

Barnacles (Cirripedia: Thoracica) of the Dampier Archipelago, Western Australia

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Abstract – Thirty-five species of littoral and shallow-water barnacle species were collected during the expeditions and fieldwork in the tropical waters of the Dampier Archipelago. Barnacle communities stratify on the basis of depth, with intertidal, shallow subtidal and deeper subtidal communities recognisable. Clear distribution differences exist between intertidal and deeper water communities; the shallower water subtidal community is somewhat intermediate, with some species wide-ranging. Species diversity is greatest in the intertidal whereas many of the deeper water stations are dominated by only one or two species. A checklist produced from barnacle records contained in the collections of Australian museums presently documents 49 littoral and shallow-water barnacle species from the Dampier Archipelago. The fauna is dominated by species with Indo-West Pacific and Indo-Australian distributions. It shows strong affinities with that of the Kimberley area to the north and many similarities with those of the more southern Muiron Islands, Exmouth Gulf and Montebello Islands in northern Western Australia. The fauna, however, differs significantly from the barnacle fauna of the southern Australian warm temperate province. First collections of *Balanus reticulatus* and *Megabalanus rosa* raise the number of introduced barnacle species currently recorded from the Dampier Archipelago to six.

INTRODUCTION

Prior to the 1990's, the barnacle fauna of northwestern Australia had been detailed only briefly. First collections were by the German *Gazelle* Expedition (1874–76), which collected barnacles, corals and echinoderms at the Dampier Archipelago (*Meermaidstreet*) and Shark Bay (Weltner, 1897). Barnacles epizotic on turtles and sea snakes in northwestern Australian waters were recorded by Krüger (1911) and Nilsson-Cantell (1921), respectively. The Mjöberg Swedish Scientific Expedition of 1910–1913 to northwestern Australia (Cape Jaubert area) recorded 10 barnacle species (Broch, 1916), of which six showed Malayan affinities and four were new, commensal with gorgonians, sponges and antipatharians. Reporting on barnacles collected by Dr Th. Mortensen's Pacific Expedition (1914–1916) in the Pacific Ocean, Broch (1922) also demonstrated a faunistic relationship between some Australian cirripede species and those of the Malaysian region. Hiro (1936), describing new barnacle species collected from north of Darwin at the shoal Zyûmonzi-syô (11°00'S, 130°00'E), commented on the paucity of knowledge of the cirripede fauna in northern and western areas of Australia and suggested that Zyûmonzi-syô and northwestern Australia (Cape

Jaubert) were similar, both biogeographically and topographically.

Not until 1990 were the shallow- and deep-water barnacle faunas of Australia documented for the first time (Jones *et al.*, 1990). From museum collection holdings and literature records, these authors identified 41 neustonic and shallower water (to 200 m) and 7 deeper water (200+ m) cirripede species as occurring along the coast of northwestern Australian.

Systematic collecting of the northwestern Australian barnacle fauna began in 1989, at the Buccaneer Archipelago (16°11'S, 123°24'E) in the Kimberley area, during a short WA Museum/WA Fisheries sampling cruise aboard the research vessel *Flinders*, followed by the WA Museum Kimberley Islands and Reefs Expedition (KIRE) in 1991. A detailed report of the KIRE barnacles documented 54 species (Jones, 1992a). Two additional species were later added (Jones and Hewitt, 1997), making a total of 56 for the Kimberley area. Further WA Museum expeditionary work in tropical northwestern Australian has been conducted to the south of the Kimberley, around the area of North West Cape (21°47'S, 114°10'E). Thirty-nine species of shallow water and neustonic cirripede species have been recorded from the Muiron Islands and

the eastern shores of Exmouth Gulf (Jones and Hewitt, 1996). Further collecting at the Montebello Islands added an additional five species, making a total of 44 from the North West Cape area (Jones and Berry, 2000).

Prior to the Woodside Energy Ltd/Western Australia Museum partnership fieldwork in the Dampier Archipelago, a small number of barnacles had been collected between 1972–1974 during WA Museum expeditions to Kendrew Island and nearby reefs and to Enderby Island (1987), when the western side of the Burrup Peninsula and some offshore islands were also visited.

The present report examines the large collection of shallow-water barnacles amassed from the 1998–2001 Woodside Energy Ltd/Western Australia Museum partnership. This four-year survey involved a workshop and one dredging and two diving expeditions in the archipelago, as well as numerous surveys along shores of the Burrup Peninsula and the adjacent mainland. These records have been amalgamated with those of cirripedes from the Dampier Archipelago collected by previous WA Museum expeditions, as well as cirripedes contained in other Australian Museum collections, to produce a checklist of the littoral and shallow-water barnacle species of the waters of the Dampier Archipelago.

MATERIALS AND METHODS

Specimens were collected at low tide by hand from a wide variety of habitats (e.g. rocks, reefs, mangroves). Subtidal samples were collected by SCUBA or by dredging. Dredged samples were obtained using a box-shaped dredge measuring 1200 cm x 330 cm at the mouth with a 1 cm mesh. All dredge runs were at a vessel speed of 2–3 knots and of 10 minutes duration.

Emphasis was placed particularly on collecting cryptic barnacle species and those epizoic on or commensal in a variety of hosts (e.g. decapod crustaceans, sponges, corals, gorgonians). Where possible, barnacles epizoic on marine reptiles and mammals were sampled. Collections are deposited in the collection of the Crustacean Department at the Western Australian Museum, Perth.

Cirripedes contained in the collections of the Western Australian Museum were reviewed for records from the Dampier Archipelago, along with collections from a number of other Australian museums – i.e. the Australian Museum (Sydney, New South Wales), the Melbourne Museum (Melbourne, Victoria), the Museum and Art Gallery of the Northern Territory (Darwin, Northern Territory), the Queensland Museum (Brisbane, Queensland) and the South Australian Museum (Adelaide, South Australia).

The general arrangement of taxa follows Newman

(1996). Genera are listed alphabetically within families and species alphabetically within genera. Abbreviations are as follows: WAM C = Western Australian Museum Crustacean Collection; AM P = Australian Museum Crustacean Collection.

RESULTS

The sampling stations and barnacle species collected during the two diving expeditions (DA1, DA3), the dredging expedition (DA2), the workshop and additional shore collecting along the Burrup Peninsula and the adjacent mainland are listed (Appendix 1). Thirty-five barnacle species were collected.

Additional intertidal shore collections

Shore collecting provided 19 barnacle species (Tables 1 and 2). The site with the highest barnacle diversity was Watering Cove on the east side of the Burrup Peninsula (17 species). This number may, however, be partly a result of increased sampling effort at this locality. Other sites with high diversities were Point Cleaverville (9 species) and Withnell Bay and Dampier Beach (each with 8 species). The least diverse mainland station was at Dampier Salt Ltd. Beach (three species), an area that has been subjected to anthropogenic influences.

Balanus amphitrite Darwin, 1854 and *B. cirratus* Darwin, 1854 were the most widely distributed species (at six sites) (Table 3). The majority of species occurring at only one site were epizoic – *Octolasmis* cf. *bullata* (Aurivillius, 1892) attached to the gills of *Portunus pelagicus* (Linnaeus, 1758); *Chelonibia* cf. *caretta* (Spengler, 1790) attached to the carapace of *Eretmochelys imbricata* (Borradaile); *Armatobalanus quadrivittatus* (Darwin, 1854) attached to *Acanthopleura spinosa* (Bruguère, 1792); and *Acasta* spp attached to intertidal sponges.

Diving expeditions (DA1/98, DA3/99)

The two diving expeditions DA1/98 and DA3/99 included sampling at intertidal as well as diving stations. Twenty barnacle species were collected (11 intertidal and nine subtidal species). Barnacles were collected at 27 (77%) of the DA1/98 stations and at 21 (61%) of the DA3/99 stations. Nineteen and 18 barnacle species were collected by these respective expeditions (Tables 4 and 5). Seventeen species were common to both the DA1/98 and DA3/99. Fourteen species collected by the diving expeditions (DA1/98 and DA3/99) were not collected during the dredging expedition (DA2/99). Two subtidal species were collected only by the DA1/98 expedition, *Armatobalanus* cf. *cepa* (Darwin, 1854) and *Striatobalanus tenuis* (Hoek, 1883). The former was only collected during DA1/98; the latter was

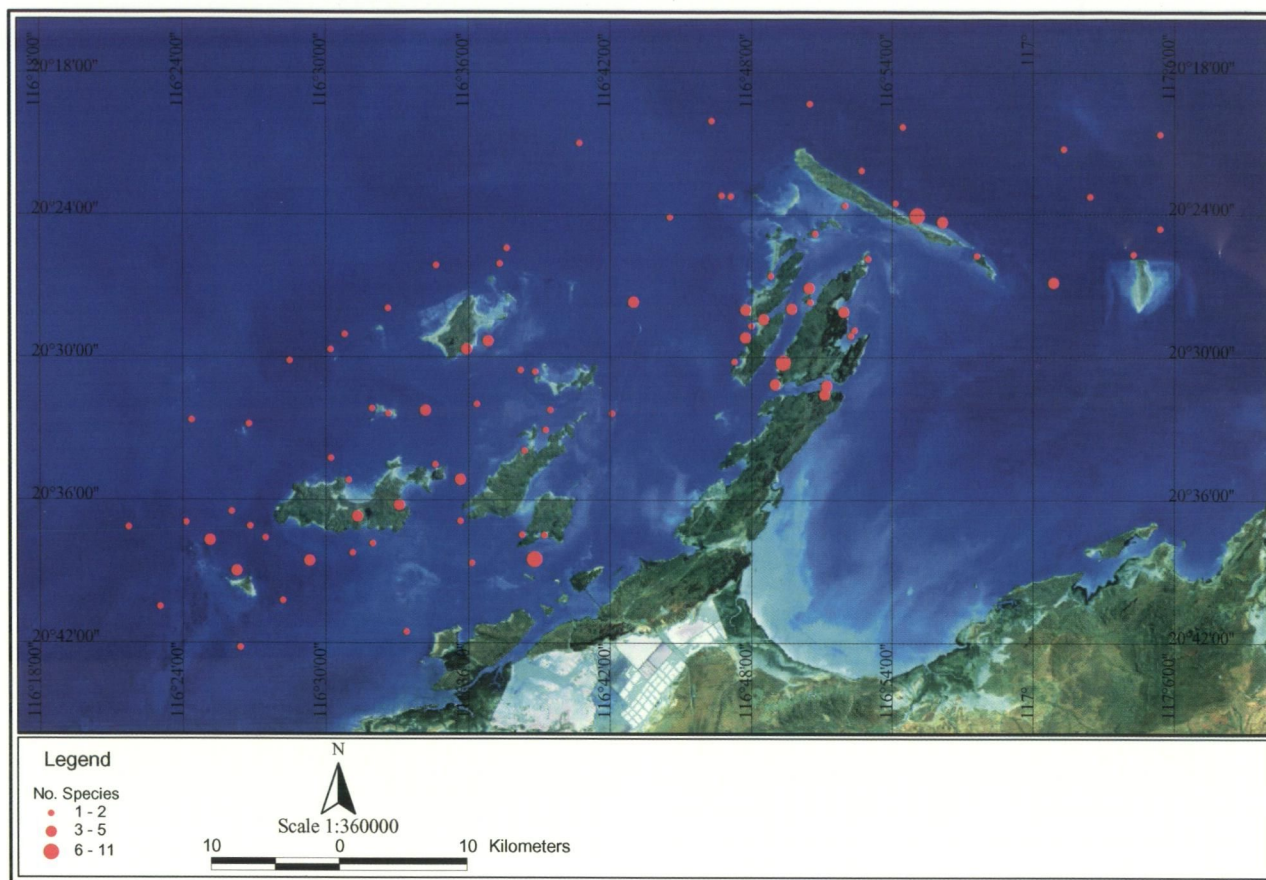


Figure 1 Numbers of barnacle species collected by diving (DA1/98 and DA3/99) and dredging (DA2/99) expeditions.

also collected by the dredging expedition (DA2/99). The intertidal pedunculate *Lithotrya valentiana* (Gray, 1825) was collected only by the DA3/99 expedition (Table 6).

Intertidal stations: DA1/98 and DA3/99

The site with the highest barnacle diversity was DA1/98/11 at Dolphin Island, in the northeast of the archipelago (seven species) (Figure 1 and Table 2). Seven sites with moderate diversities had between three to five species present. Sites ranged from the northeast of the archipelago (three sites) to the outer northwestern edge of the archipelago (two sites) and, closer to the mainland, the southwestern archipelago (two sites). The least diverse intertidal stations had one or two barnacle species present (four stations in the northeast and five in the inner islands of the archipelago).

Subtidal stations: DA1/98 and DA3/99

0–10 m depth

The highest diversity was at DA1/98/27 (1.0–8.0 m, Legendre Island) with 11 species. However, eight of these are intertidal and three are subtidal species (Table 7). Excluding intertidal species, stations in the northeast of the archipelago showed the greatest diversity. Station DA1/98/33 (Angel Island)

was the most diverse subtidal station (five species) followed by a Burrup Peninsula site (DA1/98/30) with four species and three at Legendre Island (DA1/98/27) and Angel Island (DA1/98/08) (Figure 1 and Table 7).

The lowest diversity was at subtidal stations where only one (six stations) or two species (five stations) were obtained. Four of the five stations with two species were in the northeast and one station was in the northwest of the archipelago. Three of the six stations with one species were in the northeast and three in the inner islands of the archipelago (Figure 1 and Table 7).

11–20 m depth

The highest diversity at this depth range was in the inner islands of the archipelago, in a channel between Enderby and West Lewis Islands, with five species (DA3/99/55). Three species were collected from three stations and two from three stations. Of these, three stations were in the southwest and three in the northeast of the archipelago. The least diverse stations (three with one species each) occurred either along the outer edge (DA1/98/32 Legendre Island) or toward the extreme western (DA1/98/50 Bare Rock) or extreme eastern (DA1/98/21 Delambre Island) extent of the Dampier Archipelago (Figure 1 and Table 7).

21->30 m depth

Three stations were sampled over this depth range along the outer edge of the archipelago. Two species were sampled from DA3/99/39 (Brigadier Island) and one species was collected from stations DA1/98/26 (Madeleine Shoals) and DA3/98/52 (Roly Rock) (Figure 1 and Table 7).

Species distribution

Intertidal species

The most widely distributed intertidal species collected by the DA1/98 and DA3/99 expeditions were *Tetraclitella* sp. nov., *Tetraclita squamosa* (Bruguière, 1789), *Balanus reticulatus* Utinomi, 1967 and *Megabalanus tintinnabulum* (Linnaeus, 1758), collected from nine stations. Three species – *Chthamalus malayensis* Pilsbry, 1916, *Caudoeuraphia* cf. *caudata* (Pilsbry, 1916) and *Newmanella vitiata* (Darwin, 1854) – were each collected from seven stations. *Balanus* sp. nov. occurred at six stations and *Ibla cumingi* Darwin, 1851 at five. *Balanus amphitrite* Darwin, 1854 occurred intertidally at four and *B. cirratus* Darwin, 1854 at three stations. *Lithotrya valentiana* (Gray, 1825) was collected from one station only (Table 8).

Subtidal species

(Note: intertidal species that extend into shallower water are included in this category)

Acasta spp associated with sponges were the most widely distributed subtidal barnacles, being collected from 17 (24%) of the 70 dive stations sampled (from the intertidal to a depth of 19 m). These were followed by the coral commensals, pyrgomatid spp, collected from depths of 0–27 m from 11 stations (16%). *Conopea* spp associated with gorgonians were collected from nine stations (13%), from the intertidal to 30 m depth. *Striatobalanus amaryllis* (Darwin, 1854) occurred at five stations (7%), from the intertidal to 17 m. *Armatobalanus* cf. *cepa* (Darwin, 1854), *A. quadrivittatus* (Darwin, 1854) and *Megabalanus rosa* Pilsbry, 1916, each occurred at three stations (intertidal to 10 m, 1–20 m, and intertidal to 8 m, respectively) and *Striatobalanus tenuis* (Hoek, 1883) was collected from one (at depths of 1–10 m) (Table 9).

Dredging expedition (DA2/99)

A total of 14 subtidal barnacle species was collected from 41 of the 100 DA2/99 dredging expedition stations (Table 10).

0–10 m depth

Species diversity at this depth was low. Three species were collected from one station in the northeast (DA2/99/62 Flying Foam Passage) and one species was obtained from four stations which

were all in the inner southwestern areas of the archipelago (Figure 1 and Table 11).

11–20 m depth

The highest diversity at this depth range was in the inner islands (DA2/99/65 off Intercourse Island with seven species; DA2/99/33 Malus Islands, five species; DA2/99/75 Goodwyn Island, four species; and DA2/99/74 SE Enderby Island, three species) and in the northeast (DA2/99/13 off Haüy Island with five species) of the archipelago. Lowest diversity (one or two species) occurred at stations scattered throughout the archipelago, with two species from 13 stations and one from each of 22 stations (Figure 1 and Table 11).

21->30 m depth

Species diversity at this depth was also low. Of the sixteen stations sampled, and which were scattered throughout the archipelago, two species were collected from six stations and one other from the remainder (Figure 1 and Table 11).

Species distribution

Striatobalanus amaryllis (Darwin, 1854) was the most widely distributed species, being collected between depths of 7.0–38.5 m from 31 (47%) stations. *Conopea calceolus* (Ellis, 1758) and *Acasta* spp were each collected from 11 (16%) stations (depths 10.0–38.0 m and 9.0–38.5 m, respectively) and *Conopea* spp were collected between depths of 7.0–43.0 m from eight (11%) stations (Table 12).

The remaining 10 species were collected from appreciably fewer stations. *Solidobalanus ciliatus* (Hoek, 1913) was collected from three (12.5–19.5 m) and *Armatobalanus terebratus* (Darwin, 1854) and pyrgomatid spp each from two stations (7.0–15.0 m and 18.0–21.0 m, respectively). Seven species (*Calantica* sp. nov., *Armatobalanus arcuatus* Hoek, 1913, *A. quadrivittatus* Hoek, 1913, *Striatobalanus bimae* (Hoek, 1913), *S. tenuis* (Hoek, 1883), *Conopea* sp. 1 cf. *navicula* (Darwin, 1854) and *Conopea* sp. 2 cf. *dentifer* (Broch, 1922) were each collected from one station, from depths of 19.5 m, 32.0–33.0 m, 38.0 m, 18.0–21.0 m, 38.5 m, 10.0–15.0 m and 10.0–15.0 m, respectively.

Comparison between the diving (DA1/98, DA3/99) and dredging (DA2/99) expeditions

A total of 28 barnacle species was collected by the diving and the dredging expeditions. Of these, 12 are intertidal species, 11 of which were also collected from stations included in the diving expeditions (DA1/98 and DA3/99). The intertidal pedunculate *Lithotrya valentiana* (Gray, 1825) was collected exclusively by DA3/99 (from an intertidal station). Five species/taxa (*Armatobalanus quadrivittatus* (Darwin, 1854), *Striatobalanus amaryllis*

(Darwin, 1854), *Conopea* spp, *Acasta* spp, pyrgomatid spp) were common to all the expeditions (Table 6). Two species, *Megabalanus rosa* (Pilsbry, 1916) and *M. tintinnabulum* (Linnaeus, 1758), were collected only by the diving expeditions. The subtidal *Striatobalanus tenuis* (Hoek, 1883) was collected by the diving expedition DA1/98 as well as by the dredging expedition DA2/99. Eight subtidal species were collected exclusively by the dredging expedition DA2/99 – *Calantica* sp. nov., *Armatobalanus arcuatus* Hoek, 1913, *A. terebratus* (Darwin, 1854), *Solidobalanus ciliatus* (Hoek, 1913), *Striatobalanus bimae* Hoek, 1913, *Conopea calceolus* (Ellis, 1758), *Conopea* sp. 1 cf. *navicula* (Darwin, 1854) and *Conopea* sp. 2 cf. *dentifer* (Broch, 1922) and DA1/98 exclusively collected *Armatobalanus* cf. *cepa* (Darwin, 1854).

Zonation of barnacle species with depth

The depth profiles of the barnacle species collected during the two diving and the dredging expeditions are shown in Tables 13 and 14. There is distinct grouping, with intertidal, shallow subtidal and deeper subtidal communities recognisable. There are also clear distribution differences between intertidal/shallower water (0–10m) and deeper water (20–30+m) communities. The intertidal/shallower water was richest, with a total of 23 species, whereas the deeper water sites were least rich (10 species) with the majority of sites dominated by only one or two species. The shallow water subtidal community (11–20 m) was somewhat intermediate (14 species), with some species wide-ranging.

Checklist of barnacle species occurring in the waters of the Dampier Archipelago

This checklist must still be considered incomplete until further identification of coral, sponge and gorgonian barnacles to species level occurs. Further collecting may reveal additional species, particularly subtidal and those epizoic on vertebrate hosts, e.g. turtles, sea-snakes, whales. A total of 49 barnacle species in 24 genera held in 11 families and four suborders is recorded (Appendix 2).

Taxonomic affinities

Of the 49 barnacle species recorded, nine are in the Pedunculata and the remaining 40 in the Sessilia. The nine pedunculate species are in seven genera held in five families within three suborders of the Pedunculata. The 40 sessile species belong to 17 genera within six families of one suborder of the Sessilia (Table 15).

Biogeographic affinities

Excluding 11 cosmopolitan species, the majority of Dampier Archipelago barnacles are tropical and

either widely distributed throughout the Indo-West Pacific faunal province (26 species), or less broadly in the Indo-Australian sub-province of the Indo-West Pacific region (7 species). No species with Australasian (Australian/New Zealand affinities) were collected. Five species are possible Australian endemics (Table 15).

DISCUSSION

Barnacles are common in the waters of the Dampier Archipelago. They were collected from 69% of the diving and 41% of the dredging stations and are often conspicuous components of the intertidal rocky shore fauna. Thirty-five barnacles were collected during the fieldwork reported on herein and 49 species are now recorded from the area (Appendix 2).

Highest barnacle diversity was at intertidal sites on the Burrup Peninsula, on the mainland and in the northeast of the Dampier Archipelago. These sites are complex habitats (for example reef flats lined with igneous boulders beyond a mangal with a flowing creek and extensive tidal mudflats) and offer a large variety of substrata for barnacle attachment. Barnacles may be free-living, attached to hard substrata, commensal (e.g. associated within living hosts, such as sponges, gorgonians, coral) or epizoic (e.g. attached to living hosts, such as decapod crustaceans). Examples of complex habitats occur at Watering Cove on the Burrup Peninsula, Point Cleaverville on the mainland, and station DA1/98/11 on Dolphin Island.

Lowest intertidal barnacle diversity occurs where there are less complex habitats and fewer suitable attachment sites – for example, gently sloping limestone pavements with scattered loose slabs (Station DA3/98/48 Goodwyn Island), or silty, intertidal flats with scattered live and dead corals (DA1/98/23 Dolphin Island). A covering of short algal turf, e.g. *Bornitella* spp and *Caulerpa* spp, or rocks covered with filamentous brown algae, are often associated with these low barnacle diversity sites. Dampier Salt Ltd. Beach was found to be the least diverse mainland site. This is an area that has been subjected to recent anthropogenic influences, with the damming of a tidal creek and construction of a levy as part of the nearby Dampier Salt Ltd. operations.

Barnacle communities in the Dampier Archipelago zone on the basis of depth, with clear distribution differences demonstrated between intertidal and deepwater communities and the subtidal community somewhat intermediate. As on the shore, balanomorphs dominate depths to >30m, following the general concept of this family's species richness in shallow waters (Newman and Ross, 1971; Young, 1995).

There is a gradual decrease in diversity from the

intertidal and shallower subtidal to the deeper water habitats. Subtidally at 0–10 m depth, greatest barnacle diversity occurs at diving stations in the northeast of the Dampier Archipelago, e.g. Gidley and Angel Islands, and is associated with rich areas of soft corals, gorgonians, sea whips, sponges and corals. The least diverse stations form an outer arc, from the northeast to the southwest of the Dampier Archipelago. Between 11–20 m depth, the greatest diversity occurs at sites in the inner islands, e.g. dredging sites off Intercourse Island and the Malus Islands and a diving station in a channel between Enderby and West Lewis Islands. Again, these are areas where rich sponge gardens, gorgonians and corals occur. Species diversity below 20 m is low, with only one or two barnacle species being collected by diving and dredging from sites scattered throughout the archipelago. This low diversity reflects the lack of suitable hard substrata at these depths for barnacle attachment.

The shores of the Dampier Archipelago area are dominated by balanomorphs species. Chthamalamids, tetracitids and balanids are the most widely-distributed intertidal barnacles, occurring throughout the archipelago, the Burrup Peninsula and the coast of the mainland. The zonation follows the chthamalid-tetracitid-balanid trend which is characteristic of tropical and warm temperate Australian shores (Jones, 1992a, 2003) and is fairly universal on warm temperate shores (Foster, 1978). Two intertidal pedunculates, *Lithotrya valentiana* (Gray, 1825) and *Ibla cumingi* Darwin, 1851, also occur infrequently on the shores, in essentially refugial habitats.

The chthamalids *Microeuraphia withersi* (Pilsbry, 1916) and *Caudoeuraphia* cf. *caudata* (Pilsbry, 1916) occur in the upper to mid-littoral on sheltered shores, on rocks or mangroves (trunks and leaves of *Avicennia marina* (Forsk.) Vierh. and, less frequently, on the prop roots of *Rhizophora stylosa* Griff. In these areas, the cryptic *Microeuraphia* spp also occur in rock crevices and on the lower, shaded sides of rocks. *Chthamalus malayensis* Pilsbry, 1916 occurs on the upper surfaces of rocks on sheltered shores as well as in sheltered niches of more wave-exposed areas. The tetracitids *Tetracitella squamosa* (Bruguère, 1789) and *Newmanella vitiata* (Darwin, 1854) occur on hard substrata in the mid to low littoral, in areas where there is semi to full wave exposure. *Tetracitella* sp. nov. is hypobiotic, occurring on the undersides of stones and rocks and fouling mollusc shells, in the mid to sublittoral on sheltered or semi-sheltered shores. On these shores, the balanids *Balanus amphitrite* Darwin, 1854, *B. reticulatus* Utinomi, 1967 and, less frequently, *B. cirratus* Darwin, 1854 and *Balanus* sp. nov., also occur in the mid to sublittoral attached to rocks, mollusc shells, etc. In midlittoral areas, where there is intermediate to high wave exposure, the pedunculate *Lithotrya valentiana* (Gray,

1825) bores into limestone substrata and *Ibla cumingi* Darwin, 1851 occurs in crevices where it is often associated with mats of mussels, as well as between and under rocks and stones.

The sessile archaeobalanid genera *Striatobalanus*, *Solidobalanus* and *Armatobalanus* occur subtidally, and are prevalent in the dredging samples. *Striatobalanus amaryllis* (Darwin, 1854) is the most widely distributed subtidal species, attaching to a variety of substrata. Honeycombed limestone platforms, coral rubble and molluscs are preferred substrata for the more generalist barnacle genera *Solidobalanus* and *Striatobalanus*. *Armatobalanus* species are associated with coral rubble and also occur more infrequently on bivalve molluscs. The subtidal pedunculate, *Calantica* sp. nov. occurs attached to coral rubble.

Sessile commensal barnacles were collected subtidally from sponge, gorgonian and coral hosts by both the diving and dredging expeditions. Six specific taxa are presently recorded, but this number is an under-estimate of the diversity of these groups in the waters of the Dampier Archipelago. The taxonomy of Australian sponge (*Acasta*, *Membranobalanus*), gorgonian (*Conopea*) and coral (pyrgomatid) barnacles is at present undetermined and specimens in the present study have been identified, where possible, from existing literature or collections. However, many remain unidentified and are thus listed as *Acasta* spp, *Conopea* spp and pyrgomatid spp in Appendix 1. These collections are likely to contain a number of species which may prove to be new to science.

The pedunculate *Octolasmis* cf. *bullata* (Aurivillius, 1892) and two sessile species, *Chelonibia patula* (Ranzani, 1818) and *C.* cf. *caretta* (Spengler, 1790) are epizotic, i.e. attached to living substrata. *Octolasmis* cf. *bullata* (Aurivillius, 1892) occurs in the Dampier Archipelago attached to the gills of the brachyuran *Portunus pelagicus* (Linnaeus, 1758) and *Chelonibia patula* (Ranzani, 1818) attaches to the carapace of the same host. *Chelonibia testudinaria* (Linnaeus, 1758) and *C.* cf. *caretta* (Spengler, 1790) occur on the carapace of the Hawksbill Turtle, *Eretmochelys imbricata* (Borradaile).

Introduced species

In the waters of the Dampier Archipelago, six species recognised as introductions are currently recorded. Of these, three (*Balanus amphitrite* Darwin, 1854, *B. cirratus* Darwin, 1854, *B. trigonus* Darwin, 1854) are well known, widely-distributed foulers whose ranges in Australian waters have probably been enhanced by shipping (Jones, 1992b). *Balanus amphitrite* and *B. cirratus* occur commonly in the intertidal throughout the Dampier Archipelago and the adjacent mainland; *B. trigonus* is less widely distributed and is recorded from only two sites (Appendix 2).

In the present study, the first collections in the Dampier Archipelago of the circumtropical fouler *Balanus reticulatus* Utinomi, 1967 were made from a number of localities (Appendix 2). This species, which originated in Japan (Utinomi, 1967), has been collected from the North Barnard Islands, Queensland (Lewis, 1981) and from Yanchep Marina, Western Australia (Jones, 1992b). The present author has also recently recorded the species from Darwin (Northern Territory) as well as from immigrant boats, submarines and shipping visiting various Australian ports. *Balanus reticulatus* appears to be dominant in intertidal areas of Withnell Bay on the western lower Burrup Peninsula. It was also collected, but in lesser numbers, on the eastern side of the Burrup Peninsula (at Watering Cove), as well as throughout the Dampier Archipelago (Legendre, Dolphin, Angel and Wilcox Islands and Searipple Passage) and from mainland sites – at Cape Preston to the west and Point Cleaverville to the east, of the Dampier Archipelago. The means of introduction of *B. reticulatus* into the waters of the Dampier Archipelago are unknown, but Utinomi (1967) has suggested that ship transport is responsible for the widespread distribution of this Japanese species.

The megabalanines are well known fouling species occurring in tropical and warm temperate seas. *Megabalanus tintinnabulum* (Linnaeus, 1758), a well-known cosmopolitan fouling species, occurs throughout the Dampier Archipelago on hard substrata, fouling animate (e.g. mollusc shells, decapod crustaceans) and inanimate (e.g. ropes, buoys, boats) surfaces in the low to sublittoral. *Megabalanus tintinnabulum* was first recorded in Western Australian waters in 1949 and now occurs in the vicinity of major ports (Jones, 1990, 1992b; Hass and Jones, 1999). The species has since been recorded by the present author from major ports in northern and eastern Australia. Jones (1990) suggested that the species is an introduction, most likely *via* shipping.

During the present study, another important fouling species, *Megabalanus rosa* (Pilsbry, 1916), was collected for the first time from three localities in the Dampier Archipelago; Hamersley Shoal (DA1/98/16), Legendre Island (DA1/98/27) and Georges Reef (DA3/99/42). *Megabalanus rosa*, a Japanese fouler, is previously recorded by a few specimens from western and eastern Australian waters (Jones *et al.*, 1990; Jones, 1992b) and, more recently, by the present author from a number of major ports in northern and eastern Australia. Thirty species of marine organisms are now recorded as introduced into Western Australian waters, the majority being crustaceans (Jones, 1992b; Hass and Jones, 1999).

No data are available as to whether the presence of introduced barnacles in the Dampier area, or elsewhere in Western Australia or Australia, have

caused any ecological consequences. Neither are data available as to whether introduced species have had any adverse impacts on native ones and thus any adverse impacts on biodiversity. However, the dominance of *Balanus reticulatus* Utinomi, 1967 in Withnell Bay and its presence in other areas of the Dampier Archipelago and the mainland is a situation that requires future long-term monitoring.

Biogeographic affinities

The barnacle fauna of the Dampier Archipelago is dominated by species with Indo-West Pacific and Indo-Australian distributions. The fauna shows many similarities with that of the Kimberley area (Jones, 1992a) to the north as well as affinities with those of the more southern Muiron Islands, Exmouth Gulf and the Montebello Islands (Jones and Berry, 2000) in tropical northern Western Australia (Jones, 2003). It differs significantly, however, from the barnacle fauna of the southern Australian warm temperate province (Jones, 1990; Jones, 2003). Compared to the northern Australian tropical province which has, as well as a high incidence of tropical species, a low species endemism and high species diversity, the southern Australian warm-temperate province exhibits decreased species diversity, high species endemism and a low incidence of tropical species (Jones, 2003).

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Table 1 Additional barnacle species obtained during shore collections.

Genus	Species	Mainland				Burrup Pen.			Total
		CP	DS	DB	PC	WB	WC	CC	
<i>Ibla</i>	<i>cumingi</i>						1	1	2
<i>Octolasmis</i>	cf. <i>bullata</i>						1		1
<i>Caudoeuraphia</i>	cf. <i>caudata</i>			1	1	1	1		4
<i>Microeuraphia</i>	<i>withersi</i>					1	1		2
<i>Microeuraphia</i>	sp. 1			1					1
<i>Microeuraphia</i>	sp. 2			1					1
<i>Chthamalus</i>	<i>malayensis</i>	1		1	1	1	1		5
<i>Chelonibia</i>	cf. <i>caretta</i>						1		1
<i>Chelonibia</i>	<i>patula</i>	1					1		2
<i>Tetraclitella</i>	sp. nov.	1		1	1		1	1	5
<i>Neomanella</i>	<i>vitiata</i>		1	1	1		1		4
<i>Tetraclita</i>	<i>squamosa</i>	1			1	1	1	1	5
<i>Armatobalanus</i>	<i>quadrivittatus</i>						1		1
<i>Acasta</i>	spp						1		1
<i>Balanus</i>	<i>amphitrite</i>		1	1	1	1	1	1	6
<i>Balanus</i>	<i>reticulatus</i>	1			1	1	1		4
<i>Balanus</i>	<i>cirratus</i>	1	1	1	1	1	1		6
<i>Balanus</i>	sp. nov.				1	1	1	1	4
<i>Megabalanus</i>	cf. <i>ajax</i>						1		1
Total	19	6	3	8	9	8	17	5	56

CC = Cowrie Cove; DB = Dampier Beach; PC = Point Cleaverville; WB = Withnell Bay; CP = Cape Preston; DS = Dampier Salt Ltd; WC = Watering Cove

Table 2 Intertidal barnacle diversity (combined data from DA1/98 and DA3/99 intertidal stations plus additional shore collections).

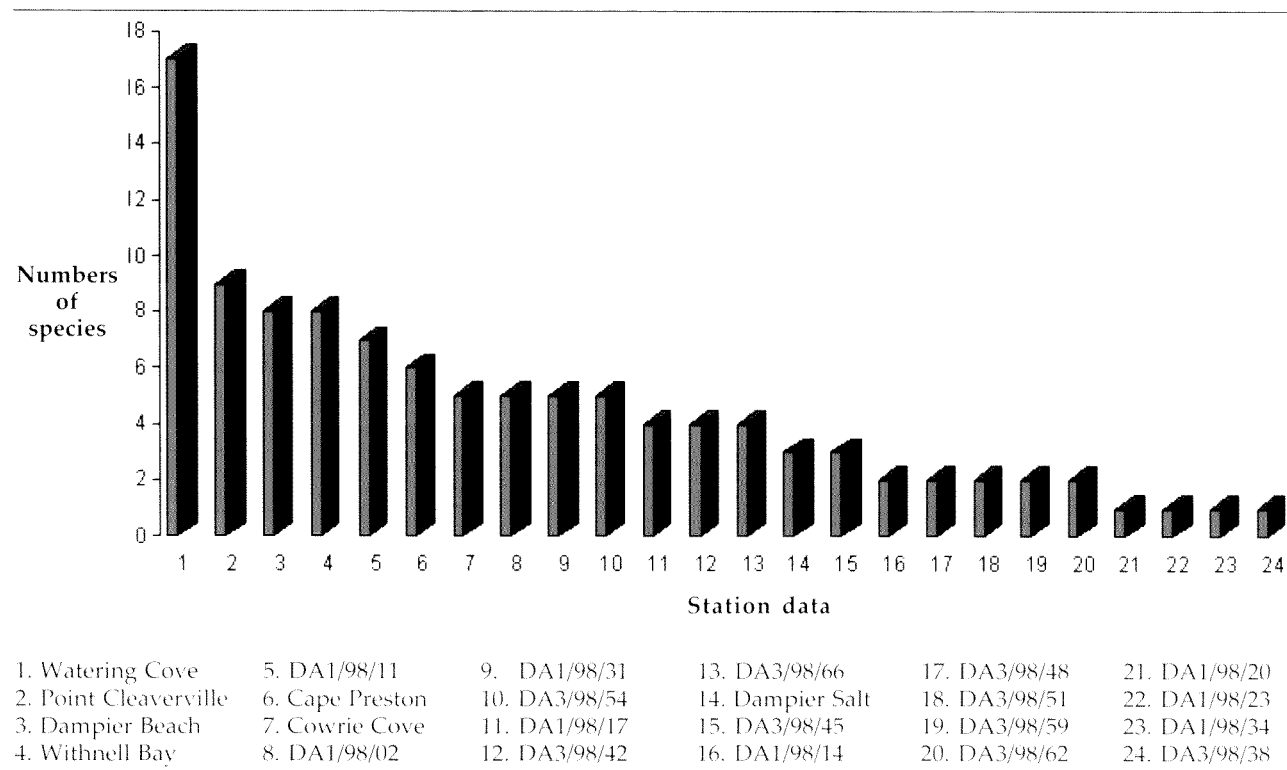
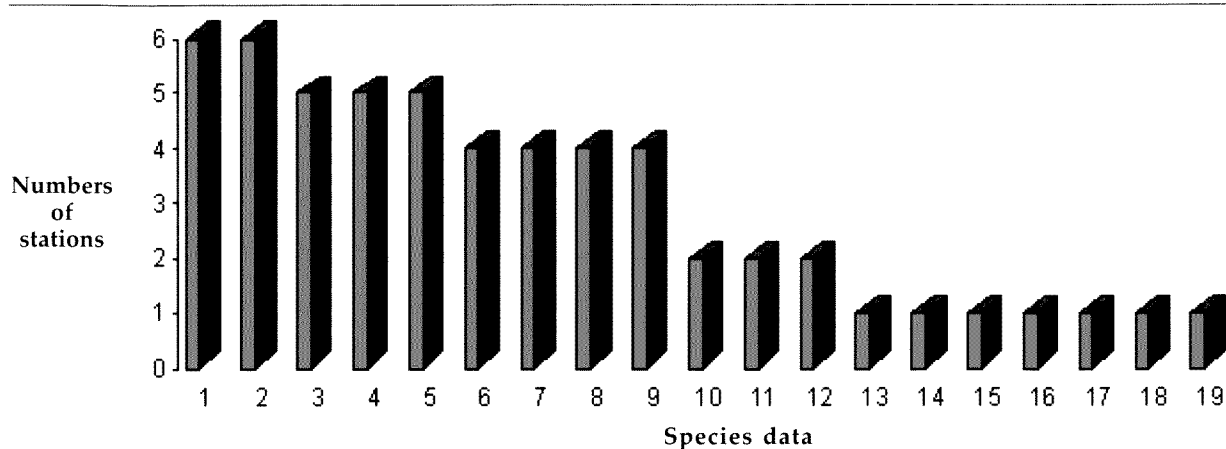


Table 3 The distributions by station of intertidal barnacle species (additional intertidal collections).

1. <i>Balanus amphitrite</i>	6. <i>Caudoeuraphia</i> cf. <i>caudata</i>	11. <i>Microeuraphia withersi</i>	16. <i>Chelonibia</i> cf. <i>caretta</i>
2. <i>Balanus cirratus</i>	7. <i>Newmanella vitiata</i>	12. <i>Chelonibia patula</i>	17. <i>Armatobalanus quadrivittatus</i>
3. <i>Chthamalus malayensis</i>	8. <i>Balanus reticulatus</i>	13. <i>Octolasmis</i> cf. <i>bullata</i>	18. <i>Acasta</i> spp
4. <i>Tetraclitella</i> sp. nov.	9. <i>Balanus</i> sp. nov.	14. <i>Microeuraphia</i> sp. 1	19. <i>Megabalanus</i> cf. <i>ajax</i>
5. <i>Tetraclita squamosa</i>	10. <i>Ibla cumingi</i>	15. <i>Microeuraphia</i> sp. 2	

Table 4 Barnacles collected by the DA1/98 diving expedition.

Station No.	1	2	3	4	6	7	8	9	10	11	12	13	14	16	17	20	21	23	24	26	27	30	31	32	33	34	35	Total	
Genus	Species																												
<i>Ibla</i>		1				1															1							3	
<i>Caudocuraphia</i>										1			1								1		1			1		5	
<i>Chthamalus</i>										1											1							3	
<i>Tetraclitella</i>		1				1			1												1							4	
<i>Neomanella</i>		1							1	1								1								1	5		
<i>Tetraclita</i>						1				1											1		1					4	
<i>Armatobalanus</i>							1																1	1			3		
<i>Armatobalanus</i>												1														1	2		
<i>Striatobalanus</i>															1							1			1		3		
<i>Striatobalanus</i>																						1					1		
<i>Conopea</i>															1					1	1				1		4		
<i>Acasta</i>	1		1		1		1				1			1		1	1		1			1		1	1	1	12		
Pyrgomatid	1		1	1			1		1		1														1		7		
<i>Balanus</i>		1								1																	2		
<i>Balanus</i>		1					1	1	1	1					1						1		1				8		
<i>Balanus</i>								1													1						2		
<i>Balanus</i>										1											1		1				3		
<i>Megabalanus</i>														1							1						2		
<i>Megabalanus</i>			1	1		1							1		1					1	1						7		
Total	19	2	5	3	2	1	5	4	2	4	7	1	2	2	2	4	1	1	1	2	1	11	4	5	1	5	1	1	

*intertidal species

Table 5 Barnacles collected by the DA3/99 diving expedition.

Station No.	37	38	39	41	42	45	48	49	50	51	52	53	54	55	56	57	59	62	63	65	66	Total	
Genus	Species																						
<i>Ibla</i>						1															1	2	
<i>Lithotrya</i>							1																1
<i>Caudoeuraphia</i>													1									1	2
<i>Chthamalus</i>						1							1			1					1	4	
<i>Tetraclitella</i>					1								1			1	1	1					5
<i>Newmanella</i>		1								1													2
<i>Tetraclita</i>					1	1	1			1							1						5
<i>Armatobalanus</i>									1														1
<i>Striatobalanus</i>				1										1									2
<i>Conopea</i>											1			1	1	1					1		5
<i>Acasta</i>	1			1										1					1	1			5
<i>Pyrgomatid</i>			1					1				1		1									4
<i>Balanus</i>													1					1					2
<i>Balanus</i>															1								1
<i>Balanus</i>															1								1
<i>Balanus</i>													1	1								1	3
<i>Megabalanus</i>					1																	1	1
<i>Megabalanus</i>				1	1																		2
Total	18	1	1	2	2	4	3	2	1	1	2	1	1	5	5	3	3	2	2	1	2	4	

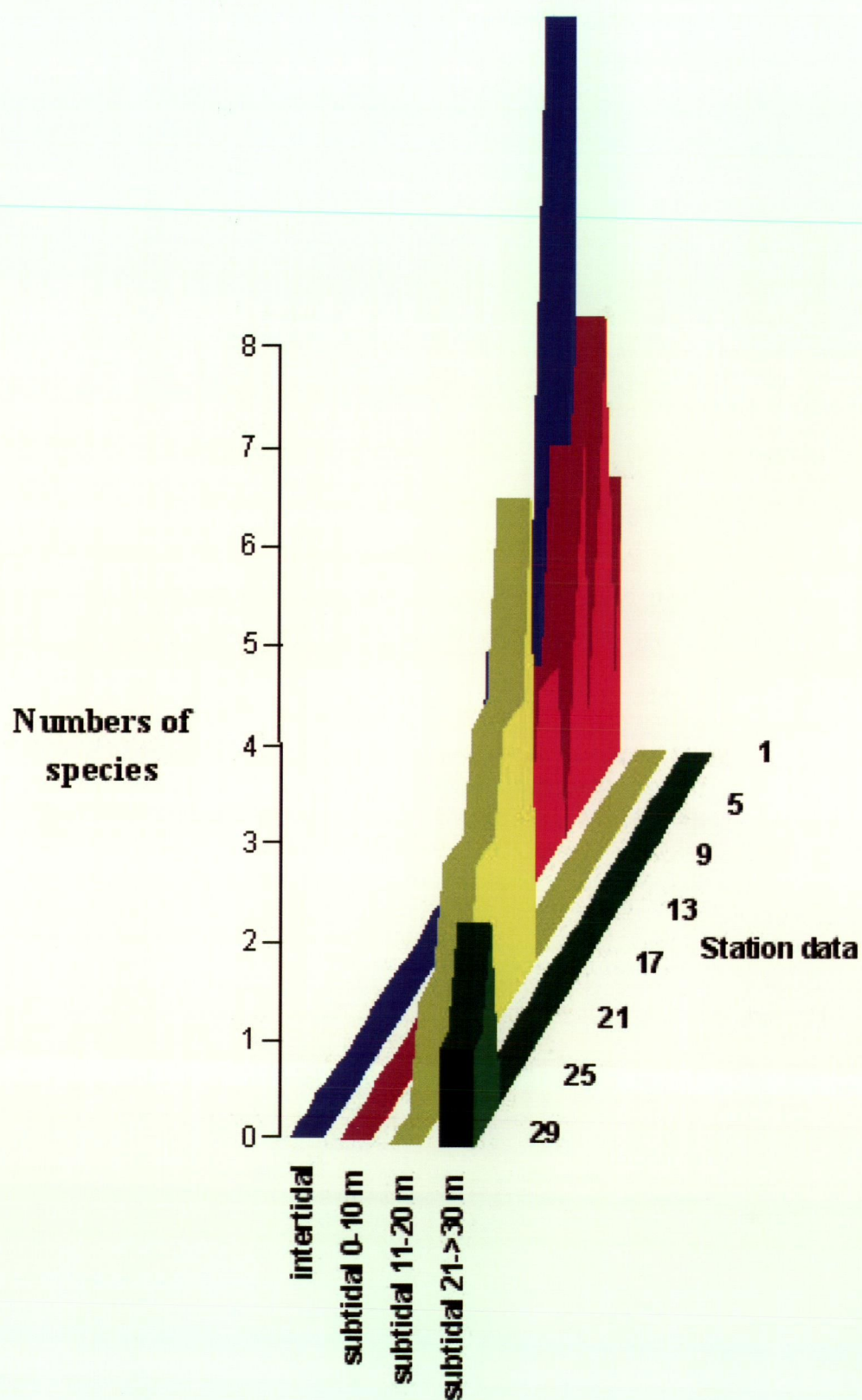
*intertidal species

Table 6 Comparison of barnacle species collected by the diving (DA1/98, DA3/99) and dredging (DA2/99) expeditions and additional shore collecting.

Species	Diving		Dredging	Mainland Shores
	DA1	DA3	DA2	
<i>Ibla cumingi</i> * Darwin, 1851	1	1		1
<i>Octolasmis</i> cf. <i>bullata</i> (Aurivillius, 1892)				1
<i>Calantica</i> sp. nov.			1	
<i>Lithotrya valentiana</i> * (Gray, 1825)		1		
<i>Caudoeuraphia</i> cf. <i>caudata</i> * (Pilsbry, 1916)	1	1		1
<i>Microeuraphia withersi</i> * (Pilsbry, 1916)				1
<i>Microeuraphia</i> sp. 1*				1
<i>Microeuraphia</i> sp. 2*				1
<i>Chthamalus malayensis</i> * Pilsbry, 1916	1	1		1
<i>Chelonibia</i> cf. <i>caretta</i> (Spengler, 1790)				1
<i>Chelonibia patula</i> (Ranzani, 1818)				1
<i>Tetraclitella</i> sp. nov.*	1	1		1
<i>Newmanella vitiata</i> * (Darwin, 1854)	1	1		1
<i>Tetraclita squamosa</i> * (Bruguière, 1789)	1	1		1
<i>Armatobalanus arcuatus</i> Hoek, 1913			1	
<i>Armatobalanus</i> cf. <i>cepa</i> (Darwin, 1854)	1			
<i>Armatobalanus quadrivittatus</i> (Darwin, 1854)	1	1	1	1
<i>Armatobalanus terebratus</i> (Darwin, 1854)			1	
<i>Solidobalanus ciliatus</i> (Hoek, 1913)			1	
<i>Striatobalanus amaryllis</i> (Darwin, 1854)	1	1	1	
<i>Striatobalanus bimae</i> (Hoek, 1913)			1	
<i>Striatobalanus tenuis</i> (Hoek, 1883)	1		1	
<i>Conopea calceolus</i> (Ellis, 1758)			1	
<i>Conopea</i> sp. 1 cf. <i>navicula</i> (Darwin, 1854)			1	
<i>Conopea</i> sp. 2 cf. <i>dentifer</i> (Broch, 1922)			1	
<i>Conopea</i> spp	1	1	1	
<i>Acasta</i> spp	1	1	1	1
Pyrgomatid spp	1	1	1	
<i>Balanus amphitrite</i> * Darwin, 1854	1	1		1
<i>Balanus reticulatus</i> * Utinomi, 1967	1	1		1
<i>Balanus cirratus</i> * Darwin, 1854	1	1		1
<i>Balanus</i> sp. nov.*	1	1		1
<i>Megabalanus</i> cf. <i>ajax</i> (Darwin, 1854)				1
<i>Megabalanus rosa</i> (Pilsbry, 1916)	1	1		
<i>Megabalanus tintinnabulum</i> (Linnaeus, 1758)	1	1		
Total	19	18	14	19

* intertidal species

Table 7 Subtidal barnacle diversity, DA1/98 and DA3/99 diving expeditions.



1. DA1/98/27	6. DA1/98/30	11. DA1/98/41	16. DA3/98/49	21. DA3/99/57	26. DA1/98/32
2. DA1/98/07	7. DA1/98/01	12. DA1/98/06	17. DA3/98/53	22. DA1/98/04	27. DA3/99/50
3. DA1/98/33	8. DA1/98/09	13. DA1/98/12	18. DA3/99/55	23. DA1/98/13	28. DA3/99/39
4. DA1/98/08	9. DA1/98/16	14. DA1/98/35	19. DA1/98/03	24. DA1/98/16	29. DA1/98/26
5. DA1/98/10	10. DA1/98/24	15. DA3/98/37	20. DA3/99/56	25. DA1/98/21	30. DA3/99/52

Table 8 Intertidal barnacle species distributions (DA1/98 and DA3/99 diving expeditions).

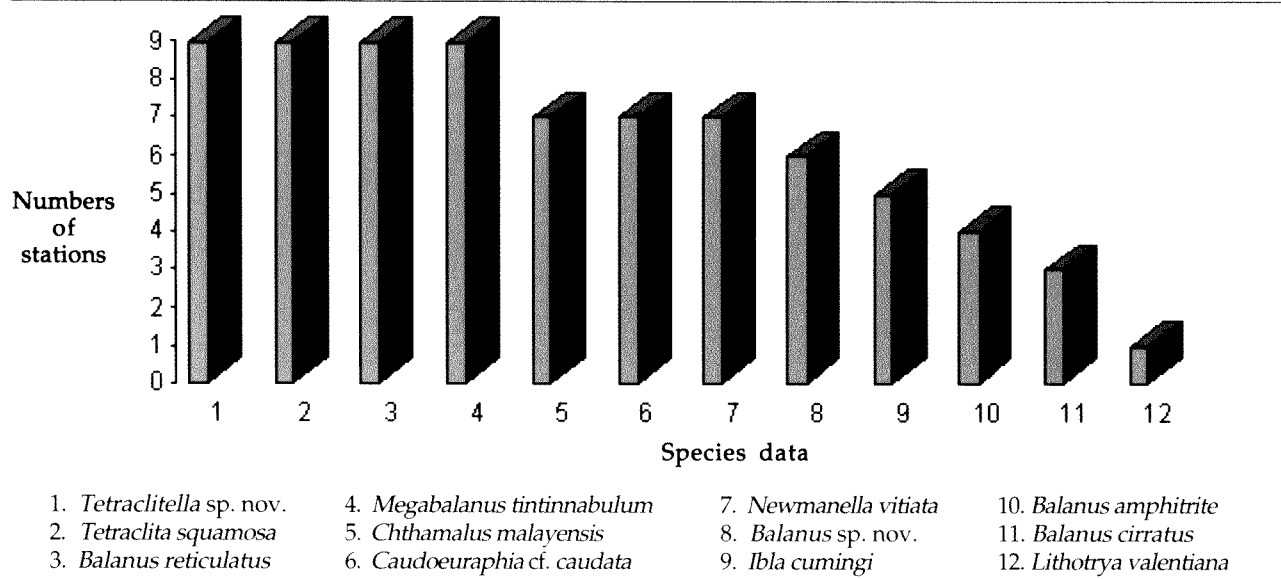


Table 9 Subtidal barnacle species distributions (DA1/98 and DA3/99 diving expeditions).

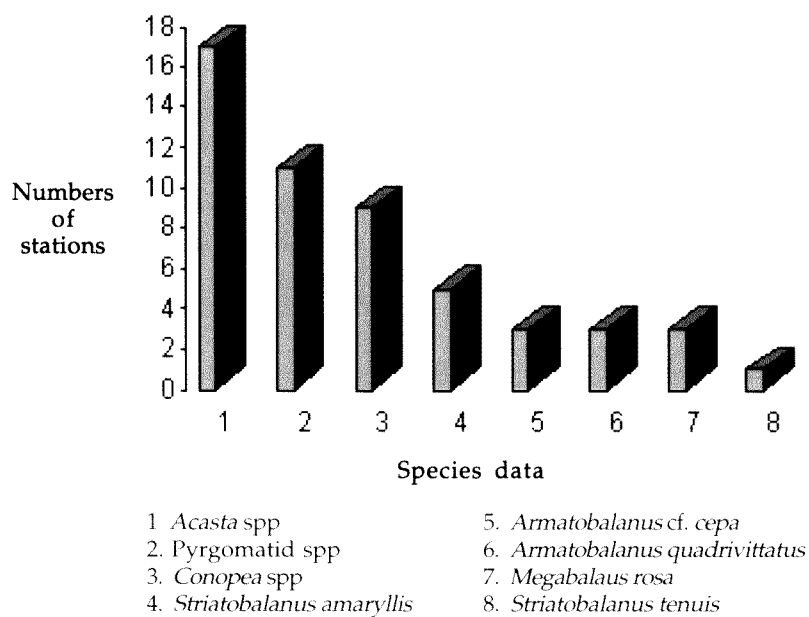
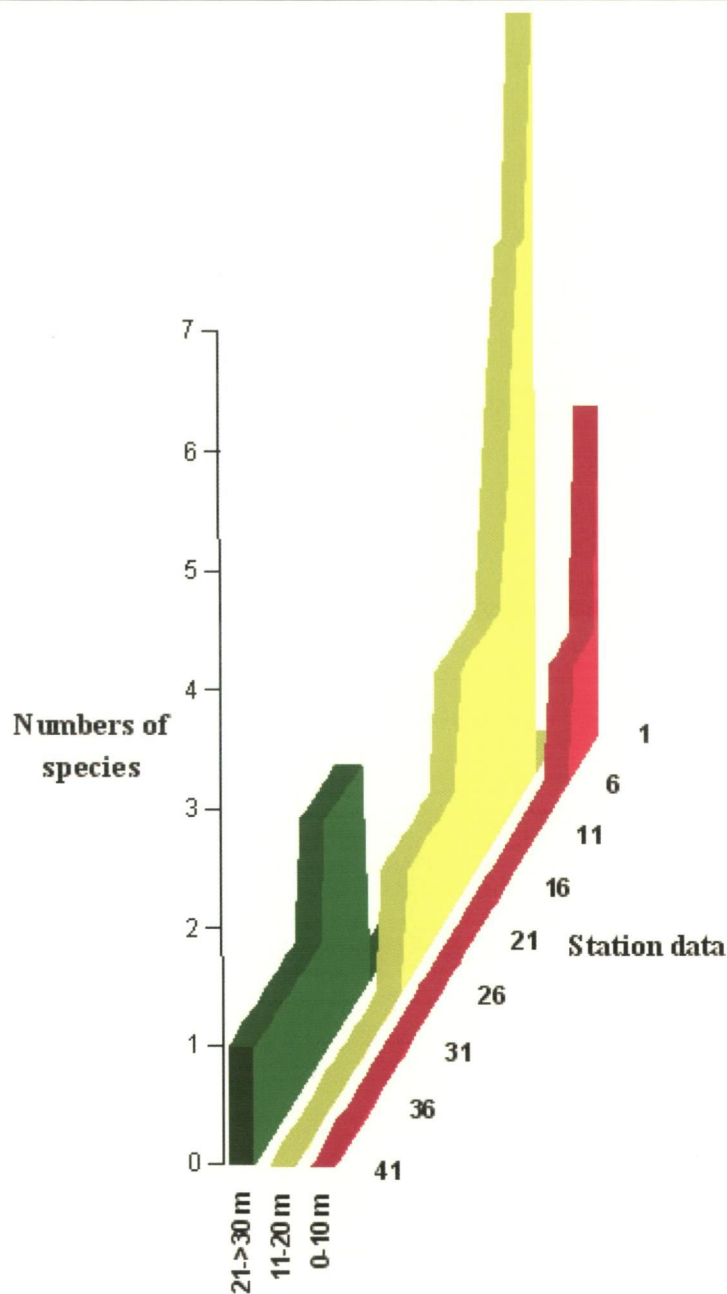


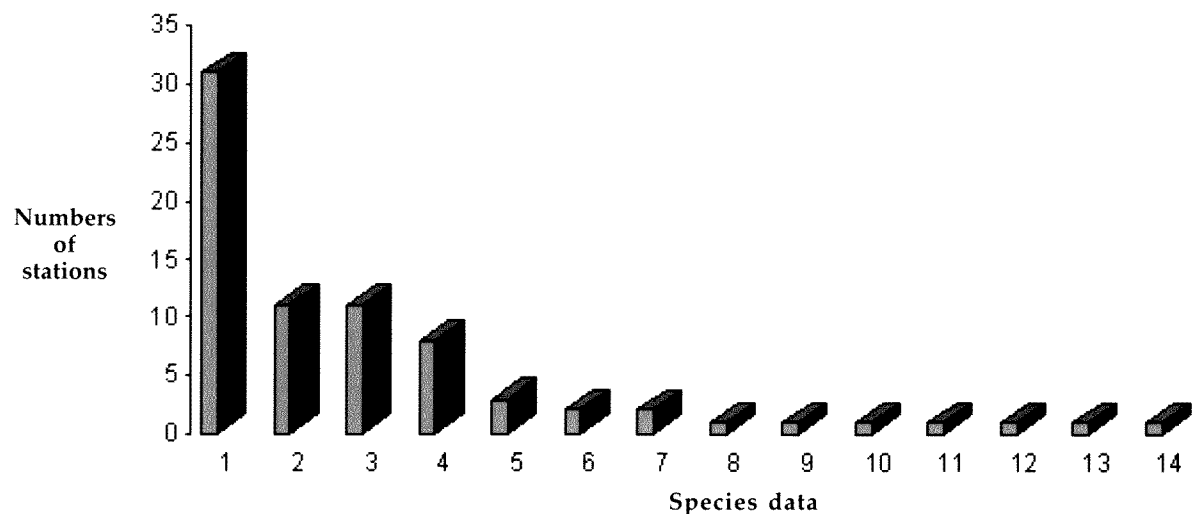
Table 10 Barnacles collected by the DA2/99 dredging expedition.

Station No.	4	5	6	8	9	10	12	13	24	29	33	34	35	37	40	42	46	47	49	50	51	56	57	59	62	
Genus	Species																									
<i>Calantica</i>	sp. nov.																									
<i>Armatobalanus</i>	arcuatus																									
<i>Armatobalanus</i>	quadrivittatus																									
<i>Armatobalanus</i>	terebratus																									
<i>Solidobalanus</i>	ciliatus																									
<i>Striatobalanus</i>	amaryllis																									
<i>Striatobalanus</i>	bimae																									
<i>Striatobalanus</i>	tenuis																									
<i>Conopea</i>	calceolus																									
<i>Conopea</i>	sp. 1 cf. <i>navicula</i>																									
<i>Conopea</i>	sp. 2 cf. <i>dentifer</i>																									
<i>Conopea</i>	spp																									
<i>Acasta</i>	spp																									
Pyrgomatid	spp																									
Total	14	1	2	1	1	2	2	1	5	1	2	5	1	1	2	1	2	1	1	2	2	1	1	2	2	3

Table 11 Subtidal barnacle diversity, DA2/99 dredging expedition.



- | | | | |
|---------------|---------------|---------------|---------------|
| | | 0-10 m | |
| 1. DA2/99/62 | 3. DA2/99/68 | 5. DA2/99/96 | |
| 2. DA2/99/66 | 4. DA2/99/72 | | |
| | | 11-20 m | |
| 6. DA2/99/65 | 11. DA2/99/37 | 16. DA2/99/94 | 21. DA2/99/46 |
| 7. DA2/99/13 | 12. DA2/99/42 | 17. DA2/99/99 | 22. DA2/99/51 |
| 8. DA2/99/33 | 13. DA2/99/49 | 18. DA2/99/34 | 23. DA2/99/73 |
| 9. DA2/99/75 | 14. DA2/99/59 | 19. DA2/99/35 | 24. DA2/99/76 |
| 10. DA2/99/74 | 15. DA2/99/84 | 20. DA2/99/40 | 25. DA2/99/83 |
| | | 21->30 m | |
| 26. DA3/99/05 | 30. DA3/99/50 | 34. DA3/99/08 | 38. DA3/99/56 |
| 27. DA3/99/09 | 31. DA3/99/57 | 35. DA3/99/12 | 39. DA3/99/82 |
| 28. DA3/99/10 | 32. DA3/99/04 | 36. DA3/99/24 | 40. DA3/99/88 |
| 29. DA3/99/29 | 33. DA3/99/06 | 37. DA3/99/47 | 41. DA3/99/90 |

Table 12 Subtidal barnacle species distributions, DA2/99 dredging expedition.

- | | | |
|------------------------------------|---|--|
| 1. <i>Striatobalanus amaryllis</i> | 6. <i>Armatobalanus terebratus</i> | 11. <i>Striatobalanus bimae</i> |
| 2. <i>Conopea calceolus</i> | 7. Pyrgomatid spp | 12. <i>Striatobalanus tenuis</i> |
| 3. <i>Acasta</i> spp | 8. <i>Calantica</i> sp. nov. | 13. <i>Conopea</i> sp. 2 cf. <i>dentifer</i> |
| 4. <i>Conopea</i> spp | 9. <i>Armatobalanus arcuatus</i> | 14. <i>Conopea</i> sp. 1 cf. <i>navicula</i> |
| 5. <i>Solidobalanus ciliatus</i> | 10. <i>Armatobalanus quadrivittatus</i> | |

Table 13 Zonation of barnacle species with depth in the Dampier Archipelago, Western Australia.

Genus	Species	Depth (m) 0-10	Depth (m) 11-20	Depth (m) 21->30
<i>Lithotrya</i>	<i>valentiana</i> *	+		
<i>Ibla</i>	<i>cumingi</i> *	+		
<i>Caudoeuraphia</i>	cf. <i>caudata</i> *	+		
<i>Newmanella</i>	<i>vitiata</i> *	+		
<i>Balanus</i>	<i>amphitrite</i> *	+		
<i>Tetraclita</i>	<i>squamosa</i> *	+		
<i>Megabalanus</i>	<i>rosa</i>	+		
<i>Armatobalanus</i>	cf. <i>cepa</i>	+		
<i>Chthamalus</i>	<i>malayensis</i> *	+		
<i>Balanus</i>	sp. nov.*	+		
<i>Tetraclitella</i>	sp. nov.*	+		
<i>Balanus</i>	<i>reticulatus</i> *	+		
<i>Balanus</i>	<i>cirratus</i> *	+		
<i>Solidobalanus</i>	<i>ciliatus</i>	+	+	
<i>Armatobalanus</i>	<i>terebratus</i>	+	+	
<i>Calantica</i>	sp. nov.		+	
<i>Conopea</i>	sp. 1 cf. <i>navicula</i>		+	
<i>Conopea</i>	sp. 2 cf. <i>dentifer</i>		+	
<i>Megabalanus</i>	<i>tintinnabulum</i>	+	+	+
<i>Armatobalanus</i>	<i>quadrivittatus</i>	+	+	+
Pyrgomatid	spp	+	+	+
<i>Acasta</i>	spp	+	+	+
<i>Striatobalanus</i>	<i>tenuis</i>	+	+	+
<i>Striatobalanus</i>	<i>amaryllis</i>	+	+	+
<i>Conopea</i>	<i>calceolus</i>	+	+	+
<i>Conopea</i>	spp	+	+	+
<i>Striatobalanus</i>	<i>bimae</i>		+	+
<i>Armatobalanus</i>	<i>arcuatus</i>			+
Total	28	23	14	10

* intertidal species

Table 14 Variation in barnacle diversity with depth.

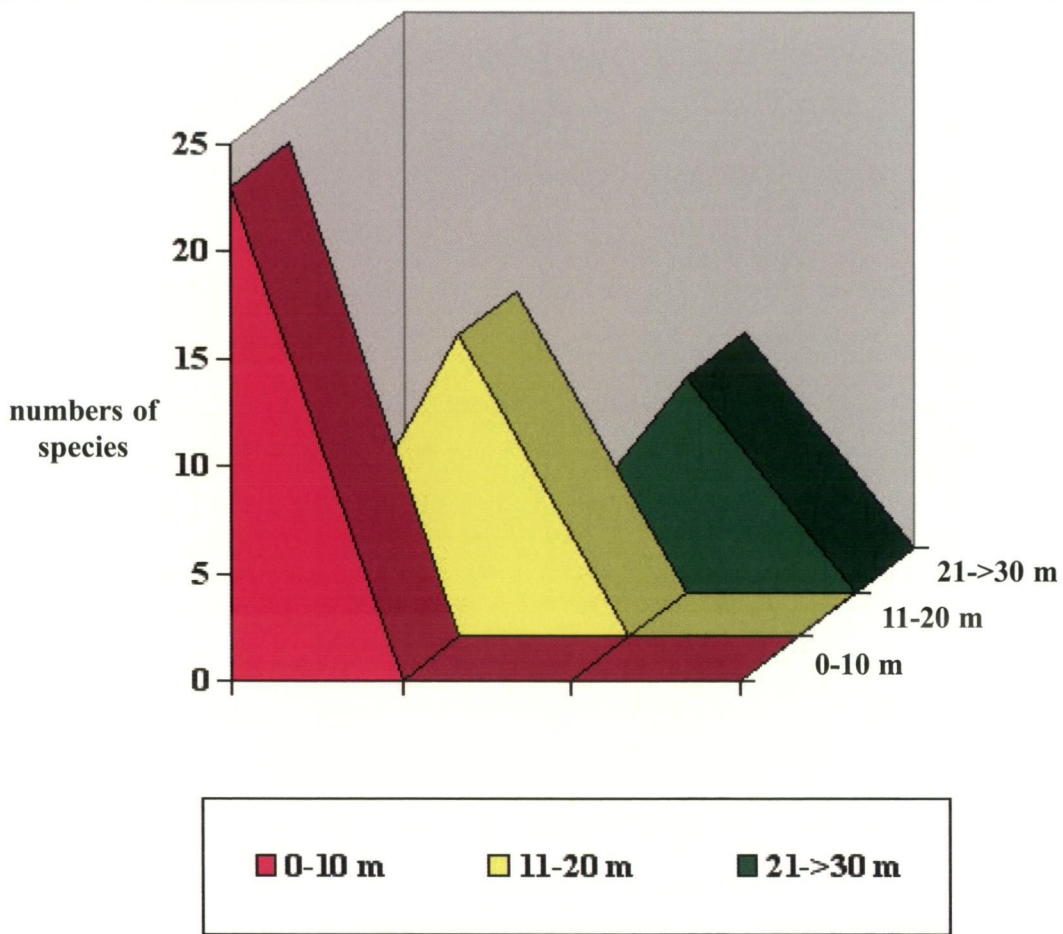


Table 15 Taxonomic and biogeographic affinities of the Dampier Archipelago cirripedes.

Order PEDUNCULATA									
Sub order	Family	Genus	Species	C	IWP	IA	AA	AE	
Iblomorpha	Iblidae	<i>Ibla</i>	<i>cumingi</i>		+				
Lepadomorpha	Poecilasmataidae	<i>Octolasmis</i>	<i>angulata</i>			+			
		<i>Octolasmis</i>	cf. <i>bullata</i>		+				
		<i>Temnaspis</i>	<i>excavatum</i>		+				
	Lepadidae	<i>Lepas</i>	<i>anserifera</i>	+					
		<i>Lepas</i>	<i>pectinata</i>	+					
		<i>Conchoderma</i>	<i>virgatum</i>	+					
Scalpellomorpha	Calanticiidae	<i>Calantica</i>	sp. nov.					+	
	Scalpellidae	<i>Lithotrya</i>	<i>valentiana</i>		+				
Order SESSILIA									
Balanomorpha	Chthamalidae	<i>Caudoeuraphia</i>	cf. <i>caudata</i>			+			
		<i>Microeuraphia</i>	sp. 1					+	
		<i>Microeuraphia</i>	sp. 2					+	
		<i>Microeuraphia</i>	<i>withersi</i>		+				
		<i>Chthamalus</i>	<i>malayensis</i>		+				
	Coronulidae	<i>Chelonibia</i>	cf. <i>caretta</i>		+				
		<i>Chelonibia</i>	<i>patula</i>	+					
		<i>Chelonibia</i>	<i>testudinaria</i>	+					
		<i>Platylepas</i>	<i>decorata</i>			+			
		<i>Platylepas</i>	<i>hexastylus</i>	+					
	Tetraclitidae	<i>Tetraclitella</i>	<i>multicostata</i>				+		
		<i>Tetraclitella</i>	sp. nov.					+	
		<i>Newmanella</i>	<i>vitiata</i>		+				
		<i>Tetraclita</i>	<i>squamosa</i>		+				
	Archaeobalanidae	<i>Armatobalanus</i>	<i>arcuatus</i>		+				
		<i>Armatobalanus</i>	cf. <i>cepa</i>		+				
		<i>Armatobalanus</i>	<i>quadrivittatus</i>		+				
		<i>Armatobalanus</i>	<i>terebratus</i>			+			
		<i>Solidobalanus</i>	<i>ciliatus</i>		+				
		<i>Striatobalanus</i>	<i>amaryllis</i>		+				
		<i>Striatobalanus</i>	<i>bimae</i>			+			
		<i>Striatobalanus</i>	<i>tenuis</i>		+				
		<i>Conopea</i>	<i>calceolus</i>	+					
		<i>Conopea</i>	sp. 1 cf. <i>navicula</i>		+				
		<i>Conopea</i>	sp. 2 cf. <i>dentifer</i>			+			
		<i>Conopea</i>	spp		+				
		<i>Acasta</i>	<i>fenestrata</i>		+				
		<i>Acasta</i>	<i>sulcata</i>		+				
		<i>Acasta</i>	spp		+				
	Pyrgomatidae	<i>Savignium</i>	<i>dentatum</i>		+				
		Pyrgomatid	spp		+				
	Balanidae	<i>Balanus</i>	<i>amphitrite</i>	+					
		<i>Balanus</i>	<i>reticulatus</i>	+					
		<i>Balanus</i>	<i>cirratus</i>		+				
		<i>Balanus</i>	<i>trigonus</i>	+					
		<i>Balanus</i>	sp. nov.					+	
		<i>Megabalanus</i>	<i>ajax</i>		+				
		<i>Megabalanus</i>	cf. <i>ajax</i>		+				
		<i>Megabalanus</i>	<i>rosa</i>			+			
		<i>Megabalanus</i>	<i>tintinnabulum</i>	+					
Total	4	11	24	49	11	26	7	0	5

Appendix 1 List of stations and associated barnacle species.

First Diving Expedition – DA1/98

- DA1/98/01. – Dolphin I., 20°25.852'S, 116°52.953'E; 3.0–6.5 m: *Acasta* spp, Pyrgomatid spp.
- DA1/98/02. – Dolphin I., 20°28.090'S, 116°51.910'E; intertidal: *Ibla cumingi* Darwin, *Tetraclitella* sp. nov., *Newmanella vitiata* (Darwin), *Balanus amphitrite* Darwin, *Balanus reticulatus* Utinomi.
- DA1/98/03. – Legendre I., 20°24.320'S, 116°56.108'E; 2.0–15.0 m: *Acasta* spp, Pyrgomatid spp, *Megabalanus tintinnabulum* (Linnaeus).
- DA1/98/04. – Legendre I., 20°24.320'S, 116°56.108'E; 12.0–18.0 m: Pyrgomatid spp, *Megabalanus tintinnabulum* (Linnaeus).
- DA1/98/06. – Haüy I., 20°25.725'S, 116°57.580'E; 0.5–2.0 m: *Acasta* spp.
- DA1/98/07. – Gidley I., 20°28.010'S, 116°47.720'E; 0.0–2.0 m: *Ibla cumingi* Darwin, *Chthamalus malayensis* Pilsbry, *Tetraclitella* sp. nov., *Tetraclita squamosa* (Bruguière), *Megabalanus tintinnabulum* (Linnaeus).
- DA1/98/08. – Angel I., 20°29.180'S, 116°47.711'E; 2.0–8.0 m: *Armatobalanus* cf. *cepa* (Darwin), *Acasta* spp, Pyrgomatid spp, *Balanus reticulatus* Utinomi.
- DA1/98/09. – Angel I., 20°28.692'S, 116°47.950'E; 2.0–3.0 m: *Balanus reticulatus* Utinomi, *Balanus cirratus* (Darwin).
- DA1/98/10. – Angel I., 20°28.410'S, 116°48.480'E; 0.0–2.0 m: *Tetraclitella* sp. nov., *Newmanella vitiata* (Darwin), Pyrgomatid spp, *Balanus reticulatus* Utinomi.
- DA1/98/11. – Dolphin I., 20°30.249'S, 116°49.335'E; intertidal: *Caudoeuraphia* cf. *caudata* (Pilsbry), *Chthamalus malayensis* Pilsbry, *Newmanella vitiata* (Darwin), *Tetraclita squamosa* (Bruguière), *Balanus amphitrite* Darwin, *Balanus reticulatus* Utinomi, *Balanus* sp. nov.
- DA1/98/12. – Angel I., 20°30.200'S, 116°47.250'E; 2.0–7.0 m: *Acasta* spp.
- DA1/98/13. – Hamersley Shoal, 20°23.203'S, 116°46.691'E; 1.0–16.0 m: *Armatobalanus quadrivittatus* (Darwin), Pyrgomatid spp.
- DA1/98/14. – Unnamed I., 20°26.581'S, 116°48.790'E; intertidal: *Caudoeuraphia* cf. *caudata* (Pilsbry), *Megabalanus tintinnabulum* (Linnaeus).
- DA1/98/16. – Hamersley Shoal, 20°23.240'S, 116°47.080'E; 2.0–4.0 m: *Acasta* spp, *Megabalanus rosa* (Pilsbry).
- DA1/98/17. – Wilcox I., 20°27.090'S, 116°50.438'E; intertidal: *Striatobalanus amaryllis* (Darwin), *Conopea* spp, *Balanus reticulatus* Utinomi, *Megabalanus tintinnabulum* (Linnaeus).
- DA1/98/20. – Collier Rocks, 20°24.812'S, 116°50.678'E; intertidal: *Acasta* spp.
- DA1/98/21. – Delambre I., 20°25.700'S, 117°04.220'E; 2.0–19.0 m: *Acasta* spp.
- DA1/98/23. – Dolphin I., 20°29.100'S, 116°52.220'E; intertidal: *Newmanella vitiata* (Darwin).
- DA1/98/24. – Dolphin I., 20°28.870'S, 116°52.380'E; 2.0–7.0 m: *Acasta* spp, *Megabalanus tintinnabulum* (Linnaeus).
- DA1/98/26. – Madeleine Shoal, 20°19.343'S, 116°50.455'E; 15.0–30.0 m: *Conopea* spp.
- DA1/98/27. – Legendre I., 20°24.044'S, 116°55.042'E; 1.0–8.0 m: *Ibla cumingi* Darwin, *Caudoeuraphia* cf. *caudata* (Pilsbry), *Chthamalus malayensis* Pilsbry, *Tetraclitella* sp. nov., *Tetraclita squamosa* (Bruguière), *Conopea* spp, *Balanus reticulatus* Utinomi, *Balanus cirratus* (Darwin), *Balanus* sp. nov., *Megabalanus rosa* (Pilsbry), *Megabalanus tintinnabulum* (Linnaeus).

- DA1/98/30. – Burrup Pen., 20°31.586'S, 116°51.088'E; 1.0–10.0 m: *Armatobalanus* cf. *cepa* (Darwin), *Striatobalanus amaryllis* (Darwin), *Striatobalanus tenuis* (Hoek), *Acasta* spp.
- DA1/98/31. – Searipple Passage, 20°31.230'S, 116°51.182'E; intertidal: *Caudoeuraphia* cf. *caudata* (Pilsbry), *Tetraclita squamosa* (Bruguière), *Armatobalanus* cf. *cepa* (Darwin), *Balanus reticulatus* Utinomi, *Balanus* sp. nov.
- DA1/98/32. – Legendre I., 20°23.520'S, 116°54.110'E; 5.0–17.0 m: *Acasta* spp.
- DA1/98/33. – Angel I., 20°27.965'S, 116°49.692'E; 1.0–8.0 m: *Armatobalanus quadrivittatus* (Darwin), *Striatobalanus amaryllis* (Darwin), *Conopea* spp, *Acasta* spp, Pyrgomatid spp.
- DA1/98/34. – Tozer I., 20°27.684'S, 116°50.486'E; intertidal: *Caudoeuraphia* cf. *caudata* (Pilsbry).
- DA1/98/35. – Legendre I., 20°23.620'S, 116°51.960'E; 0.0–1.0 m: *Newmanella vitiata* (Darwin).

Second Diving Expedition – DA3/99

- DA3/99/37. – NW Malus I., 20°30.050'S, 116°40.594'E; 6.0–14.0 m: *Acasta* spp.
- DA3/99/38. – N Malus I., 20°30.632'S, 116°38.788'E; intertidal: *Newmanella vitiata* (Darwin).
- DA3/99/39. – NNE Brigadier I., 20°25.411'S, 116°37.578'E; 15.0–27.0 m: Pyrgomatid spp, *Megabalanus tintinnabulum* (Linnaeus).
- DA3/99/41. – Georges Reef, 20°29.339'S, 116°36.798'E; 1.0–4.0 m: *Striatobalanus amaryllis* (Darwin), *Acasta* spp.
- DA3/99/42. – Georges Reef, 20°29.339'S, 116°36.798'E; intertidal: *Tetraclitella* sp. nov., *Tetraclita squamosa* (Bruguière), *Megabalanus rosa* (Pilsbry), *Megabalanus tintinnabulum* (Linnaeus).
- DA3/99/45. – Rosemary I., E Tish Pt., 20°29.671'S, 116°35.894'E; intertidal: *Ibla cumingi* Darwin, *Chthamalus malayensis* Pilsbry, *Tetraclita squamosa* (Bruguière).
- DA3/99/48. – N Goodwyn I., 20°32.397'S, 116°32.606'E; intertidal: *Lithotrya valentiana* (Gray), *Tetraclita squamosa* (Bruguière).
- DA3/99/49. – Goodwyn I., 20°32.397'S, 116°32.606'E; 3.0–9.0 m: Pyrgomatid spp.
- DA3/99/50. – SE Bare Rock, 20°32.841'S, 116°26.733'E; 10.0–20.0 m: *Armatobalanus quadrivittatus* (Darwin).
- DA3/99/51. – N end Enderby I., 20°35.196'S, 116°30.914'E; intertidal: *Newmanella vitiata* (Darwin), *Tetraclita squamosa* (Bruguière).
- DA3/99/52. – NW Roly Rocks, 20°29.696'S, 116°30.166'E; 9.0–26.0 m: *Conopea* spp.
- DA3/99/53. – Enderby I., 20°34.528'S, 116°34.575'E; 3.0–7.0 m: Pyrgomatid spp.
- DA3/99/54. – E Enderby I., 20°36.222'S, 116°33.063'E; intertidal: *Caudoeuraphia* cf. *caudata* (Pilsbry), *Chthamalus malayensis* Pilsbry, *Tetraclitella* sp. nov., *Balanus amphitrite* Darwin, *Balanus* sp. nov.
- DA3/99/55. – Channel between Enderby I. and West Lewis I., 20°35.152'S, 116°35.631'E; 17.0 m: *Striatobalanus amaryllis* (Darwin), *Conopea* spp, *Acasta* spp, Pyrgomatid spp, *Balanus* sp. nov.
- DA3/99/56. – Eaglehawk I., N of NW Point, 20°38.985'S, 116°26.210'E; 2.0–11.0 m: *Conopea* spp, *Balanus reticulatus* Utinomi, *Balanus cirratus* (Darwin).

- DA3/99/57. – NNE North West Reefs, 20°37.702'S, 116°25.089'E; 11.0–13.0 m: *Chthamalus malayensis* Pilsbry, *Tetracitella* sp. nov., *Conopea* spp.
- DA3/99/59. – W Lewis I., 20°33.947'S, 116°38.334'E; intertidal: *Tetracitella* sp. nov., *Tetracitella squamosa* (Bruguère).
- DA3/99/62. – SE Lewis I., 20°37.499'S, 116°39.182'E; intertidal: *Tetracitella* sp. nov., *Balanus amphitrite* Darwin.
- DA3/99/63. – SW East Lewis I., 20°37.469'S, 116°38.246'E; 0.0–5.0 m: *Acasta* spp.
- DA3/99/65. – off Enderby I, SW of Rocky Head, 20°37.111'S, 116°26.780'E; 13.0–15.0 m: *Conopea* spp, *Acasta* spp.
- DA3/99/66. – S end, Enderby I., 20°36.700'S, 116°31.293'E; intertidal: *Ibla cumingi* Darwin, *Caudoeuraphia* cf. *caudata* (Pilsbry), *Chthamalus malayensis* Pilsbry, *Balanus* sp. nov.
- Dredging Expedition – DA2/99**
- DA2/99/04. – 4 n. miles NNW of Cohen I., 20°19.64'S, 116°45.75'E to 20°19.82'S, 116°45.98'E; 42.0–43.0m: *Conopea* spp.
- DA2/99/05. – 3.5 n. miles NE of C. Legendre, 20°19.79'S, 116°53.85'E to 20°19.81'S, 116°53.39'E; 38.0 m: *Conopea calceolus* (Ellis), *Conopea* spp.
- DA2/99/06. – 2.7 n. miles ESE of C. Legendre, 20°21.69'S, 116°52.40'E to 20°21.23'S, 116°52.36'E; 33.0–36.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/08. – 3.6 n. miles NNE of NW point of Delambre I., 20°22.76'S, 117°02.23'E to 20°23.12'S, 117°02.14'E; 30.0–31.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/09. – 5.5 n. miles N of NE corner of Delambre I., 20°20.38'S, 117°05.22'E to 20°20.68'S, 117°05.63'E; 31.0–34.5 m: *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis).
- DA2/99/10. – 1.9 n. miles N of NE point of Delambre I., 20°23.97'S, 117°04.82'E to 20°23.72'S, 117°04.70'E; 29.0 m: *Striatobalanus amaryllis* (Darwin), *Acasta* spp.
- DA2/99/12. – 5.9 n. miles NNW of NW point of Delambre I., 20°20.75'S, 117°01.16'E to 20°20.19'S, 117°01.18'E; 32.0–34.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/13. – 2.25 n. miles off Haüy I., 20°26.52'S, 117°00.50'E to 20°26.27'S, 117°00.56'E; 19.5 m: *Calantica* sp. nov., *Solidobalanus ciliatus* (Hoek), *Conopea calceolus* (Ellis), *Conopea* spp, Pyrgomatid spp.
- DA2/99/24. – 5.5 n. miles N of Lady Nora I., 20°21.79'S, 116°38.05'E to 20°22.00'S, 116°37.81'E; 38.5 m: *Striatobalanus tenuis* (Hoek).
- DA2/99/29. – 4.35 n. miles W of C. Bruguieres, 20°24.64'S, 116°44.05'E to 20°24.76'S, 116°43.65'E; 27.0–28.0 m: *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis).
- DA2/99/33. – 3.3 n. miles NNE of Courtenay Head Light, Malus Is, 20°27.41'S, 116°42.57'E to 20°27.33'S, 116°43.05'E; 18.0–21.0 m: *Striatobalanus amaryllis* (Darwin), *Striatobalanus bimae* (Hoek), *Conopea calceolus* (Ellis) (dry), *Acasta* spp, Pyrgomatid spp.
- DA2/99/34. – 3.3 n. miles NE of Courtenay Head Light, Malus Is, 20°32.65'S, 116°39.14'E to 20°32.72'S, 116°39.59'E; 9.0–13.0 m: *Acasta* spp.
- DA2/99/35. – 1.9 n. miles W of High Point, on island NE of West Lewis I., 20°32.15'S, 116°38.86'E to 20°32.14'S, 116°38.16'E; 13.0–15.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/37. – 2.5 n. miles WNW of Marks Point, West Lewis I., 20°36.54'S, 116°34.98'E to 20°36.11'S, 116°35.02'E; 14.0–15.0 m: *Striatobalanus amaryllis* (Darwin), *Acasta* spp.
- DA2/99/40. – 1.65 n. miles WSW of Bluff Point, Enderby I., 20°37.74'S, 116°31.05'E to 20°37.71'S, 116°31.57'E; 10.5–11.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/42. – 2.4 n. miles SW of SW point of Goodwyn I., 20°34.16'S, 116°30.11'E to 20°33.67'S, 116°30.01'E; 14.0–16.0 m: *Striatobalanus amaryllis* (Darwin), *Acasta* spp.
- DA2/99/46. – 2.4 n. miles WNW of Rocky Head, Enderby I., 20°35.90'S, 116°25.60'E to 20°35.48'S, 116°25.52'E; 17.5–18.0m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/47. – 3.9 n. miles just N of W of Rocky Head, Enderby I., 20°36.58'S, 116°23.66'E to 20°36.58'S, 116°24.26'E; 20.0–22.5m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/49. – 3.3 n. miles just S of W of W point of Eaglehawk I., 20°40.30'S, 116°22.59'E to 20°39'81'S, 116°22.60'E; 15.5–16.0 m: *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis).
- DA2/99/50. – 6.5 n. miles W of Rocky Head, Enderby I., 20°37.10'S, 116°20.99'E to 20°37.28'5S, 116°21.08'E; 24.0–25.0 m: *Striatobalanus amaryllis* (Darwin), *Acasta* spp.
- DA2/99/51. – 7.4 n. miles W of SW point of Goodwyn I., 20°32.40'S, 116°24.19'E to 20°32.59'S, 116°24.48'E; 31.4–31.5 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/56. – 2 n. miles W of Roly Rock, 20°30.10'S, 116°28.27'E to 20°29.88'S, 116°27.93'E; 33.0–34.5 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/57. – 1.05 n. miles N of Roly Rock, 20°29.03'S, 116°30.45'E to 20°29.18'S, 116°30.06'E; 32.0–33.0 m: *Armatobalanus arcuatus* Hoek, *Striatobalanus amaryllis* (Darwin).
- DA2/99/59. – 1.8 n. miles S of Courtenay Head Light, Malus Is, 20°32.23'S, 116°41.63'E to 20°32.09'S, 116°41.16'E; 17.0–19.0 m: *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis).
- DA2/99/62. – Flying Foam Passage, 0.9 n. miles NE of S point of Angel I., 20°30.69'S, 116°48.58'E to 20°31.17'S, 116°48.33'E; 7.0–9.0 m: *Armatobalanus terebratus* (Darwin), *Striatobalanus amaryllis* (Darwin), *Conopea* spp.
- DA2/99/65. – 2.4 n. miles NW of light on East Intercourse I., 20°38.31'S, 116°38.46'E to 20°38.77'S, 116°38.54'E; 10.0–15.0 m: *Armatobalanus terebratus* (Darwin), *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis), *Conopea* sp. 1 cf. *navicula* (Darwin), *Conopea* sp. 2 cf. *dentifer* (Broch), *Conopea* spp, *Acasta* spp.
- DA2/99/66. – 2.75 n. miles ESE of Bluff Point, Enderby I., 20°38.40'S, 116°35.66'E to 20°38.30'S, 116°36.01'E; 7.2–7.5 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/68. – 3.6 n. miles S of Bluff Point, Enderby I., 20°40.93'S, 116°33.21'E to 20°40.63'S, 116°33.36'E; 9.0–9.2 m: *Conopea* spp.
- DA2/99/72. – 5.5 n. miles SSW of Rocky Head, Enderby I., 20°42.13'S, 116°26.22'E to 20°42.12'S, 116°26.52'E; 10.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/73. – 3.25 n. miles S of Rocky Head, Enderby I., 20°40.14'S, 116°27.69'E to 20°39.93'S, 116°27.96'E; 12.5 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/74. – 1.95 n. miles SE of Rocky Head, Enderby I., 20°38.34'S, 116°29.18'E to 20°38.83'S, 116°28.85;

- 10.5–11.5 m: *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis), *Conopea* spp.
- DA2/99/75. – 0.75 n. miles E of NE point of Goodwyn I., 20°32.16'S, 116°33.70'E to 20°31.70'S, 116°33.20'E; 14.0–19.0 m: *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis), *Conopea* spp, *Acasta* spp.
- DA2/99/76. – 0.4 n. miles W of NW point of Goodwyn I., 20°32.11'S, 116°31.55'E to 20°32.40'S, 116°31.22'E; 13.0–15.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/82. – 1.2 n. miles N of N point of Kendrew I., 20°27.57'S, 116°32.35'E to 20°27.18'S, 116°32.29'E; 32.0–36.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/83. – 3.15 n. miles ENE of NE point of Goodwyn I., 20°31.60'S, 116°36.19'E to 20°31.37'S, 116°35.76'E; 11.5–11.7 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/84. – 2.9 n. miles E of Tish Point, Rosemary I., 20°29.94'S, 116°38.11'E to 20°29.84'S, 116°38.64'E; 12.5–15.0 m: *Solidobalanus ciliatus* (Hoek), *Acasta* spp.
- DA2/99/88. – 0.7 n. miles N of W of Brigadier I., 20°26.04'S, 116°36.77'E to 20°25.63'S, 116°36.85'E; 33.5–38.5 m: *Acasta* spp.
- DA2/99/90. – 3.5 n. miles N of Gordon Point, Rosemary I., 20°25.68'S, 116°33.96'E to 20°25.62'S, 116°34.38'E; 38.0 m: *Armatobalanus quadrivittatus* (Darwin).
- DA2/99/94. – 0.6 n. miles SE of King Point, East Lewis I., 20°38.37'S, 116°38.41'E to 20°38.39'S, 116°38.52'E; 14.5–16.0 m: *Striatobalanus amaryllis* (Darwin), *Conopea calceolus* (Ellis).
- DA2/99/96. – 1.3 n. miles W of Bluff Point, Enderby I., 20°37.50'S, 116°31.56'E to 20°37.57'S, 116°31.61'E; 9.0 m: *Striatobalanus amaryllis* (Darwin).
- DA2/99/99. – 1.05 n. miles WSW of Rocky Head, Enderby I., 20°37.36'S, 116°26.85'E to 20°37.02'S, 116°26.44'E; 17.0–19.0 m: *Solidobalanus ciliatus* (Hoek), *Acasta* spp.

Additional Shore Collection Localities

Burrup Peninsula

Cowrie Cove: *Ibla cumingi* Darwin, *Tetraclitella* sp. nov., *Tetraclita squamosa* (Bruguière), *Balanus amphitrite* Darwin, *Balanus* sp. nov.

Searipple Passage: *Newmanella vitiata* (Darwin).

Watering Cove: *Ibla cumingi* Darwin, *Octolasmis* cf. *bullata* (Aurivillius), *Caudoeuraphia* cf. *caudata* (Pilsbry), *Microeuraphia withersi* (Pilsbry), *Chthamalus malayensis* Pilsbry, *Chelonibia patula* (Ranzani), *Chelonibia* cf. *caretta* (Spengler), *Tetraclitella* sp. nov., *Newmanella vitiata* (Darwin), *Tetraclita squamosa* (Bruguière), *Armatobalanus quadrivittatus* (Darwin), *Acasta* spp, *Balanus amphitrite* Darwin, *Balanus reticulatus* Utinomi, *Balanus cirratus* (Darwin), *Balanus* sp. nov., *Megabalanus* cf. *ajax* (Darwin).

Withnell Bay: *Caudoeuraphia* cf. *caudata* (Pilsbry), *Microeuraphia withersi* (Pilsbry), *Chthamalus malayensis* Pilsbry, *Tetraclita squamosa* (Bruguière), *Balanus amphitrite* Darwin, *Balanus reticulatus* Utinomi, *Balanus cirratus* (Darwin), *Balanus* sp. nov.

Mainland

Cape Preston: *Chthamalus malayensis* Pilsbry, *Chelonibia patula* (Ranzani), *Tetraclitella* sp. nov., *Tetraclita squamosa* (Bruguière), *Balanus reticulatus* Utinomi, *Balanus cirratus* (Darwin).

Dampier Beach: *Caudoeuraphia* cf. *caudata* (Pilsbry), *Microeuraphia* sp. 1, *Microeuraphia* sp. 2, *Chthamalus malayensis* Pilsbry, *Tetraclitella* sp. nov., *Newmanella vitiata* (Darwin), *Balanus amphitrite* Darwin, *Balanus cirratus* (Darwin).

Dampier Salt Beach: *Newmanella vitiata* (Darwin), *Balanus amphitrite* Darwin, *Balanus cirratus* (Darwin).

Point Cleaverville: *Caudoeuraphia* cf. *caudata* (Pilsbry), *Chthamalus malayensis* Pilsbry, *Tetraclitella* sp. nov., *Newmanella vitiata* (Darwin), *Tetraclita squamosa* (Bruguière), *Balanus amphitrite* Darwin, *Balanus reticulatus* Utinomi, *Balanus cirratus* (Darwin), *Balanus* sp. nov.

Appendix 2 Checklist of the barnacles of the shallow waters of the Dampier Archipelago.

Class Maxillopoda Dahl, 1956
 Subclass Cirripedia Burmeister, 1834
 Superorder Thoracica Darwin, 1854
 Order Pedunculata Lamarck, 1818
 Suborder Iblomorpha Newman, 1987
 Family Iblidae Leach, 1825
 Genus *Ibla* Leach, 1825
Ibla cumingi Darwin, 1851: 183

Woodside Collections:

Burrup Peninsula/Mainland

Burrup Peninsula	Watering Cove		WAM C 24991, C 28122
Burrup Peninsula	Cowrie Cove		WAM C 24992

DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/02	WAM C 27254
Dampier Archipelago	Gidley I.	DA1/98/07	WAM C 27255
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27244, C 27253

DA3 Second Diving Expedition

Dampier Archipelago	Rosemary I., E Tish Pt	DA3/99/45	WAM C 27404
Dampier Archipelago	S end, Enderby I.	DA3/99/66	WAM C 27405, C 29422

Additional Museum Collection Data:

Dampier Archipelago	Citadel Rock, Kendrew I.		WAM C 16373 to C 16378
Burrup Peninsula	N of Withnell Bay, 20°28'S 116°32'E		WAM C 16379, C 16380
Mainland	Near Roebourne		WAM C 16382
Mainland	Depuch I.		WAM C 16381, C 23712

Suborder Lepadomorpha Pilsbry, 1916
 Family Poecilasmatidae Annandale, 1909
 Genus *Octolasmis* Gray, 1825

Octolasmis angulata (Aurivillius, 1894: 22)
 (= *O. aperta* Aurivillius, 1894: 24)

Additional Museum Collection Data:

Dampier Archipelago	Enderby I.; attached to gills of <i>Panulirus versicolor</i>		WAM C 23177
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Octolasmis cf. bullata (Aurivillius, 1892: 125)

Woodside Collections:

Burrup Peninsula/Mainland

Burrup Peninsula	Watering Cove; attached to gills of <i>Portunus pelagicus</i> (Linnaeus, 1758)		WAM C 24993, C 27302, C 27304, C 27305, C 27395
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Genus *Temnaspis* Linnaeus, 1758
Temnaspis excavatum (Hoek, 1907: 10)

Additional Museum Collection Data:

Dampier Archipelago	Roly Rock; attached to gills of <i>Panulirus</i> <i>versicolor</i>		WAM C 29399
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Family Lepadidae Darwin, 1851
 Genus *Lepas* Linnaeus, 1758
 Subgenus *Anatifa* Bruguière, 1789

Lepas (Anatifa) anserifera Linnaeus 1767: 1109

Additional Museum Collection Data:

Off Dampier Archipelago	North Rankin Oil Platform		WAM C 23875
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Lepas (Anatifa) pectinata Spengler, 1793: 106

Additional Museum Collection Data:

Dampier Archipelago	Kendrew I.	WAM C 21258
Dampier Archipelago	Enderby I.	WAM C 21259

Genus *Conchoderma* Olfers, 1814

Conchoderma virgatum (Spengler, 1790: 207)

Additional Museum Collection Data:

Off Dampier Archipelago	North Rankin oil platform	WAM C.14431, C 23703
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Suborder Scalpellomorpha Newman, 1987

Family *Calanticiidae* Zevina, 1978a

Genus *Calantica* Gray, 1825

Calantica sp. nov.

Woodside Collections:

DA2 Dredging Expedition

Dampier Archipelago	2.25 n. miles off Haüy I.	DA2/99/13	WAM C 28197
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Family *Lithotryidae* Gruvel, 1905

Genus *Lithotrya* Sowerby, 1922

Lithotrya valentiana (Gray, 1825: 102)

Woodside Collections:

DA3 Second Diving Expedition

Dampier Archipelago	N Goodwyn I.	DA3/99/48	WAM C 27428
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Additional Museum Collection Data:

Dampier Archipelago	20° 33'S 116°32'E	AM P 40920 (as <i>Lithotrya dorsalis</i>)
Dampier Archipelago	No other data	WAM C 29400
Dampier Archipelago	Kendrew I.	AM P 40888
Dampier Archipelago	Kendrew I.	WAM C 11610, C 11611, C 16303 to C 16323; C 21262, C 23707
Dampier Archipelago	Enderby I.	WAM C 21260
Mainland	Karratha	WAM C 21261

Order Sessilia

Suborder Balanomorpha Pilsbry, 1916

Superfamily Chthamaloidea Darwin, 1854

Family Chthamalidae Darwin, 1854

Subfamily Euraphiinae Newman and Ross, 1976

Genus *Caudoeuraphia* Poltarukha, 1997

Caudoeuraphia cf. *caudata* (Pilsbry, 1916: 315)

Woodside Collections:

Burru Peninsula/Mainland

Burru Peninsula	Withnell Bay	WAM C 27261 to C 27269
Burru Peninsula	Watering Cove	WAM C 27275 to C 27277
Mainland	Dampier, Front Beach	WAM C 27273, C 27274
Mainland	Point Cleaverville	WAM C 27259, C 27260

DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/11	WAM C 27247
Dampier Archipelago	Unnamed I.	DA1/98/14	WAM C 27248
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27257
Dampier Archipelago	Searipple Passage	DA1/98/31	WAM C 27243
Dampier Archipelago	Tozer I.	DA1/98/34	WAM C 27246

DA3 Second Diving Expedition

Dampier Archipelago	E Enderby I.	DA3/99/54	WAM C 27419
Dampier Archipelago	S Enderby I.	DA3/99/66	WAM C 27429

Genus *Microeuraphia* Poltarukha, 1997

Microeuraphia withersi (Pilsbry, 1916: 312)

Woodside Collections:**Burru Peninsula/Mainland**

Burru Peninsula	Watering Cove		WAM C 29409
Burru Peninsula	Withnell Bay		WAM C 29406

Additional Museum Collection Data:

Dampier Archipelago	Enderby I.		WAM C 21221
Mainland	Dampier		WAM C 21219

Microeuraphia sp. 1

Woodside Collections:**Burru Peninsula/Mainland**

Mainland	Dampier, Front Beach		WAM C 27271, C 27272
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Microeuraphia sp. 2

Woodside Collections:**Burru Peninsula/Mainland**

Mainland	Dampier, Front Beach		WAM C 27270
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Subfamily: *Chthamalinae* Darwin, 1854

Genus *Chthamalus* Ranzani, 1817

Chthamalus malayensis Pilsbry 1916: 310

Woodside Collections:**Burru Peninsula/Mainland**

Burru Peninsula	Withnell Bay		WAM C 27265, C 27285 to C 27287
Burru Peninsula	Watering Cove		WAM C 27278 to C 27283
Burru Peninsula	Rocks N of Watering Cove		WAM C 27284
Mainland	Cape Preston		WAM C 27291
Mainland	Dampier Beach		WAM C 27290
Mainland	Point Cleaverville		WAM C 27288
Mainland	NE Point Cleaverville		WAM C 27289

DA1 First Diving Expedition

Dampier Archipelago	Gidley I.	DA1/98/07	WAM C 27258
Dampier Archipelago	Dolphin I.	DA1/98/11	WAM C 25739, C 27256
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27257

DA3 Second Diving Expedition

Dampier Archipelago	Rosemary I., E Tish Pt.	DA3/99/45	WAM C 27417
Dampier Archipelago	E Enderby I.	DA3/99/54	WAM C 27419
Dampier Archipelago	NNE North West Reefs	DA3/99/57	WAM C 27418
Dampier Archipelago	W Lewis I.	DA3/99/59	WAM C 29419
Dampier Archipelago	S Enderby I.	DA3/99/66	WAM C 27416, C 29417

Additional Museum Collection Data:

Dampier Archipelago	Dolphin I., SW corner		WAM C 23700
Dampier Archipelago	Kendrew I.		WAM C 21224
Dampier Archipelago	Enderby I.		WAM C 21226, C 21227, C 29417
Dampier Archipelago	East Lewis I.		WAM C 21223
Mainland	Hammersley Iron intake pipe, Dampier		WAM C 29414

Superfamily Coronuloidea Leach, 1817
 Family *Chelonibiidae* Pilsbry, 1916
 Genus *Chelonibia* Leach, 1817

Chelonibia cf. caretta (Spengler, 1790: 185)

Woodside Collections:

Burru Peninsula/Mainland

Dampier Archipelago Watering Cove; attached to carapace of *Eretmochelys imbricata* (Borradaile) WAM C 27323 to C 27325

Additional Museum Collection Data:

Dampier Archipelago Dolphin I.; attached to carapace of *Eretmochelys imbricata* (Borradaile) WAM C 13898, C 13899

Chelonibia patula (Ranzani, 1818: 86)

Woodside Collections:

Burru Peninsula/Mainland

Dampier Archipelago Watering Cove; attached to carapace of *Portunus pelagicus* (Linnaeus, 1758) WAM C 27321, C 27322, C 27395, C 29397

Mainland Cape Preston WAM C 27326

Additional Museum Collection Data:

Mainland Nickol Bay, near Roebourne AM P 21899

Chelonibia testudinaria (Linnaeus, 1758: 668)

Additional Museum Collection Data:

Burru Peninsula No locality data; attached to carapace of *Eretmochelys imbricata* (Borradaile) WAM C 19997

Family *Platylepadidae* Newman and Ross, 1976
 Genus *Platylepas* Gray, 1825

Platylepas decorata Darwin, 1854: 429

Additional Museum Collection Data:

Burru Peninsula No locality data; attached to carapace of *Eretmochelys imbricata* (Borradaile) WAM C 20004

Platylepas hexastylus (Fabricius, 1798: 35)

Additional Museum Collection Data:

Mainland Karratha, Nickol Bay; attached to *Dugong dugon* (Müller, 1776) WAM C 18949

Superfamily Tetracitoidea Gruvel, stat. nov. (Newman, 1993)
 Family *Tetracitidae* Gruvel, 1903
 Subfamily *Tetracitellinae* Newman and Ross, 1976
 Genus *Tetracitella* Hiro, 1939

Tetracitella multicostata (Nilsson-Cantell, 1930a: 2)

Additional Museum Collection Data:

Dampier Archipelago Boat Passage WAM C 16427
 Dampier Archipelago Enderby I. WAM C 21235, C 21236, C 21238, C 21240
 Dampier Archipelago East Lewis I WAM C 21237

Tetracitella sp. nov.

Woodside Collections:

Burru Peninsula/Mainland

Burru Peninsula Watering Cove WAM C 27309 to C 27311, C 27313, C 27314, C 29412, C 29413

Burrup Peninsula	Rocks N of Watering Cove		WAM C 27308
Burrup Peninsula	Cowrie Cove		WAM C 27317, C 27318
Mainland	Cape Preston		WAM C 27319
Mainland	Dampier Beach		WAM C 27320
Mainland	Point Cleaverville		WAM C 27315, C 27316

DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/02	WAM C 27252
Dampier Archipelago	Gidley I.	DA1/98/07	WAM C 25754
Dampier Archipelago	Angel I.	DA1/98/10	WAM C 27242
Dampier Archipelago	Légendre I.	DA1/98/27	WAM C 27426

DA3 Second Diving Expedition

Dampier Archipelago	Georges Reef	DA3/99/42	WAM C 27295
Dampier Archipelago	E Enderby I.	DA3/99/54	WAM C 27411
Dampier Archipelago	North West Reefs	DA3/99/57	WAM C 27413
Dampier Archipelago	W Lewis I.	DA3/99/59	WAM C 27415
Dampier Archipelago	SE Lewis I.	DA3/99/62	WAM C 27412

Additional Museum Collection Data:

Dampier Archipelago	Gidley I.		WAM C 7558
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Genus *Newmanella* Ross, 1969

Newmanella vitiata (Darwin, 1854: 340)

Woodside Collections:**Burrup Peninsula/Mainland**

Burrup Peninsula	Dampier Beach		WAM C 27299, C 27301
Burrup Peninsula	Watering Cove		WAM C 27296, C 27297, C 27302, C 29411
Burrup Peninsula	Sea Ripple Passage		WAM C 27300
Mainland	Dampier Salt Beach		WAM C 27345
Mainland	Point Cleaverville		WAM C 27298, C 29424

DA1 First Diving Expedition

Dampier Archipelago	Légendre I.	DA1/98/02	WAM C 27245
Dampier Archipelago	Angel I.	DA1/98/10	WAM C 25737
Dampier Archipelago	Dolphin I.	DA1/98/11	WAM C 25722
Dampier Archipelago	Dolphin I.	DA1/98/23	WAM C 25746
Dampier Archipelago	Légendre I.	DA1/98/35	WAM C 25724

DA3 Second Diving Expedition

Dampier Archipelago	N Malus I.	DA3/99/38	WAM C 27424
Dampier Archipelago	N end, Enderby I.	DA3/99/51	WAM C 27425

Additional Museum Collection Data:

Dampier Archipelago	Enderby I.		WAM C 21249, C 21251, C 21252
Dampier Archipelago	E Lewis I.		WAM C 21253
Dampier Archipelago	Kendrew I.		WAM C 21250

Genus *Tetraclita* Schumacher, 1817

Tetraclita squamosa (Bruguière, 1789: 170)

Woodside Collections:**Burrup Peninsula/Mainland**

Burrup Peninsula	Watering Cove		WAM C 27328, C 27329, C 27331
Burrup Peninsula	Rocks N of Watering Cove		WAM C 27330
Burrup Peninsula	Cowrie Cove		WAM C 27327
Burrup Peninsula	Withnell Bay		WAM C 27332
Mainland	Cape Preston		WAM C 27333
Mainland	Point Cleaverville		WAM C 27357

DA1 First Diving Expedition

Dampier Archipelago	Gidley I.	DA1/98/07	WAM C 27249
Dampier Archipelago	Dolphin I.	DA1/98/11	WAM C 27251

Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27250
Dampier Archipelago	Searipple Passage	DA1/98/31	WAM C 27260

DA3 Second Diving Expedition

Dampier Archipelago	Georges Reef	DA3/99/42	WAM C 27294
Dampier Archipelago	Rosemary I., E Tish Pt.	DA3/99/45	WAM C 27420, C 27423
Dampier Archipelago	N Goodwyn I.	DA3/99/48	WAM C 27422
Dampier Archipelago	Enderby I.	DA3/99/51	WAM C 27421
Dampier Archipelago	W Lewis I.	DA3/99/59	WAM C 27414

Additional Museum Collection Data:

Dampier Archipelago	No other data	WAM C 25036
Dampier Archipelago	Beacon (no other data)	WAM C 25037
Dampier Archipelago	Kendrew I.	WAM C 12000, C 12123, C 12134, C 12136, C 12160, C 12161, C 13786, C 13787, C 13789, C 13790, C 18975, C 21244, C 23728
Dampier Archipelago	Citadel Rock, Kendrew I.	WAM C 13795
Dampier Archipelago	N side of Kendrew I.	WAM C 13794
Dampier Archipelago	NW side of Kendrew I.	WAM C 16172 to C 16177 (all dry), C 16182 (dry), C 16184 (dry)
Dampier Archipelago	Boat Passage	WAM C 13793
Dampier Archipelago	Enderby I.	WAM C 21245, C 21247
Dampier Archipelago	East Lewis I.	WAM C 23727
Dampier Archipelago	Beacon I.	WAM C 25037
Bururp Peninsula	No other data	WAM C 13784

Superfamily Balanoidea Leach, 1817

Family *Archaeobalanidae* Newman and Ross, 1976

Subfamily *Archaeobalaninae* Newman and Ross, 1976

Genus *Armatobalanus* Hoek, 1913

Armatobalanus arcuatus Hoek, 1913

Woodside Collections:**DA2 Dredging Expedition**

Dampier Archipelago	Roly Rock	DA2/99/57	WAM C 28167 (dry)
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Armatobalanus cf. *cepa* (Darwin, 1854: 283)

Woodside Collections:**DA1 First Diving Expedition**

Dampier Archipelago	Angel I.	DA1/98/08	WAM C 25736
Bururp Peninsula	20°31.586'S, 116°51.088'E	DA1/98/30	WAM C 27232
Dampier Archipelago	Searipple Passage	DA1/98/31	WAM C 25753

Armatobalanus quadrivittatus (Darwin, 1854: 284)

Woodside Collections:**Bururp Peninsula/Mainland**

Bururp Peninsula	Watering Cove, attached to <i>Acanthopleura spinosa</i> (Bruguère, 1792)	WAM C 29408
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DA1 First Diving Expedition

Dampier Archipelago	Hamersley Shoal	DA1/98/13	WAM C 25723
Dampier Archipelago	Angel I.	DA1/98/33	WAM C 25730

DA2 Dredging Expedition

Dampier Archipelago	Rosemary I.	DA2/99/90	WAM C 28172
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DA3 Second Diving Expedition

Dampier Archipelago	SE Bare Rock	DA3/99/50	WAM C 27397
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Additional Museum Collection Data:

Dampier Archipelago	Roly Rock	WAM C 21229
Dampier Archipelago	Kendrew I.	WAM C 29418

Armatobalanus terebratus (Darwin, 1854: 285)**Woodside Collections:****DA2 Dredging Expedition**

Dampier Archipelago	E Intercourse I.	DA2/99/65	WAM C 28171
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Genus *Solidobalanus* Hoek, 1913*Solidobalanus ciliatus* (Hoek, 1913: 199)**Woodside Collections:****DA2 Dredging Expedition**

Dampier Archipelago	Haüy I.	DA2/99/13	WAM C 28168
Dampier Archipelago	Rosemary I.	DA2/99/84	WAM C 28169
Dampier Archipelago	Enderby I.	DA2/99/99	WAM C 28170

Additional Museum Collection Data:

Dampier Archipelago	Goodwin I.	WAM C 28316
Dampier Archipelago	Roly Rock	WAM C 28315
Dampier Archipelago	Rosemary I.	AM P 40921
Dampier Archipelago	50 n mls WNW Rosemary I.	WAM C 17765

Genus *Striatobalanus* Hoek, 1913*Striatobalanus amaryllis* (Darwin, 1854: 279)**Woodside Collections:****DA1 First Diving Expedition**

Dampier Archipelago	Dolphin I.	DA1/98/02	WAM C 29404
Dampier Archipelago	Wilcox I.	DA1/98/17	WAM C 27231
Burru Peninsula	20°31.586'S, 116°51.088'E	DA1/98/30	WAM C 27235
Dampier Archipelago	Angel I.	DA1/98/33	WAM C 25731

DA2 Dredging Expedition

Dampier Archipelago	2.7 n. miles ESE of Cape Legendre	DA2/99/06	WAM C 28195
Dampier Archipelago	3.6 n. miles NNE of NW point of Delambre I.	DA2/99/08	WAM C 28194
Dampier Archipelago	5.5 n. miles N of NE corner of Delambre I.	DA2/99/09	WAM C 28192
Dampier Archipelago	1.9 n. miles N of NE point of Delambre I.	DA2/99/10	WAM C 28193
Dampier Archipelago	5.9 n. miles NNW of NW point of Delambre I.	DA2/99/12	WAM C 28191
Dampier Archipelago	4.35 n. miles W of Cape Bruguieres	DA2/99/29	WAM C 28190
Dampier Archipelago	3.3 n. miles NNE of Courtenay Head Light, Malus I.	DA2/99/33	WAM C 28189
Dampier Archipelago	1.9 n. miles W of High Point, on I. NE of West Lewis I.	DA2/99/35	WAM C 28188 (dry)
Dampier Archipelago	2.5 n. miles WNW of Marks Point, West Lewis I.	DA2/99/37	WAM C 28187
Dampier Archipelago	1.65 n. miles WSW of Bluff Point, Enderby I.	DA2/99/40	WAM C 28186
Dampier Archipelago	2.4 n. miles SW of SW point of Goodwyn I.	DA2/99/42	WAM C 28185
Dampier Archipelago	2.4 n. miles WNW of Rocky Head, Enderby I.	DA2/99/46	WAM C 28183 (dry)

Barnacles of the Dampier Archipelago

Dampier Archipelago	3.9 n. miles just N of W of Rocky Head, Enderby I,	DA2/99/47	WAM C 28184
Dampier Archipelago	3.3 n. miles just S of W of W point of Eaglehawk I.	DA2/99/49	WAM C 28182
Dampier Archipelago	6.5 n. miles W of Rocky Head, Enderby I.	DA2/99/50	WAM C 28181
Dampier Archipelago	7.4 n. miles W of SW point of Goodwyn I.	DA2/99/51	WAM C 28180 (dry)
Dampier Archipelago	2.0 n. miles W of Roly Rock	DA2/99/56	WAM C 28179 (dry)
Dampier Archipelago	1.05 n. miles N of Roly Rock	DA2/99/57	WAM C 28178 (dry)
Dampier Archipelago	1.8 n. miles S of Courtenay Head Light, Malus I.	DA2/99/59	WAM C 28176
Dampier Archipelago	Flying Foam Passage, 0.9 n. miles NE of S point, Angel I.	DA2/99/62	WAM C 28145
Dampier Archipelago	2.4 n. miles NW of light on East Intercourse I.	DA2/99/65	WAM C 28144
Dampier Archipelago	2.75 n. miles ESE of Bluff Point, Enderby I.	DA2/99/66	WAM C 28146
Dampier Archipelago	5.5 n. miles SSW of Rocky Head, Enderby I.	DA2/99/72	WAM C 28147
Dampier Archipelago	3.25 n. miles S of Rocky Head, Enderby I.	DA2/99/73	WAM C 28148
Dampier Archipelago	1.95 n. miles SE of Rocky Head, Enderby I.	DA2/99/74	WAM C 28149
Dampier Archipelago	0.75 n. miles E of NE point of Goodwyn I.	DA2/99/75	WAM C 28150
Dampier Archipelago	0.4 n. miles W of NW point of Goodwyn I.	DA2/99/76	WAM C 28151
Dampier Archipelago	1.2 n. miles N of N point of Kendrew I.	DA2/99/82	WAM C 28152
Dampier Archipelago	3.15 n. miles ENE of NE point of Goodwyn I.	DA2/99/83	WAM C 28153
Dampier Archipelago	0.6 n. miles SE of King Point, East Lewis I.	DA2/99/94	WAM C 28154
Dampier Archipelago	1.3 n. miles W of Bluff Point, Enderby I.	DA2/99/96	WAM C 28155

DA3 Second Diving Expedition

Dampier Archipelago	George's Reef	DA3/99/41	WAM C 27434
Dampier Archipelago	Between Enderby I. and West Lewis I.	DA3/99/55	WAM C 27433

Additional Museum Collection Data:

Dampier Archipelago	Beacon (no other data)	WAM C 25038
Dampier Archipelago	Rosemary I., Norbill Bay	WAM C 2165, C 12171
Dampier Archipelago	Rosemary I.	WAM C 12180
Dampier Archipelago	Boat Passage	WAM C 23751
Dampier Archipelago	Kendrew I.	WAM C 23738
Dampier Archipelago	Enderby I.	WAM C 21206, C 21208, C 21209
Dampier Archipelago	Rocky head, SW of Enderby I.	WAM C 21207
Off Dampier Archipelago	North Rankin "A" Platform	WAM C 17798, C 237737, C 21210
Burrup Peninsula	Hearson Cove	WAM C 23739
Mainland	Dampier, Hamersley Iron intake pipe	WAM C 23735

Striatobalanus bimae (Hoek, 1913: 182)

Woodside Collections:

DA1 First Diving Expedition

Dampier Archipelago	3.3 n. miles NNE of Courtenay Head Light, Malus I.	DA2/99/33	WAM C 25924, C 25926
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Additional Museum Collection Data:

Dampier Archipelago	Enderby I.	WAM C 21200
Dampier Archipelago	SW of Enderby I.	WAM C 21203

Dampier Archipelago	Roly Rocks		WAM C 21201
Dampier Archipelago	West Lewis I., E end		WAM C 21202

Striatobalanus tenuis (Hoek, 1883: 154)

Woodside Collections:

DA1 First Diving Expedition

Burrup Peninsula	20°31.586'S, 116°51.088'E	DA1/98/30	WAM C 27234
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DA2 Dredging Expedition

Dampier Archipelago	5.5 n. miles N of Lady Nora I.	DA2/99/24	WAM C 28173 to C 28175
Dampier Archipelago	3.3 n. miles NNE of Courtenay Head Light, Malus I.	DA2/99/33	WAM C 25924

Additional Museum Collection Data:

Dampier Archipelago	Enderby I.		WAM C 21213, C 21214,
Dampier Archipelago	Rocky Head, SW Enderby I.		WAM C 21217

Genus *Conopea* Say, 1822*Conopea calceolus* (Ellis, 1758: 853)

Woodside Collections:

DA2 Dredging Expedition

Dampier Archipelago	3.5 n. miles NE of Cape Legendre	DA2/99/05	WAM C 28125
Dampier Archipelago	5.5 n. miles N of NE corner of Delambre I.	DA2/99/09	WAM C 28126, C 28127
Dampier Archipelago	2.25 n. miles E of Haüy I.	DA2/99/13	WAM C 28128
Dampier Archipelago	4.35 n. miles W of Cape Bruguieres	DA2/99/29	WAM C 28129 (dry)
Dampier Archipelago	3.3 n. miles NNE of Courtenay Head Light, Malus I.	DA2/99/33(dry)	WAM unregistered
Dampier Archipelago	3.3 n. miles just S of W of W point of Eaglehawk I.	DA2/99/49	WAM C 28130
Dampier Archipelago	1.8 n. miles S of Courtenay Head Light, Malus I.	DA2/99/59	WAM C 28131
Dampier Archipelago	2.4 n. miles NW of light on East Intercourse I.	DA2/99/65	WAM C 28132
Dampier Archipelago	1.95 n. miles SE of Rocky Head, Enderby I.	DA2/99/74	WAM C 28133
Dampier Archipelago	0.75 n. miles E of NE point of Goodwyn I.	DA2/99/75	WAM C 28134
Dampier Archipelago	0.6 n. miles SE of King Point, East Lewis I.	DA2/99/94	WAM C 28135

Conopea sp. 1 cf. *navicula* (Darwin, 1854: 221)

Woodside Collections:

DA2 Dredging Expedition

Dampier Archipelago	2.4 n. miles NW of light on East Intercourse I.	DA2/99/65	WAM C 28139
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Conopea sp. 2 cf. *dentifer* (Broch, 1922: 326)

Woodside Collections:

DA2 Dredging Expedition

Dampier Archipelago	2.4 n. miles NW of light on East Intercourse I.	DA2/99/65	WAM C 28140
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Conopea spp

Woodside Collections:

DA1 First Diving Expedition

Dampier Archipelago	Wilcox I.	DA1/98/17	WAM C 27228
Dampier Archipelago	Madeleine Shoal	DA1/98/26	WAM C 27227
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27229
Dampier Archipelago	Angel I.	DA1/98/33	WAM C 27230

DA2 Dredging Expedition

Dampier Archipelago	4 n. miles NNW of Cohen I.	DA2/99/04	WAM C 28136
Dampier Archipelago	3.5 n. miles NE of Cape Legendre.	DA2/99/05	WAM C 28125
Dampier Archipelago	2.25 n. miles E of Haüy I.	DA2/99/13	WAM C 28137
Dampier Archipelago	Flying Foam Passage, 0.9 n. miles NE of S point of Angel I.	DA2/99/62	WAM C 28138
Dampier Archipelago	2.4 n. miles NW of light on East Intercourse I.	DA2/99/65	WAM C 28139, C 28140
Dampier Archipelago	3.6 n. miles S of Bluff Point, Enderby I.	DA2/99/68	WAM C 28141
Dampier Archipelago	1.95 n. mls SE of Rocky Head, Enderby I.	DA2/99/74	WAM C 28142
Dampier Archipelago	0.75 n. miles E of NE point of Goodwyn I.	DA2/99/75	WAM C 28143

DA3 Second Diving Expedition

Dampier Archipelago	NW Roly Rocks	DA3/99/52	WAM C 27388
Dampier Archipelago	Channel between Enderby I and West Lewis I.	DA3/99/55	WAM C 27387
Dampier Archipelago	Eaglehawk I., N of NW Point	DA3/99/56	WAM C 27390
Dampier Archipelago	NE of North W Reef	DA3/99/57	WAM C 27389
Dampier Archipelago	Off Enderby I, SW of Rocky Head	DA3/99/65	WAM C 27391

Subfamily Acastinae Kolbasov, 1993
Genus *Acasta* Leach, 1817

Acasta fenestrata Darwin, 1854: 316

Additional Museum Collection Data:

Dampier Archipelago	Kendrew I.	WAM C 12182, C 12187
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Acasta sulcata Lamarck, 1818: 398

Additional Museum Collection Data:

Dampier Archipelago	Kendrew I.	WAM C 12184, C 12186, C 12189
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Acasta spp

Woodside Collections:

Burrup Peninsula/Mainland

Burrup Peninsula	Watering Cove	WAM C 27306, C 27307
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DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/01	WAM C 25726, C 25728
Dampier Archipelago	Legendre I.	DA1/98/03	WAM C 25300, C 27217
Dampier Archipelago	Haüy I.	DA1/98/06	WAM C 25761
Dampier Archipelago	Angel I.	DA1/98/08	WAM C 25732, C 25733, C 25736, C 27216, C 27222
Dampier Archipelago	Angel I.	DA1/98/12	WAM C 25741, C 25748
Dampier Archipelago	Hamersley Shoal	DA1/98/16	WAM C 27233
Dampier Archipelago	Collier Rocks	DA1/98/20	WAM C 25755
Dampier Archipelago	Delambre I.	DA1/98/21	WAM C 27220

Dampier Archipelago	Dolphin I.	DA1/98/24	WAM C 27218
Burru Peninsula	20°31.586'S, 116°51.088'E	DA1/98/30	WAM C 25738
Dampier Archipelago	Legendre I	DA1/98/32	WAM C 27219, C 27223
Dampier Archipelago	Angel I.	DA1/98/33	WAM C 27215, C 27221

DA2 Dredging Expedition

Dampier Archipelago	1.9 n. miles N of NE point of Delambre I.	DA2/99/10	WAM C 28156
Dampier Archipelago	3.3 n. miles NNE of Courtenay Head Light, Malus I.	DA2/99/33	WAM C 28157
Dampier Archipelago	3.3 n. miles NE of Courtenay Head Light, Malus I.	DA2/99/34	WAM C 28158
Dampier Archipelago	2.5 n. miles WNW of Marks Point, West Lewis I.	DA2/99/37	WAM C 28159
Dampier Archipelago	2.4 n. miles SW of SW point of Goodwyn I.	DA2/99/42	WAM C 28160
Dampier Archipelago	6.5 n. miles W of Rocky Head, Enderby I.	DA2/99/50	WAM C 28161
Dampier Archipelago	2.4 n. miles NW of light on East Intercourse I.	DA2/99/65	WAM C 28162
Dampier Archipelago	0.75 n. miles E of NE point of Goodwyn I.	DA2/99/75	WAM C 28163
Dampier Archipelago	2.9 n. miles E of Tish Point, Rosemary I.	DA2/99/84	WAM C 28164
Dampier Archipelago	0.7 n. miles N of W of Brigadier I.	DA2/99/88	WAM C 28165
Dampier Archipelago	1.05 n. miles WSW of Rocky Head, Enderby I.	DA2/99/99	WAM C 28166

DA3 Second Diving Expedition

Dampier Archipelago	NW Malus I.	DA3/99/37	WAM C 27409
Dampier Archipelago	S George's Reef	DA3/99/41	WAM C 27406
Dampier Archipelago	Channel between Enderby I. and West Lewis I.	DA3/99/55	WAM C 27386
Dampier Archipelago	SW East Lewis I.	DA3/99/63	WAM C 27408
Dampier Archipelago	SW Rocky Head	DA3/99/65	WAM C 27407, C 27410

Family *Pyrgomatidae* Gray, 1825
 Subfamily *Pyrgomatinae* Gray, 1825
 Tribe *Pyrgomatini* Ross and Newman, 1995
 Genus *Savignium* Leach, 1825

Savignium dentatum (Darwin, 1854: 369)

Additional Museum Collection Data:

Dampier Archipelago	Kendrew I.	WAM C 16130 (dry), C 16131 (dry)
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Pyrgomatid spp**Woodside Collections:****DA1 First Diving Expedition**

Dampier Archipelago	Dolphin I.	DA1/98/01	WAM C 25725, C 29425
Dampier Archipelago	Legendre I.	DA1/98/03	WAM C 27226
Dampier Archipelago	Legendre I.	DA1/98/04	WAM C 25740
Dampier Archipelago	Angel I.	DA1/98/08	WAM C 25735
Dampier Archipelago	Angel I.	DA1/98/10	WAM C 25757
Dampier Archipelago	Hammersley Shoal	DA1/98/13	WAM C 27224
Dampier Archipelago	Angel I.	DA1/98/33	WAM C 27225

DA2 Dredging Expedition

Dampier Archipelago	2.25 n. miles E of Haüy I.	DA2/99/13	WAM C 28199
Dampier Archipelago	3.3 n. miles NNE of Courtenay Head Light, Malus I.	DA2/99/33	WAM C 28198

Dampier Archipelago	1 n. mile ENE of Bluff Point, Enderby I.	DA2/99/39	WAM C 29421
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DA3 Second Diving Expedition

Dampier Archipelago	NNE Brigadier I.	DA3/99/39	WAM C 27432
Dampier Archipelago	Brigadier I.	DA3/99/40	WAM C 29423
Dampier Archipelago	S Goodwyn I.	DA3/99/49	WAM C 27430
Dampier Archipelago	NE Enderby I.	DA3/99/53	WAM C 27431
Dampier Archipelago	Angel I.	DA3/99/55	WAM C 25735

Family *Balanidae* Leach, 1817
 Subfamily *Balaninae* Leach, 1817
 Genus *Balanus* da Costa, 1778

Group of *Balanus amphitrite*
Balanus amphitrite Darwin, 1854: 240

Woodside Collections:**Burru Peninsula/Mainland**

Burru Peninsula	Withnell Bay		WAM C 27347 to C 27350, C 27396, C 29403
Burru Peninsula	Cowrie Cove		WAM C 27353
Burru Peninsula	S side Watering Cove		WAM C 27335
Burru Peninsula	Watering Cove		WAM C 27338, C 27344,
Burru Peninsula	Rocks N of Watering Cove		WAM C 27337
Mainland	Dampier Beach		WAM C 27340, C 27341, C 27344, C 27346
Mainland	Front Beach, Dampier		WAM C 27352
Mainland	Dampier Salt Beach		WAM C 27346
Mainland	Point Cleaverville		WAM C 27356

DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/02	WAM C 27211
Dampier Archipelago	Dolphin I.	DA1/98/11	WAM C 27213, C 27239

DA3 Second Diving Expedition

Dampier Archipelago	E Enderby I.	DA3/99/54	WAM C 27402
Dampier Archipelago	SE Lewis I.	DA3/99/62	WAM C 27403

Additional Museum Collection Data:

Dampier Archipelago	No other data		WAM C 25035
Dampier Archipelago	Beacon (no other data)		WAM C 25034
Dampier Archipelago	Kendrew I.		WAM C 12183
Dampier Archipelago	Hampton Harbour		WAM C 23767
Mainland	Hamersley Iron intake pipe, Dampier		WAM C 29402

Balanus cirratus (Darwin, 1854: 241)

Woodside Collections:**Burru Peninsula/Mainland**

Burru Peninsula	Withnell Bay		WAM C 27370, C 27371
Burru Peninsula	Watering Cove		WAM C 27359 to C 27366, C 29410
Mainland	Cape Preston		WAM C 27368
Mainland	Dampier, Front Beach		WAM C 27367
Mainland	Dampier Salt Beach		WAM C 27369
Mainland	Point Cleaverville		WAM C 27358

DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/02	WAM C 29416
Dampier Archipelago	Angel I.	DA1/98/09	WAM C 27209
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27207

DA3 Second Diving Expedition

Dampier Archipelago	NW Eaglehawk I.	DA3/99/56	WAM C 27398
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Additional Museum Collection Data:

Dampier Archipelago	Roly Rocks		WAM C 21172
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Dampier Archipelago	Enderby I.	WAM C 21177
Burru Peninsula	Watering Cove	WAM C 27366

Balanus reticulatus Utinomi, 1967: 216

Woodside Collections:

Burrup Peninsula/Mainland

Burrup Peninsula	Withnell Bay	WAM C 27336
Burrup Peninsula	Watering Cove	WAM C 27339, C 27342, C 27343, C 27351, C 29401
Mainland	Cape Preston	WAM C 27355
Mainland	Point Cleaverville	WAM C 27354

DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/02	WAM C 25750
Dampier Archipelago	Angel I.	DA1/98/08	WAM C 25734
Dampier Archipelago	Angel I.	DA1/98/09	WAM C 27210
Dampier Archipelago	Angel I.	DA1/98/10	WAM C 27240
Dampier Archipelago	Dolphin I.	DA1/98/11	WAM C 27239
Dampier Archipelago	Wilcox I.	DA1/98/17	WAM C 27212
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27214
Dampier Archipelago	Searipple Passage	DA1/98/31	WAM C 27238

Balanus sp. nov.

Woodside Collections:

Burrup Peninsula/Mainland

Burrup Peninsula	Withnell Bay	WAM C 27375, C 27376, C 29405
Burrup Peninsula	Watering Cove	WAM C 27373, C 27379, C 27380
Burrup Peninsula	Cowrie Cove	WAM C 27372, C 27377
Mainland	Point Cleaverville	WAM C 27378

DA1 First Diving Expedition

Dampier Archipelago	Dolphin I.	DA1/98/11	WAM C 27237
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27206
Dampier Archipelago	Searipple Passage	DA1/98/31	WAM C 27238, C 29407

DA3 Second Diving Expedition

Dampier Archipelago	E Enderby I.	DA3/99/54	WAM C 27400
Dampier Archipelago	Channel between Enderby I. and West Lewis I.	DA3/99/55	WAM C 27401
Dampier Archipelago	S Enderby I.	DA3/99/66	WAM C 27399

Group of *Balanus trigonus**Balanus trigonus* Darwin, 1854: 223

Additional Museum Collection Data:

Dampier Archipelago	Dolphin I.	WAM C 13900
Mainland	Dampier, Hamersley Iron Intake Pipe	WAM C 13282, C 17775

Subfamily *Megabalaninae* Newman, 1979Genus *Megabalanus* Hoek, 1913*Megabalanus ajax* (Darwin, 1854: 214)

Additional Museum Collection Data:

Dampier Archipelago	Kendrew I.	WAM C 29398
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Megabalanus cf. *ajax* (Darwin, 1854: 214)

Woodside Collections:

Burrup Peninsula/Mainland

Burrup Peninsula	Watering Cove	WAM C 27334
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Megabalanus rosa (Pilsbry, 1916: 61)

Woodside Collections:

DA1 First Diving Expedition

Dampier Archipelago	Hamersley Shoal	DAI/98/16	WAM C 27241
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27205

DA3 Second Diving Expedition

Dampier Archipelago	Georges Reef	DA3/99/42	WAM C 27292
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Megabalanus tintinnabulum (Linnaeus, 1758: 668)

Woodside Collections:

DA1 First Diving Expedition

Dampier Archipelago	Legendre I.	DA1/98/03	WAM C 25743
Dampier Archipelago	Legendre I.	DA1/98/04	WAM C 25745
Dampier Archipelago	Gidley I.	DAI/98/07	WAM C 27204
Dampier Archipelago	Unnamed I.	DAI/98/14	WAM C 25721
Dampier Archipelago	Wilcox I.	DA1/98/17	WAM C 25747, C 25752
Dampier Archipelago	Dolphin I.	DA1/98/24	WAM C 27203
Dampier Archipelago	Legendre I.	DA1/98/27	WAM C 27202

DA3 Second Diving Expedition

Dampier Archipelago	NNE Brigadier I.	DA3/99/39	WAM C 27427
Dampier Archipelago	Georges Reef	DA3/99/42	WAM C 27293

Additional Museum Collection Data:

Dampier Archipelago	No other data	WAM C 21190, C 25032
Dampier Archipelago	ex <i>Panulirus versicolor</i>	WAM C 25032
Dampier Archipelago	Landfall Buoy	WAM C 13763
Dampier Archipelago	Mermaid Sound, sea buoy	WAM C 15850, C 23800 to C 23808
Dampier Archipelago	Kendrew I.	WAM C 17767, C 23793, C 23795, C 21185, C 21188, C 21193, C 29420
Dampier Archipelago	Kendrew I, W side	WAM C 23794
Dampier Archipelago	Kendrew I, NW side	WAM C 21189
Dampier Archipelago	Kendrew I, Lacepede Buoy 2	WAM C 14432, C 17769
Dampier Archipelago	Conzinc I.	WAM C 23798
Dampier Archipelago	Roly Rock	WAM C 20985, C 21186, C 21191, C 21194, C 21195
Dampier Archipelago	Roly Rock ex <i>Panulirus ornatus</i>	WAM C 21186
Dampier Archipelago	Brigadier I.	WAM C 20986
Dampier Archipelago	Goodwyn I	WAM C 21183, C 21192
Dampier Archipelago	Gidley I.	WAM C 25033
Dampier Archipelago	Enderby I.	WAM C 21196
Dampier Archipelago	Rosemary I.	WAM C 12151
Mainland	Dampier	WAM C 17768, C 23792, C 23798
Mainland	Dampier, Hamersley Iron intake pipe	WAM C 16213, C 29415
Mainland	Karratha	WAM C 17768
Mainland	Cape Lambert	WAM C 21184
Mainland	Sam's Creek, Roebourne	WAM C 21178