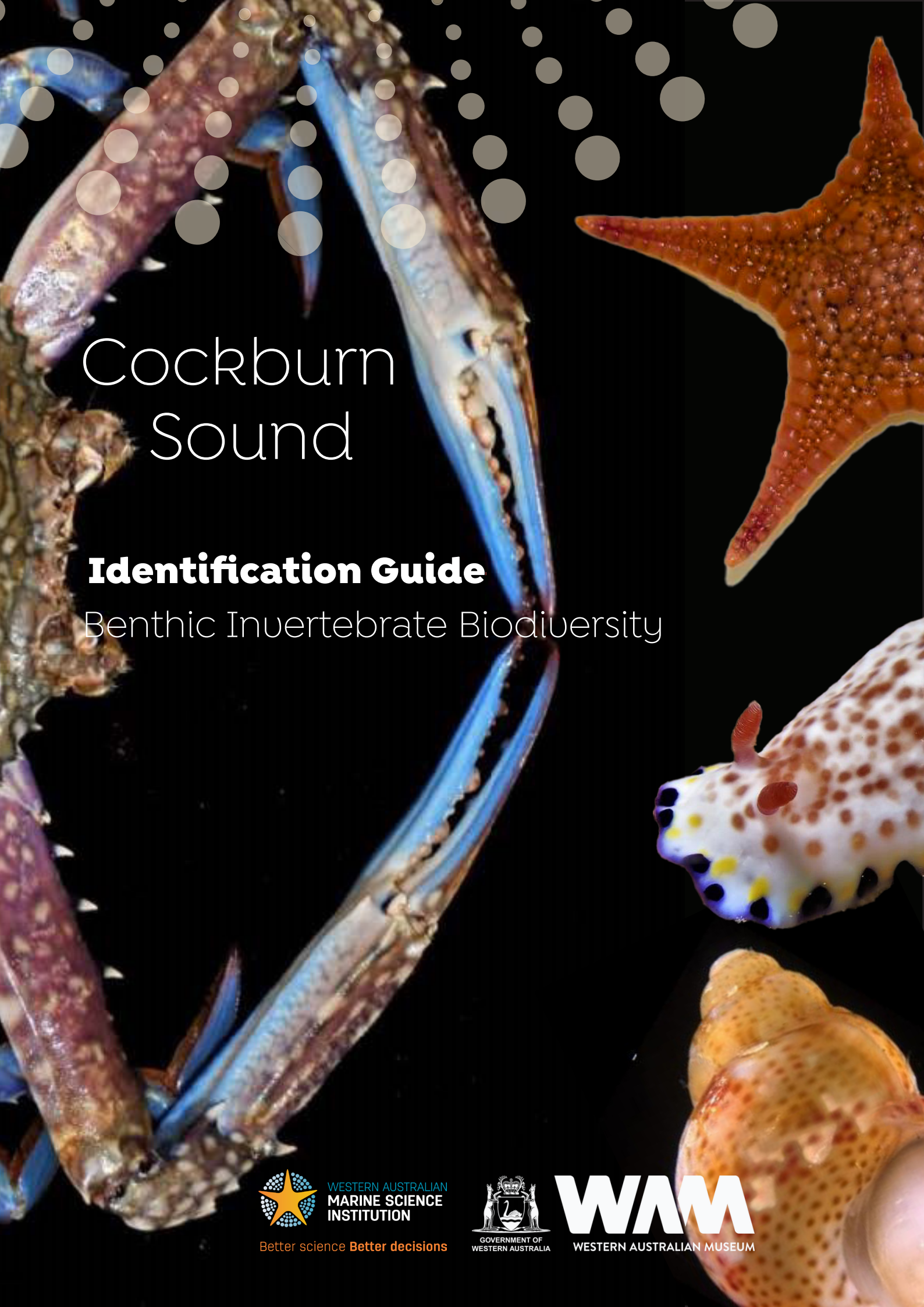




Cockburn Sound

Identification Guide

Benthic Invertebrate Biodiversity



WESTERN AUSTRALIAN
MARINE SCIENCE
INSTITUTION

Better science Better decisions



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WESTERN AUSTRALIA

WAM

WESTERN AUSTRALIAN MUSEUM

About this Guide

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Compiled by Kiara Harris and Josh Bonesso

This guide illustrates a selection of the key benthic macroinvertebrates of Cockburn Sound and Owen Anchorage, Western Australia. These animals were recorded from unvegetated soft sediments (trawls and grabs) and hard substrates (scuba surveys) from 2021 – 2022.

This guide was prepared for Westport and the Western Australian Marine Science Institute as part of Project 2.4. Benthic communities in soft-sediment and hard substrates: baseline data, pressure-response relationships of key biota for EIA, and mitigation strategies for artificial reefs. This guide was a collaborative effort involving the Western Australian Museum, Curtin University, Murdoch University and Edith Cowan University. We would like to thank project 2.4 co-lead Glenn Hynes and the Department of Primary Industries and Regional Development for project collaboration. Thanks to Michael Amor for confirming the ID of “*Octopus djinda*”.

This guide should be used in conjunction with comprehensive taxonomic literature and not as a standalone reference for species identification. Detailed specimen information is available upon request from the Western Australian Museum.

Version 1 Published: June 2025

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Curtin University





○ Owen Anchorage

○ Carnac Island

○ Cockburn Sound

○ Garden Island

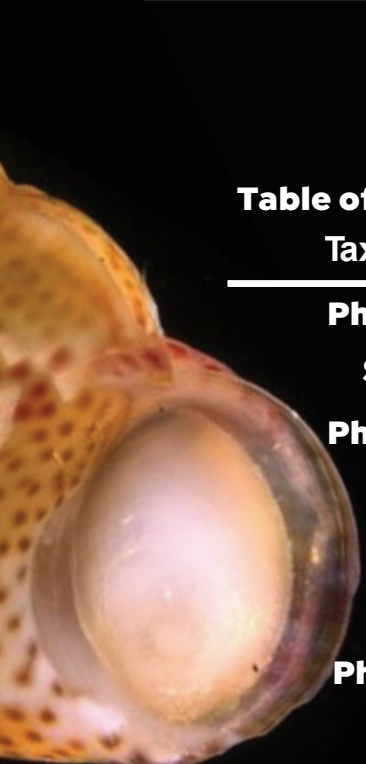


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Phylum Porifera

Class: Demospongiae
Subclass: Heteroscleromorpha
Order: Tethyida



Family: Tethyidae
Tethya cf. ingalli

Class: Demospongiae
Subclass: Verongimorpha
Order: Chondrillida



Family: Chondrillidae
Chondrilla australiensis

Class: Demospongiae
Subclass: Heteroscleromorpha
Order: Clionaida
Family: Clionaidae



Spheciospongia cf. papillosa



Spheciospongia sp. MR1

Phylum Porifera

Class: Demospongiae

Subclass: Heteroscleromorpha

Order: Suberitida

Family: Halichondriidae



Amorphinopsis sp. WP1



Hymeniacidon sp. WP1



Ciocalypta sp. WP1



Ciocalypta sp. WP2

Phylum Porifera

Class: Demospongiae

Subclass: Heteroscleromorpha

Order: Axinellida



Family: Axinellidae
Cymbastela marshae



Family: Raspailiidae
Echinodictyum cf. asperum



Family: Raspailiidae

Echinodictyum clathrioides

Phylum Porifera

Class: Demospongiae

Subclass: Heteroscleromorpha

Order: Poecilosclerida



Family: Crelidae
Crella (Pytheas) sp. WPT1



Family: Guitarridae
Tetrapocillon novaezealandiae



Family: Tedanidae
Trachytedania sp. C1

Phylum Porifera

Class: Demospongiae
Subclass: Heteroscleromorpha
Order: Haplosclerida



Family: Callyspongiidae
Callyspongia sp. WP1



Family: Callyspongiidae
Callyspongia sp. WP2



Family: Phloeodictyidae
Oceanapia sp. WP1

Class: Demospongiae
Subclass: Keratosa
Order: Dictyoceratida



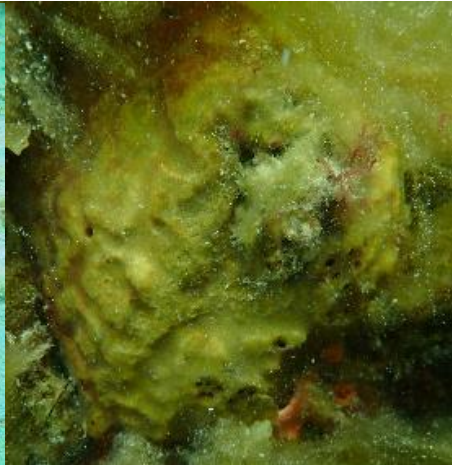
Family: Spongiidae
Hippospongia sp. WP2



Family: Irciniidae
Sarcotragus sp. MR1



Family: Irciniidae
Sarcotragus sp. C1



Family: Spongiidae
Hippospongia sp. WP1

Phylum Cnidaria

Subphylum: Anthozoa

Class: Hexacorallia

Order: Actiniaria



Exaiptasia diaphana



Heteractis aurora

Subphylum: Anthozoa

Class: Hexacorallia

Order: Scleractinia



Family: Coscinaraeidae
Coscinaraea mcneilli



Family: Dendrophylliidae
Duncanopsammia peltata

Phylum Cnidaria

Subphylum: Anthozoa

Class: Hexacorallia

Order: Scleractinia

Family: Merulinidae



Paragoniastrea australensis



Coelastrea aspera



Coelastrea palauensis



Favites complanata



Cyphastrea serailia



Dipsastraea fava

Phylum Cnidaria

Subphylum: Anthozoa

Class: Hexacorallia

Order: Scleractinia



Family: Plesiastreidae
Plesiastrea versipora



Family: Poritidae
Goniopora pendulus

Subphylum: Anthozoa

Class: Octocorallia

Order: Scleralcyonacea

Sub-family: Pennatuloidae



Family: Veretillidae
Veretillum sp. A



Family: Pennatulidae
Pteroeides sp.

Phylum Echinodermata

Class: Crinoidea



Cenolia trichoptera



Cenolia trichoptera



Comatula cf. solaris



Cenolia trichoptera

Class: Asteroidea

Subclass: Ambuloasteroidea

Order: Forcipulatida

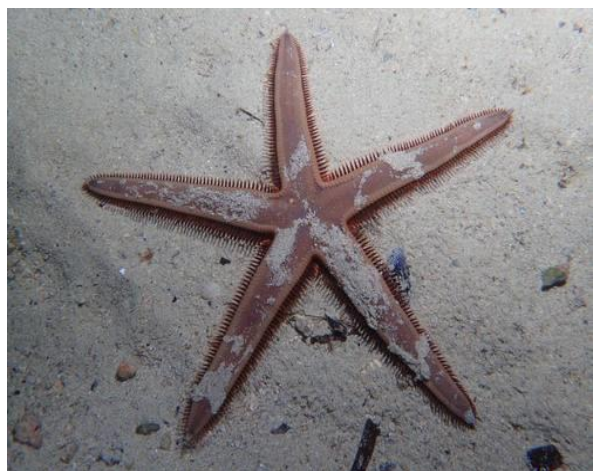


Family: Asteriidae
Coscinasterias muricata

Class: Asteroidea

Subclass: Ambuloasteroidea

Order: Paxillosida



Family: Astropectinidae
Astropecten preissi

Phylum Echinodermata

Class: Asteroidea
Subclass: Ambuloasteroidea
Order: Spinulosida



Family: Echinasteridae
Echinaster cf. varicolor

Class: Asteroidea
Subclass: Ambuloasteroidea
Order: Valvatida

Photo: Liam Carlier

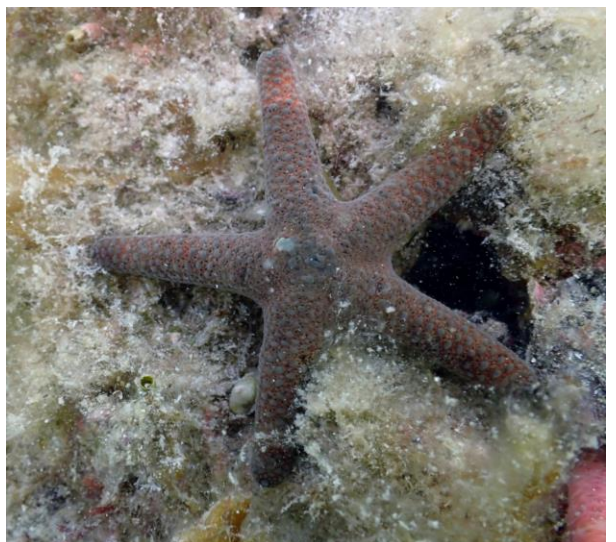


Family: Archasteridae
Archaster cf. angulatus

Class: Asteroidea
Subclass: Ambuloasteroidea
Order: Valvatida
Family: Asterinidae



Meridiastra gunnii



Nepanthia cf. crassa

Phylum Echinodermata

Class: Asteroidea

Subclass: Ambuloasteroidea

Order: Valvatida

Family: Goniasteridae



Goniodiscaster seriatus



Stellaster childreni



Stellaster inspinus

Class: Asteroidea

Subclass: Ambuloasteroidea

Order: Valvatida



Family: Oreasteridae
Anthenea australiae



Family: Pterasterida
Euretaster insignis

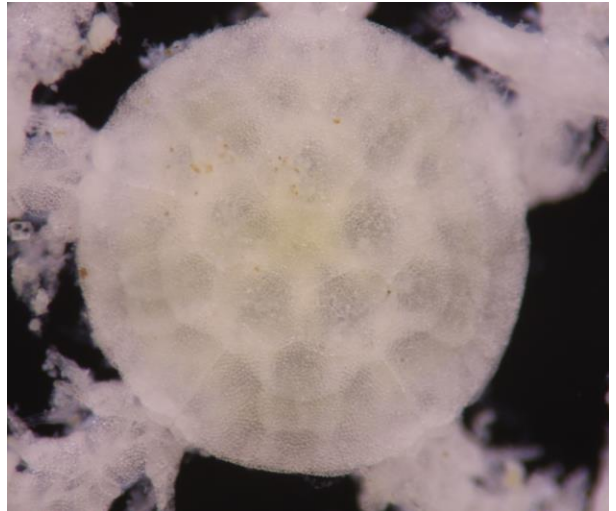
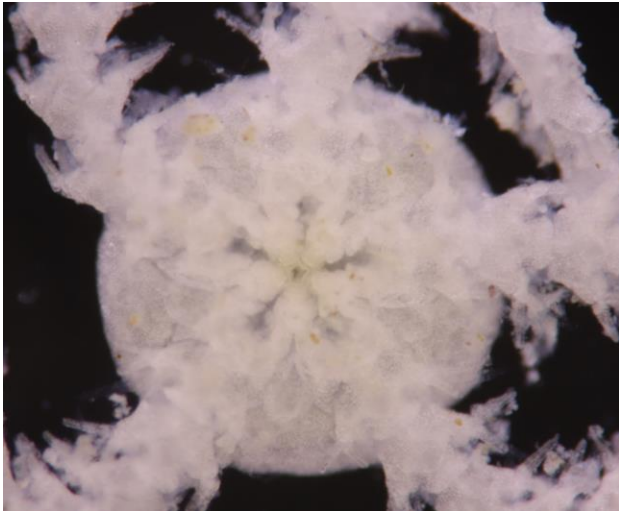
Phylum Echinodermata

Class: Ophiuroidea

Subclass: Myophiuroidea

Order: Amphilepidida

Suborder: Gnathophiurina



Family: Amphiuridae
Amphipholis squamata



Family: Ophiotrichidae
Macrophiothrix cf. *spongicola*

Phylum Echinodermata

Class: Ophiuroidea

Subclass:

Myophiuroida

Order:

Amphilepidida

Suborder:

Ophionereidina



Family: Ophionereididae

Ophionereis schayeri

Class: Ophiuroidea

Subclass: Myophiuroida

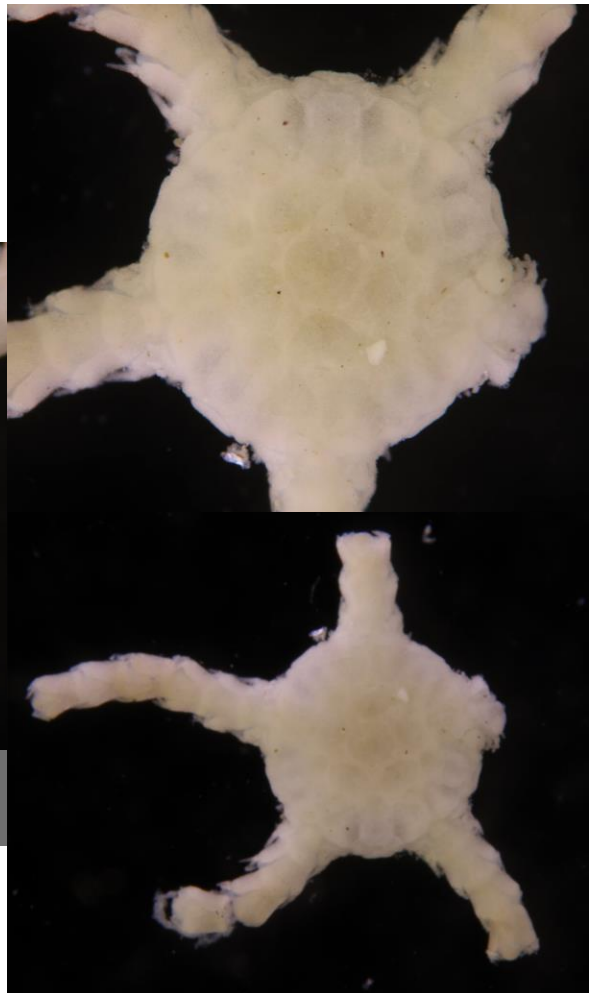
Order: Ophiurida

Suborder: Ophiurina



Family: Ophiuridae

Ophiura cf. ooplax



Phylum Echinodermata

Class: Holothuroidea

Subclass: Actinopoda

Order: Dendrochirotida

Family: Cucumariidae



Phylum Echinodermata

Class: Holothuroidea
Subclass: Actinopoda
Order: Synallactida

Photo: Tobias Westmeier



Family: Stichopodidae

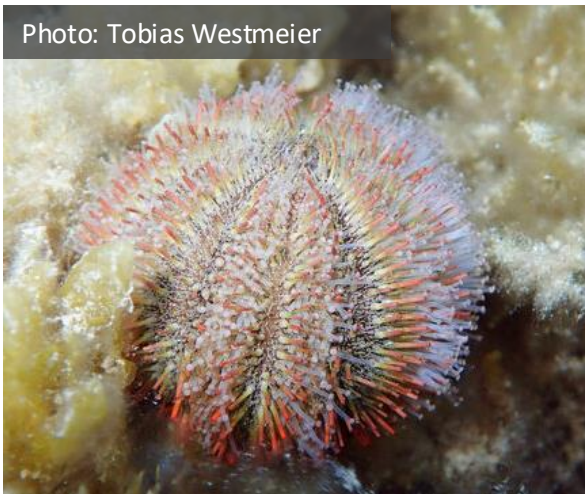
Australostichopus mollis

Class: Echinoidea
Subclass:
Euechinoidea
Order:
Camarodonta
Family:
Echinometridae



Heliocidaris erythrogramma

Photo: Tobias Westmeier



Family: Temnopleuridae
Holopneustes porosissimus

Photo: Glen Whisson



Family: Temnopleuridae
Temnopleurus michaelsoni

Phylum Echinodermata

Class: Echinoidea

Subclass: Euechinoidea

Order: Echinolampadacea

Suborder: Scutelloida



Family: Langanidae



Peronella lesueuri

Class: Echinoidea

Subclass: Euechinoidea

Order: Spatangoida

Suborder: Brissidina

Photo: Tim Karnasuta



Family: Loveniidae

Photo: G. L. Grammer



Echinocardium cordatum

Phylum Chordata

Class: Ascidiacea

Order: Aplousobranchia

Family: Holozoidae



Aplidium sp. 1



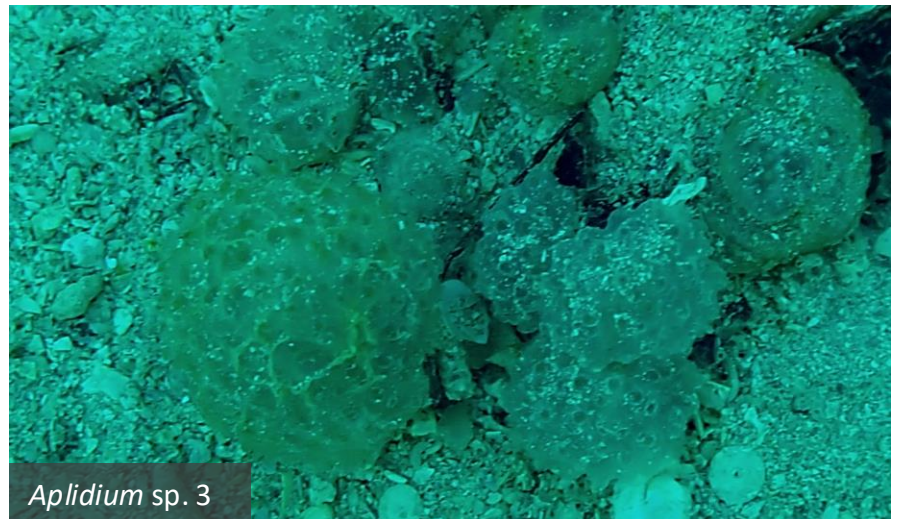
Sigillina cyanea

Class: Ascidiacea

Order:

Aplousobranchia

Family: Polyclinidae



Aplidium sp. 3

Class: Ascidiacea

Order: Stolidobranchia

Family: Pyuridae



Herdmania momus



Pyura sp. WPT1

Phylum Chordata

Class: Ascidiacea

Order: Stolidobranchia

Family: Styelidae



Botrylloides sp. WP1



Styela plicata

Phylum Mollusca

Class: Bivalvia

Subclass: Autobranchia



Family: Carditidae



Family: Lucinidae



Family: Glycymerididae



Family: Lasaeidae

Class: Bivalvia

Subclass: Autobranchia

Family: Pectinidae



Scaechlamys livida



Photo: Debra Baker

Ylistrum balloti

Phylum Mollusca

Class: Bivalvia

Subclass: Autobranchia



Family: Tellinidae



Family: Thraciidae

Class: Bivalvia

Subclass: Autobranchia

Family: Veneridae



Timoclea infans



Veneridae sp. 1

Class: Bivalvia

Subclass: Protobranchia



Family: Nuculidae



Family: Solemyidae
Solemya sp.

Phylum Mollusca

Class: Gastropoda

Subclass: Vetigastropoda

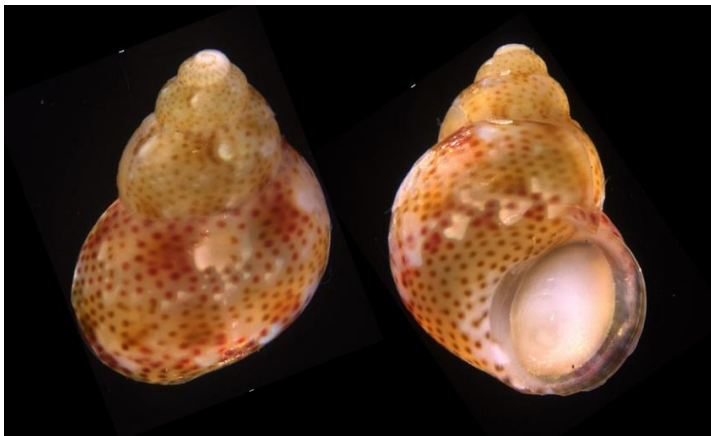
Family: Phasianellidae



Phasianella australis



Phasianella ventricosa



Tricolia sp.

Subclass: Caenogastropoda

Family: Cymatiidae

Family: Cypraeidae



Turritriton labiosus



Subfamily: Zoilinae *Zoila friendii*

Phylum Mollusca

Class: Gastropoda

Subclass: Caenogastropoda



Class: Gastropoda

Subclass: Caenogastropoda

Family: Eulimidae

Family: Eulimidae

Thyca stellasteris



Eulimidae sp. 1



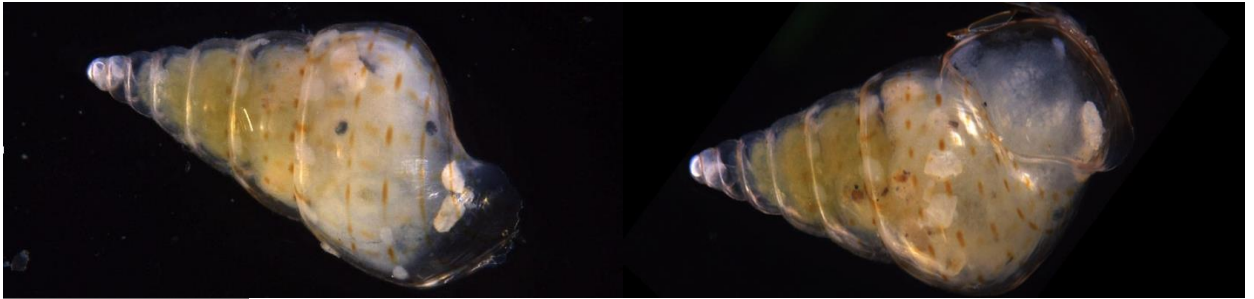
Eulimidae sp. 2

Phylum Mollusca

Class: Gastropoda

Subclass: Caenogastropoda

Family: Litiopidae



Styliiferina sp.

Class: Gastropoda

Subclass: Caenogastropoda

Family: Muricidae



Bedeva paivae

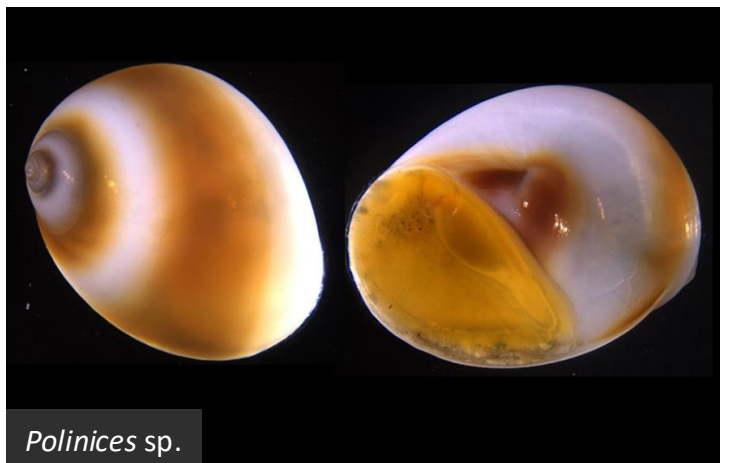


Cronia avellana

Class: Gastropoda

Subclass: Caenogastropoda

Family: Naticidae



Polinices sp.

Phylum Mollusca

Class: Gastropoda

Subclass: Caenogastropoda

Family: Pyramidellidae



Pyramidellidae sp. 1



Pyramidellidae sp. 2

Class: Gastropoda

Subclass: Caenogastropoda

Family: Pyramidellidae



Pyramidellidae sp. 3



Turbonilla sp.

Phylum Mollusca

Class: Gastropoda
Subclass: Caenogastropoda
Family: Ranellidae



Ranella australasia

Class: Gastropoda
Subclass: Caenogastropoda
Family: Terebridae



Terebridae sp.

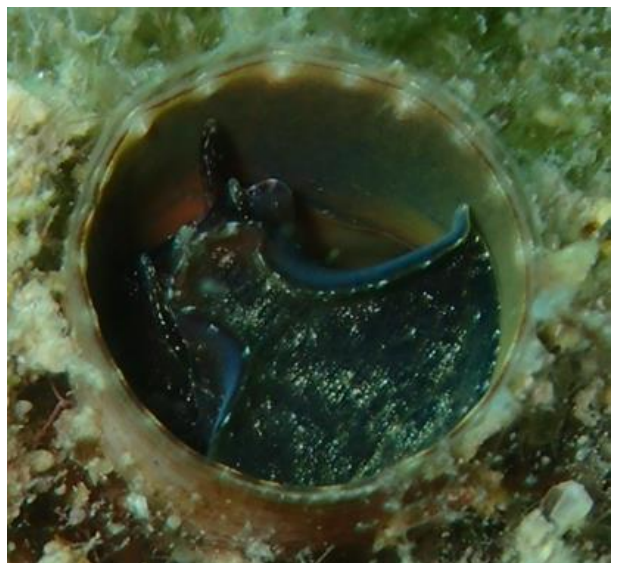
Class: Gastropoda
Subclass: Caenogastropoda
Family: Scaliolidae



Finella sp.

Scaliola sp.

Class: Gastropoda
Subclass: Caenogastropoda
Family: Vermetidae

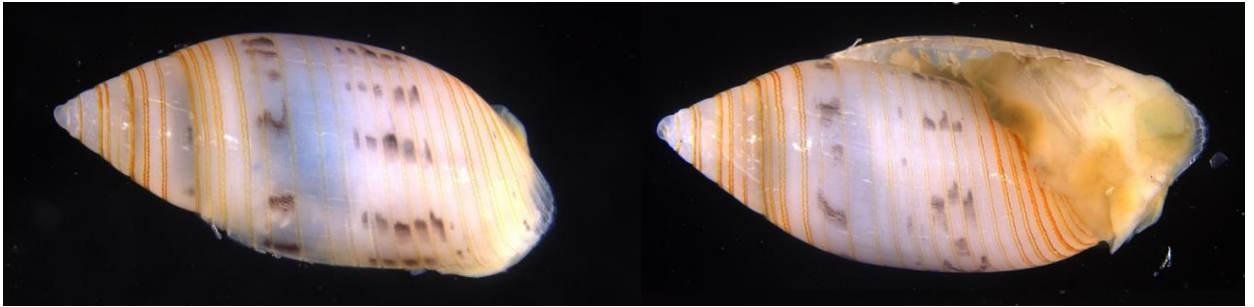


Thylacodes siphon

Phylum Mollusca

Class: Gastropoda

Subclass: Heterobranchia



Family: Acteonidae

Pupa sp.

Photo: Wayne Osborn



Family Aeolidiidae

Baeolidia australis

Phylum Mollusca

Class: Gastropoda

Subclass: Heterobranchia

Family: Chromodoridae

Photo: J. Martin Crossley

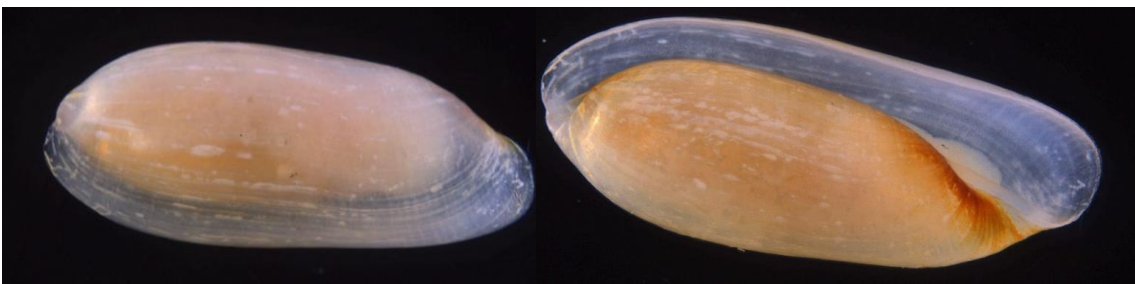


Goniobranchus aureopurpureus



Mexichromis macropus

Family: Cylichnidae



Cylichnidae sp.

Phylum Mollusca

Class: Gastropoda

Subclass: Heterobranchia

Family: Philinidae

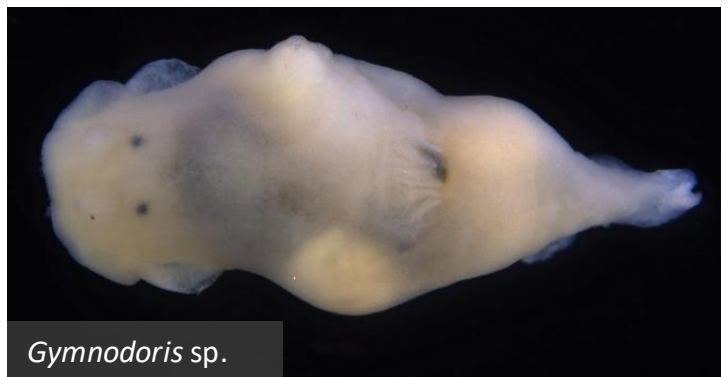


Philine sp.

Class: Gastropoda

Subclass: Heterobranchia

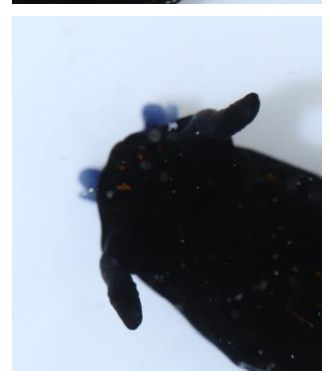
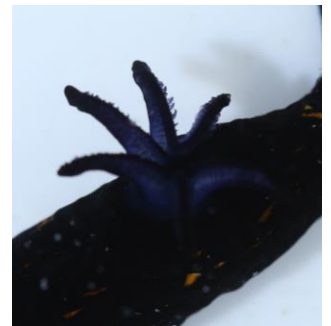
Family: Polyceridae



Gymnodoris sp.



Tambja affinis

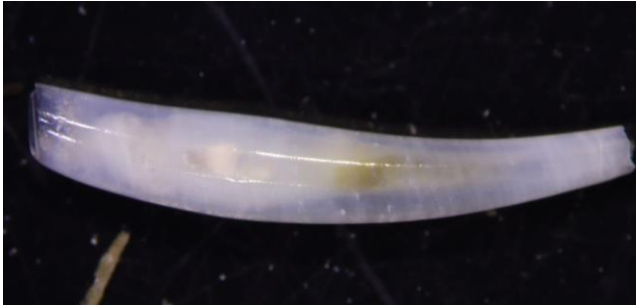


Phylum Mollusca

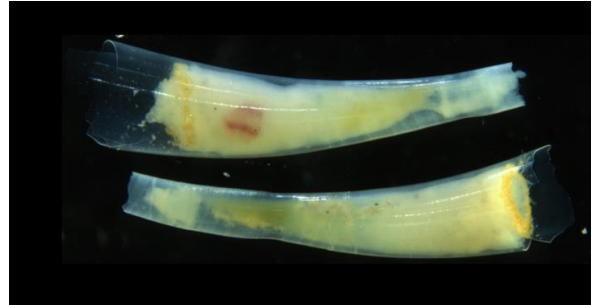
Class: Scaphopoda

Order: Gadilida

Family: Gadilidae



Gadila brycei



Gadilidae sp.

Class: Scaphopoda

Order: Dentaliida

Family: Dentaliidae



Dentalium sp.

Class: Cephalopoda

Subclass: Coleoidea

Family: Octopodidae



Octopus djinda

Phylum Bryozoa

Class: Gymnolaemata

Order: Cheilostomatida

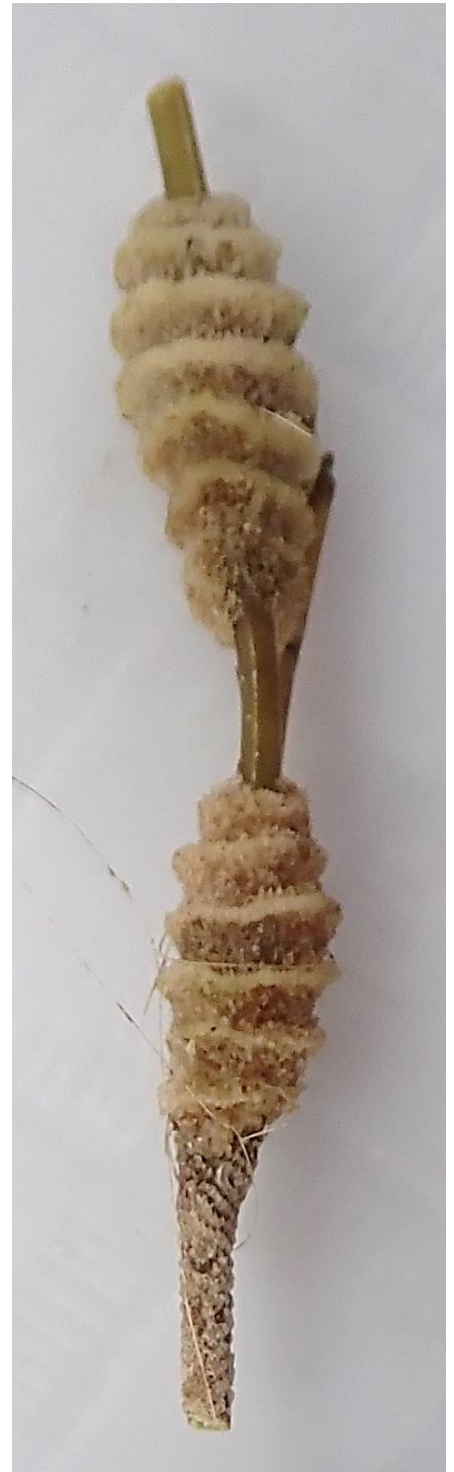
Suborder: Flustrina



Family: Schizoporellidae
Schizoporella sp. WP1



Family: Phidoloporidae
Triphyllozoon sp. WP1



Family: Celleporidae
Celleporaria cf. *cristata*

Subphylum Crustacea

Class: Copepoda

Order: Calanoida



Calanoida sp. WP1



Copepoda sp. WP3



Copepoda sp. WP6



Copepoda sp. WP1



Copepoda sp. WP7



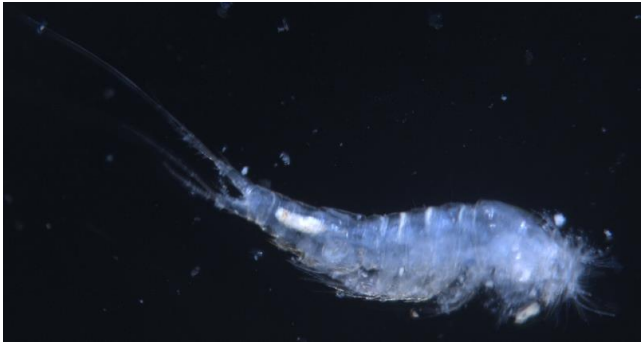
Copepoda sp. WP2



Copepoda sp. WP8

Subphylum Crustacea

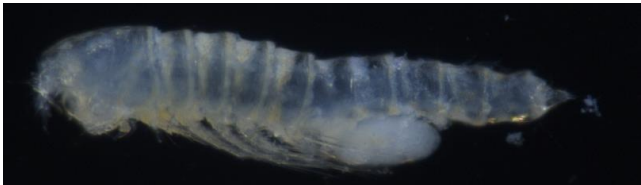
Class: Copepoda
Order: Harpacticoida
Family: Cletodidae



Cletodidae sp. WP1



Peltidiidae sp. WP1



Cletodidae sp. WP2



Peltidiidae sp. WP2

Class: Copepoda
Order: Harpacticoida
Family: Porcellidiidae



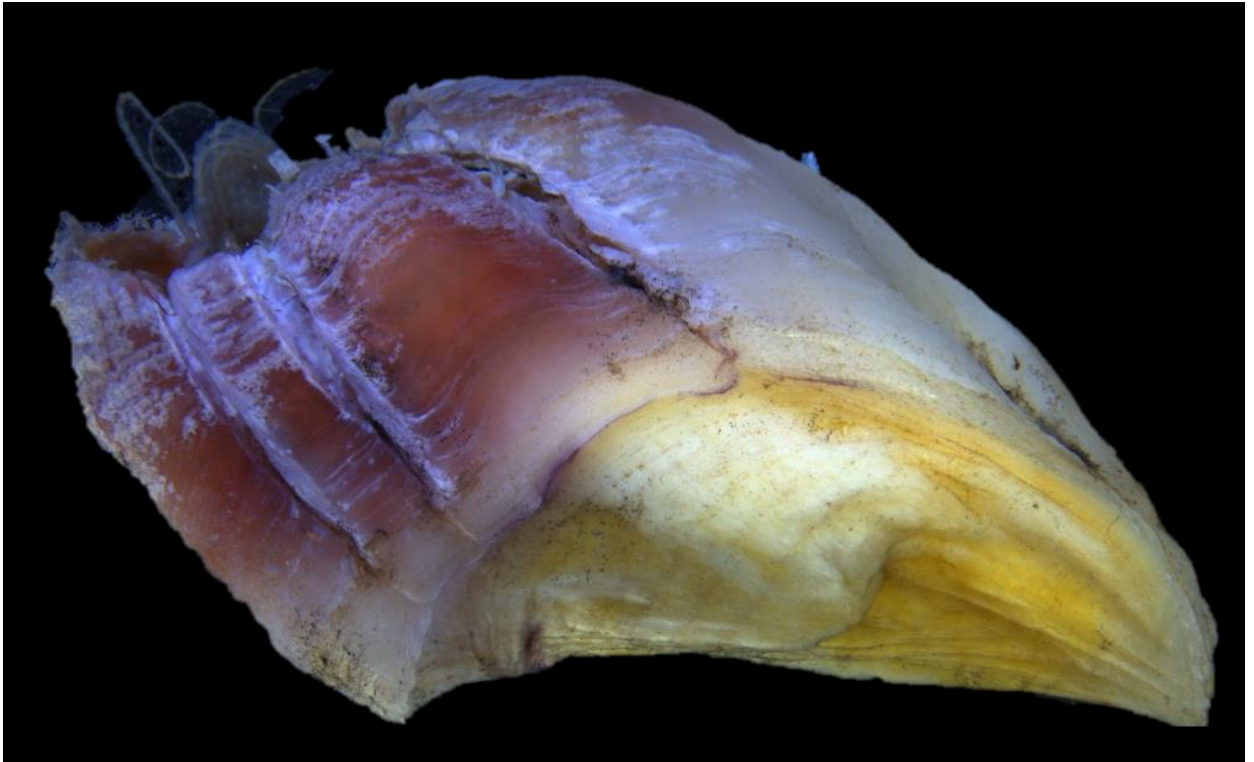
Porcellidiidae sp. WP1

Subphylum Crustacea

Class: Copepoda

Order: Balanomorpha

Family: Balanidae



Membranobalanus longirostrum



Pectinoacasta pectinipes



Balanus trigonus

Subphylum Crustacea

Order: Stomatopoda

Family: Squillidae



Belosquilla laevis

Subphylum Crustacea

Order: Amphipoda



Family: Ampeliscidae
Ampelisca sp. WP1



Family: Atylidae
Nototropis sp. WP1



Family: Eusiridae sp. WP3



Family: Exoedicerotidae sp. WP1

Order: Amphipoda

Family: Leucothoidae



Leucothoe sp. WP1



Leucothoe sp. WP2

Subphylum Crustacea

Order: Amphipoda

Family: Lysianassidae



Order: Amphipoda

Family: Oedicerotidae



Subphylum Crustacea

Order: Amphipoda

Family: Phoxocephalidae



Order: Tanaidacea Family: Kalliapseudidae



Order: Amphipoda

Family: Sebidae



Subphylum Crustacea

Order: Tanaidacea

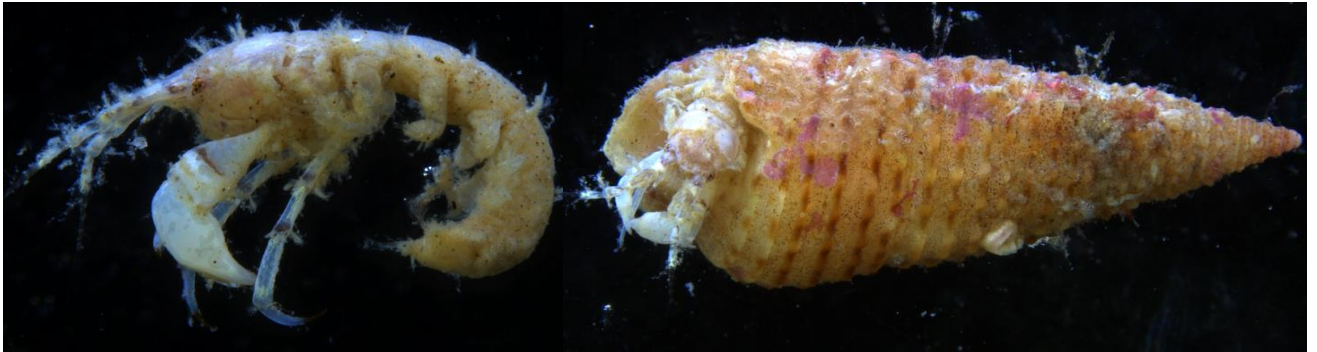
Family: Leptocheliidae



Subphylum Crustacea

Order: Tanaidacea

Family: Pagurapseudidae



Pagurapseudes sp. WP1



Pagurapseudidae sp. WP1



Family: Paratanaidae
Bathytanais cf. *parageios*



Family: Tanaididae
Zeuxo cf. *angua*



Family: Typhlotanaidae
Antiplotanais *lutze*

Subphylum Crustacea

Order: Cumacea

Family: Bodotriidae



Bodotria cf. maculosa



Bodotria cf. armata



Cyclaspis cf. mjobergi



Eocuma agrion



Cyclaspis cf. sculptilis

Subphylum Crustacea

Order: Cumacea

Family: Bodotriidae

Vaunthompsoniinae sp. WP1



Vaunthompsoniinae sp. WP2

Order: Cumacea

Family: Diastylidae

Leptostylis sp. WP1



Leptostylis sp. WP2

Subphylum Crustacea

Order: Cumacea

Family: Gynodiastylidae



cf. *Allodiastylis* sp.



Gynodiastylidae sp. WP3



Gynodiastylidae sp. WP1



Gynodiastylidae sp. WP4



Gynodiastylidae sp. WP2



Gynodiastylidae sp. WP5

Subphylum Crustacea

Order: Cumacea

Family: Nannastacidae



Campylaspis cf. *wilsoni*



cf. *Nannastacidae* sp.

Order: Isopoda

Family: Anthuroidae



Amakusanthura cf. *eugenia*



Mesanthura sp. WP2



Mesanthura sp. WP1

Subphylum Crustacea

Order: Isopoda
Family: Arcturidae



Order: Isopoda
Family: Cirolanidae



Order: Isopoda
Family: Cymothoidae



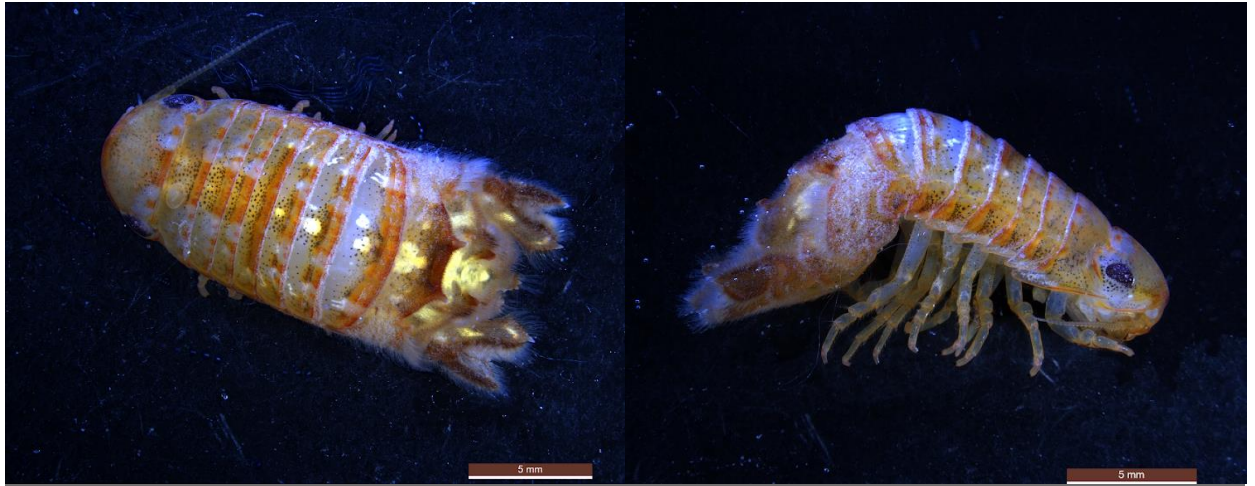
Order: Isopoda
Family: Paramunnidae



Subphylum Crustacea

Order: Isopoda

Family: Sphaeromatidae



Cymodoce sp. WP1

Order: Isopoda

Family: Stenetriidae



Stenetrium macrochirium

Order: Decapoda

Family: Penaeidae



Metapenaeopsis fusca



Metapenaeopsis lindae

Subphylum Crustacea

Order: Decapoda

Family: Penaeidae



Penaeus latisulcatus



Trachysalambria crosnieri

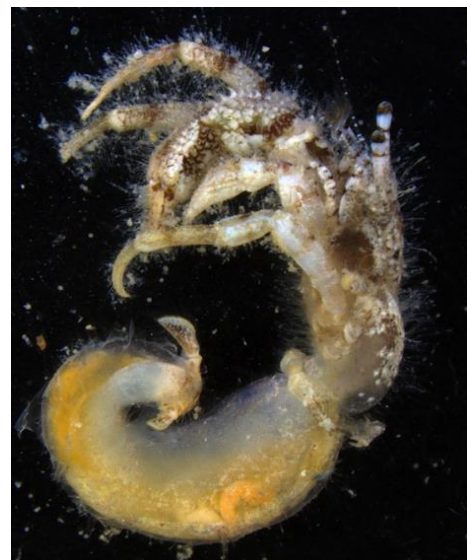
Order: Decapoda

Infraorder: Anomura

Family: Diogenidae



Calcinus dapsiles



Diogenes pallescens

Subphylum Crustacea

Order: Decapoda
Infraorder: Anomura
Family: Galatheidae



Galathea australiensis



Pagurixus handrecki



Galathea cf. acerata



Galathea magnifica

Subphylum Crustacea

Order: Decapoda

Infraorder: Anomura

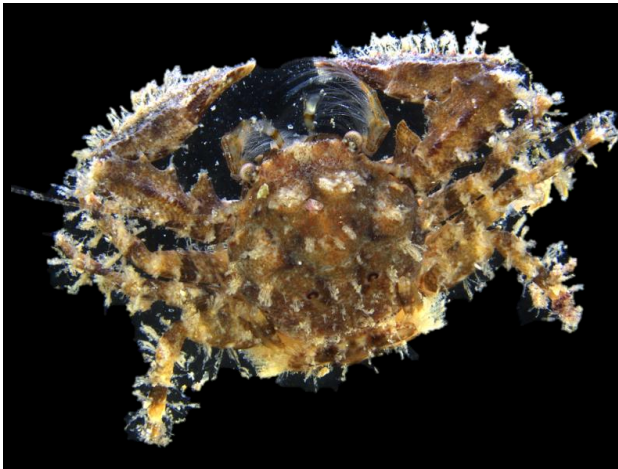
Family: Porcellanidae



Ancylocheles gravelei



Pachycheles johnsoni



Pisdia dispar



Order: Decapoda

Infraorder: Brachyura



Family: Corystidae
Gomeza bicornis



Family: Epialtidae
Hyastenus sebae



Family: Epialtidae
Paranaxia serpulifera

Subphylum Crustacea

Order: Decapoda

Infraorder: Brachyura



Family: Hymenosomatidae
Halicarcinus ovatus



Family: Inachidae
Achaeus brevirostris



Family: Inachidae
Dumea latipes



Family: Leucosiidae
Ebalia intermedia



Family: Majidae
Micippa philyra



Family: Majidae
Naxia aurita

Subphylum Crustacea

Order: Decapoda

Infraorder: Brachyura

Family: Pilumnidae



Actumnus setifer



Pilumnus rufopunctatus

Order: Decapoda

Suborder: Pleocyemata

Infraorder: Brachyura

Family: Portunidae



Portunus armatus



Cryptocoeloma haswelli



Pilumnus monilifer



Portunus pubescens



Subphylum Crustacea

Order: Decapoda

Suborder: Pleocyemata

Infraorder: Brachyura

Family: Portunidae



Trionectes rugosus

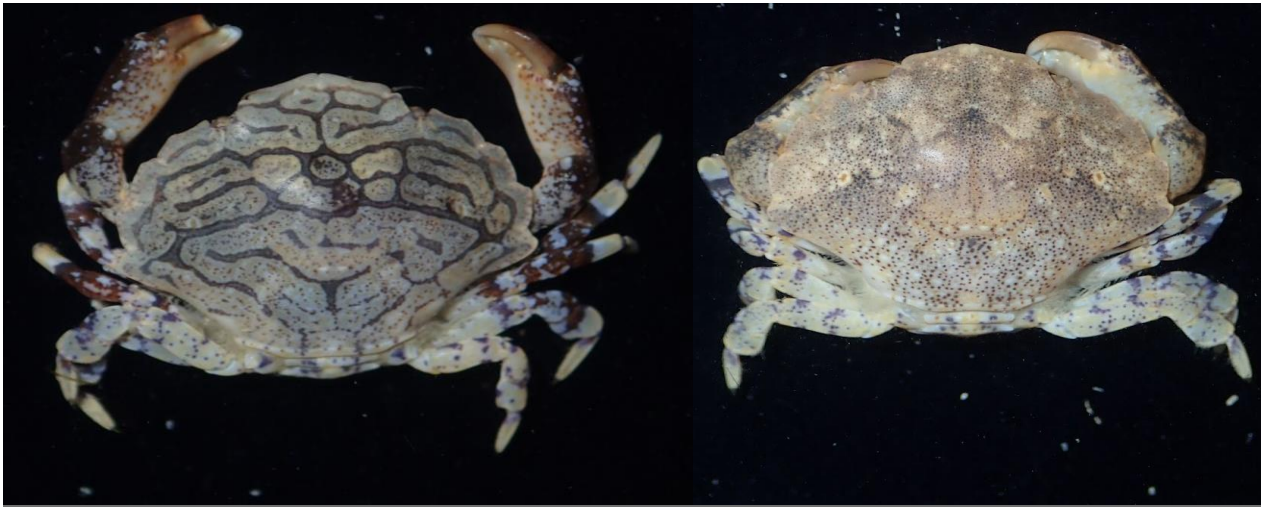


Thalamita sima

Subphylum Crustacea

Order: Decapoda

Infraorder: Brachyura



Family: Xanthidae

Wardoxanthops rotundus

Order: Decapoda

Infraorder: Caridea



Family: Alpheidae

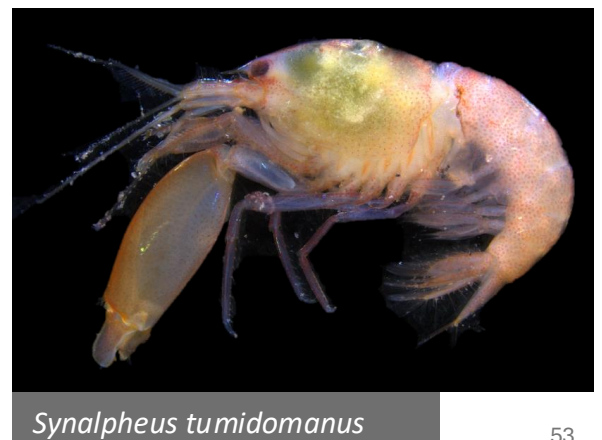
Alpheus digitalis

Subphylum Crustacea

Order: Decapoda

Infraorder: Caridea

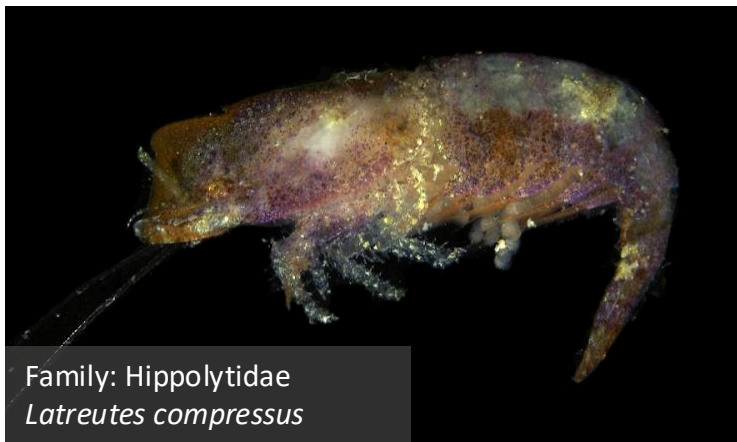
Family: Alpheidae



Subphylum Crustacea

Order: Decapoda

Infraorder: Caridea



Family: Hippolytidae
Tozeuma cf. *kimberi*



Family: Palaemonidae
Palaemon intermedius



Family: Palaemonidae
Palaemonella rotumana

Subphylum Crustacea

Order: Decapoda

Infraorder: Caridea

Family: Processidae



