

## Plants of the Rocky Shore

Marine plants are a very important part of the rocky shore community as they provide shelter, food and oxygen for the animals. The plants found on Victoria's rocky shores include the greatest variety of marine algae or seaweeds in the world, and a small number of flowering plants. All marine plants make their food from sunlight and simple materials that they get from the water.

**Algae** Seaweeds are more correctly known as marine algae. Algae are the biggest group of marine 'plants' and come in a wide diversity of shapes, colours and sizes. Some microscopic algae drift in the water and are known as phytoplankton. Some filter-feeding animals such as mussels and barnacles use phytoplankton as food. Other microscopic algae grow over rocks and provide an important food source for grazing animals like snails.

Larger algae have blades instead of leaves that can be as long as 10 m in some species. The root like structures found at the base of many algae is called a holdfast and helps to anchor the plants to the rocks. In addition to the holdfast and blades, some algae also have a stem like structure known as a stipe to both support the blades as well as make food. Some algae also have gas filled 'bubbles', or bladders, helping the plants to float and allowing them to get more sunlight.

Marine algae can be divided into three main groups based on their colour. Green algae are found in shallow waters. Brown algae have additional pigments that allow them to live in deeper water. Red algae can live where there is little light. On rocky shores all three groups of algae can be found.

### Green Algae



### Red Algae



### Brown Algae



### Flowering plants



### Phytoplankton

Seagrasses and mangroves differ from marine algae in that they reproduce with flowers. The seeds of these flowering plants are carried by water. A number of seagrasses are well suited for the conditions on rocky shores.

## Flowering Plants

Magnified 500 times

## Useful contacts for more information

**Marine Discovery Centre, Queenscliff**

Phone 03 5258 3344

Websites: [www.dpi.vic.gov.au/mafri/discovery](http://www.dpi.vic.gov.au/mafri/discovery)  
[www.rockyshores.auz.info](http://www.rockyshores.auz.info)

**Coast Action/Coastcare**

Phone 03 9412 4651

Website: [www.dse.vic.gov.au/coasts](http://www.dse.vic.gov.au/coasts)

**Parks Victoria**

Phone 13 1963

Website: [www.parkweb.vic.gov.au](http://www.parkweb.vic.gov.au)



### Some other useful websites:

Australian Marine Conservation Society: [www.amcs.org.au](http://www.amcs.org.au)

Australian Southern Shores: [www.southernshores.auz.info](http://www.southernshores.auz.info)

Coastcare: [www.ea.gov.au/coasts/coastcare/](http://www.ea.gov.au/coasts/coastcare/)

Marine Education Society of Australasia (MESA): [www.mesa.edu.au](http://www.mesa.edu.au)

Reefwatch Victoria: [www.reefwatchvic.asn.au](http://www.reefwatchvic.asn.au)

### Books:

Quinn, G.P., Wescott, G.C. & Synnot, R.N. 1992 Life on the Rocky Shores of South-Eastern Australia: an illustrated field guide. Victorian National Parks Association

Edgar, G.J. 1997 Australian Marine Life: the plants and animals of temperate waters. Reed Books

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# Living Between the Tides...

AN IDENTIFICATION GUIDE TO COMMON ANIMALS AND PLANTS OF VICTORIA'S ROCKY SHORES

Welcome to one of the world's most diverse and stunning marine environments — the rocky shores of Victoria.

This brochure has been produced to help you learn about some of the common plants and animals found on Victoria's rocky shores. It is also a guide to assist you in caring for this important habitat and yourself while exploring.

## Why are Victoria's rocky shores special?

More than 95% of the animals and plants in our southern waters are not found elsewhere on our planet. This includes many of the seastars, molluscs, crustaceans and other creatures illustrated in this guide.

The shoreline area between the high and low tide is known as the "intertidal area". This is an extremely challenging habitat for survival and is in a state of constant change. As the tide moves up and down, animals and plants must cope with problems like drying out, waves, and the presence of many predators. Only creatures that are well suited to these changes can survive here.

Rocky shores are an especially important type of intertidal area. The rocks provide something solid for plants and animals to hold on to and also can provide some protection from changes in the environment and predators. As a result rocky shores are rich in plant and animal diversity.

## Caring for the Coast and You

Even though the animals and plants of the rocky shore can cope with difficult conditions, they still need to be treated with care. By adopting the following behaviours you will help protect our fragile shore life while also looking after yourself.

### Caring for the Coast:

- ★ Enjoy exploring the rocky shore with care but leave the creatures where they are. Handling may harm them and you.
- ★ Always return any organisms or rocks you may have disturbed to their original locations.
- ★ Keep marine animals and plants moist and cool when observing them by holding them under water
- ★ Stick to established paths to get down to the rocky shore
- ★ Please observe and obey any signage on site
- ★ Tread lightly and try to walk or stand on patches of sand or bare rock to avoid trampling rockyshore life
- ★ Please take your rubbish home - rubbish can harm birds and marine animals
- ★ Do not feed birds, seals, or other marine life
- ★ Keep clear of seals and bird nesting or roosting areas

### Personal Care:

- ★ Watch where your hands are going at all times to avoid potentially dangerous creatures like the blue ringed octopus
- ★ Wear sturdy shoes that grip well when walking on rock platforms to avoid slipping and cuts
- ★ Never turn your back on the sea and be alert for large unexpected waves at all times
- ★ Stay away from cliff edges and bases
- ★ Check tide times when exploring so you won't be caught out
- ★ Be sun smart and use sunscreen, a hat and suitable clothing to protect from the sun's damaging rays!

## Victoria's Marine National Parks and Marine Sanctuaries.

Victoria is the first place in the world to establish a representative system of highly protected Marine National Parks and Marine Sanctuaries. 13 large Marine National Parks and 11 smaller Marine Sanctuaries are located across the state's coastline and provide protection of representative examples of our marine and coastal biodiversity.

Like our wonderful system of National Parks on land, our new Marine National Parks and Marine Sanctuaries protect all animals and plants within them from being removed or killed.

Marine National Parks and Marine Sanctuaries are also places for people. These areas are important for scientific research, education, conservation, recreation and tourism, and fisheries management. Recreational activities that are compatible with long term marine conservation such as snorkelling, diving, and photography are encouraged.

Please remember that Marine National Parks and Marine Sanctuaries are fully protected. You may not fish, or remove animals, plants or artefacts such as shells, rocks, sand, and items of maritime or indigenous value.

