

The Strange Story of the Oculina Bank:

Almost destroyed by shrimp trawlers, now threatened by NOAA — its former protector

The Unique Oculina Reef Bank

Between 15 and 45 miles off the Eastern coast of Florida lies a unique marine world called the Oculina Coral Bank; a deep-water coral reef found nowhere else in the world. Several hundred feet below the surface, a fragile, deep-sea coral called the ivory tree coral, or *Oculina varicosa*, grows slowly.¹ Deep-sea coral like *Oculina* do not rely on sunlight like shallow water corals; instead, they filter their food from the dark water around them.

The reef shelters hundreds of marine species. A single 12-inch coral can host up to **2,000 animals**, including small fish, crabs, shrimp, and mollusks.² Many of these species are important food for larger fish. The *Oculina* corals are also a spawning site for groupers and snappers, which are prized by recreational and commercial fishermen. In short, the Oculina corals create a unique habitat that most marine life in the area depends on.³

Bottom Trawling: the biggest threat then and now

Bottom trawling for rock shrimp began in the 1970s and decimated the Oculina Bank by the mid-1980s. Bottom trawling is the practice of dragging a huge, weighted net along the seafloor to catch marine life that live on the seabed, like shrimp. **Only 10% of the original Oculina Bank habitat survived** intensive trawling.⁴

Saved by NOAA in 1984, remnants of the Oculina Bank have now started to recover. But NOAA is considering a proposal to remove the narrow buffer strip that has protected the fragile corals from the heavy nets of the shrimp trawlers—the nets that destroyed much of the reef decades ago.



Photo Credit: L. Horn, NOAA Undersea Research Center at UNC-Wilmington

Remnants of the Reef Saved in 1984

With this **one-of-a-kind ecosystem down to its last vestiges**—about 10% left—NOAA and the regional South Atlantic Fishery Management Council stepped in to save it. The

Oculina Bank and its surrounding habitat were designated as a “Habitat Area of Particular Concern” in 1984, a designation reserved for important ecologically sensitive places. Finally, the area was protected on paper: it was illegal to trawl, use fish traps, longlines, or anchor.⁵ With the Bank safe from trawling, *Oculina* corals started regrowing. New colonies sprouted on the rubble of their destroyed predecessors, and marine life began returning.

1: Reed, J.K. 1981. *In situ* growth rates of the scleractinian coral *Oculina varicosa* occurring with zooxanthellae on 6-m reefs and without on 80-m banks. Pp. 201-206, In: Proceedings Fourth International Coral Reef Symposium, Vol. 2.
2: Reed, J.K., R.H. Gore, L.E. Scotto, and K.A. Wilson. 1982. Community composition, structure, aereal and trophic relationships of decapods associated with shallow- and deep-water *Oculina varicosa* coral reefs. Bulletin of Marine Science 32: 761-786.



Photo Credit: SAFMC, NOAA Fisheries and ArcGIS.com

Will NOAA Reverse Course as a Favor to Special Interests?

Today, Oculina Bank protections are a success story. But NOAA may rewrite this story into a tragedy. A proposal, pushed by the handful of rock shrimp fishermen it would benefit and the fishery management council, would allow bottom trawling in a strip of seafloor right next to the coral reef, leaving little to no buffer between the trawl nets and the coral.⁶ Sediment plumes from trawling along the edge of the reef could impact the remaining corals nearby and prevent baby coral recruits from settling. Sedimentation is known to stress corals, and these corals do not need another stressor. Worse, wayward trawl nets could crush any coral not choked by the plumes of sediment.

And all of this harm comes with negligible benefit. The benefit to fishermen's revenue, profit, and prices would be so small, that the economic analysis concludes, "these economic effects cannot be quantified."⁶

Opening a portion of the HAPC to trawling is a bad precedent. What would prevent the trawlers from requesting other portions of the HAPC protected areas to be opened? Now is the time to protect these reefs, to allow the corals to recover, to allow the spawning aggregations of important grouper and snapper to recover. Now is not the time to diminish an area that is already protected.

We need your help to tell NOAA what to do

NOAA knows what the right thing to do is: Nothing. This habitat is already protected. At a time when the federal government is aiming to protect 30% of the ocean, we must make sure NOAA does not unwind protections that are already in place.⁷

[Sign the petition](#) to raise your voice against harmful bottom trawling in the world's only deep sea Oculina reef. Sign the petition by visiting at: bit.ly/3IEPF6p.



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3: Reed, J.K., A. Shepard, C. Koenig, K. Scanlon, and G. Gilmore. 2005. Mapping, habitat characterization, and fish surveys of the deep-water *Oculina* coral reef Marine Protected Area: a review of historical and current research. Pp. 443-465, *In* (A. Freiwald, J. Roberts, Ed.), Cold-water Corals and Ecosystems, Proceedings of Second International Symposium on Deep Sea Corals, Sept. 9-12, 2003, Erlanger, Germany, Springer-Verlag, Berlin Heidelberg.

4: Reed, J. K., C. C. Koenig, and A. N. Shepard, 2007. Impacts of bottom trawling on a deep-water *Oculina* coral ecosystem off Florida. *Bulletin of Marine Science* 81: 481-496.

5: George, R. Y., T. A. Okey, J. K. Reed, and R. P. Stone. 2007. Ecosystem-based fisheries management of seamount and deep-sea coral reefs in U. S. waters: conceptual models for proactive decisions. Pages 9-30 in R. Y. George and S. D. Cairns, eds. Conservation and adaptive management of seamounts and deep-sea coral ecosystems. Rosenstiel School of Marine and Atmospheric Science, University of Miami. Miami. p. 324.

6: South Atlantic Fishery Management Council (August 2021), Draft Amendment 10 for the fishery management plan for coral, coral reefs, and hard bottom of the South Atlantic region; Establish a shrimp fishery access area along the northern border extension of the Oculina Bank HAPC: Environmental Assessment, p. 55.

7: Exec. Order No. 14008, 86 Fed. Reg. 7619 (Feb. 1, 2021).