

THE GREAT BARRIER REEF

Non-chronological report

The Great Barrier Reef is the largest coral reef in the world, making it the only living thing that is clearly visible from outer space. It is one of the seven natural wonders of the world and it was classified as a UNESCO World Heritage Site in 1981.



The colours of the coral reef

Geography

The Great Barrier Reef is located off the east coast of Queensland in the Coral Sea. The reef is 2,300 kilometres long, starting at Gladstone and stretching all the way to Cape York (the northernmost point of Australia). Astonishingly, the reef is larger than Italy! There are over 900 tropical islands in the Great Barrier Reef, which are known for their sandy white beaches. Due to its location, it is sacred to local Aboriginal and Torres Strait Islander groups and it forms a significant aspect of their culture and spirituality.



Map of the Great Barrier Reef

Ecology

The Great Barrier Reef contains over 3,000 individual reef systems and consists of over 600 species of coral. Coral is formed by tiny animals called polyps which are related to sea anemones and jellyfish. There are two types of coral, hard and soft, and these can come in all shapes, colours and sizes.



Left: soft coral



Right: hard coral

The Great Barrier Reef is home to a variety of sea life including some of the world's most vulnerable marine animals. There are more than 1,500 species of fish: the smallest fish is the stout infantfish, which is only 7 millimetres long, and the largest is the whale shark, which can grow up to 12 metres long! In addition, there are 134 species of sharks and rays living in the reef, as well as mammals. The dugong



large green sea turtle

– a slow moving marine mammal related to the manatee – is classified as vulnerable and is one of 30 species of mammals found in the Great Barrier Reef. The reef is also home to 6 out of 7 species of threatened marine turtles, including the large green sea turtle.

Did you know?

The Great Barrier Reef also accommodates some of the deadliest animals in the ocean, including the box jellyfish, blue-ringed octopus and the stonefish.

Threats

Climate change is the greatest threat to the existence of the Great Barrier Reef. Water temperatures continue to rise because of increased carbon dioxide and other gases in the atmosphere; subsequently, the coral suffers heat stress which causes it to release an algae revealing white skeletons. Over time, the coral slowly loses its colour. According to reports, in the space of just five years, shallow water reefs have reduced by 50% as a result of coral bleaching.

Severe weather events also pose a threat to the reefs. Climate change is increasing the frequency and severity of cyclones which cause major damage to the reef; between 2004 and 2018 there were 10 cyclones that caused significant damage to the Great Barrier Reef.

Poorer water quality, as a result of pollution, also threatens coral. In particular, the risk of crown-of-thorns starfish outbreaks increases because of poor water quality and the overfishing of predators. Crown-of-thorns starfish are the world's second largest starfish (growing up to 1 metre) and they feed on nearly all corals, eating up to 90% of the living tissue during an outbreak.

Action

Individuals can take responsibility for improving and maintaining the health of the Great Barrier Reef. If the pollution levels and the rate of climate change were to drop, the reef could remain a safe habitat for the community of living things that call it home.