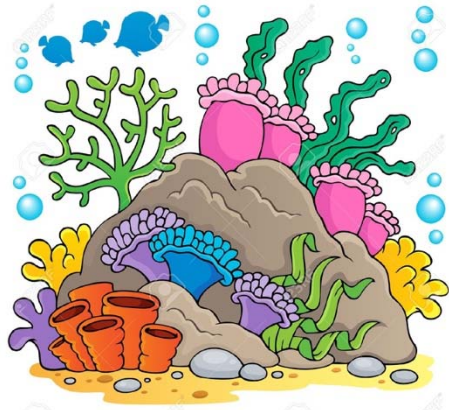


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Coral Reefs: Guardians of Marine Biodiversity in Peril

Coral reefs are vibrant underwater communities teeming with life, and they play a crucial role in supporting marine biodiversity. However, these majestic ecosystems are facing numerous threats, making them endangered. In this passage, we will dive into the world of coral reefs, explore their contributions to marine biodiversity, and shed light on their vulnerabilities. We'll also learn about marine artist, Wyland, whose work has raised awareness about the plight of coral reefs.

Coral Reefs: The Rainforests of the Sea

Coral reefs are often referred to as the "rainforests of the sea" due to their extraordinary biodiversity. These intricate ecosystems are built by tiny animals called coral polyps, which secrete calcium carbonate to create the hard, reef-like structures. Coral reefs are found in tropical and subtropical waters around the world, where they provide vital habitats for a wide variety of marine species.

Contributions to Marine Biodiversity

Coral reefs support marine biodiversity in several ways:

- **Habitats for Many Species:** Coral reefs provide shelter and breeding grounds for countless marine organisms, including fish, crustaceans, mollusks, and sponges. The complex structure of reefs offers hiding places and protection from predators.
- **Feeding Grounds:** Reefs are bustling feeding grounds where many species graze on algae and plankton. This abundance of food attracts a diverse array of herbivores and carnivores.
- **Nursery for Young Marine Life:** Coral reefs serve as nurseries for numerous fish species. Juvenile fish find refuge among the corals, where they can grow safely until they are ready to venture into the open ocean.
- **Biodiversity Hotspots:** Coral reefs are known for their high species diversity, making them biodiversity hotspots. In fact, even though they cover less than 1% of the ocean floor, they are home to about 25% of all marine species.

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Threats to Coral Reefs

Unfortunately, coral reefs are facing an array of threats that endanger their existence:

- **Climate Change:** Rising sea temperatures due to climate change cause coral bleaching, where corals expel the symbiotic algae that provide them with food and color. This weakens the corals and makes them more susceptible to disease.
- **Ocean Acidification:** Increased levels of carbon dioxide in the atmosphere lead to ocean acidification, which hinders the ability of corals to build their calcium carbonate skeletons.
- **Pollution:** Runoff from land, including chemicals, sewage, and sediment, can smother and damage coral reefs. Pollution also introduces harmful substances that harm marine life.
- **Overfishing:** Overfishing of reef species disrupts the delicate balance of coral reef ecosystems by removing key species and allowing others to overpopulate.
- **Destructive Fishing Practices:** Some fishing practices, such as blast fishing and cyanide fishing, directly damage coral reefs and the creatures that inhabit them.

Wyland: An Advocate for Coral Reefs

Wyland, a renowned marine artist, has used his art to raise awareness about the importance of coral reefs and their conservation. His large-scale marine murals depict the beauty and fragility of coral reefs, inspiring individuals around the world to take action to protect these invaluable ecosystems.

