



Coral Reefs, Our Community & Restoration Programs

January 2014





About Mote Marine Laboratory

Founded in 1955, Mote Marine Laboratory is an independent nonprofit (501(c)3) marine research organization based in Sarasota, Fla., with field stations in Summerland Key, Key West, Boca Grande, and Charlotte Harbor. We are dedicated to today's research for tomorrow's oceans through the study of marine and estuarine ecosystems. Mote's scientific research focuses on sharks, sea turtles and marine mammals, coral reefs, the study of toxins in the environment and their effect on human health, aquaculture, coastal ecology and fisheries enhancement.

The Florida Keys National Marine Sanctuary Home To The 3rd Largest Living Coral Reef System On The Planet



Coral Reefs...the Foundation and Lifeblood of our Oceans....





Why are our Coral Reefs so important ?

Coral Reefs support as much as 40% of all the marine life on the planet and it is estimated that as much as 50% of the marine life in the Florida Keys depend on coral reefs at some point in their life cycle or benefit from coral reef habitat.

Our reef system is important to everyone in the Keys and Key West.



Our coral reef system provides:

Nature's Protection

Coral Reefs Provide natural protection from Tropical Storm & Hurricane wave energy. Healthy reef systems slow waves down and help minimize their impact on land.

Degraded Reefs, such as we have now, allow storms to have greater impact on our shoreline.



Tourism & Commerce:

Our coral reefs provide:

- 739,000 people/yr. snorkeling and 2.8m days of diving.
- 416,000 people/yr. fishing - 2.1m days fishing - \$725 million
- 620,000 people/yr. viewing wildlife – 2.7m days nature viewing
- Marine outdoor activity generating \$2.36 billion annually in sales/output – 63% of Monroe County economy



Jobs and Our Economy

- Shrimp, spiny lobster, stone crab and fin-fish and marine life collection - \$100M income annually with 4,310 jobs
- \$56M/yr. in commercial seafood landings in Key West alone.
- Marinas, boat yards, boat sales & rentals, motors - \$225M annually creating 2,995 jobs.
- Over \$1 Billion worth of income to residents – 33,000 full or part time jobs – 58% of all jobs in Florida Keys & Key West



Condition of our Coral Reefs:

Since the 1970's, it is estimated that we've lost as much as 90% of our indigenous coral coverage in the Florida Keys, including some species that have experienced a decline of more than 97%.

While unique geographic areas may have experienced smaller declines, the average overall loss is still above 90% in Key West , the Lower Keys, and throughout the Caribbean basin.

Carysfort Reef

Florida Keys 1980



Carysfort Reef

Florida Keys 2011



Discovery Bay, Jamaica 1970



Discovery Bay, Jamaica 2011





Causation

What is causing coral populations and coverage to decline at such an alarming rate?



- **Climate Change /Global Warming**
- **Water Quality/Pollution**
- **Ocean Acidification**
- **Disease Resulting from the Above Stressors**
- **Loss of Keystone Reef Species :
Diadema... AKA Long Spined Sea
Urchins**



What can be done to reverse the decline of coral coverage and reef systems surrounding Key West?

- Reef Restoration Programs**
- Educating the Public on Habitat Protection and Best Practices**
- Water Quality Improvement Initiatives and Protections**

Coral Reef Nurseries









Restoration Science







Our Local Community and City helping to restore our coral reefs

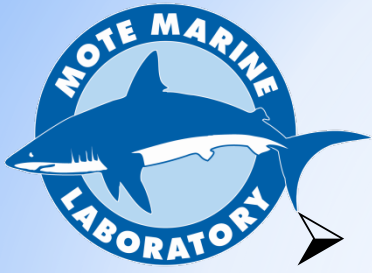
We hope to involve the City of Key West in an effort to promote and support the restoration of our coral reefs.

By ensuring the health of our oceans and reef system, Key West can help attract new and repeat high quality tourism, secure the future of our # 1 marine resource, and help protect our shoreline while supporting quality local jobs and our economy....it's an investment in the future for our entire community.



Ideas to help support the coral reef restoration in Key West

- Designating the Protect Our Reefs license plate as the official conservation license plate of Key West.
- Help sponsor or discount the cost of parking decals for Old Town residents who purchase a plate.
- Engage the cruise ship industry, as impact users of the resource, to help fund the restoration our reefs through a small, per passenger, conservation or ecosystem impact disembarkation fee.



Cont'd:

- Offer coral reef conservation and public outreach signage opportunities in around the Island.
- Promote good water quality conservation practices as a City. (Green vehicles, anti-littering enforcement, etc.)
- Educate local law enforcement to support the protection of restoration areas and the resource.
- Develop a program for all KW residents to purchase a Protect Our Reefs license plate for their personal vehicles at a discount or for free.

**Together, we can make a difference and ensure the future for our oceans and our economy.
We hope you will help support our efforts to restore the precious and valuable coral reefs in the Keys.**





Thank you and please visit our websites

www.mote.org

www.4reef.org

www.reefplate.com

Questions:

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