

## Moreton Bay corals

The diverse reefs of Moreton Bay are home to more than 120 tropical and temperate species of coral. Environmental conditions vary greatly between these reefs and each reef hosts a coral community that is specialised for its conditions. The reefs and coral communities of Moreton Bay are of high ecological, economic and recreational importance and require our care.

In coastal areas water has lots of nutrient and sediment runoff. The main cause of high nutrient and sediment levels is from soil erosion from creeks and rivers, farming land and construction sites via our catchment and river systems. Too much sediment in the water can limit the sunlight that corals and their zooxanthellae need for energy. Because of this, only some species of coral can live in these inshore areas. Corals that can tolerate murky water tend to be small, round corals. As you travel away from the mainland, you can see changes in water quality and types of coral.



### Monitoring coral health

Scientists monitor the health of corals to determine the health of the marine environment they are in. The health of a coral is determined by the number of symbiotic algae inside the coral cells. The brown/green zooxanthellae give the coral its brown/green colour. When corals are stressed they have less zooxanthellae and become pale or even white in colour, this is called coral bleaching. You can measure the level of coral bleaching by using the CoralWatch Coral Health Chart to identify its colour.

### Saving our corals

One way to reduce stress to corals is to reduce the amount of sediment in the water. Look at the website: <http://hlw.org.au/report-card/focusareas> to see how southeast Queensland is reducing sediment loads entering Moreton Bay.

### Questions

1. Draw and label features of the coral including the following labels: mouth, tentacles & zooxanthellae.
2. Why are corals important?
3. What is a symbiotic relationship? Explain the relationship associated with corals.
4. What is coral bleaching?
5. How can scientists measure coral health?