Coral Reefs

Coral reefs are large areas along island coasts that are formed by layers of coral. Coral reefs are beautiful, colorful, saltwater habitats teeming with life, including many kinds of fish, invertebrates, reptiles, and marine mammals.

There are three types of coral reefs: fringing, barrier, and atoll. Fringing reefs are the most common type of coral reef and grow near coastlines separated by small lagoons. They grow directly from the shore. Barrier reefs border the shoreline and are separated from land by an expanse of water. Atolls are fringing reefs that have grown upward from volcanic islands that have sunk below sea level. Wake Island, pictured on the right, is an atoll located in the western Pacific Ocean. We will explore the parts of the coral reef and look at some of the most famous reefs in the world.

**Corals**

Corals are reef invertebrates that remain in one place their entire lives. After coral animals die, their skeletons remain and eventually form large areas called coral atolls or coral islands. Coral skeletons are made of calcium carbonate or limestone. Corals come in many shapes and sizes and look like plants, pipes, or fans, or even resemble the human brain. Some corals are bound together in colonies, while others are completely solitary. Many species of life rely on coral reefs as their home.

*Source: [http://oceanservice.noaa.gov/facts/coralmadeof.html](http://oceanservice.noaa.gov/facts/coralmadeof.html).*

**Reef Fish**

Coral reef fish are known for their bright, beautiful colors. Many also have sharp, bone-like spines built into their fins to act as a defense mechanism and protect them from other fish.

Emperor Angelfish – considered the “king” of all angelfish, have a band around their eyes that disguise them from predators. Clown fish live among sea anemones, a sea invertebrate that
has stingers on its ends, but has a unique relationship with this fish. Some fish live in schools, such as squirrelfish, while others, including sharks, prefer the solitary life. 

Source:

https://aqua.org/explore/animals/emperor-angelfish.

Reef Invertebrates

In addition to corals, reef invertebrates are animals that do not have spines. Starfish are examples of invertebrates. They usually live alone, moving along coral or the ocean floor, looking for prey. Another invertebrate is the shrimp. Like starfish, there are many kinds of shrimp, with some of the most colorful found along the coral reef.

The octopus lives in cave-like corals, hiding until it sees its next meal. The octopus is a very unique and intelligent creature. It can change color to match its surroundings, and manipulate itself into and out of enclosed areas. Considered the Houdini of the ocean, some octopi have been
known to open jars, unlatch locks, and even work their way out of an enclosed aquarium.

Jellyfish drift along reef currents, waiting to sting their prey. These silent creatures can be as deadly as they appear peaceful.

Other reef invertebrates include crabs, snails, sea cucumbers, and sea urchins.


**Marine Mammals**

There are several species of marine mammals that make their home in the coral reef. One of the most intelligent and friendliest sea creatures is the dolphin. Dolphins can be seen from shorelines jumping in groups or in pairs. Another sea mammal is the whale. Although many are known to live in colder climates, some, including killer whales, make their home along the coral reef. Manatees are very large, slow-moving, and graceful
mammals of the coral reef. They are an endangered species, and laws are in force to protect this peaceful animal.

Among the most entertaining reef mammals are sea otters. These playful creatures are very social, and can be seen bobbing in and out of the water, playing games, or floating lazily on their backs. Sea otters are also protected by federal regulations to ensure their survival.


**Marine Reptiles**

The coral reef is home to several marine reptiles. Marine reptiles breathe air, but spend most of their time in the water. One of the most common marine reptiles is the sea turtle. Sea turtles can grow to be very large and live for several decades. They lay their eggs on the beach, then the hatchlings instinctively make their way to the sea.
Another marine reptile is the sea snake. Sea snakes are the most venomous snakes in the world. While many make their home in the coral reef, according to National Geographic, new research suggests that sea snakes can travel hundreds of miles during their lifetime, drifting along the sea currents.

Saltwater crocodiles are among the most formidable marine reptiles. They are considered the largest of all crocodile species, and can grow to six meters in length. Saltwater crocodiles dispose of excess salt through special salt glands. They have extremely powerful jaws and can run and swim very fast.

Source:

http://www.seasky.org/coral-reef-life/marine-reptiles.html and
Famous Coral Reefs

Great Barrier Reef

Set along the east coast of Queensland, Australia, the Great Barrier Reef is a system of several reef communities that stretches over 1,250 miles, and encompasses approximately 135,000 square miles. It is the largest living structure in the world. In 1975, the Great Barrier Reef Marine Park was designated and remains the world’s largest national marine sanctuary. About two million people visit the reef each year.

Many species of reef animals populate the Great Barrier Reef. Among this vast reef system’s inhabitants are over 2,000 species of fish, 4,000 species of mollusks, and 250 species of shrimp. In addition, it is estimated that over 400 species of coral live in the reef.


Red Sea Coral Reef

Another famous coral reef is the Red Sea Coral Reef. Situated along the northern coast of India, this reef system is mostly made up of fringing reef platforms that are over 5,000 years old. Parts of the
reef system also extend along the coasts of Egypt, Saudi Arabia, and Sudan. Coral species in the Red Sea Reef are unique in that they can tolerate extreme temperatures and levels of salinity. The waters are also very clear due to the lack of rivers and small amount of rainfall in the area. Home to some 2,000 species of fish, ten percent of the species are found nowhere else in the world.


Florida Reef

Established in 1990, the Florida Keys National Marine Sanctuary is located along the coast of Florida. It is the third largest barrier reef system in the world. The Sanctuary encompasses 2,900 square nautical miles of water along the Florida Keys, stretching from Miami to the Dry Tortugas. The reef is home to vast areas of sea grass, mangrove-fringed islands, and over 6,000 species of reef animals. The Sanctuary also contains objects of historical significance such as shipwrecks and archaeological items. Pictured here is the Northern Light, originally a Great Lakes freighter converted to a barge in 1927 that sunk along the Florida coast in 1930.

Source: http://floridakeys.noaa.gov/explore.html?s=explore