

Non-Governmental Organizations

The Passion of Making a Difference in Coral Reef Conservation & Protection

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Environmental NGOs (ENGOS): Conserve, protect and restore natural ecosystems

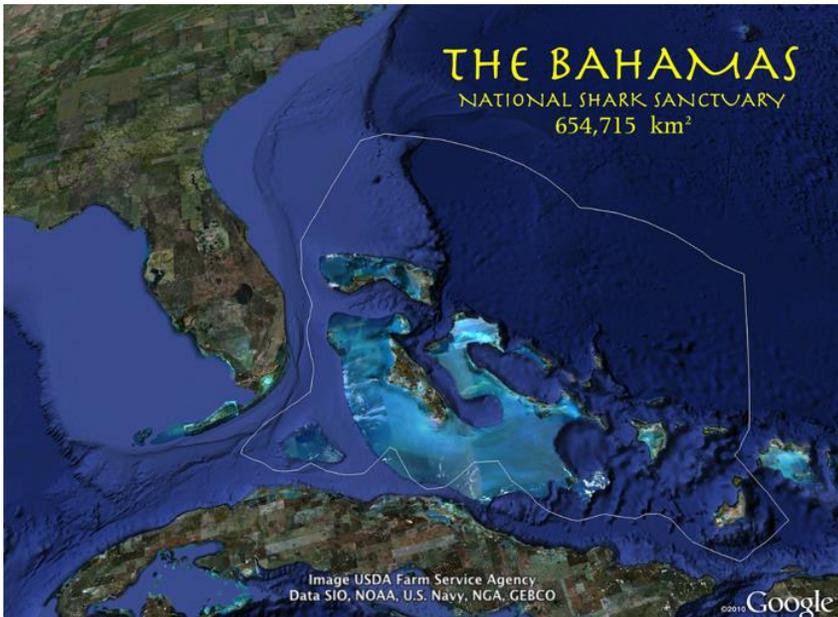


- ▶ Some of the earliest ENGOS were formed after WWII with the creation of the International Union for the Conservation of Nature and Natural Resources (IUCN)
- ▶ In 1946, the United Nations Educational, Scientific and Cultural Organization (UNESCO) was created with the purpose of advocacy and representing scientific issues and collaboration among ENGOS
- ▶ Public surveys reveal that ENGOS have a high degree of public trust which can be a useful proxy for the concerns of society and stakeholders*
- ▶ Powerful collaboration to effect changes in government and corporate America
- ▶ Examples:
 - ▶ Sierra Club
 - ▶ Greenpeace
 - ▶ The Nature Conservancy
 - ▶ World Wildlife Fund

*<http://www.iisd.org/business/ngo/roles.aspx>

Collaboration:

Pew Environmental Group and Bahamas National Trust



- ▶ In 2011, the Bahamas prohibited commercial shark fishing joining Maldives, Honduras and Palau
- ▶ 5000 Bahamians signed a petition
- ▶ Public Service announcements
- ▶ Guy Harvey and Pierre-Yves Cousteau involved
- ▶ The Bahamian sanctuary was created by adding an amendment to the Fisheries Resources (Jurisdiction and Conservation) Act (Chapter 244) to prohibit commercial shark fishing along with the sale, importation and export of shark products

Participatory Process: Hawaii Coral Reef Strategy

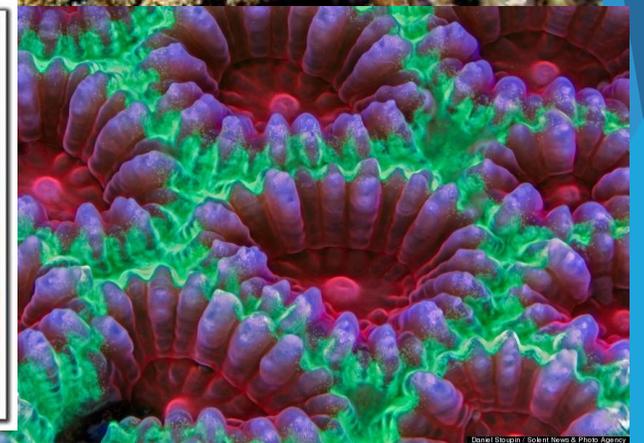


- ▶ The 2010 Hawaii Coral Reef Strategy (HCRS) is the guiding coral reef management document used by the Division of Aquatic Resources' with support from the NOAA Coral Reef Conservation Program
- ▶ The HCRS was developed through a participatory process including DAR staff as well as other agency representatives, academics and NGO partners and regional experts.
- ▶ Used threat-focused Local Action Strategies (LAS)
- ▶ May 2014, the state Department of Land and Natural Resources said “it's strengthening its ability to penalize those who intentionally or negligently damage coral on a large scale”
- ▶ New laws will tighten the state's ability to enforce rules and stiffen penalties for damage
- ▶ Hawaii has a particular interest in guarding against such accidents, since the state has 84% of the coral in the U.S.*
- ▶ In 2009, Hawaii fined a Maui tour company nearly \$400,000 for damaging more than 1,200 coral colonies when one of its boats sank on a pristine reef at Molokini

* *Hawaii Protecting Coral Reefs with Big Fines*, Msnbc, Aug. 2, 2009, http://www.msnbc.msn.com/id/32261272/ns/us_news-environment/ (2009).

What makes Environmental NGOs successful?

- ▶ Visionary leaders
- ▶ Passionate volunteers
- ▶ Commitment to change
- ▶ Stewardship
- ▶ Community focus and ownership
- ▶ Communication
- ▶ Collaboration and partnership
- ▶ Documentation of concerns
- ▶ Credibility



Local NGO: Palm Beach County Reef Rescue



- ▶ Ed Tichenor, Director; background in environmental consulting
- ▶ *Mission: To monitor, preserve, and protect the coral reef ecosystem of South Florida through research, education, and public awareness*
- ▶ Organized: 1990
- ▶ Attributes:
 - ▶ Sense of stewardship; dedicated to grassroots conservation
 - ▶ Attract people with common interests and commitment, willing to make effort without compensation
 - ▶ Collaboration and communication with other NGOs
 - ▶ Network of 1000+ supporters; able to mobilize
 - ▶ Credibility with media and public, able to back up concerns with investigative reports and documentation
 - ▶ Turn frustration and observation into action
 - ▶ Educate elected officials and divers

Palm Beach County Reef Rescue

Milestones and Success Stories:

- ▶ **First to discover Red-Band Disease**
 - ▶ Informed DEP
- ▶ **Delray Beach Outfall**
 - ▶ Six-year crusade to stop the discharge of inadequately treated sewage onto coral reefs became a realization when the Florida House and Senate unanimously approved legislation to end ocean sewage dumping
 - ▶ Divers had observed algae blooms and were able to track the source to the Delray Beach outfall

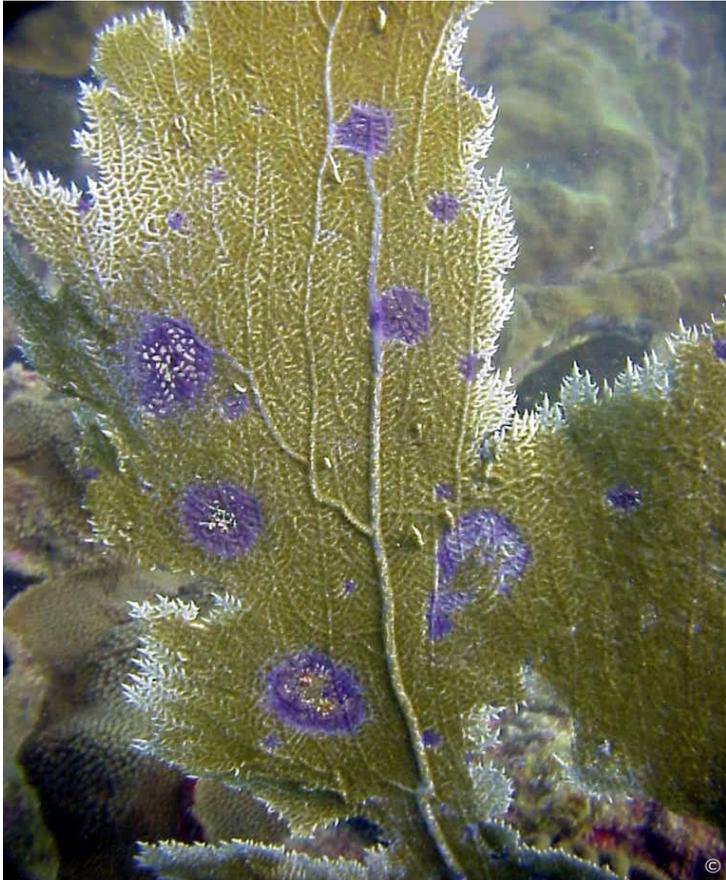


Local NGO: Cry of the Water



- ▶ **Dan & Stephanie Clark, Directors**
- ▶ **Mission:** *Dedicated to the protection of our coral reefs. Members and volunteers donate their time and talent to monitor the health of the coral reef off the coast of Southeast Florida*
- ▶ **Attributes:**
 - ▶ Turn observations into action; tenacity
 - ▶ Bring attention and awareness of reef problems
 - ▶ Zeal to make a difference; investigative work adds to credibility
 - ▶ Video monitoring and documentation
 - ▶ Stay well-informed and connected
 - ▶ Self-education, do not have to be a scientist to affect change
 - ▶ Able to mobilize other NGOs

Cry of the Water



Milestones & Success Stories:

- ▶ First to report Aspergilliosis of Seafans (*Gorgonia ventalina*) in the local waters
 - ▶ Reported to Broward County whose response was “we have not recorded a single disease” and could not identify the disease; took concerns to a Cornell scientist, Dr. Drew Harvell, who validated the *Aspergillus* pathogenic fungus
 - ▶ Documented the disease and monitored the seafans; unfortunately many of the affected gorgonia perished
- ▶ First Environmental Impact Sheet (EIS) for Broward County in 1999
- ▶ Connected the Town of Lauderdale by the Sea with Dr. Tom Goreau of the Global Coral Reef Alliance (GCRA) to install a Biorock Artificial reef

Local NGO: Vönē Research Inc.

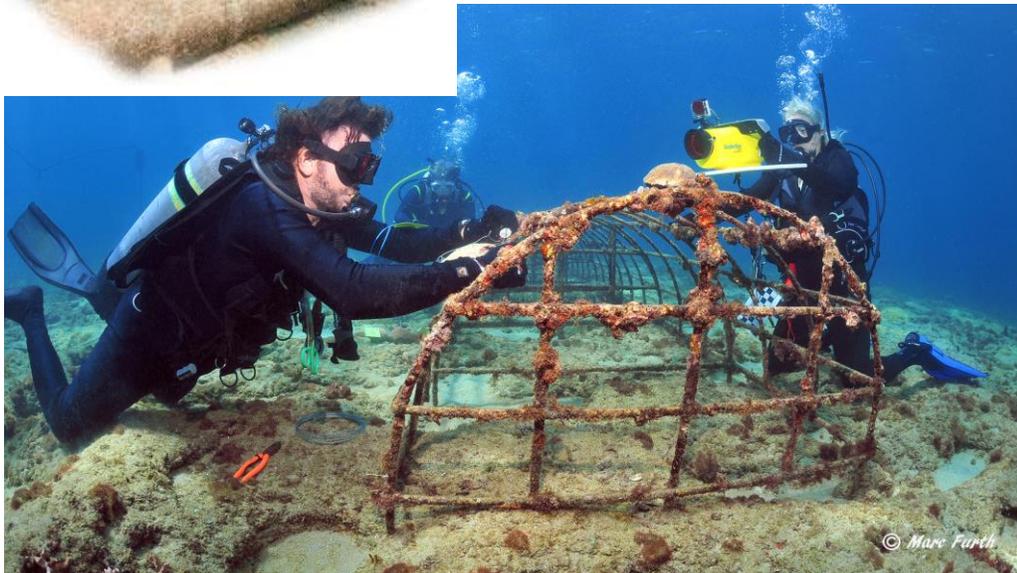
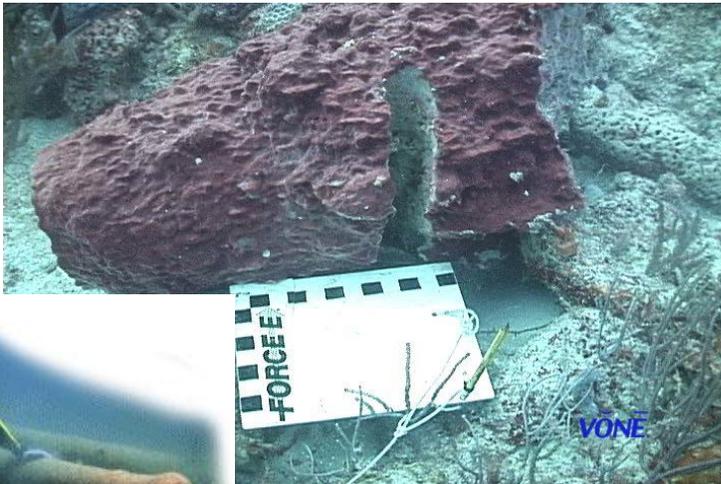


- ▶ Stephen Attis, President & Founder
- ▶ Founded: 1999
- ▶ Mission: *Diving to Make A Difference!*
- ▶ Attributes:
 - ▶ Highly skilled volunteer SCUBA divers that work together to provide research, conservation and preservation of Florida's oceanic, historical and archeological resources
 - ▶ Video documentation
 - ▶ Credibility in the media and public
- ▶ Current Projects:
 - ▶ Biorock Artificial Reef in LBTS ("Coral Reef Fisheries Habitat and Restoration Project")
 - ▶ Special Activity License (SAL) to transplant Corals of Opportunity
 - ▶ Underwater archeology

Võnē Research Inc.

▶ Milestone & Success Stories

- ▶ “Preserving Our Treasures” video
 - ▶ Shown on public television, libraries and welcome centers
- ▶ Stopping the Hillsboro Inlet dredging disaster
 - ▶ Videotaped dredging company damaging the coral reef and submitted footage to Broward County

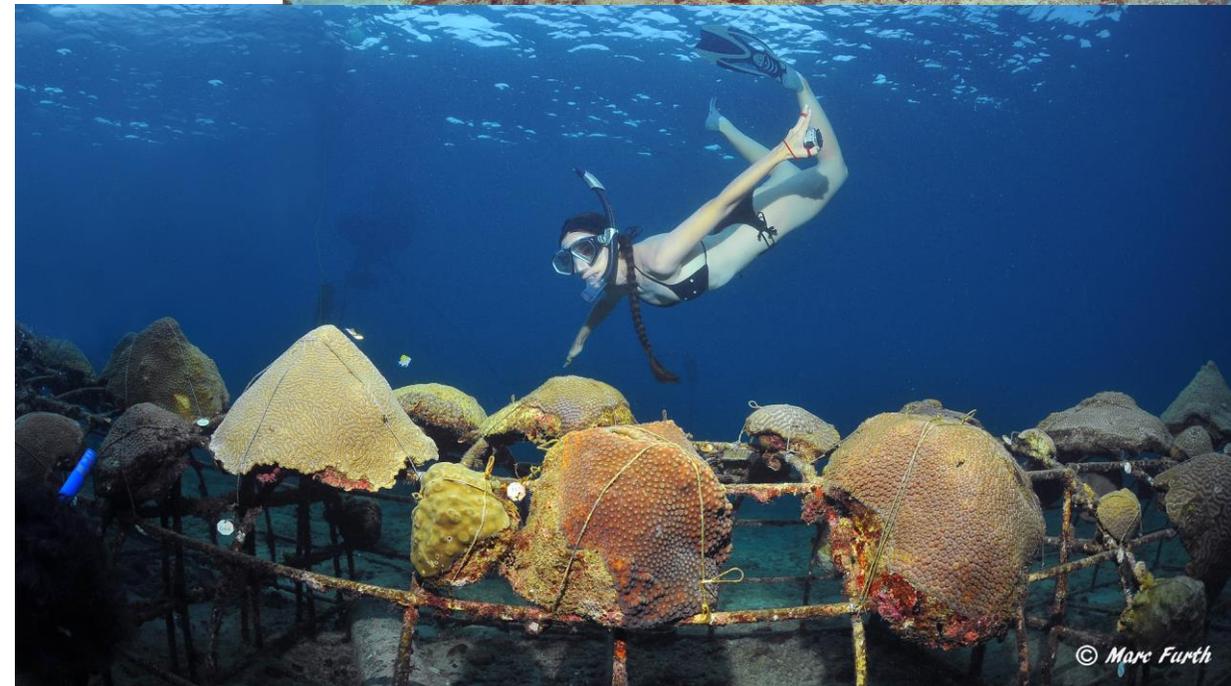


Previous Projects:

- ▶ LBTS Shipwreck Snorkel Trail
- ▶ *Copenhagen* and *Half Moon* shipwreck videos for Florida Bureau of Archeological Research
- ▶ Relocation of *Copenhagen* kedge anchor to plaque site
- ▶ Mapped and authenticated the bow section of the *Gil Blas* shipwreck
- ▶ Repair of coral damaged by cable and anchor drags and ship groundings
- ▶ Reef Monitoring; Elkhorn and Staghorn coral mapping

Biorock Artificial Reef Project

- ▶ Located in the Town of Lauderdale by the Sea, first of its kind in the US using Biorock technology
- ▶ Cry of the Water worked for 7 years on permits along with Marc Furth, former LBTS Commissioner
- ▶ Solar panels attached to 2 buoys use sunlight to provide a low trickle voltage to 6 rebar structures cemented to the seafloor
- ▶ Photovoltaic charge precipitates the growth of solid limestone (calcium carbonate) over the metal structures
- ▶ The supplied electrical charge causes the limestone to grow over the metal surfaces similar to the way corals use energy to make their skeletons from naturally dissolved chemicals in the sea
- ▶ Under full power since December 2012
- ▶ Special Activity License (SAL) to transplant corals of opportunity
 - ▶ 12 species approved
 - ▶ 85 transplants on structures
- ▶ 1000's of volunteer hours; installation, physical and biological monitoring and maintenance done by Vonē Research



NGO Outreach

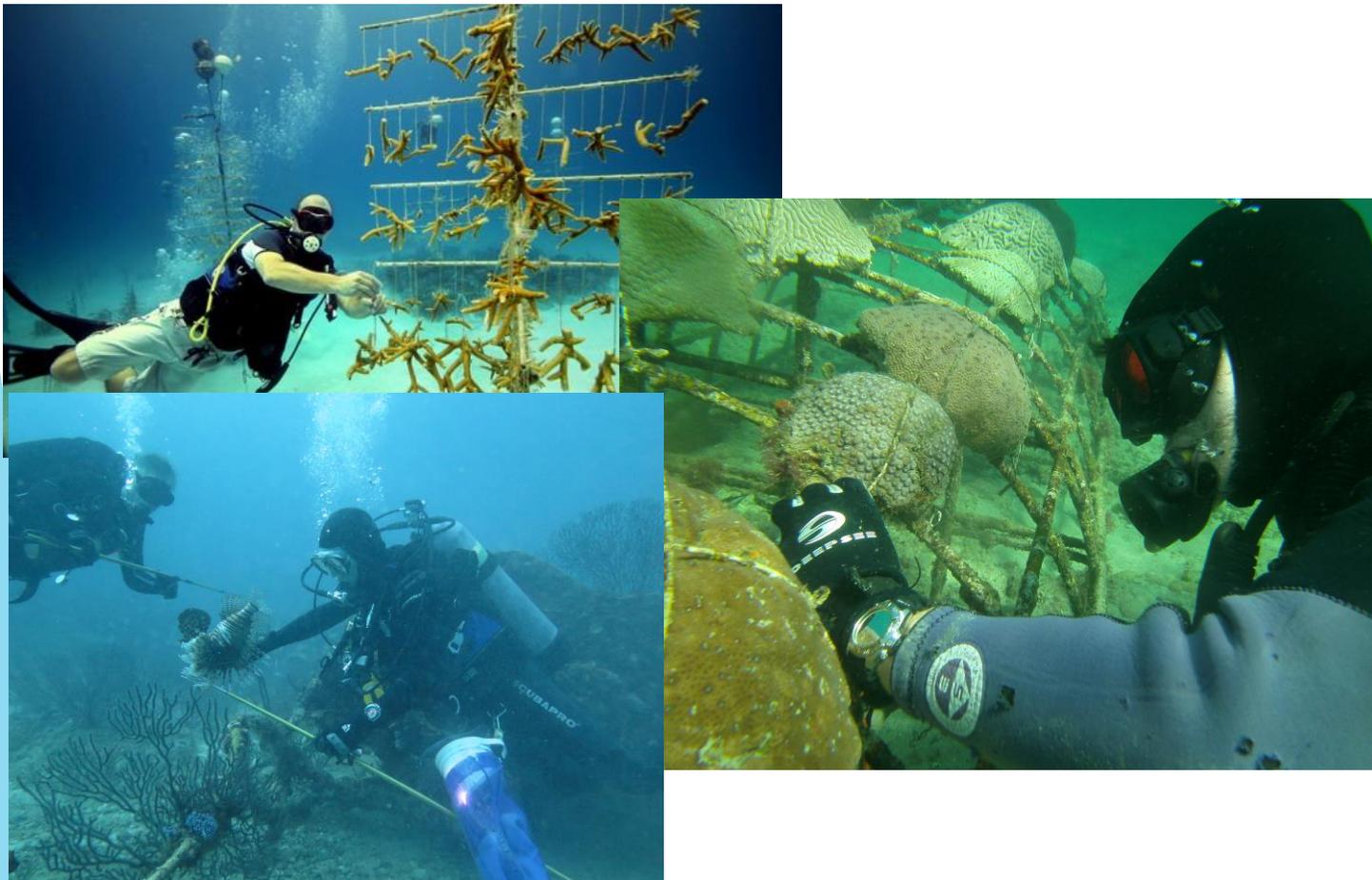
NGOs Consulted:

- ▶ Coral Restoration Foundation
- ▶ The International SeaKeepers Society
- ▶ Ocean Defenders
- ▶ Florida Coastal and Ocean Coalition
- ▶ Sierra Club
- ▶ Palm Beach County Reef Rescue
- ▶ Cry of the Water
- ▶ Vönē Research Inc.

Questions:

- ▶ How does your group interact directly and indirectly with coral reefs?
- ▶ What are the group's key concerns regarding coral reefs?
- ▶ What does your group want to see happen with coral reefs? (i.e. management, short and long term goals?)
- ▶ What would your group like to see happen via the OFR/SEFCRI community stakeholder process currently underway?

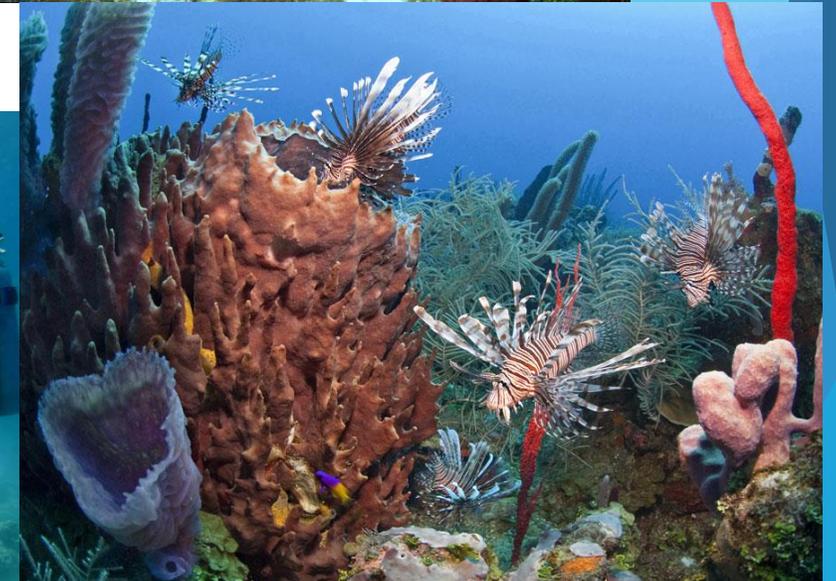
How do NGOs interact with coral reefs?



- ▶ Coral nursery and restoration
- ▶ Coral transplantation
- ▶ Reef monitoring
- ▶ Lionfish “collection”
- ▶ Coral tissue collection
- ▶ Advocacy
- ▶ Funding
- ▶ Research
- ▶ Education
- ▶ Recreation

NGO Coral Reef Concerns

- ▶ Habitat biodiversity decline
- ▶ Anthropogenic damage (divers, anchoring)
- ▶ Mismanagement
- ▶ Tourism impact
- ▶ Oceanic construction accidents
- ▶ Shoreline modification, dredging
- ▶ Acidification
- ▶ Invasive aquatic species
- ▶ Pollution, trash
- ▶ Population growth
- ▶ Toxic discharge and urban runoff
- ▶ Overfishing
- ▶ Lack of enforcement of laws
- ▶ Temperature and climate change
- ▶ Turbidity



Coral Reef Conservation & Management

- ▶ Better/stronger enforcement of current laws
- ▶ Reduction of man-made stressors
- ▶ Increased number and size of MPAs
- ▶ Coral reef research and monitoring
- ▶ Raise public awareness and education
- ▶ Fishery studies
- ▶ Preserve essential habitat
- ▶ Increase number of mooring buoys and their maintenance
- ▶ Support artificial reefs
- ▶ Establishment of no-take zones
- ▶ Advocate for protection and restoration of coral ecosystems
- ▶ Positively impact management and policy decisions
- ▶ Mimic other successful development and implementation plans

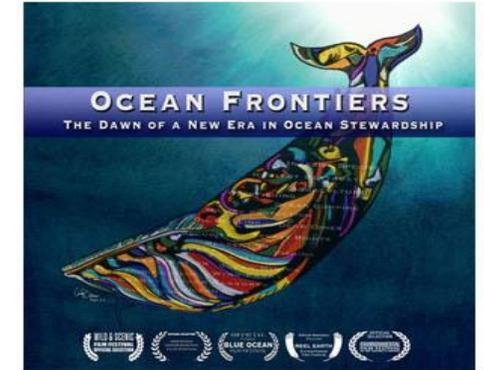




OCEAN DEFENDERS ALLIANCE
Working for a debris free sea



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NPO/NGO Stakeholders
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