isolated spines on the distal half of the ventral border, with the dactyl ca 0.26 of the propod length, 6.5 times longer than its basal width, smoothly concave ventrally.

The specimen shows some resemblance to *Palaemonella foresti*, but the dactyls of the ambulatory pereopods are much longer and more slender, compared with 0.18 of the propod length and 3.6 times longer than the basal depth in *P. foresti* (Bruce, 2002b).

Specimens of *Palaemonella* aff. *rotumana* have been reported from the Seychelle Is and from Kenya which lack a tuberculate supraorbital ridge (Bruce, 1974a; 1976; 2002b).

### Genus *Periclimenella* Duris and Bruce, 1995

#### *Periclimenella spinifera* (De Man, 1902)

*Periclimenes Petithouarsi* var. *spinifera* De Man, 1902: 284.

*Periclimenes (Ancylocaris) spiniferus*. – Kemp, 1922: 195.

*Periclimenes (Harpilius) spiniferus*. – Holthuis, 1952: 76, fig. 30.

*Periclimenella spinifera*. – Duris and Bruce, 1995, 656, figs 19–20. – Li, 2000:144, fig. 178. – Davie, 2002: 321.

#### Material examined

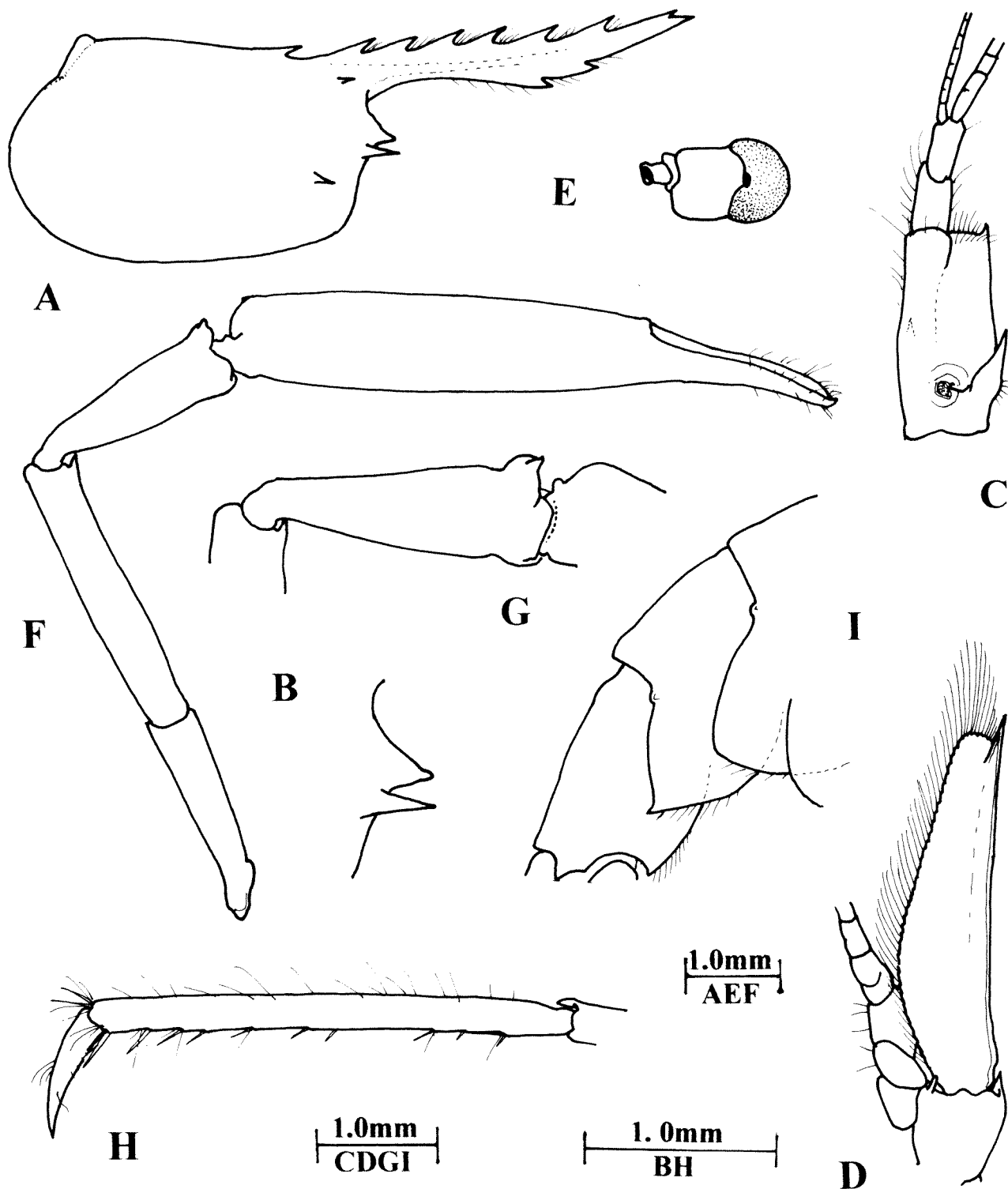
**Western Australia, Dampier Archipelago.** WAM C 28087 (2 ovig. females), stn DA3/99/64, West Lewis I. (20°36.658'S, 116°36.956'E), 2.0–5.0 m, 06.09.1999.

#### Remarks

The specimens present no special features. This species is usually abundant on coral reefs and it is surprising that so few specimens were collected from the Dampier Archipelago.

#### Australian Distribution

**Western Australia:** Cartier and Hibernia Reef (Bruce, 1992c); Sunday I., southern Kimberleys (Davie and Short, 1995, as *Periclimenes*); central Kimberleys: Montgomery reef, Maret Is (Berggren, 1997c). **Northern Territory:** Dudley Pt, Darwin (Bruce, 1983); Weed Reef, Darwin Harbour (Bruce,



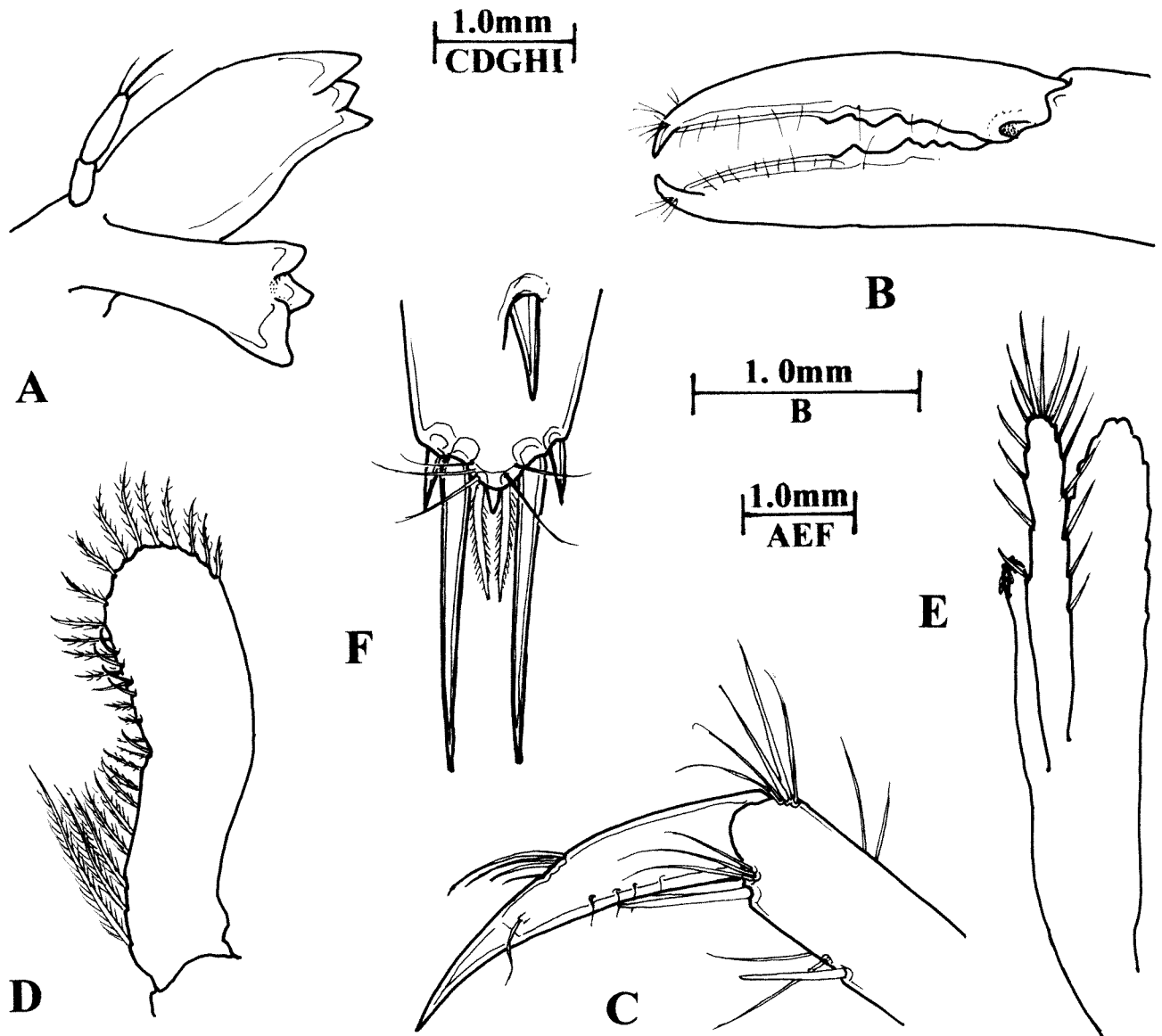
**Figure 2** *Palaemonella spinulata* Yokoya, male, WAM C 28094. A, carapace and rostrum. B, inferior orbital region. C, antennule. D, antenna. E, eye. F, second pereiopod. G, same, carpus. H, third pereiopod, propod and dactyl. I, abdomen, fourth and fifth pleura.

1987b, as *P. spinifer*); East Pt, Darwin (Bruce, 1988a); Cobourg Pen. (Bruce and Coombes, 1995); East Pt; Channel I., Darwin Harbour (Bruce and Coombes 1997). **Queensland:** Northwest I. (McNeill, 1926); Low I. (Stephenson, *et al.*, 1931); Low Is (McNeill, 1968); Great Barrier Reef (Patton, 1966); Heron I. (Patton, 1974; Bruce, 1981); One Tree

I. (Austin, Austin and Sale, 1980); Lizard I. (Bruce, 1983).

**Further Distribution**

Type locality: Ternate, Ambon, Indonesia. Reported from Kenya, Tanganyika, Madagascar, Seychelle Islands, Réunion, Maldivé Islands,



**Figure 3** *Palaemonella spinulata* Yokoya, male, WAM C 28094. A, mandible. B, second pereiopod chela, fingers. C, third ambulatory pereiopod, distal propod and dactyl. D, first pleopod, endopod. E, second pleopod, endopod. F, posterior telson, dorsal spine inset.

Chagos Islands, Gulf of Manaar, Andaman Islands, Nicobar Islands, Burma, Malaya, Singapore, Vietnam, Indonesia, China, South China Sea, Japan, Philippines, Papua New Guinea, Mariannas Islands, Marshall Islands, Fijian Islands, Samoan Islands and Society Islands.

**Genus *Periclimenaeus* Borradaile, 1915**

***Periclimenaeus arabicus* (Calman, 1939)**

*Periclimenes* (*Periclimenaeus*) *arabicus* Calman, 1939: 210, fig. 4.

*Periclimenaeus arabicus*. – Holthuis, 1952: 13, 130. – Li, 2000: 116, fig. 127. – Davie, 2002: 318.

*Periclimenaeus ohshimai* Miyake and Fujino, 1967: 275, fig. 1.

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 28049 (1 ovig. female), stn DA3/99/36, Malus I. (20°33.58'S, 116°36.87'E to 20°33.88'S, 116°36.25'E), 6.0–14.0 m, 27.08.1999.

**Remarks**

Rostrum not exceeding eyes, dentition 6/1, acute supraorbital tubercle distinct. CL 2.0 mm. Noted as collected from *Pocillopora*, but presumably from an encrusting sponge host.

This is a new record for Western Australia.

**Australian Distribution**

Reported from central Kimberleys by Berggren (1997c). **Queensland:** Heron I. (Bruce, 1981; 1983) **Northern Territory:** Cobourg Pen. (Bruce and Coombes, 1995).

**Further Distribution**

Type locality: Oman: 19°22.6'N. 57°53.0'E., 13.5 m. Reported from Oman, "Cotes d'Arabie", Djibuti, Kenya, Zanzibar, Tanganyika, Seychelle Islands, Maldive Islands, Vietnam, China, Hong Kong, Japan, New Caledonia and Fijian Islands.

***Periclimenaeus hecate* (Nobili, 1904)**

*Coralliocaris hecate* Nobili, 1904: 232. – Nobili, 1906: 58, pl. 3, fig. 2.

*Periclimenaeus tridentatus*. – Holthuis, 1952: 145 (part.).

*Periclimenaeus hecate*. – Bruce, 1974: 1574, figs 11–12, 13e. – Li, 2000: 124, fig. 143. – Davie, 2002: 320. – Marin *et al.*, 2005: 205, fig. 5a–h.

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 25906 (1 ovig. female), stn DA1/98/32, Legendre I. (20°23.520'S, 116°54.110'E), 5.0–17.0 m, 28.10.1998.

**Remarks**

Rostrum short, not exceeding eyes, dentition 3/0. The major second pereopod and all ambulatory pereopods except one fifth pereopod are lacking so the determination cannot be considered certain. The fifth pereopod dactyl lacks a distal accessory spine, but a minute proximal ventral styliform tooth may be present. The minor second pereopod dactyl has *ca* 40 small acute teeth, of diminishing size proximally, palm sparsely setose. CL 2.5 mm.

**Australian Distribution**

**Western Australia:** C. Jaubert (Balss, 1921, as ?*Coralliocaris*); central Kimberleys, Albert Reef, Maret Is (Berggren, 1997c). **Queensland:** Heron I., Wistari Reef (Bruce, 1981; Bourdon and Bruce, 1983); One Tree I. (Austin, Austin and Sale, 1980).

**Further Distribution**

Type locality: Djibuti. Reported from Djibuti, Kenya, Comoro Islands, Seychelle Islands, Réunion, Maldive Islands, Indonesia, Vietnam and China.

***Periclimenes affinis* (Zehntner, 1894)**

Figure 4

*Palaemonella affinis* Zehntner, 1894: 208.

*Periclimenes (Harpilius) affinis*. – Holthuis, 1958: 6, fig. 2.

*Periclimenes affinis*. – Bruce, 1980a: 2, figs. 1–3. – Davie, 2002: 323.

**Material examined**

**Western Australia, Dampier Archipelago.** (1) WAM C 29304 (2 males, 1 ovig. female), stn DA3/99/68, Nelson Rocks (20°27.998'S, 116°39.707'E), 6.5 m, 07.10.1999, (2) WAM C 29301 (23 [7 ovig. females]), DA3/99/55, Enderby I. (20°35.152'S, 116°35.631'E), intertidal, 02.10.1999.

**Hosts**

(1) crinoid Z 5953, *Comanthina variabilis* (Bell, 1882). (2) crinoid Z 5557, *Comanthina alternans* (Carpenter, 1881)[Crinoidea]. Both hosts are new host records. Associations with *Comatula cratera* (H.L. Clark), *Comanthus* sp. (Bruce, 1982); *Comanthina schlegeli* (Carpenter, 1881) have been reported (Bruce, 1982c) [Echinodermata, Crinoidea].

**Remarks**

This represents a new record to the Western Australian fauna.

The mature specimens are as previously described (Holthuis, 1958; Bruce, 1980). A small juvenile specimen, CL 1.3 mm, in (2), has the rostrum (Figure 4A) *ca* 0.75 of the CL, dentition of 4/0. The antennal spine is well developed, subcarinate, distinctly exceeding the inferior orbital angle. The hepatic spine, at a slightly lower level, is short and robust. The cornea is large, hemispherical, *ca* 0.28 of the CL. The first and second pereopods are very short, reaching only to *ca* the distal end of the scaphocerite. The first pereopod (Figure 4B) has a very short, robust carpus, slightly longer than the palm of the chela, which is subequal to the finger length. The fingers are unarmed, without distinct cutting edges. Second pereopods (Figure 4C) are subequal, more slender, with the chela *ca* 0.8 of the CL; the fingers are a little shorter than the palm and unarmed. The third pereopod has the propod (Figure 4D) equal to *ca* 0.5 of the CL, robust, with four slender spines ventrally, with numerous long filamentous setae distoventrally. The dactyl is *ca* 0.25 of the propod length, simple, with a slender curved unguis, *ca* 0.66 of the corpus length. The specimen is probably an early post larval juvenile.

**Australian Distribution**

**Northern Territory:** Black Point, Port Essington, Cobourg Peninsula (Bruce and Coombes, 1995). **Queensland:** Capricorn Is, Wistari Reef ((Bruce, 1981).

**Further Distribution**

Type locality: Ambon, Moloccan Islands, Indonesia. Known from Indonesia, China, South China Sea, Japan (?), Philippines, Papua New Guinea and New Caledonia.

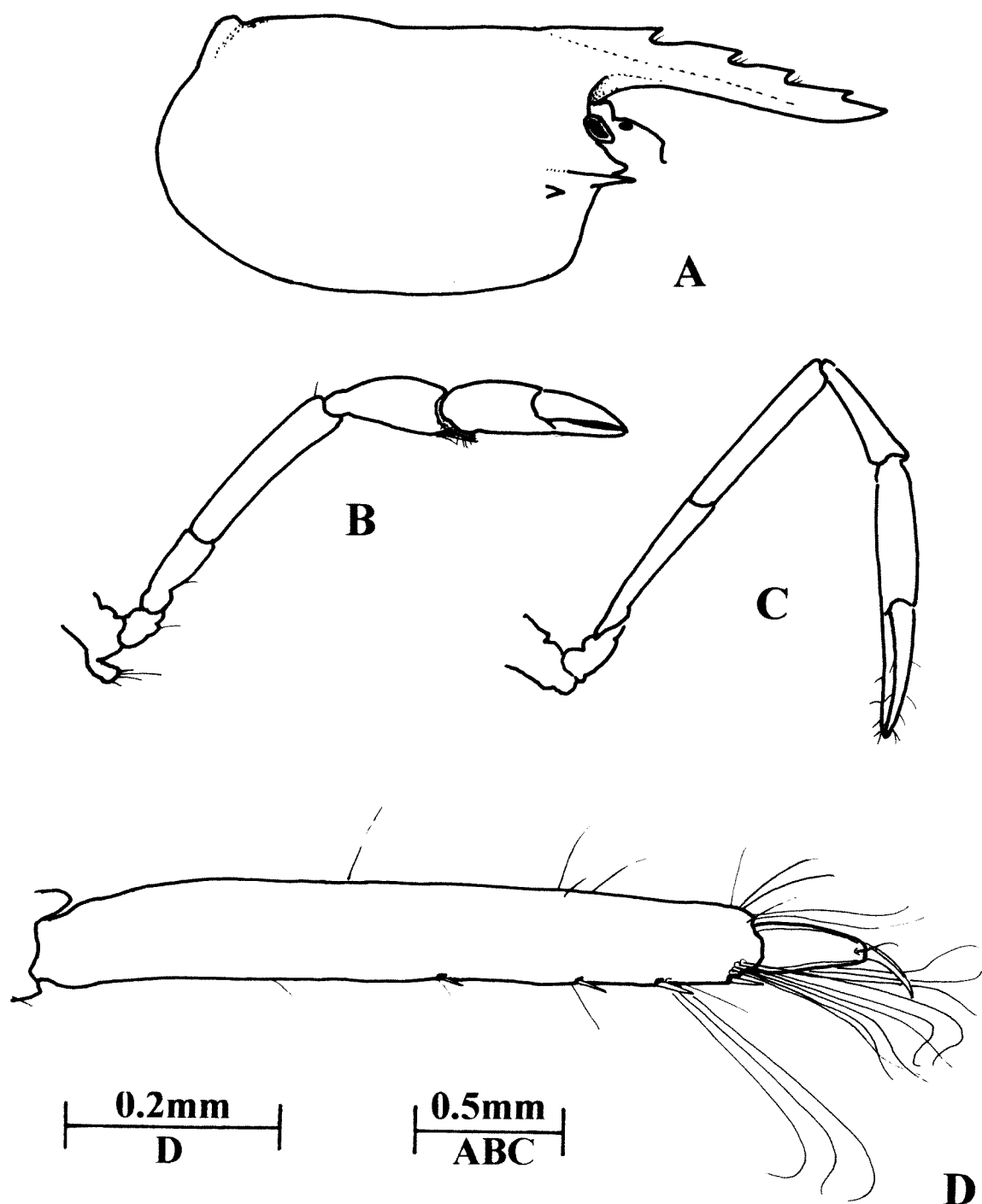


Figure 4. *Periclimes affinis* (Zehntner), juvenile, WAM C 29301. A, carapace and rostrum. B, first pereiopod. C, second pereiopod. D, third pereiopod, propod and dactyl.

**Genus *Periclimes* Costa, 1844**

***Periclimes alegrias* Bruce, 1987**

*Periclimes alegrias* Bruce, 1987a: 143, figs 1A, 2–5, 15 A–C. – Li, 2000: 152, fig. 186. – Davie, 2002: 323.

**Material examined**

Western Australia, Dampier Archipelago. WAM C 29305 (1 ovig. female), stn DA3/99/68, Nelson Rocks (20°27.998'S, 116°39.707'E), 6.5 m, 07.09.1999.

**Host**

*Comanthina variabilis* (Bell, 1882)  
[Echinodermata, Crinoidea].

**Remarks**

The single specimen, CL 2.1 mm, agrees closely with the original description. It has a rostral dentition of 8/0 and lacks the minor second pereiopod and all ambulatory pereiopods except the fourth right pereiopod.

Previously reported in association with



*Stephanometra spicata* (Carpenter) and *Lamprometra palmata* (Müller). The entries in the table in Bruce (1986, p. 151) are incorrect.

#### Australian Distribution

**Western Australia:** Whirlpool Pass, southern Kimberleys (Davie and Short, 1995). **Northern Territory:** Coral Bay, Port Essington, Arnhem Land (Bruce, 1987a); East Point, Darwin (Bruce, 1988); West Vernon I. (Bruce, 1990a); Orontes Reef and Coral Bay, Cobourg Peninsula (Bruce and Coombes, 1995).

#### Further Distribution

Type locality: Coral Bay, Port Essington, Cobourg Peninsula, Northern Territory. Not known from outside Northern Territory waters. Davie (2002) cites WA record.

#### *Periclimenes burrup* sp. nov.

Figures 5–7

*Periclimenes sinensis*. – Bruce and Coombes, 1995: 133, figs 12b–c.

#### Material examined

Holotype: WAM C 25672 (ovig. female, CL 2.0; carapace and rostrum 3.8; total body length ca. 11.0; major second pereopod chela 3.3; minor second pereopod chela 2.2; length of ovum 0.5), stn DA1/98/30, Burrup Pen. (20°31.59'S, 116°52.09'E), 11.0m, 27.10.1998.

Paratypes: WAM C 35561 (1 male), stn DA1/98/30, Burrup Pen. (20°31.59'S, 116°52.09'E), 11.0m, 27.10.1998; WAM C 35562 (1 female), stn DA1/98/30, Burrup Pen. (20°31.59'S, 116°52.09'E), 11.0m, 27.10.1998.

**Western Australia, Dampier Archipelago.** (1) WAM C 25672 (ca 44 spms, 29 ovig. females), stn DA1/98/30, Burrup Pen. (20°31.59'S, 116°52.09'E), 11.0 m, 27.10.1998; (2) C WAM (1 ovig. female), stn DA2/99/71, off Rocky Head, Enderby I. (20°41.49'S, 116°28.05'E to 20°41.55'S, 116°28.36'E), rake box dredge, 10.5 m, 24.7.99; (3) WAM C 26625 (1 female, 3 juvs), stn DA2/99/56, off Roly Rock (20°30.10'S, 116°28.27'E to 20°29.88'S, 116°27.93'E), rake box dredge, 33.0–34.5 m, 21.7.99.

#### Host

(1)(2) *Dendronephthea* sp. [Alcyonacea]. (3) unidentified sponge.

#### Diagnosis

A small *Periclimenes* of the *obscurus* group. Rostrum (Figure 5B) horizontal, slender, subequal to CL (Figure 5A), dentition 8–11/1–2, mainly 8–9/2 (72%), first tooth on carapace, first 3 teeth semi-articulated, inferior orbital angle slightly produced,

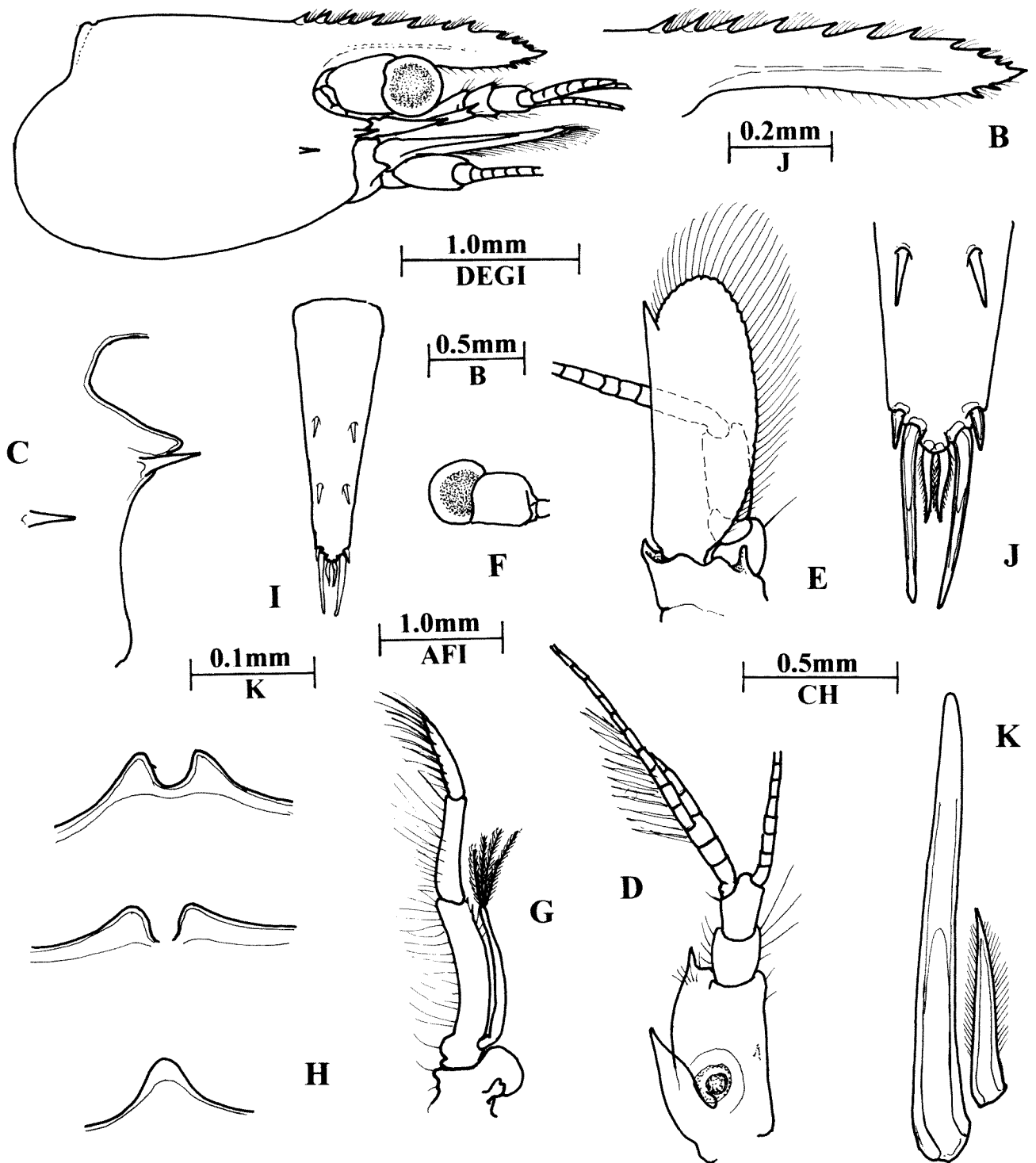
blunt, not reaching to end of antennal spine, corneal diameter (Figure 5F) 0.24 of CL, scaphocerite (Figure 5E) 2.27 times longer than wide, bluntly rounded distally, lateral tooth falling short of distal lamellar margin; mouthparts similar to *P. toloensis* (see Bruce, 1982, p. 262, fig. 17), third maxilliped (Figure 5G) slender, ischiomerus and basis feebly separated, with well developed rounded epipod and rudimentary arthrobranch, thoracic sternites (Figure 5H) armed, fourth with paired confluent subacute submedian processes, fifth with paired discrete blunt submedian processes, sixth with blunt median process, first pereopod (Figure 6B) with chela (Figure 6C) subequal to carpus, coxa with strong ventral process (Figure 6D), second pereopods unequal, robust, major chela (Figure 6E) with fingers (Figure 6F) 0.6 of palm length, feebly dentate (Figure 6G), fixed finger with three small teeth proximally, central tooth smaller, single tooth on dactylus, teeth slightly larger in male, carpus short, half palm length, chela 1.3 times CL, merus longer than palm, unarmed, third ambulatory dactyls slender, 0.25 of propod length, biunguiculate, unguis 0.57 of corpus length, accessory tooth slender, 0.5 of unguis length; propod with distoventral spine, 4 single ventral spines; telson (Figure 5I) ca 0.75 of CL, dorsal spines normal, at ca 0.5 and 0.75 of telson length, lateral posterior spines small, posterior margin (Figure 5J) bluntly angular, without acute median process, lateral spines ca 0.2 of intermediate spine length, intermediate spines (Figure 5K) 0.25 of telson length, robust, distally blunt, submedian spines (Figure 5K) 0.4 of intermediate spine length, distally acute, setulose; uropods without special features. Colouration unknown.

#### Systematic position

*Periclimenes burrup* is closely related to *P. sinensis* Bruce, 1969 (Bruce, 1969; 1982a). The new species is most readily distinguished by its stouter form, the much more robust unequal second pereopods, with the chelae having relatively shorter fingers. The scaphocerite is broader, ca 2.7 times longer than wide, as opposed to ca 3.0 times, and distally rounded rather than angular. The unguis of the ambulatory dactyl is shorter in *P. burrup*, ca 0.57 of the corpus length, 0.7 in *P. sinensis*, with the accessory tooth more divergent. The poster margin of the telson has an acute median point in *P. sinensis*, not present in *P. burrup*. The condition of the thoracic sternites in *P. sinensis* is unknown. The fourth and fifth sternites are similar to *P. terangeri*, which is distinguished by the presence of a distinct epigastric spine, longer paired ventral spines on the ambulatory propods (Bruce, 1998).

#### Etymology

From *Burrup*, original name for locality of capture, used in apposition.

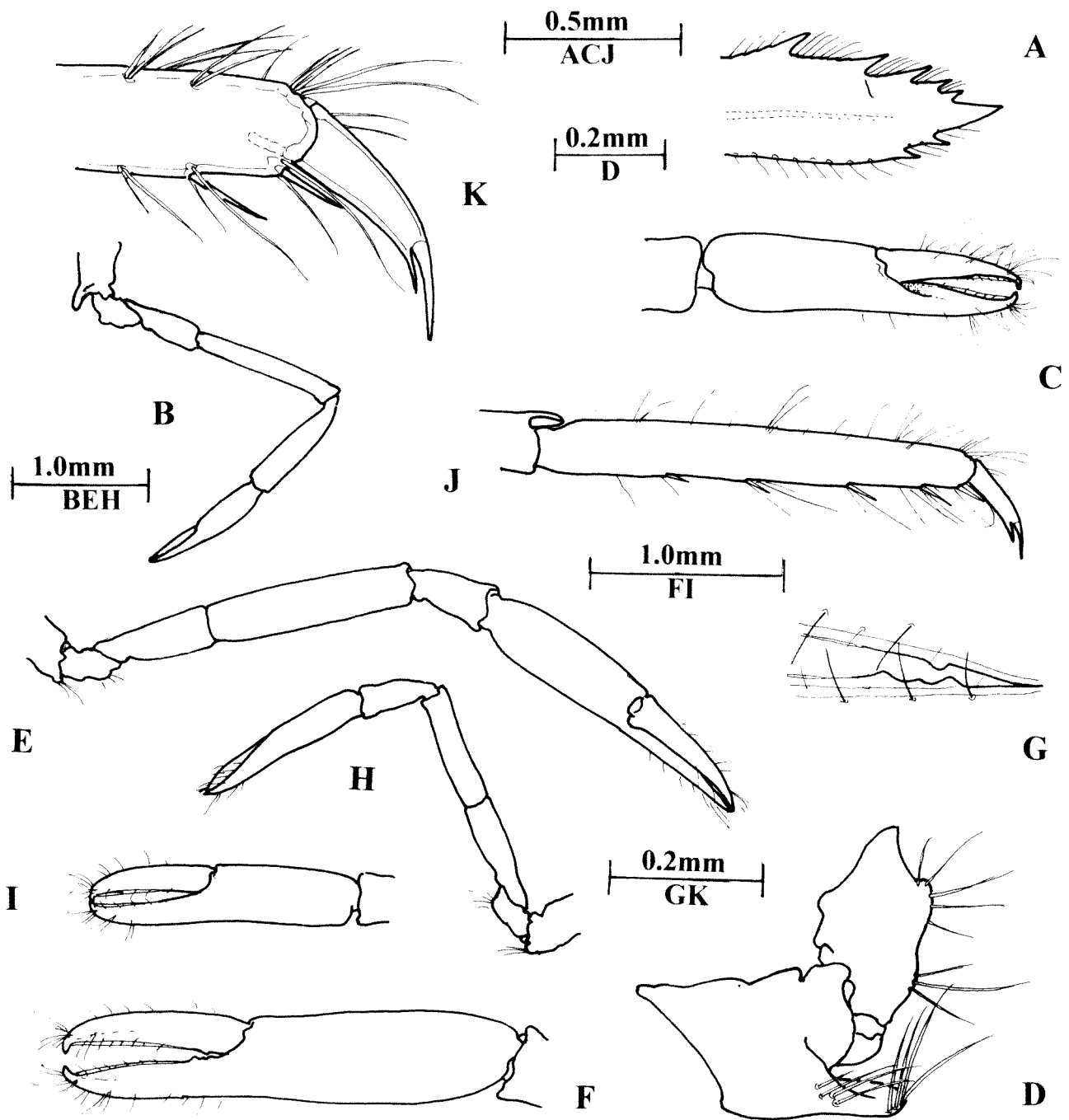


**Figure 5** *Periclimes burrup* sp. nov., ovigerous females, Burrup Pen., WAM C 25672. **A**, carapace and appendages. **B**, rostrum. **C**, carapace, orbital region, right lateral. **D**, antennule. **E**, antenna. **F**, eye. **G**, third maxilliped. **H**, fourth to sixth thoracic sternites. **I**, telson. **J**, same, posterior end. **K**, same, submedian and intermediate posterior spines. **AB**, holotype (ovig. female) WAM C 25672. **C-K**, paratype (female) WAM C 35562.

#### Remarks

The closely related *Periclimes sinensis* is reported from Hong Kong (type locality), Japan (as *Periclimes setoensis*), Philippines and Northern Territory only. The second pereopods of *P. sinensis* are reported to be subequal and similar, as are those

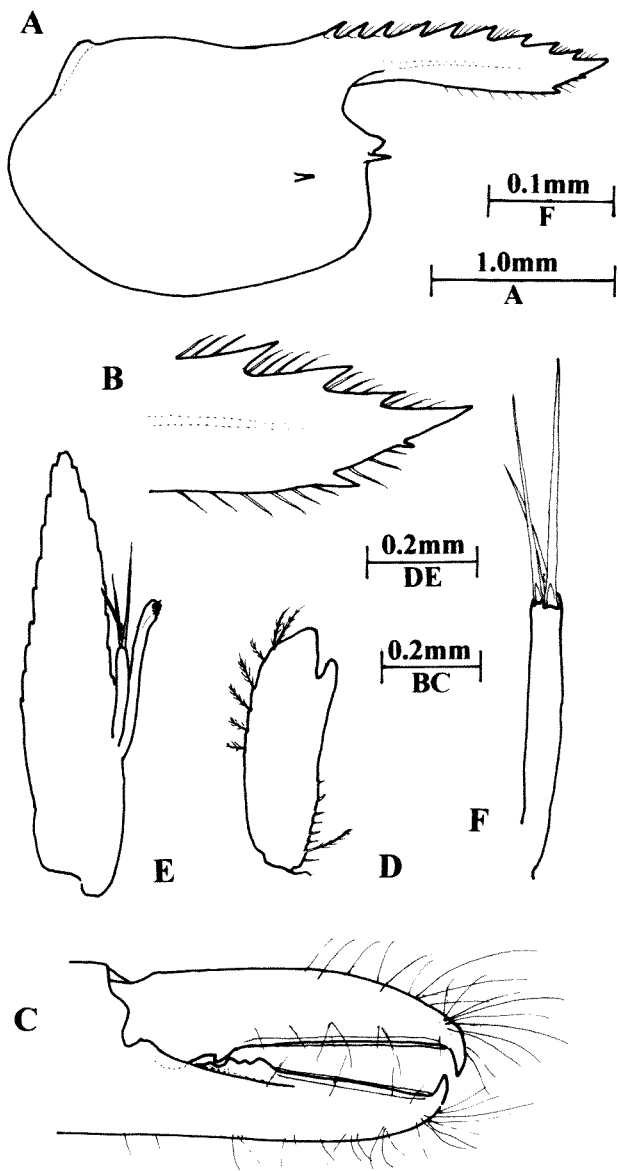
of its synonym *P. setoensis* Fujino and Miyake, 1969. The *P. sinensis* material reported from the Northern Territory (Bruce and Coombes, 1995) should be referred to *P. burrup* on account of the asymmetry of the second pereopods and the robust development of the major chela. *Periclimes*



**Figure 6** *Perclimenes burrup* sp. nov., ovigerous females, Burrup Pen., WAM C 25672. A, distal rostrum. B, first pereiopod. C, same, chela. D, same, basis and coxa. E, major second pereiopod. F, same, chela. G, same, proximal cutting edges of fingers. H, minor second pereiopod. I, same, chela. J, third pereiopod, propod and dactyl. K, same, distal propod and dactyl. A, holotype (ovig. female WAM C 25672. B-K, paratype (female) WAM C 35562.

*sinensis* is, therefore, not to be included in the Australian pontonine fauna. Possibly also closely related is *P. batei* Holthuis. The type specimen was collected from the Philippines, off Sibago, 6°57'N 122°28'E, 7-45m, and described by Bate (1888) as *Palaemonella orientalis*. It was distinguished from that species and renamed *Palaemonella batei* by Borradaile (1917) and later transferred to the genus *Perclimenes* by Holthuis (1959), as it lacked a

mandibular palp. Its systematic position is obscure. It is small (CL 0.9 mm), clearly juvenile, and as it may have been obtained from plankton, possibly only post-larval. It has six dorsal rostral teeth, all anterior to the orbital margin and is without an epigastric spine. The first pereiopod is distinctly different from *P. burrup* and *P. sinensis* as the carpus is ca 2.7 times longer than wide and subequal to the palm length. Similar proportions



**Figure 7** *Periclimes burrup* sp. nov., male, paratype, Burrup Pen., holotype (ovig. female) WAM C 35561. **A**, carapace and rostrum. **B**, tip of rostrum. **C**, second pereiopod, fingers. **D**, first pleopod, endopod. **E**, second pleopod, endopod. **F**, same, appendix masculina.

have been observed in juveniles of other species of *Periclimes* in which the carpus is much longer in the adult. This applies also to the reduced rostral dentition. *Periclimes batei* could be a juvenile of any species of the *obscurus*-group. *Periclimes batei* has since been possibly recorded from the Seychelle Is (*P. aff. batei* Fransen, 1994) and Western Australia (as *P. ? batei* Bruce, 1992). The type specimen of *P. batei* is preserved in the collection of the Natural History Museum, registration number BMNH 1888.22 (*P. Clark*, 21-02-03), and is incomplete: the body is mainly intact, somewhat shrivelled, with only one first pereiopod, one second pereiopod and one ambulatory pereiopod, the last two detached.

**A Key to the *Obscurus* Species Group**

1. Carapace with isolated epigastric spine ..... 2
- Carapace without epigastric spine ..... 8
2. Ambulatory dactyls stout, with accessory tooth stouter than unguis; R. 2+7/2 ..... *P. incertus* Borradaile
- Ambulatory dactyls slender, accessory spine more slender and shorter than unguis ..... 3
3. Second pereiopods subequal, similar, carpus subequal to palm, antennal spine postmarginal, inferior orbital angle feebly developed; R. 1+6-9/1-2 ... *P. obscurus* Kemp
- Second pereiopods markedly unequal, carpus much shorter than palm ..... 4
4. Rostral lamina deep, 13-17 dorsal teeth, 3-4 ventral ..... *P. hongkongensis* Bruce
- Rostral lamina not deep, rostral teeth less than 11 dorsal, 3 ventral ..... 5
5. Dorsal telson spines minute; major chela palm slender, ca 4.3 times longer than wide; inferior orbital angle strongly produced; R. 1+8/1 ..... *P. toloensis* Bruce
- Dorsal telson spines normal ..... 6
6. Fourth thoracic sternite with transverse ridge with keyhole shaped median notch; R.1+8-9/2 ..... *P. terangeri* Bruce
- Fourth thoracic sternite lacking transverse ridge with median notch ..... 7
7. Major chela more slender, 5.2 times longer than wide, fingers 0.4 of palm length; ambulatory dactyl with or without minute accessory tooth, ca 0.2 of unguis length; R.9/2 ..... *P. nomadophophila* Berggren
- Major chela more robust, 4.1 times longer than wide; fingers 0.3 of palm length; ambulatory dactyl with distinct accessory tooth, ca 0.7 of unguis length; R.10/2 ..... *P. delagoae* Barnard
8. First pereiopod with carpus much shorter than chela, subequal to palm; R. 6/1 ..... *P. batei* Holthuis
- First pereiopod with carpus subequal to or longer than chela ..... 9
9. Second pereiopods slender, subequal, with fingers of major chela subequal to palm, carpus more than half palm length; R. 9-10/2 ..... *P. sinensis* Bruce
- Second pereiopods robust, markedly unequal, with fingers of major chela distinctly shorter than palm, major carpus ca half palm length; R. 8-11/1-2 ..... *P. burrup* sp. nov.

*Periclimenes holthuisi* Bruce, 1969

*Periclimenes holthuisi* Bruce, 1969: 258. – Bruce, 1982a: 244, fig. 7. – Li, 2000: 190, fig. 241. – Davie, 2002: 327. – Okuno, 2005: 273, fig. 6CD.

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 28061 (1 ovig. female), stn DA3/99/41, Georgeff Reef (20°29.339'S, 116°36.798'E), 1.0–4.0 m, 28–29.08.1999.

**Host**

*Actinodendron* sp. [Actinaria]. Not previously reported in association with this anemone genus.

**Remarks**

The single specimen, CL 3.25 mm, corresponds exactly with the original description and has a rostral dentition of 1+9/1, with an extra minute vestigial tooth distally. The ophthalmic somite bears a short *bec ocellaire*. The second pereopod chelae are precisely as illustrated by Okuno (2004, fig. 6 CD) with a well marked proximal gape, the cutting edges are densely provided with numerous groups of long simple setae, distinctly more than shown in the topotypic material illustrated by Bruce (1982a, fig. 7C). The third ambulatory pereopod has the propod with a pair of long distoventral spines and two pairs and a single spine on the distal half of the ventral margin. The colouration is unrecorded.

This represents a new record for Western Australia.

**Australian Distribution**

Reported from Shark Bay by Berggren (1997b). **Northern Territory:** Sandy I. No. 2, Cobourg Pen. (Bruce, 1983); East Pt, Darwin (Bruce, 1988a); Port Essington; Port Bremer, Orontes Reef, Cobourg Pen. (Bruce and Coombes, 1995); South Shell I., Darwin Harbour (Bruce and Coombes, 1997). **Queensland:** Bowen (Bruce, 1977b); Peloris I. (Bruce, 1977a); Morton Bay (Wadley, 1978; Young and Wadley, 1979; Davie *et al.*, 1998); Heron I., Capricorn Is (Bruce, 1981; Coleman, 1988).

**Further Distribution**

Type locality: Lung Ha Wan, Hong Kong. Recorded from the Red Sea, Jordan, Zanzibar, Maldives, Sri Lanka, Malaya, Singapore, Indonesia, Vietnam, China, Hong Kong, South China Sea, Japan, Philippines, Papua New Guinea, New Caledonia, Caroline Islands, and Marshall Islands.

*Periclimenes incertus* Borradaile, 1915

*Periclimenes (Cristiger) incertus* Borradaile, 1915: 210. – Borradaile, 1917: 364, pl. 53 fig. 7.

*Periclimenes (Periclimenes) impar* Kemp, 1922: 147, figs 16–17, pl. 3 fig. 1.

*Periclimenes (Periclimenes) incertus*. – Holthuis, 1959: 193.

*Periclimenes incertus*. – Davie, 2002: 327.

**Material examined**

**Western Australia, Dampier Archipelago.** (1) WAM C 25431 (1 male), stn DA2/99/31, off Courtney Head, Malus I. (20°29.49'S, 116°40.61'E to 20°29.66'S, 116°41.01'E), rake box dredge, 11.5 m, 18.07.1999; (2) WAM C 28096 (1 female), stn DA3/99/68, off Bluff Pt, Enderby I. (20°40.93'S, 116°33.21'E to 20°40.63'S, 116°33.36'E), rake box dredge, 9.0–9.2 m, 23.07.1999; (3) WAM C 27706 (1 ovig. female), stn DA2/99/75, off Goodwyn I. (20°32.16'S, 116°33.70'E to 20°31.70'S, 116°33.20'E), rake box dredge, 19.0–14.0 m, 25.07.1999; (4) WAM C 28091 (1 ovig. female), stn DA3/99/65, Enderby I. (20°38.31'S, 116°38.46'E to 20°38.77'S, 116°38.54'E), 13.0–15.0 m, 06.09.1999, (5) WAM C 26625 (1 spm), stn DA2/99/56, off Roly Rocks (20°30.10'S, 116°28.27'E to 20°29.88'S, 116°27.93'E), rake box dredge, 33.0–34.5 m, 21.07.1999; (6) WAM C 276095 (3 ovig. females), stn DA3/99/55, off Roly Rocks (20°28.45'S, 116°27.43'E to 20°27.98'E, 116°27.54'E), rake box dredge, 37.5–38.0 m, 21.07.1999.

**Remarks**

The specimens have a rostral dentition of 1+6–7/1.

**Hosts**

Specimens (4) and (6) were associated with sponges.

**Australian Distribution**

**Western Australia:** North West C. (Balss, 1921 as *Palaemonella biunguiculata*); Shark Bay (Berggren, 1997b); central Kimberleys, Churchill reef, Jesseux I. (Berggren, 1997c). **Northern Territory:** East Pt, Darwin (Bruce, 1988a); Sandy I. No. 2; Port Essington; Orontes Reef; Barrow Bay, Cobourg Pen. (Bruce and Coombes, 1995); Channel Rock; Weed Reef; South Shell I., Darwin Harbour (Bruce and Coombes, 1997). **Queensland:** Heron I., Capricorn Is (Bruce, 1981).

**Further Distribution**

Type locality: South Nilandu Atoll, Maldives Islands. Recorded from the Yemen, Kenya, Zanzibar, Tanganyika, Madagascar, Maldives Islands, Sri Lanka, Andaman Islands, Singapore, Indonesia, Philippines, Papua New Guinea and New Caledonia.

***Periclimentes magnificus* Bruce, 1979**

*Periclimentes magnificus* Bruce, 1979: 195, figs 1–5, pl. 1A–C. – Li, 2000: 212, fig. 274. – Davie, 2002: 330.

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 28097 (2 juvs), stn DA3/99/70, Nelson Rocks (20°27.441'S, 116°39.588'E), 5.0–7.0 m, 08.09.1999.

**Remarks**

This is a new record for the Western Australian fauna. The specimen has a rostral dentition of 1+7/1.

**Australian Distribution**

**Northern Territory:** Cobourg Peninsula (Bruce and Coombes, 1995). **Queensland:** Low Isles (?) (Stephenson *et al.*, 1931); Heron Island, Wistari Reef (Bruce, 1979c; 1980; 1981; 1986).

**Further Distribution**

Type locality: Wistari Reef, Capricorn Islands, Queensland. Known from Thailand, Indonesia, Japan, Philippine Islands, Papua New Guinea and New Caledonia.

***Periclimentes novaffinis* Bruce and Coombes, 1997**

*Periclimentes novaffinis* Bruce and Coombes, 1997: 101. – Davie, 2002: 330.

**Material examined**

**Western Australia, Dampier Archipelago.** WAM C 28064 (1 male, 1 ovig. female), stn DA3/99/41, Georgeff Reefs (20°29.339'S, 116°36.798'E), 1.0–4.0 m, coll. P. Morrison, 28–29.09.1999.

**Host**

*Zygometa microdiscus* (Bell, 1882), Z 5361, a new host record [Echinodermata, Crinoidea].

**Remarks**

The specimens have a rostral dentition of 6/1, 9/1. The male has a slightly more slender rostrum than the female.

The original material was found in association with the crinoids *Zygometa andromeda*, *Z. punctata* and *Z. elegans*.

**Australian Distribution**

New to the Western Australian fauna. **Northern Territory:** Type locality: East Point, Darwin Harbour (Bruce and Coombes, 1997). Also known from Fannie Bay and Bullocky Point, Darwin (Bruce and Coombes, 1997).

**Further Distribution**

Not known outside Australian waters.

***Periclimentes soror* Nobili, 1904**

*Periclimentes soror* Nobili, 1904: 232. – Bruce, 1978c: 299, figs 1–6. – Li: 237, fig. 316. – Davie, 2002: 332.

*Periclimentes (Periclimentes) soror*. – Holthuis, 1952: 51, fig. 17.

**Material examined**

(1) WAM C 25702 (1 ovig. female), stn DA1/98/04, Legendre I. (20°24.320'S, 116°56.108'E), 12.0–18.0 m, 18.10.1998; (2) WAM C 25699 (1 male), stn DA1/98/04, Legendre I. (20°24.320'S, 116°56.108'E), 12.0–18.0 m, 18.10.1998.

**Remarks**

The female specimen lacks both second pereopod and has a rostral dentition of 14/0. The male has the dentition of 11/0.

**Host**

The male was associated with *Culcita novae-guineae* Müller and Tröschel [Asteroidea].

**Australian Distribution**

**Western Australia:** Kendrew I., Dampier Arch.; Exmouth (Bruce, 1978h); Cartier and Hibernia Reefs (Bruce, 1992c); Shark Bay (Berggren, 1997b). **Northern Territory:** Darwin, Dudley Pt (Bruce, 1983a); New Year I., Cobourg Pen., 16 m (Bruce and Coombes, 1995). **Queensland:** Green I., Fairfax I. (Bruce, 1971); Bowen Reef, Lodestone Reef (Bruce, 1977a); Lodestone Reef, 3 m (Zann, 1980); Chapman I.; Beaver Reef (Bruce, 1978h); Heron I., Wistari Reef; Lizard I. (Bruce, 1983a); Moreton Bay (Davie *et al.*, 1998). **New South Wales:** Cuwatong (Bruce, 1978c); Jervis Bay, 15 m (Ellis, 1987); Ulladulla, 30 m, on "firebrick sea-star" (Sullivan, 1997).

**Further Distribution**

Type locality: Jibuti. Reported from Saudi Arabia, Kenya, Zanzibar, Tanganyika, Madagascar, Seychelle Islands, Chagos Islands, Sri Lanka, Malaya, Indonesia, Vietnam, China, Hong Kong, Taiwan, Japan, Philippines, Sabah, Bismarck Archipelago, Solomon Islands, Papua New Guinea, New Caledonia, Marshall Islands, Mariannas Islands, Fijian Islands, Hawaiian Islands, Society Islands, Tuamotu Islands. Also western Mexico, Panama and Colombia (Bruce, 1978c).

***Philarius gerlachei* (Nobili, 1905)**

*Harpilius gerlachei* Nobili, 1905: 160. – Nobili, 1906: 45, pl. 4 fig. 10. – Kemp, 1922: 238, figs 74–75.

*Philarius gerlachei*. – Holthuis, 1952: 152, fig. 69. – Li, 2000: 251, fig. 334. – Davie, 2002: 334.

**Material examined**

See below.

**Remarks**

The pair of second pereopod chelae found in association with *Coralliocaris* sp. (WAM C 28050) correspond exactly with the figure of that appendage provided by Kemp (1922, fig. 75, as *Harpilius gerlachei*). The lack of a distoventral tooth on the merus distinguishes them from *P. imperialis* (Kubo). Both *Philarius* species are common associates of *Acropora* coral hosts, as are most *Coralliocaris* species.

**Australian Distribution**

**Western Australia:** Hibernia Reef (Bruce, 1992); central Kimberleys, East Montlivet. (Berggren, 1997c). **Northern Territory:** Cobourg Peninsula (Bruce and Coombes, 1995). **Queensland:** Willis Island; Bet Reef; Restoration Rock; Heron Island and Wistari Reef, Capricorn Islands (Patton, 1966); One Tree Island; Diamond Islet (Bruce, 1977b); Heron Island (Bruce, 1981).

**Further Distribution**

Type locality: Arzana Island, United Arab Emirates. Reported from Egypt, Saudi Arabia, Oman, Sudan, Kenya, Zanzibar, Tanganyika, Moçambique Channel, Comoro Islands, Seychelle Islands, Réunion, India, Indonesia, Vietnam, China, Japan, Papua New Guinea, Solomon Islands, Marshall Islands, Samoan Islands, Fijian Islands, Kiribati and Tuamotu Islands.

***Philarius imperialis* (Kubo, 1940)**

*Harpilius imperialis* Kubo, 1940: 1, figs 1–3.

*Philarius imperialis*. – Holthuis, 1952: 15. – Li, 2000: 252, fig. 335. – Davie, 2002: 334.

**Material examined**

**Western Australia, Dampier Archipelago.** (1) WAM C 29215 (1 female), stn DA3/99/36, Malus I. (20°30.050'S, 116°40.594'E), 6.0–14.0 m, 27.08. 1999; (2) WAM C 25303 (1 male), stn DA1/98/03, Legendre I. (20°24.320'S, 116°56.108'E), 2.0–15.0 m, 18.10.98.

**Host**

*Acropora* spp [Scleractinia, Acroporidae].

**Remarks**

This is a new addition to the Western Australian fauna. The female specimen had a rostral dentition of 8/1 and the male, 6/1.

**Australian Distribution**

Reported from central Kimberleys, Albert Reef

(Berggren, 1997c). **Northern Territory:** Port Essington, Coral Bay (Bruce, 1983b); Cobourg Peninsula (Bruce and Coombes, 1995). **Queensland:** Restoration Rock; Heron Island, Capricorn Islands (Patton, 1966); **Queensland:** Heron Island (Bruce, 1981).

**Further Distribution**

Type locality: Nankin-hama, Haha-jima, Ogasawa Islands. Reported from Saudi Arabia, Israel, Kenya, Zanzibar, Tanganyika, Seychelle Islands, Réunion, Singapore, Vietnam, China, Japan, Papua New Guinea, Caroline Islands, Marshall Islands.

**The Pontoniine Fauna of Western Australia**

Original and major descriptions, and name changes only are given short citations only. Full citations are provided in Li (2000) and Davie (2002). Berggren (1997) lists two unidentified species of *Periclimeneus* and seven species of *Periclimenes* which are not included in the following list and may overlap with some taxa in the above report.

***Anchistus custos* (Forsskal, 1775)**

*Cancer custos* Forsskal, 1775, *Descript. Anim.*, xxi, 94.

*Harpilius inermis* Miers, 1884, *Rep. Zool. Coll. Alert*, 291, pl. 32, fig. B.

*Anchistus inermis*. – Borradaile, 1898, *Ann. Mag. Nat. Hist. (7)* 2: 387.

*Anchistus custos*. – Holthuis, 1952, *Siboga Exped. Mon.* 39a<sup>10</sup>: 105–109, figs 43–44.

**Western Australian Distribution:** Shark Bay (as *Harpilius inermis*) (Miers, 1884; Berggren, 1997b); Monte Bello Is (Rathbun, 1914, as *A. inermis*); Denham (Jones, 1990); Sunday I., Irvine I., southern Kimberleys (Davie and Short, 1995); central Kimberleys, East Berthier I. (Berggren, 1997c).

***Anchistus miersi* (De Man, 1888)**

*Harpilius Miersi* De Man, 1888, *J. Linn. Soc. Lond., Zool.* 22: 274, pl. 17, figs 6–10.

*Anchistus miersi*. – Borradaile, 1898, *Ann. Mag. Nat. Hist. (7)* 2: 387.

*Marygrande mirabilis* Pesta, 1911, *Zool. Anz.* 38: 572.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992); central Kimberleys, White, Hedley, Lamarck and Prud Hoe Is (Berggren, 1997c); Shark Bay (Berggren, 1997b).

***Apopontonia orbitospinata* (Bruce, 1988)**

*Periclimeneaus orbitospinatus* Bruce, 1969, *Zool. Meded., Leiden* **44**: 160–16.

*Apopontonia tridentata* Bruce, 1988, *J. Nat. Hist.* **22**: 1270–1276, figs 4–7.

*Apopontonia orbitospinata*. – Bruce, 2001, *Zool. Meded., Leiden* 152–157, fig. 4.

**Western Australian Distribution:** Northwest Shelf, 54 m (Bruce, 1988c); Arafura Sea, 60 m (Debelius, 1999; as *A. tridentata*).

***Araiopontonia odontorhyncha* Fujino and Miyake, 1970**

*Araiopontonia odontorhyncha* Fujino and Miyake, 1970, *Ohmu* **3** (1): 2–10, figs. 1–4.

**Western Australian Distribution:** Cartier Reef (Bruce, 1992).

***Carinopontonia paucipes* Bruce, 1988**

*Carinopontonia paucipes* Bruce, 1988, *J. Nat. Hist.*, **22**: 1264–1274, figs 1–3.

**Western Australian Distribution:** Northwest Shelf, 19°04.4'S, 118°47.55'E, 83 m (Bruce, 1988b).

***Conchodytes biunguiculatus* (Paul'son, 1875)**

*Pontonia biunguiculatus* Paul'son, 1875, *Crust. Red Sea*: 111–112, pl. 15 fig. 1.

**Western Australian Distribution:** Hibernia Reef (as *C. kempfi*, Bruce, 1992).

***Conchodytes maculatus* Bruce, 1989**

*Conchodytes maculatus* Bruce, 1989, *Crustaceana* **56** (2): 182–191, figs 1–6.

**Western Australian Distribution:** Off Cape Leveque (Bruce, 1989b); Shark Bay (Berggren, 1997b).

***Conchodytes meleagrinae* Peters, 1852. See above.*****Conchodytes monodactylus* Holthuis, 1952. See above.*****Conchodytes tridacnae* Peters, 1852**

*Conchodytes tridacnae* Peters, 1852, *Ber. Verh. Akad. Wiss. Berlin* **1852**: 594.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992).

***Coralliocaris graminea* (Dana, 1852)**

*Oedipus gramineus* Dana, 1852, *Proc. Acad. Nat. Sci. Philad.* **6**: 25.

*Coralliocaris graminea*. – Stimpson, 1860, *Proc. Acad. nat. Sci. Philad.* **1860**: 38.

**Western Australian Distribution:** Shark Bay (Jones, 1990; Berggren, 1997b); Rottneest I. (Jones

and Morgan, 1993); central Kimberleys, East Montlivet and Prud Hoe Is (Berggren, 1997c).

***Coralliocaris venusta* Kemp, 1922. See above.*****Coralliocaris viridis* Bruce, 1974. See above.*****Dasella ansoni* Bruce, 1983**

*Dasella ansoni* Bruce, 1983, *Beagle, Occ. Pap. N.T. Mus.* **1** (3): 22–28, figs 1–5.

**Western Australian Distribution:** Shark Bay, in *Herdmania momus* (Berggren, 1999).

***Dasycaris zanzibarica* Bruce, 1973**

*Dasycaris zanzibarica* Bruce, 1973, *Crustaceana* **24**(3): 247–257, figs 1–6.

**Western Australian Distribution:** central Kimberleys, Jesseux I. (Berggren, 1997c).

***Exoclimenella maldivensis* Duris and Bruce, 1995**

*Exoclimenella maldivensis* Duris and Bruce, 1995, *J. Nat. Hist.* **29**: 622–631, figs 1–5.

**Western Australian Distribution:** Cartier Reef, 12–18m (Duris and Bruce, 1995).

***Exopontonia malleatrix* Bruce, 1988**

*Exopontonia malleatrix* Bruce, 1988, *J. Crust. Biol.* **81** (1): 123–130, figs 1–5.

**Western Australian Distribution:** Ashmore Reef (Bruce, 1988c).

***Hamodactylus aqabai* Bruce and Svoboda, 1983**

*Hamodactylus aqabai* Bruce and Svoboda, 1983, *Zool. Verhand., Leiden* **205**: 26–35, fig 10.

**Western Australian Distribution:** Cartier Reef (Bruce, 1992).

***Hamodactylus boschmai* Holthuis, 1952**

*Hamodactylus boschmai* Holthuis, 1952, *Siboga Exped. Mon.* **39a**<sup>10</sup>: 209–212, figs 102–104.

**Western Australian Distribution:** central Kimberleys, De Freycinet I. (Berggren, 1997c).

***Hamodactylus noumeae* Bruce, 1970**

*Hamodactylus noumeae* Bruce, 1970, *J. Zool. Lond.* **160**: 539–541, fig. 2.

**Western Australian Distribution:** Cartier and Hibernia Reefs (Bruce, 1992); central Kimberleys, Alberet, Churchill reefs, Cassini I., East Montlivet I. (Berggren, 1997c).

***Hamodactylus* sp. Tsareva, 1980: 125.**

The identity of this species is uncertain and attempts to locate the specimens have been unsuccessful. Twelve specimens were collected



from 1.5 m and 12 m, from Scott Reef, from *Acropora* colonies, and were in poor condition making identification uncertain (Duris, pers. comm.). No *Hamodactylus* species have so far been found in association with scleractinian hosts.

***Hamopontonia corallicola* Bruce, 1970**

*Hamopontonia corallicola* Bruce, 1970, *Crustaceana* 18 (1): 41–48, figs 1–4.

**Western Australian Distribution:** Sunday I.; Montgomery Reef, southern Kimberleys (Davie and Short, 1995, as *Hamodactylus corallicola*); Long I., Vansittart Bay, eastern Kimberleys (Davie and Short, 1996); central Kimberleys, Churchill Reef (Berggren, 1997c).

***Hamopontonia* aff. *corallicola***

*Hamopontonia* aff. *corallicola*. – Berggren, 1997c (unpub. report, p. 89).

**Western Australian Distribution:** Shark Bay (Berggren, 1997b); central Kimberleys, Slate Is (Berggren, 1997c).

***Harpiliopsis beaupresii* (Audouin, 1825). See above.**

***Harpilius bayeri* (Holthuis, 1981). See above.**

***Harpilius consobrinus* De Man, 1902**

*Harpilius consobrinus* De Man, 1902, *Abh. Senckenb. naturf. Ges.* 25: 836–840, pl. 26, fig. 54.

*Periclimenes consobrinus*. – Bruce, 1972, *Proc. Symp. Corals and Coral Reefs*; Bruce, 1969, *Mar. Biol. Soc. India*: 403, 409, 412 (key), fig. 1b.

*Harpilius consobrinus*. – Bruce, 2004, *Zootaxa* 293: 6.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992).

***Ischnopontonia lophos* (Barnard, 1962)**

*Philarius lophos* Barnard, 1962, *Crustaceana* 3 (3): 242–243, fig. 2.

*Ischnopontonia lophos*. – Bruce, 1966, *Bull. Mar. Sci. Univ. Miami* 16 (3): 584

**Western Australian Distribution:** central Kimberleys, Rob Roy Reef, Jamieson Reef, Maret Is, East Montlivet I. (Berggren, 1997c).

***Kemponia amymone* (De Man, 1902). See above.**

***Kemponia anacanthus* (Bruce, 1989)**

*Periclimenes anacanthus* Bruce, 1989, *Beagle, Rec. N.T. Mus. Arts and Sci.* 58: 105–114, figs 1–5.

*Kemponia anacanthus*. – Bruce, 2004, *Zootaxa* 293: 12.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b); Cape Londonderry, eastern Kimberleys (Davie and Short, 1996).

***Kemponia andamanensis* (Kemp, 1922). See above.**

***Kemponia elegans* (Paul'son, 1875). See above.**

***Kemponia grandis* (Stimpson, 1860). See above.**

***Kemponia* aff. *suvadivensis* (Borradaile, 1915)**

*Periclimenes (Falciger) suvadivensis* Borradaile, 1915, *Ann. Mag. nat. Hist.* (8) 15: 212.

*Kemponia suvadivensis*. – Bruce, 2004, *Zootaxa* 293: 19.

**Western Australian Distribution:** Sunday I., Whirlpool Pass, southern Kimberleys (Davie and Short, 1995).

***Kemponia tenuipes* (Borradaile, 1898)**

*Periclimenes tenuipes* Borradaile, 1898, *Ann. Mag. nat. Hist.* (7) 2: 384.

*Kemponia tenuipes*. – Bruce, 2004, *Zootaxa* 293: 19–20.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992c).

***Manipontonia psamathe* (De Man, 1902)**

*Urocaris psamathe* De Man, 1902, *Abh. Senckenb. naturf. Ges.* 25: 816–822, pl. 25 fig. 51.

*Periclimenes (Ancylocaris) psamathe*. – Kemp, 1922, *Rec. Indian Mus.* 24: 173.

*Periclimenes (Harpilius) psamathe*. – Holthuis, 1952, *Siboga Exped. Mon.* 39a<sup>10</sup>: 61, fig. 23.

*Manipontonia psamathe*. – Bruce, Okuno and Li, 2005, *Zootaxa*, 926: 6–8, figs 1–3.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b); central Kimberleys, Rob Roy Reef, Gibbings Reef, Jesseux I., Cassini I., Macleay I. (Berggren, 1997c).

***Neopontonides* sp. Tsareva, 1980: 125.**

The identity of this species is uncertain and attempts to locate the specimens have been unsuccessful. *Neopontonides* is an Atlantic–Caribbean genus not known from the Indo–West–Pacific region. Tsareva's specimens were reported from 7.0 m in association with *Seriatopora*, the shrimp associates of which are comparatively well studied.

***Notopontonia platycheles* Bruce, 1991**

*Notopontonia platycheles* Bruce, 1999, *J. Crust. Biol.* 11 (4): 607–628, figs 1–14.

**Western Australian Distribution:** Fitzgerald

Reserve (Berggren, 1997a); Shark Bay (Berggren, 1997b).

***Palaemonella crosnieri* Bruce, 1978**

*Palaemonella crosnieri* Bruce, 1978, *Zool. Journ. Linn. Soc.* **62**: 210–214, figs 2–4.

**Western Australian Distribution:** Cartier Reef (Bruce, 1992).

***Palaemonella foresti* Bruce, 2002**

*Palaemonella foresti* Bruce, 2002, *Crustaceana* **75** (3–4): 277–298, figs 1–4.

**Western Australian Distribution:** Cockburn Sound (Bruce, 2002b).

***Palaemonella pottsii* Borradaile, 1915. See above.**

***Palaemonella rotumana* (Borradaile, 1898). See above.**

***Palaemonella tenuipes* Dana, 1852**

*Palaemonella tenuipes* Dana, 1852, *Proc. Acad. nat. Sci., Philad.* **6**: 25.

**Western Australian Distribution:** C. Jaubert (Balss, 1921).

***Parapontonia nudirostris* Bruce, 1968**

*Parapontonia nudirostris* Bruce, 1968, *Bull. Mus. Nat. Hist. nat., Paris* (2)**39**(6). – Bruce 1967: 1149–1157, figs 1–5.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b).

***Periclimenaeus arabicus* Calman, 1939**

*Periclimenes* (*Periclimenaeus*) *arabicus* Calman, 1939, *Sci. Rep. John Murray Exped.* **6**: 210–211, fig. 4.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b).

***Periclimenaeus bidentatus* Bruce, 1970**

*Periclimenaeus bidentatus* Bruce, 1970, *Zool. Meded., Leiden* **44** (21): 305–307.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992); Shark Bay (Berggren, 1997b).

***Periclimenaeus hecate* (Nobili, 1904) See above.**

***Periclimenaeus kottae* Bruce, 2005**

*Periclimenaeus kottiae* Bruce, 2005, *Rec. W. Aust. Mus.* **22**: 325–331, figs 1–3.

**Western Australian Distribution:** Ashmore Reef (Bruce, 2005).

***Periclimenaeus matherae* Bruce, 2005**

*Periclimenaeus matherae* Bruce, 2005, *Rec. W. Aust. Mus.* **22**: 331–338, figs 4–8.

**Western Australian Distribution:** Ashmore Reef (Bruce, 2005).

***Periclimenaeus minutus* Holthuis, 1952**

*Periclimenaeus minutus* Holthuis, 1952, *Siboga Exped. Mon.* **39a**<sup>10</sup>: 134–137, figs 57–59.

**Western Australian Distribution:** central Kimberleys, Churchill Reef, Albert Reef (Berggren, 1997c).

***Periclimenaeus pachydentatus* Bruce, 1969**

*Periclimenaeus pachydentatus* Bruce, 1969, *Zool. Meded., Leiden* **44** (12): 162–163.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992; Berggren, 1997b).

***Periclimenaeus rastrifer* Bruce, 1980**

*Periclimenaeus rastrifer* Bruce, 1980, *Cahiers Indo-Pacifique* **2**(1): 27–33, figs 12, 13 A, B.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b).

***Periclimenaeus stylirostris* Bruce, 1969**

*Periclimenaeus stylirostris* Bruce, 1969, *Zool. Meded., Leiden* **44**(12): 167–168. – Bruce, 1972, *Pacific Sci.* **26** (1): 68–75, figs 2–6.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b).

***Periclimenella spinifera* (De Man, 1902). See above.**

***Periclimenes aesopius* (Bate 1863).**

*Anchistia aesopia* Bate, 1863, *Proc. Zool. Soc. Lond.* **1863**: 502–503, pl. 41, fig. 5.

*Periclimenes aesopius*. – Kemp, 1922, *Rec. Indian Mus.* **24**: 142–143, fig. 12.

*Periclimenes aesopius*. – Bruce, 1977, *Aust. Zool.* **19** (2): 217–226, figs 1–29, 34.

**Western Australian Distribution:** Princess Royal Harbour (Kirkman *et al.*, 1991); Fitzgerald Reserve (Berggren, 1997a).

***Periclimenes affinis* (Zehntner, 1894). See above.**

***Periclimenes alegrias* Bruce, 1986. See above.**

***Periclimenes amboinensis* (De Man, 1888)**

*Anchistia amboynensis* De Man, 1888, *Arch. Naturgesch.* **53** (1): 546–548, pl. 22a, fig. 2.

*Periclimenes amboinensis*. – Borradaile, 1898, *Ann. Mag. nat. Hist.* (7) **2**: 383.

**Western Australian Distribution:** Cartier Reef (Bruce, 1992).

***Periclimenes batei* Holthuis, 1959**

*Palaemonella orientalis* Bate, 1888, *Rep. Voy. Challenger Exped.*, *Zool.* **24**: 278.

*Palaemonella batei* Borradaile, 1917, *Trans. Linn. Soc. Lond.*, *Zool.* (2) **17**: 357, 358.

*Periclimenes (Periclimenes) batei*. – Holthuis, 1959, *Zool. Meded., Leiden* **36** (11): 195–197.

**Western Australian Distribution:** Hibernia Reef (?) (Bruce, 1992).

***Periclimenes brevicarpalis* (Schenkel, 1902)**

*Ancylocaris brevicarpalis* Schenkel, 1902, *Verh. naturf. Ges. Basel* **13**: 563, pl. 13, fig. 21.

*Periclimenes hermitensis* Rathbun, 1914, *Proc. zool. Soc. Lond.* **1914**: 655, pl. 1 figs 1–3.

*Periclimenes (Ancylocaris) brevicarpalis*. – Kemp, 1922, *Rec. Indian Mus.* **24**: 185–191, figs 40–42, pl. 67.

*Periclimenes (Harpilius) brevicarpalis*. – Holthuis, 1952, *Siboga Exped. Mon.* **39a**<sup>10</sup>: 69–73, fig. 27.

**Western Australian Distribution:** Monte Bello Is, Hermit I. (Rathbun, 1914, as *P. hermitensis*); Hibernia Reef (Bruce, 1992); Shark Bay (Berggren, 1997b); Central Kimberleys, Slate Is (Berggren, 1997c).

***Periclimenes burrup* sp. nov. See above.*****Periclimenes* aff. *cobourgi*. – Bruce, 1995**

**Western Australian Distribution:** Shark Bay (Berggren, 1997b).

***Periclimenes commensalis* Borradaile, 1915**

*Periclimenes (Cristiger) commensalis* Borradaile, 1915, *Ann. Mag. Nat. Hist.* (8) **15**: 211. – Borradaile, 1917, *Trans. Linn. Soc., Lond.*, *Zool.* (2) **17**: 364.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b); central Kimberleys, Jameson Reef, Cassini I. (Berggren, 1997c).

***Periclimenes* aff. *cristimanus* Berggren, 1997c**

*Periclimenes* aff. *cristimanus*. – Berggren, 1997c, *Mar. Biol. Surv. Central Kimb. Coast, WA, Univ. WA*: 89.

**Western Australian Distribution:** central Kimberleys, White I., East Montlivet I. (Berggren, 1997c).

***Periclimenes* aff. *grandis*. See above.*****Periclimenes holthuisi* Bruce, 1969. See above.*****Periclimenes hongkongensis* Bruce, 1969**

*Periclimenes hongkongensis* Bruce, 1969, *Zool. Meded., Leiden*, **43** (20): 259–260. – Bruce, 1982,

*Proc. First Internat. Mar. Biol. Wksp.*, Hong Kong, 1980: 247–252, figs 8–10.

**Western Australian Distribution:** central Kimberleys, Macleay I. (Berggren, 1997c).

***Periclimenes imperator* Bruce, 1967**

*Periclimenes imperator* Bruce, 1967, *Zool. Verhand., Leiden* **87**: 53–62, figs 23–25.

**Western Australian Distribution:** Cartier Reef (Bruce, 1992).

***Periclimenes indicus* (Kemp, 1915)**

*Urocaris indica* Kemp, 1915, *Mem. Indian Mus.* **5**: 275–279, fig. 26, pl. 13, fig. 9.

*Periclimenes (Periclimenes) indicus*. – Kemp, 1922, *Rec. Indian Mus.* **24**: 144, fig. 13.

**Western Australian Distribution:** C. Londonderry, eastern Kimberleys (Davie and Short, 1996).

***Periclimenes incertus* Borradaile, 1915. See above.*****Periclimenes inornatus* Kemp, 1922**

*Periclimenes (Ancylocaris) inornatus* Kemp, 1922, *Rec. Indian Mus.* **24**: 191–194, figs 44–46.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992).

***Periclimenes kemp* Bruce, 1969**

*Periclimenes kemp* Bruce, 1969, *Zool. Meded., Leiden* **43** (20): 260–261.

**Western Australian Distribution:** Cartier Reef (Bruce, 1992); Shark Bay (Berggren, 1997b); central Kimberleys, Slate Is (Berggren, 1997c).

***Periclimenes mahei* Bruce 1969**

*Periclimenes mahei* Bruce, 1969, *Zool. Meded., Leiden*, **43** (20): 263–264.

**Western Australian Distribution:** Pt Quobba (Black and Prince, 1983; Bruce, 1990a).

***Periclimenes magnificus* Bruce, 1979. See above.*****Periclimenes novaffinis* Bruce and Coombes, 1997. See above.*****Periclimenes* aff. *obscurus* Kemp, 1922**

*Periclimenes (Periclimenes) obscurus* Kemp, 1922, *Rec. Indian Mus.* **24**: 144–146, figs 14–15.

**Western Australian Distribution:** Fitzgerald Reserve (Berggren, 1997a); central Kimberleys, Churchill Reef, Jameson Reef (Berggren, 1997c).

***Periclimenes seychellensis* Borradaile, 1915**

*Periclimenes (Falciger) seychellensis* Borradaile, 1915, *Ann. Mag. nat. Hist.* (8) **15**: 212. –

Borradaile, 1917, *Trans. Linn. Soc. Lond. Zool.* (2) 17: 324, 375, pls. 54–55, fig. 14.

**Western Australian Distribution:** central Kimberleys, Colbert Is (Berggren, 1997c).

***Periclimenes sinensis* Bruce, 1969. See above.**

***Periclimenes soror* Nobili, 1904. See above.**

***Periclimenes venustus* Bruce, 1990**

*Periclimenes venustus* Bruce, 1990, *Indo-Malay. Zool.* 6: 230–240, figs 1–6, 7a, 8a.

**Western Australian Distribution:** Scott Reef (Bruce, 1990c); Abrolhos Is (Steene, 1990); Hibernia Reef (Bruce, 1992); Irvine I., southern Kimberleys (Davie and Short, 1995); central Kimberleys, Churchill Reef, East Berthier I. (Berggren, 1997c).

***Periclimenes zanzibaricus* Bruce, 1967**

*Periclimenes zanzibaricus* Bruce, 1967, *Zool. Verhand., Leiden* 87: 62–72, figs 26–29.

**Western Australian Distribution:** Geraldton (Bruce, 1973).

***Periclimenoides odontodactylus* (Fujino and Miyake, 1968)**

*Periclimenoides odontodactylus* Fujino and Miyake, 1968, *Ohmu* 1(3): 85–90, figs. 1–2. *Periclimenoides odontodactylus*. – Bruce, 1990, *Proc. 2<sup>nd</sup> Internat. Mar. Biol. Wksp., Hong Kong, 1986* 2: 617–618, figs 2–3.

**Western Australian Distribution:** Northwest Shelf (Bruce, 1990).

***Philarius gerlachei* (Nobili, 1905). See above.**

***Philarius imperialis* (Kubo, 1940). See above.**

***Platycaris latirostris* Holthuis, 1952**

*Platycaris latirostris* Holthuis, 1952, *Siboga Exped. Mon.* 39a<sup>10</sup>: 173–176, figs 85–86.

**Western Australian Distribution:** central Kimberleys, Rob Roy Reef, Jameson Reef (Berggren, 1997c).

***Platypontonia hyotis* Hipeau-Jacquotte, 1971**

*Platypontonia hyotis* Hipeau-Jacquotte, 1971, *Crustaceana* 20(2): 126–139, figs 1–7.

**Western Australian Distribution:** Shark Bay (Berggren, 1997b).

***Pontoniopsis comanthi* Borradaile, 1915.**

*Pontoniopsis comanthi* Borradaile, 1915, *Ann. Mag. Nat. Hist.* (8) 15: 213.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992).

***Thaumastocaris streptopus* Kemp, 1922**

*Thaumastocaris streptopus* Kemp, 1922, *Rec. Indian Mus.* 14: 244–247, figs 78–80.

**Western Australian Distribution:** Cartier and Hibernia Reefs (Bruce, 1992); central Kimberleys, Churchill Reef (Berggren, 1997c).

***Typton nanus* Bruce, 1987**

*Typton nanus* Bruce, 1987, *Beagle, Rec. N.T. Mus. Arts and Sci.* 4 (1): 49–56, figs 1–5.

**Western Australian Distribution:** 16°34'S. 121°27' E (Bruce, 1987c).

***Typtonychus dimorphus* (Bruce, 1986)**

*Typton dimorphus* Bruce, 1986, *Crustaceana* 50 (3): 278–286, figs 1–4.

*Typtonychus dimorphus*. – Bruce, 1994, *Theses Zoolog.* 25:146.

**Western Australian Distribution:** Ashmore Reef (Bruce, 1986b).

***Vir philippinensis* Bruce and Svoboda, 1984**

*Vir philippinensis* Bruce and Svoboda, 1984, *Asian Mar. Biol.* 1: 87–94, figs 1–4.

**Western Australian Distribution:** Hibernia Reef (Bruce, 1992).

#### ACKNOWLEDGEMENTS

I am most grateful to Diana Jones and Melissa Titelius for the opportunity to report on these Western Australian palaemonoid shrimps, and to Miranda Lowe, for the opportunity to examine the *P. batei* holotype. I am also most grateful to Matz Berggren for making his unpublished reports available. This study was also supported by the Australian Biological Resources Study.

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ADDENDUM

Following the recent publications of Marin and Chan (2006), and Okuno and Fujita (2007), the following new name combinations should be noted: *Periclimenes alegrias* Bruce 1986 to *Unguicaris alegrias* (Bruce, 1986); *Periclimenes amboinensis* (De Man 1888) to *Laomenes amboinensis* (De Man, 1888), and *Parapontonia nudirostris* Bruce 1968 to *Laomenes nudirostris* (Bruce, 1968).

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