History of corals in Moreton Bay

Corals in Moreton Bay haven't always looked like this - they have changed over time. Branching corals used to be more common in Moreton Bay, even in inshore areas.

Research shows that inshore branching corals began to disappear in the mid-1800s. At this time, European settlement changed land use in the Moreton Bay catchment. Land-clearing and farming led to increased sediment and nutrient pollution run-off into the bay. This changed water quality, making conditions less suitable for branching corals. Now, only some types of corals can tolerate living in these inshore areas. Understanding the history of corals in Moreton Bay helps us protect corals for the future.

Lost fishing line can damage corals and other marine life.

High water temperatures and other stressors can make corals bleach.

Many human activities affect corals! How you can help to protect them!

- Reduce, Reuse and Recycle
- Drive less, drive smart, take the bike
- Buy energy-efficient products
- Reduce your carbon footprint
- Avoid anchor damage – use moorings
- Protect shorelines and river banks
- Plant a tree
- Get involved in a local monitoring program such as CoralWatch

ACT NOW

for the future of our reefs

CoralWatch is a non-profit organisation which integrates volunteer coral monitoring with community education about coral reefs. Based at The University of Queensland, CoralWatch has developed a simple tool that anyone can use to measure coral health – the Coral Health Chart.

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CORALWATCH

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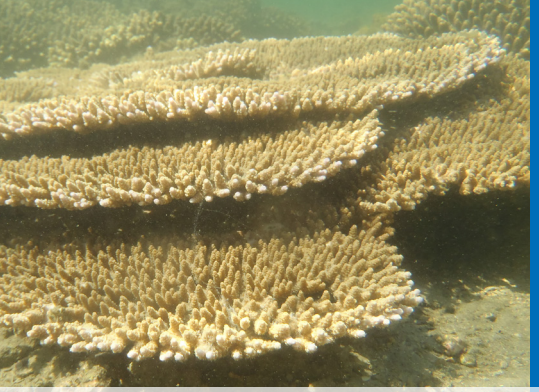
AUSTRALIA

Corals At Your Doorstep

CORALWATCH

Did you know that Moreton Bay is home to more than 120 species of corals?



Hard coral inshore (plate, Acropora sp) – Myora

Corals support fish life offshore – N. Stradbroke Island

Hard coral close-up (boulder, Goniastrea sp)

Green turtle and hard coral (plate, Acropora sp) – N. Stradbroke Island

What are corals?

Corals are living animals related to jellyfish! A single animal is called a coral polyp. Many polyps together form a coral colony. Many colonies form reefs.

Corals use calcium and carbonate molecules from the seawater to make a skeleton. There are more than 800 different species of hard coral around the world. The skeleton of each species is unique. Some corals don't make a calcium carbonate skeleton – these are called soft corals.

Tiny algae, called zooxanthellae, live in symbiosis within the coral polyps. Zooxanthellae occur in very high densities and provide the coral with the colour and nutrients through photosynthesis. Therefore, corals depend on sunlight and clean water. In return, the coral provides a safe home for zooxanthellae.

Corals in Moreton Bay

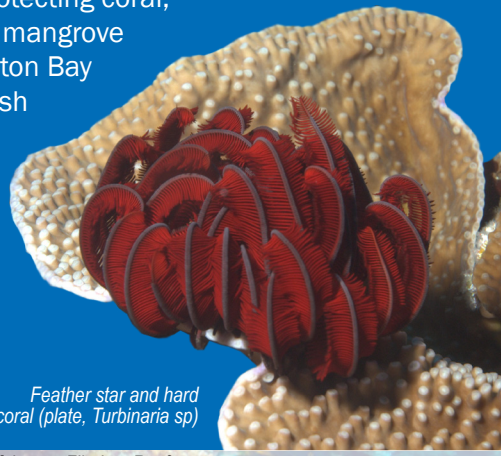
Close to the mainland and the mouth of the Brisbane river, the water has lots of sediment run-off. Much of this comes from inland areas via our catchment and river systems. Too much soil in the water can limit sunlight penetration needed for photosynthesis. Because of this, only some species of coral can live in these inshore areas. Corals that tolerate murky water tend to be small, round corals. You can see these corals off for example Wellington Point, Peel Island and St. Helena Island.

As you travel away from the mainland, you can see changes in water quality and types of corals. As the water becomes clearer and cleaner, you will see more branching corals. You can find many branching corals off North Stradbroke Island (Myora, Shag Rock) and Moreton Island (Flinders Reef).

Why are corals important?

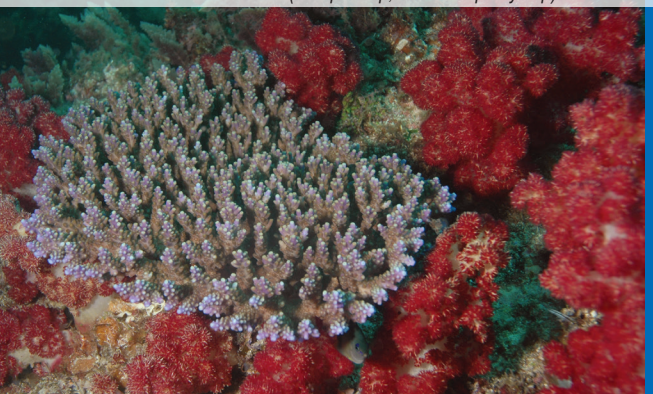
Corals provide a home for fish and other marine creatures. Mangroves and seagrass are also important for marine life - they improve water quality by trapping soil and nutrient pollution, and provide 'nursery' areas for young fish. Research shows that protecting coral, seagrass and mangrove areas in Moreton Bay can support fish stocks and marine life.

CORALS AT YOUR DOORSTEP Moreton Bay



Feather star and hard coral (plate, Turbinaria sp)

Hard and soft corals offshore (Acropora sp, Dendronephthya sp)



Hard coral inshore (boulder, Favia sp)

Reef areas (Roelfsema et al. 2016)

Hard corals and giant clam offshore – Flinders Reef