# **CORAL REEFS**

Coral reefs are found in more than 100 countries across the globe, covering close to 110,000 square miles worldwide, but are typically located in tropical and subtropical waters near the surface and sunlight. More than 25% of all marine life on the planet live in coral reefs across the globe, including the Atlantic, Pacific, and Indian oceans. Just one reef has the capability to house thousands of different species. The world's largest coral reef, the Great Barrier Reef, is home to 1,500 species of fish, including sharks and rays, as well as many different species of hard coral, soft coral, and various marine mammals. 25% of coral reefs worldwide are already considered damaged beyond repair, and close to sixty-five percent of coral reefs are under serious threat.



### WHY WE NEED TO PROTECT CORAL REEFS

- Coral reefs support an extraordinarily broad set of marine species and play a critical role in feeding and sheltering these species, as well as sheltering the offspring of large fish species until they can fend for themselves.
- Corals are ancient animals with origins dating back hundreds of thousands of years.
- Plants and animals that call coral reefs home are critical sources of new medicines, including those for Alzheimer's, heart disease, cancer, and other diseases.
- Coral reefs play a major role in industries ranging from ecotourism to fisheries. They also protect shorelines from storms which are increasing in intensity every year due to climate change.
- Coral reefs provide hundreds of thousands of jobs and more than a half billion people rely on coral reefs for jobs, protection against storms, and other benefits. Coral reefs are worth \$9.9 trillion dollars to the global economy.



#### THREATS TO CORAL REEFS

- Climate change is causing ocean acidification, which results in a decrease in pH that bleaches and kills coral reefs.
- Bacteria, chemicals, and other pollutants, including those from agriculture and untreated sewage, threaten the health of coral reefs.
- Overfishing, which includes the use of dynamite and other explosives used to kill fish, upsets the balance of marine life on the reef. Fishnets, plastics, and other marine debris are constant assaults to the reefs and their inhabitants.
- Coastal development, dredging, and sedimentation all lead to reef habitat destruction.



Chemicals such as oxybenzone in select sunscreens are harmful to coral.

# **HOW TO HELP**

- <u>Sign our petition</u> to remove the oxybenzone from sunscreen and do not use sunscreens that contain the chemical, especially when near bodies of water.
- Recycle everything, regardless of where you live (even garbage from inland landfills can reach the ocean).
- Take our <u>pesticide pledge</u>. Stop using all chemical pesticides and fertilizers, regardless of whether you live close to the ocean. Check with your local organic gardening companies to find great alternatives to reef-killing chemicals.
- Become a coral reef volunteer. Educate everyone you know on the importance of coral reefs. If you live near a coast, adopt a coral reef and participate in clean-ups.
- If you dive or snorkel, make sure you avoid damaging corals in any way. Pledge never to take pieces of coral, step on or anchor on coral, and always dive with companies that pledge to protect the reefs.
- Don't buy coral or home aquarium fish unless you know they were legally and sustainably collected.
- Conserve water to reduce runoff and wastewater that eventually ends up in our oceans.
- Help End Plastic Pollution by learning about the actions you can do with our <u>Plastic Pollution</u> Primer and Action Toolkit.
- Check out all of Earth Day Network's resources to help Protect our Species.
- Test your knowledge about threats to ocean ecosystems with our Oceans Plastic Pollution Quiz.

# ADDITIONAL RESOURCES

# **ARTICLES/BLOGS/READINGS**

#### Great Barrier Reef headed for 'massive death' - CNN

https://www.cnn.com/interactive/2018/08/world/great-barrier-reef/

This article is about a scientist who is alarmed by the effects of climate change on the Great Barrier Reef.

#### **Losing Our Coral Reefs -** Columbia University

https://blogs.ei.columbia.edu/2011/06/13/losing-our-coral-reefs/

This article breaks down what coral is and then the threats that are endangering its existence.

# **VIDEOS**

#### **Coral Reefs 101 -** *National Geographic*

https://www.youtube.com/watch?v=ZiULxLLP32s

This video provides a general overview of all the biodiversity in a coral reef, its role in the ocean, and the dangers from increasing water temperatures.



# Scientists Are Breeding Super Coral That Can Survive Climate Change - Vice News

https://www.youtube.com/watch?v=hOsZOpp6x4c

They still look beautiful, but coral reefs are dying at staggering rates — experts project that 90 percent of the world's reefs will be gone by 2050. But a growing group of scientists around the world are searching for innovative solutions to make sure that doesn't happen.

#### **STORYTELLING**

### TED Talk: Why I Still Have Hope for Coral Reefs - Kristen Marhaver

https://www.youtube.com/watch?v=FauPVZxDXxk

It's not too late to act, says TED Fellow Kristen Marhaver. She points to the Caribbean -- given time, stable temperatures and strong protection, corals there have shown the ability to survive and recover from trauma. Marhaver reminds us why we need to keep working to protect the precious corals we have left. "Corals have always been playing the long game," she says, "and now so are we."

# **OTHERS WORKING ON THIS**

#### Oceana

https://oceana.org/

Oceana is an international organization focused solely on oceans, dedicated to achieving measurable change by conducting specific, science-based policy campaigns with fixed deadlines and articulated goals. Much of their work focuses on protecting and conserving coral reefs worldwide.

#### **Coral Reef Conservation**

https://coral.org/

CORAL recognizes that our best chance to save coral reefs is in collaboration with the people who are most closely connected to coral reefs. In partnership with local communities, they take a multipronged approach to restoring and protecting coral reefs.

#### **REPORTS**

# Status and Trends of Caribbean Coral Reefs: 1970-2012 - IUCN

http://bit.ly/2Nk08Zw

Various reports suggested that reefs in the southern Caribbean were in better ecological condition than elsewhere, with more live coral and reef fish. If this were true, understanding why some reefs are healthier than others would provide an essential first step for more effective management to improve the condition of coral reefs throughout the entire Caribbean region.

