

Biology of Spotted Seatrout By Mark Fisher

Spotted seatrout (*Cynoscion nebulosus*), aka speckled trout or “specks”, truite gris (Cajun French) and trucha de mar (Spanish), belong to the Drum family (Sciaenidae) and are closely related to other drums such as Atlantic croaker, red drum, sand trout, and black drum. Because they are abundant, readily take artificial and natural baits and are excellent table fare, they are the number one sport fish among the Texas saltwater anglers.

Spotted seatrout are distributed along the Atlantic and Gulf coasts from Cape Cod to the Gulf of Campeche. They are uncommon north of Delaware Bay, increasingly abundant from Virginia to Florida, and most abundant from the west coast of Florida to Texas. They are readily distinguished from other drums by numerous round black spots on the upper parts of the body and on dorsal and caudal fins, and small scales.

This species is estuarine-dependent, and completes its entire life cycle in inshore waters. Spawning season can run as early as March and ends after October, but peak activity is from April-July. Spawning begins at sunset and continues for 3-4 hours. Males produce drumming or croaking sounds to attract females. Spawning occurs in deep (10-15 feet), moving water in passes and channels within coastal estuaries, bays, and lagoons, with the milt and roe broadcast into the water column. These fish are multiple spawners, and females can spawn every 7-10 days. The eggs are buoyant in water greater than 5 ‰ salinity, and the highest hatch rates occur from 15-35 ‰ salinity. Eggs do not hatch at salinities above 45 ‰, and hatching rates below 5 ‰ are poor. Hatching occurs in about 16-18 hours at 75-80 °F, and initially the larvae are pelagic (i.e., in the upper water column) but become demersal (near the bottom) after 4-7 days. They are found in almost all estuarine habitats, but are particularly associated with submerged vegetation.

Larvae feed primarily on zooplankton, and grow about 0.4 mm/day. At about 12 mm they transform into the juvenile stage where they feed primarily on small benthic crustaceans; growth is 13-18 mm/month. Females reach sexual maturity beginning at 10 inches, and all are mature at 13 inches. Males mature earlier at 8 inches.

Growth rates between males and females differ after their first year, with females growing faster and larger than males. Females can attain an average length of 8 inches at the end of their first year, and reaching about 12, 16, 19, 22, 24, 26, 28, and 30 inches in successive years. Males also attain an average length of 8 inches at the end of their first year, but reach about 11, 13, 15, 17, 18, 19, 20, and 21 inches in successive years. Both have a maximum life span of 9 years.

Adults are opportunistic carnivores that feed near the surface and in mid-water depths, relying almost solely on free-swimming organisms for food. Their diet changes as it grows and with the seasonal abundance of food items. Young adults prey on a variety of invertebrates and fish, changing almost exclusively to fish as large adults. Brown and white shrimp may be a lesser food source because their daytime burrowing habits make them more difficult to catch. Finfish species reported as prey include anchovies, mullet, Atlantic croaker, Gulf menhaden, pinfish, and spot.

Trout often regurgitate portions of food, which float to the surface and create an oil slick. Anglers often look for “slicks” when attempting to locate feeding trout.

Schooling begins at 6-8 weeks of age and continues until about 5-6 years of age. Older (and larger) female fish are primarily semi-solitary, and are referred to by anglers as “sow” trout.

Numerous tagging studies have confirmed that spotted seatrout are nonmigratory, and rarely leave the estuary of their birth. Most movement is seasonal in response to temperature and salinity changes, and with spawning activities. They move to shallow bays during spring and summer, and deeper warmer waters of bays and the nearshore Gulf during the winter. Abrupt changes in salinity due to hurricanes or floods have also caused movement.

The current state record was caught by a fly fisherman from the lower Laguna Madre on May 23, 2002 and measured 37.25 inches and 15.6 pounds.