



## What You Can Do

- Become involved with groups that protect and restore these critical coastal habitats
- Help ensure that natural freshwater flows to these habitats are restored
- Support habitat protection and restoration projects
- Act responsibly - don't propellor-scar seagrass beds or damage other habitats
- Write your local, state and federal representatives to let them know fish habitats are important
- Volunteer to take part in habitat restoration projects

## Healthy Habitats Equal Healthy Fisheries

An angler's guide to fisheries habitat conservation and restoration

Restoring America's Everglades, one of the world's unique natural ecosystems, will provide economic, recreational and life-sustaining benefits to the millions of people who depend on its future health. This includes the seven million people who live in the Everglades watershed and rely on its natural systems for their livelihood, food and drinking water.

Florida's agriculture, boating, tourism, real estate, recreational and commercial fishing industries all require a healthy Everglades ecosystem, which supports tens of thousands of jobs and contributing billions to our economy.

Its waters flow through Everglades National Park, Big Cypress National Preserve, Ten Thousand Islands National Wildlife Refuge, Biscayne National Park and John Pennekamp Coral Reef State Park. Together, these parks draw several million visitors each year, contributing hundreds of millions of dollars to Florida's tourism economy.



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## Fisheries Depend on Healthy Habitats

Saltwater recreational fishing in the Everglades region is worth \$991 million per year; the tarpon fishery alone in the Everglades is worth more than \$80 million. Tens of thousands of anglers from Florida and from around the world enjoy the recreational fisheries of South Florida every year. The assumption has always been that these fisheries will be with us forever. But if we don't protect remaining habitats and restore damaged habitats, the future of our fisheries may be in doubt.

The greatest threat to many of our recreational fisheries is habitat loss and damage. This is especially true in South Florida, where years of development have altered, removed, and damaged habitats. As anglers, it is our responsibility to help protect what's left and restore habitats that have been damaged.



## Fishermen Must Get Involved

It used to be that we could go fishing, have fun, go home, and not think about it until the next trip. That is no longer true.

Recreational anglers are the primary users of coastal habitats, and also major beneficiaries. Recreational anglers must become involved in advocating for habitat protection. An economic study by the Everglades Foundation shows that for every dollar invested in Everglades restoration, \$4 are generated in economic benefits. These economic benefits extend to recreational fishing and job creation.



## Concern For Tarpon And Other Gamefish

Like all coastal gamefish, tarpon require healthy coastal habitats.

Tarpon spawn offshore by broadcast spawning – they eject eggs and sperm into the open water where fertilization occurs. The larvae that hatch from the eggs float in the open ocean for weeks to months. The larvae then move into inshore waters, and as they transform into miniature versions of their parents they seek out brackish, mucky, marsh backwaters, like those found in the Everglades. Juvenile tarpon are able to get all of their oxygen from gulping air at the surface, so they can live in mucky backwaters where predatory fish can't reach them. As they grow, they move out of the backwaters and use lagoons, estuaries, and bays, and eventually open ocean as adults.



Loss and damage of juvenile nursery habitats threatens tarpon populations. Alteration of freshwater flows into these habitats changes habitat quality, impacts the organisms that juvenile tarpon eat, and makes it harder for the larval and juvenile tarpon to find the appropriate habitats. And lower water quality and pollutants impact juvenile tarpon growth and survival.

In addition, juvenile tarpon have suffered from loss and damage of habitats. It is estimated that Florida has already lost 50% of its mangroves, which has reduced the amount of juvenile tarpon habitat. And some remaining mangrove habitat is damaged.

Since the amount of available habitat is typically a controlling factor for juvenile fish survival, the loss and damage to juvenile tarpon habitat may be having a negative impact on populations of adult tarpon. This impacts the fishery, so if you fish for tarpon this impacts you.

Older tarpon are also not immune from impacts of habitat damage. The releases of large amounts of polluted fresh water from Lake Okeechobee into coastal waters forces sub-adult and adult tarpon to move elsewhere in search of food and better quality water.



Tarpon serve as an example for all gamefish. Without healthy habitats, all gamefish will suffer. Juvenile snook, for example, have habitat needs very similar to juvenile tarpon. And declines in the health of the Everglades and other coastal habitats impacts redfish, bonefish, permit, spotted seatrout, and other gamefish. By protecting and restoring these habitats, recreational anglers are investing in the future of the fisheries.