

Management

Spotted seatrout management is guided by socio-economic conditions and a desire to achieve sustainable yields. The Alabama State Legislature determined that it was in the best interest of the state to declare spotted seatrout a game fish. Game fish status means that specks caught from state waters cannot be bought or sold. However, fish legally caught under a commercial license from other states may be sold in Alabama when properly documented.

Sustainable yield is achieved through a combination of length and bag limits. Length limits protect fish until they are large enough to spawn at least once; smaller fish then grow to a larger size, which increases yield. Bag limits reduce the overall harvest of fish, leaving some for another year, and are related to fishing pressure and fish population size. As pressure (number of fishermen) increases, bag limits may need to be reduced.

A number of local guides and other experienced fishermen encourage the release of larger spotted seatrout. Larger fish generally are females and the most productive members of the population.

The Future

Spotted seatrout are resilient in the face of fishing pressure and catastrophic events, such as freezes, because they are highly productive (reproduce at an early age, produce eggs over several months, and produce high numbers of eggs). However, like any organism, specks need a healthy environment in which to thrive. Good water quality and habitats such as submerged and emergent aquatic vegetation and oyster reefs are key elements in sustaining spotted seatrout populations.



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Spotted Seatrout in Alabama



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Spotted seatrout (*Cynoscion nebulosus*) belong to the drum family Scianidae. Other locally common members of the drum family include the Atlantic croaker, southern king fish (ground mullet), black drum, and red drum. Spotted seatrout, also known as specks or speckled trout, are found in shallow coastal waters from Tampico, Mexico through the Gulf of Mexico and up the east coast to New York.

No spotted seatrout are harvested commercially in Alabama and Texas, where they are designated as game fish. Some other states allow highly regulated harvests, resulting in about 240,000 pounds of specks landed per year. The recreational harvest in Alabama is around 200,000 fish per year, and the recreational harvest in the gulf of Mexico region is about 10.6 million fish per year.

Biology

Because spotted seatrout are found over such a wide geographical range, several aspects of their biology vary considerably. The following description is based on studies from the north-central Gulf of Mexico.

Spotted seatrout reportedly spawn from April to October. Within this time period, there are two spawning peaks; one occurs in the spring, and a second occurs later in the summer.

Spawning begins near sunset and lasts for several hours. Males congregate over grass, rubble, or shell areas near channels and in deeper passes near barrier islands where they produce drumming or knocking sounds to attract females. Contact among fish stimulates the release of sperm and eggs into the water where fertilization takes place.

Water temperature and salinity influence location and time of spawning. Spawning is unlikely at water temperatures below 68 degrees F, and most spawning occurs at temperatures between 70 and 86 degrees F. Low salinities are not conducive to egg and larval survival, and spotted

seatrout usually do not spawn in salinities below 7 to 10 parts per thousand; most spawning occurs between 17 and 35 parts per thousand. For specks spawning in Mobile Bay, salinity may be a major factor. It is not unusual to have high river flows in April or May, which result in very low salinities in the bay. Some bay areas that are normally good spawning habitats may have salinities too low to support spawning. Research from Louisiana indicates that under these low salinity conditions, specks move to higher salinity areas for spawning.

Females are capable of spawning for the first time when they reach 10 to 13 inches in length and are older than 1 year. They can spawn many times in a season, and reported frequencies range from every 3 to 5 days to every 16 to 21 days depending on the location and size of the fish. As a result, estimates of egg production are not precise. However, a 2-pound female spawning eight times in a season could produce a total of about three million eggs.

Individual fish show much variation in growth, and the long spawning season means that some fish are produced as early as April and others as late as September, making it difficult to associate the length of a fish with its age. In Alabama, male trout average 11.8 inches at 1 year, 13 inches at 2 years, 14 inches at 3 years, 16 inches at 4 years, and 17 inches at 5 years. Females average 13 inches at 1 year, 15.6 inches at 2 years, 17 inches at 3 years, 20 inches at 4 years, and 23 inches at 5 years. The largest female trout were 23 to 33 inches at 5 to 9 years of age.

Little is known about the behavior of recently hatched speckled trout, but they seem to move with the tides. As they reach ½ inch in size, they are found in or near submerged vegetation or other structures in the bays and bayous where they remain during the warm months. They move to deeper water in the winter.

Small specks feed on grass shrimp and copepods. As they grow larger, shrimp and small

fish become more important in the diet. Adults feed on shrimp and larger fish; the larger specks seem to feed more on fish than shrimp.

Spotted seatrout are not considered migratory because they rarely move more than 30 miles. However, they do seem to move to deeper waters during the coldest weather and return to the shallow areas in the spring. Deep holes are known to attract specks when water temperatures drop. Severe cold fronts have resulted in large numbers of spotted seatrout dying when some fish apparently could not reach warmer waters.

Specks also move in response to salinity changes. While they can be found in waters of very low salinities (2 parts per thousand) and very high salinities (greater than 45 parts per thousand), they seem to prefer moderate salinities of 10 to 25 parts per thousand.

Fishing Success

Since 1997, the Marine Resources Division of the Alabama Department of Conservation and Natural Resources has conducted a survey of fishermen who were fishing from boats on Alabama's inshore waters. In recent years, more than one-third of the anglers encountered each year said spotted seatrout was their primary or secondary target species. Annual catch rates have been consistent over the period with an average of one spotted seatrout caught per fishing trip for all anglers regardless of target species and slightly more than two spotted seatrout caught per fishing trip for anglers targeting spotted seatrout. Fish observed by MRD staff have ranged in size from 7 to 25 inches in length with the average-sized spotted seatrout annually measuring 16.5 inches. Nearly 14 percent of all the fish measured during this period that were kept by fishermen were longer than 18 inches. The Alabama state record for the fish is 12 pounds 4 ounces; the world record fish was caught in Florida and weighed 17 pounds 7 ounces.