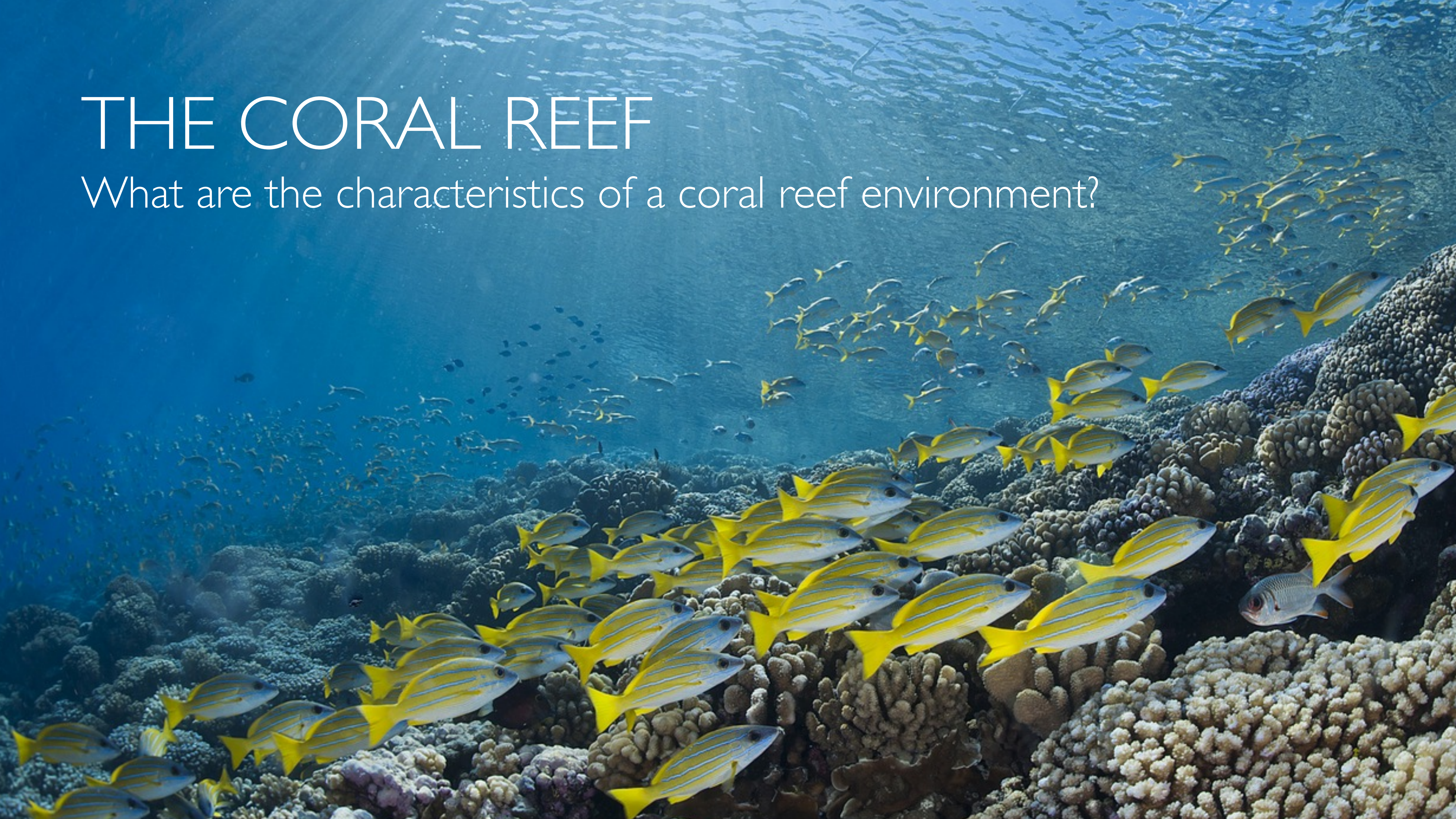


# THE CORAL REEF

What are the characteristics of a coral reef environment?



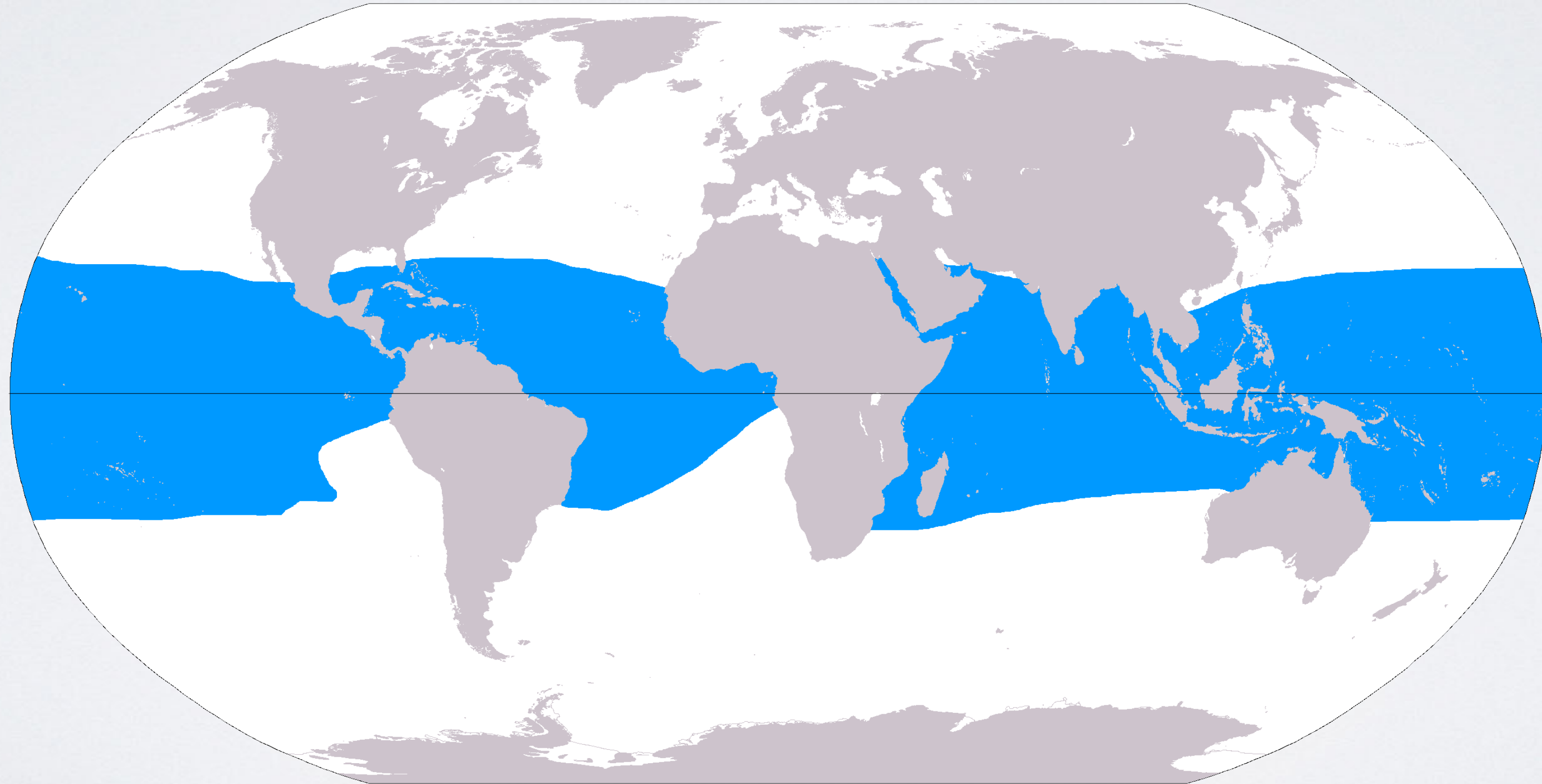
# THE CORAL REEF

- Coral Reef - stony formation that is built up from the ocean floor by living organisms
- Coral reefs are the “rain forests” of the ocean due to their abundance of life



# THE CORAL REEF

- Coral reefs are found in tropical and subtropical waters



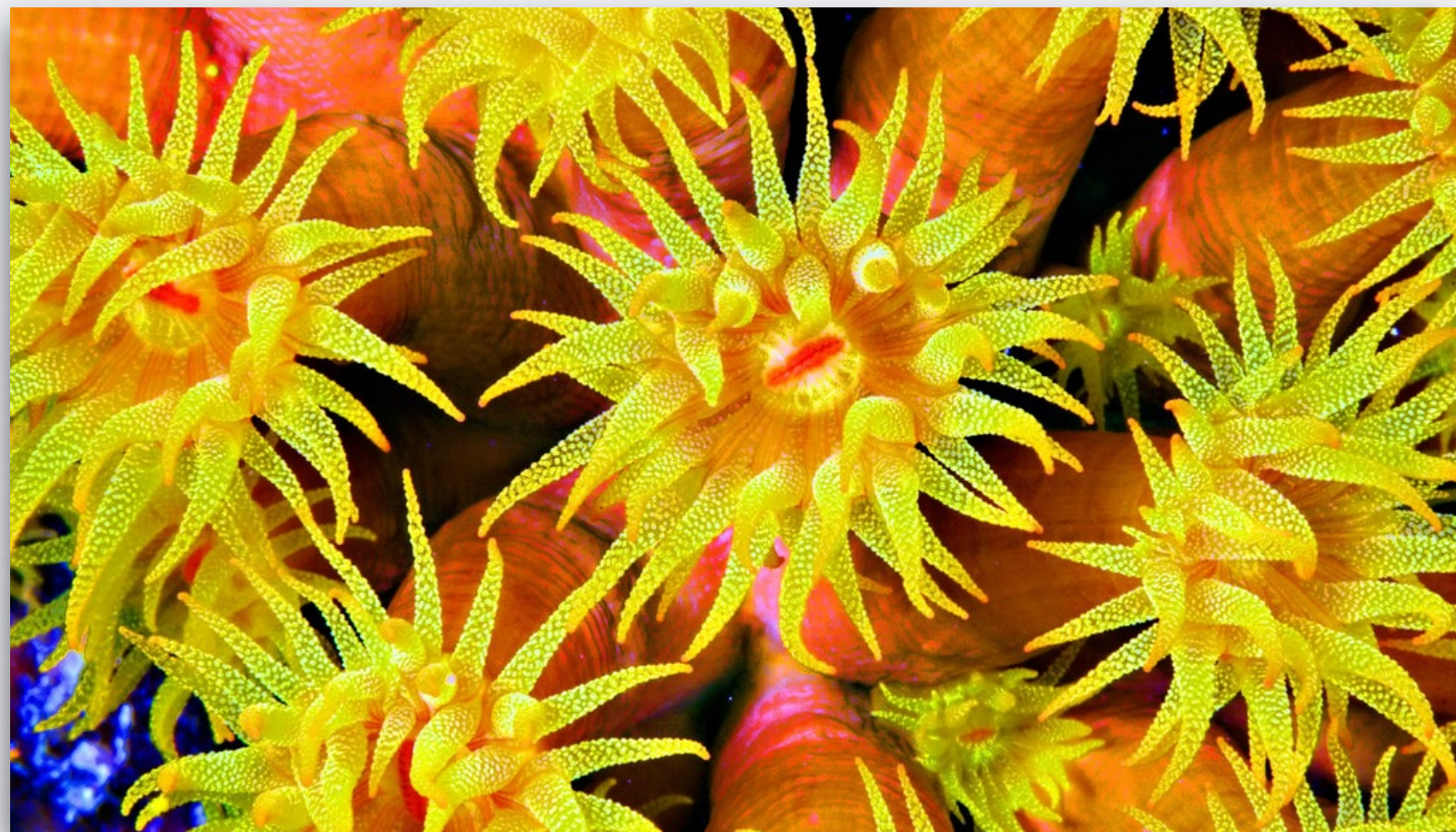
# THE CORAL REEF

- Coral reefs form when coral polyps combine calcium and carbon dioxide in their tissue and excreted calcium carbonate ( $\text{CaCO}_3$ )
  - $\text{CaCO}_3$  is also known as limestone



# THE CORAL REEF

- Coral Polyps - tiny mound of tissue (related to sea anemones and jellyfish) that contains a saclike digestive tracts
  - Responsible for the structure of coral reefs





Time Laps Coral Reefs

# THE CORAL REEF

- Symbiosis - relationship of mutual benefit or dependence
- Most reef-building corals contain photosynthetic algae called zooxanthellae that live in their tissues
  - The coral provides the algae with a protected environment and compounds needed for photosynthesis and in return the algae produce oxygen and help the coral to remove wastes

# THE CORAL REEF

- Coral reefs support a wide variety of marine life with as many as 4,000 fish species living by or in coral reefs world wide
  - Some fish rely on the reefs for protection





# THE CORAL REEF

- Coral reefs are important because they:
  - Provide protection for marine species
  - Preserve an environmental balance
  - Regulate CO<sub>2</sub>



# THE CORAL REEF

- Different types of coral reefs include:
  - Atoll Reef - a string of coral islands that form a circle around a sunken island
  - Fringing Reef - a shallow reef that grows directly from the shoreline and extends right to the beach
  - Barrier Reef - a reef running parallel to the shore but separated from it by a channel of deep water



Atoll Reef



Fringing Reef



Barrier Reef

# THE CORAL REEF

- The largest coral reef is the Great Barrier Reef
  - Located in Australia
  - Can be seen from space
  - 133,000 square miles
  - 2,900 individual reefs



# THE CORAL REEF

Marine life in and around the reef will be cover soon...



Sharks



Sea Turtles



Clown Fish

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