

Great Barrier Reef is the world's largest system of coral reefs. A coral reef is a type of underwater environment shaped by limestone formations. The Great Barrier Reef is made up of more than 2,000 individual reefs that extend about 1,240 miles (2,000 kilometers) along the northeast coast of Australia (see **Australia** [terrain map]). The Great Barrier Reef is famous for its beauty and for the variety of its wildlife. Many fish, other animals, and plants live on its reefs and in nearby sea-grass beds and *mangrove swamps*, a type of coastal wetlands.

Ocean animals called *corals* form the limestone structures of the Great Barrier Reef. About 400 species of corals occur on the reef. The soft tissues of corals contain single-celled algae called *zooxanthellae*, which help the corals grow and make limestone skeletons. When corals die, their skeletons accumulate and become cemented together to form reefs. See **Coral**; **Coral reef**.

Formation of the Great Barrier Reef began millions of years ago but has been interrupted by drops in sea level during ice ages. About 14,000 years ago, the level of the oceans was lower than it is today, and the reef was above water. About 6,000 years ago, the oceans reached their current level, allowing corals to recolonize shallow coastal areas. Today, the reef is the world's largest marine park. The United Nations recognizes it as a World Heritage Site, an area of unique natural or cultural importance. Its economic value lies mainly in tourism.

The Great Barrier Reef Marine Park Authority works to protect the reef. Such activities as oil exploration and harvesting rare species are outlawed or closely regulated. But the reef remains threatened. Starting in the late 1960's, large, coral-eating crown-of-thorns starfish repeatedly invaded the reef. Pollution from land and rivers threatens near-shore habitats. The populations of turtles, sharks, and sea mammals called *dugongs* have declined. The main threat to the reef today is *bleaching* caused by global warming. Unusually high water temperatures have caused many coral species to lose their *zooxanthellae*, turn white, and die prematurely, leading to a decline in reef building. Scientists predict bleaching will



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The Great Barrier Reef, along Australia's northeast coast, includes limestone formations and a colorful variety of marine life.

reduce diversity among corals and the creatures that depend on them. In 2004, the Australian Parliament passed a law prohibiting all commercial activities, except tourism, in one-third of the reef's area. Terence Hughes

Great Basin is the largest region in the western United States. It has several lakes and streams. Water in the streams either flows to the coast or empties into one of the lakes, where it evaporates. The Great Basin is a region of interior drainage.



WORLD BOOK map

Location of the Great Basin

area rather than into bodies of water. The area is about 200,000 square miles (520,000 square kilometers) in California, Idaho, Nevada, Oregon, Utah, and Wyoming. Trees are limited to the high mountains that enclose the area and to mountain ranges that rise within it. Sinks (low areas that hold water) are in some valleys. The largest are the Great Salt Lake, Carson and Humboldt sinks, and Death Valley in California. Death Valley is the basin's deepest depression.

Great Basin National Park is in eastern Nevada. It lies entirely within the Great Basin region. Established in 1909, the park was created out of Lehman Caves National Monument and part of Humboldt National Monument. The park ranges from high desert to mountain peaks. Wheeler Peak, the park's highest mountain, has 3,063 feet (933 meters) of vertical relief.

Some more than 3,000 years old, grow in the park. Animals that have been spotted in the area of the park, see **National Park System** (table: National Park System).

Critically reviewed by Great Basin National Park

Great Bear Lake is the largest lake in Canada and the fourth largest in the Americas. Only Lakes Superior, Huron, and Michigan are larger. Great Bear Lake covers 1,000 square miles (31,328 square kilometers) in the Northwest Territories. It flows across parts of two of Canada's major land regions, the Canadian Shield and the Northern Cordillera. The lake also lies within the Arctic Circle. Ice covers the lake for about three-fourths of the year.