

The Great Barrier Reef, located off the coast of Queensland, Australia, is the world's largest coral reef system. Composed of over 2,900 individual reefs and 900 islands stretching for over 2,300 kilometres, it is one of the seven natural wonders of the world and a UNESCO World Heritage Site. This vibrant ecosystem is a biodiversity hotspot, providing a home to thousands of species of fish, corals, molluscs, and other marine life.

Unfortunately, the reef is under severe threat from climate change. Rising ocean temperatures have led to widespread coral bleaching events, where the corals expel the symbiotic algae living in their tissues, causing them to turn completely white. While corals can recover from bleaching if temperatures return to normal, prolonged thermal stress leads to mortality. Ocean acidification, another consequence of increased carbon dioxide in the atmosphere, also hinders the corals' ability to build their skeletons. Local threats such as pollution from agricultural runoff and overfishing further compound these issues, making the ecosystem more vulnerable. Conservation efforts are underway, focusing on improving water quality, managing tourism, and researching more resilient coral species, but global action on climate change is considered the most critical factor for its long-term survival.