

Arrawarra Headland lies within the Solitary Islands Marine Park, a place where tropical, temperate and endemic (occurring only within this region) organisms can be found. This overlap of plants and animals from different regions leads to extraordinarily high biological diversity (biodiversity).



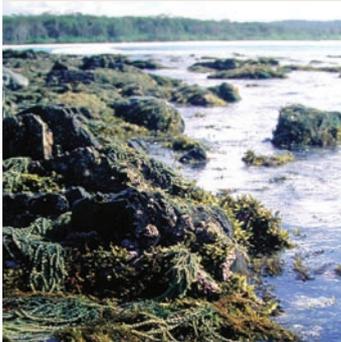
## Habitat Diversity

The Arrawarra area supports a wide range of marine and estuarine habitats that are readily accessible for traditional, recreational and educational use. This is one of the main reasons that the University of New England established a marine field station on the headland. From this field station it is a short boat ride to the nearest of the offshore islands, North West Solitary Island, and a short walk to rocky shores, an estuary and extensive beaches.

of shelter, habitat variety and protection within the Solitary Islands Marine Park all contribute to the importance of this area as a hotspot for biodiversity.

### Did you know?

The boulder field on the northern side of Arrawarra Headland is one of the most biodiverse rocky-shore habitats in the Solitary Islands Marine Park.



### ◀ Photo

Seaweeds provide up to 100% cover on the sheltered shores of Arrawarra Headland. *Hormosira banksii* (Neptune's necklace) predominates.

## Biodiversity

While the overall diversity of living organisms is high at Arrawarra Headland, some groups of marine creatures are particularly prominent.

## Molluscs

Arrawarra Headland is one of the best places in the Solitary Islands Marine Park to see a rich diversity of molluscs (e.g. shells, sea slugs, mussels, clams). In particular, cowries and nudibranchs are common here relative to many other locations. The gold-ring cowry (*Cypraea annulus*) can be found in rock pools in the middle and upper shore, while most of the other cowry species are usually found hiding under rocks on the lower shore. Colourful nudibranchs and their cousins, the sea hares, can be found in the

# FACT SHEET 16 Biodiversity



extensive rock pools which retain water even at the lowest of tides. Many of the species of mollusc found on the shore have important cultural uses as food (periwinkles, nerites, turban shells, mussels, abalone) and even as medicines (the serpent's head cowry *Cypraea caputserpentis*).



#### ◀ Photo

The gold-ring cowry (*Cypraea annulus*) can be commonly found in sheltered rock pools at Arrawarra Headland.

## Crabs

The most conspicuous animals on the rocky shore, after the molluscs, are the crustaceans - especially the crabs. Crabs are mostly scavengers that shelter under rocks or in crevices when the tide is out, or when there are predators around, but emerge to feed at other times. They can be found at the highest tidal level right down to the bottom of the shore. Crab diversity is high at Arrawarra Headland, and many of these species are important as bait for both traditional and recreational fishing activities (especially the red bait crab *Plagusia* spp).



#### ◀ Photo

The red bait crab (*Plagusia chabrus*) is a common scavenger on rocky shores. It is also a commonly used bait, especially for groper.

## Seaweeds

Plants are important in all marine habitats where they provide food and shelter for many other organisms. At Arrawarra Headland, Neptune's necklace (*Hormosira banksii*) is the most obvious seaweed covering up to 100% of the lower shore in some areas. This blanket of seaweed is important for many animal species as it provides shade and a refuge from temperature extremes when the tide is out. There are many other species of green, brown and red seaweed on the headland, with diversity generally highest on the lower shore and in rock pools.

**Please note** that Arrawarra Headland is designated as a Special Purpose Zone and collecting is prohibited.

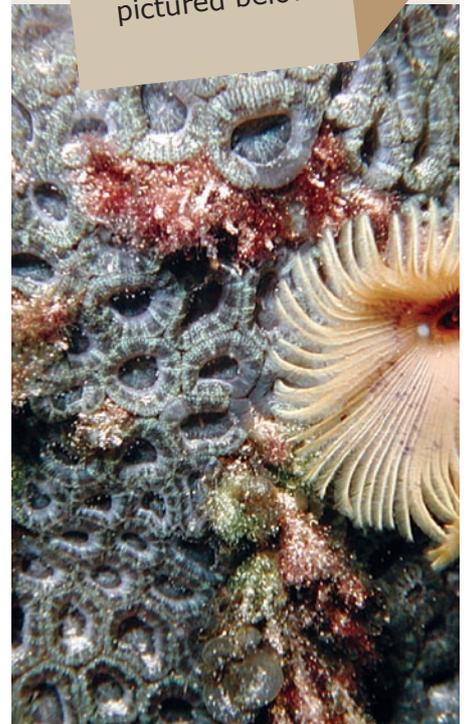
Photos: Steve Smith.

## Corals

Although corals are usually associated with sheltered, subtidal reefs, sheltered, deep rock pools on the headland support some well developed coral colonies, some of which have been there for more than 30 years.

#### ▼ Photo

A number of species of hard corals can be found in deep rock pools on the northern side of Arrawarra Headland. These include brain corals, and encrusting and branching forms. An encrusting colony with a yellow fan worm is pictured below.



  
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