

SAVE OUR CORAL REEFS!

Coral reefs deserve protection for their natural value.

They support coastal communities through tourism and commercial fishing, provide recreation and the intrinsic value of a wilderness that enhances our quality of life.

Coral reefs also provide habitat for many endangered species and protect us from storm surge.

They even help reduce global warming by pulling energy from the sun. The coral reef ecosystem is the breeding ground for 90% of the seafood we eat and 70% of the sport fish.

Coral reefs support life on Planet Earth.

©2007 Reef Relief, a non-profit grassroots membership organization dedicated to **Preserve and Protect Living Coral Reef Ecosystems through local, regional and international efforts.** Tax deductible membership begins at \$30/year and includes the Reef Line newsletter by mail and other membership privileges.

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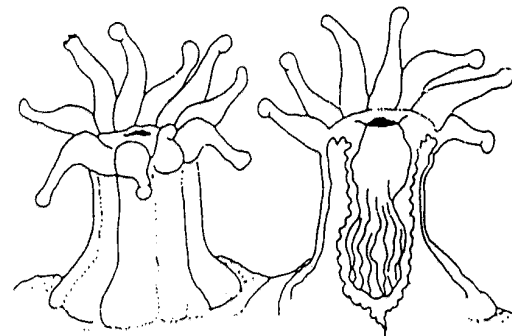


CORAL REEF GUIDE

for kids of all ages!

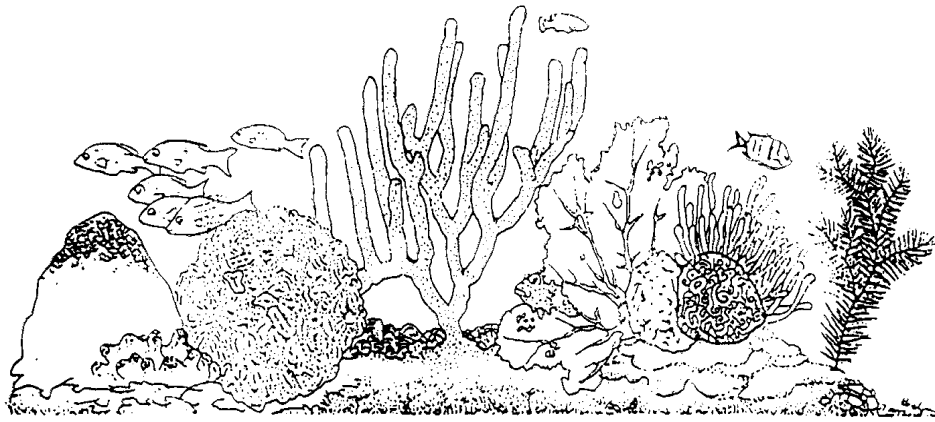
What is a Coral Reef?

Florida's coral reefs are alive with an abundance of fish, stony and soft corals, sponges, jellyfish, anemones, snails, crabs, lobsters, rays, sea turtles and other sea life. The reef structure itself is composed of thin plates or layers of calcium carbonate secreted over thousands of years by billions of tiny, soft-bodied animals called coral **polyps**. The reef is constantly growing new colonies of polyps on top of the skeletons of older ones. But the reef grows very slowly—typically only one-half inch per year! Coral, for all its sturdy appearance, is extremely fragile—even the slightest touch can destroy the polyp leaving the coral vulnerable to disease and bleaching.



coral polyps

An individual coral polyp resembles a tiny sea anemone and contains within its body tissues minute algae, known as **zooxanthella**. This symbiotic relationship is essential to both the algae and coral polyp. Corals need clear, clean, nutrient free waters to thrive.



Why is the Reef Important?

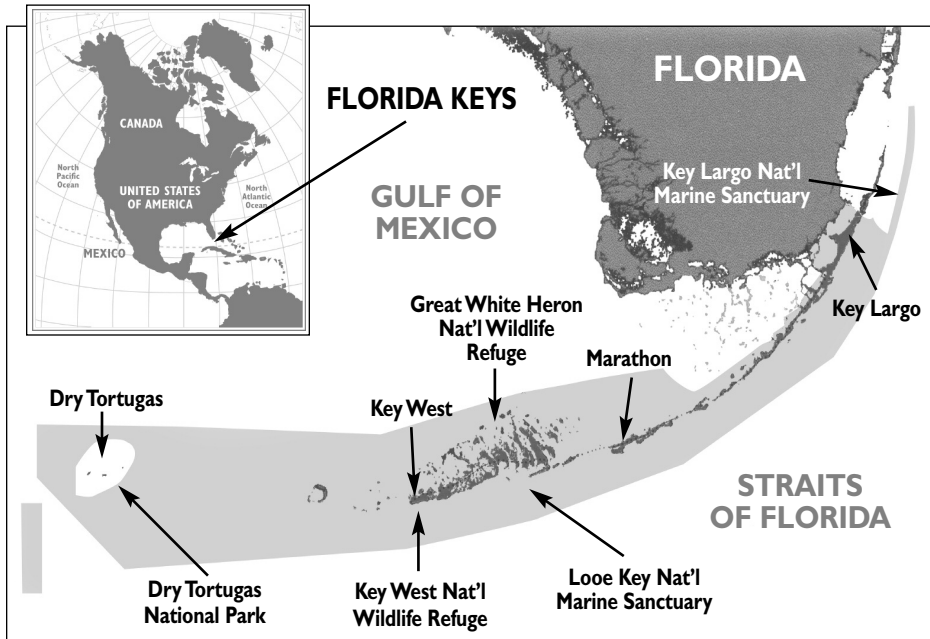
The coral reef is home to more kinds of life than any other place on earth; The coral reefs in Florida include **more than 150 species of tropical fish and more than 50 species of coral** (80% of all coral species found in the tropical western Atlantic).

Along with the hardwood hammocks, Florida's coral reefs are home to one-third of Florida's threatened and endangered species.

Where is the Reef?

North America's living coral barrier reef lies approximately six miles out to sea off the Florida Keys in water from 15 to 30 feet deep. The reef tract **starts near Miami and extends southwest to the Dry Tortugas**, about 67 miles west of Key West. Patch reefs continue up through the Palm Beaches.

Florida Keys National Marine Sanctuary



Why Do Coral Reefs Need Protection?

The Florida reef tract is composed of outer barrier reefs and patch reefs, and is the only living barrier reef system in North America.

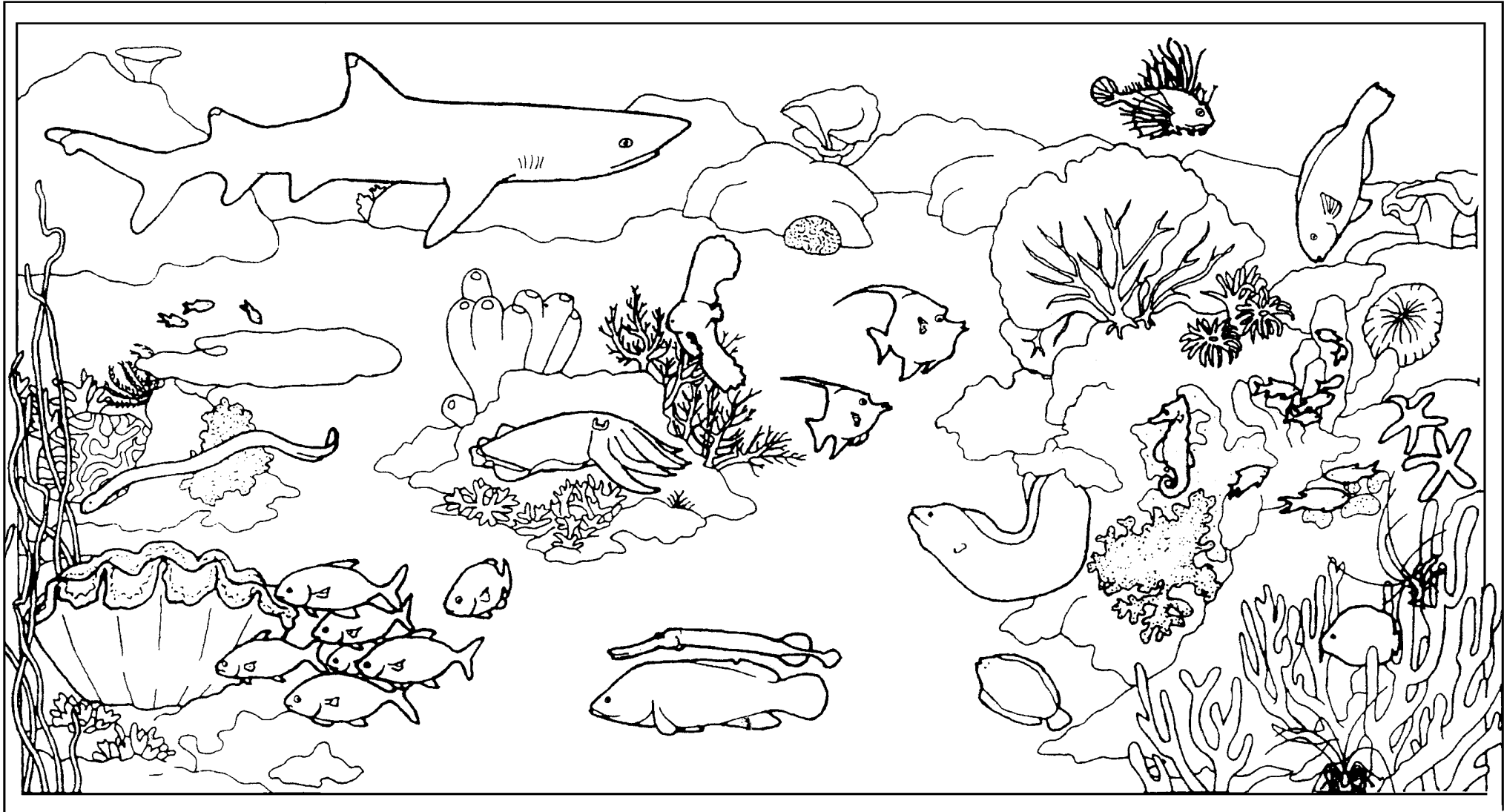
These reefs are typically “spur and groove” formations—a series of ridges and channels—found in shallow waters.

Because of these ideal conditions, the Florida Keys hosts several million snorkelers, divers, fishermen and boaters every year. It's the biggest dive destination in the world, with ten times the visitors of Australia's Great Barrier Reef, a reef ten times larger. So many people live near and visit our delicate reefs that they are literally being destroyed due to physical damage from marine debris, anchors, boat groundings, overfishing and harmful fishing and even the careless touch of a diver or snorkeler.

The greatest threats to Florida's coral reefs is water quality decline due to agricultural runoff from the Everglades and Florida Bay and inadequate sewage treatment in the Florida Keys. Warming sea temperatures due to global warming contribute to coral bleaching and disease and stronger storms and hurricanes that are devastating for coral reefs.

CORAL REEF COLOR PAGE

THE CORAL FOREST: Diversity of Life on the Coral Reef



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NOTE: See next page for information and Key to the Illustration.

CORAL REEF COLOR PAGE

THE CORAL FOREST: Diversity of Life on the Coral Reef

Coral reefs were first formed more than 500 million years ago, and since that time, have successfully developed and supported a tremendous array of plant and animal life, earning them the name “rainforests of the sea.” Today, reefs are found in 109 countries around the world, however, it is estimated that they are either destroyed or damaged by human activity in almost all of them. Like the rainforests, their survival is threatened.

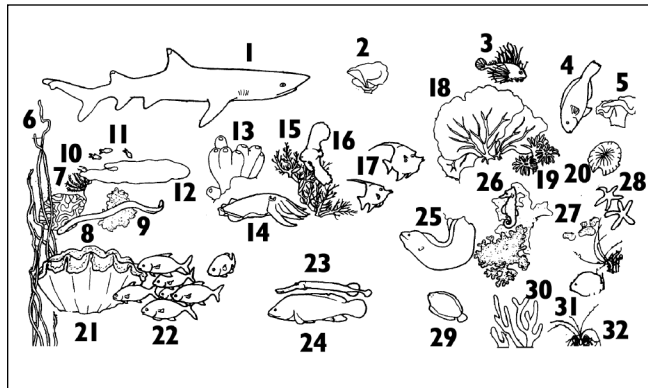
With the rainforests, they form an interrelated ecosystem whose health and balance is critical to ensure the biodiversity of species, protection of the coastlines, and an ongoing supply of food and medicinal resources. Enjoy the beauty of the coral reef, learn about its vast diversity of life, and help to preserve it for generations to come.

KEY TO THE ILLUSTRATION

Location: The Great Barrier Reef, Australia

Key Fact: The Great Barrier Reef is the largest structure built by living organisms on earth and it is the only living structure visible from outer space. Located along the northeast coast of Queensland, it is 1240 miles (2000km) long and consists of more than 2500 major reefs.

1. White reef shark
2. Lettuce coral
3. Butterfly cod (lionfish)
4. Parrotfish
5. Soft coral
6. Sea whips
7. Brain coral
8. Olive sea snake
9. Soft coral
10. Feather star
11. Damsel fish
12. Plate coral
13. Vaseform sponge
14. Cuttlefish
15. Needle coral
16. Batfish (juvenile)
17. Moorish idol
18. Gorgonian fan coral
19. Sea anemone



- | | | |
|-------------------------|----------------------------|----------------------------------|
| 20. Mushroom coral | 25. Yellowmargin moray eel | 29. Flowery flounder |
| 21. Giant clam | 26. Spotted seahorse | 30. Branching coral |
| 22. Six-banded trevally | 27. Sponge | 31. Emperor angelfish (juvenile) |
| 23. Trumpetfish | 28. Blue sea star | 32. Banded coral shrimp |
| 24. Coral cod | | |

What is the Coral Reef Ecosystem?

The coral reef ecosystem is a complex interdependent environment consisting of **coral reefs**, **mangroves** and **seagrasses**.

Each of these communities plays an important role in the life and health of the reef, and each other.

Mangroves provide a nursery and breeding ground for young reef creatures. They filter pollutants from the land and trap sediments from the shore and provide a buffer from storm damage.

Seagrasses are flowering marine plants that stabilize the ocean bottom and provide a place for juvenile marinelife to learn how to graze for food, in addition to providing essential habitat for sea turtles, conch and many other species of marinelife.

Coral reefs are a combination of many different forms of life: hard and soft corals, fish, sponges, crustaceans, worms, algae, turtles, dolphins, and other sea life.

