

Red Snapper (*Lutjanus campechanus*)

Red snapper are rosy-red in color with a white underside. Key characteristics include red eyes, sharp needle-like teeth, and a pointed anal fin that differs from the rounded anal fin found on other snappers.

Reproduction

Females mature and start spawning sometime between the ages of 2 and 6; males generally mature at younger ages than females.

Spawning season begins in May and ends in September; spawning peaks from May through July.

Red snappers do not migrate to specific sites to congregate for spawning as some other snappers and many groupers do. However, large numbers of individual red snapper may spawn in groups wherever and whenever it is time for them to spawn.

Females spawn a batch of eggs every 4 to 5 days throughout the spawning season. Individual batches of eggs may number from as few as 1,000 to as many as 2.5 million depending on the size of the female. A small, young female can spawn 30,000 eggs in a season, but an older, larger female can produce as many as 75 million eggs in a season.



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Age and Size

Red snappers can live up to 55 years, but few actually survive that long. Older red snappers (greater than 20 years) are very scarce in the Gulf population these days.

Most red snappers harvested in both the recreational and commercial fisheries are between 2 and 7 years old.

During their first 10 years of life, red snappers grow very quickly, up to about 30 inches in length; afterwards, they grow very slowly for the remainder of their lives.

Size and age are totally unrelated in red snapper—a 5 year old fish may be as little as 13 inches in length or as long as 32 inches, though the average length is about 25 inches.

Habitat and Diet

Red snappers live in three different habitats during the course of their lives. One and 2 year olds inhabit shoreward mud/sand bottom areas. At age 3, they move to structure (natural and artificial reefs, oil and gas platforms, shipwrecks) and stay there for 7 to 8 years. At about age 10, they move to remote, more isolated habitats in the deep waters of the Gulf.

Red snapper do not make seasonal long distance migrations like some other Gulf fish. In fact, they do not move around very much at all, except for changing habitats as they grow older.

As voracious opportunistic feeders, red snappers eat a wide variety of marine organisms including fish, tunicates, squid, crab, shrimp, and zooplankton.

Age and Growth

You can use ear bones called otoliths to calculate the age of fish. Biologists in LDWF's Age and Growth Lab remove these hard structures from the skulls of bony fish and cut them into small sections to reveal yearly growth rings. In a process similar to aging trees, they count the number of rings to determine the age of a fish. Biologists use fish age, length, and weight data to estimate growth rates, mortality rates, and population size. Fishery managers use this information to set regulations that will ensure fish are not being caught too quickly and that enough fish are left in the water to reproduce and keep the population healthy.

The chart below shows that red snappers grow rapidly during the first few years of life, and then growth slows as they get older. Once red snappers mature, they invest more energy in reproduction rather than growth.

AGE* (YEARS)	APPROX. AVERAGE LENGTH	APPROX. LENGTH RANGE
1	11"	9" - 14"
2	17"	11" - 25"
3	19"	11" - 28"
4	21"	13" - 30"
5	23"	14" - 30"
6	25"	15" - 33"
7	26"	17" - 35"
8	26"	20" - 31"
9	27"	21" - 32"
10+	28"	24" - 38"

LDWF fishery-dependent data, 2012-2016.

*Due to large variability in age at a given total length, size is not a good estimator of age in individuals.

Contact Information

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2000 Quail Drive
Baton Rouge, LA 70808
225-765-2800
www.wlf.louisiana.gov

Licenses and Boat Registration
225-765-2887 or 225-765-2898

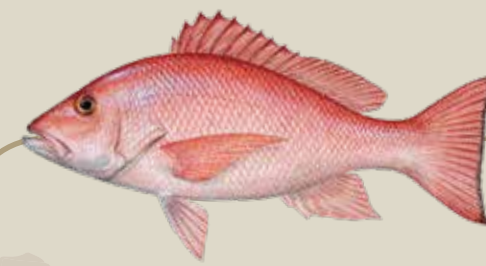
Recreational Offshore Landing Permits
rolp.wlf.la.gov

Enforcement
225-765-2987



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Red Snapper Management

Do red snapper stock assessments include data collected on red snapper populations at oil and gas platforms and artificial reefs located off Louisiana? Yes, federal stock assessments include both fisheries dependent (harvest by fishermen) and independent data (biological information gathered by scientists) collected from these structures.

- Through LA Creel, LDWF closely monitors recreational landings of red snapper. The majority of red snapper landed in Louisiana are caught at platforms and other artificial structures. LDWF provides these landings data to NOAA Fisheries. Similarly, a portion of commercial landings come from oil and gas platforms as well as artificial reefs. Commercial landings are monitored through LDWF trip tickets and reporting to NOAA Fisheries. These landings data (fisheries dependent data) are a critical part of their stock assessments.
- LDWF participates in annual Southeast Area Monitoring and Assessment Program (SEAMAP) surveys. Under this program, researchers across the Gulf sample different types of habitat with four types of fishing gear to capture fish samples at various life stages. Researchers use vertical long lines to sample reef fish like red snapper at oil and gas platforms, artificial reefs, and natural hard bottom areas in the Gulf, including Louisiana waters. From 2013 to 2016, 622 vertical longline drops have caught almost 3,200 red snappers. Population and other biological data collected from these surveys (fisheries independent data) are supplied to NOAA Fisheries to help them estimate populations of red snapper and other reef fish (through stock assessments).

As the red snapper population in the Gulf is growing, why are the private recreational red snapper seasons in federal waters getting shorter? Several factors affect the length of the federal season:

- Catch rates have more than doubled since 2007 due to an increase in numbers of both fishermen and fish.
- The average red snapper is more than twice the average size in 2007, increasing from 3.3 pounds (2007) to 7.25 pounds (2016). Catching larger fish means that fishermen will harvest their annual quota (measured in pounds) more quickly.
- The Gulf of Mexico Fishery Management Council and NOAA Fisheries established a 20% buffer on the recreational quota. This means that the annual recreational catch quota is decreased by 20%. The buffer is in place to decrease the chance of overfishing as it is not possible for NOAA Fisheries to predict what the actual harvest will be in advance of the season, and most other states do not have the ability to track their recreational landings during the season in near real-time like Louisiana can through LA Creel.
- If recreational harvests exceed the annual quota, any excess is deducted from the quota for the following fishing season. This is called a "payback provision."
- State recreational red snapper seasons have gotten much longer since 2012, so a large fraction of the total harvest comes from state waters. When NOAA Fisheries set the 2017 recreational red snapper season, they estimated that 81% of the annual catch target would be caught during state seasons, leaving less than 600,000 pounds for the private recreational federal season.