South Atlantic Red Snapper Fishery
A Fisherman's Perspective

February 2009

Written by

Captain David Nelson

Contents

Acknowledgments

Fishermen of the South Atlantic, just like most fishermen everywhere, are some of the hardest working people in the entire world. They are also by their nature very independent people as well. Self reliance is part of the job when you are alone, very often fifty miles from home in an ocean that ten minutes prior was flat, it is up to them to get their crew home safely. They also have to be very guarded in what they share even with their closest friend, any advantage revealed can take food off the table. However, they are some of the most helpful people that you will ever encounter in your life, knowing that it could be them on the wrong end of a breakdown one day. It is an unwritten rule to help others in almost any situation when help is needed offshore.

This fierce independence shared by most fishermen has often caused a distrust of government and sometimes difficulty communicating this distrust. This has led to much frustration on the part of the fishermen in most cases. Some of this distrust has been warranted and some has not. When bad science can destroy people's lives it does not really matter, because everyone doing the destroying from their point of view is deemed the enemy, right or wrong.

This short body of work has been compiled with the help of some of the greatest bottom fishermen to ever anchor on a ledge. From Moorhead City, North Carolina to Cape Canaveral, Florida with over 2,000 years combined experience among them. Many of these men have fished the triple ledge off Savannah and laid long line gear down the Steeples off of Daytona. They all know what it is like when the tide is into the wind and you are trying to anchor on a rock the size of a large couch in 150 feet of water. Some of them had first hand information but most were contributors to younger captains along the way. I have had the distinct honor and pleasure of fishing with many of the men on this list. Without all of their knowledge and experience over the years, many of us would not have become the men that we did. If anyone was left off of this list I apologize.

Captain Jake Stone Captain Al Keith Captain "Big Dave" Dresser Captain Steve Dresser
Captain Don Register Captain Ray Fulgem Captain Sonny Davis Captain Mark Brown
Captain Dix Harper Captain Tad Grubbs Captain George Strait Captain Lee Carver
Captain Billy Smitherman Captain Carrie Sinclair Captain Piper Simmons Captain Steve Ellis
Captain Rick Ackock Captain David Grubbs Captain Bob Stone Captain Chris Endicott

Captain Ernie Endicott Captain Steve Amick Captain Tim Garrett Captain Ron Captain Russell Captain Danny Day Captain Tony Crane Captain Bill Wahooter Captain Bill Wahooter Jr. Captain Kevin Loller Captain George Francis Captain Jimmy Hull Captain Jimmy Lear Captain Randy Sheffield Captain Gill King Captain Al Nelson Captain Charlie Schammel Captain Greg Lacore Captain Donny Thoburn Captain Ed Fletcher Captain Greg Lustick Captain Al Klein Captain Frank Timmons Captain Frank Timmons Jr. Captain David Stokes Captain Chris Foreman Captain Scott Laney Captain George Locke Captain Jeff Stone Captain Rusty Hudson Captain Johnny Ellis Captain Scott Ellis Captain Ty Moore Captain Mike Nelson Captain Paul Nelson III Captain Bud Brown

Most of all I would like to thank my father, Captain Paul Nelson II, in my opinion, one of the greatest men to ever live. His work ethic, humility, and kindness are second to none in my book. I am proud to call him Dad.

The purpose of this information is to show the red snapper fishery from a real life point of view with actual places and real people. It is also to begin a discussion about some important questions. Questions that must be answered so that the real status of red snapper can be found, such as;

1. What was the fishery really like in the 1950's and 1960's from people who were there?
2. How many 25 pound red snapper can live on a twenty-five feet high, 400 mile long ledge in 180 feet of water?
   (This same ledge can only be effectively bottom fished using a long line and has not been long line fished in 18 years)
3. How many 25 pound red snapper live up on top of the Continental Shelf hard bottom that is also almost 400 miles long?
   (This same area can only be effectively bottom fished with a long line and has not been long lined in 18 years)
4. Why have these two areas of red snapper territory, each 400 miles long, never been sampled properly?
5. Where are all of the juvenile red snapper in the Atlantic before they get to be 12-14 inches?
6. Why doesn't the National Marine Fisheries use the body of knowledge that fishermen have to offer?

Misconceptions About Bottom Fishing

Hook and line fishing has been lumped in with many other fisheries that have been poorly managed in the past. There are many factors involved with bottom fishing a species like red snapper that need to be taken into account when considering what is possible and what is not possible. There is a public misconception that commercial fishermen go fishing everyday by the hundreds and everyone fills their boat every trip. This is not a trawler fishery where you can fish any type of weather. In net fisheries underwater environmental factors matter very little, because the net makes the decision for the fish, not the other way around. Mother Nature has a way of humbling us all, but especially in the areas below when it comes to red snapper fishing.

Weather

This year so far from January 9, 2010 to February 18th 2010 there was almost no fishing in the South Atlantic because of high winds. From November 1st to May 1st in the South Atlantic, all bottom fishermen lose an average of 90 to 120 days to weather, depending on the size of their boats. This number was higher in the early years because of navigation and sea worthiness of boats. The South Atlantic has almost no near coastal bottom fishing like the Gulf of Mexico and when the wind blows the ocean is closed. In the last 100 years that has equaled over 29 years of ocean closures.

Gulf Stream

For much of the year the deep water is covered by the Gulf Stream Current, from 15-20 miles off of Cape Canaveral, Florida to the deep water off of Hatteras, North Carolina. This can make these areas impossible to bottom fish for most of the year except with long line gear. The area from the 28 ledge to 300 feet of water is closed to bottom fishing at least half of the winter months because of the weather and all of the summer months because of the current.

Distance

From Savannah, Georgia it is 83 miles to the Triple Ledge. This prevents the deep water areas off of Georgia from being targeted very often. The few commercial fisherman who do fish that area, only go out there when the cold water has moved into the inshore waters.

Labrador Current

Every year from late July until the first hurricane of the season brings a big swell to the south east coast much of the region is inundated by cold water. This cold water from the deep sends many bottom species into deeper water or just puts them in a catatonic state and they will not feed. Diver reports have shown massive numbers of snapper in a coma like state. It is not uncommon for head boats during this time period to catch nothing but black sea bass for weeks. This lasts from six to ten weeks. This is another one of Mother Nature's closures that should be taken into account when managing bottom fish.

History

Northeast Florida 1946-1976 Cape Canaveral to St. Augustine, Florida

Contributors: Captain Bob Stone 1943 to Present/Captain Paul Nelson II 1954 to Present/Captain Bud Brown 1950-1973

During this time period trips beyond thirty miles were almost unheard of and really not necessary. Navigation for most vessels until the early 1960's consisted of a compass and a stop watch. Sounding equipment consisted of a steel pipe or sash weight and a chunk of ivory soap. When the compass course and time were thought to have brought the boat near hard bottom the steel pipe or sash was lowered with the soap stuck to the end. If the soap was covered with sand it was wiped clean and dropped again. When the soap was covered with small shells or coquina shavings, a sign of hard or live bottom, the anchor was dropped.

According to Captain Mark Brown of Charleston he remembers his father talking about fishing in the early 1950's off of Ponce Inlet, Florida using hand lines.

> "In the fifties when boat captains were locating reefs with sash weights and a bar of soap and trying to find the fish was like finding a needle in a hay stack, the method of actually catching the fish also went through a sort of metamorphosis if you will. Dad used to say that in the early fifties nobody used rod and reels at Inlet Harbor (Ponce Inlet) to bottom fish with. He said they trolled with them rods and reels, but for bottom fishing when you would stop you used handed out hand lines and a pair of gloves.
>
> He told me he was the first one to ever get the bright idea of using the trolling rods and reels for bottom fishing. The reason he would say it that way was because of all the problems it started with customers getting backlashes and dropping them overboard. He used to say that he should have never done this and stayed with the hand lines like everyone else. I am not sure if that was the case for everyone, but that's the way dad would described it to me.
>
> I also remember dad telling me the fleet would generally try to work together and run out offshore at least within radio distance or within sight and plunk the bottom in a general area for signs of the reef on their bar of soap. If someone got a good sounding and caught some fish then they would throw a buoy and let the other boats know and then that way they could all work around the same area until some good fish were being caught. It was very primitive compared to anything thing we do today. After they found a good area they would place a black flag poled Styrofoam buoy with a heavy anchor to mark the area so they could return the next day. This would work until a big wind or surf came up and blew it away at which point they would have to start over again.
>
> I know dad said Uncle Jake (Stone) had the very first paper graph machine and he would troll around sometimes and find the fish and throw buoys and help the rest of the fleet. Everyone was a lot tighter back then and tried to work together.

Into the mid 1960's Loran A became very common and this aided in navigation, but it was not very accurate. Sounding equipment emerged with paper machines that worked very well but the paper had to be replaced often. I remember as a young boy, in the 1970's, rolling fish finder graph paper out on the living room floor with my brothers, looking at the ledges, wrecks and fish in amazement. We learned at a very young age, the distinct markings of a school of red snapper, the upside down V.

Captain Bob Stone began fishing with his father Jake Stone out of Ponce Inlet in 1943. He has fished the area off of Ponce Inlet ever since. From his accounts over 80% of all fishing in that early period, 1946-1976, was done inside of thirty miles. The charter or head boat season was limited to the summer and the rest of the year was spent catching shrimp and bottom fishing commercially. Most charter boats and party boats during this time period were converted to shrimp boats and snapper/grouper boats in the winter months. There was no bottom long line fishery in this period as it was not needed.

Recreational fishing boats were almost non existent during this time period. Even in the best of seasons during this time period, the most recreational boats Captain Bob Stone ever encountered in one season is 10 total the entire summer. Almost all recreational fishing was done on head boats and charter boats.

The peak of the red snapper fishery in this region was the late 1960's and mid 1970's. With the discovery of the "Red Snapper Sink", "The Flagler Grounds", and "Captain Paul's Airplane" large spawning aggregations were fished almost every summer during this time period. These aggregations did not last the entire summer, each aggregation was unique and would never last more than a few days once discovered. All of these were well inside the thirty mile line and some as close as 6-8 miles from Flagler Beach. All during this early period it was not necessary to fish very far from shore.

These spawning aggregations in the 1960's were not a gathering of the entire biomass, but just a fraction. As the research in the Gulf of Mexico has shown the older red snapper tend move to much deeper water in smaller groups. It is possible that the large

numbers of red snapper caught in these areas during the 1960's were much younger fish than first assumed.

With all of the fish being caught during this time period, 90% were inside of thirty miles. This means that the greatest decades of red snapper fishing on record from 1950 to 1970 only pulled fish from about 25% of the possible red snapper habitat. With no regulations this inshore area became overfished by the late 1970's. However, the region beyond thirty miles had barley been tapped into by the time the 1984 regulations began.

The head boat length data used to determine the age of the stock in the early period, was collected from 1978-1983 on the inshore grounds. This was the low point for red snapper inside of 25 miles and it made the stock look very young. However, with no samples from 75% of the possible red snapper territory, especially deep water, this data is biased towards younger fish and should be adjusted as such.

Deepwater Long Line/Bombay Fishery 1970's thru 1992

In memory of Captain Dix Harper, the best bottom long line fishermen in the history of the South Atlantic, 1955- 2001.

Contributors: Captain David Grubbs 1975 to present/Captain Paul Nelson III 1972 to present/Parker Hansen 1984 to 1995 (Crew for Captain Dix Harper)

The bottom long line fishery in the South Atlantic was relatively short lived for a few reasons. Long line fishing for red snapper was not necessary in the early period before 1970 because of the amount of red snapper on the inshore grounds (0-30 miles) with no size regulations.

The use of the first electric reels inshore occurred in the form of Bombay Reels in the 1940's and 1950's. With the need to fish further from shore and in deeper water in the early 1970's the Bombay reel fishery expanded because of the depth of water that they could be fished if the current was not too strong. The Bombay reel's name comes from the motor used in early reels were from B-52 bombers that fought during WW II. This was a productive fishery for smaller fish under 15 pounds for many years. This fishery was limited by the Gulf Stream current in many areas, vertical hook and line gear moving at 2-4 knots has its limits, it was especially difficult to catch the older more experienced red snapper.

To combat the current in the deeper water the bottom long line evolved from a lighter trot line inshore to heavy tackle cable and monofilament for the hard bottom under the Gulf Stream. In the beginning of the fishery it was common for long line gear to be set in 100 feet of water and it was much more effective than vertical hook and line.

This effectiveness is because of the angle of the main line to the boat allowing the baits to lay almost motionless on the bottom. From a red snapper's point of view almost everything naturally moves parallel to the bottom. Anything reflecting light that is perpendicular to the bottom is very foreign and is avoided or approached cautiously by

red snapper over 20 inches. This does not affect younger red snapper because of their schooling and aggressive feeding habits. As they grow in age and size, red snapper become much more particular about what they feed on. This is why red snapper tackle has changed with the regulations.

Because bottom long line baits lay almost still and parallel to the bottom they are much more natural looking and therefore, more effective. As the fishery moved into deeper water in the late 1970's until the closure in 1992 the number of long line boats that were fishing for snapper declined because of the development of the, golden tile, snowy grouper, and shark fisheries in the early 1980's. The money to be made close to shore in the shark fishery made for short trips and big checks, and this was appealing to almost every bottom long line fishermen. This took a lot of pressure off the red snapper in deeper water before it was applied for very long.

The small amount of deep water red snapper fishing that was done in the 1980's to 1992 revealed an amazing biomass of huge red snapper (25-35 pounds whole weight) from 150 feet to 300 feet on top of the continental shelf. From the Oculina Banks off Fort Pierce, Florida to Hatteras, North Carolina, these older red snapper thrived on the hard bottom between the 28 fathom ledge and the hard bottom on top of the shelf out to 400 feet deep. The best bottom long line fisherman in the history of the South Atlantic was probably Captain Dix Harper.

Captain Dix had a knack for catching grouper and red snapper on the 28 fathom ledge from Fort Pierce, Florida to Charleston, South Carolina. His secrets were well guarded and included; 20-30 foot leaders of 400 pound test, using cut up eel, and laying his gear right on the hard bottom. He would lose a lot of gear, but the fish he caught more than paid for it.

It was very common on a 200 hook set that covered 1.5 miles, for him to catch 40-50 red snapper and the smallest fish would be 20-25 pounds whole weight. According to the research a 21 pound red snapper is 20 years old. According to most skilled fishermen red

snapper that size do not like heavy monofilament. It would be hard to imagine the number of red snapper that would not bite a 13/o circle hook on 400 pound test and were never caught.

Captain Paul Nelson III participated in this fishery as first mate for Captain Harper in the late 1980's. He can attest to the large numbers of 25 pound plus red snapper caught in the deeper waters of the continental shelf.

> **"It was not uncommon for 30-40 large sows to float the bottom gear to the top from their air bladders. Every 50 to 200 feet there would be a 25 to 35 pound red snapper floating on the surface for a mile or more"**

Captain David Grubbs also participated in this fishery on his boat the Retriever, a shark long line boat. Between shark sets at night he would set five or six short sets during the day for red snapper in 200-240 feet of water from Fort Pierce to Savannah. Captain Grubbs claimed,

> **"On a good set it was very common to catch 400-800 pounds of 25 plus pound red snapper on a 200 hook set. We did this during the day to supplement our shark catches at night, from Fort Pierce to Savannah"**

Inshore of the 200 to 240 foot strata is the 30 fathom curve, or ledge. This is a continuous high relief ledge with live bottom up on top (There is a relatively small area between Daytona and St. Augustine that the ledge runs out) The highest relief is down the east face and can be 15-30 feet high, 160 feet up on top and 185 down the east side. It also has numerous caves and cut back canyons for almost any size fish to live in. This ledge is over 400 miles long in the South Atlantic, from below Fort Pierce, Florida to above North Carolina. In some areas off Georgia it is a triple east side ledge, which means it is the same as described above times three.

East of the 28 ledge is the edge of the continental shelf that rolls down to over 150 fathoms very quickly. This "Roll Down" as it is sometimes referred to, is hard bottom up

on top and sand and mud down on the deep bottom side. The hard bottom from 30 fathoms to 50 fathoms is another area of prime red snapper territory.

To the south the Oculina Banks is the beginning of this habitat. This coral needs this hard bottom to grow and it grows on top of "cones" or "steeples" of rock as they are called. From the southern end off of Florida to southeast of Charleston, South Carolina older red snapper roam this region in what seems to be small groups. This is the area that was bottom long lined for a short period from 1983-1992. The older fish that live in the deep water stay year round and spawn in relatively small groups, compared to their inshore counterparts.

Between the shark fishery and the discovery of wreckfish fishery (by accident) in 1987, this helped keep the pressure off the red snapper in deep water. The existence of these larger older red snapper on top of the continental shelf continued right up until the bottom long line closure in 1992. According to the research, the average 21 pound (whole weight) red snapper is supposed to be 20 years old. From eyewitness accounts a 21 pound red snapper on top of the continental shelf is a baby. These fish have not been fished much at all for 18 years. Bombay fishermen catch a few but are limited because of gear and the Gulf Stream Current.

Unfortunately there is no record of deep water long line aging samples in the current science on red snapper. In SEDAR 7 in the Gulf of Mexico it is clear that the majority of older fish were caught by the long line fishery. The existence of this cryptic biomass from 160 to 300 feet of water stretching over 400 miles could be the answer to a very important question. How can a stock of fish appear so depleted in the science but eyewitness accounts claim that it is thriving?

Today

Thirty Miles to 28 Ledge/Massive Red Snapper Habitat

In the late 1970's and early 1980's the LORAN C became affordable and fiberglass outboard boats began to develop and demand was high from recreational fishermen. With accurate navigation and reliable boats it became possible for anyone with limited knowledge to fish offshore. During this same time period the artificial reef programs began to expand offshore almost every South Atlantic area. From the early 1980's to today, these inshore artificial reefs have taken on a lot of fishing pressure that would have been applied to the offshore waters.

In 1984 the South Atlantic Council passed a minimum size limit and bag limits for red snapper. In 1992 this was changed and expanded into the regulations that we knew before the closure. The 20 inch rule was the most important rule because of the biological change in feeding habits of red snapper as they get older. Older red snapper are less aggressive when it comes to feeding as they are not growing as fast. This has forced many changes in the type of gear used to catch red snapper. The most successful fishermen have gone to lighter and lighter rigs.

The South Atlantic Council did its job in 1992 and red snapper are currently in a healthy state of rebuilding on the inshore grounds according to the most experienced fishermen. This was really the only area that was in much trouble in regards to overfishing for red snapper. The SSC and Council of 1992 should be commended for their actions that saved the red snapper. The areas offshore of thirty miles were saved from ever being overfished by distance from shore, the lack of need to fish that area in the early period, and now the 1992 regulations. This is where the major percentage of the biomass lives.

By far the most productive area of red snapper habitat in the South Atlantic lies between 17 fathoms and 26 fathoms of water. It is not uncommon off of Savannah in a 21 (3 by 7 miles) square mile area to have 500 or more ledges, each an individual habitat for a variety of species, the most prevalent being red snapper. This area of habitat is very narrow off of Cape Canaveral (3-4 miles) and widens moving north and is widest off Savannah (40 miles).

The area between St. Augustine and Savannah seems to be the most productive in volume of red snapper. For almost 20 years this area has seen improved fishing since the 1992 size and bag limits. Captain Steve Amick of Savannah claims,

> **"We have seen a steady improvement year after year since 1993 and an explosion in the red snapper population since the year 2000. Seventeen years of improved fishing since the 20 inch size limit was started"**

This area contains thousands of low relief ledges and live bottom (See video clips in appendix). Most ledges are from 2-6 feet in height and range in length from 25 feet to 150 feet. The red snapper are very mobile and will move to feed or because of water temperature. They might be caught on a ledge one day and you could go back there the next day and not catch any. In the spawning months they seem to move less, May to August. Once they have stopped to spawn in March they will stay in the area until their eggs are laid. They seem to be more mobile the rest of the year. For the most part hard bottom is the key to catching red snapper. If your bait is not near the ledge you will not catch red snapper.

Near Shore to Thirty Miles

Historically, this area has seen the most fishing pressure for obvious reasons, the most important being distance from shore. During the early period until 1984 this area was overfished for many years. The eight years from the 12 inch rule to 1992 and the 20 inch rule saw some improvement in this area as far as volume of fish but not much. The year 1992 was the most important year in the history of the red snapper fishery for a few reasons. When the 20 inch size limit was implemented this changed everything. From a biological standpoint the difference between the feeding habits of a 1-2 year old fish and a three year old fish are like night and day.

Since they grow 20 inches or more in their first three years of life, younger red snapper are ferocious and have no preference in bait, rig, or pound test. Once they reach

age three, for whatever reason they become more particular as to what they feed on. The twenty inch rule put the near shore hatchery off limits. This area near the coast north and south of Ponce Inlet is safe from most fishing because you only catch 10-14 inch red snappers there. The fish that are caught in the shallows, 45-55 feet, are mostly returned unharmed.

Another important rule in 1992 was the banning of bottom long line inside of 50 fathoms. This stopped a part of the fishery still in its infancy and protected the older larger fish in deeper water. These fish have been basically un-fished for the last 18 years and laying massive amounts of eggs annually. This is why the fishery is so healthy and the models show the age truncation because of the lack of data from the deeper water.

Goals Moving Forward

Deep Water Sampling

The area from the 28 fathom ledge to the 50 fathom hard bottom must be properly sampled. This can be accomplished by using a NOAA research vessel and laying a long line that is rigged and baited properly along the 28 ledge and on top of the continental shelf hard bottom.

This must be done using 20-30 foot leaders and a slack release on the cable to prevent twisting of the leaders. Using cut up eel or bonito tipped with herring. NMFS needs to make sure that a captain who has experience laying bottom long line among the rocks and on the ledges in deep water is consulted so that it is done properly without leader twists. The research must be done on hard rock bottom and some gear will be lost, to combat this bullet floats should be connected every so often so that an end can be retrieved if the gear breaks.

MARMAP

Changes must be made to the fishing gear used on the MARMAP to target almost all species. Ever since 1992 gear has changed to get lighter and less bulky due to the 20 inch size limit. Dix Harper was on the cutting edge in the long line fishery with his longer leaders and bait types.

For vertical hook and line gear the rigs must be lightened to less than 100 pound test main line monofilament at least 40-50 feet off the bottom and down to the 8-16 oz lead. About 1-2 feet above the lead a three way swivel should be inserted and an 80 pound test (soft mono like moi moi) 8-15 foot leader to the 5/o circle hook.

Tagging Program

There needs to be an effort to tag young red snapper as early as possible in their life cycle. This could be accomplished in the late Fall to early Spring, south of Ponce Inlet and late Spring early Summer north of Ponce Inlet. By age two or three they seem to be already moving out to deeper reefs offshore.

Acoustic/Video Research

Acoustics could be the answer as to how to sample the deep water with sound instead of cameras. Red snapper tend to shy away from lights and human activity. Sound waves could give a count as to the number of older red snapper living in the deep.

From the Lab of Dr. James Cowan LSU

"To accomplish our tasks, we are employing a variety of traditional and digital data collection techniques (e.g., hydroacoustics, side-scan sonar, DIDSON acoustic camera (Dual-frequency IDentification SONar) to determine the size of the study reefs, and to estimate biomass, community structure, and size frequency distributions of the reef-fish community, especially red snapper, on the study sites. The DIDSON permits a novel non-invasive approach to study fish populations that uses sound rather than light to record the shape, size and movement of fish in areas where low visibility prohibits the use of video techniques. The DIDSON was developed for military applications, and has only recently been used in studies of fish ecology."

Video

There should be a video survey done of a reef that has the most fishing pressure near shore. An example would be the Party Grounds 17 miles out of Ponce Inlet. This area contains over 100 ledges and has a maximum depth of 85 feet. All the NMFS needs to do is provide a scientist to collect the data, select the locations, and collect the video; fishermen can provide the boat, divers, and cameras. This would give some what of an idea about an ecosystem with a lot of fishing pressure under current regulations.

Local Involvement

There should be an effort to contact captains at the local level and get them involved as much as possible. This could be done with some type of outreach program initiated by the NMFS in each region. The yellow sheet is not enough when people's livelihoods are at stake. (See appendix for list of captains)

Mortality

This issue is very important and must be addressed. Ninety percent of recreational fishermen spend ninety percent of there bottom fishing time inside of thirty miles. If you look on a chart that keeps almost all of those fish caught in that area in water under 100 feet. According to the best available science, mortality at that depth for red snapper is under 10%. The amount of fishing offshore of that line is done by a small percentage of recreational fishermen and there is a higher percentage of red snapper over the size limit in that area. The number of fish that have to be thrown back outside of 100 feet is tiny compared to the inshore areas.

In the previous science the mean average depth for recreational fishing for red snapper was around 120-130 feet. This needs to be reduced to 70-100 feet average depth for recreational fishermen.

In the commercial sector the previous estimate was 90% mortality. This was determined using handling practices from the GOM and average depths of over 150 feet when most red snapper are caught commercially from 100 to 140 feet. Mortality should be 50% at the most for the commercial fishery.

Conclusion

The goal of almost every fisherman is a healthy red snapper stock. This goal can only be attained by letting fishermen be a big part of the management process. From the science to the regulations, their voices should be heard and taken into account when the information is needed. Cooperation from all groups; scientists, managers, and fishermen will help insure that the best science is being used to make the best management decisions for the future health of the fishery.

Appendix

Internet Resources

Commercial Red Snapper Video Gulf of Mexico

The link below shows commercial fishing in the Gulf of Mexico. The 20 inch size limit in the Atlantic prevents this type of fishing from occurring. Before the 1992 regulations, this could easily be done using similar gear and rigs. Over a certain age most red snapper will not go near a rig with ten vertical hooks, like the one shown in the video.

http://www.youtube.com/watch?v=taCRowC90RA

Large Medium Relief Ledge Video

The link below shows a very large ledge with medium to high relief. This is similar to the type of habitat that the Atlantic red snapper live on, except this spot is exceptionally large. Most of the best red snapper ledges are no longer than 50 feet long and only 2-3 feet high.

http://www.youtube.com/watch?v=5eVonjRMogo

Large Low relief Ledge Video

Similar to the video above except that much of the rocks and ledges are lower.

http://www.youtube.com/watch?v=wWOvPSt_R1o

http://www.youtube.com/watch?v=Qfdg8T0YKKM&feature=related

28 Ledge

The 28 ledge is similar in structure to the ledges shown above except it is 15-35 feet high and runs almost continuously for 400 miles in 160 to 200 feet of water. Only a few people have ever seen it and eyewitness accounts talk of a huge underwater cave system back up under the ledge itself. In some areas enough room to fit semi trucks. It can be seen on any South Atlanticchart that has depth in the 28-30 fathom area, the depth beyond that drops very quickly.

Steeples/Cones/Roll Down/Escarpments

The NMFS has a lot of information about the deep water north of the Oculina Banks. It claims that this area is an important spawning area for grouper and snapper species. The problem with light based observations such as underwater video is that red snapper are very shy by nature. Amberjack and grouper will approach human activity and are very curious. Red snapper are the opposite and will rarely be seen on video in deepwater.

References

1. PDF document; http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/RSAssess99.pdf
2. Dr. James Cowan and his website.
3. SEDAR 15
4. Jack McGovern, NMFS
5. Dr. Frank Hester
6. Captains who were directly or indirectly involved in this paper are listed below.

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