

The deepwater megabenthic invertebrates on the western continental margin of Australia (100–1100 m depths): composition, distribution and novelty

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ABSTRACT – Taxonomic study of the first regional scale collection of deepwater invertebrate megabenthos from Australia's western continental margin reveals a previously undiscovered high species richness and novelty. Benthic samples were taken systematically at 19 sites from Albany to Barrow Island (~35°S to 21°S) on the deep continental shelf (100 m depth) and upper continental slope (400 m). At some sites, additional samples were taken across-shelf at depths of 200 m, 700 m and 1000 m, with a couple as deep as 1200 m and 1500 m. Multibeam (swath) mapping of complex seabed topography enabled targeted collection of the epifauna on hard and soft substrates and targeting of features including submarine canyons.

A total of 2001 species including 396 (20%) confirmed new species, 876 (44%) previously described species and 727 (36%) uncertain species were identified within the taxa Porifera (Demospongiae), Cnidaria (Octocorallia, Antipatharia and Scleractinia), Mollusca, Echinodermata, Crustacea (Decapoda), Pycnogonida and Ascidiacea. The high proportion of new and uncertain species stemmed from poor knowledge of entire major groups (e.g. the Demospongiae), and from less well studied deep-sea taxa within otherwise well-known groups (e.g. the Bivalvia). Over half the species (1075) were collected only once. Distributional patterns of taxa show the western margin is an overlap zone of tropical and temperate fauna with a strong Indo-Pacific affinity (42% of described species) but an endemic fauna also exists (17% of described species).

This paper provides an annotated checklist of all these identified species, along with live colour images of over half the species. All species can be cross-referenced to images and other collection information via a unique eight-digit computer code maintained in the Codes for Australasian Aquatic Biota database.

The research provides valuable information for consideration in the regional marine planning process and all biological specimens are lodged in Australian museums to enable ongoing examination of the diverse and largely undescribed fauna.

KEYWORDS: taxonomy, megabenthos, biodiversity, new species, biogeography, continental slope

INTRODUCTION

SCOPE

Knowledge of the benthic invertebrates on the western continental shelf and slope of Australia is limited. Collections by French and English explorers in the 18th and 19th centuries generally were from shallow coastal waters of considerably less than 100 m depth. This first account of composition, geographic range and novelty of deep megabenthic invertebrates from the vast western continental margin of Australia constitutes a significant advance in knowledge for this region. Our data are from the first systematic survey of the deep shelf and slope, and are based on authoritative taxonomic identifications for six dominant taxa of megabenthos (i.e. animals large enough to be sorted without microscopy and easily caught in bottom trawls with 25 mm stretched-mesh net cod-ends) from the survey. The information will aid regional marine management planning by providing insights into areas of high species diversity and endemism, and the associations of fauna with their habitats and geological features affecting their distribution.

BACKGROUND

Deep continental margins, especially the deep continental shelf and continental slope to depths of about 1500 m, are areas of expanding human use for fishing and for mineral, oil and gas extraction, and a priority target for conservation (Williams et al. 2009; Buhl-Mortensen et al. 2010). Knowledge of species distributions, and biogeographical patterns, are fundamental in planning for sustainable use and effective conservation of these often large marine areas. Australia's current ecosystem-based, integrated and regional-scale planning initiatives depend on the identification of natural 'bioregions' as planning units. Such 'bioregions' initially only incorporated data on the distribution of fishes (Heap et al. 2005; Last et al. 2005) because benthic invertebrate biodiversity was insufficiently known or integrated to be included in the national scale analysis of biological distributions. Accordingly, it was uncertain to what extent the distributions of fishes represented the distributions of the larger benthic invertebrates in this national bioregionalisation. The gaps in knowledge, and the imperative for Australia to implement its national network of marine protected areas by 2012, were primary stimuli for additional surveys of benthic invertebrates in Australian waters. This paper, and a companion analytical paper (Williams et al. 2010), report results from one of those surveys.

Research on the benthic invertebrate fauna of continental margins (deep shelf and slope depths

>100 m) has been conducted in relatively few areas of the world oceans, including the north-east Atlantic Ocean and Gulf of Mexico (Howell et al. 2002; Macpherson 2002, 2003; Wicksten and Packard 2005; Escobar-Briones et al. 2008; Rowe and Kennicutt 2008; Narayanaswamy et al. 2010); the northern European continental margin (Gray et al. 1997; Gage et al. 2005) and the north-west Atlantic (Georges Bank – Thouzeau et al. 1991); the north-east Pacific (Ruhl 2007) and off New Zealand to 3,000 m depth (Fell 1958; Clark and McKnight 2000).

In Australia, information on the slope fauna comes from sporadic collections that have provided numerous specimens catalogued in most Australian and some overseas museums, and has resulted in many taxonomic publications. In south-eastern Australia, the diversity of megabenthos has been documented on seamounts (Koslow et al. 2001; O'Hara 2007, 2008a), in submarine canyons (Schlacher et al. 2007) and for the temperate deep shelf (Whitelegge 1900; O'Hara and Poore 2000; Ward et al. 2006; O'Hara 2008b). An extensive survey of macrofauna and larger megabenthos was undertaken off south-eastern Australia by Museum Victoria (Poore et al. 1994). However, few syntheses of distributional patterns have been undertaken of slope invertebrate faunas over wide geographic ranges in Australian waters, and regional studies are lacking. Off south-west and central Western Australia, Williams et al. (2010) presented an analysis of the distribution patterns of the benthic invertebrate communities in relation to broad-scale environmental patterns, but details of the species and their distribution were not included. Such detail is the focus of the present paper.

The waters of the western continental margin of Australia contain geographical features such as canyons, seamounts, seeps, the largest western coastal fringing coral reef in the world and the unique southward flowing eastern boundary jet, the Leeuwin Current, from Ningaloo to Cape Leeuwin (22°S to 34°S) (Waite et al. 2007). In the Indo-Australian basin north-west of Australia, shallow, warm, less saline, tropical Indian and West Pacific Ocean waters mix with subtropical Indian Ocean water before joining the Leeuwin current's southward flow along the shelf break ~250 m (Domingues et al. 2007). Beneath this the more saline, Leeuwin Undercurrent flows northward along the upper continental slope (~250–400 m), sourced from subtropical water Indian Ocean water, South Indian Ocean Central Water, Subantarctic Mode Water and Antarctic Intermediate Water (Ridgeway and Condie 2004; Waite et al. 2007). Lateral exchange with the offshore ocean plays a large role in the coastal boundary system, with the western edge of the

Leeuwin Current and waters east of 100°E subjected to intense eddy activity, the strongest eddy kinetic field in all the eastern boundary currents globally (Domingues et al. 2007; Feng 2010). Once the Leeuwin Current reaches Cape Leeuwin the more dominant destination is offshore advection into the south-east Indian Subtropical Gyre (with the recognised subsequent loss of larvae). The second destination is rounding the south-west corner of Western Australian and combining with the South Indian Ocean Current (35–37°S) to form the boundary jet moving along the southern Australian continental slope and then down the west coast of Tasmania (Domingues et al. 2007).

Waters off Western Australia are recognised as globally significant biodiversity hotspots for coral reefs and endemism (Roberts et al. 2002). The north-western continental margin also seems to be characterised by relatively high numbers of species at deep shelf and upper slope depths (e.g. decapods – Ward and Rainer 1988). That the same might be true for the south-west continental slope was suggested for benthic fishes (Williams et al. 2001).

The shallow water invertebrate fauna off Western Australia has been studied only in areas adjacent to urban centres and key environmental features – where it is readily accessible. Taxonomic workshops have focused on the flora and fauna of shallow coastal waters at Albany, Rottnest Island, Abrolhos Islands, Dampier and Esperance (Wells et al. 1990, 1991, 1993, 2003, 2005; Wells 1997; Walker and Wells 1999). Shallow water surveys have been undertaken in the north-west, e.g. the Dampier Archipelago (Jones 2004), and the north-west atolls, e.g. Mermaid, Scott and Seringapatam Reefs (Bryce 2009).

Various publications on shallow Western Australian invertebrates include: crustaceans (Morgan and Jones 1991; Jones and Morgan 2002), molluscs (Wells and Bryce 1988, 1993; Norman and Reid 2000) and ascidians (Kott 1985, 1990, 1992, 2001, 2005a). Some more general works (Allen and Steene 1994; Edgar 1997; Gowlett-Holmes 2008) include descriptions of some species that extend into deeper waters; nevertheless, the benthic invertebrate fauna of Australia's western margin is little sampled and poorly known.

Australia's west coast was visited by scientific biological expeditions from as early as Dampier (1703). However, the sampling effort generally focused on land or waters (often considerably) shallower than 100 m, and hence the deep water fauna remained completely unknown. The Baudin expedition (1801–1803) (Péron and de Freycinet 1824) collected in very shallow waters along the coast. Two German expeditions led by Michaelsen and Hartmeyer on the *Meteor* in 1900 and the *Hamburg* in 1905 sampled mainly off Shark Bay,

but also in south-west Western Australian waters, the relevant taxonomic papers are as follows. The Echinodermata type material from that voyage, described by Koehler (1907), Erwe (1913) and Döderlein, (1914) is lodged at the Western Australian Museum, Perth (WAM). Additional material is described by A.H. Clark (1911) and H.L. Clark (1923). Broch (1910) and Kükenthal (1910) described the Alcyonacea and Pennatulacea. A few of Kükenthal's 1910 types are lodged in the WAM although most are in the Museum of Natural History, Berlin. The Mollusca were later described by Thiele (1930) and the brachyuran crabs from the Hamburg Museum expedition were described by Balss (1935). The Ascidiacea, described by Hartmeyer and Michaelsen (1928) are lodged in the Hamburg Museum. Some of these voyages also resulted in species descriptions for sponges (Lamarck 1813–1814; Hentschel 1909, 1911; Weltner 1910) and subsequent revisions (Topsent 1930, 1932, 1933).

In 1908, dredge samples of molluscs were taken off southern Western Australia and in the Great Australian Bight (Verco and Cotton 1935). In 1910–1912 the federal Fisheries Investigation Ship (FIS) *Endeavour* conducted two trawling cruises off the mid-west coast of Western Australia, from which the echinoderms were described by H.L. Clark (1916). Octocorals from Dr E. Mjöberg's Swedish scientific expeditions to north-western Australia in 1910–1913 are described by Broch (1916) and are lodged in the Swedish Museum of Natural History, Stockholm. The Ascidiarians from the same voyage were described by Hartmeyer (1919).

In 1929 and 1932, the Carnegie Australian Harvard (CAH) Expeditions targeted echinoderms from shallow waters to ~100 m around Australia (H.L. Clark 1938). In the 1960s and 1970s other invertebrate collections were made offshore with the FV *Davena*, HMAS *Diamantina*, FRV *Umitaka Maru* and the MV *Sprightly*. The HMAS *Diamantina* sampled the west coast shelf systematically over five cruises from Cape Leeuwin to North West Cape. In 1979 and the 1980s, the RV *Soela* and more recently the RV *Lady Basten* sampled on the North West Shelf. Many specimens from these surveys are lodged at the WAM (Echinodermata – Marsh 1976; Marsh et al. 1999; Cnidaria – Griffith and Fromont 1998).

The more recent deep-water marine invertebrate surveys have mostly focused on studies contributing to the management of commercial species (rock lobster, crab, prawn and cephalopods) or areas of economic interest subject to exploration and Environmental Impact Studies for developments in the mining or oil and gas industries of the North West Shelf (George 1962, 1966; Ward and Rainer 1988; Wadley and Evans 1992; Smith et al. 2004; Melville-Smith et al. 2006, 2007; Davie et al. 2007).

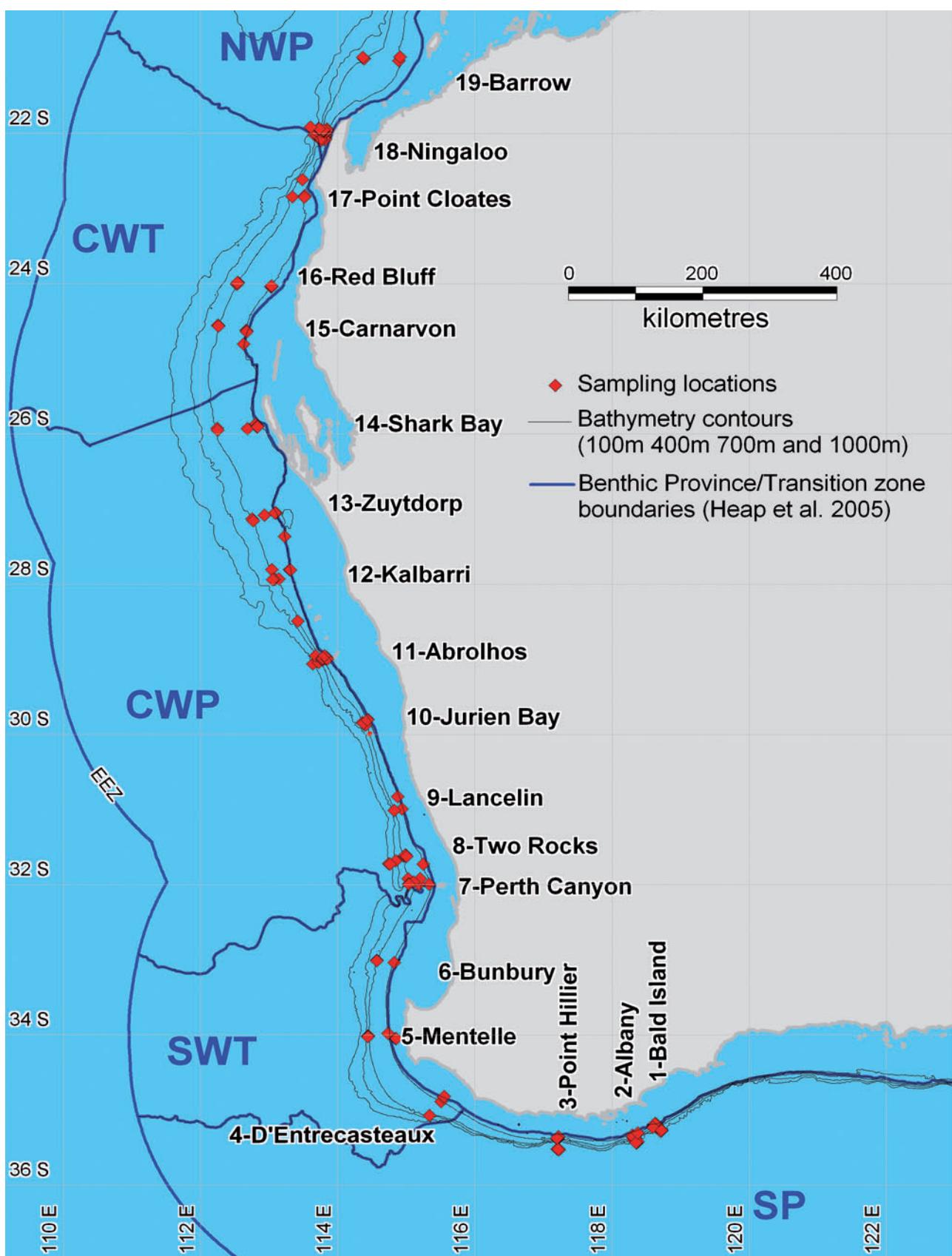


FIGURE 1 Location of the sampling stations (red diamonds) at 19 sampling sites along the western continental margin of Australia. Also shown are the 100, 200, 400, 700 and 1000 m depth contours, the 200 nM Exclusive Economic Zone (EEZ) boundary (thick blue line) and the province/transition zone boundaries of Australia's marine bioregionalisation: Southern Province (SP), Central Western Province (CWP), North Western Province (NWP), South Western Transition Zone (SWT) and Central Western Transition Zone (CWT).

TABLE 1 List of sites showing depths and number of stations sampled with each trawl gear type during a survey of the invertebrate megabenthos off the western continental margin of Australia. Sites designated as transect sites where sampling occurred across all the target depths are indicated by a 'T'. Targeted geological features and associated depth zone are listed for those relevant sites.

NUMBER OF STATIONS SAMPLED BY GEAR TYPE						GEOGRAPHICAL EXTENT OF EACH SITE (ACROSS ALL DEPTHS SAMPLED)		
Site	Site name	Beam trawl	Sherman sled	Target depths (m)	Transect Site	Targeted geological feature (depth)	Latitude range (°S)	Longitude range (°E)
1	Bald Island	4	9	100 200 400 700 1000	T	seamount (1000 m)	35.288 – 35.178	118.587 – 118.723
2	Albany	6	8	100 200 400 1000			35.437 – 35.308	118.290 – 118.377
3	Point Hillier	3	6	100 200 400 1000			35.534 – 35.355	117.192 – 117.238
4	D'Entrecasteaux	1	1	100 400			35.071 – 34.884	115.336 – 115.553
5	Mentelle	3	1	100 400			33.038 – 33.008	114.57 – 114.820
6	Bunbury	2	1	100 400			34.046 – 33.984	114.439 – 114.849
7	Perth Canyon	3	4	200 400 1000 1200 1500		canyon (all depths)	32.004 – 31.923	115.013 – 115.202
8	Two Rocks	4	6	100 200 400 700 1000	T		31.736 – 31.610	114.745 – 115.244
9	Lancelin	1	1	100 400			31.013 – 30.830	114.823 – 114.933
10	Jurien Bay	1	3	100 400			29.876 – 29.804	114.362 – 114.439
11	Abrolhos	4	5	100 200 400 700 1000	T	anomaly (400 m)	29.078 – 28.501	113.419 – 113.847
12	Kalbarri	2	3	100 400		seep & canyon (400 m)	27.944 – 27.813	113.037 – 113.312
13	Zuytdorp	2	1	100 400			27.363 – 27.052	112.751 – 113.222
14	Shark Bay	3	2	100 400			25.951 – 25.900	112.243 – 112.831
15	Carnarvon	3	1	100 400			24.803 – 24.563	112.252 – 112.671
16	Red Bluff	4	1	100 400			24.047 – 23.993	112.525 – 113.038
17	Point Cloates	2	2	100 400			22.858 – 22.620	113.333 – 113.517
18	Ningaloo	18	7	100 200 400 700 1000 1200	T	canyon & ridge (1200 m)	22.094 – 21.920	113.651 – 113.845
19	Barrow Island	3	1	100 400			21.034 – 20.995	114.365 – 114.909

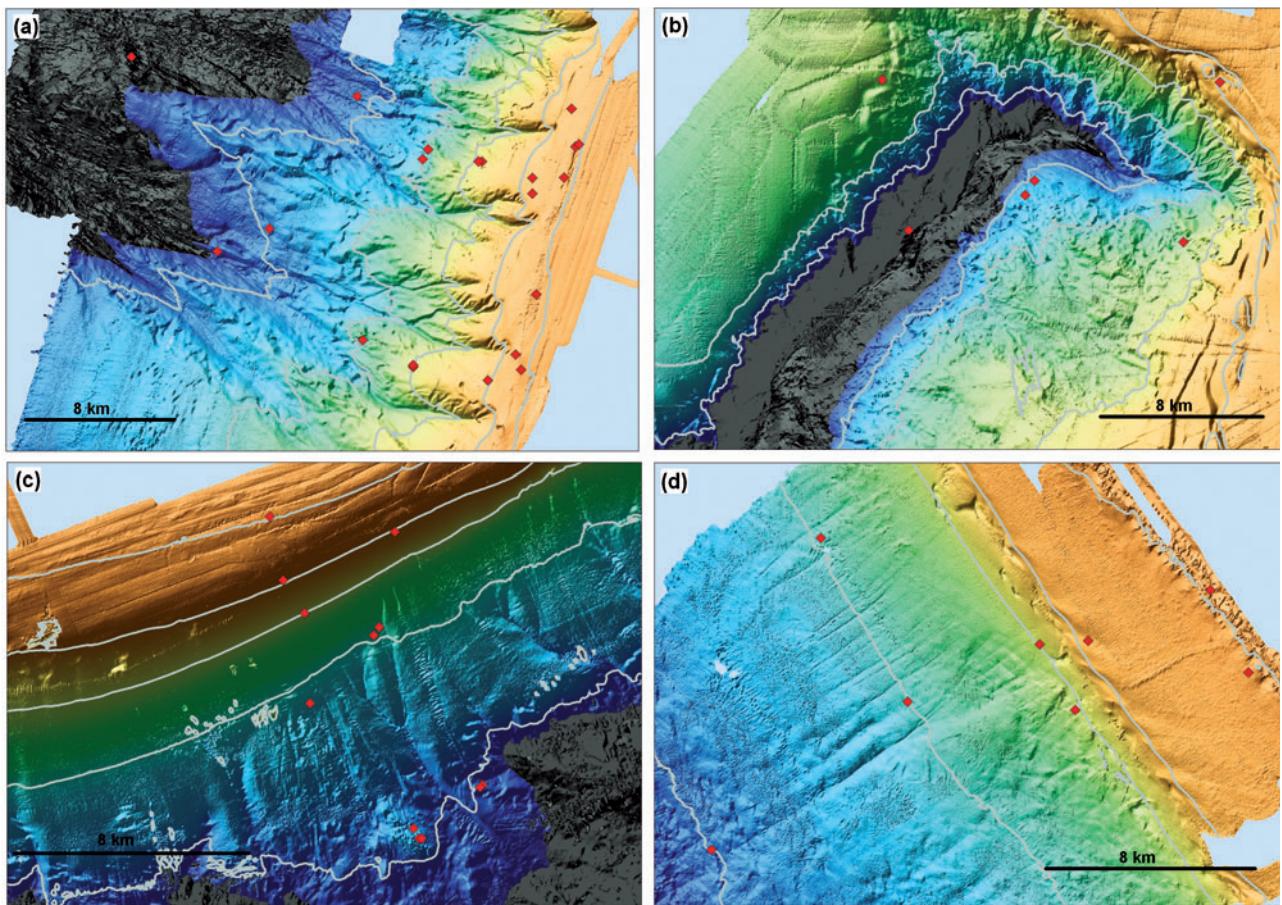


FIGURE 2 Examples of bottom topography and depths at four sites on the western continental margin of Australia mapped using multibeam acoustics: (a) site 18 – Ningaloo, (b) site 7 – Perth Canyon, (c) site 2 – Albany, (d) site 11 – Abrolhos. Colour shading shows depth from ~100 m (orange) depth to ~1000 m (dark blue) with depths >1100 m (black). Sampling stations (red diamonds); 100, 200, 400, 700 and 1000 m depth contours (grey lines); scale bar = 8 km.

As with material taken elsewhere along Australia's continental shelf and slope, identifying and resolving the taxonomy of marine species collected from deepwater off Australia's western margin is difficult in regard to the availability of relevant information about known species. Many type specimens, including the shallow water material collected on historical exploratory voyages to Australia, are lodged in European museums (London, Paris, Hamburg and Amsterdam) rather than in Australia. Although this historic and irreplaceable information has been carefully conserved and the specimens and associated data are readily accessible to scholars, overseas visits add appreciably to the cost of identification (as much of the material is deemed too precious to be loaned). Further, biological collections and associated data, including voucher specimens, and other data from the more recent environmental assessment surveys for industry, may be commercial-in-confidence, not retained and/or not lodged in a museum and thus not readily available for study.

STATEMENT OF CONTRIBUTION OF THIS PAPER

This paper is an annotated checklist of the megabenthic invertebrate species collected on a systematic regional-scale survey of the deep shelf and upper slope of the western continental margin of Australia, the first of its kind in Australia. Samples were taken from 100 m and 400 m depths at 19 locations from Barrow Island to Albany (~21°S to 35°S), and at additional depths (200 m, 700 m and 1000 m) at selected sites. Our checklist provides identifications along with biogeographical information and images of species from six target taxa – Demospongiae: Porifera, Octocorallia: Cnidaria, Mollusca, Echinodermata, Decapoda: Crustacea and Ascidiacea: Tunicata – and for the additional taxa – Scleractinia: Cnidaria and Antipatharia: Cnidaria and Pycnogonida. Many species are new to science or represent new distribution records for Western Australia and Australia.

METHODS

SURVEY DESIGN

In 2005, benthic marine invertebrates were collected systematically at sites located at one degree longitudinal intervals off Australia's continental margin between Bald Island and Cape Leeuwin, and one degree latitudinal intervals from Cape Leeuwin to Barrow Island, from the FRV *Southern Surveyor* (survey SS200510). The sites ranged in latitude from 21°S to 35°S and longitude from 112°E to 118°E (over 2050 km of coastline). The Perth Canyon site was added into the sampling design as a feature of special interest resulting in 19 sites (Table 1, Figure 1). This sampling approach was designed to position sampling stations within each of the three biogeographical provinces and the two transition zones of the western region designated in the national bioregionalisation by Heap et al. (2005) (boundaries are shown in Figure 1). At each site, sampling stations were targeted at the two major bathomes (depth zones) – the outer continental shelf (samples taken at ~100 m depth) and upper continental slope (samples taken at ~400 m). At selected sites within each province, the sampling design was extended into across-shelf transects to include additional sampling stations within the following bathomes – continental shelf break (at ~200 m), deep upper continental slope (at ~700 m) and mid-continental slope (at ~1000 m). Two very deep sample stations on the mid-continental slope at ~1200 m at Ningaloo and ~1500 m in the Perth Canyon also included (Table 1).

Determining the exact locations of the sample sites was supported by detailed maps of the seafloor topography obtained in a prior sister survey of the region by the National Facility Vessel FRV *Southern Surveyor* in July/August 2005 (SS200507). On that survey, each site was mapped using multibeam acoustics (Kloser et al. 2007) (see mapped examples in Figure 2), the stations surveyed with the towed, high-resolution video and still image system described by Shortis et al. (2008) (see habitat examples in Figure 3). Each station was also sampled with a Smith-McIntyre grab (for sediment analysis and identification of the macrofauna (benthic organisms retained on a 1 mm sieve when elutriated) (lodged with R. Wilson, Museum Victoria). Based on the SS200507 survey acoustic results, geomorphic features – primarily canyons and a seamount, but also other interesting features such as rocky banks and a seep site – were added to the sampling design for this survey as specific targets (Table 1). The multibeam backscatter data from SS200507 allowed specific targeting of separate soft and hard terrains; these stations were nested with bathomes and features if both

terrain types were present for the SS200510 survey. Examples of the various habitats sampled are shown in Figure 3 (from the towed, high-resolution video and still image system imagery taken during the mapping survey SS200507). The surveys and associated environmental data are described in more detail in the National Facility survey reports (2005a, 2005b) and by Williams et al. (2010).

A total of 172 stations at 19 sites were sampled along 2050 km of the western continental margin between 85 m to 1584 m depths, covering both soft and hard terrains (when present).

INVERTEBRATE COLLECTION

Megabenthic invertebrates (megabenthos: benthic organisms large enough to be sorted without microscopy and easily caught in bottom trawls with 25 mm stretched-mesh net cod-ends (as opposed to macrofauna: benthic organisms retained on a 0.5–1 mm sieve) were collected with two epibenthic samplers – a 'Sherman' sled and a beam-trawl. The Sherman sled (Lewis 1999, 2009) is a robust heavy design for use on rocky (hard) terrains and steep gradients. Its mouth dimensions are 1.2 x 0.6 m. The beam-trawl was a CSIRO modified version of the French IRD design light beam-sled (Forest 1981; Lewis 2010) that was used on soft sediment terrains. Its mouth dimensions are 4.0 x 0.5 m. Images and basic descriptions of both gears can be found at: <http://www.cmar.csiro.au/research/seamounts/epibenthic.htm>. Tow distances along the seabed were measured using a USBL beacon attached to the sleds to determine the duration of bottom contact, and dynamic GIS mapping to plot the tow track. Tow direction and duration was dependent on the roughness and topography of the substrate. In general, tows were along depth contours and of about 20 minutes duration (but were less for stations when the sled was full of catch within 5–10 minutes).

The entire megabenthic invertebrate catch was sorted and identified at sea by taxonomists to the lowest taxonomic resolution possible; these nominal species are herein known as 'operational taxonomic units' (OTUs). Each OTU was counted, weighed (to the nearest gram) and representatives photographed prior to preservation to record live colours, and then included in a continually updated image reference catalogue for comparative purposes while at sea. Proof sheets of images of live specimens are shown in Appendix 2. Specimens were preserved in the standard medium for that phylum (e.g. 70% ethanol – Porifera, Echinodermata, Octocorallia, Scleractinia, Antipatharia, and some Mollusca; 10% formalin – Decapoda, some Mollusca, Ascidiacea and other minor groups). Additional material from various

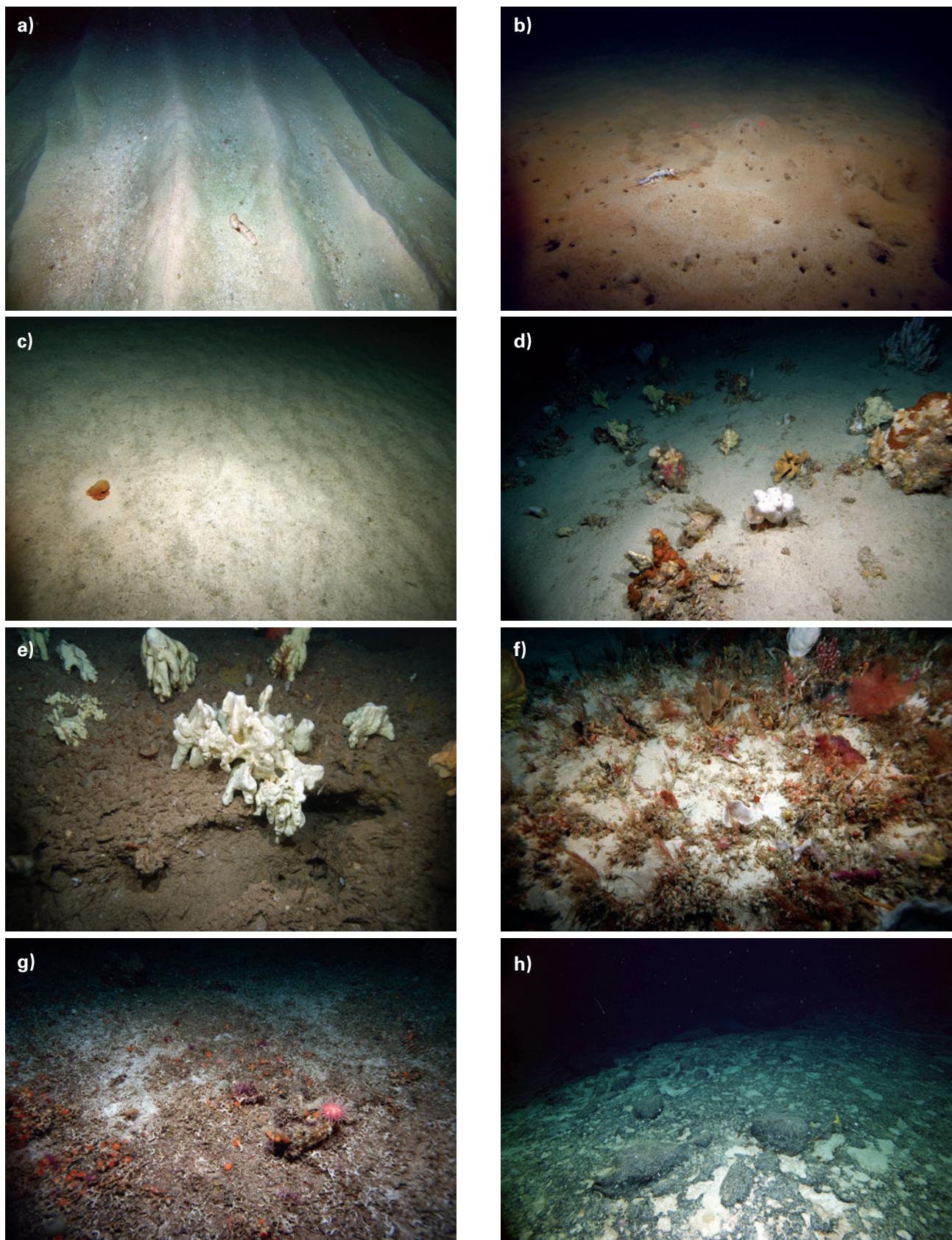


FIGURE 3 Example images of habitat types sampled along the western continental margin of Australia taken with the towed, high-resolution video and still image system on the SS200507 survey: (a) hard rippled sand (site 13 – Zuytdorp, 100 m depth); (b) Soft muddy sediments (site 18 – Ningaloo, 200 m depth); (c) sand (site 17 – Point Cloates, 400 m depth); (d) layer of sand over hard substrate (site 2 – Albany, 200 m depth); (e) reef (site 18 – Ningaloo, 100 m depth); (f) sandy reef (Site 13 – Zuytdorp, 100 m depth); (g) deep coral on seamount (site 2 – Albany, 1000 m); (h) deep bare rock (site 2 – Albany, 1000 m depth).

specimens was preserved in 95% analytical-grade ethanol for potential genetic analyses.

Species taxonomy is tracked using a computerised Code for Australasian Aquatic Biota (CAAB). These numbers consist of eight digits and are assigned to each described species in Australian waters. The first two digits define the major group, e.g. phylum; the next three digits define the family or other higher group; the last three digits are the species within that family or group, e.g. CAAB number 28821004 is for decapod crustacean, *Ibacus peronii* Leach, 1815. A code starting with '99' is an OTU that has not been described or distinguished further. The second two digits in a '99' code are equivalent to the first two digits in a permanent CAAB number; '99' codes are issued sequentially and the order of the remaining digits do not have taxonomic significance. '99' codes are used until a species is described, when it is replaced by a permanent CAAB number. '99' codes can be accessed through the public CAAB database by ticking the project specific codes box on the search screen, e.g. CAAB number 99100454 is for the uncertain sponge species, *Clathria (Thalysias) cf. juniperina*. Updates to species names can be obtained by checking the CAAB number in the online database at <http://www.marine.csiro.au/caab>. The following six major taxonomic groups were selected as target groups for identification to species-level: Porifera (Demospongiae), Cnidaria (Octocorallia), Mollusca, Echinodermata, Decapoda and Ascidiacea (Table 2a). Their selection was based on several factors including their prominence in field collection (80% of catch) and the availability of specialist taxonomists. The remaining non-target invertebrate taxa were also distributed to museums for lodgement and curation (Table 2b). Identifications have been undertaken on some of these groups i.e. Pycnogonida, Antipatharia and Scleractinia, and these are also included in this manuscript.

Once identifications were completed by the taxonomists, each species was allocated a permanent CAAB number and species recorded in Australian waters for the first time were added to the CAAB database. Published names of new species were upgraded for the associated images. Catch composition records were also upgraded as species taxonomy was reviewed; weights were adjusted for lots where the OTU has been split into multiple species.

This checklist uses the following terms to categorise the status of species identified. 'Described species' are those species whose description was in the published literature prior to this survey e.g. *Dermechinus horridus* (A. Agassiz, 1879). 'New species' are those species

collected on this survey determined by the taxonomists to be undescribed e.g. *Oparinisis* n. sp. A or *Ophiura* sp. MoV2734 ('MoV number' is a unique code used by taxonomists at Museum Victoria). Some new species descriptions have been published subsequent to the survey e.g. *Oxypleurodon wilsoni* Richer de Forges and Poore, 2008. The remainder of the examined taxa are categorised as 'uncertain species'. These taxa were identified to the lowest OTU possible (in some cases only to genus or family level) but could not be confidently determined as previously described taxa, or recognised as new species either. The possibility exists that these species may belong to known species but taxonomic uncertainty precludes a definite identification. In addition, some species were identified as uncertain using the 'cf.' or '?' prefix. Examples of uncertain species include: *Raspailia (Raspaxilla)* sp. SS1, ?*Hyotissa* sp. 1, *Bathyocrinidae* sp. 1, cf. *Patagiaster* sp. 1 and *Dermomurex* cf. *antonius*.

Data presented here are based on quality assured data confirmed against the original field collection station data and images. Unsuccessful (aborted) sampling events and specimen lots with incomplete location data have been removed from the summary analyses. Information on the biogeographical distributions of the previously described species and whether they were new records for Australian or Western Australian waters, or Australian endemics was collated from the literature and the taxonomists' knowledge.

The checklist (Appendix 1) summarises the geographical and depth ranges for each species or OTU recorded on the survey. The data have not been corrected for varying sampling intensity among sites. This list, and all summaries and analyses presented here, represent the upgrades and species descriptions as of December 2010.

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RESULTS

OVERVIEW OF FAUNAL COMPOSITION

Porifera dominated the collection by biomass, comprising 86% of the total catch (wet weight). The other target groups in decreasing order, each at least an order of magnitude less by weight, were: Echinodermata, Decapoda, Mollusca, Cnidaria (Octocorals, Antipatharia and Scleractinia) and

Asciidae. The largest specimen, belonging to the Demospongiae, was a single individual of *Biemna* sp. SS2 that weighed 37 kg. Additional large individuals in this genus weighed 17, 6 and 5 kg (see Appendix 2: image 10084810). Another 126 individual Demospongiae specimens were over 1 kg wet weight. The heaviest non-sponge invertebrate specimens were of the Holothuroidea and Echinoidea and these weighed less than 1 kg.

At sea, the sorting of the samples yielded 1,750 nominal 'species' (OTUs) across all the invertebrate taxa (see Table 2a, b), with the six major taxonomic groups accounting for 80% of these. Over 19,000 specimens comprising 2,001 species were subsequently identified in the laboratory by the taxonomists from the six major groups (a further 38 OTUs were only identified at higher taxonomic levels). Of the examined species, 876

TABLE 2 List of the lodgement locations and taxonomic experts working on specimens of the invertebrate megabenthos off the western continental margin of Australia. The number of lots of specimens from the field data are shown for each major taxon.

2A) Specimen lodgement details for the major taxa targeted for identification.

Note: holotypes of newly described species are lodged at Western Australian Museum

TAXONOMIC GROUP	TAXONOMIST AND TAXONOMIST AFFILIATION	SAMPLE LODGEMENT LOCATION	NUMBER OF SPECIMEN LOTS RECORDED IN FIELD DATA
Porifera: Demospongiae	Jane Fromont	Western Australian Museum	889
Cnidaria: Octocorallia	Phil Alderslade	Museum & Art Gallery of the Northern Territory	150
Mollusca: Bivalvia	Shirley Slack-Smith	Western Australian Museum	285
Mollusca: Scaphopoda	Shirley Slack-Smith	Western Australian Museum	32
Mollusca: Gastropoda	Shirley Slack-Smith	Western Australian Museum	357
Mollusca: Opisthobranchia	Richard Willan – Museum & Art Gallery of the Northern Territory	Western Australian Museum	50
Mollusca: Polyplacophora	Karen Gowlett-Holmes – CSIRO	Western Australian Museum	10
Mollusca: Cephalopoda	Mark Norman	Museum Victoria	71
Echinodermata: Asteroidea	Loisette Marsh	Western Australian Museum	187
Echinodermata: Crinoidea	Tim O'Hara	Museum Victoria	53
Echinodermata: Echinoidea	Ashley Miskelly	Australian Museum	103
Echinodermata: Holothuroidea	Mark O'Loughlin	Museum Victoria	108
Echinodermata: Ophiuroidea	Tim O'Hara	Museum Victoria	343
Crustacea: Decapoda	Gary Poore	Museum Victoria	1109
Tunicata: Ascidiacea	Patricia Mather	Queensland Museum	80

2B) Specimen lodgement details for the remaining non-target taxa with names of taxonomists who have an interest in working up the samples.

TAXONOMIC GROUP	TAXONOMIST AND TAXONOMIST AFFILIATION	SAMPLE LODGEMENT LOCATION	NUMBER OF SPECIMEN LOTS RECORDED IN FIELD DATA
Cnidaria: Medusozoa & Ctenophora		Australian Museum	4
Cnidaria: Hydrozoa		Museum Victoria	97
Cnidaria: Antipatharia	Karen Miller – Institute of Marine and Antarctic Studies, University of Tasmania Tina Molodstova – P.P. Shirshov Institute of Oceanology, Russia	Australian Museum	13
Cnidaria: Actinaria	Carden Wallace – Museum Tropical Queensland	Western Australian Museum	108
Cnidaria: Scleractinia	Marcelo Kitahara – Museum Tropical Queensland Stephen Cairns – National Museum of Natural History, Smithsonian Institute, USA	Western Australian Museum	93
Annelida: Polychaeta		Australian Museum	187
Nemertea, Sipuncula and Echiura		Australian Museum	57
Brachiopoda		Australian Museum	33
Bryozoa	Phil Bock	Museum Victoria	105
Crustacea: Cumacea		Australian Museum	9
Crustacea: Mysidacea		Australian Museum	5
Crustacea: Oстacoda		Australian Museum	5
Crustacea: Copepoda		Australian Museum	5
Crustacea: Cirripedia	Di Jones	Western Australian Museum	40
Crustacea: Amphipoda		Australian Museum	32
Crustacea: Isopoda		Australian Museum	72
Crustacea: Stomatopoda	Shane Ahyong	Australian Museum	30
Pycnogonida	Claudia Arango – Queensland Museum	Australian Museum	19

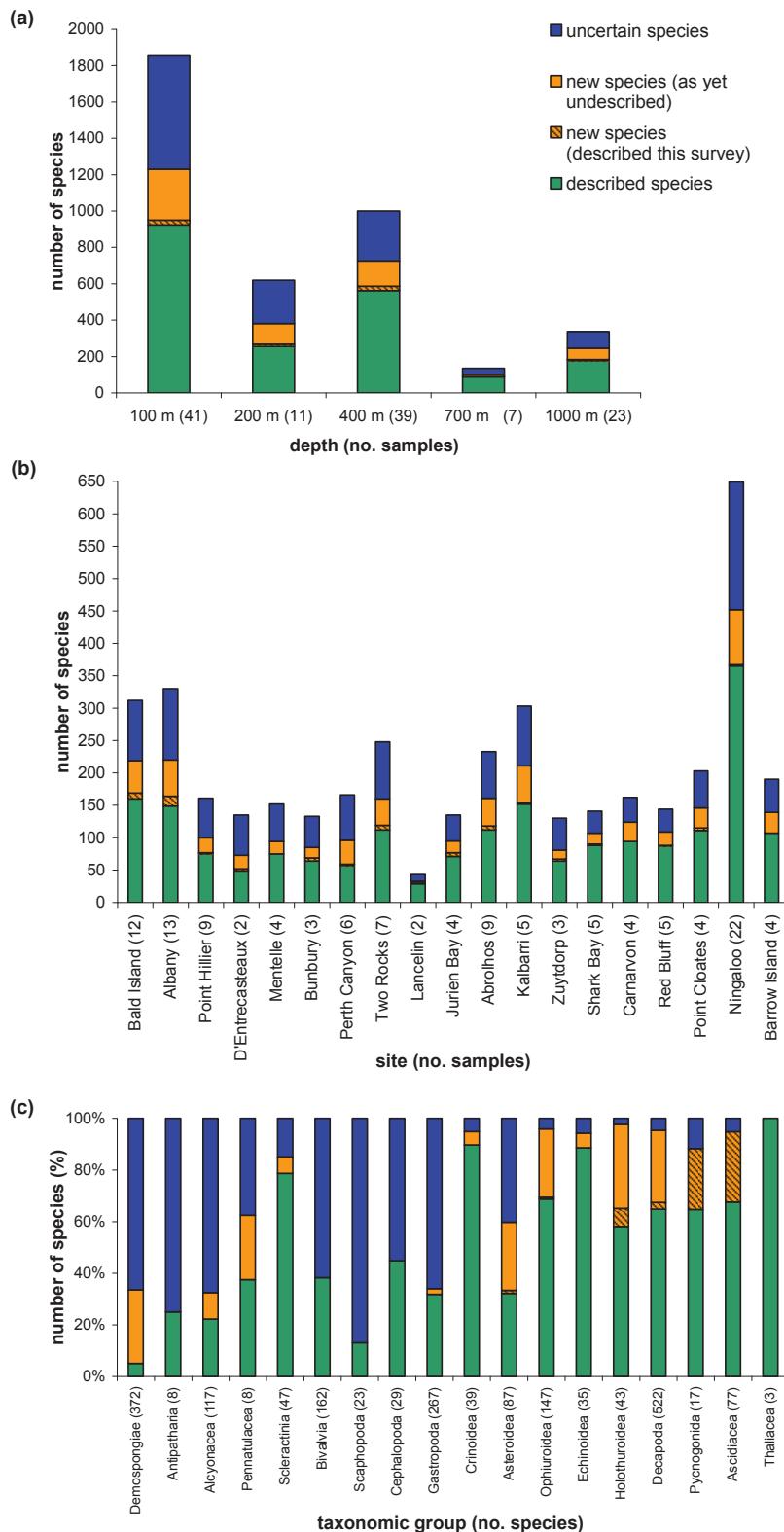


FIGURE 4

The numbers of described, 'unknown or uncertain' and new species of megabenthic invertebrates collected off the western continental margin of Australia: (a) by target depths, (b) by site and (c) by the major taxa identified (number of species shown in brackets after taxa name on x-axis). Note: species numbers are not standardised by sample size or swept area, and 1000 m also includes the two stations at 1200 m and 1500m.

TABLE 3 Summary of numbers of species (and higher-level taxa) of the invertebrate megabenthos identified off the western continental margin of Australia. Also shown are the numbers of new, 'uncertain' and described species.

Note: 'New species' is split into two categories to illustrate those species for which descriptions have already been published in the literature: a) O'Loughlin 2009; b) Franklin and O'Hara 2008; c) O'Loughlin et al. (2007) and O'Loughlin and Maric (2008); d) Bruce (2008); e) Richer de Forges and Poore (2008), Poore and Collins (2009), Taylor and Collins (2009), Ahyong (2010), McCallum and Poore (2010) and Taylor et al. (2010); f) Rott (2008).

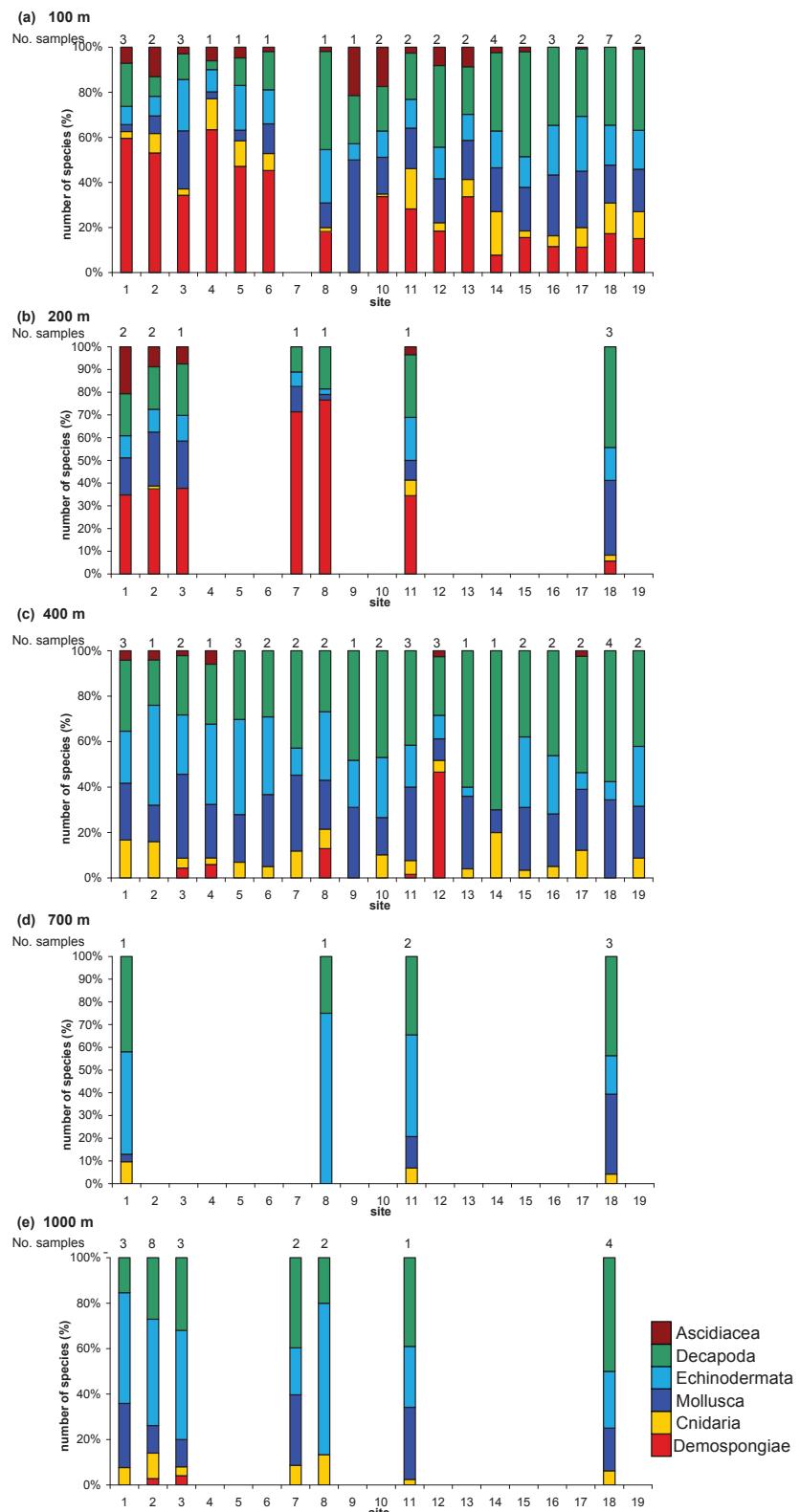
TAXONOMIC GROUP	ORDERS	FAMILIES	GENERA	SPECIES LEVEL ID	NON-SPECIES LEVEL ID	NEW SPECIES: As yet undescribed (newly described)	PREVIOUSLY DESCRIBED SPECIES	UNCERTAIN SPECIES STATUS	
Porifera: Demospongiae* summary	12	51	110	372	2	106	19	246	
Cnidaria: Antipatharia	1	2	5	8			2	6	
Cnidaria: Alcyonacea*	1	16	58	117	10	12	26	79	
Cnidaria: Pennatulacea*	1	5	6	8	1	2	3	3	
Cnidaria: Scleractinia	1	8	19	47		3	37	7	
Cnidaria summary	4	31	88	180	11	17	68	95	
Mollusca: Bivalvia*	10	39	83	162			62	106	
Mollusca: Cephalopoda*	4	12	21	29	11		13	16	
Mollusca: Gastropoda*	7	53	142	267	1	6	85	176	
Mollusca: Scaphopoda*	2	5	7	23			3	20	
Mollusca summary	23	109	253	481	12	6	163	318	
Echinodermata: Asteroidea*	5	18	58	87	6	23 (1,a)	28	35	
Echinodermata: Crinoidea*	2	13	29	39	5	2	35	2	
Echinodermata: Echinoidea*	9	14	26	35		2	31	2	
Echinodermata: Holothuroidea*	5	12	27	43		14 (3,b)	25	1	
Echinodermata: Ophiuroidea*	2	14	66	146		38 (1,c)	101	6	
Echinodermata summary	23	71	206	350	11	79 (5)	220	46	
Arthropoda: Crustacea: Decapoda*	1	75	267	521	1	146 (12,d)	340	23	
Arthropoda: Pycnogonida	1	5	11	17		0 (4,e)	11	2	
Arthropoda summary	2	80	278	538	1	146 (16)	351	25	
Tunicata: Ascidiacea*	2	11	25	77	1	0 (21,f)	52	4	
Tunicata: Thaliacea	3	3	3	3			3	0	
Tunicata summary	5	14	28	80	1	0 (21)	55	4	
OVERALL TOTAL	69	356	963	2001	38	354 (42)	876	734	

*MAJOR TAXA

TABLE 4 Biogeographic affinities of the 876 previously described invertebrate megabenthic taxa collected off the western continental margin of Australia, and the numbers of new records for Australian and Western Australian waters for these species.

TAXONOMIC GROUP	NEW DISTRIBUTION RECORD FOR AUSTRALIA (WESTERN AUSTRALIA)	AUSTRALIAN ENDMIC (WESTERN AUSTRALIAN ENDMIC)	INDO-WEST-PACIFIC	INDIAN OCEAN	WIDESPREAD SOUTHERN TEMPERATE	ATLANTIC OCEAN	COSMOPOLITAN
Porifera: Demospongiae*	0 (3)	7 (5)	6	1	5		
Cnidaria: Antipatharia	1 (1)	0	1				
Cnidaria: Alcyonacea*	6 (9)	13 (4)	12	1			
Cnidaria: Pennatulacea*	2 (2)	0	3				
Cnidaria: Scleractinia	4 (8)	5 (0)	28				
Mollusca: Bivalvia*	1 (15)	29 (2)	32	1			
Mollusca: Cephalopoda*	0	6	4				
Mollusca: Gastropoda*	1 (7)	35 (12)	47				
Mollusca: Scaphopoda*	0 (1)	2					
Echinodermata: Asteroidea*	3 (5)	6 (1)	20				
Echinodermata: Crinoidea*	5 (11)	5 (2)	20				
Echinodermata: Echinoidea*	3 (15)	6 (1)	22	1			
Echinodermata: Holothuroidea*	11 (19)	0	20	1			
Echinodermata: Ophiuroidea*	16 (48)	11 (0)	66	2			
Arthropoda: Crustacea: Decapoda*	74 (154)	71 (13)	232	11	1		
Arthropoda: Pycnogonida	0 (5)	5 (2)	5	12	0		
Funicata: Ascidiacea*	2 (5)	20 (4)	28	1	1	1	
Funicata: Thaliacea	0				3	1	
TOTAL	129 (308)	221(46)	546	21	40	4	39

*MAJOR TAXA & ALSO OCCURS IN NORTH-EAST PACIFIC

**FIGURE 5**

The proportions of the six major megabenthic invertebrate taxa off the western continental margin of Australia occurring at each site shown for five depth zones; (a) 100 m, (b) 200 m, (c) 400 m, (d) 700 m (e) 1000 m; site names are shown in Figure 1 and Table 1. Number of stations sampled at each depth is shown at top of columns. Note: species numbers are not standardised by sample size or swept area, and 1000 m also includes the two stations at 1200 m and 1500 m.

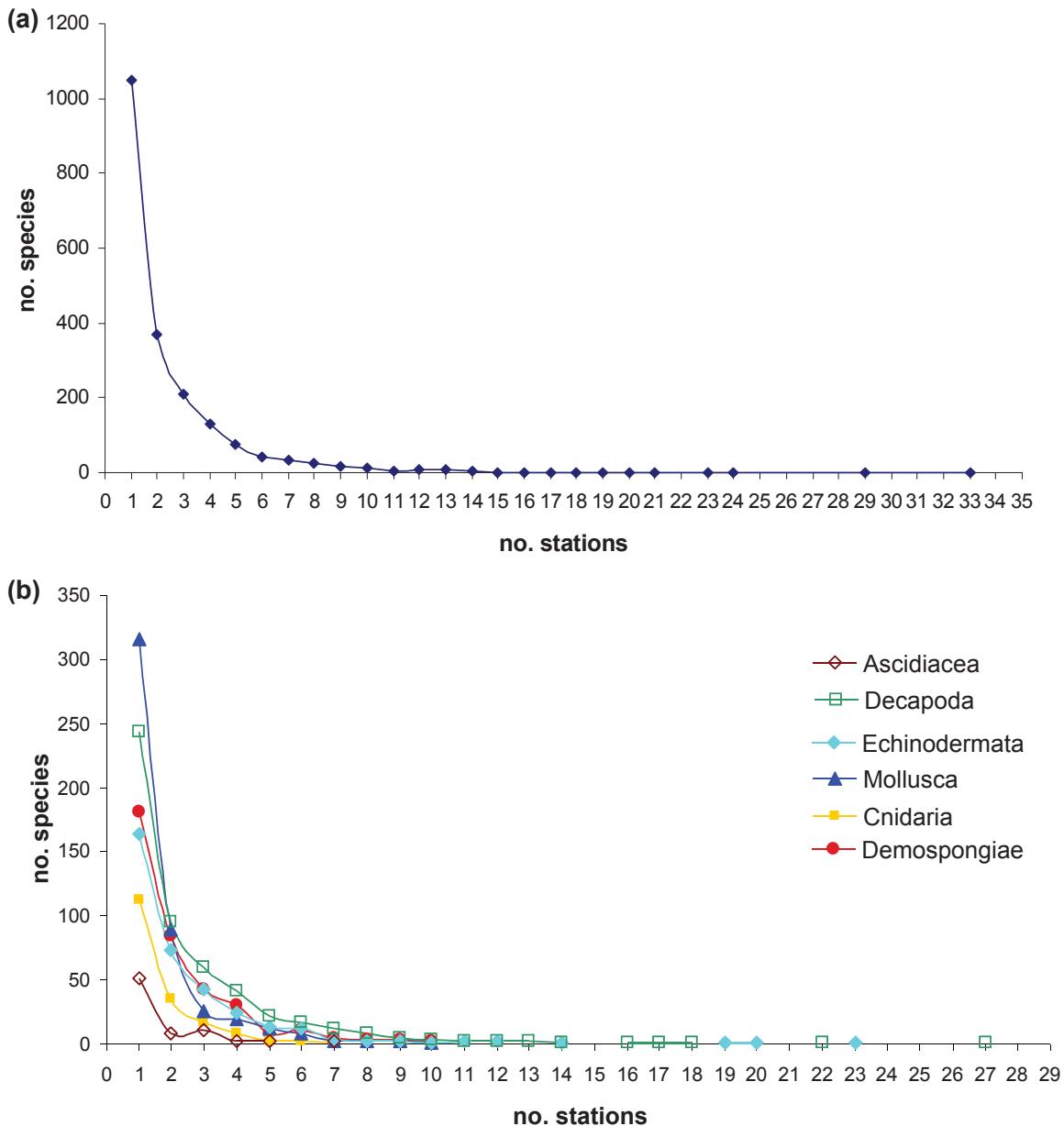


FIGURE 6 The [ranked] occurrence of the megabenthic invertebrate taxa off the western continental margin of Australia by the number of stations each species was present: (a) summary of all species, (b) by the six major megabenthic invertebrate taxa.

(44%) were identified as previously described species and 396 (20%) were determined to be new species. The remaining 727 species (36%) remain of uncertain identity. To date, 42 new species have been described from this collection. Some groups are better studied than others: 89% of the Echinoidea and 79% of the Scleractinia could be identified as described species, while only 5% of the demosponges and 22% of the Alcyonacea were recognised as described species (Table 3, Figure 4c).

Of the six major groups, the most speciose was

the Decapoda with 521 species. The Mollusca with 481 species (excluding the Opisthobranchia and Polyplacophora) were the second most diverse group, followed by the Demospongiae (372), the Echinodermata (350), the Cnidaria (Octocorallia, Antipatharia and Scleractinia) (180) and the Ascidiacea (77). In addition, 17 species of Pycnogonida and 3 Thaliacea were recorded. Numerically the Echinodermata (6,829 specimens) and the Decapoda (6,206) dominated the collection, followed by the Mollusca (2,588) – excluding the

Opisthobranchia and Polyplacophora, the Cnidaria (Octocorallia, Antipatharia and Scleractinia) (1,916), the Demospongiae (1,288) and the Ascidiacea (458) (Table 3).

FAUNAL DISTRIBUTIONS

One-quarter (522) of all the species collected on the survey are new records for Australian waters. Of these, 129 records are the first record in Australian waters for a species previously described from elsewhere in the world; the remaining records are confirmed as new species. Over one-third (726) of all the species collected are new records for Western Australian waters, of these 308 are species known from elsewhere in the world (including the range extension of 175 Australian endemic species into Western Australia) and the remainder are confirmed as new species (Table 4).

BIOGEOGRAPHY OF DESCRIBED SPECIES

For the 876 species previously described in the literature (and hence with known distributions) collected on this survey, the largest proportion (61%) had an Indo-West-Pacific biogeographic distribution, while only 4% were restricted to the Indian Ocean. Australian endemics accounted for 25% of species distributions, including 5% endemic to Western Australian waters. Southern Ocean or sub-Antarctic species represented 5%, species previously recorded only from the Atlantic Ocean 1%; and cosmopolitan species 4% of the biogeographic distributions. The biogeographic affinities of the identified megabenthos are shown in Table 4 along with the overall species totals for the taxonomic groups.

Depth appeared to strongly influence species diversity with many more species collected on the shallower outer shelf (100 m depth) than on the upper slope (400 m) where sampling coverage and intensities were similar (41 compared with 39 sample collections) (Figure 4a). The proportions of the six major megabenthic invertebrate taxa caught at each site are shown for each of the five depth zones (Figure 5). The Demospongiae and the Ascidiacea were collected mostly from the shallow 100 m and 200 m stations and were considerably more diverse (with more species) in the temperate sites south of Two Rocks (Figure 5a,b). These shallower temperate sites appeared to contain abundant hard substrate that provided suitable habitat and access to favourable nutrient flow in the currents for these fixed sessile filter feeding taxa (also see Kott 2008; Williams et al. 2010). Corals were not diverse but were found to be locally abundant. No clear depth or site related patterns were discernible for the Mollusca, Decapoda or

Echinodermata at this high level of taxonomic resolution.

Overall, more species were collected where sampling effort was greatest – especially in the focus areas of Ningaloo, Albany and Bald Island, and lowest at sites where few collections were made (e.g. only two sample collections at Point D'Entrecasteaux and Lancelin) (Figure 4b). While unequal sample numbers made it difficult to compare site-level diversity across the entire data set, it is interesting to note that the total number of species collected was relatively consistent across all sites for which there were between two and six sampling stations with only Kalbarri (five stations) standing out as richer (Figure 4b).

The percentage of described species compared with the uncertain and new species per site was greater for sites north of Shark Bay; accounting for at least 55% of the species (Figure 4b).

For sites south of Shark Bay the opposite was found, driven by the large number of uncertain and new demosponge species recorded from the southernmost temperate sites at 100 m depth (Figures 4c, 5a,b).

The percentage of described species at each site ranged from 34–63%, lowest at Perth Canyon and highest at Lancelin. The percentage of new species per site was fairly steady between 11–24%, being lowest at Lancelin and highest at Abrolhos. Only two stations were sampled at the Lancelin site at 100 m and 400 m depths due to the narrowness of the shelf and lack of variation in the terrain (steep gradient, compressed habitat, soft substrate – no sponges were collected from these sites). The percentage of uncertain species per site ranged from 19–31%, being lowest at Carnarvon and adjacent tropical sites and highest at Point D'Entrecasteaux.

The collection is dominated by a high percentage (>50%) of singletons (occurring at one site only) (Figure 6a) and this pattern is consistent between the six major taxa (Figure 6b). For the six major taxa sampled, 1,075 of the 2,001 species were recorded at only one of the 172 stations sampled. The most frequently recorded species of the entire survey, the hermit crab *Paguristes aciculus*, occurred at 27 stations from Bald Island to Ningaloo in depths from 100–550 m.

DESCRIPTIVE SUMMARY AND OBSERVATIONS ON IDENTIFIED TAXA

The following summaries are ordered taxonomically; please use the numerical sequence of the CAAB numbers to facilitate comparison with the checklist of species in Appendix 1 and the species images in Appendix 2. The

summaries include: a) a numerical summary of each taxa at relevant levels of taxonomic hierarchy, i.e. species, genera and families including numbers of new species; b) a breakdown of the biogeographical distributions of each taxa for the previously described species to illustrate worldwide affinities; and c) any other relevant points and interesting features of that taxa. For the larger groups, analyses by several different taxonomists and an overall summary at the higher level taxa are included, e.g. molluscs.

1. PORIFERA: DEMOSPONGIAE (CAAB NUMBERS 1000### & 99100###)

A) NUMERICAL SUMMARY

The Class Demospongiae dominated the Porifera collected numerically with 1,312 specimens; 372 species were identified from 110 genera, 51 families and 12 orders, two additional OTUs were only identified to a higher taxonomic level. A further 21 and 30 specimens not identified to species level were from the sponge Classes Hexactinellida and Calcarea, respectively. A conservative estimate of the number of Demospongiae species new to science resulting from this study is 106 species (28%), 246 species remain uncertain (67%) and only 19 species (5%) were determined to be described species (Table 3). Due to the large volume of the sponge collection, very small individuals and/or fragments <5 g in wet weight were not identified due to time constraints, but these specimens have been kept for future taxonomic study. Of the 372 Demospongiae species recorded, 185 occurred at one station only, while the two most common – *Sarcotragus* sp. WAM Ng1 (99100345) and *Luffariella* sp. WAM SS1 (99100343) (Order Dictyoceratida) occurred at 10 sampling stations. *Agelas* sp. WAM SS1 (99100448) (Order Agelasida) and *Geodia* sp. NG1 (99100423) (Order Astrophorida) occurred at nine sampling stations (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

Since 67% of the demosponges are uncertain species and 28% are new species, the following biogeographical summary applies to the 5% (19 species) identified as previously described species (Table 4). Seven (37%) are Australian endemics of which five (26%) are Western Australian endemics. Of the remainder, six (32%) have an Indo-West Pacific affinity, one (5%) an Indian Ocean affinity and five (26%) a Southern Ocean or sub-Antarctic origin. At least 106 are new species records for Australia and 109 are new records for Western Australia, this includes range extensions of three Australian endemic species (Table 4).

It was beyond the scope of this study to research the historical literature and to undertake major redescriptions of the Demospongiae species, some of which may have been found in this study. However, digitised species identification sheets (mudmaps) were compiled for each of the 372 species (see example: Fromont and Gomez 2007; *Axinella* sp. SS1 in Appendix 3. These mudmaps of Australian sponge OTUs are a standardised format for capturing the characteristics of each designated sponge OTU. They are used by taxonomic experts throughout Australia and thus allow an overall assessment of the biogeography of the sponge fauna, even though many of the species still need to be formally described and named. The synthesised OTUs will form the basis for new species descriptions.

The order Poecilosclerida is known to be the most speciose of all the Demospongiae (Hooper and van Soest 2002). The Poecilosclerida had the highest numbers of species (25%) followed by the Dictyoceratida (fibre sponges), Haplosclerida, Astrophorida and Halichondrida (18%, 17%, 13% and 11%, respectively). Two comparable Australian deepwater projects, one in the Great Australian Bight (GAB) and the other in the Tasmanian seamounts also found Poecilosclerida dominated (30% and 37%, respectively) but the order of dominance of the other orders differed. In the GAB the Halichondrida and Haplosclerida, Dictyoceratida, Hadromerida and Astrophorida represented 19%, 19%, 14%, 11% and 4% of species, respectively (Sorokin et al. 2007), and in the southern Tasmanian seamounts, Dictyoceratida, Hadromerida, Haplosclerida, Halichondrida and Astrophorida represented 15%, 14%, 12%, 10% and 9% of species, respectively (Schlacher-Hoenliger 2007).

This western continental margin study differs from the GAB and Tasmanian studies in recording sponges from the orders Agelasida, and the family Plakinidae. In addition, no species of the Order Verongida were found in the GAB and only one species was reported in the Tasmanian seamounts compared to eight species in the present study. This study included tropical locations and surveyed a larger area and a much greater latitudinal gradient compared with both the GAB and Tasmanian studies.

This is the first collection of sponges from depths greater than 100 m off the south-west coast of Australia. Recent shallow water collections in the region (Fromont et al. 2006; Fromont and Vanderklift 2009) have indicated a speciose shallow water fauna, and Hooper and Levi (1994) have suggested pockets of apparent endemism occur along the western continental margin of Australia.

2. CNIDARIA

Only the subclass Octocorallia (Alcyonacea and Pennatulacea) was targeted for identification. However, specimens from the other coral taxa (Antipatharia and Scleractinia) were also identified and are discussed here.

2.1. CNIDARIA: ALCYONACEA AND PENNATULACEA (CAAB NUMBERS 1117###, 99110### AND 112###, 99110##, RESPECTIVELY)

A) NUMERICAL SUMMARY

Over 440 specimens within the Alcyonacea (soft corals, sea fans and sea whips) were identified from this survey. These comprised 117 species, 58 genera and 16 families. Of these, 26 species could be identified as described species, 12 recognised as new species and four as new genera (but as yet undescribed) and 79 species remain uncertain (Table 3). A further 10 OTUs were only identified at a higher taxonomic level and are not included in the following summary. The alcyonacean material was diverse, although the biomass was low for all but a few of the endemic species.

In addition, 29 specimens of the Order Pennatulacea (sea pens) were collected, including eight species, six genera and five families. Of these three could be identified as described species, two recognised as new and three remain uncertain (Table 3). A single OTU was too damaged to be identified to species level.

As in many other faunal groups, identifications are hindered by poor and inaccurate literature in a field where most genera need total revision using modern techniques. Given that there are virtually no comparative records of Octocorallia from the regions sampled, much of the material can be considered as new records. Of the 117 Alcyonacea and 9 Pennatulacea species recorded, 80 and 6 species, respectively, occurred at one station only. The most common Alcyonacea species, *Mopsea encrinula* (11188009) occurred at six stations at 100 m depths from Bald Island to Shark Bay. The most common Pennatulacea occurred at three stations, *Umbellula huxleyi* (11216003) was found at 1,000 m from Two Rocks to Abrolhos and *Pteroeides* sp. F (99110351) at 100 m at Ningaloo (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

This material included some surprising specimens; the biogeographic relationships of some of the species show unusual affinities and the data includes many new records for Australian waters. The data includes specimens previously known from both temperate and tropical regions

and shows links to southern and northern Atlantic regions. It also provides more evidence for links with the Indonesian and northern Pacific (Japanese) fauna as well as containing some deep-water cosmopolitan species. Since 68% of the Alcyonacea are uncertain species and 10% are new species, the following biogeographical summary applies to the 22% (28 species) identified as previously described species (Table 4). Thirteen (50%) are Australian endemics of which four (15%) are Western Australian endemics. Of the remainder, 12 (46%) have an Indo-West Pacific affinity (46%) and a single species (4%) has an Indian Ocean only origin.

Since 38% of the Pennatulacea are uncertain species and 25% are new species, the following biogeographical summary applies to the 38% (three species) identified as previously described species (Table 4). These species all have an Indo-West Pacific affinity with *Umbellula huxleyi*, additionally recorded from the north-east Atlantic (as well as the north-west Pacific).

For the alcyonaceans, 25 are new records for Australia (six are described species), 27 are new records for Western Australia, three of which are range extensions of Australian endemics. *Oparinisis parkeri* and *O. viking* were previously recorded from South Australia and *Pseudoplumarella filicoides* (1197015) was previously recorded in New South Wales only. For the pennatulaceans, two are new records for both Western Australia and Australia: *Scytalium sarsii* (11224001) and *Umbellula huxleyi* (11216003) (Appendices 1, 2).

2.3. CNIDARIA: ANTIPATHARIA (CAAB NUMBERS 1115### AND 99110##)

A) NUMERICAL SUMMARY

Only 12 specimens of Antipatharia were examined from this survey; these comprised eight species, five genera and two families, but other material remains to be examined (Table 3). Two described species were identified and six species remain uncertain and no new species were determined. Of the Antipatharia collected, six species occurred at one station only, while the most common, *Stichopathes* sp. A (99110615), occurred at three stations (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

Due to the low number of species examined the biogeographical summary of the antipatharian data reveals one species is an Australian endemic but not a Western Australian endemic (Table 4). The other described species has an Indo-West Pacific affinity. *Myriopathes myriophylla* (11158002),

known from adjacent Indonesia is recorded for the first time in Australia from northern Ningaloo (Appendices 1, 2).

Preliminary determinations of the antipatharians from this cruise identified several species that are probably new records for Australian waters; however comparative material is required from the British Museum of Natural History for final identifications. *Cupressopathes albies* has a West Pacific distribution and the specimen *Cupressopathes* cf. *albies* examined from Point Cloates is possibly a new species. *Stichopathes* sp. A (recorded from Shark Bay and northern Ningaloo) may be *Stichopathes* cf. *ceylonensis* from the Indian Ocean.

All the black corals examined were collected from 100 m depth except for the endemic species, *Parantipathes helicostricha* (11161002), which was collected at 1,000 m off Albany (Appendices 1, 2). This species is previously known from deep water from the Great Australian Bight and southern Tasmania as well as New Zealand.

2.4. CNIDARIA: AZOOXANTHELLATE SCLERACTINIA (CAAB NUMBERS 113##### AND 99110###)

A) NUMERICAL SUMMARY

Prior to this survey, 116 species of azooxanthellate Scleractinia were known from western and southern Australian (Rehberg 1892; Folkeson 1919; Hoffmeister 1933; Veron 1986; Cairns and Parker 1992; Cairns 1995; Cairns and Zibrowius 1997; Cairns 1998; Cairns 2004), representing 16.5% all known species. Of these, 55 species are restricted to waters deeper than 200 m, and an additional six occur both shallower and deeper than the 200 m isobath. The vast majority were recorded from the tropical region (north of Houtman Abrolhos), including nine endemic species (Cairns 1998). Another 18 species are restricted to waters south of Houtman Abrolhos, and only eight are reported from both regions (Cairns 2004).

This survey collected the majority of species previously recorded from deeper Western Australian waters. The azooxanthellate Scleractinia collected included over 1,400 specimens from 47 species, 19 genera and eight families. Of these, 37 species could be identified as described species, three recognised as new species and seven species remain uncertain (Table 3). Of the 47 Scleractinia species recorded, 20 occurred at one station only, while the most common, *Stephanocyathus* (*Acinoccyathus*) *spiniger* (11314019) occurred at seven stations at 350–500 m depth from Bald Island to Shark Bay (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

Only 6% of the Scleractinia are uncertain species and 6% are new species, so the following biogeographical summary applies to the 79% (37 species) identified as previously described species (Table 4). Five species (14%) are Australian endemics but none are Western Australian endemics. The vast majority, 28 species (76%) have an Indo-West Pacific affinity, three (8%) are considered cosmopolitan and a single species (3%) is known from the Atlantic Ocean only. Eight species are new records for Australian waters and 14 new for Western Australia, while two are range extensions of Australian endemics (Table 4). *Dasmosmilia lymani*, *Phyllangia* cf. *papuensis*, *Trochocyathus cooperi*, *Notocyathus conicus* and *Truncatoflabellum candeanum* are examples of species reported for the first time from Australian waters.

Biogeographically, the Anthemiphylliidae (*Anthemiphyllia dentata* and *A. n. sp.*) were collected in south-western Australian waters. All *Caryophyllia* species, except *C. planilamellata* (new record to Western Australia) and *C. diomedae*, were collected in the tropical region of the western margin, with the deepest record for the genus being represented by *C. scobinosa* (new record to Western Australia) from 983–1,010 m depth. *C. unicristata*, another tropical species, was the most abundant species (see Kitahara et al. 2010). The distribution of *Deltocyathus magnificus* is extended to southern Western Australia and *D. rotulus* is reported for the first time in Western Australia.

Within the Dendrophylliidae, the most common genus was *Balanophyllia* with six species, including two new records to Western Australian waters: *B. cf. dentata* and *B. desmophylloides*. The description of one new species of *Balanophyllia* from this survey is being prepared by Kitahara and colleagues at Museum of Tropical Queensland (pers. comm.).

Historically, the colonial corals *Solenosmilia variabilis* and to a lesser degree *Madrepora oculata* appear to be the most important deep-sea reef builders in Western Australia (Kitahara, pers. comm.). *Solenosmilia variabilis* appears to be an important substrate for the solitary species *Caryophyllia diomedae* (Kitahara et al. 2010). Although no live *Solenosmilia* was collected during this survey, live coral was viewed on video footage taken on the survey SS200507. The live *Solenosmilia* observed was very patchy and most of the reef formations consisted of long dead, possibly subfossil, coral matrix.

Many images of the deep-sea scleractinian species from this survey included in Appendix 2 are the first ever taken of freshly collected specimens (examples include *Anthemiphyllia* n. sp. A (99110618); *A. dentata* (11304001); *Fungiacyathus fragilis* (11301001); *Letepsammia formosissima* (10299002); *Caryophyllia planilamellata* (11314042);

Deltocyathus suluensis (11314021); *Stephanocyathus spiniger* (11314019); *Flabellum tuthilli* (11328010) and *Truncatoflabellum macroeschara* (11328015).

3. MOLLUSCA

Over 767 hard-shelled Mollusca species were identified. Of these, 425 species were live-taken and 342 represented only by dead-taken shells. Species from 109 families from the classes Gastropoda, Bivalvia, Scaphopoda and Polyplacophora have been identified to date.

Many specimens from this survey cannot be identified to species level at present. In some cases, specimens are recognised as belonging, or thought to belong, to undescribed species. In other cases, the lack of comparative material does not allow a definite identification to be made – this is not surprising as the molluscan fauna of Australia's western continental margin has been rarely accessed. In addition, many families of molluscs, particularly bivalves and especially those of the Indian Ocean are in urgent need of revision (some most-recently revised in the second half of the 19th century). Some groups, particularly those of interest to the shell-collecting fraternity, are reasonably well known and have enabled recognition of new and undescribed species previously not recorded in the Western Australian or Australian fauna, and records indicating an extension of the known latitudinal or longitudinal range of a species.

Dead-taken, as well as live-taken, Mollusca specimens were deliberately collected during the second half of the SS102005 survey, examined and lodged at the Western Australian Museum but their identifications are not included in the numerical summaries of this paper. However an example is given for the bivalves to illustrate the usefulness of such collections. The distinguishing of recently-dead from long-dead (or even sub-fossil) material can assist in forming a much more detailed record of a species distribution. During this survey, many species were either rarely or never collected as live specimens, even though their known geographic range was within the survey area. When the few instances in which dead-taken specimens have been included in the data set, they have reinforced or even extended the known geographic and depth distributional ranges.

3.1. MOLLUSCA: BIVALVIA (CAAB NUMBERS 232##### AND 99230###)

A) NUMERICAL SUMMARY

Over 700 specimens of the Bivalvia, identified as belonging to at least 162 species from 83 genera, 39 families and 10 orders, were collected. Of these,

only 62 species could be identified as described species and 101 remain uncertain, reflecting the lack of knowledge on this deep-sea fauna (Table 3). Of the 162 Bivalvia recorded, 100 species occurred at one station only, while the most common species, *Venericardia rosulenta* (23325016), occurred at 10 stations from Bald Island to Ningaloo in 100–200 m depths (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

No new species were identified and 68% of the bivalves were uncertain species and, so the following biogeographical summary applies to the 32% (62 species) identified as previously described species (Table 4). Twenty-nine species (47%) are Australian endemics but only two (3%) are Western Australian endemics. Of the non-native species, 32 (52%) have an Indo-West Pacific affinity, and a single species (3%) is known from the Indian Ocean only.

One previously described species, *Amygdalum watsoni* (23220073), is a new record for Australian waters and 15 are new for Western Australia, two of which are range extensions of Australian endemics (Table 4). Of interest were the dead-taken shells of *Forammina ?exempla*, collected at just one station off Point Cloates in 400 m depth. *Forammina exempla* is the only living species of an otherwise extinct family and was previously known only off south-eastern Australia. The Western Australian specimens were all dead-taken, but not fossil shells, and show some differences to the south-eastern species. Further study is required to determine whether they may represent a new species.

3.2. MOLLUSCA: CEPHALOPODA (CAAB NUMBERS 236##### AND 99230###)

A) NUMERICAL SUMMARY

More than 120 specimens of the Cephalopoda were identified as belonging to 29 species from 21 genera, 12 families and four orders. Of these, only 13 could be identified as described species and 16 remain uncertain species (Table 3). Not all the specimens could be identified due to considerable damage to the soft tissues with 11 OTUs identified as higher level taxa, and no new species were discovered. The majority of specimens were collected by beam trawl over soft sediments with 42 lots collected at 400 m, six at 200 m and 12 at 100 m depths, with only nine lots collected at 700 m or deeper. Not all cephalopods collected were benthic species, with some pelagic species inadvertently caught in the dredges in transit to and from the benthos; these species are thus under-

represented in the areas surveyed but are included for information. Of the 40 Cephalopoda species recorded, 23 occurred at one station only, while the most common occurring at five stations each were indeterminate *Sepia* sp. (23607901) and *Heteroteuthis* spp. (23609902) (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

Since 55% of the Cephalopoda are uncertain species, the following biogeographical summary applies to the 45% (13 species) identified as previously described species (Table 4). Six species (46%) are Australian endemics but none are Western Australian endemic species. Of the remainder 4 (31%) have an Indo-West Pacific affinity and 3 (23%) are cosmopolitan species. No new species were recorded for Australia. Ten Octopodidae species were collected, of which only one, *Eledone palari*, was previously described. One unidentifiable species of the meso- to bathy- pelagic Bolitaenidae was recorded from northern Ningaloo at a depth of 1,200 m. One unnamed species of *Benthoctopus* from the deepwater subfamily Bathypolypodinae was recorded from northern Ningaloo waters in the relatively shallow depth of 400 m. Included in the seven species of Sepiidae was the northern Australian endemic species, *Sepia opipara* (23607006). This species was found at Bald Island in the south-west, considerably extending its known distribution south of Fremantle. With the exception of one unidentifiable *Sepiadarium* species from deepwater near Bald Island in 1,000 m depth, the three remaining species of benthic Sepiadariidae were collected from 100 m or 400 m depths in both tropical and temperate waters. *Sepioloides lineolata* (23608001), a southern Australian temperate species, was collected from Zuytdorp in 100 m, just within its known geographical range, although it is generally found in shallower water to depths of only 20 m (Norman and Reid 2000). At least nine species of Sepiolidae were collected. *Euprymna tasmanica* (23609001), known from southern Australia, was collected at two northern sites – Point Cloates and northern Ningaloo – in 400 m and 100 m, respectively (it is known to at least 80 m; Norman and Reid 2000). Many specimens of the pelagic or benthopelagic genus *Heteroteuthis* from depths of 400–1,000 m in the south-west were unfortunately unidentifiable. Of the seven squid species collected, only four are described species. Enoplateuthidae undergo extensive daily vertical migrations and unidentified specimens of this family were collected at 400 m. One unidentifiable species of *Chiroteuthis*, from the gelatinous, slow moving, deep-sea family Chiroteuthidae, was collected in 1,000 m off the Houtman Abrolhos.

3.3. MOLLUSCA: GASTROPODA (CAAB NUMBERS 24##### AND 99240###)

A) NUMERICAL SUMMARY

More than 1,600 specimens of Gastropoda were identified as belonging to 267 species from 142 genera, 53 families and seven orders. Currently 85 described species have been identified, six new species (as yet undescribed) were distinguished and 176 remain uncertain species, reflecting the lack of knowledge on this deep-sea fauna (Table 3). Of the 267 Gastropoda species recorded, 187 occurred at one station only, while the most common, *Comitas cf. galatheae* (99240266), occurred at nine stations from Point Hillier to Barrow Island (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

Since 66% of the Gastropoda are uncertain species and 2% are new species, the following biogeographical summary applies to the 32% (85 species) identified as previously described species (Table 4).

Thirty-five (41%) are Australian endemics and of these 12 (14%) are Western Australian endemics. The majority of the species, 47 (55%) have an Indo-West Pacific affinity with the remainder of Southern Ocean or sub-Antarctic (1%) origin or cosmopolitan (1%).

At least one species is a new record for Australian waters and seven species are new records for Western Australia. Particularly interesting records for Australia include: *Manaria kuroharai* (24202215 – no image), previously known only from the Sea of Japan, and *Akibumia orientalis* (24173001 – no image), collected from 'soft' substrate off Houtman Abrolhos in 400 m depth. The only previous Australian record of *A. orientalis* is a single specimen taken in >1,000 m depth off Sydney in New South Wales.

Not all the Opisthobranchia have been identified; to date 25 species have been recognised of which only one, the temperate Australian endemic *Tylodina corticalis* (24391001), has been identified as a previously known species.

3.4. MOLLUSCA: SCAPHOPODA (CAAB NUMBERS 235##### AND 99230###)

A) NUMERICAL SUMMARY

The 130 specimens of the Scaphopoda were identified as belonging to 23 species from seven genera, five families and two orders (Table 3). Only three have been recognised as described species, the other 20 are uncertain species, reflecting the

lack of knowledge on the deep-water species of this group of molluscs. Of the 23 species of Scaphopoda recorded, 14 occurred at one station only, while the most common, *Fissidentalium* cf. *shirleyae* (99230208), occurred at six stations from Lancelin to Ningaloo (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

Of the three (13%) described species identified, one is a widespread southern temperate species and the other two are endemic Australian species (Table 4). One of these species, *Dentalium potteri*, was previously thought to be endemic to waters off eastern Australia and is a new record for Western Australia.

3.5. OTHER MOLLUSCA (NOT EXAMINED)

Of the other Mollusca, at least six species of the Polyplacophora remain unidentified and one lot of the Aplacophora remains unexamined. A small amount of additional live-taken material remains unidentified but is lodged at the WAM awaiting further work.

4. ECHINODERMATA

4.1. ECHINODERMATA: ASTEROIDEA (CAAB NUMBERS 251#### AND 99250###)

A) NUMERICAL SUMMARY

The lack of knowledge of the taxonomy of the deep-water fauna of the western continental margin of Australia is reflected in the Asteroidea identifications. Of the (at least) 500 specimens from 87 species collected in 58 genera, 18 families and five orders, only 28 could be identified as described species (Table 3). An additional six OTUs could only be identified to higher taxa. Twenty-four new species are recorded while 35 remain uncertain. Some are tentatively identified or identified to genus only and probably include many more undescribed species. A new species in the Asterinidae, *Aquilonastraea shirleyae* O'Loughlin, 2009, has already been described from 100 m at Point Cloates and Red Bluff (see Appendix 2: image 25140802). Many of the other new species are likely to remain undescribed for some time to come. Of the 87 Asteroidea species recorded, 54 occurred at one station only, while the most common species, occurring at six stations were *Sclerasterias* sp. 1 (99250364), *Diplopteroaster* sp. 1 (99250292) and *Hoplaster* sp. 1 (99250343) (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

Since 40% of the Asteroidea are uncertain species and 28% are new species, the following biogeographical summary applies to the 32% (28 species) Six (21%) are Australian endemics, and only one (7%) is a Western Australian endemic species. The vast majority 21 species (71%) have an Indo-West Pacific affinity. One species (7%) has a Southern Ocean or sub-Antarctic origin and another species has only previously been recorded from the Atlantic Ocean (Table 4). Three of the described species are new records for Australia while five are new records for Western Australia, two of which are range extensions of Australian endemics. Eleven genera and six families (Odontasteridae, Labidiasteridae, Radiasteridae, Solasteridae, Porcellanasteridae and Ctenodiscidae) are newly recorded from Western Australia (the latter two families have previously been found off north-western Australia but the records are unpublished).

The Radiasteridae, Pterasteridae and Solasteridae are recognised as predominantly temperate cold water families, but were also collected in the cooler deep water in tropical areas on this survey. Of the 28 identified species, all but three are shelf species: *Sidonaster vaneyi* is known from the Indian Ocean and the Philippines, *Ctenodiscus orientalis* (see Appendix 2: image 25114001) is known from the Philippines, Indonesia and Tasmania, and *Cnemidaster wyvillii* known from the Philippines to the Arafura Sea. The affinities of the shelf species are predominantly with the tropical fauna to the north. There are close affinities with the asteroids of the Philippines (Fisher 1919) and Indonesia at the generic level and also with New Zealand (Clark and McKnight 2000, 2001; McKnight 2006).

Asterodiscides macroplax (see Appendix 2: image 25128004) was collected in 100 m off Carnarvon; this species is endemic to north-west Western Australia. Specimens lodged at the WAM have been collected from 30–40 m depth at the Houtman Abrolhos by museum staff and from trawls at 60–80 m depth off the Montebello Islands in 1979 on RV *Soela* (Marsh et al. 1999). *Heteronardoa diamantinae* (see Appendix 2: image 25125023), collected on this survey from a single station in 100 m by beam trawl off Point Cloates, was described from a specimen from the 1964 HMAS *Diamantina* survey collected by beam trawl in 128 m off Point Cloates (Rowe 1976), suggesting a highly localised distribution of this species.

4.2. ECHINODERMATA: CRINOIDEA (CAAB NUMBERS

250##### AND 99250###)

252##### AND 99250###)

A) NUMERICAL SUMMARY

Over 250 specimens of the Crinoidea from 39 species from 29 genera, 13 families and two orders were collected, and an additional 6 OTUs were only identified to higher level taxa. Thirty-five species could be identified as described species, two recognised as new (but as yet undescribed) and two remain unknown or uncertain (Table 3). Of the 39 Crinoidea species recorded, 30 occurred at one station only, while the two most common species occurred at six stations; *Phanogenia brevicirra* (25030043) from Kalbarri to Point Cloates and *Comatula pectinata* (25030030) from Jurien to Barrow (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

As only 5% of the Crinoidea are uncertain species and 5% are new species, the following biogeographical summary applies to the majority of species, the 90% (35 species) identified as previously described species (Table 4). Five species (14%) are Australian endemics and two of these (6%) are Western Australian endemics. The remainder (61%) have an Indo-West Pacific affinity or Indian Ocean only (6%), Southern Ocean or sub-Antarctic (11%) affinity or are cosmopolitan (3%) (Table 4).

At least five are new species records for Australia, 11 are new records for Western Australia, and several others could only be identified to genus or family and may represent new species. The vast majority of specimens were comatulids (unstalked crinoids) with only one stalked crinoid (Bathyocrinidae) collected. Crinoid identification was problematic, as many characters of the arm and cirri, traditionally used to separate species, are related to size of the animal and the ecological conditions prevailing at the collection site. Tissues from species collected by the SS200510 survey are being analysed by Eléaume and Hemery (Muséum National d'Histoire Naturelle de Paris; pers. comm.) using molecular methods to further understand their relationships. One species, provisionally identified as *Stiremetra breviradia*, was bioluminescent. Two species collected during this survey, *Neometra conaminis* and *N. gorgia*, were originally described from this region by A.H. Clark (1914) from one of the few deep-water trawling collections on the FIS *Endeavour* off the mid-west coast of Western Australia (Fremantle to Geraldton in 146–219 m depths) in 1912.

4.3. ECHINODERMATA: ECHINOIDEA (CAAB NUMBERS

A) NUMERICAL SUMMARY

Australia and the Indo-Pacific Ocean have a diverse number of well studied Echinoidea species that occur in a wide range of habitats where they are often a conspicuous component of the marine fauna, making them easily identifiable (Miskelly 2002). This is reflected in the results of this survey. More than 400 specimens of Echinoidea identified as only 35 species from 26 genera, 14 families and nine orders were collected. During the survey 31 described species were identified, only two new species were distinguished and two remain uncertain (Table 3). Of the 35 Echinoidea species recorded, 14 occurred at one station only, while the most common, *Prionocidaris baculosa* (25202017) occurred at eight stations from Kalbarri to Ningaloo (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

As only 6% of the Echinoidea are uncertain species and 6% are new species, the following biogeographical summary applies to the majority of species, the 89% (31 species) identified as previously described species (Table 4).

The data reveals 6 (19%) are Australian endemics, and only one of these species (3%) is a Western Australian endemic. The remainder of the species have an Indo-West Pacific (71%), Southern Ocean or sub-Antarctic (6%) or Indian Ocean (3%) affinity.

Three are new species records for Australia, while 15 are new records for Western Australia. The high number of new records for Western Australia (50% of the echinoid species recorded from the survey) reflects the lack of knowledge of the deep-sea fauna of the western continental margin of Australia. Of these new records for Western Australia, five are extensions to the known distributions of Australian endemic species.

Over half of the urchin species were found only in the 100 m depth samples (with a few also recorded at the 200 m sites). Several Cidaridae species were only collected at 400 m depth from Mentelle and Bunbury (*Rhopalocidaris gracilis* and *R. hirsutispina* – no images) and at the Houtman Abrolhos Islands (*Stereocidaris sceptriferooides*) (25202023). The most widespread species was *Caenopeda mirabilis* (25220003), which was found at nine sites from Point Hillier to Ningaloo but all at 400 m depth except for the northernmost site where it occurred at 100 m (Appendices 1, 2).

The deep water southern temperate species, *Dermechinus horridus* and *Gracilechinus multidentatus*

(25246002), were only recorded from the 1,000 m sites on the south coast from Point Hillier, Albany and Bald Island. While the deep water species, *Phormosoma rigidum* (25206002), was recorded at 700 m and 1,000 m on the south coast, it was also found at 700 m at the Houtman Abrolhos Islands and southern Ningaloo reflecting its Indo-Pacific distribution. *Araeosoma owstoni* (25205002) was the only deep water tropical echinoid species found at 700 m at southern and northern Ningaloo stations and but it was also found at 1,000 m in Perth canyon (Appendices 1, 2).

4.4 ECHINODERMATA: HOLOTHUROIDEA (CAAB NUMBERS 254##### & 99250###)

A) NUMERICAL SUMMARY

Our knowledge of the deep water Holothuroidea in Australian waters is poor and is reflected by the large number of new species found in this survey. A progressive systematic revision of known material incorporating molecular phylogenetic data is underway and more new species will certainly emerge.

More than 1,300 specimens of Holothuroidea were collected on this survey representing 43 species and 27 genera in 12 families and 5 orders. During the survey 25 described species were identified, 17 new species were distinguished and one remains uncertain (Table 3). Two new species of the family Holothuriidae have been described from this survey, extending from subtropical to warm temperate locations. This is noteworthy since the vast majority of the 157 species in the family Holothuriidae are recorded from shallow tropical waters predominantly on coral reefs <50 m depth. The discovery of *Holothuria (Panningothuria) austrinabassa* O'Loughlin, 2007 (in O'Loughlin et al. 2007) represents the southern-most record for the family Holothuriidae in the world (25416062). Morphological and genetic analyses of the other new species, *Holothuria (Halodeima) nigralutea* O'Loughlin, 2007 (in O'Loughlin et al. 2007) found it to be a very recent offshoot of the wide-ranging Indo-West Pacific species *H. (Halodeima) edulis*. The etymology of this new species refers to the distinctive black and yellow colouring of the live individuals (25416063). Of the 43 Holothuroidea species recorded, 25 occurred at one station only, while the most common, *Pseudostichopus hyalegerus* (25418012) occurred at 20 stations from Bald Island to Abrolhos (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

As only 2% of the Echinoidea are uncertain

species and 40% are new species, the following biogeographical summary applies to the 58% (25 species) identified as previously described species (Table 4). The Holothuroidea data reveals none are Australian endemics. Twenty (80%) of the species have an Indo-West Pacific affinity, with the remainder with a widespread Southern Ocean or sub-Antarctic (8%) or cosmopolitan distribution (8%). A single species was previously recorded from the Indian Ocean only (4%) affinity (Table 4).

At least 11 species are new records for Australia, 19 are new records for Western Australia of which two species are range extensions of Australian endemics. The recent revision of the genus *Psolium* (O'Loughlin and Maric 2008) described six new Australian species, including *Psolium mccallumae* collected during this survey, and re-assigned *Psolus parmatus* to *Psolidium* (25404011). The range of the latter species, described from the *Siboga* Expedition and previously known only from the Banda Sea in Indonesia, now extends south to Ningaloo in north-western Australian waters. *Psolium mccallumae* is known only from the material collected at 100 m depth off Point Cloates (O'Loughlin and Maric 2008).

4.5 ECHINODERMATA: OPHIUROIDEA (CAAB NUMBERS 2516##### AND 99250###)

A) NUMERICAL SUMMARY

Over 4,300 specimens of the Ophiuroidea were collected by this survey including 146 species from 66 genera, 14 families and two orders. Of these 101 described species were identified and at least 39 are undescribed, and probably new to science, while six remain unknown or uncertain (Table 3). One new species, *Ophiomysxa crinita* Franklin and O'Hara, 2008, has been described from this material, to date (see Appendix 2: image 25166006). Of the 146 Ophiuroidea species recorded, 45 occurred at one station only, while the most common, *Ophiura ooplax* (25176039) occurred at 23 stations from Bald Island to Ningaloo. *Ophiomusium relictum* occurred at 19 stations in a more restricted temperate distribution from Bald Island to Jurien (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

As only 4% of the Ophiuroidea are uncertain species and 27% are new species, the following biogeographical summary applies to the 69% (101 species) identified as previously described species (Table 4). The Ophiuroidea data reveals only 11% are Australian endemics, and none are Western Australian endemics. The remainder have fairly

widespread distributions with 66 species (65%) with an Indo-West Pacific affinity, (11%) a Southern Ocean or sub-Antarctic Indian Ocean (10%) and 10% are cosmopolitan. A single species has previously only been recorded from the Atlantic Ocean (1%) and two species from only the Indian Ocean (2%). Biogeographically, the western continental margin was found to be an overlap zone of tropical and temperate faunas with a few species being endemic to the area.

At least 16 are new species records for Australia, while 48 are new records for Western Australia, of which *Amphiura dolia* (25191025) collected at Kalbarri and Ningaloo, is a considerable range extension of an east coast Australian endemic previously found from Tweed Heads, NSW to Bass Strait. The collection extended the southernmost records of tropical species – e.g. *Amphilimna granulifera*, *A. transacta* (25185063) and *Sinophiura multispina* – and northernmost records of temperate species – e.g. *Ophionereis schayeri* (25179009), *Ophiothrix caespitose* (25192002). *Ophiactis brevis*, previously known only from the shallows at its type locality near Darwin at 5–10 m depth and the Dampier Archipelago in 13–20 m depth (Marsh and Morrison 2004) was collected from northern Ningaloo in 160 m depth (Appendices 1, 2).

Of particular interest was the fauna from the deep-water seamounts near Albany that supported a *Solenosmilia variabilis* coral cover. Many of the ophiuroid species found at this site were previously recorded from *Solenosmilia* reef on deep-water seamounts south of Tasmania and on the Chatham Rise, west of New Zealand (O'Hara et al. 2008b).

At least 30 species tested from the first half of the voyage (the temperate sites from Albany to Perth) were found to be bioluminescent (Mallefet and O'Hara, unpublished data; for techniques see: Mallefet et al. 2008).

5. CRUSTACEA: DECAPODA (CAAB NUMBERS 28##### & 99280###)

A) NUMERICAL SUMMARY

These data have been previously reported (Poore et al. 2008) but subsequent taxonomic changes and new species names are reported here. Over 6,200 specimens of the Decapoda, identified as 521 species and 267 genera from 75 families were collected. Of these species, 340 were recognised as previously described species, 158 new species were determined and for 23 OTUs the identifications were uncertain (Table 3). Within the described species, *Retropluma cf. quadrata*, doubtfully identified as the West Pacific species, is the first Australian record of the family Retroplumidae (Poore et al. 2008).

Twelve new species have been described since Poore et al.'s (2008) report, using material collected during this survey, a process that is continuing. Of the Brachyura, new species include *Oxyleurodon wilsoni* Richer de Forges and Poore, 2008 and *Rochinia annae* Richer de Forges and Poore, 2008. Of the Caridea, *Lebbeus clarehannah* McCallum and Poore, 2010 is described from 400 m off Bald Island; the holotype of this distinctly coloured species is shown in Appendix 2: see image 28767804. *Pseudoclimenes holthuisi* Bruce, 2008 is described from 100 m off Jurien. Also recently described is *Lissosabinea lynseyae* Taylor and Collins, 2009 (28781020) from 400 m off Bunbury.

In a recent review of the Axiidae, Poore and Collins (2009) described the following four new species from single locations from this survey: the new genus and species, *Australocaris pinjarup* from 400 m off Bunbury, *Acanthaxius gathaagudu* from 400 m off Shark Bay and *Acanthaxius ningaloo* from 200m off northern Ningaloo. Images of these holotypes are in Appendix 2: see 28801806, 28801803, and 28801804, respectively. One new species, *Calastacus myalup* Poore and Collins, 2009 is described from 400 m off Bunbury and is a new record for the genus in the Indian Ocean as well as Australia.

Of the Anomura, *Munidopsis comarge* Taylor, Ahyong and Andreakis, 2010 (28840170) has been described from 900 m off Albany. Specimens from this survey in southern Western Australia were included in Ahyong's (2010) review of the Lithodidae which resulted in the new species, *Lithodes rachelae* (28836014), collected from 850 m to 1,000 m between Albany and Perth Canyon and *Paralomis poorei* (28836010) recorded at 900 m off Albany (Appendices 1, 2). *Neopilumnoplax nieli* (28917007) is also newly recognised from recent deep water collections in south-east Australia and New Zealand (Ahyong 2008) and was collected from Albany to Two Rocks collected from 200–900 m depths.

Since Poore et al.'s (2008) report several species have been identified, redetermined or moved to other genera (Appendix 1). The following are replacement names: *Engystenopus palmipes*, *Philoceras incisus*, *Calaxius acutirostris*, *Bouvieraxius keiensis*, *Paraxiopsis pumilus*, *Planaxis brevifrons*, *Ciliopagurus shebae*, *Munida gordoae*, *Paragoneplax serenei*, *Neogoneplax renoulis*, *Stereomastis auriculatus* and *Stereomastis suhmi*. For example, *Philoceras MoV5422* from Poore et al.'s (2008) has now been identified as *P. incisus* and is the first record of this species in Australian waters (Taylor 2010) (see Appendix 2: image 28781804).

Of the 521 Decapoda species recorded, 238 species occurred at only one station. The most frequently recorded species of the entire survey, the hermit

crab *Paguristes aciculus* (28827077) occurred at 27 stations. This species was found in depths of 95 m to 554 m at sites from Bald Island to Ningaloo (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

As only 5% of the Decapoda are uncertain species and 30% are new species, the following biogeographical summary applies to the 65% (340 species) identified as previously described species (Table 4).

The data reveals 21% (71 species) are Australian endemics, but only 4% (13 species) are Western Australian endemics. The majority of the species have widespread distributions, 68% (232 species) have an Indo-West Pacific affinity, 4% widespread Southern Ocean or sub-Antarctic affinity and 4% cosmopolitan in their distribution. The remaining 3% have previously only been recorded from the Indian Ocean. At least 74 are new species records for Australia, 154 are new records for Western Australia. Of these, 20 species represent range extensions of Australian endemics to the west. Poore et al. (2008) detailed and summarised all new Australian records, new records for Western Australia and new records for southern Western Australia.

Of the commercially fished species collected during the survey, *Ibacus alticrenatus*, the White-tail Bug (28821001) was the most common, occurring around 400 m. The commercial crab *Hypothalassia acerba* was collected only twice around 200 m while the other main large benthic crustaceans of commercial interest; *Panulirus cygnus*, *Jasus edwardsii*, *Pseudocarcinus gigas* and *Chaceon albus* (formerly confused with *C. bicolor* see Davie et al. 2007) were not collected at all, this is most likely an artefact of the types of sampling gear (no baits) used and terrain targeted. Only one commercial species of prawn, *Haliporoides sibogae* (28714005) was collected and this was numerous at 400 m. Several species of scampi (Nephropidae) were also collected at this depth (Appendices 1, 2).

6. PYCNOGONIDA (CAAB NUMBERS 33##### AND 99330###)

A) NUMERICAL SUMMARY

Forty specimens of the Pycnogonida from 17 species in 11 genera and five families were collected. Of these 11 could be identified as described species, four recognised as new species and two remain uncertain (Table 3). The new species, *Hedgpethia calva*, *Tanystylum zuytdorpri*, *Pseudopallene difficile* and *Paranympphon bifilarium*

were described by Arango (2009). Photographs of the holotypes for the first two species can be viewed in Appendix 2: 33014024 and 33012054. Of the 17 species of Pycnogonida recorded, 14 occurred at one station only, while the most common, *Pallenopsis cidaribatus* (33020010), occurred at four stations in tropical waters from Shark Bay to Ningaloo (Appendices 1, 2).

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

As only 12% of the Pycnogonida are uncertain species and 24% are new species, the following biogeographical summary applies to the 64% (11 species) identified as previously described species (Table 4).

The data reveals 45% (5 species) are Australian endemics and of these 12% (2 species) are Western Australian endemics. The remainder have an Indo-West Pacific affinity 45% or are cosmopolitan (6%) in their distributions. Five species are new records for Western Australia. Three of these new species records for Western Australia are range extensions of Australian endemics.

Three species were collected only in the deep waters off the south coast of Western Australia: *Cilunculus* sp. 1 from 700 m off Albany, *Colossendis colossea* from 1,000 m off Port Hillier, and *Hedgpethia calva* from 1,000 m off Bald Island. The other 14 species were collected at only 100 m depths at a range of temperate and tropical sites (Appendix 1).

7. TUNICATA: ASCIDIACEA (CAAB NUMBERS 35##### AND 99350###)

Over 450 specimens of the Ascidiacea from 77 species, 25 genera, 11 families and two orders were collected (Table 3), from 34 of the shallower surveyed sites, with 21 100 m sites, seven 200 m sites and six 400 m depth sites recording specimens. During the survey, 52 described species were identified, 21 new species were described and four remain uncertain (Table 3). The majority of the new species were collected from the southern continental margin of Western Australia and the new species have been described by Kott (2008).

Prior to this survey there were 50 species known from the shallower coastal waters of Western Australia and adjacent areas (Hartmeyer 1919; Hartmeyer and Michaelsen 1928; Michaelsen 1930; Kott 1985, 1990, 1992, 2001, 2005a, 2005b). Only 21 of these previously known species were collected at more than one site on this survey of the deep shelf and slope. Of the 77 Ascidiacea species recorded, 49 occurred at one station only, while the most common species, *Sigillina australis* (35021011) occurred at seven stations from Albany to Carnarvon (Appendices 1, 2).

Solitary species were rare and the collection was dominated by colonial species of the families Didemnidae and Polyclinidae. Species with flexible stalks were not often collected suggesting some bias associated with the collection method.

B) BIOGEOGRAPHICAL DISTRIBUTIONS OF PREVIOUSLY DESCRIBED SPECIES

As only 5% of the Ascidiacea are uncertain species and 27% are new species, the following biogeographical summary applies to the 68% (52 species) identified as previously described species (Table 4). The data reveals 38% (20 species) are Australian endemics but only 8% (2 species) are Western Australian endemics. The majority of the species, 54% (28 species) have an Indo-West Pacific affinity, while a single species recorded a Southern Ocean or sub-Antarctic (4%) or Indian Ocean (4%) or Atlantic Ocean (4%) affinity or cosmopolitan distribution (4%).

A total of two species are new records for Australia, five are new records for Western Australia including *Synoicum sphinctorum*, a range extension of an Australian endemic species. This previously unsampled diverse offshore ascidian fauna extends the known biogeographical limits of many species around the Australian coastline. Species known from the tropical north have their range extended to the south, either to the central west coast (*Pseudodistoma australe*, *Synoicum macroglossum*, *Aplidium caelestis*, *A. crateriferum*, *A. solidum*, *Polysyncraton millepore*, *Didemnum jedanense* and *Trididemnum sibogae*) or to the south-western corner (*Polysyncraton pavimentum*, *Didemnum ossium* and *D. perplexum*). The distributions of the South Australian species, *Pseudodiazona longigona* and *Leptoclinides fungiformis*, has been extended westward to the continental shelf off Albany in 100 m depth. Two new species records for southwest Western Australian include the tropical, *Herdmania momus*, known from the western Pacific and Red Sea (also new open sea-floor habitat record at depths to 400 m) and *Synoicum laboutei*, formerly restricted to Malagasy in the western Indian Ocean. Further details on this ascidian fauna can be found in the comprehensive paper by Kott (2008) and details on a subsequent deepwater survey of the north-western continental margin in Kott (2009).

DISCUSSION

Taxonomic study of the first regional scale collection of deepwater megabenthic invertebrates from Australia's western continental margin (100 m to 1,500 m depths and between ~21–35°S latitude) reveals a previously undiscovered high level of species richness and novelty in the fauna. In the six major invertebrate groups targeted for

this study – Demospongiae: Porifera, Octocorallia: Cnidaria, Mollusca, Echinodermata, Decapoda: Crustacea and Ascidiacea: Tunicata – 19,000 specimens yielded 2,021 species of which only 44% are described. One-quarter of all species identified are new records for Australian waters and over one-third are new records for Western Australian waters. From this survey material 42 new species have already been described: O'Loughlin (2009); Asteroidea, one species; Franklin and O'Hara (2008); Ophiuroidea, one species; O'Loughlin et al. (2007) and O'Loughlin and Maric (2008); Holothuroidea, three species; Bruce (2008), Richer de Forges and Poore (2008), Poore and Collins (2009), Taylor and Collins (2009), Ahyong (2010), McCallum and Poore (2010) and Taylor et al. (2010); Decapoda, 12 species; Arango (2009); Pycnogonida, 4 species; and Kott (2008); Ascidiacea, 21 species. The high numbers of new records clearly reflects the lack of previous deep-sea research in this region, but also highlights the paucity of taxonomic knowledge or the lack of clarity in the literature for some groups. More than 50% of the species of Octocorallia, Antipatharia, Bivalvia, Cephalopoda, Gastropoda, Scaphopoda and Demospongiae collected are uncertain identifications. Further taxonomic work would ideally include revisions of some of the less well studied deep-sea taxa within otherwise well-known groups such as the Bivalvia.

Demosponges dominated in terms of biomass, but only 5% of species collected were described species. This reflects the lack of knowledge and potentially higher rate of endemism of this sessile taxonomic group. In contrast, 89% of echinoids, a more motile group with widespread distributions, could be identified as described species.

Overall, distributional patterns of described invertebrate taxa show the western margin is an overlap zone of tropical and temperate faunas. Knowledge from relatively well-known taxa confirmed, firstly, that many south-eastern Australian species were also recorded from Western Australia for the first time, and secondly, that the geographic distributions of many tropical/sub-tropical species extend to temperate latitudes. This can be illustrated by the relatively well known southern Australian Decapoda (Poore 2004), for which this survey extended the known distributions of 62 documented species, and added 76 species to the temperate fauna – a 9.4% increase (Poore et al. 2008). Patterns in other groups indicated northwards extensions to their known distributions – an example being the penetration of several predominantly cold water asteroid families into deep waters of tropical latitudes.

The distributions of the 876 described species showed the strongest biogeographical pattern of the deep continental shelf fauna was an affinity with

the wider Indo-West-Pacific region (61% of species). Relatively few taxa appeared to be endemic to either the Indian Ocean (4%) or to Western Australia (5%) but 25% of species are endemic to Australia. This may be an underestimate given the high number (727) of uncertain species that could not be identified as known or new species until further taxonomic comparisons are undertaken, and the newly determined 396 species which as yet have not been found elsewhere in the world. Confirmation of this apparent endemism in such a poorly known region requires further taxonomic examination. This is epitomised by the Demospongidae of which the vast majority (95%) of the 372 species are uncertain or new. In one well-studied and species rich taxon, the Ophiuroidea, the western margin was found to be an overlap zone of tropical and temperate faunas with few endemic species confined to Western Australian waters.

Apparent rarity is high but typical of surveys of this kind, that is with few samples spread over a wide geographic range (e.g. fishes – Williams et al. 2001). More than half of the species were collected from only one location. However, this is due, in part, to undersampling of species that may be of limited distribution or at low densities or difficult to catch with the sampling gears used. In addition, while this survey targeted the megabenthos >25 mm, some smaller macrofaunal specimens and pelagic cephalopods were incidentally collected, identified and included in this checklist. These macrofaunal data are a valuable record of presence in the previously unstudied western continental margin of Australia but not an accurate representation of the population.

Large intervals (typically of about 60 nautical miles) separated the 19 sites along the ~2,000 km of continental margin surveyed, and there was insufficient replication at depths within sites to distinguish abundance from sampling efficiency or the degree of patchiness (Williams et al. 2010). The low density of samples, together with an unequal sampling intensity across sites, means that patterns of abundance must also be interpreted with care. While the sampling design aimed to systematically target soft and hard substrates at all of the sites on the 100 m and 400 m depth horizon, swath mapping of relatively large areas of seabed (10s to 100s km² per site) confirmed that both substrate types were not present at every site. On the other hand, mapping did identify special features at some sites enabling them to be sampled more intensively. For example, 13 collection stations at Ningaloo targeted a series of hard substratum types associated with drowned coral reefs and with rocky substratum within canyons.

As a result of the collections taken on the SS200510 survey and the continuing taxonomic work, we now have a substantially increased knowledge of the megabenthic invertebrate fauna from the deep western continental margin of Australia. All the invertebrate megabenthos collected during this survey are lodged in museums around Australia (including the ethanol-preserved material suitable for genetic analysis) and is available for further study. Together with a high quality data set on fishes collected in 1991 (Williams et al. 2001), these benthic invertebrate biodiversity data will make a large contribution to the Regional Marine Planning for the South West Region and inform the design of a representative system of marine protected areas.

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APPENDIX 1

Checklist of the species of invertebrate megabenthos identified from the western continental margin of Australia, showing species taxonomy, depth distribution and geographical extent. Also indicated is whether the species is a new species*, new record for Australia or Western Australia and if there is an image to view in Appendix 2.

Note: Species are ordered alphabetically within phylum, class and family. The CAAB number should be used to locate the associated species image in Appendix 2; *Species names in bold indicate newly described species from this survey.

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
Phylum PORIFERA											
Class DEMOSPOONGIAE											
Order AGELASIDA											
Family Agelasidae											
<i>Agelas</i> sp. WAM SS1		99100448				9	85	379	Bald Island	Carnarvon	Y
<i>Agelas</i> sp. WAM SS2		99100449				3	85	100	D'Entrecasteaux	Kalbarri	Y
<i>Agelas</i> sp. WAM SS3		99100450	1	1	1	2	85	98	Jurien Bay	Kalbarri	Y
Order ASTROPHORIDA											
Family Ancorinidae											
? <i>Rhabdastrella</i> sp. WAM SS1		99100393				1	205	210	Two Rocks	Two Rocks	Y
<i>Ancorina</i> sp. WAM SS1		99100395				6	95	253	Bald Island	Zuytdorp	Y
<i>Ancorina</i> sp. WAM SS2		99100396	1	1	1	4	97	253	Bald Island	Zuytdorp	Y
<i>Asteropus</i> cf. <i>simplex</i> (Carter, 1879)		99100422				1	106	106	Zuytdorp	Zuytdorp	Y
<i>Asteropus</i> <i>simplex</i> (Carter, 1879)		10009010				3	96	183	Abrolhos	Shark Bay	Y
<i>Asteropus</i> sp. WAM SS1		99100354				3	96	106	Mentelle	Ningaloo	Y
<i>Asteropus</i> sp. WAM SS2		99100397				3	95	922	Albany	Bunbury	Y
<i>Asteropus</i> sp. WAM SS3		99100398				1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Asteropus</i> sp. WAM SS4		99100399	1	1	1	4	96	253	Mentelle	Kalbarri	Y

<i>Asteropus</i> sp. WAM SS5	99100400	1	1	1	3	180	253	Perth Canyon	Kalbarri	Y
<i>Asteropus</i> sp. WAM SS6	99100373				1	97	99	Bald Island	Bald Island	
<i>Asteropus</i> sp. WAM SS7	99100662				1	100	100	Carnarvon	Carnarvon	
<i>Ecionemiasp.</i> WAM Ng1	99100663				2	100	106	Zuydorp	Carnarvon	Y
<i>Ecionemiasp.</i> WAM SS1	99100411				5	96	183	Abrolhos	Ningaloo	Y
<i>Ecionemiasp.</i> WAM SS2	99100392				5	85	253	Mentelle	Shark Bay	Y
<i>Ecionemiasp.</i> WAM SS3	99100412				6	97	183	Bald Island	Red Bluff	Y
<i>Ecionemiasp.</i> WAM SS4	99100418	1	1	1	1	416	431	Abrolhos	Abrolhos	
<i>Ecionemiasp.</i> WAM SS5	99100419	1	1	1	1	99	100	Albany	Albany	
<i>Jaspis</i> sp. WAM SS1	99100413				2	85	100	Abrolhos	Red Bluff	Y
<i>Jaspis</i> sp. WAM SS2	99100414				2	96	98	Kalbarri	Zuydorp	Y
<i>Jaspis</i> sp. WAM SS3	99100415				1	252	253	Kalbarri	Kalbarri	
<i>Jaspis</i> sp. WAM SS4	99100416	1	1	1	1	106	106	Zuydorp	Zuydorp	Y
<i>Jaspis</i> sp. WAM SS5	99100417	1	1	1	2	96	169	Bald Island	Mentelle	Y
<i>Penares</i> sp. WAM SS1	99100410				1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Pammastra</i> sp. WAM SS1	99100394				2	97	210	Bald Island	Two Rocks	Y
<i>Pammastra</i> sp. WAM SS2	99100286				3	97	253	Bald Island	Zuydorp	Y
<i>Rhabdastrella</i> sp. WAM SS2	99100420				1	104	114	Ningaloo	Ningaloo	
<i>Rhabdastrella</i> sp. WAM SS3	99100390	1	1	1	2	205	253	Two Rocks	Kalbarri	Y
<i>Rhabdastrella</i> sp. WAM SS4	99100421	1	1	1	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Stellata</i> cf. <i>clavosa</i>	Ridley, 1884				3	97	253	Bald Island	Kalbarri	
<i>Stellata</i> <i>clavosa</i>	Ridley, 1884				3	96	210	Albany	Two Rocks	Y
<i>Stellata</i> sp. WAM SS1	99100391				5	100	253	Two Rocks	Ningaloo	Y
<i>Stellata</i> sp. WAM SS2	99100401	4	85	232	Perth Canyon	Point Cloates	Point Cloates	Perth Canyon	Point Cloates	Y

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Stellaria</i> sp. WAM SS3		99100402				5	85	253	Bald Island	Zuydorp	Y
<i>Stellaria</i> sp. WAM SS4		99100403				4	97	253	Bald Island	Zuydorp	Y
<i>Stellaria</i> sp. WAM SS5		99100404	1	1	1	1	97	99	Bald Island	Bald Island	
<i>Stellaria</i> sp. WAM SS6		99100405	1	1	1	1	97	99	Bald Island	Bald Island	
<i>Stellaria</i> sp. WAM SS7		99100406	1	1	1	1	194	232	Perth Canyon	Perth Canyon	
<i>Stellaria</i> sp. WAM SS8		99100407	1	1	1	2	97	100	Albany	Zuydorp	Y
<i>Stellaria</i> sp. WAM SS9		99100292	1	1	1	2	100	100	Shark Bay	Red Bluff	Y
<i>Tetrapodopsis</i> sp. WAM SS1		99100409				1	205	210	Two Rocks	Two Rocks	Y
<i>Tribachium</i> sp. WAM SS1		99100288				1	100	101	Barrow	Barrow	
Family Geodidae											
<i>Erythrus</i> cf. <i>lendenfeldi</i>	Sollas, 1888	99100429				1	101	106	Ningaloo	Ningaloo	
<i>Erythrus</i> sp. WAM SS1		99100263				2	101	925	Albany	Ningaloo	Y
<i>Erythrus</i> sp. WAM SS2		99100241				3	97	106	Zuydorp	Barrow	Y
<i>Geodia</i> sp. WAM Ng1		99100423				9	97	404	Perth Canyon	Ningaloo	Y
<i>Geodia</i> sp. WAM SS1		99100424				3	180	232	Perth Canyon	Abrolhos	Y
<i>Geodia</i> sp. WAM SS2		99100425	1	1	1	4	95	232	Albany	Perth Canyon	Y
<i>Lopis</i> sp. WAM SS1		99100426				1	205	210	Two Rocks	Two Rocks	Y
<i>Lopis</i> sp. WAM SS2		99100427				4	95	253	D'Entrecasteaux	Zuydorp	Y
<i>Lopis</i> sp. WAM SS3		99100428	1	1	1	4	100	253	Perth Canyon	Ningaloo	Y
Astrophorida undifferentiated		10008000				1	96	97	Mentelle	Mentelle	

Order
DENDROCRATIDA
Family Darwinellidae

<i>Dendrella</i> sp. WAM SS1	99100649	1	102	102	Two Rocks	Two Rocks
Family Dicyodendrillidae						
<i>Dicyodendrilla</i> sp. WAM SS1	99100650	1	329	370	Two Rocks	Two Rocks
Order DICTYOCERATIDA						
Family Iraciidae						
<i>Pammocinia</i> sp. WAM SS1	99100598	1	205	210	Two Rocks	Y
<i>Pammocinia</i> sp. WAM SS2	99100599	3	97	210	Bald Island	Y
<i>Pammocinia</i> sp. WAM SS3	99100600	2	205	253	Two Rocks	Y
<i>Pammocinia</i> sp. WAM SS4	99100601	1	93	93	Barrow	Barrow
<i>Pammocinia</i> sp. WAM SS5	99100602	1	1	1	Albany	Albany
<i>Pammocinia</i> sp. WAM SS6	99100603	1	1	4	97	210
<i>Pammocinia</i> sp. WAM SS7	99100604	1	1	3	97	253
<i>Sarcotragus</i> sp. WAM Ng1	99100345			10	93	Bald Island
<i>Sarcotragus</i> sp. WAM Ng2	99100659			1	96	Mentelle
<i>Sarcotragus</i> sp. WAM SS1	99100257			4	100	253
<i>Sarcotragus</i> sp. WAM SS10	99100611	1	1	1	194	Perth Canyon
<i>Sarcotragus</i> sp. WAM SS2	99100321			1	329	Perth Canyon
<i>Sarcotragus</i> sp. WAM SS3	99100605	3	95	232	Albany	Two Rocks
<i>Sarcotragus</i> sp. WAM SS4	99100606	3	93	100	Albany	Barrow
<i>Sarcotragus</i> sp. WAM SS5	99100607	2	85	97	Mentelle	Abrolhos
<i>Sarcotragus</i> sp. WAM SS6	99100608	1	1	1	97	Bald Island
<i>Sarcotragus</i> sp. WAM SS7	99100279	1	1	3	95	179
<i>Sarcotragus</i> sp. WAM SS8	99100609	1	1	1	85	86
						Abrolhos
						Y

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Sarcotragus</i> sp. WAM SS9		99100610	1	1	1	1	252	253	Kalbarri	Kalbarri	Y
Family Spongidae											
<i>Hippopongia</i> sp. WAM SS1		99100280			1	165	166	Ningaloo	Ningaloo		Y
<i>Hippopongia</i> sp. WAM SS2		99100639			4	120	253	Two Rocks	Ningaloo		Y
<i>Hippopongia</i> sp. WAM SS3		99100640			3	96	253	Albany	Kalbarri		Y
<i>Hippopongia</i> sp. WAM SS4		99100249	1	1	1	2	93	100	Albany	Barrow	Y
<i>Hippopongia</i> sp. WAM SS5		99100641	1	1	1	1	100	100	Carnarvon	Carnarvon	Y
<i>Hyarella</i> sp. WAM SS1		99100647			1	93	93	Barrow	Barrow		
<i>Hyarella</i> sp. WAM SS2		99100648	1	1	1	6	97	253	Bald Island	Kalbarri	Y
<i>Leiosella</i> sp. WAM SS1		99100644			3	147	370	Bald Island	Kalbarri		Y
<i>Leiosella</i> sp. WAM SS2		99100645			3	147	232	Bald Island	Perth Canyon		
<i>Leiosella</i> sp. WAM SS3		99100646	1	1	1	1	252	253	Kalbarri	Kalbarri	Y
<i>Spongia (Heterofibria) sp.</i> WAM SS1		99100360			3	99	253	Albany	Red Bluff		Y
<i>Spongia (Heterofibria) sp.</i> WAM SS2		99100642			2	96	210	Mentelle	Two Rocks		Y
<i>Spongia (Heterofibria) sp.</i> WAM SS3		99100643	1	1	1	2	147	253	Bald Island	Kalbarri	Y
Family Suberitidae											
<i>Caulospongia amplexa</i>	Fromont, 1998	10028002			1	95	99	Bunbury	Bunbury		
<i>Caulospongia bifabelleta</i>	Fromont, 1998	10028003			1	99	100	Albany	Albany		Y
<i>Caulospongia plicata</i>	Saville Kent, 1871	10028007			2	93	106	Ningaloo	Barrow		Y
Family Thorectidae											
<i>Aplysinopsis</i> sp. WAM SS1		99100638			3	113	253	Perth Canyon	Kalbarri		Y

<i>Aphysinopsis</i> sp. WAM SS2	99100661	1	100	100	Point Cloates	Point Cloates
<i>Cacospongia</i> sp. WAM SS1	99100612	2	113	232	Perth Canyon	Jurien Bay
<i>Cacospongia</i> sp. WAM SS2	99100364	3	93	232	Albany	Barrow
<i>Cacospongia</i> sp. WAM SS3	99100613	6	85	196	Bald Island	Abrolhos
<i>Cacospongia</i> sp. WAM SS4	99100333	1	1	1	Barrow	Barrow
<i>Cartiospongia</i> sp. WAM SS1	99100636	2	95	232	D'Entrecasteaux	Perth Canyon
<i>Ducylaspongia</i> sp. WAM SS1	99100614	2	95	232	D'Entrecasteaux	Perth Canyon
<i>Ducylaspongia</i> sp. WAM SS2	99100615	7	96	253	Bald Island	Kalbarri
<i>Fascaphysinopsis</i> sp. WAM SS1	99100634	4	96	210	Albany	Kalbarri
<i>Fascaphysinopsis</i> sp. WAM SS2	99100635	2	106	379	D'Entrecasteaux	Zuydorp
<i>Fasciospongia</i> sp. WAM SS1	99100616	1	194	232	Perth Canyon	Perth Canyon
<i>Hyrtios</i> sp. WAM SS1	99100284	2	97	210	Bald Island	Two Rocks
<i>Hyrtios</i> sp. WAM SS2	99100617	1	95	99	Bunbury	Bunbury
<i>Hyrtios</i> sp. WAM SS3	99100618	1	1	4	Bald Island	Barrow
<i>Hyrtios</i> sp. WAM SS4	99100619	1	1	1	194	Perth Canyon
<i>Hyrtios</i> sp. WAM SS5	99100620	1	95	183	Bald Island	D'Entrecasteaux
<i>Hyrtios</i> sp. WAM SS6	99100343	10	85	253	Bald Island	Ningaloo
<i>Luffariella</i> sp. WAM SS1	99100621	3	95	210	Bald Island	Two Rocks
<i>Luffariella</i> sp. WAM SS2	99100622	2	179	253	Albany	Kalbarri
<i>Luffariella</i> sp. WAM SS3	99100328	3	99	253	Albany	Kalbarri
<i>Luffariella</i> sp. WAM SS4	99100623	2	194	253	Perth Canyon	Kalbarri
<i>Luffariella</i> sp. WAM SS5	99100624	3	194	253	Perth Canyon	Kalbarri
<i>Luffariella</i> sp. WAM SS6	99100273	1	1	6	Bald Island	Jurien Bay
<i>Luffariella</i> sp. WAM SS7	99100625	2	96	210	Mentelle	Two Rocks
<i>Tanura</i> sp. WAM SS1	99100335	2	97	106	Zuydorp	Zuydorp
<i>Tanura</i> sp. WAM SS2						

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Tanura</i> sp. WAM SS3		99100358	1	1	1	1	96	97	Mentelle	Mentelle	Y
<i>Thorectes</i> sp. WAM Ng1		99100633				1	96	97	Mentelle	Mentelle	Y
<i>Thorectes</i> sp. WAM SS1		99100626				4	97	114	Bald Island	Ningaloo	Y
<i>Thorectes</i> sp. WAM SS3		99100628				2	89	196	Point Hillier	Point Hillier	Y
<i>Thorectes</i> sp. WAM SS4		99100629	1	1	1	5	147	253	Bald Island	Kalbarri	Y
<i>Thorectes</i> sp. WAM SS5		99100630				2	95	232	D'Entrecasteaux	Perth Canyon	Y
<i>Thorectes</i> sp. WAM SS6		99100631	1	1	1	6	96	179	Bald Island	Zuydorp	Y
<i>Thorectes</i> sp. WAM SS7		99100256	1	1	1	1	96	97	Mentelle	Mentelle	Y
<i>Thorectes</i> sp. WAM SS8		99100632	1	1	1	1	147	157	Bald Island	Bald Island	
<i>Thorectandra</i> sp. WAM SS1		99100637				2	96	99	Bald Island	Mentelle	Y
Order HADROMERIDA											
Family Clionidae											
<i>Sphaeriospongia</i> cf. <i>papillosa</i>	(Ridley & Dendy, 1886)	99100430				8	95	196	Bald Island	Red Bluff	Y
<i>Sphaeriospongia</i> <i>papillosa</i>	(Ridley & Dendy, 1886)	10021023			1	3	96	100	Bald Island	Mentelle	Y
<i>Sphaeriospongia</i> <i>purpurea</i>	(Lamarck, 1815)	10021022			1	4	85	100	D'Entrecasteaux	Abrolhos	Y
<i>Sphaeriospongia</i> sp. WAM MF1		99100431				3	95	100	Albany	Bunbury	Y
Family Hemimasterellidae											
<i>Hemimasterella</i> sp. WAM SS1		99100432				3	95	100	D'Entrecasteaux	Shark Bay	
<i>Hemimasterella</i> sp. WAM SS2		99100433				4	95	102	Bald Island	Two Rocks	Y
Family Polymastidiidae											
<i>Polymastia</i> sp. WAM SS1		99100327				2	104	183	Abrolhos	Ningaloo	Y

<i>Polymastia</i> sp. WAM SS2	99100438	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Polymastia</i> sp. WAM SS3	99100319	1	99	100	Albany	Albany	Y
<i>Polymastia</i> sp. WAM SS4	99100262	2	100	100	Shark Bay	Shark Bay	Y
<i>Polymastia</i> sp. WAM SS5	99100285	1	1	2	96	100	Kalbarri
<i>Polymastia</i> sp. WAM SS6	99100439	1	1	1	100	100	Point Cloates
Family Spirastrellidae							
<i>Diplastrella</i> sp. WAM SS1	99100440	6	95	196	Bald Island	Bunbury	Y
<i>Diplastrella</i> sp. WAM SS2	99100441	1	1	205	210	Two Rocks	Y
Family Stylocordylidae							
<i>Stylocordyla</i> sp. WAM SS1	99100442	1	539	539	Point Hillier	Point Hillier	
Family Tethyidae							
<i>Stellitethya</i> sp. WAM SS1	99100445	1	106	106	Zuytdorp	Zuytdorp	Y
<i>Tethya</i> cf. <i>ingalli</i>	99100287	2	100	157	Bald Island	Barrow	Y
<i>Tethya</i> <i>ingalli</i>	(Bowerbank, 1858)	3	97	179	Bald Island	Albany	
<i>Tethyastra</i> sp. WAM SS1	10029007	5	96	196	Bald Island	Mentelle	Y
<i>Tethyastra</i> sp. WAM SS2	99100443	1	1	99	100	Albany	Albany
Family Timeidae							
? <i>Timea</i> sp. WAM SS1	99100446	2	101	114	Ningaloo	Ningaloo	
Family Trachycladidae							
<i>Trachycladus latvispirifer</i>	Carter, 1879	10031001	3	85	102	D'Entrecasteaux	Jurien Bay
Order HALICONDRIDA							
Family Axinellidae							
<i>Axinella</i> sp. WAM Ng1	99100347	1	97	97	Zuytdorp	Zuytdorp	Y
<i>Axinella</i> sp. WAM Ng2	99100252	1	85	92	Jurien Bay	Jurien Bay	Y
<i>Axinella</i> sp. WAM Ng3	99100305	7	85	123	D'Entrecasteaux	Zuytdorp	Y

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<i>Axinella</i> sp. WAM SS1		99100523				1	0	102	Two Rocks	Two Rocks	Y
<i>Axinella</i> sp. WAM SS2		99100524				4	96	114	Albany	Ningaloo	Y
<i>Axinella</i> sp. WAM SS3		99100353				3	95	179	Albany	Kalbarri	Y
<i>Axinella</i> sp. WAM SS4		99100525				1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Axinella</i> sp. WAM SS5		99100526	1	1	1	2	95	100	Albany	D'Entrecasteaux	Y
<i>Axinella</i> sp. WAM SS6		99100527	1	1	1	2	96	99	Bald Island	Menelle	Y
<i>Axinella</i> sp. WAM SS7		99100528	1	1	1	1	179	179	Albany	Albany	
<i>Axinella</i> sp. WAM SS8		99100529	1	1	1	1	97	99	Bald Island	Bald Island	
<i>Axinella</i> sp. WAM SS9		99100365	1	1	1	3	85	100	D'Entrecasteaux	Kalbarri	Y
<i>Pararhaphoxya</i> sp. WAM SS1		99100521				6	85	102	Bald Island	Shark Bay	Y
<i>Pararhaphoxya</i> sp. WAM SS2		99100265				1	101	106	Ningaloo	Ningaloo	
<i>Pararhaphoxya</i> sp. WAM SS3		99100522	1	1	1	2	101	106	Ningaloo	Ningaloo	Y
<i>Phakellia</i> sp. WAM Ng2		99100253				3	97	100	Bald Island	Point Cloates	Y
<i>Phakellia</i> sp. WAM Ng3		99100366				5	89	196	Point Hillier	Kalbarri	Y
<i>Phakellia</i> sp. WAM SS1		99100530				7	85	183	D'Entrecasteaux	Ningaloo	
Family Desmoxiidae											
<i>Didicus</i> sp. WAM SS1		99100234				1	104	114	Ningaloo	Ningaloo	
<i>Didicus</i> sp. WAM SS2		99100531				1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Didicus</i> sp. WAM SS3		99100532	1	1	1	1	205	210	Two Rocks	Two Rocks	Y
<i>Myrmekioderma</i> sp. WAM SS1		99100533				2	95	100	D'Entrecasteaux	Bunbury	Y
<i>Myrmekioderma</i> sp. WAM SS2		99100534				1	85	92	Jurien Bay	Jurien Bay	Y

Family Dicyonellidae								
<i>Acanthella</i> sp. WAM Ng2	99100536	2	100	114	Point Cloates	Ningaloo	Y	
<i>Acanthella</i> sp. WAM Ng3	99100254	2	100	106	Point Cloates	Ningaloo	Y	
<i>Acanthella</i> sp. WAM SS1	99100250	2	96	114	Mentelle	Ningaloo	Y	
<i>Acanthella</i> sp. WAM SS2	99100348	1	1	1	Albany	Albany	Y	
<i>Acanthella</i> sp. WAM SS3	99100535	1	1	1	D'Entrecasteaux	D'Entrecasteaux	Y	
Family Halichondriidae								
<i>Ciacalypia</i> sp. WAM SS1	99100540	2	89	196	Point Hillier	Point Hillier	Y	
<i>Ciacalypia</i> sp. WAM SS2	99100541	1	89	96	Point Hillier	Point Hillier	Y	
<i>Ciacalypia</i> sp. WAM SS3	99100542	1	89	96	Point Hillier	Point Hillier	Y	
<i>Ciacalypia</i> sp. WAM SS4	99100543	1	1	1	Point Hillier	Point Hillier	Y	
<i>Ciacalypia</i> sp. WAM SS5	99100544	1	1	1	Barrow	Barrow		
<i>Halichondria</i> (<i>Halichondria</i>) sp.	99100537	1	195	196	Point Hillier	Point Hillier		
<i>Halichondria</i> (<i>Halichondria</i>) sp.	99100346	1	1075	1110	Point Hillier	Point Hillier		
<i>Halichondria</i> (<i>Halichondria</i>) sp.	99100538	4	95	232	Albany	Perth Canyon	Y	
<i>Halichondria</i> (<i>Halichondria</i>) sp.	99100283	1	97	99	Bald Island	Bald Island		
<i>Halichondria</i> WAM SS4	99100539	1	1	96	Kalbarri	Kalbarri	Y	
<i>Halichondria</i> (<i>Halichondria</i>) sp.	99100545	2	89	100	Albany	Point Hillier	Y	
<i>Hymeniacidon</i> sp.	99100546	3	99	196	Bald Island	Point Hillier	Y	
<i>Hymeniacidon</i> sp.	99100261	1	1	194	232	Perth Canyon	Perth Canyon	
<i>Hymeniacidon</i> sp.	WAM SS3							

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Order HAPLOSCERIDA											
Family Calyptpongiidae											
<i>Callypspongia (Callypspongia) bilamellata</i>	(Lamarck, 1814)	10098010				8	85	695	Bald Island	Kalbarri	Y
<i>Callypspongia (Callypspongia) sp. WAM Ng¹</i>		99100547	1	1	1	7	85	157	Bald Island	Red Bluff	Y
<i>Callypspongia (Callypspongia) sp. WAM SS1</i>		99100548				8	85	196	Bald Island	Zuydorp	Y
<i>Callypspongia (Callypspongia) sp. WAM SS2</i>		99100549				4	95	157	Bald Island	D'Entrecasteaux	Y
<i>Callypspongia (Callypspongia) sp. WAM SS3</i>		99100550	1	1	1	2	97	179	Bald Island	Albany	
<i>Callypspongia (Callypspongia) sp. WAM SS4</i>		99100551	1	1	1	1	212	213	Albany	Albany	Y
Family Chalinidae											
<i>Haliclona (Gelius) sp. WAM SS1</i>		99100558				2	99	196	Albany	Point Hillier	
<i>Haliclona (Gelius) sp. WAM SS2</i>		99100559				4	97	253	Bald Island	Kalbarri	Y
<i>Haliclona (Gelius) sp. WAM SS3</i>		99100560	1	1	1	1	205	210	Two Rocks	Two Rocks	Y
<i>Haliclona (Haliclona) sp. WAM Ng¹</i>		99100552				2	85	100	Abrolhos	Point Cloates	Y
<i>Haliclona (Haliclona) sp. WAM SS1</i>		99100553				2	97	157	Bald Island	Bald Island	Y
<i>Haliclona (Haliclona) sp. WAM SS2</i>		99100554				1	104	114	Ningaloo		
<i>Haliclona (Haliclona) sp. WAM SS3</i>		99100555	1	1	1	96	98	Kalbarri	Kalbarri		
<i>Haliclona (Haliclona) sp. WAM SS4</i>		99100556	1	1	1	1	96	98	Kalbarri	Kalbarri	
<i>Haliclona (Haliclona) sp. WAM SS5</i>		99100557	1	1	1	1	252	253	Kalbarri	Kalbarri	Y
<i>Haliclona (Reniera) sp. WAM SS1</i>		99100561				2	194	232	Perth Canyon	Two Rocks	Y
<i>Haliclona (Reniera) sp. WAM SS2</i>		99100562	1	1	1	205	210	Two Rocks	Two Rocks		

<i>Haliclona (Reniera)</i> sp. WAM SS3	99100563	1	205	210	Two Rocks	Two Rocks	Y
<i>Haliclona (Reniera)</i> sp. WAM SS4	99100564	2	85	100	D'Entrecasteaux	Abrolhos	Y
<i>Haliclona (Reniera)</i> sp. WAM SS5	99100565	1	1	2	96	Mentelle	Kalbarri
<i>Haliclona (Reniera)</i> sp. WAM SS6	99100566	1	1	1	89	Point Hillier	Point Hillier
<i>Haliclona (Reniera)</i> sp. WAM SS7	99100567	1	1	2	106	232	Zuyndorp
Family Niphastidae							
<i>Amphimedon</i> sp. WAM SS1	99100568	2	95	100	D'Entrecasteaux	Mentelle	Y
<i>Amphimedon</i> sp. WAM SS2	99100569	1	147	157	Bald Island	Bald Island	
<i>Amphimedon</i> sp. WAM SS3	99100570	1	179	179	Albany	Albany	
<i>Amphimedon</i> sp. WAM SS4	99100313	1	1	2	89	Point Hillier	D'Entrecasteaux
<i>Amphimedon</i> sp. WAM SS5	99100571	1	1	2	95	100	D'Entrecasteaux
<i>Niphates</i> sp. WAM SS2	99100572	1	194	232	Perth Canyon	Perth Canyon	
Family Petrosiidae							
<i>Petrosia (Petrosia)</i> sp. WAM Ng1	99100592	6	97	210	Bald Island	Ningaloo	Y
<i>Petrosia (Petrosia)</i> sp. WAM SS1	99100591	1	165	166	Ningaloo	Ningaloo	Y
<i>Petrosia (Petrosia)</i> sp. WAM SS2	99100356	7	85	253	Mentelle	Ningaloo	Y
<i>Petrosia (Petrosia)</i> sp. WAM SS3	99100268	1	1	2	194	232	Perth Canyon
<i>Petrosia (Petrosia)</i> sp. WAM SS4	99100340	1	1	1	1	93	Two Rocks
<i>Xestospongia</i> sp. WAM Ng2	99100593	1	1	1	93	Barrow	Barrow
<i>Xestospongia</i> sp. WAM SS1	99100594	5	104	114	Ningaloo	Ningaloo	Y
<i>Xestospongia</i> sp. WAM SS2	99100595	2	104	114	Zuyndorp	Ningaloo	Y
<i>Xestospongia</i> sp. WAM SS3	99100596	1	1	2	96	100	Kalbarri
<i>Xestospongia</i> sp. WAM SS4	99100597	1	1	1	252	253	Kalbarri

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<i>Xestospongia</i> sp. WAM SS8		99100666				1	99	100	Albany	Albany	Y
Family Phloeodictyidae											
<i>Aka</i> sp. WAM SS1		99100573				1	104	114	Ningaloo	Ningaloo	Y
<i>Aka</i> sp. WAM SS10		99100580				1	97	99	Bald Island	Bald Island	
<i>Aka</i> sp. WAM SS2		99100574				5	95	232	Albany	Two Rocks	Y
<i>Aka</i> sp. WAM SS3		99100331				1	205	210	Two Rocks	Two Rocks	Y
<i>Aka</i> sp. WAM SS4		99100575				1	96	97	Mentelle	Mentelle	Y
<i>Aka</i> sp. WAM SS5		99100576	1	1	1	1	96	97	Mentelle	Mentelle	Y
<i>Aka</i> sp. WAM SS6		99100577				1	99	100	Albany	Albany	
<i>Aka</i> sp. WAM SS7		99100578	1	1	1	3	100	232	Albany	Barrow	
<i>Aka</i> sp. WAM SS8		99100579	1	1	1	2	179	196	Albany	Point Hillier	
<i>Aka</i> sp. WAM SS9		99100306	1	1	1	2	179	183	Albany	Abrolhos	Y
<i>Oceanapia</i> cf. <i>macrotaxa</i>	(Hooper, 1984)	99100590				1	85	92	Jurien Bay	Jurien Bay	Y
<i>Oceanapia</i> cf. <i>ramsayi</i>	(Lendenfeld, 1888)	99100589				2	147	253	Bald Island	Kalbarri	Y
<i>Oceanapia</i> <i>ramsayi</i>	(Lendenfeld, 1888)	10101022				1	252	253	Kalbarri	Kalbarri	Y
<i>Oceanapia</i> sp. WAM Ng1		99100355				3	93	183	Abrolhos	Barrow	Y
<i>Oceanapia</i> sp. WAM Ng2		99100581				3	97	232	Bald Island	Perth Canyon	
<i>Oceanapia</i> sp. WAM SS1		99100582				1	165	166	Ningaloo	Ningaloo	
<i>Oceanapia</i> sp. WAM SS10		99100334				2	180	253	Abrolhos	Kalbarri	Y
<i>Oceanapia</i> sp. WAM SS11		99100588				2	96	253	Kalbarri	Kalbarri	
<i>Oceanapia</i> sp. WAM SS2		99100277				7	104	232	Bald Island	Ningaloo	
<i>Oceanapia</i> sp. WAM SS3		99100583				2	99	370	Albany	Two Rocks	

<i>Oceanapia</i> sp. WAM SS4	99100330	3	194	232	Point Hillier	Two Rocks	Y
<i>Oceanapia</i> sp. WAM SS5	99100336	6	95	210	Bald Island	Two Rocks	Y
<i>Oceanapia</i> sp. WAM SS6	99100584	1	1	2	95	100	Bald Island
<i>Oceanapia</i> sp. WAM SS7	99100585	1	1	1	205	210	D'Entrecasteaux
<i>Oceanapia</i> sp. WAM SS8	99100586	1	1	2	194	253	Two Rocks
<i>Oceanapia</i> sp. WAM SS9	99100587	1	1	3	97	183	Perth Canyon
					Albany	Kalbarri	Y
					Zuydorp	Zuydorp	Y
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Order HOMOSCLERO- PHORIDA							
Family Plakinidae							
<i>Plakinia</i> sp. WAM SS1	99100339	1	252	253	Kalbarri	Kalbarri	
<i>Plakinastrella</i> sp. WAM SS1	99100383	6	85	210	Two Rocks	Ningaloo	
<i>Plakinastrella</i> sp. WAM SS2	99100382	1	205	210	Two Rocks	Two Rocks	
						Red Bluff	
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Order LITHISTIDA							
Family Corallistidae							
<i>Hærengeria</i> sp. A	99100668	1	97	97	Zuydorp	Zuydorp	
Family Theonellidae							
<i>Manilinea</i> n.sp. A	99100667	1	1	1	194	232	Perth Canyon
<i>Theonella</i> sp. WAM SS1	99100447			1	100	100	Perth Canyon
Lithistida undifferentiated	10033000	3	161	460	Bald Island	Point Cloates	Point Cloates
						Red Bluff	Red Bluff
<hr/>							
Order POECILOSCLERIDA							
Family Acanthidae							
<i>Acarinus</i> sp. WAM SS1	99100451	1	99	100	Albany	Albany	
<i>Zyzygia</i> sp. WAM SS1	99100452	1	180	183	Abrolhos	Abrolhos	
Family Chondropsidae							
<i>Chondropsis</i> sp. WAM Ng1	99100495	1	112	123	Kalbarri	Kalbarri	

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Chondropsis</i> sp. WAM SS1		99100496				4	96	179	Bald Island	Mentelle	Y
<i>Phoriospongia</i> sp. WAM SS1		99100338				1	93	93	Barrow	Barrow	
<i>Strongylacidon</i> sp. WAM SS1		99100493				1	0	102	Two Rocks	Two Rocks	
<i>Strongylacidon</i> sp. WAM SS2		99100494				1	100	100	Carnarvon	Carnarvon	Y
Family Coelosphaeridae											
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS1		99100476				4	85	100	D'Entrecasteaux	Zuytdorp	Y
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS2		99100477				1	205	210	Two Rocks	Two Rocks	Y
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS3		99100300				4	97	253	Bald Island	Kalbarri	Y
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS4		99100478				1	96	97	Mentelle	Mentelle	Y
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS5		99100479				2	194	232	Perth Canyon	Two Rocks	Y
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS6		99100480				1	195	196	Point Hillier	Point Hillier	
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS7		99100481				1	97	99	Bald Island	Bald Island	
<i>Coelosphaera</i> (<i>Coelosphaera</i>) sp. WAM SS8		99100482				1	180	183	Abrolhos	Abrolhos	Y
Family Crambeidae											
<i>Monanchora</i> sp. WAM Ng1		99100483				1	95	99	Bunbury	Bunbury	Y
<i>Monanchora</i> sp. WAM SS1		99100484				2	95	99	Mentelle	Bunbury	Y
<i>Monanchora</i> sp. WAM SS3		99100664				1	100	100	Carnarvon	Carnarvon	
Family Crellidae											
<i>Crella</i> (<i>Crella</i>) sp. WAM SS1		99100486				1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Crella</i> (<i>Crella</i>) sp. WAM SS2		99100487				4	95	100	Bald Island	Kalbarri	Y

<i>Crella (Crella) sp.</i>	99100488	1	1	1	1	97	99	Bald Island
WAM SS3								Y
<i>Crella (Pytheas) sp.</i>	99100485				1	205	210	Two Rocks
WAM SS1								Y
<i>Crella (Yvesia) sp.</i>	99100489				1	106	106	Zuydorp
WAM SS1								Y
<i>Crella (Yvesia) sp.</i>	99100490	1	1	1	1	99	100	Albany
WAM SS2								Y
Family Dendoricellidae								
<i>Fibula sp.</i> WAM SS1	99100474				4	95	179	Albany
								Mentelle
<i>Fibula sp.</i> WAM SS2	99100475	1	1	1	1	95	100	D'Entrecasteaux
								Y
<i>Bienna sp.</i> WAM SS1	99100325				2	100	106	Zuydorp
								Point Cloates
<i>Bienna sp.</i> WAM SS2	99100512				2	95	100	Bald Island
								D'Entrecasteaux
<i>Bienna sp.</i> WAM SS3	99100513	1	1	1	1	97	99	Bald Island
								Y
<i>Bienna sp.</i> WAM SS4	99100514	1	1	1	1	99	100	Albany
								Y
<i>Desmacella sp.</i> WAM SS1	99100511				1	85	92	Jurien Bay
								Y
<i>Sigmaxinella cf. sociale</i>	Hooper, 1984	99100510			1	100	100	Point Cloates
								Y
<i>Sigmaxinella sp.</i> WAM SS1		99100505			1	100	100	Red Bluff
								Y
<i>Sigmaxinella sp.</i> WAM SS2	99100506				2	89	96	Point Hillier
								Barrow
<i>Sigmaxinella sp.</i> WAM SS3	99100507				2	95	100	Bald Island
								D'Entrecasteaux
<i>Sigmaxinella sp.</i> WAM SS4	99100508	1	1	1	1	95	100	D'Entrecasteaux
								Y
<i>Sigmaxinella sp.</i> WAM SS5	99100344	1	1	1	1	85	86	Abrolhos
								Y
<i>Sigmaxinella sp.</i> WAM SS6	99100509	1	1	1	1	195	196	Point Hillier
								Point Hillier
<i>Desmaciondon sp.</i> WAM SS1	99100473				1	95	100	D'Entrecasteaux
								Y
Family Hymedesmiidae								
<i>Phorbas sp.</i> WAM Ng1	99100491	1	1	1	99	100	Albany	Albany
								Y
<i>Phorbas sp.</i> WAM SS1	99100363				1	100	100	Red Bluff
								Y
Family Isodictyidae								
<i>Coelocarteria sp.</i> WAM SS1	99100660	2	85	97	Mentelle			Abrolhos

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Family Latrunculiidae											
<i>Latrunculia</i> sp. WAM SS1		99100332				1	100	100	Point Cloates	Point Cloates	Y
<i>Scoprella</i> sp. WAM SS1		99100434				2	205	253	Two Rocks	Kalbarri	Y
<i>Scoprella</i> sp. WAM SS2		99100435				3	194	253	Perth Canyon	Kalbarri	Y
<i>Scoprella</i> sp. WAM SS3		99100436				1	194	232	Perth Canyon	Perth Canyon	
<i>Scoprella</i> sp. WAM SS4		99100437	1	1	1	1	252	253	Kalbarri	Kalbarri	
Family Microcionidae											
<i>Clathria</i> (<i>Clathria</i>) sp. WAM SS1		99100458				2	113	157	Bald Island	Jurien Bay	
<i>Clathria</i> (<i>Clathria</i>) sp. WAM SS2		99100459				1	97	99	Bald Island	Bald Island	
<i>Clathria</i> (<i>Clathria</i>) sp. WAM SS3		99100460	1	1	1	1	99	100	Albany	Albany	Y
<i>Clathria</i> (<i>Isocella</i>) <i>selachia</i> Hooper, 1996		10066059				2	102	404	Two Rocks	Two Rocks	Y
<i>Clathria</i> (<i>Thelysias</i>) <i>obertura</i> (Lamarck, 1814)		10066066				1	112	123	Kalbarri	Kalbarri	Y
<i>Clathria</i> (<i>Thelysias</i>) cf. <i>jumperina</i> (Lamarck, 1814)		99100454				2	95	100	Albany	D'Entrecasteaux	Y
<i>Clathria</i> (<i>Thelysias</i>) cf. <i>procera</i> (Ridley, 1884)		99100456				1	100	100	Carnarvon	Carnarvon	Y
<i>Clathria</i> (<i>Thelysias</i>) sp. WAM SS1		99100457				2	99	213	Albany	Albany	Y
<i>Echinocladthria leporina</i> (Lamarck, 1814)		10066131				1	95	99	Bunbury	Bunbury	Y
<i>Holopsamma arborea</i> (Lendenfeld, 1888)		10066138				3	96	157	Bald Island	Kalbarri	Y
<i>Holopsamma</i> sp. WAM SS1		99100453				3	96	157	Bald Island	Kalbarri	Y
<i>Holopsamma</i> sp. WAM SS2		99100455				1	99	100	Albany	Albany	Y
Family Mycalidae											
<i>Mycale</i> (? <i>Carmia</i>) sp. WAM SS4		99100518				1	212	213	Albany	Albany	

<i>Mycale (Agogropila)</i> sp. WAM SS1	99100519	2	95	100	Albany	D'Entrecasteaux	Y
<i>Mycale (Carmia)</i> sp. WAM SS1	99100515	1	147	157	Bald Island	Bald Island	
<i>Mycale (Carmia)</i> sp. WAM SS2	99100516	1	1	2	97	Bald Island	Bald Island
<i>Mycale (Carmia)</i> sp. WAM SS3	99100517			1	96	Kalbarri	Kalbarri
<i>Phycotaenopora</i> (<i>Phycotaenopora</i>) sp. WAM SS1	99100520	2	85	97	Jurien Bay	Zuyndorp	Y
Family Myxillidae							
<i>Iotrochota baculifera</i> Ridley, 1884	10077037	1	85	92	Jurien Bay	Jurien Bay	Y
<i>Iotrochota cf. baculifera</i> Ridley, 1884	99100492	1	95	99	Bunbury	Bunbury	Y
Family Raspailiidae							
<i>Aulospongia</i> sp. WAM SS1	99100467	1	329	370	Two Rocks	Two Rocks	
<i>Aulospongia</i> sp. WAM SS2	99100468	1	252	253	Kalbarri	Kalbarri	Y
<i>CeratopSION</i> cf. <i>dichotoma</i> (Whitlege, 1907)	99100470	1	89	96	Point Hillier	Point Hillier	Y
<i>CeratopSION</i> sp. WAM SS1	99100469	1	95	99	Bunbury	Bunbury	
<i>Echinodictyum</i> cf. <i>cancellatum</i>	99100243	1	95	99	Bunbury	Bunbury	Y
<i>Isthoplacania</i> sp. WAM SS1	99100471	1	252	253	Kalbarri	Kalbarri	Y
<i>Raspailia</i> (Clathriodendron) <i>democracyformis</i>	Hooper, 1991	6	100	166	Shark Bay	Ningaloo	Y
<i>Raspailia</i> (Clathriodendron) sp. WAM SS1	99100466	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Raspailia</i> (<i>Parasyringella</i>) sp. WAM SS1	99100315	2	329	539	Point Hillier	Two Rocks	
<i>Raspailia</i> (<i>Parasyringella</i>) sp. WAM SS3	99100461	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Raspailia</i> (<i>Parasyringella</i>) sp. WAM SS2	99100462	1	1	1	Bunbury	Bunbury	Y
<i>Raspailia</i> (<i>Parasyringella</i>) sp. WAM SS4	99100665			1	100	Carnarvon	Carnarvon
<i>Raspailia</i> (<i>Raspailia</i>) <i>testigifera</i>	10067055	1	95	99	Bunbury	Bunbury	Y

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<i>Raspailia (Raspaxilla) sp.</i> WAM Ng ₁		99100465				4	95	106	Bald Island	Zuyldorp	Y
<i>Raspailia (Raspaxilla) sp.</i> WAM SS ₁		99100463				1	329	370	Two Rocks	Two Rocks	
<i>Raspailia (Raspaxilla) sp.</i> WAM SS ₂		99100361				1	329	370	Two Rocks	Two Rocks	
<i>Raspailia (Raspaxilla) sp.</i> WAM SS ₃		99100464	1	1	1	1	89	96	Point Hillier	Point Hillier	Y
<i>Thrinacophora cf.</i> <i>cervicornis</i>	Ridley & Dendy, 1886	99100298				1	329	370	Two Rocks	Two Rocks	
<i>Trilobitrium flabelliforme</i>	Carter, 1882	10067059				1	100	100	Red Bluff	Red Bluff	Y
Family Rhabdereniidae											
<i>Rhabderenia</i> sp. WAM SS ₁		99100472				1	252	253	Kalbarri	Kalbarri	Y
Family Tedaniidae											
<i>Hemitedania</i> sp. WAM SS ₁		99100504				2	106	232	Perth Canyon	Zuyldorp	Y
<i>Strongylamma</i> sp. WAM SS ₁		99100503				1	99	100	Albany	Albany	Y
<i>Tedania (Tedania)</i> sp. WAM SS ₁		99100502				1	99	100	Albany	Albany	Y
<i>Tedania (Tedaniopsis)</i> sp. WAM SS ₁		99100499				1	205	210	Two Rocks	Two Rocks	Y
<i>Tedania (Tedaniopsis)</i> sp. WAM SS ₂		99100500	1	1	1	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Tedania (Tedaniopsis)</i> sp. WAM SS ₃		99100501	1	1	1	1	194	232	Perth Canyon	Perth Canyon	
<i>Tedania (Trachytedania)</i> sp. WAM SS ₁		99100497				2	96	106	Mentelle	Zuyldorp	Y
<i>Tedania (Trachytedania)</i> sp. WAM SS ₂		99100498	1	1	1	1	97	99	Bald Island	Bald Island	
Order SPIROPHORIDA											
Family Teriliidae											
? <i>Caniella</i> sp. WAM SS ₂		99100389				1	97	97	Zuyldorp	Zuyldorp	Y

<i>Cinachyrella cf. australiensis</i>	(Carter, 1886)	99100259	1	96	98	Kalbarri	Kalbarri	Y
<i>Cinachyrella</i> sp. WAM SS1		99100387	2	95	106	Bunbury	Ningaloo	Y
<i>Cinachyrella</i> sp. WAM SS2		99100384	2	194	232	Perth Canyon	Two Rocks	Y
<i>Cinachyrella</i> sp. WAM SS3		99100385	1	1	1	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Cinachyrella</i> sp. WAM SS4		99100386	1	1	1	Kalbarri	Kalbarri	Y
<i>Graniella</i> sp. WAM SS1		99100258	1	1	5	Point Hillier	Barrow	Y
<i>Tetilla</i> sp. WAM SS1		99100388	1	252	253	Kalbarri	Kalbarri	Y
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Order VERONGIDA								
Family Aplysinellidae								
<i>Suberea</i> sp. WAM SS1		99100657	2	195	210	Point Hillier	Two Rocks	Y
Family Aplysinidae								
<i>Aplysina</i> sp. WAM SS1		99100653	1	1	1	205	210	Two Rocks
<i>Aplysinidae</i> sp. WAM SS1		99100651		2	101	166	Ningaloo	Ningaloo
<i>Aplysinidae</i> sp. WAM SS2		99100652		2	95	114	D'Entrecasteaux	Ningaloo
<i>Aplysinidae</i> sp. WAM SS3		99100369		1	104	114	Ningaloo	Ningaloo
Family Pseudoceratinidae								
<i>Pseudoceratina</i> sp. WAM SS1		99100654	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Pseudoceratina</i> sp. WAM SS2		99100655	1	205	210	Two Rocks	Two Rocks	Y
<i>Pseudoceratina</i> sp. WAM SS3		99100656	1	205	210	Two Rocks	Two Rocks	Y
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Phylum CNIDARIA								
Class ANTHOZOA								
Order ANTIPATHARIA								
Family Antipathidae								
<i>Antipathidae</i> sp. A		99110614	1	100	100	Point Cloates	Point Cloates	

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<i>Paranipathes heliosicha</i>	Opresko, 1999	11161002				1	900	915	Albany	Albany	Y
<i>Stichopathes</i> sp. A		99110615				3	104	134	Shark Bay	Ningaloo	Y
<i>Stichopathes</i> sp. B		99110616				1	104	114	Ningaloo	Ningaloo	
Family Myriopathidae											
<i>Cupressopathes</i> cf. <i>abies</i>	(Linnaeus, 1758)	99110613				1	100	100	Point Cloates	Point Cloates	
<i>Myriopathes</i> cf. <i>japonica</i>	(Brook, 1889)	99110612				1	96	97	Mentelle	Mentelle	Y
<i>Myriopathes myriophylla</i>	(Pallas, 1766)	11158002		1	1	1	104	114	Ningaloo	Ningaloo	Y
<i>Myriopathes</i> sp. A		99110611				2	95	100	Bunbury	Point Cloates	Y
Subclass OCTOCORALLIA											
Order ALCYONACEA											
Family Acanthogorgiidae											
<i>Acanthogorgia</i> sp. I		99110290				1	93	93	Barrow	Barrow	
<i>Acanthogorgia</i> sp. indet.		11175000				4	95	688	Two Rocks	Shark Bay	Y
<i>Acanthogorgia</i> sp. J		99110291				1	976	980	Bald Island	Bald Island	
<i>Acanthogorgia</i> sp. K		99110293				1	401	414	Jurien Bay	Jurien Bay	
<i>Acanthogorgia</i> sp. L		99110292				3	102	134	Two Rocks	Ningaloo	
<i>Acanthogorgia</i> sp. M		99110294				2	100	120	Shark Bay	Point Cloates	
<i>Acanthogorgia</i> sp. N		99110295				1	93	93	Barrow	Barrow	
<i>Acanthogorgia</i> sp. O		99110353				1	105	105	Ningaloo	Ningaloo	
<i>Acanthogorgiidae</i> n.gen. A, n.sp. A		99110425	1	genus	1	1	101	106	Ningaloo	Ningaloo	
<i>Muricella</i> sp. A		99110424				2	120	134	Shark Bay	Shark Bay	Y

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<i>Dichorella gemmacea</i>	(Milne Edwards & Haime, 1857) (Nutting, 1910)	11185005 11185008		1	1	1	100	100	Shark Bay	Shark Bay	
<i>Ellisella ceylonensis</i>		99110303	1	genus	1	1	252	253	Kalbarri	Red Bluff	
Ellisellidae n.gen. A, r.sp. A		99110304	1	genus	1	1	100	100	Red Bluff	Red Bluff	
Ellisellidae n.gen. A, r.sp. D		11185000			1	100	100	100	Red Bluff	Red Bluff	
Ellisellidae sp. indet.											Y
<i>Heliania racemosa</i>	(Wright & Stüder, 1889) (Pallas, 1766)	11185006 11185003	1	1	2	100	114	Point Cloates	Ningaloo		
<i>Juncicella juncea</i>	(Stüder, 1878)	11185007			1	100	100	100	Red Bluff	Red Bluff	
<i>Vernucella minacea</i>		99110306			1	101	106	106	Ningaloo	Ningaloo	
<i>Vernucella</i> sp. F		99110305			1	106	106	106	Zuytdorp	Zuytdorp	
<i>Vernucella</i> sp. G		99110309			1	104	114	114	Ningaloo	Ningaloo	
<i>Viminella</i> sp. F		99110308			1	100	100	100	Red Bluff	Red Bluff	
<i>Viminella</i> sp. H		99110307			2	329	404	404	Two Rocks	Two Rocks	
<i>Viminella</i> sp. J					1	101	106	106	Ningaloo	Ningaloo	
Family Isidae											
<i>Acanella</i> sp. C		99110310			4	378	508	D'Entrecasteaux	Perth Canyon	Perth Canyon	Y
<i>Amnis sprightly</i>	Alderslade, 1998	11188001			4	95	100	Albany	Bunbury	Bunbury	Y
<i>Lepidisis</i> sp. N		99110311			1	401	414	Jurien Bay	Jurien Bay	Jurien Bay	Y
<i>Minutis</i> n.sp. B		99110312	1	1	1	329	370	Two Rocks	Two Rocks	Two Rocks	
<i>Mopsea encrinula</i>	(Lamarck, 1815)	11188009			6	95	120	Bald Island	Shark Bay	Shark Bay	
<i>Oparinisis</i> cf. <i>flexilis</i>	Alderslade, 1999	99110435			1	95	100	D'Entrecasteaux	D'Entrecasteaux	D'Entrecasteaux	
<i>Oparinisis</i> <i>flexilis</i>	Alderslade, 1998	11188011			2	95	100	D'Entrecasteaux	Mentelle	Mentelle	
<i>Oparinisis</i> n.sp. A		99110436	1	1	2	99	213	Albany	Albany	Albany	

<i>Oparinisis parkeri</i>	Alderslade, 1998	11188003	1	1	96	97	Mentelle
<i>Oparinisis</i> sp. indet.		11188902		1	96	97	Mentelle
<i>Oparinisis viking</i>	Alderslade, 1998	11188012	1	2	95	100	D'Entrecasteaux
<i>Tethriis</i> sp.	Alderslade, 1998	11188013		1	120	120	Shark Bay
<i>Zigriis alternata</i>	(Utinomi, 1975)	11188034		1	96	97	Mentelle
<i>Zigriis bifolata</i>	Alderslade, 1998	11188037		2	95	120	Bunbury
<i>Zigriis lornae</i>	Alderslade, 1998	11188036		4	95	106	Albany
<i>Zigriis</i> n.sp. B		99110437	1	1	2	99	100
<i>Zigriis repens</i>	(Briggs, 1915)	11188008			4	95	106
<i>Zigriis</i> sp. indet.		11188903		1	96	97	Mentelle
Family Kerooididae							
<i>Kereides</i> cf. <i>erythmaea</i>	(Kükenthal, 1904)	99110438	1	1	132	134	Ningaloo
Family Melithaeidae							
<i>Acabaria</i> sp. C		99110313		3	85	100	D'Entrecasteaux
<i>Acabaria</i> sp. D		99110316		1	85	86	Abrolhos
<i>Acabaria</i> sp. E		99110317		2	95	100	D'Entrecasteaux
<i>Acabaria</i> sp. F		99110314		1	91	92	Point Hillier
<i>Acabaria</i> sp. G		99110315		1	85	86	Abrolhos
<i>Clatharia</i> sp. A		99110439		1	100	101	Barrow
<i>Clatharia</i> sp. B		99110440		1	99	100	Albany
<i>Mopspella klenzingeri</i>	Kükenthal, 1908	11190002		3	95	100	Bald Island
<i>Wrightella</i> n.sp. A		99110441	1	genus	1	100	D'Entrecasteaux
Family Nephtheidae							
<i>Chromonephthea</i> spp.		11191902		2	95	100	D'Entrecasteaux
<i>Dendronephthya</i> cf. sp. R		99110321		1	120	120	Shark Bay

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Dendronephthya</i> sp. AA		99110326				1	1077	1085	Ningaloo	Ningaloo	
<i>Dendronephthya</i> sp. BB		99110327				1	100	101	Barrow	Barrow	Y
<i>Dendronephthya</i> sp. CC		99110328				2	101	166	Ningaloo	Ningaloo	
<i>Dendronephthya</i> sp. DD		99110329				1	112	123	Kalbarri	Kalbarri	
<i>Dendronephthya</i> sp. EE		99110330				1	100	100	Point Cloates	Point Cloates	
<i>Dendronephthya</i> sp. FF		99110331				1	112	123	Kalbarri	Kalbarri	
<i>Dendronephthya</i> sp. GG		99110322				1	120	120	Shark Bay	Shark Bay	
<i>Dendronephthya</i> sp. HH		99110332				1	99	100	Albany	Albany	
<i>Dendronephthya</i> sp. T		99110323				1	170	177	Ningaloo	Ningaloo	
<i>Dendronephthya</i> sp. U		99110352				1	201	206	Ningaloo	Ningaloo	
<i>Dendronephthya</i> sp. V		99110318				3	100	183	Abrolhos	Carnarvon	Y
<i>Dendronephthya</i> sp. W		99110319				2	101	107	Ningaloo	Ningaloo	
<i>Dendronephthya</i> sp. X		99110320				1	120	120	Shark Bay	Shark Bay	
<i>Dendronephthya</i> sp. Y		99110324				1	329	370	Two Rocks	Two Rocks	
<i>Dendronephthya</i> sp. Z		99110609				1	100	101	Barrow	Barrow	
<i>Dendronephthya</i> spp.		11191901				2	97	114	Zuytdorp	Ningaloo	
<i>Difia</i> n.sp. B		99110550	1	1	1	4	85	100	Albany	Zuytdorp	
<i>Scleronephthya</i> cf. <i>gracillima</i>	(Kuckenthal, 1906)	99110442		1	1	1	100	100	Carnarvon	Carnarvon	
<i>Scleronephthya indica</i>	(Thomson & Henderson, 1906)	11191003				1	85	86	Abrolhos	Abrolhos	
<i>Scleronephthya</i> spp.		11191903				7	85	232	D'Entrecasteaux	Ningaloo	
<i>Stereonephthya</i> sp. A		99110551				1	85	86	Abrolhos	Abrolhos	
<i>Umbellulifera</i> sp. A		99110443	3	100	411	Jurien Bay	Barrow	Barrow			Y

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Pseudathessa simplex</i>	(Nutting, 1910)	11196002		1	1	1	120	120	Shark Bay	Shark Bay	Y
<i>Swiftia</i> sp. B		99110447				2	401	439	Jurien Bay	Abrolhos	Y
<i>Thesea</i> sp. A		99110448	1	1	2	93	134	Barrow	Barrow		
<i>Villagorgia</i> sp. A		99110449			1	100	100	100	Point Cloates	Point Cloates	
<i>Villagorgia</i> sp. B		99110450			4	101	134	134	Shark Bay	Ningaloo	Y
Family Primnoidae											
<i>Narella</i> sp. B		99110350			1	976	980	980	Bald Island	Bald Island	
<i>Narella</i> sp. F		99110349			1	900	915	915	Albany	Albany	Y
<i>Pseudoplumarella filicoides</i>	(Thomson & McKinnon, 1911)	11197015		1	3	95	100	100	Bald Island	Mentelle	Y
Family Subergorgiidae											
<i>Amella reticulata</i>	(Ellis & Solander, 1786)	11199002			1	95	100	100	Shark Bay	Shark Bay	
<i>Subergorgia kollikeri</i>	Wright & Stüder, 1889	11199003			1	105	106	106	Ningaloo	Ningaloo	
<i>Subergorgia</i> sp. A		99110452			1	93	93	93	Barrow	Barrow	Barrow
Order PENNATULACEA											
Family Echinoptilidae											
<i>Echinoptilum</i> cf. <i>macinosisi</i>	Hubrecht, 1885	99110433		1	1	1	420	430	Point Cloates	Point Cloates	
Family Funiculinidae											
<i>Funiculina quadrangularis</i>	(Pallas, 1766)	11213001			1	398	407	407	Albany	Albany	
Family Pteroididae											
<i>Pteroides</i> cf. <i>dolfini</i>	(Balss, 1909)	99110451	1	1	1	105	106	106	Ningaloo	Ningaloo	
<i>Pteroides</i> sp. F		99110351			3	101	107	107	Ningaloo	Ningaloo	Y
Family Umbellidae											
<i>Umbellula huxleyi</i>	Koeliker, 1880	11216003	1	1	3	986	1037	1037	Two Rocks	Abrolhos	Y

Order SCLERACTINIA							
Family	Genus	Species	Locality	Depth (m)	No. Specimens	Localities	Y/N
Family Virgulariidae							
<i>Acanthopilum</i> n.sp. A		99110453		1	1	180	Abrolhos Y
<i>Acanthopilum</i> n.sp. B		99110454		1	1	676	Albany Y
<i>Acanthopilum</i> sp. indet.		11224901			1	399	Barrow
<i>Scylium sarsi</i>		Herklotz, 1858	11224001	1	1	252	Kalbarri Y
<hr/>							
Family Anthemiphylliidae							
<i>Anthemiphyllia dentata</i>	(Alcock, 1902)		11304001		2	329	Two Rocks Y
<i>Anthemiphyllia</i> n.sp. A		99110618		1	1	710	Bald Island Y
<hr/>							
Family Caryophylliidae							
<i>Caryophyllia domedae</i>	Marenzeller, 1904	11314039			1	900	915 Albany
<i>Caryophyllia grandis</i>	Gardiner & Waugh, 1938	11314005			3	93	431 Abrolhos
<i>Caryophyllia grayi</i>	(Milne Edwards & Haime, 1848)	11314011			3	100	Shark Bay Ningaloo
<i>Caryophyllia planilamellata</i>	Dennant, 1906	11314042		1	3	398	Point Hillier Y
<i>Caryophyllia scobinosa</i>	Alcock, 1902	11314044			1	983	1010 Ningaloo
<i>Caryophyllia unicristata</i>	Cairns & Zibrowius, 1997	11314012			4	399	414 Zuytdorp
<i>Dasmosmita hymani</i>	(De Pourtales, 1871)	11314077		1	1	658	754 Ningaloo
<i>Detocynthus magnificus</i>	Moseley, 1876	11314002			6	397	528 Mentelle
<i>Detocynthus rotulus</i>	(Alcock, 1898)	11314053			1	2	690 Red Bluff
<i>Detocynthus sarsi</i>	(Gardiner & Waugh, 1938)	11314020			1	700	704 Abrolhos
<i>Detocynthus sulcatus</i>	Alcock, 1902	11314021			2	399	411 Ningaloo
<i>Desmophyllum dianthus</i>	(Esper, 1794)	11314027			2	329	915 Two Rocks
<i>Heterocanthus sulcatus</i>	(Verrill, 1866)	11314024			1	101	102 Ningaloo
<i>Phyllangia cf. papuensis</i>	Studer, 1878	99110620		1	3	97	183 Abrolhos
	Zuytdorp						

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2	
<i>Stephanocystis</i>	(Marenzeller, 1904)	11314018				1	479	484	Perth Canyon	Perth Canyon		
(<i>Acriocystis</i>) <i>explanans</i>	(Marenzeller, 1888)	11314019				7	364	508	Bald Island	Shark Bay	Y	
<i>Stephanocystis</i>	(<i>Acriocystis</i>) <i>spiniger</i>	11314062				1	408	427	Jurien Bay	Jurien Bay	Y	
<i>Stephanocystis</i>	(<i>Odontocystis</i>) <i>weberianus</i>	11314062				2	467	680	Albany	Mentelle	Y	
<i>Stephanocystis</i> cf.	(Pourtales, 1867)	99110619				1	2	100	123	Kalbarri	Point Cloates	
<i>coronatus</i>												
<i>Trochocystis cooperi</i>	(Gardiner, 1905)	11314076				1	100	100	Point Cloates	Point Cloates		
<i>Trochocystis</i> sp. A		99110621										
Family Dendrophylliidae												
<i>Balanophyllia carinata</i>	(Semper, 1872)	11320016				1	100	100	Shark Bay	Shark Bay		
<i>Balanophyllia</i> cf. <i>dentata</i>	Tenison Woods, 1879	99110624				1	100	100	Point Cloates	Point Cloates		
<i>Balanophyllia cornu</i>	Moseley, 1881	11320057				1	355	382	Point Cloates	Point Cloates		
<i>Balanophyllia desmophylloides</i>	Vaughan, 1907	11320033				1	355	382	Point Cloates	Point Cloates		
<i>Balanophyllia</i> n.sp. B		99110623	1	1	1	1	120	120	Shark Bay	Shark Bay		
<i>Balanophyllia</i> sp. A		99110622				3	100	123	Kalbarri	Shark Bay	Y	
<i>Heteropammia cochlea</i>	(Spengler, 1781)	11320004				2	101	106	Ningaloo	Ningaloo		
Family Flabellidae												
<i>Flabellum deludens</i>	Marenzeller, 1904	11328007				1	408	431	Bald Island	Bald Island		
<i>Flabellum hoffmeisteri</i>	Cairns & Parker, 1992	11328008				1	973	999	Bald Island	Bald Island		
<i>Flabellum lamellulosum</i>	Alcock, 1902	11328003				5	396	460	Albany	Barrow	Y	
<i>Flabellum patens</i>	Moseley, 1881	11328005				3	397	423	Bunbury	Red Bluff		
<i>Flabellum tubuli</i>	Hoffmeister, 1933	11328010				3	386	494	Bald Island	Kalbarri	Y	
<i>Rhizotrochus tuberculatus</i>	(Tenison Woods, 1879)	11328021				1	100	100	Shark Bay	Shark Bay		

<i>Truncatoflabellum australiensis</i>	Cairns, 1998	11328013	1	100	101	Barrow	Barrow
<i>Truncatoflabellum candenam</i>	(Milne Edwards & Haime, 1848)	11328047	1	1	6	100	206
<i>Truncatoflabellum macroeschara</i>	Cairns, 1998	11328015			1	101	102
<i>Truncatoflabellum</i> n.sp. A		99110625	1	1	1	408	431
<i>Truncatoflabellum</i> sp. B		99110626			1	100	100
Family Fungiacyathidae							
<i>Fungiacyathus fragilis</i>	Sars, 1872	11301001	2	368	680	Albany	Carnarvon
<i>Fungiacyathus</i> sp. A		99110617	2	848	1050	Albany	Perth Canyon
<i>Fungiacyathus stephanus</i>	(Alcock, 1893)	11301004	2	658	754	Ningaloo	Ningaloo
Family Micrabaciidae							
<i>Lerpsammia formosissima</i>	(Moseley, 1876)	11299002	5	329	494	Bald Island	Two Rocks
<i>Rhomboopsammia niphadua</i>	Owens, 1986	11299003	2	983	1050	Ningaloo	Ningaloo
Family Oculinidae							
<i>Madrpora ocellata</i>	Linnaeus, 1758	11330009	1	928	1170	Perth Canyon	Perth Canyon
Family Turbinidae							
<i>Notocyathus conicus</i>	(Alcock, 1902)	11317034	1	1	1	101	102
Phylum MOLLUSCA							
Class BIVALVIA							
Order ARCOIDA							
Family Arcidae							
<i>Arcia navicularis</i>	Bruguière, 1789	23226002	3	97	106	Zuydorp	Point Cloates
<i>Arcia ventricosa</i>	Lamarck, 1819	23226015	1	113	114	Jurien Bay	Jurien Bay
<i>Barbatia (Acar)</i> sp. 1		99230114	2	329	414	Two Rocks	Jurien Bay

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Barhatia (Destucar) sp. 1</i>		99230115				2	469	1037	Abrolhos	Kalbarri	
<i>Barhatia cf. staniolum</i>	(Iredale, 1939)	99230121				2	96	102	Two Rocks	Kalbarri	Y
<i>Barhatia plicata</i>	(Dillwyn, 1817)	23226027				3	100	382	Shark Bay	Point Cloates	Y
<i>Barhatia reticulata</i>	(Gmelin, 1791)	23226009				1	89	96	Point Hillier	Point Hillier	Y
<i>Barhatia</i> sp. 1		99230116				1	97	97	Zuytdorp	Zuytdorp	
<i>Barhatia</i> sp. 2		99230117				2	100	114	Shark Bay	Ningaloo	Y
<i>Barhatia</i> sp. 3		99230118				2	132	166	Ningaloo	Ningaloo	
<i>Barhatia</i> sp. 5		99230119				1	100	100	Point Cloates	Point Cloates	
<i>Barhatia</i> sp. 6		99230120				2	100	100	Shark Bay	Carnarvon	
<i>Bathyarca</i> sp. 1		99230113				2	113	177	Jurien Bay	Ningaloo	
<i>Benthara</i> cf. <i>rubrotincta</i>	Kuroda & Habe in Habe, 1958	99230112				3	85	114	Jurien Bay	Kalbarri	Y
Family Glycymeridae											
<i>Glycymeris hedleyi</i>	(Lamy, 1912)	23231014				1	1	100	Carnarvon	Carnarvon	Y
<i>Glycymeris striatularis</i>	(Lamarck, 1819)	23231001				2	95	196	Albany	Point Hillier	Y
<i>Tucetona gealei</i>	(Angas, 1873)	23231003				1	1	96	98	Kalbarri	Y
<i>Tucetona hoylei</i>	(Melvill & Standen, 1899)	23231018				1	5	100	206	Kalbarri	Y
<i>Tucetona scalarisculpta</i>	Lamprell & Whitehead, 1990	23231022				3	100	102	Two Rocks	Shark Bay	Y
<i>Tucetona sordida</i>	(Tate, 1891)	23231020				1	113	114	Jurien Bay	Jurien Bay	
Family Limopsidae											
<i>Limopsis cf. tenuiradiata</i>	Cotton, 1930	99230123				3	194	232	Albany	Perth Canyon	
<i>Limopsis solipes</i>	(Iredale, 1931)	23230002				5	397	925	Bald Island	Perth Canyon	Y
<i>Limopsis</i> sp. 1		99230124				1	419	460	Point Hillier	Point Hillier	Y

<i>Limopsis</i> sp. 2	99230125	1	411	411	Red Bluff	Red Bluff
<i>Limopsis</i> sp. 3	99230126	1	419	460	Point Hillier	Point Hillier
<i>Limopsis</i> sp. 4	99230127	2	89	96	Albany	Y
<i>Limopsis</i> sp. 5	99230128	1	100	100	Lancelin	Lancelin
<i>Limopsis</i> sp. 6	99230129	1	416	431	Abrolhos	Abrolhos
<i>Limopsis</i> sp. 7	99230130	1	112	123	Kalbarri	Kalbarri
Family Noetiidae						
? <i>Arcopsis</i> sp. 1	99230122	1	104	114	Ningaloo	Ningaloo
Order LIMOIDA						
Family Limidae						
<i>Cerionides</i> cf. <i>annulata</i>	(Lamarck, 1819)	99230132	4	93	206	Point Cloates
<i>Lima</i> <i>nimbifer</i>	Iredale, 1924	23250005	4	96	253	Jurien Bay
<i>Lima vulgaris</i>	(Link, 1807)	23250020	3	104	166	Ningaloo
<i>Limaria fragilis</i>	(Gmelin, 1791)	23250001	1	373	382	Ningaloo
Order MYOIDA						
Family Corbulidae						
<i>Corbula macillexypsi</i>	Smith, 1885	23387004	1	100	101	Barrow
<i>Notacorbula</i> cf. <i>hydropica</i>	Iredale, 1930	99230183	2	165	177	Ningaloo
<i>Notacorbula</i> cf. <i>smithiana</i>	(Brazier, 1879)	99230184	1	95	99	Bunbury
<i>Notacorbula fortisulcata</i>	(Smith, 1878)	23387009	1	100	100	Red Bluff
<i>Notacorbula stolata</i>	(Iredale, 1930)	23387002	1	95	95	Albany
Order MYTILOIDA						
Family Mytilidae						
<i>Anmygdalum beddomei</i>	Iredale, 1924	23220010	1	97	97	Zuytdorp
<i>Anmygdalum watsoni</i>	Smith, 1895	23220073	8	165	1295	Ningaloo
						Y

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<i>Lithophaga malaccana</i>	(Reeve, 1858)	23220022				1	85	92	Jurien Bay	Jurien Bay	Y
<i>Lithophaga teres</i>	(Philippi, 1846)	23220021				5	85	123	Two Rocks	Shark Bay	Y
<i>Modiolus areolatus</i>	Gould, 1850	23220008				3	161	196	Bald Island	Point Hillier	Y
<i>Modiolus favaida</i>	Dunker, 1856	23220041				1	96	98	Kalbarri	Kalbarri	
<i>Modiolus proctivis</i>	Iredale, 1939	23220025			1	1	93	93	Barrow	Barrow	Y
<i>Modiolus</i> sp. 1		99230108				1	96	98	Kalbarri	Kalbarri	Y
Mytilidae sp. 1		99230109				1	100	100	Point Cloates	Point Cloates	
Mytilidae sp. 2		99230110				1	201	206	Ningaloo	Ningaloo	
Mytilidae sp. 3		99230111				1	91	92	Point Hillier	Point Hillier	Y
<i>Septifer</i> sp. 1		99230107				5	85	114	Jurien Bay	Point Cloates	Y
Order NUCULOIDA											
Family Mallettiidae											
<i>Malletia</i> (<i>Mallettiella</i>) sp. 1		99230104				3	726	1085	Ningaloo	Ningaloo	
Family Nuculanidae											
<i>Nuculana</i> sp. 2		99230106				1	100	101	Barrow	Barrow	
<i>Nuculana verroni</i>	(Tate, 1891)	23207019				1	1577	1584	Perth Canyon	Perth Canyon	Y
<i>Yoldia</i> sp. 1		99230105				1	1019	1031	Albany	Albany	Y
Family Nuculidae											
<i>Nucula</i> sp. 1		99230100				2	419	999	Bald Island	Point Hillier	Y
<i>Nuculoma</i> sp. 1		99230101				1	726	732	Ningaloo	Ningaloo	
<i>Nuculoma</i> sp. 4		99230102				1	373	382	Ningaloo	Ningaloo	
<i>Nuculoma</i> sp. 5		99230103				1	100	101	Barrow	Barrow	

Order OSTREOIDA

Family Dimyidae

Dimya corrugata

Hedley, 1902

23265001

Y

Dimya sp. 1

99230135

Point Cloates

Dimya sp. 2

99230136

Ningaloo

Family Gryphaeidae

?Hyotissa sp. 1

99230134

Point Cloates

?Neopycnodonte sp. 1

99230133

Ningaloo

Hyotissa hyotis

(Linnaeus, 1758)

Carnarvon

Jurien Bay

Point Cloates

Family Pectinidae

Chlamys challengerii

(Smith, 1891)

Point Cloates

Zuytdorp

Ningaloo

Cryptopecten cf. bullatus

(Dautzenberg & Bavay, 1912)

Point Cloates

Abrolhos

Detoplecten cf. alticci

(Smith, 1904)

Point Cloates

Kalbarri

Mesopeplum fenestratum

(Hedley, 1901)

Point Cloates

Zuytdorp

Mimachlamys asperima

(Lamarche, 1819)

Point Cloates

Point Cloates

Pecten fumatus

Reeve, 1852

Point Cloates

Point Cloates

Pectinidae sp. 1

99230144

Point Cloates

Point Cloates

Saeochlamys cf. squamea

(Gmelin, 1791)

Point Cloates

Point Cloates

Semipallium attinos

(Petterd, 1886)

Point Cloates

Point Cloates

Semipallium sp. 1

99230142

Point Cloates

Point Cloates

Serratonula cf. pallula

Dijkstra, 1998

Point Cloates

Point Cloates

Talochlamys cf. pulleneana

(Tate, 1887)

Point Cloates

Point Cloates

Talochlamys pulleneana

(Tate, 1887)

Point Cloates

Point Cloates

Venrichlamys sp. 1

99230143

Point Cloates

Point Cloates

Family Plicatulidae

Plicatula chinensis

Mörch, 1853

Point Cloates

Plicatula chinensis

23260002

Point Cloates

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
Family Proteamusiidae											
<i>Parvamusium cf. cristellatum</i>	(Dautzenberg & Bavay, 1912)	99230147				1	120	120	Shark Bay	Shark Bay	
<i>Parvamusium</i> sp. 1		99230148				1	408	431	Bald Island	Bald Island	
<i>Parvamusium</i> sp. 2		99230149				1	398	407	Albany	Albany	Y
<i>Parvamusium</i> sp. 3		99230150				2	399	430	Point Cloates	Barrow	
<i>Parvamusium</i> sp. 4		99230151				2	467	529	Mentelle	Mentelle	
<i>Parvamusium</i> sp. 5		99230152				2	467	490	Mentelle	Perth Canyon	
<i>Parvamusium</i> sp. 6		99230153				1	408	431	Bald Island	Bald Island	
<i>Parvamusium</i> sp. 7		99230154				1	848	1050	Perth Canyon	Perth Canyon	
<i>Parvamusium</i> sp. 9		99230155				1	132	134	Ningaloo	Ningaloo	
<i>Proteamusium</i> cf. <i>watsoni</i>	(Smith, 1885)	99230146				2	658	754	Ningaloo	Ningaloo	
<i>Proteamusium</i> <i>sibogai</i>	(Dautzenberg & Bavay, 1912)	23271002				1	368	388	Carnarvon	Carnarvon	
<i>Proteamusium</i> sp. 2		99230145				1	479	484	Perth Canyon	Perth Canyon	Y
Family Spondylidae											
<i>Spondylus</i> cf. <i>anacanthus</i>	Mawe, 1823	99230158				1	104	114	Ningaloo	Ningaloo	
<i>Spondylus</i> cf. <i>victoriae</i>	Sowerby, 1843	99230157				4	100	106	Zuytdorp	Point Cloates	Y
<i>Spondylus</i> sp. 1		99230156				1	165	166	Ningaloo	Ningaloo	
Order PHOLADOMYOIDA											
Family Cuspidariidae											
<i>Cardiomya pimna</i>	(Verco, 1908)	23435021				1	848	1050	Perth Canyon	Perth Canyon	
<i>Cardiomya</i> sp. 1		99230197				1	658	754	Ningaloo	Ningaloo	Y
<i>Cuspidaria</i> cf. <i>kyushuenis</i>	Okutani, 1962	99230196				1	1000	1037	Abrolhos	Abrolhos	

<i>Cuspidaria cf. morriae</i>	Pouliet & Bernard, 1995	99230194	3	726	1050	Ningaloo	Ningaloo
<i>Cuspidaria cf. prolatisima</i>	Pouliet, 1981	99230195	1	165	166	Ningaloo	Ningaloo
<i>Cuspidaria lateculata</i>	Tension Woods, 1878	23435009	1	95	100	D'Entrecasteaux	Y
<i>Cuspidaria</i> sp. 1		99230189	1	408	427	Jurien Bay	Jurien Bay
<i>Cuspidaria</i> sp. 2		99230190	3	386	1050	Bald Island	Perth Canyon
<i>Cuspidaria</i> sp. 3		99230191	1	414	421	Bunbury	Bunbury
<i>Cuspidaria</i> sp. 5		99230192	2	113	196	Point Hillier	Jurien Bay
<i>Cuspidaria</i> sp. 7		99230193	2	983	1085	Ningaloo	Ningaloo
<i>Myonera</i> sp. 1		99230199	1	1000	1037	Abrolhos	Abrolhos
<i>Pseudoneanira</i> sp. 4		99230198	1	479	484	Perth Canyon	Perth Canyon
<i>Pseudoneanira trigonalis</i>	Tate, 1897	23435003	1	928	1170	Perth Canyon	Perth Canyon
Family Euciroidae			2	165	177	Ningaloo	Ningaloo
<i>Euciroid cf. millegemmatata</i>	(Kuroda & Habe in Kuroda, 1952)	99230187					Y
Family Laternulidae							
<i>Laternula</i> sp. 1		99230182	2	726	1295	Ningaloo	Ningaloo
Family Lyonsiellidae							
<i>Lyonsiella formosa</i>	(Jeffreys, 1881)	23426001	1	848	1050	Perth Canyon	Perth Canyon
Family Poromyidae							
<i>Cetocoelcha gloriosa</i>	(Prashad, 1932)	23430007	1	1	194	Perth Canyon	Perth Canyon
<i>Poromya cf. illevis</i>	Hedley, 1913	99230188	1	106	107	Ningaloo	Ningaloo
<i>Poromya laevis</i>	Smith, 1885	23430002	1	373	382	Ningaloo	Ningaloo
Family Verticordiidae							
? <i>Polycordia</i> sp. 1		99230185	1	848	1050	Perth Canyon	Perth Canyon
<i>Polycordia cf. diomedea</i>	Dall, Bartsch & Rehder, 1938	99230186	1	848	1050	Perth Canyon	Perth Canyon

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Order PTEROIDA											
Family Malleidae											
<i>Malleus albus</i>	Lamarck, 1819	23237002				2	96	157	Bald Island	Kalbarri	Y
<i>Malleus regula</i>	(Forsskål, 1775)	23237006				1	100	100	Red Bluff	Red Bluff	
Family Pteridae											
<i>Pteria cf. falcata</i>	(Lamarck, 1819)	99230131				1	96	97	Mentelle	Mentelle	Y
Order TRIGONOIDA											
Family Trigoniidae											
<i>Neorigonia kaiyomaruae</i>	Habe & Nomoto, 1976	23280006				1	95	99	Bunbury	Bunbury	Y
<i>Neorigonia</i> sp. 1		99230159				1	100	100	Lancelin	Lancelin	
Order Veneroida											
Family Cardiidae											
<i>Acasterigma mariiae</i>	Wilson & Stevenson, 1977	23335035				5	96	102	Two Rocks	Point Cloates	Y
<i>Frigidocardium eos</i>	(Kuroda, 1929)	23335053				2	93	100	Point Cloates	Barrow	
<i>Nemocardium (Pratulum) thetidis</i>	(Hedley, 1902)	23335002				7	100	232	Albany	Point Cloates	Y
Family Carditidae											
<i>Cardita excavata</i>	Deshayes, 1854	23325003				2	85	92	Jurien Bay	Abrolhos	Y
<i>Cardita incrassata</i>	Sowerby, 1825	23325010				2	100	100	Lancelin	Shark Bay	Y
<i>Gibas</i> sp. 1		99230170				6	96	166	Kalbarri	Ningaloo	
<i>Venericardia cf. cardiotides</i>	(Reeve, 1843)	99230171				1	96	98	Kalbarri	Kalbarri	
<i>Venericardia rosalenta</i>	(Tate, 1887)	23325016				10	85	206	Bald Island	Ningaloo	Y

Family Chamidae							
<i>Chama (Pseudochama)</i> sp. 1	99230161	2	100	134	Point Cloates	Point Cloates	
<i>Chama asperilla</i>	23301003	2	100	100	Shark Bay	Red Bluff	
<i>Chama cf. brissica</i>	Lamarck, 1819	2	100	106	Point Cloates	Ningaloo	
<i>Chama</i> sp. 1	99230162	2	100	120	Shark Bay	Red Bluff	
Family Crassatellidae							
<i>Crassatina</i> sp. 1	99230172	1	396	404	Carnarvon	Carnarvon	
<i>Crassatina</i> sp. 2	99230173	1	329	370	Two Rocks	Two Rocks	Y
<i>Crassatina subinnotata</i>	Lanprell, 2003	23330019	6	95	Bald Island	Red Bluff	Y
Family Galeommatidae							
<i>Galeommatidae</i> sp. 1	99230166	1	419	439	Abrolhos	Abrolhos	
<i>Galeommatidae</i> sp. 2	99230167	1	96	98	Kalbarri	Kalbarri	Y
<i>Marikellia</i> sp. 1	99230165	1	112	123	Kalbarri	Kalbarri	
<i>Scintilla</i> sp. 1	99230164	1	100	100	Shark Bay	Shark Bay	Y
Family Glossidae							
<i>Glossus (Metocardia) moltkeana</i>	(Spengler, 1783)	23370003	1	100	101	Barrow	Barrow
Family Lucinidae							
<i>Cardiolucina crassilirata</i>	(Tate, 1887)	23305014	1	329	370	Two Rocks	Two Rocks
<i>Monitilona</i> sp. 1	99230163	1	329	370	Two Rocks	Two Rocks	Y
Family Macridae							
<i>Macra iridesces</i>	Kuroda & Habe, 1958	23345042	3	100	408	Red Bluff	Barrow
<i>Macra</i> sp. 1	99230174	1	106	106	Zuydorp	Zuydorp	Y
Family Pharidae							
<i>Enistulus cultratus</i>	(Linnaeus, 1758)	23351001	1	100	101	Barrow	Barrow

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Family Psammobiidae										
<i>Gari pallida</i>	(Deshayes, 1855)	23357004			1	100	101	Barrow	Barrow	
<i>Gari pulcherrima</i>	(Deshayes, 1855)	23357017			2	100	123	Kalbarri	Point Cloates	
Family Semelidae										
<i>Leptomya gravida</i>	Hanley, 1879	23356020			1	7	373	Bunbury	Ningaloo	Y
<i>Leptomya</i> sp. 1		99230176			6	170	1050	Ningaloo	Ningaloo	
Family Tellinidae										
<i>Tellinides</i> cf. <i>cockburnensis</i>	(Kendrick & Brealey, 1984)	99230175			1	170	177	Ningaloo	Ningaloo	
Family Ungulinidae										
<i>Felanella</i> sp. 1		99230168			1	100	101	Barrow	Barrow	
<i>Felanella</i> sp. 2		99230169			1	96	98	Kalbarri	Kalbarri	Y
Family Veneridae										
<i>Callista</i> sp. 1		99230179			1	95	95	Albany	Albany	
<i>Dosinia</i> sp. 2		99230180			1	100	101	Red Bluff	Red Bluff	
<i>Globivenus toreuma</i>	(Gould, 1850)	23380050			4	96	157	Bald Island	Point Cloates	Y
<i>Granicorium indutum</i>	Hedley, 1906	23380112			2	95	100	Bunbury	Lancelin	Y
<i>Paphia</i> cf. <i>semirugata</i>	(Philippi, 1847)	99230181			1	100	101	Barrow	Barrow	
<i>Pitar nancyae</i>	Lamprell & Whitehead, 1990	23380095			2	96	106	Kalbarri	Zuytdorp	
<i>Timoclea</i> cf. <i>scabra</i>	(Hanley, 1844)	99230178			1	420	430	Point Cloates	Point Cloates	
<i>Timoclea</i> sp. 1		99230177			1	106	106	Zuytdorp	Zuytdorp	Y

<i>Argonauta hians</i>	Lightfoot, 1786	23662003	1	728	737	Abrolhos	Abrolhos	Y
Family Bolitaenidae								
Bolitaenidae sp. indet.		23655000	1	1260	1295	Ningaloo	Ningaloo	
Family Octopodidae								
<i>Benthactopus</i> sp. 1		99230231	1	373	382	Ningaloo	Ningaloo	
<i>Callistactopus</i> sp. 1		99230232	2	399	414	Zuydorp	Barrow	Y
<i>Callistactopus</i> sp. 2		99230233	1	100	101	Red Bluff	Red Bluff	Y
<i>Eladone palari</i>	Lu & Stranks, 1991	23659009	4	170	382	Kalbarri	Ningaloo	Y
Octopodidae sp. indet.		23659000	4	368	754	Point Hillier	Ningaloo	Y
<i>Octopus</i> sp. 2		99230228	1	99	100	Albany	Albany	Y
<i>Octopus</i> sp. 3		99230229	2	99	179	Albany	Albany	Y
<i>Octopus</i> sp. 4		99230230	1	147	157	Bald Island	Bald Island	Y
<i>Pteroctopus</i> sp. 1		99230234	1	389	407	Abrolhos	Abrolhos	Y
<i>Scaegeurus</i> sp. 1		99230235	1	396	404	Carnarvon	Carnarvon	
Order SEPIDA								
Family Sepiadariidae								
<i>Sepiadarium</i> sp. 1		99230222	3	100	421	Bunbury	Red Bluff	
<i>Sepiadarium</i> sp.		23608901	1	978	980	Bald Island	Bald Island	
<i>Sepioloides lineolata</i>	(Quoy & Gaimard, 1832)	23608901	1	106	106	Zuydorp	Zuydorp	Y
<i>Sepioloides</i> sp. 1		99230223	2	324	399	Ningaloo	Ningaloo	
Family Sepiidae								
<i>Sepia apama</i>	Gray, 1849	23607001	1	378	379	D'Entrecasteaux	D'Entrecasteaux	
<i>Sepia cf. chirostoma</i>	Berry, 1918	99230221	1	100	100	Shark Bay	Shark Bay	Y
<i>Sepia cf. cotonii</i>	Adam, 1979	99230220	1	106	106	Zuydorp	Zuydorp	Y
<i>Sepia cultrata</i>	Hoyle, 1885	23607002	4	389	508	Bunbury	Abrolhos	Y

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<i>Sepia opipara</i>	(Iredale, 1926)	23607006				1	161	169	Bald Island	Bald Island	Y
<i>Sepia rhoda</i>	(Iredale, 1954)	23607029				1	100	100	Carnarvon	Carnarvon	
<i>Sepia</i> sp. indet.		23607901				5	112	528	Albany	Kalbarri	Y
Order SEPIOIDAE											
Family Sepiolidae											
<i>Austrorossia cf. australis</i>	(Berry, 1918)	99230224				3	389	728	Bald Island	Abrolhos	Y
<i>Austrorossia</i> spp.		23609901				1	414	421	Bunbury	Bunbury	Y
<i>Euprymna tasmaniaca</i>	(Pfeffer, 1884)	23609001				2	106	382	Point Cloates	Ningaloo	Y
<i>Heteroteuthis</i> sp. 1		99230225				2	100	399	Point Cloates	Ningaloo	
<i>Heteroteuthis</i> spp.		23609902				5	106	1080	Bald Island	Ningaloo	Y
<i>Rondeletiida</i> spp.		23609904				2	393	408	Lancelin	Barrow	
Sepiolidae undifferentiated											
<i>Sepiolina nipponensis</i>	(Berry, 1911)	23609007				1	373	382	Ningaloo	Ningaloo	Y
<i>Sepiolina</i> spp.		23609903				2	100	407	Albany	Barrow	Y
Order Teuthida											
Family Chiroteuthidae											
<i>Chiroteuthis</i> spp.		23638901				1	1000	1037	Abrolhos	Abrolhos	
Family Cranchiidae											
<i>Cranchia scabri</i>	Leach, 1817	23643002				1	419	439	Abrolhos	Abrolhos	Y
<i>Liocranchia</i> sp. 1		99230226				1	389	407	Abrolhos	Abrolhos	Y
<i>Liocranchia</i> sp. 2		99230227				1	405	414	Zuydorp	Zuydorp	Y

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? <i>Periaulax</i> sp. 2		99240172				1	416	431	Abrolhos	Abrolhos	Y
? <i>Periaulax</i> sp. 3		99240173				4	419	1080	Albany	Perth Canyon	Y
<i>Calliotropis</i> sp. 1		99240164				4	848	1080	Bald Island	Perth Canyon	Y
<i>Calliotropis</i> sp. 2		99240165				1	1000	1037	Abrolhos	Abrolhos	
<i>Clanculus</i> sp. 1		99240166				2	100	114	Point Cloates	Ningaloo	
<i>Clanculus</i> sp. 2		99240167				1	100	100	Point Cloates	Point Cloates	
<i>Clanculus</i> sp. 3		99240168				1	100	100	Point Cloates	Point Cloates	
<i>Talopena vernicosa</i>	(Gould, 1861)	24046157				1	100	101	Red Bluff	Red Bluff	
<i>Trochidae: Minoleini</i> sp. 2		99240174				1	324	356	Ningaloo	Ningaloo	
<i>Trochidae: Minoleini</i> sp. 3		99240175				1	194	232	Perth Canyon	Perth Canyon	Y
<i>Trochidae: Minoleini</i> sp. 4		99240176				1	101	102	Ningaloo	Ningaloo	
<i>Trochidae: Sequenziniae</i> sp. 2		99240169				1	467	529	Mentelle	Mentelle	
<i>Trochidae: Sequenziniae</i> sp. 4		99240170				2	378	431	Bald Island	D'Entrecasteaux	Y
Family Turbinidae											
<i>Bohma guttata milleganosa</i>	(Kuroda & Habe, 1958)	24045058				1	165	166	Ningaloo	Ningaloo	
<i>Bohma</i> sp. 1		99240163				1	194	232	Perth Canyon	Perth Canyon	Y
Order CEPHALASPIDEA											
Family Haminoeidae											
<i>Atys</i> sp. 1		99240319				1	848	1050	Perth Canyon	Perth Canyon	
<i>Atys</i> sp. 2		99240320				1	1000	1037	Abrolhos	Abrolhos	
<i>Liloa</i> cf. <i>curta</i>	(A. Adams, 1850)	99240321				1	419	460	Point Hillier	Point Hillier	Y

Family Philinidae							
<i>Philine</i> sp. 1	99240314	2	414	539	Point Hillier	Bunbury	Y
<i>Philine</i> sp. 2	99240315	3	100	402	Red Bluff	Ningaloo	Y
<i>Philine</i> sp. 3	99240316	1	91	92	Point Hillier	Point Hillier	
<i>Philine</i> sp. 4	99240317	1	411	411	Red Bluff	Red Bluff	
<i>Philine</i> sp. 5	99240318	1	408	431	Bald Island	Bald Island	
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Order HETEROSTROPHA							
Family Acteonidae							
<i>Acteonidae</i> sp. 1	99240313	2	324	382	Ningaloo	Ningaloo	
Family Pyramidelidae							
<i>Pyramidelidae</i> sp. 1	99240312	1	112	123	Kalbarri	Kalbarri	Y
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Order NEOGASTROPODA							
Family Buccinidae							
<i>Cantharus tostomus</i> (Gray in Griffith & Pidgeon, 1834)	24202185	1	100	100	Carnarvon	Carnarvon	Y
<i>Caloharria</i> cf. <i>castanea</i> Kuroda & Habe, 1952	99240247	2	100	166	Point Cloates	Ningaloo	
<i>Cyllene rubroluteata</i> Sowerby, 1870	24202216	1	100	100	Shark Bay	Shark Bay	Y
<i>Dolicholatirus</i> sp. 1	99240243	1	397	423	Bunbury	Bunbury	
<i>Fusinus</i> sp. 1	99240242	5	89	196	Bald Island	Bunbury	Y
<i>Fusinus westralis</i> Hadorn & Fraussen, 2003	24202214	1	397	423	Bunbury	Bunbury	Y
<i>Fusinus</i> cf. <i>brazieri</i> (Angas, 1869)	99240241	1	180	183	Abrolhos	Abrolhos	
<i>Granulifusus kranus</i> Shuto, 1958	24202089	8	364	430	Bunbury	Point Cloates	Y
<i>Latirus</i> cf. <i>recurvirostris</i> (Schubert & Wagner, 1829)	99240245	1	165	166	Ningaloo	Ningaloo	
<i>Latirus craticulus</i> (Linnaeus, 1758)	24202094	2	96	100	Kalbarri	Point Cloates	Y

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<i>Latirus</i> sp. 1		99240244				1	1077	1085	Ningaloo	Ningaloo	
<i>Manaria kuroharai</i>	Azuma, 1960	24202215		1	1	1	1000	1037	Abrolhos	Abrolhos	
<i>Nassaria</i> cf. <i>acuminata</i>	(Reeve, 1844)	99240237				1	165	166	Ningaloo	Ningaloo	
<i>Nassaria</i> cf. <i>problematica</i>	(Iredale, 1936)	99240236				1	355	382	Point Cloates	Point Cloates	
<i>Nassaria solidula</i>	Kuroda & Habe, 1961	24202065				2	329	382	Two Rocks	Point Cloates	Y
<i>Nassaria</i> sp. 1		99240235				1	324	356	Ningaloo	Ningaloo	
<i>Nassarius biculus</i>	(Smith, 1876)	24202164				2	100	177	Ningaloo	Barrow	
<i>Nassarius crebricostatus</i>	(Schepman, 1911)	24202169				5	329	999	Bald Island	Abrolhos	Y
<i>Nassarius ephamillus</i>	(Watson, 1882)	24202128				2	748	980	Bald Island	Albany	Y
<i>Nassarius particeps</i>	(Hedley, 1915)	24202006				1	100	101	Red Bluff	Red Bluff	
<i>Phos</i> cf. <i>roseatus</i>	(Hinds, 1844)	99240240				2	105	120	Shark Bay	Ningaloo	Y
<i>Phos</i> cf. <i>sculptilis</i>	Watson, 1886	99240239				2	106	166	Zuytdorp	Ningaloo	Y
<i>Phos senticosus</i>	(Linnaeus, 1758)	24202021				1	368	388	Carnarvon	Carnarvon	
<i>Phos</i> sp. 1		99240238				3	100	166	Shark Bay	Ningaloo	Y
<i>Pseudolatirus</i> cf. <i>pallidus</i>	Kuroda & Habe, 1961	99240246				2	396	431	Abrolhos	Carnarvon	Y
Family Columbellidae											
<i>Mitrella</i> cf. <i>puella</i>	(Sowerby, 1844)	99240249				2	368	404	Carnarvon	Carnarvon	
<i>Mitrella</i> sp. 1		99240248				2	165	404	Carnarvon	Ningaloo	
<i>Dyrene fava</i>	(Bruguière, 1789)	24203047				1	96	98	Kalbarri	Kalbarri	Y
Family Conidae											
Conidae sp. indet.		24222000				1	212	213	Albany	Albany	
<i>Comus anemone</i>	Lamarck, 1810	24222010				1	96	97	Mentelle	Mentelle	Y

<i>Conus boholensis</i>	Petuch, 1749	24222025	4	170	404	Carnarvon	Ningaloo	Y
<i>Conus cf. rechuzianus</i>	Bernardi, 1853	99240309	1	165	166	Ningaloo	Ningaloo	
<i>Conus gabelishi</i>	da Motta & Ninomiya, 1982	24222056	1	147	157	Bald Island	Bald Island	Y
<i>Conus planorbis</i>	Born, 1778	24222098	1	96	98	Kalbarri	Kalbarri	Y
<i>Conus sp. 2</i>		99240310	1	106	106	Zuytdorp	Zuytdorp	Y
<i>Conus sp. 4</i>		99240311	1	147	157	Bald Island	Bald Island	Y
Family Costellariidae								
<i>Vexillum cf. obeliscus</i>	(Reeve, 1844)	99240258	4	201	388	Two Rocks	Ningaloo	Y
<i>Vexillum cf. radius</i>	(Reeve, 1845)	99240259	1	393	394	Lancelin	Lancelin	Y
<i>Vexillum hansenae</i>	Cernohorsky, 1973	24213054	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Vexillum</i> sp. 3		99240257	1	726	732	Ningaloo	Ningaloo	
Family Harpiidae								
<i>Astroharpa wilsoni</i>	Rehder, 1973	24209008	1	96	97	Mentelle	Mentelle	Y
<i>Morium</i> sp. 1		99240252	1	1	120	Shark Bay	Shark Bay	Y
Family Marginellidae								
<i>Gibberula cf. pulchella</i>	(Kiener, 1830)	99240254	1	96	98	Kalbarri	Kalbarri	
<i>Mesoginella</i> sp. 2		99240253	1	419	460	Point Hillier	Point Hillier	Y
Family Mitridae								
<i>Cancilla</i> sp. 1		99240255	1	368	388	Carnarvon	Carnarvon	Y
<i>Cancilla</i> sp. 2		99240256	1	416	431	Abrolhos	Abrolhos	Y
<i>Pterygia sinensis</i>	(Reeve, 1844)	24211070	1	165	166	Ningaloo	Ningaloo	
<i>Ziba interirritata</i>	(Reeve, 1844)	24211003	1	165	166	Ningaloo	Ningaloo	
Family Muricidae								
? <i>Cronia</i> sp. 1		99240231	1	165	166	Ningaloo	Ningaloo	
? <i>Cronia</i> sp. 2		99240232	1	100	100	Carnarvon	Carnarvon	

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<i>Babelomurex kauamurai</i>	(Kira, 1959)	24200071				3	399	431	Abrolhos	Barrow	Y
<i>Babelomurex</i> sp. 1		99240224				2	100	101	Shark Bay	Red Bluff	
<i>Babelomurex</i> sp. 2		99240225				1	113	114	Jurien Bay	Jurien Bay	
<i>Chitoreus cervicornis</i>	(Lamarck, 1822)	24200020				2	100	100	Carnarvon	Point Cloates	Y
<i>Coralliphila cf. inflata</i>	(Dunker in Philippi, 1847)	99240223				1	97	97	Zuytdorp	Zuytdorp	Y
<i>Coralliphila</i> sp. 1		99240221				1	1000	1037	Abrolhos	Abrolhos	
<i>Coralliphila</i> sp. 4		99240222				1	89	96	Point Hillier	Point Hillier	Y
<i>Dermomurex cf. antonius</i>	Vokes, 1974	99240229				1	100	101	Red Bluff	Red Bluff	
<i>Hastellum cf. multiplicatus</i>	(Sowerby, 1895)	99240227				1	147	157	Bald Island	Bald Island	
<i>Hastellum multiplicatus</i>	(Sowerby, 1895)	24200018				4	100	206	Red Bluff	Ningaloo	
<i>Hastellum</i> n.sp. 1		99240226	1	1	1	1	195	196	Point Hillier	Point Hillier	
<i>Murex</i> sp. 1		99240228				1	100	101	Barrow	Barrow	
<i>Muricopsis</i> sp. 1		99240230				1	100	100	Shark Bay	Shark Bay	Y
<i>Pagodula</i> cf. <i>carduelis</i>	(Watson, 1886)	99240219				6	479	1080	Bald Island	Bald Island	
<i>Pagodula</i> sp. 1		99240220				1	478	508	Perth Canyon	Perth Canyon	
<i>Pteryponous acanthopterus</i>	(Lamarck, 1816)	24200013				2	100	101	Point Cloates	Point Cloates	
<i>Pteryponous undosus</i>	Vokes, 1993	24200032				1	96	98	Kalbarri	Kalbarri	Y
Family Olividae											
<i>Anadara coccinata</i>	Killburn, 1980	24208023				1	205	210	Two Rocks	Two Rocks	Y
<i>Ancillastra cingulata</i>	(Sowerby, 1830)	24208003				3	100	101	Carnarvon	Point Cloates	Y
Family Terebridae											
<i>Duplicaria australis</i>	(Smith, 1873)	24221007				1	165	166	Ningaloo	Ningaloo	

<i>Terebra cf. fenestrata</i>	Hinds, 1844	99240303	1	201	206	Ningaloo	Ningaloo
<i>Terebra cf. fortunei</i>	Deshayes, 1857	99240304	1	165	166	Ningaloo	Ningaloo
<i>Terebra cf. pernua</i>	(Born, 1778)	99240305	1	100	100	Carnarvon	Carnarvon
<i>Terebra communilata</i>	(Gmelin, 1791)	24221001	1	100	100	Carnarvon	Carnarvon
<i>Terebra</i> sp. 2		99240306	1	100	100	Carnarvon	Carnarvon
<i>Terebra</i> sp. 3		99240307	2	411	430	Red Bluff	Point Cloates
<i>Terebra</i> sp. 7		99240308	1	398	402	Red Bluff	Red Bluff
Family Turbellidae							
<i>Coluzea icarus</i>	Harasewych, 1986	24201011	1	419	460	Point Hillier	Point Hillier
<i>Coluzea</i> sp. 1		99240234	1	405	414	Zuytdorp	Zuytdorp
<i>Syrinx aruanus</i>	(Linnaeus, 1758)	24201002	1	120	120	Shark Bay	Shark Bay
<i>Tidivusum internis</i>	(Angas, 1878)	24201014	1	100	100	Point Cloates	Point Cloates
<i>Tidivusum</i> n.sp. 1		99240233	1	2	106	Ningaloo	Ningaloo
<i>Tidivusum spinosa</i>	(H. & A. Adams, 1863)	24201001	3	100	206	Point Cloates	Ningaloo
Family Turridae							
? <i>Buccinaria</i> sp. 1		99240261	1	416	431	Abrolhos	Abrolhos
? <i>Cochlespira</i> sp. 1		99240262	1	398	402	Red Bluff	Red Bluff
? <i>Cochlespira</i> sp. 2		99240263	1	397	423	Bunbury	Bunbury
? <i>Cochlespira</i> sp. 3		99240264	1	397	423	Bunbury	Bunbury
? <i>Inquisitor</i> cf. <i>sterrhus</i>	(Watson, 1881)	99240283	1	165	166	Ningaloo	Ningaloo
? <i>Inquisitor</i> sp. 3		99240284	1	100	100	Lancelin	Lancelin
? <i>Inquisitor</i> sp. 4		99240285	1	170	177	Ningaloo	Ningaloo
? <i>Leucosyrinx</i> sp. 1		99240286	1	726	732	Ningaloo	Ningaloo
? <i>Spargo</i> sp. 2		99240290	1	1000	1037	Abrolhos	Abrolhos
<i>Bathyoma</i> cf. <i>attractoides</i>	(Watson, 1881)	99240260	3	364	508	Bunbury	Two Rocks

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Comitas cf. chuni</i>	(von Martens, 1902)	99240265				1	726	732	Ningaloo	Ningaloo	
<i>Comitas cf. galatheae</i>	Powell, 1969	99240266				9	170	508	Point Hillier	Barrow	Y
<i>Erema cf. gainesi</i>	(Pilsbry, 1895)	99240267				1	100	100	Point Cloates	Point Cloates	
<i>Gemmula cf. diomedea</i>	Powell, 1964	99240268				3	170	396	Ningaloo	Ningaloo	
<i>Gemmula cf. sihogae</i>	(Schepman, 1913)	99240269				4	170	414	Zuydorp	Barrow	Y
<i>Gemmula cf. unedo</i>	(Kiener, 1839)	99240270				2	165	206	Ningaloo	Ningaloo	Y
<i>Gemmula congener</i>	(Smith, 1894)	24220096				5	170	430	Lancelin	Ningaloo	Y
<i>Gemmula dampieriiana</i>	Powell, 1964	24220097				2	165	206	Ningaloo	Ningaloo	
<i>Gemmula diomedea</i>	Powell, 1964	24220098				1	373	382	Ningaloo	Ningaloo	
<i>Gemmula</i> sp. 1		99240271				1	324	356	Ningaloo	Ningaloo	Y
<i>Gemmula</i> sp. 12		99240276				1	848	1050	Perth Canyon	Perth Canyon	Y
<i>Gemmula</i> sp. 13		99240277				1	399	411	Barrow	Barrow	
<i>Gemmula</i> sp. 14		99240278				1	373	382	Ningaloo	Ningaloo	
<i>Gemmula</i> sp. 16		99240279				1	397	423	Bunbury	Bunbury	
<i>Gemmula</i> sp. 19		99240280				1	397	423	Bunbury	Bunbury	
<i>Gemmula</i> sp. 22		99240281				1	324	356	Ningaloo	Ningaloo	
<i>Gemmula</i> sp. 3		99240272				6	170	1295	Ningaloo	Ningaloo	Y
<i>Gemmula</i> sp. 4		99240273				6	678	1295	Perth Canyon	Ningaloo	Y
<i>Gemmula</i> sp. 5		99240274				3	201	423	Bunbury	Ningaloo	Y
<i>Gemmula</i> sp. 6		99240275				4	170	423	Bunbury	Ningaloo	Y
<i>Gemmula westralis</i>	Kosuge, 1990	24220125				7	100	396	Two Rocks	Barrow	Y
<i>Glyphotoma</i> sp. 1		99240282				1	324	356	Ningaloo	Ningaloo	

<i>Marshallaea cf. gracilispina</i>	Powell, 1969	99240287	1	397	423	Bunbury	Bunbury	Y
<i>Pinguigemmula philippinensis</i>	Powell, 1964	24220107	1	405	414	Zuydorp	Zuydorp	Y
<i>Pinguigemmula thielei</i>	(Finlay, 1930)	24220108	2	658	754	Abrolhos	Ningaloo	
<i>Ptychobela cf. flavidula</i>	(Lamarcq, 1822)	99240288	1	201	206	Ningaloo	Ningaloo	Y
<i>Ptychosyrinx cf. bisinuata</i>	(Martens, 1901)	99240289	1	848	1050	Perth Canyon	Perth Canyon	Y
Turridae sp. 10		99240299	1	690	702	Ningaloo	Ningaloo	
Turridae sp. 2		99240292	1	368	423	Bunbury	Carnarvon	
Turridae sp. 21		99240300	1	848	1050	Perth Canyon	Perth Canyon	
Turridae sp. 29		99240301	2	983	1050	Ningaloo	Ningaloo	
Turridae sp. 3		99240293	1	397	423	Bunbury	Bunbury	Y
Turridae sp. 34		99240302	1	1000	1037	Abrolhos	Abrolhos	
Turridae sp. 5		99240294	1	393	394	Lancelin	Lancelin	
Turridae sp. 6		99240295	1	398	402	Red Bluff	Red Bluff	Y
Turridae sp. 7		99240296	1	419	460	Point Hillier	Point Hillier	Y
Turridae sp. 8		99240297	1	419	460	Point Hillier	Point Hillier	Y
Turridae sp. 9		99240298	1	748	776	Albany	Albany	Y
<i>Turris cf. crista</i>	(Lamarcq, 1816)	99240291	1	105	105	Ningaloo	Ningaloo	
Family Volutidae								
<i>Amoria diamantina</i>	Wilson, 1972	24207023	2	104	114	Ningaloo	Ningaloo	Y
<i>Amoria grayi</i>	Ludbrook, 1953	24207026	2	101	382	Point Cloates	Ningaloo	
<i>Melo amphora</i>	(Lightfoot, 1786)	24207002	1	165	166	Ningaloo	Ningaloo	
<i>Notovoluta cf. gerondiosi</i>	Bail & Limpus, 2005	99240250	1	100	100	Point Cloates	Point Cloates	
<i>Teramachia dalli</i>	(Bartsch, 1942)	24207057	2	658	754	Ningaloo	Ningaloo	Y
<i>Teramachia johnsoni</i>	(Bartsch, 1942)	24207058	2	389	407	Lancelin	Abrolhos	Y
Volutidae sp. 1		99240251	1	1019	1031	Albany	Albany	Y

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<i>Volutocoris hangreanezi hangreanezi</i>	(Angas, 1872)	24207011				2	104	114	Ningaloo	Ningaloo	
Family Volutomitridae											
<i>Pervulatator veronis</i>	Iredale, 1924	24212009			1	1	100	101	Red Bluff	Red Bluff	
Order NEOTAENIGLOSSA											
Family Bursidae											
<i>Bufofuria cf. crumenata</i>	(Lamarck, 1816)	99240202				1	170	177	Ningaloo	Ningaloo	
<i>Bufofuria rana</i>	(Linnaeus, 1758)	24170002				1	165	166	Ningaloo	Ningaloo	
<i>Barsa humilis</i>	Beu, 1981	24170011				6	147	370	Bald Island	Kalbarri	Y
<i>Tutufia bufo</i>	(Röding, 1798)	24170018				4	96	100	Mentelle	Point Cloates	Y
Family Capulidae											
<i>Capulus</i> sp. 1		99240186				4	396	484	Perth Canyon	Barrow	Y
Family Cassidae											
? <i>Cassis</i> sp. 2		99240203				1	324	356	Ningaloo	Ningaloo	
? <i>Galeodes</i> sp. 1		99240205				1	848	1050	Perth Canyon	Perth Canyon	Y
<i>Galeodes</i> cf. <i>leucodoma</i>	Dall, 1907	99240204				2	658	754	Ningaloo	Ningaloo	Y
<i>Oocorys</i> n.sp. 1		99240206	1	1	1	1	978	980	Bald Island	Bald Island	Y
<i>Semicassis bisulcata</i>	(Schubert & Wagner, 1829)	24171001				1	100	101	Barrow	Barrow	
<i>Semicassis</i> sp. 1		99240207				1	478	508	Perth Canyon	Perth Canyon	Y
<i>Semicassis whitworthi</i>	(Abbott, 1968)	24171025				1	100	100	Carnarvon	Carnarvon	Y
Family Cerithiidae											
<i>Bittium</i> sp. 1		99240179				1	396	404	Carnarvon	Carnarvon	

<i>Cerithium</i> sp. 2		1	1019	1031	Albany	Albany	Y
Family Cypraidae							
<i>Cypraea carneola</i>	Linnaeus, 1758	24155019		2	100	134	Red Bluff
<i>Cypraea cf. cornuta</i>	Sowerby, 1870	99240189		1	96	98	Kalbarri
<i>Notocypraea pulicaria</i>	(Reeve, 1846)	24155030		3	99	179	Bald Island
<i>Zoila friendii janiana</i>	(Cate, 1968)	24155036		1	100	100	Point Cloates
<i>Zoila friendii vercoi</i>	Schilder, 1930	24155034		1	95	99	Bunbury
Family Epitoniiidae							
<i>Epitonium imperialis</i>	(Sowerby, 1844)	24191001		1	399	408	Barrow
<i>Epitonium</i> sp. 1		99240210		1	514	528	Mentelle
<i>Epitonium</i> sp. 3		99240211		1	973	999	Bald Island
<i>Epitonium</i> sp. 4		99240212		2	170	382	Ningaloo
<i>Opalia australis</i>	(Lamarck, 1822)	24191048		1	973	999	Bald Island
Family Eulimidae							
<i>Alora</i> sp. 1		99240213		1	399	408	Barrow
<i>Alora</i> sp. 2		99240214		1	912	922	Albany
Eulimidae sp. 1		99240215		1	408	427	Jurien Bay
Eulimidae sp. 2		99240216		1	91	92	Point Hillier
Eulimidae sp. 3		99240217		1	1577	1584	Perth Canyon
Eulimidae sp. 4		99240218		2	100	431	Abrolhos
Family Ficidae							
<i>Ficus filosa</i>	(Sowerby, 1892)	24172003		1	100	100	Point Cloates
Family Hipponidae							
<i>Antisabia foliacea</i>	(Quoy & Gaimard, 1835)	24130002		1	100	100	Point Cloates
Family Janthinidae							
<i>Janthinia exigua</i>	Lamarck, 1816	24190001		1	728	737	Abrolhos

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Family Laubierinidae											
<i>Akibumia orientalis</i>	(Schepman, 1909)	24173001		1	1	1000	1037	Abrolhos	Abrolhos		
Family Naticidae											
<i>Euspira cf. plicospira</i>	(Kuroda, 1961)	99240199			2	726	1010	Ningaloo	Ningaloo		
<i>Euspira</i> sp. 1		99240200			1	373	382	Ningaloo	Ningaloo		
<i>Natica cf. phytelephas</i>	Reeve, 1855	99240195			2	414	925	Albany	Bunbury	Y	
<i>Natica</i> sp. 1		99240196			1	104	114	Ningaloo	Ningaloo		
<i>Natocochlis</i> sp. 1		99240197			1	91	92	Point Hillier	Point Hillier	Y	
<i>Natocochlis</i> sp. 2		99240198			1	726	732	Ningaloo	Ningaloo		
<i>Polinices peseleophanti</i>	(Link, 1807)	24165052			1	96	98	Kalbarri	Kalbarri	Y	
<i>Polinices</i> sp. 1		99240201			3	478	1050	Perth Canyon	Abrolhos	Y	
Family Ovulidae											
<i>Phenacovolva haynesi</i>	(Sowerby, 1889)	24156024			1	100	101	Barrow	Barrow		
<i>Xandratavula cf. pagoda</i>	Cate, 1973	99240190			1	364	404	Two Rocks	Two Rocks	Y	
Family Personidae											
<i>Distorsio habei</i>	Lewis, 1972	24174005			4	100	206	Point Cloates	Ningaloo		
<i>Distorsio reticulata</i>	(Linnaeus, 1758)	24174001			2	100	100	Shark Bay	Carnarvon		
Family Ranellidae											
<i>Diplex pulchrum</i>	(Gray in Sowerby, 1836)	24176022			3	170	382	Point Cloates	Ningaloo	Y	
<i>Cymatium cf. caudatum</i>	(Gmelin, 1791)	99240208			1	100	101	Barrow	Barrow		
<i>Cymatium mundum</i>	(Gould, 1849)	24176033			1	329	370	Two Rocks	Two Rocks		
<i>Cymatium vespaceum</i>	(Lamarck, 1822)	24176044			5	95	169	Bald Island	Zuydorp	Y	

<i>Gyreneum lacunatum</i>	(Mighels, 1845)	24176010	1	112	123	Kalbarri	Kalbarri	Y
<i>Sassia apenninica</i>	Iredale, 1936	24176046	1	6	195	423	Point Hillier	Carnarvon
<i>Sassia kampyla</i>	(Watson, 1885)	24176012	1	9	378	695	Bald Island	Abrolhos
Rissoidae sp. 1		99240185	1	973	999	Bald Island	Bald Island	Y
Family Siliquariidae								
<i>Tenagodus australis</i>	(Quoy & Gaimard, 1834)	24080002	1	147	157	Bald Island	Bald Island	
<i>Tenagodus cf. anginus</i>	(Linnaeus, 1758)	99240184	1	1	180	183	Abrolhos	Abrolhos
Family Tonnidae								
<i>Eudolium pyriforme</i>	(Sowerby, 1914)	24177003	1	170	177	Ningaloo	Ningaloo	
<i>Tonna</i> sp. 1		99240209	1	165	166	Ningaloo	Ningaloo	
<i>Tonna variegata</i>	(Lamarck, 1822)	24177001	2	100	177	Point Cloates	Ningaloo	Y
Family Trividae								
<i>Ellatrinvia</i> n.sp. 1		99240191	1	1	96	98	Kalbarri	Kalbarri
Family Turritellidae								
<i>Archimeditella</i> cf. <i>dinkharterogensis</i>	Garrard, 1972	99240181	2	100	114	Jurien Bay	Red Bluff	
<i>Turritella</i> sp. 1		99240182	2	848	1050	Perth Canyon	Abrolhos	Y
<i>Turritellidae</i> sp. 3		99240183	1	324	356	Ningaloo	Ningaloo	
Family Velutinidae								
<i>Lamellaria</i> sp. 1		99240192	8	212	695	Bald Island	Mentelle	Y
<i>Lamellaria</i> sp. 2		99240193	4	378	539	Albany	Mentelle	
<i>Lamellaria</i> sp. 3		99240194	1	378	379	D'Entrecasteaux	D'Entrecasteaux	
Family Xenophoridae								
<i>Xenophora</i> cf. <i>cerea</i>	(Reeve, 1845)	99240187	1	100	101	Red Bluff	Red Bluff	Y
<i>Xenophora</i> cf. <i>pallidula</i>	(Reeve, 1842)	99240188	1	368	388	Carnarvon	Carnarvon	
<i>Xenophora</i> exuta	(Reeve, 1842)	24145003	5	100	206	Red Bluff	Barrow	
<i>Xenophora</i> gigantea	Schepman, 1909	24145010	2	399	480	Kalbarri	Barrow	Y

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<i>Xenophora indica</i>	(Gmelin, 1791)	24145002				1	100	100	Carnarvon	Carnarvon	
<i>Xenophora pallidula</i>	(Reeve, 1842)	24145007				1	368	388	Carnarvon	Carnarvon	
Order NOTASPIDEA											
Family Pleurobranchidae											
<i>Pleurobranchaea</i> sp. 1		99240324				1	399	408	Barrow	Barrow	Y
<i>Pleurobranchidae</i> sp. 1		99240325				2	100	408	Red Bluff	Barrow	Y
<i>Pleurobranchus</i> sp. 1		99240322				1	212	213	Albany	Albany	
<i>Pleurobranchus</i> sp. 2		99240323				1	324	356	Ningaloo	Ningaloo	Y
Family Tylolinidae											
<i>Tyloolina corticis</i>	(Tate, 1889)	24391001				2	104	213	Albany	Ningaloo	Y
Order NUDIBRANCHIA											
Family Arminidae											
<i>Armina</i> sp. 1		99240339				1	170	177	Ningaloo	Ningaloo	Y
Family Chromodorididae											
<i>Glossodoris</i> sp. 1		99240337				1	378	379	D'Entrecasteaux	D'Entrecasteaux	Y
Family Dorididae											
? <i>Alidisa</i> sp. 1		99240330				1	101	102	Ningaloo	Ningaloo	Y
<i>Aphelodoris</i> sp. 1		99240331				1	161	169	Bald Island	Bald Island	Y
<i>Dorididae</i> sp. 1		99240336				1	99	100	Albany	Albany	Y
<i>Doris</i> sp. 1		99240332				1	100	101	Barrow	Barrow	Y
<i>Halegunda</i> sp. 1		99240333				1	101	106	Ningaloo	Ningaloo	Y
<i>Halegunda</i> sp. 2		99240334				1	132	134	Ningaloo	Ningaloo	Y

<i>Platydoris</i> sp. 1	99240335	1	100	101	Barrow	Y
Family Eudoridoidea						
<i>Eudoridoidaa</i> sp. 1	99240326	1	212	213	Albany	Y
Family Goniodorididae						
<i>Alliodoris</i> sp. 1	99240328	3	408	1170	Bald Island	Perth Canyon
Family Gymnodorididae						
<i>Gymnodoris</i> cf. <i>nudropapillosa</i>	(Bergh, 1905)	99240329	1	101	Ningaloo	Y
<i>Nudibranchia</i> sp. 2	99240327	1	165	166	Ningaloo	Ningaloo
Family Tritoniidae						
<i>Mariotria</i> sp. 1	99240338	1	100	101	Barrow	Barrow
<hr/>						
Class SCAPHAPODA						
Order DENTALIDA						
Family Dentaliidae						
<i>Dentalium collinsae</i>	Lamprell & Healy, 1998	23501009	1	419	460	Point Hillier
<i>Dentalium hexagonum</i>	Gould, 1859	23501030	1	329	370	Two Rocks
<i>Dentalium poteri</i>	Lamprell & Healy, 1998	23501028	1	690	702	Ningaloo
<i>Dentalium</i> sp. 1		99230200	1	678	686	Abrolhos
<i>Dentalium</i> sp. 2		99230201	4	397	1295	Point Hillier
<i>Dentalium</i> sp. 3		99230202	2	393	427	Lancelin
<i>Dentalium</i> sp. 4		99230203	1	201	206	Ningaloo
<i>Dentalium</i> sp. 5		99230204	1	105	106	Ningaloo
<i>Fissidentalium</i> cf. <i>shirleyae</i>	Lamprell & Healy, 1998	99230208	6	324	1037	Lancelin
<i>Fissidentalium</i> sp. 1		99230205	1	478	508	Perth Canyon
<i>Fissidentalium</i> sp. 2		99230206	2	848	1170	Perth Canyon

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Fissidentalium</i> sp. 3		99230207				2	397	423	Bunbury	Bunbury	Y
Family Fustariidae		99230209				2	194	232	Albany	Perth Canyon	
Family Lacivalentiidae											
<i>Lacivalentium</i> cf. <i>arnoldi</i>	Lamprell & Healy, 1998	99230215				4	100	702	Ningaloo	Barrow	
<i>Lacivalentium</i> cf. <i>longitarsum</i>	(Reeve, 1842)	99230216				1	690	702	Ningaloo	Ningaloo	
<i>Lacivalentium</i> sp. 1		99230210				2	329	394	Two Rocks	Lancelin	Y
<i>Lacivalentium</i> sp. 2		99230211				2	194	494	Bald Island	Perth Canyon	Y
<i>Lacivalentium</i> sp. 4		99230212				1	95	99	Bunbury	Bunbury	
<i>Lacivalentium</i> sp. 5		99230213				1	89	96	Point Hillier	Point Hillier	
<i>Lacivalentium</i> sp. 6		99230214				1	324	356	Ningaloo	Ningaloo	
Order GADILIDA											
Family Entaliniidae											
<i>Bathoxiphus</i> cf. <i>colmani</i>	(Palmer, 1974)	99230217				1	678	686	Abrolhos	Abrolhos	
<i>Dischides</i> sp. 1		99230219				1	419	460	Point Hillier	Point Hillier	
<i>Gadila</i> sp. 1		99230218				1	690	702	Ningaloo	Ningaloo	
Phylum ECHINODERMATA											
Class ASTEROIDEA											
Order FORCIPULATIDA											
Family Asteriidae											
? <i>Anasterias</i> n.sp. 1		99250363	1	1	1	1	900	915	Albany	Albany	Y

<i>Allostichaster</i> n.sp. 1	99250361	1	1	1	2	364	404	Two Rocks	Carnarvon	Y
<i>Allostichaster</i> n.sp. 2	99250362	1	1	1	1	100	100	Point Cloates	Point Cloates	Y
<i>Coscinasterias muricata</i>	Verrill, 1867	25154011			1	0	102	Two Rocks	Two Rocks	Y
<i>Sclerasterias</i> n.sp. 1		99250364	1	1	6	100	428	Two Rocks	Carnarvon	Y
Family Labidasteridae										
<i>Coronaster</i> cf. <i>halicephus</i>	Fisher, 1917	99250359			1	100	100	Point Cloates	Point Cloates	Y
<i>Coronaster</i> cf. <i>volsellatus</i>	(Sladen, 1889)	99250360			2	102	411	Two Rocks	Red Bluff	Y
Family Zoroasteridae										
<i>Gremidaster myilli</i>	Sladen, 1889	25152005			1	1	1260	1295	Ningaloo	Y
<i>Phildaster</i> n.sp. 1		99250357	1	1	1	1	120	120	Shark Bay	Y
<i>Zoroaster</i> n.sp. 1		99250358	1	1	4	368	411	Carnarvon	Barrow	Y
Order NOTOMYOTIDA										
Family Benthopectinidae										
<i>Cheraster</i> sp. 1		99250330			1	399	408	Barrow	Barrow	
Order PAXILLOSIDA										
Family Astropectinidae										
<i>Astromesites</i> sp. 1		99250317			3	91	431	Point Hillier	Kalbarri	Y
<i>Astromesites</i> sp. 2		99250318			1	700	704	Abrolhos	Abrolhos	
<i>Astropecten</i> cf. <i>eremicus</i>	Fisher, 1913	99250304	1	1	4	389	539	Point Hillier	Abrolhos	Y
<i>Astropecten</i> cf. <i>eucrenus</i>	Fisher, 1919	99250290	1	1	1	408	427	Jurien Bay	Jurien Bay	
<i>Astropecten</i> <i>phragmorus</i>	Fisher, 1913	25111008			1	100	100	Red Bluff	Red Bluff	Y
<i>Astropecten polyacanthus</i>	Muller & Troschel, 1842	25111009			2	100	123	Kalbarri	Point Cloates	Y
<i>Astropecten</i> spp.		25111901			9	100	680	Albany	Ningaloo	Y
<i>Astropecten vittaris</i>	Von Martens, 1865	25111015			1	165	166	Ningaloo	Ningaloo	Y
<i>Astropectinidae</i> sp. inder.		25111000			3	100	1010	Point Cloates	Ningaloo	Y

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Ctenophleura</i> sp. 1		99250301				1	201	206	Ningaloo	Ningaloo	
<i>Dipsacaster</i> sp. 1		99250319				1	467	490	Mentelle	Mentelle	Y
<i>Dipsacaster</i> sp. 2		99250320				1	1075	1110	Point Hillier	Point Hillier	
<i>Dipsacaster</i> sp. 3		99250321				1	165	166	Ningaloo	Ningaloo	Y
<i>Patagiaster</i> sp. 1		99250323				1	194	232	Perth Canyon	Perth Canyon	Y
<i>Plutonaster</i> sp. 1		99250326				1	1	748	776	Albany	
<i>Plutonaster</i> sp. 2		99250327				3	983	1295	Ningaloo	Ningaloo	Y
<i>Pteroprinaster</i> cf. <i>euryactis</i>	(Fisher, 1913)	99250322				1	1	4	397	508	Point Hillier
<i>Pylaster</i> cf. <i>gottii</i>	Fisher, 1913	99250325				1	1	983	1010	Ningaloo	Ningaloo
<i>Pylaster</i> sp. 1		99250324				2	417	686	Abrolhos	Kalbarri	
Family Ctenodiscidae											
<i>Ctenodiscus</i> cf. <i>orientalis</i>	Fisher, 1913	99250329				2	397	423	Bunbury	Bunbury	Y
<i>Ctenodiscus orientalis</i>	Fisher, 1913	25114001				4	324	1010	Ningaloo	Ningaloo	Y
Family Luidiidae											
<i>Luidia avicularia</i>	Fisher, 1913	25105002				3	100	102	Point Cloates	Barrow	Y
<i>Luidia</i> cf. <i>avicularia</i>	Fisher, 1913	99250315	1	1	1	3	100	107	Carnarvon	Ningaloo	
<i>Luidia</i> cf. <i>hardwickei</i>	(Gray, 1840)	99250316	1	1	1	2	364	404	Two Rocks	Red Bluff	Y
<i>Luidia hardwickei</i>	(Gray, 1840)	25105003				3	100	423	Albany	Red Bluff	Y
<i>Luidia</i> sp. 1		99250313				1	95	99	Bunbury	Bunbury	Y
<i>Luidia</i> sp. 2		99250314				1	393	394	Lancelin	Lancelin	Y
Family Porcellanasteridae											
<i>Sidonaster vaneyi</i>	Kochler, 1909	25113002	1	1	1	1	690	702	Ningaloo	Ningaloo	

							Perth Canyon	Perth Canyon	Y
<i>Sympaster</i> n.sp. 1	99250328	1	1	1	1	1	1577	1584	
Family Radiasteridae									
<i>Radiasteridae</i> n.sp. 1	99250348	1	1	1	1	1	85	86	Abrolhos
Order SPINULOSIDA									
Family Asterinidae									
? <i>Parvulastra</i> n.sp. 1	99250354	1	1	1	1	1	678	686	Abrolhos
<i>Anseropoda macropora</i>	Fisher, 1913	25140002				2	100	106	Point Cloates
<i>Aquilonaster shinleyae</i>	O'Loughlin, 2009	25140047	1	1	1	1	100	100	Red Bluff
<i>Paranepanthia</i> sp. 1		99250353				2	96	776	Albany
<i>Pseudonepanthia</i> n.sp. 1		99250355	1	1	1	1	100	100	Carnarvon
Family Echinasteridae									
<i>Echinaster stereosomus</i>	Fisher, 1913	25143008				3	100	101	Shark Bay
<i>Henricia cf. compacta</i>	(Sladen, 1889)	99250356				4	398	922	Bald Island
<i>Henricia</i> sp. indet.		25143901				2	378	431	Bald Island
<i>Metrodora subulata</i>	Gray, 1840	25143013				4	95	106	Bunbury
Family Pterasteridae									
<i>Diplopteronaster</i> sp. 1		99250292	1	1	1	6	378	528	Bald Island
<i>Hymenaster</i> sp. 1		99250350	1	1	1	5	396	980	Bald Island
<i>Pteraster (Pteraster) sp. 1</i>		99250293				2	100	210	Two Rocks
<i>Pteraster (Retaster) cf. corynetes</i>	Fisher, 1913	99250352	1	1	1	2	364	411	Two Rocks
<i>Pteraster (Retaster) n.sp. 1</i>		99250351	1	1	1	1	467	490	Mentelle
Pterasteridae sp. indet.		25139000				1	417	428	Kalbarri
Family Solasteridae									
<i>Grossaster multispinus</i>	H.L. Clark, 1916	25136001				1	900	915	Albany
<i>Lophaster</i> n.sp. 1		99250349	1	1	1	1	1000	1037	Abrolhos

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
Order VALVATIDA											
Family Asterodiscididae											
<i>Asterodiscides cf. tessellatus</i>	Rowe, 1977	99250347		1	1	1	100	100	Carnarvon	Carnarvon	Y
<i>Asterodiscides macroplex</i>	Rowe, 1985	25128004				1	100	100	Carnarvon	Carnarvon	Y
Family Goniasteridae											
<i>Anthenooides cf. granulosus</i>	Fisher, 1913	99250331				1	399	408	Barrow	Barrow	
<i>Ceramaster cf. patagonicus</i>	(Sladen, 1889)	99250332				1	928	1170	Perth Canyon	Perth Canyon	Y
<i>Ceramaster</i> sp. 1		99250306				1	900	915	Albany	Albany	Y
<i>Cladaster</i> sp. 1		99250335	genus	1	2	912	988	988	Two Rocks	Two Rocks	Y
<i>Goniasteridae</i> sp. 1		99250340				1	0	102	Two Rocks	Two Rocks	Y
<i>Goniasteridae</i> sp. 2		99250341				1	0	102	Two Rocks	Two Rocks	Y
<i>Goniasteridae</i> sp. indet.		25122000				2	398	411	Red Bluff	Red Bluff	
<i>Lithosoma cf. penicula</i>	Fisher, 1917	99250333	1	1	1	1	1	414	Bunbury	Bunbury	Y
<i>Lithosoma</i> sp. 1		99250334	1	1	1	1	1	397	Bunbury	Bunbury	
<i>Mediaster australiensis</i>	H.L. Clark, 1916	25122012				1	1	378	D'Entrecasteaux	D'Entrecasteaux	
<i>Mithiliphauster regenerator</i>	(Doderlein, 1922)	25122014				1	1	120	Shark Bay	Shark Bay	Y
<i>Nymphaster cf. moluccanus</i>	Fisher, 1913	99250337	1	1	1	1	1	478	508	Perth Canyon	
<i>Nymphaster moebii</i>	Struder, 1884	25122017				2	397	423	Bunbury	Bunbury	
<i>Nymphaster</i> n.sp. 1		99250336	1	1	1	3	398	686	Abrolhos	Red Bluff	Y
<i>Ognaster capella</i>	(Muller & Troschel, 1842)	25122018				4	100	206	Point Cloates	Ningaloo	
<i>Paragonaster</i> n.sp. 1		99250342	1	1	1	1	399	408	Barrow	Barrow	
<i>Pentagonaster duebeni</i>	Gray, 1847	25122001				2	85	97	Mentelle	Abrolhos	
<i>Pseudarchaster boardmani</i>	Livingstone, 1934	25122021				1	401	414	Jurien Bay	Jurien Bay	

<i>Roxaster</i> n.sp. 1	99250339	1	1	1	1	1036	1050	Ningaloo	Y
<i>Roxaster</i> sp. 1	99250338				3	96	183	Jurien Bay	Kalbarri
<i>Roxaster</i> spp.	25122905				1	180	183	Abrolhos	Abrolhos
<i>Stellaster equensis</i>	(Retzius, 1805)	25122026		4	100	107	Shark Bay	Barrow	Y
<i>Stellaster squamulosus</i>	Studer, 1885	25122029		1	100	100	Carnarvon	Carnarvon	
Family Odontasteridae									
<i>Hoplosternum</i> sp. 1	99250343	1	1	1	6	96	253	Bald Island	Zuydorp
<i>Heteronardia carinata</i>	(Kochler, 1910)	25125022			1	100	100	Point Cloates	Point Cloates
<i>Heteronardia diamantinae</i>	Rowe, 1976	25125023			1	100	100	Point Cloates	Y
<i>Leicester glaber</i>	Peters, 1852	25125050	1	1	1	100	100	Point Cloates	Point Cloates
<i>Leicester leachii</i>	(Gray, 1840)	25125025			2	100	106	Point Cloates	Ningaloo
<i>Linckia guildingii</i>	Gray, 1840	25125027			3	100	114	Point Cloates	Ningaloo
<i>Ophidiaster</i> n.sp. 1	99250344	1	1	1	1	180	183	Abrolhos	Abrolhos
<i>Pseudophidiaster rhyssus</i>	H.L. Clark, 1916	25125043		1	1	161	169	Bald Island	Y
Family Oreasteridae									
<i>Anthenea</i> sp. 1	99250345				1	100	101	Red Bluff	Y
<i>Goniodiscaster</i> sp. 1	99250346				1	100	100	Point Cloates	Y
Class CRINOIDEA									
Order BOURGUETCRINIDA									
Family Bathycrinidae									
<i>Bathycrinidae</i> sp. 1	99250309				1	467	490	Mentelle	Mentelle
Order COMATULIDA									
Family Antedonidae									
<i>Antedon incommoda</i>	Bel, 1888	25060003		1	99	100	Albany	Albany	

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Antedon</i> spp.		25060903				1	106	106	Zuydorp	Zuydorp	
<i>Antedonidae</i> sp. indet.		25060000				2	195	213	Albany	Point Hillier	
<i>Bathymetra carpenteri</i>	A.H. Clark, 1908	25060007			1	1	710	728	Bald Island	Bald Island	
<i>Dorometra clymene</i>	A.H. Clark, 1917	25060020			1	1	106	107	Ningaloo	Ningaloo	
Family Asterometridae											
<i>Asterometra anthus</i>	(A.H. Clark, 1907)	25048001			1	1	99	100	Albany	Albany	
<i>Pterometra trichopoda</i>	(A.H. Clark, 1908)	25048004			1	1	100	100	Shark Bay	Shark Bay	Y
Family Calometridae											
<i>Neometra conanini</i>	A.H. Clark, 1914	25046001				3	96	114	Jurien Bay	Zuydorp	
<i>Neometra gorgonia</i>	A.H. Clark, 1915	25046003				1	97	97	Zuydorp	Zuydorp	
Family Colobometridae											
<i>Iconometra anisa</i>	(H.L. Clark, 1915)	25039009				1	96	98	Kalbarri	Kalbarri	
<i>Oligometra carpenteri</i>	(Bell F J, 1884)	25039010				1	93	93	Barrow	Barrow	
Family Comasteridae											
<i>Capillaster multinotata</i>	(Linnaeus, 1758)	25030002				3	96	183	Jurien Bay	Kalbarri	
<i>Capillaster sensitiva</i>	(Carpenter, 1888)	25030003				1	100	100	Point Cloates	Point Cloates	
<i>Cenolia</i> sp. indet.		25030003				3	96	183	Abrolhos	Ningaloo	Y
<i>Cenolia trichoptera</i>	(Müller, 1846)	25030008				1	252	253	Kalbarri	Kalbarri	
<i>Clarkcomanthus litoralis</i>	(Carpenter, 1888)	25030010				1	96	98	Kalbarri	Kalbarri	
<i>Clarkcomanthus luteofascium</i>	(H.L. Clark, 1915)	25030011				1	96	97	Mentelle	Mentelle	Y
<i>Comanthus gieseckii</i>	Rowe, Hoggett, Birtles & Tайл, 1986	25030019				1	100	100	Red Bluff	Red Bluff	
<i>Comanthus parucircus</i>	(Müller, 1841)	25030021				1	95	100	Shark Bay	Shark Bay	
<i>Comanthus wahlbergii</i>	(Müller, 1843)	25030023				1	180	183	Abrolhos	Abrolhos	

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<i>Sarometra triseptis</i>	(A.H. Clark, 1908)	25059002		1	1	1	658	754	Ningaloo	Ningaloo	
<i>Zygometa andromeda</i>	A.H. Clark, 1912	25036001				4	100	1085	Shark Bay	Barrow	Y
<i>Zygometa elegans</i>	(Bell, 1882)	25036003				2	96	100	Kalbarri	Carnarvon	
Crinoidea sp. indet.		25001000				1	408	431	Bald Island	Bald Island	
Class ECHINOIDEA											
Order ARBACOIA											
Family Arbaciidae											
<i>Coelopleurus maculatus</i>	A. Agassiz & H.L. Clark, 1907	25235002				1	2	100	206	Point Cloates	Ningaloo
Order CIDAROIDA											
Family Cidaridae											
<i>Acanthocidaris curvataispinis</i>	(Bell, 1892)	25202002				2	96	114	Abrolhos	Kalbarri	
<i>Goniocidaris tubaria</i>	(Lamarch, 1816)	25202007				3	99	106	Bald Island	Two Rocks	Y
<i>Phyllacanthus magnificus</i>	H.L. Clark, 1914	25202014				1	96	98	Kalbarri	Kalbarri	
<i>Phyllacanthus</i> sp. 1		99250373				2	95	100	D'Entrecasteaux	Mentelle	Y
<i>Prionocidaris baculosa</i>	(Lamarch, 1816)	25202017				8	96	404	Kalbarri	Ningaloo	Y
<i>Rhopodocidaris gracilis</i>	Döderlein, 1885	25202021				1	1	467	490	Mentelle	Mentelle
<i>Rhopodocidaris hirsutispina</i>	(de Meijere, 1904)	25202038				1	2	397	490	Mentelle	Bunbury
<i>Rhopodocidaris</i> sp. 1		99250374				1	414	421	Bunbury	Bunbury	Y
<i>Stereocidaris sepriferoides</i>	(Döderlein, 1887)	25202023				1	2	416	439	Abrolhos	Abrolhos
<i>Sylocidaris bracteata</i>	(A. Agassiz, 1879)	25202024				6	96	166	Kalbarri	Ningaloo	Y

**Order
CLYPEASTEROIDA**

Family Clypeasteridae

Clypeaster n.sp. 1

Clypeaster virescens Döderlein, 1885

99250375 1 1 1 1 161 169 Bald Island

25262007 1 1 3 100 100 Carnarvon Point Cloates

Family Fibulariidae

Echinocymus platypterus H.L. Clark, 1914

25265004 1 91 94 Point Hillier Point Hillier

Order DIADEMATOIDA

Family Diadematidae

Chaetodiadema tuberculatum

Eremopiga demissa (de Meijere, 1904)

25211006 1 3 100 177 Ningaloo Barrow

25211012 3 165 206 Ningaloo Ningaloo

Order ECHINOIDA

Family Echinidae

Dermechinus horridus (A. Agassiz, 1879)

Gracilechinus multidentatus (H.L. Clark, 1925)

25246001 1 976 980 Bald Island

25246002 1 5 913 1110 Bald Island Point Hillier

Family Echinothuriidae

Ameosoma austoni Mortensen, 1904

Asthenosoma varium Grube, 1868

25205002 3 658 1170 Perth Canyon

25205007 1 106 107 Ningaloo Ningaloo

Family Phormosomatidae

Phormosoma rigidum A. Agassiz, 1881

25206002 1 8 658 1110 Bald Island Ningaloo

Order PEDINOIDA

Family Pedinidae

Caenopedia minabilis (Döderlein, 1885)

25220003 1 9 105 539 Point Hillier Ningaloo

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Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
Order SPARANGOIDA											
Family Brissidae											
<i>Anametalia regularis</i>	(H.L. Clark, 1925)	25306001			1	2	100	177	Red Bluff	Ningaloo	Y
<i>Brisopsis luzonicus</i>	(Gray, 1851)	25306003			4	112	702		Kalbarri	Ningaloo	
<i>Brisus agassizii</i>	Döderlein, 1885	25306006			1	96	98		Kalbarri	Kalbarri	
Family Loveniidae											
<i>Lovenia elongata</i>	(Gray, 1845)	25308005			1	3	101	120	Shark Bay	Ningaloo	
<i>Lovenia gegelia</i>	Alcock, 1893	25308006			2	658	754		Ningaloo	Ningaloo	
<i>Lovenia n.sp. 1</i>		99250376	1	1	1	2	848	1050	Perth Canyon	Two Rocks	Y
Family Schizasteridae											
<i>Pronaster jukesii</i>	(Gray, 1851)	25304003			1	165	166		Ningaloo	Ningaloo	
Order TEMNOPLEUROIDA											
Family Temnopleuridae											
<i>Microphthus annulatus</i>	Mortensen, 1904	25241014			1	5	99	157	Bald Island	Two Rocks	Y
<i>Microphthus keenensis</i>	Mortensen, 1942	25241035	1	1	1	104	114		Ningaloo	Ningaloo	Y
<i>Tennotrema maculatum</i>	(Mortensen, 1904)	25241030			1	1	106	107	Ningaloo	Ningaloo	Y
<i>Tennotrema scillae</i>	(Mazzetti, 1894)	25241034	1	1	1	401	414		Jurien Bay	Jurien Bay	
<i>Tennotrema siamense</i>	(Mortensen, 1904)	25241032			1	106	106		Zuytdorp	Zuytdorp	Y
Family Toxopneustidae											
<i>Pseudobothetia Indiana</i>	(Michelin H, 1862)	25242008			1	106	106		Zuytdorp	Zuytdorp	Y

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<i>Neothyonidium inflatum</i>	(Sluiter, 1901)	25406027		1	1	1	165	166	Ningaloo	Ningaloo	Y
<i>Neothyonidium</i> n.sp. 1		99250378	1	1	1	1	105	106	Ningaloo	Ningaloo	
<i>Neothyonidium</i> n.sp. 2		99250379	1	1	1	1	100	100	Red Bluff	Red Bluff	
<i>Phyllophorus brocki</i>	Ludwig, 1888	25406010				1	85	86	Abrolhos	Abrolhos	
<i>Semperiella</i> sp. 1		99250380			1	1	100	100	Point Cloates	Point Cloates	
<i>Situs</i> n.sp. 1		99250289	1	1	1	1	112	123	Kalbarri	Kalbarri	
<i>Situs</i> n.sp. 2		99250377	1	1	1	1	100	100	Point Cloates	Point Cloates	
Family Psolidae											
<i>Psolidium mcallumae</i>	O'Loughlin & Marie, 2008	25404017	1	1	1	1	100	100	Point Cloates	Point Cloates	
<i>Poletis parvatus</i>	(Sluiter, 1901)	25404011		1	1	1	132	134	Ningaloo	Ningaloo	Y
Family Ypsilothuridae											
<i>Echinocucumis</i> n.sp. 1		99250383	1	1	1	1	1019	1031	Albany	Albany	Y
<i>Echinocucumis</i> n.sp. 2		99250286	1	1	1	1	399	411	Barrow	Barrow	
<i>Ypsilothuria bidenticulata</i>	(Ludwig H, 1893)	25411003		1	1	1	690	702	Ningaloo	Ningaloo	
Order ELASPODIDA											
Family Elpidiidae											
<i>Peniagone</i> cf. <i>diaphana</i>	Theél, 1882	99250388	1	1	1	2	676	980	Bald Island	Albany	
Family Laetmogonidae											
<i>Benthogone abstrusa</i>	(Sluiter, 1901)	25422006		1	1	1	1077	1085	Ningaloo	Ningaloo	Y
<i>Laetmogone</i> cf. <i>theeli</i>	Ludwig, 1894	99250387	1	1	1	1	986	988	Two Rocks	Two Rocks	
<i>Laetmogone fimbriata</i>	(Sluiter, 1901)	25422001			1	4	398	539	Bald Island	Mentelle	Y
<i>Laetmogone maculata</i>	(Theél, 1879)	25422002			1	12	212	999	Bald Island	Bunbury	Y

Order MOLPADIIIDA

Class OPHIUROIDEA
Order OPHIURIDA
Family Amphiuridae
<i>Amphiophis depressa</i>
<i>Amphiophis lucidus</i>
<i>Amphiophis ochroleuca</i>
<i>Amphiophis</i> sp. MoV 5509
<i>Amphiophis</i> sp. MoV 5510
<i>Amphiophis</i> sp. MoV 5522
<i>Amphiophis</i> sp. MoV 5524

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Amphipholis sp. MoV 5525</i>		25191079	1	1	1	1	105	106	Ningaloo	Ningaloo	
<i>Amphipholis squamata</i>	(Delle-Chiaje, 1828)	25191015				6	96	411	Bald Island	Barrow	
<i>Amphiuma dolia</i>	H.L. Clark, 1938	25191025			1	2	112	166	Kalbarri	Ningaloo	
<i>Amphiuma leptotata</i>	H.L. Clark, 1915	25191028			1	1	132	134	Ningaloo	Ningaloo	
<i>Amphiuma octacantha</i>	(H.L. Clark, 1915)	25191046				4	91	388	Point Hillier	Red Bluff	Y
<i>Amphiuma sp. MoV 3579</i>		25191062	1		1	4	364	423	Bunbury	Lancelin	Y
<i>Amphiuma sp. MoV 5508</i>		25191068	1	1	1	2	397	423	Bunbury	Barrow	Y
<i>Amphiuma sp. MoV 5511</i>		25191069	1	1	1	2	91	196	Point Hillier	Point Hillier	
<i>Amphiuma sp. MoV 5512</i>		25191064	1	1	1	5	93	106	Red Bluff	Barrow	
<i>Amphiuma sp. MoV 5514</i>		25191070	1	1	1	2	748	1080	Albany	Point Hillier	
<i>Amphiuma sp. MoV 5515</i>		25191071	1	1	1	1	120	120	Shark Bay	Shark Bay	
<i>Amphiuma sp. MoV 5516</i>		25191065	1	1	1	7	95	404	D'Entrecasteaux	Barrow	
<i>Amphiuma sp. MoV 5517</i>		25191072	1	1	1	1	912	922	Albany	Albany	
<i>Amphiuma sp. MoV 5519</i>		25191073	1	1	1	2	329	421	Bunbury	Two Rocks	Y
<i>Amphiuma sp. MoV 5520</i>		25191074	1	1	1	3	132	404	Carnarvon	Point Cloates	
<i>Ophiocentrus aspera</i>	(Koehler, 1905)	25191050				1	2	95	101	Bunbury	Red Bluff
<i>Ophiocentrus inaequalis</i>	(H.L. Clark, 1915)	25191053				1	1	100	Shark Bay	Shark Bay	
<i>Ophioderphne formatus</i>	(Koehler, 1905)	25190017				2	165	206	Ningaloo	Ningaloo	Y
Family Hemieuryalidae											
<i>Ophiomorus obstrictus</i>	(Lyman, 1878)	25186002			1	2	252	382	Kalbarri	Point Cloates	
Family Ophiacanthidae											
<i>Amphilimna granulosa</i>	Liao, 1989	25185067	1	1	1	1	100	100	Point Cloates	Point Cloates	

<i>Amphilimna transacta</i>	(Koehler, 1930)	25185063	1	1	4	364	423	Bunbury	Junien Bay	Y
<i>Ophiacantha</i> sp. MoV 2731	Koehler, 1907	25185056	1	1	1	1075	1110	Point Hillier	Point Hillier	Y
<i>Ophiacantha alternata</i>	H.I. Clark, 1928	25185011			4	96	107	Bald Island	Shark Bay	Y
<i>Ophiacantha brachygenatha</i>	A.M. Clark, 1966	25185012			6	106	728	Bald Island	Ningaloo	Y
<i>Ophiacantha clavigera</i>	(Duncan, 1879)	25185013			5	95	102	Bald Island	Two Rocks	Y
<i>Ophiacantha dallasi</i>	Koehler, 1922	25185018			2	100	123	Kalbarri	Shark Bay	
<i>Ophiacantha indica</i>	Ljungman, 1867	25185016			1	3	96	100	Kalbarri	Carnarvon
<i>Ophiacantha pictata</i>	Lyman, 1878	25185001			1	2	976	980	Bald Island	Bald Island
<i>Ophiacantha rosea</i>	MoV 4533	25185081	1	1	1	1000	1037	Abrolhos	Albany	
<i>Ophiacantha</i> sp. MoV 4537	Sars, 1871	25185082	1	1	4	900	980	Bald Island	Albany	Y
<i>Ophiacantha spectabilis</i>	Lyman, 1878	25185004			1	2	913	980	Bald Island	Albany
<i>Ophiocamax vitrea</i>	99250370	25185038			2	399	411	Barrow	Barrow	
<i>Ophiocymbium</i> sp. 1	25185080	25185080	1	1	1	397	423	Bunbury	Bunbury	Y
<i>Ophiolebes</i> sp. MoV 3581	(Lyman, 1883)	99250371			1	900	915	Albany	Albany	Y
<i>Ophiolimna cf. bairdi</i>	Koehler, 1904	25185027			1	2	900	925	Albany	Albany
<i>Ophionyxes delata</i>	(Koehler, 1904)	25185029			1	4	100	423	Bunbury	Carnarvon
<i>Ophiodothalus relictus</i>	(Lyman, 1878)	25185007			1	2	1000	1080	Point Hillier	Abrolhos
<i>Ophioleptinaca pilicata</i>	(Koehler, 1897)	25185031			1	1	900	915	Albany	Albany
<i>Ophioleptinaca rufa</i>	99250369	25185079	1	1	4	700	1170	Perth Canyon	Abrolhos	Y
<i>Ophioleptis</i> sp. 1	O'Hara & Stöhr, 2006	25185064	1	1	1	329	370	Two Rocks	Two Rocks	
<i>Ophioleptis</i> sp. MoV 5490	25185071	25185083	1	1	1	748	776	Albany	Point Hillier	Y
<i>Ophiotammus biocul</i>	25185083	25185083	1	1	1	397	423	Bunbury	Albany	Y
<i>Ophiotrema</i> sp. MoV 5504						848	1050	Perth Canyon	Bunbury	Y
<i>Ophiotrema</i> sp. MoV 5492									Perth Canyon	

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Ophiotreta eximia</i>	(Kochler, 1904)	25185058		1	1	1260	1295	Ningaloo	Ningaloo		
<i>Ophiotreta stimulea</i>	(Lyman, 1878)	25185057		1	2	396	404	Carnarvon	Red Bluff		
<i>Ophiotreta valenciennesi</i>	(Lyman, 1879)	25185044		1	1	180	183	Abrolhos	Abrolhos		
<i>Ophiurothamnus clausa</i>	(Lyman, 1878)	25185045		1	3	913	1050	Albany	Ningaloo	Y	
<i>Sinoplinaria multipinna</i>	(Kochler, 1922)	25185066		1	1	201	253	Kalbarri	Ningaloo		
Family Ophioactidae											
<i>Histampica duplicita</i>	(Lyman, 1874)	25190021		1	1	396	404	Carnarvon	Carnarvon		
<i>Ophioactis brevis</i>	H.L. Clark, 1938	25190005			1	165	166	Ningaloo	Ningaloo		
<i>Ophioactis hirta</i>	Lyman, 1879	25190003		1	2	685	915	Albany	Albany	Y	
<i>Ophioactis macrolepidota</i>	Marktanner-Turneretscher, 1887	25190009			8	96	196	Point Hillier	Barrow		
<i>Ophioactis modesta</i>	Brock, 1888	25190010			2	97	100	Bald Island	Red Bluff	Y	
<i>Ophioactis profundii</i>	Lütken & Mortensen, 1899	25190012		1	7	132	925	Albany	Carnarvon	Y	
<i>Ophioactis savignyi</i>	(Müller & Troschell, 1842)	25190014			2	96	106	Kalbarri	Ningaloo		
<i>Ophioactis</i> sp. 1		99250372			1	96	97	Mentelle	Mentelle		
<i>Ophioactis</i> sp. MoV 5496		25190022	1	1	4	416	688	Two Rocks	Kalbarri	Y	
Family Ophiodermatidae											
<i>Ophiochasma stellata</i>	(Ljungman, 1867)	25180018			1	100	101	Red Bluff	Red Bluff		
<i>Ophioconis opacum</i>	(H.L. Clark, 1928)	25180021			2	96	157	Bald Island	Mentelle		
<i>Ophiopeza cylindrica</i>	(Hutton, 1872)	25180024			3	95	102	Albany	Two Rocks	Y	
<i>Ophiopeza spinosa</i>	(Ljungman, 1867)	25180025			1	100	100	Point Cloates	Point Cloates		
<i>Ophiosammus assimilis</i>	(Bell, 1888)	25180028			3	102	490	D'Entrecasteaux	Two Rocks		

Family Ophioleucidae									
<i>Ophiuernus adspersus</i>	Lyman, 1883	25177006	1	2	1077	1295	Ningaloo	Ningaloo	
<i>Ophiuernus vallincola</i>	Lyman, 1878	25177001	1	5	710	1170	Bald Island	Perth Canyon	Y
<i>Ophioleuce seminudum</i>	Koehler, 1904	25177003	1	3	180	253	Perth Canyon	Kalbarri	Y
Family Ophionereididae									
<i>Ophiochiton sp. MoV 5498</i>		25179021	1	1	2	96	157	Bald Island	Mentelle Y
<i>Ophiodoris malignus</i>	Koehler, 1904	25179020	1	1	3	329	431	Two Rocks	Abrolhos Y
<i>Opionereis hexactis</i>	H.L. Clark, 1938	25179005	1	1	113	114	Jurien Bay	Jurien Bay	
<i>Opionereis schayeri</i>	(Müller & Troschell, 1844)	25179009			3	95	102	Bunbury	Lancelin Y
<i>Opionereis senonii</i>	(Döderlein, 1896)	25179010			2	96	100	Albany	Mentelle Y
<i>Opionereis sp. MoV 5507</i>		25179022	1	1	1	165	166	Ningaloo	Ningaloo
<i>Ophioplax lamelloosa</i>	Matsumoto, 1915	25179016		1	4	685	925	Albany	Two Rocks Y
<i>Ophioplax sp. A</i>		99250367		1	1	685	695	Albany	Albany
Family Ophiotrichidae									
<i>Macrophiotrix kocheri</i>	A.M. Clark, 1968	25192009	2	100	114	Point Cloates	Ningaloo	Ningaloo	
<i>Macrophiotrix variabilis</i>	(Duncan, 1887)	25192022	2	100	100	Shark Bay		Red Bluff	
<i>Ophiogymna elegans</i>	Ljungman, 1866	25192024	1	100	101	Barrow	Barrow	Barrow	Y
<i>Ophiogymna pulchella</i>	(Koehler, 1905)	25192027	3	100	1085	Ningaloo	Barrow	Point Cloates	Y
<i>Ophiomazza cacaotica</i>	Lyman, 1871	25192028	2	100	100	Carnarvon		Barrow	
<i>Ophioperon elegans</i>	Ludwig, 1888	25192032	3	100	101	Red Bluff		Barrow	
<i>Ophiotela danae</i>	Verrill, 1869	25192033	3	93	101	Mentelle		Barrow	
<i>Ophiotrix aristulata</i>	Lyman, 1879	25192001	1	3	329	431	Two Rocks	Abrolhos	Y
<i>Ophiotrix caespitosa</i>	Lyman, 1879	25192002	11	91	213	Bald Island	Kalbarri	Y	
<i>Ophiotrix ciliaris</i>	(Lamarch, 1816)	25192036	11	85	123	Jurien Bay	Barrow	Y	
<i>Ophiotrix foveolata</i>	Markranner-Turnerscher, 1887	25192041	2	100	101	Red Bluff		Barrow	

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Ophiothrix</i> sp. MoV 5502		25192071	1	1	1	2	132	166	Ningaloo	Ningaloo	Y
<i>Ophiothrix spongicola</i>	Simpson, 1855	25192063				7	89	196	Bald Island	Jurien Bay	Y
<i>Ophiothrix viridialba</i>	von Martens, 1867	25192053				1	100	101	Barrow	Barrow	
Family Ophidiidae											
<i>Amphiothrix distincta</i>	(Kochler, 1904)	25176061	1	1	1	2	212	370	Albany	Two Rocks	Y
<i>Amphiothrix insolita</i>	(Kochler, 1904)	25176008			1	2	396	404	Carnarvon	Red Bluff	
<i>Amphiothrix sordida</i>	(Kochler, 1897)	25176063	1	1	1	4	387	1010	Ningaloo	Barrow	
<i>Amphiothrix urbana</i>	(Kochler, 1904)	25176010				10	364	539	Bald Island	Two Rocks	Y
<i>Dicteophisura urbana</i>		25176086	1	1	1	3	368	404	Carnarvon	Red Bluff	
<i>Dicteophisura</i> sp.						5	89	102	Point Hillier	Two Rocks	
MoV 5499						1	104	114	Ningaloo	Ningaloo	
<i>Ophicrossota multipina</i>	(Ljungman, 1867)	25176016				3	414	1031	Albany	Bunbury	Y
<i>Ophiomastus</i> sp.		25176087	1	1	1	1	748	1031	Bald Island	Albany	Y
MoV 5503						3	748	1031	Bald Island	Albany	Y
<i>Ophiomastus teglitius</i>	Lyman, 1878	25176022				9	329	508	Bald Island	Two Rocks	
<i>Ophionisidium irene</i>	Fell, 1952	25176005				1	329	370	Two Rocks	Two Rocks	Y
<i>Ophiomusium amisanacanthum</i>	H.L. Clark, 1928	25176024				2	399	411	Barrow	Barrow	
<i>Ophiomusium australe</i>	H.L. Clark, 1928	25176025				3	848	1050	Perth Canyon	Abrolhos	Y
<i>Ophiomusium facundum</i>	Kochler, 1922	25176065				19	212	980	Bald Island	Jurien Bay	Y
<i>Ophiomusium lymani</i>	Thomson, 1873	25176007				5	700	1080	Bald Island	Abrolhos	Y
<i>Ophiomusium relicuum</i>	Kochler, 1904	25176044				1	396	404	Carnarvon	Carnarvon	
<i>Ophiohyrgus trispinosus</i>	Kochler, 1904	25176062				1	1	252	Kalbarri	Kalbarri	
<i>Ophiozonella</i> sp.		25176071	1	1	1	1	180	183	Abrolhos	Abrolhos	
MoV 5505						1	1	1			
<i>Ophiozonoida picta</i>	H.L. Clark, 1915	25176045									
<i>Ophiozonoida</i> sp. 1		99250366	1	1	1						

<i>Ophiuра aequalis</i>	(Lyman, 1878)	25176064	1	1	1	1260	1295	Ningaloo
<i>Ophiuра trivirgata</i>	Lyman, 1878	25176003			3	685	925	Two Rocks
<i>Ophiuра jejuna</i>	(Lyman, 1878)	25176002	1		7	676	1170	Albany
<i>Ophiuра kinbergii</i>	(Ljungman, 1866)	25176037			5	89	213	Bald Island
<i>Ophiuра micracantha</i>	H.L. Clark, 1911	25176038		1	3	399	754	Point Hillier
<i>Ophiuра cooplax</i>	(H.L. Clark, 1911)	25176039		1	23	101	1170	Ningaloo
<i>Ophiuра pallata</i>	(Lyman, 1878)	25176040			6	467	728	Barrow
<i>Ophiuра rugosa</i>	(Lyman, 1878)	25176041	1	1	6	976	1110	Mentelle
<i>Ophiuра sp. MoV 2734</i>		25176084	1		5	329	776	Abrothos
<i>Ophiuра sp. MoV 5513</i>		25176072	1	1	2	93	100	Barrow
<i>Ophiurolispis accomodata</i>	Koehler, 1922	25176006		1	1	1074	1080	Point Cloates
<i>Opiuridae sp. MoV 5506</i>		25176085	1	1	3	112	388	Point Hillier
						1110	166	Carnarvon
<hr/>								
Order								
PYRNOPOPHIURIDA								
Family Asternychidae								
<i>Asternyx loveni</i>	Müller & Troschell, 1842	25173001			3	900	925	Albany
Family Asteroschematidae								
<i>Asteroschematidae</i>								
<i>Astrodrachion adhaerens</i>	(Studer, 1884)	25172004			3	95	100	Barrow
<i>Ophiocreas oedipus</i>	Lyman, 1879	25172006			3	700	1037	Abrothos
<i>Ophiocreas sibogae</i>	Koehler, 1904	25172001		1	2	1074	1110	Point Hillier
Family Euryalidae								
<i>Euryalidae</i>								
<i>Asteromorpha koehlerii</i>	(Döderlein, 1898)	25170007	1	1	1	95	100	D'Entrecasteaux
<i>Astrocerus pergamentum</i>	Lyman, 1879	25170008	1	1	2	120	414	Barrow
<i>Euryale asperum</i>	Lamarek, 1816	25170004			1	0	102	Shark Bay
<i>Sphenacophthalus indicus</i>	Koehler, 1898	25170010	1	1	1	399	408	Two Rocks
<i>Trichaster flagellifer</i>	von Martens, 1877	25170009			1	165	166	Two Rocks

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Family Gorgonoccephalidae											
<i>Astroboa nigrofasciata</i>	Döderlein, 1927	25171009				1	132	134	Ningaloo	Ningaloo	Y
<i>Astroboa</i> sp. 1		99250365				1	180	183	Abrolhos	Abrolhos	Y
<i>Astrocladus exiguis</i>	(Lamarch, 1816)	25171013				3	104	183	Abrolhos	Ningaloo	Y
<i>Astroteria microconus</i>	(H.L. Clark, 1914)	25171019				1	96	97	Mentelle	Mentelle	Y
Family Ophiomyxidae											
<i>Ophiomyxa australis</i>	Lütken, 1869	25166001				14	95	695	Bald Island	Point Cloates	Y
<i>Ophiomyxa crinita</i>	Franklin & O'Hara, 2008	25166006	1	1	1	12	329	508	Albany	Zuydorp	Y
<i>Ophiomyxa</i> sp. MoV 5486		25166007	1		1	4	900	1080	Albany	Point Hillier	Y
<i>Ophiomyxa</i> sp. MoV 5501		25166009	1	1	1	1	170	177	Ningaloo	Ningaloo	Y
<i>Ophiocoelis</i> sp. MoV 2721		25166005	1		1	5	378	980	Bald Island	Bunbury	
<i>Ophiurothamnus</i> sp. 1		99250368				2	900	925	Albany	Albany	Y
<i>Ophiurothamnus</i> sp. MoV 5489		25185078	1	1	1	2	329	404	Two Rocks	Two Rocks	Y
Phylum ARTHROPODA											
Subphylum CRUSTACEA											
Class MALACOSTRACA											
Order DECAPODA											
Infraorder Dendobranchiata											
Family Aristidae											
<i>Aristeus</i> cf. <i>pallidus</i>	Komai, 1993	99280435				2	170	399	Ningaloo	Ningaloo	

<i>Aristeus semidentatus</i>	Bate, 1881	28712011	1	3	928	1170	Point Hillier	Abrolhos	Y
<i>Aristeus urvilis</i>	(Bate, 1881)	28712003		4	658	1021	Bald Island	Ningaloo	Y
<i>Pseudaristeus siogue</i>	(de Man, 1911)	28712010		2	726	1010	Ningaloo	Ningaloo	
Family Benthesicymidae									
<i>Benthesicymus investigatoris</i>	Alcock & Anderson, 1899	28713001		2	983	1037	Abrolhos	Ningaloo	Y
Family Penaeidae									
<i>Melicertus marginatus</i>	(Randall, 1840)	28711049		1	165	166	Ningaloo	Ningaloo	
<i>Metapenaeopsis aff. diffiditis</i>	Crosnier, 1991	99280432		1	1	106	107	Ningaloo	
<i>Metapenaeopsis aff. vaillanti</i>	(Nobili, 1904)	99280434		1	1	100	100	Carnarvon	Carnarvon
<i>Metapenaeopsis crassissima</i>	Racek & Dall, 1965	28711012		1	100	100	Carnarvon	Carnarvon	
<i>Metapenaeopsis rosea</i>	Racek & Dall, 1965	28711019		1	6	100	177	Carnarvon	Barrow
<i>Metapenaeopsis sp. MoV 5458</i>		28711091		7	100	431	Bald Island	Point Cloates	Y
<i>Metapenaeopsis sp. MoV 5459</i>		28711085		3	112	206	Kalbarri	Ningaloo	
<i>Metapenaeopsis velutina</i>	(Dana, 1852)	28711073		7	95	106	Zuydorp	Point Cloates	Y
<i>Parapenaeus australiensis</i>	Dall, 1957	28711035		1	1	368	388	Carnarvon	Carnarvon
<i>Parapenaeus fissuroides fissuroides</i>	Crosnier, 1985	28711083		1	1	2	170	206	Ningaloo
<i>Parapenaeus fissurus</i>	(Bate, 1881)	28711080		1	1	2	106	253	Kalbarri
<i>Parapenaeus longipes</i>	Alcock, 1905	28711082		1	1	1	201	206	Ningaloo
<i>Parapenaeus murrayi</i>	Ramandan, 1938	28711081		1	1	6	324	411	Abrolhos
<i>Parapenaeus sexdentatus</i>	Kubo, 1949	28711039		1	1	1	387	399	Ningaloo
<i>Penaeopsis sp. MoV 5466</i>		28711092	1	1	1	1	324	356	Ningaloo
<i>Penaeopsis sp. MoV 5471</i>		28711088	1	1	2	373	408	Ningaloo	Barrow
<i>Trachypenaeus curvirostris</i>	(Stimpson, 1860)	28711055		2	101	123	Kalbarri	Ningaloo	
Family Sergestidae									
<i>Sergestes sp. MoV 5453</i>		28720028		1	678	686	Abrolhos	Abrolhos	

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Sergestes</i> sp. MoV 5454		28720029				1	1075	1110	Point Hillier	Point Hillier	
<i>Sergia fulgens</i>	(Hansen, 1919)	28720024		1	1	2	373	732	Ningaloo	Ningaloo	
<i>Sergia prebensis</i>	(Bate, 1881)	28720021				1	1000	1037	Abrolhos	Abrolhos	
Family Sicyoniidae											
<i>Sicyonia inflexa</i>	(Kubo, 1949)	28715002				2	252	686	Abrolhos	Kalbarri	Y
<i>Sicyonia japonica</i>	Bals, 1914	28715010		1	1	1	106	107	Ningaloo	Ningaloo	Y
<i>Sicyonia</i> sp. MoV 5455		28715011	1	1	1	1	212	213	Albany	Albany	
<i>Sicyonia vitulans</i>	(Kubo, 1949)	28715004		1	1	1	100	100	Carnarvon	Carnarvon	Y
Family Solenoceridae											
<i>Hachoperca lucasi</i>	(Bate, 1881)	28714003				17	95	528	Bald Island	Barrow	Y
<i>Haliporoides siogae</i>	(de Man, 1907)	28714005				6	324	414	Zuytdorp	Barrow	Y
<i>Haliporus taprobanensis</i>	Alcock & Anderson, 1899	28714006				2	690	732	Ningaloo	Ningaloo	
<i>Hymenopaeus balli</i>	Bruce, 1966	28714007			1	6	373	1085	Jurien Bay	Ningaloo	
<i>Hymenopaeus propinquus</i>	(de Man, 1907)	28714032				2	658	754	Ningaloo	Ningaloo	
<i>Solenocera annectens</i>	(Wood Mason, 1891)	28714010				1	690	702	Ningaloo	Ningaloo	
<i>Solenocera chopmi</i>	Nataraj, 1945	28714012				1	101	102	Ningaloo	Ningaloo	
<i>Solenocera comata</i>	Siebbing, 1915	28714023				2	368	404	Carnarvon	Carnarvon	
<i>Solenocera koebeli</i>	de Man, 1911	28714025				1	170	177	Ningaloo	Ningaloo	
<i>Solenocera melanstro</i>	de Man, 1907	28714013				2	170	206	Ningaloo	Ningaloo	
<i>Solenocera pectinata</i>	(Bate, 1888)	28714027		1	1	100	101	101	Barrow	Barrow	
<i>Solenocera pectinulata</i>	Kubo, 1949	28714028				9	101	1010	Ningaloo	Ningaloo	
<i>Solenocera nathbuni</i>	Ramadan, 1938	28714029		3	100	166	100	166	Carnarvon	Ningaloo	Y

Infraorder Achelata**Family Palinuridae**

<i>Panulirus cygnus</i>	George, 1962	28820005	1	389	407	Abrolhos	Abrolhos	
<i>Puerulus angustatus</i>	(Bate, 1888)	28820007	3	324	430	Point Cloates	Ningaloo	
Family Scyllaridae							Y	
<i>Crenarcus crenatus</i>	(Whitelegge, 1900)	28821021	1	97	99	Bald Island	Bald Island	
<i>Ibacus alticrenatus</i>	Bate, 1888	28821001	18	324	490	Bald Island	Ningaloo	
<i>Ibacus peronii</i>	Leach, 1815	28821004	1	100	101	Red Bluff	Red Bluff	
<i>Remiarctus bertholdii</i>	(Pulson, 1875)	28821012	5	100	177	Ningaloo	Barrow	
Infraorder Anomura							Y	
Family Chirostyliidae								
<i>Uropychus australis</i>	(Henderson, 1885)	28842002	1	3	658	988	Albany	Ningaloo
<i>Uropychus flindersi</i>	Ahyong & Poore, 2004	28842020	1	408	431	Bald Island	Bald Island	
<i>Uropychus gracilimanus</i>	(Henderson, 1885)	28842008	1	2	397	423	Bunbury	Bunbury
<i>Uropychus hesperius</i>	Ahyong & Poore, 2004	28842021	1	900	915	Albany	Albany	
<i>Uropychus</i> sp. MoV 5181		28842054	1	1	2	401	Jurien Bay	Abrolhos
Family Galatheidae								
<i>Agononida eminens</i>	(Baba, 1988)	28840005	1	2	658	754	Ningaloo	Ningaloo
<i>Agononida incerta</i>	(Henderson, 1888)	28840006	10	324	754	Perth Canyon	Barrow	
<i>Agononida pilosimanus</i>	(Baba, 1969)	28840007	1	4	405	508	Perth Canyon	Zuydorp
<i>Agononida rubrizonata</i>	Macpherson & Baba, 2009	28840123	1	2	387	430	Point Cloates	Ningaloo
<i>Agononida similis</i>	(Baba, 1988)	28840096	1	1	2	324	382	Ningaloo
<i>Agononida</i> sp. MoV 5207		28840150	1	1	3	387	430	Point Cloates
<i>Agononida</i> sp. MoV 5218		28840158	1	1	2	364	508	Perth Canyon
<i>Allogalathea elegans</i>	(A. Adams & White, 1848)	28840004	2	100	102	Carnarvon	Two Rocks	
							Ningaloo	Ningaloo

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<i>Enriquea leviorimetta</i>	(Baba, 1988)	28840031		1	1	3	373	399	Ningaloo	Ningaloo	Y
<i>Galathea amboinensis</i>	de Man, 1888	28840012		1	2	96	101	101	Kalbarri	Red Bluff	Y
<i>Galathea balsii</i>	Miyake & Baba, 1964	28840013		1	2	100	382	382	Point Cloates	Barrow	
<i>Galathea consobrina</i>	De Man, 1902	28840097		1	1	1	95	100	D'Entrecasteaux	D'Entrecasteaux	Y
<i>Galathea sp. MoV 5179</i>		28840144	1	1	1	100	101	101	Barrow	Barrow	
<i>Galathea sp. MoV 5182</i>		28840159	1	1	1	5	100	106	Zuydorp	Point Cloates	
<i>Galathea sp. MoV 5209</i>		28840140	1	1	1	1	100	101	Red Bluff	Red Bluff	
<i>Galathea sp. MoV 5244</i>		28840151	1	1	1	1	100	100	Point Cloates	Point Cloates	
<i>Lauricia gardineri</i>	(Laurie, 1926)	28840024				3	100	382	Zuydorp	Point Cloates	Y
<i>Munida andamanica</i>	Alcock, 1894	28840026		1	1	399	408	408	Barrow	Barrow	Y
<i>Munida aprosoma</i>	Ahyong & Poore, 2004	28840047		1	1	3	700	700	Perth Canyon	Abrolhos	
<i>Munida babai</i>	Tirmizi & Javed, 1976	28840099		1	1	3	100	100	Ningaloo	Barrow	
<i>Munida disgrega</i>	Baba, 2005	28840089				4	408	408	Bald Island	Point Hillier	
<i>Munida gordone</i>	Macpherson, 2004	28840125		1	1	4	180	253	Perth Canyon	Kalbarri	Y
<i>Munida haswelli</i>	Henderson, 1885	28840003				8	132	728	Bald Island	Ningaloo	
<i>Munida heteracantha</i>	Ortmann, 1892	28840029		1	1	1	170	177	Ningaloo	Ningaloo	
<i>Munida ketensis</i>	Baba, 2005	28840104				2	201	754	Ningaloo	Barrow	
<i>Munida roshanei</i>	Tirmizi, 1966	28840100	1	1	4	93	123	123	Kalbarri	Barrow	
<i>Munida rubriguttalis</i>	Baba, 1994	28840034		1	1	7	373	430	Carnarvon	Barrow	Y
<i>Munida sp. MoV 5176</i>		28840135	1	1	1	1	100	101	Barrow	Barrow	
<i>Munida sp. MoV 5183</i>		28840160	1	1	1	4	329	704	Two Rocks	Kalbarri	Y
<i>Munida sp. MoV 5199</i>		28840152	1	1	1	1	912	922	Albany	Albany	Y

<i>Munida</i> sp. MoV5200	28840153	1	1	1	1	414	421	Bunbury	Bunbury	Y
<i>Munida</i> sp. MoV5203	28840161	1	1	1	1	416	431	Abrolhos	Abrolhos	Y
<i>Munida</i> sp. MoV5215	28840154	1	1	1	1	324	356	Ningaloo	Ningaloo	
<i>Munida</i> sp. MoV5217	28840155	1	1	1	1	387	399	Ningaloo	Ningaloo	
<i>Munida</i> sp. MoV5245	28840156	1	1	1	1	106	106	Zuytdorp	Zuytdorp	
<i>Munidopsis andamanica</i>	MacGilchrist, 1905	28840076	1	1	1	726	732	Ningaloo	Ningaloo	
<i>Munidopsis comarge</i>	Taylor, Ahyong & Andreakis, 2010	28840170	1	1	1	900	915	Albany	Albany	
<i>Munidopsis crenatirostris</i>	Baba, 1988	28840102	1	1	5	387	754	Bald Island	Barrow	Y
<i>Munidopsis cylindrophthalma</i>	(Alcock, 1894)	28840086	1	1	1	726	732	Ningaloo	Ningaloo	
<i>Munidopsis dasypus</i>	Alcock, 1894	28840056			1	1000	1037	Abrolhos	Abrolhos	Y
<i>Munidopsis kensleyi</i>	Ahyong & Poore, 2004	28840057			1	1260	1295	Ningaloo	Ningaloo	
<i>Munidopsis levii</i>	(Alcock & Anderson, 1894)	28840101	1	1	1	726	732	Ningaloo	Ningaloo	
<i>Paramunida stichas</i>	Macpherson, 1993	28840098	1	1	3	368	404	Carnarvon	Red Bluff	Y
<i>Phyllodiorhynchus pusillus</i>	(Henderson, 1885)	28840042			9	85	439	Bald Island	Red Bluff	Y
<i>Raymunda</i> sp. MoV5198		28840157	1	1	2	104	114	Juniper Bay	Ningaloo	Y
Family Porcellanidae										
<i>Lissoponella</i> sp. MoV5226		28843050	1	1	1	100	101	Barrow	Barrow	
<i>Petrolisthes militaris</i>	(Heller, 1862)	28843028			10	100	183	Abrolhos	Ningaloo	Y
<i>Petrolisthes scabriculus</i>	(Dana, 1852)	28843031			1	96	98	Kalbarri	Kalbarri	
<i>Platycheles sculptus</i>	(H. Milne Edwards, 1837)	28843017			3	100	101	Carnarvon	Red Bluff	Y
<i>Polyonyx biunguiculatus</i>	(Dana, 1852)	28843038			5	95	166	Bunbury	Ningaloo	Y
<i>Porcellanella triloba</i>	White, 1851	28843047			1	105	106	Ningaloo	Ningaloo	
Family Albuneidae										
<i>Albunea occultus</i>	Boyko, 2002	28845010			1	100	100	Shark Bay	Shark Bay	Y
<i>Semonopa insignis</i>	Efford & Haig, 1968	28845009			3	100	101	Shark Bay	Red Bluff	Y

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Family Diogenidae											
<i>Calcinus</i> sp. MoV 5268	28827110	1	1	1	1	1	100	100	Carnarvon	Carnarvon	
<i>Calcinus</i> sp. MoV 5389	28827109	1	1	1	1	3	95	102	D'Entrecasteaux	Carnarvon	Y
<i>Calcinus</i> sp. MoV 5393	28827111	1	1	1	1	1	96	98	Kalbarri	Kalbarri	
<i>Calcinus</i> sp. MoV 5396	28827112	1	1	1	1	1	101	102	Ningaloo	Ningaloo	
<i>Clipiopagurus sheehae</i> (Lewinsohn, 1969)	28827117			1	1	2	85	100	Jurien Bay	Point Cloates	Y
<i>Dardanus</i> sp. MoV 5262	28827104	1	1	1	1	2	91	382	Point Hillier	Point Cloates	
<i>Dardanus</i> sp. MoV 5264	28827114	1	1	1	1	1	101	106	Ningaloo	Ningaloo	
<i>Dardanus</i> sp. MoV 5265	28827115	1	1	1	1	1	165	166	Ningaloo	Ningaloo	
<i>Dardanus</i> sp. MoV 5266	28827113	1	1	1	1	4	96	123	Mentelle	Shark Bay	Y
<i>Dardanus</i> sp. MoV 5267	28827102	1	1	1	1	3	100	166	Carnarvon	Ningaloo	
<i>Diogenes</i> sp. MoV 5401	28827116	1	1	1	1	1	100	100	Carnarvon	Carnarvon	
<i>Paguristes aciculus</i> Grant, 1905	28827077			1	27	95	554	Bald Island	Ningaloo	Ningaloo	Y
<i>Paguristes longisetus</i> Morgan, 1987	28827083			1	355	382	Point Cloates	Point Cloates			
<i>Paguristes purpureoantennatus</i>	28827017			2	97	210	Bald Island	Two Rocks	Two Rocks	Two Rocks	Y
<i>Paguristes</i> sp. MoV 5263	28827107	1	1	1	4	101	114	Ningaloo	Ningaloo	Ningaloo	
<i>Paguristes</i> sp. MoV 5277	28827118	1	1	1	6	165	411	Ningaloo	Barrow	Barrow	
<i>Paguristes</i> sp. MoV 5278	28827103	1	1	1	1	1	165	166	Ningaloo	Ningaloo	
<i>Paguristes</i> sp. MoV 5394	28827119	1	1	1	2	112	388	Kalbarri	Carnarvon	Carnarvon	
<i>Strigopagurus elongatus</i> Forest, 1995	28827089			6	95	210	Bald Island	Two Rocks	Two Rocks	Two Rocks	Y
Family Lithodidae											
<i>Lithodes rachaelae</i>	Ahyong, 2010	28836014	1	1	1	2	848	1050	Albany	Perth Canyon	Y
<i>Paralomis porei</i>	Ahyong, 2010	28836010	1	1	1	1	900	915	Albany	Albany	Y

Family Paguridae									
<i>Anapagriades</i> sp. MoV 5399	28835068	1	genus	1	2	101	102	Two Rocks	Ningaloo
<i>Bathypagurus</i> sp. MoV 5394	28835049			1	1	479	484	Perth Canyon	Perth Canyon
<i>Cestopagurus</i> sp. MoV 5269	28835069	1	genus	1	1	479	484	Perth Canyon	Perth Canyon
<i>Hemipagurus</i> sp. MoV 5281	28835070	1	genus	1	1	100	100	Point Cloates	Point Cloates
<i>Lophopagurus natus</i> (Henderson, 1888)	28835011			1	3	97	213	Bald Island	Two Rocks
<i>Lophopagurus tricrenatus</i> (Ortmann, 1892)	28835010			1	2	97	123	Kalbarri	Zuydorp
<i>Michelopagurus</i> sp. MoV 5280	28835071			1	1	928	1170	Perth Canyon	Perth Canyon
<i>Nematopagurus</i> sp. MoV 5380	28835072	1		1	1	100	100	Point Cloates	Point Cloates
<i>Nematopagurus</i> sp. MoV 5383	28835073	1		1	2	194	232	Point Hillier	Perth Canyon
<i>Nematopagurus</i> sp. MoV 5384	28835067	1		1	1	165	166	Ningaloo	Ningaloo
<i>Paguridae</i> sp. MoV 5261	28835062	1		1	3	100	106	Point Cloates	Ningaloo
<i>Paguridae</i> sp. MoV 5270	28835075	1		1	1	1000	1037	Abrolhos	Abrolhos
<i>Paguridae</i> sp. MoV 5271	28835076	1		1	1	1000	1037	Abrolhos	Abrolhos
<i>Paguridae</i> sp. MoV 5274	28835077	1		1	1	913	925	Albany	Albany
<i>Paguridae</i> sp. MoV 5283	28835066	1		1	2	1000	1050	Abrolhos	Ningaloo
<i>Paguridae</i> sp. MoV 5285	28835078	1		1	1	900	915	Albany	Albany
<i>Paguridae</i> sp. MoV 5286	28835079	1		1	1	100	101	Barrow	Barrow
<i>Paguridae</i> sp. MoV 5381	28835080	1		1	2	170	183	Abrolhos	Ningaloo
<i>Paguridae</i> sp. MoV 5385	28835081	1		1	1	398	402	Red Bluff	Red Bluff
<i>Paguridae</i> sp. MoV 5386	28835082	1		1	1	1077	1085	Ningaloo	Ningaloo
<i>Paguridae</i> sp. MoV 5387	28835083	1		1	2	848	1170	Perth Canyon	Perth Canyon
<i>Paguridae</i> sp. MoV 5388	28835084	1		1	1	848	1050	Perth Canyon	Perth Canyon
<i>Paguridae</i> sp. MoV 5390	28835085	1		1	1	100	100	Point Cloates	Point Cloates

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<i>Paguridae</i> sp. MoV 5391		28835086	1	1	1	1	106	107	Ningaloo	Ningaloo	
<i>Paguridae</i> sp. MoV 5392		28835087	1	1	1	2	100	107	Red Bluff	Ningaloo	
<i>Paguridae</i> sp. MoV 5402		28835088	1	1	1	1	726	732	Ningaloo	Ningaloo	
<i>Dorellanopagurus filiboli</i>	de Saint Laurent & McLaughlin, 2000	28835050		1	1	1	401	414	Jurien Bay	Jurien Bay	Y
<i>Propagurus hirsutus</i>	(McLaughlin, 1997)	28835032			1	6	393	539	Point Hillier	Kalbarri	Y
<i>Pylopagurus</i> sp. MoV 5276		28835074	1	1	1	1	95	100	Shark Bay	Shark Bay	
<i>Pylopagurus zebra</i>	(Henderson, 1893)	28835034				4	100	166	Carnarvon	Ningaloo	
<i>Spirropagurus fimbriatus</i>	Lewinsohn, 1982	28835035			1	3	101	166	Ningaloo	Ningaloo	
<i>Turkana albatorossae</i>	(McLaughlin & Haig, 1996)	28835051		1	1	6	96	107	Kalbarri	Barrow	
<i>Turkana multifilosa</i>	McLaughlin, 1997	28835052		1	1	1	411	411	Red Bluff	Red Bluff	
Family Parapaguridae											
<i>Oncopagurus indicus</i>	(Alcock, 1905)	28837009				12	373	1037	Bald Island	Ningaloo	Y
<i>Oncopagurus minutus</i>	(Henderson, 1896)	28837011			1	2	726	1050	Perth Canyon	Ningaloo	
<i>Oncopagurus monstrosus</i>	(Alcock, 1894)	28837010				12	329	1050	Albany	Ningaloo	Y
<i>Paragopagurus bolifer</i>	(de Saint Laurent, 1972)	28837017		1	1	1	355	382	Point Cloates	Point Cloates	Y
<i>Paragopagurus diogenes</i>	(Whitelegge, 1900)	28837013				11	95	407	Perth Canyon	Red Bluff	Y
<i>Paragopagurus</i> sp. MoV 5272		28837029	1	1	1	11	355	1010	Bunbury	Barrow	Y
<i>Paragopagurus</i> sp. MoV 5397		28837030	1	1	1	1	368	388	Carnarvon	Carnarvon	
<i>Syrapagurus latimanus</i>	Henderson, 1888	28837021			1	8	479	1110	Bald Island	Ningaloo	
<i>Syrapagurus</i> sp. MoV 5282		28837031	1	1	1	5	364	1037	Two Rocks	Ningaloo	
<i>Sympagurus brevipes</i>	(de Saint Laurent, 1972)	28837005			1	726	732	Ningaloo	Ningaloo	Ningaloo	

<i>Sympagurus dimorphus</i>	(Studer, 1883)	28837002	1	4	478	680	Albany	Perth Canyon	Y
<i>Sympagurus planimanus</i>	(de Saint Laurent, 1972)	28837006	1	1	726	732	Ningaloo	Ningaloo	
<i>Sympagurus villosus</i>	Lemaire, 1996	28837003	1	2	324	1010	Ningaloo	Ningaloo	
Family Pylochelidae									
<i>Pylachetes mortenseni</i>	Boas, 1926	28830001	1	1	364	404	Two Rocks	Two Rocks	Y
<i>Pylachetes</i> sp. MoV 5395		28830003	1	1	368	388	Carnarvon	Carnarvon	
Infraorder Astacidea									
Family Nepropidae									
<i>Metanephrops boschmai</i>	(Holthuis, 1964)	28786002	7	324	423	Bunbury	Ningaloo	Ningaloo	Y
<i>Metanephrops velutinus</i>	Chan & Yu, 1991	28786005	7	387	508	Bald Island	Ningaloo	Ningaloo	Y
<i>Nephropsis acanthura</i>	Macpherson, 1990	28786006	1	1260	1295	Ningaloo	Ningaloo	Ningaloo	Y
<i>Nephropsis stewarti</i>	Wood-Mason, 1872	28786008	1	848	1050	Perth Canyon	Perth Canyon	Perth Canyon	Y
Infraorder Brachyura									
Family Cycloidorippidae									
<i>Prangustangia spinosa</i>	(Zarenkov, 1970)	28855003	1	848	1050	Perth Canyon	Perth Canyon	Perth Canyon	Y
<i>Tymolus brucei</i>	Tavares, 1991	28855001	4	378	508	D'Entrecasteaux	Barrow	Barrow	
<i>Tymolus similis</i>	(Grant, 1905)	28855002	1	14	364	539	Bald Island	Bald Island	
Family Cymonomidae									
<i>Cymonomus andamanicus</i>	Alcock, 1905	28854004	1	1	408	427	Jurien Bay	Jurien Bay	
<i>Cymonomus</i> sp. MoV 5001		28854008	1	1	3	401	1050	Point Hillier	
Family Dromiidae									
<i>Astrodromida insignis</i>	(Rathbun, 1923)	28852003	3	96	179	Bald Island	Kalbarri	Kalbarri	Y
<i>Epigodromia</i> sp. MoV 5473		28852034	1	1	212	213	Albany	Albany	Y
<i>Fuldrostromia notipes</i>	(Guérin-Méneville, 1832)	28852026	2	97	100	Bald Island	Carnarvon	Carnarvon	Y

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Fulidromia</i> sp. MoV 5137		28852035	1	1	1	1	112	123	Kalbarri	Kalbarri	
<i>Metadromia wilsoni</i>	(Fulton & Grant, 1902)	28852004				7	95	253	Bald Island	Kalbarri	Y
<i>Takidromia</i> sp. MoV 5003		28852036	1	genus	1	3	100	100	Carnarvon	Point Cloates	Y
Family Dynomenidae											
<i>Hirsutodynomena spinosa</i>	(Rathbun, 1911)	28853004				1	106	106	Zuytdorp	Zuytdorp	Y
Family Homolidae											
<i>Dagnaudus petrensi</i>	(Grant, 1905)	28860001			1	7	364	490	Albany	Carnarvon	Y
<i>Homola orientalis</i>	Henderson, 1888	28860002				2	165	253	Kalbarri	Ningaloo	Y
<i>Homologenus braueri</i>	Doflein, 1904	28860013				3	986	1295	Two Rocks	Ningaloo	Y
<i>Homologenus malayensis</i>	Ihle, 1912	28860012		1	1	2	848	1050	Perth Canyon	Abrolhos	Y
<i>Latreillopsis tetraspinosa</i>	Dai & Chen, 1980	28860011				1	112	123	Kalbarri	Kalbarri	Y
<i>Paromolopsis basii</i>	Wood-Mason, 1891	28860006				2	387	408	Ningaloo	Barrow	
<i>Yaldwynopsis</i> sp. MoV 5004		28860014	1	1	1	1	205	210	Two Rocks	Two Rocks	Y
Family Latreilliidae											
<i>Ephamula australiensis</i>	(Henderson, 1888)	28861001				6	100	253	Two Rocks	Shark Bay	Y
<i>Latrellia penifera</i>	Alcock, 1900	28861002		1	1	4	100	408	Ningaloo	Barrow	Y
Family Raninidae											
<i>Cosmonotus grayi</i>	Adams & White, 1848	28865006				2	100	123	Kalbarri	Barrow	Y
<i>Lyreidus stenops</i>	Wood-Mason, 1887	28865009	1	1	1	3	101	177	Ningaloo	Ningaloo	Y
<i>Lyreidus tridentatus</i>	De Haan, 1841	28865002				9	194	414	Perth Canyon	Barrow	Y
<i>Notoscelis serrifrons</i>	(Henderson, 1893)	28865008				4	106	166	Kalbarri	Ningaloo	Y

<i>Umbilia trirufomaculata</i>	(Davie & Short, 1989)	28865005	4	100	123	Kalbarri	Red Bluff	Y
Family Aethridae								
<i>Actaeomorpha erosa</i>	Miers, 1877	288793001	1	96	98	Kalbarri	Kalbarri	
<i>Drachiella sculpia</i>	(Haswell, 1879)	28893003	2	100	166	Ningaloo	Barrow	
Family Calappidae								
<i>Calappa depressa</i>	Miers, 1886	28875015	4	95	114	Jurien Bay	Point Cloates	Y
<i>Calappa lophos</i>	(Herbst, 1785)	28875005	3	100	107	Ningaloo	Barrow	Y
<i>Calappa pustulosa</i>	Alcock, 1896	28875018	1	1	5	100	Barrow	Y
<i>Mursia australensis</i>	Campbell, 1971	28875002	1	1	329	Two Rocks	Two Rocks	Y
<i>Mursia micropina</i>	Davie & Short, 1989	28875004	1	3	100	120	Shark Bay	Carnarvon
<i>Mursia</i> sp. MoV 4988		28875019	1	1	6	368	Bunbury	Barrow
Family Carpiliidae								
<i>Carpilius convexus</i>	(Forskal, 1775)	28924001	1	132	134	Ningaloo	Ningaloo	Y
Family Corystidae								
<i>Gomeza bicornis</i>	Gray, 1831	28900001	1	100	100	Shark Bay	Shark Bay	
<i>Jonias</i> sp. MoV 5021		28900004	2	112	123	Kalbarri	Shark Bay	Y
Family Doripidae								
<i>Dorippe quadrifrons</i>	(Fabricius, 1793)	28870001	1	101	102	Ningaloo	Ningaloo	
<i>Neodorippe callida</i>	(Fabricius, 1798)	28870005	1	1	100	Shark Bay	Shark Bay	
<i>Paradorippe australiensis</i>	(Miers, 1884)	28870002	3	100	120	Shark Bay	Carnarvon	
Family Ethusidae								
<i>Ethusa</i> sp. MoV 5007		28870012	1	1	4	102	Perth Canyon	Ningaloo
<i>Ethusa</i> sp. MoV 5008		28870013	1	1	1	726	Ningaloo	Ningaloo
<i>Ethusina</i> sp. MoV 5005		28870014	1	1	1	848	Perth Canyon	Perth Canyon
Family Hypothalassiidae								
<i>Hypothalassia acerba</i>	Koh & Ng, 2000	28925009	2	195	210	Point Hillier	Two Rocks	Y

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Family Trichopeltariidae											
<i>Trichopeltarion</i> sp. MoV 5135		28901006	1	1	1	8	364	494	Bald Island	Abrolhos	Y
<i>Trichopeltarion</i> sp. MoV 5138		28901007	1	1	1	2	378	407	D'Entrecasteaux	Abrolhos	
Family Chasmocarcinidae											
<i>Camatopsis rubida</i> Alcock & Anderson, 1899		28919002		1	1	4	170	399	Ningaloo	Ningaloo	
<i>Camatopsis</i> sp. MoV 5086		28919006	1	1	1	1	373	382	Ningaloo	Ningaloo	
<i>Megastheleus sagittae</i> Rathbun, 1909		28919003		1	1	1	201	206	Ningaloo	Ningaloo	
Family Gonoplacidae											
<i>Carinoplax</i> sp. MoV 4992		28922031	1	1	1	5	848	1295	Perth Canyon	Ningaloo	Y
<i>Carinoplax</i> sp. MoV 4996		28922032	1	1	1	1	165	166	Ningaloo	Ningaloo	
<i>Carinoplax</i> sp. MoV 4998		28922033	1	1	1	3	416	695	Albany	Kalbarri	
<i>Goneplacidae</i> sp. MoV 4997		28917008	1	1	1	1	848	1050	Perth Canyon	Perth Canyon	Y
<i>Neogoneplax tenaculus</i> (Rathbun, 1914)		28922036			1	2	201	253	Kalbarri	Ningaloo	
<i>Notonyx nitidus</i> Milne Edwards, 1873		28922022	1	1	1	2	100	106	Point Cloates	Ningaloo	Y
<i>Paragoneplax serenii</i> (Zarenkov, 1972)		28922035	1	1	1	4	105	206	Ningaloo	Ningaloo	Y
<i>Platylitumnus soelae</i> Garth, 1987		28917004				1	324	356	Ningaloo	Ningaloo	
<i>Propheticus stridulans</i> Wood-Mason, 1892		28922001	1	1	1	4	324	414	Zuytdorp	Ningaloo	Y
<i>Pycnoplax bispinosa</i> (Rathbun, 1923)		28922021	1	1	1	2	170	206	Ningaloo	Ningaloo	Y
<i>Pycnoplax meridionalis</i> Rathbun, 1923		28922002				5	147	776	Bald Island	Two Rocks	Y
<i>Pycnoplax</i> sp. MoV 5124		28922034	1	1	1	1	165	166	Ningaloo	Ningaloo	
<i>Pycnoplax victoriensis</i> Rathbun, 1923		28922011				4	389	704	Albany	Abrolhos	

Family Mathildellidae							
<i>Mathildella servata</i>	(Sakai, 1974)	28917001	1	2	205	253	Two Rocks Kalbarri Y
<i>Neopilumnoplax nieli</i>	Ahyong, 2008	28917007	1	4	205	915	Albany Two Rocks Y
Family Hexapodidae							
<i>Hexaplex megalops</i>	Dolfini, 1904	28922003	1	1	2	387	408 Ningaloo Barrow Y
Family Iphiculidae							
<i>Iphiculus spongiosus</i>	Adams & White, 1848	28876017	1	1	3	100	206 Ningaloo Barrow Y
Family Leucosiidae							
<i>Arcania cornuta</i>	(MacGilchrist, 1905)	28876015	1	3	120	177	Shark Bay Ningaloo Y
<i>Arcania elongata</i>	Yokoya, 1933	28876061	1	3	100	166	Lancelin Ningaloo Y
<i>Arcania gracilis</i>	(Henderson, 1898)	28876086		2	100	166	Ningaloo Barrow
<i>Arcania muricata</i>	Galil, 2002	28876083		4	100	177	Ningaloo Barrow
<i>Arcania novaeensis</i>	(Adams & White, 1849)	28876011		1	120	120	Shark Bay Shark Bay Barrow Y
<i>Arcania septemspinosa</i>	(Fabricius, 1787)	28876012		1	5	100	177 Ningaloo Barrow Y
<i>Arcania sp. MoV 4980</i>		28876096	1	1	2	96	114 Jurien Bay Kalbarri Y
<i>Arcania sp. MoV 4987</i>		28876098	1	1	2	100	100 Carnarvon Point Cloates Y
<i>Ebalia sp. MoV 4981</i>		28876101	1	1	1	3	100 Red Bluff Point Cloates
<i>Ebalia sp. MoV 4989</i>		28876102	1	1	1	2	100 Ningaloo Barrow
<i>Ebalia sp. MoV 4990</i>		28876103	1	1	1	180	183 Abrolhos Shark Bay Ningaloo Y
<i>Ebalia tuberculosa</i>	(A. Milne Edwards, 1873)	28876046		22	147	539	Bald Island Ningaloo Y
<i>Leucosia haematositica</i>	Adams & White, 1848	28876010		1	100	100	Shark Bay Shark Bay Ningaloo Y
<i>Leucosia ocellata</i>	Bell, 1855	28876022		1	170	177	Ningaloo Ningaloo Barrow
<i>Leucosia sp. MoV 4985</i>		28876104	1	1	1	101	102 Ningaloo Ningaloo Barrow
<i>Leucosia whitei</i>	Bell, 1855	28876021		1	100	101	Barrow

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<i>Merocryptus lambriformis</i>	A. Milne Edwards, 1873	28876001				4	161	213	Bald Island	Point Hillier	Y
<i>Myra currimana</i>	Gigli, 2001	28876082				8	100	166	Kalbarri	Ningaloo	Y
<i>Myra</i> sp. MoV 4982		28876105	1	1	1	1	112	123	Kalbarri	Kalbarri	Y
<i>Myra</i> sp. MoV 4983		28876106	1	1	1	1	100	101	Barrow	Barrow	
<i>Myrine kessleri</i>	(Paul'son, 1875)	28876070				2	100	114	Ningaloo	Barrow	
<i>Oreophorus reticulatus</i>	Adams & White, 1849	28876048				2	100	123	Kalbarri	Barrow	
<i>Pariilia major</i>	Sakai, 1962	28876085				1	391	396	Ningaloo	Ningaloo	Y
<i>Philyra</i> sp. MoV 4984		28876107	1	1	1	1	100	101	Red Bluff	Red Bluff	Y
<i>Randallia eburnea</i>	Alcock, 1896	28876080				7	100	166	Lancelin	Ningaloo	Y
<i>Randallia pastuloides</i>	Sakai, 1961	28876084				1	373	382	Ningaloo	Ningaloo	Y
<i>Randallia</i> sp. MoV 4977		28876108	1	1	1	1	355	382	Point Cloates	Point Cloates	Y
<i>Randallia</i> sp. MoV 4978		28876095	1	1	1	5	100	166	Kalbarri	Barrow	Y
<i>Randallia</i> sp. MoV 4979		28876099	1	1	1	1	106	107	Ningaloo	Ningaloo	
<i>Randallia</i> sp. MoV 4986		28876109	1	1	1	1	165	166	Ningaloo	Ningaloo	
Family Epialtidae											
<i>Australibinia gracilipes</i>	(Miers, 1879)	28880124				1	100	101	Barrow	Barrow	
Epialtidae sp. MoV 5134		28880193	1	1	1	1	96	97	Mentelle	Mentelle	
<i>Griffinia lappacea</i>	(Rathbun, 1918)	28880047				1	467	490	Mentelle	Mentelle	Y
<i>Hystenus convexus</i>	Miers, 1884	28880131				11	85	120	Abrolhos	Barrow	
<i>Lahatina agassizii</i>	(Rathbun, 1902)	28880138				4	96	100	Mentelle	Point Cloates	
<i>Naxoides robustardi</i>	(Miers, 1882)	28880143				1	170	177	Ningaloo	Ningaloo	
<i>Naxoides taurus</i>	(Pocock, 1890)	28880144	1	1	1	93	93	Barrow	Barrow	Barrow	

<i>Naxoides teministris</i>	(Haswell, 1880)	28880145		1	1	252	253	Kalbarri	Kalbarri
<i>Oxypleurodon wilsoni</i>	Richer de Forges & Poore, 2008	28880172	1	1	1	3	329	439	Two Rocks
<i>Phalangipus filiformis</i>	Rathbun, 1916	28880147				2	100	102	Ningaloo
<i>Phalangipus hystrix</i>	(Miers, 1886)	28880148				6	100	166	Kalbarri
<i>Pochinia annae</i>	Richer de Forges & Poore, 2008	28880173	1	1	1	6	329	421	D'Entrecasteaux
<i>Pochinia carinata</i>	Griffith & Tranter, 1986	28880174		1	1	3	324	411	Red Bluff
<i>Pochinia strangi</i>	Serène & Lohavanijaya, 1973	28880171		1	1	2	252	1037	Abrolhos
Family Hymenosomatidae									
<i>Halicarenus</i> sp. MoV 5002		28885031	1	1	1	3	85	107	Bald Island
<i>Trigonoplax longirostris</i>	McCulloch, 1908	28885014				1	0	102	Two Rocks
Family Inachidae									
<i>Achaetus brevirostris</i>	(Haswell, 1879)	28880062				3	100	123	Kalbarri
<i>Achaetus curvirostris</i>	(A. Milne-Edwards, 1873)	28880022				4	95	123	Bunbury
<i>Achaetus lacertosus</i>	Stimpson, 1858	28880063				3	100	123	Kalbarri
<i>Achaetus</i> sp. MoV 5122		28880194	1	1	1	2	100	123	Kalbarri
<i>Achaetus</i> sp. MoV 5123		28880195	1	1	1	1	112	123	Kalbarri
<i>Camposcia retusa</i>	Latreille, 1829	28880032				1	0	102	Two Rocks
<i>Cyrtomnia maccullochi</i>	Rathbun, 1918	28880068				13	378	728	Bald Island
<i>Cyrtomnia murrayi</i>	Miers, 1886	28880069				2	252	404	Two Rocks
<i>Dorhynchus ramculus</i>	(Baker, 1906)	28880013				5	212	490	Albany
<i>Dumea latipes</i>	(Haswell, 1880)	28880071				1	0	102	Two Rocks
<i>Ephippies endeavourii</i>	Rathbun, 1918	28880072				2	102	196	Point Hillier
<i>Gryphaeaeus hyalinus</i>	(Alcock & Anderson, 1894)	28880166		1	1	2	100	101	Red Bluff
Inachidae undifferentiated									
		28880913		1	1	401	414	Jurien Bay	Jurien Bay

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<i>Oncinopus aranea</i>	De Haan, 1839	28880074				1	100	100	Point Cloates	Point Cloates	
<i>Oncinopus f. angustifrons</i>	Takeda & Miyake, 1969	28880161	1	1	3	100	183	Two Rocks	Red Bluff	Y	
<i>Oncinopus neptunus</i>	Adams & White, 1848	28880075			4	95	102	Two Rocks	Carnarvon		
<i>Physachneus ctenurus</i>	Alcock, 1895	28880164		1	10	364	528	Albany	Jurien Bay	Y	
<i>Platymata fimbriata</i>	Rathbun, 1916	28880015			1	726	732	Ningaloo	Ningaloo		
<i>Platymata uyyilthomsoni</i>	Miers, 1886	28880001			10	364	554	Bald Island	Red Bluff	Y	
<i>Plesiactantha maxima</i>	Ahyong & Lee, 2006	28880027			1	1	252	253	Kalbarri	Kalbarri	
<i>Sunpea indicus</i>	(Alcock, 1895)	28880079	1	1	4	85	123	Jurien Bay	Point Cloates	Y	
Family Majidae											
<i>Entomoxys depresso</i>	Sakai, 1974	28880167		1	1	100	100	Point Cloates	Point Cloates		
<i>Entomoxys spinosus</i>	Miers, 1884	28880085			3	100	123	Kalbarri	Point Cloates		
<i>Leptomithrax globifer</i>	Rathbun, 1918	28880086			6	97	196	Bald Island	Point Hillier	Y	
<i>Leptomithrax</i> sp. Mo V 5121		28880190	1	1	3	112	232	Perth Canyon	Kalbarri		
<i>Leptomithrax</i> sp. Mo V 5133		28880191	1	1	1	112	123	Kalbarri	Kalbarri		
<i>Leptomithrax sternacostatus</i>	(H. Milne Edwards, 1851)	28880005			4	85	106	Bald Island	Abrohos	Y	
<i>Maja confragosa</i>	Griffith & Tranter, 1986	28880165	1	1	1	355	382	Point Cloates	Point Cloates	Y	
<i>Maja gibba</i>	Alcock, 1895	28880169		1	1	355	382	Point Cloates	Point Cloates		
<i>Maja suluensis</i>	Rathbun, 1916	28880168		1	1	100	100	Red Bluff	Red Bluff		
<i>Planotergum mirabile</i>	Bals, 1935	28880155			1	85	86	Abrolhos	Abrolhos	Y	
<i>Prismatopus brevipinnosus</i>	(Yokoya, 1923)	28880163	1	1	1	329	370	Two Rocks	Two Rocks	Y	
<i>Prismatopus occidentalis</i>	(Griffith, 1970)	28880097	4			179	253	Albany	Kalbarri	Y	

<i>Prismatopus</i> sp. MoV 5125	28880192	1	1	1	1	1	100	100	Carnarvon	Carnarvon
Family Palicidae										
<i>Micropalicus vietnamensis</i> (Zarenkov, 1968)	28962014					3	170	754	Ningaloo	Y
<i>Neopalicus jukesii</i> (White, 1847)	28962004					1	112	123	Kalbarri	Kalbarri
<i>Paliculus kenyaeensis</i> (Yokoya, 1935)	28962011					2	368	411	Carnarvon	Red Bluff
<i>Parapalicus</i> sp. MoV 4999	28962016	1				5	100	206	Ningaloo	Barrow
<i>Pseudopalicus macromelus</i> Castro, 2000	28962007					3	194	253	Albany	Kalbarri
Family Parthenopidae										
<i>Aulacolambrus</i> sp.	28895037	1		1	1	1	100	101	Barrow	Barrow
MoV 5014						1	329	370	Two Rocks	Y
<i>Garthlambrus</i> sp.	28895038					1	355	382	Point Cloates	Point Cloates
MoV 5011						5	100	120	Shark Bay	Y
<i>Garthlambrus</i> sp.	28895039					1	147	157	Bald Island	Bald Island
MoV 5063						1	2	165	Perth Canyon	Ningaloo
<i>Parthenope chondrodes</i>	Davie & Turner, 1994	28895018				1	4	100	123	Kalbarri
<i>Parthenopidae</i> sp.		28895040	1	1	1	1	1	112	123	Point Cloates
MoV 5015						1	7	85	169	Kalbarri
<i>Platylambrus validus</i>	De Haan, 1837	28895020				1	2	165	Perth Canyon	Ningaloo
<i>Pseudolambrus</i> sp.		28895036	1	1	1	1	4	100	123	Kalbarri
MoV 5009		28895034	1	1	1	1	1	112	123	Kalbarri
<i>Rhinolambrus</i> sp.		28895014				1	7	85	169	Kalbarri
MoV 5012						1	2	100	101	Carnarvon
<i>Thyrolambrus excavatus</i>	Baker, 1905					1	1	96	98	Kalbarri
Family Plumnidae										
<i>Bathyplumnum pugillator</i>	(A. Milne Edwards, 1873)	28926040				1	1	96	Kalbarri	Kalbarri
<i>Caecoplumnum pirovulatum</i>	(Rathbun, 1911)	28926098	1	1	1	1	201	206	Ningaloo	Ningaloo
<i>Cryptoplutea arafurensis</i>	Davie & Humpherys, 1997	28926013				1	2	106	123	Kalbarri
<i>Eamedomas niger</i>	H. Milne Edwards, 1834	28926020				2	106	123	Zuydorp	Zuydorp
<i>Heteroplax</i> sp. MoV 5105	28926114	1	1	1	1	3	100	196	Point Hillier	Shark Bay
MoV 5101						1	1	93	93	Barrow

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<i>Mertonia lanka</i>	Laurie, 1906	28926100		1	1	1	100	100	Red Bluff	Red Bluff	Y
<i>Paraselwynia</i> sp. MoV 5089		28926115	1	1	1	1	96	97	Mentelle	Mentelle	Y
<i>Pilumnidae</i> sp. MoV 4995		28926126	1	1	1	1	848	1050	Perth Canyon	Perth Canyon	Y
<i>Pilumnopus</i> sp. MoV 5106		28926116	1	1	1	1	105	106	Ningaloo	Ningaloo	
<i>Pilumnus</i> cf. <i>spinicarpus</i>	Grant & McCulloch, 1906 (Rathbun, 1923)	99280440				8	85	183	Jurien Bay	Ningaloo	Y
<i>Pilumnus kingstoni</i>		28926061				3	105	253	Bald Island	Kalbarri	
<i>Pilumnus</i> sp. MoV 5094		28926117	1	1	1	1	165	166	Ningaloo	Ningaloo	
<i>Pilumnus</i> sp. MoV 5098		28926118				3	100	106	Zuydorp	Barrow	
<i>Pilumnus</i> sp. MoV 5099		28926119	1	1	1	3	100	183	Abrolhos	Barrow	Y
<i>Pilumnus</i> sp. MoV 5100		28926120				1	165	166	Ningaloo	Ningaloo	
<i>Pilumnus</i> sp. MoV 5103		28926121	1	1	1	1	165	166	Ningaloo	Ningaloo	
<i>Pilumnus</i> sp. MoV 5104		28926122				1	93	93	Barrow	Barrow	
<i>Pilumnus</i> sp. MoV 5297		28926123				1	100	100	Shark Bay	Shark Bay	
<i>Pilumnus</i> sp. MoV 5474		28926124	1	1	1	1	100	100	Carnarvon	Carnarvon	
<i>Pilumnus</i> sp. MoV 5475		28926125	1	1	1	1	112	123	Kalbarri	Kalbarri	
Family Portunidae											
<i>Charybdis hongkongensis</i>	Shen, 1934	28911105		1	1	1	100	100	Carnarvon	Carnarvon	Y
<i>Charybdis miles</i>	(De Haan, 1835)	28911019		1	2	2	165	177	Ningaloo	Ningaloo	Y
<i>Echinolatus porosus</i>	Davie & Crosnier, 2006	28911109		1	12	89	484	484	Bald Island	Two Rocks	Y
<i>Libystes paucidens</i>	Stephenson & Campbell, 1960 (Pennant, 1777)	28911054		1	1	170	177	177	Ningaloo	Ningaloo	
<i>Liocarcinus corrugatus</i>		28911016		6	96	123	123	123	Kalbarri	Red Bluff	Y
<i>Lissocarcinus orbicularis</i>	Dana, 1852	28911036		1	100	100	100	100	Point Cloates	Point Cloates	

<i>Lupoclytus philippensis</i>	Semper, 1880	28911061	1	4	100	107	Carnarvon	Barrow	Y
<i>Lupoclytus quinquepunctatus</i>	Rathbun, 1906	28911103	1	1	100	100	Shark Bay	Shark Bay	Y
<i>Lupoclytus</i> sp. MoV 5185		28911115	1	1	6	100	166	Kalbarri	Ningaloo
<i>Vectocarcinus spinifrons</i>	Stephenson, 1961	28911051			6	95	102	Mentelle	Red Bluff
<i>Ovalipes elongatus</i>	Stephenson & Rees, 1968	28911057		1	1	91	92	Point Hillier	Point Hillier
<i>Ovalipes iridescentis</i>	(Miers, 1886)	28911059		1	6	355	431	Abrolhos	Point Cloates
<i>Parathranites orientalis</i>	(Miers, 1886)	28911021		1	13	85	253	Abrolhos	Ningaloo
<i>Parathranites</i> sp.		28911116	1	1	1	100	100	Point Cloates	Point Cloates
<i>Portunidae</i> sp. MoV 5289		28911119	1	genus	1	1	91	92	Point Hillier
<i>Portunus baumii</i>	(Stimpson, 1858)	28911033			5	100	1085	Shark Bay	Ningaloo
<i>Portunus hastatus</i>	(Fabricius, 1798)	28911030			1	165	166	Ningaloo	Ningaloo
<i>Portunus longispinosus</i>	(Dana, 1852)	28911106		1	2	100	101	Red Bluff	Point Cloates
<i>Portunus nippensis</i>	(Sakai, 1938)	28911107		1	1	100	100	Point Cloates	Y
<i>Portunus pulchrirostatus</i>	(Gordon, 1931)	28911108		1	3	100	166	Ningaloo	Barrow
<i>Portunus</i> sp. MoV 5287		28911117	1	1	3	101	107	Ningaloo	Ningaloo
<i>Portunus</i> sp. MoV 5288		28911118	1	1	1	106	107	Ningaloo	Ningaloo
<i>Thalamita macropus</i>	Montgomery, 1931	28911094			9	85	210	Mentelle	Barrow
<i>Thalamita sexlobata</i>	Miers, 1886	28911023		1	1	112	123	Kalbarri	Kalbarri
<i>Thalamita spinifera</i>	Borradaile, 1902	28911025		2	100	123	Kalbarri	Barrow	Y
Family Retroploidae									
<i>Retroploma</i> sp. MoV 5093		28961002	family & genus	1	1	373	382	Ningaloo	Ningaloo
Family Trapeziidae									
<i>Quadrella reticulata</i>	Alcock, 1898	28927022		1	4	96	107	Kalbarri	Ningaloo
Family Panopeidae									
<i>Homoioptax haswelli</i>	(Miers, 1884)	28918001		1	170	177	Ningaloo	Ningaloo	Ningaloo

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Family Xanthidae											
<i>Actaea calculosa</i>	(H. Milne Edwards, 1834)	28920002				1	96	97	Mentelle	Mentelle	
<i>Actaea peronii peronii</i>	(H. Milne Edwards, 1834)	28920001				4	95	100	Bald Island	Bunbury	Y
<i>Atergatispis</i> sp. MoV 5117		28920187				1	165	166	Ningaloo	Ningaloo	
<i>Calvactea rufida</i>	Ward, 1933	28920026				1	101	106	Ningaloo	Ningaloo	Y
<i>Chlorodiella laevissima</i>	(Dana, 1852)	28920055				1	97	97	Zuytdorp	Zuytdorp	
<i>Demania wardi</i>	Garth & Ng, 1985	28920004				1	165	166	Ningaloo	Ningaloo	
<i>Medaeus</i> sp. MoV 5081		28920188	1	1	1	1	165	166	Ningaloo	Ningaloo	
<i>Monodaeus tuberculidens</i>	(Rathbun, 1911)	28920178				1	1	2	132	166	Ningaloo
<i>Nanocasiope</i> sp. MoV 5087		28920189	1	1	1	1	0	0	Two Rocks	Two Rocks	Y
<i>Nanocasiope</i> sp. MoV 5299		28920190	1	1	1	16	85	123	Two Rocks	Barrow	Y
<i>Novactaea</i> sp. MoV 5074		28920191				7	96	157	Bald Island	Carnarvon	
<i>Palapedia pelkensis</i>	(Sérène, 1972)	28920102				1	100	101	Red Bluff	Red Bluff	Y
<i>Palapedia valentini</i>	Ng, 2003	28920176				1	112	123	Kalbarri	Kalbarri	Y
<i>Paractacea rifipunctata</i>	(H. Milne Edwards, 1834)	28920049				1	165	166	Ningaloo	Ningaloo	
<i>Paractacea</i> sp. MoV 5109		28920192	1	1	1	1	113	114	Jurien Bay	Jurien Bay	
<i>Paraxanthodes</i> sp. MoV 5072		28920193				1	180	183	Abrolhos	Abrolhos	Y
<i>Platypodia</i> sp. MoV 5082		28920194				1	96	98	Kalbarri	Kalbarri	
<i>Xanthias</i> sp. MoV 5076		28920195	1	1	1	1	252	253	Kalbarri	Kalbarri	Y
Infraorder Caridea											
Family Alpheidae											
<i>Alpheopsis</i> cf. <i>trispinosa</i>	(Stimpson, 1861)	99280437				2	96	100	Albany	Mentelle	Y

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Family Crangonidae											
<i>Aegaeon lacazei</i>	(Gourret, 1887)	28781004			1	7	105	414	Bald Island	Red Bluff	Y
<i>Lissosabinea lysyzaea</i>	Taylor & Collins, 2009	28781020	1	1	1	1	414	421	Bunbury	Bunbury	Y
<i>Metacrangon</i> sp. MoV 5423		28781038	1	1	1	4	408	728	Bald Island	Perth Canyon	Y
<i>Parapontocaris aspera</i>	F.A. Chace, 1984	28781023			1	1	2	373	399	Ningaloo	Ningaloo
<i>Parapontocaris levigata</i>	Chace, 1984	28781001			1	1	2	324	399	Ningaloo	Ningaloo
<i>Parapontophilus juncens</i>	(Bate, 1888)	28781025			1	1	9	479	1085	Bald Island	Ningaloo
<i>Parapontophilus</i> sp. MoV 5439		28781039	1	1	1	1	1	411	411	Red Bluff	Red Bluff
<i>Philoceras incisus</i>	(Kemp, 1916)	28781032			1	1	3	101	120	Shark Bay	Ningaloo
<i>Pontocaris permata</i>	Bate, 1888	28781024			1	1	2	100	102	Ningaloo	Barrow
<i>Pontocaris propensatula</i>	Bate, 1888	28781017			1	1	1	165	166	Ningaloo	Ningaloo
Family Eugonatonotidae											
<i>Eugonatonotus chacei</i>	Chan & Yu, 1991	28751001			1	1	387	399	Ningaloo	Ningaloo	Y
Family Glyphocrangonidae											
<i>Glyphocrangon</i> cf. <i>perplexa</i>	Komai, 2004	99280439			1	1	726	732	Ningaloo	Ningaloo	
<i>Glyphocrangon confusa</i>	Komai, 2004	28780010			1	1	700	704	Abrolhos	Abrolhos	Y
<i>Glyphocrangon lineata</i>	Komai, 2004	28780011			2	2	658	754	Ningaloo	Ningaloo	Y
<i>Glyphocrangon sibogae</i>	De Man, 1918	28780016			1	1	1260	1295	Ningaloo	Ningaloo	Y
Family Hippolytidae											
<i>Eualus</i> sp. MoV 2681		28767040	1		1	3	900	980	Bald Island	Albany	Y
<i>Lebbeus clarebannah</i>	McCallum & Poore, 2010	28767048	1	1	1	1	408	431	Bald Island	Bald Island	Y
<i>Lysmata amboinensis</i>	(de Man, 1888)	28767026			1	1	100	100	Point Cloates	Point Cloates	Y

<i>Merhippolyte chacei</i>	Kensley, Tranter & Griffin, 1987	28767004	1	3	676	728	Bald Island	Albany	Y
<i>Tozeuma tomentosum</i>	(Baker, 1904)	28767039	1	4	95	101	Zuydorp	Barrow	Y
Family Nematocarcinidae									
<i>Nematocarcinus productus</i>	Bate, 1888	28737002	2	1073	1110	Point Hillier	Point Hillier		
<i>Nematocarcinus sp. MoV 5456</i>		28737013	1	1	2	978	1110	Bald Island	Point Hillier
<i>Nematocarcinus tenuirostris</i>	Bate, 1888	28737003	1	1260	1295	Ningaloo	Ningaloo		
<i>Nematocarcinus undulatusipes</i>	Bate, 1888	28737004	1	1	1260	1295	Ningaloo	Ningaloo	
Family Ophophoridae									
<i>Acanthephyra armata</i>	A. Milne Edwards, 1881	28735002	1	1	2	1051	1085	Ningaloo	Ningaloo
<i>Acanthephyra faxoni</i>	Calman, 1939	28735029	5	848	1295	Point Hillier	Point Hillier		
<i>Acanthephyra quadrispinosa</i>	Kemp, 1929	28735007	1	658	754	Ningaloo	Ningaloo		
<i>Janicella spinicauda</i>	(A. Milne Edwards, 1883)	28735015	3	324	430	Point Cloates	Point Cloates		
<i>Ophophorus gracilirostris</i>	A. Milne Edwards, 1881	28735030	1	978	980	Bald Island	Bald Island		
<i>Ophophorus novaezelandiae</i>	(de Man, 1931)	28735014	2	983	1085	Ningaloo	Ningaloo		
<i>Systellaspis debilis</i>	(A. Milne Edwards, 1881)	28735018							
Family Palaemonidae									
<i>Periclimenes aleator</i>	A.J. Bruce, 1991	28756233	1	1	1	399	408	Barrow	Barrow
<i>Pseudoclimenes bolthuisi</i>	A.J. Bruce, 2008	28756234	genus	1	1	113	114	Jurien Bay	Jurien Bay
Family Pandalidae									
<i>Chlorocella spinicardus</i>	(H. Milne Edwards, 1837)	28770025	1	1	105	106	Bald Island	Bald Island	
<i>Chlorococcus sp. MoV 5443</i>		28770053	1	1	324	356	Ningaloo	Ningaloo	
<i>Heterocarpus dorsalis</i>	Bate, 1888	28770002	7	726	1295	Perth Canyon	Perth Canyon		
<i>Heterocarpus hayashii</i>	Crosnier, 1988	28770004	1	5	368	431	Abrolhos	Abrolhos	
<i>Heterocarpus sp. MoV 5540</i>		28770048	1	1	3	387	411	Ningaloo	Ningaloo
								Barrow	Barrow

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<i>Heterocarpus tricarinatus</i>	Alcock & Anderson, 1894	28770006			1	1260	1295	Ningaloo	Ningaloo	Y	
<i>Heterocarpus woodmasoni</i>	Alcock, 1901	28770007			3	373	430	Point Cloates	Barrow	Y	
<i>Plesionika bifurca</i>	Alcock & Anderson, 1894	28770019			1	983	1010	Ningaloo	Ningaloo		
<i>Plesionika binodus</i>	(Bate, 1888)	28770032			1	165	166	Ningaloo	Ningaloo		
<i>Plesionika cf. kensleyi</i>	Chace, 1985	99280438			5	387	1050	Bald Island	Ningaloo		
<i>Plesionika edwardsi</i>	(Brandt, 1851)	28770020			1	3	252	404	Two Rocks	Carnarvon	
<i>Plesionika orientalis</i>	Chace, 1985	28770015			10	324	728	Bald Island	Ningaloo	Y	
<i>Plesionika philippensis</i>	Chace, 1985	28770049			1	1	104	Ningaloo	Ningaloo		
<i>Plesionika reflexa</i>	Chace, 1985	28770022			1	399	408	Barrow	Barrow		
<i>Plesionika semidauis</i>	Bate, 1888	28770017			2	387	680	Albany	Ningaloo		
<i>Plesionika serratifrons</i>	(Borradaile, 1899)	28770050			1	4	100	253	Kalbarri	Ningaloo	
<i>Plesionika sp. MoV 5457</i>		28770054	1	1	1	2	368	980	Bald Island	Carnarvon	
<i>Plesionika spinidorsalis</i>	(Rathbun, 1906)	28770038				5	324	754	Ningaloo	Barrow	
<i>Plesionika spinipes</i>	Bate, 1888	28770023			1	1	101	106	Ningaloo	Ningaloo	
<i>Procteis levigatina</i>	(Bate, 1888)	28770040			4	101	206	Ningaloo	Ningaloo		
Family Pasiphaeidae											
<i>Alainopasiphaea australis</i>	(Hanamura, 1989)	28745019			1	676	680	Albany	Albany	Y	
<i>Eupasiphae</i> sp. MoV 5427		28745030	1	1	2	726	1050	Ningaloo	Ningaloo	Y	
<i>Lepiophella sydneensis</i>	Dakin & Coletax, 1940	28745016		1	5	95	370	Albany	Ningaloo	Y	
<i>Pasiphaea kapala</i>	Kensley, Tranter & Griffin, 1987	28745005			1	685	695	Albany	Albany	Y	
<i>Pasiphaea longitentia</i>	Kensley, Tranter & Griffin, 1987	28745006		1	1	983	1010	Ningaloo	Ningaloo	Y	
<i>Pasiphaea tarda</i>	Kroyer, 1845	28745009			1	1074	1080	Point Hillier	Point Hillier		

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<i>Australocaris pinjarup</i>	Poore & Collins, 2009	28801027	1	1	1	1	397	423	Bunbury	Bunbury	Y
<i>Axiopsis tushimensis</i>	Sakai, 1992	28801021		1	1	2	113	157	Bald Island	Jurien Bay	
<i>Bouvieriaxius kienensis</i>	Sakai, 1992	28801013		1	1	2	96	100	Kalbarri	Shark Bay	Y
<i>Calastacus myalup</i>	Poore & Collins, 2009	28801029	1	1	1	1	397	423	Bunbury	Bunbury	
<i>Galaxius acutirostris</i>	Sakai & de Saint Laurent, 1989 (Sakai, 1994)	28801014				1	405	414	Zuydorp	Zuydorp	Y
<i>Paraxiopsis punulus</i>		28801017				1	100	101	Barrow	Barrow	
<i>Planaxis brevifrons</i>	Komai & Tachikawa, 2008	28801033	1	1	1	1	113	114	Jurien Bay	Jurien Bay	
Family Callianassidae											
<i>Callianassa stuhl</i>	Poore, 2008	28803029			1	1	100	100	Point Cloates	Point Cloates	
<i>Callianassa</i> sp. MoV 4961		28803031	1	1	1	1	201	206	Ningaloo	Ningaloo	
<i>Callianassa</i> sp. MoV 4962		28803032	1	1	1	1	201	206	Ningaloo	Ningaloo	
<i>Callianassa</i> sp. MoV 4963		28803033	1	1	1	1	113	114	Jurien Bay	Jurien Bay	
<i>Callianassa</i> sp. MoV 4966		28803034	1	1	1	1	106	107	Ningaloo	Ningaloo	
<i>Corallianassa</i> sp. MoV 4965		28803035	1	1	1	2	102	169	Bald Island	Two Rocks	Y
<i>Lipkecallianassa</i> sp. MoV 4960		28803036	1	1	1	3	100	206	Point Cloates	Ningaloo	
Family Michelidae											
<i>Michelia</i> sp. MoV 4969		28804009	1	1	1	1	112	123	Kalbarri	Kalbarri	
<i>Tethisea</i> sp. MoV 5472		28804010	1	1	1	1	419	460	Point Hillier	Point Hillier	Y
Infraorder Gebiidea											
Family Upogebiidae											
<i>Upogebia ancylodactyla</i>	de Man, 1905	28805021			1	0	102	Two Rocks	Two Rocks	Two Rocks	Y

<i>Upogebia bowerbankii</i>	(Miers, 1884)	28805002	1	1	104	114	Ningaloo	Ningaloo	Y
<i>Upogebia holthuisi</i>	Sakai, 1982	28805024	1	1	100	100	Shark Bay	Shark Bay	

Phylum ARTHROPODA

Subphylum
CHELICERATA
Class PYCNOGONIDA

Order PANTOPODA

Family Ammotheidae									
<i>Gilunculus</i> sp. 1		99330009			1	748	776	Albany	Albany
<i>Paranympphon bifilarium</i>	Arango, 2009	33012053	1	genus	1	101	102	Ningaloo	Ningaloo
<i>Tanystylum zeytdorpi</i>	Arango, 2009	33012054	1	1	1	97	97	Zuytdorp	Zuytdorp
Family Callipallenidae									
<i>Callipallene monaezzalandiae</i>	(Thompson, 1884)	33011009		1	1	101	102	Ningaloo	Ningaloo
<i>Callipallene</i> sp. 1		99330008			1	96	97	Mentelle	Mentelle
<i>Parapallene australiensis</i>	(Hoek, 1881)	33011016			1	95	99	Bunbury	Bunbury
<i>Parapallene challengerii</i>	Calman, 1937	33011018		1	1	99	100	Albany	Albany
<i>Parapallene haddoni</i>	Carpenter, 1892	33011020		3	89	99	99	Bald Island	Kalbarri
Pseudopallene chevron	Staples, 2007	33011042		1	1	99	100	Albany	Albany
<i>Pseudopallene difficile</i>	Arango, 2009	33011044	1	1	1	85	86	Abrolhos	Abrolhos
<i>Pseudopallene utsoniae</i>	Staples, 2005	33011040		1	1	96	97	Mentelle	Mentelle
Family Colossendaeidae									
<i>Colossendis colossea</i>	Wilson, 1881	33014019			1	1074	1080	Point Hillier	Point Hillier
<i>Hedgpethia cahu</i>	Arango, 2009	33014024	1	1	1	976	980	Bald Island	Bald Island
<i>Rhopalorhynchus sibogae</i>	Stock, 1959	33014017			2	100	123	Kalbarri	Carnarvon

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Family Nymphonidae											
<i>Nymphon rostratum</i>	Child, 1975	33010017				1	96	97	Mentelle	Mentelle	
Family Pallenopsidae											
<i>Pallenopsis tidaebatus</i>	Child, 1975	33020010				4	101	120	Shark Bay	Ningaloo	Y
<i>Pallenopsis temperans</i>	Stock, 1953	33020015		1	1	1	100	100	Point Cloates	Point Cloates	Y
Phylum TUNICATA											
Class ASCIDIACEA											
Order ENTEROGONA											
Family Clavelinidae											
<i>Clavelina meridionalis</i>	(Herdman, 1891)	35011007				1	100	100	Point Cloates	Point Cloates	
Family Diazonidae											
<i>Rhopalaea crassa</i>	(Herdman, 1880)	35012002				3	113	431	Bald Island	Jurien Bay	Y
Family Didemnidiae											
<i>Atrialium bucinum</i>	Kort, 2001	35013211				1	96	97	Mentelle	Mentelle	Y
<i>Atrialium tubiporum</i>	Kort, 2001	35013215				4	97	213	Bald Island	Albany	
Didemnidiae sp. indet.		35013000				1	147	157	Bald Island	Bald Island	
<i>Didemnum candidum</i>	Savigny, 1816	35013003				1	97	97	Zuytdorp	Zuytdorp	
<i>Didemnum clypeatum</i>	Kort, 2001	35013126				1	100	100	Lancelin	Lancelin	
<i>Didemnum dolium</i>	Kort, 2008	35013277	1	1	1	1	147	157	Bald Island	Bald Island	
<i>Didemnum jordanense</i>	Sluiter, 1909	35013141				1	147	157	Bald Island	Bald Island	
<i>Didemnum moedaei</i>	(Herdman, 1886)	35013010				1	97	97	Zuytdorp	Zuytdorp	

<i>Didemnum multilampulla</i>	Kott, 2008	35013282	1	1	1	1	96	98	Kalbarri
<i>Didemnum osium</i>	Kott, 2001	35013157			1	85	92	Jurien Bay	Y
<i>Didemnum perplexum</i>	Kott, 2001	35013162			3	96	157	Bald Island	Kalbarri
<i>Didemnum plebeium</i>	Kott, 2005	35013272			1	419	460	Point Hillier	
<i>Didemnum</i> sp. 1		99350091			1	113	114	Jurien Bay	Jurien Bay
<i>Didemnum</i> sp. 2		99350092			1	252	253	Kalbarri	Kalbarri
<i>Didemnum tapetum</i>	Kott, 2008	35013279	1	1	1	1	97	99	Bald Island
<i>Didemnum velum</i>	Kott, 2008	35013280	1	1	1	1	179	179	Albany
<i>Lepoclinides durus</i>	Kott, 2001	35013071			1	95	99	Bunbury	Y
<i>Lepoclinides fungiformis</i>	Kott, 1972	35013025			2	95	100	Albany	D'Entrecasteaux
<i>Lepoclinides multilobatus</i>	Kott, 1954	35013029			1	147	157	Bald Island	Bald Island
<i>Leptoclinides vesica</i>	Kott, 2008	35013285	1	1	1	1	97	97	Zuytdorp
<i>Lissoclinum maculatum</i>	Kott, 2001	35013202			1	147	157	Bald Island	Bald Island
<i>Polysyncraton calculum</i>	Kott, 2008	35013278	1	1	1	1	147	157	Bald Island
<i>Polysyncraton dealbatum</i>	Kott, 2008	35013283	1	1	1	1	100	100	Shark Bay
<i>Polysyncraton fistulum</i>	Kott, 2008	35013275	1	1	1	1	0	102	Two Rocks
<i>Polysyncraton millepore</i>	Vasseur, 1969	35013094			5	85	114	Albany	Kalbarri
<i>Polysyncraton pallidum</i>	Kott, 2001	35013098			1	113	114	Jurien Bay	Jurien Bay
<i>Polysyncraton patimentum</i>	Monniot, 1993	35013281	1	1	1	3	96	253	Kalbarri
<i>Trididemnum grandisellatum</i>	Kott, 2008	35013276	1	1	1	1	147	157	Bald Island
<i>Trididemnum sibogae</i>	(Hartmeyer, 1910)	35013058			2	113	157	Bald Island	Jurien Bay
Family Holozoidae					1	96	98	Kalbarri	Kalbarri
Family Polycitoridae									Y
<i>Sycozoa setiziuadai</i>	Tokioka, 1952	35015035							

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Cystodytes delachauxii</i>	(Della Valle, 1877)	35018002				4	85	157	Bald Island	Zuydorp	
<i>Eucodium coronarium</i>	(Monniot, 1988)	35018004				1	96	98	Kalbarri	Kalbarri	Y
<i>Eudistoma convolutum</i>	Kott, 2008	35018047	1	1	1	1	99	100	Albany	Albany	
<i>Eudistoma eborense</i>	Kott, 1990	35018013				1	96	98	Kalbarri	Kalbarri	
Family Polyclinidae											
<i>Aplidium caecum</i>	Monniot, 1987	35019010				3	96	157	Bald Island	Kalbarri	Y
<i>Aplidium clivosum</i>	Kott, 1992	35019011				3	113	196	Bald Island	Jurien Bay	
<i>Aplidium crateriforme</i>	(Sluiter, 1909)	35019015				3	95	114	Albany	Jurien Bay	
<i>Aplidium crustum</i>	Kott, 2008	35019100	1	1	1	2	95	100	Albany	D'Entrecasteaux	
<i>Aplidium endostomum</i>	Kott, 2008	35019101	1	1	1	3	96	213	Albany	Kalbarri	
<i>Aplidium hyacinthum</i>	Kott, 2008	35019095	1	1	1	1	99	100	Albany	Albany	
<i>Aplidium magnilarvum</i>	Kott, 1992	35019034				3	96	213	Bald Island	Mentelle	Y
<i>Aplidium panis</i>	Kott, 2008	35019097	1	1	1	1	99	100	Albany	Albany	
<i>Aplidium solidum</i>	(Herdman, 1891)	35019047				3	96	157	Bald Island	Kalbarri	Y
<i>Aplidium</i> sp. 1		99350093				1	95	100	D'Entrecasteaux	D'Entrecasteaux	
<i>Aplidium</i> sp. 2		99350094				1	147	157	Bald Island	Bald Island	
<i>Aplidium tuberosum</i>	Kott, 2008	35019096	1	1	1	2	99	114	Albany	Jurien Bay	
<i>Synoicum chrysanthemum</i>	Kott, 1992	35019072				7	85	213	Bald Island	Kalbarri	Y
<i>Synoicum implicatum</i>	Kott, 2008	35019102	1	1	1	1	195	196	Point Hillier	Point Hillier	
<i>Synoicum laboutei</i>	Monniot & Monniot, 2006	35019094				1	96	97	Mentelle	Mentelle	
<i>Synoicum macroglossum</i>	(Hartmeyer, 1919)	35019079				1	97	99	Bald Island	Bald Island	
<i>Synoicum obscurum</i>	Kott, 1992	35019080				1	147	157	Bald Island	Bald Island	

<i>Synoicum pseudogrisatum</i>	Kott, 2008	35019098	1	1	1	2	99	114	Albany	Junien Bay
<i>Synoicum rapum</i>	Kott, 2008	35019099	1	1	1	1	99	100	Albany	Albany
<i>Synoicum sphinctorum</i>	Kott, 2006	35019093			1	1	99	100	Albany	Albany
<i>Synoicum vesica</i>	Kott, 2008	35019103	1	1	1	1	195	196	Point Hillier	Point Hillier
Family Protopolyclinidae										
<i>Condominium areolatum</i>	(Kott, 1963)	35020001			1	95	100	D'Entrecasteaux	D'Entrecasteaux	
<i>Condominium floreum</i>	Kott, 2008	35020005	1	1	1	1	99	100	Albany	Albany
<i>Pseudodiazona longigona</i>	(Tokioka, 1959)	35020004		1	1	99	100	Albany	Albany	
Family Pseudodistomidae										
<i>Pseudodistoma australe</i>	Kott, 1957	35021004			2	97	157	Bald Island	Bald Island	
<i>Sigillina australis</i>	Savigny, 1816	35021011			7	95	213	Albany	Carnarvon	Y
<i>Sigillina cyanea</i>	(Herdman, 1899)	35021012			3	112	169	Bald Island	Kalbarri	
<i>Sigillina grandissima</i>	Kott, 1990	35021014			1	106	106	Zuytdorp	Zuytdorp	
Order PLEUROGONA										
Family Molgulidae										
<i>Molgula etha</i>	Kott, 2008	35031018	1	1	1	1	180	183	Abrolhos	Abrolhos
Family Pyuridae										
<i>Herdmania grandis</i>	(Heller, 1878)	35032046			2	100	114	Lancelin	Jurien Bay	Y
<i>Herdmania momus</i>	(Savigny, 1816)	35032008		1	3	378	431	Bald Island	D'Entrecasteaux	Y
<i>Dvora scorea</i>	Kott, 1985	35032038			1	355	382	Point Cloates	Point Cloates	
Family Styelidae										
<i>Gremidocarpa completa</i>	Kott, 1985	35033048			1	106	106	Zuytdorp	Zuytdorp	
<i>Gremidocarpa radicosa</i>	(Herdman, 1882)	35033059			1	97	99	Bald Island	Bald Island	
<i>Polycarpa argentea</i>	(Sluiter, 1890)	35033063			1	89	96	Point Hillier	Point Hillier	
<i>Polycarpa aurita</i>	(Sluiter, 1890)	35033065			1	106	106	Zuytdorp	Zuytdorp	Y
<i>Polyatropa chinensis</i>	(Tokioka, 1967)	35033067		4	100	213	Bald Island	Carnarvon	Carnarvon	

Species name	Authority	CAAB number	New species*	New record for Australia	New record for Western Australia	Number of stations	Min. depth (m)	Max. depth (m)	Southern-most site	Northern-most site	Image in app. 2
<i>Polyarpa decipiens</i>	Herdman, 1906	350333070				2	100	123	Lancelin	Kalbarri	
<i>Polyarpa viridis</i>	Herdman, 1881	350333098				5	96	253	Jurien Bay	Zuydorp	Y
<i>Stolonica aluta</i>	Kort, 1985	350333032				1	147	157	Bald Island	Bald Island	
<i>Syela clava</i>	Herdman, 1881	350333100				1	100	100	Shark Bay	Shark Bay	
<i>Syela plicata</i>	(Lesueur, 1823)	350333101				1	93	93	Barrow	Barrow	Y

Class THALIACEA

Order DOLIOLODA

Family Doliodidae

Dolioletta gegerbauri (Ujanin, 1884)

35102001

Order PYROSOMIDA

Family Pyrosomatidae

Pyrosoma atlanticum Pérón, 1804

35101001

Order SALPIDA

Family Salpidae

Salpa maxima Forskål, 1775

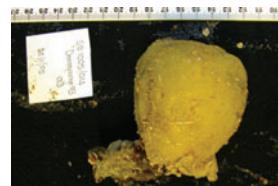
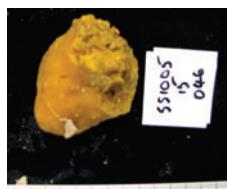
35103015

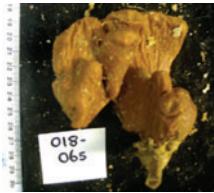
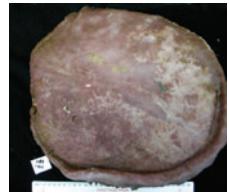
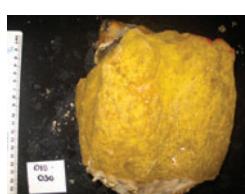
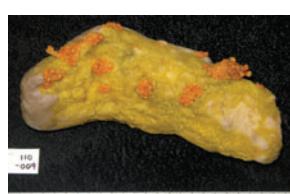
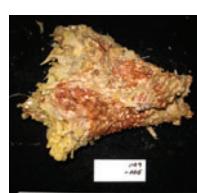
*New species includes those species from the survey as yet undescribed and also those which have subsequently been described – species name shown in bold italics

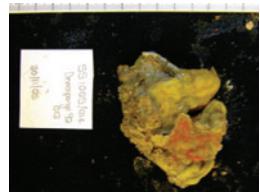
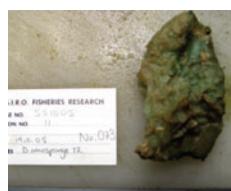
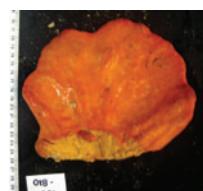
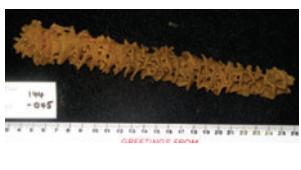
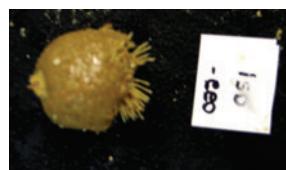
	2	100	411	Red Bluff	Point Cloates
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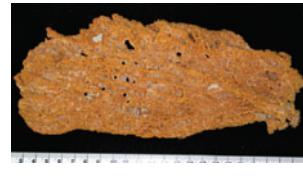
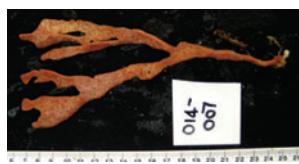
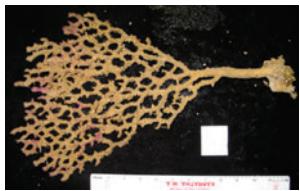
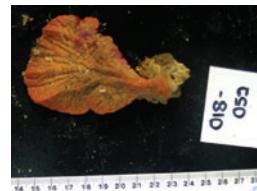
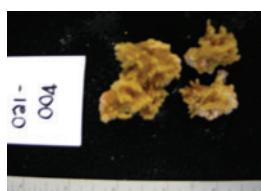
APPENDIX 2 Gallery of live colour images of over half the species of invertebrate megabenthos identified from the western continental margin of Australia.

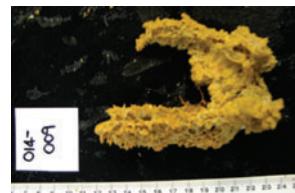
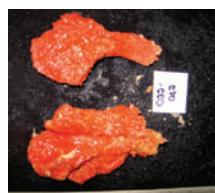
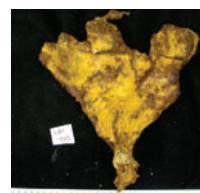
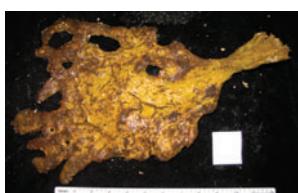
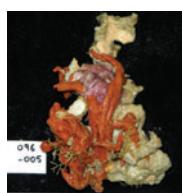
Note: Image names show the CAAB number plus the species name – this can be matched to Appendix 1 for further information each the species. Note not all species are photographed due to the level of rough sorting permissible at sea.

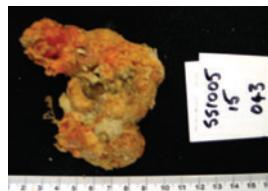
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99100410-*Penares*-sp.WAMSS199100403-*Stelletta*-sp.WAMSS499100402-*Stelletta*-sp.WAMSS399100412-*Ecionemia*-sp.WAMSS399100286-*Psammastra*-sp.WAMSS299100396-*Ancorina*-sp.WAMSS299100400-*Asteropus*-sp.WAMSS599100411-*Ecionemia*-sp.WAMSS199100413-*Jaspis*-sp.WAMSS199100414-*Jaspis*-sp.WAMSS299100407-*Stelletta*-sp.WAMSS899100417-*Jaspis*-sp.WAMSS599100421-*Rhabdastrella*-sp.WAMSS499100416-*Jaspis*-sp.WAMSS499100422-*Asteropus*-cf.-*simplex*99100292-*Stelletta*-sp.WAMSS999100423-*Geodia*-sp.WAMNG199100426-*Isops*-sp.WAMSS199100424-*Geodia*-sp.WAMSS199100427-*Isops*-sp.WAMSS299100425-*Geodia*-sp.WAMSS299100263-*Erylus*-sp.WAMSS199100428-*Isops*-sp.WAMSS399100241-*Erylus*-sp.WAMSS2

10021022-*Spheciospongia-purpurea*10021023-*Spheciospongia-papillosa*99100430-*Spheciospongia-cf.-papillosa*99100431-*Spheciospongia-sp.WAMMFI*99100433-*Hemiasterella-sp.WAMSS2*99100434-*Sceptrella-sp.WAMSS1*99100435-*Sceptrella-sp.WAMSS2*99100332-*Latrunculia-sp.WAMSS1*99100438-*Polymastia-sp.WAMSS2*99100319-*Polymastia-sp.WAMSS3*99100327-*Polymastia-sp.WAMSS1*99100285-*Polymastia-sp.WAMSS5*99100262-*Polymastia-sp.WAMSS4*99100441-*Diplastrella-sp.WAMSS2*99100440-*Diplastrella-sp.WAMSS1*10028003-*Caulospongia-biflabellata*10028007-*Caulospongia-plicata*99100443-*Tethyastra-sp.WAMSS1*99100444-*Tethyastra-sp.WAMSS2*99100287-*Tethya-cf.-ingalli*99100445-*Stellitethya-sp.WAMSS1*10031001-*Trachycladus-laevipirifer*99100447-*Theonella-sp.WAMSS1*99100448-*Agelas-sp.WAMSS1*

99100449-*Agelas*-sp.WAMSS299100450-*Agelas*-sp.WAMSS399100452-*Zyzya*-sp.WAMSS110066059-*Clathria*-selachia10066066-*Clathria*-(*Thalysias*)-*abietina*10066131-*Echinocladinia*-*leporina*10066138-*Holopsamma*-*arborea*99100453-*Holopsamma*-sp.WAMSS199100454-*Clathria*-(*Thalysias*) cf.-*juniperina*99100460-*Clathria*-(*Clathria*)-sp.WAMSS399100455-*Holopsamma*-sp.WAMSS299100457-*Clathria*-(*Thalysias*)-sp.WAMSS199100456-*Clathria*-(*Thalysias*) cf.-*procera*10067040-*Raspailia*-(*Clathriodendron*) *desmoxiiformis*10067055-*Raspailia*-(*Raspailia*)-*vestigifera*10067059-*Trikentriion*-*flabelliforme*99100243-*Echinodictyum*-cf.
cancellatum99100462-*Raspailia*-(*Parasyringella*) sp.WAMSS399100466-*Raspailia*-(*Clathriodendron*) sp.WAMSS199100465-*Raspailia*-(*Raspaxilla*) sp.WAMNG199100461-*Raspailia*-(*Parasyringella*) sp.WAMSS299100464-*Raspailia*-(*Raspaxilla*) sp.WAMSS399100470-*Ceratopsion*-cf.-*dichotoma*99100471-*Lithoplocamia*-sp.WAMSS1

99100468-*Aulospongus*-sp.WAMSS299100472-*Rhabderemia*-sp.WAMSS199100473-*Desmacidon*-sp.WAMSS199100474-*Fibulia*-sp.WAMSS199100475-*Fibulia*-sp.WAMSS299100300-*Coelosphaera*-(*Coelosphaera*) sp.WAMSS399100479-*Coelosphaera*-(*Coelosphaera*) sp.WAMSS599100478-*Coelosphaera*-(*Coelosphaera*) sp.WAMSS499100477-*Coelosphaera*-(*Coelosphaera*) sp.WAMSS299100476-*Coelosphaera*-(*Coelosphaera*) sp.WAMSS199100482-*Coelosphaera*-(*Coelosphaera*) sp.WAMSS899100483-*Monanchora*-sp.WAMNG199100484-*Monanchora*-sp.WAMSS199100485-*Crella*-(*Pytheas*)-sp.WAMSS199100486-*Crella*-(*Crella*)-sp.WAMSS199100490-*Crella*-(*Ynesia*)-sp.WAMSS299100489-*Crella*-(*Ynesia*)-sp.WAMSS199100491-*Phorbas*-sp.WAMNG199100363-*Phorbas*-sp.WAMSS110077037-*Iotrochota*-*baculifera*99100492-*Iotrochota*-cf.-*baculifera*99100496-*Chondropsis*-sp.WAMSS199100495-*Chondropsis*-sp.WAMNG199100494-*Strongylacidon*-sp.WAMSS2



99100497-Tedania-(*Trachytedania*)
sp.WAMSS1



99100499-Tedania-(*Tedaniopsis*)
sp.WAMSS1



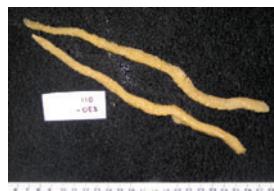
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sp.WAMSS2



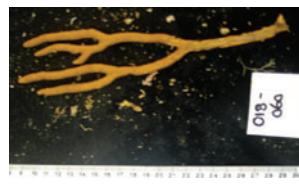
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sp.WAMSS1



99100503-Strongylamma-sp.WAMSS1



99100504-Hemitedania-sp.WAMSS1



99100508-Sigmaxinella-sp.WAMSS4



99100507-Sigmaxinella
sp.WAMSS3



99100506-Sigmaxinella-sp.WAMSS2



99100511-Desmacella-sp.WAMSS1



99100344-Sigmaxinella-sp.WAMSS5



99100512-Biemna-sp.WAMSS2



99100514-Biemna-sp.WAMSS4



99100513-Biemna-sp.WAMSS3



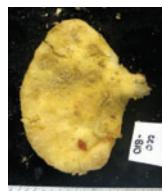
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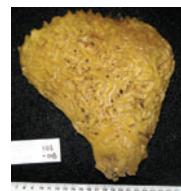
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99100519-Mycale-(*Aegogropila*)
sp.WAMSS1



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sp.WAMSS1



99100517-Mycale-(*Carmia*)
sp.WAMSS3



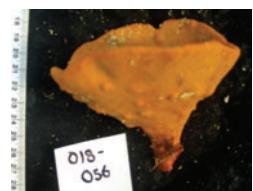
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99100523-Axinella-sp.WAMSS1



99100366-Phakellia-sp.WAMNG3



99100305-Axinella-sp.WAMNG3



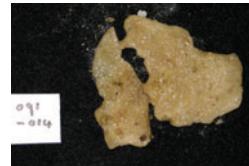
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99100527-Axinella-sp.WAMSS6



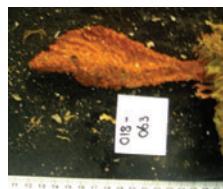
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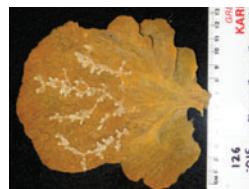
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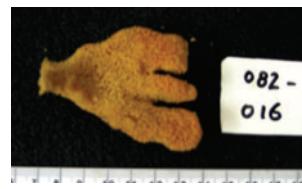
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99100252-Axinella-sp.WAMNG2



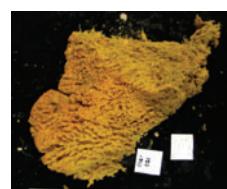
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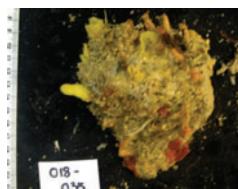
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99100532-Didiscus-sp.WAMSS3



99100533-Myrmekioderma-sp.WAMSS1



99100531-Didiscus-sp.WAMSS2



99100534-Myrmekioderma-sp.WAMSS2



99100250-Acanthella-sp.WAMSS1



99100535-Acanthella-sp.WAMSS3



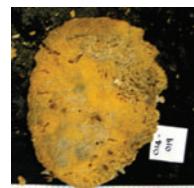
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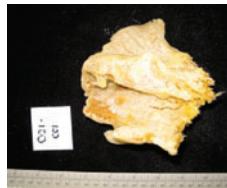
99100254-Acanthella-sp.WAMNG3



99100536-Acanthella-sp.WAMNG2



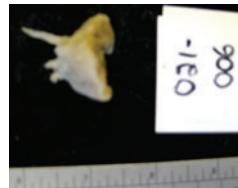
99100538-Halichondria-(Halichondria) sp.WAMSS3



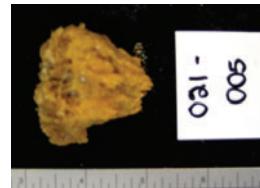
99100545-Hymeniacidon-sp.WAMSS1



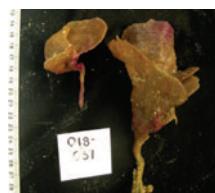
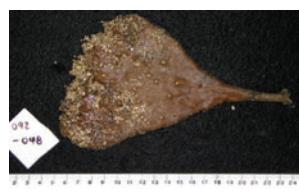
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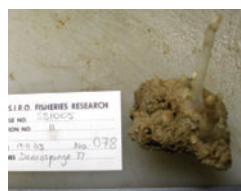
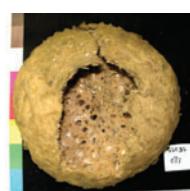
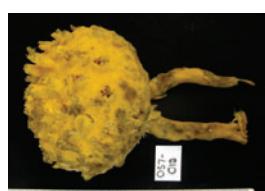
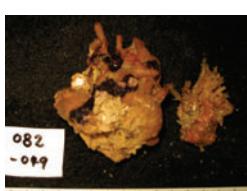
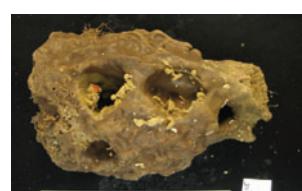
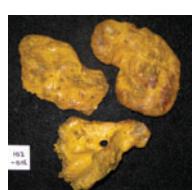


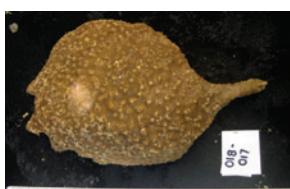
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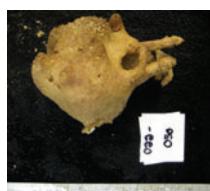


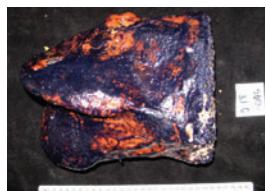
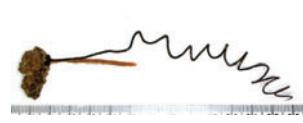
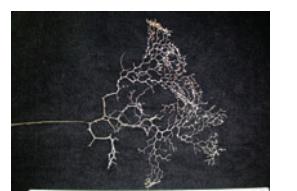
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sp.WAMSS510098010-*Callyspongia*-(*Callyspongia*)
bilamellata99100548-*Callyspongia*-(*Callyspongia*)
sp.WAMSS199100547-*Callyspongia*-(*Callyspongia*)
sp.WAMNG199100549-*Callyspongia*-(*Callyspongia*)
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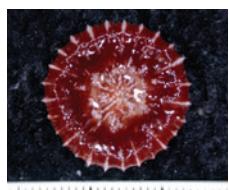
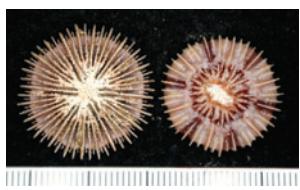
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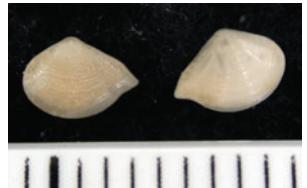
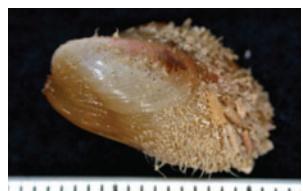
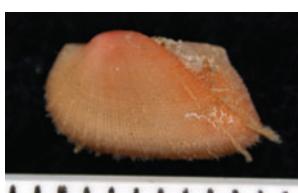
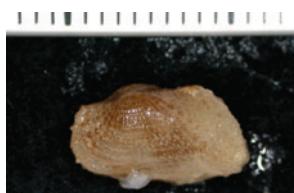
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99100646-*Leiosella*-sp.WAMSS399100360-*Spongia*-(*Heterofibria*) sp.WAMSS199100249-*Hippospongia*-sp.WAMSS499100641-*Hippospongia*-sp.WAMSS599100280-*Hippospongia*-sp.WAMSS199100653-*Aplysina*-sp.WAMSS199100652-*Aplysinidae*-sp.WAMSS299100651-*Aplysinidae*-sp.WAMSS199100656-*Pseudoceratina*-sp.WAMSS399100655-*Pseudoceratina*-sp.WAMSS299100654-*Pseudoceratina*-sp.WAMSS111158002-*Myriopathes-myriophylla*99110611-*Myriopathes*-sp.A99110612-*Myriopathes*-cf.-*japonica*11161002-*Parantipathes-helicosticha*99110615-*Stichopathes*-sp.A99110292-*Acanthogorgia*-sp.D99110424-*Muricella*-sp.A11175000-*Acanthogorgia*-sp.-indet.99110296-*Anthomastus*-sp.A99110426-*Eleutherobia*-n.sp.A99110428-*Inflatocalyx*-n.sp.A99110297-*Anthothela*-sp.N99110302-*Metallogorgia*-sp.A

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99110446-*Paramuricea*-cf.-*grandis*99110447-*Swiftia*-sp.B99110343-*Bebryce*-sp.C99110450-*Villogorgia*-sp.B99110339-*Astrogorgia*-sp.D11197015-*Pseudoplumarella*-*filicoides*99110349-*Narella*-sp.F99110433-*Echinoptilum*-cf.-*macintoshii*11216003-*Umbellula*-*huxleyi*99110351-*Pteroeides*-sp.F11224001-*Scytalium*-*sarsii*99110454-*Acanthoptilum*-n.sp.B99110453-*Acanthoptilum*-n.sp.A11299002-*Letepsammia*-*formosissima*11301001-*Fungiacyathus*-*fragilis*11304001-*Anthemiphyllia*-*dentata*99110618-*Anthemiphyllia*-n.sp.A11314019-*Stephanocyathus*-*spiniger*11314021-*Deltocyathus*-*suluensis*11314042-*Caryophyllia*-*planilamellata*11314062-*Stephanocyathus*-*weberianus*99110619-*Stephanocyathus*-cf.-*coronatus*99110622-*Balanophyllia*-sp.A11328003-*Flabellum*-*lamellulosum*

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23231014-Glycymeris-hedleyi



23231018-Tucetona-hoylei



23231022-Tucetona-scalarisculpta



99230131-Pteria-cf.-falcata



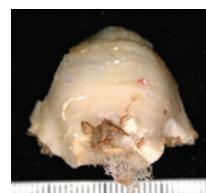
23237002-Malleus-albus



23250005-Lima-nimbifer



99230132-Ctenoides-cf.-annulata



99230133-Neopycnodonte-sp.I



23265001-Dimya-corrugata



23270006-Mimachlamys-asperrima



23270007-Pecten-fumatus



23270008-Semipallium-aktinos



23270021-Mesopeplum-fenestratum



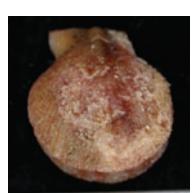
23270029-Chlamys-challengeri



99230137-Cryptopecten-cf.-bullatus



99230142-Semipallium-sp.I



99230144-Pectinidae-sp.I



99230138-Talochlamys-cf.-pulleinea



99230141-Delectopecten-cf.-alcocki



99230145-Propeamussium-sp.2



99230149-Parvamussium-sp.2



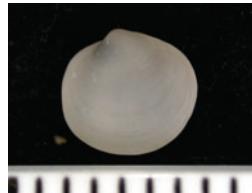
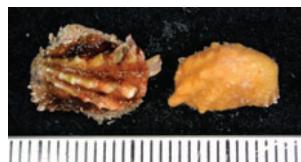
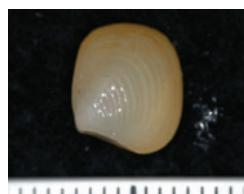
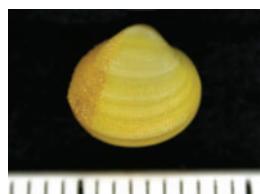
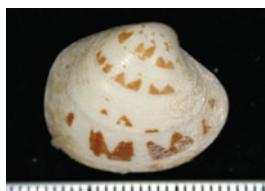
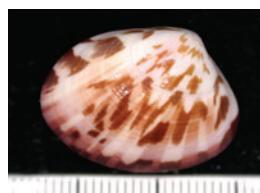
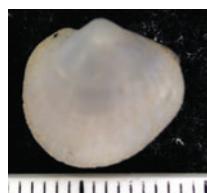
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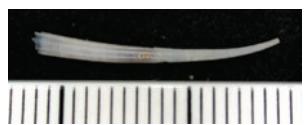
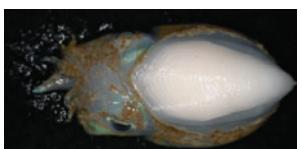
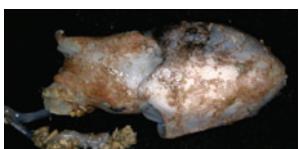
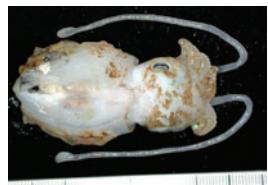
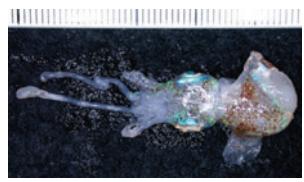
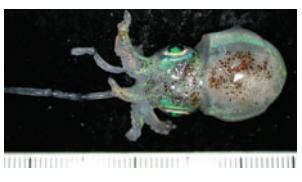
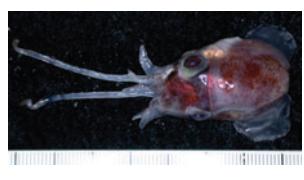


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23305014-Cardiolucina-crassilirata

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23435009-*Cuspidaria-latesulcata*23435021-*Cardiomya-pinna*99230198-*Pseudoneaera-sp.4*99230197-*Cardiomya-sp.1*99230208-*Fissidentalium-cf.-shirleyae*99230207-*Fissidentalium-sp.3*99230205-*Fissidentalium-sp.1*99230210-*Laevidentalium-sp.1*99230211-*Laevidentalium-sp.2*99230219-*Dischides-sp.1*23607002-*Sepia-cultrata*23607006-*Sepia-opipara*23607901-*Sepia-sp.-indet.*99230220-*Sepia-cf.-cottoni*99230221-*Sepia-cf.-chirotrema*23608001-*Sepioloidae-lineolata*99230222-*Sepiadarium-sp.1*23609001-*Euprymna-tasmanica*23609007-*Sepiolina-nipponensis*236090901-*Austrorossia-spp.*23609902-*Heteroteuthis-spp.*23609903-*Sepiolina-spp.*99230224-*Austrorossia-cf.-australis*23609000-*Sepiolidae-undifferentiated*

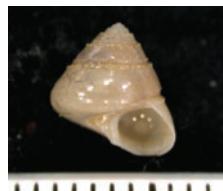
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23659000-Octopodidae-undifferentiated

99230228-*Octopus*-sp.299230229-*Octopus*-sp.399230230-*Octopus*-sp.499230234-*Pteroctopus*-sp.199230232-*Callistocarpus*-sp.199230233-*Callistocarpus*-sp.223662003-*Argonauta-hians*24040004-*Emarginula*-*patula*24040049-*Cranopsis*-*corolla*99240158-*Emarginula*-sp.199240162-*Puncturella*-sp.199240159-*Emarginula*-sp.499240163-*Bolma*-sp.199240173-*Periaulax*-sp.399240164-*Calliotropis*-sp.1



99240175-Minoleini-sp.3



99240172-Periaulax-sp.2



99240170-Sequenziinae-sp.4



99240180-Cerithium-sp.2



99240182-Turritella-sp.1



99240185-Rissoidae-sp.1



99240186-Capulus-sp.1



24145010-Xenophora-gigantea



99240187-Xenophora-cf.-cerea



24155030-Notocypraea-pulicaria



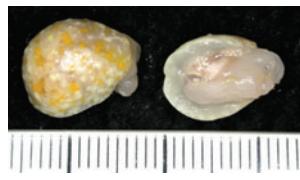
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24155036-Zoila-friendii-jeaniana



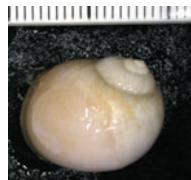
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99240192-Lamellaria-sp.1



24165052-Polinices-peselephanti



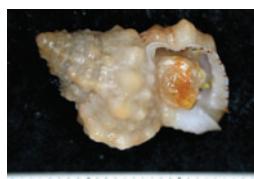
99240195-Natica-cf.-phytelephas



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24171025-Semicassis-whitworthi



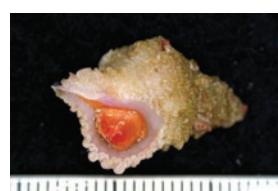
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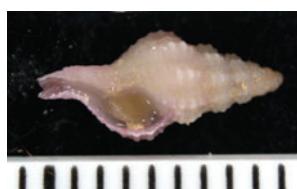


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99240206-Oocorys-n-sp.1

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99240273-Gemmula-sp.4



99240269-Gemmula-cf.-sibogae



99240292-Turridae-sp.2



99240295-Turridae-sp.6



99240262-Cochlespira-sp.1



99240272-Gemmula-sp.3



99240288-Ptychobela-cf.-flavidula



99240270-Gemmula-cf.-unedo



99240285-Inquisitor-sp.4



99240261-Buccinaria-sp.1



99240271-Gemmula-sp.1



24221001-Terebra-commaculata



99240305-Terebra-cf.-pertusa



99240308-Terebra-sp.7



24222010-Conus-anemone



24222025-Conus-boholensis



24222056-Conus-gabelishi



24222098-Conus-planorbis



99240310-Conus-sp.2



99240311-Conus-sp.4



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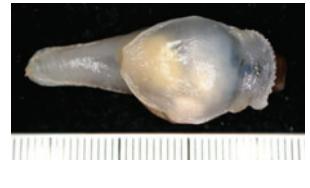
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99240326-Eudoridoidea-sp. I



99240328-Alliodoris-sp. I

99240329-Gymnodoris-cf.-
rubropapulosa

99240336-Dorididae-n.sp. I



99240331-Aphelodoris-sp. I



99240330-Aldisa-sp. I



99240333-Halgerda-sp. I



99240334-Halgerda-sp. 2



99240335-Platydoris-n.sp. I



99240332-Doris-sp. I



99240337-Glossodoris-sp. I



99240338-Marionia-sp. I



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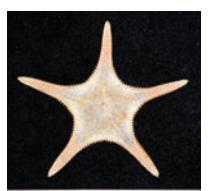
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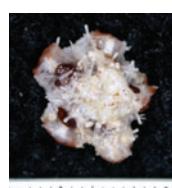


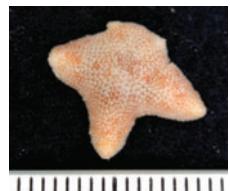
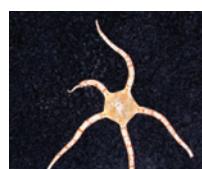
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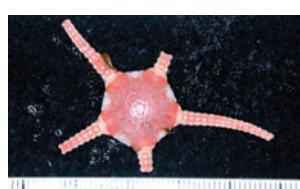
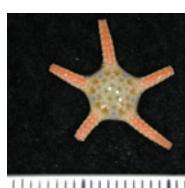


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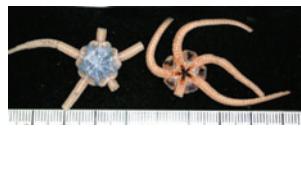
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25177003-Ophioleuce-seminudum



25178001-Clarkcomia-bollonsi



25179009-Ophionereis-schayeri



25179010-Ophionereis-semoni



25179016-Ophioplax-lamellosa



25179020-Ophiodoris-malignus



25179021-Ophiochiton-sp.MOV5498



25180024-Ophiopeza-cylindrica



25180028-Ophiopsammus-assimilis



25185004-Ophiacantha-spectabilis



25185007-Ophioplinthaca-plicata



25185011-Ophiacantha-alternata



25185012-Ophiacantha-brachynotha



25185013-Ophiacantha-clavigera



25185027-Ophiomyces-delata



25185029-Ophiophthalmus-relictus



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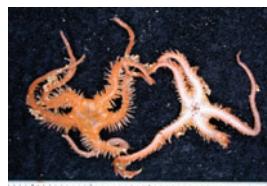
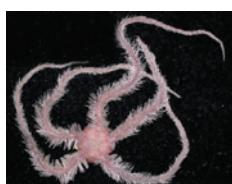
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25192071-Ophiothrix-sp.MOV5502



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25202017-Prionocidaris-baculosa



25202023-Stereocidaris-scepteriferaoides



25202024-Stylocidaris-bracteata



99250374-Rhopalocidaris-sp.I



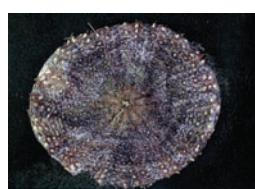
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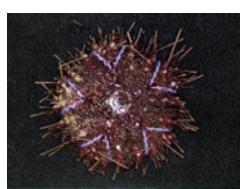
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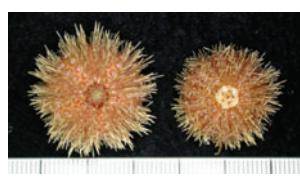
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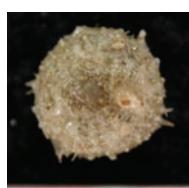
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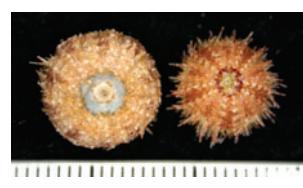
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25241030-Temnotrema-maculatum



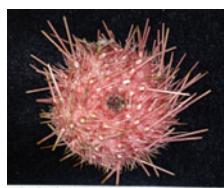
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25241035-Microcyphus-keiensis



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25246002-Gracilechinus-multidentatus



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25306001-Anametalia-regularis



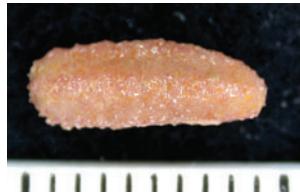
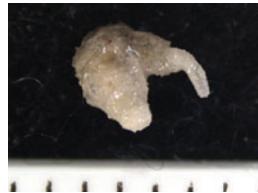
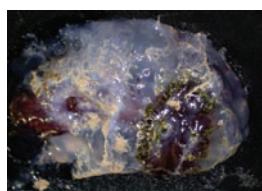
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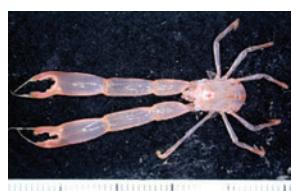
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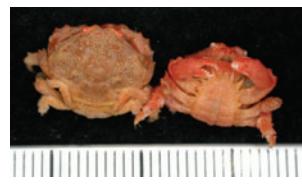
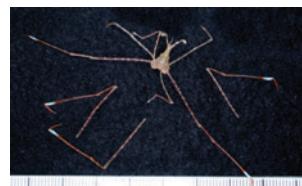
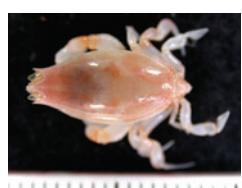
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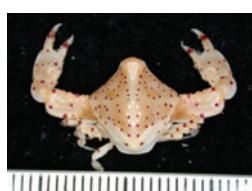
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28876098-Arcania-sp.MOV4987



28876107-Philyra-sp.MOV4984



28876108-Randallia-sp.MOV4977



28876104-Leucosia-sp.MOV4985



28880001-Platymaia-wyvillethomsoni



28880005-Leptomithrax-sternocostulatus



28880013-Dorhynchus-ramusculus



28880022-Achaeus-curvirostris



28880032-Camposcia-retusa



28880047-Griffinia-lappacea



28880068-Cyrtomaia-maccullochi



28880079-Sunipea-indicus



28880086-Leptomithrax-globifer



28880097-Prismatopus-occidentalis



28880148-Phalangipus-hystrix



28880155-Planotergum-mirabile



28880161-Oncinopodus-cf.-angustifrons



28880163-Prismatopus-brevispinosus



28880164-Physachaeus-ctenurus



28880165-Maja-confragosa



28880172-Oxypleurodon-wilsoni



28880173-Rochinia-annae

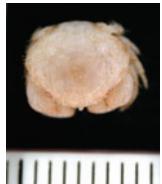
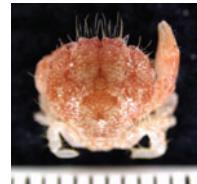
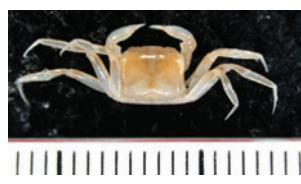


28880174-Rochinia-carinata



28885014-Trigonoplax-longirostris

28885031-*Halicarcinus*-sp.MOV500228895014-*Daldorfia*-excavata28895018-*Parthenope*-chondrodes28895038-*Garthambrus*-sp.MOV501128895039-*Garthambrus*-sp.MOV506328900004-*Jonas*-sp.MOV502128901006-*Trichopeltarion*-sp.MOV513528911016-*Liocarcinus*-corrugatus28911019-*Charybdis*-miles28911021-*Parathranites*-orientalis28911023-*Thalamita*-sexlobata28911025-*Thalamita*-spinifera28911033-*Portunus*-haanii28911051-*Nectocarcinus*-spinifrons28911059-*Ovalipes*-iridescens28911061-*Lupocyclops*-philippinensis28911094-*Thalamita*-macropus28911103-*Lupocyclops*-quinquedentatus28911105-*Charybdis*-hongkongensis28911106-*Portunus*-longispinosus28911107-*Portunus*-nipponensis28911109-*Echinolatus*-poorei28911115-*Lupocyclops*-sp.MOV518528917001-*Mathildella*-serrata

28917007-*Neopilumnoplax nieli*28920001-*Actaea peronii peronii*28920026-*Calvactaea tumida*28920102-*Palapedia pelsartensis*28920176-*Palapedia valentini*28920189-*Nanocassiope* sp.MOV508728920190-*Nanocassiope* sp.MOV529928920193-*Paraxanthodes* sp.MOV507228920195-*Xanthias* sp.MOV507628922001-*Psopheticus stridulans*28922002-*Pycnoplax meridionalis*28922021-*Pycnoplax bispinosa*28922022-*Notonyx nitidus*28917008-*Goneplacidae* sp.MOV499728922031-*Carcinoplax* sp.MOV499228922035-*Paragoneplax serenei*28923003-*Hexaplax megalops*28924001-*Carpilius convexus*28925009-*Hypothalassia acerba*28926020-*Eumedonous niger*28926098-*Caecopilumnus piroculatus*28926100-*Mertonia lanka*28926115-*Paraselwynia* sp.MOV508999280440-*Pilumnus* cf. *spinicarpus*



28926119-Pilumnus-sp.MOV5099



28926126-Pilumnidae-sp.MOV4995



28927022-Quadrella-reticulata



28962007-Pseudopalicus-macromelis



28962014-Micropalicus-vietnamensis



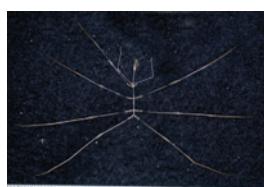
33011016-Parapallene-australiensis



33011020-Parapallene-haddoni



33012054-Tanystylum-zuytdorpfi



33014017-Rhopalorhynchus-sibogae



33014019-Colossendeis-colossea



33014024-Hedgpethia-calva



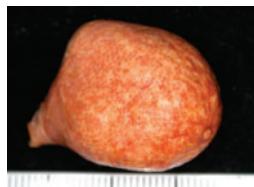
33020010-Pallenopsis-cribaribatus



33020015-Pallenopsis-temporans



35012002-Rhopalaea-crassa



35013071-Leptoclinides-durus



35013094-Polysyncraton-millepore



35013157-Didemnum-ossium



35013162-Didemnum-perplexum



35013211-Atriolum-bucinum



35013275-Polysyncraton-fistulum



35013281-Polysyncraton-pavimentum



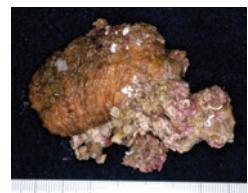
35015035-Sycozoa-seiziwadai



35018004-Eucoelium-coronaria



35019010-Aplidium-caelestis

35019034-*Aplidium-magnilarvum*35019047-*Aplidium-solidum*35019072-*Synoicum-chrysanthemum*35021011-*Sigillina-australis*35032008-*Herdmania-momus*35032046-*Herdmania-grandis*35033048-*Cnemidocarpa-completa*35033065-*Polycarpa-aurita*35033098-*Polycarpa-viridis*35033101-*Styela-plicata*35102001-*Dolioletta-gegenbauri*

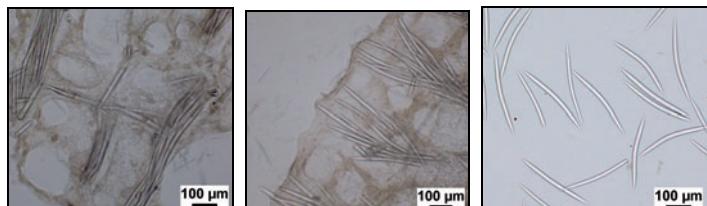
APPENDIX 3 Example of sponge mudmaps used for identification purposes, for the species *Axinella* sp. SS1 (Fromont and Gomez 2007).

Western Australian Sponges



FIELD No: SS1005/002-027, 038
RVS4545/D084-070

REG. No: WAM Z35012, Z45169



ORDER: Halichondrida
FAMILY: Axinellidae
GENUS: *Axinella*
SPECIES: sp. SS1
AUTHORITY:

Growth Form: Erect branching lobes with basal stem. Dimensions: 16cm (H) x 18cm (W) x 0.5cm (T).

Colour: Fawn throughout, pale maroon colouration on parts of surface. Fawn in ethanol.

Oscules: On one side of lobes. Approximately 1mm wide and slightly raised.

Texture: Firm, compressible, springy.

Surface Ornamentation: Fine adherent surface membrane, finely porous.

Ectosomal Skeleton: Spicules brushes at right angles to surface, extending slightly beyond. Slightly thickened mesohyl at surface.

Choanosomal Skeleton: Axial condensation in the stem with fibres around spicules. Spicule tracts radiate to surface. Width of primary fibres: 82μm with 4-6 spicules across. Width of secondary fibres: 35μm with 1-2 spicules across.

Western Australian Sponges

Megascleres: Oxeas with sharp pencil points, usually centrally bent, some thin forms occur. Occasional styles present. Oxea length: 281-**337**-378 μ m. Width: 14-**17**-20 μ m. Specimen SS1005/002-038 (Lot 100-3): Oxea length: 312-**352**-378 μ m. Width: 11-**14**-17 μ m.

Microscleres: None.

Symbionts: None observed.

Associated Fauna: None observed.

Remarks: WAM Z35012 and specimen SS1005/002-038 (Lot 100-3) have oocytes.

Specimens: WAM Z35012 (S1005/002-027 (Lot 100-2)), WAM Z45169 (RVS4545/D084-070, not processed).

Other Material: SS1005/002-038 (Fragment).