이학석사학위논문

남극 멕스웰 만 단각류의 계통분류학적 연구

A Systematic Study of Amphipods (Crustacea: Malacostraca) in Maxwell bay, Antarctica: Taxonomy and DNA Barcoding

2013년 8월

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2013 년 08 월

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ABSTRACT

A Systematic Study of Amphipods (Crustacea: Malacostraca) in Maxwell bay, Antarctica: Taxonomy and DNA Barcoding

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I present the first preliminary account of amphipods from Marian Cove, a part of Maxwell Bay, near *King Sejong* Station, King George Island, Antarctica. I conducted survey in January 2011 and January 2012, at 11 localities in Marian Cove. Samples were collected from the shallow sublittoral zone, at the depth of 0–30 m, by SCUBA diving, hand-netting, boat-netting, light-trapping, and bait-trapping. A total of 22 amphipod species, belonging to 12 families, were identified. Of these six species were new for the whole Maxwell Bay, to which Marian Cove belongs. My findings increase the amphipod fauna of Maxwell Bay from the previous 55 species,

to 61 amphipods. The dominant species in the shallow sublittoral zone of Marian Cove were *Cheirimedon femoratus* and *Gondogeneia antarctica*, followed by *Bovallia gigantea, Orchomenella* sp., *Paradexamine fissicauda*, *Prostebbingia brevicornis*, *Pariphimedia integricauda*, and *Jassa wandeli*. The mtCOI sequences from 13 species of Marian Cove amphipod were obtained, and examined by DNA barcoding method. COI barcoding was successful in discrimination of the Antarctic amphipods, and show big barcode gap and over 31.7% of mean intraspecific sequence divergence. Some cryptic species were found by Maximum liklyhood analysis.

Key words: Crustacea, Amphipoda, DNA barcoding, Systematic study, Antarctica, *King Sejong* Station.

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INTRODUCTION

The region of Antarctic Peninsula is one of the most rapidly warming places on Earth (Turner *et al.* 2005; Steig *et al.* 2009; Rückamp *et al.* 2011). King George Island is the largest of the South Shetland Islands located close to the tip of the Antarctic Peninsula. There are ten scientific stations situated on the island (eight permanent, belonging to Argentina, Brazil, Chile, China, Korea, Poland, Russia, Uruguay, and two seasonal ones operated by Ecuador and Peru). *King Sejong* Station was established on the coastline of Marian Cove by the Republic of Korea on February 17, 1988, and is used to conduct environmental studies of the surrounding area. The current research area, Marian Cove together with Potter Cove, Barton Peninsula, Collins Harbour and SE side of Fildes Peninsula are parts of Maxwell Bay. Marine invertebrate faunal studies of the Southern Ocean are currently underway (e.g. Barnes *et al.* 2006; Rhem *et al.* 2006; San Vincente *et al.* 2009). In the West Antarctic region surveys were mainly conducted in South Shetland Island, South Orkney Island and Palmer archipelagos (Thurston 1974, Lowry 1975, Siciński *et al.* 2011). Studies of amphipod fauna are actively pursued, because amphipods represent one of the dominant marine invertebrate groups in the sublittoral zone of the Southern Ocean (Jażdżewski *et al.* 1991; Cattaneo-Vietti *et al.* 2000; Huang *et al.* 2007; Pabis *et al.* 2011; Siciński *et al.* 2011).

Several amphipod faunal studies have been conducted in Maxwell Bay (Rauschert 1989, 1990, 1991, 1994, 1997; Ren and Huang 1991`; Rauschert and

Andres 1993, 1994), but there are no published reports concerning Marian Cove. Therefore, I present here the first preliminary systematic account of amphipods from Marian Cove. Our findings provide the groundwork for monitoring changes in invertebrate fauna in the waters close to *King Sejong* Station, caused by climate change.

MATERIALS AND METHODS

I conducted surveys in Marian Cove, Maxwell Bay, King George Island, Antarctica (Fig. 1). Samples were collected from the shallow sublittoral zone, at a depth of 0–30 m, by SCUBA diving, hand-netting, boat-netting, light-trapping, and bait-trapping. All specimens were fixed in 99.9% ethanol and preserved in 95.0% ethanol. The individuals were dissected in lactic acid and observed microscopically. Photographs were taken with a digital camera (D7000, Nikon), and produced by using Helicon Focus software (Model Helicon Focus; Helicon Soft Ltd., Kharkov, Ukraine). For each species listed, the following geographic codes were used to summarize the distribution: E, East (or High) Antarctic province; W, West (or Maritime) Antarctic province; G, South Georgia district (within the West/Maritime Antarctic province); S, sub-Antarctic Islands province; T, Tristan da Cunha district (within the sub-Antarctic Islands province); M, Magellan province; Ba, bathyal (500-3000 m in the Antarctic region or 200-3000 m in the sub-Antarctic region); +, means that the species is also distributed outside the limits of the Antarctic and/or sub-Antarctic region(s); and ++, indicates that the species is panoceanic (cosmopolitan) or at least distributed in two other oceans (De Broyer *et al.* 2007).

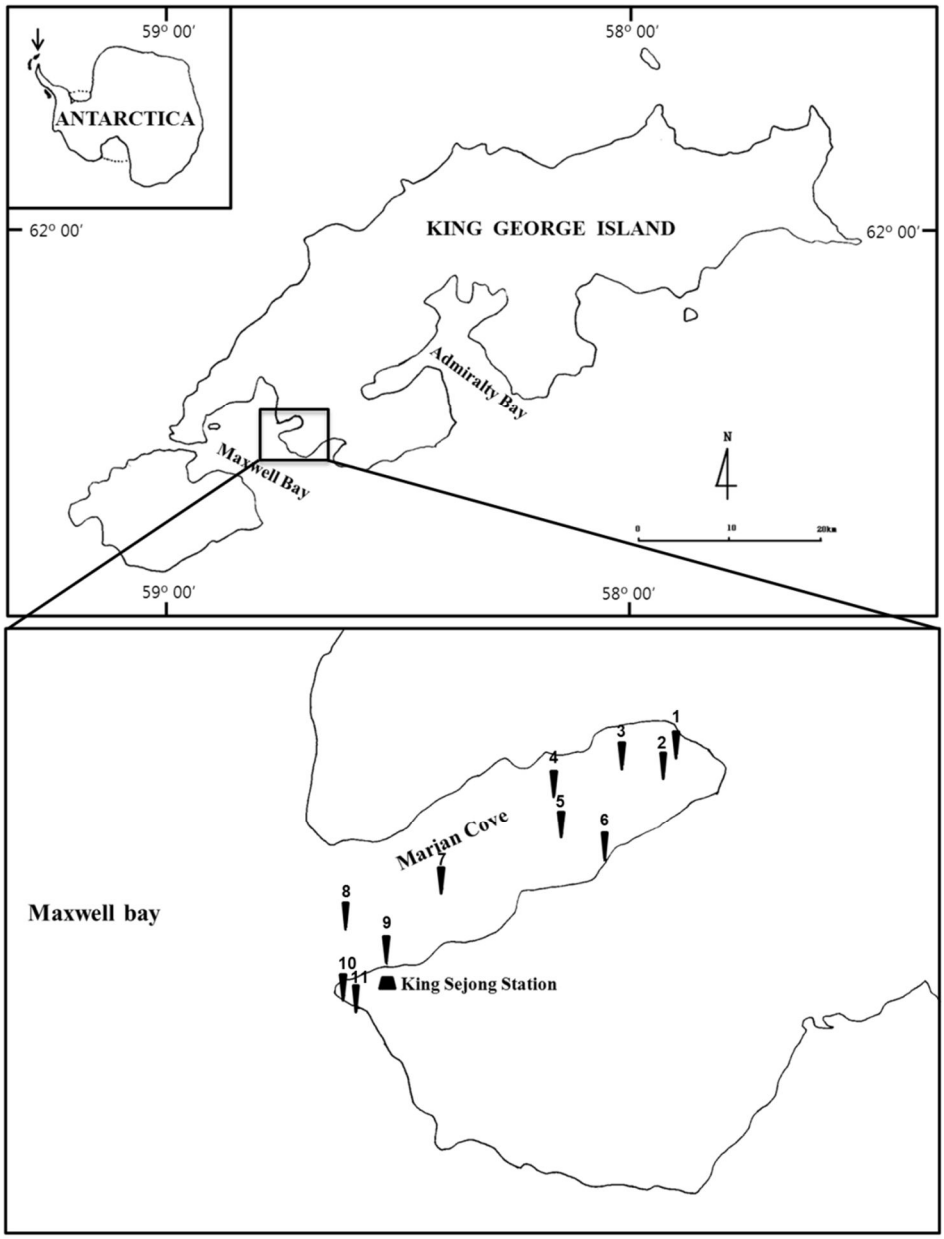

Fig. 1. Marian Cove collecting sites. 1. 62°12'13.80"S, 58°43'56.59"W; 2. 62°12'19.81"S, 58°44'4.15"W; 3. 62°12'16.37"S, 58°44'32.68"W; 4. 62°12'26.28"S, 58°45'18.50"W; 5. 62°12'37.99"S, 58°45'12.48"W; 6. 62°12'48.45"S, 58°44'42.36"W; 7. 62°12'55.51"S, 58°46'36.87"W; 8. 62°13'6.64"S, 58°47'41.53"W; 9. 62°13'19.60"S, 58°47'13.81"W; 10. 62°13'28.90"S, 58°47'41.18"W; 11. 62°13'32.38"S, 58°47'33.69"W.

General morphology and terminology

1. Head

The head bears two eyes, two pair of antennae, rostrum and laterallobe .The first three articles of antenna 1 are known as peduncle and the remaining articles are flagellum. The antenna 2 are composed of five peduncular articles.

2. Mouthpart

The mouthparts are composed of six appendages: upper lip(Ul, labrum), mandible (Mdb), lower lip (Ll, labium), maxilla 1 (Mx 1), maxilla 2 (Mx 2) and maxilliped (Mxp). The morphological trats of mouth parts are important for classification of families and genera.

3. Pereon

The pereon has seven pair of legs. The first two pairs are known as gnathopods and usually are prehensile, having dactylus and propodus. While sexual dimorphism is rarely seen in the gnathopod 1, the male often has enlarged gnathopod 2. The taxonomic recognition of species often depends on the shape of male gnthopod 2.

The posterior five pairs of legs (pereopods) are umbered consecutively from three to seven. All pereopods are composed of seven articles: coxa, basis, ischium, merus, carpus, propodus and dactylus.

4. Pleon

The first three parts of pleon(metasome) are called pleosome and last three parts are urosome. The pleosome bears three pair of pleopods. They are biramous. Three pleonal epimera of pleosome are outgrowths of the body and directed ventrally.

The urosome has three pairs of uropods. Uropods have peduncle, inner ramus and outer ramus. The first two anterior pairs of the uropods are similar, with stiffy articled. The third uropods are shortened

The telson is a flap attached to the third urosomite above the anus. The shape of the telson is highly variable

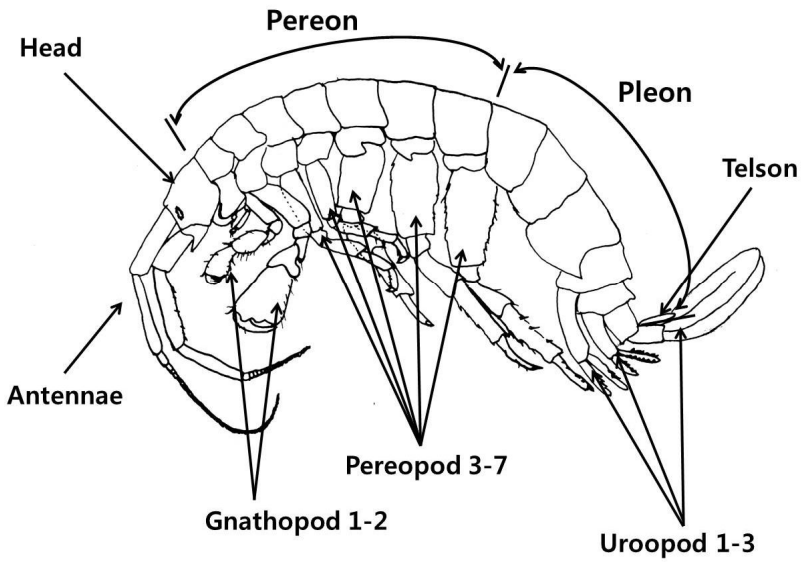

Fig. 2. General amphipod showing principal body parts.

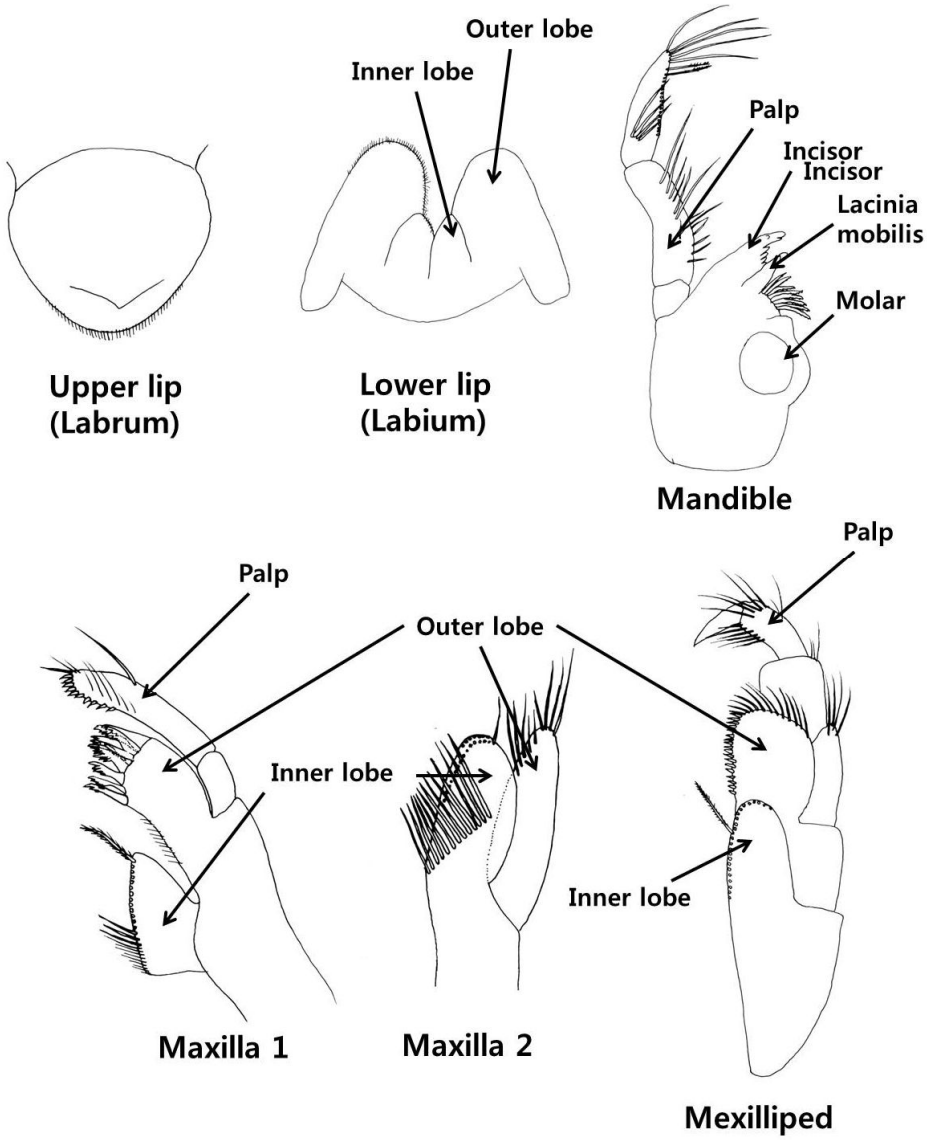

Fig. 3. Mouth parts of amphipod.

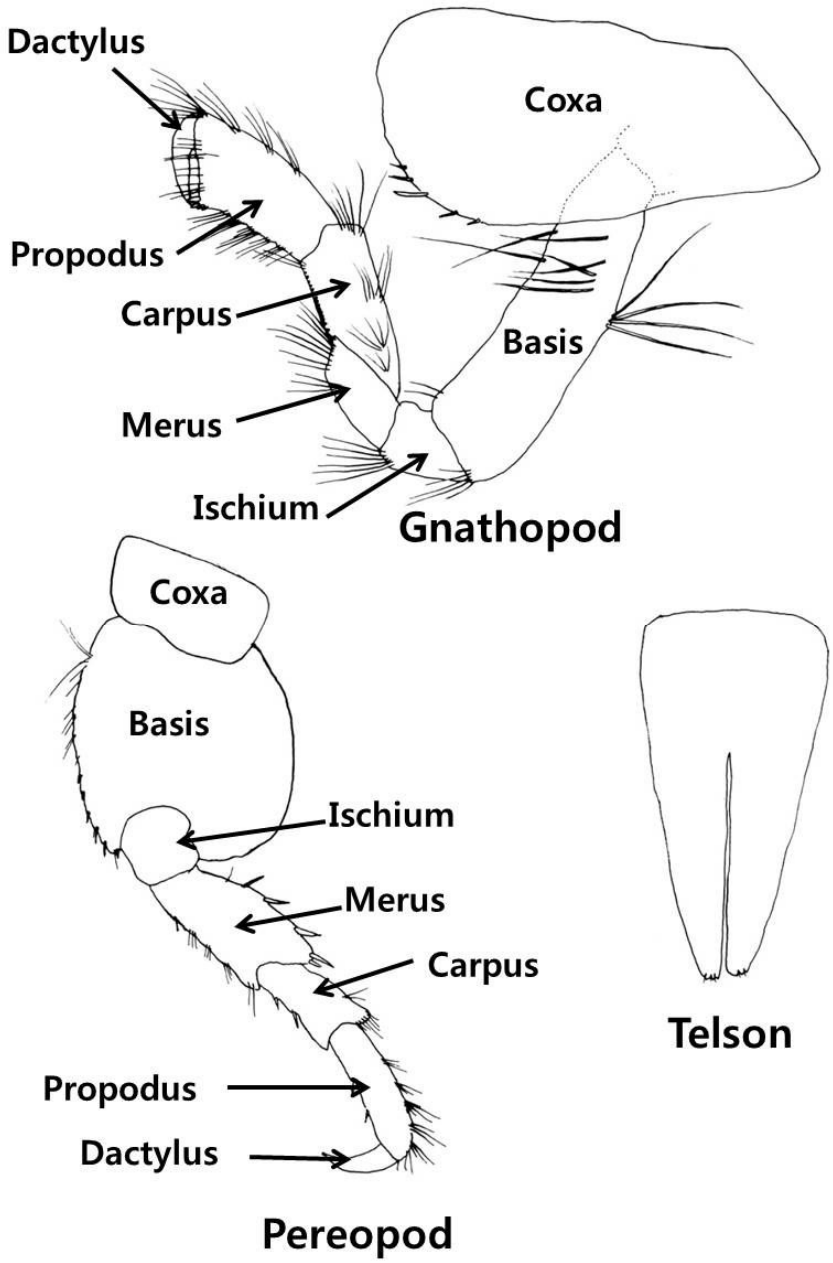

Fig. 4. Apendages of amphipod.

RESULTS

1-1. Texanomic study of Marian Cove Amphipoda

Systematic accounts

Subphylum Crustacea Pennant, 1777

Class Malacostraca Latreille, 1806

Order Amphipoda Latreille, 1816

Suborder Gammaridea Latreille, 1803

Family AMPELISCIDAE Costa, 1857

Genus *Gitanopsis* Sars, 1892

1. *Gitanopsis squamosa* (Thomson, 1880)

Family COLOMASTIGIDAE Stebbing, 1899

Genus *Colomastix* Grube, 1861

2. *Colomastix fissilingua* Schellenberg, 1926

Family DEXAMINIDAE Leach, 1814

Subfamily Dexamininae Leach, 1814

Genus *Paradexamine* Stebbing, 1899

3. *Paradexamine fissicauda* Chevreux, 1906

Family EPIMERIIDAE Boeck, 1871

Genus *Epimeria* Costa, 1851

4. *Epimeria monodon* Stephensen, 1947

Superfamily EUSIROIDEA Bousfield, 1979

Family PONTOGENEIIDAE Stebbing, 1906

Genus *Bovallia* Pfeffer, 1888

5. *Bovallia gigantea* Pfeffer, 1888

Genus *Djerboa* Chevreux, 1906

6. *Djerboa furcipes* Chevreux, 1906

Genus *Eurymera* Pfeffer, 1888

7. *Eurymera monticulosa* Pfeffer, 1888

Genus *Gondogeneia* J.L. Barnard, 1972

8. *Gondogeneia antarctica* (Chevreux, 1906)

Genus *Prostebbingia* Schellenberg, 1926

9. *Prostebbingia brevicornis* (Chevreux, 1906)

10. *Prostebbingia longicornis* (Chevreux, 1906)

Superfamily HADGIOIDEA Busfield, 1983

Family MELITIDAE Bousfield, 1973

Genus *Paraceradocus* Stebbing, 1899

11. *Paraceradocus gibber* Andres, 1984

Family IPHIMEDIIDAE Boeck, 1871

Genus *Pariphimedia* Chevreux, 1906

12. *Pariphimedia integricauda* Chevreux, 1906

Genus *Stegopanoploea* Karaman, 1980

13. *Stegopanoploea joubini* (Chevreux, 1912)

Family LEUCOTHOIDAE Dana, 1852

Genus *Leucothoe* Leach, 1814

14. *Leucothoe spinicarpa (Abildgaard, 1789) s.l.*

Superfamily LYSIANASSOIDEA Dana, 1849

Family LYSIANASSIDAE Dana, 1849

Subfamily Tryphosinae Lowry & Stoddart, 1997

Genus *Cheirimedon* Stebbing, 1888

15. *Cheirimedon femoratus* (Pfeffer, 1888)

16. *Orchomenella* sp.

Family STENOTHOIDAE Boeck, 1871

Subfamily Stenothoinae Boeck, 1871

Genus *Metopoides* Della Valle, 1893

17. *Metopoides sarsi* (Pfeffer, 1888)

Genus *Scaphodactylus* Rauschert & Andres, 1993

18. *Scaphodactylus foliodactylus* (Rauschert, 1990a)

Subfamily Thaumatelsoninae Gurjanova, 1938

Genus *Prothaumatelson* Schellenberg, 1931

19. *Prothaumatelson nasutum* (Chevreux, 1912)

Genus *Thaumatelson* Walker, 1906

20. *Thaumatelson* cf. *herdmani* Walker, 1906

Infraorder TALITRIDA Rafi nesque, 1815

Superfamily PHLIANTOIDEA Stebbing, 1899

Family EOPHLIANTIDAE Sheard, 1936

Genus *Wandelia* Chevreux, 1906

21. *Wandelia crassipes* Chevreux, 1906

Superfamily PHOTOIDEA Boeck, 1871

Family ISCHYROCERIDAE Stebbing, 1899

Genus *Jassa* Leach, 1814

22. *Jassa wandeli* Chevreux, 1906

Key to Marian Cove species of amphipods

1. Telson entire or weakly incised……2
   Telson cleft; cleft more than 1/3 as long as telson……...……...11
2. Coxa 1 small and hidden by following coxa 2…….3
   Coxa 1 not small, slightly overlapped by following coxa 2 or not overlapped ..7
3. Uropod 3 biramus…….. (Amphilochidae) *Gitanopsis squamosa*
   Uropod 3 uniramous……..……..(Stenothoidae) 4
4. Article 2 of pereopod 7 expanded…….……...5
   Article 2 of pereopod 7 rectlinear……6
5. Palm of gnathopod 2 incised …….....…. *Scaphodactylus foliodactylus*
   Palm of gnathopod 2 nomal…….…….. *Metopoides sarsi*
6. Gnathopods subchlate…… *Thaumatelson herdmani*
   Gnathopod 2 chelate…….…….……. *Prothaumatelson nasutum*
7. Body compressed, with posterior teeth; rostrum well developed ……
   …….……(Iphimediidae) 8
   Body smooth; rostrum short …….....9
8. Palp of maxilla 1 1-articulate; incisor highly toothed; body with posterior teeth
   ……..……..... *Pariphimedia integricauda*
   Palp of maxilla 1 2-articulate; incisor slightly toothed; body with strong posterodosal teeth…… *Stegopanoploea joubini*

9. Gnathopod 1 carpochelate (claw formed by articles 5-7)……
……..…..... (Leucothoidae) *Leucothoe spinicarpa*

Gnathopod 1 subchelate or simple……..……10

10. Inner plates of maxilliped tiny, mostly fused together; urosomites 2-3 coalesced; gnathopod 1 simple……..(Colomastigidae) *Colomastix fissilingua*

Inner plates of maxilliped ordinary; urosomites separated; gnathopods subchelate and very huge …….……..……... *Jassa wandeli*

11. Rostrum well developed; coxa 1-4 acuminate; coxa 4 with large posteroventral lobe…….(Epimriidae) *Epimeria monodon*

Rostrum short; coxa 1-4 ordinary; coxa 4 rounded……..…….....12

12. Body cylindrical; gnathopods parachelate or minutely subchelate ……
……..……..…(Eophliantidae) *Wandelia crassipes*

Body not cylindrical; gnathopods subchelate…….……..…..….13

13. Peduncular article 2 and 3 of antenna 1 very short; carpus of gnathopod 2 longer than propodus; ischium elongated …….……..…..(Lysianassidae) 14

Peduncular articles of antenna 1 ordinary; carpus of gnathopod 2 not longer than propodus; ischium ordinary……15

14. Article 1 of mandibular palp shorter than 2……. *Cheirimedon femoratus*

Article 1 of mandibular palp longer than 2……. *Orchomenella* sp.

15. Urosomites 2-3 coalesced; mandibular palp absent……..…
……...(Dexaminidae) *Paradexamine fissicauda*

Urosomites separated; mandibular palp present……..16

16. Accessory flagellum with three or more articles……
…….……(Melitidae) *Paraceradocus gibber*

Accessory flagellum absent or with 1-2 articles…..…….(Eusiridae) 17

17. Body stout, umbonate……. *Eurymera monticulosa*

Body stout or slender, not umbonate…….……..….18

18. Facial setae on maxilla 2 absent; gnathopod 1 slightly larger than gnathopod 2
……..…….. *Gondogeneia antarctica*

Facial setae on maxilla 2 present; gnathopod 1 smaller than gnathopod 2……19

19. Body stout; peduncular article 1 of antenna 1 much longer than head……
……. *Bovallia gigantea*

Body slender; peduncular article 1 of antenna 1 shorter than head…….……20

20. Body weakly carinate or toothed on pleonites 1-2; gnathopods very slender and elongated ……*Djerboa furcipes*

Body not carinate; gnathopods medium…….……..…21

21. Antennae almost half of body length; antenna 1 longer than antenna 2…….....*Prostebbingia longicornis*

Antennae much shorter than half of body length; antenna 1 not longer than antenna 2……..……..……*Prostebbingia brevicornis*

Descriptions of species

Family AMPELISCIDAE Costa, 1857

Genus *Gitanopsis* Sars, 1892

1. *Gitanopsis squamosa* (Thomson, 1880)

(Fig. 5)

Amphilochus squamosus Thomson, 1880: 4. pl. 1: fig. 4; Thomson, 1881: 214, fig. 5a, b; Thomson & Chilton, 1886: 149; Della Valle, 1893: 597; Stebbing, 1906: 161; Chilton, 1912a: 479; Chilton, 1923a: 240.

Gitanopsis squamosa: Schellenberg, 1926a: 301; Hurley, 1955: 208, 213, figs. 91-118; Barnard J.L., 1958e: 24; Barnard J.L., 1962c: 130; Barnard J.L. 1972b: 31, 36; Bellan-Santini & Ledoyer, 1974: 643, pl. 1b; Lowry, 1974a: 102,122, fig. 3g, h; Thurston, 1974a: 23; Thurston, 1974b: 17; Lowry & Bullock, 1976: 23; Branch et al., 1991: 11, 40, 42, fig. on p.11; Gonzalez, 1991a: 51; Jażdżewski et al., 1991: 110; Rauschert, 1991: 20-36; Jażdżewski et al., 1992: 463, 468; De Broyer & Jażdżewski, 1993: 26; Rauschert, 1994: 135; Jażdżewski et al., 1996: 369.

Gitanopsis antarctica Chevreux, 1912a: 211; Chevreux, 1913c: 104, figs. 13-15; Barnard K.H., 1932: 104; Stephensen, 1947a: 45; Stephensen, 1949: 6.

Material examined.

1♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Distribution.

W+G+S+M+T; Bransfi eld Strait, Graham Land, Iles Kerguelen, Magellan area,

Fig. 5. *Gitanopsis squamosal* (Thomson, 1880), Male.

Prince Edward Islands, Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Tristan da Cunha, Wilhelm Archipelago.

Depth range: 0-88 m.

Family COLOMASTIGIDAE Stebbing, 1899

Genus *Colomastix* Grube, 1861

2. *Colomastix fissilingua* Schellenberg, 1926

(Fig. 6)

Fig. 6. *Colomastix fissilingua* Schellenberg, 1926, Male.

Colomastix fissilingua Schellenberg, 1926a: 324, fig. 42; Schellenberg, 1931a: 114; Barnard K.H., 1932: 114, fig. 63; Hurley, 1954d: 420, (in key); Barnard J.L., 1958e: 34; Bellan-Santini & Ledoyer, 1974: 646; Lowry & Bullock, 1976: 25; Holman & Watling, 1983b: 215-218, figs. 1-2; Barnard & Karaman, 1991: 134; Gonzalez, 1991a: 51-52; Rauschert, 1991: 20-36; De Broyer & Jażdżewski, 1993: 27; De Broyer et al., 1999: 165; Gutt et al., 2000: 73-79.

Colomastix pusilla Walker, 1907: 38.

Colomastix brazieri Chilton, 1912a: 484.

Material examined.

1♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°13'01.90"S 058°46'08.51"W, 19 January 2012, by SCUBA diving at 10 m in depth, collected by Han-Gu Choi.

Distribution.

E+W+G+S+M; Davis Sea, Falkland Islands, Iles Kerguelen, Magellan area, Ross Sea, South Orkney Islands, South Shetland Islands, Weddell Sea,

Depth range: 0-494 m.

Family DEXAMINIDAE Leach, 1814

Subfamily Dexamininae Leach, 1814

Genus *Paradexamine* Stebbing, 1899

3. *Paradexamine fissicauda* Chevreux, 1906

(Figs. 7-9)

Paradexamine fissicauda Chevreux, 1906c: 82, fig. 1, 2; Chevreux, 1906e: 88, fig. 51-53; Chevreux, 1913c: 181; Schellenberg, 1931a: 210; Barnard K.H., 1932: 217; Sheard, 1938: 176, 185, (in key); Stephensen, 1938c: 241; Stephensen, 1947a: 66; Barnard J.L., 1958e: 39; Barnard J.L., 1972a: 75, figs. 34-36; Thurston, 1974a: 88, fig. 35a-i; Thurston, 1974b: 17; Lowry & Bullock, 1976: 36; Barnard & Karaman, 1991: 271; Ren & Huang, 1991: 209-210, fig. 13; Jażdżewski *et al.*, 1992: 463, 468; De Broyer & Jażdżewski, 1993: 32; Jażdżewski *et al.,* 1996: 369; De Broyer et al, 2007: 33.

Paradexamine pacifica Chilton, 1912a: 501; Chilton, 1925a: 179.

Material examined.

5 ♀♀ 1♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Description.

Female. Body (Fig. 8A) 20 ㎜ long. Coxae 1-4 ordinary. Eyes round. Lateral cephalic lobes rounded. Rostrum short. Antennae elongate, thin. Posterior body segments with midline carina and teeth, also with lateral teeth.

Article 2 of antenna 1 (Fig. 8B) about equal in length to article 1.

Inner plate of maxilla 1 (Fig. 8C) of normal size, bearing about 3-4 setae. Palp of maxilla 1 1-articulate, palp exceeding outer plate, broad, medially and apically setose.

Inner plate of maxilla 2 (Fig. 8D) narrower than outer, reaching nearly 80 percent along outer; outer scarcely curved; both lobes with submarginal facial seta.

Mandibular palp absent.

Inner plate of maxilliped (Fig. 9A) large, broad and highly setose. Outer plate ordinary, spines simple. Palp slightly exceeding outer plate, 4-articulate, claw short. Gnathopods (Figs. 9B, C) ordinary; coxa subrectangular, gnathopod 1 (Fig. 9B) with propodus (article 6) about 0.9 times as long as carpus (article 5), anterofacial areas with several sets of setae; palms oblique; dactyls failing to extend palmar lengths.

Fig. 7. *Paradexamine fissicauda* Chevreux, 1906, Female.

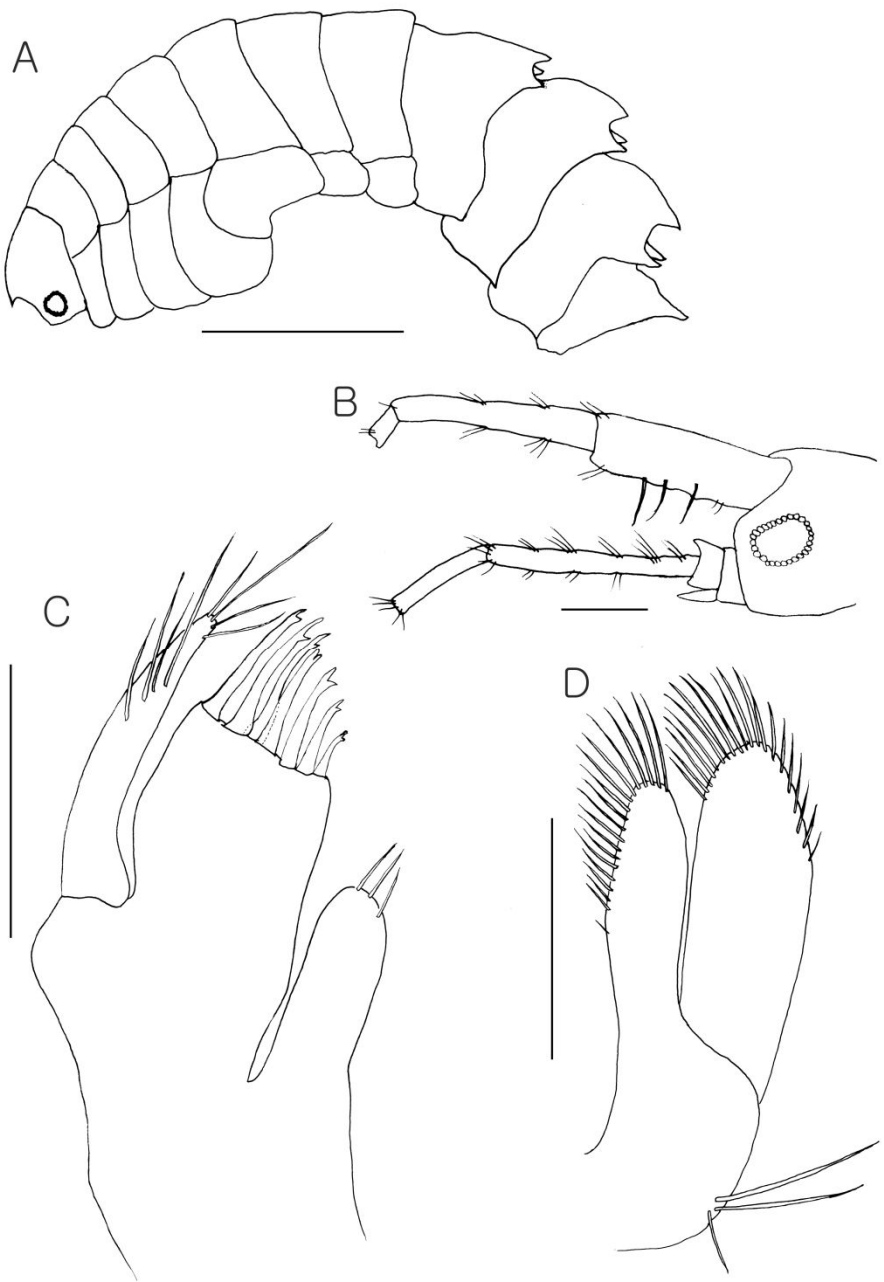

Fig. 8. *Paradexamine fissicauda* Chevreux, 1906, Female. A, Body; B, Antennae ; C, Maxilla 1; D, Maxilla 2. Scale bars = 5 ㎜ (A), 1 ㎜ (B), 0.5 ㎜ (C-D).

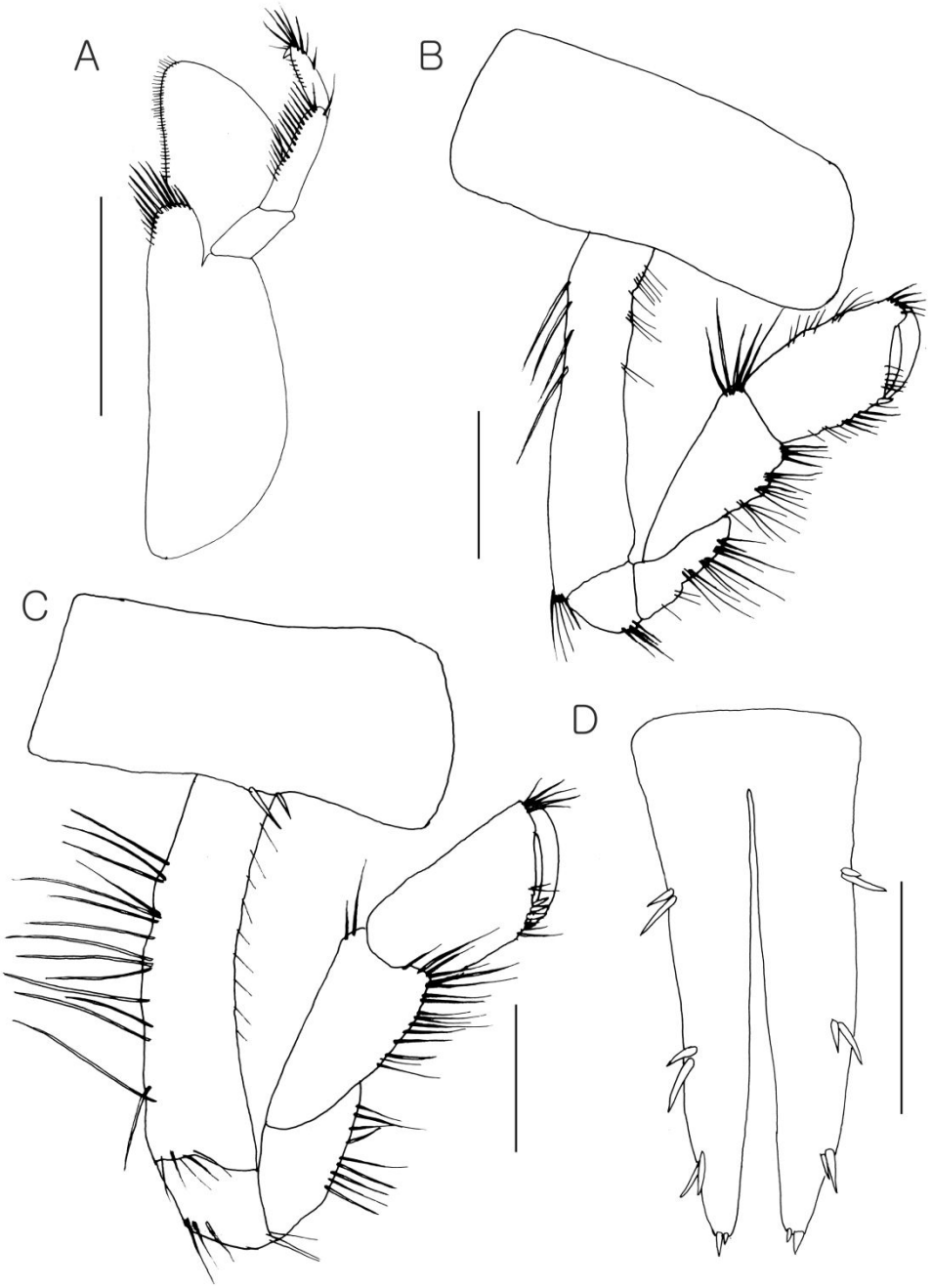

Fig. 9. *Paradexamine fissicauda* Chevreux, 1906, Female. A, Maxilliped; B, gnathopod 1 ; C, gnathopod 2; D, Telson. Scale bars = 1 mm (A-D).

Gnathopod 2 (Fig. 9C) similar to gnathopod 1, but slightly larger than gnathopod 1.

Pereopods simple.

Telson (Fig. 9D) elongate, flat, apices very narrow, and deeply cleft, each with notch and 1-2 spine, sides of each lobe with 2-3 pairs of large dorsal spines.

Gills plaited, on coxae 2-7; oostegites slender.

Distribution.

W+G; Danco Coast, Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 1-129 m.

Remarks.

The present specimens lack the posterior teeth on pereon segments 6-7, described by Chevreux (1906), even in the largest specimen, but agree well with the description of Thurston (1974). This species shows sexual dimorphism. The male is smaller than female. The characteristics of male compared to female are as follows: eyes enlarged, article 2 of antenna 1 elongate, article 5 of antenna 2 shortened, setular tufts developing on antennae 1-2, flagellum of antenna 2 elongate, thoracic appendages becoming elongate and thinned, body teeth reduced. The present specimens were found among macroalgae collected by SCUBA but according to literatures this species is a predominant shallow-water species.

Family EPIMERIIDAE Boeck, 1871

Genus *Epimeria* Costa, 1851

4. *Epimeria monodon* Stephensen, 1947

(Figs. 10-12)

Epimeria monodon Stephensen, 1947a: 53, fig. 19; Barnard J.L., 1958e: 108; Barnard J.L., 1961: 103, (in key); McCain, 1971: 161, table 1; Thurston, 1974a: 34; Thurston, 1974b: 66; Lowry & Bullock, 1976: 121; Barnard & Karaman, 1991: 394; Rauschert, 1991: 37; De Broyer & Jażdżewski, 1993: 35; Coleman, 1994: 560, 565-569, figs. 9-12; Jażdżewski et al., 1996: 370; De Broyer et al, 2007: 42, volume 2 44-45.

Material examined.

1♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'55.51"S 058°46'36.87"W, 14 January 2011, by Netting at 5m in depth, collected by Yue Lou.

Description.

Male. Body (Fig. 11A) 10 mm long. Body smooth, without dorsal carina, dorsal lateral spines or teeth. Eyes round. Pereon smooth. Coxae 1-4 progressively long; coxa 1 anterior margin and posterior of distal half parallel, apically round; coxa 2-3 narrow toward the end; distal of coxa 4 broadly rounded.

Antenna 1 (Fig. 11B) : Peduncular article 2 shorter than 1; Accessory flagellum absent.

Maxilla 1 (Fig. 11C) : palp 2-articulate; article 2 ordinary.

Maxilla 2 (Fig. 11D) : Inner plate without facial row of setae.

Fig. 10. *Epimeria monodon* Stephensen, 1947, Male.

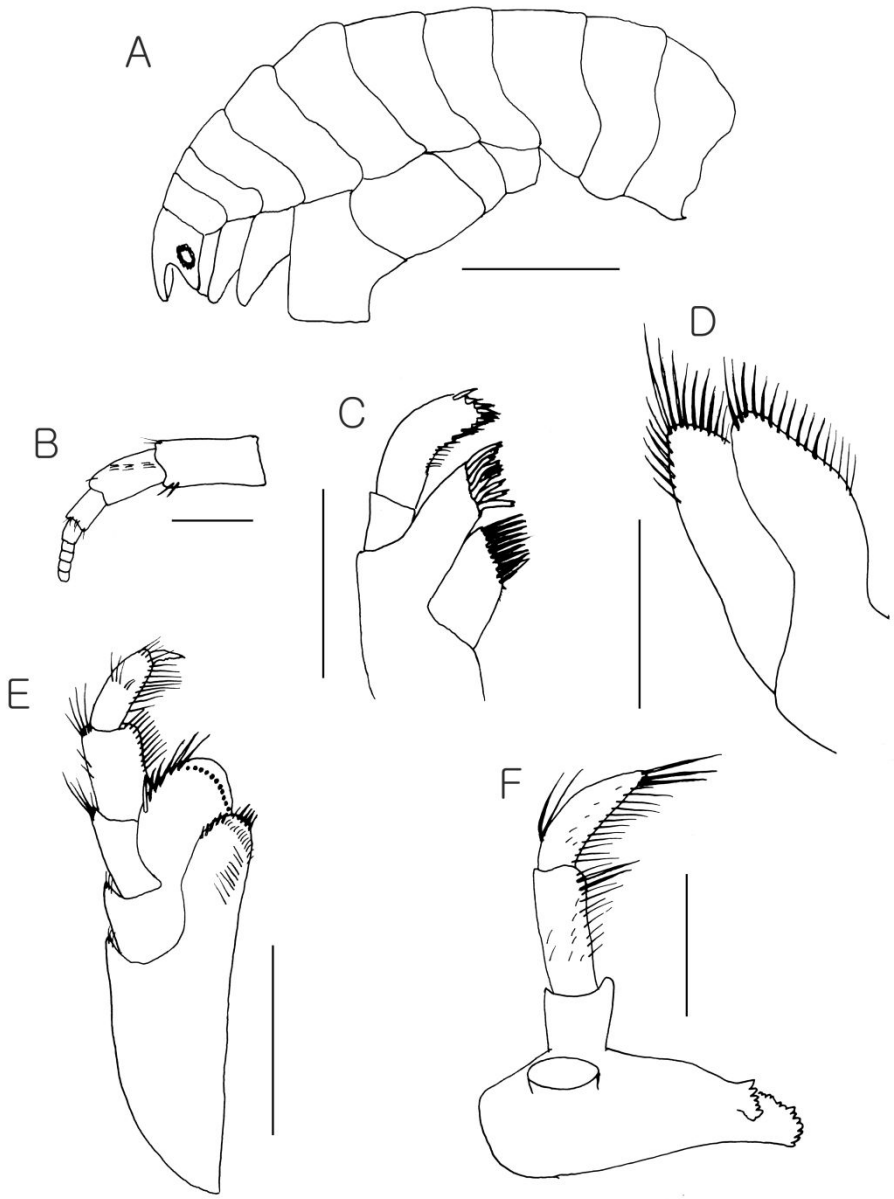

Fig. 11. *Epimeria monodon* Stephensen, 1947, Male. A, Body; B, Antenna 1; C, Maxilla 1; D, Maxilla 2; E, Mexilliped; F, Molar. Scale bars = 5 mm (A), 1 mm (B-F).

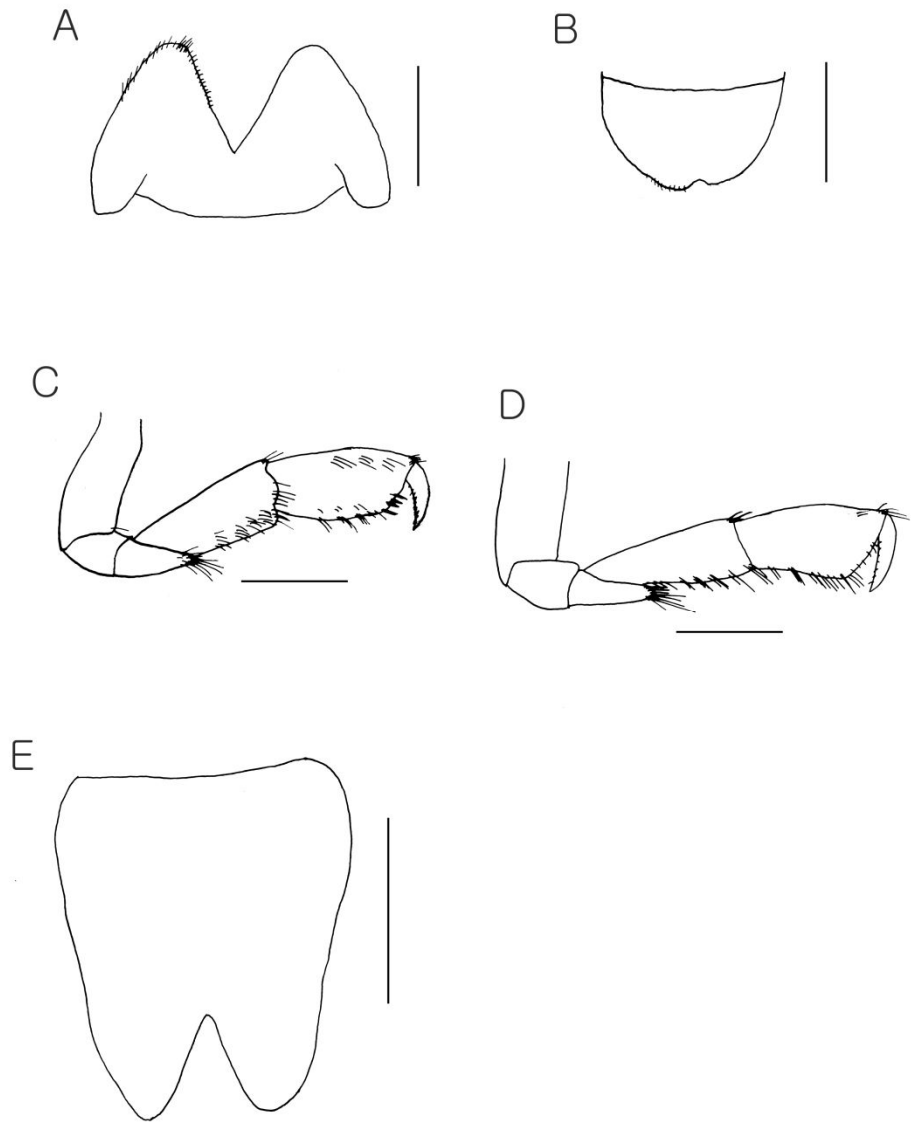

Fig. 12. *Epimeria monodon* Stephensen, 1947, Male. A, Labium; B, Labrum; C, gnathopod 1; D, gnathopod 2; E, Telson. Scale bars = 1 mm (A-F).

Maxillipeds (Fig. 11E) : Inner plate narrower but as long as outer plate; outer elongate; palp article 2 narrow and apicomedially unproduced; palp article 4 well developed, unguiform.

Mandibular (Fig. 11F) incisor ordinary, toothed, rakers present; molar blunt, strong, triturative; mandibular palp thick; article 3 and article 2 almost same length.

Labium (Fig. 12A) : Inner lobes absent; outer lobes relatively broad.

Labrum (Fig. 12B) almost entire; epistome not very broad.

Gnathopod 1 (Fig. 12C) : Article 5-6 elongate, gnathopods subchelate.

Gnathopod 2 (Fig. 12D) : Similar to gnathopod 1.

Telson (Fig. 12E) cleft, longer than broad, cleft much shorter than half of telson's length.

Distribution.

E+W; Palmer Archipelago,South Orkney Islands, South Shetland Islands, Weddell Sea.

Depth range: 0-254 m.

Remarks.

Epimeria is differ from *Odius* in the pointed coxae 1-3 and strong dactyl of the maxilliped. *Epimeria monodon* resembles *E. puncticulata*, *E. annabellae* and *E. inermis*. But *E. puncticulata* has a keel and posteromaginal tooth on pleonites 2-3. *E. annabellae* is bigger and urosomite has 1 tooth. And *E. innermis* has wide coxa 4.

Superfamily EUSIROIDEA Bousfield, 1979

Family PONTOGENEIIDAE Stebbing, 1906

Genus *Bovallia* Pfeffer, 1888

5. *Bovallia gigantea* Pfeffer, 1888

(Figs. 13-15)

Bovallia gigantea Pfeffer, 1888: 96, pl. 1: fig. 5; Chevreux, 1906e: 54, figs. 31-33; Stebbing. 1906: 357; Chevreux, 1913c: 168; Schellenberg, 1929c: 277; Schellenberg, 1931a: 180, fig. 92a, b; Barnard K.H., 1932: 196, 315, fig. 118a; Stephensen, 1938c: 238; Stephensen, 1947a: 59; Barnard J.L., 1958e: 123; Thurston, 1968: 57-64; Bone, 1972: 105-122, fig. 3; Thurston, 1974a: 86; Thurston, 1974b: 28; Lowry & Bullock, 1976: 41; Lincoln & Hurley, 1981: 108; Barnard & Karaman, 1991: 311, 312; Jażdżewski *et al.,* 1991: 110; Rauschert, 1991: 20-36; Jażdżewski *et al.*,1992: 464, 468; De Broyer & Jażdżewski, 1993: 37; Alonso de Pina, 1995: 257-258; Jażdżewski *et al.,* 1996: 370; De Broyer et al, 2007: 66.

Atylus gigantean: Della Valle, 1893: 704.

Bovallia monoculoides Chilton, 1912a: 494-495; Chilton, 1913: 57-58; Shoemaker, 1914: 74*;* Chilton, 1925a: 177.

Material examined.

4♂♂ 8♀♀, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Description.

Male. Body (Fig. 14A) 34 ㎜ long, thick, stout, compressed, weakly carinate, toothed posterodorsally. Rostrum small. Lateral cephalic lobes ordinary; anteroventral margin of head not produced. Eyes large, reniform. Coxae ordinary, progressively longer toward coxa 4; coxae 1-4 rectangular, round corners; coxa 1 scarcely expanded ventrally.

Antenna 1 (Fig. 14B) : First article of antenna 1 longer than the head; article 2 with 3 almost as long as 1; article 3 weakly produced; article 1 of primary flagellum ordinary; accessory flagellum absent.

Antenna 2 (Fig. 14B) shorter than 1; flagellum as long as peduncle; flagellum ordinary, similar to flagellum of antenna 1.

Maxilliped (Fig. 14C) : Inner plates not relatively long; outer plate as long as inner; palp of 4 articles; 1-2 broad; 3 narrow; distal article shorter than 3, with thick falcate.

Maxilla 2 (Fig. 14D) : Outer plate broader and longer than inner; inner plate with facial row of setae and other medial setae.

Molar (Fig. 14E) triturative, columnar; article 2-3 of mandibular palp with row of satae; article 3 as long as 2.

Fig. 13. *Bovallia gigantea* Pfeffer, 1888, Male.

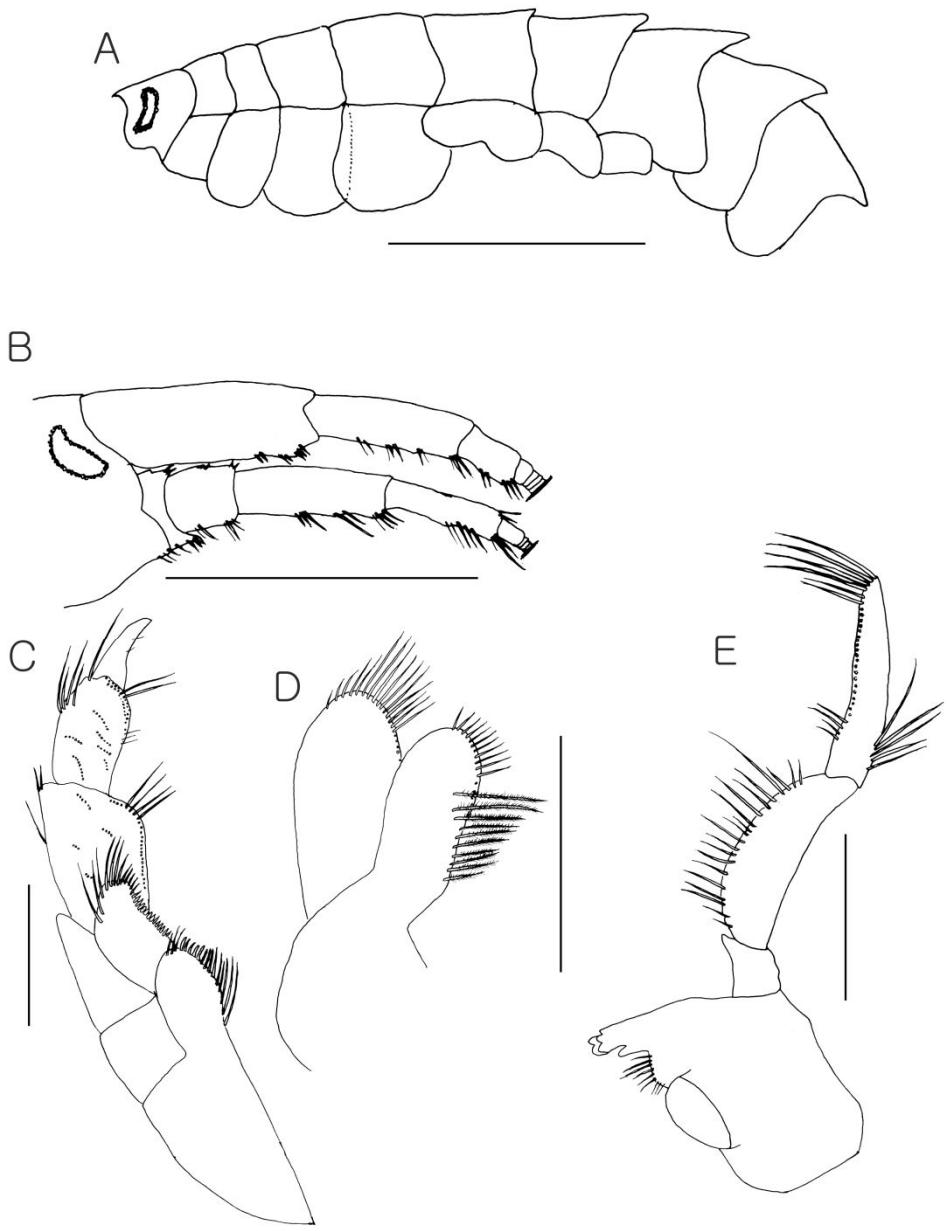

Fig. 14. *Bovallia gigantea* Pfeffer, 1888, Male. A, Body; B, Antenae; C, Maxilliped; D, maxilla 2; E, Molar. Scale bars = 10 ㎜ (A), 5 ㎜ (B), 1 ㎜(C-E).

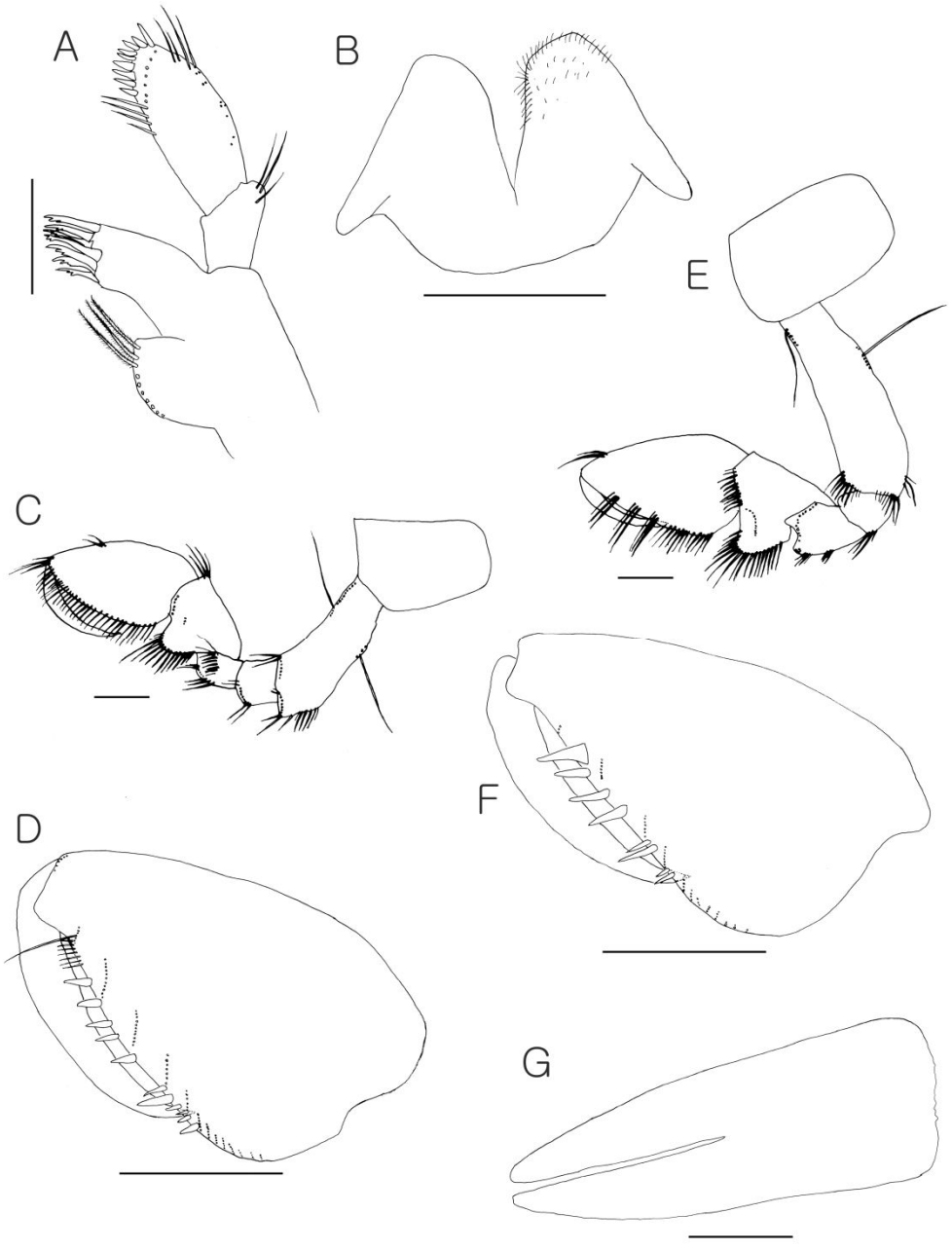

Fig. 15. *Bovallia gigantea* Pfeffer, 1888, Male. A, Maxilla 1; B, Labium; C-D, Gnathopod 1; E-F, Gnathopod 2; G, Telson. Scale bars = 0.5 ㎜ (A), 1 ㎜(B-G).

Maxilla 1 (Fig. 15A) : Inner plate with 10-12 medial setae, palp big and long; article 1 not longer than 2.

Labium (Fig. 15B) : Ordinary, with minute setae; inner lobes absent.

Gnathopod 1 (Fig. 15C-D) : Subchelate, not eusirid; carpus and propodus with numerous long posterior setae; large carpus but shorter than propodus, with strong posterodistal lobe not extending distad; propodus ovate; palm oblique and long with spins.

Gnathopod 2 (Fig. 15E-F) similar to gnathopod 1, but slightly larger than 1; lobe of carpus well developed.

Pereopods ordinary, simple; dactyls simple.

Telson (Fig. 15G) elongate; cleft halfway; apices without armaments.

Distribution.

W+G; Bransfield Strait, Danco Coast, Palmer Archipelago, South Georgia, South Orkney Islands, South Sandwich Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 0-91 m.

Remarks.

This large species is quite distinct, reddish in color, which attains a maximum length of about 50 ㎜. This species is characterised easily distinguished from other species by the first article of antenna 1 being longer than the head, lobe on the gnathopodal carpus and the cleft of the telson, in the toothed body and fully developed setae on maxilla 2. It is found among with Macroalgae (ex. *Desmarestia*

anceps and *Himantothallus grandifolius*) on rock or sand. Chilton's attempts to synonymize it with *Eusiroides monoculoides* (Haswell) have been proved erroneous by Chevreux (1913), Schellenberg (1931) and Barnard (1932).

Genus *Djerboa* Chevreux, 1906

6. *Djerboa furcipes* Chevreux, 1906

(Fig. 16)

Djerboa forcipes Chevreux, 1906e: 74, figs. 42-44; Chilton, 1912a: 500; Chevreux, 1913c: 179, fig. 60; Shoemaker, 1914: 75; Schellenderg, 1926a: 363; Schellenberg, 1931a: 193; Barnard K.H., 1932: 203, 315, fig. 118a; Stephensen, 1938c: 239; Stephensen, 1947a: 62; Barnard J.L., 1958e: 123; Bellan-Santini & Ledoyer, 1974: 654, pl. 7b; Thurston, 1974a: 71; Thurston, 1974b: 28; Lowry & Bullock, 1976: 43; Andres, 1982: 161; Barnard & Karaman, 1991: 316, 317; Branch et al., 1991: 20, 40, fig. on p.20; Jażdżewski et al., 1991: 110; Rauschert, 1991: 20-36; Jażdżewski et al., 1992: 464-468; De Broyer & Jażdżewski, 1993: 37; Jażdżewski et al., 1996: 370.

Material examined.

2♂♂ 4♀♀, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Diagnosis.

Male. Body (Fig. 16) 17mm long, slender, weakly carinate; eyes ovate; rostrum very short; lateral cephalic lobes ordinary; anteroventral margin of head not produced. Coxae ordinary, coxa 1 almost as long as 4.

Antenna 1 longer than 2, peduncular articles much shorter than plagellum, article 1 almost as long as head, article 3 short; accessory flagellum 1-articulate. Antenna 2: peduncular articles much shorter than plagellum; article 4 shorter than 5.

Labrum entire, rounded, as long as broad, with minute setae.

Molar triturative, article 2 of mandibular palp unlobed, article 2 slightly longer than 3.

Labium with minute setae; inner lobes absent.

Maxilla 1: Inner plate with many medial and apical setae, palp 2-articulate; article 1 shorter than 2.

Maxilla 2: Outer plate broader and longer than inner; inner plate with facial row of setae.

Maxilliped: inner plate ordinary, longer than outer; palp of 4-articulate; 1 shorter than 2; 3 unlobed; 4 weakly spinose along inferior margin.

Gnathopod 1: Subchelate, noneusirid, slender; carpus as long as or propodus; dactyl small. Gnathopod 2 similar to gnathopod 1, but larger than 1; carpus and propodus elongated.

Pereopods 3-7 elongate, simple. Epimeron 3 smooth.

Telson ordinary, cleft much longer than half of telson's length, without long apical armaments.

Fig. 16. *Djerboa forcipes* Chevreux, 1906, Male.

Distribution.

W+G+S; Iles Crozet, Iles Kerguelen, Prince Edward Islands,

Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Wilhelm Archipelago.

Depth range: 0-156 m.

Genus *Eurymera* Pfeffer, 1888

7. *Eurymera monticulosa* Pfeffer, 1888

(Figs. 17-20)

Eurymera monticulosa Pfeffer, 1888: 103, pl. 1, fig. 3; Chevreux, 1906e: 59, figs. 34-36; Stebbing, 1906: 357; Chilton, 1912a: 493; Chevreux, 1913: 167; Chilton, 1913: 58; Shoemaker, 1914: 74; Schellenberg, 1931: 181; Barnard K.H., 1932: 198, 315, fig. 118B; Stephensen, 1938c: 239; Stephensen, 1947a: 59; Barnard J.L., 1958e: 123; Thurston, 1974a: 84; Thurston, 1974b: 28; Lowry & Bullock, 1976: 43; Barnard & Karaman, 1991: 317; Jażdżewski *et al.,* 1991: 110; Ren & Huang, 1991: 210, fig. 14; Jażdżewski et al., 1992: 464, 468; De Broyer & Jażdżewski, 1993: 37; De Broyer et al, 2007: 68.

Material examined.

1♂, King George Island, South Shetland Islands, Antarctica, 62°13'32.38"S, 58°47'33.69"W, 21 January 2012, by hand net at 1 m in depth, collected by Jee-Hoon Kim; 1♂ 1♀♀, Fildes Peninsula, King George Island, South Shetland Islands,

Antarctica, 62°11'55.66"S 58°57'28.63"W, 7 February 2012, by hand net at 1 m in depth, collected by Jee-Hoon Kim.

Description.

Male. Body (Fig. 18A). 19 ㎜ long, umbonate, compressed and stout; extremely broad at peraeon segments 4-5, weakly carinate. Rostrum very small; lateral cephalic lobes ordinary; anteroventral margin of head not produced. Eye small, black in alcohol. Coxae ordinary; coxa 1 scarcely produced anteriorly; coxa 4 with posterior lobe.

Antenna 1 (Fig. 18B) : Article 1 almost as long as 2 with 3; article 3 not produced; flagellum rather longer than peduncle; article 1 of primary flagellum ordinary; accessory flagellum absent.

Antenna 2 (Fig. 18B) subequal to antenna 1; flagellum a little longer than peduncle.

Labrum (Fig. 18C) entire, subrounded, broader than long; epistome unproduced.

Molar (Fig. 18D) triturative, columnar; article 2 of mandibular palp unlobed; article 3 slightly shorter than 2.

Maxilla 1 (Fig. 19A) : Inner lobe with many medial setae; palp long with 2 articles; article 2 much longer than 1.

Maxilla 2 (Fig. 19B) : Outer plate slightly broader and longer than inner; inner plate with facial row of many setae and other medial setae.

Labium (Fig. 19C) with minute setae on outer lobe and inner; inner lobes small.

Maxilliped (Fig. 19D) : Inner plate not relatively long; outer plate almost as long as inner; palp of 4 articles; 3 unlobed; 4 slightly shorter than 3.

Fig. 17. *Eurymera monticulosa* Pfeffer, 1888, Male.

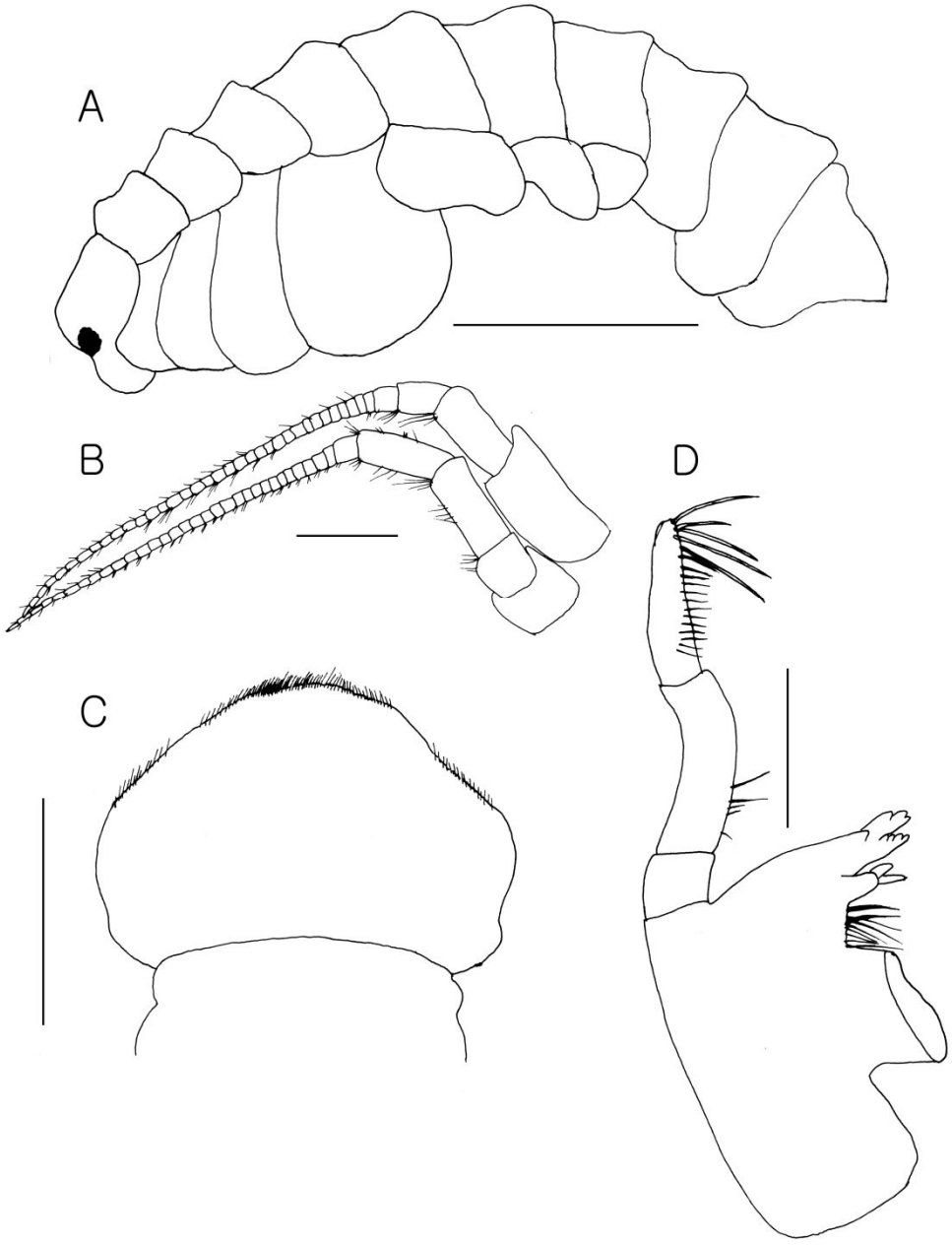

Fig. 18. *Eurymera monticulosa* Pfeffer, 1888, Male. A, Body; B, Antenae; C, Labrum; D, Molar. Scale bars = 5 mm (A), 1 mm (B), 0.5 mm(C-D).

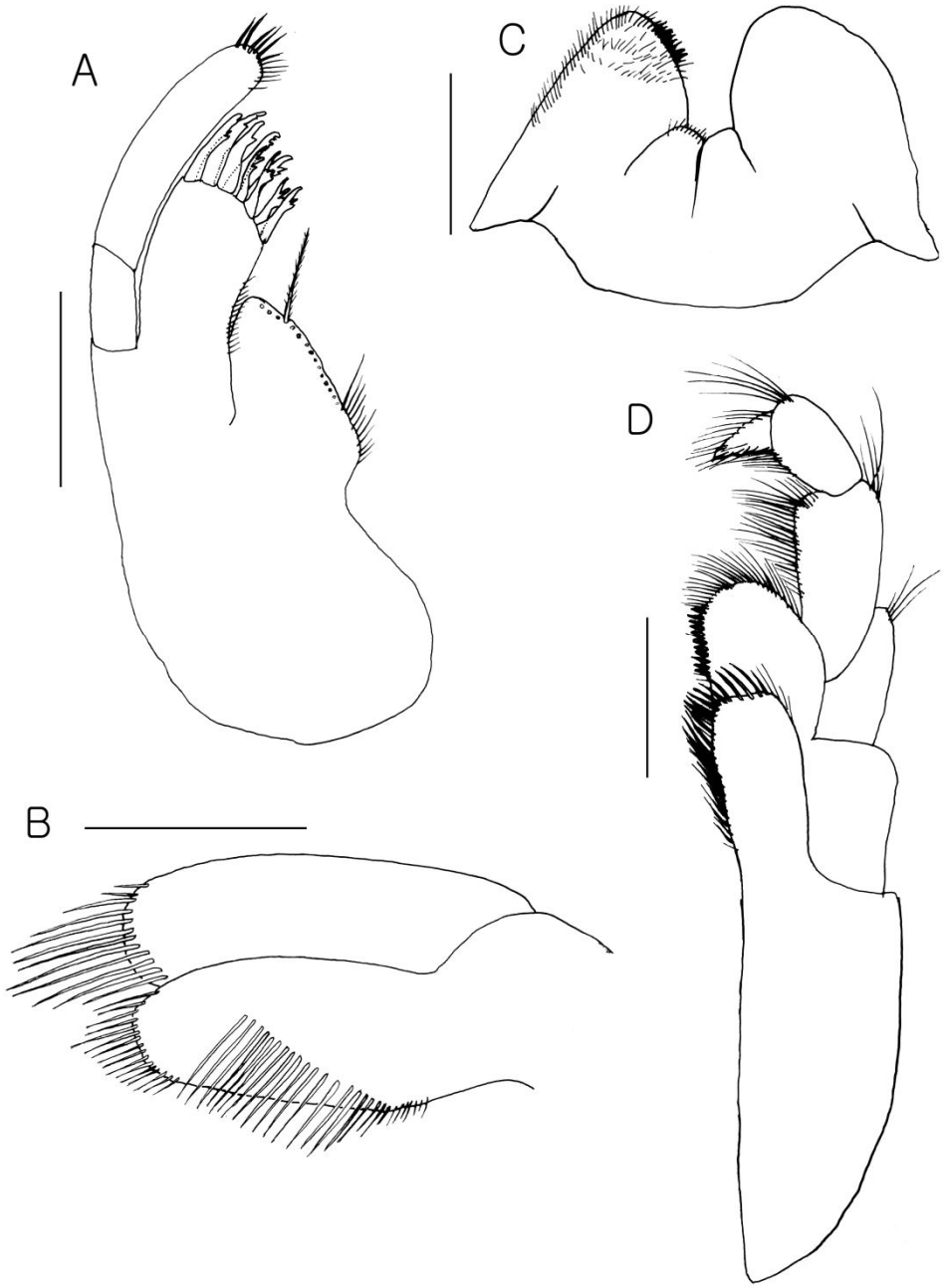

Fig. 19. *Eurymera monticulosa* Pfeffer, 1888, Male. A, Maxilla 1; B, Maxilla 2; C, Labium; D, Maxilliped. Scale bars = 0.5 ㎜ (A-D).

Gnathopod 1 (Fig. 20A) subchelate, not eusirid; carpus not much shorter than propodus; carpus posterior lobe absent, with numerous long posterior setae; propodus rectangular; palms scarcely oblique.

Gnathopod 2 (Fig. 20B) similar to gnathopod 1, but slightly larger than 1.

Pereopod 7 (Fig. 20C) ordinary, simple; article 2 not anteriorly lobate; dactyls simple.

Outer rami of uropods 2 (Fig. 20D) shortened, with lateral and dorsal spines.

Uropod 3 (Fig. 20E) ordinary; peduncle elongate, without large process; rami lanceolate, unequal; inner ramus longer than outer.

Telson (Fig. 20F) elongate, almost half cleft, almost twice as long as broad; lobes notched, without long apical armaments.

Distribution.

W+G; Bransfield Strait, Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 0-40 m.

Remarks.

This species was described in detail by Pfeffer (1888) and Chevreux (1906) but not in English. In the presnt samples, the palp of the maxilla 1 is more slim than Chevreux's (1906, p. 61). This species is characterised by the umbonate body, shortened outer ramus of uropod 3, unlobate carpus of the gnathopods and strong setose on maxillae.

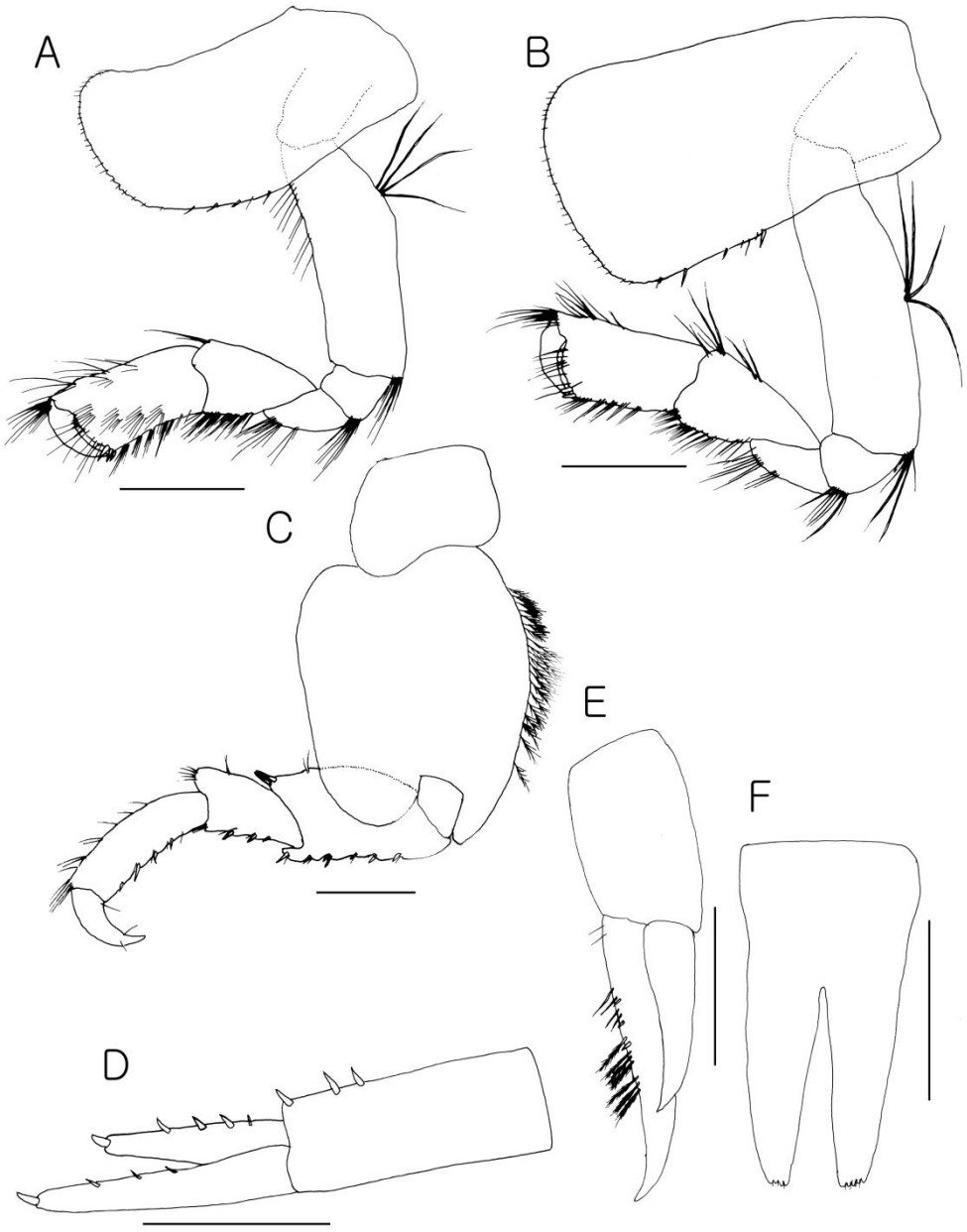

Fig. 20. *Eurymera monticulosa* Pfeffer, 1888, Male. A, Gnathopod 1; B, Gnathopod 2; C, Pereopod 7; D, Uropods 2; E, Uropods 3; F, Telson. Scale bars = 0.5 ㎜ (A-F).

Genus *Gondogeneia* J.L. Barnard, 1972

8. *Gondogeneia antarctica* (Chevreux, 1906)

(Figs. 21-23)

Pontogeneia antarctica Chevreux, 1906b: 79, fig. 2; Chevreux, 1906e: 69, figs. 40, 41; Chilton, 1912a: 496; Chevreux, 1913c: 177, fig. 59; Chilton, 1925a: 178; Schellenberg, 1931a: 185; Barnard K.H., 1932: 199, fig. 118h; Stephensen, 1947a: 60; Barnard J.L., 1958e: 124; Thurston, 1974a: 79, figs. 32a-b.

Gondogeneia antarctica: Barnard J.L., 1972a: 191; Thurston, 1974b: 31, fig. 10; Lowry & Bullock, 1976: 48; Barnard & Karaman, 1991: 321, 322; Ren & Huang, 1991: 215-216, fig. 17; Gonzalez, 1991a: 54; Rauschert, 1991: 20-36; Jażdżewski *et al.*, 1992: 464; De Broyer & Jażdżewski, 1993: 48; Jażdżewski *et al.,* 1996: 370; De Broyer et al, 2007: 68.

Material examined.

10♂♂ 15♀♀, Tide pool, In front of Sejong Station, King George Island, South Shetland Islands, Antarctica, 62°13'45.10"S 58°47'15.84"W, 22 January 2012, by hand net at 0.2 m in depth, collected by Jee-Hoon Kim & Sanghui Lee. 5♂♂ 11♀♀, Tide pool, Marian cove, King George Island, South Shetland Islands, Antarctica, 62°12'13.80"S, 58°43'56.59"W, 19 February 2012, by netting at 2 m in depth, collected by Jee-Hoon Kim & Sanghui Lee.

Description.

Female. Body (Fig. 22A) 13 ㎜ long , ordinary, compressed, smooth. Rostrum small; lateral cephalic lobes ordinary; anteroventral margin of head not produced.

Fig. 21. *Gondogeneia antarctica* (Chevreux, 1906), Female.

Eyes round. Coxae ordinary, progressively longer toward coxa 4; coxa 1 scarcely produced anteriorly nor expanded ventrally; coxa 4 almost round.

Antennae 1 (Fig. 22B) shorter than 2; peduncular articles of antenna 1 progressively short; article 1 shorter than head; article 3 weakly produced; article 1 of primary flagellum short; accessory flagellum absent; every third joint in flagellum of antenna 1 bearing sensory setae.

Maxilliped (Fig. 22C) : Inner plate ordinary; outer plate slightly shorter than inner; palp of 4 articles; 3 unlobed; 4 shorter than 3.

Labium (Fig. 22D) : Inner lobes absent.

Labrum (Fig. 22E) entire, subrounded, broader than long; epistome unproduced.

Molar (Fig. 23A) triturative, columnar; article 2 of mandibular palp unlobed; article 3 almost as long as 2.

Maxilla 1 (Fig. 23B) : Inner plate with 5 apical setae; palp long; article 1 of palp short.

Maxilla 2 (Fig. 23C) : Inner plate slightly longer than outer but outer is broader; inner plate with weak facial row of setae but 2-3 medial setae enlarged.

Gnathopod 1 (Fig. 23D) slightly larger than 2, subchelate, not eusirid, medium; carpus much shorter than propodus, without strong posterior lobe; propodus subrectangular, with 1-2 posterior spines outside of palmar limits.

Gnathopod 2 (Fig. 23E) subequal to gnathopod 1, with 3-4 posterior spines outside of palmar limits.

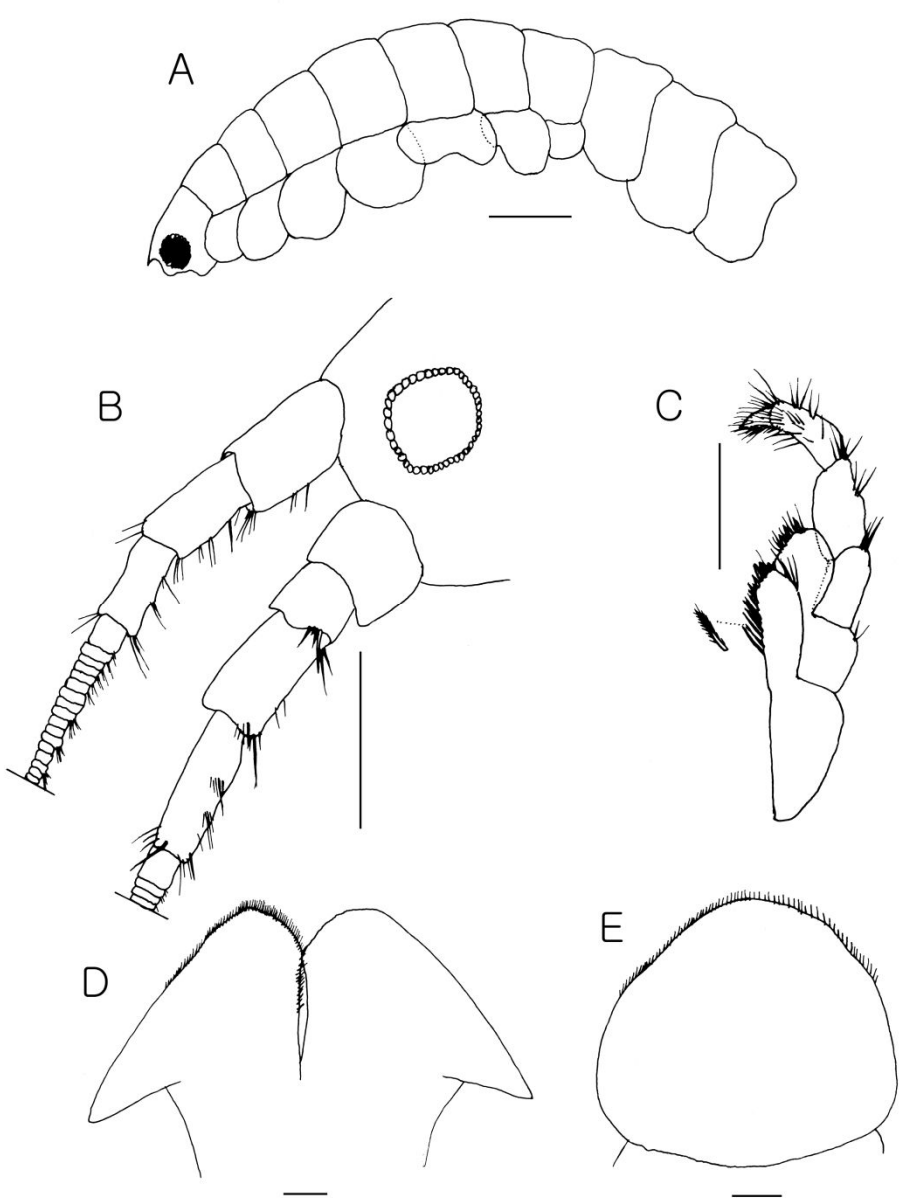

Fig. 22. *Gondogeneia antarctica* (Chevreux, 1906), Female. A, Body; B, Antenae; C, Maxilliped; D, Labium; E, Labrum. Scale bars = 1 ㎜ (A-B), 0.5 ㎜ (C), 0.1 ㎜(D-E).

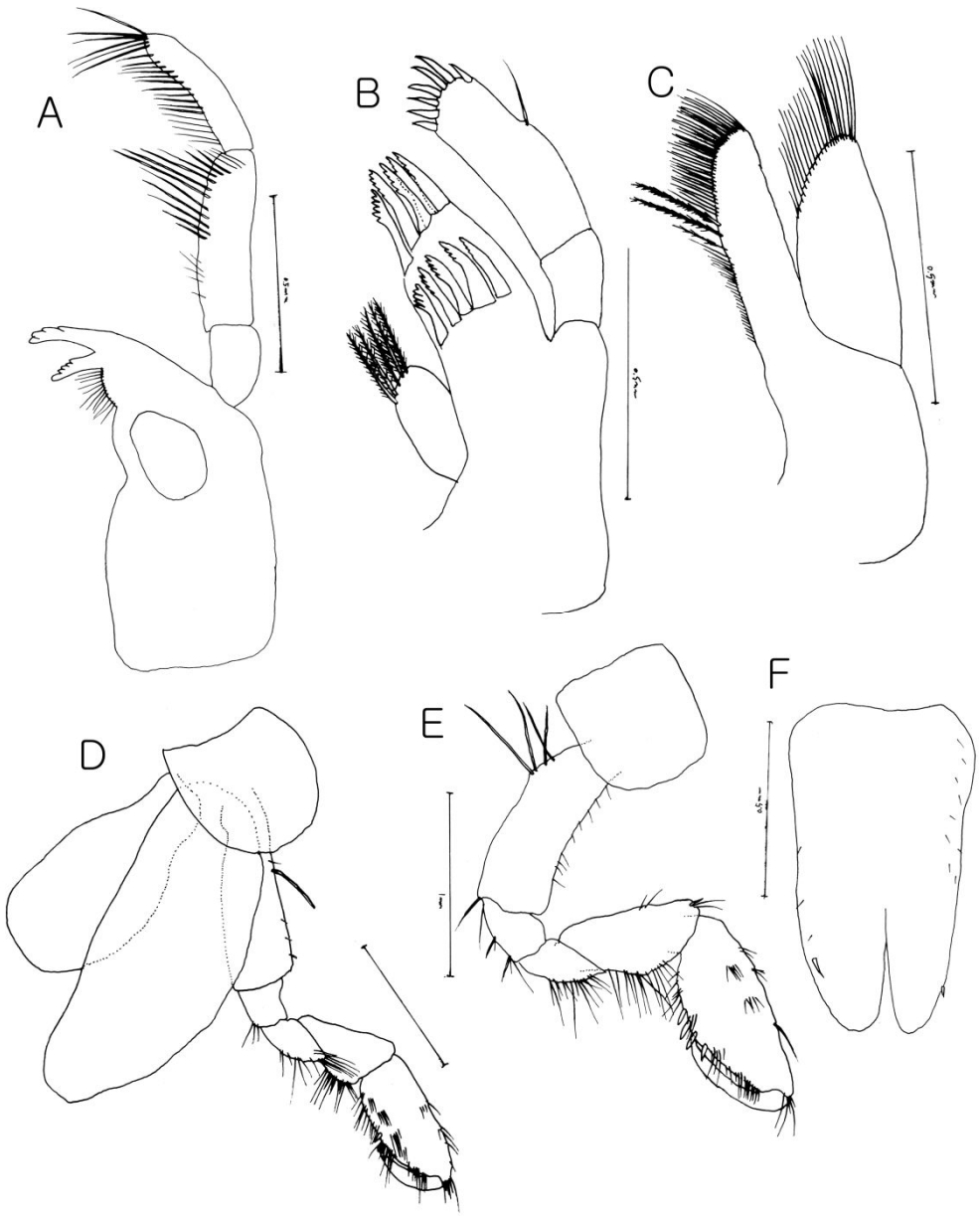

Fig. 23. *Gondogeneia antarctica* (Chevreux, 1906), Female. A, Molar; B, Maxilla 1; C, Maxilla 2; D, Gnathopod 1; E, Gnathopod 2; F, Telson. Scale bars = 0.5 ㎜ (A), 0.1 ㎜ (B-C), 1 ㎜(D-F).

Pereopods 3-7 ordinary, simple; dactyls simple.

Telson (Fig. 23F) ordinary to weakly elongate, cleft, apices, lacking large spines on apices.

Distribution.

W+G+M; Danco Coast, Falkland Islands, Magellan area, Marguerite Bay, Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 0-150 m.

Remarks.

Together with *Cheirimedon femoratus* this species is dominant in the shallow waters of Marian Cove. This species is black in nature, and has various pattern on back. Therefore, various pattern on its back can't be considered as an important taxanomic trait. Barnard (1972) allied genera *gondogeneia* has resulted in a new alignment by analysis of Pontogeneia. This species can be easily recognized by the lack of facial setae on maxilla 2. *G. antarctica* is remarkably similar to *G. microdeuteropa.* But, *G. microdeuteropa* has never been found in Antarctica. Adults of *G. microdeuteropa* are less than about 4 ㎜, and a little differences in the shapes of the coxa 4 and the completely fused accessory flagellum.

Genus *Prostebbingia* Schellenberg, 1926

9. *Prostebbingia brevicornis* (Chevreux, 1906)

(Figs. 24-27)

Atyloides brevicornis Chevreux, 1906c: 84, fig. 3; Chevreux, 1906e: 79, figs. 45-47; Chilton, 1925a: 178.

Prostebbingia brevicornis: Barnard & Karaman, 1991: 335; Rauschert, 1991: 20-37; Jażdżewski *et al.*, 1992: 464, 469; De Broyer & Jażdżewski, 1993: 45; Jażdżewski *et al.,* 1996: 370; De Broyer et al, 2007: 81.

Pontogeneiella brevicornis: Schellenberg, 1929c: 278; Schellenberg, 1931a: 191; Barnard K.H., 1932: 200, fig. 118f; Nicholls, 1938: 109, figs. 52c, 56; Stephensen, 1938c: 239; Stephensen, 1947a: 61; Barnard J.L., 1958e: 125; Barnard J.L., 1972b: 93; Bellan-Santini & Ledoyer, 1974: 669, pl. 16; Thurston, 1974a: 85; Thurston, 1974b: 38; Lowry & Bullock, 1976: 62-63; Bellan-Santini & Ledoyer, 1987: 379; Branch *et al.*, 1991: 20, 40, fig. on p. 20; Jażdżewski *et al.,* 1991: 110.

Material examined.

1♂, King George Island, South Shetland Islands, Antarctica, 62°13'32.38"S, 58°47'33.69"W, 21 January 2012, by hand net at 1 m in depth, collected by Jee-Hoon Kim; 1♂ 3♀♀, Fildes Peninsula, King George Island, South Shetland Islands, Antarctica, 62°11'55.66"S 58°57'28.63"W, 7 February 2012, by hand net at 1 m in depth, collected by Jee-Hoon Kim.

Description.

Male. Body (Fig. 25A) 20 ㎜ long, slightly slender, not carinate, compressed. Rostrum obsolescent; lateral cephalic lobes ordinary but sinusoid; anteroventral margin of head not produced. Eyes reniform, black in alcohol. Coxae elongate and

progressively longer toward coxa 4; coxa 1 ordinary not produced anteriorly nor expanded ventrally; coxa 4 about 1.5 times as long as 1, deeply excavate without posterior lobe.

Antennae (Fig. 25B) subequal but antenna 1 slightly shorter than 2; peduncular articles progressively shorter; article 1 shorter than head but longer than 2; article 3 weakly produced; article 1 of primary flagellum ordinary.

Maxilla 1 (Fig. 25C) : Inner plate with many medial and apical setae; palp long, with 2 article; article 2 longer than 1.

Fig. 24. *Prostebbingia brevicornis* (Chevreux, 1906), Male.

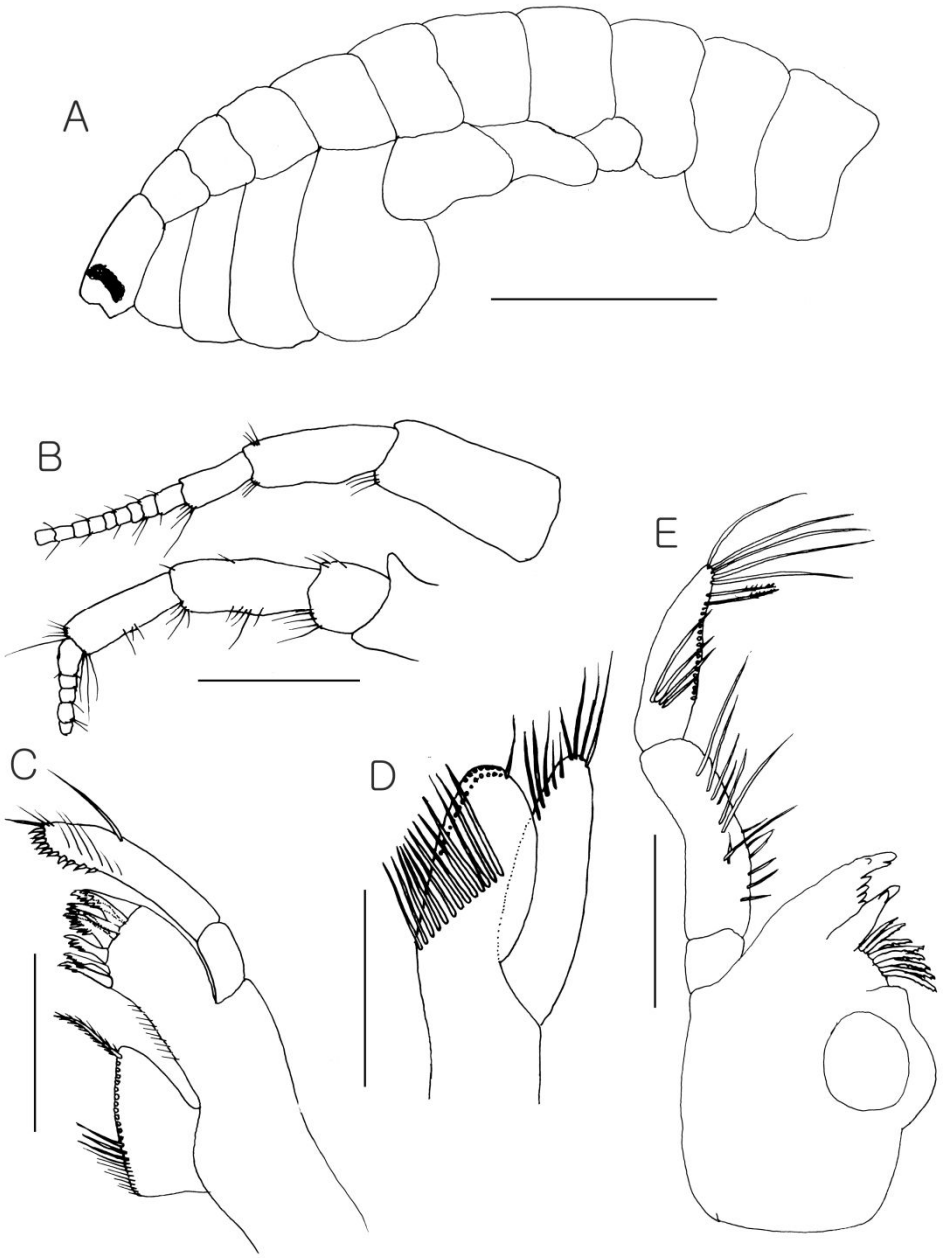

Fig. 25. *Prostebbingia brevicornis* (Chevreux, 1906), Male. A, body; B, antenae; C, maxilla 1; D, maxilla 2; E, Molar. Scale bars = 5 ㎜ (A), 1 ㎜ (B), 0.5 ㎜(C-E).

Maxilla 2 (Fig. 25D) : Inner plate broader than outer but shorter; inner plate with facial row of setae and other medial setae; outer is ordinary

Molar (Fig. 25E) ordinary, triturative, columnar; palp with 3 articles; article 2 of palp unlobed; article 3 almost as long as 2.

Labium (Fig. 26A) : Inner lobes small, with minute setae.

Labrum (Fig. 26B) entire, rounded, slightly broader than long, with minute setae.

Maxilliped (Fig. 26C) : Inner plate not relatively long with setea along inside margin; outer plate almost as long as inner; palp of 4 articles; 3 unlobed; 4 shorter than 3.

Gnathopod 1 (Fig. 26D) : Medium, subchelate, not eusirid; carpus almost as long as propodus, with numerous long posterior setae, without posterodistal lobe.

Gnathopod 2 (Fig. 26E) similar to gnathopod 1, but larger than 1.

Pereopod 3 (Fig 27A) : Coxa rectangular form, margin rounded, with 5 row of apicomedial spines; carpus about 0.8 times as long as merus; dactyl simple.

Pereopod 4 (Fig 27B) : Nearly similar to pereopod 3, except margin of coxa expanded.

Pereopod 5 (Fig 27C) : Coxa subrectangular, basis deeper than wide and expanded posteriorly; carpus shorter than merus; dactyl simple.

Pereopod 6 (Fig 27D) : Similar to pereopod 5 but coxa 4 slightly produced posterodistally; posterior margin of basis with plumose setae; carpus about 0.8 times as long as merus; dactyl simple.

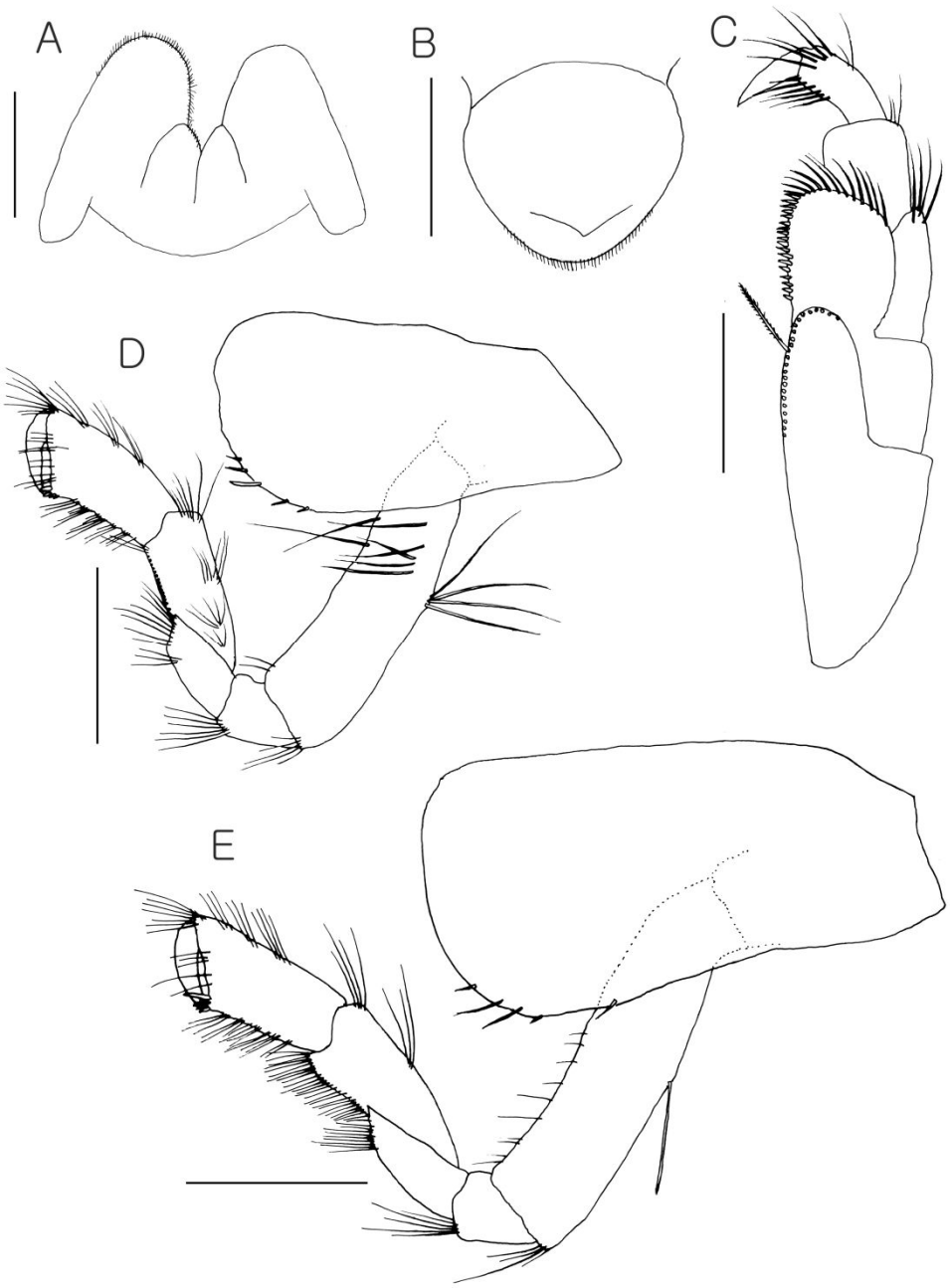

Fig. 26. *Prostebbingia brevicornis* (Chevreux, 1906), Male. A, labium; B, labrum; C, maxilliped; D, gnathopod 1; E, gnathopod 2. Scale bars = 0.5 ㎜ (A-C), 1 ㎜(D, E).

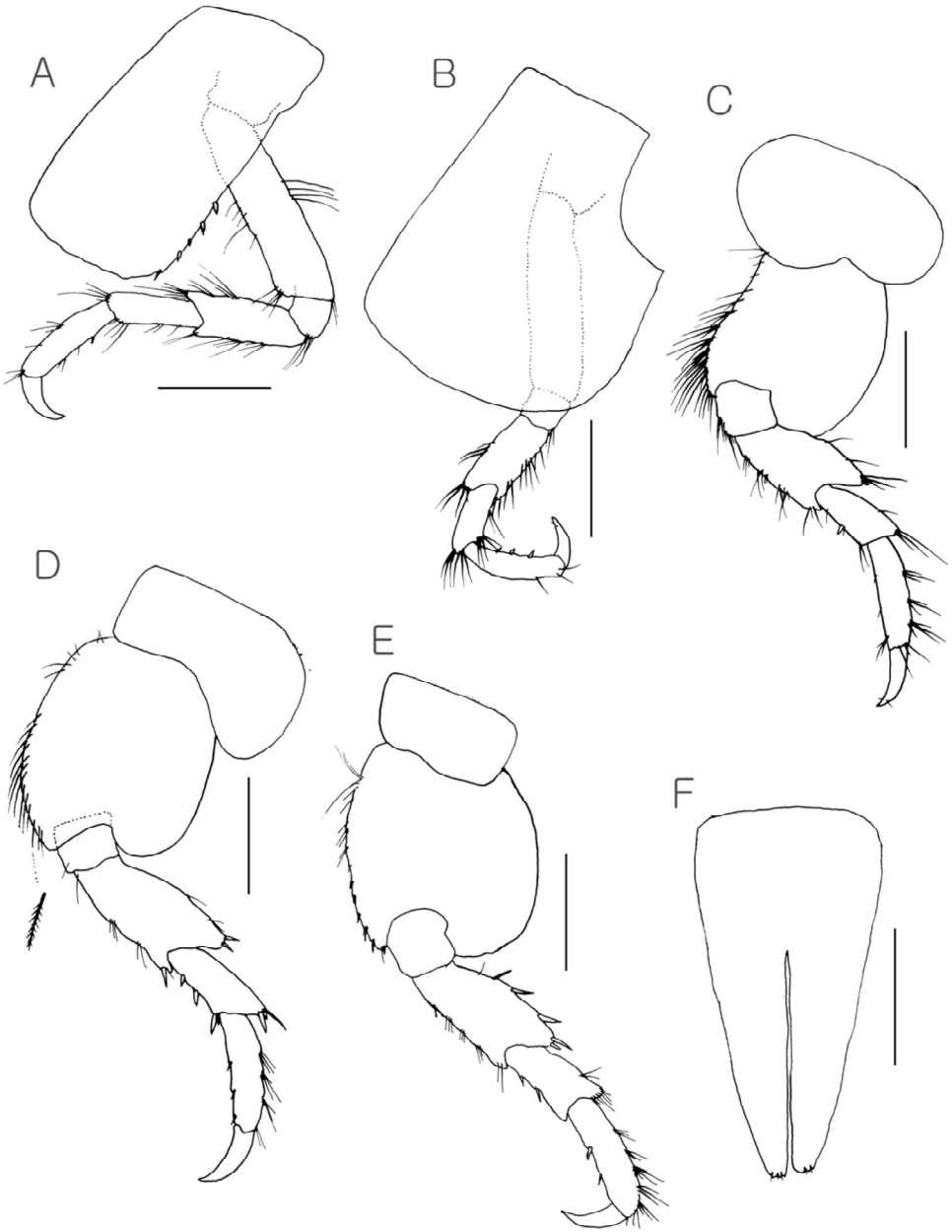

Fig. 27. *Prostebbingia brevicornis* (Chevreux, 1906), Male. A, pereopod 3; B, pereopod 4; C, pereopod 5; D, pereopod 6; E, pereopod 7; F, telson. Scale bars = 1 mm (A-E), 0.5 mm (F).

Pereopod 7 (Fig 27E) : Coxa small, rectangular form; basis expanded posteriorly; dactyl simple.

Telson (Fig 27F) ordinary, cleft longer than halfway, apices with 2-3 setae.

Distribution.

W+G+S; Bouvet Island, Macquarie Island, Prince Edward Islands, Palmer Archipelago, South Georgia, South Orkney Islands, South Sandwich Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 0-310 m.

Remarks.

Prostebbingia brevicornis was descripted by Chevreux (1906) from only female. The differences between present male specimen and the one from Cherveux' description are: maxilla 1 – article 2 of the palp more slender in present specimen; maxilla 2 – outer plate more slender in present specimen; maxilliped – 2nd article of the palp broader in presently studied individual. Also carpi and propodi of gnathopods 1 and 2 –are proportionally slightly longer in our individuals. *P. longicornis* is very similar species but the two species can be easily separated by the length of the antennae and posterior pereopods.

10. *Prostebbingia longicornis* (Chevreux, 1906)

(Fig. 28)

Fig. 28. *Prostebbingia longicornis* (Chevreux, 1906), Male.

Atyloides longicornis Chevreux, 1906e: 84, figs. 48-50; Chevreux, 1913c: 179.

Prostebbingia longicornis: Barnard & Karaman, 1991: 336; De Broyer & Jażdżewski, 1993: 45.

Pontogeneiella longicornis: Schellenberg, 1929c: 278; Schellenberg, 1931a: 190; Barnard K.H., 1932: 200, fig. 118f; Stephensen, 1947a: 62; Barnard J.L., 1958e: 125; Thurston, 1974a: 86; Thurston, 1974b: 39; Lowry & Bullock, 1976: 63-64; Andres, 1982: 173-174, figs. 9-11.

Paramoera austrina Chilton, 1912a: 498.

Material examined.

1♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°13'19.60"S 58°47'13.81"W, 30 January 2011, by SCUBA at 10m in depth, collected by Hae-won Moon.

Diagnosis.

Male. Body (Fig. 28) 21 ㎜ long, not carinate, compressed. Rostrum obsolescent; lateral cephalic lobes ordinary but sinusoid; anteroventral margin of head not produced. Eyes large, reniform. Coxae elongate and progressively longer toward coxa 4; coxa 1 ordinary; coxa 4 about 1.2 times as long as 1.

Antennae subequal; peduncular articles progressively shorter than fllagelum; article 1 of antenna shorter than head but as long as 2; article 1 of primary flagellum ordinary.

Molar ordinary, triturative, columnar; palp with 3-articlulate; article 2 of palp unlobed, almost as long as 3.

Maxilliped: Inner plate not relatively long with setea along inside margin; outer plate almost as long as inner; palp 4-articlulat;article 2 longest; 3 unlobed; 4 shorter than 3.

Gnathopod 1: Subchelate, ordinary, not eusirid; basis longest, subrectangular form; carpus slightly shorter than propodus, with numerous long posterior setae.

Gnathopod 2 similar to gnathopod 1, but slightly larger than 1.

Pereopod 5: Basis deeper than wide and expanded posteriorly; carpus shorter than propodus; dactyl simple.

Pereopod 6: Coxa slightly produced posterodistally; basis expanded posteriorly; ischium shortest; carpus shorter than propodus; dactyl simple.

Pereopod 7: Basis expanded posteriorly; ischium shortest; merus longer than carpus; dactyl simple.

Telson ordinary, cleft longer than halfway, apices with 2 setae.

Distribution.

W+G; Danco Coast, Marguerite Bay, Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 4-310 m.

Superfamily HADGIOIDEA Busfield, 1983

Family MELITIDAE Bousfield, 1973

Genus *Paraceradocus* Stebbing, 1899

11. *Paraceradocus gibber* Andres, 1984

(Fig. 29)

Paraceradocus gibber: Andres 1984a: 93-94, figs. 10e-h, 11; Coleman, 1989b: 44, figs. 2-3; Rauschert, 1991: 37; Jażdżewski *et al.*, 1992: 464; De Broyer & Jażdżewski, 1993: 51; Jażdżewski *et al.,* 1996: 370; De Broyer *et al.*, 1999: 165; Gutt *et al.*, 2000: 76-77; Lovell & Trego, 2003: 1814-1815, table 9.

Material examined.

1♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°13'19.60"S 58°47'13.81"W, 30 January 2011, by SCUBA at 10m in depth, collected by Hae-won Moon.

Diagnosis.

Male (Juv.). Body (Fig. 29) 35 mm long; eyes oval; rostrum short; pereonite 7 largest; coxae small; 1-4 progressively shoter; 4-5 forming ventral arc. Antenna 1:

Slender, peduncular article 1 shorter than 2; article 2 about 5 times as long as 3; flagellum shorter than peduncle. Antenna 2 slightly shorter than antenna 1; peduncular article article 3 shorter than 4; flagellum as long as last peduncular article.

Gnathopod 1: Chelate; coxa broader than length; basis slightly expanded distally; ischium shorter than merus; carpus slightly longer than propodus; propodus forming a chela with dactylus.

Gnathopod 2: Similar to gnathopod 1, but larger than 1, different setosities; coxa subrectangular; basis rectangular form; ischium shorter than merus; carpus lobed;

Fig. 29. *Paraceradocus gibber* Andres, 1984, Male (Juv.).

propodus broad, forming a chela with dactylus.

Uropod 3: Ramus extreamly elongated; outer ramus slightly longer than inner.

Telson: Cleft longer than halfway, apices with 2 spines.

Distribution.

E+W(+Ba); South Shetland Islands, Weddell Sea.

Depth range: 10-793 m (Present data).

Remarks.

The known depth range of the present species is 160–793 m (De Broyer et al. 2007). In the present study the species was found remarkably shallower, at a depth of 10 m.

Family IPHIMEDIIDAE Boeck, 1871

Genus *Pariphimedia* Chevreux, 1906

12. *Pariphimedia integricauda* Chevreux, 1906

(Figs. 30-34)

Pariphimedia integricauda Chevreux, 1906a: 39, fig. 2; Chevreux, 1906e: 39, figs. 21-23; Chilton, 1912a: 487; Chilton, 1925a: 176; Barnard K.H., 1932: 127, fig. 70; Stephensen, 1947a: 50; Barnard J.L., 1958e: 19; Thurston, 1974a: 29; Thurston, 1974b: 16; Lowry & Bullock, 1976: 17; Coleman & Barnard, 1991d: 530-533, figs. 1-5; Bellan-Santini & San Martin, 1991: 307-311; Jażdżewski *et al.,* 1991: 110; Rauschert, 1991:36; Jażdżewski *et al.*, 1992: 464, 469; De Broyer & Jażdżewski, 1993: 58; Jażdżewski *et al.,* 1996: 371; De Broyer et al, 2007:106.

Pariphimedia incisa Andres, 1985: 121-123, figs. 5d-q, 6, 7a-c; Watling & Thurston, 1989: 312; Barnard & Karaman, 1991: 399, 400.

Material examined.

6 ♀♀ 2♂♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Description.

Male. Body (Fig. 32A) 13 ㎜ long; rostrum long; eyes oval; pereonite 2 narrow; pereonite 7 largest; pleonite 2 with pair of mid dorsal posterior teeth. Coxae ordinary, 1-4 progressively longer, 4-5 forming ventral arc.

Antenna 1 (Fig. 32B) : Slender, peduncular article 1 longer than 2; article 2 about 2 times as long as 3; flagellum about 27 articles.

Antenna 2 (Fig. 32B) longer than antenna 1; peduncular article 1 extended; article 3 shorter than 4; first article of flagellum elongate; flagellum about 41 articles.

Labium (Fig. 32C) : Inner lobes absent; outer lobes slender, subrounded; each tip acute apically covered with hair-like setae; mandibular lobe narrow, rounded apically.

Mandibular (Fig. 32D) body slender, tapering distally; incisor cutting surface elongate, oblique, sharply dentate; palp with 3 articles; article 2 longer than 3, group of setae apicoventrally; article 3 curved laterally.

Labrum (Fig. 32E) almost entire, elongated, distally tapering, shortly setae distolaterally.

Fig. 30. *Pariphimedia integricauda* Chevreux, 1906, Male.

Fig. 31. *Pariphimedia integricauda* Chevreux, 1906, Female.

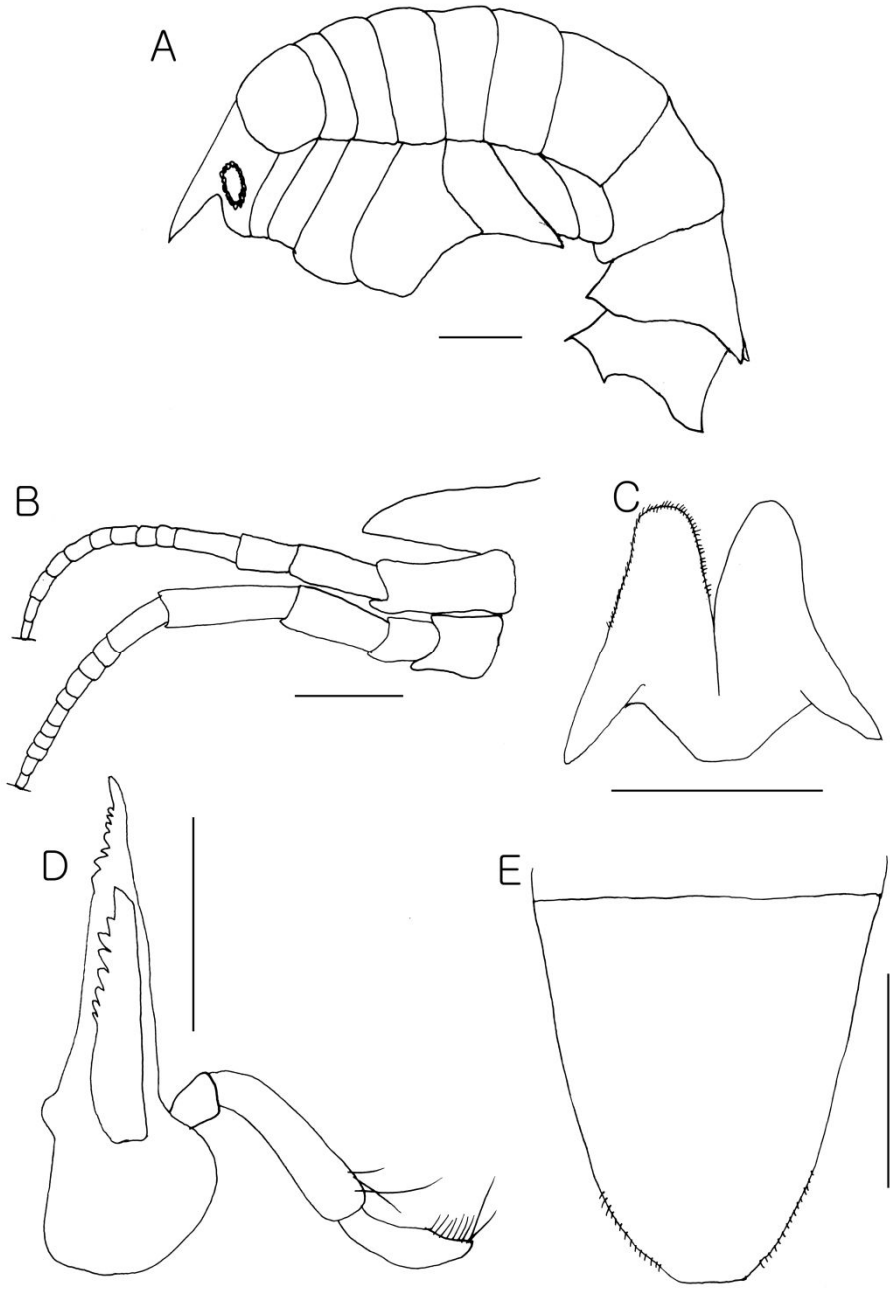

Fig. 32. *Pariphimedia integricauda* Chevreux, 1906, Male. A, Body; B, Antennae; C, Labium; D, Molar; E, Labrum. Scale bars = 1 ㎜ (A), 0.5 ㎜ (B-D), 0.25 ㎜ (E).

Maxillipeds (Fig. 33A) : Inner plate slender but as long as outer plate; outer plates elongate, with plumose setae; article 2 of palp narrow, produced.

Maxilla 2 (Fig. 33B) : Inner plate slightly broader than outer, shorter than outer, with facial row of setae and other medial setae; outer plate slender, with row of setae.

Maxilla 1 (Fig. 33C) : Inner plate tapering distally, with 18-19 setae; outer plate slender, with row of spiniform dentate setae apically and mediomarginally and group of small setae medially; palp 1-articulate, very short, with terminal seta.

Gnathopod 1 (Fig. 33D) : Chelate; coxa broad, anteriorly rounded, excavate posteriorly; basis expanded distally; ischium almost as long as merus; carpus subequal to propodus; propodus forming a chela with dactylus.

Gnathopod 2 (Fig. 33E) : Similar to gnathopod 1, but larger than 1, different setosities; coxa subrectangular; basis elongate; ischium longer than merus; carpus slightly expanded.

Pereopod 5 (Fig. 34A) : Coxa subrectangular; basis slightly expanded and rounded posteriorly; ischium shortest; merus longer than carpus; carpus and propodus spinose posteromarginally; propodus slightly longer than merus; dactylus claw.

Telson (Fig. 34B) entire, elongate, with plumose setae on terminal surface.

Distribution

W; Danco Coast, Palmer Archipelago, South Orkney Islands, South Sandwich Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 0-145 m.

Remarks.

In general, the present specimens correspond to the description given by Chevreux (1906). The original description of this species was only from female species. So, Andres (1985) thought that male of *P. integricauda* was new species (*P. incisa*). Male of this speceis is more smaller than female (female 10~24 ㎜, male 8~16 ㎜). Besides, has different body color. Male is black or dark brown, female is brown with white, and they has various pattern, but various pattern can't be considered as an important taxanomic trait. This species is closely related to *P. normani*. However, it can be easily distinguished by the presence pair of mid dorsal posterior teeth on pleonite 2 from the latter one**.**

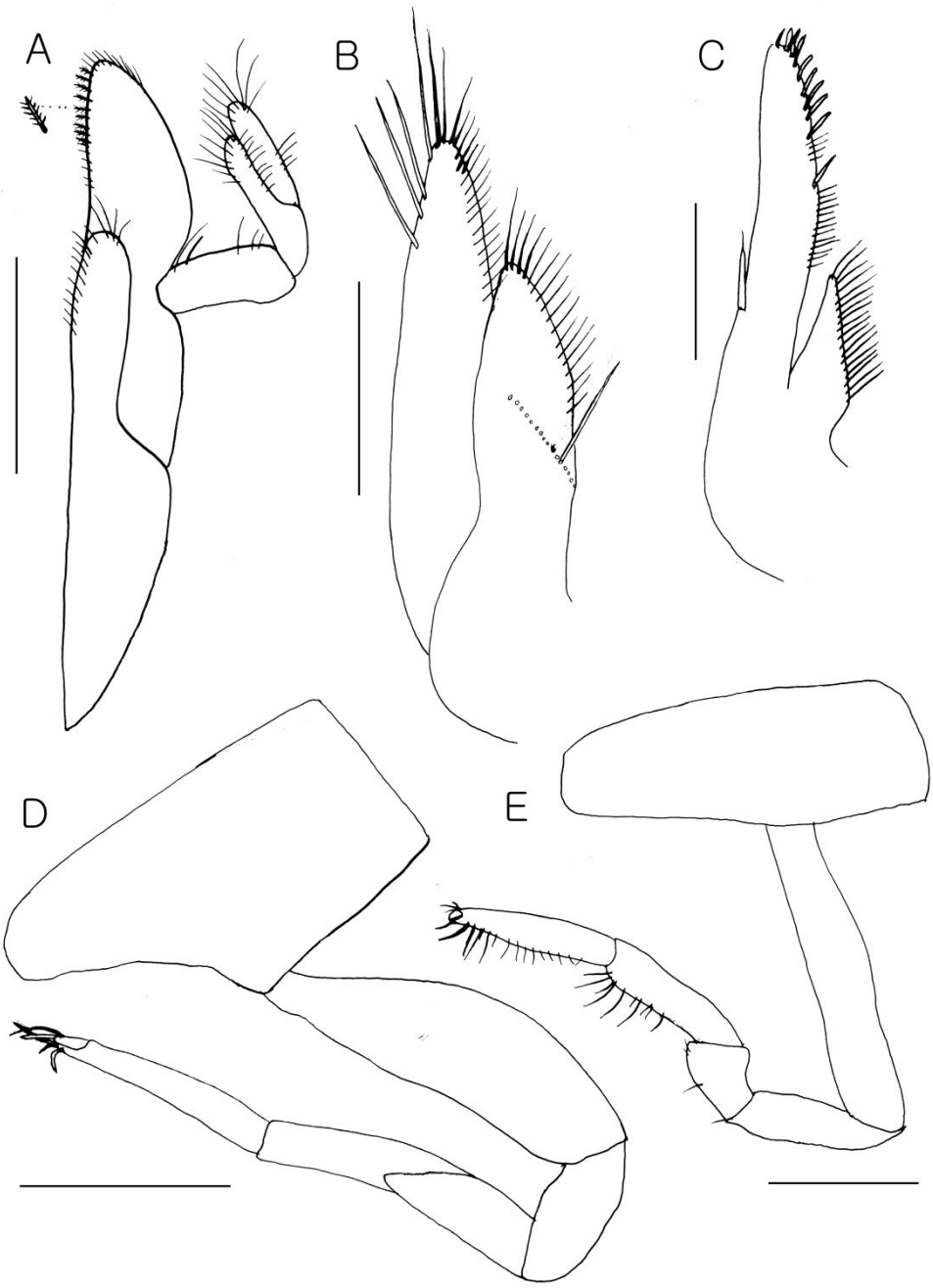

Fig. 33. *Pariphimedia integricauda* Chevreux, 1906, Male. A, Maxilliped; B, Maxilla 2; C, Maxilla 1; D, Gnathopod 1; E, Gnathopod 2. Scale bars = 0.5 ㎜ (A-E).

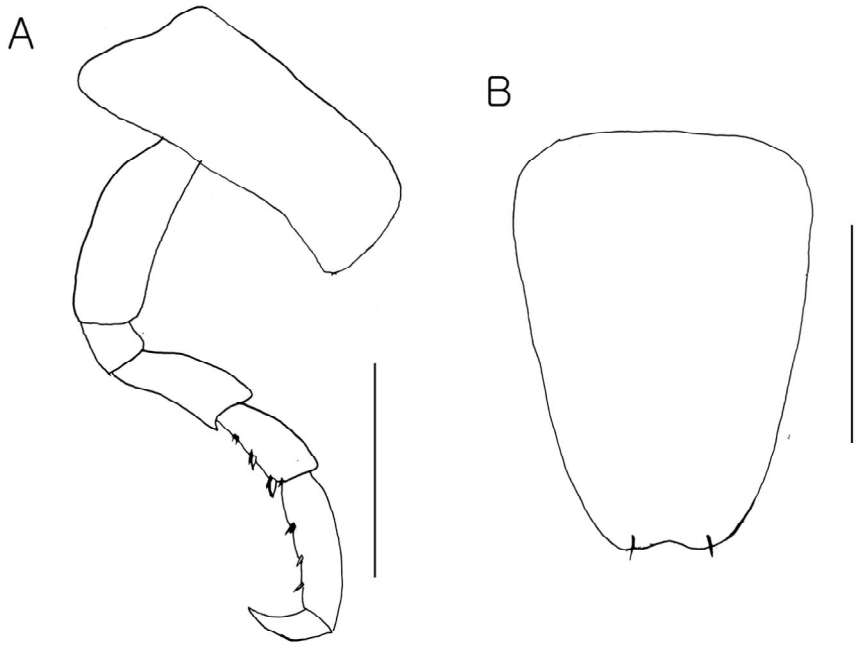

Fig. 34. *Pariphimedia integricauda* Chevreux, 1906, Male. A, Pereopod 5; B, Telson. Scale bars =1 ㎜ (A), 0.5 ㎜ (B).

Genus *Stegopanoploea* Karaman, 1980

13. *Stegopanoploea joubini* (Chevreux, 1912)

(Fig. 35)

Panoploea joubini Chevreux, 1912a: 212; Chevreux, 1913c: 114, figs. 19-21; Barnard K.H., 1932: 128; Stephensen, 1947a: 50; Barnard J.L., 1958e: 18; Bellan-Santini, 1972a: 175, pl. 5; Lowry & Bullock, 1976: 15; Rauschert, 1991: 36.

Stegopanoploea joubini: Karaman, 1980b: 51-52; Barnard & Karaman, 1991: 401; Jażdżewski et al., 1992: 464, 469; De Broyer & Jażdżewski, 1993: 59; Jażdżewski et al., 1996: 371.

Panoploea joubini var. bidentata: Nicholls, 1938: 64, fig. 33; Hurley, 1954f: 766.

Panoploea joubini var. joubini: Hurley, 1954f: 766.

Iphimedia joubini: Watling & Holman, 1980: 619; Watling & Holman, 1981: 195-196; Watling & Thurston, 1989: 306-311, fig. 3c; Bellan-Santini & San Martin, 1991: 302.

Material examined.

1♂, Marian Cove, King Jeorge Island, South Shetland Islands, Antarctica, 62°13'01.90"S 058°46'08.51"W, 19 January 2012, by SCUBA Diving at 10m in depth, collected by Han-gu Choi.

Diagnosis.

Male. Body (Fig. 35) 7.1 ㎜ long; rostrum long; eyes round; pereonite 2 narrow; pereonite 7 largest; paired teeth on pereonite 7 and pleonits 1-2; posteroventral

margins of pereonites produced and pointed; posterolateral process on epimeral strongly produced.

Antenna 1: Peduncular article 1 elongated, much longer than 2; article 2 almost as long as 3; flagellum about 10 articles. Antenna 2 as long as antenna 1, slender; article 4 longer than 5; first article of flagellum elongate; flagellum about 20 articles.

Mandibular body elongated, tapering distally; incisor with teeth.

Maxilla 1: Palp 2-articulate, much shorter than outer plate.

Gnathopod 1: Chelate; apex of coxa pointed distally; carpus longer than propodus; propodus forming a chela with dactylus. Gnathopod 2: Similar to gnathopod 1.

Pereopod 7: Basis slightly expanded and sinuous posteriorly. Telson excavated.

Distribution

E+W(+Ba); Adelie Coast, Davis Sea, Marguerite Bay, Palmer Archipelago, South Shetland Islands, Weddell Sea.

Depth range: 10-549 m (Present data).

Remarks.

The depth range of the present species is 45–549 m (De Broyer et al. 2007). In the present study, the species was found at the depth of 10 m that enlarges its depth range distribution.

Fig. 35. *Stegopanoploea joubini* (Chevreux, 1912), Male.

Family LEUCOTHOIDAE Dana, 1852

Genus *Leucothoe* Leach, 1814

14. *Leucothoe spinicarpa* (Abildgaard, 1789) *s.l.*

(Fig. 36)

Leucothoe spinicarpa: Walker, 1907: 18; Chilton, 1912a: 478; Chevreux, 1913c: 108; Monod, 1926: 53, fig. 51; Schellenberg, 1926a: 308; Schellenberg, 1926c: 195; Barnard K.H., 1930: 338, 449; Barnard K.H., 1931b: 119; Schellenberg, 1931a: 92; Barnard K.H., 1932: 106; Nicholls, 1938: 47; Stephensen, 1947a: 45; Bellan-Santini, 1972a: 193; Bellan-Santini & Ledoyer, 1974: 677; Thurston, 1974a: 24; Lowry & Bullock, 1976: 77-79; Lowry, 1982: 320; Holman & Watling, 1983b: 224-231, fig.

10-11; Bellan-Santini & Ledoyer, 1987: 399-402, fig. 19a-b; Barnard & Karaman, 1991: 411, 412; Branch et al., 1991: 15, 39-40, fig; Gonzalez, 1991a: 58; Rauschert, 1991: 37; Jażdżewski et al., 1992: 465, 469; De Broyer & Jażdżewski, 1993: 62; Jażdżewski et al. ,1996: 371; De Broyer & Rauschert, 1999: 285, table 1; Gutt et al., 2000: 80-83.

Leucothoe antarctica Pfeffer, 1888: 128-131, pl. 2: fig. 4; Stebbing, 1906: 168.

Material examined.

1♂, Marian Cove, King Jeorge Island, South Shetland Islands, Antarctica, 62°13'01.90"S 058°46'08.51"W, 19 January 2012, by SCUBA Diving at 10m in depth, collected by Han-gu Choi.

Diagnosis.

Male. Body (Fig. 36) 7.1 ㎜ long; eyes round; rostrum very small; coxa ordinary; coxa 1 almost as long as 2; coxae 5-7 excavate.

Antenna 1 and 2 subequal. Antenna 1; article 1 almost as long as 2; article 3 shortend; flagellum about 17-articulate; accessory flagellum vestigial.

Antenna 2 slender; article 4 much longer than 5; flagellum about 10-articulate.

Maxillipeds: Inner plate of maxilliped small; outer plate very small, reaching less than halfway along palp article 1; palp 4-articulate; 1 slightly longer than 2; dactyl larged.

Gnathopod 1 carpochelate; basis long; ischium slightly shorter than merus; carpus very larged; dactyl long.

Fig. 36. *Leucothoe spinicarpa* (Abildgaard, 1789*) s.l.,* Male.

Gnathopod 2: Basis subrectangular form; ischium slightly shorter than merus; carpus much lobed; popodus very larged; palm oblique, longer than posterior margin of propodus; dactyl long.

Telson entire, not cleft, longer than wide.

Distribution.

E+W+G+S+M++?(+Ba); Adelie Coast, Bellingshausen Sea, Bransfi eld Strait, Davis Sea, Falkland Islands, Iles Kerguelen, Magellan area, Prince Edward Islands, Palmer Archipelago, Ross Sea, Southern Ocean, Atlantic Sector, South Georgia, South Orkney Islands, South Sandwich Islands, South Shetland Islands, Wilhelm

Archipelago, Weddell Sea.

Depth range: 1-972 m.

Remarks

I am aware that the revision of the family Leucothoidae is carried on (Krapp-Schickel & De Broyer, pers. comm.) and that *Leucothoe spinicarpa* is a complex of several species. So we are treating our identification as provisional until the results of the revision will be published.

Superfamily LYSIANASSOIDEA Dana, 1849

Family LYSIANASSIDAE Dana, 1849

Subfamily Tryphosinae Lowry & Stoddart, 1997

Genus *Cheirimedon* Stebbing, 1888

15. *Cheirimedon femoratus* (Pfeffer, 1888)

(Figs. 37-39)

Anonyx femoratus Pfeffer, 1888: 93, pl. 2: fig. 2; Stebbing, 1906: 86.

Cheirimedon femoratus: Chilton, 1912a: 467; Chilton, 1913: 57; Schellenberg, 1931a: 30; Barnard K.H., 1932: 48, 315; Nicholls, 1938: 23, fig. 8; Stephensen, 1938c: 236; Stephensen, 1947a: 31; Barnard J.L., 1958e: 90; Barnard J.L., 1969c: 314; Bellan-Santini, 1972a: 193; Bellan-Santini, 1972b: 689, pls. 4, 5; Bellan-Santini & Ledoyer, 1974: 681; Thurston, 1974a: 14, fig. 6a-c; Thurston, 1974b: 50; Lowry & Bullock, 1976: 85-86; Andres, 1983: 185; De Broyer, 1983: 175-181;

Bellan-Santini & Ledoyer, 1987: 406; Barnard & Karaman, 1991: 475; Branch *et al*., 1991: 13, fig. on p.13; Jażdżewski *et al.,* 1991: 110; Rauschert, 1991: 37; Jażdżewski *et al*., 1992: 465, 469; De Broyer & Jażdżewski, 1993: 66; Jażdżewski *et al.,* 1996: 371. De Broyer et al, 2007: 136.

Cheirimedon dentimanus Chevreux, 1905d: 159, fig. 1; Chevreux. 1906e: 2, figs. 1-4; Stebbing, 1906: 720; Chevreux, 1913c: 92.

Material examined.

3♂♂ 6♀♀, Cape Sejong tide pool, King George Island, South Shetland Islands, Antarctica, 62°12'48.45"S 58°44'42.36"W, 18 January 2012, by hand net at 0.5 m in depth, collected by Jee-Hoon Kim & Sanghui Lee; 5♂♂ 20♀♀, Cape Sejong tide pool, King George Island, South Shetland Islands, Antarctica, 62°13'32.38"S 58°47'33.69"W, 19 January 2012, by hand net at 1 m in depth, collected by Jee-Hoon Kim & Sanghui Lee; About 2000 ind., In front of Sejong Station, King George Island, South Shetland Islands, Antarctica, 62°13'19.60"S 58°47'13.81"W, 19 January 2012, by bait trap at 1 m in depth, collected by Gi-Sik Min; 20♂♂ 33♀♀, In front of Sejong Station, King George Island, South Shetland Islands, Antarctica, 62°13'19.60"S 58°47'13.81"W, 26 January 2012, by light trap at 1.5 m in depth, collected by Jee-Hoon Kim & Sanghui Lee.

Description.

Male. Body (Fig. 38A) 13 mm long. Eyes reniform**;** Coxa ordinary, coxae 1-4 retengular form, progressively longer; 4 forming ventral arc.

Fig. 37. *Cheirimedon femoratus* (Pfeffer, 1888), Male.

Antenna 1 (Fig. 38B) thick, peduncular article 1 stout, longer than 2; article 2 about 2.5 times as long as 3; flagellum about 13 articles; accessory flagellum 8 article.

Antenna 2 (Fig. 38B) slender, slightly longer than antenna 1; peduncular article 1 longer than 2; article 3 longer than 4; article 5 shorter than 4; flagellum about 22 articles.

Maxilla 1 (Fig. 38C) : Inner plate long, with 3 plumose setae; outer ordinary; palp 2-articulate, larged, article 2 much longer than 1.

Mandibular (Fig. 38D) body slender; molar triturative, large; palp attached opposite molar, 3-articulate, article 2 much longer than 3.

Inner and outer plates of maxilliped (Fig. 38E) well developed, palp strongly exceeding on outer plate, 4-articulate; article 2 longer than 3; dactyl well developed.

Maxilla 2 (Fig. 39A) : Outer plate broader and longer than inner, inner and outer plates with facial row of setae.

Labium (Fig. 39B) : Inner lobes absent; Outer lobes entire; covered with hair-like setae, mandibular lobes short, slightly pointed.

Gnathopod 1 (Fig. 39C) : Subchelate; coxa subrectangular, huge; basis thick; ischium shorter than merus; carpus shorter than propodus; palm almost transverse; dactyl ordinary.

Gnathopod 2 (Fig. 39D) : slightly subchelate; coxa subrectangular; basis longest; ischium longer than merus; carpus slightly expanded, longer than propodus; propodus with hair-like setae and facial row of setae; dactyl small.

Telson (Fig. 39E) ordinary, cleft halfway, apices with 1 spine.

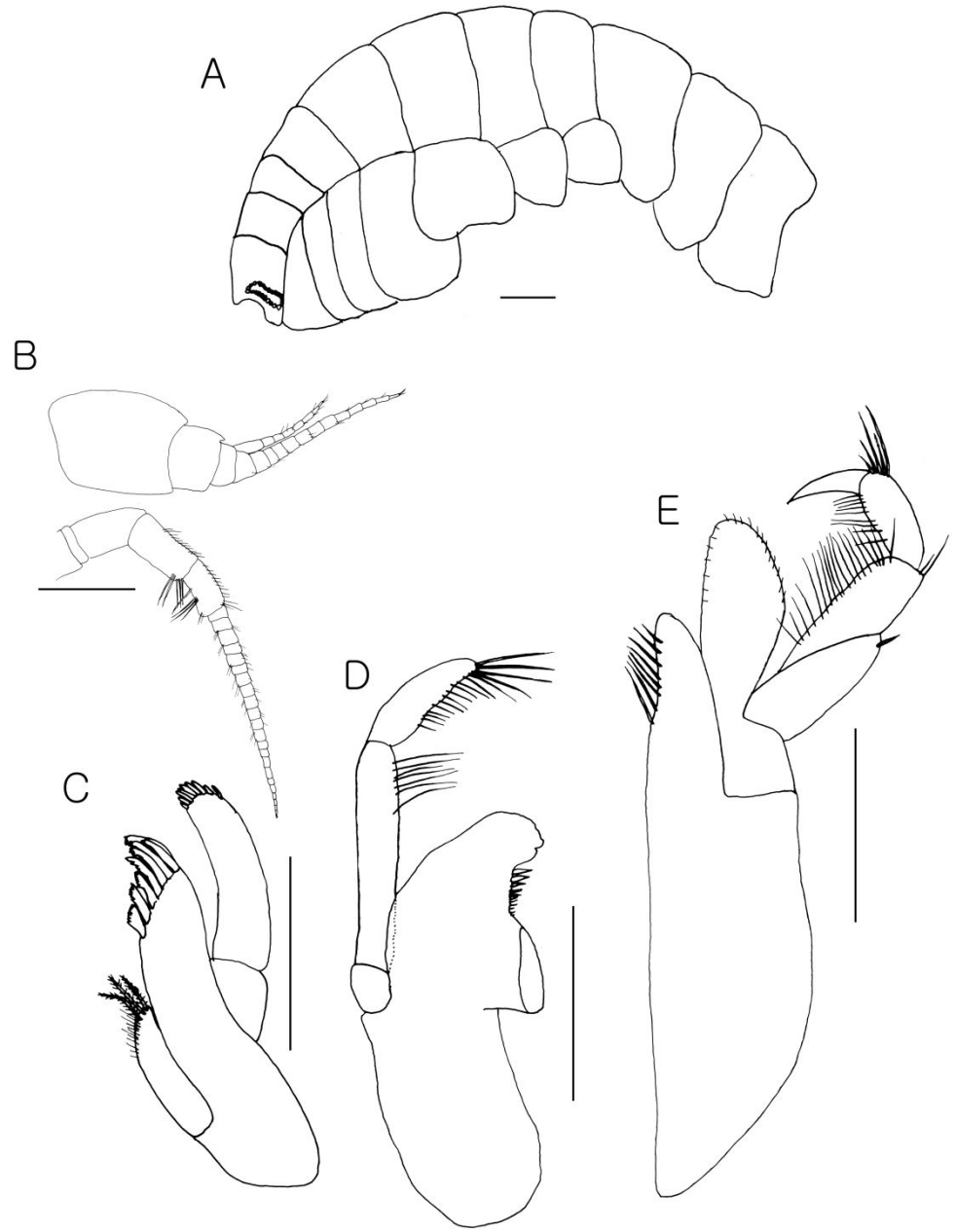

Fig. 38. *Cheirimedon femoratus* (Pfeffer, 1888), Male. A, Body; B, Antennae ; C, Maxilla 1; D, Molar; E, Mexilliped. Scale bars = 1 ㎜ (A-B), 0.5 ㎜ (C-D).

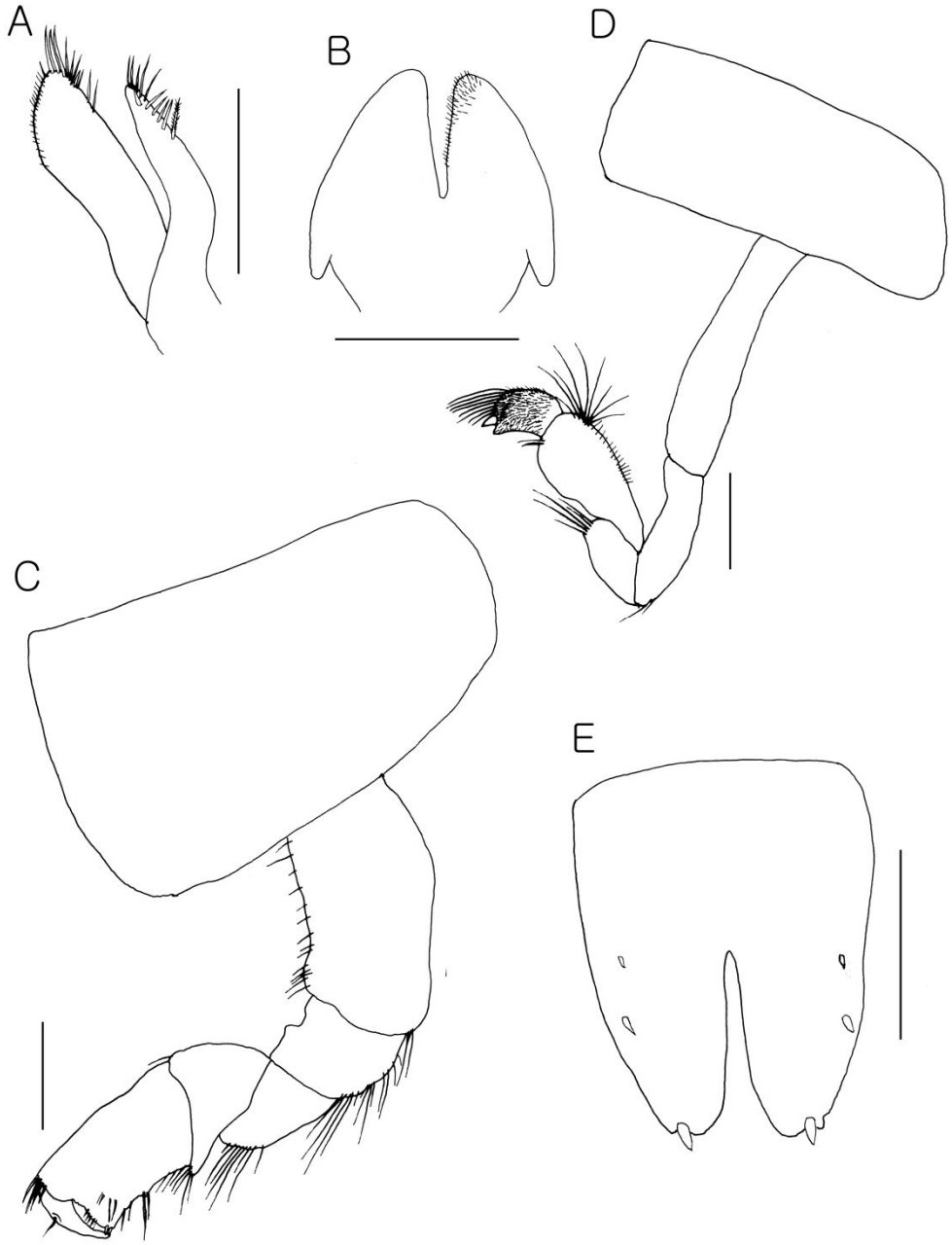

Fig. 39. *Cheirimedon femoratus* (Pfeffer, 1888), Male. A, Maxilla 2; B, Labium; C, Gnathopod 1; D, Gnathopod 2; E, Telson. Scale bars = 0.5 ㎜ (A-E).

Distribution.

E+W+G+S; Adelie Coast, Bellingshausen Sea, Iles Crozet, Danco Coast, Iles Kerguelen, Marguerite Bay, Prince Edward Islands, Palmer Archipelago, South Orkney Islands, South Sandwich Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 0-310 m.

Remarks.

This species is dominant in shallow water of Marian Cove with *Gondogeneia Antarctica.* This specimen is in close agreement with the descriptions and figures of Pfeffer(1888) and Chevreux(1905, 1906). Chevreux illustrated the concave palm of gnathopod 1 of the male. But, this character is not developed in even full sexual male. But it can't be considered as an important taxanomic trait.

16. *Orchomenella* sp.

(Figs. 40-42)

Material examined.

3♂♂ 3♀♀, Cape Sejong tide pool, King George Island, South Shetland Islands, Antarctica, 62°13'32.38"S 58°47'33.69"W, 19 January 2012, by hand net at 1 m in depth, collected by Jee-Hoon Kim & Sanghui Lee.

Description.

Male. Body (Fig. 40) 9 mm long. Eyes round**;** Coxa ordinary; rostrum short.

Fig. 40. *Orchomenella (Orchomenella)* sp., Male.

Antenna 1 (Fig. 41A) : broader than antenna 2, peduncular article 1 stout and long, almost 3 times as long as 2; article 2 about 1.7 times as long as 3; flagellum about 12 articles; accessory flagellum 5-articulate.

Antenna 2 (Fig. 41A) slender, slightly shorter than antenna 1; peduncular article 4 slightly longer than 5; flagellum about 14 articles.

Mandibular (Fig. 41B) body slender; molar triturative; palp attached opposite molar, 3-articulate; article 2 much longer than 3; article 3 with row of 7 setae.

Maxilla 1 (Fig. 41C) : Inner plate long, with 2 apical setae; outer ordinary; palp 2-articulate, slender, article 1 slightly longer than 2.

Inner and outer plates of maxilliped (Fig. 41D) well developed; outer plate longer than inner; palp strongly exceeding on outer plate, 4-articulate; article 2 longer than 3; dactyl well developed.

Gnathopod 1 (Fig. 42A-B) : Subchelate; coxa subrectangular; basis rectangular form, logest; ischium shorter than merus; carpus slightly shorter than propodus; palm almost transverse, with 2 spines on the margin; dactyl ordinary.

Gnathopod 2 (Fig. 42C) : slightly subchelate; coxa subrectangular; basis longest; ischium longer than merus; carpus slightly expanded, longer than propodus; propodus with hair-like setae and facial row of setae; dactyl small.

Pereopod 5 (Fig. 42D) : Coxa Deeper than wide; basis expanded and rounded posteriorly; ischium shortest; merus lobed, longer than carpus; propodus slightly longer than merus, dactylus claw.

Telson (Fig. 42E) ordinary, cleft halfway, apices slender, with 1 spine.

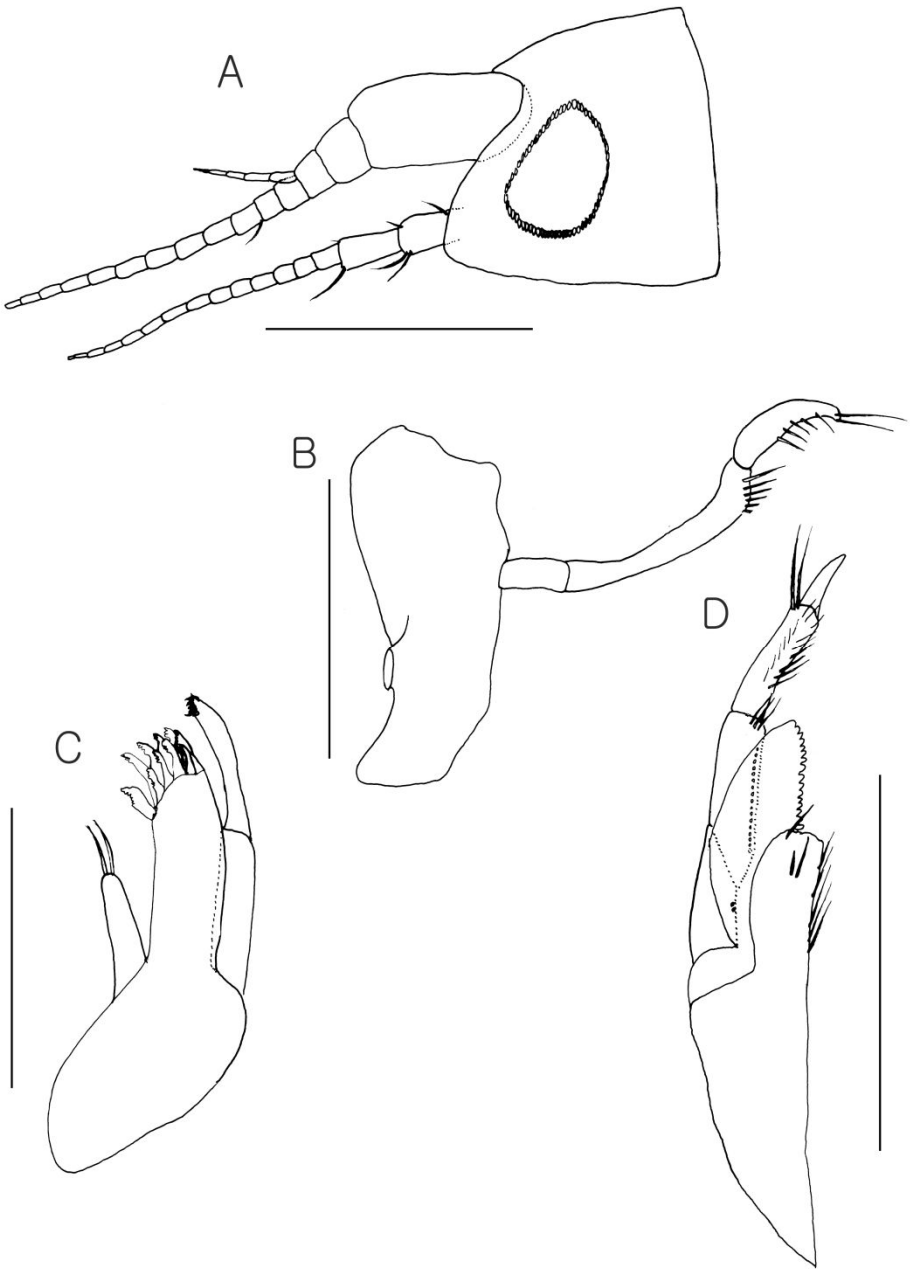

Fig. 41. *Orchomenella (Orchomenella)* sp., Male. A, Antennae; B, Molar; C, Maxilla 1; D, Maxilliped. Scale bars = 1 mm (A), 0.5 mm (B-D).

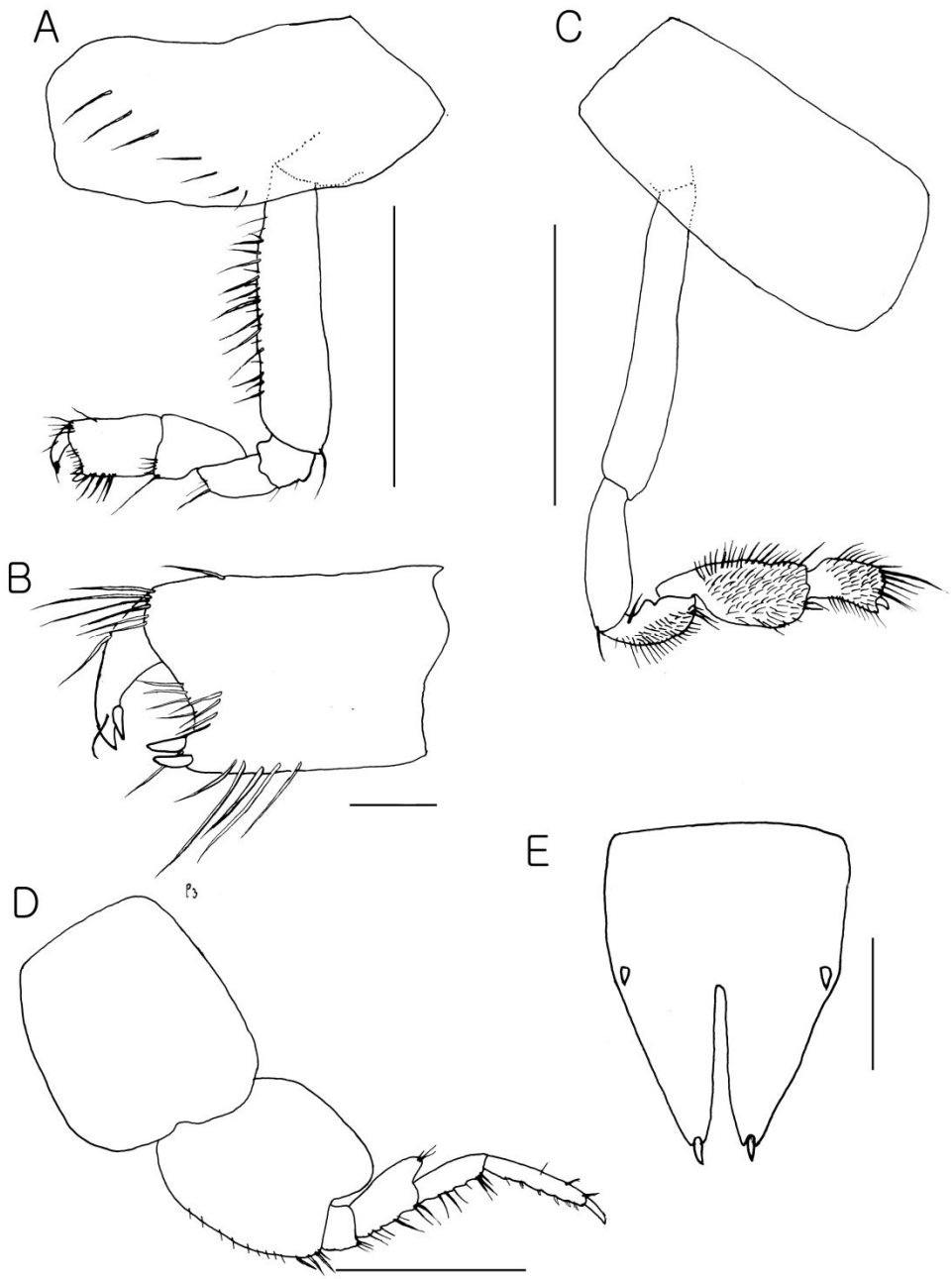

Fig. 42. *Orchomenella (Orchomenella)* sp., Male. A-B, Gnathopod 1; C, Gnathopod 2; D, Pereopod 5; E, Telson. Scale bars = 1 mm (A), 0.1 mm (B), 1 mm (C-D), 0.1 mm (E).

Distribution.

W; South Shetland Islands.

Depth range: 0-30 m.

Remarks.

The present specimens are most similar to Orchomenella ultima (Bellan-Santini, 1972). However, several morphological differences between the two species were observed. The present species can be distinguished from Orchomenella ultima by the following features: (1) antennae are longer than those of Orchomenella ultima; (2) article 1 of antenna 1 is slender; (3) the flagellum of antenna 1 is 12-articulated, whereas it is 9-articulated with the first article produced in Orchomenella ultima; (4) article 1 of the accessory flagellum is shorter than that of Orchomenella ultima; and (5) the propodus of gnathopod 1 is broader than that of Orchomenella ultima. Additionally Orchomenella ultima was until now found only in East Antarctic (Bellan-Santini 1972).

Family STENOTHOIDAE Boeck, 1871

Subfamily Stenothoinae Boeck, 1871

Genus *Metopoides* Della Valle, 1893

17. *Metopoides sarsi* (Pfeffer, 1888)

(Fig. 43)

Metopa sarsii Pfeffer, 1888: 84, pl. 2: figs. 3, 8, pl. 3: fig. 2; Della Valle, 1893: 645.

Metopoides sarsi: Chilton, 1913: 55; Thurston, 1974b: 71; Lowry & Bullock, 1976: 139-140; Barnard & Karaman, 1991: 694; Rauschert, 1991: 38; Jażdżewski et al., 1992: 466-467; De Broyer & Jażdżewski, 1993: 92.

Proboloides sarsii: Stebbing, 1906: 190; Ruffo, 1949: 13.

Metopoides sarsii: Chilton, 1912a: 479, pl. 1: fig. 10; Schellenberg, 1931a: 96; Bellan-Santini & Ledoyer, 1974: 696, pl. 38a.

Proboloides sarsi: Barnard J.L., 1958e: 131; Thurston, 1974a: 27.

Metopoides walkeri Chevreux, 1906a: 37, fig. 1; Chevreux, 1906e: 28, figs. 15-17; Chevreux, 1913c: 109.

Material examined.

1♂1♀, Marian Cove, King Jeorge Island, South Shetland Islands, Antarctica, 62°13'01.90"S 058°46'08.51"W, 19 January 2012, by SCUBA Diving at 10m in depth, collected by Han-gu Choi.

Diagnosis.

Male. Body (Fig. 43) 6.5 ㎜ long; coxa 1 very small and covered by coxa 2; coxae 2-4 larged; coxa 2 as long as 4.

Antenna 1 slightly shorter than antenna 2; article 1 longer than 2; article 3 slightly shortend; flagellum about 24-articulate; accessory flagellum small.

Antenna 2: Article 4 slightly longer than 5; flagellum about 28-articulate.

Fig. 43. *Metopoides sarsi* (Pfeffer, 1888), Male.

Maxillipeds: Inner plate of maxilliped well separated, ordinary; outer plate small; palp 4-articulate; 1 slightly longer than 2; dactyl larged.

Gnathopod 1 subchelate, smaller than gnathopod 2; basis longest; ischium slightly shorter than merus; carpus shorter than propodus; palm oblique, slightly shorter than posterior margin of propodus; dactyl ordinary.

Gnathopod 2: Basis long and subrectangular form; ischium slightly shorter than merus; carpus slightly lobed; popodus ordinary; palm oblique, slightly longer than posterior margin of propodus; dactyl ordinary.

Uropod 3 has one lamus. Telson fleshy, not cleft, longer than wide.

Distribution:

W+G+S; Iles Crozet, Danco Coast, Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Trinity Peninsula, Wilhelm Archipelago.

Depth range: 0-30 m.

Genus *Scaphodactylus* Rauschert & Andres, 1993

18. *Scaphodactylus foliodactylus* (Rauschert, 1990a)

(Fig. 44)

Metopoides foliodactylus Rauschert, 1990a: 12-15, pl. 3: figs.1-21; Rauschert, 1991: 38.

Scaphodactylus foliodactylus: Rauschert & Andres, 1993: 357, pl. 4: fig. 5.

Material examined.

1♂, Marian Cove, King Jeorge Island, South Shetland Islands, Antarctica, 62°13'01.90"S 058°46'08.51"W, 19 January 2012, by SCUBA Diving at 10m in depth, collected by Han-gu Choi.

Diagnosis.

Male. Body (Fig. 44) 7.6 ㎜ long; coxa 1 very small and covered by coxa 2.

Antenna 1 longer than antenna 2; article 1 longer than 2; flagellum about 24-articulate; accessory flagellum absent.

Antenna 2: Article 4 slightly longer than 5; flagellum about 17-articulate.

Fig. 44. *Scaphodactylus foliodactylus* (Rauschert, 1990a), Male.

Maxillipeds: Inner plate of maxilliped well separated, ordinary; outer plate very small; palp 4-articulate; 1 slightly shorter than 2; dactyl larged.

Gnathopod 1 subchelate, long, smaller than gnathopod 2; basis longest; ischium shorter than merus; carpus longer than propodus; palm slightly oblique, shorter than posterior margin of propodus; dactyl ordinary.

Gnathopod 2 enlarged; basis long and straight; ischium slightly shorter than merus; carpus lobed; popodus extended and wide; palm strangly excavate; dactyl long.

Uropod 3 has one lamus. Telson fleshy, not cleft, with spines on the margin.

Distribution.

W; South Shetland Islands.

Depth range: 10-30 m (Present data).

Remarks.

This species firstly found at depth in 10m.

Subfamily Thaumatelsoninae Gurjanova, 1938

Genus *Prothaumatelson* Schellenberg, 1931

19. *Prothaumatelson nasutum* (Chevreux, 1912)

(Figs. 45-46)

Thaumatelson nasutum Chevreux, 1912a: 212; Chevreux, 1913c: 109, figs. 16-18; Barnard K.H., 1932: 112.

Prothaumatelson nasutum: Schellenberg, 1931a: 113; Barnard J.L., 1958e: 138; Barnard J.L., 1962c: 133; Barnard J.L., 1972a: 311; Thurston, 1974a: 25; Thurston, 1974b: 71; Lowry & Bullock, 1976: 144; Barnard & Karaman, 1991: 697; Jażdżewski *et al.,* 1991: 110; Rauschert, 1991: 38; Jażdżewski *et al.*, 1992: 467; De Broyer & Jażdżewski, 1993: 93; Jażdżewski *et al.,* 1996: 372; De Broyer et al, 2007: 222.

Material examined.

1♂, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Description.

Male. Body (Fig. 45A) 1.5 ㎜ long; coxa 1 very small and covered by coxa 2; Coxa 4 very larged. Eyes oval.

Antenna 1 (Fig. 45B) : Bearing nasiform process on article 1; article 1 longer than 2; flagellum about 7-articulate; accessory flagellum absent. Antenna 2 slightly shorter than antenna 1; flagellum about 7-articulate.

Maxillipeds (Fig. 45C): Inner plate of maxilliped well separated, ordinary; outer plate absent; palp 4-articulate; 1 longer than 2; dactyl larged.

Gnathopod 1 (Fig. 46A) subchelate, smaller than gnathopod 2; basis longest and straight; ischium shorter than merus; merus lobed; carpus triangular; palm transverse, as long as posterior margin of propodus; dactyl ordinary.

Gnathopod 2 (Fig. 46B) enlarged, grossly chelate in form of pincers; basis long and straight; ischium slightly shorter than merus; carpus lobed; popodus extended; dactyl has 1 spine on the end of margin.

Pereopods 7 (Fig. 46C) narrow; basis unlobed and longest; ischium shorter than merus; merus longer than carpus; popodus extended; dactyl simple.

Uropod 3 (Fig. 46D) has one lamus.

Telson (Fig. 46E) huge, vertically elevated and laterally compressed, fleshy, not cleft.

Distribution.

W+G; Palmer Archipelago, South Georgia, South Orkney Islands, South Shetland Islands, Wilhelm Archipelago.

Depth range: 0-40 m.

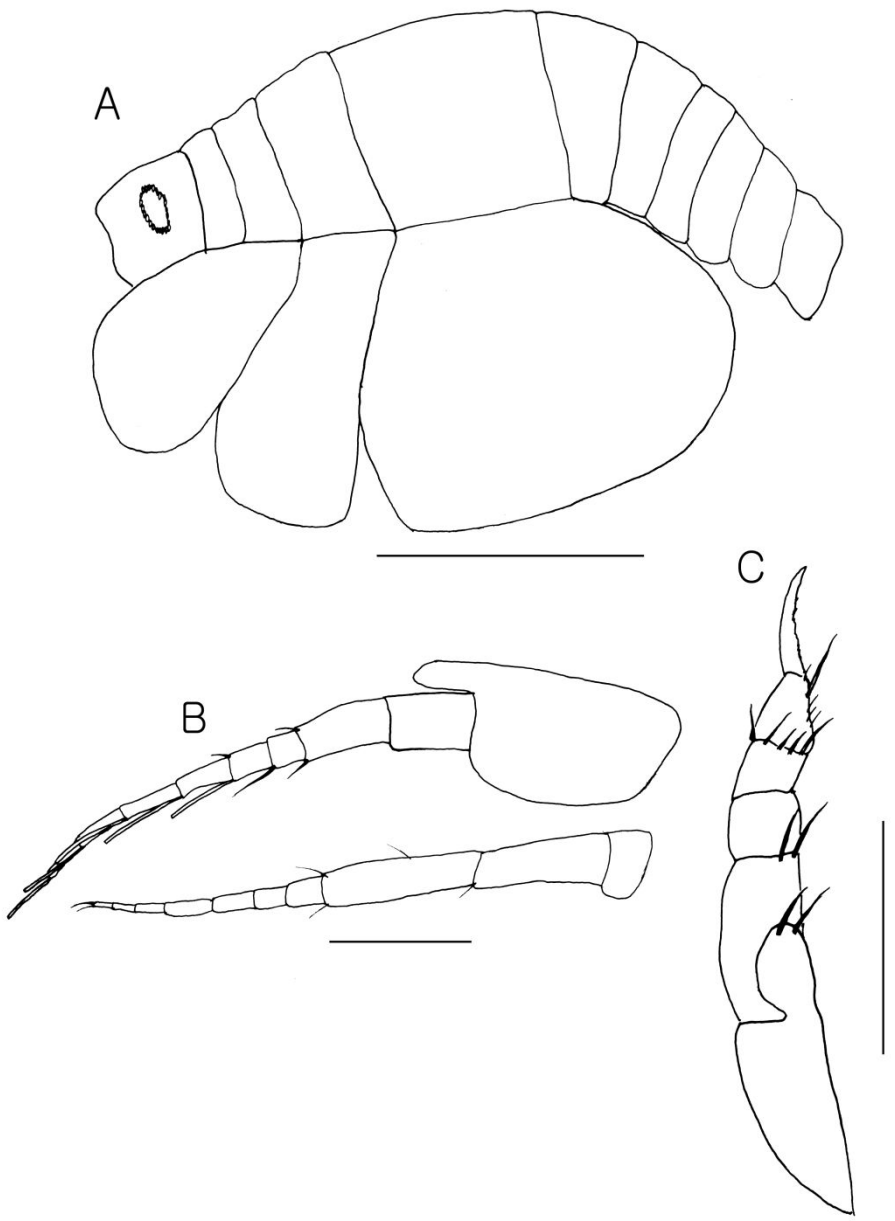

Fig. 45. *Prothaumatelson nasutum* (Chevreux, 1912), Male. A, Body; B, Antennae; C, Maxilliped. Scale bars = 0.5 mm (A), 0.1 mm (B-C).

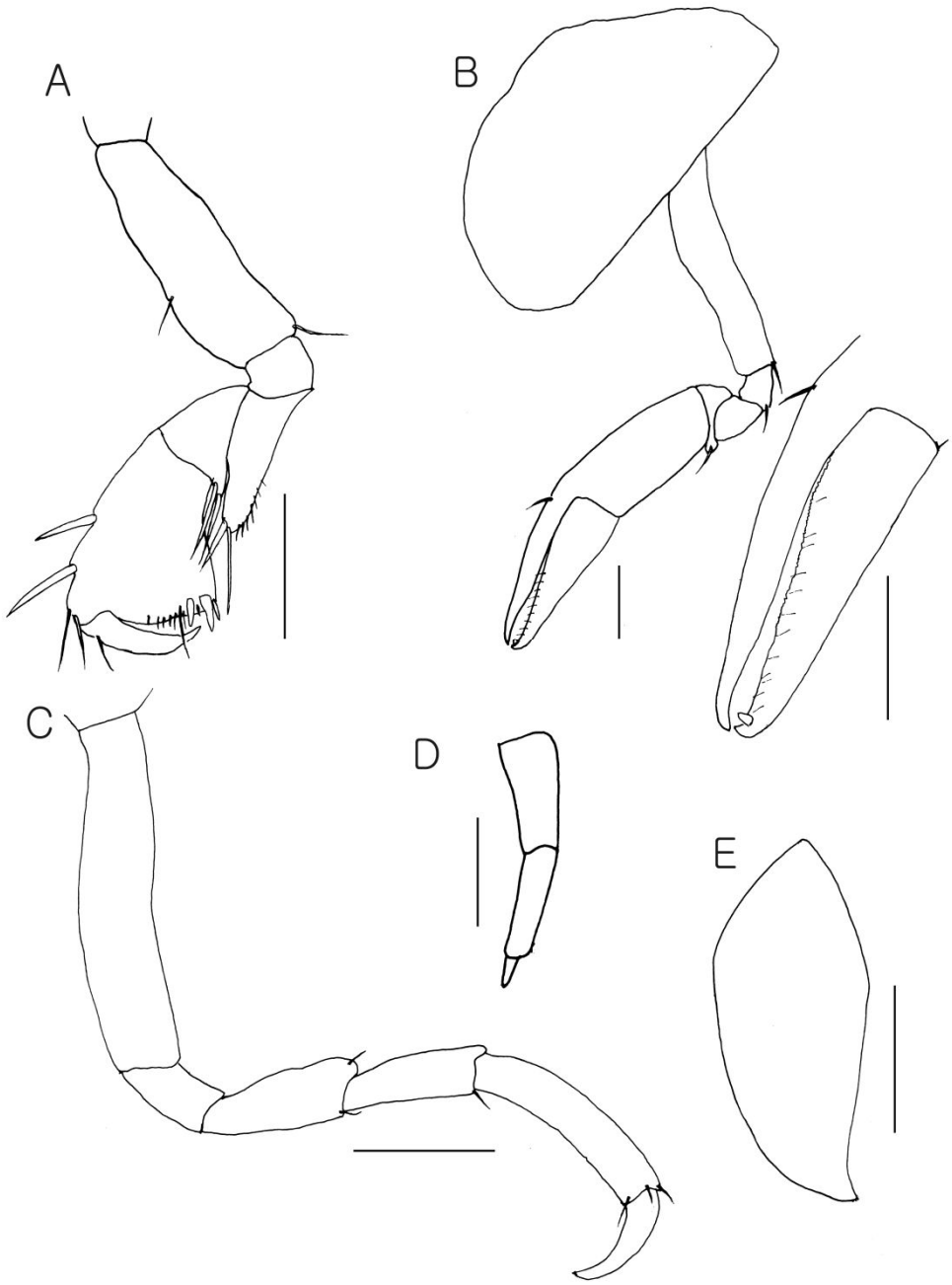

Fig. 46. *Prothaumatelson nasutum* (Chevreux, 1912), Male. A, Gnathopod 1; B, Gnathopod 2; C, Pereopod 7; D, Uropod 3; E, Telson. Scale bars = 0.1 ㎜ (A-C), 0.05 ㎜ (D), 0.1 ㎜ (E).

Remarks.

The present specimen agrees minutely with the figures and description given by Chevrex (1913). But description is French. This specimen can be easily distinguished from other species by the chelate gnathopod 2, presence of a nasiform process on article 1 of antenna 1, and huge telson. The genus *Prothaumatelson* has only this species in Antarctica.

Genus *Thaumatelson* Walker, 1906

20. *Thaumatelson* cf. *herdmani* Walker, 1906

(Figs. 47-49)

Thaumatelson herdmani Walker, 1906b: 15; Walker, 1907: 21, pl. 7: fig. 11; Chilton, 1912a: 484; Schellenberg, 1931a: 112; Barnard J.L., 1958e: 138; Barnard J.L., 1972a: 311; Bellan-Santini, 1972a: 232; Thurston, 1974a: 25; Lowry & Bullock, 1976: 144-145; Bellan-Santini & Ledoyer, 1987: 429; Barnard & Karaman, 1991: 700; Branch *et al.*, 1991: 12, fig. on p.12; Rauschert, 1991: 38; Jażdżewski *et al.*, 1992:466; De Broyer & Jażdżewski, 1993: 94; Jażdżewski *et al.,* 1996: 372; Gutt *et al.*, 2000: 84-87; De Broyer et al, 2007: 223.

Thaumatotelson herdmani: Schellenberg, 1926a: 324.

Material examined.

2♂♂ 4♀♀, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in

depth, collected by Han-gu Choi.

Description.

Male. Body (Fig. 48A) 3.1 ㎜ long; coxa 1 very small and covered by coxa 2; Coxa 4 larged. Eyes hard to find in alcohol.

Antenna 1 (Fig. 48B) : Article 1 longer than 2; flagellum about 14-articulate; accessory flagellum absent. Antenna 2 shorter than antenna 1; flagellum about 14-articulate.

Palp of mandible (Fig. 48C) 3-articulate; article 2 of palp unlobed; article 3 of palp small, with long sata on the margin.

Maxilla 1 (Fig. 48D) : Inner plate with one apical seta; palp of maxilla 1 long, with 2 article; article 2 longer than 1.

Maxilla 2 (Fig. 48E) : Inner plate subequal outer, with facial row of setae; outer ordinary.

Maxillipeds (Fig. 48F) : Inner plate of maxilliped well separated, ordinary; outer plate small; palp 4-articulate; 1 longer than 2; dactyl large.

Gnathopods 1-2 (Fig. 49A-B) subchelate, different from each other in size and shape. Gnathopod 1 (Fig. 49A) smaller than gnathopod 2; basis longest and straight; ischium shorter than merus; carpus triangular; palm scarcely oblique and shorter than posterior margin of propodus.

Fig. 47. *Thaumatelson* cf. *herdmani* Walker, 1906, Male.

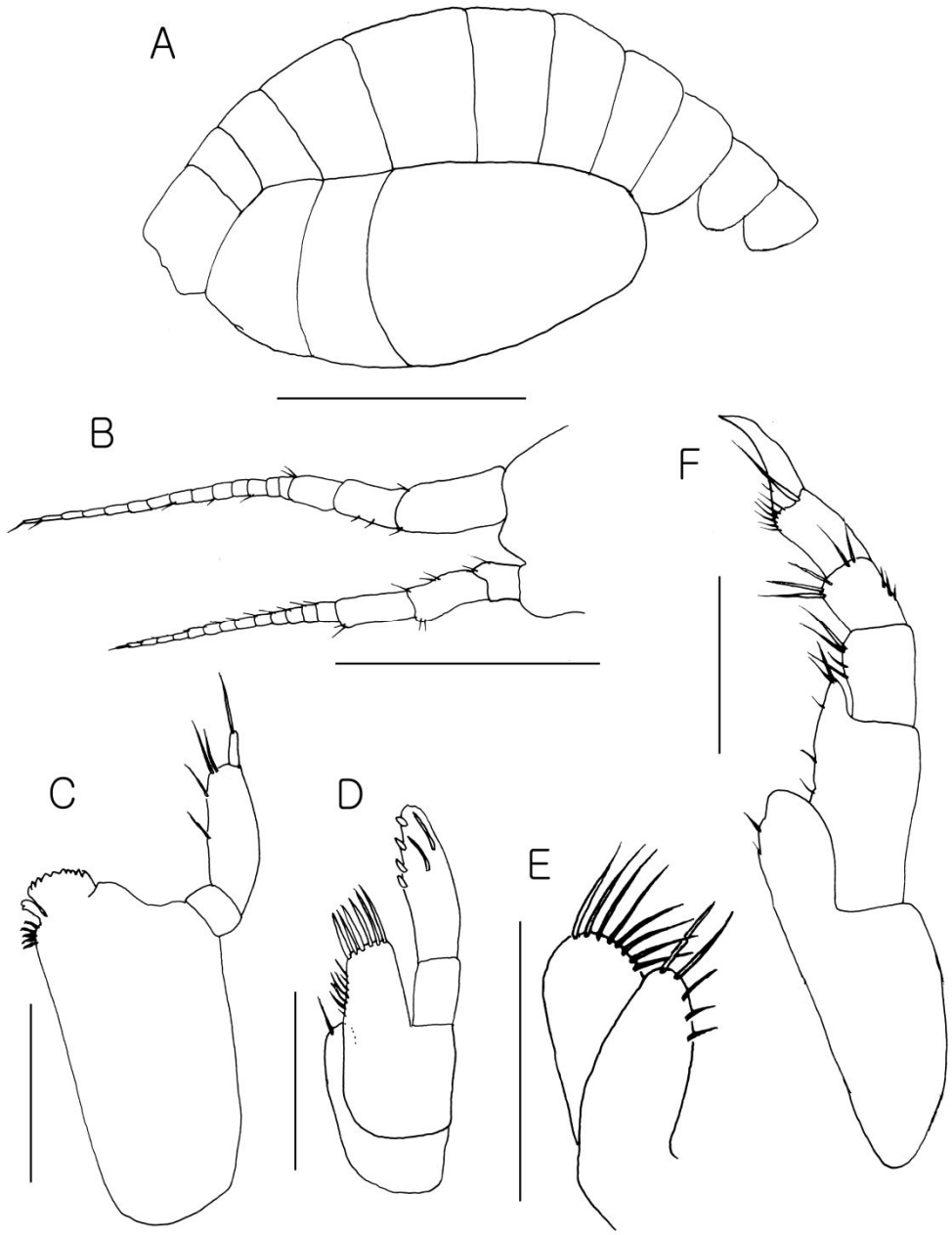

Fig. 48. *Thaumatelson* cf. *herdmani* Walker, 1906, Male. A, Body; B, Antennae; C, Molar; D, Maxilla 1; E, Maxilla 2; F, Telson. Scale bars = 1 ㎜ (A), 0.5 ㎜ (B), 0.1 ㎜ (C-F).

Gnathopod 2 (Fig. 49B) enlarged; basis longest and straight; ischium slightly shorter than merus; carpus lobed; palm almost transverse.

Pereopods 3 (Fig. 49C) narrow, simple; basis longest with rectolinear; ischium shortest; merus suequal to carpus; propodus longer than carpus; dactyl simple.

Pereopods 7 (Fig. 49D) narrow; basis unlobed and longest; merus longer than carpus; dactyl simple.

Telson (Fig. 49E) huge, vertically elevated and laterally compressed, fleshy, not cleft.

Distribution.

E+W+G+S+M; Adelie Coast, Burdwood Bank, Davis Sea, Prince Edward Islands, Ross Sea, South Georgia, South Orkney Islands, South Shetland Islands, Trinity Peninsula, Weddell Sea.

Depth range: 3-385 m.

Remarks.

The genus *Thaumatelson* differs from the other genera *Goratelson* and *Antatelson* in the diversity of gnathopods 1-2, subtransverse palm of gnathopod 2, presence of mandibular palp. The present specimens differ from the description of Walker (1907). Antennae and propodus of gnathopod 1 are longer than those described by Chilton (1912). The present specimens are tentatively identified as Thaumatelson cf. herdmani; however; it is possible that they belong to other species or to a new species.

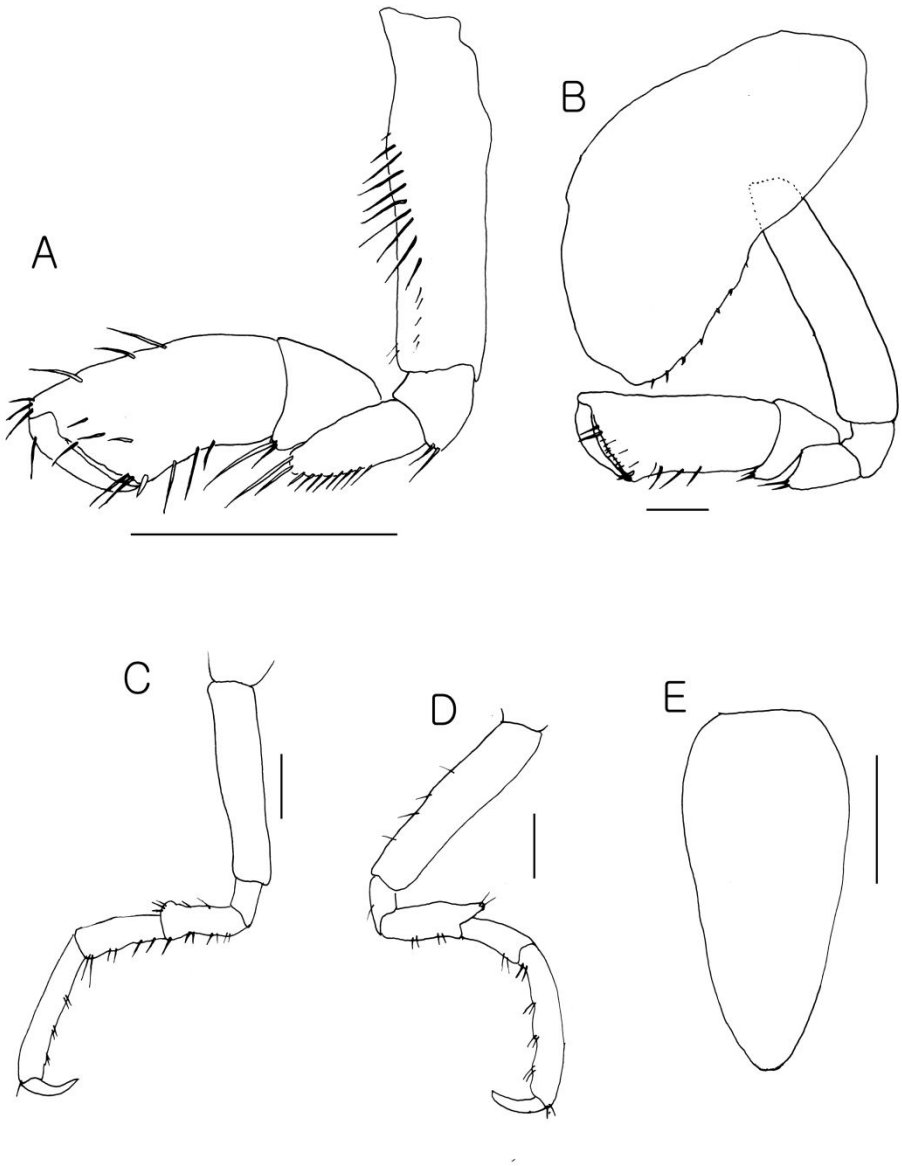

Fig. 49. *Thaumatelson* cf. *herdmani* Walker, 1906, Male. A, Gnathopod 1; B, Gnathopod 2; C, Pereopods 3; D, Pereopods 7; E, Telson. Scale bars = 0.25 mm (A), 0.1 mm (B-E).

Infraorder TALITRIDA Rafi nesque, 1815

Superfamily PHLIANTOIDEA Stebbing, 1899

Family EOPHLIANTIDAE Sheard, 1936

Genus *Wandelia* Chevreux, 1906

21. *Wandelia crassipes* Chevreux, 1906

(Figs. 50-52)

Wandelia crassipes Chevreux, 1906d: 87, figs. 1, 2; Chevreux, 1906e: 45, figs. 24-26; Nicholls, 1939: 324; Barnard J.L., 1964c: 56; Barnard J.L., 1972b: 187; Thurston, 1974a: 28, fig. 10h; Thurston, 1974b: 20; Lowry & Bullock, 1976: 39; Barnard & Karaman, 1991: 283, 284; Jażdżewski *et al.,* 1991: 110; Rauschert, 1991: 20-36; Jażdżewski *et al.*, 1992: 463, 468; De Broyer & Jażdżewski, 1993: 34; Jażdżewski *et al.,* 1996: 369; De Broyer et al, 2007: 229.

Bircenna crassipes: Chilton, 1909a: 62; Chilton, 1912a: 484; Chevreux, 1913c: 113; Sheard, 1936b: 460; Stephensen, 1947a: 49; Barnard J.L., 1958e: 126; Stephensen, 1949: 14, fig. 4.

Material examined.

2♂♂ 3♀♀, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Fig. 50. *Wandelia crassipes* Chevreux, 1906, Male.

Description.

Male. Body (Fig. 51A) 3.7 ㎜ long, cylindroid; eyes round; coxae small, contiguous.

Antenna 1 (Fig. 51B) shorter and slightly thicker than 2; flagellum similar with pedencular article; accessory flagellum absent. Peduncular article 3 of antenna 2 longest; flagellum similar with pedencular article.

Maxilliped (Fig. 51C) : Inner plate longer than outer, with apical setae; outer plate with facial row of setae; palp 4-articulate; 1 longer than 2; dactyl small, with apical setae.

Labrum (Fig. 51D) ordinary, rounded, slightly broader than long, with minute setae.

Inner plate of maxilla 1 (Fig. 51E) thin, elongate, with 2 apical setae; outer plate with 9 large spines; palp absent.

Maxilla 2 (Fig. 51F) : Outer plate slightly broader and longer than inner, with apical setae.

Molar (Fig. 51G) small; palp tiny, 1-aticulate, with 2 apical setae.

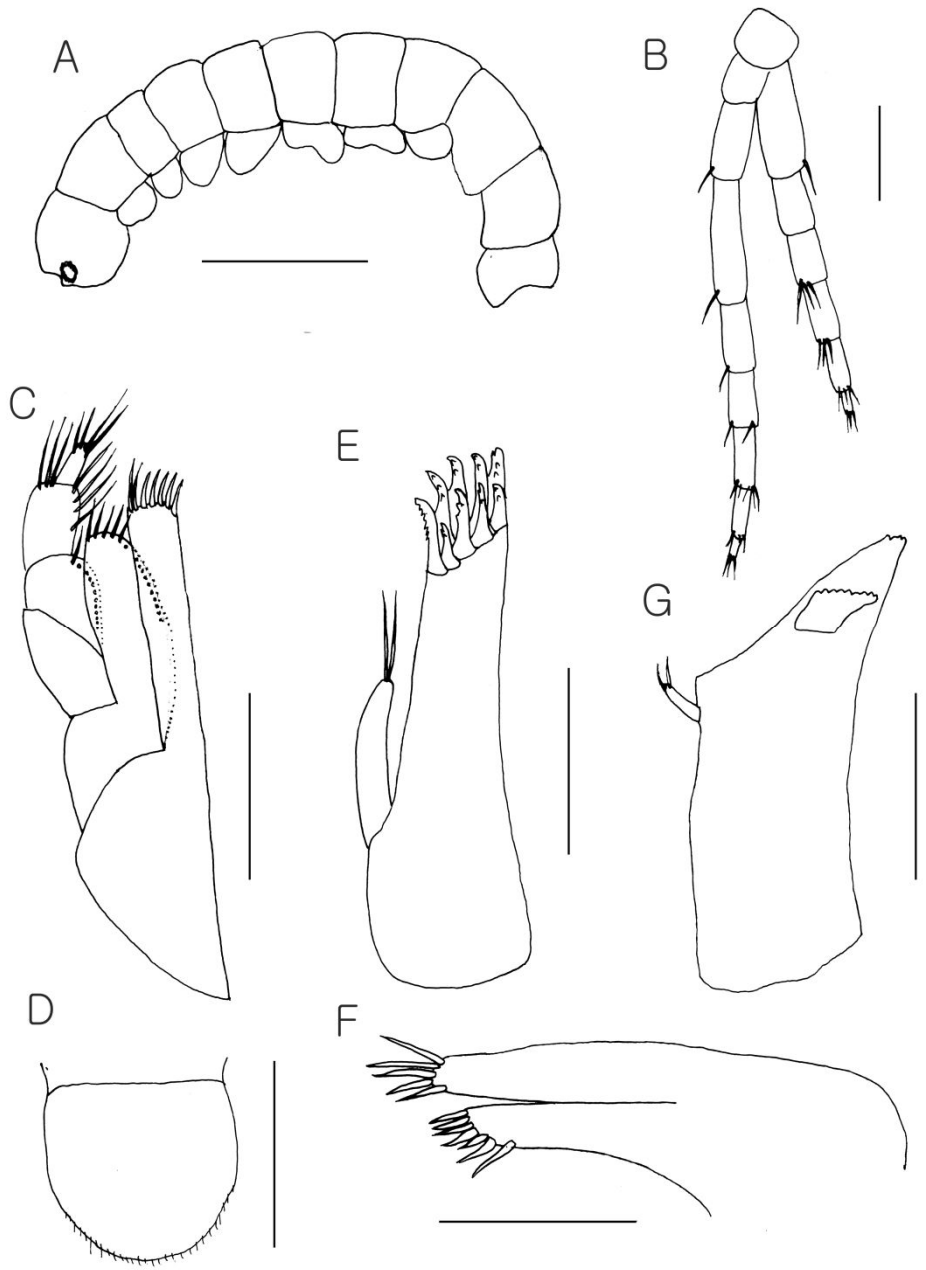

Fig. 51. *Wandelia crassipes* Chevreux, 1906, Male. A, Body; B, Antennae; C, Maxilliped; D, Labrum; E, Maxilla 1; F, Maxilla 2; G, Molar. Scale bars = 1 ㎜ (A), 0.1 ㎜ (B-F).

Gnathopod 1 (Fig. 52A) thin, long, feeble; basis longer than ischium; carpus shorter than propodus; dactyl simple.

Gnathopod 2 (Fig. 52B) longer than gnathopod 1; basis longest; carpus shorter than propodus; dactyl simple.

Pereopod 3 (Fig. 52C) short; basis longest; merus lobed; propodus longer than carpus and ischium; dactyl simple.

Pereopod 7 (Fig. 52D) largest; basis strongly expanded; posterior lobe on merus and carpus with only 1-2 small setae; dactyl simple.

Telson (Fig. 52E) fully bilobate, lobes triangular, tightly appressed in tent form, with 1 apical seta.

Distribution.

W+T; Palmer Archipelago, South Orkney Islands, South Shetland Islands, Tristan da Cunha, Wilhelm Archipelago.

Depth range: 1-126 m.

Remarks.

The genus *Wandelia* can be distinguished from the other genera *Bircenna, Ceinina* and *Eophliantis* in the contiguous coxae. There are two species in this genus, *Wandelia* but only this species in Antarctica. This species can be easily recognized by the cylindroid body. This specimen is very relate to the figures of Chevreux (1906) without a little difference. Flagellum of antenna is thicker than Chevreux's and pereopod 7 of largest male specimen becomes relatively longer.

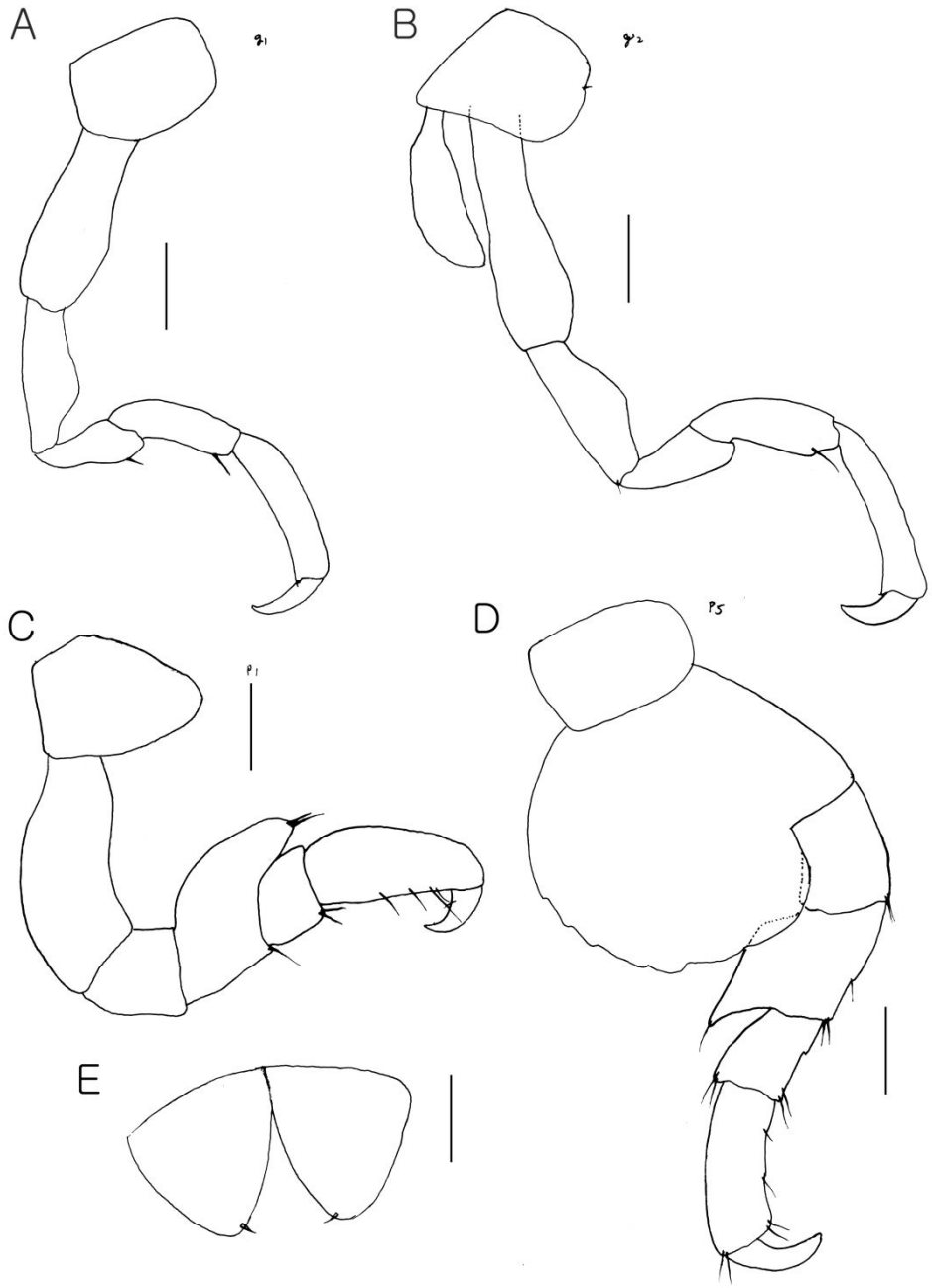

Fig. 52. *Wandelia crassipes* Chevreux, 1906, Male. A, Gnathopod 1; B, Gnathopod 2; C, Pereopod 3; D, Pereopod 7; E,Telson. Scale bars = 0.1 mm (A-D), 0.01 mm (E).

Suborder Corophiidea

Superfamily PHOTOIDEA Boeck, 1871

Family ISCHYROCERIDAE Stebbing, 1899

Genus *Jassa* Leach, 1814

22. *Jassa wandeli* Chevreux, 1906

(Figs. 53-55)

Jassa wandeli Chevreux, 1906e: 94-99, figs. 54-56; Chevreux, 1913c: 181, fig. 61; Barnard & Karaman, 1991: 203; Jażdżewski *et al.*, 1991: 110, 112; Jażdżewski *et al.*, 1992: 465, 469.; De Broyer & Jażdżewski, 1993: 60; Jażdżewski *et al.,* 1996: 371; De Broyer et al, 2007: 264.

Material examined.

3♂♂ 5♀♀, Marian Cove, King George Island, South Shetland Islands, Antarctica, 62°12'06.48"S 058°44'03.14"W, 20 January 2012, by SCUBA Diving at 20m in depth, collected by Han-gu Choi.

Description.

Male. Body (Fig. 54A) 12 ㎜ long, subcylindrical, slightly depressed; rostrum short; ocular lobes short, blunt. Head longer than pereonites 2. Eyes round. Coxae relatively short, weakly overlapping, progressively elongate from 1 to 4; coxa 1 dilated, produced forward, smallest; coxa 4 slightly longer than coxa 1; coxa 5 slightly shorter than 4; coxae 6-7 smaller than coxae 1-5.

Antenna 1 (Fig. 54B) shorter than 2, slender, with row of setae; peduncular article 1 shorter than 3; 2 longest; flagellum shorter than peduncle.

Antenna 2 (Fig. 54B) : Peduncle stout especially in male; peduncular article 3 scarcely elongate; 4 longest, with row of setae; flagellum short;

Maxilla 2 (Fig. 54C) ordinary, with mediofacial row of setae; outer plate broader and longer than inner.

Mandible (Fig. 54D) normal; palp strong, with 3 articles; article 2 longer than 3; article 3 clavate, with long row of setae.

Inner plate of maxilliped (Fig. 54E) shorter than outer, with distal spines; outer plate normal, not reaching apex of palp article 2, with strong setae on apical margin; palp with 4 articles, with apical setae; article 2 longest; article 3 lobed; article 4 small.

Fig. 53. *Jassa wandeli* Chevreux, 1906, Male.

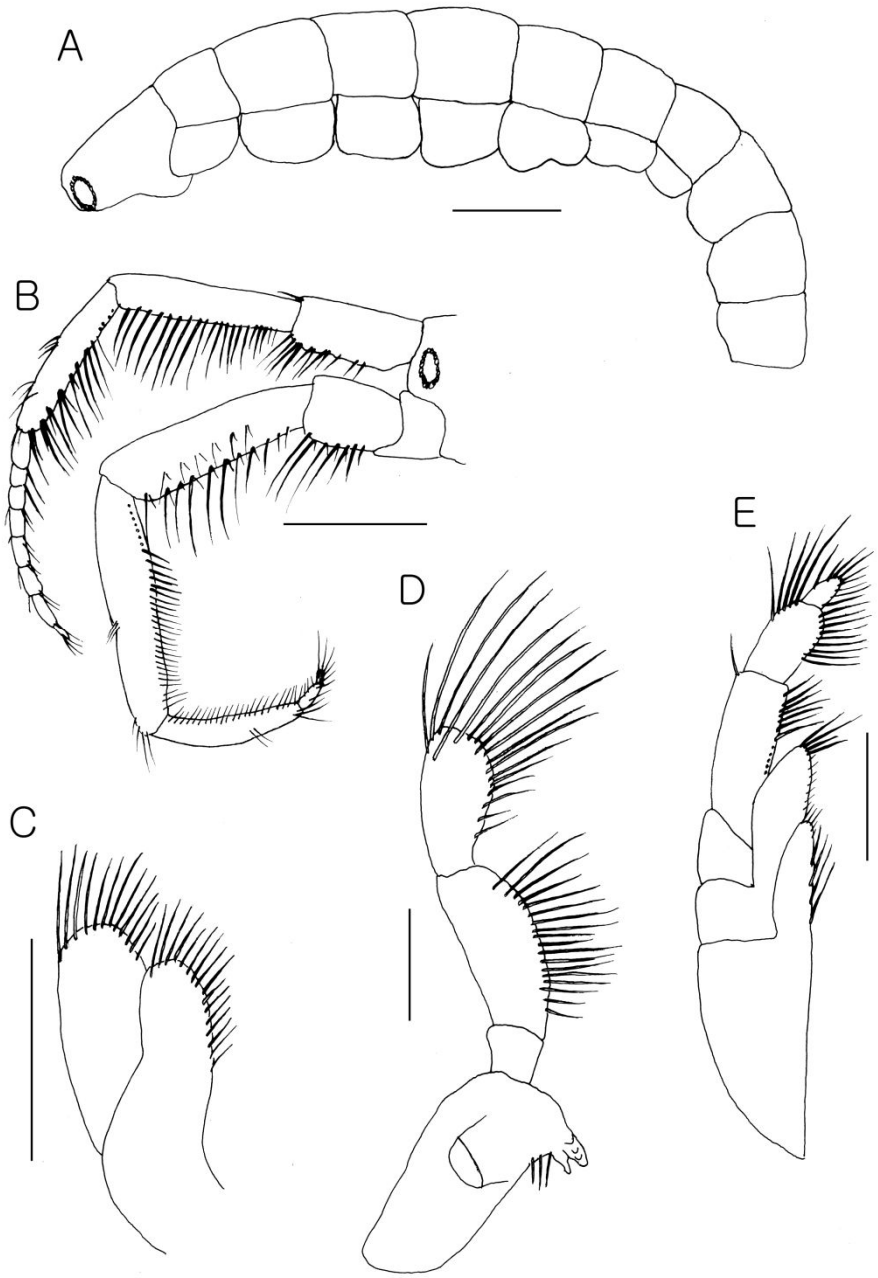

Fig. 54. *Jassa wandeli* Chevreux, 1906, Male. A, Body; B, Antennae; C, Maxilla 2; D, Molar; E, Maxilliped. Scale bars = 1 ㎜ (A-B), 0.5 ㎜ (C-E).

Labium (Fig. 55A) : Outer lobes entire; inner lobes well-developed; each tip acute apically covered with hair-like setae; mandibular lobes long, pointed.

Labrum (Fig. 55B) subrounded, with hair-like setae on margin.

Inner plate of maxilla 1 (Fig. 55C) small; outer plate with 7 spines; palp 2-articulate; article 2 long, with row of setae on apical margin.

Gnathopod 1 (Fig. 55D) subchelate; basis longest; ischium subequal to merus; carpus shorter than propodus; with row of setae on margin; dactyl long.

Gnathopod 2 (Fig. 55E) greatly larger than 1, strongly subchelate; basis not dilated; ischium shorter than merus; merus extended along posterior margin of carpus; carpus short and triangular; propodus hugely dilated, with large thumb; dactyl long.

Distribution.

W; South Shetland Islands, Wilhelm Archipelago.

Depth range: 0-15 m.

Remarks.

The characteristics of our specimens agree with the description by Chevreux (1906). And this species have sexual dimorphism. Female antennae smaller and antenna 2 more slender than male. Coxae occasionally different from male, 3-4 often much longer and gnathopods small. This species can be easily distinguished from other species by the shape of gnathopod 2 and presence of a large thumb on male gnathopod 2.

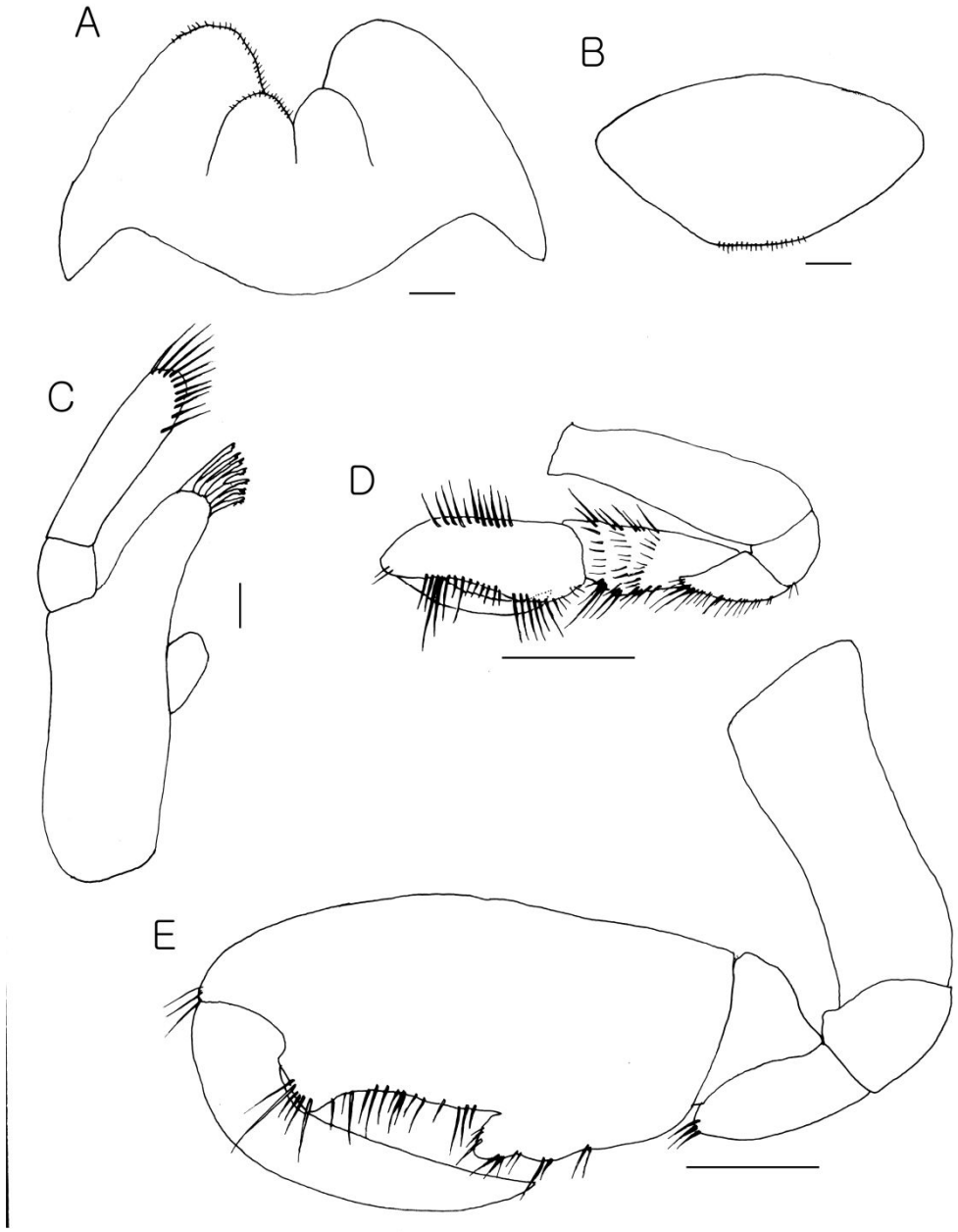

Fig. 55. *Jassa wandeli* Chevreux, 1906, Male. A, Labium; B, Labrum; C, Maxilla 1; D, Gnathopod 1; E, Gnathopod 2. Scale bars = 0.1 ㎜ (A-C), 0.5 ㎜ (D-E).

Discussion

Taxonomic studies on amphipods in the Southern Ocean have frequently been conducted (De Broyer *et al.* 2007). The entire amphipod fauna of the Southern Ocean comprises 723 gammaridean species, 92 corophiidean species, and 69 hyperiidean species. Among the 884 Southern Ocean species, 536 species occur only in the Antarctic region (De Broyer *et al.* 2007).

In the present study, I collected amphipods at a depth of 0–30 m, from Marian Cove, King George Island, Antarctica. Marian Cove forms a part of Maxwell Bay in which amphipod fauna have been reported. Previous studies have resulted in 55 amphipod species of Maxwell Bay (Rauschert 1989, 1990, 1991, 1994, 1997; Ren and Huang 1991; Rauschert and Andres 1993, 1994). In the present study, 22 amphipod species belonging to 12 families were identified. Of these, six species were new for Maxwell Bay (Table 1). Four of them were only recorded from Fildes Strait characterized by strong tidal currents (Rauschert 1991). Among the other two, one is possibly new to science. This findings increase the amphipod fauna of Maxwell Bay to 61 amphipods. Of these, 44 species were found in the shallow sublittoral zone, at a depth of 0–30 m.

Amphipod fauna of Admiralty Bay, that is the other embayment of King George Island, was thoroughly studied for more than 30 years (Arnaud *et al.* 1986; Jażdżewski et al. 1991, 2001, Jażdżewska 2011) and the results give the opportunity to compare these two areas. The general comparison of amphipod species composition between two bays was done by Jażdżewska (2011): a total of 177

amphipod species have been found in Admiralty Bay – relatively high number compared with other similar studies and 101 species in Maxwell Bay together with Fildes Strait. However this comparison took into account amphipod fauna from the whole depth range of two bays. When only the species from shallow sublittoral (above 30 m depth) would be taken into account this proportion changes into: 40 species in Admiralty Bay and 44 in Maxwell Bay (Rauschert 1991, Jażdżewski *et al.* 1991, 2001, Siciński *et al.* 2012). Interestingly only 20 of these species are in common for both bays at this depth range (Table 2).

The species composition at different depths slightly differs between the two studied areas (Fig. 56). In the present study in the shallowest sublittoral (tidal pools and samples from 1-1.5 m) the dominant species was *Cheirimedon femoratus* followed by *Gondogeneia antarctica*. At the same depth in Admiralty Bay there was a clear dominance of *G. antarctica* and *P. edouardi; Cheirimedon femoratus* was found in much lower densities (Jażdżewski *et al.* 2001). Also in the case of shallow sublittoral between 5 and 20 m species domination is different. The dominant species from Marian Cove were found in samples from shallow sublittoral of Admiralty Bay but they were represented by much lower numbers of individuals. This feature can be specific for amphipod fauna of Marian Cove, but in both cases these disproportions can be also explained by the number of samples collected now and before. The cited studies by Jażdżewski *et al*. (1991, 2001) were based on big series of quantitative samples (24 for the shallowest sublittoral and five for shallow sublitoral from 5 to 20 m). The present data are based only on 10 randomly taken

samples, so further investigations are needed to confirm the differences. I have collected also one big sample from bait trap. The whole material consists of only one species *Cheirimedon femoratus*. It is a shallow water species known from its scavenging habits (Bregazzi 1973, Presler 1986, Jażdżewski and Konopacka 1999, Jażdżewska 2009, Núñez-Pons *et al.* 2012). However, the results of Smale *et al.* (2007) suggest that it feeds on carrion only during winter season.

Present findings are the first account to the knowledge of amphipod fauna in Marian Cove and provide the groundwork for monitoring amphipod species composition in the shallow sublittoral of this bay, which can be helpful in evaluating the effects of global warming.

Table 1. Amphipods of shallow sublittoral zone (until 30 m depth) from Maxwell Bay.

A: Species previously recorded from Maxwell Bay (Rauschert 1989, 1990, 1991, 1994, 1997; Rauschert and Andres 1993, 1994; Ren and Huang 1991)

B: Species found in Marian Cove (present data)

C: Species newly recorded from Maxwell Bay

a: Frequency in amphipod sample: + <15%; ++15%-25%; +++ >25%

b: Percentage in all material: * <1%; ** 1-5%; *** 5-10%; ****>10%

Species	A	B	C	a	b
Bovallia gigantea Pfeffer, 1888	O	O		++	***
Colomastix fissilingua Schellenberg, 1926	O	O		+	*
Djerboa furcipes Chevreux, 1906	O	O		+	*
Gondogeneia antarctica (Chevreux, 1906)	O	O		+++	****
Paradexamine fissicauda Chevreux, 1906	O	O		++	**
Prostebbingia brevicornis (Chevreux, 1906)	O	O		++	**
Wandelia crassipes Chevreux, 1906	O	O		+	**
Cheirimedon femoratus (Pfeffer, 1888)	O	O		+++	****
Epimeria monodon Stephensen, 1947	O	O		+	*
Eurymera monticulosa Pfeffer, 1888	O	O		++	*
Gitanopsis squamosa (Thomson, 1880)	O	O		+	*
Jassa wandeli Chevreux, 1906		O	O	+	**
Leucothoe spinicarpa (Abildgaard, 1789) s.l.		O	O	+	*
Metopoides sarsi (Pfeffer, 1888)		O	O	+	*
Orchomenella sp.		O	O	++	***
Paraceradocus gibber Andres, 1984	O	O		+	*
Pariphimedia integricauda Chevreux, 1906	O	O		+	**
Prostebbingia longicornis (Chevreux, 1906)	O	O		+	*
Prothaumatelson nasutum (Chevreux, 1912)		O	O	+	*
Scaphodactylus foliodactylus (Rauschert, 1990a)	O	O		+	*
Stegopanoploea joubini (Chevreux, 1912)		O	O	+	*
Thaumatelson cf. *herdmani* Walker, 1906	O	O		+	**
22 sp.	16 sp.	22 sp.	6 sp.		

Table 2. Amphipods of shallow sublittoral zone (depth 0 to 30 m) of Maxwell Bay and Admiralty Bay (Rauschert 1989, 1990, 1991, 1994, 1997, Rauschert & Andres 1993, 1994, Ren and Huang 1991, Jazdzewski *et al*. 1991, 2001, Siciński *et al*. 2012 and present data combined). Asterisk (*): amphipods in shallow sublittoral zone of Marian Cove (present data).

Maxwell bay amphipod list in shallow sublittoral zone		
	Admiralty bay amphipod list in shallow sublittoral zone	
Ampelisca bouvieri	**Bovallia gigantea*	*Atyloella magellanica*
Atyloella quadridens	**Cheirimedon femoratus*	*Cardenio paurodactylus*
Atylopsis fragilis	**Djerboa furcipes*	*Gondogeneia subantarctica*
**Colomastix fissilingua*	**Eurymera monticulosa*	*Heterophoxus trichosus*
**Epimeria monodon*	**Gitanopsis squamosa*	*Heterophoxus videns*
Eusirus antarcticus	**Gondogeneia antarctica* = Gondogeneia sp. (juv.)	*Hippomedon kergueleni*
Eusirus perdentatus	**Jassa wandeli*	*Jassa ingens*
Gitanopsilis amissio	*Liouvillea oculata*	*Monoculodes scabriculosus*
Gitanopsis simplex	*Methalimedon nordenskjoeldi*	*Oediceroides lahillei*
Gondogeneia bidentata	*Oradarea edentata*	*Oediceroides macrodactyla*
Gondogeneia redfearni	**Orchomenella* sp. = (Orchomenella cf. ultima)	*Oradarea bidentata*
Gondogeneia spinicoxa	**Paradexamine fissicauda*	*Oradarea* cf. *ocellata*
**Leucothoe spinicarpa*	*Paramoera hurleyi*	*Orchomenella rotundifrons*
Metaleptamphopus pectinatus	**Pariphimedia integricauda*	*Orchomenella* sp. (juv.)
**Metopoides sarsi*	**Prostebbingia brevicornis*	*Paramoera edouardi*
**Paraceradocus gibber*	*Prostebbingia gracilis*	*Parhalimedon turqueti*
Paramoera fissicauda	**Prothaumatelson nasutum*	*Parharpinia rotundifrons*
**Prostebbingia longicornis*	*Schraderia dubia*	*Phoxocephalopsis deceptionis*
**Scaphodactylus foliodactylus*	*Schraderia gracilis*	*Probolisca ovata*
Scaphodactylus simus	**Wandelia crassipes*	*Urothoe* sp.
Schraderia acuticauda		
Schraderia barnardi		
**Stegopanoploea joubini*		
**Thaumatelson* cf. *herdmani*		
24 sp.	**20 sp**.	20 sp.
44 sp.		
	40 sp.	

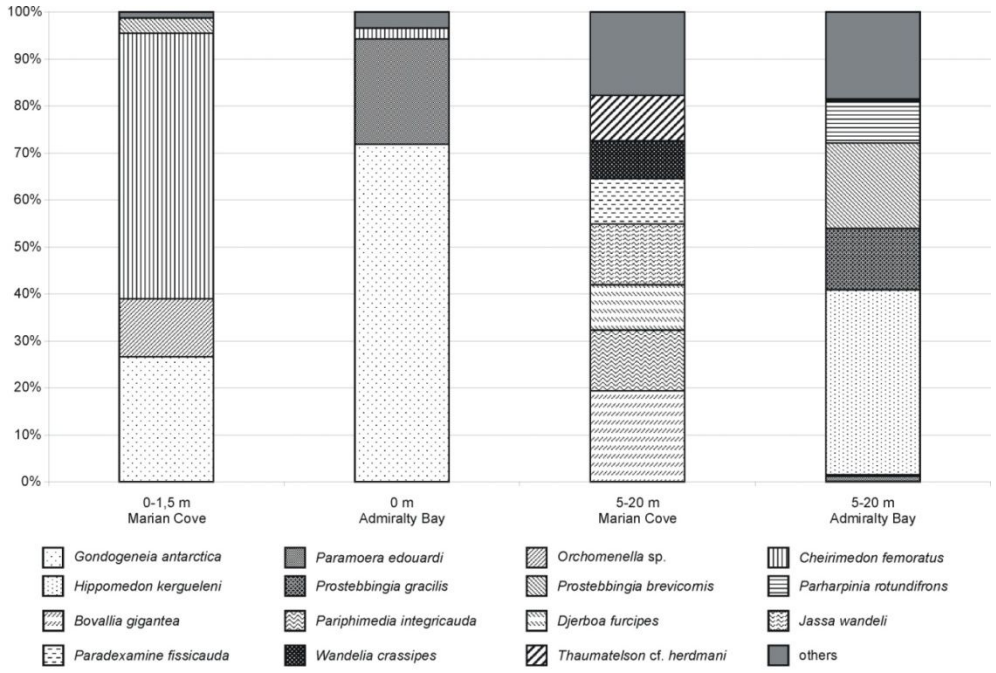

Fig. 56. The share of amphipod species that exceeded 5% of dominance at different depths in Marian Cove and Admiralty Bay (Jażdżewski et al. 1991, 2001 and present data combined)

1-2. DNA barcoding of the Marian Cove Amphipoda

Material and Methods

Based on the result of morphological character, the further molecular investigation was followed. A total of 13 species, among about 31 specimens, were used for this study. The samples were preserved directly in 95% ethanol after collection. And they were used for sequence analysis after species identification. Total genomic DNA was extracted from Uropods for each alcohol preserved specimens by using QIAamp DNA Tissue Kit (QIAGEN, Germany). The extraction was performed using the DNeasy Blood and Tissue Kit according to the protocol. The universal primers, LCO1490 (5′-GGT CAA CAA ATC ATA AAG ATA TTG G-3′) and HCO2198 (5′-TAA ACT TCA GGG TGA CCA AAA AAT CA-3′) (Folmer *et al*., 1994), were used to amplify a 658-bp fragment of the mitochondrial COI gene. The 25 μL polymerase chain reactions (PCR) reaction mixture included 1 μL of DNA templates, 5.0 μL 5x Go Taq^{TM} reaction buffer, 1 μL of each primer (10 μL), 1 μL of dNTP mixture (10 μL), 15.7 μL distilled H_2O and 0.3 μL go Taq DNA polymerase (Promega). The PCR cycling parameters for the touch-up protocol were: an initial denaturation at 96°C for 5 min; 36 cycles at 96°C 1 min, (43°C + 0.1°C/cycle) 1 min, 72°C 2 min, 72°C 10 min. The size of PCR products was visualized in 1% agarose gels. Using the same primers, mt COI fragment was sequenced in both directions. The COI barcode sequences were initially checked and aligned for ambiguities using Sequence Editor 1.9 (Applied Biosystems). The

absence of indels made the alignment straight forward.

Sequence divergences among individuals were quantified using the Kimura 2 parameter (K2P) distance model. Neighbor-joining (NJ) tree based on Kimura 2-parameter (K2P) distances. Bootstrap values based on 1,000 replication are included. And NJ tree was created to provide a graphic visualization of intraspecific distances among species using MEGA version 5.0.

Results

The COI gene was sequenced partially in 31 specimens (13species). It was translated to detect nuclear mitochondrial pseudo-genes (NUMTs) which are common in eukaryotes, including indels, frame-shift mutations, and in-frame stop codons (Bensasson et al., 2001; Song et al., 2008). At least two or three individuals per a species were used to the DNA barcoding. However, in the case of *Paradexamine fissicauda, Jassa* sp.*,* and *Metopoides sarsi* were used only one individual. A list of the samples tested for DNA barcoding is summarized in Table 3.

A total of 669 nucleotides, COI fragment represented 369 variable sites, 298 conservation sites, 24 singleton sites, and 345 parsimony-informative sites. A high level of maximum intraspecific K2P variation was observed in *Wandelia crassipes, Eurymera monticulosa, and Cheirimedon* sp. (1.0 %). While, a low level of minimum interspecific K2P variation was observed between *Prostebbingia brevicornis* and *Eurymera monticulosa* (22.1 %). The average value of maximum

intraspecific distances was 0.5% for all the species (Table 4). The average value of minimum interspecific distances was 26.1% for all the species. The presence of a DNA barcode gap was visualized to test the suitability of DNA barcoding (Fig. 57, 58). To test the suitability of DNA barcoding, the maximum intraspecific divergence was compared with the minimum interspecific divergence for all test specimens. All the species laid the right side of bottom region of the 1:1 line, indicating the very high degree of species level resolution. The NJ (Neighbor-joining) tree (Fig. 59, 60) showed the good resolution among the Marian Cove Amphipod species at the species level. Antarctic copepods (Co4-1 and Co7-1) are outgroup. And it showed extremely deep intraspecies divergence, exceeding 10% were obsedrved even in same genus. Also some species could be considered to be potential crypic species. But all genera didn't represented one clade (Fig. 59, 60). So in this study, Antarctic amphipod mtCOI gene showed the very deep resolution on the species level even in very similar shape, but didn't show the resolution on the genus or family level.

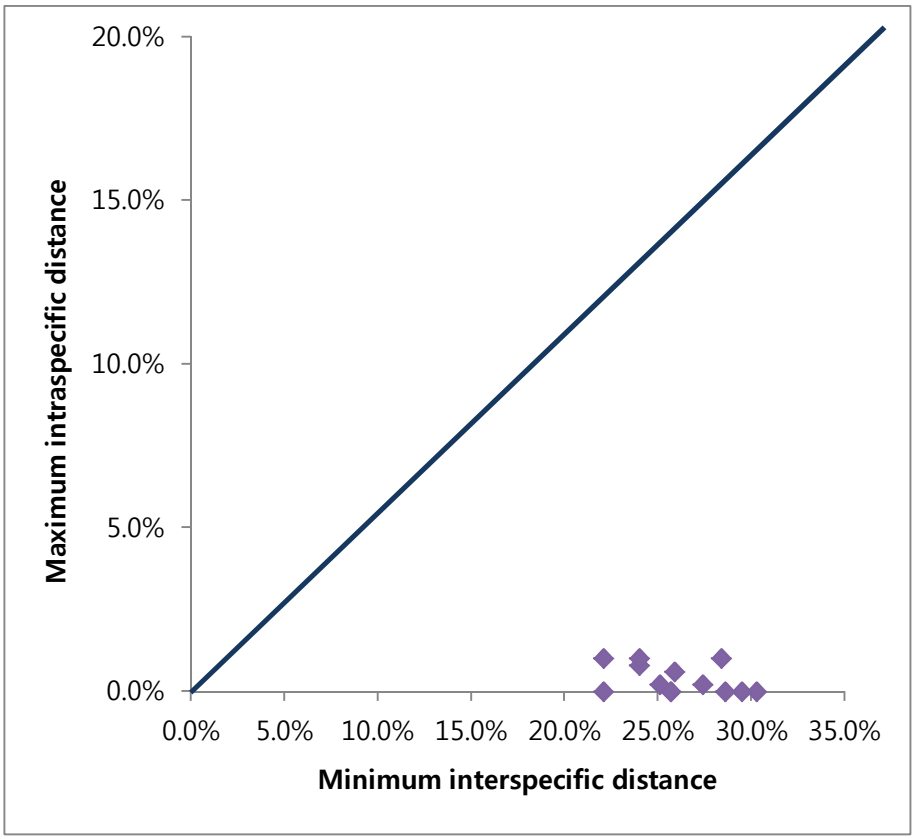

Fig. 57. Minimum interspecific and maximum intraspecific sequence divergence values are calculated to evaluate mtCOI gene as a DNA barcode for species determination.

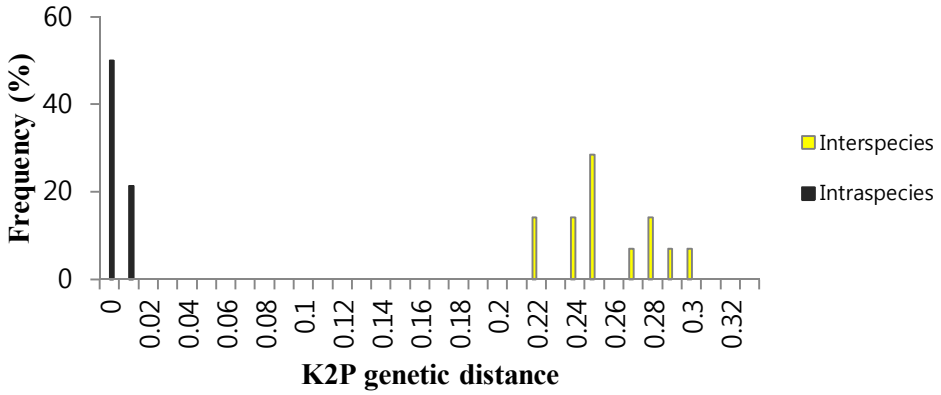

Fig. 58. Distribution of Kimura 2-parameter (K2P) genetic distances.

Table 3. List of samples examined.

No.	Species	Date	Collection locality
1-1	*Bovallia gigantea*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
1-2	*Bovallia gigantea*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
1-3	*Bovallia gigantea*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
2-1	*Cheirimedon femoratus*	20120118	Cape Sejong tide pool, King George Island, 62°12'48.45"S 58°44'42.36"W
cf1-1	*Cheirimedon femoratus*	20120119	In front of Sejong Station, King George Island, 62°13'19.60"S 58°47'13.81"W
cf1-2	*Cheirimedon femoratus*	20120119	In front of Sejong Station, King George Island, 62°13'19.60"S 58°47'13.81"W
4-1	*Djerboa furcipes*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
4-2	*Djerboa furcipes*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
4-3	*Djerboa furcipes*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
Dj1-1	*Djerboa furcipes*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
5-1	*Prostebbingia* sp.	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
5-2	*Prostebbingia* sp.	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
5-3	*Prostebbingia* sp.	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
6-1	*Paradexamine fissicauda*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
21-2	*Gondogeneia antarctica*	20120219	Tide pool, Marian cove, King George Island, 62°12'13.80"S, 58°43'56.59"W
21-3	*Gondogeneia antarctica*	20120219	Tide pool, Marian cove, King George Island, 62°12'13.80"S, 58°43'56.59"W
23-1	*Jassa wandeli*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
23-2	*Jassa wandeli*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
23-3	*Jassa* sp.	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
24-1	*Wandelia crassipes*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
24-2	*Wandelia crassipes*	20120120	Marian Cove, King George Island, 62°12'06.48"S 058°44'03.14"W
25-1	*Prostebbingia brevicornis*	20120207	Fildes Peninsula, King George Island, 62°11'55.66"S 58°57'28.63"W
25-2	*Prostebbingia brevicornis*	20120207	Fildes Peninsula, King George Island, 62°11'55.66"S 58°57'28.63"W
25-3	*Prostebbingia brevicornis*	20120207	Fildes Peninsula, King George Island, 62°11'55.66"S 58°57'28.63"W

26-1	*Eurymera monticulosa*	20120207	Fildes Peninsula, King George Island, 62°11'55.66"S 58°57'28.63"W
26-2	*Eurymera monticulosa*	20120207	Fildes Peninsula, King George Island, 62°11'55.66"S 58°57'28.63"W
26-3	*Eurymera monticulosa*	20120207	Fildes Peninsula, King George Island, 62°11'55.66"S 58°57'28.63"W
44-1	*Metopoides sarsi*	20120119	Marian Cove, King Jeorge Island, 62°13'01.90"S 058°46'08.51"W
cfa1-1	*Cheirimedon* sp.	20120119	In front of Sejong Station, King George Island, 62°13'19.60"S 58°47'13.81"W
cfa1-2	*Cheirimedon* sp.	20120119	In front of Sejong Station, King George Island, 62°13'19.60"S 58°47'13.81"W
cfa1-3	*Cheirimedon* sp.	20120119	In front of Sejong Station, King George Island, 62°13'19.60"S 58°47'13.81"W

Table 4. Values of K2P (Kimura 2-parameter) sequence divergence for Marian Cove amphipods.

Species	Number of specimens	Minimum interspecific distance	Maximum intraspecific distance	Mean interspecific distance	Mean intraspecific distance	Index of barcode gap
Bovallia gigantea	3	25.9%	0.6%	31.3%	0.4%	0.176
Cheirimedon femoratus	3	24.0%	0.8%	31.3%	0.6%	0.239
Djerboa furcipes	4	25.1%	0.2%	31.0%	0.1%	0.192
Prostebbingia sp.	3	30.3%	0.0%	34.5%	0.0%	0.122
Paradexamine fissicauda	1	29.5%	N/A	34.6%	N/A	N/A
Gondogeneia antarctica	2	27.4%	0.2%	32.2%	0.2%	0.150
Jassa wandeli	2	25.7%	0.0%	31.7%	0.0%	0.189
Jassa sp.	1	25.7%	N/A	35.8%	N/A	N/A
Wandelia crassipes	2	24.0%	1.0%	31.9%	1.0%	0.256
Prostebbingia brevicornis	3	22.1%	0.0%	28.9%	0.0%	0.235
Eurymera monticulosa	3	22.1%	1.0%	33.6%	0.6%	0.353
Metopoides sarsi	1	28.6%	N/A	35.2%	N/A	N/A
Cheirimedon sp.	3	28.4%	1.0%	32.9%	0.8%	0.141
Average		26.1%	0.5%	32.7%	0.4%	

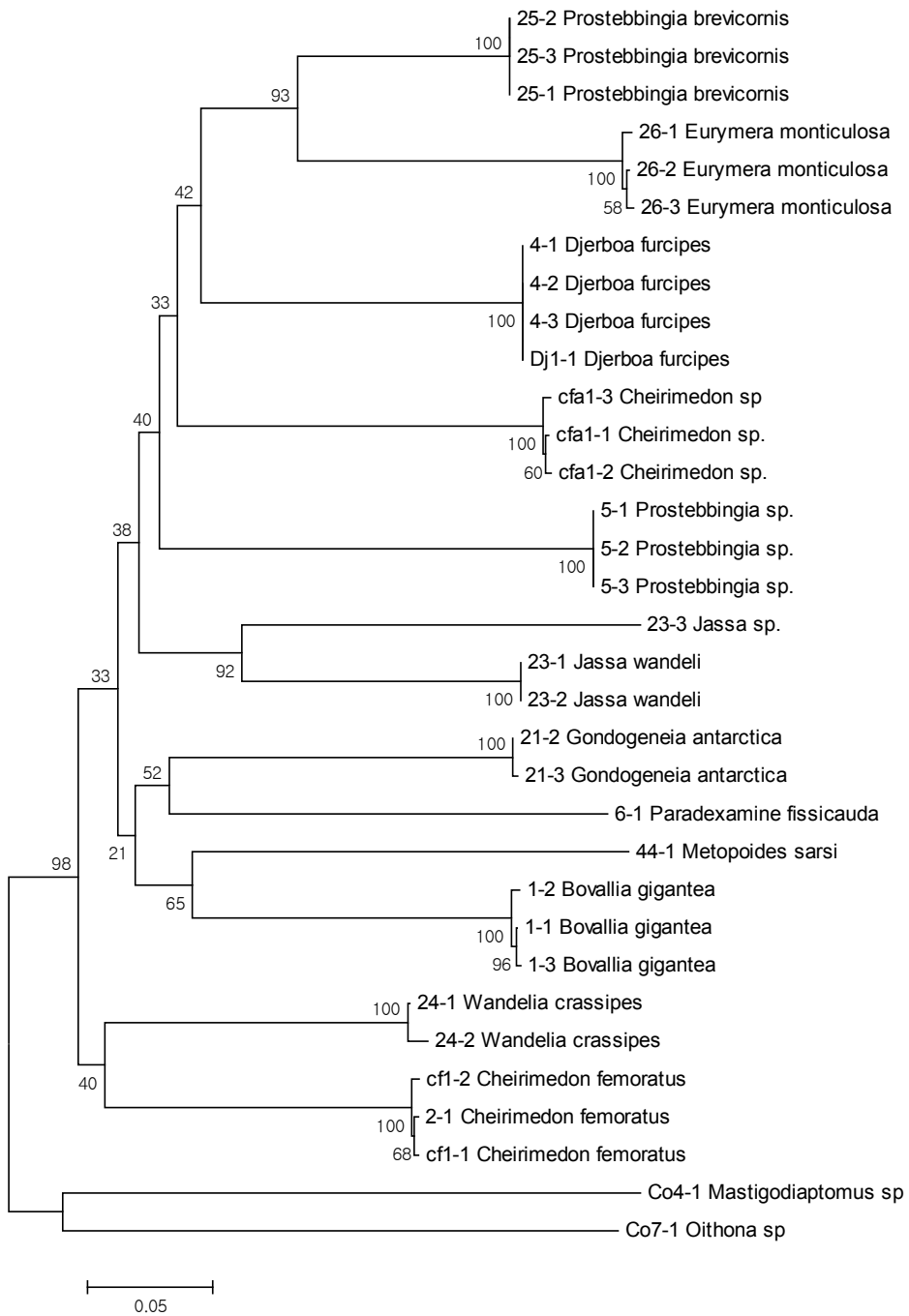

Fig. 59. Neighbor-joining (NJ) tree (Rectangular) based on Kimura 2-parameter (K2P) distances. Bootstrap values based on 1,000 replication are included.

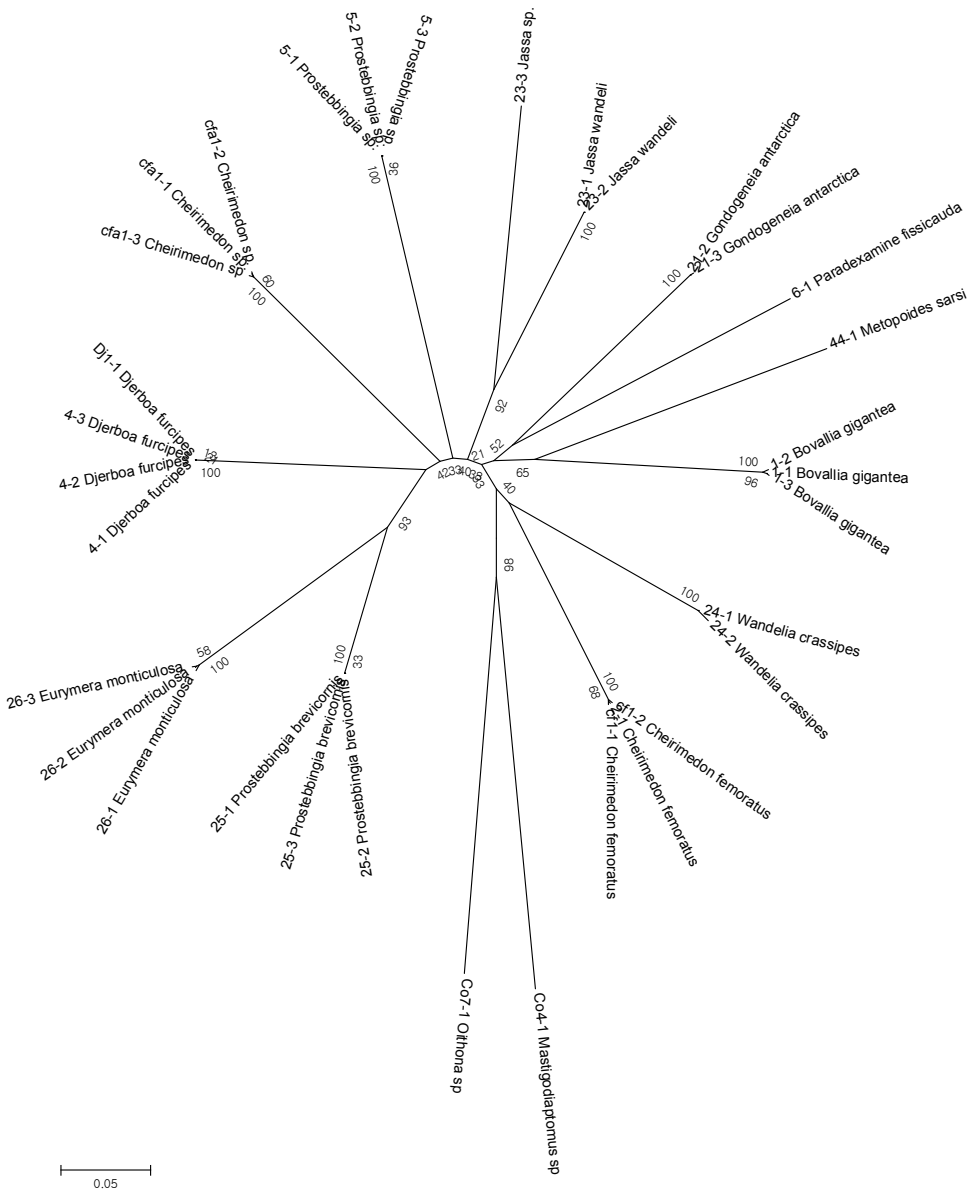

Fig. 60. Neighbor-joining (NJ) tree (Radiation) based on Kimura 2-parameter (K2P) distances. Bootstrap values based on 1,000 replication are included.

CONCLUSION

Morphological conclusion

The present reseach was carried out two times at 11 localities SCUBA diving, hand-netting, netting, light trap, and bait trap from depths of 0 to 30m in shallow subtidal zone. As a result, a total of 22 gammaridean amphipod species belonging to 12 families were identified. Of these six species were new for the whole Maxwell Bay, to which Marian Cove belongs. Our findings increase the amphipod fauna of Maxwell Bay from the previous 55 species, to 61 amphipods. The dominant species in the shallow sublittoral zone of Marian Cove were *Cheirimedon femoratus* and *Gondogeneia antarctica*, followed by *Bovallia gigantea, Orchomenella* sp., *Paradexamine fissicauda*, *Prostebbingia brevicornis*, *Pariphimedia integricauda*, and *Jassa wandeli*.

When species from shallow sublittoral (above 30 m depth) would be taken into account: 40 species in Admiralty Bay and 44 in Maxwell Bay (Rauschert 1991, Jażdżewski *et al.* 1991, 2001, Siciński *et al.* 2012). Interestingly only 20 of these species are in common for both bays at this depth range. In the shallowest sublittoral (tidal pools and samples from 1-1.5 m) the dominant species was *Cheirimedon femoratus* followed by *Gondogeneia antarctica*. At the same depth in Admiralty Bay there was a clear dominance of *G. antarctica* and *P. edouardi; Cheirimedon femoratus* was found in much lower densities (Jażdżewski *et al.* 2001). Also in the case of shallow sublittoral between 5 and 20 m species domination is

different. The dominant species from Marian Cove were found in samples from shallow sublittoral of Admiralty Bay but they were represented by much lower numbers of individuals.

Molecular experiment conclusion

The present study, 13 Amphipod species have been successfully sequenced for DNA barcoding. DNA barcodes correctly identified all specimens of the Antarctic amphipods and they have a big barcod gap, therefore a promising supplemental tool for the identifications of this group. Cheirimedon femoratus and Cheirimedon sp.; Jassa wandeli and Jassa sp. may comprise cryptic species. Also they have a little difference in morphology. In order to resolve this question, further studies should be followed.

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APPENDIXES

Appendix 1. Checklist of the Southern Ocean Amphipods (815 species).

I. Suborder GAMMARIDEA Latreille, 1802
Infraorder GAMMARIDA Latreille, 1802
Family ACANTHONOTOZOMELLIDAE Coleman & Barnard, 1991b

Acanthonotozomella alata **Schellenberg, 1926a**
Acanthonotozomella barnardi **Watling & Holman, 1980**
Acanthonotozomella rauscherti **Coleman & Jager, 2001**
Acanthonotozomella trispinosa **(Bellan-Santini, 1972a)**
Acanthonotozomoides oatesi **(K.H. Barnard, 1930)**
Acanthonotozomoides sublitoralis **Schellenberg, 1931a**

Family AMATHILLOPSIDAE Pirlot, 1934
Subfamily Amathillopsinae Pirlot, 1934

Amathillopsis charlottae **Coleman, 1998c**

Subfamilly Parepimeriinae Lowry, 2006

Parepimeria bidentata **Schellenberg, 1931a**
Parepimeria crenulata **Chevreux, 1912a**
Parepimeria irregularis **(Schellenberg, 1931a)**
Parepimeria major **K.H. Barnard, 1932**
Parepimeria minor **Watling & Holman, 1980**

Family AMPELISCIDAE Costa, 1857

Ampelisca antarctica **Ren, 1991**
Ampelisca anversensis **G.S. Karaman, 1975e**
Ampelisca barnardi **Nicholls, 1938**
Ampelisca bouvieri **Chevreux, 1912a**
Ampelisca bransfi eldi **K.H. Barnard, 1932**
Ampelisca composita **Schellenberg, 1931a**
Ampelisca dallenei **Bellan-Santini, 1985a**
Ampelisca dentifera **Schellenberg, 1931a**
Ampelisca gracilicauda **Schellenberg, 1931a**
Ampelisca hemicryptops **K.H. Barnard, 1930**
Ampelisca lenaldei **Bellan-Santini, 1985a**
Ampelisca macrodonta **Goeke, 1987**
Ampelisca richardsoni **G.S. Karaman, 1975e**
Ampelisca statenensis **K.H. Barnard, 1932**
Byblis antarctica **Schellenberg, 1931a**
Byblis securiger **(K.H. Barnard, 1931a)**
Byblis subantarctica **Schellenberg, 1931a**
Byblisoides juxtacornis **K.H. Barnard, 1931a**

Family AMPHILOCHIDAE Boeck, 1871b

Amphilochella simplicarpa **Schellenberg, 1926a**

***Amphilochus marionis* Stebbing, 1888**
***Gitanopsilis amissio* Rauschert, 1994**
***Gitanopsis denticulata* Rauschert, 1994**
***Gitanopsis fucatosquamosa* Rauschert, 1994**
***Gitanopsis inaequipes* Schellenberg, 1926a**
***Gitanopsis pusilla* K.H. Barnard, 1916**
***Gitanopsis simplex* Schellenberg, 1926a**
***Gitanopsis squamosa* (Thomson, 1880)**

Family ASTYRIDAE Pirlot, 1934
***Astyra antarctica* Andres, 1997**
***Eclysis similis* K.H. Barnard, 1932**

Family ATYLIDAE G.O. Sars,1883
Subfamily Atylinae G.O. Sars,1883
***Atylus dentatus* (Schellenberg, 1931a)**
***Atylus villosus* Bate, 1862**

Family CLARENCIIDAE Barnard & Karaman, 1987
***Clarencia chelata* K.H. Barnard, 1931a**

Family COLOMASTIGIDAE Stebbing, 1899a
***Colomastix castellata* K.H. Barnard, 1932**
***Colomastix fi ssilingua* Schellenberg, 1926a**
***Colomastix simplicicauda* Nicholls, 1938**
***Colomastix* sp. Holman & Watling, 1983b**

Family CYPROIDEIDAE J.L. Barnard, 1974b
***Victorhensenoides arntzi* Rauschert, 1996**

Family DEXAMINIDAE Leach, 1814b
Subfamily Dexamininae Leach, 1814b
***Paradexamine fi ssicauda* Chevreux, 1906c**
***Paradexamine nana* Stebbing, 1914b**
***Paradexamine pacifi ca* (Thomson, 1879b)**
***Paradexamine sexdentata* Schellenberg, 1931a**
Subfamily Polycherinae Bousfield & Kendall, 1994
***Polycheria acanthocephala* Schellenberg, 1931a**
***Polycheria acanthopoda* Thurston, 1974b**
***Polycheria antarctica* (Stebbing, 1875b)**
***Polycheria cristata* Schellenberg, 1931a**
***Polycheria dentata* Schellenberg, 1931a**
***Polycheria gracilipes* Schellenberg, 1931a**
***Polycheria intermedia* Stephensen, 1947a**
***Polycheria macrophtalma* Schellenberg, 1931a**
***Polycheria nuda* Holman & Watling, 1983b**
***Polycheria similis* Schellenberg, 1931a**

Family DIDYMOCHELIIDAE Bellan-Santini & Ledoyer, 1987

***Didymochelia edwardi* Bellan-Santini & Ledoyer, 1987**
***Didymochelia spongicola* K.H. Barnard, 1931a**

Family DIKWIDAE Coleman & Barnard, 1991b

***Dikwa andresi* Lorz & Coleman, 2003**

Family EPIMERIIDAE Boeck, 1871b

***Actinacanthus tricarinatus* (Stebbing, 1883)**
***Epimeria annabellae* Coleman, 1994**
***Epimeria extensa* Andres, 1985**
***Epimeria georgiana* Schellenberg, 1931a**
***Epimeria grandirostris* (Chevreux, 1912a)**
***Epimeria heldi* Coleman, 1998a**
***Epimeria inermis* Walker, 1903a**
***Epimeria intermedia* Schellenberg, 1931a**
***Epimeria macrodonta* Walker, 1906b**
***Epimeria monodon* Stephensen, 1947a**
***Epimeria oxicarinata* Coleman, 1990b**
***Epimeria pulchra* Coleman, 1990b**
***Epimeria puncticulata* K.H. Barnard, 1930**
***Epimeria reoproi* Lorz & Coleman, 2001**
***Epimeria rimicarinata* Watling & Holman, 1980**
***Epimeria robusta* K.H. Barnard, 1930**
***Epimeria rubrieques* De Broyer & Klages, 1991**
***Epimeria similis* Chevreux, 1912a**
***Epimeria vaderi* Coleman 1998b**
***Epimeria* sp. Andres, 1985**
***Epimeriella macronyx* Walker, 1906b**
***Epimeriella scabrosa* K.H. Barnard, 1930**
***Epimeriella truncata* Andres, 1985**
***Epimeriella walkeri* K.H. Barnard, 1930**
***Metepimeria acanthurus* Schellenberg, 1931a**
***Uschakoviella echinophora* Gurjanova, 1955b**

Superfamily EUSIROIDEA Bousfield , 1979

Family CALLIOPIIDAE G.O. Sars, 1893

***Calliopiurus excellens* Bushueva, 1986**
***Haliragoides australis* Chilton, 1912a**
***Harpinioides drepanocheir* Stebbing, 1888**
***Harpinioides fi ssicauda* Schellenberg, 1926a**
***Lopyastis multisetosa* (Schellenberg, 1926a)**
***Lopyastis signiensis* (Thurston, 1974a)**
***Metaleptamphopus pectinatus* Chevreux, 1912a**
***Oradarea acuminata* Thurston, 1974a**
***Oradarea bidentata* K.H. Barnard, 1932**
***Oradarea crenelata* Alonso de Pina, 1995**
***Oradarea impressicauda* K.H. Barnard, 1932**

Oradarea megalops **(Nicholls, 1938)**
Oradarea novaezealandiae **(Thomson, 1879b)**
Oradarea ocellata **Thurston, 1974a**
Oradarea rossi **Thurston 1974a**
Oradarea tridentata **K.H. Barnard, 1932**
Oradarea unidentata **Thurston, 1974a**
Oradarea walkeri **Shoemaker, 1930a**
Pontogeneoides abyssi **Nicholls, 1938**
Pontogeneoides dubia **Ruffo, 1949**
Stenopleura atlantica **Stebbing, 1888**
Tylosapis dentata **(Stebbing, 1888)**

Family EUSIRIDAE Stebbing, 1888 *s.s.*

Cleonardo longipes **Stebbing, 1888**
Cleonardo macrocephala **Birstein & Vinogradov, 1955**
Eusirella fl agella **Andres, 1982**
Eusiroides aberrantis **Bellan-Santini & Ledoyer, 1987**
Eusiroides crassi **Stebbing, 1888**
Eusiroides georgiana **K.H. Barnard, 1932**
Eusiroides monoculoides **(Haswell, 1879b)**
Eusiroides stenopleura **K.H. Barnard, 1932**
Eusirus antarcticus **Thomson, 1880a *s.l.***
Eusirus bouvieri **Chevreux, 1911c**
Eusirus giganteus **Andres, Lorz & Brandt, 2002**
Eusirus laevis **Walker, 1903a**
Eusirus laticarpus **Chevreux, 1906e**
Eusirus microps **Walker, 1906c**
Eusirus perdentatus **Chevreux, 1912a**
Eusirus propeperdentatus **Andres, 1979b**
Eusirus **sp. Puddicombe & Johnstone, 1988**
Harcledo curvidactyla **(Pirlot, 1929b)**
Rhachotropis anoculata **J.L. Barnard, 1962d**
Rhachotropis antarctica **K.H. Barnard, 1932**
Rhachotropis hunteri **Nicholls, 1938**
Rhachotropis kergueleni **Stebbing, 1888**
Rhachotropis schellenbergi **Andres, 1982**

Family GAMMARELLIDAE Bousfield , 1977

Austroregia batei **(Cunningham, 1871)**
Austroregia huxleyana **(Bate, 1862)**
Austroregia regis **(Stebbing, 1914b)**
Chosroes decoratus **K.H. Barnard, 1932**
Chosroes incisus **Stebbing, 1888**

Family PONTOGENEIIDAE Stebbing, 1906

Antarctogeneia macrodactyla **Thurston, 1974b**
Atyloella dentata **K.H. Barnard, 1932**
Atyloella magellanica **(Stebbing, 1888)**

***Atyloella tribinicuspidata* Rauschert 2006**
***Atyloella quadridens* (K.H. Barnard, 1930)**
***Bovallia gigantea* Pfeffer, 1888**
***Bovallia* sp. Monod, 1926**
***Djerboa furcipes* Chevreux, 1906e**
***Eurymera monticulosa* Pfeffer, 1888**
***Gondogeneia antarctica* (Chevreux, 1906b)**
***Gondogeneia bidentata* (Stephensen, 1927e)**
***Gondogeneia chosroides* (Nicholls, 1938)**
***Gondogeneia georgiana* (Pfeffer, 1888)**
***Gondogeneia gracilicauda* (Schellenberg, 1931a)**
***Gondogeneia macrodon* (Schellenberg, 1931a)**
***Gondogeneia patagonica* Alonso, 1986a**
***Gondogeneia redfearni* (Thurston, 1974a)**
***Gondogeneia simplex* (Dana, 1852a)**
***Gondogeneia spinicoxa* Bellan-Santini & Ledoyer, 1974**
***Gondogeneia subantarctica* (Stephensen, 1938c)**
***Gondogeneia thurstoni* Alonso, 1989.**
***Gondogeneia tristanensis* (K.H. Barnard, 1932)**
***Gondogeneia ushuaiae* (Schellenberg, 1931a)**
***Gondogeneia* sp. 1 (Stephensen, 1938c)**
***Gondogeneia* sp. 2 (Stephensen, 1938c)**
***Gondogeneia* sp. 3 (Ruffo, 1949)**
***Gondogeneia* sp. 4 J.L. Barnard, 1972b**
***Gondogeneia* sp. 5 Castellanos, 1973**
***Gondogeneia* sp. 6 Stebbing, 1914b**
***Liouvillea oculata* Chevreux, 1912a**
***Paramoera aucklandica* (Walker, 1908)**
***Paramoera brachyura* Schellenberg, 1931a**
***Paramoera chevreuxi* (Stephensen, 1927e)**
***Paramoera edouardi* Schellenberg, 1929c**
***Paramoera falklandica* Vader & Krapp, 2005**
***Paramoera fasciculata* (Thomson, 1880a)**
***Paramoera fi ssicauda* (Dana, 1852a)**
***Paramoera gregaria* (Pfeffer, 1888)**
***Paramoera hamiltoni* Nicholls, 1938**
***Paramoera hurleyi* Thurston, 1974a**
***?Paramoera incognita* Bushueva, 1986**
***Paramoera kergueleni* Bellan-Santini & Ledoyer, 1974**
***Paramoera macquariae* Nicholls, 1938**
***Paramoera obliquimana* K.H. Barnard, 1932**
***Paramoera parva* Ruffo, 1949**
***?Paramoera pfefferi* Schellenberg, 1931a**
***Paramoera schellenbergi* Nicholls, 1938**
***Paramoera tristanensis* K.H. Barnard, 1932**
***Paramoera walkeri* (Stebbing, 1906)**
***Paramoera* sp. 1 Shoemaker, 1945d**
***Paramoera* sp. 2 J.L. Barnard, 1972b**

***Paramoera* sp. 3 Bellan-Santini & Ledoyer, 1974**
***Paramoera* sp. 4 Nicholls, 1938**
***Paramoera spp.* Barnard & Karaman, 1991**
***Prostebbingia brevicornis* (Chevreux, 1906c)**
***Prostebbingia gracilis* (Chevreux, 1912a)**
***Prostebbingia laevis* (Thomson, 1879a)**
***Prostebbingia longicornis* (Chevreux, 1906e)**
***Prostebbingia serrata* Schellenberg, 1926a**
***Prostebbingia spinicauda* Ren, 1991**
***Schraderia acuticauda* Bellan-Santini & Ledoyer, 1974**
***Schraderia barnardi* Thurston, 1974a**
***Schraderia dubia* Thurston, 1974a**
***Schraderia gracilis* Pfeffer, 1888**
***Schraderia serraticauda* (Stebbing, 1888)**
***Schraderia* sp. Castellanos, 1973**

Family EXOEDICEROTIDAE Barnard & Drummond, 1982a
***Bathyporeiapus magellanicus* Schellenberg, 1931a**
***Exoediceropsis affi nis* Alonso de Pina, 1997**
***Exoediceropsis chiltoni* Schellenberg, 1931a**
***Exoediceropsis lobata* Alonso de Pina, 1997**
***Methalimedon nordenskjoeldi* Schellenberg, 1931a**
***Metoediceros fuegiensis* Schellenberg, 1931a**
***Parhalimedon turqueti* Chevreux, 1906b**

Superfamily HADZIOIDEA Bousfield , 1983
Family HADZIIDAE S. Karaman, 1943
***Zhadia subantarctica* Lowry & Fenwick, 1983**

Family MELITIDAE Bousfield , 1973
Ceradocopsine Group
***Ceradocopsis carnleyi* (Stephensen, 1927e)**
***Ceradocopsis dufresni* Bellan-Santini & Ledoyer, 1987**
***Ceradocopsis kergueleni* Schellenberg, 1926a**
***Ceradocopsis macracantha* Lowry & Fenwick, 1983**
***Ceradocopsis peke* J.L. Barnard, 1972b**
***Ceradocopsis tristanensis* Stephensen, 1949**
***Ceradocopsis* sp. Chiesa *et al.*, 2005**
Ceradocine Group
***Ceradocoides chiltoni* Nicholls, 1938**
***Elasmopus bollonsi* Chilton, 1915**
***Elasmopus neglectus* Chilton, 1915**
***Elasmopus wahine* J.L. Barnard, 1972b**
***Hoho hirtipalma* Lowry & Fenwick, 1983**
***Maera mastersii* (Haswell, 1879a)**
***Paraceradocus gibber* Andres, 1984a**
***Paraceradocus miersi* (Pfeffer, 1888)**
***Paraceradocus procerus* Andres, 1984**

***Paraceradocus ramulus* Andres, 1981b**
***Paraceradocus stenepimerus* Andres, 1984a**
***Paraceradocus trispinosus* Andres, 1984a**
***Parapherusa crassipes* Haswell, 1879b**
***Quadrimaera incerta* (Chilton, 1883)**
***Zygomaera eugeniae* (Schellenberg, 1931a)**
***Zygomaera pfefferi* (K.H. Barnard, 1932)**

Eriopiselline Group

***Tagua aporema* Lowry & Fenwick, 1983**

Melitine Group

***Melita inaequistylis* Dana, 1852a**
***Melita tristanensis* K.H. Barnard, 1965**
***Melita* sp. Stebbing, 1914b**

Nuuanine Group

***Gammarella hybophora* Lowry & Fenwick, 1983**

Family HYPERIOPSIDAE Bovallius, 1886

***Hyperiopsis australis* Walker, 1906a**
***Hyperiopsis* sp. Birstein & Vinogradov, 1962b**

Family IPHIMEDIIDAE Boeck, 1871b

***Anchiphimedia dorsalis* K.H. Barnard, 1930**
***Echiniphimedia barnardi* Coleman & Andres, 1988**
***Echiniphimedia echinata* Walker, 1906c**
***Echiniphimedia gabrielae* Coleman & Andres, 1988**
***Echiniphimedia hodgsoni* Walker, 1906c**
***Echiniphimedia imparidentata* (Bellan-Santini, 1972a)**
***Echiniphimedia scotti* K.H. Barnard, 1930**
***Echiniphimedia waegelei* Coleman & Andres, 1988**
***Gnathiphimedia barnardi* Thurston, 1974b**
***Gnathiphimedia fuchsi* Thurston, 1974a**
***Gnathiphimedia incerta* Bellan-Santini, 1972a**
***Gnathiphimedia macrops* K.H. Barnard, 1932**
***Gnathiphimedia mandibularis* K.H. Barnard, 1930**
***Gnathiphimedia sexdentata* (Schellenberg, 1926a)**
***Gnathiphimedia urodentata* Bellan-Santini & Ledoyer,**
***Gnathiphimedia watlingi* Coleman,1994**
***Iphimedia imparilabia* Watling & Holman, 1980**
***Iphimedia macrocystidis* (K.H. Barnard, 1932)**
***Iphimedia magellanica* Watling & Holman, 1980**
***Iphimedia multidentata* (Schellenberg, 1931a)**
***Iphimedia pacifi ca* Stebbing, 1883**
***Iphimedia spinosa* (Thomson, 1880a)**
***Iphimediella acuticoxa* Watling & Holman, 1980**
***Iphimediella bransfi eldi* K.H. Barnard, 1932**
***Iphimediella cyclogena* K.H. Barnard, 1930**
***Iphimediella dominici* Coleman, 1996**
***Iphimediella georgei* Watling & Holman, 1980**

***Iphimediella margueritei* Chevreux, 1912a**
***Iphimediella microdentata* (Schellenberg, 1926a)**
***Iphimediella paracuticoxa* Andres, 1988b**
***Iphimediella rigida* K.H. Barnard, 1930**
***Iphimediella ruffoi* Coleman, 1996**
***Iphimediella serrata* (Schellenberg, 1926a)**
***Labriphimedia pulchridentata* Stebbing, 1883**
***Labriphimedia vespuccii* K.H. Barnard, 1931a**
***Maxilliphimedia longipes* (Walker, 1906c)**
***Nodotergum bicarinatum* Bellan-Santini, 1972a**
***Paranchiphimedia monodi* Ruffo, 1949**
***Parapanoploea longirostris* Bellan-Santini, 1972a**
***Parapanoploea oxygnathia* Nicholls, 1938**
***Parapanoploea recessa* Andres, 1988b**
***Pariphimedia integricauda* Chevreux, 1906a**
***Pariphimedia normani* (Cunningham, 1871)**
***Pseudiphimediella glabra* (Schellenberg, 1931a)**
***Pseudiphimediella nodosa* (Dana, 1852a)**
***Stegopanoploea joubini* (Chevreux, 1912a)**

Family LAPHYSTIOPSIDAE Stebbing, 1899a
***Prolaphystiopsis platyceras* Schellenberg, 1931a**
***Prolaphystius isopodops* K.H. Barnard, 1930**

Family LEPECHINELLIDAE Schellenberg, 1926a
***Lepechinella cachi* J.L. Barnard, 1973a**
***Lepechinella cetrata* K.H. Barnard, 1932**
***Lepechinella drygalskii* Schellenberg, 1926a**
***Lepechinella huaco* J.L. Barnard, 1973b**
***Lepechinelloides weddellensis* Andres & Brandt, 2001**
***Paralepechinella occultolongicornis* Andres & Brandt,**

Family LEUCOTHOIDAE Dana, 1852b
***Leucothoe orkneyi* Holman & Watling, 1983**
Leucothoe ?spinicarpa* (Abildgaard, 1789) *s.l.
***Leucothoe* sp. Branch *et al.*, 1991**

Family LILJEBORGIIDAE Stebbing, 1899a
***Liljeborgia chevreuxi* Schellenberg, 1931a**
***Liljeborgia consanguinea* Stebbing, 1888**
***Liljeborgia dubia* (Haswell, 1879b)**
***Liljeborgia eurycrada* Thurston, 1974b**
***Liljeborgia falklandica* K.H. Barnard, 1932**
***Liljeborgia georgensis* K.H. Barnard, 1932**
***Liljeborgia georgiana* Schellenberg, 1931a**
***Liljeborgia kerguelenensis* Bellan-Santini & Ledoyer, 1974**
***Liljeborgia longicornis* (Schellenberg, 1931a)**
***Liljeborgia macrodon* Schellenberg, 1931a**

***Liljeborgia octodentata* Schellenberg, 1931a**
***Liljeborgia proxima* Chevreux, 1907a**
***Liljeborgia pseudomacronyx* Bellan-Santini & Ledoyer,**
***Liljeborgia quadridentata* Schellenberg, 1931a**
***Liljeborgia quinquedentata* Schellenberg, 1931a**

Superfamily LYSIANASSOIDEA Dana, 1849
ACIDOSTOMID Group
***Shackletonia robus*ta K.H. Barnard, 1931a**
ADELIELLID Group
***Adeliella laticornis* Nicholls, 1938**
***Adeliella olivieri* De Broyer, 1975b**
***Ambasiopsis georgiensis* K.H. Barnard, 1931a**
***Ambasiopsis tumicornis* Nicholls, 1938**
***Ambasiopsis uncinata* K.H. Barnard, 1932**
ALICELLID Group
***Paralicella similis* Birstein & Vinogradov, 1960**

Family AMARYLLIDIDAE Lowry & Stoddart, 2002a
Subfamily Amaryllidinae Lowry & Stoddart, 2002b
***Erikus dahli* Lowry & Stoddart, 1987**
***?Erikus* sp. or spp.**

Family ARISTIIDAE Lowry & Stoddart, 1997
***Aristias antarcticus* Walker, 1906a**
***Aristias collinus* K.H. Barnard, 1932**

Family CYPHOCARIDIDAE Lowry & Stoddart, 1997
***Cyphocaris anonyx* Boeck, 1871b**
***Cyphocaris faurei* K.H. Barnard, 1916**
***Cyphocaris richardi* Chevreux, 1905e**

Family EURYTHENEIDAE Stoddart & Lowry, 2004
***Eurythenes gryllus* (Lichtenstein, 1822)**
***Eurythenes obesus* (Chevreux, 1905a)**
***Eurythenes thurstoni* Stoddart & Lowry, 2004**
HIRONDELLEID Group
***Hirondellea antarctica* (Schellenberg, 1926a)**
KERGUELENIID Group
***Kerguelenia adeliensis* Bellan-Santini, 1972a**
***Kerguelenia antarctica* K.H. Barnard, 1930**
***Kerguelenia antiborealis* Bellan-Santini & Ledoyer, 1987**
***Kerguelenia compacta* Stebbing, 1888**
***Kerguelenia glacialis* Schellenberg, 1926a**
***?Kerguelenia palpalis* K.H. Barnard, 1932**
LEPIDEPECREELLID Group
***Lepidepecreella andeep* Berge, Vader & Lockhart, 2004**
***Lepidepecreella ctenophora* Schellenberg, 1926a**

***Lepidepecreella emarginata* Nicholls, 1938**
***Lepidepecreella ovalis* K.H. Barnard, 1932**
***Lepidepecreella tridactyla* Bellan-Santini, 1972a**

Family LYSIANASSIDAE Dana, 1849 *s.s.*
Subfamily Lysianassinae Dana, 1849
***Acontiostoma marionis* Stebbing, 1888**
***Acontiostoma tuberculata* Lowry & Stoddart, 1983**
***Aruga falklandica* (K.H. Barnard, 1932)**
***Ensayara iara* Lowry & Stoddart, 1983b**
***Kakanui integricauda* (Stebbing, 1888)**
***Kakanui punui* Lowry & Stoddart, 1983b**
***Lysianopsis subantarctica* (Schellenberg, 1931a)**
***Lysianopsis tieke* Lowry & Stoddart, 1983b**
***Parawaldeckia dabita* Lowry & Stoddart, 1983b**
***Parawaldeckia hirsuta* Lowry & Stoddart, 1983b**
***Parawaldeckia kidderi* (Smith, 1876)**
***Parawaldeckia pulchra* Lowry & Stoddart, 1983b**
***Parawaldeckia suzae* Lowry & Stoddart, 1983b**
***Parawaldeckia vesca* Lowry & Stoddart, 1983b**
***Parawaldeckia* sp. 1 J.L. Barnard, 1972b**
***Parawaldeckia* sp. 2 Stephensen, 1949**
***Pseudambasia rossii* Stephensen, 1927e**
***Socarnoides kergueleni* Stebbing, 1888**
***Socarnoides unidentatus* (Schellenberg, 1931a)**
***Stomacontion acutibasalis* (Bellan-Santini & Ledoyer,**
***Stomacontion bulbus* Rauschert, 1997a**
***Stomacontion hurleyi* Lowry & Stoddart, 1983b**
***Stomacontion insigne* K.H. Barnard, 1932**
***Stomacontion pepinii* (Stebbing, 1888)**
***Stomacontion pungapunga* Lowry & Stoddart, 1983b**
***Waldeckia arnaudi* (Bellan-Santini, 1972a)**
***Waldeckia chevreuxi* Stebbing, 1910a**
***Waldeckia obesa* (Chevreux, 1905d)**
***Waldeckia* sp. Takeuchi et al. 2001**
Subfamily Tryphosinae Lowry & Stoddart, 1997
***Allogaussia galeata* Schellenberg, 1926a**
***?Allogaussia navicula* (K.H. Barnard, 1932)**
***Allogaussia paradoxa* (Schellenberg, 1926a)**
***Cheirimedon crenatipalmatus* Stebbing, 1888**
***Cheirimedon femoratus* (Pfeffer, 1888)**
***Cheirimedon fougneri* Walker, 1903a**
***Cheirimedon similis* Thurston, 1974b**
***Cheirimedon solidus* Andres, 1986**
***Hippomedon hake* Lowry & Stoddart, 1983b**
***Hippomedon incisus* K.H. Barnard, 1930**
***Hippomedon kergueleni* (Miers, 1875a)**
***Hippomedon macrocephalus* Bellan-Santini, 1972a**

***Hippomedon major* (K.H. Barnard, 1932)**
***Hippomedon manene* Lowry & Stoddart, 1983b**
***Hippomedon matikuku* Lowry & Stoddart, 1983b**
***Lepidepecreoides xenopus* K.H. Barnard, 1931a**
***Lepidepecreum cingulatum* K.H. Barnard, 1932**
***Lepidepecreum foraminiferum* Stebbing, 1888**
***Lepidepecreum infi ssum* Andres, 1983**
***Lepidepecreum urometacarinatum* Andres, 1985**
***Lysianella morbihanensis* (Bellan-Santini & Ledoyer, 1974)**
***?Orchomene* sp. Takeuchi et al. 2001**
***?Orchomenella* (*Orchomenella*) *chelipes* (Walker, 1906a)**
***Orchomenella* (*Orchomenella*) *franklini* (Walker, 1903a)**
***Orchomenella* (*Orchomenella*) *guillei* De Broyer, 1985a**
***Orchomenella* (*Orchomenella*) *hureaui* (De Broyer, 1973)**
***Orchomenella* (*Orchomenella*) *kryptopinguides* (Andres, 1983)**
***Orchomenella* (*Orchomenella*) *pinguides* (Walker, 1903a)**
***Orchomenella* (*Orchomenella*) *ultima* (Bellan-Santini, 1972b)**
***Orchomenella* (*Orchomenopsis*) *aahu* (Lowry & Stoddart, 1983b)**
***Orchomenella* (*Orchomenopsis*) *acanthurus* (Schellenberg, 1931a)**
***Orchomenella* (*Orchomenopsis*) *cavimanus* (Stebbing, 1888)**
***Orchomenella* (*Orchomenopsis*) *cavimana rostrata* (Schellenberg, 1931a)**
***Orchomenella* (*Orchomenopsis*) *chilensis* (Heller, 1868)**
***Orchomenella* (*?Orchomenopsis*) *goniops* (Walker, 1906a)**
***Orchomenella* (*?Orchomenopsis*) *hiata* (Andres, 1983)**
***Orchomenella* (*?Orchomenopsis*) *macrophthalma* (Birstein & Vinogradov, 1962b)**
***Orchomenella* (*Orchomenopsis*) *rotundifrons* (K.H. Barnard, 1932)**
***Orchomenella* (*Orchomenopsis*) *zschaui* (Pfeffer, 1888)**
***Orchomenyx macronyx* (Chevreux, 1905d)**
***Orchomenyx schellenbergi* (Thurston, 1972)**
***Orchomenyx tabarini* (Thurston, 1972)**
***Paralysianopsis odhneri* Schellenberg, 1931a**
***Pseudokoroga barnardi* Schellenberg, 1931a**
***Pseudonesimoides cornutilabris* Bellan-Santini & Ledoyer, 1974**
***Pseudorchomene coatsi* (Chilton, 1912a)**
***Stephensenia haematopus* Schellenberg, 1928a**
***Tryphosella bispinosa* (Schellenberg, 1931a)**
***Tryphosella castellata* (K.H. Barnard, 1932)**
***Tryphosella cicadopsis* (Schellenberg, 1926a)**
***Tryphosella intermedia* (Schellenberg, 1926a)**
***Tryphosella longitelson* (K.H. Barnard, 1932)**
***Tryphosella longiseta* Ren, 1991**
***Tryphosella macropareia* (Schellenberg, 1926a)**
***Tryphosella marri* Thurston, 1974b**
***Tryphosella murrayi* (Walker, 1903a)**
***?Tryphosella paramoi* (Schellenberg, 1931a)**
***Tryphosella schellenbergi* Lowry & Bullock, 1976**
***Tryphosella serans* Lowry & Stoddart, 1983b**
***?Tryphosella serrata* (Schellenberg, 1931a)**

***Tryphosella triangularis* (K.H. Barnard, 1932)**
***Tryphosella trigonica* (Stebbing, 1888)**
***Tryphosites chevreuxi* Stebbing, 1914b**
***Tryphosites* sp. Andres, 1975b**
***Tryphosoides falcata* Schellenberg, 1931a**

Family OPSIDAE Lowry & Stoddart, 1995b
***Podoprionides incerta* Walker, 1906a**

Family PACHYNIDAE Lowry & Stoddart, in press
Subfamily Pachyninae Lowry & Stoddart, in press
***Ekelofi a eltanin* Lowry & Stoddart, in press**
***Ekelofi a oculata* (Schellenberg, 1931a)**
***Figorella macrophoculata* Ren, 1991**
***Figorella tanidea* J.L. Barnard, 1962d**
[Pachychelium antarcticum* Schellenberg, 1926a = *nomen dubium]
***Ultimachelium barnardi* (Alonso de Pina, 1993)**
***Ultimachelium nichollsi* (Lowry, 1984b)**
***Ultimachelium schellenbergi* (Lowry, 1984b)**
***Ultimachelium tac* Lowry & Stoddart, in press**
***Drummondia luce* Lowry & Stoddart, in press**
***Renella sculptidentata* (Ren, 1991)**

Family SCOPELOCHEIRIDAE Lowry & Stoddart, 1997
***Paracallisoma* sp. Schellenberg, 1926a**
***Scopelocheiropsis abyssalis* Schellenberg, 1926a**
***Scopelocheirus schellenbergi* Birstein & Vinogradov, 1958**
SOPHROSYNID Group
***Sophrosyne antarctica* Ren, 1991**
***Sophrosyne murrayi* Stebbing, 1888**
THORIELLID Group
***Chevreuxiella obensis* Birstein & Vinogradov, 1962b**
***Danaella mimonectes* Stephensen, 1925b**

Family URISTIDAE Hurley, 1963
***Abyssorchomene charcoti* (Chevreux, 1912a)**
***Abyssorchomene nodimanus* (Walker, 1903a)**
***Abyssorchomene plebs* (Hurley, 1965a)**
***Abyssorchomene rossi* (Walker, 1903a)**
***Abyssorchomene scotianensis* (Andres, 1983)**
***Cicadosa cicadoides* (Stebbing, 1888)**
***Parschisturella carinata* (Schellenberg, 1926a)**
***Parschisturella simplex* Andres, 1983**
***Uristes adarei* (Walker, 1903a)**
***Uristes albinus* (K.H. Barnard, 1932)**
***Uristes barbatipes* Stebbing, 1888)**
***Uristes georgianus* (Schellenberg, 1931a)**
***Uristes gigas* Dana, 1852a**

***Uristes mediator* J.L. Barnard, 1962d**
***Uristes serratus* Schellenberg, 1931a**
***Uristes stebbingi* (Walker, 1903a)**
***Uristes subchelatus* (Schellenberg, 1931a)**
***Uristes* sp.**

Family Incertae Sedis

***Gainella chelata* Chevreux, 1912a**
***Stenia magellanica* Dana, 1852a**
Family MELPHIDIPPIDAE Stebbing, 1899a
***Melphidippa antarctica* Schellenberg, 1926a**
***Melphidippa serrata* (Stebbing, 1888)**
***Melphisubchela prehenda* Andres, 1981b**

Family OCHLESIDAE Stebbing, 1910

***Antarctodius antarcticus* (Watling & Holman, 1981)**
***Curidia magellanica* Coleman & Barnard, 1991c**

Family OEDICEROTIDAE Liljeborg, 1865b

***Carolobatea schneideri* (Stebbing, 1888)**
***Carolobatea* sp. J.L. Barnard, 1972b**
***Halicreion vanhoeffeni* Schellenberg, 1926a**
***Monoculodes antarcticus* K.H. Barnard, 1932**
***Monoculodes curtipediculus* Hendrycks & Conlan, 2003**
***Monoculodes jazdzewskii* De Broyer, 1980**
***Monoculodes scabriculosus* K.H. Barnard, 1932**
***Oediceroides calmani* Walker, 1906b**
***Oediceroides cinderella* Stebbing, 1888**
***Oediceroides emarginatus* Nicholls, 1938**
***Oediceroides lahillei lahillei* Chevreux, 1911b**
***Oediceroides lahillei polita* Schellenberg, 1931a**
***Oediceroides macrodactylus* Schellenberg, 1931a**
***Oediceroides newnesi* (Walker, 1903a)**
***Oediceroides rostratus* (Stebbing, 1883)**
***Oediceroides similis* Nicholls, 1938**
***Paramonoculopsis acuta* Alonso de Pina, 1997**
***Paramonoculopsis vallentini* (Stebbing, 1914b)**
***?Paraperioculodes belgicae* Ruffo, 1949**
***Paraperioculodes brevimanus* K.H. Barnard, 1931a**
***Paraperioculodes brevirostris* (Schellenberg, 1931a)**
***Paraperioculodes cystiferus* (Schellenberg, 1931a)**
***Paraperioculodes microrhynchus* Ruffo, 1949**
***Paroediceroides sinuatus* Schellenberg, 1931a**

Family PAGETINIDAE K.H. Barnard, 1931

***Pagetina antarctica* Andres, 1981b**
***Pagetina genarum* K.H. Barnard, 1931a**
***Pagetina monodi* (Nicholls, 1938)**
***Pagetina reducta* Holman & Watling, 1981**

Family PARDALISCIDAE Boeck, 1871

Halice macronyx **(Stebbing, 1888)**
Halice profundi **K.H. Barnard, 1932**
Halice secunda **(Stebbing, 1888)**
Halice tenella **Birstein & Vinogradov, 1962b**
Halicella parasitica **Schellenberg, 1926a**
Necochea pardella **J.L. Barnard, 1962d**
Nicippe unidentata **K.H. Barnard, 1932**
Pardalisca abyssoides **K.H. Barnard, 1932**
Pardalisca magellanica **Schellenberg, 1931a**
Pardalisca marionis **Stebbing, 1888**

Superfamily PHOXOCEPHALOIDEA Sars, 1891

Family CHEIDAE Thurston, 1982

Cheus annae **Thurston, 1982**

Family PHOXOCEPHALIDAE G.O. Sars,1891

Subfamily Harpininae Barnard & Drummond, 1978

Coxophoxus coxalis **(K.H. Barnard, 1932)**
Harpiniopsis aciculum **Ren, 1991**
Harpiniopsis wandichia **(J.L. Barnard, 1962d)**
Heterophoxus pellusidus **Ren, 1991**
Heterophoxus trichosus **K.H. Barnard, 1932**
Heterophoxus videns **K.H. Barnard, 1930**
Proharpinia antipoda **Schellenberg, 1931a**
Proharpinia stephenseni **(Schellenberg, 1931a)**
Pseudharpinia antarctica **Ren, 1991**
Pseudharpinia calcariaria **Bushueva, 1982**
Pseudharpinia cariniceps **(K.H. Barnard, 1932)**
Pseudharpinia dentata **Schellenberg, 1931a**
Pseudharpinia obtusifrons **(Stebbing, 1888)**
Pseudharpinia vallini **(Dahl, 1954)**
Torridoharpinia hurleyi **(J.L. Barnard, 1958a)**

Subfamily Phoxocephalinae G.O. Sars,1891 new comb.

Cephalophoxoides kergueleni **(Stebbing, 1888)**
Cephalophoxoides **sp. Chiesa *et al.*, 2005**
Fuegiphoxus abjectus **Barnard & Barnard, 1980**
Fuegiphoxus fuegiensis **(Schellenberg, 1931a)**
Fuegiphoxus inutilus **Barnard & Barnard, 1980**
Fuegiphoxus uncinatus **(Chevreux, 1912a)**
Leptophoxoides molaris **J.L. Barnard, 1962d**
Linca pinita **Alonso de Pina, 1993b**
Metharpinia iado **Alonso de Pina, 2003**
Metharpinia longirostris **Schellenberg, 1931a**
Metharpinia protuberantis **Alonso de Pina, 2001**
Microphoxus cornutus **(Schellenberg, 1931a)**
Palabriaphoxus latifrons **(Ren, 1991)**

Parafoxiphalus longicarpus **Alonso de Pina, 2001.**
?Paraphoxus latipes **Ren, 1991**
?Paraphoxus pyripes **K.H. Barnard, 1930**
?Parharpinia obliqua **K.H. Barnard, 1932**
?Parharpinia rotundifrons **K.H. Barnard, 1932**
Phoxorgia sinuata **(K.H. Barnard, 1932)**
Pseudfoxiphalus setosus **Andres, 1991**

Family PHOXOCEPHALOPSIDAE Barnard & Clark, 1984a
Eophoxocephalopsis colombus **Alonso de Pina, 2000.**
Eophoxocephalopsis deceptionis **(Stephensen, 1947a).**
Eophoxocephalopsis rhachianensis **Thurston, 1989a**
Phoxocephalopsis gallardoi **Barnard & Clark, 1984**
Phoxocephalopsis zimmeri **Schellenberg, 1931a**
Puelche orensanzi **Barnard & Clark, 1982a**

Family PLATYISCHNOPIDAE Barnard & Drummond, 1979
Eudevenopus gracilipes **(Schellenberg, 1931a)**

Family UROHAUSTORIIDAE Barnard & Drummond, 1982c
Huarpe escofeti **Barnard & Clark, 1982b**

Family UROTHOIDAE Bousfield, 1978
Carangolia cornuta **Bellan-Santini & Ledoyer, 1987**
Urothoe falcata **Schellenberg, 1931a**
?Urothoe latifrons **Ren, 1991**
Urothoe marionis **Bellan-Santini & Ledoyer, 1987**
Urothoe oniscoides **(K.H. Barnard, 1932)**
Urothoe vemae **J.L. Barnard, 1962d**
Urothoides lachneessa **(Stebbing, 1888)**

Family ZOBRACHOIDAE Barnard & Drummond, 1982c
Chono angustiarum **Clark & Barnard, 1987**
Tonocote magellani **Clark & Barnard, 1986**

Family PLEUSTIDAE Buchholz, 1874
Subfamily Atylopsinae Bousfield & Hendrycks, 1994a
Atylopsis emarginata **Stebbing, 1888**
Atylopsis fragilis **Rauschert, 1989**
Atylopsis orthodactyla **Thurston, 1974b**
?Atylopsis procera **Andres, 1986**
Subfamily Austropleustinae Bousfield & Hendrycks, 1994a
Austropleustes cuspidatus **K.H. Barnard, 1931a**
?Austropleustes simplex **K.H. Barnard, 1932**
Subfamily Mesopleustinae Bousfield & Hendrycks, 1994a
Mesopleustes abyssorum **(Stebbing, 1888)**
Subfamily Pleusymtinae Bousfield & Hendrycks, 1994a
?Pleusymtes **sp. Branch *et al.*, 1991**

Family PONTOPOREIIDAE Dana, 1853

***Zaramilla kergueleni* Stebbing, 1888**

Family PSEUDAMPHILOCHIDAE Schellenberg, 1931a

***Pseudamphilochus shoemakeri* Schellenberg, 1931a**

Family SEBIDAE Walker, 1908

Subfamily Sebinae Holsinger & Longley, 1980

***Seba antarctica* Walker, 1906c**
***Seba dubia* Schellenberg, 1926a**
***?Seba georgiana* Schellenberg, 1931a**
***Seba saundersii* Stebbing, 1875b**
***Seba stoningtonensis* Thurston, 1974b**
***Seba subantarctica* Schellenberg, 1931a**
***Seba typica* (Chilton, 1884a)**
***Seba* sp. 1 Holman & Watling, 1983b**
***Seba* sp. 2 Holman & Watling, 1983b**

Family STEGOCEPHALIDAE Dana, 1853

Subfamily Andaniexinae Berge & Vader, 2001a

***Andaniexis ollii* Berge, De Broyer & Vader, 2000**
***Andaniotes abyssorum* Stebbing, 1888.**
***Andaniotes linearis* K.H. Barnard, 1932**
***Andaniotes pooh* Berge 2001b**
***Andaniotes pseudolinearis* Berge 2001b**
***Metandania tordi* Berge & Vader, 2003**
***Parandaniexis dewitti* Watling & Holman, 1980**
***Stegosoladidus antarcticus* Berge, 2001a**
***Stegosoladidus debroyeri* Berge, 2001a**
***Stegosoladidus ingens* (Chevreux, 1906e)**

Subfamily Andaniopsinae Berge & Vader, 2001a

***Andaniopsis integripes* (Bellan-Santini & Ledoyer, 1987)**

Subfamily Parandaniinae Berge & Vader, 2001a

***Parandania boecki* (Stebbing, 1888)**
***Parandania gigantea* (Stebbing, 1883)**
***Parandania nonhiata* (Andres, 1985)**

Subfamily Stegocephalinae Dana, 1853

***Austrophippsia unihamata* (Berge & Vader, 2000)**
***Pseudo vanhoeffeni* (Schellenberg, 1926a)**
***Stegocephalina wolf* Berge & Vader, 2004a**
***Stegocephalus kergueleni* (Schellenberg, 1926a)**
***Stegocephalus rostrata* K.H. Barnard, 1932**
***Stegomorphia watlingi* (Berge, De Broyer & Vader, 2000).**
***Tetradeion crassum* (Chilton,1883)**

Family STENOTHOIDAE Boeck, 1871b

Subfamily Stenothoinae Boeck, 1871b

***Aurometopa aurorae* (Nicholls, 1938)**
***Mesoproboloides cornuta* (Schellenberg, 1926a)**
***Mesoproboloides similis* (Schellenberg, 1926a)**
***Mesoproboloides spinosa* Bellan-Santini & Ledoyer, 1974**
***Metopoides clavata* Schellenberg, 1931a**
***Metopoides crassa* Schellenberg, 1931a**
***Metopoides curvipes* Schellenberg, 1926a**
***Metopoides elliptica* Schellenberg, 1931a**
***Metopoides heterostylis* Schellenberg, 1926a**
***Metopoides lanceolatus* Rauschert, 1990a**
***Metopoides latus* Rauschert, 1990a**
***Metopoides leptomanus* Rauschert, 1990a**
***Metopoides longicornis* Schellenberg, 1931a**
***Metopoides macrocheir* Schellenberg, 1926a**
***Metopoides magellanica* (Stebbing, 1888)**
***Metopoides sarsi* (Pfeffer, 1888)**
***Metopoides* sp.1 Bellan-Santini & Ledoyer, 1974**
***Metopoides* sp.2 Jażdżewski *et al.*, 1992**
***Metopoides typicaminus* Andres, 1995**
***Paraprobolisca leptopoda* Ren, 1991**
***Probolisca elliptica* (Schellenberg, 1931a)**
***Probolisca nasutigenes* (Stebbing, 1888)**
***Probolisca ovata* (Stebbing, 1888)**
***Proboloides typica* (Walker, 1906b)**
***?Proboloides* sp.1 Stephensen, 1947a**
***?Proboloides* sp.3 Branch *et al.*, 1991**
***Prometopa edentata* Rauschert, 1990a**
***?Prometopa longipalma* Ren, 1991**
***Prometopa tuberculata* Schellenberg, 1926a**
***Scaphodactylus bentarti* Rauschert, 1995**
***Scaphodactylus foliodactylus* (Rauschert, 1990a).**
***Scaphodactylus gigantocheirus* Rauschert & Andres, 1993.**
***Scaphodactylus simus* Rauschert & Andres, 1994**
***Scaphodactylus* sp. 1 Rauschert & Andres, 1993.**
***Scaphodactylus* sp. 2 Rauschert & Andres, 1993.**
***Scaphodactylus* sp. 3 Rauschert & Andres, 1993.**
***Stenothoe aucklandicus* Stephensen, 1927e**
***Stenothoe falklandica* Schellenberg, 1931a**
***Stenothoe magellanica* Rauschert, 1998**
Stenothoe sivertseni Stephensen, 1949
***Stenothoe* sp. Bellan-Santini & Ledoyer, 1987**
***Torometopa andresi* (Rauschert, 1990a)**
***Torometopa angustus* Rauschert, 1990a**
***Torometopa antarctica* (Walker, 1906b)**
***?Torometopa bellansantiniae* (Bushueva, 1988)**
***Torometopa carinata* (Schellenberg, 1931a)**
***Torometopa compacta* (Stebbing, 1888)**
***Torometopa crassicornis* (Schellenberg, 1931a)**

***Torometopa crenatipalmata* (Stebbing, 1888)**
***Torometopa crypta* Andres & Rauschert, 1992**
***Torometopa dentimanus* (Nicholls, 1938)**
***Torometopa elephantensis* Andres & Rauschert, 1992.**
***?Torometopa laevis* (Ren, 1991)**
***Torometopa macromanus* (Rauschert, 1990a)**
***Torometopa nitita* (Ren, 1991)**
***Torometopa palmata* (Ruffo, 1949)**
***Torometopa parallelocheir* (Stebbing, 1888)**
***Torometopa perlata* (K.H. Barnard, 1930)**
***Torometopa porcellana* (K.H. Barnard, 1932)**
***Torometopa pseudoperlata* Andres, 1993.**
***Torometopa serrata* (Rauschert, 1990a)**
***Torometopa stephenseni* (Ruffo, 1949)**
***Torometopa* sp.1 Andres & Rauschert, 1992.**
***Torometopa* sp.2 Andres, 1993.**

Subfamily Thaumatelsoninae Gurjanova, 1938

***Antatelson antennatum* Bellan-Santini & Ledoyer, 1974**
***Antatelson cultricauda* (K.H. Barnard, 1932)**
***Antatelson rostratum* Bellan-Santini & Ledoyer, 1974**
***Antatelson tuberculatum* Andres, 1989**
***Antatelson walkeri* (Chilton, 1912a)**
***Parathaumatelson nasicum* (Stephensen, 1927e)**
***Prothaumatelson nasutum* (Chevreux, 1912a)**
***Pseudothaumatelson cyproides* Nicholls, 1938**
***Pseudothaumatelson patagonicum* Schellenberg, 1931a**
***Thaumatelson herdmani* Walker, 1906b**
***Thaumatelsonella kingelepha* Rauschert & Andres, 1991**

Family STILIPEDIDAE Holmes, 1908

***Alexandrella australis* (Chilton, 1912a)**
***Alexandrella dentata* Chevreux, 1912a**
***Alexandrella inermis* Bellan-Santini & Ledoyer, 1987**
***Alexandrella mandibulata* Berge & Vader, 2005a**
***Alexandrella martae* Berge & Vader, 2005a**
***Alexandrella subchelata* Holman & Watling, 1983a**
***Bathypanoploea polarsterni* Berge & Vader, 2005b**
***Bathypanoploea schellenbergi* Holman & Watling, 1983a**
***Stilipes macquariensis* Berge, 2003**

Family SYNOPIIDAE Dana, 1853

Cardenioine Group

***Cardenio paurodactylus* Stebbing, 1888**

Synopiine Group

***Bruzelia poton* J.L. Barnard, 1972c**
***Syrrhoe psychrophila* Monod, 1926**
***Syrrhoe tuberculata* Dahl, 1954**
***Syrrhoites anaticauda* K.H. Barnard, 1930**

Syrrhoites sorpresa **(J.L. Barnard, 1962d)**
Tiron antarcticus **K.H. Barnard, 1932**

Family VALETTIDAE Stebbing, 1888
Valettia coheres **Stebbing, 1888**

Family VICMUSIIDAE Just, 1990
Acanthonotozomopsis pushkini **(Bushueva, 1978)**

Infraorder TALITRIDA Rafi nesque, 1815
Superfamily PHLIANTOIDEA Stebbing, 1899
Family EOPHLIANTIDAE Sheard, 1936
Bircenna fulva **Chilton, 1884a**
Bircenna **sp. Stephensen, 1949**
Cylindryllioides mawsoni **Nicholls, 1938**
Wandelia crassipes **Chevreux, 1906d**

Family PHLIANTIDAE Stebbing, 1899
Iphinotus typicus **(Thomson, 1882)**

Superfamily TALITROIDEA Rafi nesque, 1815
Family DOGIELINOTIDAE Gurjanova, 1953
Subfamily Dogielinotinae Gurjanova, 1953
Allorchestes compressa **Dana, 1852a**
Allorchestes novizealandiae **Dana, 1852a**
Allorchestes **sp.1 Stephensen, 1938c**

Family HYALIDAE Bulycheva, 1957
Subfamily Hyalinae Bulycheva, 1957
Apohyale grandicornis **(Kroyer, 1845)**
Apohyale hirtipalma **(Dana, 1852a)**
Apohyale media **(Dana, 1853)**
Protohyale (Protohyale) macrodactyla **(Stebbing, 1899)**
?Ptilohyale tristanensis **(Macnae, 1953)**

Family TALITRIDAE Rafi nesque, 1815
Orchestia aucklandiae **Bate, 1862**
?Orchestia scutigerula **Dana, 1853**
Orchestoidea tuberculata **Nicolet, 1849**
Platorchestia platensis **(Kroyer 1845)**
Protorchestia nitida **(Dana, 1852a)**
Transorchestia bollonsi **Chilton, 1909b**
Transorchestia campbelliana **(Bousfield , 1964)**
Transorchestia chiliensis **(Milne-Edwards, 1840)**

II. Suborder COROPHIIDEA Leach, 1814
Infraorder COROPHIIDA Leach, 1814
Superfamily AOROIDEA Stebbing, 1899c

Family AORIDAE Stebbing, 1899c

***Aora anomala* Schellenberg, 1926a**
***Aora karibu* Vader & Krapp, 2005**
***Aora kergueleni* Stebbing, 1888**
***Aora maculata* (Thomson, 1879b)**
***Aora trichobostrycha* Stebbing, 1888**
***Aora typica* Kroyer, 1845**
***Aora* sp. Nicholls, 1938**
***Bemlos kergueleni* (Stebbing, 1888)**
***Lembos argentinensis* Alonso de Pina, 1992**
***?Lembos fuegiensis* Dana, 1853**
***Lembos* sp. 1 J.L. Barnard, 1972b**
***Lembos* sp. 3 J.L. Barnard, 1972b**
***Lembos* sp. 4 Bellan-Santini & Ledoyer, 1987**
***Meridiolembos pertinax* Myers, 1981c**
***Microdeutopus* sp. Stephensen, 1927e**

Superfamily COROPHIOIDEA Leach, 1814
Family AMPITHOIDAE Boeck, 1871b
Subfamily Ampithoinae Boeck, 1871b

***Ampithoe kergueleni* Stebbing, 1888**
***Peramphithoe femorata* (Kroyer, 1845)**

Family COROPHIIDAE Leach, 1814
Subfamily Corophiinae Leach, 1814
Tribe Corophiini, Leach, 1814

***Crassicorophium bonnellii* (Milne Edwards, 1830)**
***Monocorophium cylindricum* (Say, 1818)**

Tribe Haplocheirini Myers & Lowry, 2003

***Anonychocheirus richardsoni* Moore & Myers, 1983**
***Haplocheira balssi* Schellenberg, 1931a**
***Haplocheira barbimana barbimana* (Thomson, 1879b)**
***Haplocheira barbimana robusta* K.H. Barnard, 1932**
***Haplocheira barbimana typica* Haswell, 1879a**
***Haplocheira plumosa* Stebbing, 1888**
***Kuphocheira emancipata* Moore & Myers, 1983**
***Kuphocheira setimana* K.H. Barnard, 1931a**

Infraorder CAPRELLIDA Leach, 1814
Superfamily AETIOPEDESOIDEA Myers & Lowry, 2003
Family PARAGAMMAROPSIDAE Myers & Lowry, 2003

***Paragammaropsis prenes* Ren, 1991**

Superfamily CAPRELLOIDEA Leach, 1814
Family CAPRELLIDAE Leach, 1814
Subfamily Caprellinae Leach, 1814

***Caprella equilibra* Say, 1818**
***Caprella manneringi* McCain, 1979**
***Caprella penantis* Leach, 1814**

***Caprella ungulina* Mayer, 1903**
***Caprella* sp. McCain & Gray, 1971**
***Caprellaporema subantarctica* Guerra-Garcia 2003a**
***Deutella vemae* (McCain & Gray, 1971)**
***?Eupariambus* sp. Branch *et al*., 1991**
***Mayerella magellanica* McCain & Gray, 1971**
***Protella trilobata* McCain & Gray, 1971**
***Protellopsis kergueleni* Stebbing, 1888**
***Pseudaeginella campbellensis* Guerra-Garcia, 2003a**
***Pseudaeginella tristanensis* Stebbing, 1888**
***Triantella solitaria* Mayer, 1903**

Subfamily Phtisicinae Vassilenko, 1968

***Aeginoides gaussi* Schellenberg, 1926b**
***Caprellina longicollis* (Nicolet, 1849)**
***Caprellinoides mayeri* (Pfeffer, 1888)**
***Caprellinoides singularis* Guerra-Garcia, 2001c**
***Caprellinoides tristanensis* Stebbing, 1888**
***Dodecas elongata* Stebbing, 1883**
***Dodecasella elegans* K.H. Barnard, 1931**
***Dodecasella georgiana* (Schellenberg, 1931a)**
***Paraproto* sp. De Broyer *et al.*, 2004**
***Pseudododecas bowmani* McCain & Gray, 1971**
***Pseudoprotomima hedgpethi* McCain & Gray, 1971**

Family CYAMIDAE Rafi nesque, 1815

***Cyamus balaenopterae* K.H. Barnard, 1931**
***Cyamus boopis* Lutken, 1871**
***Cyamus catodontis* Margolis, 1954**
***Cyamus erraticus* Roussel de Vauzeme, 1834**
***Cyamus gracilis* Roussel de Vauzeme, 1834**
***Cyamus ovalis* Roussel de Vauzeme, 1834**
***Isocyamus antarcticensis* Vlasova in Berzin & Vlasova,**

Family DULICHIIDAE Dana, 1849

***Paradyopedos antarcticus* Andres & Rauschert, 1990**
***Pseudodulichia antarctica* (Rauschert, 1988)**

Family PODOCERIDAE Leach, 1814

***Neoxenodice caprellinoides* Schellenberg, 1926b**
***Neoxenodice cryophile* Lowry, 1976**
***Neoxenodice hoshiai* Takeuchi & Takeda, 1992**
***Podocerus brasiliensis* (Dana, 1853)**
***Podocerus capillimanus* Nicholls, 1938**
***Podocerus cristatus rotundatus* Schellenberg, 1931a**
***Podocerus danae* (Stebbing, 1888)**
***Podocerus danae armatus* Bellan-Santini & Ledoyer, 1987**
***Podocerus ornatus* (Miers, 1875a)**
***Podocerus septemcarinatus* Schellenberg, 1926a**

***Podocerus* sp. K.H. Barnard, 1932**

Superfamily PHOTOIDEA Boeck, 1871b
Family ISCHYROCERIDAE Stebbing, 1899c
Subfamily Ischyrocerinae Stebbing, 1899c
Tribe Ischyrocerini Stebbing, 1899c

***Ischyrocerus camptonyx* Thurston, 1974a**
***Ischyrocerus hortator* J.L. Barnard, 1964d**
***Ischyrocerus longimanus* (Haswell, 1879b)**
***?Ischyrocerus* sp.1 Bellan-Santini & Ledoyer, 1987**
***?Ischyrocerus* sp.2 Branch *et al.*, 1991**
***Jassa alonsoae* Conlan, 1990**
***?Jassa barnardi* Stephensen, 1949**
***Jassa fenwicki* Conlan, 1990**
***?Jassa goniamera* Walker, 1903a**
***Jassa hartmannae* Conlan, 1990**
***Jassa ingens* Pfeffer, 1888**
***Jassa justi* Conlan, 1990**
***Jassa kjetilanna* Vader & Krapp, 2005**
***?Jassa multidentata* Schellenberg, 1931a**
***Jassa thurstoni* Conlan, 1990**
***?Jassa wandeli* Chevreux, 1906e**
***Jassa* or *?Jassa* spp.**
***Jassa* sp. 2 Stephensen, 1947a**
***Parajassa tristanensis* (Stebbing, 1888)**
***Pseudischyrocerus crenatipes* Bellan-Santini & Ledoyer, 1987**
***Pseudischyrocerus denticauda* Schellenberg, 1931a**
***Pseudischyrocerus distichon* (K.H. Barnard, 1930)**
***Ventojassa georgiana* (Schellenberg, 1931a)**

Tribe Siphonoecetini Just, 1983

***Notopoma argentina* Alonso de Pina, 2005**
***Notopoma cidaridis* Berge, Vader & Lockhart, 2004**
***Notopoma opposita* (K.H. Barnard, 1932)**
***Notopoma sismithi* (Stebbing, 1888)**
***Pseudericthonius gaussi* Schellenberg, 1926a**
***Pseudericthonius hesperidesi* Rauschert, 1997**
***Pseudericthonius infl atus* Ren, 1991**

Family PHOTIDAE Boeck, 1871b

***Gammaropsis* (*Gammaropsis*) *bennetti* Thurston, 1974b**
***Gammaropsis* (*Gammaropsis*) *ctenura* (Schellenberg, 1931a)**
***Gammaropsis* (*Gammaropsis*) *deseadensis* Alonso, 1981**
***Gammaropsis* (*Gammaropsis*) *exsertipes* Stebbing, 1888**
***Gammaropsis* (*Gammaropsis*) *georgiana* (Schellenberg, 1931a)**
***Gammaropsis* (*Gammaropsis*) *kergueleni* (Schellenberg, 1926a)**
***Gammaropsis* (*Gammaropsis*) *longicornis* Walker, 1906c**
***Gammaropsis* (*Gammaropsis*) *longitarsus* (Schellenberg, 1931a)**
***Gammaropsis* (*Gammaropsis*) *monodi* (Schellenberg, 1931a)**

***Gammaropsis* (*Gammaropsis*) *purpurescens* (K.H. Barnard, 1932)**
***Gammaropsis* (*Gammaropsis*) *remipes* (K.H. Barnard, 1932)**
***Gammaropsis* (*Gammaropsis*) *serricra* (K.H. Barnard, 1932)**
***Gammaropsis* (*Gammaropsis*) *triodon* (Schellenberg, 1926a)**
***Gammaropsis* (*Gammaropsis*) *valdiviae* (Schellenberg, 1926c)**
***Gammaropsis* (*Paranaenia*) *dentifera* (Haswell, 1879b)**
***Gammaropsis* (*Paranaenia*) *typica* (Chilton, 1884a)**
***Gammaropsis* (*Pseudeurystheus*) *sublitoralis* (Schellenberg, 1931a)**
***Gammaropsis* (*Segamphopus*) *blaisus* (K.H. Barnard, 1932)**
***Gammaropsis* sp. 1 Stephensen, 1927e**
***Gammaropsis* sp. 2 Stephensen, 1947a**
***Gammaropsis* sp. 3 Truchot, 1974**
***Gammaropsis* sp. 4 Truchot, 1974**
***Gammaropsis* sp. 5 Branch *et al.*, 1991**
***Megamphopus angustilobatus* Ren, 1991**
***Megamphopus dimorphus* (K.H. Barnard, 1932)**
***Megamphopus elephantis* K.H. Barnard, 1932**
***Photis coeca* J.L. Barnard, 1962d**
***Photis macrocarpa* Stebbing, 1888**
***Photis* sp. 1 Truchot, 1974**
***Photis* sp. 2 Chiesa *et al.*, 2005**

Superfamily RAKIROOIDEA Myers & Lowry, 2003
Family RAKIROIDAE Myers & Lowry, 2003
***Rakiroa rima* Lowry & Fenwick, 1982**

Appendix 2. Aligned sequences of mt COI gene of Marian Cove Amphipods.

1-1 Bovallia gigantea	T	A	G	A	T	T	G	T	A	T	T	T	T	C	T	G	C	T	T	G	G	C	G	G	A	T	G	G	G	C	C	A	G	G	T	T	T	G	T	G	G	G	C	A	C	A	T	C	C	C	[50]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[50]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[50]
2-1 Cheirimedon femoratus	G	.	C	.	.	.	A	.	.	.	.	.	.	A	.	T	T	.	A	.	.	G	.	.	T	.	.	A	.	.	G	.	.	A	.	.	.	.	.	T	.	.	G	.	.	T	.	.	T	T	[50]
4-1 Djerboa furcipes	A	.	C	T	C	.	T	.	.	C	.	.	.	A	.	T	.	.	A	.	.	A	.	C	T	.	.	A	.	.	T	.	.	A	G	.	.	A	.	C	.	.	T	.	.	C	.	.	.	T	[50]
4-2 Djerboa furcipes	A	.	C	T	C	.	T	.	.	C	.	.	.	A	.	T	.	.	A	.	.	A	.	C	T	.	.	A	.	.	T	.	.	A	G	.	.	A	.	C	.	.	T	.	.	C	.	.	.	T	[50]
4-3 Djerboa furcipes	A	.	C	T	C	.	T	.	.	C	.	.	.	A	.	T	.	.	A	.	.	A	.	C	T	.	.	A	.	.	T	.	.	A	G	.	.	A	.	C	.	.	T	.	.	C	.	.	.	T	[50]
5-1 Prostebbingia sp.	G	T	C	G	C	.	A	.	.	.	.	.	.	G	.	C	.	.	G	.	.	G	.	C	T	.	.	A	.	.	T	.	.	A	G	.	.	T	.	A	.	.	.	.	.	C	.	.	G	T	[50]
5-2 Prostebbingia sp.	G	T	C	G	C	.	A	.	.	.	.	.	.	G	.	C	.	.	G	.	.	G	.	C	T	.	.	A	.	.	T	.	.	A	G	.	.	T	.	A	.	.	.	.	.	C	.	.	G	T	[50]
5-3 Prostebbingia sp.	G	T	C	G	C	.	A	.	.	.	.	.	.	G	.	C	.	.	G	.	.	G	.	C	T	.	.	A	.	.	T	.	.	A	G	.	.	T	.	A	.	.	.	.	.	C	.	.	G	T	[50]
6-1 Paradexamine fissicauda	.	.	C	T	.	.	A	.	.	.	.	.	.	A	.	T	T	.	G	.	.	T	.	C	T	.	.	A	.	.	T	G	.	A	A	.	A	T	.	A	.	.	.	.	.	.	G	.	A	A	[50]
21-2 Gondogeneia antarctica	C	.	C	.	.	.	A	.	.	C	.	.	.	A	.	A	T	.	A	.	.	T	.	C	T	.	.	.	.	.	A	.	.	T	G	.	C	.	.	A	.	.	.	.	.	.	C	.	G	A	[50]
21-3 Gondogeneia antarctica	C	.	C	.	.	.	A	.	.	C	.	.	.	A	.	A	T	.	A	.	.	T	.	C	T	.	.	.	.	.	A	.	.	T	G	.	C	.	.	A	.	.	.	.	.	.	C	.	G	A	[50]
23-1 Jassa wandeli	.	.	C	T	.	.	A	.	.	C	.	.	.	A	.	T	.	.	A	.	.	T	A	T	T	.	.	A	.	.	T	.	.	A	.	.	A	T	.	.	.	.	G	.	.	T	G	.	T	T	[50]
23-2 Jassa wandeli	.	.	C	T	.	.	A	.	.	C	.	.	.	A	.	T	.	.	A	.	.	T	A	T	T	.	.	A	.	.	T	.	.	A	.	.	A	T	.	.	.	.	G	.	.	T	G	.	T	T	[50]
23-3 Jassa sp.	.	.	C	T	C	.	A	.	.	.	.	.	C	A	.	T	T	.	A	.	.	G	.	T	C	.	.	A	T	.	A	.	.	A	.	.	A	.	.	T	.	.	.	.	.	C	.	.	T	T	[50]
24-1 Wandelia crassipes	A	.	C	T	.	.	A	.	.	.	.	.	.	A	.	T	A	.	A	.	.	T	A	T	T	.	.	A	.	.	A	.	.	A	.	.	A	.	.	T	.	.	T	.	.	T	.	.	T	T	[50]
24-2 Wandelia crassipes	A	C	C	T	A	.	A	.	.	.	.	.	A	A	.	T	A	.	A	.	.	T	A	T	T	.	.	A	.	.	A	.	.	A	.	G	A	T	.	T	A	.	T	.	.	T	.	.	G	T	[50]
25-1 Prostebbingia brevicornis	A	.	C	.	C	.	T	.	.	.	.	.	.	A	.	T	.	.	A	.	.	G	.	C	G	.	.	A	.	.	.	.	.	A	G	.	A	.	.	C	.	.	.	.	.	T	.	.	T	T	[50]
25-2 Prostebbingia brevicornis	A	.	C	.	C	.	T	.	.	.	.	.	.	A	.	T	.	.	A	.	.	G	.	C	G	.	.	A	.	.	.	.	.	A	G	.	A	.	.	C	.	.	.	.	.	T	.	.	T	T	[50]
25-3 Prostebbingia brevicornis	A	.	C	.	C	.	T	.	.	.	.	.	.	A	.	T	.	.	A	.	.	G	.	C	G	.	.	A	.	.	.	.	.	A	G	.	A	.	.	C	.	.	.	.	.	T	.	.	T	T	[50]
26-1 Eurymera monticulosa	A	.	C	.	C	.	T	.	.	.	.	.	.	A	.	T	T	.	A	.	.	G	.	C	G	.	.	A	.	.	T	.	.	A	G	.	A	.	.	A	.	.	A	.	.	C	.	.	T	.	[50]
26-2 Eurymera monticulosa	A	.	C	.	C	.	T	.	.	.	.	.	.	A	.	T	T	.	A	.	.	G	.	C	G	.	.	A	.	.	T	.	.	A	G	.	A	.	.	A	.	.	A	.	.	C	.	.	T	.	[50]
26-3 Eurymera monticulosa	A	.	C	.	C	.	T	.	.	.	.	.	.	A	.	T	T	.	A	.	.	G	.	C	G	.	.	A	.	.	T	.	.	A	G	.	A	.	.	A	.	.	A	.	.	C	.	.	T	.	[50]
44-1 Metopoides sarsi	.	.	.	T	.	.	A	.	.	.	.	.	.	A	.	C	.	.	.	.	.	T	T	T	G	.	.	A	T	G	T	G	.	T	.	G	.	.	.	T	.	.	T	.	.	.	G	.	A	A	[50]
cf1-1 Cheirimedon femoratus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.	.	.	T	.	.	G	.	.	T	.	.	T	T	[50]
cf1-2 Cheirimedon femoratus	G	.	C	.	.	.	A	.	.	.	.	.	.	A	.	T	T	.	A	.	.	G	.	.	T	.	.	A	.	.	G	.	.	A	.	.	.	.	.	T	.	.	G	.	.	T	.	.	T	T	[50]
cfa1-1 Cheirimedon sp.	G	.	C	C	.	.	A	.	.	.	.	.	C	A	.	C	T	.	A	.	.	G	.	C	C	.	.	.	T	.	T	.	.	A	G	C	.	A	.	C	.	.	.	.	.	.	.	.	.	.	[50]
cfa1-2 Cheirimedon sp.	G	.	C	C	.	.	A	.	.	.	.	.	C	A	.	T	T	.	A	.	.	G	.	C	C	.	.	.	T	.	T	.	.	A	G	C	.	A	.	C	.	.	.	.	.	.	.	.	.	.	[50]
cfa1-3 Cheirimedon sp	G	.	C	C	.	.	T	.	.	.	.	.	C	A	.	C	T	.	A	.	.	G	.	C	C	.	.	.	T	.	T	.	.	A	G	C	.	A	.	C	.	.	.	.	.	.	.	.	.	.	[50]
Dj1-1 Djerboa furcipes	A	.	C	T	C	.	T	.	.	C	.	.	.	A	.	T	.	.	A	.	.	A	.	C	T	.	.	A	.	.	T	.	.	A	G	.	.	A	.	C	.	.	T	.	.	C	.	.	.	T	[50]

1-1 Bovallia gigantea	T	A	A	G	G	G	T	G	G	T	T	A	T	T	C	G	T	A	G	A	G	A	G	T	T	A	G	G	G	G	C	A	C	C	A	G	G	C	A	G	T	T	T	A	A	T	T	A	T	A	[100]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[100]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[100]
2-1 Cheirimedon femoratus	.	.	.	.	A	.	.	A	A	.	.	.	.	.	.	.	A	T	C	.	.	.	.	.	.	.	A	.	T	.	G	G	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	G	G	.	[100]
4-1 Djerboa furcipes	.	.	.	.	T	.	.	T	A	.	.	.	.	.	.	.	.	.	C	.	.	.	A	C	.	.	A	.	A	.	.	.	.	.	T	.	.	A	.	A	C	C	.	.	.	.	.	G	G	G	[100]
4-2 Djerboa furcipes	.	.	.	.	T	.	.	T	A	.	.	.	.	.	.	.	.	.	C	.	.	.	A	C	.	.	A	.	A	.	.	.	.	.	T	.	.	A	.	A	C	C	.	.	.	.	.	G	G	G	[100]
4-3 Djerboa furcipes	.	.	.	.	T	.	.	T	A	.	.	.	.	.	.	.	.	.	C	.	.	.	A	C	.	.	A	.	A	.	.	.	.	.	T	.	.	A	.	A	C	C	.	.	.	.	.	G	G	G	[100]
5-1 Prostebbingia sp.	.	.	.	.	A	.	.	T	A	.	.	.	.	C	.	.	G	.	C	.	.	.	.	.	.	.	A	.	C	T	.	T	.	.	T	.	.	T	.	.	C	C	.	.	.	.	.	G	G	.	[100]
5-2 Prostebbingia sp.	.	.	.	.	A	.	.	T	A	.	.	.	.	C	.	.	G	.	C	.	.	.	.	.	.	.	A	.	C	T	.	T	.	.	T	.	.	T	.	.	C	C	.	.	.	.	.	G	G	.	[100]
5-3 Prostebbingia sp.	.	.	.	.	A	.	.	T	A	.	.	.	.	C	.	.	G	.	C	.	.	.	.	.	.	.	A	.	C	T	.	T	.	.	T	.	.	T	.	.	C	C	.	.	.	.	.	G	G	.	[100]
6-1 Paradexamine fissicauda	.	.	.	.	A	A	.	C	A	.	.	.	.	C	.	.	A	.	C	.	.	.	A	.	.	.	A	.	A	A	.	T	.	.	C	A	T	A	.	A	C	.	.	G	.	.	C	.	A	T	[100]
21-2 Gondogeneia antarctica	.	.	T	C	T	A	.	T	A	.	.	.	.	.	.	.	.	.	C	.	C	.	A	.	.	.	A	.	C	A	.	.	.	.	C	.	.	A	.	A	C	.	.	.	.	.	.	G	G	.	[100]
21-3 Gondogeneia antarctica	.	.	T	C	T	A	.	T	A	.	.	.	.	.	.	.	.	.	C	.	C	.	A	.	.	.	A	.	C	A	.	.	.	.	C	.	.	A	.	A	C	.	.	.	.	.	.	G	G	.	[100]
23-1 Jassa wandeli	.	.	.	.	A	A	.	A	A	.	.	.	.	C	.	.	A	.	C	.	.	.	.	.	.	.	A	T	A	A	.	C	.	.	T	A	.	A	.	A	.	G	.	.	.	.	.	G	G	G	[100]
23-2 Jassa wandeli	.	.	.	.	A	A	.	A	A	.	.	.	.	C	.	.	A	.	C	.	.	.	.	.	.	.	A	T	A	A	.	C	.	.	T	A	.	A	.	A	.	G	.	.	.	.	.	G	G	G	[100]
23-3 Jassa sp.	.	.	.	.	C	A	.	.	A	.	C	.	.	C	.	.	.	.	C	G	.	.	.	C	.	C	A	T	A	.	.	T	.	.	T	A	.	T	.	A	.	G	.	.	.	.	.	G	G	.	[100]
24-1 Wandelia crassipes	.	.	.	.	A	A	.	T	A	.	.	.	.	.	.	.	A	T	C	.	.	.	A	.	.	.	A	.	A	A	.	C	T	.	C	.	.	T	.	.	.	.	.	.	.	.	.	G	G	.	[100]
24-2 Wandelia crassipes	.	.	.	.	A	A	.	T	A	.	.	.	.	.	.	.	A	T	C	.	.	.	A	.	.	.	T	.	A	A	.	C	T	.	C	.	.	T	.	.	.	.	.	.	.	.	.	G	G	G	[100]
25-1 Prostebbingia brevicornis	.	G	.	.	T	.	.	T	A	.	.	G	.	C	.	.	C	T	C	T	.	.	.	.	.	.	A	.	C	T	.	T	.	.	C	.	.	A	.	A	.	.	.	G	.	.	.	G	G	G	[100]
25-2 Prostebbingia brevicornis	.	G	.	.	T	.	.	T	A	.	.	G	.	C	.	.	C	T	C	T	.	.	.	.	.	.	A	.	C	T	.	T	.	.	C	.	.	A	.	A	.	.	.	G	.	.	.	G	G	G	[100]
25-3 Prostebbingia brevicornis	.	G	.	.	T	.	.	T	A	.	.	G	.	C	.	.	C	T	C	T	.	.	.	.	.	.	A	.	C	T	.	T	.	.	C	.	.	A	.	A	.	.	.	G	.	.	.	G	G	G	[100]
26-1 Eurymera monticulosa	.	G	.	.	T	.	.	T	A	.	C	G	.	C	.	.	C	T	C	C	.	.	.	C	.	.	A	.	C	T	.	G	.	.	.	.	.	A	.	.	.	C	.	.	.	.	C	G	G	.	[100]
26-2 Eurymera monticulosa	.	G	.	.	T	.	.	T	A	.	C	G	.	C	.	.	C	T	C	C	.	.	.	C	.	.	A	.	C	T	.	G	.	.	.	.	.	A	.	.	.	C	.	.	.	.	C	G	G	.	[100]
26-3 Eurymera monticulosa	.	G	.	.	T	.	.	T	A	.	C	G	.	C	.	.	C	T	C	C	.	.	.	C	.	.	A	.	C	T	.	G	.	.	.	.	.	A	.	.	.	C	.	.	.	.	C	G	G	.	[100]
44-1 Metopoides sarsi	.	.	.	.	.	.	.	A	A	.	.	.	.	G	.	.	G	T	C	C	.	.	.	.	.	.	A	.	T	A	G	G	T	.	.	.	.	T	.	.	.	A	.	.	.	.	C	.	.	.	[100]
cf1-1 Cheirimedon femoratus	.	.	.	.	A	.	.	A	A	.	.	.	.	.	.	.	A	T	C	.	.	.	.	.	.	.	A	.	T	.	G	G	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	G	G	.	[100]
cf1-2 Cheirimedon femoratus	.	.	.	.	A	.	.	A	A	.	.	.	.	.	.	.	A	T	C	.	.	.	.	.	.	.	A	.	T	.	G	G	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	G	G	.	[100]
cfa1-1 Cheirimedon sp.	.	C	.	.	A	.	.	.	A	.	.	.	.	C	.	.	C	T	C	T	.	.	.	C	.	C	A	.	A	.	.	T	.	.	.	.	.	A	.	A	C	.	.	.	.	.	C	G	G	T	[100]
cfa1-2 Cheirimedon sp.	.	C	.	.	A	.	.	.	A	.	.	.	.	C	.	.	C	T	C	T	.	.	.	C	.	C	A	.	A	.	.	T	.	.	.	.	.	A	.	A	C	.	.	.	.	.	C	G	G	T	[100]
cfa1-3 Cheirimedon sp	.	C	.	.	A	.	.	.	A	.	.	.	.	C	.	.	C	T	T	T	.	.	.	C	.	C	A	.	A	.	.	T	.	.	.	.	.	A	.	A	C	.	.	.	.	.	C	G	G	T	[100]
Dj1-1 Djerboa furcipes	.	.	.	.	T	.	.	T	A	.	.	.	.	.	.	.	.	.	C	.	.	.	A	C	.	.	A	.	A	.	.	.	.	.	T	.	.	A	.	A	C	C	.	.	.	.	.	G	G	G	[100]

1-1 Bovallia gigantea	G	A	C	G	A	T	C	A	A	A	T	T	T	A	T	A	A	C	A	C	A	A	T	A	G	T	T	A	C	A	G	C	C	C	A	T	G	C	T	T	T	T	G	T	T	A	T	A	A	T	[150]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	[150]
2-1 Cheirimedon femoratus	A	G	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	G	T	.	.	.	.	.	.	A	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
4-1 Djerboa furcipes	.	.	T	.	.	C	.	.	.	.	.	C	.	.	C	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.	A	.	.	.	.	.	G	.	.	.	.	.	[150]
4-2 Djerboa furcipes	.	.	T	.	.	C	.	.	.	.	.	C	.	.	C	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.	A	.	.	.	.	.	G	.	.	.	.	.	[150]
4-3 Djerboa furcipes	.	.	T	.	.	C	.	.	.	.	.	C	.	.	C	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.	A	.	.	.	.	.	G	.	.	.	.	.	[150]
5-1 Prostebbingia sp.	.	.	T	.	.	C	.	.	.	G	.	G	.	.	C	.	.	.	.	.	G	.	.	.	.	.	G	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
5-2 Prostebbingia sp.	.	.	T	.	.	C	.	.	.	G	.	G	.	.	C	.	.	.	.	.	G	.	.	.	.	.	G	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
5-3 Prostebbingia sp.	.	.	T	.	.	C	.	.	.	G	.	G	.	.	C	.	.	.	.	.	G	.	.	.	.	.	G	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
6-1 Paradexamine fissicauda	A	.	T	A	G	A	.	.	.	.	.	.	.	.	C	.	.	T	G	T	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	A	.	.	.	.	.	[150]
21-2 Gondogeneia antarctica	.	.	T	.	.	C	.	.	.	.	.	C	.	.	C	.	.	T	.	.	.	.	.	T	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
21-3 Gondogeneia antarctica	.	.	T	.	.	C	.	.	.	.	.	C	.	.	C	.	.	T	.	.	.	.	.	T	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
23-1 Jassa wandeli	.	.	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	T	G	T	G	.	.	T	.	.	G	.	.	C	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
23-2 Jassa wandeli	.	.	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	T	G	T	G	.	.	T	.	.	G	.	.	C	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
23-3 Jassa sp.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	G	T	C	.	.	T	.	.	A	.	.	C	.	.	.	.	.	C	.	.	C	.	.	.	A	.	.	.	.	.	.	.	[150]
24-1 Wandelia crassipes	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	G	T	T	.	.	T	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	.	A	.	.	.	.	.	.	.	[150]
24-2 Wandelia crassipes	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	G	T	T	.	.	T	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	.	A	.	.	.	.	.	.	.	[150]
25-1 Prostebbingia brevicornis	.	.	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
25-2 Prostebbingia brevicornis	.	.	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
25-3 Prostebbingia brevicornis	.	.	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
26-1 Eurymera monticulosa	.	.	.	.	.	C	.	.	G	.	.	C	.	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	T	.	.	.	.	.	C	.	.	C	.	.	.	.	.	.	.	.	.	.	.	[150]
26-2 Eurymera monticulosa	.	.	.	.	.	C	.	.	G	.	.	C	.	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	T	.	.	.	.	.	C	.	.	C	.	.	.	.	.	.	.	.	.	.	.	[150]
26-3 Eurymera monticulosa	.	.	.	.	.	C	.	.	G	.	.	C	.	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	T	.	.	.	.	.	C	.	.	C	.	.	.	.	.	.	.	.	.	.	.	[150]
44-1 Metopoides sarsi	.	.	.	.	.	C	.	.	T	.	C	A	.	.	.	.	.	T	G	T	.	.	.	.	.	.	.	.	.	T	A	G	T	.	.	C	.	.	.	.	.	.	A	.	.	.	.	.	.	.	[150]
cf1-1 Cheirimedon femoratus	A	G	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	G	T	.	.	.	.	.	.	A	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
cf1-2 Cheirimedon femoratus	A	G	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	G	T	.	.	.	.	.	.	A	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[150]
cfa1-1 Cheirimedon sp.	A	.	T	.	.	C	.	.	.	C	.	A	.	.	.	.	.	T	G	T	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	[150]
cfa1-2 Cheirimedon sp.	A	.	T	.	.	C	.	.	.	C	.	A	.	.	.	.	.	T	G	T	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	[150]
cfa1-3 Cheirimedon sp	A	.	T	.	.	C	.	.	.	C	.	A	.	.	.	.	.	T	G	T	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	[150]
Dj1-1 Djerboa furcipes	.	.	T	.	.	C	.	.	.	.	.	C	.	.	C	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.	A	.	.	.	.	.	G	.	.	.	.	.	[150]

1-1 Bovallia gigantea	T	T	T	T	T	T	T	A	T	G	G	T	T	A	T	A	C	C	G	A	T	T	A	T	A	A	T	C	G	G	A	G	G	G	T	T	T	G	G	T	A	A	T	T	G	A	C	T	T	G	[200]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
2-1 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	T	.	G	.	[200]
4-1 Djerboa furcipes	.	.	.	C	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	C	[200]
4-2 Djerboa furcipes	.	.	.	C	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	C	[200]
4-3 Djerboa furcipes	.	.	.	C	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	C	[200]
5-1 Prostebbingia sp.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	.	.	.	T	.	.	C	.	.	.	.	.	.	.	.	.	.	.	A	.	.	C	.	.	A	.	.	C	.	.	.	T	.	A	.	[200]
5-2 Prostebbingia sp.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	.	.	.	T	.	.	C	.	.	.	.	.	.	.	.	.	.	.	A	.	.	C	.	.	A	.	.	C	.	.	.	T	.	A	.	[200]
5-3 Prostebbingia sp.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	.	.	.	T	.	.	C	.	.	.	.	.	.	.	.	.	.	.	A	.	.	C	.	.	A	.	.	C	.	.	.	T	.	A	.	[200]
6-1 Paradexamine fissicauda	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	T	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	A	[200]
21-2 Gondogeneia antarctica	C	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	G	.	.	.	.	.	T	.	.	T	.	.	T	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	[200]
21-3 Gondogeneia antarctica	C	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	G	.	.	.	.	.	T	.	.	T	.	.	T	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	[200]
23-1 Jassa wandeli	.	.	.	C	.	.	C	.	.	A	.	.	G	.	.	.	.	.	T	G	.	G	.	.	.	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	T	.	A	A	[200]
23-2 Jassa wandeli	.	.	.	C	.	.	C	.	.	A	.	.	G	.	.	.	.	.	T	G	.	G	.	.	.	.	.	T	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	T	.	A	A	[200]
23-3 Jassa sp.	.	.	.	.	.	.	C	.	.	A	.	.	.	.	.	.	.	.	T	G	.	A	.	.	.	.	.	T	.	.	T	.	.	A	.	.	C	.	.	.	.	.	C	.	.	G	T	.	G	A	[200]
24-1 Wandelia crassipes	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	.	T	.	A	A	[200]
24-2 Wandelia crassipes	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	.	T	.	A	A	[200]
25-1 Prostebbingia brevicornis	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	T	.	.	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
25-2 Prostebbingia brevicornis	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	T	.	.	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
25-3 Prostebbingia brevicornis	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	T	.	.	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
26-1 Eurymera monticulosa	.	.	.	.	.	.	C	.	.	A	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
26-2 Eurymera monticulosa	.	.	.	.	.	.	C	.	.	A	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
26-3 Eurymera monticulosa	.	.	.	.	.	.	C	.	.	A	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	[200]
44-1 Metopoides sarsi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	C	.	.	G	G	.	A	.	.	G	.	.	T	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	[200]
cf1-1 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	G	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	T	.	G	.	[200]
cf1-2 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	T	.	G	.	[200]
cfa1-1 Cheirimedon sp.	C	.	.	C	.	.	.	.	.	A	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	[200]
cfa1-2 Cheirimedon sp.	C	.	.	C	.	.	.	.	.	A	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	[200]
cfa1-3 Cheirimedon sp	C	.	.	C	.	.	.	.	.	A	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	[200]
Dj1-1 Djerboa furcipes	.	.	.	C	.	.	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	C	[200]

1-1 Bovallia gigantea	T	T	C	C	T	T	T	A	A	T	A	T	T	A	G	G	T	A	G	A	C	C	T	G	A	T	A	T	A	G	C	A	T	T	C	C	C	A	C	G	T	A	T	A	A	A	T	A	A	T	[250]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[250]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[250]
2-1 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	[250]
4-1 Djerboa furcipes	.	.	.	.	.	C	.	T	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	C	.	.	A	.	.	.	.	.	.	.	.	.	[250]
4-2 Djerboa furcipes	.	.	.	.	.	C	.	T	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	C	.	.	A	.	.	.	.	.	.	.	.	.	[250]
4-3 Djerboa furcipes	.	.	.	.	.	C	.	T	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	C	.	.	A	.	.	.	.	.	.	.	.	.	[250]
5-1 Prostebbingia sp.	.	C	.	.	G	C	.	.	.	.	.	C	.	.	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	C	.	.	G	.	.	.	.	.	.	[250]
5-2 Prostebbingia sp.	.	C	.	.	G	C	.	.	.	.	.	C	.	.	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	C	.	.	G	.	.	.	.	.	.	[250]
5-3 Prostebbingia sp.	.	C	.	.	G	C	.	.	.	.	.	C	.	.	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	C	.	.	G	.	.	.	.	.	.	[250]
6-1 Paradexamine fissicauda	.	C	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	G	C	T	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[250]
21-2 Gondogeneia antarctica	.	G	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	[250]
21-3 Gondogeneia antarctica	.	G	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	[250]
23-1 Jassa wandeli	.	C	.	.	.	.	.	.	.	.	.	C	.	T	.	.	.	.	.	C	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	.	.	C	.	.	G	.	.	.	.	.	.	.	.	.	[250]
23-2 Jassa wandeli	.	C	.	.	.	.	.	.	.	.	.	C	.	T	.	.	.	.	.	C	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	.	.	C	.	.	G	.	.	.	.	.	.	.	.	.	[250]
23-3 Jassa sp.	.	C	.	.	.	.	.	.	.	.	G	C	.	C	.	.	.	.	.	C	.	.	C	.	.	.	.	.	.	.	.	C	.	.	T	.	.	C	.	.	.	.	.	G	.	.	C	.	.	.	[250]
24-1 Wandelia crassipes	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	T	.	.	A	.	.	.	.	.	.	.	.	.	[250]
24-2 Wandelia crassipes	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	T	.	.	A	.	.	.	.	.	.	.	.	.	[250]
25-1 Prostebbingia brevicornis	.	.	.	.	A	C	.	.	.	.	.	C	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	C	.	.	C	[250]
25-2 Prostebbingia brevicornis	.	.	.	.	A	C	.	.	.	.	.	C	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	C	.	.	C	[250]
25-3 Prostebbingia brevicornis	.	.	.	.	A	C	.	.	.	.	.	C	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	C	.	.	C	[250]
26-1 Eurymera monticulosa	.	C	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	C	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	C	[250]
26-2 Eurymera monticulosa	.	C	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	G	.	.	C	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	C	[250]
26-3 Eurymera monticulosa	.	C	.	.	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	G	.	.	C	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	C	[250]
44-1 Metopoides sarsi	.	A	.	.	.	.	.	G	.	.	G	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	T	.	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	C	.	.	.	[250]
cf1-1 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	[250]
cf1-2 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	[250]
cfa1-1 Cheirimedon sp.	.	A	.	.	C	C	.	.	.	.	.	C	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	G	.	.	C	.	.	C	[250]
cfa1-2 Cheirimedon sp.	.	A	.	.	C	C	.	.	.	.	.	C	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	G	.	.	C	.	.	C	[250]
cfa1-3 Cheirimedon sp	.	A	.	.	C	C	.	.	.	.	.	C	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	G	.	.	C	.	.	C	[250]
Dj1-1 Djerboa furcipes	.	.	.	.	.	C	.	T	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	T	.	.	.	.	.	C	.	.	A	.	.	.	.	.	.	.	.	.	[250]

1-1 Bovallia gigantea	A	T	A	A	G	G	T	T	T	T	G	G	T	T	G	T	T	A	C	C	A	C	C	T	T	C	T	T	T	A	A	T	A	T	T	T	T	T	A	T	T	A	T	T	A	A	G	A	G	G	[300]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[300]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[300]
2-1 Cheirimedon femoratus	.	.	.	.	.	A	.	.	.	.	.	.	.	.	A	C	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	.	.	G	.	.	.	A	.	.	.	.	G	.	.	[300]
4-1 Djerboa furcipes	.	.	.	.	.	A	.	.	C	.	.	A	C	.	T	C	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	C	C	.	.	.	.	.	.	C	.	T	G	.	G	.	.	.	.	.	[300]
4-2 Djerboa furcipes	.	.	.	.	.	A	.	.	C	.	.	A	C	.	T	C	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	C	C	.	.	.	.	.	.	C	.	T	G	.	G	.	.	.	.	.	[300]
4-3 Djerboa furcipes	.	.	.	.	.	A	.	.	C	.	.	A	C	.	T	C	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	C	C	.	.	.	.	.	.	C	.	T	G	.	G	.	.	.	.	.	[300]
5-1 Prostebbingia sp.	.	.	.	.	.	.	.	.	C	.	.	.	C	.	C	.	.	.	.	.	T	.	.	G	.	.	A	C	.	G	T	G	C	.	.	G	C	.	T	.	.	.	A	.	.	.	.	G	.	.	[300]
5-2 Prostebbingia sp.	.	.	.	.	.	.	.	.	C	.	.	.	C	.	C	.	.	.	.	.	T	.	.	G	.	.	A	C	.	G	T	G	C	.	.	G	C	.	T	.	.	.	A	.	.	.	.	G	.	.	[300]
5-3 Prostebbingia sp.	.	.	.	.	.	.	.	.	C	.	.	.	C	.	C	.	.	.	.	.	T	.	.	G	.	.	A	C	.	G	T	G	C	.	.	G	C	.	T	.	.	.	A	.	.	.	.	G	.	.	[300]
6-1 Paradexamine fissicauda	.	.	.	.	.	A	.	.	.	.	.	A	.	.	A	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	C	C	C	.	A	C	.	T	A	C	T	A	.	.	.	.	.	A	.	[300]
21-2 Gondogeneia antarctica	.	.	.	.	.	A	.	.	.	.	.	A	.	.	A	C	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	C	.	.	.	.	C	.	C	C	.	T	C	.	.	.	.	.	.	.	[300]
21-3 Gondogeneia antarctica	.	.	.	.	.	A	.	.	.	.	.	A	.	.	A	C	.	C	.	.	.	.	.	C	.	.	.	.	.	.	.	C	.	.	.	.	C	.	C	C	.	T	C	.	.	.	.	.	.	.	[300]
23-1 Jassa wandeli	.	.	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	G	C	.	.	.	C	T	C	.	.	.	.	.	.	.	.	A	.	T	.	.	.	.	.	[300]
23-2 Jassa wandeli	.	.	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	G	C	.	.	.	C	T	C	.	.	.	.	.	.	.	.	A	.	T	.	.	.	.	.	[300]
23-3 Jassa sp.	.	.	.	.	.	A	.	.	C	.	.	.	.	.	A	C	.	.	.	.	T	.	.	C	.	.	C	.	.	.	.	C	C	C	.	.	C	.	T	.	.	.	G	.	G	.	.	C	.	.	[300]
24-1 Wandelia crassipes	.	.	.	.	.	A	.	.	.	.	.	A	.	.	A	.	.	.	T	T	T	.	.	A	.	.	.	A	.	G	T	.	T	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	A	.	[300]
24-2 Wandelia crassipes	.	.	.	.	.	A	.	.	.	.	.	A	.	.	A	.	.	.	T	T	T	.	.	A	.	.	.	A	.	G	T	.	T	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	A	.	[300]
25-1 Prostebbingia brevicornis	.	.	.	.	.	A	.	.	.	.	.	A	C	.	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	C	T	.	.	.	.	.	G	.	.	.	A	.	C	.	.	G	.	.	[300]
25-2 Prostebbingia brevicornis	.	.	.	.	.	A	.	.	.	.	.	A	C	.	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	C	T	.	.	.	.	.	G	.	.	.	A	.	C	.	.	G	.	.	[300]
25-3 Prostebbingia brevicornis	.	.	.	.	.	A	.	.	.	.	.	A	C	.	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	C	T	.	.	.	.	.	G	.	.	.	A	.	C	.	.	G	.	.	[300]
26-1 Eurymera monticulosa	.	.	G	.	.	A	.	.	.	.	.	A	C	.	T	C	.	.	.	.	T	.	.	C	G	.	C	.	.	.	.	C	T	.	.	C	C	.	.	C	.	T	G	.	T	.	.	G	.	.	[300]
26-2 Eurymera monticulosa	.	.	G	.	.	A	.	.	.	.	.	A	C	.	T	C	.	.	.	.	T	.	.	C	G	.	C	.	.	.	.	C	T	.	.	C	C	.	.	C	.	T	G	.	T	.	.	G	.	.	[300]
26-3 Eurymera monticulosa	.	.	G	.	.	A	.	.	.	.	.	A	C	.	T	C	.	.	.	.	T	.	.	C	G	.	C	.	.	.	.	C	T	.	.	C	C	.	.	C	.	T	G	.	T	.	.	G	.	.	[300]
44-1 Metopoides sarsi	.	.	G	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	C	.	.	.	.	.	C	T	C	T	.	.	G	.	.	.	.	G	T	.	.	.	.	.	G	T	C	[300]
cf1-1 Cheirimedon femoratus	.	.	.	.	.	A	.	.	.	.	.	.	.	.	A	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	.	.	G	.	.	.	A	.	.	.	.	G	.	.	[300]
cf1-2 Cheirimedon femoratus	.	.	.	.	.	A	.	.	.	.	.	.	.	.	A	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	.	.	G	.	.	.	A	.	.	.	.	G	.	.	[300]
cfa1-1 Cheirimedon sp.	.	.	G	.	.	.	.	.	C	.	.	.	C	.	T	.	.	.	.	.	T	.	.	.	.	.	C	C	.	G	.	C	T	C	.	C	C	.	C	.	.	.	A	.	.	.	.	.	.	.	[300]
cfa1-2 Cheirimedon sp.	.	.	G	.	.	.	.	.	C	.	.	.	C	.	T	.	.	.	.	.	T	.	.	.	.	.	C	C	.	G	.	C	T	C	.	C	C	.	C	.	.	.	A	.	.	.	.	.	.	.	[300]
cfa1-3 Cheirimedon sp	.	.	G	.	.	.	.	.	C	.	.	.	C	.	T	.	.	.	.	.	T	.	.	.	.	.	C	C	.	G	.	C	T	C	.	C	C	.	C	.	.	.	A	.	.	.	.	.	.	.	[300]
Dj1-1 Djerboa furcipes	.	.	.	.	.	A	.	.	C	.	.	A	C	.	T	C	.	.	.	.	T	.	.	.	.	.	C	.	.	.	.	C	C	.	.	.	.	.	.	C	.	T	G	.	G	.	.	.	.	.	[300]

1-1 Bovallia gigantea	G	T	T	G	G	T	A	G	A	A	A	G	A	G	G	C	G	T	A	G	-	-	-	-	-	-	-	-	-	G	A	A	C	A	G	G	C	T	G	G	A	C	A	G	T	G	T	A	T	C	[350]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	-	-	-	-	-	-	-	-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[350]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	-	-	-	-	-	-	-	-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[350]
2-1 Cheirimedon femoratus	T	A	.	A	.	.	T	.	.	.	.	C	.	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	C	.	.	G	.	.	G	.	.	A	.	.	T	.	.	T	.	.	.	.	[350]
4-1 Djerboa furcipes	T	C	.	A	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	-	-	-	-	-	-	-	-	-	.	C	.	.	.	.	.	T	.	.	A	.	.	C	.	.	.	.	.	C	.	[350]
4-2 Djerboa furcipes	T	C	.	A	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	-	-	-	-	-	-	-	-	-	.	C	.	.	.	.	.	T	.	.	A	.	.	C	.	.	.	.	.	C	.	[350]
4-3 Djerboa furcipes	T	C	.	A	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	-	-	-	-	-	-	-	-	-	.	C	.	.	.	.	.	T	.	.	A	.	.	C	.	.	.	.	.	C	.	[350]
5-1 Prostebbingia sp.	C	C	.	T	.	.	G	.	.	G	.	.	C	.	.	A	.	.	T	.	-	-	-	-	-	-	-	-	-	.	G	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	C	.	[350]
5-2 Prostebbingia sp.	C	C	.	T	.	.	G	.	.	G	.	.	C	.	.	A	.	.	T	.	-	-	-	-	-	-	-	-	-	.	G	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	C	.	[350]
5-3 Prostebbingia sp.	C	C	.	T	.	.	G	.	.	G	.	.	C	.	.	A	.	.	T	.	-	-	-	-	-	-	-	-	-	.	G	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	C	.	[350]
6-1 Paradexamine fissicauda	A	A	.	T	T	.	.	.	.	G	.	C	T	.	.	A	.	.	.	.	-	-	-	-	-	-	-	-	-	.	.	.	.	T	.	.	T	.	.	A	.	.	T	.	.	T	.	.	C	.	[350]
21-2 Gondogeneia antarctica	T	C	.	A	.	.	.	.	.	.	.	.	.	A	.	A	.	C	T	.	G	A	A	C	T	G	G	C	T	.	.	.	.	T	.	.	.	.	.	A	.	.	T	.	.	C	.	.	.	T	[350]
21-3 Gondogeneia antarctica	T	C	.	A	.	.	.	.	.	.	.	.	.	A	.	A	.	C	T	.	G	A	A	C	T	G	G	C	T	.	.	.	.	T	.	.	.	.	.	A	.	.	T	.	.	C	.	.	.	T	[350]
23-1 Jassa wandeli	T	A	.	A	.	.	.	.	.	.	.	.	.	.	.	T	.	.	C	.	-	-	-	-	-	-	-	-	-	.	T	.	.	C	.	.	.	.	.	.	.	.	.	.	.	C	.	.	C	.	[350]
23-2 Jassa wandeli	T	A	.	A	.	.	.	.	.	.	.	.	.	.	.	T	.	.	C	.	-	-	-	-	-	-	-	-	-	.	T	.	.	C	.	.	.	.	.	.	.	.	.	.	.	C	.	.	C	.	[350]
23-3 Jassa sp.	T	A	.	A	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	C	.	.	T	.	.	.	.	.	A	.	.	.	.	.	C	.	.	C	.	[350]
24-1 Wandelia crassipes	T	A	.	A	.	.	.	.	.	.	.	.	G	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	C	.	.	.	.	.	T	.	.	A	.	.	T	.	.	A	.	.	.	.	[350]
24-2 Wandelia crassipes	T	A	.	A	.	.	.	.	.	.	.	.	G	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	C	.	.	.	.	.	T	.	.	A	.	.	T	.	.	A	.	.	.	.	[350]
25-1 Prostebbingia brevicornis	.	.	.	A	A	.	T	.	.	.	.	.	.	.	.	A	.	.	T	.	-	-	-	-	-	-	-	-	-	.	.	.	.	T	.	.	.	.	.	A	.	.	T	.	.	T	.	.	.	.	[350]
25-2 Prostebbingia brevicornis	.	.	.	A	A	.	T	.	.	.	.	.	.	.	.	A	.	.	T	.	-	-	-	-	-	-	-	-	-	.	.	.	.	T	.	.	.	.	.	A	.	.	T	.	.	T	.	.	.	.	[350]
25-3 Prostebbingia brevicornis	.	.	.	A	A	.	T	.	.	.	.	.	.	.	.	A	.	.	T	.	-	-	-	-	-	-	-	-	-	.	.	.	.	T	.	.	.	.	.	A	.	.	T	.	.	T	.	.	.	.	[350]
26-1 Eurymera monticulosa	A	.	.	A	A	.	C	.	.	.	.	.	.	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	G	.	.	.	.	.	.	.	.	A	.	.	T	.	.	C	.	.	C	.	[350]
26-2 Eurymera monticulosa	A	.	.	A	A	.	C	.	.	.	.	.	.	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	G	.	.	.	.	.	.	.	.	A	.	.	T	.	.	C	.	.	C	.	[350]
26-3 Eurymera monticulosa	A	.	.	A	A	.	C	.	.	.	.	.	.	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	G	.	.	.	.	.	.	.	.	A	.	.	T	.	.	C	.	.	C	.	[350]
44-1 Metopoides sarsi	T	A	.	A	.	.	C	.	.	G	.	.	C	.	.	A	.	.	C	.	-	-	-	-	-	-	-	-	-	.	G	G	.	G	.	.	.	.	.	A	.	.	C	T	.	A	.	.	C	.	[350]
cf1-1 Cheirimedon femoratus	T	A	.	A	.	.	T	.	.	.	.	C	.	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	C	.	.	G	.	.	G	.	.	A	.	.	T	.	.	T	.	.	.	.	[350]
cf1-2 Cheirimedon femoratus	T	A	.	A	.	.	T	.	.	.	.	C	.	.	.	T	.	.	T	.	-	-	-	-	-	-	-	-	-	.	C	.	.	G	.	.	G	.	.	A	.	.	T	.	.	T	.	.	.	.	[350]
cfa1-1 Cheirimedon sp.	T	.	.	A	.	.	T	.	.	.	.	.	.	.	.	G	.	.	G	.	-	-	-	-	-	-	-	-	-	.	C	.	.	C	.	.	A	.	.	A	.	.	T	.	.	C	.	.	.	.	[350]
cfa1-2 Cheirimedon sp.	T	.	.	A	.	.	T	.	.	.	.	.	.	.	.	G	.	.	G	.	-	-	-	-	-	-	-	-	-	.	C	.	.	C	.	.	A	.	.	A	.	.	T	.	.	C	.	.	.	.	[350]
cfa1-3 Cheirimedon sp	T	.	.	A	.	.	T	.	.	.	.	.	.	.	.	G	.	.	G	.	-	-	-	-	-	-	-	-	-	.	C	.	.	C	.	.	A	.	.	A	.	.	T	.	.	C	.	.	.	.	[350]
Dj1-1 Djerboa furcipes	T	C	.	A	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	-	-	-	-	-	-	-	-	-	.	C	.	.	.	.	.	T	.	.	A	.	.	C	.	.	.	.	.	C	.	[350]

1-1 Bovallia gigantea	CACCTCTTTCTGGTAATAGCGCTCACAGAGGGGCTTCAGTTGATATTGCT	[400]
1-2 Bovallia gigantea	.G...C......	[400]
1-3 Bovallia gigantea	....	[400]
2-1 Cheirimedon femoratus	....C..AG..TCA.GGGTT..C..T..G....G......A.....A...	[400]
4-1 Djerboa furcipes	.C..AT.AG...CAGGAGCA.....T...........C.....CC.G...	[400]
4-2 Djerboa furcipes	.C..AT.AG...CAGGAGCA.....T...........C.....CC.G...	[400]
4-3 Djerboa furcipes	.C..AT.AG...CAGGAGCA.....T...........C.....CC.G...	[400]
5-1 Prostebbingia sp.	.C..C..A..C.CGTCA.CG..C..T..G.....C..T..A..CT.A...	[400]
5-2 Prostebbingia sp.	.C..C..A..C.CGTCA.CG..C..T..G.....C..T..A..CT.A...	[400]
5-3 Prostebbingia sp.	.C..C..A..C.CGTCA.CG..C..T..G.....C..T..A..CT.A...	[400]
6-1 Paradexamine fissicauda	....AT.A.....A..C..A.......T...AT.CAGT..A...T.A..C	[400]
21-2 Gondogeneia antarctica	.T...T.A..AA..GCA.CA..C..T.....A.A...T..A.........	[400]
21-3 Gondogeneia antarctica	.T...T.A..AA..GCA.CA..C..T.....A.A...T..A.........	[400]
23-1 Jassa wandeli	.C..AT.AAGCTCA...TTA.GG...CCC....G.G.T......C.A...	[400]
23-2 Jassa wandeli	.C..AT.AAGCTCA...TTA.GG...CCC....G.G.T......C.A...	[400]
23-3 Jassa sp.	.C...T.AAGAA.A.GACTT.GC...CCT..T.GCG....G..CC.G..A	[400]
24-1 Wandelia crassipes	.T...T.A.....ATC..CA.....T.....AT....T..A...T.G...	[400]
24-2 Wandelia crassipes	.T...T.A.....ATC..CA.....T.....AT....T..A...T.G...	[400]
25-1 Prostebbingia brevicornis	.C...T.A..G.C.....TT.....T..T..A.GA..G..A....C....	[400]
25-2 Prostebbingia brevicornis	.C...T.A..G.C.....TT.....T..T..A.GA..G..A....C....	[400]
25-3 Prostebbingia brevicornis	.C...T.A..G.C.....TT.....T..T..A.GA..G..A....C....	[400]
26-1 Eurymera monticulosa	.C..CT.A....CC....TT..A..T..T..A.G......C..C.CC...	[400]
26-2 Eurymera monticulosa	.C..CT.A....CC....T...A..T..T.....G......C..C.CC...	[400]
26-3 Eurymera monticulosa	.C..CT.A....CC....TT..A..T..T.....G......C..C.CC...	[400]
44-1 Metopoides sarsi	.C...T.G...TC.TC..TA.GG..T..G..TAG...G..A...T.A...	[400]
cf1-1 Cheirimedon femoratus	....C..AG..TCA.GGGTT..C..T..G....G......A.....A...	[400]
cf1-2 Cheirimedon femoratus	....C..AG..TCA.GGGTT..C..T..G....G......A.....A...	[400]
cfa1-1 Cheirimedon sp.	.T.....AG....CCC..CA..C..T.....C.GG..G..A..CT.A...	[400]
cfa1-2 Cheirimedon sp.	.T.....AG....CCC..CA..C..T.....A.GG..G..A..CT.A...	[400]
cfa1-3 Cheirimedon sp	.T.....AG....CCC..CA..C..T.....A.GG..G..A..CT.A...	[400]
Dj1-1 Djerboa furcipes	.C..AT.AG...CAGGAGCA.....T...........C.....CC.G...	[400]

1-1 Bovallia gigantea	A	T	T	T	T	T	T	C	T	T	T	A	C	A	C	T	T	A	G	C	A	G	G	G	G	C	A	T	C	G	T	C	T	A	T	T	T	T	G	G	G	T	G	C	G	A	T	C	A	A	[450]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[450]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[450]
2-1 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	T	.	.	T	.	.	.	.	.	.	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
4-1 Djerboa furcipes	.	.	.	.	.	.	.	.	C	C	.	T	.	.	T	C	.	.	.	.	.	.	.	A	.	T	T	.	.	A	.	.	.	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
4-2 Djerboa furcipes	.	.	.	.	.	.	.	.	C	C	.	T	.	.	T	C	.	.	.	.	.	.	.	A	.	T	T	.	.	A	.	.	.	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
4-3 Djerboa furcipes	.	.	.	.	.	.	.	.	C	C	.	T	.	.	T	C	.	.	.	.	.	.	.	A	.	T	T	.	.	A	.	.	.	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
5-1 Prostebbingia sp.	.	.	.	.	.	.	.	.	.	C	.	G	.	.	.	C	.	T	.	.	C	.	.	T	.	.	.	.	.	T	.	.	A	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
5-2 Prostebbingia sp.	.	.	.	.	.	.	.	.	.	C	.	G	.	.	.	C	.	T	.	.	C	.	.	T	.	.	.	.	.	T	.	.	A	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
5-3 Prostebbingia sp.	.	.	.	.	.	.	.	.	.	C	.	G	.	.	.	C	.	T	.	.	C	.	.	T	.	.	.	.	.	T	.	.	A	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
6-1 Paradexamine fissicauda	.	.	.	.	.	.	.	.	A	C	.	.	.	.	.	.	.	.	.	.	T	.	.	T	A	T	T	A	G	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	[450]
21-2 Gondogeneia antarctica	.	.	C	.	.	C	.	.	A	C	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	T	.	.	[450]
21-3 Gondogeneia antarctica	.	.	C	.	.	C	.	.	A	C	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	A	.	.	.	.	.	C	.	.	.	.	.	[450]
23-1 Jassa wandeli	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	C	.	G	.	.	C	.	.	T	.	.	C	.	.	T	.	.	.	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
23-2 Jassa wandeli	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	C	.	G	.	.	C	.	.	T	.	.	C	.	.	T	.	.	.	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
23-3 Jassa sp.	.	.	C	.	.	C	.	.	C	C	.	T	.	.	T	C	.	.	.	.	.	.	.	T	.	.	T	A	G	.	.	.	.	.	.	.	.	.	A	.	.	C	.	.	A	.	.	T	.	.	[450]
24-1 Wandelia crassipes	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	C	.	T	.	.	.	.	.	T	A	T	C	.	.	T	.	.	A	.	.	.	.	.	A	.	.	G	.	.	.	.	.	T	.	.	[450]
24-2 Wandelia crassipes	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	C	.	T	.	.	.	.	.	T	A	T	C	.	.	T	.	.	A	.	.	.	.	.	A	.	.	G	.	.	.	.	.	T	.	.	[450]
25-1 Prostebbingia brevicornis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	T	.	.	.	A	G	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	[450]
25-2 Prostebbingia brevicornis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	T	.	.	.	A	G	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	[450]
25-3 Prostebbingia brevicornis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	C	.	.	T	.	.	.	A	G	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	[450]
26-1 Eurymera monticulosa	.	.	C	.	.	C	.	.	C	.	.	.	.	.	T	C	.	G	.	.	.	.	.	A	.	.	.	A	G	C	.	.	.	.	.	C	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
26-2 Eurymera monticulosa	.	.	C	.	.	C	.	.	C	.	.	.	.	.	T	C	.	.	.	.	.	.	.	A	.	.	.	A	G	C	.	.	.	.	.	C	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
26-3 Eurymera monticulosa	.	.	C	.	.	C	.	.	C	.	.	.	.	.	T	C	.	G	.	.	.	.	.	A	.	.	.	A	G	C	.	.	.	.	.	C	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
44-1 Metopoides sarsi	.	.	.	.	.	.	.	.	.	C	.	.	.	.	T	C	.	T	.	.	.	.	.	A	.	T	G	.	.	C	.	.	C	.	.	.	C	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]
cf1-1 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	T	.	.	T	.	.	.	.	.	.	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
cf1-2 Cheirimedon femoratus	.	.	.	.	.	.	.	.	.	.	.	G	.	.	T	.	.	.	.	.	.	.	.	T	.	.	T	.	.	T	.	.	.	.	.	.	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
cfa1-1 Cheirimedon sp.	.	.	C	.	.	C	.	.	C	.	.	.	.	.	T	C	.	.	.	.	.	.	.	T	.	.	C	.	.	C	.	.	.	.	.	.	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
cfa1-2 Cheirimedon sp.	.	.	C	.	.	C	.	.	C	.	.	.	.	.	T	C	.	.	.	.	.	.	.	T	.	.	C	.	.	C	.	.	.	.	.	.	.	.	A	.	.	A	.	.	C	.	.	T	.	.	[450]
cfa1-3 Cheirimedon sp	.	.	C	.	.	C	.	.	C	.	.	.	.	.	T	C	.	.	.	.	.	.	.	T	.	.	C	.	.	C	.	.	.	.	.	.	.	.	A	.	.	G	.	.	C	.	.	T	.	.	[450]
Dj1-1 Djerboa furcipes	.	.	.	.	.	.	.	.	C	C	.	T	.	.	T	C	.	.	.	.	.	.	.	A	.	T	T	.	.	A	.	.	.	.	.	.	.	.	A	.	.	G	.	.	T	.	.	T	.	.	[450]

1-1 Bovallia gigantea	T	T	T	T	A	T	C	T	C	A	A	C	T	G	T	G	A	T	A	A	A	T	A	T	G	C	G	G	G	C	C	C	C	T	A	G	G	A	T	A	A	G	A	A	T	A	G	A	C	C	[500]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[500]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[500]
2-1 Cheirimedon femoratus	C	.	.	.	.	.	T	.	.	T	.	G	G	.	.	T	.	.	T	.	.	.	.	.	A	.	.	T	A	G	T	T	A	.	G	.	.	.	.	.	.	.	G	T	.	T	.	.	T	.	[500]
4-1 Djerboa furcipes	C	.	.	C	.	.	T	.	.	.	.	.	A	.	.	A	G	C	.	.	.	.	.	.	A	.	.	A	.	.	T	.	.	.	.	A	T	.	.	.	.	T	.	.	.	.	.	.	.	.	[500]
4-2 Djerboa furcipes	C	.	.	C	.	.	T	.	.	.	.	.	A	.	.	A	G	C	.	.	.	.	.	.	A	.	.	A	.	.	T	.	.	.	.	A	T	.	.	.	.	T	.	.	.	.	.	.	.	.	[500]
4-3 Djerboa furcipes	C	.	.	C	.	.	T	.	.	.	.	.	A	.	.	A	G	C	.	.	.	.	.	.	A	.	.	A	.	.	T	.	.	.	.	A	T	.	.	.	.	T	.	.	.	.	.	.	.	.	[500]
5-1 Prostebbingia sp.	C	.	.	.	.	.	T	.	.	T	.	.	C	A	C	T	G	.	T	.	.	C	.	.	.	.	.	A	.	T	A	.	.	C	T	.	C	.	.	.	.	C	.	T	.	T	A	C	G	.	[500]
5-2 Prostebbingia sp.	C	.	.	.	.	.	T	.	.	T	.	.	C	A	C	T	G	.	T	.	.	C	.	.	.	.	.	A	.	T	A	.	.	C	T	.	C	.	.	.	.	C	.	T	.	T	A	C	G	.	[500]
5-3 Prostebbingia sp.	C	.	.	.	.	.	T	.	.	T	.	.	C	A	C	T	G	.	T	.	.	C	.	.	.	.	.	A	.	T	A	.	.	C	T	.	C	.	.	.	.	C	.	T	.	T	A	C	G	.	[500]
6-1 Paradexamine fissicauda	.	.	.	.	.	.	A	.	.	T	.	.	.	.	.	T	.	.	T	.	.	.	.	.	.	.	.	A	C	.	T	A	A	C	.	A	T	.	.	.	.	A	C	.	.	.	.	.	A	.	[500]
21-2 Gondogeneia antarctica	A	.	.	.	.	.	T	.	.	T	.	.	.	A	.	T	.	.	T	.	.	.	.	.	A	.	.	A	.	.	.	.	.	.	T	C	C	.	.	.	T	T	.	.	.	.	.	.	A	.	[500]
21-3 Gondogeneia antarctica	A	.	.	.	.	.	T	.	.	T	.	.	.	A	.	T	.	.	T	.	.	.	.	.	A	.	.	A	.	.	.	.	.	.	T	C	C	.	.	.	T	T	.	.	.	.	.	.	A	.	[500]
23-1 Jassa wandeli	.	.	.	.	.	.	T	.	.	G	.	.	.	A	.	T	.	.	T	.	.	.	.	.	A	.	.	A	A	.	T	G	A	A	G	.	.	.	.	.	T	T	T	.	.	.	.	.	.	.	[500]
23-2 Jassa wandeli	.	.	.	.	.	.	T	.	.	G	.	.	.	A	.	T	.	.	T	.	.	.	.	.	A	.	.	A	A	.	T	G	A	A	G	.	.	.	.	.	T	T	T	.	.	.	.	.	.	.	[500]
23-3 Jassa sp.	C	.	.	.	.	.	.	.	.	C	.	.	.	A	.	C	.	.	T	.	.	C	.	.	A	.	.	A	.	.	A	.	.	C	G	.	T	.	.	.	.	C	T	C	.	.	.	.	.	.	[500]
24-1 Wandelia crassipes	.	.	.	.	.	.	T	A	.	T	.	.	A	A	.	T	T	.	T	.	.	.	.	.	A	.	.	A	C	.	T	A	A	.	T	T	T	.	.	.	.	.	.	T	.	.	.	.	T	A	[500]
24-2 Wandelia crassipes	.	.	.	.	.	.	T	A	.	T	.	.	A	A	.	T	T	.	T	.	.	.	.	.	A	.	.	A	C	.	T	A	A	.	T	T	T	.	.	.	.	.	.	T	.	.	.	.	T	A	[500]
25-1 Prostebbingia brevicornis	.	.	.	.	.	.	T	.	.	.	.	.	G	.	.	A	.	.	C	.	.	C	.	.	A	.	.	A	.	.	T	.	.	A	.	A	T	.	.	.	.	.	G	.	.	.	.	.	.	.	[500]
25-2 Prostebbingia brevicornis	.	.	.	.	.	.	T	.	.	.	.	.	G	.	.	A	.	.	C	.	.	C	.	.	A	.	.	A	.	.	T	.	.	A	.	A	T	.	.	.	.	.	G	.	.	.	.	.	.	.	[500]
25-3 Prostebbingia brevicornis	.	.	.	.	.	.	T	.	.	.	.	.	G	.	.	A	.	.	C	.	.	C	.	.	A	.	.	A	.	.	T	.	.	A	.	A	T	.	.	.	.	.	G	.	.	.	.	.	.	.	[500]
26-1 Eurymera monticulosa	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	A	C	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	.	.	T	.	.	T	.	.	C	C	C	.	.	.	.	.	[500]
26-2 Eurymera monticulosa	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	A	C	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	.	.	T	.	.	T	.	.	C	C	C	.	.	.	.	.	[500]
26-3 Eurymera monticulosa	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	A	C	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	.	.	T	.	.	T	.	.	C	C	C	.	.	.	.	.	[500]
44-1 Metopoides sarsi	.	.	.	.	.	.	.	.	.	.	.	.	G	.	C	T	.	.	.	.	.	.	.	.	A	.	.	T	T	.	.	.	.	.	T	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	[500]
cf1-1 Cheirimedon femoratus	C	.	.	.	.	.	T	.	.	T	.	G	G	.	.	T	.	.	T	.	.	.	.	.	A	.	.	T	A	G	T	T	A	.	G	.	.	.	.	.	.	.	G	T	.	T	.	.	T	.	[500]
cf1-2 Cheirimedon femoratus	C	.	.	.	.	.	T	.	.	T	.	G	G	.	.	T	.	.	T	.	.	.	.	.	.	.	.	T	A	G	T	T	A	.	G	.	.	.	.	.	.	.	G	T	.	T	.	.	T	.	[500]
cfa1-1 Cheirimedon sp.	.	.	.	C	.	.	T	.	.	C	.	.	A	A	C	A	.	.	.	.	.	.	.	.	A	.	.	A	A	G	.	.	.	A	G	.	T	.	.	.	.	C	T	.	.	.	.	.	.	.	[500]
cfa1-2 Cheirimedon sp.	.	.	.	C	.	.	T	.	.	C	.	.	A	A	C	A	.	.	.	.	.	.	.	.	A	.	.	A	A	G	.	.	.	A	G	.	T	.	.	.	.	C	T	.	.	.	.	.	.	.	[500]
cfa1-3 Cheirimedon sp	.	.	.	C	.	.	T	.	.	C	.	.	A	A	C	A	.	.	.	.	.	.	.	.	A	.	.	A	A	G	.	.	.	A	G	.	T	.	.	.	.	C	T	.	.	.	.	.	.	.	[500]
Dj1-1 Djerboa furcipes	C	.	.	C	.	.	T	.	.	.	.	.	A	.	.	A	G	C	.	.	.	.	.	.	A	.	.	A	.	.	T	.	.	.	.	A	T	.	.	.	.	T	.	.	.	.	.	.	.	.	[500]

1-1 Bovallia gigantea	A	G	A	T	A	C	C	T	T	T	A	T	T	T	G	T	T	T	G	G	T	C	G	G	T	T	C	T	T	A	T	T	A	C	T	G	C	T	A	T	T	C	T	T	C	T	T	T	T	A	[550]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[550]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[550]
2-1 Cheirimedon femoratus	G	.	T	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	T	.	.	.	.	.	.	.	G	.	.	.	.	.	.	T	.	A	.	.	.	C	.	T	[550]
4-1 Djerboa furcipes	.	A	.	.	T	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	A	A	.	C	T	.	A	.	.	.	.	.	C	.	.	.	.	.	C	T	.	A	T	.	A	C	.	T	[550]
4-2 Djerboa furcipes	.	A	.	.	T	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	A	A	.	C	T	.	A	.	.	.	.	.	C	.	.	.	.	.	C	T	.	A	T	.	A	C	.	T	[550]
4-3 Djerboa furcipes	.	A	.	.	T	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	A	A	.	C	T	.	A	.	.	.	.	.	C	.	.	.	.	.	C	T	.	A	T	.	A	C	.	T	[550]
5-1 Prostebbingia sp.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	A	.	.	.	.	.	A	.	.	C	.	.	A	.	.	.	G	.	C	.	.	G	.	.	.	C	.	C	[550]
5-2 Prostebbingia sp.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	A	.	.	.	.	.	A	.	.	C	.	.	A	.	.	.	G	.	C	.	.	G	.	.	.	C	.	C	[550]
5-3 Prostebbingia sp.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	A	.	.	.	.	.	A	.	.	C	.	.	A	.	.	.	G	.	C	.	.	G	.	.	.	C	.	C	[550]
6-1 Paradexamine fissicauda	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	C	T	.	A	T	.	A	C	.	.	[550]
21-2 Gondogeneia antarctica	.	A	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	A	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.	.	.	C	.	.	C	.	.	A	.	.	C	C	.	.	[550]
21-3 Gondogeneia antarctica	.	A	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	A	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.	.	.	C	.	.	C	.	.	A	.	.	C	C	.	.	[550]
23-1 Jassa wandeli	G	A	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	T	.	C	.	.	.	.	.	A	.	.	.	.	.	.	T	.	A	.	.	.	C	.	C	[550]
23-2 Jassa wandeli	G	A	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	T	.	C	.	.	.	.	.	A	.	.	.	.	.	.	T	.	A	.	.	.	C	.	C	[550]
23-3 Jassa sp.	G	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	C	.	.	A	.	.	C	.	.	G	.	.	.	.	.	C	.	.	.	.	.	C	.	.	G	[550]
24-1 Wandelia crassipes	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	T	.	A	G	.	A	.	.	A	.	.	A	G	.	G	T	.	A	.	.	.	.	.	.	[550]
24-2 Wandelia crassipes	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	T	.	A	G	.	A	.	.	A	.	.	A	G	.	G	T	.	A	.	.	.	.	.	.	[550]
25-1 Prostebbingia brevicornis	G	A	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	A	T	.	A	C	.	C	[550]
25-2 Prostebbingia brevicornis	G	A	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	A	T	.	A	C	.	C	[550]
25-3 Prostebbingia brevicornis	G	A	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	A	T	.	A	C	.	C	[550]
26-1 Eurymera monticulosa	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	C	.	.	A	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	A	T	.	A	C	.	T	[550]
26-2 Eurymera monticulosa	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	C	.	.	A	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	A	T	.	A	C	.	T	[550]
26-3 Eurymera monticulosa	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	C	.	.	A	.	.	C	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	A	T	.	A	C	.	T	[550]
44-1 Metopoides sarsi	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	A	A	.	.	T	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	C	.	T	[550]
cf1-1 Cheirimedon femoratus	G	.	T	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	T	.	.	.	.	.	.	.	G	.	.	.	.	.	.	T	.	A	.	.	.	C	.	T	[550]
cf1-2 Cheirimedon femoratus	G	.	C	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	T	.	.	A	T	.	.	.	.	.	.	.	G	.	.	.	.	.	.	T	.	A	.	.	.	C	.	T	[550]
cfa1-1 Cheirimedon sp.	.	A	G	C	T	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	T	.	.	.	.	C	.	.	A	.	.	.	.	.	C	.	.	.	.	.	A	C	.	T	[550]
cfa1-2 Cheirimedon sp.	.	A	G	C	T	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	T	.	.	.	.	C	.	.	A	.	.	.	.	.	C	.	.	.	.	.	A	C	.	T	[550]
cfa1-3 Cheirimedon sp	.	A	G	C	T	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	T	.	.	A	T	.	.	.	.	C	.	.	A	.	.	.	.	.	C	.	.	.	.	.	A	C	.	T	[550]
Dj1-1 Djerboa furcipes	.	A	.	.	T	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	A	A	.	C	T	.	A	.	.	.	.	.	C	.	.	.	.	.	C	T	.	A	T	.	A	C	.	T	[550]

1-1 Bovallia gigantea	T	T	G	T	C	T	C	T	A	C	C	T	G	T	T	T	T	G	G	C	T	G	G	G	G	C	T	A	T	T	A	C	A	A	T	A	T	T	G	T	T	G	A	C	C	G	A	C	C	G	[600]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[600]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[600]
2-1 Cheirimedon femoratus	.	.	A	.	.	.	T	.	.	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	T	.	.	[600]
4-1 Djerboa furcipes	C	.	C	.	.	C	T	.	.	.	.	A	.	.	A	.	.	A	.	.	A	.	.	A	.	.	C	.	.	C	.	.	T	.	.	.	C	.	A	C	.	A	.	.	T	.	.	.	.	.	[600]
4-2 Djerboa furcipes	C	.	C	.	.	C	T	.	.	.	.	A	.	.	A	.	.	A	.	.	A	.	.	A	.	.	C	.	.	C	.	.	T	.	.	.	C	.	A	C	.	A	.	.	T	.	.	.	.	.	[600]
4-3 Djerboa furcipes	C	.	C	.	.	C	T	.	.	.	.	A	.	.	A	.	.	A	.	.	A	.	.	A	.	.	C	.	.	C	.	.	T	.	.	.	C	.	A	C	.	A	.	.	T	.	.	.	.	.	[600]
5-1 Prostebbingia sp.	C	.	C	.	.	.	.	.	G	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	G	C	.	C	C	.	C	.	.	T	.	.	.	.	.	[600]
5-2 Prostebbingia sp.	C	.	C	.	.	.	.	.	G	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	G	C	.	C	C	.	C	.	.	T	.	.	.	.	.	[600]
5-3 Prostebbingia sp.	C	.	C	.	.	.	.	.	G	.	.	A	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	G	C	.	C	C	.	C	.	.	T	.	.	.	.	.	[600]
6-1 Paradexamine fissicauda	C	.	T	.	.	.	T	.	.	.	.	.	.	.	.	.	.	A	.	.	C	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	C	.	C	.	.	T	.	.	.	.	.	[600]
21-2 Gondogeneia antarctica	C	.	A	.	.	.	.	.	G	.	.	A	.	.	C	.	.	A	.	.	A	.	.	T	.	.	.	.	.	.	.	.	C	.	.	.	C	.	T	.	.	.	.	.	A	.	.	.	.	.	[600]
21-3 Gondogeneia antarctica	C	.	A	.	.	.	.	.	G	.	.	A	.	.	C	.	.	A	.	.	A	.	.	T	.	.	.	.	.	.	.	.	C	.	.	.	C	.	T	.	.	.	.	.	A	.	.	.	.	.	[600]
23-1 Jassa wandeli	C	.	C	.	.	C	T	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	[600]
23-2 Jassa wandeli	C	.	C	.	.	C	T	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	[600]
23-3 Jassa sp.	C	.	.	.	.	A	T	.	.	.	.	A	.	.	C	C	.	.	.	.	A	.	.	.	.	.	G	.	.	C	.	.	C	.	.	G	C	.	A	C	.	T	.	.	T	.	.	.	.	.	[600]
24-1 Wandelia crassipes	.	.	A	.	.	.	T	.	.	.	.	A	.	.	A	.	.	A	.	.	G	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	A	.	.	A	.	.	A	.	.	T	.	.	[600]
24-2 Wandelia crassipes	.	.	A	.	.	.	T	.	.	.	.	A	.	.	A	.	.	A	.	.	G	.	.	A	.	.	.	.	.	.	.	.	T	.	.	.	.	.	A	.	.	A	.	.	A	.	.	T	.	.	[600]
25-1 Prostebbingia brevicornis	C	.	C	.	.	.	T	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	G	.	.	C	.	.	T	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	[600]
25-2 Prostebbingia brevicornis	C	.	C	.	.	.	T	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	G	.	.	C	.	.	T	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	[600]
25-3 Prostebbingia brevicornis	C	.	C	.	.	.	T	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	G	.	.	C	.	.	T	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	[600]
26-1 Eurymera monticulosa	C	.	A	.	.	C	.	.	.	.	.	C	.	.	C	.	.	A	.	.	A	.	.	A	.	.	A	.	.	C	.	.	C	.	.	G	.	.	A	C	.	T	.	.	A	.	.	T	.	.	[600]
26-2 Eurymera monticulosa	C	.	A	.	.	C	.	.	.	.	.	.	.	.	C	.	.	A	.	.	A	.	.	A	.	.	A	.	.	C	.	.	C	.	.	G	.	.	A	C	.	T	.	.	A	.	.	T	.	.	[600]
26-3 Eurymera monticulosa	C	.	A	.	.	C	.	.	.	.	.	.	.	.	C	.	.	A	.	.	A	.	.	A	.	.	A	.	.	C	.	.	C	.	.	G	.	.	A	C	.	T	.	.	A	.	.	T	.	.	[600]
44-1 Metopoides sarsi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	C	.	.	.	.	.	A	.	.	.	.	.	T	.	.	.	.	.	A	.	.	.	.	.	A	.	.	.	.	.	[600]
cf1-1 Cheirimedon femoratus	.	.	A	.	.	.	T	.	.	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	T	.	.	[600]
cf1-2 Cheirimedon femoratus	.	.	A	.	.	.	T	.	.	.	.	.	.	.	G	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	T	.	.	[600]
cfa1-1 Cheirimedon sp.	C	.	A	.	.	A	.	.	C	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	.	.	.	T	.	.	G	C	.	T	C	.	A	.	.	A	.	.	.	.	.	[600]
cfa1-2 Cheirimedon sp.	C	.	A	.	.	A	.	.	C	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	.	.	.	T	.	.	G	C	.	T	C	.	A	.	.	A	.	.	.	.	.	[600]
cfa1-3 Cheirimedon sp	C	.	A	.	.	C	.	.	C	.	.	.	.	.	.	.	.	A	.	.	A	.	.	A	.	.	.	.	.	.	.	.	T	.	.	G	C	.	T	C	.	A	.	.	A	.	.	.	.	.	[600]
Dj1-1 Djerboa furcipes	C	.	C	.	.	C	T	.	.	.	.	A	.	.	A	.	.	A	.	.	A	.	.	A	.	.	C	.	.	C	.	.	T	.	.	.	C	.	A	C	.	A	.	.	T	.	.	.	.	.	[600]

1-1 Bovallia gigantea	T	A	A	C	C	T	A	A	A	T	A	G	C	T	C	T	T	T	T	T	T	T	G	A	C	C	C	T	-	A	G	G	G	G	A	G	G	C	G	G	A	G	A	C	C	-	C	T	A	T	[650]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	.	.	.	.	[650]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	.	.	.	.	[650]
2-1 Cheirimedon femoratus	A	.	.	T	T	.	.	.	.	.	.	C	T	.	.	G	.	.	.	.	.	.	.	.	T	.	.	.	-	.	.	.	.	.	T	.	.	G	.	.	G	.	.	T	.	-	.	.	.	.	[650]
4-1 Djerboa furcipes	.	.	.	T	T	.	.	.	.	C	.	C	A	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	C	.	.	A	.	.	.	.	.	G	.	.	.	.	.	.	.	T	.	C	.	.	[650]
4-2 Djerboa furcipes	.	.	.	T	T	.	.	.	.	C	.	C	A	.	.	.	.	.	C	.	.	.	.	.	.	.	.	C	-	.	.	A	.	.	.	.	.	G	.	.	.	.	.	.	.	-	.	C	.	.	[650]
4-3 Djerboa furcipes	.	.	.	T	T	.	.	.	.	C	.	C	A	.	.	.	.	.	C	.	.	.	.	.	.	.	.	C	-	.	.	A	.	.	.	.	.	G	.	.	.	.	.	.	.	-	.	C	.	.	[650]
5-1 Prostebbingia sp.	.	.	.	T	T	.	.	.	.	C	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	-	.	.	C	.	.	T	.	.	A	.	.	G	.	.	.	.	-	.	C	.	.	[650]
5-2 Prostebbingia sp.	.	.	.	T	T	.	.	.	.	C	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	-	.	.	C	.	.	T	.	.	A	.	.	G	.	.	.	.	-	.	C	.	.	[650]
5-3 Prostebbingia sp.	.	.	.	T	T	.	.	.	.	C	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	-	.	.	C	.	.	T	.	.	A	.	.	G	.	.	.	.	-	.	C	.	.	[650]
6-1 Paradexamine fissicauda	A	.	.	.	T	.	.	.	.	.	.	C	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	-	.	.	A	.	.	.	.	.	G	.	.	T	.	.	.	.	-	.	.	.	.	[650]
21-2 Gondogeneia antarctica	G	.	.	.	.	.	.	.	.	.	.	C	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	-	.	.	A	.	.	.	.	.	A	.	.	G	.	.	.	.	-	.	A	.	.	[650]
21-3 Gondogeneia antarctica	G	.	.	.	.	.	.	.	.	.	.	C	T	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	-	.	.	A	.	.	.	.	.	A	.	.	G	.	.	.	.	-	.	A	.	.	[650]
23-1 Jassa wandeli	.	.	.	.	.	.	.	.	.	C	.	C	A	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	-	T	T	A	.	.	G	.	.	A	.	.	T	.	.	.	.	-	.	.	.	.	[650]
23-2 Jassa wandeli	.	.	.	.	.	.	.	.	.	C	.	C	A	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	-	T	T	A	.	.	G	.	.	A	.	.	T	.	.	.	.	-	.	.	.	.	[650]
23-3 Jassa sp.	.	.	.	.	.	.	.	.	.	C	.	C	.	.	.	A	.	.	C	.	.	.	.	.	.	.	.	.	-	T	T	A	.	.	G	.	.	T	.	.	C	.	.	.	.	-	.	.	.	.	[650]
24-1 Wandelia crassipes	A	.	.	T	T	.	.	.	.	C	.	C	A	A	.	.	.	.	.	.	.	.	.	.	T	.	.	.	-	.	.	A	.	.	.	.	.	A	.	.	.	.	.	T	.	-	.	.	.	.	[650]
24-2 Wandelia crassipes	A	.	.	T	T	.	.	.	.	C	.	C	A	A	.	.	.	.	.	.	.	.	.	.	T	.	.	.	-	.	.	A	.	.	.	.	.	A	.	.	.	.	.	T	.	-	.	.	.	.	[650]
25-1 Prostebbingia brevicornis	.	.	.	T	T	.	.	.	.	C	.	C	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	.	.	T	.	.	T	.	.	G	.	.	.	.	.	.	.	-	.	.	G	.	[650]
25-2 Prostebbingia brevicornis	.	.	.	T	T	.	.	.	.	C	.	C	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	.	.	T	.	.	T	.	.	G	.	.	.	.	.	.	.	-	.	.	G	.	[650]
25-3 Prostebbingia brevicornis	.	.	.	T	T	.	.	.	.	C	.	C	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	.	.	T	.	.	T	.	.	G	.	.	.	.	.	.	.	-	.	.	G	.	[650]
26-1 Eurymera monticulosa	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	A	-	.	.	A	.	.	T	.	.	.	.	.	C	.	.	.	.	-	.	.	.	.	[650]
26-2 Eurymera monticulosa	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	A	-	.	.	A	.	.	T	.	.	.	.	.	C	.	.	.	.	-	.	.	.	.	[650]
26-3 Eurymera monticulosa	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.	A	.	.	.	.	.	.	.	.	T	.	.	A	-	.	.	A	.	.	T	.	.	.	.	.	C	.	.	.	.	-	.	.	.	.	[650]
44-1 Metopoides sarsi	A	.	.	T	A	.	T	.	.	.	.	C	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-	T	.	T	.	.	T	.	.	G	.	.	G	.	.	.	.	-	.	.	.	.	[650]
cf1-1 Cheirimedon femoratus	A	.	.	T	T	.	.	.	.	.	.	C	T	.	.	G	.	.	.	.	.	.	.	.	T	.	.	.	-	.	.	.	.	.	T	.	.	G	.	.	G	.	.	T	.	-	.	C	.	.	[650]
cf1-2 Cheirimedon femoratus	A	.	.	T	T	.	.	.	.	.	.	C	T	.	.	G	.	.	.	.	.	.	.	.	T	.	.	.	-	.	.	.	.	.	T	.	.	G	.	.	.	.	.	T	.	-	.	.	.	.	[650]
cfa1-1 Cheirimedon sp.	A	.	.	T	.	.	T	.	.	C	.	C	.	.	.	A	.	.	C	.	.	C	.	.	T	.	.	.	-	.	.	.	.	.	G	.	.	G	.	.	.	.	.	.	.	-	.	.	.	.	[650]
cfa1-2 Cheirimedon sp.	A	.	.	T	.	.	T	.	.	C	.	C	.	.	.	G	.	.	C	.	.	C	.	.	T	.	.	.	-	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	-	.	.	.	.	[650]
cfa1-3 Cheirimedon sp	A	.	.	T	.	.	T	.	.	C	.	C	.	.	.	C	.	.	C	.	.	C	.	.	T	.	.	.	-	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	-	.	.	.	.	[650]
Dj1-1 Djerboa furcipes	.	.	.	T	T	.	.	.	.	C	.	C	A	.	.	.	.	.	C	.	.	.	.	.	.	.	.	C	-	.	.	A	.	.	.	.	.	G	.	.	.	.	.	.	.	-	.	C	.	.	[650]

1-1 Bovallia gigantea	T	C	T	C	T	A	C	C	A	A	C	A	T	T	T	A	T	T	T	[669]
1-2 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
1-3 Bovallia gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
2-1 Cheirimedon femoratus	C	.	.	T	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	[669]
4-1 Djerboa furcipes	.	T	.	G	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	[669]
4-2 Djerboa furcipes	.	T	.	G	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	[669]
4-3 Djerboa furcipes	.	T	.	G	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	[669]
5-1 Prostebbingia sp.	C	.	.	G	.	.	.	.	.	G	.	.	C	.	.	.	.	.	C	[669]
5-2 Prostebbingia sp.	C	.	.	G	.	.	.	.	.	G	.	.	C	.	.	.	.	.	C	[669]
5-3 Prostebbingia sp.	C	.	.	G	.	.	.	.	.	G	.	.	C	.	.	.	.	.	C	[669]
6-1 Paradexamine fissicauda	.	T	.	G	.	.	.	.	.	.	.	.	C	C	.	.	.	.	.	[669]
21-2 Gondogeneia antarctica	C	.	.	T	.	.	T	.	.	.	.	.	C	.	.	.	.	.	.	[669]
21-3 Gondogeneia antarctica	C	.	.	T	.	.	T	.	.	.	.	.	C	.	.	.	.	.	.	[669]
23-1 Jassa wandeli	.	T	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
23-2 Jassa wandeli	.	T	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
23-3 Jassa sp.	.	T	.	A	.	.	-	.	.	.	.	.	.	C	.	G	.	.	.	[669]
24-1 Wandelia crassipes	.	T	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
24-2 Wandelia crassipes	.	T	.	A	.	.	.	.	.	.	.	.	.	.	T	.	.	.	-	[669]
25-1 Prostebbingia brevicornis	C	T	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
25-2 Prostebbingia brevicornis	C	T	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
25-3 Prostebbingia brevicornis	C	T	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
26-1 Eurymera monticulosa	C	T	.	A	.	.	.	.	.	.	.	C	C	.	.	.	A	.	[669]
26-2 Eurymera monticulosa	C	T	.	A	.	.	.	.	.	.	.	C	C	.	.	.	.	-	[669]
26-3 Eurymera monticulosa	C	T	.	A	.	.	.	.	.	.	.	C	C	.	.	.	A	.	[669]
44-1 Metopoides sarsi	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	[669]
cf1-1 Cheirimedon femoratus	C	.	.	T	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	[669]
cf1-2 Cheirimedon femoratus	C	.	.	T	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	[669]
cfa1-1 Cheirimedon sp.	C	.	.	G	.	.	.	.	.	.	.	C	C	.	.	.	.	.	.	[669]
cfa1-2 Cheirimedon sp.	C	.	.	G	.	.	.	.	.	.	.	C	C	.	.	.	.	.	.	[669]
cfa1-3 Cheirimedon sp	C	.	.	A	.	.	.	.	.	.	.	C	C	.	.	.	.	.	.	[669]
Dj1-1 Djerboa furcipes	.	T	.	G	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	[669]

국문초록

남극은 세계적인 단각류 대가들이 앞 다투어 연구하는 지역으로 남극의 단각류는 남극해 (Southern Ocean)에 815 종이 기록되어 있으며, 그 중 킹조지섬이 속하는 West Antarctic 지역에서만 414 종이 기록되어있다. 이러한 높은 다양성 뿐만 아니라 남극은 남극 순환류로 인해 해양생물의 입·출입이 어려워 남극고유종이 많은 것이 특징이다. 실제로 남극해에 보고된 815 종 중 남극해에서만 발견되는 종이 651 종으로 남극해는 거대한 '섬'과 같은 지역이라 할 수 있다.

남극 킹조지섬은 사우스셔틀랜드 군도에서 가장 큰 섬으로 군도의 가장 위에 위치하고 있다. 킹조지섬은 크게 3 개의 만 (어드미랄티 만, 멕스웰 만, 킹죠지 만)이 존재한다. 세종기지 앞에 위치한 마리안 소만은 단각류에 대한 기초 연구가 되어있지 않아 필자는 마리안 소만의 단각류를 연구하기 위해 2012 년 1 월 남극 세종기지를 50 일간 방문 연구하였다.

2011 년, 2012 년 2 차년간에 30m 이내의 얕은 조하대 11 개의 정점에서 2 회 채집을 된 샘플을 통하여 12 과 22 종의 단각류를 확보하였다. 그 중 6 종은 이 지역에서 처음 발견되는 종으로 기존에 멕스웰만의 단각류의 기록을 모아 체크리스트를 만든 결과 55 종이

기록되어 있었고 이로 인해 멕스웰만의 단각류는 총 61 종이 되었다. 세종기지 주변의 우점종은 *Cheirimedon femoratus* 와 *Gondogeneia Antarctica* 였다.

마리안 소만의 13 종의 단각류에 대한 mtCOI 염기서열을 얻어 DNA barcoding 을 실험하였다. 바코딩을 통하여 성공적으로 남극 단각류의 종동정이 이루어졌으며 큰 바코드 간격과 31.7%의 종간서열차이를 보이는 것을 확인했다. 또한 Maximum liklyhood analysis 통하여 몇 개의 은둔종을 발견하였다.

주요어 : 갑각류, 단각류, DNA 바코딩, 계통분류학, 남극, 세종기지.

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