

Atlantic Red Snapper (*Lutjanus campechanus*) Fishing History Timeline

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SEDAR41-DW23

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**SOUTHEAST DATA, ASSESSMENT AND REVIEW (SEDAR 41), Data Workshop (DW) Working Paper
Atlantic Red Snapper (*Lutjanus campechanus*) Fishing History Timeline**

**From Rusty Hudson on behalf of the Southeastern Fisheries Association,
East Coast Fisheries Section membership**

July 21, 2014

Summary

This SEDAR 41 DW working paper seeks to establish a timeline of the development of the US Atlantic Red Snapper fishery, and follow various events that affected the prosecution of that fishery across time.

1860's

Atlantic Red Snapper scientifically named *Mesoprion campechanus* by Felipe Poey in 1860. (FAO 1985 Vol. 6 Snappers of the World)ⁱ

The Civil War affected a lot of near shore fishing activities from New England to Florida.

1870's

"Hexagonal split bamboo rods had been introduced in the United States around 1870 (Marden, 1965), and rods made of plain bamboo (Calcutta type) were also available before the turn of the century, as were a variety of hardwood rods..." (Smith 1979)ⁱⁱ

Eugene Blackford was active in introducing red snapper into the New York trade. (Jordan & Evermann 1902)

Red Snapper synonym scientifically named *Lutjanus campechianus* by Poey in 1875. (FAO 1985)

Red Snapper synonym scientifically named *Lutjanus Blackfordii* by Goode and Bean in 1879. (FAO 1985) Eventually *Lutjanus campechanus* was chosen officially.

1880's

During the summer of 1880, several specimens of red snapper were caught off the Middle States, including New Jersey. Found on the same grounds as the Black Sea Bass. "*Red Snappers are also known to be abundant on the Savannah Bank and on the Saint John's Bank, off Eastern Georgia and Florida.*" "[In the Gulf of Mexico] *they attain to the size of forty pounds. In East Florida, however, the average is much less. A trip to the Snapper banks is a favorite summer recreation for the gentlemen of Jacksonville.*" "*To feel the bite of a twenty-five pound Snapper at a depth of twelve fathoms causes a sensation never to be forgotten.*" (Goode 1887)ⁱⁱⁱ

1890's

Access to East Florida coastal towns and cities near inlets had depended on horses, wagons and near shore steam boats for early recreational fishermen. Then Mr. Henry Flagler created a transportation change, known as the Florida East Coast Railway¹ beginning in 1895, which he completed from Jacksonville, to Key West, Florida by 1912. The railway connected several hotels that were near prime fishing locations and natural inlets.²

1900's:

Red snapper in the Atlantic were not considered to be within reach of recreational anglers. William H. Gregg was assisted by Captain John Gardner of Ponce Park, Mosquito Inlet in writing the highly acclaimed book titled "When, Where, and How to Catch Fish on the East Coast of Florida." (Gregg 1902)^{iv}

Mr. Gregg follows the United States National Museum's Bulletin No. 47 prepared by Jordan and Evermann, completed March 1900. Red Snapper has a scientific name of *Neomaenis Aya* in his book.

The author Mr. Gregg notes that red snapper are normally found on reefs ten miles or further offshore, and that he had never found an authenticated case of catching red snapper within five miles of the shore.³ Most of his book illustrated that the largest amount of fishing was near shore or inland from the inlets, and made note of the ice factory and "the man with the net"[seine nets] causing declines with the number of fish from historic highs, but that there were still enough left for "average sport fishers". (Gregg, 1902)

Lutianus aya is the scientific name used for Red Snapper in "American Food and Game Fishes" by Jordan & Evermann published May 1902. "Off the east coast of Florida and the coast of Georgia it [red snapper] is abundant." (Jordan 1902)

1920's:

Depth sounding was done manually with lines over the rail. Finding banks, reefs, or lumps where snapper were abundant required experience and skill (Bureau of Fisheries, 1924)^v.

Some boats would fish on nearby reefs (8 to 12 miles) in the 1920's out of Ponce de Leon Inlet. (Stone 2010)^{vi}

Mosquito Inlet was the historic name for Ponce de Leon Inlet before 1928. (Hudson 2010)^{vii}

Prohibition caused an increase in rum running boats from the Bahamas visiting ports on the Florida east coast, including Ponce de Leon Inlet.

¹ <http://www.fecrwy.com/about/history>

² <https://archive.org/stream/standardguidesta02fost#page/n23/mode/2up>

³ Rusty Hudson, author of this SEDAR 41 DW timeline, actually did catch several Red Snapper charter fishing during June to July 1989 at a location 5 miles offshore of the Ormond Beach by the Sea Pier. This location was about 12-miles north of the Ponce de Leon Inlet, Volusia County, Florida.

The Florida land boom ended a few years before the Great Depression began, which started slowing population growth in Florida coastal regions for a while.

1930's

"The red snapper grows to quite a large size and is one of the most highly prized of food fishes. I have caught them on the bottom and also trolling and found them to be a game fish of the highest order" (Heilner 1937)^{viii}

"In 1939, DuPont began marketing nylon monofilament fishing lines: however, braided Dacron lines remained the most used and popular fishing line for the next two decades, as early monofilament line was very stiff or "wiry", and difficult to handle and cast." The early monofilament had "a small but loyal following." (Wikipedia 2010)

In 1932 Otto Henze left Ocean City Reels and started his own fishing reel company called Penn Fishing Tackle Manufacturing Company. In 1933, the US Patent Office issued Mr. Henze a patent for his reel design. Today's reels still use the same basic design. Penn's growth in the early thirties was dramatic, especially since America was at the height of the depression...since many people fished for their food. In 1936 Penn began producing the Senator model. "The PENN Senator quickly became a popular reel used for world record catches." (www.pennreels.com 2010)

"In general, bamboo was the most popular rod material, although in 1936, tubular metal rods made of beryllium copper came on the market. These beryllium rods resisted saltwater corrosion better than other metal rods already on the market for freshwater use (Moss 1976), although corrosion was still a problem." (Smith 1979)

"Braided nylon fishing line made its appearance around 1939 (samples were exhibited at the San Francisco World's Fair), and it later came into limited use during the war years (A. W. Agnew)" (Smith 1979)

1940's

Beginning in 1940 the St. Augustine Inlet was relocated 400 yards north of where it had been located. Further efforts were made between 1941-1957 to stabilize the inlet by adding jetties.

"When the United States entered World War II in December 1941, the U. S. Navy closed all ports to sportfishing. Later a few boats with special permits were allowed to operate from certain ports, but under strict regulations (Young, 1969)." (Smith 1979)

Some vessels were allowed to fish offshore, but only during daylight hours on the Florida east coast about 1943 until the end of WWII. (Stone 2010)

LORAN-A was implemented during 1943 for military purposes. Following the end of WWII, LORAN-A became a tool primarily for civilian navigators. (USCG 2010)^{ix}

Al Gross, the inventor of the "walkie-talkie", during 1945 invented the citizens band (CB) radio and pioneered the use of the CB for the public about 1948.

"...monofilament nylon line , was introduced in 1946." "Soft monofilament was finally introduced to the west coast in the early 1950's, but it did not begin to outsell braided linen line until the early 1960's when spin fishing became popular in salt water." (Smith 1979)

Florida Tackle and Gun Club Fishing Tournament in Jacksonville under President Jim Murphy began organizing a North East Florida fishing tournament after September 1945⁴ and tracked annually largest fish such as a 39 pound red snapper caught offshore of Ponce de Leon Inlet and entered into the fishing contest as described in a Daytona Beach Morning Journal authored by Fred H. Langworthy dated July 16, 1946. [Google digitalized news]⁵

"An important advance in rod building occurred in 1948, when fiberglass rods were introduced, and solid, hollow and wooden core models became available (Major, 1948). (Smith 1979)

"Also, in the late 1940's, the first fiberglass boats were made available to the public." "In the following years this material would become a standard in the pleasure boat field (Whittier, 1976)." (Smith 1979)

While trolling towards known fishing reefs sometimes a large red snapper would be caught. Usually that indicated that a school of red snapper would be found on a piece of bottom that was nearby and they would attempt to locate it. Large red snappers caught on the handline would suddenly be grabbed by something larger, smashed flat and scaled. It was found that both Warsaw Groupers and Goliath Groupers (aka Jewfish) would be the cause, depending on the time of the year and depth. (Stone 2010)

In 1949 an aggregation of large red snapper were found on a reef called the Northeast Grounds, about 14 miles northeast of Ponce de Leon Inlet by local fishing vessels.

Hand lines were the fishing equipment used for most bottom fishing while big Penn Senator reels spooled with "cuttyhunk" [twisted Irish linen] mounted on Beryllium copper rods and later on fiberglass rods and were used for trolling. (Stone 2010)

1950's:

Beginning during 1950, (continuing into the 1970's) Inlet Harbor in the Ponce de Leon Inlet region had professional photographers take pictures of the for-hire deep sea fishing catches displayed on a rack and were also dated. Most of the for-hire vessels from that area ran their deep sea bottom fishing trips from March to September each year as evidenced by the photographs that the author of this timeline has made available electronically and physically. Most would sit idle after Labor Day, or convert the vessel into a shrimp vessel and/or bandit fishing vessel.

⁴ <http://news.google.com/newspapers?nid=71XFh8zZwT8C&dat=19450903&printsec=frontpage&hl=en>

Boating-Fishing by Salty page 2B in the Monday September 3, 1945 Miami Daily News

⁵ http://news.google.com/newspapers?nid=OWslULmyb_UC&dat=19460716&printsec=frontpage&hl=en

Outdoors section by Fred H. Langworthy on page four in Daytona Beach Morning Journal published July 16, 1946

About 1950 a charter vessel named the Candy Kidd came to the Ponce de Leon Inlet area from Pompano, Florida to fish during the summers and return to Pompano for the fall to spring tourist season. The captain introduced fiberglass rods with Penn-65 star drag reels for bottom fishing to the local fishermen in the Daytona area so that the boats provided them to paying customers instead of handlines for bottom fishing. That Penn 65 reel mounted on a Hurricane fiberglass rod is still popular today on the Ponce de Leon Inlet party boats. (Stone 2010)

During the early 1950's Port Canaveral created a man-made inlet for that area. Shortly after the inlet was completed than a party boat named the Miss Cape Canaveral during 1953⁶, and some charter boats began to operate from that region.

Compass bearing, a watch and a sounding line (lead) were used to fish known reefs 10 to 20 miles from the Florida east coast until later in the 1950's when echo sounders/fathometers and navigation devices became affordable for boats. The WWII LORAN-A surplus was sold to civilians but at first needed a bulky voltage inverter to fit it to the vessel's 12-volt system. Later when they were made into solid state they become easier to use. (Wikipedia) LORAN-A was accurate to about a quarter of a mile. (Amicks 2010)^x Some LORAN-A units were accurate enough to get close to the fishing spot. (Stone 2010)

Charter boats began fishing out of the Savannah, Georgia area for black sea bass about 10 to 15 miles from shore. Very little private recreational effort existed in that area. (Amicks 2010)

The charter fleet in northeast Florida was small and consisted of approximately 50 vessels between Nassau and Martin Counties. In 1955, 17 charter vessels were located in Volusia County, Florida fishing from the Ponce de Leon Inlet area. (Ellis et al., 1958)^{xi}

The charter fleet was more developed in southeast Florida between Palm Beach and Monroe Counties and primarily targeted pelagic species (Ellis, 1957; Ellis et al., 1958). During the summer months when business was slow in the Southeast, some of these charter boats would fish in the Northeast Florida region. (Stone 2010)

Party and charter boats accounted for less than 3% of total recreational catch and retained catch (Rosen and Ellis, 1961; Ellis et al. 1958).

The Daytona Beach Fishing Association during the 1950's began awarding certificates and prizes for largest fish species. The Chamber of Commerce helped promote deep sea fishing. (Stone 2010)

In 1957-1958, private boats accounted for over 65% of total catch and over 70% of total retained catch from recreational anglers. The majority of fish caught and retained by recreational anglers was comprised of inshore species and king mackerel. Red snapper is mentioned as "more frequent" in reported catches for offshore fish, but the percentage of trips that caught offshore fish is not given (Rosen and Ellis, 1961)^{xii}.

1955 Florida statewide estimated effort (total days fishing; Ellis et al., 1958):

⁶ <http://www.misscape.com/>

Private boat = 10,589,000
Rental boat = 1,532,000
Charter = 449,000
Party = 474,000

During the 1950's, Captain Jake Stone on the charter vessel Mako was using WWII surplus Loran-A navigation equipment and a Raytheon Cadet fathometer that used 3 inch wide paper. They also developed stationary 12-volt electric reels from surplus bomb bay door motors to commercial fish snapper and groupers after the tourist season ended after Labor Day each year. (Stone 2010)

"...then in 1959 DuPont introduced Stren, a thinner and much softer monofilament line that could be used in a large range of reels" "Stren's monofilament lines soon became a favorite with many fishermen because of its overall ease of use and it spawned a whole host of imitators." (Wikipedia)

"In the late 1950's, the Coast Guard enforced stringent regulations for passenger boat (Frey, 1971)."
(Smith 1979)

1960's:

During the early 1960's at Ponce Inlet, Florida the newly constructed 62-foot 48 passenger party boat named the Marianne and a 40-foot 18 passenger party boat named the Miss Juanita began using the Raytheon DX Navigator Loran A, state of the art for its time. Newer fathometers began using larger paper rolls to image the bottom, and the fish. CB ship to shore radios began to replace the old AM radios. (Stone 2010)

Inlet Harbor located in Ponce Inlet, Volusia County, Florida provides 447 dated pictures from February to September 1962 of the fishing catch that are used to estimate species, size and landings in a Special Scientific Report-Fisheries 514.⁷ Estimates for recreational and commercial fishing catch are made with the years 1962-1963 for the Cape Canaveral Brevard County/Volusia County area in this analysis requested by the U. S. Atomic Energy Commission. (Anderson and Gehringer 1965)^{xiii}

The Schlitz beer company held an annual Florida fishing contest in the early to mid-1960's with significant prizes. A lot of the fish were tagged and released, besides the species that were landed and entered into the contest. The Florida DNR Marine Research Laboratory cooperated on the tagging and Schlitz paid significant rewards upwards of hundreds to thousands of dollars in some cases for the return of the tag and all relevant information required to claim the prize. 84 Red Snapper were tagged in Area C and 15 were caught later for an 18% recapture rate⁸. Average growth rates were analyzed and included in a summary in the Beaumariage report.

⁷ http://www.sefsc.noaa.gov/sedar/download/SEDAR24-RD57_Anderson1965.pdf?id=DOCUMENT

Tables 57 and 58 and explanations found on page 72 reveal how the 12 vessels represented 80% of the for-hire vessels in the Ponce de Leon Inlet area during 1962 with a minimum value of 5 pounds average size for the Red Snappers based on the 447 photographs, while the 1963 field data from biologists yielded an 8 pound average size for the Red Snappers

⁸ http://www.sefsc.noaa.gov/sedar/download/SEDAR24-RD62_Beaumariage1969.pdf?id=DOCUMENT

During the mid-1960's commercial snapper/grouper vessels from NE Florida would fish the 30 fathom ledge offshore of Georgia and unload in Savannah. By the late 1960's some charter boats began fishing out of Hilton Head, SC. Some boats had paper fathometers. (Amicks 2010)

"The large sport fishing interests in Florida also utilize this fish [red snapper], thereby making it one of our most valuable seafood resources." (quoted from Futch and Torpey, 1966)^{xiv}

"Daytona Beach offers some of the best deep sea fishing to be had anywhere in Florida. More than a dozen different varieties of game fish are plentiful on the offshore reefs, together with red snapper, grouper and triggerfish. These reefs...are from nine to 30 miles out. On a typical deep sea trip the fishing begins shortly after the boat clears the inlet. Trolling lines are put out, usually four..." "It takes about two hours to reach the fishing grounds where the boat is anchored and every one can fish at the same time." "There are times when a school of snapper will be located and then the fishing gets really wild." The trip back is handled just like the trip out and often more fish are caught in the afternoon than in the morning." [Trolling] (Allyn 1967)^{xv}

"The exploitation of the reef fishes on the offshore fishing grounds of Florida has increased tremendously since World War II.", (Moe, 1963)^{xvi}

A survey in Florida identified fishing grounds between 10 and 100 fathoms offshore from Nassau County south through St. Lucie County, and additionally off the Atlantic coast of Monroe County, where red snapper was a primary target species from recreational, for-hire, and commercial vessels. Development of offshore private boat sport fisheries in NE Florida were limited by the availability of favorable fishing grounds relatively close to shore and within range of major inlets. Ponce Inlet in Volusia County was the only area where an offshore sport fishery for red snapper was well established in NE Florida.

Red snapper was the most sought after and most caught fish on party boats in northeast Florida and there were 15 year-round and 11 seasonal party boats carrying 10 - 50 passengers operating in the region. Charter boats relied upon king mackerel to provide the greatest amount of fishing activity in northeast Florida, [although red snapper was targeted out of Ponce de Leon Inlet by charter boats, party boats and commercial boats, see Tables 1-3, Page 12-18 from Moe, 1963] (Hudson 2010)

Halifax Sport Fishing Club (HSFC) was founded in Daytona Beach, Volusia County, Florida during August 1967. Later this fishing club developed fishing charts that showed many of the popular reefs, wrecks, etc. offshore of Ponce de Leon Inlet. The club later put flags and/or other buoy markers on these fishing reefs and replaced them after storms effected their position. HSFC longtime member Donald Monico spoke of being a "weekend warrior" following charter and party boats to the fishing reefs during the early years of the club that later led to the fishing charts that the club sold to the growing private recreational fleet during the 1970's to the 1980's.

See Table 1, page 8 (PDF page 16) for total Florida tags and recapture rates. See Table 2, page 11 (PDF page 19) for Area C, NE Florida south to Cape Canaveral had 54 tagged Red Snapper and 15 returns for an 18% recapture rate. See page 19-21 (PDF pages 27-29) had growth rates figured, along with days at liberty and distance traveled.

Florida Sport Fishing Association (FSFA) established during 1968 in Port Canaveral, Florida.⁹

Commercial for Atlantic red snapper landings peaked in 1968 at 1.1 million pounds. (SAFMC 1983 Snapper / Grouper FMP)^{xvii}

Beginning in 1968 and finished by 1972, the Ponce de Leon Inlet was stabilized by the US Army Corps of Engineers by installing jetties and weirs, plus dredging the channel. Before that occurred the Ponce de Leon Inlet was considered one of the most dangerous inlets on the Florida east coast.¹⁰

"Fathometers came into general use [1960's]." (Smith 1979)

VHF ship to shore radios became popular and had better clarity than earlier radios.

1970's

The private recreational deep sea fishing fleet began to rapidly increase when fiberglass boats became a more affordable choice for the public. The construction of condominiums increased the coastal population beginning during the 1970's, while ocean-going vessels on a trailer or in dry storage began to increase.

"...a new type of rod made from graphite was introduced around 1973." (Smith 1979)

Some vessels in Georgia began using LORAN-A in the early 1970's, and by the mid-1970's began using LORAN-C due to its greater accuracy to within mere feet. LORAN-C units cost several thousand dollars at this time. (Amicks 2010)

For-hire and commercial boats began using LORAN-C on the Florida east coast about the mid to late 1970's. The LORAN-C towers were increased during the 1970's-the 1980's in the US.

An April 16, 1977 Daytona Beach Morning Journal news article featured the local party boats that operated out of the Ponce de Leon Inlet region.¹¹

The "roller-net" reef fish trawl fishery began targeting vermilion snapper, etc. as landed catch during the late 1970's and were eventually banned effective January 12, 1989. Red snapper was a bycatch species. (SAFMC 1988 Amendment 1 Snapper Grouper FMP)^{xviii}

In 1979, a total of 1,071 commercial hook and line vessels fished along the Florida east coast, including Monroe County, however it was unknown how many boats fished in the snapper-grouper fishery. About 400,000 pounds of red snapper were landed commercially. (SAFMC 1983 FMP)

⁹ <http://www.fsfaclub.org/about/club-history>

¹⁰ Ponce de Leon Inlet also known as "Killer Inlet"

<http://www.jstor.org/discover/10.2307/30140101?uid=3739600&uid=2129&uid=2134&uid=2&uid=70&uid=4&uid=3739256&sid=21103947318241>

¹¹ http://news.google.com/newspapers?nid=OWslULmVb_UC&dat=19770416&printsec=frontpage&hl=en
Daytona Beach News Journal April 16, 1977 article on begins on page 2D and continued to page 16D.

In 1979, approximately 428 charter boats were along the east Florida coast. Approximately 46 head boats operated between Cape Hatteras, NC and Cape Canaveral, FL. About 49 head boats were operated between Cape Canaveral and Key West, FL. Headboat landings of red snappers were 245,400 pounds. (SAFMC 1983 FMP)

An estimated 133,449 private recreational boats fish offshore in the South Atlantic Region which includes the Florida east and west coast. About 42.3 percent of recreational landings are from federal waters. Total red snapper landings were estimated to be 1 million pounds in 1979. (SAFMC 1983 FMP)

During 1979 some headboats out of Ponce de Leon Inlet found an aggregation of large Red Snapper offshore of Flagler County, Florida about 35 miles north of the inlet in a 110-feet of water.

1980's

LORAN-A is turned off in the United States during 1980. (USCG 2010)

LORAN-C units cost fell to an affordable range of prices so that the private recreational boats began normally purchasing them. (Amicks 2010)

"Geographical Distribution: Gulf of Mexico and Atlantic coast of the USA extending northward to Massachusetts, but rare north of the Carolinas." (FAO 1985)

The NMFS promoted utilization of "underutilized species" like sharks, etc., during the early to mid-1980's. Many commercial shallow water snapper/grouper fishermen began targeting deep-water grouper/tilefish species during this period.

On September 28, 1983 the South Atlantic Fishery Management Council (SAFMC) implemented a fishery management plan (FMP) for snapper/grouper species and set a 12-inch minimum size for red snappers. [48 Federal Register 39463]

In spite of conflicts, including litigation by hook and line snapper/grouper fishermen about some Carolina fish net trawlers ranging down to Florida reefs during the late 1970's and early 1980's over damage to live bottom and reefs by roller nets and other types of fish trawling nets, the SAFMC failed to prohibit the destructive gear until Amendment 1¹² was effective on January 12, 1989.¹³ The 1988 Amendment 1 to the Snapper/Grouper FMP prohibited use of trawl gear to harvest fish in the snapper grouper fishery south of Cape Hatteras, NC and north of Cape Canaveral, FL; and defined directed snapper grouper fishery.

Commercial bottom longlines (BLL) began to be utilized in the early 1980's for the Florida east coast regions for traditional species like shallow water grouper and snappers, as well as snowy grouper, golden tilefish and later sharks. The directed shark fishery began in the Volusia County, Florida area about 1984 and peaked out by 1993 when an Atlantic Shark FMP was implemented. Many commercial

¹² <http://www.safmc.net/Library/pdf/SnapGroupAmend1.pdf>

¹³ <http://www.safmc.net/Library/pdf/SnapGroupAmend1FinalRule.pdf>

snapper grouper fishing vessels shifted to the BLL shark fishery in the 1980's. The private recreational fleet was increasing in size and ranged out past the traditional fishing reefs by the 1980's. (Hudson 2010)

Colorscope depth recorders began to replace older paper fathometers in the for-hire and commercial vessels. Video plotters became available, but were mostly used by commercial boats fishing deep water. The private recreational boats began to purchase higher tech equipment.

During June 1989 while Charter boat fishing north of Ponce de Leon Inlet about 12 miles, and a little over 5 miles off the beach we found an aggregation of large Red Snappers that averaged 20 to 25 pounds each. (Hudson 2014)

1990's

The SAFMC raised the Red Snapper commercial and recreational minimum size to 20-inches total length from the 12-inches total length minimum size established with the SAFMC Snapper Grouper FMP Amendment 4 final rule published in the Federal Register 1991 October 31 and effective January 01, 1992. (SAFMC 1991)^{xix}

The SAFMC banned the use of BLL fishing gear inshore of 300-feet of depth effective January 1, 1992.¹⁴

The 1997 virtual population analysis (VPA)¹⁵ was used for the original SAFMC Red snapper assessment, and conducted by Charles Manooch, Potts, Vaughn and Burton.

2000's

The Southeast Data, Assessment and Review (SEDAR 15) process used the Beaufort Assessment Model (BAM) for Atlantic Red snapper during 2007.¹⁶

The "Great Recession" began during 2008 causing a big reduction to the salt water commercial, for-hire and private recreational fishing fleets that lasted for several years afterwards.

On behalf of the Southeastern Fisheries Association (SFA) East Coast Fisheries Section (ECFS) Dr. Frank Jay Hester authored a critique of the SEDAR 15 results on May 08, 2009, and presented it to the SAFMC during June 2009. Ultimately this began a process that evolved into scheduling SEDAR 24 for 2010.

2010's

January 04, 2010, the NMFS closed down the Atlantic Red Snapper fisheries using the controversial SEDAR 15 results.

During 2010 the SEDAR 24¹⁷ was on a fast track stock assessment schedule due to criticism of the SEDAR 15 results. After the Data Workshop meeting was held, the NMFS SE Fisheries Science Center (SEFSC)

¹⁴ <http://www.safmc.net/Library/pdf/SnapGroupAmend4FinalRule.pdf>

¹⁵ http://www.sefsc.noaa.gov/sedar/download/SEDAR24-RD35_Manooch1997.pdf?id=DOCUMENT

¹⁶ http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=15

¹⁷ http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=24

used only webinars in place of an actual physical SEDAR Assessment Workshop meeting, with a public comment part way through the assessment process, which did not work as well as envisioned. The SEDAR 24 Review Workshop meeting occurred during October 2010. The final SEDAR 24 results made available by December 2010 utilized new information to make several changes with the proposed SEDAR 15 results such as the elimination of closed areas to bottom fishing. Later projections from SEDAR 24 did allow for some very limited commercial and recreational sector fishing for Red snapper during 2012, 2013 and 2014 that were heavily monitored and sampled. Allocations were approximately 72% recreational and 28% commercial each of those years.

NOTES:

Seasonal weather patterns such as hurricanes, winter storms and cold water bottom upwellings need to be considered in understanding annual red snapper fishing efforts through recent history. William Gregg mentions the effect of extra cold winters, and some other information sources note the disruption caused by hurricanes historically. In my experience after a serious Northeaster or a hurricane, it generally takes several days to a few weeks for the ocean to settle down to normal as per fishing and/or boat rides. Plus the bottom changes due to intense currents and/or storm surges in the reef and shelf regions.

Damaging events such as WW II depth charges made over the ocean reefs in the East Florida Coast, the sinking of Naval vessels that released high levels of dangerous substances, including caustic soda, oil, fuel oil and explosives as examples have all had some consequences on fish populations and habitat. Seismic testing by fossil fuel companies using acoustic arrays with high decibel levels has been known to injure and kill larvae, reef fish, pelagic fish, sea turtles, marine mammals and destroy coral. Pollution from the coastal human population growth and the subsequent increase of the oily bilge water, nitrogen used for lawn care, and untreated sewage have all affected the habitat on an increasing basis during the past century. Foreign fleets using trawl and longlines were impacting reef fishing areas offshore of and between principal ports like Mayport and Cape Canaveral until the US Magnuson Act ended their access by establishing the 200-mile exclusive economic zone (EEZ).

Some Carolina fish trawl boats used bottom roller rigs that impacted large and small relief hard bottom during the 1970's to the later 1980's, and later some Carolina shrimp vessels using special fish trawls left a lot of low feature "live bottom" effected for years from North Carolina to Florida, until the SAFMC Amendment 1¹⁸ banned these gears from Cape Hatteras to Cape Canaveral, effective January 12, 1989.¹⁹

The impacts from the Calico Scallop fleets also operating during the 1980's offshore of the Cape Canaveral region was mentioned by the SAFMC, but was never quantified, though many stakeholders including this author saw the negative effects to large and small hard bottom features all the way out to 30 fathoms.

¹⁸ <http://www.safmc.net/Library/pdf/SnapGroupAmend1.pdf>

¹⁹ <http://www.safmc.net/Library/pdf/SnapGroupAmend1FinalRule.pdf>

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- ⁱ "Volume 6: Snappers of the World" 1985 G. R. Allen prepared for the FAO
- ⁱⁱ "Changes in Saltwater Angling Methods and Gear in California" 1979, Susan E. Smith
- ⁱⁱⁱ "American Fishes" 1887/reprint 1903, George Brown Goode
- ^{iv} "Where, When, and How to Catch Fish on the East Coast of Florida", 1902, William H. Gregg, assisted by Capt. John Gardner
- ^v Bureau of Fisheries, 1924
- ^{vi} Captain Robert Stone, 2010, personal communication, Ponce Inlet, Florida
- ^{vii} Captain Russell Hudson, 2014, personal communication, Daytona Beach, Florida
- ^{viii} "Salt Water Fishing", 1937/reprint 1953, Van Campen Heilner
- ^{ix} <http://dxinfo.ea3bhk.com/Miscellaneous/LORAN-End-of-an-era.html>
- ^x Captain Steve Amicks, 2010, personal communication, Savannah, Georgia
- ^{xi} "Technical Series No. 24, A Survey of the Number of Anglers and of Their Fishing Effort and Expenditures in the Coastal Recreational Fishery of Florida", 1958, Robert W. Ellis, Albert Rosen and Allen W. Moffett
- ^{xii} Rosen and Ellis, 1961
- ^{xiii} "Biological-Statistical Census of the Species Entering Fisheries in the Cape Canaveral Area" 1965, by William W. Anderson and Jack W. Gehringer for the US Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries and known as Special Scientific Report-Fisheries No. 514
- ^{xiv} Futch and Torpey, 1966
- ^{xv} "Good Fishing In Florida" 1967, Rube Allyn
- ^{xvi} "A Survey of Offshore Fishing In Florida", 1963, Martin A. Moe Jr.
- ^{xvii} <http://www.safmc.net/Portals/6/Library/FMP/SnapGroup/SnapGroupFMP.pdf>
- ^{xviii} <http://www.safmc.net/Portals/6/Library/FMP/SnapGroup/SnapGroupAmend1FinalRule.pdf>
- ^{xix} <http://www.safmc.net/Portals/6/Library/FMP/SnapGroup/SnapGroupAmend4FinalRule.pdf>