

Fast Facts

COSEE-West

Coral Reef Ecosystems

“It is an astonishing fact that the 1,260 miles of the Great Barrier Reef have been built chiefly by animals only half an inch long: the coral polyps. They consist of nothing more than a sack of tissue with a ring of tentacles and a mouth at the top, but have the ability to secrete hard limestone casings, millions of which form the cores of the Barrier’s various individual reefs.” (Time-Life)

Coral reefs take different forms:

- Fringe reefs (or fringing reefs), the most common type, border shorelines with shallow water separating them from the land.
- Barrier reefs (also called ribbon reefs) grow parallel to shore, but are further offshore in deeper water (about 30 ft or 9 m) with a lagoon between the shore and the reef.
- An atoll is a ring of coral reefs that surrounds a shallow lagoon. Atolls usually begin as fringing reefs and become atolls when the island in the center sinks.
- Patch reefs (also called platform reefs) are small, isolated coral reefs between the shore and the edge of the continental shelf.

Trials and tribulations of reef corals:

1. Overfishing removes fish that graze on algae which can result in algal blooms with algae overgrowing coral reefs.
2. Trawling and dynamiting results in the loss of corals and 3-dimensional reef structure that serves as hiding places and habitat for other organisms.
3. Introduced species can eat corals, overgrow them, out-compete them, increase the spread of coral diseases, or have numerous other direct or indirect impacts.
4. Prolonged periods of warmer than usual ocean waters causes corals to bleach, which can lead to the starvation of coral polyps.
5. Pollution can reduce coral growth and reproduction. Certain types of pollution cause eutrophication, which creates favorable conditions for algal blooms and overgrowth of coral reefs.
6. “Rise of slime” is the idea that people are creating conditions that allow microbes, like bacterial coral diseases, to thrive (“Brave New Ocean”, Dr. Jeremy Jackson)
7. Coral diseases can spread quickly and with the help of people and invasive organisms, they can spread farther and faster than on their own.