

Florida No-Take Marine Protected Areas

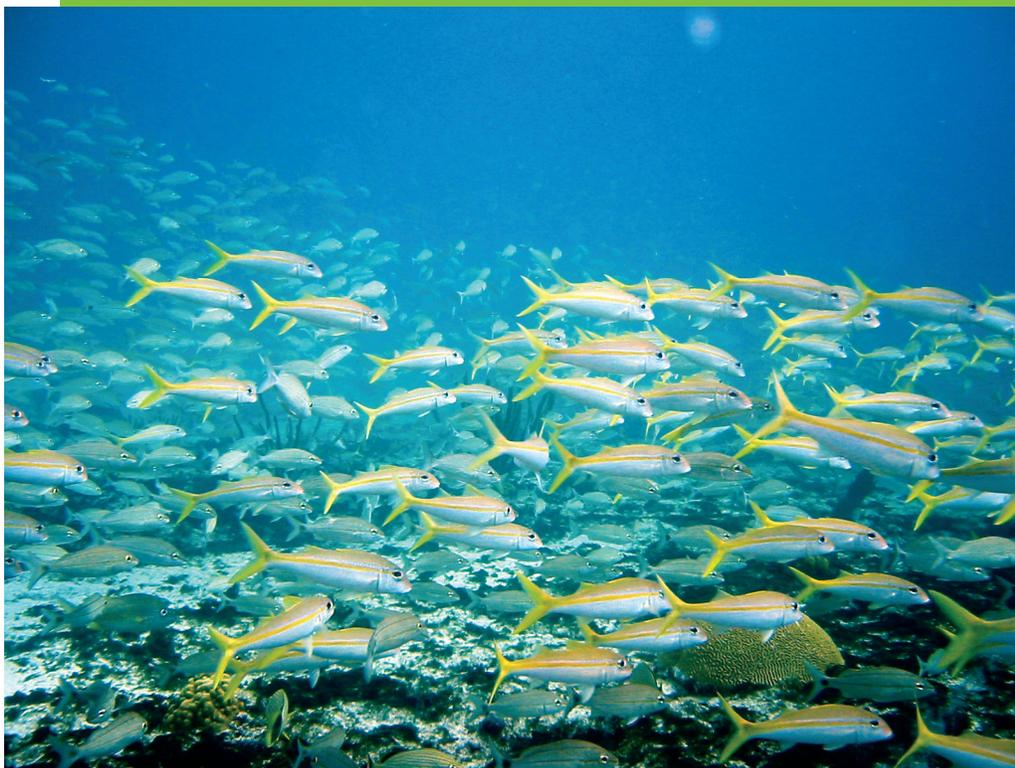
Larger lobsters and world record fish

Marine protected areas are used increasingly to manage marine resources, but they vary widely in the level of protection they provide. Florida marine protected areas include Biscayne National Park, John Pennekamp Coral Reef State Park, the Florida Keys National Marine Sanctuary, and many other national seashores and parks. However, fishing and other extractive uses are permitted within these areas, and pollution, over-harvesting of resources, physical impacts, and other conflicts persist.

Fully protected marine reserves, where no harvesting is allowed, offer the highest level of ecosystem and biodiversity protection. Current no-take zones within Florida waters include the following:

Merritt Island National Wildlife Refuge (located off Florida's central eastern coast). Approximately 22% of the waters of the Merritt Island National Wildlife Refuge, which encompasses the Kennedy Space Center, have been closed to fishing since 1962.

Ecological benefit: These waters show greater abundance, biological diversity and sizes of fish than in surrounding waters. Fish are older, larger, and 2 to 13 times more abundant than outside the reserve. Fish tagged inside the reserve have been later caught outside by recreational anglers, demonstrating a "spillover effect" that benefits surrounding fisheries. Recreational fishermen are catching more world-record game fish near the reserve than in all other Florida waters combined. For example, the rest of the state has yielded no new world records for black drum since 1985, despite a variety of statewide management measures, while areas near the reserve continue to produce bigger and bigger fish.



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Tortugas Ecological Reserve (located approximately 75 miles west of Key West). Established in 2001 and expanded in 2006, the Tortugas Ecological Reserve encompasses a 675 square kilometer area of coral reef and seagrass habitat as no-take reserves. The reserve includes sensitive and important habitat, such as a mutton snapper spawning ground.

Ecological benefit: Larger numbers and sizes of popular fish (such as grouper and snapper) and other marine life have been found within the reserve than in surrounding waters. These larger fish have been documented to move out to other areas of the Florida Keys and to produce more larvae, replenishing fished-out areas.

Sanctuary Preservation Areas (SPA) & Special Use / Research-only Areas (at multiple locations off the Florida Keys). There are currently 18 small Sanctuary Preservation Areas and 4 Special Use / Research-only Areas within the Florida Keys National Marine Sanctuary, which encompass a total 18.4 square kilometers of coral reef and seagrass habitat. The SPAs are primarily designed to protect popular shallow coral reefs. The special use areas are designed for research purposes. The zones, including the Western Sambo Ecological Reserve, comprise less than one percent of the Keys Sanctuary.

Ecological benefit: Significantly more spiny lobster and reef fish are found within these protected areas than in surrounding waters. For example, yellowtail snapper densities increased greater than 15 times in the protected SPAs between 1997 and 2001, than in surrounding waters. Fishermen have caught on to this and have been observed luring fish out of the SPAs with bait. There are also indications that spiny lobsters in the Western Sambo Ecological Reserve are spilling over into adjacent areas, as well as enabling female lobsters to grow to a size that allowing them to produce more eggs than seen outside the reserve.



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