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**The Expedition ANTARKTIS-XXIII/8
of the Research Vessel "Polarstern" in 2006/2007**

**Edited by
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with contributions of the participants**



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- Larsen A and B sponge fauna showed characteristics of deep-sea fauna, at least 2 abyssal species. • Bottom types play an important role for sponge abundance and diversity.

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2.1.6 SYSTEMATIC AND ECOLOGICAL DIVERSITY OF AMPHIPODS

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Introduction

Knowledge of the rich amphipod fauna of the Antarctic shelf ecosystem is still scanty and deserves extensive further studies, both in morphological and molecular systematics. Too little is known about the colour pattern of live animals, despite it is often a very useful identification tool in field conditions. The geographical and ecological distribution of many species is still poorly known as a result of the patchiness of previous samplings. Filling such gaps is a prerequisite for assessing the impact of the global warming expected to occur in the coming decennia, since species with a restricted distribution are more vulnerable than others. On the other hand, the various ecological roles (such as commensalism and necrophagy) played by the diverse Antarctic amphipod species are insufficiently understood and require more thorough investigations. Amphipod taxocoenoses present under ice-shelves are virtually unknown, since in normal conditions they are almost completely out of reach. The recent collapsing of the former Larsen A and B ice-shelves offers a unique opportunity to study them.

Objectives

- To document the faunistical, zoogeographical and ecological traits of the amphipod taxocoenoses of the Western Weddell Sea and the northern islands of the Antarctic Peninsula.

- To discover new species of various families, and to collect material for taxonomical revisions and phylogenetic studies of selected higher taxa (e.g. Lysianassoidea and Liljeborgiidae).
- To extract DNA of the aforementioned taxa for future sequencing of genes (such as the 16S, 18S and the COI) useful for detecting cryptic species and for studying phylogeographical issues.
- To contribute by taxonomical + photographic material and distributional + ecological data to the preparation of the "Synopsis of Antarctic Amphipods" edited by De Broyer *et al.* and to expand the "Ant'Phipoda" Antarctic amphipod database.
- To discover new symbioses and to document them by photographs.
- To compare the scavenger guilds (amphipods and isopods) from different areas, depths and biotopes by the use of baited traps.

Work at Sea

Material has been collected with Rauschert dredge, Agassiz trawl, bottom trawl and baited traps in the vicinity of the South Shetland Islands, including Elephant and King George Islands, of Joinville Island, at the NE tip of the Antarctic Peninsula (western Weddell Sea: off Dundee and Snow Hill Islands), in the Larsen A and B areas and at a single station in the eastern Weddell Sea. Specimens have been sorted out on board. Most of them have been identified and photographed before fixation. For symbiotic species, *in situ* photographs were made whenever possible. Photographs were carried out with a Nikon 'Coolpix 4500' and a Canon 'Powershot S3 IS' digital cameras mounted on a tripod Cullmann 'Video 3200' and using a Euromex fiber optic light source EK-1. The proportion of different species in amphipod traps (Amphipoda and also Isopoda) has been assessed when time was available. DNA extraction has been carried out for selected taxa (*Eusirus* spp, Liljeborgiidae, Lysianassoidea, Oedicerotidae).

Preliminary results

Systematics. 147 taxa have been sorted out and identified to the family, genus or species level (Table 2.8) and 134 species have been photographed. DNA extraction has been carried out for 36 species and whenever possible specimens from different stations have been extracted. 18 amphipods are considered as probable new species. The most difficult groups have not yet been examined; hence the number of new species in the material could be higher. Several probable new species are large and sometimes spectacular, and some are locally not uncommon. For example, it was a surprise to find a new giant *Eusirus* species of the group *perdentatus* (caught in baited traps immersed at 830m depth) and a large and spectacular new *Epimeria* close to *E. reoproi* (Fig. 2.7). *Rhachotropis antarcticus* sensu lato was represented by two colour morphs: one with a bright red and one with a purplish red colour pattern. *Maxillipimedia longipes* was also represented by a brown and a red

morph. The systematic status of these colour morphs requires further investigations. Antarctic *Leucothoe* of the complex *spinicarpa* have a colour pattern with reddish brown mottling, which is not the case in specimens from Northern Norway seen by the first author, which have a uniform whitish colour. This suggests that *L. spinicarpa* is not a cosmopolite species as often claimed in literature but a complex of closely related species. Beside *Echiniphimedia imparidentata* sensu stricto, two forms close but not identical to the type (one specimen of each form) have been collected (Fig. 2.5). They could be new species. Furthermore the hedgehog-like *E. hodgsoni* sensu lato was represented in the samples by two morphotypes (with spines of different length and slenderness). They are possibly separate species. Still in the genus *Echiniphimedia*, the material collected includes a form similar to *E. scotti* but also showing differences with illustrations from literature (posterior dorsal spines more numerous and more slender). Beside the common lysianassoid *Waldekia obesa*, two species with a similar yellowish colour pattern were found. None of them had a tooth-like urosomal process, and one of them exhibited a tooth pointing laterally on the coxa of the fifth pereopod. They are likely to be new species. In the samples, the genus *Lepidepecreoides* was represented by two species of similar size. One corresponds to *L. xenopus* as illustrated by Lowry & Stoddart (2002), while the second has a much longer posterior spur on the basis of the fifth pereopod and the anterior segments of its body are dorsally humped. It is interpreted as a probable new species. The single specimen of the genus *Shackletonia* (a rarely recorded genus) is probably new (De Broyer, pers. comm.). The single specimen referred to the genus *Liouvillea* collected during the cruise has no dorsal teeth as in *L. oculata*, so it is likely to be a new species. Finally a totally aberrant stenothoid with a *Stegosaurus*-like dorsal crest probably belongs to a new species if not to a new genus.

Range extensions. All data from the Larsen area are new records and many species are recorded for the first time from the waters surrounding Elephant and Joinville Islands and the tip of the Antarctic Peninsula (Table 2.8). Whilst most range extensions are not very important, a few species: *Echiniphimedia imparidentata*, *E. waegelei*, *Gainella chelata*, *Liljeborgia quadridentata*, *Tiron antarcticus*, *Tryphosella macropareia* have been found in stations widely separate from previously known localities.

Symbioses. Sponges prove to be a habitat of predilection for many amphipods. A tiny yellow stegocephalid (*Andaniotes* or *Glorandaniotes* sp.) was found in large number inside desmosponges. Three lysianassoids were also found inside sponges: *Aristias antarcticus*, *Gainella chelata* and *Orchomenyx* sp 1. *Alexandrella dentata* was found amongst large grey hexactinellid sponges at St 725-6 (it was the only amphipod found at this station). Its colour perfectly mimicked those sponges; hence it is interpreted as a probable sponge associate. Young *Chosroes decoratus* have been found in large number on the surface of various species of corticated sponges. It was possible to document photographically that one of the *Echiniphimedia* cplx *imparidentata* discovered during the campaign dig holes into giant candle-like sponges (cf *Homaxinella* sp) and that juveniles of an unidentified

more spiny representative of the same genus sometimes cluster on the same sponge species (Fig. 2.5). The lysianassoid *Orchomenyx* sp 2 (which is remarkably close to *O.* sp 1) has been found inside huge solitary ascidians. Large lysianassoids of the genus *Adeliella* have been found inside the body cavity of holothurians from the Larsen B. No such association was known between holothurians and lysianassoids.

Remarkable amphipod taxocoenoses. A few stations hosted amphipod taxocoenoses of an exceptional faunistical composition, with numerous and often unusual species: St 654-6 and 654-7 (Elephant Island), community with abundant epifauna dominated by *Flustra*-like bryozoans; St 726-1 (“SHI”, N of James Ross Island), community with rich epifauna including stalked and slender-branched sponges; St 702-9 and 721-2 (Larsen “S_South”), community dominated by pink and white hydrocorals (stony bottom).

Traps. Thousands of crustaceans (mostly lysianassoid amphipods) have been collected in baited traps. Although the diversity per catch was always low, the specific composition varied significantly with areas, depth and even between a priori similar stations. Most species found in traps were not collected with trawls and dredges. The species found in the traps have been separated and whenever possible identified (Table 2.8). Several species locally common in the traps could not be identified on board and are potentially new ones. The number of individuals per species has been counted when time was available:

- Elephant Island, St 625-3, 257m depth, 8 traps sorted: 3106 crustaceans; 3.0% of *Abyssorchomene plebs*, 11.7% of *Orchomenopsis* sp ‘orange-coloured’, 70.0% of cf *Uristes* sp, 5.9% of *Natanolana intermedia* (Isopoda), 9.0% of *N. oculata* (Isopoda).
- Larsen B (“B_South”, SE margin of former ice-shelf), St 698-1, 390m, 2 traps sorted: 875 crustaceans; 91.0% of *Abyssorchomene plebs*, 2.6% of *A. rossi*, 0.1% of *Parschisturella carinata*, 0.3% of *Tryphosella murrayi*, 4.3% of lysianassoid ‘cup-eyed’, 0.1% of *Natanolana intermedia*. A single *Waldekiella obesa* was found in a third trap which has not been fully sorted.
- Larsen B (“B_West”, within former ice-shelf), St 705-1, 310m, 4 traps sorted: 173 crustaceans; 99.4% of *Abyssorchomene plebs* (mostly tiny juveniles), 0.6% of *Abyssorchomene scotianensis*.
- Larsen B (“B_Seep”, within former ice-shelf), St 706-7/706-8, 850m, 3 traps sorted: 127 crustaceans; 13.4% of *Abyssorchomene plebs*, 86.6% of *Abyssorchomene scotianensis*.
- Larsen B (“B_North”, within former ice-shelf), St 713-1, 301m, 2 traps sorted: 4864 crustaceans (4460 in one trap); 99.94% of *Abyssorchomene plebs*, 0.04% of *Tryphosella murrayi*, 0.02% of *Abyssorchomene scotianensis*.

Amphipods of the Larsen area. The general impression was that the amphipod diversity within the Larsen A was low (only 11 species were found), but only a very few stations were sampled. At the SE margin of the Larsen B

former iceshelf ("B_South", St 702-9 and 721-2), the amphipod diversity was high (27 species were found). On the other hand deeper into the Larsen B embayment (B_West", "B_Seep", "B_North"), trawling, dredging and trapping operations indicated (1) that the diversity of amphipods was remarkably low (only 4 species were collected) and (2) that their abundance was locally much reduced. The holothurian-dominated mud community was particularly poor in amphipods, since several trawling operations on such bottoms did not yield a single specimen. The trapping operations suggest a very patchy distribution of scavenger amphipods in the Larsen B embayment. There were only 43 specimens per trap at St 705-1, 42 specimens per trap at St 706-7 and 706-8, but no less than 2432 specimens per trap at St 713-1.

Table 2.8 List of species (provisional identifications) per area, with indications of those which were photographed and for which DNA extractions were carried out. Species indicated by "!" are possibly or probably new for science. Records followed by 'T' between brackets consist of material collected in baited traps. Records followed by a star are important range extensions. Areas: Elephant Island (EI): St 604 to 654; King George Island (KGI): St 660-681; N of Joinville Island (JI): St 683-700; South of the Antarctic Sound, Snow Hill Island (SHI): St 728; Dundee island (DI): St 726; Larsen A (LA): St 722-725; Western Larsen B (WLB): St 703, 705, 706, 713, 718; SE margin of Larsen B (ELB): St 698, 700, 702, 721; Akta Bay (AB), St 603.

| AREAS + TASKS | EI | KGI | JI | SHI | DI | LA | WLB | ELB | AB | Ph. | DNA |
|--|----|-----|----|-----|----|----|-----|-----|----|-----|-----|
| ACANTHONOTOZOMELIDAE | | | | | | | | | | | |
| <i>Acanthonotozomoides</i> sp | | | | | | | | X | | | |
| AMATHILLOPSIDAE | | | | | | | | | | | |
| <i>Parepimeria crenulata</i> | | | X | | X | | | | | | + |
| <i>Parepimeria cf minor</i> | | | | | X | | | | | | + |
| ! <i>Parepimeria</i> sp aff <i>major</i> | | | | | | | | X | | | + |
| cf <i>Parepimeria</i> sp | | | | | X | | | | | | + |
| AMPELISCIDAE | | | | | | | | | | | |
| <i>Ampelisca</i> spp | | | | | | | | | | | |
| (mostly <i>A. richardsoni</i>) | X | X | X | X | X | | | | X | | + |
| <i>Haploops securiger</i> | X | X | | X | X | | | | | | + |
| CAPRELLIDEA | | | | | | | | | | | |
| <i>Aeginoides gaussi</i> | | | | | | | | X | | | + |
| <i>Phthisica</i> sp. | X | | | | | | | | | | |
| COROPHIOIDEA | | | | | | | | | | | |
| (excl CAPRELLIDEA) | | | | | | | | | | | |
| Corophioid | | | | | | | | | | | |
| 'large; basally-red antennae' | X | X | | | | | | | | | + |
| Corophioid | | | | | | | | | | | |
| 'small; transversally striped' | X | | | | | | | | | | + |
| <i>Gammaropsis</i> sp 1 | X | | | | | | | | X | | |
| <i>Gammaropsis</i> sp 2 | | | | | X | | | | | | + |
| <i>Haplocheira</i> sp | | | | X | | | | | | | + |
| Isaeidae n det 'mottled' | | | X | | | | | | | | + |
| Ischyroceridae | | | | | | | | | | | |
| n det 'from hydroids' | | X | | | | | | | | | + |
| Ischyroceridae n det 'yellow' | | | X | | X | | | | | | + |
| cf <i>Ischyrocerus</i> sp | | | | | X | | | | | | + |
| <i>Jassa</i> cf <i>goniomera</i> | X | | | | | | | | | | + |
| <i>Jassa</i> sp 'large and setose' | | | | | X | | | | | | + |

| AREAS + TASKS | EI | KGI | Jl | SHI | DI | LA | WLB | ELB | AB | Ph. | DNA |
|---|----|-----|------|-----|----|----|-----|-----|----|-----|-----|
| <i>Pseuderichtonius</i> spp | X | | X | | | X | | X | | + | |
| DEXAMINIDAE | | | | | | | | | | | |
| <i>Paradexamine fissicauda</i> | | X | | | | | | | | + | |
| <i>Polycheria</i> sp | | | | X | | | | | | + | |
| EPIMERIIDAE | | | | | | | | | | | |
| <i>Epimeria anabellae</i> | | | | | | | | | X | | |
| <i>Epimeria georgiana</i> | X | | X | | X | | | | | + | |
| <i>Epimeria grandirostris</i> | X | | | | | | | | | + | |
| <i>Epimeria macrodonta</i> | X | | X | X | X | X | | X | X | + | |
| <i>Epimeria oxycarinata</i> | X | | | | | | | | | + | |
| <i>Epimeria pulchra</i> | X | | | X | | | | | | + | |
| <i>Epimeria reoproii</i> | X | | | | | | | | | + | |
| <i>Epimeria robusta</i> | | X | | | | | | | X | + | |
| <i>Epimeria similis</i> | X | X | | | | | | | | + | |
| ! <i>Epimeria</i> sp aff <i>reoproii</i> | X | X | | X | | | | | | + | |
| <i>Epimeriella</i> cf <i>scabrosa</i> | | | | | | | | | | | |
| '4 dorsal teeth' | | | | | | X* | | | | + | |
| <i>Epimeriella walkeri</i> | | | | | | | | | X | + | |
| EUSIROIDEA | | | | | | | | | | | |
| <i>Atylopsis</i> sp | | | | | | | | | X | | |
| <i>Chosroes decoratus</i> | X | X | | | | | | | | + | |
| <i>Eusirus</i> cplx <i>antarcticus</i> | | | | | | | | | | | |
| 'ring spots' | X | | X | X | | | | X | X | + | + |
| <i>Eusirus</i> cplx <i>antarcticus</i> | | | | | | | | | | | |
| 'no ring spots' | | | X | X | | | | X | X | + | + |
| <i>Eusirus</i> cplx <i>antarcticus</i> | | | | | | | | | | | |
| 'pure white' | | | | X | | | | | | + | |
| <i>Eusirus giganteus</i> | X | X | X | | | | | X | | + | |
| <i>Eusirus microps</i> | | X | | | | | | | | + | |
| <i>Eusirus perdentatus</i> | X | X | X | X | X | | | X | | + | + |
| <i>Eusirus propeperdentatus</i> | | X | | | | | | | | + | |
| ! <i>Eusirus</i> sp cplx <i>perdentatus</i> | | | X(T) | | | | | | | + | + |
| ! <i>Liouvillea</i> sp 'no teeth on back' | | | X | | | | | | | + | |
| <i>Oradarea impressicauda</i> | | | X | | | | | | | + | |
| <i>Oradarea tridentata</i> | | | | | X | | | | | + | |
| <i>Oradarea</i> sp 'orange-coloured' | X | | | | | | | | | + | |
| <i>Paramoera/Pontogenia</i> sp | X | | | | | | | | | + | |
| <i>Rhachotropis antarctica</i> | X | X | | | X | | X | | X | + | |
| ! <i>Rhachotropis</i> aff <i>antarctica</i> | X | | X | | | | | | | + | |
| <i>Rhachotropis schellenbergi</i> | | | | | X | X | | X | | + | |
| <i>Schraderia gracilis</i> | | | X | | | | | | X | + | |
| IPHIMEDIIDAE | | | | | | | | | | | |
| <i>Anchiphimedia dorsalis</i> | X | | | | | | | | | + | |
| <i>Echiniphimedia echinata</i> | | | | X | X | | | | X | + | |
| ! <i>E. cplx hodgsoni</i> "stout spines" | | | X | | | | | | X | + | |
| <i>E. cplx hodgsoni</i> | | | | | | | | | | | |
| 'long slender spines' | X | | | | | | | | | + | |
| <i>Echiniphimedia imparidentata</i> | | | | | | X* | | | | + | |
| ! <i>Echiniphimedia</i> sp 1 | | | | | | | | | | | |
| aff <i>imparidentata</i> | | | X | | | | | | | + | |
| ! <i>Echiniphimedia</i> sp 2 | | | X | | | | | | | + | |
| aff <i>imparidentata</i> | | | | | | | | | | + | |
| ! <i>Echiniphimedia</i> aff <i>scotti</i> | | | | | X | | | | | + | |
| <i>Echiniphimedia waegelei</i> | | | X* | | | | | | X | + | |
| <i>Gnathiphimedia mandibularis</i> | | X | | | | | | | X | + | |
| <i>Gnathiphimedia sexdentata</i> | | | X | X | X | X | | | X | + | |
| <i>Iphimediella bransfieldi</i> | | | | | | | | | X | + | |

| AREAS + TASKS | EI | KGI | JI | SHI | DI | LA | WLB | ELB | AB | Ph. | DNA |
|--|------|-----|------|-----|----|----|------|------|----|-----|-----|
| <i>Iphimediella cyclogena</i> | | | | X | | | | X | X | + | |
| <i>Iphimediella margueritei</i> | | | X | X | X | X | | | | + | |
| <i>Iphimediella microdentata</i> | | | | | | | | | X | + | |
| <i>Iphimediella rigida</i> | | | | X | X | | | | X | + | |
| <i>Iphimediella ruffoi</i> | | | | | | | | | X | + | |
| <i>Iphimediella serrata</i> | X | | X | X | | | | | | + | |
| ! <i>Iphimediella</i> sp 'small & white' | | | X | | | | | | | + | |
| <i>Maxilliphimedia longipes</i> 'brown' | X | X | | | X | | | | | + | |
| <i>Maxilliphimedia longipes</i> 'red' | | X | | | | | | | | + | |
| <i>Pariphimedia integricauda</i> | X | | | | | | | | | + | |
| <i>Stegopanoplea joubini</i> | | | X | X | X | | | | | + | |
| LEPECHINELLIDAE | | | | | | | | | | | |
| <i>Lepechinella cetrata</i> | X | | | | | | | | | + | |
| LEUCOTHOIDAE | | | | | | | | | | | |
| <i>Leucothoe</i> cplx <i>spinicarpa</i> 'mottled' | | | | | X | | | | X | + | |
| LILJEBORGIIDAE | | | | | | | | | | | |
| ! <i>Liljebordia</i> sp 1 | | | | | | | | | X* | + | + |
| ! <i>Liljeborgia</i> sp 2 'small sp; 'big black eyes' | | | | X | | | | | | + | |
| <i>Liljeborgia georgian</i> 'brown Gn1-2' | X | | | | X | | | | | + | + |
| <i>Liljeborgia georgiana</i> 'purple Gn1-2' | X | | | | | X | | X | | + | + |
| <i>Liljeborgia quadridentata</i> | X* | | | | | | | | | + | + |
| LYSIANASSOIDEA | | | | | | | | | | | |
| <i>Abyssorchomene plebs</i> | X(T) | | X(T) | | | | X(T) | X(T) | | + | + |
| <i>Abyssorchomene rossi</i> | | | | | | | | X(T) | | + | + |
| <i>Abyssorchomene scotianensis</i> | | | | | | | X(T) | | | + | + |
| <i>Adeliella</i> sp 'from holothurians' | | | | | | | | X | | + | + |
| <i>Aristias antarcticus</i> 'from sponges' | | X | | | X | | | | | + | + |
| <i>Cheirimedon crenipalmatus</i> | X(T) | | | | | | | | | + | + |
| <i>Eurythenes gryllus</i> | | | X(T) | | | | | | | + | |
| <i>Gainella chelata</i> 'from sponges' | | | X* | | | | | | | | |
| <i>Hippomedon</i> spp | X | | X | | | | | | | + | + |
| <i>Hirondellea antarctica</i> | | | | | | | | | X | + | + |
| <i>Kerguelenia</i> sp | X | | | | | | | | | | + |
| <i>Lepidepecreella</i> sp | | | | | X | | | | | + | |
| <i>Lepidepecreoides xenopus</i> | X | | | | | | | | | + | + |
| ! <i>Lepidepecreoides</i> sp | X | | X | | | | | | | + | |
| <i>Orchomenella acanthurus</i> | X | | | X | X | | | | X | + | + |
| <i>Orchomenella pinguides</i> | X | | X | | X | | | | X | + | |
| <i>Orchomenopsis cavimanus</i> | | | X(T) | | | | | | | + | + |
| <i>Orchomenopsis</i> sp 'orange-coloured' | X(T) | | | | | | | | | + | + |
| <i>Orchomenyx</i> sp 1 'from sponges' | X | | | | | | | | | + | + |
| <i>Orchomenyx</i> sp 2 'from tunicates' | | | X | | | | | | | + | + |
| <i>Parschisturella carinata</i> | | | X(T) | | | | | X(T) | | + | |
| ! <i>Shackletonia</i> sp | X | | | | | | | | | + | + |
| cf <i>Stomacontion</i> sp | X | | | | | | | | | | + |
| <i>Tryphosella intermedia</i> | | | | | | | | | X | | |
| <i>Tryphosella macropareia</i> | X* | | | | | | | | | + | |
| <i>Tryphosella murrayi</i> | | | | | | | X(T) | X(T) | X | + | + |
| <i>Tryphosella</i> sp aff <i>murrayi</i> | X | | | | | | | | | + | |
| <i>Uristes adareii</i> | | | | | | | | | X | + | + |
| <i>Uristes gigas</i> | | | | | | | | | X | + | |
| ! cf <i>Uristes</i> sp | X(T) | | | | | | | | | + | + |
| <i>Waldekiella obesa</i> | X | | X | X | X | | | X | X | + | + |

| AREAS + TASKS | EI | KGI | JI | SHI | DI | LA | WLB | ELB | AB | Ph. | DNA |
|---|----|-----|----|-----|----|----|-----|------|----|-----|-----|
| ! <i>Waldekoa</i> -like sp 1 | | | | | | | | | | | |
| '5th-coxa toothed' | X | | | | | | | | | + | + |
| ! <i>Waldekoa</i> -like sp 2 | | | | | | | | | | | |
| 'no urosomal tooth' | X | | | | | | | | | + | + |
| Lysio n det 'cup-eyed' | | | | | | X | | X(T) | | + | + |
| Lysio n det 'pink body; white eyes' | | X | | | | | | | | + | |
| Lysio n det 'small & yellow; white eyes' | X | | | | | | | | | + | + |
| Lysio n det 'white body; red eye' | | | | | | | | X | | + | |
| MELITIDAE | | | | | | | | | | | |
| <i>Paraceradocus gibber</i> | X | X | X | X | | | | | X | + | |
| MELPHIDIPPIDAE | | | | | | | | | | | |
| <i>Melphidippa antarctica</i> | X | | X | | X | | | | | + | |
| ODIIDAE | | | | | | | | | | | |
| <i>Antarctodius antarcticus</i> | X | | | | X | | | | | + | |
| OEDICEROTIDAE | | | | | | | | | | | |
| <i>Monoculodes</i> sp 'red eye' | | X | X | X | X | | | | | + | + |
| <i>Monoculodes</i> sp 'white eye' | | | | | X | | | | | + | |
| <i>Oedicerooides calmani</i> | X | X | X | | X | | | | | + | + |
| <i>Oedicerooides lavilhei</i> | X | X | | | | | | | | + | + |
| Gen.? Sp.? | | | X | | | | | | | + | |
| PAGETINIDAE | | | | | | | | | | | |
| <i>Pagetina antarctica</i> | | | X | | X | X | | | | + | |
| PARDALISCIDAE | | | | | | | | | | | |
| <i>Nicippe</i> sp | X | | | | | | | | | + | |
| <i>Pardalisca</i> sp | | | | | | | | X | X | + | |
| PHOXOCEPHALIDAE | | | | | | | | | | | |
| Sp 'yellow; black eyes' | | | | | | | | | X | + | |
| <i>Pseudharpinia</i> sp | X | X | | X | X | | | X | | + | |
| Sp 'whitish; small white eyes' | | | X | | X | | | X | | + | |
| Sp 'whitish; big black eyes' | | | X | X | | | | | | | |
| PODOCERIDAE | | | | | | | | | | | |
| <i>Neoxenodice</i> sp | | | | | X | | | | | + | |
| <i>Podocerus septemcarinatus</i> | X | | X | X | X | X | | | | + | |
| SEBIDAE | | | | | | | | | | | |
| <i>Seba</i> sp | | | | | | | | X | | | |
| STEGOCEPHALIDAE | | | | | | | | | | | |
| (<i>Glor</i>) <i>andaniotes</i> sp from sponges | X | | | | | | | | X | + | |
| STENOTHOIDAE | | | | | | | | | | | |
| Stenothoidae n det, various spp | X | | X | X | X | | | X | X | + | |
| ! Strange crested sp | | | | | | | | X | | + | |
| STILIPEDIDAE | | | | | | | | | | | |
| <i>Alexandrella dentata</i> | | | | | | X | | | | + | |
| <i>Bathypanoplea schellenbergi</i> | X | X | | | | | | | | + | |
| SYNOPIIDAE | | | | | | | | | | | |
| <i>Syrrhoe nodulosa</i> | X | | | X | X | | | X | | + | |
| <i>Tiron antarcticus</i> | X* | | | | | | | | | + | |
| UROTHOIDAE | | | | | | | | | | | |
| <i>Urothoe</i> sp | X | | | X | | | | | | + | |

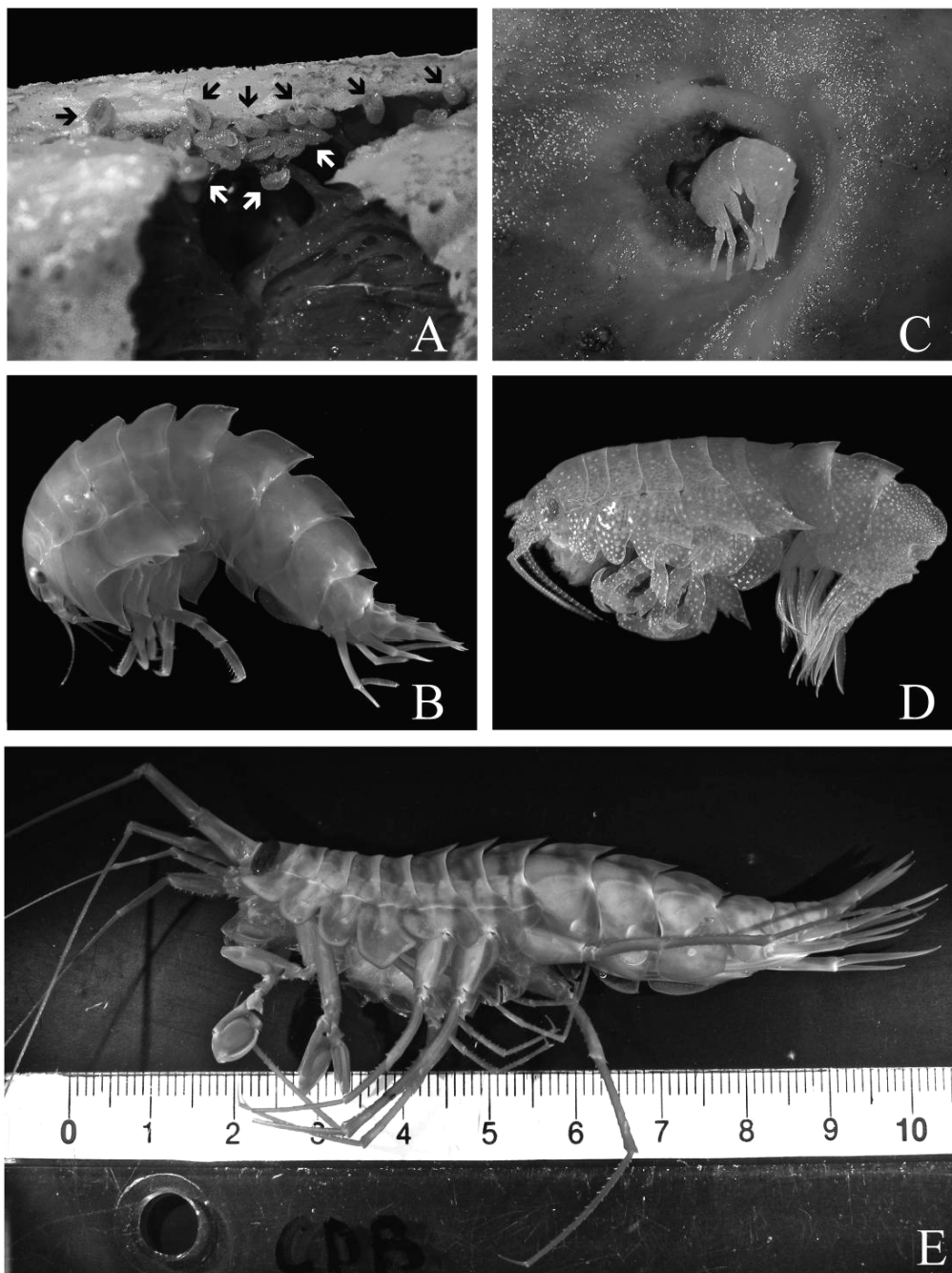


Fig. 2.5 Some amphipods. A, group of juvenile *Echiniphimedia* sp on a candle-like sponge (cf *Homaxinella* sp), st. 668-1; B, *Epimeria* sp aff *reoproii*, st. 605-5; C, *Echiniphimedia* sp 1 aff *imparidentata* in a hole of a candle-like sponge (cf *Homaxinella* sp.), presumably dug by the amphipod itself, st. 668-1; D, *Echiniphimedia* sp 2 aff *imparidentata*, st. 678-1. E, *Eusirus* sp cplx *perdentatus*, baited trap, st. 683-1/684-1.

Reference

Lowry JK, Stoddart HE 2002. The Lysianassoid Amphipod Genera *Lepidepecreoides* and *Lepidepecreum* in Southern Waters (Crustacea: Lysianassidae: Tryphosinae). *Records of the Australian Museum* 54: 335–364