

FISH

Marine Life Depends on Healthy Coral Reefs

Photo: Jennifer Podis

From the world-class fishing, diving, and snorkeling to the famed ocean-inspired cuisine, southeast Florida's marine finfish and shellfish bring enjoyment to residents and visitors alike. South Florida's reef ecosystem is home to hundreds of different species of fish and other animals, like shrimp, crabs, sharks, lobster, and more.

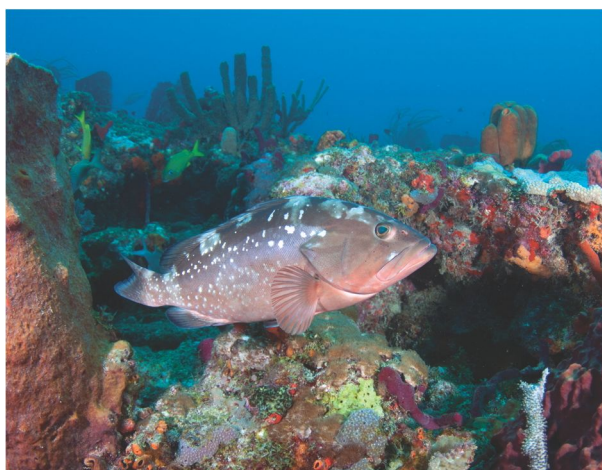
Many reef fish depend on Florida's coral reefs, nearshore hardbottom, seagrass beds, and mangroves to maintain growing populations. Popular seafood species like snapper, grouper, hogfish, and lobster spend their early life in these other habitats, where food is abundant and they can mature and later return to the reef.

Various reef residents play an important role in our coral reef ecosystems. For example, wrasses, parrotfish, sea urchins and other herbivores help corals by grazing on different algae, which can overwhelm a reef if left unchecked. Larger predators, such as snappers, groupers, barracudas and sharks, also have important roles in the ecosystem. Many of these larger predators are also important to South Florida's economy, as they are targeted by fishermen as game fish and seafood.

The health of these fish is vital to ensuring healthy people, healthy reefs, and a healthy local economy now and into the future. We have a shared responsibility to manage them wisely.



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A red grouper (*Epinephelus morio*) on a southeast Florida coral reef.

Photo: Joe Marino

Current Status of Our Reef Fish

Southeast Florida has historically been known for its incredible fishing. Reef species such as groupers and snappers are coveted for their fighting ability and as seafood; other popular species, such as sailfish, mahi mahi, and tuna, occasionally use the reefs as feeding grounds as well. Revenue and income from fishing-related businesses, both recreational and commercial, are an important part of our local economy.

In southeast Florida, close to five million pounds of reef fish are landed annually.¹ Recreational catches make up more than two-thirds of the total, and in southeast Florida the number of recreational fishermen greatly exceeds the commercial fishers.¹ Recreational fishing catches showed little to no change from 1990-2009 for eight reef fish species studied.²

Commercial fishing catch and effort have dropped over the last two decades. In one decade alone, commercial catches of southeast Florida's reef fish dropped in weight by 50%, and six years later it had dropped by 73%.^{1,2}

Assessing reef fish populations can be difficult, due to the limited amount of data that exists for the southeast Florida region. As a complement to catch data, divers can perform visual fish counts underwater. One of these studies was

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Photo: Joe Marino

conducted in Broward County where over 650 reef sites were surveyed. Their results showed very few snapper and grouper of legal size, and certain types of grouper, including goliath and black, were not found at all.³

Declines in larger predators like grouper and snapper, as well as other important species, may be attributed to a variety of causes. Loss of mangrove, seagrass, and nearshore hardbottom has decreased nursery habitats, limiting the chances for survival for many juvenile fish and crustaceans.

In 2011, scientists reported that according to federal standards, “overfishing,” or taking too many fish, is negatively affecting 10 of 11 reef fish studied, including several types of grouper and snapper.² Overfishing makes it difficult for the few remaining fish to reproduce, and it puts the future of one of Florida’s most famous pastimes at risk.

Land-based pollution, habitat damage from coastal construction, and marine debris can negatively affect southeast Florida’s coastal ecosystem and directly impact our coral reefs and their fish populations. Plus, invasive Pacific lionfish devour our native species and upset the reef’s balance.

What You Can Do

Having a diverse, vibrant ocean ecosystem in southeast Florida is essential for the future health and enjoyment of our ocean resources. Healthy reefs and healthy fish populations are intimately linked and are vital to our food supply and to our economy.

Your purchases at home and on the water have an impact on fish. When you buy seafood, ask where it comes from and if it is considered overfished – don’t buy anything that adds to the problem. Practice fishing, boating, and other activities responsibly.

Volunteer to replant and restore nearshore habitats such as oyster reefs, seagrass beds, and mangroves. Clean up beaches and underwater areas. Educate yourself and others about fishing regulations.

Effective management options to ensure healthy finfish and shellfish populations do exist, and everyone has a role in the stewardship of Florida’s ocean resources. Help identify management actions to ensure healthy coral reef fish populations in Miami-Dade, Broward, Palm Beach, and Martin counties.



Caribbean spiny lobsters are one of Florida’s most important commercial and recreational fisheries.

Photo: Joe Marino

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 Johnson, D.R. et al. 2007. Description and discussion of Southeast Florida fishery landings, 1990-2000. NOAA Tech. Memo.

2 Ault, J.S. and E.C. Franklin. 2011. Fisheries Resource Status and Management Alternatives for the Southeast Florida Region. Report to FDEP.

3 Ferro F et al. 2005. The marine fishes of Broward county, Florida: Final Report of 1998-2002 Survey Results. NOAA Tech. Memo.

