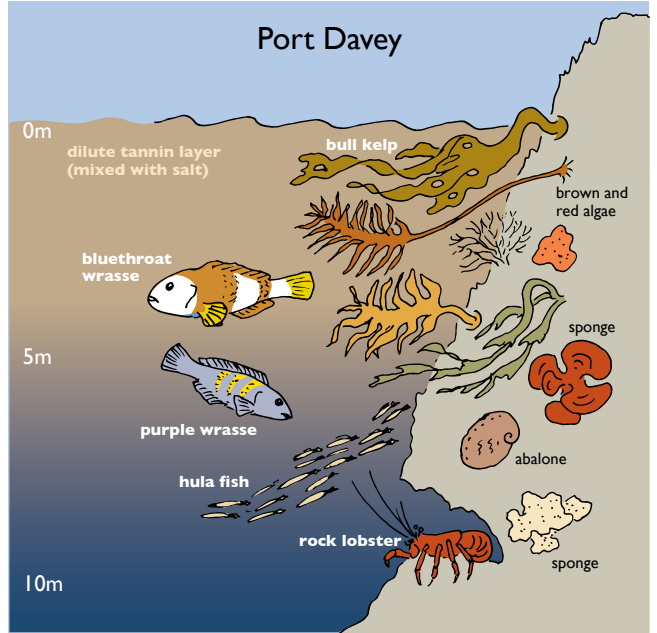


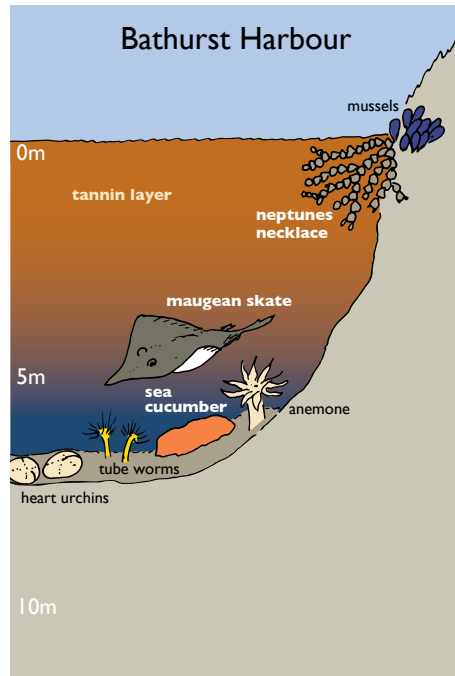
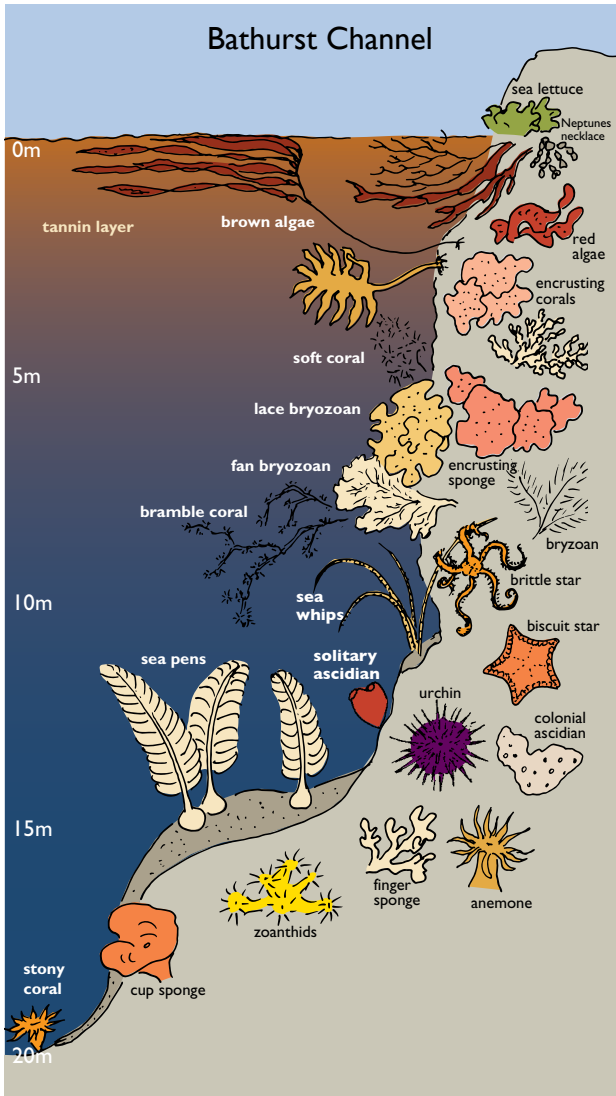
The Marine Life

What lives where?

Different species live in different places according to the amount of tannin and nutrients, type of sediments, speed of currents and wave action.



Port Davey (at the mouth of the estuary) is exposed to high-nutrient oceanic waters. Tannin freshwater from the rivers has little influence, so the waters here are clearer. A typical Tasmanian underwater world thrives beneath the surging Southern Ocean waves, including diverse kelp forests, wrasse and other common coastal reef fish.



Bathurst Harbour's very shallow waters are strongly influenced by tannins draining from the myriad rivers, creeks and rivulets. Phytoplankton and marine plants struggle to survive. Few invertebrate species live on the muddy harbour floor. Fish life is dominated by dogfish sharks, skates and rays, more typical of deep offshore waters.

Bathurst Channel connects Bathurst Harbour with Port Davey. Here, the dark tannin-stained waters restrict the growth of marine plants to the top few metres. Strong currents race through the narrow channel providing ideal conditions for filter-feeding invertebrates. More than 500 species live here, in depths of 5-20 metres – many of which are usually found at depths of 60-220 metres.

The Marine Life

Marine invertebrates

Bathurst Channel is the jewel of the marine reserve, however if you were to travel over these dark waters, you could be forgiven for thinking nothing much was going on down below. With the aid of a strong torch, highly skilled scuba divers illuminate the dark depths to reveal an incredibly beautiful world of exotic creatures. The following pages provide a sample.

More than 500 species of marine invertebrates (animals without backbones) have been recorded, with many still to be described. Some, such as anemones and zoanthids, bear more resemblance to flowers than animals. Most do not move, anchoring themselves firmly to the seafloor or channel walls, where they feed on other marine animals, or filter-feed plankton and nutrients from the swiftly flowing passing current.

There are single animals, like sea urchins and seastars, and colonial animals, which look like one animal, but are in fact hundreds of tiny animals living together. There is safety and efficiency in living as a colony. Each animal within a colony has a particular function – some gather food, some strengthen the colony and others even clean the colony!

Many of the marine invertebrates found in Bathurst Channel are usually found in much deeper and often inaccessible ocean waters.





Sea pens are one of the most iconic and fragile animals in the reserve. Standing like white-robed sentinels on the seafloor, they are named after their resemblance to antique quill pens. Each sea pen is a colony of hundreds of miniature animals. One loses its tentacles to become the bulbous stalk, while others become the branches and feeding tentacles. Like many other soft-bodied invertebrates, when threatened, sea pens collapse and contract into the muddy sediment.



Sea whips are long, slender filter-feeding colonial animals. Tiny tentacles protrude from their whip-like branches. Basket stars and seahorses often wrap their bodies around tall sea whips, using their height to access food.



Sea fans are fragile filter-feeding colonial animals, which form fan-like flattened branches. Sea fans and sea whips are also called gorgonians.



Soft corals live in colonies in sheltered parts of the channel. Each polyp has eight feathery tentacles. Soft corals do not produce calcium carbonate skeletons, so are not reef-building, like Great Barrier Reef corals. This soft coral is Bramble coral.



Stony corals are similar to anemones, but they produce a hard skeleton. They may be solitary or colonial, however only solitary species are found here. (Colonial stony corals are the reef-building corals found in tropical waters.)

The Marine Life

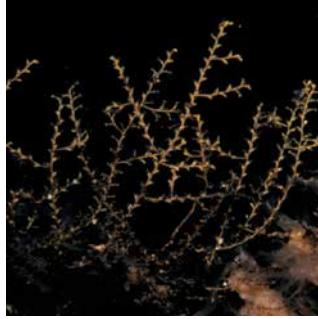


Sea anemones are flower-like animals (named after the anemone flower) with a circle of stinging tentacles around a central 'mouth'. After stinging their prey, anemones transfer the paralysed animal into their mouth.

Jewel anemones differ in appearance from sea anemones by possessing a characteristic jewel-like tip on the end of each stinging tentacle. They often grow in dense colonies, forming large and beautiful 'gardens', coloured pink, orange, purple brown or white.



Zoanthids are colonial animals that resemble small anemones. These yellow zoanthids form vibrant beds on the channel floor.



Hydroids are small colonial animals which live attached to rocks or plants. The colony is often feather or fern-like in appearance, with each individual animal capable of stinging passing plankton prey with its microscopic bunch of tentacles.



Bryozoans form colonies of many thousands of individuals, each individual less than a millimetre long. Some species form their stony calcium carbonate skeletons into encrusting mats over rocks, shells and even boat hulls. Other species form into delicate shapes, like this lace bryozoan.



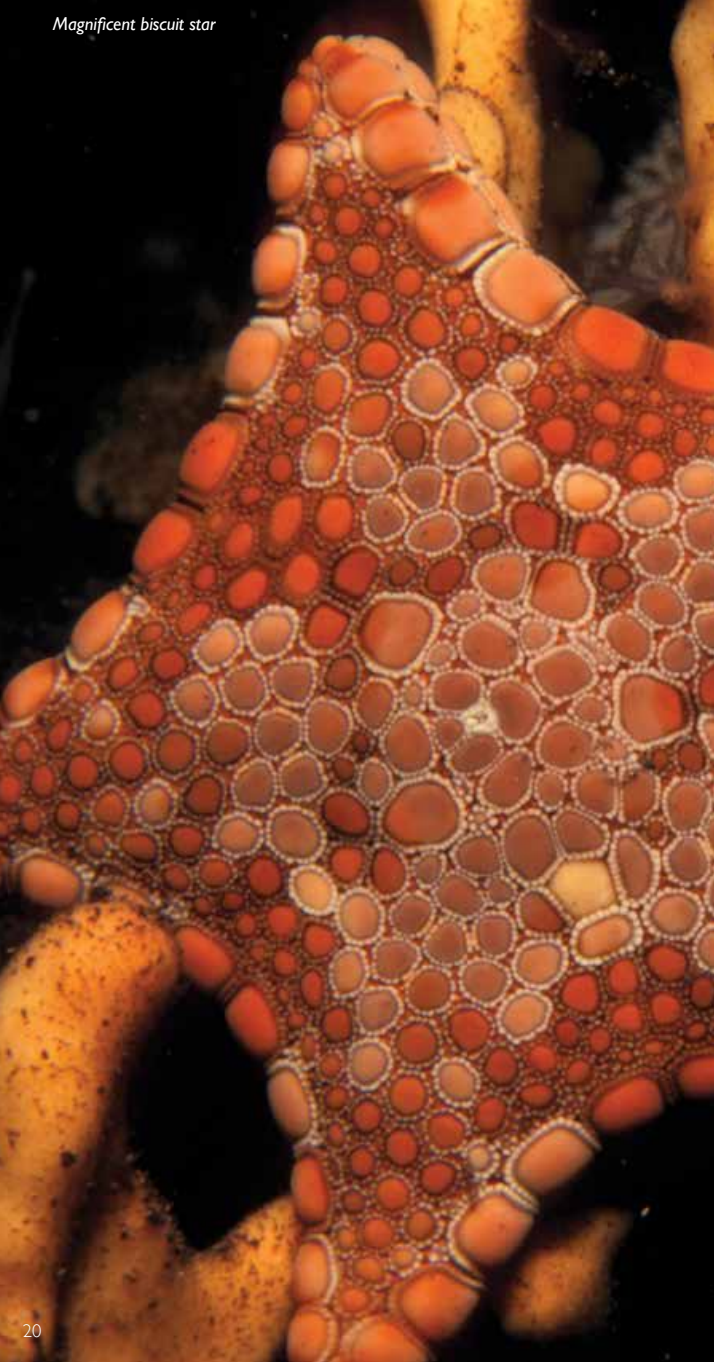
Sponges come in many shapes, sizes and colours. They usually live in areas with strong currents or wave action where they filter-feed by drawing water in through small pores and passing it out through larger pores. Sponges are capable of pumping hundreds of litres of water through their filter-bag bodies each day.



Ascidians take many different forms. They may be solitary or colonial. All filter-feed on plankton by siphoning water in one hole and out another. Surprisingly, ascidians are more closely related to fish than invertebrates, as their larvae possess simple backbones.

The Marine Life

Magnificent biscuit star



Seastars have five or more arms, with a mouth in the centre of their underside. They feed on sponges, ascidians, algae and bryozoans. Larger seastars prey on molluscs and sea urchins.

Southern biscuit star





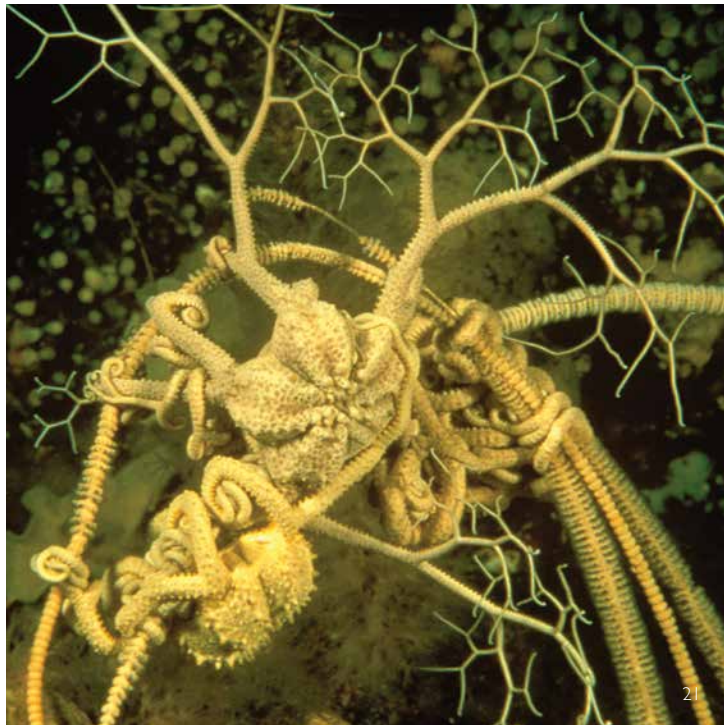
Brittle stars feed in a similar way to other small seastars, by moving small particles into their mouth with their tube feet. If they are attacked they sometimes sacrifice an arm, which will later grow back.



Sea urchins' outer shells are made up of hundreds of interlocking plates, with numerous projecting spines. Their mouth is at the bottom of the outer shell. They have five teeth which work together to grind algae off rocks.



Sea cucumbers mooch slowly along the seafloor, scavenging for plankton and decaying debris by sifting through the sediments with their tentacles. They are common in Bathurst Harbour. Their closest relative is the sea urchin.



Basket stars have flexible, branched arms, which they use to entwine themselves onto other plants or animals so they can extend their arms to feed on small plankton animals.

The Marine Life

Fish, sharks, rays and eels

In outer Port Davey an unusual mix of fish species occurs. This is due to the highly exposed reefs and some influence from the tannins draining from the Davey River and Bathurst Channel. Fish species usually found around the Tasmanian coast, such as leatherjackets and barber perch, are absent. Instead, some species that do occur here are uncommon elsewhere.

Blue-throated wrasse



In Bathurst Harbour and Bathurst Channel, the dark, poorly oxygenated, low nutrient waters attract few fish – with the most common being eels, sharks and skates. One species of cusk eel is unique to Port Davey. The endangered maugan skate occurs only in Bathurst Harbour and Macquarie Harbour – although the skate has not been recorded in Bathurst Harbour in the last two decades. Both the maugan skate and an unusual relative of the ice fish that also occurs here are related to species found in the fjords of New Zealand and South America – land masses to which Tasmania was once connected. Another species is the white-spotted dogfish, a species common in the region but listed on the IUCN Red List as threatened because of its globally declining population.

Bastard trumpeter



Pot-bellied seahorse



Whitleys skate



White-spotted dogfish

Seaweeds and seagrasses

In the clearer marine waters of outer Port Davey, the typical variety of brown, green and red seaweeds thrive to depths of 10 metres or more. However in the darker waters of Bathurst Harbour and Bathurst Channel, where tannins block out light, marine plants are restricted to the top few metres.

In quiet bays and coves, seagrasses form underwater meadows, providing shelter for breeding fish and invertebrates, and feeding areas for black swans and other waterbirds.

Great swirling masses of firmly anchored **bull kelp** withstand the surging southern ocean waves in Port Davey.



The golden air-filled beads of **neptunes necklace** float on the surface of sheltered rocky shorelines.



Of the three basic colour forms of **seaweeds** (brown, green and red), red seaweeds are able to survive with the least sunlight, at the deepest levels.

