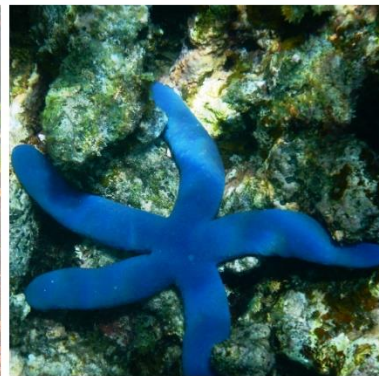




Cape Range, Western Australia 2019: Bush Blitz expedition report



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Contributors

Bush Blitz is coordinated by Parks Australia, which is part of the Australian Government Department of Agriculture, Water and the Environment. The program is a partnership between the Australian Government, BHP and Earthwatch Australia.

Research agencies involved in this Bush Blitz were the Western Australian Museum, the Western Australian Herbarium and the University of New South Wales.

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Acknowledgements

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Summary

From 17 to 27 June 2019, Bush Blitz led an expedition to the Cape Range peninsula in Western Australia.

Surveys and collections filled knowledge gaps, provided important material for future genetic and taxonomic studies, and extended the known ranges of species, adding some new records for Australia.

At least 769 species were recorded during the Bush Blitz and 46 of those may be completely new to science (3 marine fishes, 2 moths, 24 true bugs, 2 spiders, 1 pseudoscorpion, 2 crabs, 2 molluscs and 10 sponges). Many unnamed or informal invertebrate taxa were collected. These may assist scientists to revise, compare and describe species in the future.

One species of threatened mammal was recorded – Black-flanked Rock-wallaby (*Petrogale lateralis lateralis*) – and 5 vascular plant species that are poorly known or near threatened.

Nine introduced and pest animal species were recorded, along with 5 introduced plant species.

Highlights of the expedition include:

- the collection of the first museum fish vouchers from the Exmouth Gulf mangroves, and the identification of relatively intact reef habitats that support diverse and healthy fish communities.
- the discovery in a tidal pool in Exmouth Gulf of prawn species *Melicertus marginatus*, previously only known from deeper waters (up to 300 m) adjacent to the gulf.
- the discovery of a species of symbiotic barnacle, *Pectinacasta cancellorum*, recorded for the first time in Australian waters. Specimens collected will be used in upcoming taxonomic and systematic papers.
- the collection of a recently described species of cockle bivalve that was found live for the first time (*Ctenocardia pilbaraensis*).
- the collection of the first physical vouchers of sea slug *Goniobranchus* cf. *roboi*, previously known from photographs – its description is now underway.
- the chance ‘discovery’ of a large, stunning and rarely seen candy cane sea slug (*Bornella* sp.) in the aquarium at the Ningaloo Centre – the species may be new to science.
- significant additions to the tissue library of the Marine Invertebrate Zoology collections at the WA Museum, providing an excellent resource for future research.
- the first records of the trapdoor spider genera *Conothele* and *Euoplos* from Cape Range, both represented by new species.
- the first record of the pseudoscorpion genus *Synsphyronus* from Cape Range, represented by a new species.
- the type collection of the endemic Cape Range Buttercup (*Hibbertia* sp. Cape Range) which was formally described in December 2019 as *Hibbertia capensis*.

Introduction

About Bush Blitz

The Bush Blitz program documents plants and animals in selected properties across Australia to support the discovery of new species, complement and complete existing collections, and provide information to support land management and conservation.

Bush Blitz is an initiative of the Australian Government, through Parks Australia, in partnership with BHP and Earthwatch Australia. This innovative partnership harnesses the expertise of many of Australia's top scientists from museums, herbaria, universities, and other institutions and organisations across the country.

An estimated 580,000–680,000 species are found in Australia (Chapman 2009), but three-quarters of this biodiversity is yet to be identified. Around 45% of continental Australia and over 90% of our marine area have never been comprehensively surveyed by scientists. Increasing our understanding of Australia's biodiversity is critical for conservation, biosecurity, agriculture, human and animal health and many other activities.

Since the Bush Blitz program began in 2010, more than 1,700 species have been discovered during Bush Blitz expeditions across Australia.

In addition to species discovery, Bush Blitz objectives include raising public awareness of biodiversity, and improving environmental, social and educational outcomes for local and Indigenous communities. While some of these objectives are met during expeditions – through Bush Blitz TeachLive, teacher workshops and community days – they are out of scope for this report.

About this report

This report summarises the initial scientific findings of an expedition to the Cape Range region. Information in this report has been extracted from the [scientific reports](#) provided by expedition members. Locational data for all flora and fauna records are provided to reserve managers and are publicly available through the [Atlas of Living Australia](#) (ALA).

Cape Range Bush Blitz

Bush Blitz led an expedition to the Cape Range region from 17 to 27 June 2019, to collect and record plants and animals living in terrestrial and marine environments.

The Cape Range peninsula is a heavily dissected karstic range and fringing coastal plain adjacent to the northern part of the Ningaloo Marine Park. Located about 1,200 km north of Perth, on the north-west coast of Western Australia, Cape Range forms the westernmost area of continental Australia. It sits within the tropical zone, but the terrestrial ecosystems are distinctly arid-adapted, reflecting the climate and intermittent rainfall that is characteristic of the region.

The peninsula is floristically rich for an arid limestone environment and supports populations of flora from temperate, arid and tropical provinces. Although the area has had many visits by professional and amateur botanists over the last 50 years, Cape Range National Park and its surrounds have been poorly surveyed for vascular plants.

The peninsula also has a rich and diverse fauna that has been attributed to the range of habitats available, as well as the presence of species at the limit of their geographical range or occurring as geographically isolated populations. There have been limited studies of the terrestrial fauna of the region. For example, previous studies of the region's arachnid and myriapod fauna focused on subterranean fauna. This expedition gave terrestrial teams an opportunity to fill knowledge gaps through targeted collections, including from locations that were previously difficult to access, with assistance from land managers and the use of helicopters.

Cape Range National Park encompasses 50,581 ha of the Cape Range peninsula. A national park covering part of the existing Cape Range National Park was first gazetted as a reserve in 1964 and it reached its current size in 1974 (WA Government 2010). The expedition team worked closely with the Department of Biodiversity, Conservation and Attractions (WA) who jointly manage the park with the Baiyungu, Thalanyji and Yinikutura Traditional Owners.

The marine environments surrounding Cape Range peninsula can be loosely divided into 2 broad habitats. The west coast is dominated by Ningaloo Reef, which is a 260 km long narrow fringing/barrier coral reef with an extensive back-reef lagoon. Ningaloo Reef is a popular destination for tourism and has been surveyed extensively over the years. As a result, much of the fauna is relatively well documented. To the east of the peninsula is the large embayment of Exmouth Gulf, some 40 km wide and 80 km long (~3,000 km²). The gulf is dominated by soft sediments with widespread filter-feeder communities of sponges and soft corals. The fauna of Exmouth Gulf is poorly known, apart from bycatch monitoring of the prawn and scallop fishery.

Exmouth Gulf supports a diversity of habitats that house a high diversity of fishes but the reef and mangrove fish communities are poorly known. Other than the fish species caught as bycatch in prawn trawls, only a few records exist and the mangrove systems are effectively unstudied for fishes. During this expedition, surveys prioritised species that are behaviourally cryptic, or known to belong to taxonomically complex and poorly documented groups, such as the fish families Gobiidae and Apogonidae, and mangrove-associated fauna.

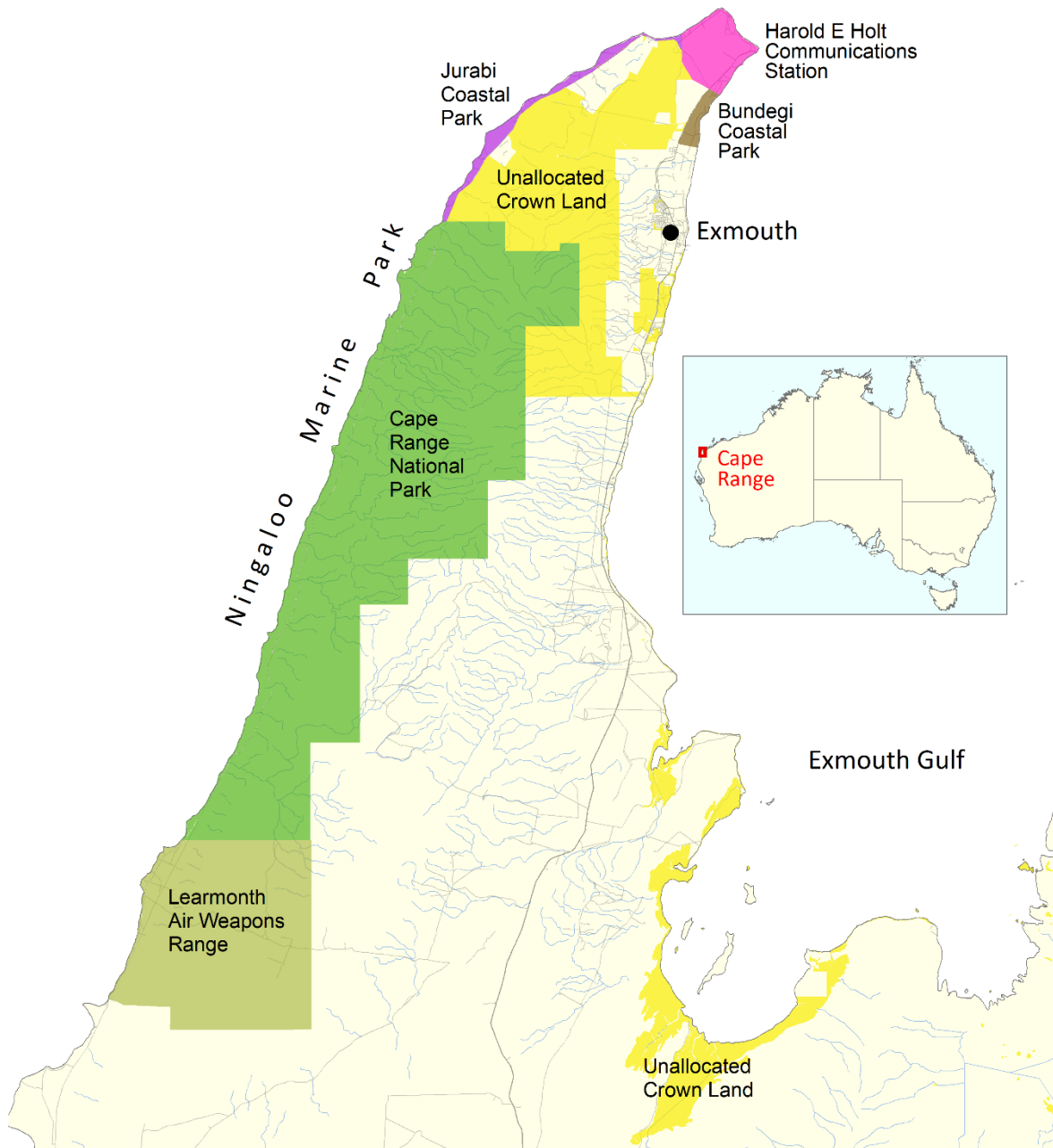
Marine invertebrates of Exmouth Gulf are also poorly known. The region is a biodiversity hotspot for marine sponges and the expedition provided a unique opportunity to sample the shallow regions of the Ningaloo Coast and Exmouth Gulf. In particular, the sites on the northern side of the gulf had not previously been sampled for sponges. Marine molluscs from the gulf have received some attention but virtually nothing is known about the micromolluscs. Mollusc surveys focused on microscopic (less than 0.5 cm) marine gastropods of the gulf and shallow sites on Ningaloo Reef that have also received less attention.

Study area

The study area included parts of Bundegi Coastal Park, Cape Range National Park, Harold E Holt Naval Communications Station (Harold E Holt), Jurabi Coastal Park, Learmonth Air Weapons Range, adjoining pastoral land and unallocated Crown Land (UCL), the Exmouth Gulf and Ningaloo Marine Park.

Map 1 shows the locations visited during the expedition.

Map 1 Locations visited, 17 June to 27 June 2019



Note: For a map of collection sites see [Appendix B](#).

Expedition team

Logistics

Bush Blitz provided the logistical coordination and overall leadership for the expedition. The Bush Blitz team consisted of Jo Harding, Kate Grarock, Haylee Weaver and Zoe Jarvis.

Scientific

The Western Australian Museum (WA Museum) and the Western Australian Herbarium (WA Herbarium) were the host institutions for this Bush Blitz, providing the core group of personnel and accessioning the specimens into their collections. Experts from the Department of Biodiversity, Conservation and Attractions (DBCA) and University of New South Wales (UNSW) also conducted field and laboratory work.

BHP participants

Sandra McCullough and Maria Garcia Rojas (Earthwatch Australia) coordinated 8 BHP employees who assisted scientists in the field. BHP employees on the expedition were Theodora Sotiris, Michael Walkling, Paul Elliott, Rachel Taplin, Robert Scott, Shelley Batten, Wanda Gunawan and Simon Summerfield.

Figure 1 Some members of the expedition team



Photograph: © Copyright, Earthwatch.

Methods

Taxonomic groups studied and personnel

A number of taxonomic groups were selected as targets for study. Table 1 lists the groups surveyed and the personnel who undertook the fieldwork, made identifications and reported on the findings.

Table 1 Taxonomic groups surveyed and personnel

Group	Common name	Personnel and affiliation
Mammalia, Reptilia and Amphibia	Mammals, reptiles and frogs	Paul Doughty (WA Museum) Ryan J Ellis (WA Museum) Linette S Umbrello (WA Museum) Lucy Clausen (DBCA) Heather Barnes (DBCA)
Chondrichthyes and Actinopterygii	Marine fishes	Glenn Moore (WA Museum) Mark Allen (WA Museum)
Porifera	Sponges	Jane Fromont (WA Museum) Oliver Gomez (WA Museum)
Lepidoptera	Moths	Paul Kay (WA Museum)
Heteroptera	True bugs	Arlee McMahan (UNSW) Nikolai Tataranic (WA Museum)
Mollusca	Molluscs	Lisa Kirkendale (WA Museum) Nerida Wilson (WA Museum)
Arachnida and Myriapoda	Arachnids and myriapods	Mark Harvey (WA Museum) Julianne Waldoock (WA Museum)
Crustacea	Crustaceans	Andrew Hosie (WA Museum) Ana Hara (WA Museum)
Vascular flora	Flowering plants	Greg Keighery (WA Herbarium) Kelly Lilburn (WA Herbarium)

Other personnel, including but not limited to Gerry Cassis (UNSW) and Ted Edwards (CSIRO), assisted with making identifications and reporting. These personnel and their roles are mentioned in the scientific reports.

Site selection and collection methods

All scientists surveyed 2 standard survey sites selected by Bush Blitz. Each standard survey site was centred on a point (permanently marked), but the actual area surveyed varied between taxa. Standard methodologies were used to sample these sites. Standard survey sites were both terrestrial and therefore not sampled during the marine surveys.

The use of standard survey sites provides a unique opportunity to examine broad-spectrum biodiversity. Among other benefits, it allows land managers to use these sites for ongoing monitoring and generates a national dataset that can be used to underpin conservation and land management decisions.

Apart from standard survey sites, site selection and collection methods were left to the discretion of the individual scientist. When selecting sites, scientists prioritised areas that were undersurveyed and had high potential for new or significant discoveries. They also considered the suitability of the site based on access, collection technique, habitat type and time available. Site locations were recorded using global positioning systems. Specific details about site selection and collection methods can be found in the scientific reports.

Identification and curation

The specimens taken will be identified using the holdings of museums and herbaria and available literature (references are provided in the scientific reports).

Fauna specimens will be deposited at the WA Museum, with duplicates of Heteroptera specimens deposited in the UNSW entomology collection. Vascular plants will be deposited at the WA Herbarium.

Results

Summary of records

Preliminary results indicate that at least 769 species were recorded during the Bush Blitz, including approximately 46 putative new species – these await formal identification. One threatened animal species, 9 introduced and pest animal species and 5 weed species were also recorded.

Table 2 provides a summary of the flora and fauna records made on the expedition.

Table 2 Summary of flora and fauna records

Group	Common name	Total species recorded	Putative new species	Threatened species	Introduced and pest species
Mammalia	Mammals	7	0	1	2
Reptilia	Reptiles	27	0	0	0
Amphibia	Frogs	2	0	0	0
Actinopterygii	Marine fishes	77	3	0	0
Chondrichthyes	Sharks and rays	1	0	0	0
Echinodermata	Seastars, brittle stars and sea cucumbers	5	0	0	0
Lepidoptera	Moths	82	2	0	5
Heteroptera	True bugs	95	24	0	2
Arachnida	Spiders	44	2	0	0
	Scorpions	4	0	0	0
	Pseudoscorpions	7	1	0	0
Myriapoda	Centipedes and millipedes	5	0	0	0
Crustacea	Crabs, lobsters, shrimp and barnacles	128	2	0	0
Mollusca	Molluscs	96	2	0	0
Bryozoa	Bryozoans	4	0	0	0
Cnidaria	Corals, jellyfish and sea anemones	18	0	0	0
Ctenophora	Comb jellies	1	0	0	0
Porifera	Sponges	55	10	0	0
Vascular flora	Flowering plants	111	0	0	5
Total		769	46	1	14

Note: Threatened species include those listed as threatened under the Commonwealth EPBC Act or an equivalent listing under the Biodiversity Conservation Act 2016 (WA). Introduced and pest species may include species that are native to Australia.

Species lists

Lists of all species recorded during the expedition ([Appendix A](#)) were compiled using data from participating institutions.

Some specimens were only able to be identified to family or genus level. This is partly because identification of specimens is very time-consuming, with detailed microscopic examination needed in many cases. Some groups are also 'orphans' – currently no experts are working on them or are available to work on them and the taxonomic literature is out of date. Species-level identification is therefore not possible for these groups.

In addition, due to a lack of rainfall prior to the expedition, many of the plant species taken displayed minimal to no observable floral structures. This led to an inability to positively identify some specimens to species level. Similarly, many of the arachnid and myriapod specimens could not be identified due to the lack of adults among the collected samples, which is mainly due to seasonal factors.

Unidentified Bush Blitz specimens are held in institutional collections where they are available for future study. Collections hold many such specimens, among them species not yet described (that is, unnamed species) as well as described species that have not yet been identified. For example, the Australian National Insect Collection holds tens of thousands of unidentified specimens. Specimens often wait decades before the resources become available for their study. A key component of Bush Blitz is the funding of taxonomic work on specimens collected during Bush Blitz expeditions.

Nomenclature and taxonomic concepts used in this report are consistent with the Australian Faunal Directory (AFD), The World Porifera Database, The World Register of Marine Species, Australian Plant Name Index and Australian Plant Census.

Discussion

Putative new species

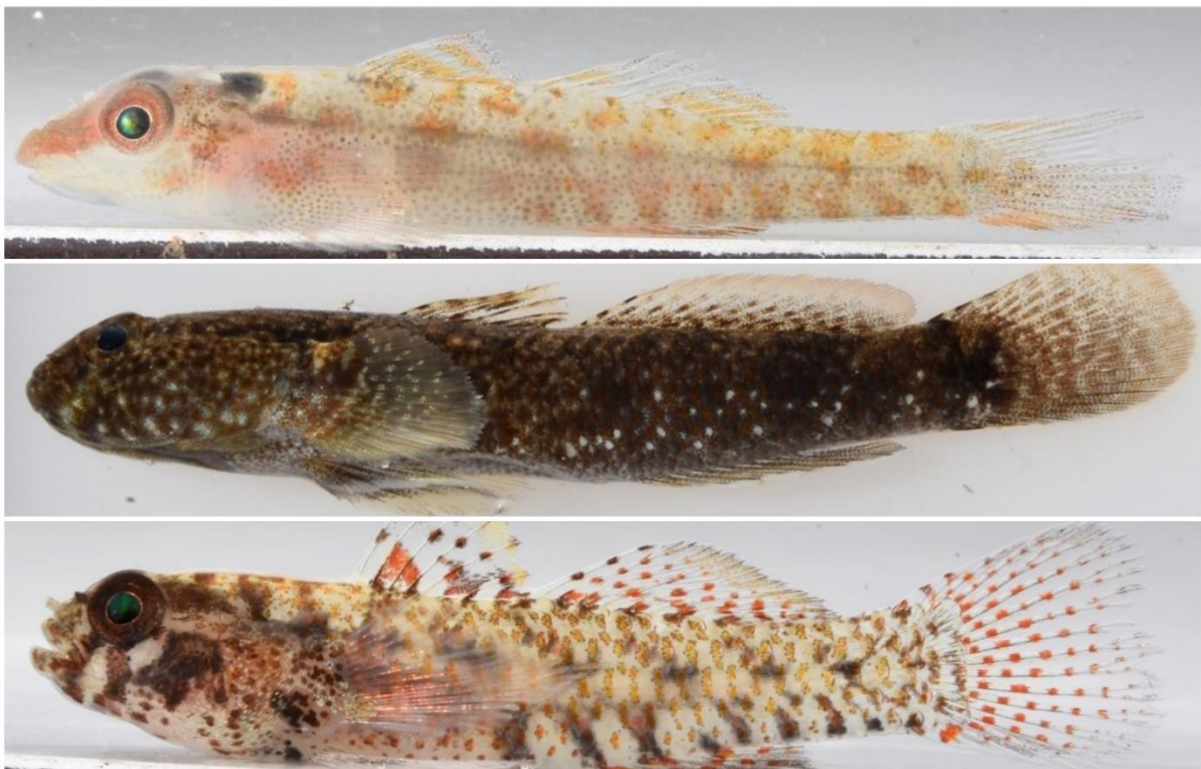
Here we use the term 'putative new species' to mean an unnamed species that, as far as can be ascertained, was identified as a new species as a direct result of this Bush Blitz. A putative new species is confirmed as a new species once it is named and its description is published.

Approximately 46 putative new species were discovered during the expedition. Further research may reveal additional new species in the material collected.

Marine fishes

The identities of 3 gobiid taxa could not be confirmed following careful examination of the specimens in the laboratory, including consultation with published literature, and comparison with voucher specimens in the WA Museum collection. Figure 2 shows images of the 3 taxa, *Pleurosicya* sp. 'EG' (top), *Bathygobius* cf. *fuscus* (middle) and *Eviota* sp. 'EG' (bottom). Although they are listed here as putative new species, further taxonomic research, including molecular systematic work, is needed in order to accurately determine their taxonomic status.

Figure 2 Putative new species of marine fishes



Photograph: © Copyright, WA Museum.

Moths

The Lepidoptera comprise around 177,500 described species (of an estimated 500,000), making them the second most speciose order, surpassed only by the Coleoptera. Moths are much more numerous than butterflies, making up around 160,000 of described lepidopteran species. In

Australia there are approximately 22,000 species of moth, around half of which remain undescribed.

Of the 82 species of macro-moths collected in light traps, 17 are not named and, of these, 2 species are believed to be new to science and not found in existing collections. *Euproctis* BBCR msp.16 is a poor flyer, so a good candidate for a short-range species, and needs further study. A single specimen of *Persectania* BBCR msp.17 was collected and needs DNA work to confirm it as a new species.

The remaining 15 species appear to be undescribed species or species complexes belonging to known but not presently named taxa. These have been given morphospecies codes pending further taxonomic work. As many of these are known from specimens collected elsewhere in Australia (for example, the eastern states), future studies are likely to reveal some of these as additional species new to science.

True bugs

Australian Heteroptera comprise approximately 2,500 described species (AFD). Bush Blitz Phase 1 surveys revealed 1,391 Heteropteran species, 391 of which are new to science. In their report to Bush Blitz on Bush Blitz Phase 1, Prof. Cassis and Prof. Laffan indicated the species taxonomic accumulation curve of Australian Heteroptera is not levelling and predicated there are approximately 6,500 species.

Of the 95 species of Heteroptera collected during the expedition, 24 are putatively new to science.

Spiders

Around 2,000 species of spiders have been described in Australia, but this may only be half of the total number that exist. Trapdoor spiders have occurred on the Australian continent for over 300 million years and have evolved into hundreds of different species. Collections included 2 new species of trapdoor spider. Specimens of *Conothele* sp. `MYG673` and *Euoplos* sp. `MYG672` (Figure 3) were collected at 2 different sites and these represent the first records of both genera from Cape Range.

Figure 3 Putative new species of *Euoplos* trapdoor spider



Photograph: Mark Harvey, © Copyright, WA Museum

Pseudoscorpions

Pseudoscorpions, also known as false scorpions or book scorpions, resemble tiny scorpions. Australia has more than 170 described species, but there are likely to be many more. A population of new species *Synsphyronus* 'Cape Range' was located at a site in Shothole Canyon Road. This represents the first record of the genus *Synsphyronus* from Cape Range.

Crabs

In the mangrove areas of the Bay of Rest and Gales Bay, 2 crab species were found that are morphologically distinct from others in their genus. Both are considered to be new to science.

Neosesarma sp. BBCR01 is from a genus not previously reported in Western Australia, and has morphology distinct from other species in Australia. *Parasesarma* sp. BBCR01 is a distinct morphological species in Australia. Both specimens were tissue sampled for DNA.

Both species are burrowers and, like most crabs in the family Sesarmidae, are presumed to be mostly herbivorous, feeding on mangrove leaves. The species of Sesarmidae play a significant role in nutrient cycling within the mangrove forests by preventing the build-up of decaying leaves, which can deplete oxygen in the sediments and surrounding waters.

Molluscs

Bundegi Reef, offshore from Bundegi Coastal Park, was the source of 2 putative new mollusc species.

A population of small urchin-inhabiting bivalves was recovered during a short dredging trial. The bivalves were living around the mouth of 2 individuals of the sea urchin *Breynia desori* and represent a new genus in the family Montacutidae.

The collection of a putative new species of *Rhodope*, from the gravelly bottom of a sponge garden, represents the first record of this little known worm-like mollusc family in Western Australia.

Figure 4 Putative new species of *Rhodope* among sand grains



Photograph: Nerida Wilson © Copyright, WA Museum

Sponges

The sponge specimens collected during this expedition include up to 10 new species. These sponges do not match any specimens in the WA Museum collection. Also, *Dendoricella* sp. Bb1 is the first specimen of this genus from Western Australia. An enormous amount of taxonomic research will be required to confirm them as new species.

Threatened species

Approximately 92% of Australian plants, 87% of mammals, 93% of reptiles and 45% of birds are endemic (Chapman 2009). Changes to the landscape resulting from human activity have put many of these unique species at risk. Over the last 200 years, many species have gone extinct; many others are considered to be threatened – that is, at risk of extinction.

Mammals

Black-flanked Rock-wallaby (*Petrogala lateralis lateralis*) was observed on multiple occasions during spotlighting along a Yardie Creek walking trail.

Table 3 Threatened fauna species – mammals

Family	Species	Common name	Status	Comments
Macropodidae	<i>Petrogale lateralis lateralis</i>	Black-flanked Rock-wallaby	Endangered (EPBC Act & BC Act)	Yardie Creek; up to 6 individuals, including small juveniles

Vascular plants

In Western Australia, flora taxa that may be threatened or near threatened, but are data deficient or have not yet been adequately surveyed to be listed under the Wildlife Conservation (Rare Flora) Notice, are added to the Priority Flora List under Priorities 1, 2 or 3. The 3 categories are ranked in order of priority for survey and evaluation of conservation status, so that consideration can be given to their declaration as threatened flora. The expedition recorded 4 species that are in Priorities 1, 2 or 3 of the Priority Flora List – *Calytrix* sp. Learmonth (P1), *Acacia ryaniana* (P2), *Daviesia pleurophylla* (P2), *Stackhousia umbellata* (P3).

The Millstream Palm (*Livistona alfredii*) is in Priority 4 of the Priority Flora List because it is adequately known but near threatened and requires regular monitoring. During the expedition, botanists were able to monitor the relict population of Millstream Palm and provide management recommendations.

Introduced and pest species

Conservation reserves help to protect Australia's rare and threatened ecosystems and provide refuge for species at risk. Invasive species can have a major impact on already vulnerable species and ecosystems, as well as economic, environmental and social impacts. The inclusion of introduced and pest species records as part of this report is designed to provide land managers with baseline information to assist with further pest management programs.

No introduced or pest species were recorded in the marine environment and the marine scientists commented that many of the sites visited along the Ningaloo Coast and in Exmouth Gulf appeared to be very healthy and in good environmental condition.

Table 4 lists the introduced and pest vertebrate species that were observed during terrestrial surveys.

Table 4 Introduced and pest vertebrate species – mammals

Family	Species	Common name	Comments
Canidae	<i>Canis familiaris</i>	Dingo, Dog	Various locations along Yardie Creek Rd; multiple pairs (~3) and individuals (~4); most individuals appeared to be in poor condition
Leporidae	<i>Oryctolagus cuniculus</i>	Rabbit	Various locations along Yardie Creek Rd; multiple individuals

Invertebrates

Table 5 lists the introduced and pest invertebrate species that were collected or observed in the study area.

Table 5 Introduced and pest invertebrate species – true bugs and moths

Group	Family	Species	Common name	Comments
True bugs	Lygaeidae	<i>Nysius vinitor</i>	Rutherglen Bug	Low abundance (5); widespread pest throughout Australia, causes damage to grain, sunflower and sorghum
	Miridae	<i>Creontiades dilutus</i>	Green Mirid	Moderate abundance (22); collected on several hosts and at light; major pest of cotton throughout Australia, causes damage to other crops including soybean and grapes
Moths	Crambidae	<i>Sceliodes cordalis</i>	Poroporo Fruit Borer, Eggfruit Caterpillar	Single specimen at Shothole Canyon; pest on Solanaceae
	Noctuidae	<i>Chrysodeixis eriosoma</i>	Green Looper, Tomato Green Looper	Low numbers in dune off Yardie Creek Rd (SS2); pest on garden plants and also feeds on some weeds
	Noctuidae	<i>Helicoverpa armigera</i>	Cotton Bollworm	Low numbers in dune off Yardie Creek Rd (SS2) and <i>Livistona</i> site; common in WA
	Noctuidae	<i>Spodoptera exigua</i>	Beet Armyworm	Single specimen at <i>Livistona</i> site
	Oecophoridae	<i>Maroga melanostigma</i>	Pecan Stem Girdler	Low numbers at Shothole Canyon; garden pest

Vascular plants

The botanists recorded 5 weed species and provided management recommendations in their report.

The Harold E Holt Naval Communications Station (Harold E Holt) contains a large range of introduced plants that are maintaining themselves or increasing. This is especially true of the trees and shrubs, several of which are not recorded as weedy, or present, in the Cape Range area.

Perhaps the most significant weed at the site is the non-local form of *Albizia lebbek* which is native to the Kimberley region of WA. This tree has fruited extensively and has spread into the adjacent Bundegi Coastal Reserve, via disturbance along a pipeline track. Plants of this species are fire-resistant and taller than most surrounding vegetation and, with a broad canopy, will overshadow the native vegetation.

Buffel Grass (*Cenchrus ciliaris*) is an invasive species that is difficult to control once it has become established. Native to tropical and sub-tropical regions of Africa and western Asia, it is a hardy apomictic pastoral species used not only for grazing but occasionally for mine site rehabilitation and erosion control. It is now commonly found throughout Australia, due to being ideally suited to the harsh dry environments, and can become a problem due to its invasiveness and its potential effect on biodiversity. While Buffel Grass is not in high abundance, and not cause for direct concern, if left unchecked with no future monitoring it could become problematic to control. While the botanical survey quadrats were limited to a 20 m x 20 m area, it is important to note that the sites chosen were indicative of the majority of the landscape. Therefore it can be extrapolated that the same amount of Buffel Grass can be found throughout the surrounding areas.

Table 6 Non-gazetted weeds

Family	Species	Common name	Location
Asphodelaceae	<i>Aloe vera</i> var. <i>officinalis</i>	na	Exmouth townsite; Harold E Holt; vacant lots; abundant
Bignoniaceae	<i>Tecoma stans</i>	na	Harold E Holt; plants scattered around buildings
Fabaceae	<i>Albizia lebbek</i>	na	Harold E Holt, Bundegi Coastal Park, Exmouth townsite; scattered to abundant
Lamiaceae	<i>Vitex trifolia</i>	na	Harold E Holt; plants scattered around buildings
Poaceae	<i>Cenchrus ciliaris</i>	Buffel Grass	1% coverage at 3 sites and <5% coverage at a 4 th site

na Not available.

Range extensions

The known ranges of many species were extended, including new records for Western Australia and Australia. The most notable range extensions are listed in Table 7.

Although many of the fish species recorded represent new records for the area, most are widespread species known from nearby waters and these new records reflect the limited previous sampling in the gulf and the limited significance, from a commercial fisheries standpoint, of these taxa. However, 9 of the species collected do represent significant range extensions and important distribution infill records. Most are range extensions of 200 km to 300 km southward from the well-studied reefs around the Dampier Archipelago and Monte Bello Islands in the Pilbara.

Range extensions for moths are difficult to determine due to a lack of baseline data. Nonetheless, 14 new records are noted for the region, based on consultation with moth expert Ted Edwards. Distances from nearest known records are for the most part not available.

Range extensions for true bugs could not be assessed due to a lack of baseline data. While the WA Museum has many specimens from recent collecting at Cape Range, these are yet to be fully identified, databased and uploaded to ALA.

For molluscs, it is not possible to assess range extensions for many taxa that have not been fully identified.

Southward range extensions occurred for 21 sponge species and varied from 28 km to 1,320 km distance to nearest known records. More thorough taxonomic research, including genetic sequencing, is required to determine if some of the species with the largest range extensions are very widespread, or are cryptic species. There are few records of some sponge species suggesting they may be uncommon, for example, *Dendrilla* sp. PB1 has only been reported from the Onslow region and is uncommon there. *Spirastrella* sp. NR1, *Haliclona (Reniera)* sp. TB1 and *Aplysina* sp. TB1 appear to be rare species with few specimens collected anywhere in WA.

Table 7 Range extensions

Group	Family	Species	Comments
Marine fishes	Apogonidae	<i>Apogonichthys perdix</i>	Bundegi Reef, Exmouth Gulf; 80 km from nearest known record; distribution infill
	Apogonidae	<i>Siphamia tubulata</i>	Bundegi sponge garden, Exmouth Gulf; 280 km from nearest known record; southerly range extension
	Apogonidae	<i>Taeniamia melasma</i>	Y Island, Exmouth Gulf; 270 km from nearest known record; southerly range extension
	Gobiesocidae	<i>Lepadichthys sandaracatus</i>	5 Mile Reef, Ningaloo; 300 km from nearest known record; distribution infill
	Gobiidae	<i>Barbuligobius boehlkei</i>	Two Rocks, Exmouth Gulf; 222 km from nearest known record, distribution infill
	Gobiidae	<i>Eviota inutilis</i>	Bundegi Reef, Exmouth Gulf; 320 km from nearest known record; distribution infill
	Gobiidae	<i>Pleurosicya plicata</i>	Y Island, Exmouth Gulf; 211 km from nearest known record, southerly range extension
	Gobiidae	<i>Pseudogobius</i> sp. B 'plain'	Bay of Rest, Exmouth Gulf; difficult to determine distance from previous known record due to misidentification in collections; distribution infill
	Pempheridae	<i>Pempheris oualensis</i>	Y Island, Exmouth Gulf; 340 km from nearest known record; distribution infill
Moths	Anthelidae	<i>Anthela</i> BBCR msp.2	<i>Livistona</i> site; new record for Cape region; known from single specimen elsewhere in WA
	Crambidae	<i>Notarcha polytimeta</i>	Shothole Canyon; nearest record from Kimberley
	Erebidae	<i>Acantholipes zuboides</i>	Light trap near power lines; new record for Cape region; previously recorded on Montebello Islands (215 km)
	Erebidae	<i>Crypsiprora orthogramma</i>	Shothole Canyon and dune off Yardie Creek Rd; new record for the Cape region; nearest record from Pilbara
	Erebidae	<i>Xenogenes chrysoplaca</i>	<i>Livistona</i> site and dune off Yardie Creek Rd; new record for Cape region; found in northern WA
	Geometridae	<i>Dinophalus</i> BBCR msp.8	<i>Livistona</i> site; new record for Cape region
	Geometridae	<i>Dinophalus</i> BBCR msp.12	Shothole Canyon, dune off Yardie Creek Rd and <i>Livistona</i> site; new record for Cape region but known from elsewhere in WA
	Geometridae	<i>Homospora rhodospica</i>	Shothole Canyon; single record from Derby (1,127 km)
	Limacodidae	<i>Eloasa callidesma</i>	Shothole Canyon; new record for Cape region
	Noctuidae	<i>Aedia</i> BBCR msp.6	Shothole Canyon; new record for Cape region
	Noctuidae	<i>Callopietria maillardi</i>	Dune off Yardie Creek Rd; new record for Cape region; has been known from WA since ~2011
	Noctuidae	<i>Ectopatria xerampelina</i>	Near quarry off Learmonth, Minilya Rd; Pilbara
	Noctuidae	<i>Heliocheilus ranalaetensis</i>	Dune off Yardie Creek Rd; new record for Cape region; possible new record for WA
Notodontidae	<i>Destolmia lineata</i>	Dune off Yardie Creek Rd; new record for Cape region	

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Group	Family	Species	Comments
Crustaceans	Archaeobalanidae	<i>Conopea cf. willhearsti</i>	Range extension south from Kimberley region (~1,200 km)
	Archaeobalanidae	<i>Pectinoacasta cancellorum</i>	First record for Australia; previously known from Japan (~6,000 km)
	Camptandriidae	<i>Baruna trigranulum</i>	Range extension south from Kimberley region (~1,200 km)
	Ceinidae	<i>Ceina gerlachae</i>	First record since description from Queensland (~3,800 km)
	Diogenidae	<i>Diogenes cf. pallescens</i>	Range extension from Cape Preston (~300 km) (WA Museum database records, pending ID confirmation)
	Dorippidae	<i>Neodorippe callida</i>	Range extension from Shark Bay (~400 km)
	Epialtidae	<i>Acanthonyx euryseroche</i>	Range extension from Coral Bay (~100 km); only other record at WA Museum is from Shark Bay
	Epialtidae	<i>Huenia australis</i>	Range extension from Coral Bay (~100 km)
	Gonodactylidae	<i>Gonodactylellus diana</i>	First record outside of type locality, Dampier Archipelago (~300 km)
	Palaemonidae	<i>Periclimenaeus arabicus</i>	Southernmost record in WA; previously known from Dampier Archipelago (~300 km)
	Parthenopidae	<i>Aulacolambrus diacanthus</i>	Previously recorded in WA from Dampier Archipelago (~300 km)
	Porcellanidae	<i>Petrolisthes haplodactylus</i>	Previously known from NT & QLD (~2,000 km)
	Sesarmidae	<i>Sarmatium germaini</i>	Range extension south from Kimberley (~1,200 km)
	Sphaeromatidae	<i>Agostodina munta</i>	Previously only known from Montebello Islands (~200 km)
Xanthidae	<i>Platypodia cf. pseudogranulosa</i>	Previously recorded in WA from Dampier Archipelago (~300 km) (pending ID confirmation)	
Spiders	Lamponidae	<i>Lamponata daviesae</i>	1.5 km SSE of Tantabiddi Boat Ramp; widespread across Australia but not previously recorded from Cape Range; nearest record from central Pilbara ~500 km
	Lycosidae	<i>Hoggicosa castanea</i>	Track off Charles Knife Road; widespread across Australia but not previously recorded from Cape Range; nearest record from western Pilbara ~210 km
	Miturgidae	<i>Mituliodon tarantulinus</i>	Shothole Canyon Road & coastal trap line; widespread across Australia but not previously recorded from Cape Range; nearest record from western Pilbara ~235 km
	Salticidae	<i>Sandalodes joannae</i>	Standard survey site; intermittently distributed across southern Australia but not previously recorded from Cape Range; nearest record ~900 km
Pseudoscorpions	Geogarypidae	<i>Geogarypus taylora</i>	Yardie Creek Trail; widespread across southern Australia but not previously recorded from Cape Range; nearest record is Barrow Island ~200 km
Centipedes	Scolopendridae	<i>Cormocephalus turneri</i>	Exmouth car tip; widespread across most of WA but not previously recorded from Cape Range; nearest record is Barrow Island ~200 km

Group	Family	Species	Comments
Molluscs	Caecidae	<i>Parastrophia challengeri</i>	Exmouth Gulf; no records on OZCAM or ALA but records from Queensland in AFD; new record for WA
	Chromodorididae	<i>Chromodoris</i> aff. <i>striatella</i>	Exmouth Gulf; nearest known record Port Hedland; need to sequence material to confirm ID
	Eulimidae	<i>Thyca astericola</i>	Exmouth Gulf; an ectoparasite on the seastar <i>Iconaster longimanus</i> ; no records on OZCAM, ALA, AFD; new record for Australia; nearest known records from Asia
	Philinidae	<i>Spiniphiline</i> sp. Bush Blitz Cape Range 1	Exmouth Gulf; genus described from Aldabra Atoll; new record for Australia; only known from Moorea and Papua New Guinea (records unpublished)
	Rhodopidae	<i>Rhodope</i> sp. Bush Blitz Cape Range 1	Exmouth Gulf; first record of Rhodopidae for WA; nearest in Edithburgh, SA or Darwin, NT.
	Spirostyliferinidae	<i>Spirostyliferina lizardensis</i>	Exmouth Gulf; need to sequence material from type locality to ascertain if it's the same species, conservative ID; nearest known record from Dampier
Sponges	Agelasidae	<i>Agelas mauritiana</i>	Y-Island, Exmouth Gulf; southern extension (~102 km)
	Aplysinellidae	<i>Dendrilla</i> sp. PB1	Y-Island, Exmouth Gulf; first specimen from this area; only 3 specimens collected from Onslow (~108 km)
	Aplysinidae	<i>Aplysina</i> sp. TB1	Two Rocks, Exmouth Gulf; 1 of only 3 specimens collected from WA (~28.2 km)
	Aplysinidae	<i>Aplysina</i> sp. WAM1 cf.	Five Mile Beach, Exmouth Gulf; 1 of only 2 specimens collected in WA (~316 km)
	Axinellidae	<i>Axinella</i> sp. NW1 cf.	Two Rocks, Exmouth Gulf; southern extension (~273 km)
	Axinellidae	<i>Phakellia</i> sp. Ng6	Sponge garden, Bundegi Reef, Exmouth Gulf; uncommon species; 1 of 6 specimens collected from this region and in WA (~234 km)
	Biemnidae	<i>Biemna</i> sp. WAM2 cf.	Two Rocks, Exmouth Gulf; 1 of only 3 specimens collected in WA (~331 km)
	Callyspongiidae	<i>Arenosclera</i> sp. WAM1	Sponge garden, Bundegi Reef, Exmouth Gulf; southern extension (~332 km); 1 of 11 specimens from WA
	Callyspongiidae	<i>Callyspongia</i> (<i>Callyspongia</i>) sp. KMB4 cf.	South of Two Rocks, Exmouth Gulf; 1 of only 4 specimens collected from WA (~1,225 km)
	Callyspongiidae	<i>Callyspongia</i> (<i>Toxochalina</i>) sp. WAM2	Exmouth Reef north and south of Two Rocks; southern extension (~108 km)
	Chalinidae	<i>Haliclona</i> (<i>Reniera</i>) sp. TB1	Bundegi Reef, Exmouth Gulf; only 1 specimen collected from this area; only 2 nd record of this species (~28.9 km)
	Chalinidae	<i>Haliclona</i> (<i>Reniera</i>) sp. WAM10	Two Rocks, Exmouth Gulf; southern extension (~96.7 km)
	Clionaidae	<i>Spirastrella</i> sp. NR1	Two Rocks, Exmouth Gulf; only 1 specimen previously collected in the Ningaloo area; first record from Exmouth Gulf (~97.7 km)
	Dysideidae	<i>Dysidea</i> sp. WAM3	Exmouth Reef south; southern extension (~105 km)

Group	Family	Species	Comments
	Hemiasterellidae	<i>Liosina granularis</i>	Exmouth Reef north; southern extension (~154 km)
	Mycalidae	<i>Mycale (Aegogropila) sp.</i> WAM1	Lakeside, Exmouth Gulf; southern extension (~1,234 km)
	Petrosiidae	<i>Petrosia sp.</i> WAM2 cf.	Y-Island, Exmouth Gulf; first voucher specimen from Exmouth Gulf
	Petrosiidae	<i>Xestospongia sp.</i> WAM1	Y-Island, Exmouth Gulf; southern extension (~99.3 km)
	Petrosiidae	<i>Xestospongia sp.</i> WAM3	Exmouth Reef south; southern extension (~96 km)
	Phloeodictyidae	<i>Siphonodictyon sp.</i> KMB1	Five Mile Beach and marina wall, Exmouth Gulf; southern extension (~1,277 km)
	Thorectidae	<i>Phyllospongia sp.</i> WAM	Five Mile Beach, Exmouth Gulf; southern extension (~1,320 km); species currently being described
Vascular plants	Fabaceae	<i>Acacia colei</i>	Exmouth UCL; new record for peninsula; 150 km from nearest record
	Poaceae	<i>Dactyloctenium radulans</i>	Exmouth UCL; new record for peninsula; 150 km from nearest record

Other significant findings

The expedition provided an opportunity for scientists to collect other data and materials important for future research.

Vertebrates

Although cold temperatures likely reduced the numbers of animals encountered, a reasonable collection of reptiles and frogs was taken. The most interesting specimen collected was a Jewelled Gecko (*Strophurus elderi*) with an extremely reduced pattern. Examination of specimens held at the WA Museum revealed similar, relatively patternless specimens have also been collected from the Pilbara region, to the east of Cape Range. However, the exercise of searching the WA Museum collection brought some other unusual *S. elderi* specimens to the attention of the scientists, and these may turn out to be new species.

As a result of the expedition, the WA Museum worked alongside local DBCA staff, who will continue the vertebrate surveys established during the expedition to measure management outcomes.

Marine fishes

Tissue samples, taken from vouchered fish specimens, will be used in future studies to uncover new data on the taxonomy of the region's fishes. Some will be used to aid in identification, and some will potentially reveal unrecognised cryptic lineages. A cryptic lineage is a species or species complex containing individuals that are morphologically identical or very similar but genetically distinct. Identifying such cryptic species gives insight into how they have evolved.

Another noteworthy outcome from this expedition included the identification and documentation of relatively intact reef habitats that support diverse and healthy fish communities.

Spiders

The population of Humped Golden Orb-weaving Spider (*Nephila plumipes*) at Bay of Rest is the only known population of this species from Western Australia, although it is widespread in eastern Australia. It was first recorded in 1987 (WA Museum specimens) and the population is still extant.

Crustaceans

Of particular interest were the mangrove forests of Bay of Rest and Gales Bay, which yielded 22 species of crustaceans including putative new species, significant range extensions and a new record for the state. This was the result of just a few hours at each site and is indicative of how little is known of the mangrove invertebrate fauna in WA.

During a night time reef walk on Bundegi Reef Flat, several prawns were seen in tidal pools. One specimen was collected and identified as *Melicertus marginatus*. This species is not known from inside Exmouth Gulf and is not part of the commercial prawn catch but is instead found in deeper waters (up to 300 m) adjacent to the gulf.

Specimens were preserved in 100% ethanol and will be made accessible for molecular analysis by the scientific community. For example, barnacles found living on animals such as sponges and jellyfish in Western Australia are currently subject to an active project and many new species are in the process of being described. Specimens collected during this expedition will be invaluable to this project and genetic data generated from them will be used in upcoming taxonomic and systematic papers.

Molluscs

The mollusc team obtained 137 marine and terrestrial specimens with extraordinary diversity (51 families) and almost half of these were microscopic marine gastropods, the target group. Given the WA Museum had collected in this region previously, the number of new species, new records and other significant discoveries from this expedition, indicates there is still more to learn about the biodiversity of this region.

The site off Bundegi Reef, referred to as the deep sponge garden, provided several of the important faunal records noted in Table 7. At this same site, a recently described species of medium-sized cardiid or cockle bivalve was found live for the first time (*Ctenocardia pilbaraensis*).

The sea slug (nudibranch) *Goniobranchus cf. roboi* was only known from a few photographs from Exmouth. This expedition provided the first physical vouchers and its description is now underway with collaborators at the California Academy of Sciences.

An unknown *Bornella* sea slug was 'discovered' at the Ningaloo Centre aquarium (collected in the south east side of Exmouth Gulf by centre staff), and is most likely new to science. This specimen was included in a study of the evolutionary history of *Bornella* species that was underway at the time of the expedition.

Sponges

The expedition enabled significant additions to the tissue library of the Marine Invertebrate Zoology collections at the WA Museum.

Tissue and wet frozen samples were taken from most of the 70 sponge specimens collected. Tissue samples will aid identification, and may potentially reveal unrecognised cryptic lineages. Building the tissue library is fundamental to modern day systematics. Wet frozen samples will be used to look for chemical compounds that have not been identified before and may have medical benefits. These chemistry results may also prove to be useful taxonomic tools, with some compounds only found in particular groups of species.

Other marine invertebrates

Although the marine invertebrates team focused on their area of expertise, sponges, they also made collections from other phyla as their presence in the area might be important. These specimens will need to be identified by experts in their field. All are listed in Appendix A except 7 specimens that may have been comb jellies (Ctenophora) or hydrozoan medusae but had not been identified to phylum level at the time of reporting.

Vascular plants

Dry conditions prior to the expedition impacted the quality of plant samples taken and the quantity of species identified. Despite this, the expedition enabled the:

- establishment of a series of floristic quadrats in areas not previously surveyed due to their inaccessibility – Upper Yardie Creek and Learmonth Air Weapons Range.
- collection of a specimen of the endemic Cape Range Buttercup (*Hibbertia* sp. Cape Range) which allowed it to be formally described as *Hibbertia capensis*. It was also noted that populations of this species on the main range and to the south had some significant differences. Those found on limestone were tall, open, robust, multi-stemmed, large-leaved shrubs that were in full flower. However, those from the southern portion of the species' range, on red sands over limestone or on deeper red sands, were slender, multi-stemmed, low, small-leaved shrubs that were not in flower or bud. It is not yet known how taxonomically significant these differences are.
- collection of further material for a field guide to the 21 endemic plants of Cape Range area, currently in preparation.

Appendix A: Species lists

Table A1 List of fauna species recorded

Group	Family	Species	Common name
Mammals	Canidae	<i>Canis familiaris</i> ^b	Dingo/Dog
	Dasyuridae	<i>Dasykaluta rosamondae</i>	Little Red Antechinus
	Dasyuridae	<i>Sminthopsis youngsoni</i>	Lesser Hairy-footed Dunnart
	Leporidae	<i>Oryctolagus cuniculus</i> ^b	Rabbit
	Macropodidae	<i>Petrogale lateralis lateralis</i> ^{c d}	Black-flanked Rock-wallaby
	Muridae	<i>Notomys alexis</i>	Spinifex Hopping-mouse
	Muridae	<i>Pseudomys hermannsburgensis</i>	Sandy Inland Mouse
Reptiles	Agamidae	<i>Moloch horridus</i>	Thorny Devil
	Agamidae	<i>Pogona minor minor</i>	Western Bearded Dragon
	Diplodactylidae	<i>Diplodactylus bilybara</i>	Western Fat-tailed Gecko
	Diplodactylidae	<i>Diplodactylus capensis</i>	Cape Range Stone Gecko
	Diplodactylidae	<i>Lucasium stenodactylus</i>	Sand Plain Gecko
	Diplodactylidae	<i>Strophurus ciliaris aberrans</i>	Northern Spiny-tailed Gecko
	Diplodactylidae	<i>Strophurus elderi</i>	Jewelled Gecko
	Elapidae	<i>Acanthophis wellsi</i>	Pilbara Death Adder
	Elapidae	<i>Demansia rufescens</i>	Rufous Whipsnake
	Elapidae	<i>Furina ornata</i>	Moon Snake
	Gekkonidae	<i>Gehyra capensis</i>	North West Cape Gehyra
	Gekkonidae	<i>Gehyra variegata</i>	Variegated Gehyra
	Gekkonidae	<i>Heteronotia binoei</i>	Bynoe's Gecko
	Pythonidae	<i>Antaresia childreni</i>	Children's Python
	Pythonidae	<i>Aspidites melanocephalus</i>	Black-headed Python
	Scincidae	<i>Ctenotus grandis titan</i>	Grand Desert Ctenotus
	Scincidae	<i>Ctenotus iapetus</i>	North West Cape Ctenotus
	Scincidae	<i>Ctenotus inornatus</i>	Bar-shouldered Ctenotus
	Scincidae	<i>Ctenotus pantherinus ocellifer</i>	Leopard Skink
	Scincidae	<i>Cyclodomorphus melanops melanops</i>	Slender Blue-tongue
	Scincidae	<i>Lerista elegans</i>	West Coast Four-toed Lerista
	Scincidae	<i>Lerista onsloviana</i>	Onslow Broad-blazed Lerista
	Scincidae	<i>Lerista planiventralis planiventralis</i>	Keeled Lerista
	Scincidae	<i>Menetia greyii</i>	Common Dwarf Skink
	Scincidae	<i>Morethia ruficauda exquisita</i>	Exquisite Fire-tail Skink
	Varanidae	<i>Varanus eremius</i>	Pygmy Desert Goanna
	Varanidae	<i>Varanus giganteus</i>	Perentie

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Group	Family	Species	Common name
Frogs	Pelodyadidae	<i>Cyclorana maini</i>	Sheep Frog, Main's Frog
	Limnodynastidae	<i>Neobatrachus fulvus</i>	Tawny Trilling Frog
Marine fishes	Acanthuridae	<i>Acanthurus grammoptilus</i>	Inshore Surgeonfish
	Ambassidae	<i>Ambassis vachellii</i>	Vachell's Glassfish
	Apogonidae	<i>Apogonichthys perdix</i>	Perdix Cardinalfish
	Apogonidae	<i>Foa fo</i>	Samoan Cardinalfish
	Apogonidae	<i>Ostorhinchus cavitensis</i>	Whiteline Cardinalfish
	Apogonidae	<i>Ostorhinchus cookii</i>	Cook's Cardinalfish
	Apogonidae	<i>Ostorhinchus doederleini</i>	Fourline Cardinalfish
	Apogonidae	<i>Ostorhinchus pallidofasciatus</i>	Palestriped Cardinalfish
	Apogonidae	<i>Siphamia tubulata</i>	Pipe Siphonfish
	Apogonidae	<i>Taeniamia melasma</i>	Blackspot Cardinalfish
	Atherinidae	<i>Atherinomorus endrachtensis</i>	Endracht Hardyhead
	Atherinidae	<i>Atherinomorus vaigiensis</i>	Common Hardyhead
	Atherinidae	<i>Hypoatherina temminckii</i>	Samoan Hardyhead
	Belontiidae	<i>Strongylura strongylura</i>	Blackspot Longtom
	Blenniidae	<i>Cirripectes filamentosus</i>	Filamentous Blenny
	Blenniidae	<i>Ecsenius yaeyamaensis</i>	Palespotted Combtooth Blenny
	Blenniidae	<i>Entomacrodus striatus</i>	Blackspotted Rockskipper
	Blenniidae	<i>Parablennius postoculomaculatus</i>	False Tasmanian Blenny
	Blenniidae	<i>Plagiotremus rhinorhynchus</i>	Bluestriped Fangblenny
	Caesionidae	<i>Pterocaesio digramma</i>	Doubleline Fusilier
	Chaetodontidae	<i>Chaetodon assarius</i>	Western Butterflyfish
	Chaetodontidae	<i>Chaetodon plebeius</i>	Bluespot Butterflyfish
	Chaetodontidae	<i>Chelmon marginalis</i>	Margined Coralfish
	Clupeidae	<i>Herklotsichthys blackburni</i>	Blackburn's Herring
	Clupeidae	<i>Nematalosa erebi</i>	Bony Bream
	Diodontidae	<i>Tragulichthys jaculiferus</i>	Longspine Porcupinefish
	Engraulidae	<i>Thryssa hamiltonii</i>	Hamilton's Thryssa
	Gerreidae	<i>Gerres subfasciatus</i>	Common Silverbidy
	Gobiesocidae	<i>Lepadichthys sandaracatus</i>	Shark Bay Clingfish
	Gobiidae	<i>Amoya gracilis</i>	Bluespotted Mangrovegoby
	Gobiidae	<i>Asterropteryx semipunctata</i>	Starry Goby
	Gobiidae	<i>Barbuligobius boehlkei</i>	Cryptic Bearded Goby
	Gobiidae	<i>Bathygobius cf. fuscus</i> ^a	na
Gobiidae	<i>Bathygobius fuscus</i>	Dusky Frillgoby	
Gobiidae	<i>Bryaninops amplus</i>	Large Whipgoby	
Gobiidae	<i>Eviota inutilis</i>	Chestspot Eviota	
Gobiidae	<i>Eviota</i> sp. 'EG' ^a	na	
Gobiidae	<i>Gnatholepis cauerensis</i>	Shoulderspot Goby	

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Group	Family	Species	Common name
	Gobiidae	<i>Istigobius decoratus</i>	Decorated Sandgoby
	Gobiidae	<i>Istigobius nigroocellatus</i>	Blackspotted Sandgoby
	Gobiidae	<i>Periophthalmus argentilineatus</i>	Silverlined Mudskipper
	Gobiidae	<i>Pleurosicya plicata</i>	Lobed Ghostgoby
	Gobiidae	<i>Pleurosicya</i> sp.'EG' ^a	na
	Gobiidae	<i>Priolepis nuchifasciata</i>	Threadfin Reefgoby
	Gobiidae	<i>Pseudogobius</i> sp. B 'plain'	Fatnose Goby
	Gobiidae	<i>Valenciennesa muralis</i>	Mural Glidergoby
	Gobiidae	<i>Yongeichthys nebulosus</i>	Hairfin Goby
	Labridae	<i>Coris caudimacula</i>	Spot-tail Wrasse
	Labridae	<i>Coris pictoides</i>	Pixy Wrasse
	Labridae	<i>Halichoeres melanochir</i>	Orangefin Wrasse
	Labridae	<i>Suezichthys cyanolaemus</i>	Bluethroat Rainbow Wrasse
	Leiognathidae	<i>Nuchequula gerreiodes</i>	Blackneck Ponyfish
	Mugilidae	<i>Liza subviridis</i>	Greenback Mullet
	Mullidae	<i>Parupeneus indicus</i>	Yellowspot Goatfish
	Opistognathidae	<i>Opistognathus darwiniensis</i>	Darwin Jawfish
	Paralichthyidae	<i>Pseudorhombus jenynsii</i>	Smalltooth Flounder
	Pempheridae	<i>Pempheris oualensis</i>	Oualan Bullseye
	Pempheridae	<i>Pempheris schwenkii</i>	Silver Bullseye
	Platycephalidae	<i>Cymbacephalus nematophthalmus</i>	Fringe-eye Flathead
	Platycephalidae	<i>Platycephalus westraliae</i>	Yellowtail Flathead
	Plotosidae	<i>Plotosus lineatus</i>	Striped Catfish
	Pomacentridae	<i>Neopomacentrus cyanomos</i>	Regal Demoiselle
	Pomacentridae	<i>Pomacentrus coelestis</i>	Neon Damsel
	Pomacentridae	<i>Pomacentrus milleri</i>	Miller's Damsel
	Pomacentridae	<i>Pomacentrus nagasakiensis</i>	Blue-scribbled Damsel
	Pseudochromidae	<i>Assiculus punctatus</i>	Bluespotted Dottyback
	Pseudochromidae	<i>Blennodesmus scapularis</i>	Ocellate Eel Blenny
	Pseudochromidae	<i>Pseudochromis cyanotaenia</i>	Yellowhead Dottyback
	Pseudochromidae	<i>Pseudochromis wilsoni</i>	Yellowfin Dottyback
	Scorpaenidae	<i>Scorpaenodes evides</i>	Cheekspot Scorpionfish
	Serranidae	<i>Epinephelus corallicola</i>	Coral Grouper
	Serranidae	<i>Epinephelus fasciatus</i>	Blacktip Rockcod
	Sillaginidae	<i>Sillago lutea</i>	Mud Whiting
	Sparidae	<i>Acanthopagrus morrisoni</i>	Western Yellowfin Bream
	Tetraodontidae	<i>Arothron manilensis</i>	Narrowlined Puffer
	Tetraodontidae	<i>Canthigaster axiologus</i>	Crowned Toby
	Tripterygiidae	<i>Enneapterygius larsonae</i>	Blackhead Threefin

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Group	Family	Species	Common name
Sharks and rays	Dasyatidae	<i>Neotrygon ningalooensis</i>	Ningaloo Maskray
Seastars, brittle stars and sea cucumbers	Asterinidae	<i>Aquilonastra</i> WAM Z88993 sp. 1	na
	Asterinidae	<i>Aquilonastra</i> WAM Z88995 sp. 2	na
	Cucumariidae	<i>Cucumaria</i> sp.	na
	Ophiodermatidae	Ophiodermatidae sp.	na
	Pterasteridae	<i>Euretaster insignis</i>	na
Moths	Anthelidae	<i>Anthela adriana</i>	na
	Anthelidae	<i>Anthela</i> BBCR msp.2	na
	Anthelidae	<i>Anthela decolor</i>	na
	Anthelidae	<i>Anthela exoleta</i>	na
	Anthelidae	<i>Anthela tetraphrica</i>	na
	Anthelidae	<i>Anthela unisigna</i>	na
	Anthelidae	<i>Anthela xantharcha</i>	Orange Tailed Anthelid
	Anthelidae	<i>Munychryia senicula</i>	Grey Anthelid
	Crambidae	<i>Notarcha polytimeta</i>	na
	Crambidae	<i>Omiodes odontosticta</i>	na
	Crambidae	<i>Sceliodes cordalis</i> ^b	Poroporo Fruit Borer
	Erebidae	<i>Acantholipes zuboides</i>	na
	Erebidae	<i>Achaea argilla</i>	Plain Looper
	Erebidae	<i>Achaea janata</i>	Castor Oil Looper/Croton Caterpillar
	Erebidae	<i>Aloa marginata</i>	Donovan's Tiger Moth
	Erebidae	<i>Amata aperta</i>	Pale Spotted Tiger Moth
	Erebidae	<i>Anomis involuta</i>	Hibiscus Cutworm/ Jute Looper
	Erebidae	<i>Brachycyttara</i> BBCR msp.13	na
	Erebidae	<i>Brachycyttara crypsipyrtha</i>	Cryptic Crest Moth
	Erebidae	<i>Crypsiprora orthogramma</i>	Inscribed Crest Moth
	Erebidae	<i>Diatenes aglossoides</i>	na
	Erebidae	<i>Donuca spectabilis</i>	White-spotted Owl Moth
	Erebidae	<i>Eudesmeola lawsoni</i>	Lawson's Night Moth
	Erebidae	<i>Euproctis</i> BBCR msp.16 ^a	na
	Erebidae	<i>Grammodes ocellata</i>	Large-eyed Box-owlet
	Erebidae	<i>Ophiusa parcemacula</i>	Figure Eight Moth
	Erebidae	<i>Pandesma submurina</i>	Pale Migrant
	Erebidae	<i>Pantylia diemeni</i>	Gap-lined Pantylia
	Erebidae	<i>Praxis marmarinopa</i>	Western Praxis
	Erebidae	<i>Xenogenes chrysoplaca</i>	na
	Erebidae	<i>Xenogenes gloriosa</i>	na
	Geometridae	<i>Amelora</i> BBCR msp.14	na
	Geometridae	<i>Amelora conia</i>	na

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Group	Family	Species	Common name
	Geometridae	<i>Capusa</i> BBCR msp.9	na
	Geometridae	<i>Capusa cuculloides</i>	White-winged Wedge-moth
	Geometridae	<i>Capusa stenophara</i>	Dusky Wedge-moth
	Geometridae	<i>Cernia amyclaria</i>	na
	Geometridae	<i>Cryphaea xyliua</i>	Woodland Geometrid
	Geometridae	<i>Crypsiphona ocultaria</i>	Red-lined Geometrid
	Geometridae	<i>Dinophalus</i> BBCR msp.4	na
	Geometridae	<i>Dinophalus</i> BBCR msp.8	na
	Geometridae	<i>Dinophalus</i> BBCR msp.12	na
	Geometridae	<i>Homospora rhodospica</i>	na
	Geometridae	<i>Oenochroma</i> BBCR msp.3	na
	Geometridae	<i>Oenochroma</i> BBCR msp.5	na
	Geometridae	<i>Oenochroma</i> BBCR msp.7	na
	Geometridae	<i>Oenochroma cycnoptera</i>	Dry country Wine-moth
	Geometridae	<i>Paralaea</i> sp.	na
	Geometridae	<i>Prasinocyma rhodocosma</i>	Northern Emerald
	Geometridae	<i>Syneora</i> BBCR msp.11	na
	Geometridae	<i>Syneora</i> BBCR msp.15	na
	Lasiocampidae	<i>Genduara</i> BBCR msp.10	na
	Lasiocampidae	<i>Genduara subnotata</i>	Clear-winged Snout Moth
	Lasiocampidae	<i>Porela homospila</i>	Desert Porela
	Lasiocampidae	<i>Porela notodontina</i>	Grey Porela
	Limacodidae	<i>Eloasa callidesma</i>	na
	Limacodidae	<i>Parasoidea paroa</i>	na
	Limacodidae	<i>Pseudanapaea transvestita</i>	Orange Cup Moth
	Noctuidae	<i>Unplaced polycmeta</i> BBCR msp.1	na
	Noctuidae	<i>Aedia</i> BBCR msp.6	na
	Noctuidae	<i>Australothis rubrescens</i>	na
	Noctuidae	<i>Callopietria maillardi</i>	na
	Noctuidae	<i>Chrysodeixis eriosoma</i> ^b	Green Looper/Tomato Green Looper
	Noctuidae	<i>Ectopatria euglypta</i>	na
	Noctuidae	<i>Ectopatria xerampelina</i>	na
	Noctuidae	<i>Hecatesia thyridion</i>	Southern Whistling Moth
	Noctuidae	<i>Helicoverpa armigera</i> ^b	Cotton Bollworm
	Noctuidae	<i>Heliocheilus cladotus</i>	na
	Noctuidae	<i>Heliocheilus eodora</i>	na
	Noctuidae	<i>Heliocheilus ranalaetensis</i>	na
	Noctuidae	<i>Persectania</i> BBCR msp.17 ^a	na
	Noctuidae	<i>Spodoptera exigua</i> ^b	Beet Armyworm

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Group	Family	Species	Common name
	Noctuidae	<i>Thalatha guttalis</i>	na
	Nolidae	<i>Armactica columbina</i>	na
	Notodontidae	<i>Destolmia lineata</i>	Streaked Notodontid
	Notodontidae	<i>Paradestolmia nigrolinea</i>	na
	Oecophoridae	<i>Maroga melanostigma</i> ^b	Pecan Stem Girdler
	Psychidae	<i>Lomera boisduvalii</i>	na
	Sphingidae	<i>Hippotion celerio</i>	Vine Hawk Moth
	Sphingidae	<i>Hippotion scrofa</i>	Coprosma Hawk Moth
	Sphingidae	<i>Hopliocnema brachycera</i>	Desert Hawk Moth
	Sphingidae	<i>Leucomonia bethia</i>	na
True bugs	Alydidae	<i>Daclera rufescens</i>	na
	Alydidae	<i>Melanacanthus</i> sp_BBCRWA_msp.054	na
	Anthocoridae	<i>Orius</i> sp_BBCRWA_msp.015	na
	Berytidae	Gn_Berytidae_CR001 sp_BBCRWA_msp.048 ^a	na
	Coreidae	<i>Turrana</i> sp_BBCRWA_msp.064 ^a	na
	Coreidae	<i>Mirabelamorbus</i> sp_BBCRWA_msp.086 ^a	na
	Cydnidae	Gn_Cydnidae_CR001 sp_BBCRWA_msp.085	na
	Geocoridae	<i>Germalus</i> sp_BBCRWA_msp.024	na
	Heterogastridae	<i>Dinomachus</i> sp_BBCRWA_msp.071	na
	Heterogastridae	<i>Parathyginus</i> sp_BBCRWA_msp.076	na
	Hyocephalidae	<i>Maevius</i> sp_BBCRWA_msp.060 ^a	na
	Lygaeidae	Gn_Lathiini_CR001 sp_BBCRWA_msp.079	na
	Lygaeidae	Gn_Lathiini_CR002 sp_BBCRWA_msp.084	na
	Lygaeidae	<i>Nysius</i> sp_BBCRWA_msp.040	na
	Lygaeidae	<i>Nysius vinitor</i> ^b	Rutherglen Bug
	Lygaeidae	<i>Spilostethus</i> sp_BBCRWA_msp.042	na
	Mesoveliidae	<i>Mesovelia hungerfordi</i>	na
	Miridae	<i>Acaciacapsus</i> sp_BBCRWA_msp.002	na
	Miridae	<i>Creontiades dilutus</i> ^b	Green Mirid
	Miridae	<i>Decomia</i> sp_BBCRWA_msp.101	na
	Miridae	Exaeretini sp_BBCRWA_msp.034	na
	Miridae	<i>Exocarpocoris</i> sp_BBCRWA_msp.005	na
	Miridae	Gn_'Bilbonotus'_CR001	na

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Group	Family	Species	Common name
		sp_BBCRWA_msp.013 ^a	
	Miridae	Gn_'Carenotus'_CR001 sp_BBCRWA_msp.038	na
	Miridae	<i>Kallosmiris</i> _CR001 sp_'solis'_msp.009	na
	Miridae	<i>Kallosmiris</i> _CR001 sp_BBCRWA_msp.010 ^a	na
	Miridae	Gn_'Neosinghalesia'_CR001 sp_BBCRWA_msp.068	na
	Miridae	Gn_Austromirini_CR001 sp_BBCRWA_msp.044 ^a	na
	Miridae	Gn_Austromirini_CR002 sp_BBCRWA_msp.078	na
	Miridae	Gn_Austromirini_CR003 sp_BBCRWA_msp.093	na
	Miridae	Gn_CREMNGEN_CR001 sp_BBCRWA_msp.140 ^a	na
	Miridae	Gn_LEUCOGEN_CR001 sp_BBCRWA_msp.011 ^a	na
	Miridae	Gn_nr_Auchenocrepis_CR001 sp_BBCRWA_msp.172	na
	Miridae	Gn_nr_Austromiris_CR001 sp_BBCRWA_msp.055 ^a	na
	Miridae	Gn_nr_Hypseloecus_CR001 sp_BBCRWA_msp.026	na
	Miridae	Gn_ORTHO_CR003 sp_BBCRWA_msp.080	na
	Miridae	Gn_ORTHO_CR006 sp_BBCRWA_msp.082	na
	Miridae	Gn_ORTHOGEN_CR001 sp.BBCRWA_msp.095 ^a	na
	Miridae	Gn_ORTHOGEN_002 spBBCRWA_msp.021	na
	Miridae	Gn_ORTHOGEN_CR002 sp_BBCRWA_msp.103	na
	Miridae	Gn_ORTHOGEN_CR004 sp_BBCRWA_msp.057	na
	Miridae	Gn_Orthotylinae_CR001 sp_BBCRWA_msp.039	na
	Miridae	Gn_Orthotylini_CR001 sp_BBCRWA_msp.023 ^a	na
	Miridae	Gn_Phylinae_CR001 sp_BBCRWA_msp.022 ^a	na
	Miridae	Gn_Phylinae_CR002 sp_BBCRWA_msp.096 ^a	na
	Miridae	Gn_ZANGGEN_CR001 sp_BBCRWA_msp.035 ^a	na
	Miridae	Gn_ZANGGEN_CR002 sp_BBCRWA_msp.036	na

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Group	Family	Species	Common name
	Miridae	Gn_ZANGGEN_CR004 sp_BBCRWA_msp.037 ^a	na
	Miridae	<i>Myrmecoridae</i> sp_BBCRWA_msp.077 ^a	na
	Miridae	<i>Oecophyllodes</i> sp_BBCRWA_msp.056 ^a	na
	Miridae	<i>Proteophylus</i> sp_BBCRWA_msp.066	na
	Miridae	<i>Rayieria</i> sp_BBCRWA_msp.014 ^a	na
	Miridae	<i>Singhalesia</i> sp_BBCRWA_msp.070 ^a	na
	Miridae	<i>Singhalesia</i> sp_BBCRWA_msp.097	na
	Miridae	<i>Zanchius</i> sp_BBCRWA_msp.081	na
	Nabidae	<i>Nabis kinbergii</i>	na
	Pachygronthidae	<i>Stenophyella macreta</i>	na
	Pentatomidae	<i>Aplerotus grossi</i>	na
	Pentatomidae	<i>Aplerotus</i> sp_BBCRWA_msp.045 ^a	na
	Pentatomidae	Asopinae sp_BBCRWA_msp.090	na
	Pentatomidae	<i>Birna griggae</i>	na
	Pentatomidae	<i>Cephaloplatus</i> sp_CRWA_msp.160	na
	Pentatomidae	Gn_Podopinae_CR001 sp_BBCRWA_msp.092	na
	Pentatomidae	<i>Menida</i> sp_BBCRWA_msp.088	na
	Pentatomidae	<i>Oechalia schellenbergii</i>	na
	Pentatomidae	<i>Oncocoris</i> sp_BBCRWA_msp.047	na
	Pentatomidae	<i>Poecilometis nigriventris</i> <i>nigriventris</i>	na
	Pentatomidae	<i>Pseudaelia</i> sp_BBCRWA_msp.072	na
	Pyrrhocoridae	<i>Australodindymus nigroruber</i>	na
	Reduviidae	Emesini sp_BBCRWA_msp.043	na
	Reduviidae	Gn_Harpactocorini_CR001 sp_BBCRWA_msp.061	na
	Reduviidae	Gn_Harpactocorini_CR001 sp_BBCRWA_msp.083	na
	Reduviidae	Gn_Reduviidae_CR001 sp_BBCRWA_msp.074	na
	Reduviidae	Harpactocorini sp_BBCRWA_msp.059	na
	Reduviidae	<i>Peirates</i> sp_BBCRWA_msp.100	na
	Reduviidae	<i>Poecilosphodrus</i> sp_BBCRWA_msp.091	na
	Rhopalidae	<i>Liorhyssus hyalinus</i>	na
	Rhyparachromidae	<i>Dieuches</i> sp_BBCRWA_msp.019	na

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Group	Family	Species	Common name
	Rhyparachromidae	<i>Remaudiereana</i> sp_BBCRWA_msp.073	na
	Saldidae	<i>Pentacora leucographa</i>	na
	Scutelleridae	<i>Choerocoris paganus</i>	na
	Thaumastocoridae	Gn_Thaumastocoridae_CR001 sp_BBCRWA_msp.067	na
	Thaumastocoridae	Gn_Thaumastocoridae_CR001 sp_BBCRWA_msp.102	na
	Thaumastocoridae	<i>Onymocoris stysi</i>	na
	Tingidae	<i>Diplocysta trilobata</i>	na
	Tingidae	<i>Lasiacantha</i> sp_BBCRWA_msp.016 ^a	na
	Tingidae	<i>Lasiacantha</i> sp_BBCRWA_msp.017 ^a	na
	Tingidae	<i>Malandiola</i> sp_BBCRWA_msp.046	na
	Tingidae	<i>Nethersia acaciaphila</i>	na
	Tingidae	<i>Nethersia mareeba</i>	na
	Tingidae	<i>Nethersia silveirae</i>	na
	Tingidae	<i>Nethersia</i> sp_BBCRWA_msp.031	na
	Tingidae	<i>Nethersia</i> sp_BBCRWA_msp.058	na
	Tingidae	<i>Oncophysa</i> msp.033	na
	Tingidae	<i>Paracopium</i> sp_BBCRWA_msp.018 ^a	na
Spiders	Actinopodidae	<i>Missulena</i> sp.	na
	Anamidae	<i>Aname</i> sp.	na
	Araneidae	<i>Argiope protensa</i>	na
	Araneidae	<i>Argiope trifasciata</i>	na
	Araneidae	<i>Austracantha minax</i>	Jewel Spider
	Araneidae	<i>Backobourkia collina</i>	na
	Araneidae	<i>Celaenia</i> sp.	na
	Araneidae	<i>Phonognatha 'graeffei'?</i>	na
	Araneidae	<i>Trichonephila plumipes</i>	Humped Golden Orb-weaving Spider
	Barychelidae	<i>Idiommata</i> sp.	na
	Barychelidae	<i>Synothele</i> sp.	na
	Clubionidae	<i>Clubiona</i> sp.	na
	Ctenidae	<i>Bengalla?</i> sp.	na
	Deinopidae	<i>Deinopis</i> sp.	na
	Filistatidae	<i>Wandella</i> sp.	na
	Gnaphosidae	<i>Anzacia?</i> sp.	na
	Gnaphosidae	<i>Eilica</i> sp.	na
	Gnaphosidae	<i>Nomindra leeuweni</i>	na

Group	Family	Species	Common name
	Halonoproctidae	<i>Conothele</i> 'MYG673' ^a	na
	Idiopidae	<i>Euoplos</i> 'MYG672' ^a	na
	Lamponidae	<i>Lamponata daviesae</i>	na
	Lamponidae	<i>Notsodipus</i> sp.	na
	Lycosidae	<i>Hoggicosa castanea</i>	na
	Lycosidae	<i>Venatrix arenaris</i>	na
	Miturgidae	Miturgidae gen.nov.	na
	Miturgidae	<i>Mituliodon tarantulinus</i>	na
	Oonopidae	<i>Opopaea</i> sp.	na
	Oonopidae	<i>Pelcinus</i> sp.	na
	Pholcidae	<i>Trichocyclus nigropunctatus</i>	na
	Salticidae	' <i>Menemerus?</i> ' ' <i>bivittatus?</i> '	na
	Salticidae	' <i>Thyene?</i> ' sp.	na
	Salticidae	<i>Hypoblemum</i> sp.	na
	Salticidae	<i>Sandalodes joannae</i>	na
	Salticidae	<i>Zenodorus orbiculatus</i>	na
	Selenopidae	<i>Karaops</i> sp.	na
	Sparassidae	<i>Neosparassus</i> sp.	na
	Theridiidae	<i>Steatoda</i> sp.	na
	Thomisidae	<i>Stephanopsis</i> sp.	na
	Thomisidae	<i>Thomisus spectabilis</i>	na
	Trochanteriidae	<i>Trachyspina capensis</i>	na
	Zodariidae	' <i>Asteron</i> spp. grp'	na
	Zodariidae	<i>Euasteron</i> sp.	na
	Zodariidae	<i>Neostorena</i> sp.	na
	Zodariidae	<i>Storena sinuosa</i>	na
Scorpions	Buthidae	<i>Lychas</i> 'aitkeni spp. grp'	na
	Buthidae	<i>Lychas</i> 'bituberculatus complex'	na
	Urodacidae	<i>Urodacus</i> sp.	na
	Urodacidae	<i>Urodacus</i> 'yaschenkoi spp. grp'	na
Pseudoscorpions	Chthoniidae	<i>Austrochthonius</i> sp.	na
	Chthoniidae	<i>Tyrannochthonius</i> sp.	na
	Garypidae	<i>Synsphyronus</i> 'sp. nov. Cape Range' ^a	na
	Geogarypidae	<i>Geogarypus taylori</i>	na
	Olpiidae	<i>Austrohorus</i> sp.	na
	Olpiidae	<i>Beierolpium</i> sp.	na
	Olpiidae	<i>Euryolpium</i> sp.	na

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Group	Family	Species	Common name
Centipedes and millipedes	Oryidae	<i>Orphnaeus</i> sp.	na
	Paradoxosomatidae	<i>Boreoheperus capensis</i>	na
	Scolopendridae	<i>Cormocephalus turneri</i>	na
	Scolopendridae	<i>Ethmostigmus pachysoma</i>	na
	Scolopendridae	<i>Scolopendra laeta</i>	na
Crabs, lobsters, shrimps and barnacles	[Order Cumacea]	Cumacea sp.	na
	[Order Harpacticoida]	Harpacticoida sp.	na
	[Order Myodocopida]	Myodocopida sp.	na
	Acartiidae	Acartiidae sp.	na
	Alpheidae	<i>Alpheus lobidens</i>	na
	Alpheidae	<i>Alpheus pacificus</i>	na
	Alpheidae	<i>Alpheus strenuus</i>	na
	Alpheidae	<i>Alpheus sulcatus</i>	na
	Alpheidae	<i>Athanas parvus</i>	na
	Alpheidae	<i>Synalpheus ancistrorhynchus</i>	na
	Alpheidae	<i>Synalpheus comatularum</i>	na
	Alpheidae	<i>Synalpheus neomeris</i>	na
	Anthuridae	Anthuridae sp.	na
	Archaeobalanidae	<i>Acasta</i> cf. <i>flexuosa</i>	na
	Archaeobalanidae	<i>Acasta</i> cf. <i>folliculus</i>	na
	Archaeobalanidae	<i>Armatobalanus allium</i>	na
	Archaeobalanidae	<i>Conopea calceolus</i>	na
	Archaeobalanidae	<i>Conopea</i> cf. <i>willhearsti</i>	na
	Archaeobalanidae	<i>Conopea</i> sp. BBCR01	na
	Archaeobalanidae	<i>Conopea titani</i>	na
	Archaeobalanidae	<i>Euacasta</i> sp. BBCR01	na
	Archaeobalanidae	<i>Neoacasta</i> cf. <i>laevigata</i>	na
	Archaeobalanidae	<i>Pectinoacasta sculpturata</i>	na
	Armadillidae	<i>Buddelundia</i> sp. BBCR01	na
	Balanidae	<i>Amphibalanus poecilotheca</i>	na
	Camptandriidae	<i>Baruna trigranulum</i>	na
	Camptandriidae	<i>Paracleistostoma</i> sp. BBCR01	na
	Carpiliidae	<i>Carpilius convexus</i>	Marbled Stone Crab
	Ceinidae	<i>Ceina gerlachae</i>	na
	Cirolanidae	<i>Neocirolana hermitensis</i>	na
	Corophiidae	Corophiidae sp.	na
	Cymothoidae	<i>Renocila</i> sp.	na
	Diogenidae	<i>Calcinus latens</i>	Hidden Hermit Crab

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Group	Family	Species	Common name
	Diogenidae	<i>Calcinus morgani</i>	Morgan's Hermit Crab
	Diogenidae	<i>Calcinus vachoni</i>	na
	Diogenidae	<i>Clibanarius virescens</i>	Yellow-footed Hermit Crab
	Diogenidae	<i>Dardanus cf. lagopodes</i>	na
	Diogenidae	<i>Dardanus crassimanus</i>	Mauve-eyed Hermit
	Diogenidae	<i>Dardanus lagopodes</i>	Hairy Red Hermit Crab
	Diogenidae	<i>Dardanus megistos</i>	White-spotted Hermit Crab
	Diogenidae	<i>Dardanus pedunculatus</i>	Anemone Hermit Crab
	Diogenidae	<i>Diogenes avarus</i>	na
	Diogenidae	<i>Diogenes cf. pallescens</i>	na
	Diogenidae	<i>Paguristes alegrias</i>	na
	Diogenidae	<i>Paguristes</i> sp. BBCR01	na
	Diogenidae	<i>Pseudopaguristes monoporus</i>	Blue-orange Banded Hermit Crab
	Domeciidae	<i>Cherusius?</i> sp. BBCR01	na
	Dorippidae	<i>Neodorippe callida</i>	Leaf-porter Crab
	Dorippoidea	<i>Paradorippe</i> sp.	na
	Dromiidae	<i>Cryptodromia</i> sp.	na
	Epialtidae	<i>Acanthonyx euryseroche</i>	na
	Epialtidae	<i>Huenia australis</i>	na
	Epialtidae	<i>Menaethius monoceros</i>	One-horned Spider Crab
	Eriphiidae	<i>Eriphia scabricula</i>	Hairy Banded Crab
	Galatheidae	<i>Galathea platycheles</i>	na
	Gonodactylidae	<i>Gonodactylellus diana</i>	na
	Grapsidae	<i>Metopograpsus frontalis</i>	na
	Hippolytidae	<i>Hippolyte ventricosa</i>	na
	Hippolytidae	<i>Saron marmoratus</i>	Marbled Shrimp
	Leucosiidae	<i>Myra affinis</i>	na
	Lichomolgidae	<i>Lichomolgidae</i> sp.	na
	Macrophthalmidae	<i>Chaenostoma</i> sp. BBCR01	na
	Macrophthalmidae	<i>Macrophthalmus latreillei</i>	na
	Majidae	<i>Micippa philyra</i>	na
	Majidae	<i>Paranaxia serpulifera</i>	na
	Majidae	<i>Pseudomicippe banfieldi</i>	na
	Majidae	<i>Schizophrys aspera</i>	Red Sea Toad
	Mictyridae	<i>Mictyris occidentalis</i>	Western Soldier Crab
	Mysidae	<i>Haplostylus tenuicaudus</i>	na
	Ocypodidae	<i>Austruca mjoebergi</i>	Mjöberg's Fiddler Crab
	Ocypodidae	<i>Tubuca elegans</i>	na
	Ocypodidae	<i>Tubuca flammula</i>	Flame-backed Fiddler Crab
	Oziidae	<i>Epixanthus frontalis</i>	na

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Group	Family	Species	Common name
	Paguridae	<i>Pagurus</i> sp. BBCR01	na
	Palaemonidae	<i>Coralliocaris viridis</i>	na
	Palaemonidae	<i>Periclimenaeus arabicus</i>	na
	Palaemonidae	<i>Periclimenes</i> sp. BBCR01	na
	Palinuridae	<i>Panulirus versicolor</i>	Painted Rock Lobster
	Parthenopidae	<i>Aulacolambrus diacanthus</i>	na
	Penaeidae	<i>Melicertus marginatus</i>	Aloha Prawn
	Pilumnidae	<i>Actumnus setifer</i>	Short-haired Crab
	Pilumnidae	<i>Glabropilumnus</i> sp. BBCR01	na
	Pilumnidae	<i>Pilumnus bleekeri</i>	Hairy Crab
	Pilumnidae	<i>Pilumnus</i> cf. <i>bleekeri</i>	na
	Pilumnidae	<i>Pilumnus vespertilio</i>	Bad Hair Day Crab
	Porcellanidae	<i>Lissoporcellana furcillata</i>	na
	Porcellanidae	<i>Lissoporcellana spinuligera</i>	na
	Porcellanidae	<i>Pachycheles sculptus</i>	na
	Porcellanidae	<i>Petrolisthes haplodactylus</i>	na
	Porcellanidae	<i>Petrolisthes haswelli</i>	na
	Porcellanidae	<i>Petrolisthes teres</i>	na
	Portunidae	<i>Cycloachelous orbitosinus</i>	na
	Portunidae	<i>Portunus pubescens</i>	na
	Portunidae	<i>Thalamita admete</i>	na
	Portunidae	<i>Xiphonectes tuberculosus</i>	na
	Protosquillidae	<i>Haptosquilla corrugata</i>	na
	Protosquillidae	<i>Haptosquilla stoliura</i>	na
	Pyrgomatidae	<i>Cantellius</i> cf. <i>albus</i>	na
	Pyrgomatidae	<i>Cantellius pallidus</i>	na
	Pyrgomatidae	<i>Darwiniella conjugatum</i>	na
	Pyrgomatidae	<i>Pyrgoma cancellatum</i>	na
	Sesarmidae	<i>Selatium</i> cf. <i>brockii</i>	na
	Sesarmidae	<i>Clistocoeloma</i> sp. BBCR01 ^a	na
	Sesarmidae	<i>Parasesarma hartogi</i>	na
	Sesarmidae	<i>Parasesarma holthuisi</i>	na
	Sesarmidae	<i>Parasesarma</i> sp. BBCR01 ^a	na
	Sesarmidae	<i>Sarmatium germaini</i>	na
	Sphaeromatidae	<i>Agostodina munta</i>	na
	Sphaeromatidae	<i>Sphaeroma terebrans</i>	na
	Sphaeromatidae	Sphaeromatidae sp.	na
	Talitridae	Talitridae sp.	na
	Tetraclitidae	<i>Neonrosella vitiata</i>	na
	Tetraclitidae	<i>Tetraclita squamosa</i>	na

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Group	Family	Species	Common name
	Tetraliidae	<i>Tetralia nigrolineata</i>	Bandit Crab
	Thalassinidae	<i>Thalassina saetichelis</i>	na
	Upogebiidae	<i>Upogebia carinicauda</i>	na
	Xanthidae	<i>Atergatis floridus</i>	Floral Egg Crab
	Xanthidae	<i>Chlorodiella laevis</i>	na
	Xanthidae	<i>Cymo melanodactylus</i>	Black-fingered Coral Clinger
	Xanthidae	<i>Etisus australis</i>	na
	Xanthidae	<i>Etisus electra</i>	na
	Xanthidae	<i>Paraxanthias cf. elegans</i>	na
	Xanthidae	<i>Paraxanthias elegans</i>	na
	Xanthidae	<i>Pilodius areolatus</i>	Areolated Xanthid Crab
	Xanthidae	<i>Platypodia cf. pseudogranulosa</i>	na
	Xanthidae	<i>Pseudoliomera helleri</i>	na
	Xanthidae	<i>Xanthias lamarcki</i>	na
	Xanthidae	<i>Xanthias</i> sp. BBCR01	na
Molluscs	Achatinidae	<i>Erelopeas interioris</i>	na
	Acteonidae	<i>Acteon</i> sp.	na
	Aglajidae	<i>Chelidonura pallida</i>	na
	Aplysiidae	<i>Aplysia reticulata</i>	na
	Bornellidae	<i>Bornella</i> sp. Bush Blitz Cape Range 1	na
	Bullidae	<i>Bulla ampulla</i>	na
	Caecidae	<i>Caecum cf. folini</i>	na
	Caecidae	<i>Caecum sepimentum</i>	na
	Caecidae	<i>Caecum</i> sp. Bush Blitz Cape Range 1	na
	Caecidae	<i>Caecum</i> sp. Bush Blitz Cape Range 2	na
	Caecidae	<i>Caecum</i> sp. Bush Blitz Cape Range 3	na
	Caecidae	<i>Caecum</i> sp. Bush Blitz Cape Range 4	na
	Caecidae	<i>Caecum</i> sp. Bush Blitz Cape Range 5	na
	Caecidae	<i>Parastrophia challengerii</i>	na
	Caecidae	<i>Parastrophia</i> sp. Bush Blitz Cape Range 1	na
	Calopidae	Calopidae sp. Bush Blitz Cape Range 1	na
	Calopidae	Calopidae sp. Bush Blitz Cape Range 2	na
	Camaenidae	<i>Promonturconchum superbum</i>	na
	Camaenidae	<i>Quistrachia lefroyi</i>	na

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Group	Family	Species	Common name
	Camaenidae	<i>Rhagada capensis</i>	na
	Camaenidae	<i>Strepsitaurus</i> sp. indet. Bush Blitz Cape Range 1	na
	Cardiidae	<i>Tridacna noae</i>	Noah's Giant Clam
	Cerithiidae	Cerithiidae sp. Bush Blitz Cape Range 1	na
	Chromodorididae	<i>Chromodoris</i> aff. <i>striatella</i>	na
	Chromodorididae	<i>Chromodoris colemani</i>	na
	Chromodorididae	<i>Glossodoris rufomarginata</i>	na
	Chromodorididae	<i>Goniobranchus</i> cf. <i>roboi</i>	na
	Chromodorididae	<i>Goniobranchus fidelis</i>	na
	Chromodorididae	<i>Hypselodoris</i> cf. <i>maculosa</i>	na
	Chromodorididae	<i>Mexichromis macropus</i>	na
	Chromodorididae	<i>Verconia romeri</i>	na
	Cimidae	<i>Cima</i> sp. Bush Blitz Cape Range 1	na
	Cimidae	<i>Cima</i> sp. Bush Blitz Cape Range 2	na
	Cimidae	<i>Cima</i> sp. Bush Blitz Cape Range 3	na
	Cimidae	<i>Graphis</i> sp. Bush Blitz Cape Range 1	na
	Cuspidariidae	<i>Cuspidaria</i> sp. Bush Blitz Cape Range 1	na
	Cystiscidae	<i>Cystiscus</i> sp. Bush Blitz Cape Range 1	na
	Dentaliidae	<i>Pictodentalium formosum</i>	na
	Discodorididae	<i>Discodoris lilacina</i>	na
	Discodorididae	<i>Halgerda</i> sp. Bush Blitz Cape Range 1	na
	Discodorididae	<i>Halgerda tessellata</i>	na
	Discodorididae	<i>Thordisa villosa</i>	na
	Eatoniellidae	Eatoniellidae sp. Bush Blitz Cape Range 1	na
	Eatoniellidae	Eatoniellidae sp. Bush Blitz Cape Range 2	na
	Eulimidae	Eulimidae sp. Bush Blitz Cape Range 1	na
	Eulimidae	Eulimidae sp. Bush Blitz Cape Range 2	na
	Eulimidae	Eulimidae sp. Bush Blitz Cape Range 3	na
	Eulimidae	Eulimidae sp. Bush Blitz Cape Range 4	na
	Eulimidae	<i>Hemiliostraca</i> sp. Bush Blitz Cape Range 1	na
	Eulimidae	<i>Thyca astericola</i>	na

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Group	Family	Species	Common name
	Gastrochaenidae	<i>Gastrochaena cf. philippinensis</i>	na
	Goniodorididae	<i>Okenia cf. mellita</i>	na
	Haminoeidae	<i>Haloa</i> sp. Bush Blitz Cape Range 1	na
	Laternulidae	<i>Laternula anatina</i>	na
	Leptochitonidae	Leptochitonidae sp. Bush Blitz Cape Range 1	na
	cf. Liotiidae	Liotiidae sp. Bush Blitz Cape Range 1	na
	Litiopidae	Litiopidae sp. Bush Blitz Cape Range 1	na
	Litiopidae	<i>Styliferina goniochila</i>	na
	Montacutidae	Montacutidae n. gen. n. sp. Bush Blitz Cape Range 1 ^a	na
	Murchisonellidae	<i>Kolonella</i> sp. Bush Blitz Cape Range 1	na
	Murchisonellidae	<i>Murchisonella cf. anabathron</i>	na
	Murchisonellidae	<i>Murchisonella</i> sp. Bush Blitz Cape Range 1	na
	Mytilidae	<i>Septifer cumingii</i>	na
	Nassariidae	Nassariidae sp. Bush Blitz Cape Range 1	na
	Nassariidae	<i>Nassarius dorsatus</i>	na
	Neomeniidae	Neomeniidae sp. Bush Blitz Cape Range 1	na
	Philinidae	<i>Spiniphiline</i> sp. Bush Blitz Cape Range 1	na
	Phyllidiidae	<i>Reticulidia fungia</i>	na
	Plakobrachidae	<i>Thuridilla gracilis</i>	na
	Plakobrachidae	<i>Thuridilla indopacifica</i>	na
	Plakobrachidae	<i>Thuridilla moebii</i>	na
	Pleurobranchidae	Pleurobranchidae sp. Bush Blitz Cape Range 1	na
	Polyceridae	<i>Gymnodoris cf. inornata</i>	na
	Pupillidae	<i>Pupoides myoporinae</i>	na
	Pyramidellidae	<i>Odostomia</i> sp. Bush Blitz Cape Range 1	na
	Pyramidellidae	Pyramidellidae sp. Bush Blitz Cape Range 1	na
	Pyramidellidae	Pyramidellidae sp. Bush Blitz Cape Range 2	na
	Pyramidellidae	Pyramidellidae sp. Bush Blitz Cape Range 3	na
	Rhodopidae	<i>Rhodope</i> sp. Bush Blitz Cape Range 1 ^a	na
	Rissoellidae	Rissoellidae sp. Bush Blitz Cape	na

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Group	Family	Species	Common name
		Range 1	
	Rissoinidae	<i>Rissoina</i> cf. <i>ambigua</i>	na
	Scaliolidae	<i>Scaliola</i> sp. Bush Blitz Cape Range 1	na
	Skeneidae	<i>Liotella</i> sp. Bush Blitz Cape Range 1	na
	Skeneidae	<i>Lodderena</i> sp. Bush Blitz Cape Range 1	na
	Skeneidae	<i>Skeneidae</i> sp. Bush Blitz Cape Range 1	na
	Spirostyliferinidae	<i>Spirostyliferina lizardensis</i>	na
	Spirostyliferinidae	<i>Spirostyliferina</i> sp. Bush Blitz Cape Range 1	na
	Strombidae	Strombidae sp. Bush Blitz Cape Range 1	na
	Terebridae	<i>Terebra</i> sp. Bush Blitz Cape Range 1	na
	Tonnidae	Tonnidae sp. Bush Blitz Cape Range 1	na
	Tritoniidae	<i>Tritoniopsis elegans</i>	na
	Triviidae	<i>Trivirostra</i> sp. Bush Blitz Cape Range 1	na
	Trochidae	<i>Stomatella</i> cf. <i>impertusa</i>	na
	Turbinidae	<i>Astralium pileolum</i>	na
	Velutinidae	<i>Lamellaria</i> sp. Bush Blitz Cape Range 1	na
	Veneridae	<i>Chione</i> sp. Bush Blitz Cape Range 1	na
Bryozoans	[Order Bryozoa]	Bryozoa sp.	na
	Candidae	Candidae sp.	na
	Catenicellidae	<i>Orthoscuticella ventricosa</i> cf.	na
	Phidoloporidae	<i>Iodictyum phoeniceum</i> cf.	na
Corals, jellyfish and sea anemones	Dendrophylliidae	<i>Turbinaria peltata</i>	na
	Ellisellidae	<i>Dichotella</i> sp.	na
	Ellisellidae	<i>Junceella fragilis</i>	na
	Hydrozoa	Hydrozoa sp. 1	na
	Hydrozoa	Hydrozoa sp. 2	na
	Hydrozoa	Hydrozoa sp. 3	na
	Hydrozoa	Hydrozoa sp. 4	na
	Hydrozoa	Hydrozoa sp. 5	na
	Melithaeidae	<i>Melithaea</i> sp.	na
	Nephtheidae	Nephtheidae WAM Z88954 sp. 1	na
	Nephtheidae	Nephtheidae WAM Z88959 sp. 2	na
	Pennatulidae	<i>Pteroeides</i> sp.	na

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Group	Family	Species	Common name
	Plexauridae	<i>Euplexaura</i> sp.WAM1 cf.	na
	Plexauridae	<i>Euplexaura</i> sp.WAM4 cf.	na
	Plexauridae	<i>Paracis</i> sp.	na
	Plexauridae	<i>Paraplexaura</i> sp.	na
	Subergorgiidae	<i>Subergorgia</i> sp.	na
	Subergorgiidae	<i>Subergorgia suberosa</i>	na
Comb jellies	[Phylum Ctenophora]	Ctenophora sp.	na
Sponges	Agelasidae	<i>Agelas mauritiana</i>	na
	Agelasidae	<i>Amphinomia sulphurea</i>	na
	Aplysinellidae	<i>Dendrilla</i> sp. PB1	na
	Aplysinidae	<i>Aplysina</i> sp. TB1	na
	Aplysinidae	<i>Aplysina</i> sp. WAM1 cf.	na
	Axinellidae	<i>Axinella aruensis</i> Type II	na
	Axinellidae	<i>Axinella</i> sp. NW1 cf.	na
	Axinellidae	<i>Cymbastela stipitata</i>	na
	Axinellidae	<i>Phakellia</i> sp. Ng6	na
	Biemnidae	<i>Biemna</i> sp. WAM2 cf.	na
	Callyspongiidae	<i>Arenosclera</i> sp. WAM1	na
	Callyspongiidae	<i>Callyspongia (Callyspongia)</i> sp. Bb1 ^a	na
	Callyspongiidae	<i>Callyspongia (Callyspongia)</i> sp. Bb2 ^a	na
	Callyspongiidae	<i>Callyspongia (Callyspongia)</i> sp. KMB4 cf.	na
	Callyspongiidae	<i>Callyspongia (Cladochalina) subarmigera</i>	na
	Callyspongiidae	<i>Callyspongia (Toxochalina)</i> sp. WAM2	na
	Chalinidae	<i>Haliclona (Gellius) cymaeformis</i>	na
	Chalinidae	<i>Haliclona (Reniera)</i> sp. Bb1 ^a	na
	Chalinidae	<i>Haliclona (Reniera)</i> sp. TB1	na
	Chalinidae	<i>Haliclona (Reniera)</i> sp. WAM10	na
	Chondrillidae	<i>Chondrilla australiensis</i>	na
	Chondropsidae	<i>Chondropsis kirkii</i>	na
	Chondropsidae	<i>Chondropsis</i> sp. WAM1	na
	[Class Calcarea]	<i>Calcarea</i> sp. Bb1 ^a	na
	Clionidae	<i>Cliona orientalis</i>	na
	Clionidae	<i>Pione velans</i>	na
	Coelosphaeridae	<i>Coelosphaera (Coelosphaera)</i> sp. SS3	na
	Crambreidae	<i>Monanchora</i> sp. Ng1	na

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Group	Family	Species	Common name
	Dendoricellidae	<i>Dendoricella</i> sp. Bb1 ^a	na
	Dictyonellidae	<i>Acanthella pulcherrima</i>	na
	Dysideidae	<i>Dysidea</i> sp. WAM3	na
	Hemiasterellidae	<i>Axos flabelliformis</i>	na
	Hemiasterellidae	<i>Liosina granularis</i>	na
	Irciniidae	<i>Psammocinia bulbosa</i>	na
	Irciniidae	<i>Sarcotragus</i> sp. Bb1 ^a	na
	Microcionidae	<i>Clathria (Thalysias) reinwardti</i>	na
	Mycalidae	<i>Mycale (Aegogropila)</i> sp. WAM1	na
	Mycalidae	<i>Mycale</i> sp. Bb1 ^a	na
	Niphatidae	<i>Amphimedon paraviridis</i>	na
	Petrosiidae	<i>Neopetrosia chaliniformis</i>	na
	Petrosiidae	<i>Petrosia</i> sp. WAM2 cf.	na
	Petrosiidae	<i>Xestospongia</i> sp. WAM1	na
	Petrosiidae	<i>Xestospongia</i> sp. WAM3	na
	Phloeodictyidae	<i>Siphonodictyon</i> sp. KMB1	na
	Polymastidae	<i>Polymastia</i> sp. SS5 cf.	na
	Pseudoceratinidae	<i>Pseudoceratina verrucosa</i>	na
	Raspailiidae	<i>Echinodictyum clathrioides</i>	na
	Raspailiidae	<i>Ectyoplasia vannus</i>	na
	Raspailiidae	<i>Raspailia (Clathriodendron) keriontria</i>	na
	Spirastrellidae	<i>Spirastrella</i> sp. NR1	na
	Spongiidae	<i>Spongia</i> sp. Bb1 ^a	na
	Thorectidae	<i>Hyrtios</i> sp. Bb1 ^a	na
	Thorectidae	<i>Luffariella</i> sp. Bb1 ^a	na
	Thorectidae	<i>Phyllospongia papyracea</i>	na
	Thorectidae	<i>Phyllospongia</i> sp. WAM	na

a Putative new species. **b** Introduced and/or pest species. **c** Listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth). **d** Listed as threatened under the *Biodiversity Conservation Act 2016* (Western Australia). **na** Not available.

Table A2 List of flora species recorded

Group	Family	Species	Common name
Vascular plants	Acanthaceae	<i>Dicladanthera forrestii</i>	na
	Apocynaceae	<i>Cynanchum viminale</i> subsp. <i>australe</i>	Caustic Bush
	Apocynaceae	<i>Marsdenia australis</i>	na
	Arecaceae	<i>Livistona alfredii</i>	Millstream Palm
	Asparagaceae	<i>Acanthocarpus verticillatus</i>	na
	Asparagaceae	<i>Acanthocarpus humilis</i>	na
	Asphodelaceae	<i>Aloe vera</i> var. <i>officinalis</i> ^a	na
	Asteraceae	<i>Olearia ?dampieri</i>	na
	Asteraceae	<i>Olearia</i> sp. Kennedy Range (G.Byrne 66) WA Herbarium	na
	Asteraceae	<i>Pluchea dentex</i>	na
	Bignoniaceae	<i>Tecoma stans</i> ^a	na
	Boraginaceae	<i>Halgania cyanea</i>	Rough Halgania
	Boraginaceae	<i>Heliotropium ovalifolium</i>	na
	Boraginaceae	<i>Trichodesma zeylanicum</i>	Camel Bush
	Celastraceae	<i>Stackhousia umbellata</i>	na
	Chenopodiaceae	<i>Dysphania cristata</i>	na
	Chenopodiaceae	<i>Rhagodia preissii</i> subsp. <i>obovata</i>	na
	Chenopodiaceae	<i>Threlkeldia diffusa</i>	Coastal Bonefruit
	Colchicaceae	<i>Wurmbea odorata</i>	na
	Commelinaceae	<i>Commelina ensifolia</i>	Wandering Jew
	Convolvulaceae	<i>Ipomoea yardiensis</i>	Yardie Morning Glory
	Convolvulaceae	<i>Ipomoea costata</i>	Rock Morning Glory
	Convolvulaceae	<i>Ipomoea muelleri</i>	Poison Morning Glory
	Cyperaceae	<i>Cyperus vaginatus</i>	Stiffleaf Sedge
	Dilleniaceae	<i>Hibbertia capensis</i>	na
	Dilleniaceae	<i>Hibbertia spicata</i>	na
	Euphorbiaceae	<i>Euphorbia boophthona</i>	Gascoyne Spurge
	Euphorbiaceae	<i>Euphorbia drummondii</i>	Caustic Weed
	Fabaceae	<i>Acacia arida</i>	na
	Fabaceae	<i>Acacia bivenosa</i>	na
	Fabaceae	<i>Acacia colei</i>	na
	Fabaceae	<i>Acacia coriacea</i>	Wirewood
	Fabaceae	<i>Acacia coriacea</i> subsp. <i>coriacea</i>	na
	Fabaceae	<i>Acacia gregorii</i>	na
Fabaceae	<i>Acacia ligulata</i>	na	
Fabaceae	<i>Acacia pyrifolia</i>	Ranji Bush	
Fabaceae	<i>Acacia ryaniana</i>	na	
Fabaceae	<i>Acacia sclerosperma</i>	Limestone Wattle	

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Group	Family	Species	Common name
	Fabaceae	<i>Acacia spathulifolia</i>	na
	Fabaceae	<i>Acacia stellaticeps</i>	na
	Fabaceae	<i>Acacia tetragonophylla</i>	Kurara
	Fabaceae	<i>Albizia lebbek</i> ^a	na
	Fabaceae	<i>Crotalaria cunninghamii</i>	Green Birdflower
	Fabaceae	<i>Daviesia pleurophylla</i>	na
	Fabaceae	<i>Indigofera boviparda</i>	na
	Fabaceae	<i>Indigofera boviparda</i> subsp. <i>boviparda</i>	na
	Fabaceae	<i>Indigofera chamaeclada</i> subsp. <i>pubens</i>	na
	Fabaceae	<i>Leptosema macrocarpum</i>	na
	Fabaceae	<i>Rhynchosia minima</i>	Rhynchosia
	Fabaceae	<i>Senna glutinosa</i>	na
	Fabaceae	<i>Swainsona formosa</i>	Stuart Desert Pea (Black eye)
	Fabaceae	<i>Swainsona formosa</i>	Stuart Desert Pea (White Eye)
	Geraniaceae	<i>Erodium cygnorum</i>	Blue Heronsbill
	Goodeniaceae	<i>Dampiera incana</i>	Hoary Dampiera
	Goodeniaceae	<i>Goodenia cusackiana</i>	na
	Goodeniaceae	<i>Scaevola cunninghamii</i>	na
	Goodeniaceae	<i>Scaevola tomentosa</i>	Raggedleaf Fanflower
	Goodeniaceae	<i>Scaevola spinescens</i>	Currant Bush
	Gyrostemonaceae	<i>Gyrostemon ramulosus</i>	Corkybark
	Hemerocallidaceae	<i>Tricoryne corynothecoides</i>	na
	Lamiaceae	<i>Clerodendrum tomentosum</i> var. <i>lanceolatum</i>	na
	Lamiaceae	<i>Quoya loxocarpa</i>	na
	Lamiaceae	<i>Vitex trifolia</i> ^a	na
	Loranthaceae	<i>Amyema preissii</i>	Wireleaf mistletoe
	Malvaceae	<i>Brachychiton gregorii</i>	Desert Kurrajong
	Malvaceae	<i>Hannafordia quadrivalvis</i>	na
	Malvaceae	<i>Hannafordia quadrivalvis</i> subsp. <i>recurva</i>	na
	Malvaceae	<i>Hibiscus sturtii</i>	Sturt's Hibiscus
	Malvaceae	<i>Hibiscus sturtii</i> var. <i>truncatus</i>	na
	Myrtaceae	<i>Beaufortia sprengelioides</i>	na
	Myrtaceae	<i>Calothamnus borealis</i> subsp. <i>borealis</i>	na
	Myrtaceae	<i>Calytrix</i> sp. Learmonth	na
	Myrtaceae	<i>Corymbia opaca</i>	na
	Myrtaceae	<i>Eucalyptus xerothermica</i>	na
	Myrtaceae	<i>Melaleuca cardiophylla</i>	Tangling Melaleuca
	Myrtaceae	<i>Thryptomene dampieri</i>	na

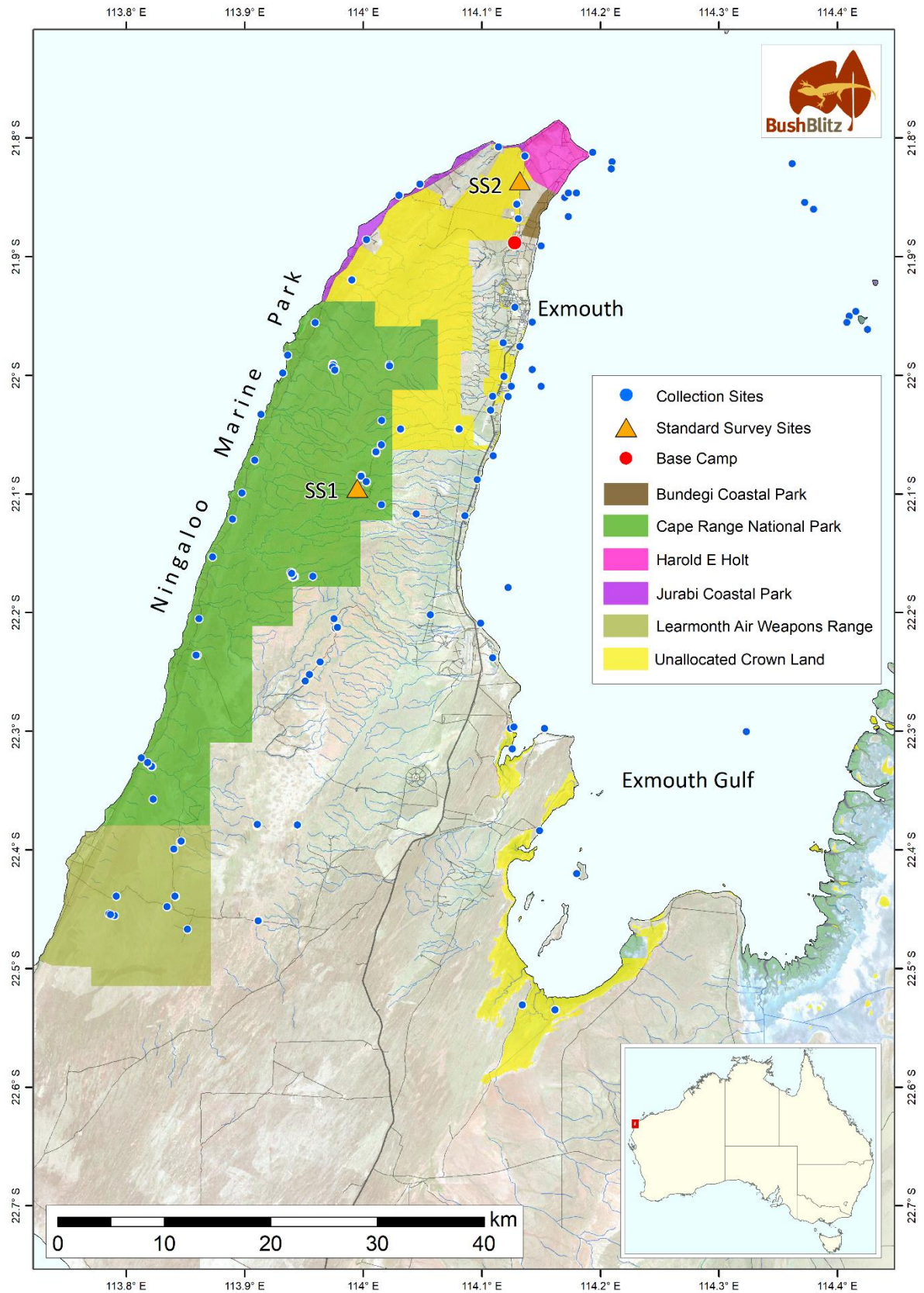
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Group	Family	Species	Common name
	Olacaceae	<i>Jasminum didymum</i>	na
	Olacaceae	<i>Olax aurantia</i>	na
	Pittosporaceae	<i>Pittosporum phillyreoides</i>	Weeping Pittosporum
	Plantaginaceae	<i>Stemodia</i> sp.	na
	Plumbaginaceae	<i>Plumbago zeylanica</i>	Native Plumbago
	Poaceae	<i>Cenchrus ciliaris</i> ^a	Buffel Grass
	Poaceae	<i>Dactyloctenium radulans</i>	Button Grass
	Poaceae	<i>Eragrostis lanipes</i>	Creeping Wanderrie
	Poaceae	<i>Eragrostis</i> sp.	na
	Poaceae	<i>Paspalidium clementii</i>	Clements Paspalidium
	Poaceae	<i>Spinifex longifolius</i>	Beach Spinifex
	Poaceae	<i>Triodia angusta</i>	na
	Poaceae	<i>Triodia basedowii</i>	Lobed Spinifex
	Poaceae	<i>Triodia epactia</i>	na
	Poaceae	<i>Triodia wiseana</i>	Limestone Spinifex
	Proteaceae	<i>Banksia ashbyi</i>	Ashby's Banksia
	Proteaceae	<i>Banksia ashbyi</i> subsp. <i>boreoscaia</i>	na
	Proteaceae	<i>Grevillea eriostachya</i>	Flame Grevillea
	Proteaceae	<i>Grevillea stenobotrya</i>	na
	Proteaceae	<i>Grevillea variifolia</i>	na
	Proteaceae	<i>Grevillea variifolia</i> subsp. <i>bundera</i>	na
	Proteaceae	<i>Hakea stenophylla</i>	na
	Proteaceae	<i>Hakea lorea</i>	Witinti
	Santalaceae	<i>Exocarpos aphyllus</i>	Leafless Ballart
	Santalaceae	<i>Exocarpos sparteus</i>	Broom Ballart
	Santalaceae	<i>Santalum spicatum</i>	Sandalwood
	Santalaceae	<i>Santalum lanceolatum</i>	Northern Sandalwood
	Sapindaceae	<i>Diplopeltis ?eriocarpa</i>	na
	Scrophulariaceae	<i>Eremophila longifolia</i>	na
	Scrophulariaceae	<i>Eremophila</i> sp.	na
	Solanaceae	<i>Solanum lasiophyllum</i>	na
	Surianaceae	<i>Stylobasium spathulatum</i>	Pebble Bush
	Thymelaeaceae	<i>Pimelea ammocharis</i>	na
	Typhaceae	<i>Typha domingensis</i>	Bulrush
	Zygophyllaceae	<i>Tribulus macrocarpus</i>	na

a Introduced and pest species. **na** Not available.

Appendix B: Collection sites

Map B1 Map of collection sites



Glossary

Term	Definition
AFD	Australian Faunal Directory
ALA	Atlas of Living Australia
Apomictic	A plant that is able to reproduce asexually without fertilisation
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DBCA	Department of Biodiversity, Conservation and Attractions (WA)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
Introduced	Not indigenous; not native to the area in which it now occurs.
Karstic	An area of irregular limestone in which erosion has produced fissures, sinkholes, underground streams, and caverns.
Lineage	A sequence of species each of which is considered to have evolved from its predecessor.
Pest species	A species that has the potential to have a negative environmental, social or economic impact.
Putative new species	An unnamed species that, as far as can be ascertained, was identified as a new species as a direct result of this Bush Blitz.
Range extension	Increase in the known distribution or area of occurrence of a species.
Symbiotic	Involving interaction between 2 different organisms living in close physical association.
Taxon (plural taxa)	A member of any particular taxonomic group (e.g. a species, genus, family).
Taxonomy	The categorisation and naming of species. The science of identifying and naming species, as well as grouping them based on their relatedness.
Threatened	Fauna or flora that are listed under Section 178 of the EPBC Act (or equivalent State legislation) in any one of the following categories – extinct, extinct in the wild, critically endangered, endangered, vulnerable, conservation dependent.
Undescribed taxon	A taxon (usually a species) that has not yet been formally described and named.
Vascular plants	A lineage of plants that possess well-developed veins (vascular tissue) in their stems, roots and leaves. Vascular plants include the majority of familiar land plants: flowering plants, ferns, conifers, cycads and fern allies, but not mosses, liverworts or algae.
Vouchers (voucher specimens)	Any specimen, usually a dead animal or preserved plant sample, that serves as a basis of study and is retained as a reference.

References

Chapman, AD 2009, [Numbers of Living Species in Australia and the World](#) 2nd edn, Australian Biological Resources Study, Canberra, accessed 13 September 2021.

WA Government 2010, [Cape Range National Park Management Plan 2010 \[5.07MB\]](#), Department of Biodiversity, Conservation and Attractions, previously Department of Environment and Conservation, and Conservation Commission of Western Australia, accessed 13 September 2021.