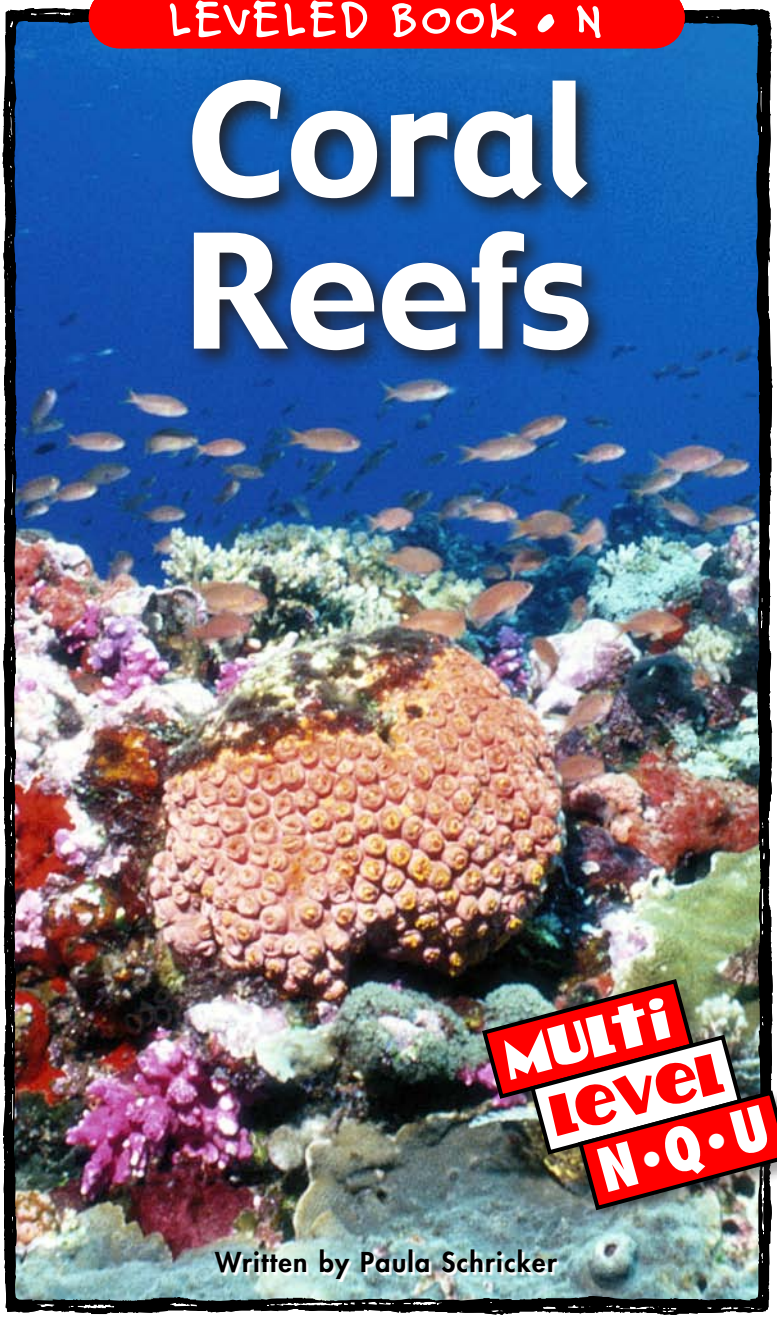
LEVELED BOOK • N

Coral Reefs



MULTI LEVEL N•Q•U

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Many kinds of coral, fish, and sea creatures live in a reef.

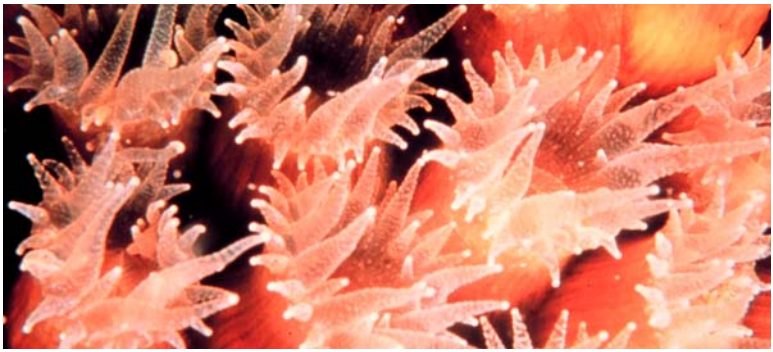
Introduction

Coral reefs are made up of many types and shapes of corals. Reefs are very busy places. Millions of sea plants and animals live in and around reefs.

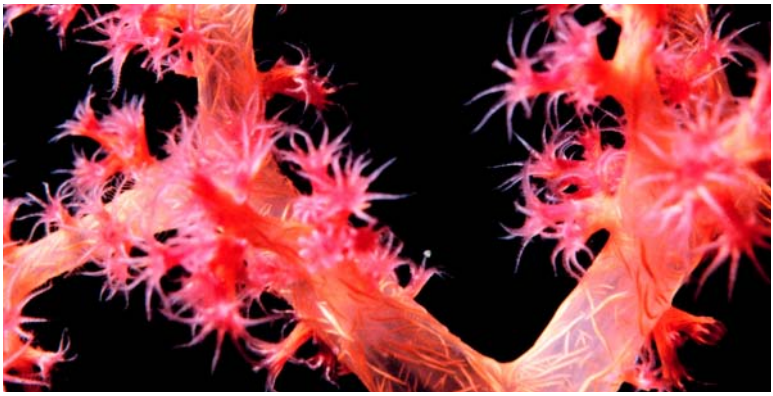
What Is Coral?

The corals that form reefs aren't rocks or plants. Corals are made up of groups of tiny animals called **polyps** (PAH-lips). Most polyps are smaller than a pea. Thousands of polyps can live on a piece of coral.

One type of coral is called hard, or "stony," coral. These corals live with plants called algae (AL-jee). The algae is food for the coral. Stony corals have hard skeletons. When the polyps die, the skeleton is left. Over time, old skeletons help build a reef.



Polyps open their tentacles only at night to catch food.



These feathery polyps form branches.

(Left) A sea fan (a soft coral); (right) a brain coral (a stony coral)

Elkhorn coral branches out as an elk's horns do.

The second main type of coral is soft coral. These corals can bend with the tides. Some soft corals will sting if touched.

Many corals are named for what they look like. Brain corals look like brains. Elkhorn corals look like the horns on an elk. Sea fan corals look like open fans.

A Busy Home Under Water

Thousands of fish of all sizes, shapes, and colors live in reefs. They depend on the reef for food and safety.

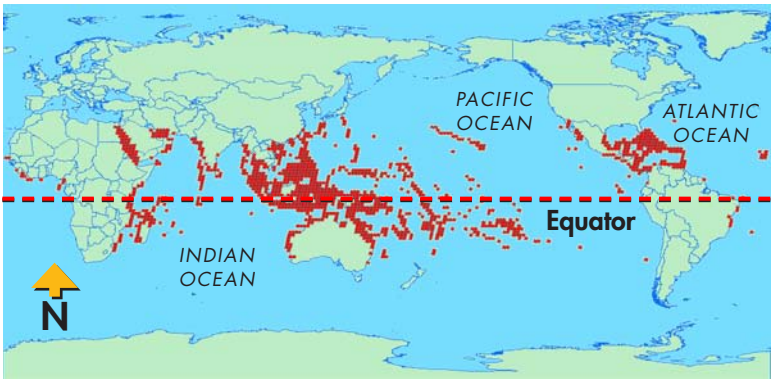
Shrimp, lobster, crab, and starfish feed around reefs. A hole in the reef makes a good home for an eel.

(top) Schools of brightly colored fish are common on reefs.
(bottom) Reefs offer many good hiding places.

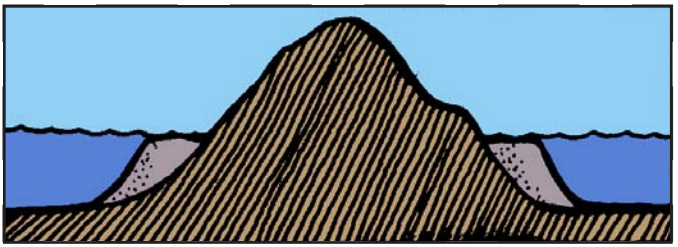
Where Do Corals Live?

Coral reefs need certain living conditions to stay healthy. They need the right depth of water. They need healthy algae for food. Both coral and algae need water that is the right temperature.

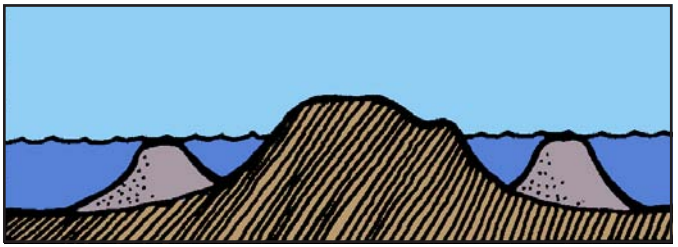
Coral reefs can be damaged easily. Fresh water that comes from rivers can kill coral. Dirt and debris can clog them. Heavy waves from large storms can break reefs apart.



The dark areas of the map show the location of coral reefs.



Cross section of a fringing reef



Cross section of a barrier reef

Cross section view of an atoll

There are three types of coral reefs. They are called **fringing reefs**, **barrier reefs**, and **atolls**. Fringing reefs sit close to the shore. Barrier reefs have a large **lagoon**, or area of water, between the reef and the shore.

An aerial view of an atoll

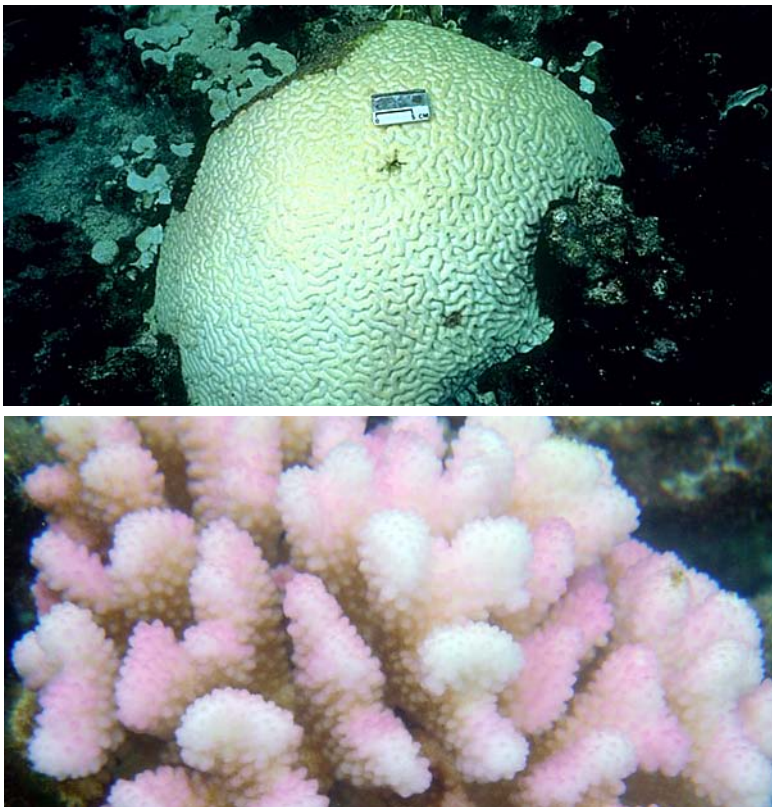
An atoll is the third type of reef. An atoll grows in the shape of a circle. It grows around an old sinking island. After the island is gone, a water lagoon forms in the center of the atoll.

Danger to Coral Reefs

Coral reefs are very fragile. Both disease and human activities damage reefs. Some fast-growing bacteria cause disease. The bacteria can destroy a big reef in just weeks.

A dark ring resulting from black band disease

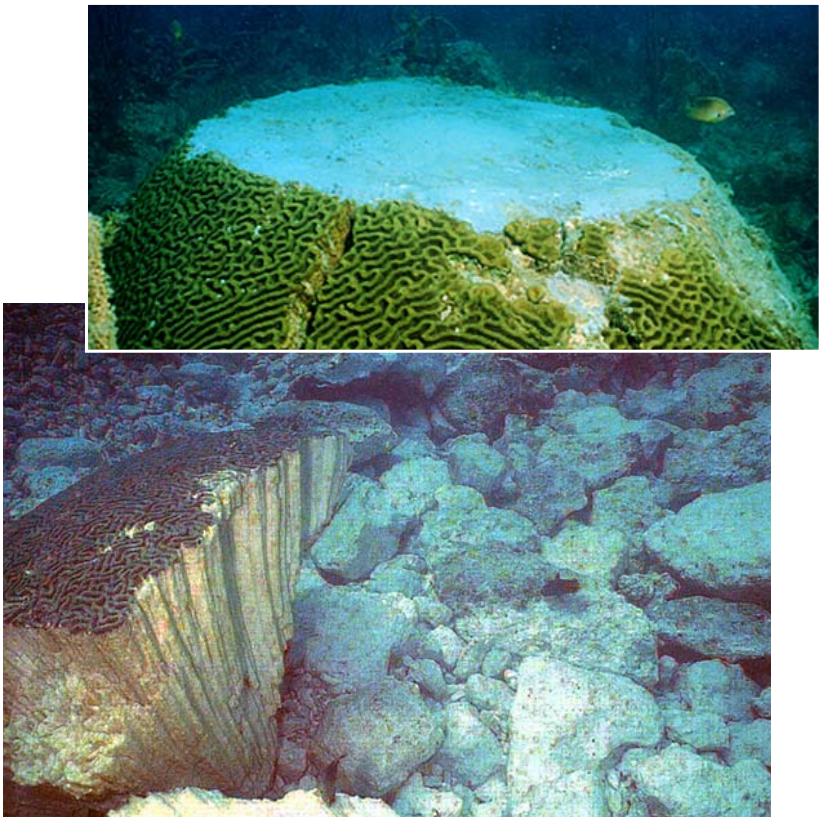
White band disease can destroy coral quickly.



The white areas of these corals have been bleached as the algae that normally give them color have died.

Other harmful bacteria attack the algae. If the coral can't eat the algae, the coral starts to starve. If the bacteria are stopped, the coral can recover. Without enough algae to eat, the coral will die. If the coral dies, the reef will die.

Humans cause most coral reef damage. Some people fish with poisons and explosives. Boats and ships break off large chunks of reefs. Boats can leak gas and oil. Gas and oil leaks harm coral, plants, and fish.



Boats break off large chunks of coral.

Protecting the Reefs

Coral reefs are beautiful. Reefs are also valuable. Reefs help protect coasts from storms and floods. Much of the world's supply of fish lives around reefs. The fish depend on the reefs for their food. Many reef plants and animals also have other uses. Some are used for medicines.

Many countries try to protect their reefs. They have written laws and rules to follow. But people do not always follow the laws and rules.

This officer's job is to watch and protect coral reefs.


Divers still enjoy visiting fragile reefs.

Almost 25 percent of the world's reefs have been destroyed. More than half of the rest are damaged. We can all do things to help protect the reefs. We can help even if we don't live near an ocean.

Never throw things in the water. Learn about what people do that makes ocean temperatures rise. Learn what we do that makes bacteria grow. We can all help protect coral reefs. Then all the living things on coral reefs will continue to have homes and food.

Glossary

atolls *(n.)* circular reefs formed when coral grows around islands that later sink beneath the surface of the sea (p. 9)

barrier reefs *(n.)* reefs that sit farther from the shoreline, forming barriers between the open ocean and calm lagoons (p. 9)

fringing reefs *(n.)* reefs that are very close to shorelines (p. 9)

lagoon *(n.)* shallow, calm water between a reef and the shoreline or in the center of an atoll (p. 9)

polyps *(n.)* tiny individual coral animals (p. 4)

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