

**Cape Range Bush Blitz**  
***Bryozoa, Cnidaria, Echinodermata,  
Ochyophyta and Porifera***

*17<sup>th</sup> to 28<sup>th</sup> of June 2019*

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Nomenclature and taxonomy used in this report is consistent with:

The World Porifera Database (WPD)

<http://www.marinespecies.org/porifera/>

The World Register of Marine Species (WoRMS)

<http://marinespecies.org/>

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List of contributors to this report.			
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## Abstract

A total of 10 possible new species of sponges were recorded during the Cape Range Bush Blitz fieldtrip performed in June this year. Overall 21 extension ranges were recorded for 21 known species of sponges, some of which are poorly studied. At this stage, more work will need to be done to cement this finding. Other Phyla was also collected as their presence in the area might be of importance. Final identification is still ongoing and might produce very interesting findings.

## 1. Introduction

Cape Range peninsula is located at the western margin of the Pilbara Bioregion in north-western Australia. The marine environments surrounding the Cape can be loosely divided into two broad habitats. The west coast is dominated by Ningaloo Reef, which is a 260km long narrow fringing/barrier coral reef with an extensive back-reef lagoon (Wilson, 2013). The lagoon is generally quite shallow (mostly a few metres deep) and the water relatively clear. The lagoonal benthic habitat is dominated by sand and rubble substrata with subtidal patch reefs of mostly *Acropora* corals, and extensive sandstone rocky intertidal platforms along the shoreline (Cassata and Collins, 2008). Ningaloo Reef was protected as a marine park in 1987 and in 2011 was recognised with World Heritage Status.

To the east of the peninsula is the large embayment of Exmouth Gulf, some 40 km wide and 80 km long (ca 3000 km<sup>2</sup>). The gulf is dominated by soft sediments with filter-feeder communities of sponges and soft corals. Much of the gulf has been subjected to widespread prawn trawling since the early 1960s (Kangas et al., 2007). The north-western edge of the gulf is fringed with intertidal reef platforms and sandy beaches, adjacent to subtidal weedy rubble reefs and seagrass communities. The eastern and southern edges of the gulf are very turbid and support broad mudflats and mangrove lined tidal creeks. A row of subtidal shoals and emergent islands some 5-10 km off the eastern shore provide dense and diverse coral reefs that have avoided impact by trawling.

Ningaloo Reef is bathed by the southern flowing warm-water Leeuwin Current, and lies at the boundary between the Indo-West Pacific and the West Coast biogeographic zones (Wilson 2013). More than 250 species of sponges have been reported from mesophotic depths in the Ningaloo Marine Park, making the region a biodiversity hotspot for marine sponges (Heyward et al., 2010; Schönberg and Fromont, 2012; Fromont et al., 2016). Far less is known about the shallow water fauna.

Exmouth Gulf is also poorly known, apart from research on bycatch in prawn trawls (Kangas et al., 2007).

This report summarises the results of a two week targeted survey of selected marine invertebrates, excluding crustaceans, molluscs and worms, in the Cape Range area, primarily in the lesser studied Exmouth Gulf and shallow sites on Ningaloo Reef.

## 2. Methods

### 2.1 Site selection

Most sampling sites were located in Exmouth Gulf, with a few targeted collections on the west coast of Cape Range peninsula. Sites were chosen to represent as wide a range of habitat types as possible, including subtidal and intertidal coral reefs, sponge and rubble reefs, algae and seagrass pavements, and mangroves and mangrove-lined creeks (Figure 1). Site locations were partly determined by accessibility via boat, 4WD or helicopter and OHS requirements.

Sites were also selected on the basis of 1) locations where biodiversity knowledge gaps occur, i.e. not surveyed before for the selected marine invertebrate taxa, 2) locations previously visited but where voucher material was not collected and 3) varied habitats where marine invertebrates have been understudied e.g. mangrove sites.

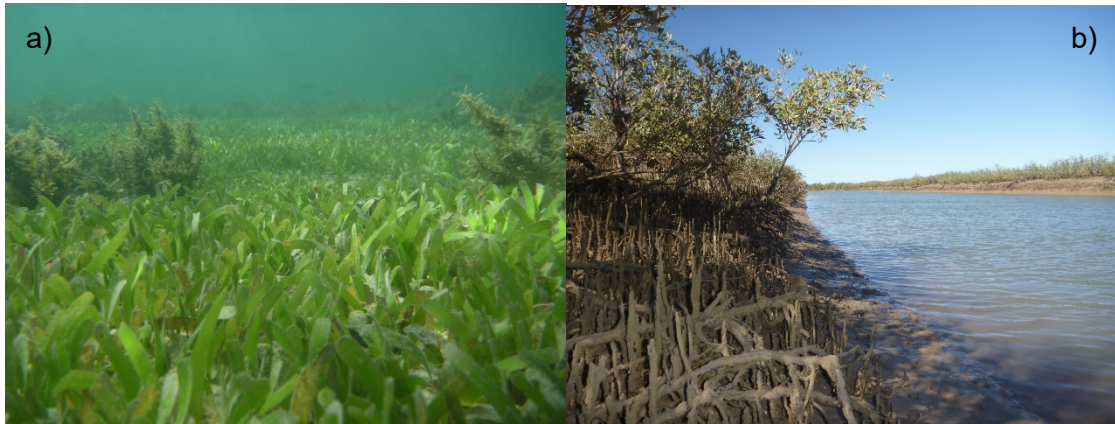


Figure 1: a) Station CR19/30 south of Two rock site, an example of seagrass pavement site, b) Station CR19/23 Mangrove tribute creek, an example of Mangrove intertidal walk.

## 2.2 Survey techniques

Marine invertebrates were collected with the following methods; 1) SCUBA diving (5-20 metres), 2) Snorkelling to depths of 1-4 metres, 3) Intertidal walking at low tide, 4) Deployment of surface net at dive sites (benthic net provided by the Department of Biodiversity, Conservation and Attractions, DBCA).

### 2.2.1 Methods used at standard survey sites

One or two surveyors swam across the selected site and collected, photographed and made notes on selected specimens. Each specimen was subsampled for DNA, chemistry and a taxonomic voucher sample was kept. Deck photographs were taken, and annotations were made on associated fauna of all specimens.

Dive, snorkelling and intertidal sites surveyed were selected depending on tide, current and weather a day before they were surveyed.

Mangrove habitat was surveyed but is not an optimum habitat for this group.

## 2.3 Identifying the collections

Marine sponges were identified in the field by using bleach preparations and microscopy. Specimens were identified to the highest taxonomic level possible in the field. Those specimens that were not identified to species level were further checked against the reference collection housed at the Western Australian Museum.

Primary literature sources for identifications included Hooper (1991), Hooper and van Soest (2002), and numerous genus specific references were referred to. All names were checked on the World Porifera Database (Van Soest et al., 2019).

### 3. Results and Discussion

A total of 70 specimens from the Phylum Porifera were collected during this fieldtrip. This produced a total of 55 species or operational taxonomic units (OTUs).

In addition, three species of seastars were collected, along with one brittle star, one voucher specimen of a sea cucumber, seven voucher specimens of ctenophores/hydrozoan medusa, one voucher specimen of Ctenophora, five voucher specimens of Hydrozoa four voucher specimens of Bryozoans and fifteen voucher specimens of the Order Cnidaria (which included the Ellisellidae, Plexauridae, Nephtheidae, Subergorgiidae, Mleithaeidae Pennatulidae and Dendrophylliidae Families)

Appendix 1 lists all taxa recorded during the Bush Blitz.

#### 3.1 Un-named or not formalised taxa

<b>Table 1. Putatively un-named or not formalised taxa</b>	
<b>Taxon</b>	<b>Comment</b>
Bryozoa	Two specimens not identified, they will require identification by experts
Cnidaria: Hydrozoa	Five specimens not identified, as they will require identifications by experts.
Cnidaria: Ctenophore/Hydrozoa	Seven specimens not identified, as they will require identifications by experts
Ochrophyta: Ctenophora	One specimen not identified, as it will require identification by an expert
FAMILY: Ophiidermatidae	One specimen not identified to Genus, as it will require identification by an expert
Aquilonastra sp.	Two specimens not identified to species, as it will require identification by an expert
Cucumaria sp.	One specimen not identified to species, as it will require identification by an expert
<i>Dichotella</i> sp.	One specimen not identified to species, as it will require identification by an expert
<i>Melithaea</i> sp.	One specimen not identified to species, as it will require identification by an expert
FAMILY: Nephtheidae	Two specimens not identified to Genus, as it will require identification by an expert
<i>Paracis</i> sp.	One specimen not identified to species, as it will require identification by an expert
<i>Pteroides</i> sp.	One specimen not identified to species, as it will require identification by an expert
<i>Paraplexaura</i> sp.	One specimen not identified to species, as it will require identification by an expert

<i>Subergorgia</i> sp.	One specimen not identified to species, as it will require identification by an expert
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### 3.2 Putative new species (new to science)

In this report, 'putative new species' means an unnamed species that, as far as can be ascertained, was identified as a new species as a direct result of this Bush Blitz.

At this stage no new species have been identified. Potentially any of the 10 sponge species listed below could be new species, but an enormous amount of taxonomic research is required to determine this and it is not possible at this time.

Table 2. Putative new species (new to science)	
Species	Comment
<i>Calcarea</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Hyrtios</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Callyspongia (Callyspongia)</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Callyspongia (Callyspongia)</i> sp. Bb2	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Haliclona (Reniera)</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Sarcotragus</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Spongia</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Mycale</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Luffariella</i> sp. Bb1	This specimen did not match any WAM known OTU, thus potentially a new species. However, more research needs to be done to confirm this.
<i>Dendoricella</i> sp. Bb1	This specimen is the first specimen of this genus in WA, thus potentially a new species. However, more research needs to be done to confirm this.

### 3.3 Exotic and pest species

None reported.

### 3.4 Threatened species

None reported.

### 3.5 Range extensions

A number of range extensions have resulted from the Bushblitz fieldtrip. Southward range extensions occurred for twenty-one sponge species and varied between 28-1320 kms distance. 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. We have 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.

<b>Species</b>	<b>Location sighted/observed</b>	<b>Distance from nearest known record (km)</b>	<b>Comments</b>
<i>Dendrilla</i> sp. PB1	Y-Island, Exmouth Gulf	~108 km	This is the first specimen from this area (Cape Range-Exmouth Gulf). Only 3 previous specimens have been collected from Onslow.
<i>Spirastrella</i> sp. NR1	Two rocks, Exmouth Gulf	~97.7 km	Only one specimen previously collected in the Ningaloo area. First record from Exmouth Gulf.
<i>Haliclona (Reniera)</i> sp. TB1	Bundegui reef, Exmouth Gulf	~28.9 km	Only one specimen collected from this area. The current specimen is only the second record of this species
<i>Agelas mauritiana</i> (Carter, 1883)	Y-Island, Exmouth Gulf	~102 km	Southern extension for this species.
<i>Axinella</i> sp. NW1 cf.	Two rocks, Exmouth Gulf	~273 km	Southern extension for this species.
<i>Phakellia</i> sp. Ng6	Sponge garden, Bundegui reef, Exmouth Gulf	~234 km	Uncommon species. This is 1 of 6 specimens collected from this region and in WA.
<i>Arenosclera</i> sp. WAM1	Sponge garden, Bundegui reef, Exmouth Gulf	~332 km	Southern extension for this species, and

			1 of 11 specimens from WA
<i>Callyspongia (Toxochalina)</i> sp. WAM2	Exmouth Reef north and south of Two rocks	~108 km	Southern extension for this species.
<i>Xestospongia</i> sp. WAM1	Y-Island, Exmouth Gulf	~99.3 km	Southern extension for this species.
<i>Siphonodictyon</i> sp. KMB1	Five mile beach and Marina wall, Exmouth Gulf	~1,277 km	Southern extension for this species.
<i>Xestospongia</i> sp. WAM3	Exmouth Reef south	~96 km	Southern extension for this species.
<i>Aplysina</i> sp. TB1	Two rocks, Exmouth Gulf	~28.2 km	1 of only 3 specimens collected from WA
<i>Mycale (Aegogropila)</i> sp. WAM1	Lakeside, Exmouth Gulf	~1,234 km	Southern extension for this species.
<i>Dysidea</i> sp. WAM3	Exmouth Reef south	~105 km	Southern extension for this species.
<i>Callyspongia (Callyspongia)</i> sp. KMB4 cf.	South of Two rocks, Exmouth Gulf	~1,225 km	1 of only 4 specimens collected from WA
<i>Liosina granularis</i> Kelly-Borges & Bergquist, 1988	Exmouth Reef North	~154 km	Southern extension for this species.
<i>Haliclona (Reniera)</i> sp. WAM10	Two rocks, Exmouth Gulf	~96.7	Southern extension for this species.
<i>Petrosia</i> sp. WAM2 cf.	Y-Island, Exmouth Gulf	N/A	First voucher specimen collected from the Exmouth Gulf.
<i>Biemna</i> sp. 2 cf.	Two rocks, Exmouth Gulf	~331 km	1 of only 3 specimens collected in WA
<i>Aplysina</i> sp. 1 cf.	Five mile beach, Exmouth Gulf	~316 km	1 of only 2 specimens collected in WA
<i>Phyllospongia</i> sp. WAM	Five mile beach, Exmouth Gulf	~1,320 km	This is a new southern range extension for this species, which currently is being described.

### 3.6 Genetic information

Tissue samples were taken from 66 of the 70 sponge specimens collected. These will be used to build the tissue library of the WA Museum marine invertebrate collections. Some will aid identification, and may potentially reveal unrecognised cryptic lineages.



### **3.7 Wet Frozen collection.**

Wet frozen samples were taken from 67 of the 70 sponge specimens collected. These will be used to look for novel chemical compounds that may have medical benefits.

## **4. Information on species lists**

Much taxonomic work remains to be done on the specimens collected. A review of historic literature is required for each species without a full identification. It will be necessary to loan type specimens for comparative taxonomy as much of the older literature has short, somewhat uninformative species descriptions. In addition, sponge systematics is rapidly changing with numerous sequencing results realigning families and genera - it is an exciting time.

This collection of marine invertebrate specimens along with the images and tissue samples provide an excellent resource for future research. Building the tissue library is fundamental to modern day systematics. Not only will the wet frozen samples potentially provide novel chemical compounds, these chemistry results may also prove to be useful taxonomic tool, with some compounds only found in particular groups of species.

## **5. Information for land managers**

Many of the stations visited along the Ningaloo coast and in Exmouth Gulf appeared to be very healthy and in good environmental condition. In particular, those on the northern side of the gulf looked pristine, as well as the sponge garden near Bundegui reef. It was fortunate to have the opportunity to visit these islands and this reef. It is impressive that no exotic or pest species were detected at any of the stations visited. This in an area with high tourist visitation is commendable.

## **6. Other significant findings**

None to report.

## **7. Conclusions**

The Cape Range Bush Blitz survey provided a unique opportunity to sample the shallow regions of the Ningaloo coast and Exmouth Gulf. In particular the stations on the northern side of the gulf had not previously been sampled for sponges. The stations surveyed were in good environmental condition. The fieldtrip has enabled significant additions to the tissue library of the Marine Invertebrate Zoology collections at the Western Australian Museum, as well as wet frozen material for chemical analysis and ethanol voucher specimens with associated images. There is scope for further research, in particular on the northern side of the gulf that is still not well known scientifically.

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Finally, we would like to acknowledge the rest of the Western Australian Museum team, especially those that help with the logistics, organising and approval of this fieldtrip.

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**Appendix 1. List of Bryozoa, Cnidaria, Echinodermata, Ochyrophyta and Porifera recorded during the Cape Range Bush Blitz**

Family	Species	Common name	Putative new species	Threatened (EPBC Act)	Threatened (State Act)	Exotic/ pest
Catenicellidae	<i>Orthoscuticella ventricosa cf. (Busk, 1852)</i>	Bryozoan	No	No	No	No
ORDER: Bryozoa	ORDER: Bryozoa	Bryozoan	No	No	No	No
ORDER: Bryozoa	ORDER: Bryozoa	Bryozoan	No	No	No	No
Phidoloporidae	<i>Iodictyum phoeniceum cf. (Busk, 1854)</i>	Purple Bryozoan	No	No	No	No
Ctenophora/Hydrozoa	Ctenophora/Hydrozoa		No	No	No	No
Ctenophora/Hydrozoa	Ctenophora/Hydrozoa		No	No	No	No
Ctenophora/Hydrozoa	Ctenophora/Hydrozoa		No	No	No	No
Ctenophora/Hydrozoa	Ctenophora/Hydrozoa		No	No	No	No
Ctenophora/Hydrozoa	Ctenophora/Hydrozoa		No	No	No	No
Ctenophora/Hydrozoa	Ctenophora/Hydrozoa		No	No	No	No
Ctenophora/Hydrozoa	Ctenophora/Hydrozoa		No	No	No	No
Dendrophylliidae	<i>Turbinaria peltata (Esper, 1794)</i>	Hard Coral	No	No	No	No
Ellisellidae	<i>Dichotella sp.</i>	Sea fan	Yes	No	No	No
Ellisellidae	<i>Junceella fragilis (Ridley, 1884)</i>	Red & White whip	No	No	No	No
Hydrozoa	Hydrozoa	Hydroid	No	No	No	No
Hydrozoa	Hydrozoa	Hydroid	No	No	No	No
Hydrozoa	Hydrozoa	Hydroid	No	No	No	No
Hydrozoa	Hydrozoa	Hydroid	No	No	No	No
Hydrozoa	Hydrozoa	Hydroid	No	No	No	No
Melithaeidae	<i>Melithaea sp.</i>	Sea fan	Yes	No	No	No
Nephtheidae	<i>Dendronephthya sp.</i>	Soft coral	Yes	No	No	No
Nephtheidae	<i>Dendronephthya sp.</i>	Soft coral	Yes	No	No	No
Pennatulidae	<i>Pteroides sp.</i>	Soft coral	Yes	No	No	No
Plexauridae	<i>Euplexaura sp. WAM1 cf.</i>	Soft coral	No	No	No	No
Plexauridae	<i>Euplexaura sp. WAM4 cf.</i>	Soft coral	No	No	No	No
Plexauridae	<i>Paracis sp.</i>	Soft coral	Yes	No	No	No
Plexauridae	<i>Paraplexaura sp.</i>	Soft coral	Yes	No	No	No
Subergorgiidae	<i>Subergorgia sp.</i>	Sea fan	Yes	No	No	No
Subergorgiidae	<i>Subergorgia suberosa (Pallas, 1766)</i>	Sea fan	No	No	No	No

Asterinidae	<i>Aquilonastra</i> sp.	Sea star	Yes	No	No	No
Asterinidae	<i>Aquilonastra</i> sp.	Sea star	Yes	No	No	No
Cucumariidae	<i>Cucumaria</i> sp.	Holothurian	No	No	No	No
Ophiodermatidae	FAMILY: Ophiodermatidae	Ophiuroid	No	No	No	No
Pterasteridae	<i>Euretaster insignis</i> (Sladen, 1882)	Sea star	No	No	No	No
Phylum: Ochrophyta	Ctenophora		No	No	No	No
CLASS: Calcarea	<i>Calcarea</i> sp. Bb1	Sea sponge	Yes	No	No	No
Agelasidae	<i>Agelas mauritiana</i> (Carter, 1883)	Sea sponge	No	No	No	No
Agelasidae	<i>Amphinomia sulphurea</i> Hooper, 1991	Sea sponge	No	No	No	No
Aplysinellidae	<i>Porphyria</i> sp. PB1	Sea sponge	No	No	No	No
Aplysinidae	<i>Aplysina</i> sp. TB1	Sea sponge	No	No	No	No
Aplysinidae	<i>Aplysina</i> sp. WAM1 cf.	Sea sponge	No	No	No	No
Axinellidae	<i>Axinella aruensis</i> Type II (Hentschel, 1912)	Sea sponge	No	No	No	No
Axinellidae	<i>Axinella</i> sp. NW1 cf.	Sea sponge	No	No	No	No
Axinellidae	<i>Cymbastela stipitata</i> (Bergquist & Tizard, 1967)	Sea sponge	No	No	No	No
Axinellidae	<i>Phakellia</i> sp. Ng6	Sea sponge	No	No	No	No
Biemnidae	<i>Biemna</i> sp. WAM2 cf.	Sea sponge	No	No	No	No
Callyspongiidae	<i>Arenosclera</i> sp. WAM1	Sea sponge	No	No	No	No
Callyspongiidae	<i>Callyspongia (Callyspongia)</i> sp. Bb1	Sea sponge	Yes	No	No	No
Callyspongiidae	<i>Callyspongia (Callyspongia)</i> sp. Bb2	Sea sponge	Yes	No	No	No
Callyspongiidae	<i>Callyspongia (Callyspongia)</i> sp. KMB4 cf.	Sea sponge	No	No	No	No
Callyspongiidae	<i>Callyspongia (Toxochalina)</i> sp. WAM2	Sea sponge	No	No	No	No
Callyspongiidae	<i>Callyspongia (Cladochalina) subarmigera</i> (Ridley, 1884)	Sea sponge	No	No	No	No
Chalinidae	<i>Haliclona (Reniera)</i> sp. TB1	Sea sponge	No	No	No	No
Chalinidae	<i>Haliclona (Gellius) cyameformis</i> (Esper, 1806)	Sea sponge	No	No	No	No
Chalinidae	<i>Haliclona (Reniera)</i> sp. Bb1	Sea sponge	Yes	No	No	No
Chalinidae	<i>Haliclona (Reniera)</i> sp. WAM10	Sea sponge	No	No	No	No
Chondrillidae	<i>Chondrilla australiensis</i> Carter, 1873	Sea sponge	No	No	No	No
Chondropsidae	<i>Chondropsis kirkii</i> (Bowerbank, 1841)	Sea sponge	No	No	No	No
Chondropsidae	<i>Chondropsis</i> sp. WAM1	Sea sponge	No	No	No	No
Clionaidae	<i>Cliona orientalis</i> Thiele, 1900	Sea sponge	No	No	No	No
Clionaidae	<i>Pione velans</i> (Hentschel, 1909)	Sea sponge	No	No	No	No
Clionaidae	<i>Spirastrella</i> sp. NR1	Sea sponge	No	No	No	No
Coelosphaeridae	<i>Coelosphaera (Coelosphaera)</i> sp. SS3	Sea sponge	No	No	No	No

Crambreidae	<i>Monanchora</i> sp. Ng1	Sea sponge	No	No	No	No
Dictyonellidae	<i>Acanthella pulcherrima</i> Ridley & Dendy, 1886	Sea sponge	No	No	No	No
Dysideidae	<i>Dysidea</i> sp. WAM3	Sea sponge	No	No	No	No
Hemiasterellidae	<i>Axos flabelliformis</i> Carter, 1879	Sea sponge	No	No	No	No
Hemiasterellidae	<i>Liosina granularis</i> Kelly-Borges & Bergquist, 1988	Sea sponge	No	No	No	No
Irciniidae	<i>Psammocinia bulbosa</i> Bergquist, 1995	Sea sponge	No	No	No	No
Irciniidae	<i>Sarcotragus</i> sp. Bb1	Sea sponge	Yes	No	No	No
Microcionidae	<i>Clathria (Thalysias) reinwardti</i> Vosmaer, 1880	Sea sponge	No	No	No	No
Mycalidae	<i>Mycale</i> sp. Bb1	Sea sponge	Yes	No	No	No
Mycalidae	<i>Mycale (Aegogropila)</i> sp. WAM1	Sea sponge	No	No	No	No
Niphatidae	<i>Amphimedon paravidis</i> Fromont, 1993	Sea sponge	No	No	No	No
Petrosiidae	<i>Neopetrosia chaliniformis</i> (Thiele, 1899)	Sea sponge	No	No	No	No
Petrosiidae	<i>Petrosia</i> sp. WAM2 cf.	Sea sponge	No	No	No	No
Petrosiidae	<i>Xestospongia</i> sp. WAM1	Sea sponge	No	No	No	No
Petrosiidae	<i>Xestospongia</i> sp. WAM3	Sea sponge	No	No	No	No
Phloeodictyidae	<i>Siphonodictyon</i> sp. KMB1	Sea sponge	No	No	No	No
Phyllospongiidae	<i>Phyllospongia papyracea</i> (Esper, 1806)	Sea sponge	No	No	No	No
Polymastidae	<i>Polymastia</i> sp. SS5 cf.	Sea sponge	No	No	No	No
Psudoceratinidae	<i>Pseudoceratina verrucosa</i> Bergquist, 1995	Sea sponge	No	No	No	No
Raspailiidae	<i>Echinodictyum clathrioides</i> Hentschel, 1911	Sea sponge	No	No	No	No
Raspailiidae	<i>Ectyoplasia vannus</i> Hooper, 1991	Sea sponge	No	No	No	No
Raspailiidae	<i>Raspailia (Clathriodendron) keriontria</i> Hooper, 1991	Sea sponge	No	No	No	No
Spongiidae	<i>Spongia</i> sp. Bb1	Sea sponge	Yes	No	No	No
Thorectidae	<i>Carteriospongia</i> sp. WAM	Sea sponge	No	No	No	No
Thorectidae	<i>Hyrtilos</i> sp. Bb1	Sea sponge	Yes	No	No	No
Thorectidae	<i>Luffariella</i> sp. Bb1	Sea sponge	Yes	No	No	No