



**Update:** This document has been updated to include biological information on red snapper and information from the recent Gulf of Mexico Fishery Management Council (Gulf Council) meeting.

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## Red Snapper Fishery



Figure 1 A late 19th century catch of red snapper landed at the port of Mobile, AL (USA Archives).

- The Gulf of Mexico red snapper fishery began in the mid-19<sup>th</sup> century off the Florida panhandle and Alabama coasts



The fishery for red snapper in the Gulf of Mexico dates back to the mid-19<sup>th</sup> century. A detailed and revealing review of the early fishery was provided by Collins (1887) in a report to the U.S. Commission of Fish and Fisheries. He reported that the specific area between Mobile, AL, and Ft. Walton, FL, constituted the origin of the fishery.

## Long Pattern of Overfishing

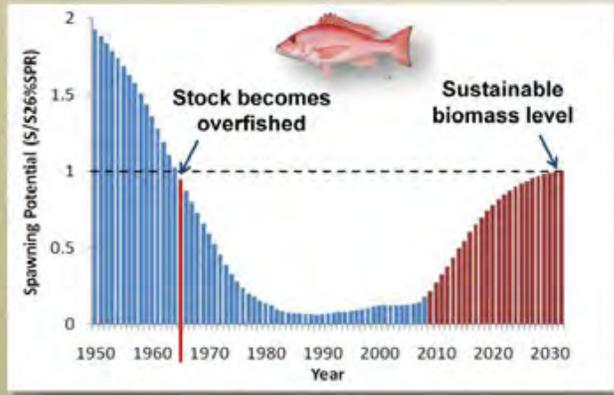
- **1950's:** Most of the snapper banks off Florida considered impoverished (Camber, 1955)
- **1980's:** 2 assessments indicate overfishing
- **1990's:** 5 assessments indicate stock overfished and undergoing overfishing
- **2000's:** both SEDAR 7 and the 2009 update indicate stock still overfished and undergoing overfishing



Collins (1887) noted that stock depletion was evident even in these early days of the fishery. Camber (1955) also noted signs of overfishing in most of the snapper banks off Florida. However, the long term pattern of overfishing of Gulf of Mexico red snapper stocks is better documented by quantitative stock assessments conducted during the 1980's, 1990's, and early 2000's.

## Red Snapper Rebuilding Schedule

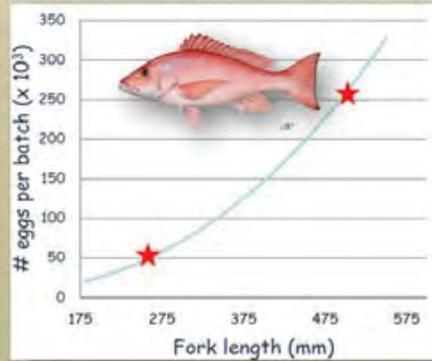
- Not easy to rebuild a stock that has been overfished for so long and has so many age classes (they live to be 57)
- Need to rebuild:
  1. Spawning Biomass (SPR)
  2. Age Structure: provides stability and resilience



The long-term nature of the Gulf red snapper rebuilding plan is due to two main factors: 1) the fact that the stock has been estimated to have been overfished since the mid-1960's (i.e., with stock biomass below the levels considered sustainable), and 2) the fact that a healthy red snapper population is expected to have a fully-rebuilt age structure (50+ age classes given that red snapper live to be 57-years-old). Rebuilding the spawning biomass provides the level of reproduction needed to replenish the stock and keep it at sustainable levels. Rebuilding the age structure provides population stability and resilience against negative environmental events and other episodic impacts. (The figure above is based on data through 2008, used in the 2009 stock assessment update for Gulf red snapper).

## Red Snapper Biology

- Long-lived: oldest fish in the Gulf 57-years-old
- Early maturation: starts spawning at age 2
- Non-linear relationship between fish size and # of eggs produced per batch
- For a small increase in fish size, there is a disproportionate increase in # eggs per spawn



Red snapper are long-lived, early-maturing reef fish that are broadly distributed in the Gulf of Mexico. Since red snapper's annual fecundity increases disproportionately with fish size, larger females are vastly more productive than their smaller counterparts.

## Importance of Older Fish

- In many fish, older mothers produce more eggs and higher quality eggs
- Juveniles produced by older mothers often have higher survival rates
- Significant increases in reproductive value with size and age

**older/larger fish  
likely to produce  
more survivors**

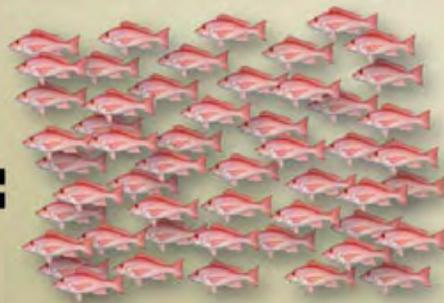


The central difference lies in a small post-hatching gift each female gives her offspring, a little oil droplet that serves as a metabolic reserve after the yolk-sac has been absorbed (see photos above). Older females provide a larger droplet than younger ones, ensuring a better head start for their larvae as they drift through the oceans, feeding and developing into juvenile fish capable of settling to the sea floor. Larger females, and females in better physical condition, produce better larvae as well, but these effects are slight compared with the effects of age.

## Size, Age and Reproductive Value



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One 24-inch female  
produces as many eggs  
as...

**212** 17-inch females



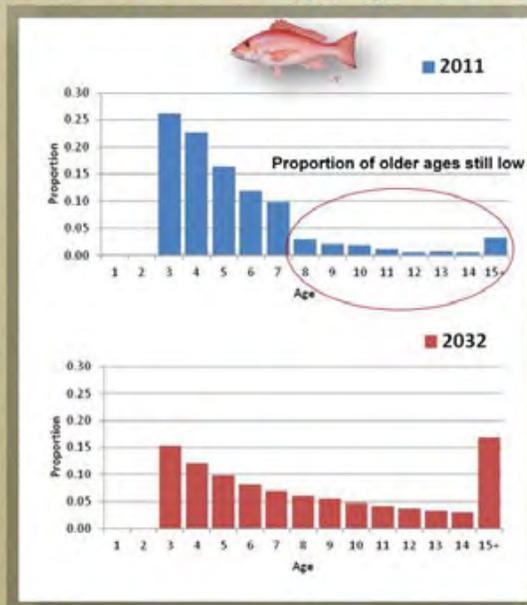
Older, larger red snapper make a disproportionate contribution to the stock's reproductive potential when compared to younger, smaller counterparts. For example, a single 24-inch-long red snapper has been estimated to produce as many eggs as 212 17-inch-long snappers. This is largely because eggs are produced in proportion to a fish's volume, which is proportional to the cube of its length.

## Progress Made in Rebuilding the Stock

- Rebuilding older age classes
- Increasing spawning potential ratio (SPR)
- Expansion of stock to utilize full range of habitat in the Gulf



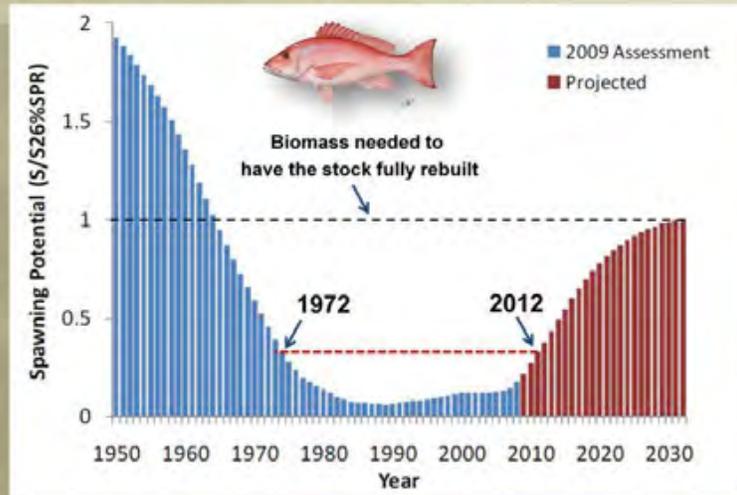
## Progress in Rebuilding Age Structure



Although the age composition of Gulf red snapper has improved substantially over the last few years, we are still behind in achieving the age structure the stock is expected to have when population size has reached a sustainable level. A red snapper population dominated by younger fish may be able to meet the target Spawning Potential Ratio (SPR) level momentarily, but without a more stable age distribution the population cannot continue to hold above the target SPR in the long term.

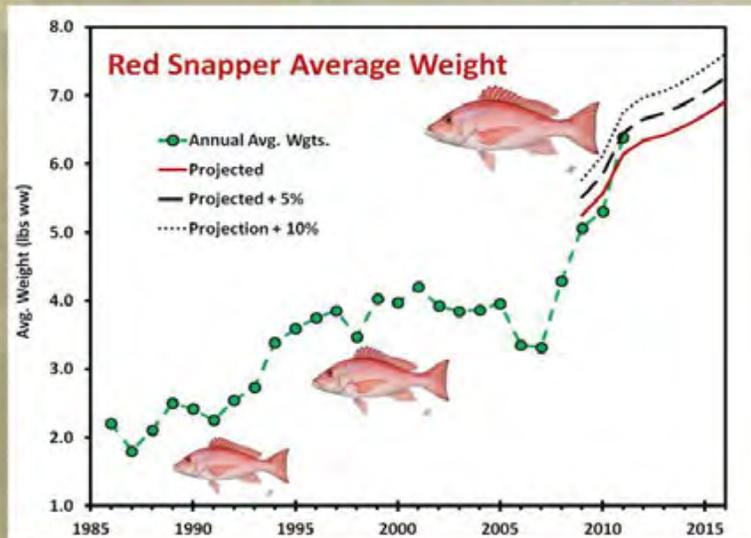
(The figure above is based on data through 2008, used in the 2009 stock assessment update for Gulf red snapper).

## SPR is Steadily Increasing



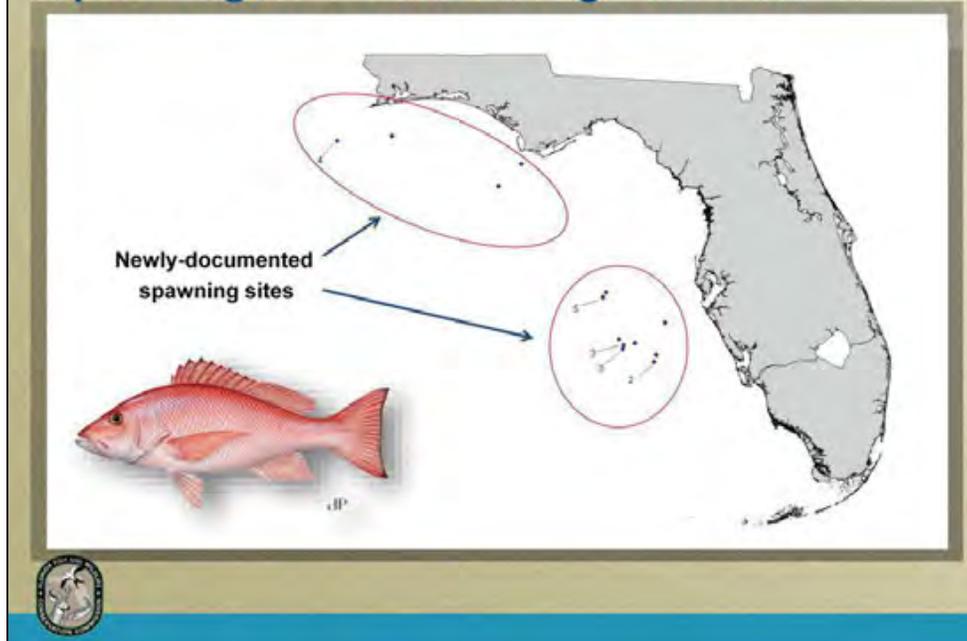
But the good news is that the rebuilding plan is progressing well and red snapper abundance in the Gulf is back at levels not seen in the last 40 years. A new stock assessment will update the rebuilding plan and evaluate whether the stock is rebuilding at a pace that is faster than previously expected. The figure above is based on data through 2008, used in the 2009 stock assessment update for Gulf red snapper.

## Average Fish Weight also Increasing



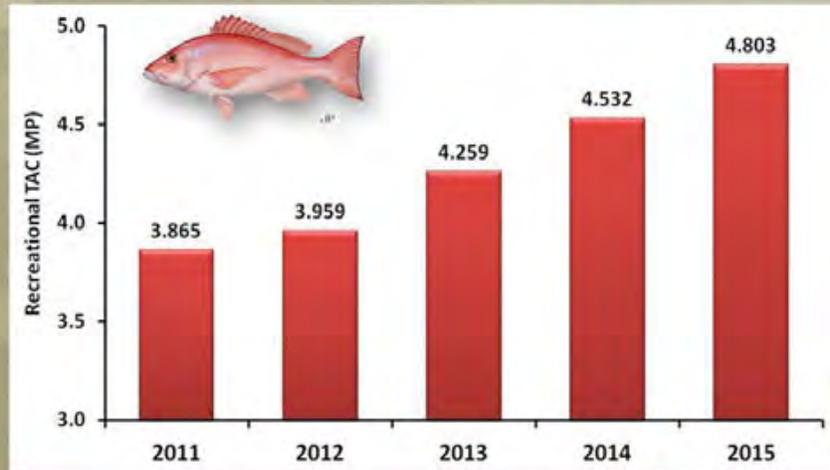
Another measure of success for the red snapper rebuilding plan is an increase in the average weight of fish caught by Gulf fishermen. In the early 1990's, the average weight of recreationally-caught red snapper was around 2 lbs. By the early 2000's the average weight had doubled to about 4 lbs. The average weight of red snapper caught during the 2011 recreational fishing season was well over 6 lbs.

## Spawning off Florida Being Restored



As the red snapper population rebuilds the distribution of spawning is beginning to recover to its original range. The fact that FWC has recently documented active red snapper spawning sites along the West Florida Shelf (something not seen in 30 years) reinforces the success of the rebuilding plan and further documents the expansion of a viable and vibrant red snapper fishery south of the Florida Big Bend.

## Recreational TAC Progressively Increasing



The annual quota the fishery is allowed to take (called a Total Allowable Catch, or TAC) has been progressively increasing as the population rebuilds. The new stock assessment will update (and hopefully increase) TAC projections for the next several years.

## The Role of Artificial Reefs

- Role of artificial reefs still under scientific debate
- Discussion centers on production vs. attraction arguments
- Gulf red snapper not believed to be habitat-limited
- Also, high fishing mortality at some artificial reefs may counter habitat benefits



The debate about whether artificial reefs attract red snapper from nearby natural habitats or actually enhance production of new biomass (i.e., the attraction vs. production debate) has been long standing. There are clear examples where artificial reefs benefit fishes and ecosystems in which they have been employed, especially in cases where artificial reefs are used to mitigate for loss or injury to natural reefs, or to reduce destructive diving and fishing pressure on natural reefs. However, in the case of Gulf red snapper, scientific evidence does not provide strong support for the notion that artificial habitats that account for <5% of total useable habitat play any significant role in population size.

## 2013 Benchmark Stock Assessment

- A SEDAR benchmark assessment for Gulf red snapper is scheduled to start in August 2012
- FWC is well represented in all phases of the assessment process and contributing significant new information
- The assessment is scheduled to be completed and reviewed by early May 2013



Fortunately, a red snapper benchmark stock assessment conducted through the Southeast Data Assessment and Review (SEDAR) process is scheduled to start in August of this year. FWC scientists will be participating in all phases of the assessment process (data selection, assessment model development, and assessment review). The assessment is scheduled to be completed in early May 2013.



**Recreational Red Snapper Season**  
**Gulf of Mexico**  
Proposed Adoption of Federal Standards  
May 2, 2012



**Florida Fish and Wildlife Conservation Commission**  
Division of Marine Fisheries Management

Version 2

**Update:** This document has been updated to include information from the recent Gulf of Mexico Fishery Management Council (Gulf Council) meeting.

This is a summary of a proposed rule to adopt federal standards for Gulf of Mexico red snapper. This action would make state recreational red snapper regulations in the Gulf of Mexico consistent with federal action that is expected to set the 2012 recreational red snapper season to June 1 through July 10 (40 days).

Author: Martha Bademan and Jessica McCawley

Report date: April 26, 2012

## Recent Gulf Council Actions

- Red snapper accountability measures – **On hold**
  - Currently none in place
  - Proposal suggested if ACL exceeded then payback provisions used
  - Suggested buffers to prevent ACL overages, such as ACTs
  - Could be revisited after stock assessment is completed in 2013



At the recent Gulf Council meeting, the Council reviewed a scoping document on red snapper provisions for overage adjustments. All actions are currently on hold. National Standard 1 guidelines recommend overage adjustments as a post-season accountability measure for stocks that exceed their annual catch limit (ACL) and are in a rebuilding plan. The Gulf has four stocks under a rebuilding plan (gag, gray triggerfish, greater amberjack, and red snapper) and red snapper is the only one of these stocks that does not have any form of overage adjustment if the annual catch limit is exceeded. This item was considered because harvest in excess of the ACL jeopardizes the success of meeting the rebuilding target. Implementing an overage adjustment could help keep rebuilding on track.

Council staff were working on a document for options to payback the overages if the ACL was exceeded and considered adding buffers to prevent overages in the form of annual catch targets (ACTs). The Council voted to stop working on this document since an assessment is scheduled to be completed next year.

## Exempted Fishing Permit - Tournaments

- Proposed federal permit would allow limited number of tournaments in the Gulf to collect red snapper out of season for research
  - Florida's tournament is Destin Fishing Rodeo
  - 400-fish would be allowed on Sundays only
  - Fish will be sampled by FWC
- Permit must be approved by NOAA
- Will only be considered by NOAA if regular federal season remains at 40 days



The Gulf Council recommended that NOAA Fisheries approve an Exempted Fishing Permit that would allow a limited number of pre-identified fishing tournaments in Gulf coast states to have harvest tags to help collect large red snapper outside the regular season. This permit originally only included tournaments from Louisiana and Alabama, but a tournament from Texas and Florida was added at the Council meeting.

All other tournaments are only allowed 200 fish per tournament but since the Florida tournament, the Destin Fishing Rodeo, occurs over an entire month (October 1 – October 31) 400 red snapper would be allowed. The tournament would be allowed to take these fish on Sundays only. These fish would be marked with non-removable tags and sampled by FWC staff upon landing.

NOAA Fisheries has final approval of this permit and it will only be considered if the regular federal season remains at 40 days. If the federal season is shortened, the permit would not be considered.

## 2012 Federal Recreational Red Snapper Season

- 2012 federal season dates expected to be June 1 through July 10
  - Catch limit increase proposed
  - Shorter season than 2011 due to increasing fish size and high fishing effort
- Season dates are dependent on state consistency
- Federal season will be finalized in mid-May



NOAA Fisheries Service recently announced a proposed rule that would increase the catch limits for red snapper and result in a June 1 through July 10 season for recreational red snapper harvest in the Gulf of Mexico. In February, the Gulf of Mexico Fishery Management Council (Council) took final action on two red snapper issues: to increase red snapper catch limits for 2012 and 2013, and to allow for future openings of the recreational red snapper season in late fall if there is remaining quota. The Council increased the annual catch limit (ACL) for 2012 to 8.080 million pounds (mp) and the 2013 ACL to 8.690 mp. This equates to a recreational sector ACL of 3.959 mp and a commercial sector ACL of 4.121 mp for 2012. Despite this ACL increase, the 2012 season is shorter than the 2011 season because fishing effort for red snapper is high and red snapper are getting larger, which means the catch limit is being reached faster. If implemented, this 40-day season will be eight days shorter than the 2011 federal season for recreational red snapper fishing in the Gulf of Mexico, which began on June 1 and ended on July 18 (48 days).

The length of the federal season would likely be shortened if Florida or other Gulf states do not adopt a consistent season in state waters. The ACL increases and dates for the federal season are expected to be finalized in mid-May.

## Why Consistency with Federal Season is Important

- Florida's recreational harvest in state waters is a significant amount of Gulf-wide harvest
- Consistency - Increases likelihood of longer seasons in the future and contributes to rebuilding effort
- Inconsistency would likely mean shorter federal seasons
- Inconsistency impacts for-hire permit holders
- Inconsistency could impact commercial harvesters in future years



The recreational red snapper fishery is the primary source of red snapper fishing mortality in the eastern Gulf of Mexico. Because Florida's recreational fishery accounts for a large proportion of the recreational red snapper catch, Florida plays a particularly important role in the success of the red snapper rebuilding plan. Not becoming consistent will not only directly affect the rebuilding plan, but may affect Florida's recreational red snapper fishermen to a greater extent if inconsistency results in further restrictions on harvest in federal waters in the future. Consistency with the federal season would reduce the chance of a harvest overrun in 2012. If harvest overruns are stopped, future increases in total allowable catch should translate into longer seasons. State consistency with federal regulations should also help keep the rebuilding plan for red snapper on track. If Florida does not adopt a recreational red snapper season that is consistent with the federal season, it is likely that the 2012 and possibly 2013 federal seasons will be considerably shorter to account for an increased harvest in Florida state waters. This would be detrimental to charter and headboats that hold federal reef fish permits because federally permitted vessels are required to abide by federal rules in state waters, even if state rules are less restrictive. If harvest in state waters is substantial because of inconsistency with the federal season, it is also possible that the commercial ACL could be lowered to avoid an overrun of the total ACL for the red snapper fishery.

## Federal Season Length Variability

- 40 days is the longest possible federal season
- Inconsistencies by states could shorten federal season
- Staff need direction on Florida season length if federal season shortened



Forty days is the longest possible federal season. Inconsistencies by other states could shorten the federal season length for 2012, even if Florida goes consistent. Staff will need direction on the state season length for Florida if the federal season is shortened to less than 40 days.

## Proposed Rule Amendment for Regular Season

### 68B-14.0038 Recreational Snapper Seasons

- Change the recreational fishing season for red snapper in the Gulf of Mexico to June 1 through July 10 (40 days)

*This change would make state rules consistent with federal rules if the season remains at 40 days*



Rule 68B-14.0038, Florida Administrative Code, (Recreational Snapper Season) would be amended to change the 2012 recreational fishing season for red snapper state waters of the Gulf of Mexico to June 1 through July 10 to be consistent with the recreational red snapper season in federal waters of the Gulf of Mexico. This change would adopt federal standards and bring state rules into consistency with federal rules if the season remains at 40 days.

If this proposed rule amendment is approved at the April Commission meeting, this decision would be final and the rule will be filed without further hearing.

## Two Actions Needed:

### Action 1:

Consider state adopting the federal season of 40 days

### Action 2:

Consider alternative if federal season is shortened?

- Use 2011 season of 48 days
- Use executive order to specify a different season



Two actions are needed. Action 1 – The Commission needs to determine if they want to be consistent with the 40-day federal season. If so, staff would use the adoption of federal standard provision for this action. If not, the Commission can choose to keep the existing 2011 season that was 48 days or direct staff to use an executive order to specify a different season.

Action 2 – The Commission needs to give staff direction on what to do if the federal season is shortened. Some options to consider if the federal season is shortened would be to use the 2011 season that was 48 days (this would require no additional action because the current rule specifies 48 days), or use an executive order to specify a different season length, such as 40 days.

## Staff Recommendations

- **Action 1:** Approve the proposed rule amendment for Gulf of Mexico red snapper so that the state recreational harvest season will be June 1 through July 10 (40 days)
  - *If approved, the rule will be noticed and filed without further hearing as allowed under the adopting federal standards provision of Florida Statutes*
- **Action 2:** If federal season is shortened, staff recommends staying with a 40-day state waters season via an executive order



Staff recommends for Action 1 - adopting a Gulf recreational red snapper season that lasts 40 days (June 1 through July 10), which is consistent with proposed federal regulations using the process of adopting a federal standard as outlined under Chapter 120.54(6), Florida Statutes. If passed, this rule would be filed without further public hearing and would become effective as soon as possible after announcement of the finalized federal 40-day season. Staff has evaluated the rules under the standards of 68-1.004, F.A.C., and found them to be in compliance.

Staff recommends for Action 2 – if the federal season is shortened to stay with a 40-day season for Florida state waters, which would be specified via an executive order. By keeping the season at 40 days this allows for-hire fishermen without a federal permit and private anglers to plan their fishing trips. In addition, it will allow for the greatest economic opportunity for Florida's fishermen and related industries and should keep the red snapper rebuilding program on track.

**The following slides are considered  
back up material and are not  
anticipated to be part of the actual  
presentation to the Commission**



## Red Snapper Season History



**2008**

- Federal season (shortened): June 1 - September 30
- *FWC kept state season as is: April 15 - October 31*
- Federal response to state season: June 1 - August 5

**2009**

- *FWC adjusts state season: June 1 - September 30*
- Federal (response to overharvest): June 1 - August 14
- *FWC matched federal season: June 1 - August 14*

**2010**

- Federal and state seasons: June 1 - July 23
- Supplemental season for state and federal waters: October 1 – November 22 (weekends only)

**2011**

- Federal and state seasons: June 1 - July 18



Red snapper in the Gulf of Mexico is overfished. In February 2008, the Commission adopted a consistent recreational bag limit but retained the existing recreational season in state waters of April 15 through October 31. In March 2008, to account for the longer state season (and associated increase in catch), NOAA Fisheries Service shortened the recreational season in federal waters to June 1 through August 5 (65 days). In February 2009, at the request of the Council, NOAA Fisheries Service, and representatives of the northwest Florida charter industry, the Commission reconsidered and approved state consistency with the original federal season of June 1 through September 30 (122 days).

In 2008, the recreational harvest exceeded an established catch limit of 2.45 million pounds by 1.22 million pounds. Part of this harvest overrun was due to the longer state season, as well as larger, heavier red snapper being landed in 2008 compared to previous years. In May 2009, NOAA Fisheries Service shortened the recreational red snapper season as an accountability measure to offset the excessive harvest of 2008. The dates of the federal season were again dependent on Florida adopting a consistent recreational red snapper season in state waters. The Commission approved state consistency and the 2009 season in state and federal waters was June 1 through August 14 (75 days).

The 2010 federal and state seasons were shortened to 53 days, resulting in June 1 through July 23 seasons. The Council increased the allowable harvest for the Gulf red snapper fishery from 5.0 million pounds (mp) to 6.945 mp for 2010. However, federal fisheries managers predicted that if the season length was kept the same as 2009, the allowable harvest for red snapper would have been exceeded because of the high level of recreational fishing effort in the Gulf. A shortened season was created to help avoid a harvest overrun and allow future increases in harvest. On April 20, 2010 the Deepwater Horizon oil rig exploded causing approximately 4.9 million barrels of oil to flow into the Gulf of Mexico before the well was capped on September 19, 2010. More than half of the Gulf of Mexico was closed to fishing during red snapper season due to the oil spill, which resulted in lower than expected recreational red snapper landings. Federal fishery managers approved a 24-day supplemental red snapper season which allowed fishing for red snapper on weekends only from October 1 through November 22, 2010.

The 2011 Gulf recreational red snapper season was June 1 through July 18 (48 days). The Council increased the ACL to 7.185 mp for 2011, which resulted in a recreational ACL of 3.521 mp and a commercial ACL of 3.664 mp. Despite this ACL increase, the 2011 season was shorter than the 2010 regular season because of high predicted fishing effort and larger, heavier red snapper.