

MANAGEMENT

An Essential Part of Healthy Reefs

Southeast Florida's coral reefs benefit nearly 6 million people along more than 100 miles of shoreline, provide food and enjoyment to millions of residents and visitors annually, and contribute more than \$5.7 billion in sales and income and 61,000 jobs to the local economy every year.^{1,2} Effective management of these economically and ecologically valuable resources is crucial to our way of life.



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Management of natural ecosystems balances resource use and protection based on the best available science. Coral reef ecosystems need active management to maintain existing reefs, restore those that have been injured, and prevent additional impacts.

Current Management of Our Coral Reefs

The northern one-third of Florida's coral reefs have no comprehensive protection or management plan. The southern two-thirds of the reef are actively managed by Biscayne National Park, John Pennekamp Coral Reef State Park, the Florida Keys National Marine Sanctuary, and Dry Tortugas National Park.

In 2004, Florida's Coral Reef Conservation Program was created to coordinate the Southeast Florida Coral Reef Initiative (SEFCRI) and manage the response to, and prevention of, injuries to southeast Florida's coral reefs. In coordination with SEFCRI partners, the four main threats to southeast Florida coral reefs were identified as:

- **A Lack of Awareness and Appreciation** – Did you know that only half of southeast Florida residents know we have coral reefs offshore? The Florida Reef Tract runs from the Dry Tortugas in Monroe County to the St. Lucie Inlet in Martin County.³
- **Fishing, Diving, and Other Uses** – Dropping an anchor may keep your boat in place while you're fishing or diving, but have you seen what that anchor does when it hits the coral reef? A recent study showed that corals injured from recreational anchor damage didn't heal and the injury worsened after three years, instead of recovering.⁴
- **Land-Based Sources of Pollution** – Is flushing your toilet connected to coral reef health? Excess nutrients from partially treated wastewater outfall discharges may contribute to algal and bacteria blooms that smother corals and can lead to coral diseases – even death.⁵
- **Maritime Industry and Coastal Construction Impacts** – Southeast Florida is known for our beautiful beaches; however, some sand dredging and placement techniques used to maintain our beaches can unintentionally bury or smother corals and may lead to coral bleaching and disease.⁵

SEFCRI has been working to better understand how the four main threats impact the region's reefs and have provided recommendations on some management actions needed to reduce these and other priority threats. Examples of these actions include:

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Photo: Dave Gilliam, Ph.D.

- Working with local counties to install mooring buoys for boaters, divers, and fishers to reduce recreational anchor damage to coral reefs.
- Creating standard coral reef protection conditions for permitted projects.
- Passing the 2009 Florida Coral Reef Protection Act, which allows the state to recover funds from groundings and anchoring incidents and apply these funds directly to restore injured coral reef sites.⁶

Additionally, some of Florida's corals are protected under the U.S. Endangered Species Act, while all stony corals are protected within state waters.

Despite these and other local management actions, an independent study compared southeast Florida's coral reefs to global coral reefs and rated our Florida reefs' status at a "very high" threat level.⁷ In 2006, a SEFCRI study indicated an overall negative impression of the current form of management for southeast Florida coral reefs, and that something different was needed.⁸ In other words, more has to be done. **OUR FLORIDA REEFS** wants to know – how do you want southeast Florida coral reefs to be managed?



M/V Firat, a freighter that ran aground close to shore in Ft. Lauderdale in 1994 following tropical storm Gordon (upper); divers surveying damage caused by a large ship grounding (lower).

Photo: Malcolmb Waranoff and Greg McIntosh (upper); Dave Gilliam Ph.D. (lower)

What You Can Do

To keep this vitally important ecosystem healthy - and our economy that depends on it - we have a shared responsibility to take management actions to reduce the local threats to coral reef health. A comprehensive management approach is essential to ensure that a healthy balance exists between the use and protection of our coral reefs.

Effective coral reef management options do exist, and everyone has a role in the management success and stewardship of Florida's ocean resources. Join **OUR FLORIDA REEFS** to help identify management actions to ensure healthy coral reefs in Miami-Dade, Broward, Palm Beach, and Martin counties.

For more information and to provide your input on the future of southeast Florida's reefs, please visit: www.OurFloridaReefs.org



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OUR FLORIDA REEFS is a community planning process of the Southeast Florida Coral Reef Initiative (SEFCRI), a collaborative, local effort started in 2004 to understand and protect our coral reefs for the benefit of all. SEFCRI is coordinated by the Florida Department of Environmental Protection's Coral Reef Conservation Program.



- 1 Johns, G. M. et al. 2001. Socioeconomic Study of Reefs in Southeast Florida. Hazen and Sawyer Environmental Engineers & Scientists.
- 2 Johns, G. M. et al. 2004. Socioeconomic Study of Reefs in Martin County, FL. Hazen and Sawyer Environmental Engineers & Scientists.
- 3 Shivlani, M. 2006. Coral Reef Needs Assessment Study. Florida Department of Environmental Protection - Coral Reef Conservation Program, Miami Beach, FL. Pp 94.
- 4 Behringer D.C. et al. 2011. Determining coral reef impacts associated with boat anchoring and user activity in southeast Florida. Florida Department of Environmental Protection - Coral Reef Conservation Program, Miami Beach, FL. Pp 66.
- 5 Southeast Florida Coral Reef Initiative Maritime Industry And Coastal Construction Impacts Workshop Dania Beach, Florida May 24-25, 2006
- 6 Florida Coral Reef Protection Act 403.93345
- 7 Burke, L., et al. 2011. Reefs At Risk Revisited. World Resources Institute.
- 8 Shivlani, M., and Villanueva, M. 2007. A Compilation and Comparison of Social Perceptions on Reef Conditions and Use in Southeast Florida. Florida Department of Environmental Protection. Miami, FL. 200 pp.