

Seagrass



Healthy seagrass meadows are becoming rarer in Florida because of pollution and water mismanagement.

Seagrasses are amazing plants. Did you know that they are the ONLY submerged marine plants that have flowers? They are an actual plant, not a seaweed – like the types of algae that you might have encountered at the beach or offshore. Seagrass meadows are important for the survival of entire ecosystems and entire species. Seagrass grows in calm, sandy environments most often found in estuaries and bays. These areas are often referred to as seagrass meadows or “grass flats.” Grass flats play incredibly important roles. They act as nursery areas for lots of juvenile fish and are important feeding grounds for larger fish. Even sharks can be found swimming in grass flats looking for a tasty snack.

Erosion Control

Seagrasses help in other ways, too. They prevent erosion and sedimentation. Especially during hurricanes and other strong storms, sandy areas are very likely to get washed around or even away when the waves and wind kick up. That makes the water murky and a far from ideal place for many organisms to live. The seagrass roots and “rhizomes” – the horizontal stems that run just below the sandy substrate – help to hold the bottom sediments in place. The thicker and healthier the seagrass meadow, the better it is at erosion control!

Permit and Seagrass

Green plants perform photosynthesis, where they convert light into energy they can use to grow. Photosynthesis creates oxygen as a byproduct, but one that fish and other organisms

- including us - need to breathe. Take in a big, deep breath and thank a tree and seagrass too!

Seagrass is an important food source for lots of animals that live in the areas where it grows. Some animals that live in those areas rely only on seagrass as their food. Green sea turtles and manatees would really suffer if the seagrass is wiped out of an area. Forage fish, especially pinfish, eat seagrasses. In turn, larger fish including tarpon and snook rely on pinfish as an essential food source.

There are many types of seagrass. Turtle grass, eel grass, shoal grass, manatee grass, paddle grass, star grass, Johnson grass and widgeon grass are some species that are commonly found in Florida. Each species has a unique size and shape and each one is very important to the ecosystems where they are found. Some of these grasses, like Johnson grass, are very rare and only grow in specific areas and even then, are hard to find. Johnson seagrass is actually listed as a federally "threatened species," which means that it is very important to keep the areas where it is found growing safe and environmentally secure. Otherwise, the species, and the benefits it provides, could completely disappear.

Permit are a fish that rely on healthy grass flats to live and thrive. This species is extremely important for charter fishermen who make their living taking people to catch these elusive, wary fish.

Permit primarily feed on grass flats and have a unique set of teeth designed to devour their prey. Permit have hard mouth plates that are used to crush crustaceans (crabs and shrimp) and mollusks (oysters and clams). Permit dig into the seagrass and sand below looking for their prey. They are often found in schools of about ten fish, but tend to hunt in solitude once they are older adults.

Permit are a prime example of a species that depends on seagrasses. If the seagrasses disappear, the fish move on to another location. Fishermen and tourism businesses, such as hotels and tackle shops, suffer when permit leave an area due to habitat loss.

The money they make catering to fishermen goes away when the fish go away. This can mean a large economic loss for a community. Permit and seagrass communities have a symbiotic relationship. This means that if the seagrass disappears then so will the permit.



Anglers often first spot a permit when its tall waves above the surface as it roots in the seagrass for worms, shrimp and especially, blue crabs.