



Florida Fish and Wildlife Conservation Commission

Fish and Wildlife Research Institute

These residents of Florida's coastal waters are a popular target of the state's sport anglers. Seatrout depend on seagrass meadows for food and shelter, so habitat protection is an essential element of any seatrout management program.

SPOTTED SEATROUT

Stalkers in the Seagrass

teeth that protrude from the seatrout's upper jaw help the fish seize its prey and can also inflict a painful stab wound to a human hand.

The oldest spotted seatrout reported from Florida was 10 years old, but a 15-year-old individual has been reported from Virginia. The largest seatrout recorded from

Florida weighed 17 pounds 7 ounces and was taken near Fort Pierce in 1995.

Description

The scientific name for spotted seatrout, *Cynoscion nebulosus*, is derived from both the seatrout's canine-like fangs and its spotted body. A member of the class of bony fishes, seatrout are in the same family as drums and kingfish. Spotted seatrout are also known as speckled seatrout or simply "specks."

A spotted seatrout's body can be dark gray to green on the back and tinged sky blue to silvery or white underneath. The first of the seatrout's two dorsal fins is sail-shaped with stiff spines, and the second is long with soft rays. Black spots are scattered across the back and on the dorsal and tail fins. Until they are about two inches long, juveniles have a dark "racing stripe" running the length of their sides. The distinctive pair of canine

Range and Habitat

Spotted seatrout are found throughout Florida's estuarine and nearshore waters in a wide variety of habitats. They also occur along the Atlantic coast from Delaware Bay, rarely as far north as Cape Cod, south to the Florida Keys, and throughout the Gulf of Mexico.

Some of their preferred habitats are shallow, brackish waters over seagrass meadows or other submerged vegetation and above oyster beds or rocky outcroppings. They also reside in deep holes and channels, sand flats, and mangrove-fringed coves and shorelines.

AT A glance	Scientific name	<i>Cynoscion nebulosus</i>
	Size	To 3 feet and 15 pounds
	Range	Cape Cod to southern Florida and throughout the Gulf of Mexico
	Habitat	In and near seagrass beds or other areas with submerged vegetation
	Status	In Florida, recreational management of spotted seatrout stocks is divided into two geographic regions, each with harvest restrictions appropriate for that region; restrictions on the commercial harvest of seatrout are uniform throughout the state





Seagrass beds are a critically important nursery for juvenile seatrout, who find a safe refuge from predators and a plentiful supply of food in the lush underwater meadows. Scientists are working to further define how seagrasses function to enhance seatrout survival and to identify the location of these habitats so that they can be protected—a necessary action for the effective conservation of seatrout populations.

Spotted seatrout do not generally move long distances from the protective seagrass meadows that they inhabit, but occasionally, rapid drops in temperature force them off these shallow flats into warmer deep holes and channels. Seatrout can survive in waters as cold as 40°F. However, sudden declines to these low temperatures can kill them. Seatrout may also respond to salinity variations and may travel toward the saltier portion of an estuary, the mouth, when they spawn.

Life History

Spotted seatrout generally spawn in the summer months, although seatrout in the southernmost, warmer regions of the state spawn during a much longer period. For example, in northwest Florida, seatrout may spawn from May to September, but in the Everglades/Florida Bay area, they spawn almost year-round.

Spawning generally begins at sunset and lasts about three or four hours. In Tampa Bay, spawning typically occurs toward the mouth of the bay, whereas seatrout in the Indian River Lagoon spawn in deeper channels adjacent to shallow grass beds.

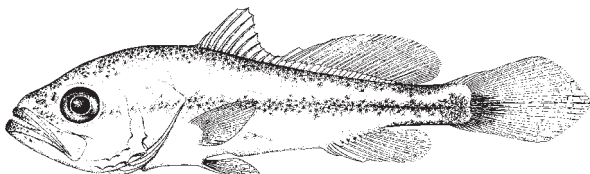
Seatrout larvae have been collected in channels, passes, and seagrass beds and in waters up to 50 feet deep in the eastern Gulf of Mexico.

FAST FACT

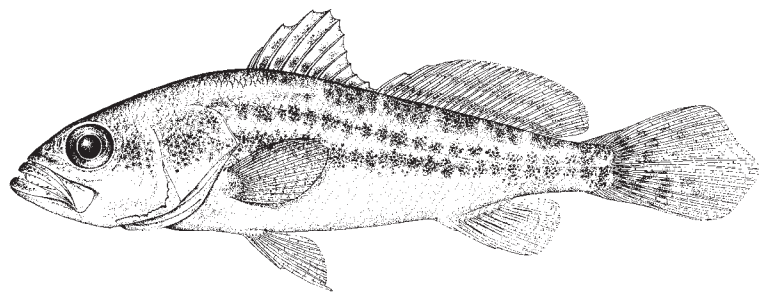
As part of their courtship behavior, male seatrout produce a variety of drumming sounds, which are used by scientists to detect spawning areas.

A female may produce, depending on her size, from 300,000 to 1 million eggs in a single spawn, with bigger fish producing more eggs. On average, females spawn every 4–5 days or roughly 36 times during a 6-month season. Within a day of spawning, the eggs hatch into transparent larvae with undeveloped mouths and an attached yolk sac, which provides nourishment for about three days. After that, the eyes and mouth take shape, allowing the drifting larvae to feed on plankton for the next few weeks before settling into seagrass beds or other habitats. At this point, they are tiny, quarter-inch versions of the adult and have a long brownish stripe down each side, which helps camouflage them within vegetation. By the time these juveniles reach about two inches in length, they have traded this stripe for their familiar spots.

Although juvenile seatrout are most closely associated with seagrasses, they are also found in backwater tidal marshes and low-salinity streams. In fact, scientists believe these areas may serve as a substitute nursery when seagrasses are not available or have been negatively affected by environmental or human-related factors. For



Cynoscion nebulosus early juvenile (0.5 inch [13 mm] Standard Length) in lateral-stripe stage.



Cynoscion nebulosus juvenile (1.7 inches [43 mm] Standard Length) in transition from lateral-stripe stage to spotted stage.



example, coastal Louisiana contains little seagrass, but its sweeping salt marshes harbor an abundance of seatrout.

Males generally mature at the end of their first year, but the later-maturing females grow faster and reach larger sizes. Seatrout grow rapidly in a favorable environment, possibly reaching a length of 14 inches by the age of one year. Males can grow to lengths of about 20 inches, whereas females can reach 25–30 inches or even longer. Seatrout in the Indian River Lagoon grow more rapidly than do those in other areas and attain the largest sizes. Seatrout in northwest Florida are of moderate size and growth rate; those in southwest Florida are generally the smallest and slowest-growing.

Fast FACT

Very large trout, usually mature females, caught in the Indian River are known as “gator trout.”

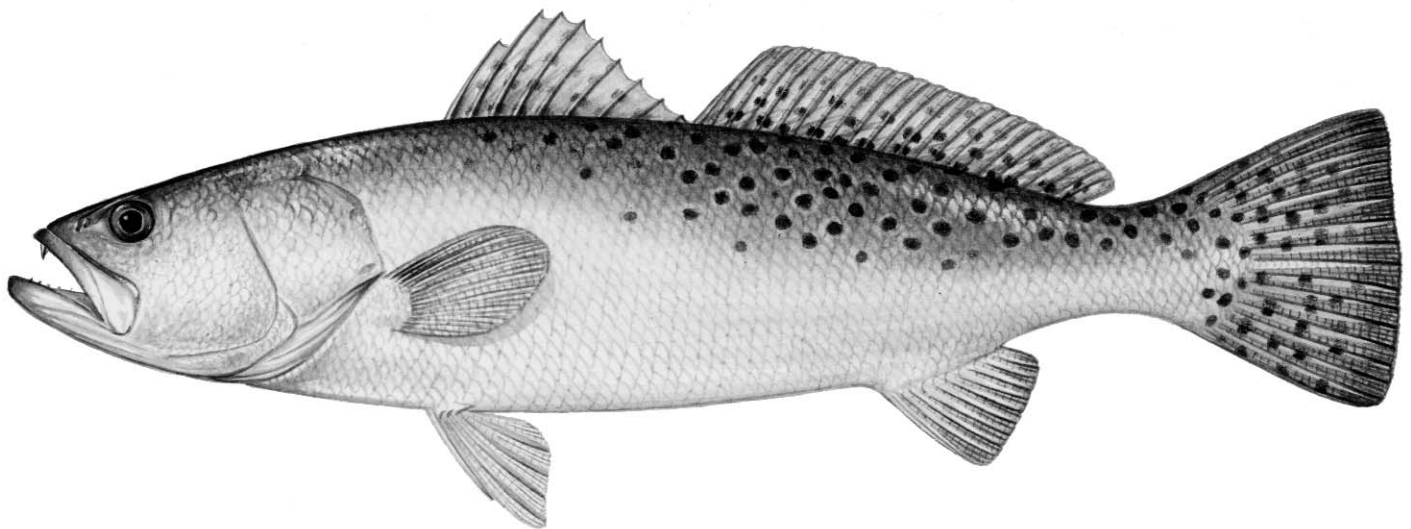
Seatrout often congregate in groups and follow each other around as they search for food. Juveniles eat shrimp and small fish, and adults eat a variety of baitfish, mullet, shrimp, and crabs. Adults may also eat their smaller kin. In turn, many other fish, such as snook, tarpon, barracuda, Spanish

mackerel, and bluefish, prey upon seatrout.

Management Efforts*

Prior to 1952, seatrout were netted mainly as an accidental bycatch of the striped mullet fishery. However, a developing market for seatrout spurred commercial landings of 3 to 4 million pounds per year from 1961 to 1970. Commercial landings then declined to about 1.7 million pounds per year by 1988, probably as a result of fishing pressure and habitat losses associated with shoreline development. Regulations restricting the commercial fishery have reduced harvest to less than 100,000 pounds per year beginning in 1996. In 1988, recreational landings were estimated at 5.5 million fish. Size and bag limits have reduced the recreational harvest; in most years during 2000–2004, between 1 and 2 million fish were landed per year.

*Fishing regulations may change annually. Contact the FWC’s Division of Law Enforcement for information about current regulations. You can also view the current saltwater fishing regulations at the Web site for the FWC Division of Marine Fisheries Management, located at <http://MyFWC.com/marine>



Cynoscion nebulosus adult

Seatrout art by Diane Rome Peebles



Because seatrout stocks are influenced almost exclusively by local fishing pressure, resource managers in the past divided the state into three management regions, each with its own fishing regulations. As of July 1, 2000, the state's waters are now divided into two regions for seatrout management purposes. The north management region includes state waters on the Gulf coast north and west of the Fred Howard Park Causeway in Pinellas County (1.17 miles south of the Pinellas-Pasco county line) and on Florida's east coast north of the Flagler-Volusia county line to the Florida-Georgia border. The south region includes all other state waters. The rules are designed to ensure that enough mature females survive to sustain the population.

In the north region, February is a closed season for the harvest of spotted seatrout. In the south region, the fishery is closed in November and December. There is a statewide 15-inch minimum and 20-inch maximum size limit. The north region has a five-fish daily bag limit, and the south region has a four-fish limit. The rule allows for anglers to harvest, within this daily bag limit, one spotted seatrout larger than the maximum size limit for trophy purposes.

Commercial harvesting of seatrout is allowed from June through August throughout the state. The daily bag limit is 75, and the fish must be between 15 and 24 inches long.

Fishing Tips

Spotted seatrout are popular with anglers because they are fun and relatively easy to catch. They can be caught in almost all of Florida's inshore waters, do not require expensive fishing gear, and are readily accessible to fishermen who wade or fish from the shoreline.

Proven techniques for catching seatrout include wading or poling your boat into seagrass flats at high tide or targeting channels next to flats. Casting with live shrimp is a definite enticement, but artificial flies and topwater plugs also attract trout.

The use of barbless hooks with live bait can simplify catch-and-release fishing because in most cases, the angler does not even need to remove the fish from the water in order to disengage the hook. These hooks are not readily available commercially, but anglers can easily make their own by crimping the barb on a regular hook. Barbless hooks do not significantly decrease catch rates.

Management and Research

Researchers at the Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute in St. Petersburg are currently working on two new research projects. The first is an acoustic survey throughout Tampa Bay to determine spotted seatrout spawning sites. The objective is to gain a better understanding of seatrout spawning and to conserve spotted seatrout spawning habitat. The second new research project is the tracking of 32 seatrout captured from and released at a known spawning site. The fish were implanted with sonic tags, and their movements will be monitored with numerous remote receivers covering the spawning site. The objective of this project is to evaluate how spotted seatrout use their spawning habitat, as well as how long individuals remain on the spawning grounds.

Fishing license revenue and the federal Sport Fish Restoration Program are important sources of funding for sport fish research. The Sport Fish Restoration Program is a "user pays/user benefits" system funded by a tax on sales of recreational fishing equipment and boat fuel. The program supplies three dollars for every one dollar provided by the State for projects that improve fishing and boating opportunities. Information from these studies will help fisheries managers tailor habitat-protection measures and fishing regulations to the needs of seatrout in the various locales, ensuring that these lively stalkers in the seagrass will be long-term residents of Florida's coastal waters.



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