

# Student

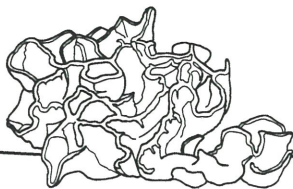
## Fact Files



Australian Government

Great Barrier Reef  
Marine Park Authority

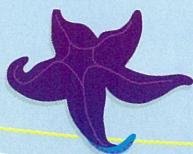
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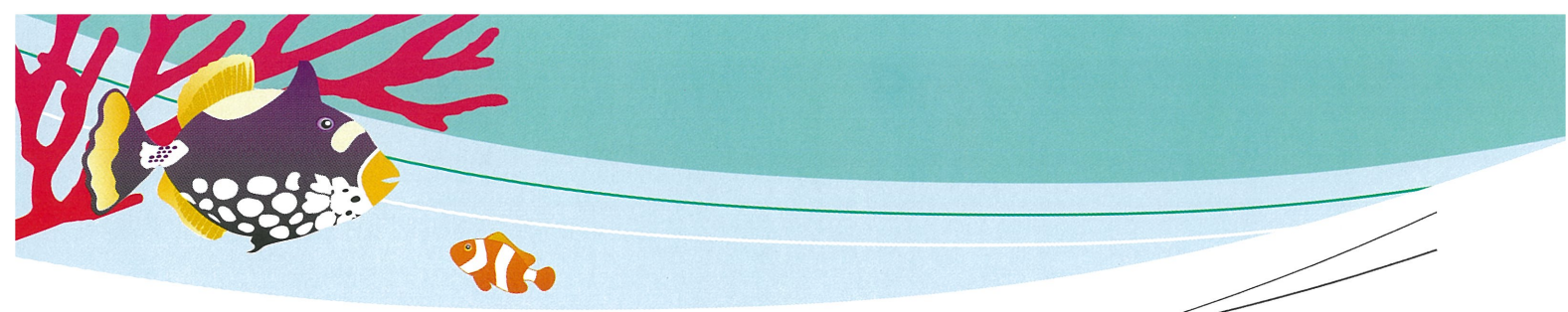
## Sponges

- The Great Barrier Reef is home to about 1500 species of sponge.
- Sponges are one of the most ancient animals inhabiting the Reef, dating back more than 650 million years.
- Sponges comprise the major part of the diet of the endangered hawksbill turtle.
- Sponges only became recognised as animals, and not plants, after the 19<sup>th</sup> Century. Scientists thought they were plants because they could not work out how they fed.
- Many sponges contain toxins to use in defence.
- Sponges can filter the equivalent of their own volume of water every four to 20 seconds. A sponge the size of a teacup can filter 5000 litres of water a day.
- The outer wall of the sponge has many tiny holes to draw in water by the living cells inside its body.



our great barrier reef  
let's keep it great





**Sponges are common and often colourful and unique reef animals. They are bottom-dwelling (benthic) and are often confused with plants because their simple bodies can take on almost any shape. Some are simple vase-like or tube-like growths. Others may form colourful crusts over rubble or dead coral and they can also form growths that look like hands, fans or shrubs.**

Whatever their shape, all sponges are built on the same lines — a hollow structure with a body wall built around a skeleton made of thousands of minute limestone or glassy structures called spicules. These spicules not only provide support but also deter predators. One of the few predators of sponges are nudibranchs.



The outer wall of a sponge has many small holes (pores) through which water is drawn by the living cells inside. These cells feed by trapping tiny food particles that are carried past by the water. The water then passes out through larger holes in the body wall. Sponges are very important to the Reef, as some live off the detritus and waste products that filter down through the water column.

Sponges can reproduce asexually and sexually. During asexual reproduction sponges bud and break off segments. Most sponges have both male and female sex organs (they are hermaphrodites). During sexual reproduction sponges retain eggs. Sperm is released into the water and is taken in by other sponges to fertilise the eggs. Mass spawning occurs in a few species of sponges.

Sponges can die from exposure to air, so they should never be removed from the water, even for a short time. Sponges can also be injured and become clogged when nearby sand is kicked up by divers and snorkellers.

