**Global Distribution**

Mainly located between the Tropics of Capricorn and Cancer in the Pacific Ocean, the Indian Ocean, the Caribbean Sea, the Persian Gulf and the Red Sea.

**Types of Reefs**

- **Fringe reefs**: Form around a land area.
- **Atolls**: Ring-shaped reef in a lagoon.
- **Barrier reefs**: Separated by deeper & wider lagoons.
- **Patch reefs**: Small & isolated grow up from the open bottom.

**Taxonomy of Corals**

- **Phylum Cnidaria or Anthozoa**
  - Subdivided into
  - **Alcyonaria**
  - **Zoantharia**

- In Cnidaria members remain attached & called polyps.

**Threats and Issues**

- **Climate change**: Due to high temperatures the corals cannot survive.
- **Pollution & waste**: Scientists affirmed that due to the pollution and plastic waste the chance for a coral to get the disease is increased from 4% to 89%.
- **Increasing sea surface temperatures**: By 2100, the surface temperature is projected to grow between 2.4°C which can cause coral bleaching.
- **Coral bleaching & ocean acidification**: In 2016/17, the Great Barrier Reef suffered from bleaching which killed around 50% of its corals.
- **Sea-level rise & changing rainfall patterns**: It is caused by global warming and by 2100, the water level will rise over 6 millimetres per year.
- **Oil spill & toxin leakage**: The cruise ships or any other water vessels are not just contaminating the coral reefs but killing them permanently.
- **Damage to the economy**: In 2014, the economic, cultural and social value of coral reefs was at US$1 trillion.

**Biology**

- Corals are animals and not plants or rocks. Many corals are hermaphrodites meaning they have both male and female reproductive organs and can produce eggs and sperm. Whereas, some coral species have separate male and female polyps.
- Coral reefs grow best in warm water (70–85°F or 21–29°C). However, it depends on their types.
- To survive, a reef needs clear, clean, and salty water as well as lots of sunlight.
- Depths between 18 to 91 meters (60-300 feet). Depending on the corals they grow from 0.2 inches to 8 inches.

**Projects around the world**

- **Coral Reef Alliance, NGO’s with the aim to save the world coral reefs.** It works at multiple scales from local to global like in Fiji, Hawai’i, and Indonesia. [https://coral.org/aboutus/](https://coral.org/aboutus/)
- **Great Barrier Reef Foundation's**: Mission is to bring life the Australia’s greatest natural wonder. It is collaborating with the Australian Government and in partnership with the Reef Trust. [https://www.barrierreef.org/what-we-do/projects](https://www.barrierreef.org/what-we-do/projects)

**Save YOUR Reef!**

- Stop overfishing.
- Travel sustainably (Do no touch).
- Do not discard any waste in the water.
- Support your local beach or volunteer in an organisation.
Reference list