DEPLETION OF OUR CORAL REEFS

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Beautiful coral reefs, like the picture shown below, have existed for millions of years in their under sea environment. Unfortunately, with human expansion and the pollution that it causes, the survival of this important and breathtaking ecosystem is being threatened.
The world’s coral reefs cover only about 368,000 square miles, occupying less than three-tenths of one percent of the ocean’s floor. Although the ecosystem is a small one, close to one million species of fish, crabs, eels, mollusks, sponges, worms, grasses, algae, and other marine life call the coral reefs their home.

There are many factors that contribute to the depletion of coral reefs:

- Coral mining - removal of limestone/sand, building materials, tourist souvenirs, and even for snake oil medicines
- Climate - global warming leads to decreased ocean salinity and a rising ocean depth
- Diseases - caused by stress and warmer water temperatures, coral bleaching
- Oil and industrial pollution
- Tourism  - blast fishing
- Sewage  - farm runoff
Vacationers feel privileged to be able to deep sea dive and get a first hand look at the incredible biodiversity that the reefs provide. They are unaware of the fact that just by touching the fragile coral, as shown in the photograph, they are damaging it’s delicate tissue.

These two pictures demonstrate the harmful effects of humans on the coral reefs. The healthy example is presented first and then the aftermath of human involvement shows an ecosystem struggling to survive.
The coral reefs provide homes for many varieties of plants and animals. Many different kinds of fish live in the reefs as their haven for feeding, reproduction, and safety from predators. Without an ecosystem to live in, these fish species will become extinct.

The Nassau Grouper, one of the overfished species along the Caribbean and Brazilian coast.

Coral Reef Fishes

- Nurse sharks
- Golden moray
- White spotted moray
The red dots mark the existence of coral reefs along coast of Florida.

**Florida**

90% of Florida’s coral reefs are said to be dead or dying. Poor freshwater management along with 3 million plus tourists a year don’t help the reefs survive under the harsh conditions. Pollution from boating, agricultural runoff, and leaching of septic systems are also reasons for depletion of corals in Florida.

**Hawaii and the Pacific**

The main problem that Hawaii faces is over-fishing, yet tourism and agriculture also get in the way of complete coral protection. In 1989 the Exxon Houston tanker collided with a reef, destroying miles of coastline with 30,000 gallons of spilled oil. It is impossible for delicate reefs to fully recover from a disaster such as this.
Researchers have been working for years on ways to help save the fate of the coral reefs throughout the world.

Researchers at the University of Guam have cultivated 10 species of coral that they hope to bring to full blown aquaculture. They hope to be able to farm coral so that they can replace destroyed areas, or grow patches to apply to damaged reefs to aid in regeneration.

Scientists take students out to survey the reefs and teach them about the importance of this threatened ecosystem. Hopefully this new generation will be knowledgeable enough to take better care of the precious coral reefs and the ocean around them.
The coral reef situation may not be in perfect condition right now but with the help of many hard working scientists and activist organizations this ecosystem just might have a chance at survival. Humans need to understand that they too are impacted by a part of nature that seems so miniscule. These reefs do not serve as just entertainment on vacation, but they furnish life.

Bibliography

All URLs and cites for pictures, figures, or text information need to be cited. Provide the web site address or title and author of website or text that you referenced.