

**SHARKED!** RIGS, TACTICS & IDEAS FOR CUTTING BACK ON CUTOFFS

# FLORIDA SPORTSMAN

SINCE 1969

## FIRE UP THE FLATS BITE

USE THE TIDE TO CALL 'EM IN

**CONSERVATION:**

BE A PART OF  
THE SEAGRASS  
SOLUTION



JUNE 2022

SKYWAY  
FISHING PIERS  
KEYS BILLFISH  
AFTER DARK  
WAYPOINT JAX  
BEACH WRECK

MANGROVE  
SNAPPER  
FINDING HOG HEAVEN  
WITH ROD & REEL  
RODS BUILT FOR  
KAYAK FISHING

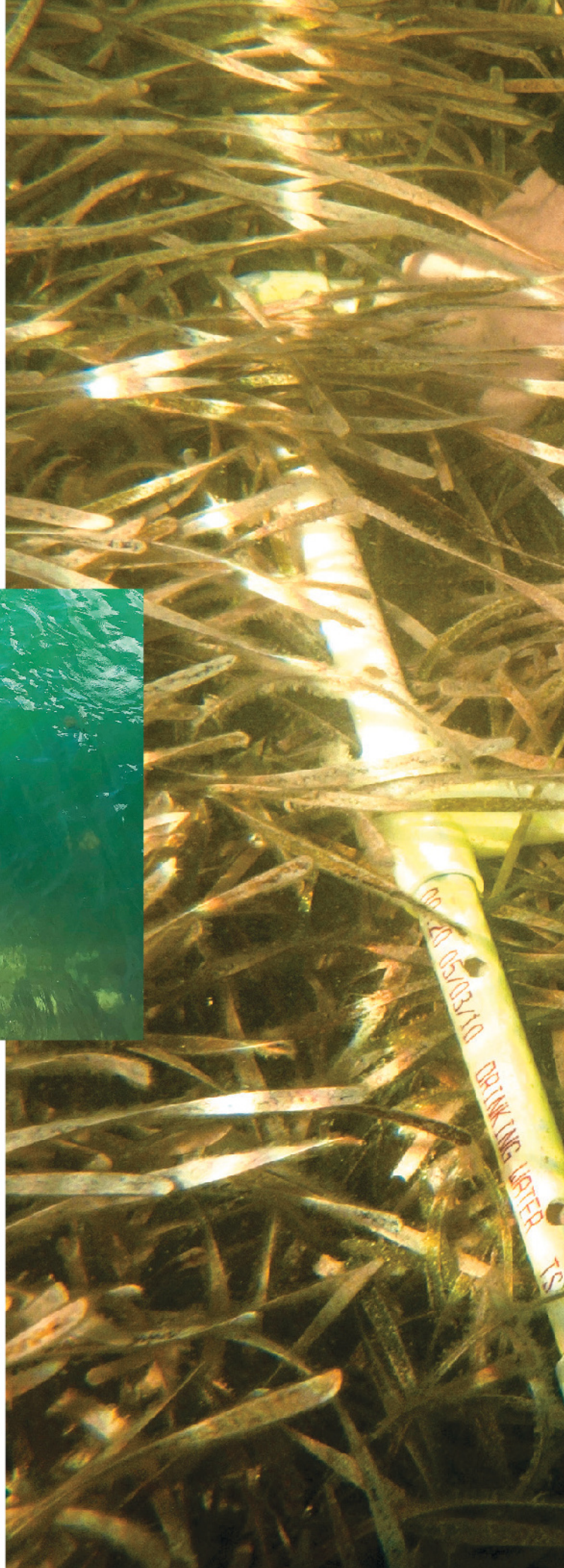
HOW TO CHOOSE  
THE RIGHT SINKER  
NORTHEAST  
COBIA  
PEACOCK BASS  
ON HAIR JIGS

# Bringing Back Seagrass

HOW ANGLERS CAN HELP RESTORE ONE OF FLORIDA'S MOST VALUABLE ASSETS



Manatee photo from Sarasota Bay Estuary Program ([sarasotabay.org](http://sarasotabay.org)).

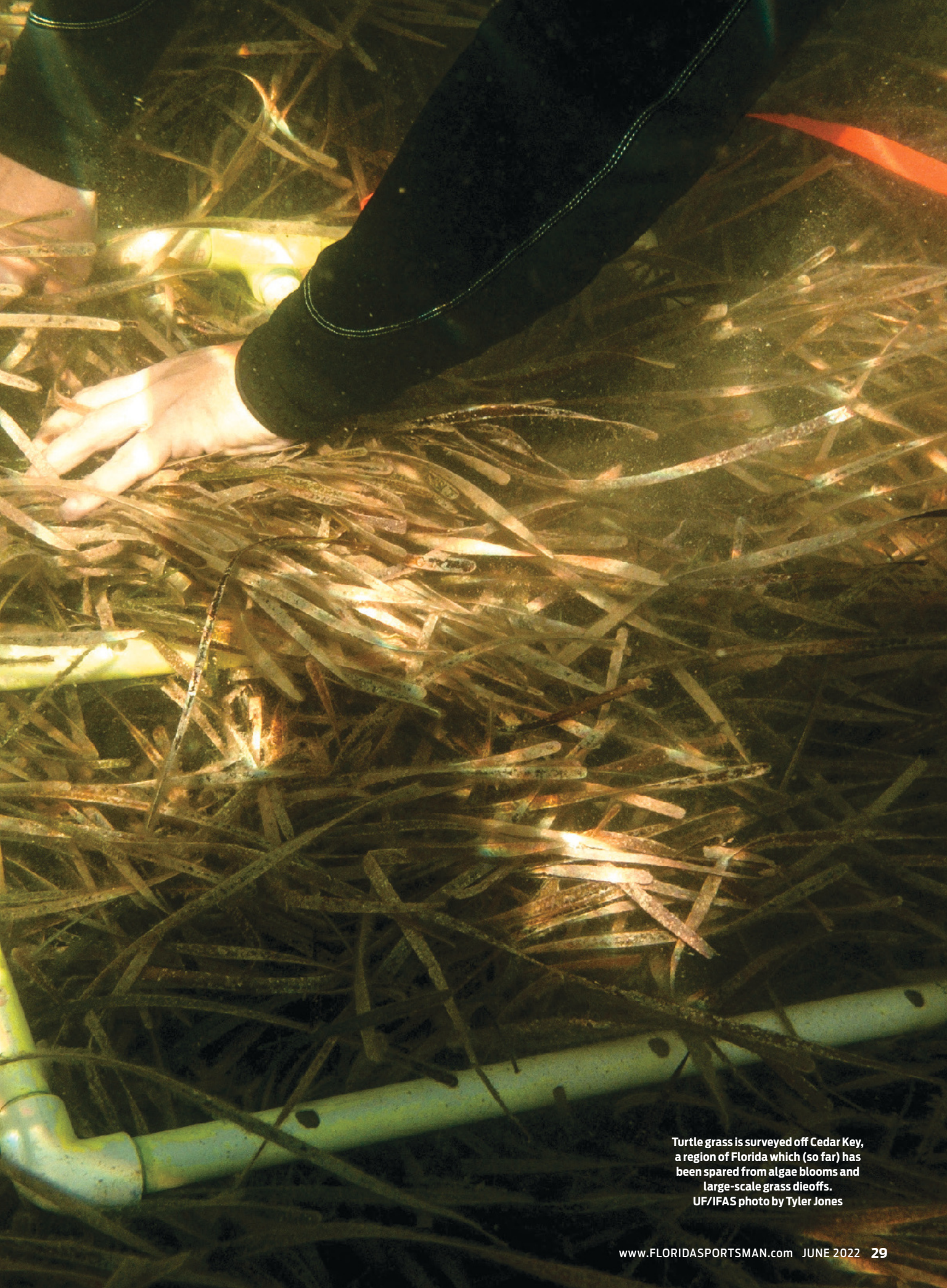


BY NATALIE VAN HOOSE

**I**n 2016, Capt. Benny Blanco fastened his seatbelt for the nearly 500-mile drive from Miami to Tallahassee, fueled by anger. He would have just two minutes at a subcommittee hearing to convince policymakers to amend the quality and flow of water to the Florida Everglades, a region that had captivated him since early childhood.

Blanco didn't relish the idea of public speaking or getting entangled in politics. But eight months earlier, a massive seagrass die-off decimated the once-lush Florida Bay where he had guided since 1998. Crippled by drought and exceptionally high salinity levels, some 40,000 acres of grass were lost, affecting about a third of the bay, the state's largest estuary. Flats that Blanco had fished since he was old enough to tie his shoelaces were stripped bare.

"My life changed. I built my entire business on sight-fishing in Florida Bay," Blanco says. "When we lost that grass, it was a terrible shock."



Turtle grass is surveyed off Cedar Key, a region of Florida which (so far) has been spared from algae blooms and large-scale grass dieoffs. UF/IFAS photo by Tyler Jones

***“The grass is gone. The food chain is disrupted. The lagoon hasn’t the carrying capacity for great numbers of gamefish.”***

Today, seatrout have vanished from places where he could once throw a topwater and “catch trout all day long, 500 to 600 fish.” Bonefish and permit travel more, and snook and redfish are “in a constant state of reassignment,” he says. In the absence of grass, large sharks have enough water depth to cruise into shallow areas and target game fish, altering the ecological dynamic.

Without seagrass stabilizing the seafloor, swirls of sediment often cloud the water column, a problem for Blanco, who now must tar-

get water clear enough to reveal fish.

“I’m constantly adapting,” he says. “Ten years ago, I never worried about what we’re gonna do the next day because there were so many fish and so much habitat.”

Meanwhile, Capt. Mike Conner, a longtime charter guide in Southeast Florida’s Jensen Beach, stopped advertising his services three years ago. The healthy mosaic of manatee, widgeon and shoal grasses that characterized the southern Indian River Lagoon a decade ago has withered in the face of freshwater dis-

charges from Lake Okeechobee.

“The grass is gone. The crustaceans are not there. The food chain is disrupted,” says Conner, now director of the Indian Riverkeeper, a branch of the Waterkeepers Alliance nonprofit organization. “The spawning proclivity of seatrout, snook, and other fish is decreasing. The lagoon hasn’t got the carrying capacity anymore to support great numbers of gamefish. It’s frightening.”

Total seagrass acreage in the 156-mile-long lagoon, once North America’s most biodiverse estuary, has shriveled to about 75 percent of its 2009 levels. Over the past decade, the lagoon has been locked in a deadly cycle of massive phytoplankton blooms and brown tides that coat the water’s surface, blocking light from reaching seagrass below. Fed by the nitrogen and phosphorus in runoff, these microbes have

Researcher from Florida Oceanographic Society in Stuart studies tidal flats once rich in seagrass coverage.



replaced seagrasses as the lagoon's baseline organisms. The consequences of this shift have been startlingly visible in the recent record deaths of manatees, which need to eat about 100 pounds of aquatic plants a day to survive.

Even in Sarasota and Tampa Bays, areas long considered seagrass success stories, meadows are on a downward trend. Heavy investments in water management had caused grass in the bays to increase by 30 percent between 1999-2016. From 2018-2020, however, seagrass acreage dropped 18 percent in Sarasota Bay, 16 percent in Tampa Bay, and 23 percent in Charlotte Harbor. Soaring popula-

tion growth, a devastating red tide in 2018, and nutrient-laden wastewater overflows have put a dent in all six of the local estuaries' seagrass beds.

In total, Florida has lost about 180 square miles of seagrass, the equivalent of eight Manhattans, according to David Tomasko, executive director of the Sarasota Bay Estuary Program.

"It's not just Indian River Lagoon. It's a statewide problem," Tomasko says. Given that every acre of seagrass houses about 19,000 more fish than an acre of bare sand, "that's a hell of a hit to our fisheries."

How did we get here, and are we past the point of no return?

### SEAGRASS WOES HAVE ROOTS IN FLORIDA HISTORY

The story of Florida's seagrass declines begins well over a century ago. In the 1880s, wetlands were drained for crops and cattle and waterways diverted from their natural routes. Lakes in Winter Haven are about five feet lower than previously, and Lake Okeechobee is many feet lower than what it was historically, Tomasko says. During the land boom of the 1920s, engineers also dug a network of finger canals to quickly funnel stormwater off land and into coastal waters, dramatically altering the region's hydrology.

In South Florida, construction of the Flagler Over-Sea Railroad, completed in 1912, and drainage and impoundment of freshwater wetlands upstream of Florida Bay for agriculture overhauled the region's natural water circulation. Today, the bay suffers from a chronic deficit of freshwater, with flows about 60 percent lower than historical levels. This makes the ecosystem vulnerable to drought and exaggerated salt levels, which stress fish and seagrass.

All across the state, development transformed the way water moved over the landscape, shifting away from the old pattern of slow, gradual filtration through wetlands, rivers, and creeks. This artificial waterscape works exactly as originally intended, sending freshwater in new directions and withholding it from waterways to which it typically drained.

In addition, stormwater and wastewater are sent speeding to the coast, transporting fertilizers, herbicides, and other pollutants along the way. Naturally-occurring

microorganisms known as phytoplankton are ready to make use of the free feast of nitrogen and phosphorus these waters bring. While regions like the Indian River Lagoon experienced phytoplankton blooms in the past, their intensity, duration, and timing have shifted over the past decade,

As warmer temperatures set in earlier and last longer, blooms can begin in the winter and run through spring, the peak growing season for seagrasses. "That's cutting off that ideal window for seagrass," says Edward Philips, a University of Florida professor and algae expert. "If they reach really high densities, that's providing the inoculum for next year as well."

Decaying seagrasses provide more fuel for blooms and free up the sediment, which can also release nutrients. This further reduces the amount of light in the water column and makes it difficult for seagrass to regrow, creating a negative feedback loop.

Philips and fellow researcher Charles "Chuck" Jacoby, supervising environmental scientist at St. Johns River Water Management District, have also noticed a shift in the type of phytoplankton dominating the Indian River Lagoon, with smaller species rising to prominence. These can turn over more rapidly, Jacoby says: "They can grow to higher densities, which means they cut out light more effectively."

While Sarasota Bay saw a 50 percent reduction in nitrogen in the late 1980s and 90s, population in the area has grown 70 percent in the last 10 years. Scaling up water infrastructure to accommodate the influx of so many people is requiring an investment of almost a billion dollars, Tomasko says.

"If you're going to have success stories like Tampa Bay, like Sarasota Bay, you got to stay on top of it," he says. "New people means more pollution. If you take water quality seriously, you have to be willing to spend the money to fix the problems."

### HOPE FOR GRASS PERSISTS

While transplanting seagrass can be mildly helpful, long-term recovery hinges on solving the water crises that landed us here in the first place. But most anglers don't have an extra billion dollars they can offer their local county commission to upgrade stormwater and wastewater infrastructure. Is there anything else they can do?

The answer is plenty.

Here are four ways you can play a part in bringing back Florida's seagrass:

#### 1) CONTROL NUTRIENTS AND WATER FLOW AT YOUR HOME

The first step is understanding that in Florida, what happens on land affects the water. Respect local fertilizer bans, and use only the manufacturer-recommended amount of slow-release fertilizers on lawns and gardens if necessary. The nitrogen and phosphorus that feed your flowers also supercharge phytoplankton and can move quickly through soil into Florida's groundwater.



Burlap is used as medium for growing tiny shoots of shoal grass for transplant into estuary near Florida Oceanographic Center.

Native plants often require less irrigation and fertilizers, reducing impacts on waterways.

Blanco refrains from fertilizing his South Florida lawn altogether and trained his neighbors to follow suit. “It rains too regularly in Florida to fertilize,” he says. “It just washes right into our water systems.”

If you irrigate with reclaimed water, keep in mind that it likely contains high levels of nutrients.

“You need about 30 inches of irrigation water which is like basically half an inch twice a week in the dry season. That’s it. You don’t need to even

irrigate your lawn in the wet season,” Tomasko says.

Consider axing weed-killers from your landscaping routine. According to Conner, new research suggests herbicides such as Roundup and glyphosate are draining into coastal ecosystems and contributing to seagrass die-offs. “If that’s the case, whatever we do with Everglades projects and stopping the discharges, it’ll all be for naught if we still keep using these herbicides” in yards, on public property and on golf courses, he says.

To slow the flow of stormwater on your property, point gutters toward grass rather than the street. If you have a septic tank, keep it well maintained, upgrade it, or explore options for connecting to sewer. Septic tanks leak nitrogen and have been implicated in seagrass declines in the Indian River Lagoon and pollution in Florida’s freshwater springs.

## 2) BE A SAVVY BOATER

On the water, make sure you don’t accidentally drag your engine or anchor through seagrass. Propeller scars divide meadows and can take years to heal over.

“You open up the sediment. Now the wave action can get in there and move that sediment around, and that just makes it harder for the seagrasses to fill in that area,” Jacoby says. “If a kid comes over and picks up the new sod in your front lawn every day, you’re not going to get a lawn out of it.”

Pay attention to markers, signs, and tides, and watch out for a muddy trail behind your boat—it could mean you’re scarring a meadow. Tilt or stop your engine, and if you run aground, pole or walk your boat to deeper water instead of trying to motor out.

## 3) BECOME A CITIZEN SCIENTIST

Anglers can also pitch in by joining seagrass restoration efforts at the local level.

The Brevard Zoo works with waterfront property owners to install living shorelines and garden oysters and clams, which filter nutrients from the water. This fall, the zoo will build a seagrass nursery in Melbourne Beach and needs volunteers to help care for the grass, says Olivia Escandel, a Brevard Zoo conservation manager. Volunteers can also plant seagrass in the Indian River Lagoon in the spring of 2023 and

monitor 24 projects over the course of the year.

Florida Oceanographic Society, a nonprofit organization based in Stuart, maintains a nursery planted with fragments of seagrass that have washed ashore. Volunteers can help collect stranded seagrass and make planting units for restoration. FOS also trains anglers to test water quality, contributing valuable data that can help reveal trends in the lagoon and the St. Lucie Estuary.

“There’s so many projects going on, from all the different agencies, all the counties, and the water management districts helping to make it become a more stable system,” says Lori Morris, an environmental scientist at SJRWMD. “But it isn’t going to happen overnight. It is going to take some time for all these things to really start counting.”

## 4) USE YOUR VOICE AND YOUR VOTE

Perhaps the most important way anglers can support seagrass is by speaking up.

“Our water problems are ultimately political problems, and they require political solutions,” says Gil Smart, policy director for Friends of the Everglades and executive director of VoteWater. “That involves educating yourself on what’s going on, voting for those who are going to do better, and voting against those who are going to make things worse.”

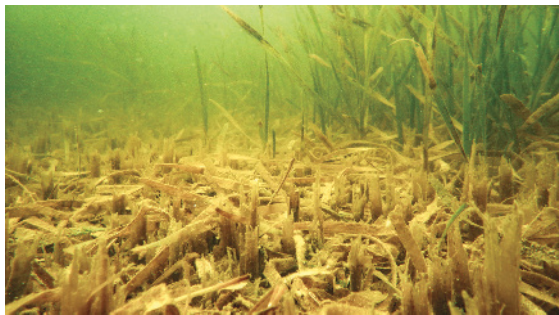
Friends of the Everglades creates reports that breaks down the water policies headed to the Florida legislature. VoteWater produces voter guides that can help anglers evaluate seagrass-friendly candidates and policies, Smart says. The next version will come out in early July ahead of Florida’s August primary.

“Even with all the water quality issues that have become sort of persistent here in Florida, we still continue to pass legislation that’s going to make things worse. It’s just mind-boggling,” Smart says. “We advocate for better political leadership, which is going to prioritize the health of our waterways.”

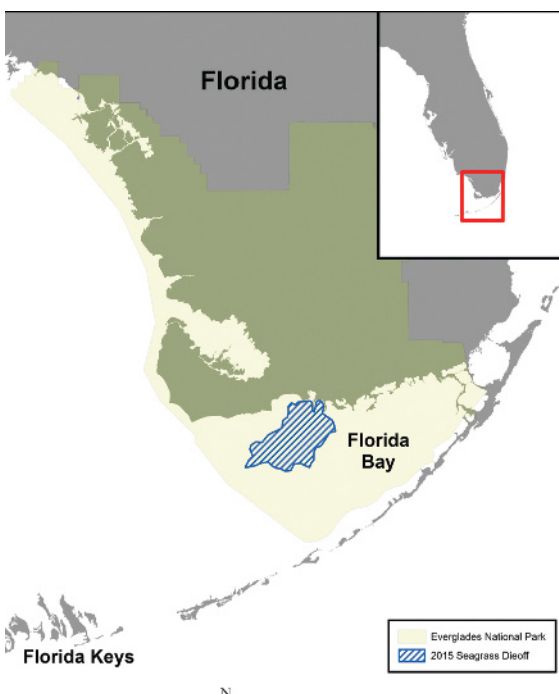
Document and share abnormalities you witness on the water, Conner says: “They need to get on the phone and call the Department of Environmental Protection, their county commission, local legislators, state legislators. They need to go to the top.”

Blanco says four other guides spoke at that 2016 subcommittee hearing. In February, nearly 400 anglers—some with boats in tow—made the trip to Tallahassee to oppose Senate Bill 2508, which would protect the water interests of the sugar industry and threaten Everglades restoration projects. Many, including Blanco, are members of Captains for Clean Water, a group that advocates for policies that enhance water quality.

“I didn’t want to get involved in politics ever,” Blanco says. “I just wanted to be a fishing guide. But I could also not stand by and watch the Everglades die while people just didn’t care. Now we have congressmen and senators who understand the importance of Florida Bay because they caught a redfish on my skiff.” **FS**



Stressed Florida Bay seagrass, top, documented in 2015 by Coastal Fisheries Lab at Florida International University. Middle: Patchy recovery absent algae bloom. Bottom: Map of affected area.



## BONEFISH & TARPON TRUST RELEASES GUIDE FOR BEST BONEFISH HANDLING PRACTICES

IN COLLABORATION WITH LEADING FISHING GUIDES and lodges, Bonefish & Tarpon Trust (BTT) has launched a campaign to educate anglers on the optimum way to handle bonefish to help increase survival rates and conserve healthy populations. The techniques have been developed in concert with some of the top guides in the Florida Keys and Bahamas through years of practice, with the goal of making them standard practice for anglers, guides, and tournaments in order to ensure healthy bonefish stocks for generations to come. The techniques are outlined in a new video produced by Headwake Media and on the campaign landing page, <https://www.bonefishtarpontrust.org/bonefish-handling/>

Bonefish (*Albula vulpes*) is a trophy species for the shallow-water angler, known for its intense power and lightning runs on light tackle. However, these prized sport fish are especially vulnerable to predators post-release.

“Catching a bonefish is one of the pinnacles of a shallow-water angler’s lifetime achievements,” said Dr. Ross Boucek, BTT scientist. “The fishery is economically and culturally important throughout its geographic range, but the fishery can only be sustainable if most fish survive catch and release.”

Research shows that improper handling of bonefish, like excessive handling and removing the fish from the water for more than 15 seconds, can cause up to six times higher rate of mortality after the fish is released. So the less handling of the fish the better. Experienced Keys fishing guides have had success using

dehooking devices because they can release fish without touching them at all, greatly reducing the stress on the fish.

The bonefish handling recommendations are a stepwise process that anglers and guides can follow to help ensure a healthy release for their catch.

1) While photography is an important part of the recreational fishing industry, it can have negative consequences for the fish if done in excess. Photographing all landed fish should be avoided. Leading guides generally recommend photographing one fish per day, and additionally someone’s first bonefish, or a larger trophy fish.

2) If you are not going to photograph a fish, use a dehooker tool to expedite release.

3) If you are planning to photograph a fish, follow these guidelines. A) Remove the fish from the water, supporting the fish from underneath with clean, wet hands (no gloves), leaving the fish over the water. B) Photograph the fish and C) Return it to the water in less than ten seconds. Additionally, being aware of predators in the area is a key factor to a successful release.

Take a quick photo of that special catch, but use the lens of memory to enjoy the others. Photo courtesy BTT.

