

# Southern Flounder



## Southern Flounder (*Paralichthys lethostigma*)



Southern flounder have a flat body and fins without spines. The left (top) side of the fish is an olive-brown color with dark and white spots resembling a sandy or muddy bottom; both of the flounder's eyes are on this side. As larval flounder develop into juveniles, their right eye migrates over the head leaving the right (bottom) side eyeless. This allows the flounder to lie on the bottom and swim with both eyes looking upward.



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### Spawning Season

As temperatures cool in October and November, mature southern flounder migrate from estuaries to the Gulf of America to spawn. The passing of strong cold fronts can accelerate this process. Southern flounder spawn offshore between November and January with a peak in December. Water temperatures below 59° F appear to trigger spawning, which usually occurs during the morning hours. Female southern flounder can spawn every three to seven days, producing 14,000 to 68,000 eggs per spawning. They return to estuaries between January and April.

### Habitat

Southern flounder range from the coast of North Carolina to northern Mexico, excluding areas near the tip of Florida. They generally prefer muddy bottoms within an estuary, but can be found in channels and bays near piers, pilings, and rock jetties. In Louisiana, southern flounder can be found from 100 miles up the Mississippi River in fresh water to offshore in the Gulf of America. Southern flounder spend their first year in shallow, low-salinity estuaries and tidal rivers. As they grow, these flounder relocate to slightly deeper waters within inshore estuaries. After their first year, males usually remain in offshore waters. Most southern flounder caught inshore are females.

### Diet

With a flattened shape and camouflage coloration, southern flounder are well adapted to lay nearly invisibly on the bottom and ambush prey such as shrimp, mullet, anchovies, croaker, and menhaden. Southern flounder feed the most when water temperatures are between 61 and 77°F. They will typically eat larger prey as they grow, however research indicates that southern flounder may simply eat larger quantities of small fish as they grow.

# Age and Growth

The Louisiana Department of Wildlife and Fisheries use “earstones” called otoliths to calculate the age of fish. Biologists remove these hard structures from the skull of bony fish and cut them into small sections to reveal yearly growth rings. In a process similar to ageing trees, they count the number of rings to determine the age of a fish. Fishery managers use fish age, length, and weight data to estimate growth rates, mortality rates, and population size. The chart below shows that southern flounder grow rapidly during the first few years of life, and then growth stabilizes as they get older. Once southern flounder mature, they invest more energy in reproduction rather than growth.

Male Growth Rate

AGE (YEARS)	APPROX. AVERAGE LENGTH	APPROX. LENGTH RANGE
1	8.5"	7" - 10"
2	11.5"	9" - 14"
3	12.5"	10" - 15"
4	13"	10.5" - 15.5"

LDWF Fish Management

Female Growth Rate

AGE (YEARS)	APPROX. AVERAGE LENGTH	APPROX. LENGTH RANGE
1	9"	7" - 10.5"
2	14"	11" - 17"
3	17"	14" - 20.5"
4	19"	15" - 23"
5	20"	16" - 24"
6	21"	17" - 25"
7+	21.5"	17" - 26"

LDWF Fish Management



Your purchase of fishing equipment and motor boat fuels supports Sport Fish Restoration and boating access facilities.

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## Southern Flounder Quick Facts

The oldest male southern flounder recorded in Louisiana was four years old and captured in a 2004.

The oldest female southern flounder recorded in Louisiana waters was eight years old and captured in a 2004.

The longest male southern flounder LDWF has measured and aged was 20.5 inches long and three years old.

The longest female southern flounder LDWF has measured and aged was 25 inches long and three years old.

## LDWF Contact Information

**Recreational Fishing License**  
**225-765-2887**

**Commercial License**  
**225-765-2898**

**Boating Registration**  
**225-765-2898**

**Lifetime License**  
**225-765-2887**

**Enforcement**  
**225-765-2989**

**Fish Tagging Program**  
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