The South Atlantic Fishery Management Council's

South Atlantic Update

Published for fishermen and others interested in marine resource conservation issues **Spring 2009**

Council Requests Red Snapper Closure to Help Address Overfishing

Closure could begin later this year; additional measures necessary to end overfishing

Request a closure of the red snapper fishery. It is a decision the South Atlantic Fishery Management Council has weighed for nearly a year, after receiving official notice that the red snapper stock in the South Atlantic was overfished and undergoing overfishing in July 2008. During its March 2009 meeting in Jekyll Island, Georgia, the Council approved a motion to request a closure through the use of an interim rule to help address overfishing. The interim rule is designed as a short-term measure until more permanent measures can be implemented to end overfishing and rebuild the red snapper stock. Long-term measures are being considered in Amendment 17 to the Snapper Grouper Fishery Management Plan, currently under development.

If approved by NOAA Fisheries, the interim rule would close the red snapper fishery in federal waters in the South Atlantic region for both commercial and recreational fishermen for a period of 180 days, with an additional 186-day extension possible. The Council also requested that states implement complimentary regulations. The Council has requested that the closure not go into place until after its June 7-12, 2009 meeting in Stuart, Florida, when issues of timing for the development and implementation of management measures in Amendment 17 will be addressed. The interim rule request is being reviewed by NOAA Fisheries Service and approval rests with the Secretary of Commerce.

The Council received notice in a letter dated July 8, 2008 from NOAA Fisheries Service that it had one year to prepare a plan amendment or proposed regulations to end overfishing of red snapper according to the Magnuson-Stevens Act.

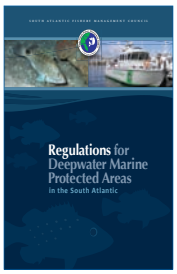
Upon notification, the Council began preparing Amendment 17 with management alternatives for long-term measures to end overfishing and rebuild the red snapper stock. The Magnuson-Stevens Act also allows the use of an interim rule to address overfishing through temporary measures while a plan amendment is being developed.

A new red snapper stock assessment, conducted in 2008 through the Southeast Data, Assessment, and Review (SEDAR) program, shows that despite size limits and bag limits implemented in 1992, overfishing for red snapper has been occurring since 1970 at about 8 times the sustainable level. Furthermore, the assessment estimates that total mortality

(Continued page 4)



The Council has requested an interim rule to close the red snapper fishery to help address overfishing. However, because of the mixed-species nature of the fishery and the high mortality rates estimated for red snapper that are caught and released, a closure will not end overfishing. Additional measures are necessary and alternatives are being developed through Amendment 17 (see page 10).
A "Frequently Asked Questions" document with additional information is available on the Council's web site at www.safmc.net.



New! *Regulations for Deepwater Marine Protected Areas in the South Atlantic*
See page 6 for information on how to order your copy, plus updates to regulations for 2009, including a listing of deepwater MPAs and other regulations affecting snapper grouper fishing.

June 7-12, 2009 Council Meeting - Stuart, FL

Open Public Comment
Tuesday, June 9 - 5:30 - 7:00 PM

Informal Q & A Session (focus on red snapper)
Wednesday, June 10 - 5:30 PM
See page 11 for details

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Editor's Note

The South Atlantic Update is published by the South Atlantic Fishery Management Council. Its purpose is to report developments in fisheries management that would be of interest to its readers. Please credit the Council when reprinting articles used in this newsletter. Anyone wishing to submit information or articles pertaining to fishing or fisheries management, or letters to the editor on a pertinent issue, is invited and encouraged to do so. Submissions may be mailed to Kim Iverson, Editor, *South Atlantic Update*, 4055 Faber Place Dr., Suite 201, N. Charleston, SC 29405, or may be sent via the internet; Email address: kim.iverson@safmc.net.

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Law Enforcement @ Work

Final Defendant in "Operation Freezer Burn" Spiny Lobster Investigation Found Guilty in Federal Court

On April 1, 2009, in federal District Court in Key West, a jury convicted the last remaining defendant, Michael Delph, 39, of Key West, for illegally harvesting lobsters from artificial habitat placed in the Florida Keys National Marine Sanctuary (FKNMS). According to evidence presented at trial, Delph, a charter captain, was part of a conspiracy in one of the largest cases involving the illegal harvest of spiny lobster ever prosecuted in the U.S. Delph is scheduled to be sentenced in U.S. District Court on June 10, 2009 and faces a up to five years in prison.

The five other co-conspirators in the Indictment, including David W. Dreifort, 41, Denise Dreifort, 48, both of Cudjoe Key, were charged with conspiring to harvest large quantities of spiny lobster within the FKNMS, from illegally installed artificial habitat, and exceeding the bag limit, for commercial sale in violation of the federal Lacey Act. The five codefendants had all previously pled guilty. The Dreiforts are both scheduled to be sentenced on June 2, 2009.

NOAA and Fish & Wildlife Service Special Agents became aware of a group constructing illegal artificial lobster habitat, often referred to informally as "casitas" in the lower Keys. According to testimony at trial, agents tracked a boat on July 28, 2008, owned by David Dreifort, as it traveled entirely within the waters of the Sanctuary, harvesting spiny lobsters out of season. Subsequently the lobsters were placed in a freezer at a lower Keys residence, which held about 650 pounds of previously harvested, frozen tails. The pattern of stock piling and freezing lobsters taken ahead of the legal season led agents to dub the case "Operation Freezer Burn." Officers returned to the GPS logged sites within the FKNMS and found each site held artificial habitats. The divers also found freshly wrung spiny lobster heads.



Frozen spiny lobster seized as evidence

On opening day of the annual commercial lobster season, August 6, 2008, a multi-agency team executed a search warrant at the Dreifort residence, Over 1,700 pounds of frozen lobster tails, representing more than 1,000 times the legal bag limit for a mini-season sport dive were seized by agents. Defendants were intercepted as they returned from a morning harvesting trip in the FKNMS, during which more than 922 lobsters were illegally harvested. Part of the harvest effort was recorded by a surveillance aircraft, and shown to the jury during the Delph trial. Delph admitted his role in the illegal activities.

In a related civil case, the Dreiforts must sell two properties in the Florida Keys, including their residence at Cudjoe Key which was the staging ground for the criminal conduct, to reimburse the agency's costs and pay damages in the case. The Dreiforts will pay NOAA the proceeds from the sale of the houses, up to a maximum of $1.1 million. The money recovered as damages will be used by NOAA to remove more than 1500 of the casitas that have been illegally placed in the FKNMS over the years.

"The intentional dumping of debris into the sanctuary destroys valuable marine resources, undermines efforts to establish a sustainable fishery, and cheats fishermen who are trying to make a legal living," said CDR Dave Score, Florida Keys National Marine Sanctuary superintendent. "This settlement represents a huge win for the ecosystem, the lobster fishing industry in the Keys, and the taxpayers."

U.S. Attorney Alexander Acosta commended the coordinated investigative efforts of the NOAA Office for Enforcement, the U. S. Fish and Wildlife Service, Florida Fish & Wildlife Conservation Commission, and the personnel of the National Marine Fisheries Service Restoration Center and the Damage Assessment& Resource Protection Office of the National Marine Sanctuary Program which brought the matter to a successful conclusion. (NOAA OLE)

In the News:

Council Seeks Applicants for Position in Science & Statistics Program

The Council is seeking applicants for a technical staff position in the Science and Statistics Program. The person will be responsible for evaluating fishery management alternatives, supporting the Scientific and Statistical Committee, and representing the Council at federal and regional science and data committees. Activities may require frequent overnight travel and will involve contact and interaction with recreational and commercial fishermen and industry representatives, other public stakeholder groups, state and federal agency personnel, and Council members.

This position requires a M.S. or higher degree in fisheries science, statistics, or related discipline. A Bachelor's degree and 2 years of comparable work experience may be considered in place of an advanced degree. For additional information regarding the position, including application instructions, visit www.safmc.net.

Regional Fishery Management Councils to Participate in Capital Hill Oceans Week in June



The eight Regional Fishery Management Councils will be represented as part of the Capitol Hill Ocean Week (CHOW) in Washington, DC June 9-11, 2009. As part of the 3-day event, coordinated by the National Marine Sanctuary Foundation, the councils will co-sponsor the panel "Feeding a Nation: The Role of Fishing and Aquaculture in Today's Economy". The councils will also have a display during the event and distribute the newly printed ***Opportunities & Challenges*** publication highlighting management issues across the eight councils. Copies are available through the Council office. For more info on CHOW, see: http://nmsfocean.org/capitol-hill-ocean-week-2009.

Coast Guard reminds mariners of EPIRB frequency shift

Similar to the broadcasting world, which is transitioning from analog to digital frequencies, beginning Feb. 1, the U.S. Coast Guard is only receiving distress alert broadcasts from digital 406-MHz Emergency Position Indicating Radio Beacons. The Coast Guard will no longer process analog signals transmitting on 121.5 or 243 MHz. The Coast Guard urges mariners and aviators to upgrade their onboard analog equipment to include a digital 406-MHz EPIRB. Learn more at http://www.beaconregistration.noaa.gov, or by calling 1-888-212-SAVE. Help take the *Search* out of Search and Rescue.

Workshop Provides Fishermen with Opportunity to Inform Scientists About Fishing Practices

On Sunday, June 7, 2009, members of the Council's Scientific and Statistical Committee (SSC) will meet with members of the Golden Crab Advisory Panel and the Wreckfish Advisory Panel in an information gathering workshop in Stuart, Florida. The goal of the workshop is to review the biology of the golden crab and wreckfish fisheries, assess data available on each of these species, and obtain first-hand information from participating fishermen on the technical and economic aspects of each fishery.

Over the next couple of meetings of the SSC, the Committee has been tasked with recommending Annual Catch Limits for each of the species under the Council's jurisdiction. This workshop between members of the SSC and the Golden Crab and Wreckfish Advisory Panel members will provide scientists with additional information about each of these small fisheries that they can consider when making ACL recommendations.

The fishermen worked closely with Council staff to put together presentations that describe the geography of the fishing grounds, areas where fishing activity occurs, marketing aspects, and technical aspects of the fishery.

Fishermen and Council staff will jointly present the information to members of the SSC. Fishermen and Council staff have also worked together to develop documents that provide new information about each of these fisheries that will be presented to the SSC members. One document provides an update on the Wreckfish Individual Transferable Quota (ITQ) program from the perspective of wreckfish shareholders. Another document provides information about new technologies being incorporated by golden crab fishermen to improve marketing of golden crab.



golden crab (photo: SCDNR)

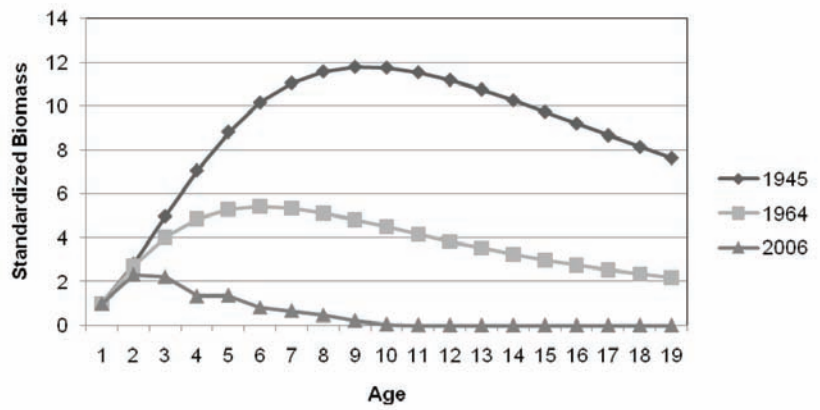


Members of the Golden Crab Advisory Panel, Bill Whipple (left) and Randy Manchester stand before a golden crab trap they brought to a Council meeting last year to show how the trap functions. The golden crab fishery primarily takes place in the deep, cold waters off southeastern Florida, where fishermen work cooperatively, both in determining what areas to fish and how the crabs will be marketed.
Golden crabs, named for their lightly colored shell that does not change color when cooked, are featured in specialty restaurants in the Ft. Lauderdale area and compete on the open market with snow crab and Alaskan king crab. Advisory panel members will participate in a workshop in June to provide information about the specialized fishery that can be used in setting Annual Catch Limits and other management measures in the future.

(landings and discards) of red snapper must be reduced by 87% in order to end overfishing.

The Council has considered an interim rule request to close the fishery since receiving the results of the stock assessment last year. However, the Council wanted to review all options before requesting a closure. In addition, there were concerns the interim rule could end before permanent measures were in place, resulting in a lack of continuity in management of red snapper.

The bulk of red snapper landings are from the recreational fishery, with recreational landings exceeding commercial landings by 2-3 fold. Between 2000 and 2006, the recreational sector accounted for about 72% of the total red snapper landings. But the landings are not the only problem leading to overfishing. The discard mortality rate, or the number of fish that die even when they are released, is also considered in the new SEDAR stock assessment. The discard mortality is estimated at 40% for the recreational fishery and 90% for the commercial fishery. Commercial numbers are higher because of the depths fished and different handling practices. As the depth of capture increases, so does release mortality of fish of all sizes.



The 2008 SEDAR stock assessment shows that red snapper live to 54 years of age. However, less than 1% of the current population is estimated to be older than age 10. Increasing the abundance of older, more mature fish is important to long-term sustainability. Despite the protection of a minimum size limit, the mortality levels remain excessive once red snapper reach legal harvest size.

The new assessment indicates that in order to rebuild the red snapper stock, the total catch (landings and discards) will need to be reduced, not just the landings. A closure of the fishery will not end overfishing because red snapper will still experience excessive bycatch mortality as fishermen pursue other species in the snapper-grouper complex. Amendment 17 includes alternatives that would prohibit the harvest of all snapper grouper species in certain areas. The alternatives for the closed areas focus on locations where concentrated landings of red snapper are reported, primarily off the coasts of Georgia and the north and central east coasts of Florida.



Prized for their delicate flavor, red snapper are a favorite target for customers on for-hire vessels. Historically, recreational landings have been 2-3 times higher than the commercial harvest.

It is estimated that 40% of the red snapper caught and released by recreational fishermen do not survive. This high bycatch mortality coupled with other factors will require additional regulations in the future to end overfishing and rebuild the red snapper stock.

Controversial Decisions

Many fishermen have testified during public hearings and scoping meetings conducted by the Council, questioning the data used in the SEDAR stock assessment and the need for a closure. Fishermen say they are catching more red snapper now than in the past 10 years, especially those fishing off the coasts of Georgia and northeast Florida. "We believe that your information is flawed and some of the data collection is just not working," said Captain Chris Rooney, president of the Jacksonville Offshore Sportfishing Club during a public comment session at the March Council meeting. "As a [charter] captain in north Florida, it's very hard for me now not to catch thirty or forty red snapper when I go with four people. I can't *not* catch the snapper." Data support those observations. A spike in 2007 and 2008 recreational landings collected by the Marine Recreational Information Program (MRIP) documents that fishermen are seeing more fish now than in previous years.

The SEDAR stock assessment also supports the fishermen's testimony, showing an increase in the abundance of red snapper since 1995. The abundance estimate for the start of 2007 is nearly twice that estimated for 1995. Strong year classes that occurred in 1998 and 1999 and moved through the fishery over the last several years are also partially responsible for the perception that the stock has improved recently. ***(Continued next page)***



Holly Reynolds of Mayport, Florida testifies during the March Council meeting in Jekyll Island, Georgia. Together with her husband Scott, Holly owns and operates the 70 ft. headboat *Majesty* out of Mayport. "I've been in this business for 10 years, my husband longer, and now it is being taken away from us," said Holly, referencing the possibility of a red snapper closure.

Despite these increases in overall abundance, problems persist. The age structure of the population remains truncated (there are not enough older fish). Red snapper live to 54 years of age, but in 2007 less than one percent of the population was estimated as being age 10 or older. This age structure has tremendous implications on the red snapper stock's ability to reproduce. As specified by law in the Magnuson-Stevens Act, the target Spawning Potential Ratio (SPR), for red snapper is 40%. The current SPR for red snapper is estimated at 3%. Spawning Potential Ratio is a measure of the reproductive potential of the stock at the current or desired level of fishing, relative to the reproductive potential in the absence of any fishing.

From my perspective, if we don't vote for this interim rule, it's a vote to allow overfishing to continue on a stock that's at 3% SPR, which is, in my mind, outrageous."
Council member George Geiger of Sebastian, Florida.

Some fishermen testified that in addition to more fish, they are seeing larger red snapper as well. "For red snapper, larger fish don't always represent older fish," explained Council Chairman Duane Harris during an informal Q&A session at the March Council meeting. "There is a great deal of variance in the age of red snapper at larger sizes." For example, a 10-year old red snapper is around 32 inches, but can range in size from 27 inches to 40 inches. Increasing the abundance of older, mature fish is important to long-term sustainability. Despite the protection afforded younger fish by the minimum size, the mortality of red snapper, once they reach the legally harvestable size, remains excessive.

Although the stock is improving, overfishing is still occurring and must be addressed within the requirements of the Reauthorized Magnuson-Stevens Act. After hearing testimony from members of the public regarding a red snapper closure, the Council discussed options and then approved the interim rule request in a split vote of 7 to 6. Council members voting against the measure stated concerns about the economic impacts of the closure and the timing for implementation of Amendment 17, while those voting in favor consistently noted the mandates of the Magnuson-Stevens Act to end overfishing.

"Is red snapper being overfished? Clearly it is. There's no doubt about that, but we've also heard that we have a relatively stable stock level right now, certainly not anything that, at least in my view, requires an emergency action. The Council is making steps, through Amendment 17, to deal with the overfishing issue."
Council member Tom Swatzel, owner of Captain Dick's Marina in Murrells Inlet, South Carolina

"The dye has been cast, if you will," said Council Chairman Duane Harris. "We received the letter almost a year ago and we're required by law to address overfishing within a year. Amendment 17 is not going to be in place in time and I don't know what you do other than an interim rule. I don't like having to do it, but the law is very clear in my mind."



Red Snapper Snap Shot

Stock Status - 2008 SEDAR assessment: overfished and undergoing overfishing

Current Regulations:
Minimum size limit = 20" Total Length
Recreational bag limit = 2 per person/day; included in 10 snapper per day bag limit

Interim Rule
The Council has requested an interim rule from NOAA Fisheries Service to close the red snapper fishery for 180 days (with a possible 180-day extension). The closure would affect both commercial and recreational fishermen fishing in federal waters in the South Atlantic region.

If approved, the closure would go into effect sometime after the Council's June 7-12, 2009 meeting in Stuart, Florida.

Public Comment: NOAA Fisheries Service will take comment on the interim rule and the associated Environmental Assessment during the review process. Information about the comment periods will be distributed through a *Fishery Bulletin* issued by NOAA Fisheries Service and posted on the Council's and NOAA Fisheries' Web site, as well as in the Federal Register.



Magnified otolith

Stock Assessment Uses Additional Data

The 2008 SEDAR stock assessment for red snapper incorporates landings data from a longer time series than previous assessments and also includes additional life history data. For example, a prior stock assessment conducted in 1997 utilized 537 otolith or "ear bone" samples taken from red snapper, and estimated the maximum age to be 25 years. Otoliths have growth rings similar to those found in trees, and once processed can be used to estimate the ages of the fish from which they are removed.

The new SEDAR assessment uses age data collected from an additional 6,031 otoliths and now estimates that red snapper can reach a maximum age of 54 years. This new information coupled with estimates of discard mortality rates for both the commercial and recreational fisheries are some of the factors that led to the current assessment of overfishing and the overfished status for red snapper.

Regulations Update for 2009

MPAs now in effect; New snapper grouper regulations approved

Effective **February 12, 2009**, a series of 8 deepwater marine protected areas have been implemented to protect deepwater snapper grouper species and associated habitat. The areas are:

Snowy Grouper Wreck MPA

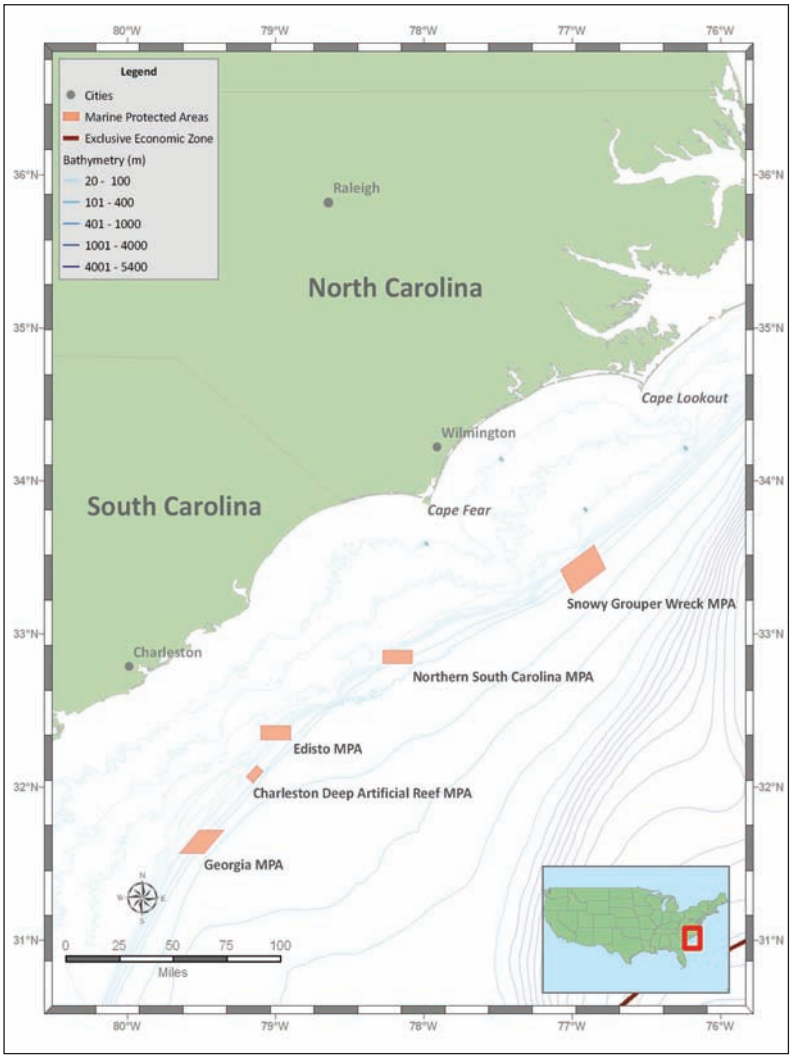
Coordinates: Northwest corner at 33°25'N, 77°4.75'W; northeast corner at 33°34.75'N, 76°51.3'W; southwest corner at 33°15.75'N, 77°W; and the southeast corner at 33°25.5'N, 76°46.5'W.
Location: 55 nautical miles southeast of Southport, NC
Size: 15 by 10 nautical miles.
Description: depths range from 492 ft to 984 ft. deep, with a shallow area ranging from 197 ft. to 328 ft. The area includes a wreck site known to have once held spawning aggregations of snowy grouper. After discovery of wreck in the 1990's, the area was quickly fished down. Possible location of other smaller wrecks. Area is a popular location for fishermen trolling for tuna, marlin, dolphin and wahoo.

Northern South Carolina MPA

Coordinates: Northwest corner at 32°53.5'N, 78°16.75'W; the northeast corner at 32°53.5'N, 78°4.75'W; the southwest corner at 32°48.5'N, 78°16.75'W; and the southeast corner at 32°48.5'N, 78°4.75'W.
Location: 54 nautical miles from Murrells Inlet, SC
Size: 10 X 5 nautical miles
Description: Area of low relief ranging in depths from 164 to 591 ft. deep. Fishermen refer to the area as "smurfville" because it holds many small vermilion snapper. The area also holds deepwater species such as snowy grouper and speckled hind as well as other snapper grouper species such as red porgy, triggerfish, and gag.

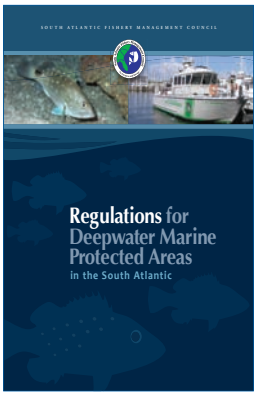
Edisto MPA

Coordinates: The northwest corner at 32°24'N, 79°6'W; the northeast corner at 32°24'N, 78°54'W; the southwest corner at 32°18.5'N, 79°6'W; and the southeast corner at 32°18.5'N, 78°54'W.
Location: 45 nautical miles southeast of Charleston, SC harbor.
Size: 10 X 5 nautical miles
Description: depths range from 148 ft. – 459 ft. The area is heavily fished and includes shelf-edge habitat. Includes both mid-shelf and deepwater species, including vermilion snapper, red porgy and juvenile snowy grouper.



REGULATIONS WITHIN THE MPAs

- Fishing for or possession of snapper grouper species from the area is prohibited.
- Vessels (both commercial and recreational) may transit (direct, non-stop progression) through the MPAs with snapper grouper species onboard with fishing gear appropriately stowed.
- Trolling for pelagic species such as tuna, dolphin, mackerel and billfish is allowed within the MPA.
- The use of shark bottom longline gear is prohibited.



New! *Regulations for Deepwater Marine Protected Areas in the South Atlantic.* In partnership with SC Sea Grant, the Council is offering copies of a comprehensive summary of information about each of the 8 deepwater MPAs. The brochure includes a history of MPA development, listing of snapper grouper species protected in the areas, detailed maps, coordinates, and descriptions of each MPA site.

To order your copy, email MPArequest@safmc.net with your mailing address or contact the Council office.

Charleston Deep Artificial Reef MPA

Coordinates: Northwest corner at 32°4' N, 79°12'W; the northeast corner at 32°8.5'N, 79°7.75'W; the southwest corner at 32°1.5'N, 79°9.3'W; and the southeast corner at 32°6'N, 79°5'W.
Location: 50 nautical miles southeast of Charleston Harbor, SC.
Size: 3.5 X 6 nautical miles
Description: This area is proposed as an experimental artificial reef as a result of public comment and support for creating artificial reef areas. The area ranges in depth from 328 ft. – 492 ft. There is a lack of hard bottom in the area. Any biological benefits to deepwater species would accrue after artificial reef material (such as sunken ships, tanks, or highway materials) was added to improve habitat and attract fish.

Georgia MPA

Coordinates: Northwest corner at 31°43'N, 79°31'W; the northeast corner at 31°43'N, 79°21'W; the southwest corner at 31°34'N, 79°39'W; and the southeast corner at 31°34'N, 79°29'W.
Location: 69 nautical miles southeast of the mouth of Wassaw Sound, GA
Size: 10 X 10 nautical miles
Description: depths range from 295 ft. – 984 ft. Golden tilefish are often caught within the area, although most fishing is for pelagic species such as tuna and dolphin. The area lies east of an area known as the "Triple Ledge", an important area for commercial fishermen.

North Florida MPA

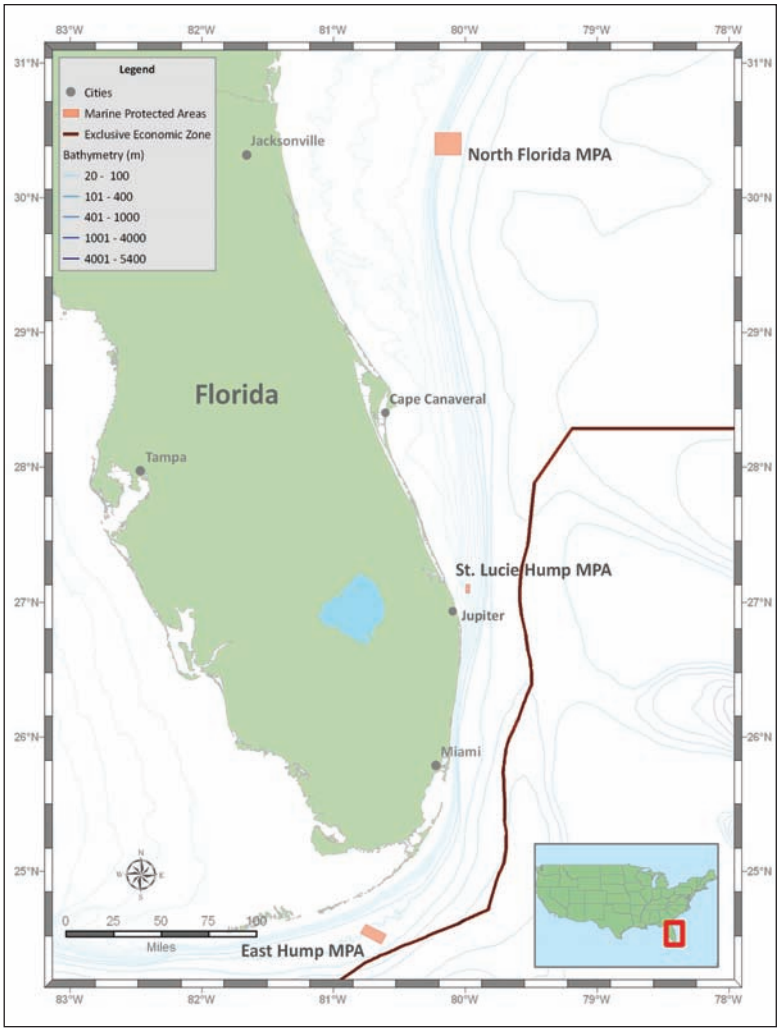
Coordinates: Northwest corner at 30°29'N, 80°14'W; the northeast corner at 30°29'N, 80°2' W; the southwest corner at 30°19'N, 80°14'W; and the southeast corner at 30°19'N, 80°2'W.
Location: 60 nautical miles off the mouth of the St. John's River near Jacksonville, FL
Size: 10 X 10 nautical miles
Description: depths range from 197 ft. – 656 ft. with a deeper area to 1,247 ft. Area includes shelf-edge reef. Snowy grouper, speckled hind have been sampled from area. May also hold golden tilefish in mud habitat.

St. Lucie Hump MPA

Coordinates: Northwest corner at 27°8'N, 80°W; the northeast corner at 27°8'N, 79°58'W; the southwest corner at 27°4'N, 80°W; and the southeast corner at 27°4'N, 79°58'W.
Location: 9 nautical miles southeast of St. Lucie Inlet, FL
Size: 4 X 2 nautical miles
Description: depths range from 216 ft. – 234 ft. A habitat-rich area with speckled hind, juvenile snowy grouper, Warsaw grouper and mid-shelf species including sea bass and red porgy. Area is heavily targeted by fishermen fishing for pelagics.

East Hump MPA

Coordinates: Northwest corner at 24°36.5'N, 80°45.5'W; the northeast corner at 24°32'N, 80°36'W; the southwest corner at 24°32.5'N, 80°48'W; and the southeast corner at 24°27.5'N, 80°38.5'W.
Location: 13 nautical miles southeast of Long Key, FL
Size: 5 X 10 nautical miles
Description: depths range from 636 ft. – 971 ft., with tops of the "humps" 509 ft. – 541 ft. A very habitat rich area located near the Islamorada Hump and proposed by the Islamorada Charterboat Association. Snowy grouper, golden tilefish and Warsaw grouper plus other species are found in the area.



Regulations	*Current	NEW beginning in 2009 (Amendment 16)
Recreational		
Grouper aggregate bag limit	5 fish	3 fish
Gag/black grouper bag limit within aggregate	2 gag or black grouper (combined)	1 gag or black grouper (combined)
Vermilion snapper bag limit	10 fish	5 fish
Shallow-water grouper* closed season	None	January - April
Vemilion snapper closed season	None	November - March
Commercial		
Shallow-water grouper** closed season	March-April (gag/ black grouper)	January-April (all shallow-water* grouper)
Gag quota	None	352,940 lbs. gutted weight
Vermilion snapper quota	1,100,000 lbs. gutted weight	315,523 lbs. gutted weight (January-June); 302,523 lbs. gutted weight (July - December)

* Current as of 5/12/09
** Gag, black grouper, red grouper, scamp, red hind, rock hind, coney, yellowfin grouper, yellowmouth grouper, and tiger grouper

Bag Limits, Recreational Closed Season for Vermilion Snapper, and Commercial Quota for Gag and Vermilion Snapper to Begin in 2009

Four-Month Spawning Season Closure Begins January 2010

The Final Rule implementing Amendment 16 to the Snapper Grouper Fishery Management Plan has not been published as this issue of the *SA Update* goes to press. Information regarding when the following regulations become effective will be distributed by NOAA Fisheries through a *Fishery Bulletin* and posted on the Council's web site.

- Aggregate recreational grouper bag limit = 3 fish
- Recreational bag limit of 1 gag OR 1 black grouper (combined)
- Recreational bag limit for vermilion snapper = 5 fish
- November - March: Recreational closed season for vermilion snapper
- Beginning 2010, a January - April spawning season closure for shallow-water grouper (gag, black grouper, red grouper, scamp, red hind, rock hind, coney, yellowfin grouper, yellowmouth grouper, and tiger grouper). This applies to both commercial and recreational sectors.
- Commercial gag annual quota of 352,940 lbs. gutted weight (note: quota is retroactive beginning in January 2009 upon the Implementation date of Amendment 16.)
- Commercial vermilion snapper annual quota of 352,940 lbs. gutted weight, divided between January-June and July-December. (note: quota is retroactive beginning in January 2009 upon the implementation date of Amendment 16.)

Science Profile

by Dr. George Sedberry
Gray's Reef National Marine Sanctuary

Connecting Areas of Spawning, Productivity and Marine Protected Areas in the South Atlantic Bight

As any fisherman knows, picking the right bottom habitat offshore is key to producing good catches of snapper and grouper species in the Atlantic off the southeastern U.S. These highly desirable species, plus porgies, grunts, triggerfish and others concentrate on hard bottom, where they are attracted to the complex bottom topography, and food is abundant. It takes good bottom to produce good catches of reef fish. But it takes a number of other habitats, on the bottom and in the water column above, to produce the fish that ultimately end up in the market.

The habitat where large (and legal) adult fish are found may be quite different from that occupied by juveniles. Spawning grounds are often some distance from the nursery grounds where tiny juveniles grow to sub-adults. And there are often no corridors of suitable habitat for these fish to migrate from an essential habitat occupied during one life history phase, to another that is occupied during another life history stage. Somehow the connections are made, giving that tiny drifting grouper egg a better (but still quite small) chance of developing into a harvestable fish, and one that spawns to produce the next generations.



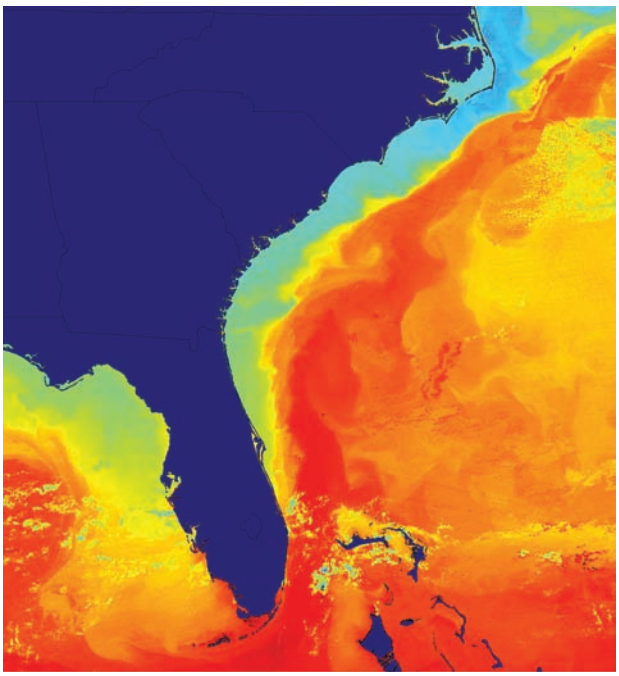
larval gag grouper (photo: MARMAP)

Gag seem to do the impossible: They spawn offshore in the Gulf Stream, and the resulting juveniles spend the first few months of their lives in estuarine nursery habitats such as seagrass beds in North Carolina sounds or oyster reefs in high-salinity estuaries of South Carolina and Georgia. ***Why do they do this, and how can we use what we know about their spawning behavior to help produce sustainable fisheries?***

For one generation of fish to produce the next, it sometimes takes the right combination of bottom habitat, water temperature, day length, moon phase, tidal amplitude, plankton productivity and ocean currents to insure that spawning fish shed their eggs at the right time and in the right place to provide the offspring with a better chance of survival. In the South Atlantic Bight, studies of fish reproduction conducted by the MARMAP program show that spawning is often associated with specific bottom features, and occurs only at certain times of the year. The spawning is located and timed to bring all the right conditions together to achieve reproductive success.

Gag grouper, an important fishery species in the region, is a fish that has a reproductive cycle that depends on many conditions being right at the right time. As in many other groupers, gag spawn during a short period of the year, with spawning often associated with a full or new moon.

Spawning locations for gag that have been documented by MARMAP (Marine Resources Monitoring, Assessment and Prediction) studies show that gag spawn on deep reefs (30 fathoms or more) at the continental shelf edge. Maturing fish migrate to shelf edge reefs to participate in a few spawning events that peak in March and April, around full and new moons. Spawning is thought to occur in small groups, with the fertilized eggs floating toward the surface and drifting off with the Gulf Stream.



As the warm waters of the Gulf Stream flow northward, its western edges are deflected in areas, forming eddies and gyres that are key to fish larval transport. This is especially evident at an area known as the Charleston Bump, off the coasts of Georgia and South Carolina.

Using Satellite-tracked Drifters

Satellite-tracked drifters, deployed on the gag spawning sites during full and new moons in March and April, show that the water masses carrying the drifting eggs get spun out of the Gulf Stream by eddies and gyres that form along the western edge of the Stream. This eddy formation is particularly developed off of Daytona, Florida as a result of diverging bottom contours as the Stream flows out of the Straits of Florida. A very large eddy also forms off Georgia and South Carolina as a result of the eastward deflection of the Gulf Stream at the Charleston Bump.

These eddies set up a counter-clockwise swirl of water that flows southwestward across the continental shelf, and carries the larvae of gag and other fishes toward the coast. In addition, the rotating water mass draws nutrient-rich deep water from near the bottom up toward the surface, increasing plankton production as the days lengthen in March and April and plant plankton begin to bloom. The combination

of water temperatures warming to induce maturity in the fish, the eddies to transport the eggs and early stages inshore, and the upwelling to provide tiny planktonic plants that support zooplankton and other food for larval groupers all come together in the South Atlantic to produce larval groupers. These tiny fish (<1/8 inch long) drift inshore in the eddies spun off the Gulf Stream.

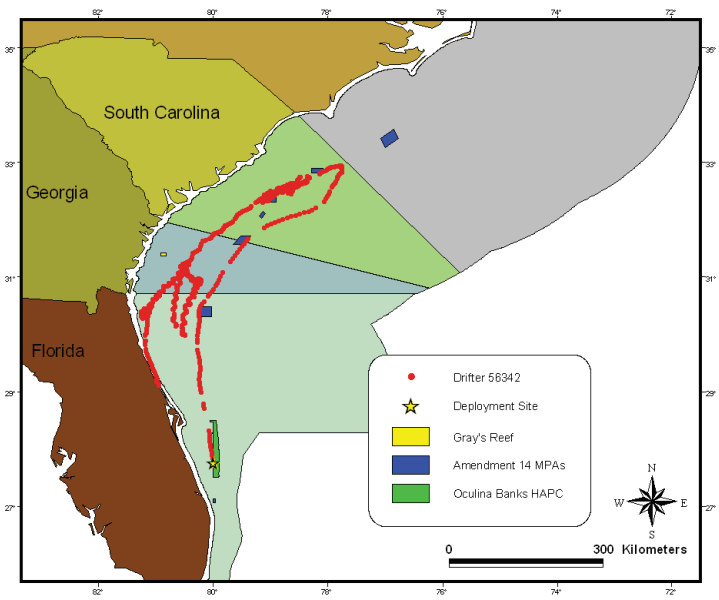
As the tiny larvae develop and feed on the plankton produced by the upwelling, they grow for about 30 days—long enough to come under the influence of the next strong tide on the new or full moon after spawning. By this time they have been transported to nearshore waters, and can begin to swim to take advantage of favorable tidal currents by swimming up toward the surface to be carried into the estuary on the incoming tide. About 30-40 days after spawning, the half-inch-long postlarvae settle into estuarine seagrasses and oyster reefs in Spring, and remain there until the estuaries cool in the Fall and they move offshore to occupy the reef habitats where they will spend the next several years, feeding and maturing.

Satellite-tracked drifter buoys and drift bottles placed on the gag spawning grounds off South Carolina show that water masses that are present on the spawning grounds at the time of spawning are carried inshore to the sounds behind the North Carolina Outer Banks, or in close proximity to the coast of South Carolina, Georgia and Florida. Drifter tracks have shown movement of water from the Edisto Marine Protected Area off South Carolina (a gag spawning site), inshore through the waters of Gray's Reef National Marine Sanctuary, and continuing southwest to the coast of Florida. Although gag spawn in the Gulf Stream, their drifting larvae do not always get carried out of the system (but often do). If timing of sun, moon, temperature, currents and fish hormones are in synch, larvae can be carried to estuarine nursery areas, arriving just in time (about a month after being spawned) to settle into nursery habitats where food (grass shrimp and small fish) are plentiful.

It's All Connected

Drifters deployed on the spawning grounds of summer-spawning snowy grouper show a different track than gag, but with similar results. Drifters deployed on the Oculina bank (50-75 fathoms) and the Georgetown Hole (100 fathoms) around full and new moons in summer are not carried off across the Atlantic in the Gulf Stream waters that flow through the spawning sites. Instead, the water mass in which snowy grouper spawn is retained in the spawning area, or returns to the spawning area after being carried out, allowing snowy grouper larvae to develop into settling juveniles and to settle into the shallower reef areas where juvenile snowies thrive.

Combinations of habitats (adult larval and juvenile) and



The track of a satellite-tracked drifter that was deployed on the Oculina Bank (off Ft. Pierce, FL) during the snowy grouper spawning season (8/18/2005, 6:49:00 PM; 23 hours prior to full moon). This drifter was carried 300 miles northward by the Gulf Stream nearly to North Carolina, before being ejected from the Gulf Stream at the Charleston Bump, caught in an eddy (the Charleston Gyre) that carried it inshore and to the southwest, and then caught in the southerly-flowing coastal current. It ended up nearly at the same latitude it started, but in shallow water preferred by juvenile snowy grouper. The drifter passed through four additional Marine Protected Areas and just offshore of Gray's Reef National Marine Sanctuary. The drift shows the connectedness of the MPAs and the route taken by drifting fish eggs and larvae spawned in the Oculina HAPC. A drift bottle deployed at the same location at the same time was found on Jacksonville Beach, Florida, on 4 October 2005 (47 days), and was covered in gooseneck barnacles. The satellite drifter was tracked from 18 August to 14 October 2005 (56 days).
The larval duration of groupers is from 31-66 days.

current patterns come together to provide spawning conditions that will ensure survival of very young (first-feeding) larvae, with transport of post-larvae and young juveniles to nursery habitats. Timing of moon phase helps in transport, and the right day length and upwelling produce food for newly-hatched larvae. It takes the right combination of events occurring at the right time to produce a good year class of gag.

There are many elements that can go wrong and that we cannot control, which is why we monitor year class strength and the abundance of young stages so that the amount of fishing pressure can be adjusted to keep pace with the amount of fish being produced. The conditions present during spawning and development to adult influence natural mortality. Fishing mortality must be adjusted so that total mortality does not exceed a level where future fish generations are in jeopardy.



Ending Overfishing: *Is a closure of the snapper grouper fishery in the future?*

Management Alternatives for Amendment 17 Must Meet Reauthorized Magnuson-Stevens Act Requirements

The Council is currently developing Amendment 17 to the Snapper Grouper Fishery Management Plan to establish Annual Catch Limits (ACLs) and Accountability Measures (AMs) for 10 species identified as undergoing overfishing. The Reauthorized Magnuson-Stevens Act requires these measures be established by 2010 for species undergoing overfishing, and that ACLs and AMs are established by 2011 for all other species under the Council's jurisdiction. The Council is developing a Comprehensive ACL Amendment to address the 2011 deadline.

The Council will continue to review and develop management alternatives for Amendment 17 at its June 7-12, 2009 meeting in Stuart, Florida. The Council is scheduled to approve the amendment for public hearings during its September meeting in Charleston, SC and public hearings are tentatively scheduled for the beginning of November 2009.

Highlight of Management Alternatives Currently Under Consideration

Note: This is not a complete list of all management alternatives under consideration. A copy of the latest draft of Snapper Grouper Amendment 17 with a list of alternatives for discussion by the Council in June will be included in the June 2009 meeting briefing book. Meeting briefing book materials are posted on the Council's web site as they become available. Additional alternatives may be discussed in June.

1. To address overfishing of **speckled hind** and **warsaw grouper**- prohibit all fishing for, possession, and retention of all deepwater snapper species (snowy grouper, golden tilefish, blueline tilefish, yellowedge grouper, warsaw grouper, speckled hind, misty grouper, queen snapper, and silk snapper) beyond a depth of 240 feet (40 fathoms; 73 m). The harvest of golden tilefish would be allowed in a specified area.

2. **Golden tilefish** - the commercial quota would serve as the ACL for the commercial and recreational sectors. The commercial quota would be 321,003 pounds whole weight (286,609 lbs gw). The commercial and recreational AM is to prohibit harvest, possession, and retention in both sectors when the quota is met.

3. **Snowy grouper** - Establish a recreational daily bag limit of 1 snowy grouper *per vessel* and implement AMs for the recreational sector. The snowy grouper commercial AM is to prohibit harvest, possession and sale once the quota is met.



4. **Black grouper**, **black sea bass**, **gag**, **red grouper**, and **vermilion snapper**- alternatives for individual and combined ACLs and AMs for gag, black grouper, and red grouper with options for various sectors.

5. **Red Snapper:** Amendment 17 includes alternatives to end overfishing of red snapper, establish a rebuilding plan for the red snapper stock, and ACLs and AMs for the fishery. Options for a rebuilding schedule and rebuilding strategy: rebuilding schedule (time) alternatives range from 15 to 35 years. The options for a rebuilding strategy include a range of ACLs ranging from 54,000 pounds whole weight to 82,000 pounds whole weight. The ACL would be for both commercial and recreational fisheries.

Management alternatives currently included in the draft version of Amendment 17 designed to end overfishing and establish a rebuilding program for red snapper include:

- A year-round red snapper closure throughout the South Atlantic EEZ.
- A year-round closure of the entire snapper grouper fishery (both commercial and recreational) in portions of the South Atlantic EEZ where primary landings of red snapper have been reported. Alternatives for these closed areas are based on commercial logbook grids used for reporting, data from the Marine Recreational Information Program (MRIP), and headboat landings. Current alternatives include areas that range from the South Carolina coast down to Cape Canaveral. Some of the area closure alternatives further identify a depth range of 98 - 240 feet, areas where red snapper landings are concentrated. Alternatives also include the exclusion of certain gear types from being prohibited.
- The establishment of a Red Snapper Monitoring Program

Note: Because of the high rate of discard mortality associated with the red snapper fishery and the mixed-species nature of the fishery, a continued closure of the fishery will not meet the rebuilding requirements and mortality levels will exceed the ACL. The Council has not chosen preferred alternatives to meet these requirements and may choose a combination of the current alternatives as their preferred to include in the public hearing version of Amendment 17.

Amendment 17 will incorporate the impacts in reductions in fishing mortality resulting from implementation of regulations through Amendment 16 (see page 7).

Current Schedule for Amendment 17

June 7-12, 2009 Council Meeting (Stuart, FL): Continued review and development of management alternatives;

September 14-18, 2009 Council Meeting (Charleston, SC): Approve Amendment 17 for public hearings

November 2009 - Series of Public Hearings and open comment period for Amendment 17

December 7-11, 2009 Council Meeting (Atlantic Beach, NC): Council will review public input and may approve Amendment 17 for submission to the Secretary of Commerce for final review and approval.

June 7-12, 2009 Council Meeting

Public comment periods:

Tuesday, June 9, 2009 - 5:30 PM - 7:00 PM

Open Public Comment Session

The public will have the opportunity to present oral or written statements regarding matters on the Council meeting agenda.

Wednesday, June 10 at 5:30 PM

Informal *Q&A* Session

Join NMFS Regional Administrator, Dr. Roy Crabtree and Council Chairman Duane Harris to discuss current fisheries issues.

WE'RE GOING LIVE! WATCH THE JUNE COUNCIL MEETING ***LIVE*** FROM STUART, FLORIDA. FOR MORE INFORMATION, INCLUDING THE DIRECT LINK FOR LIVE VIDEO FEED, GO TO WWW.SAFMC.NET.

SAFMC Meeting Dates and Locations 2009 Schedule

March 2-6, 2009
Jekyll Island Club Hotel
371 Riverview Drive
Jekyll Island, GA 31527
Phone: 1/800-535-9547

June 8-12, 2009
Hutchinson Island Marriott
555 NE Ocean Blvd.
Stuart, Florida 34996
Phone: 1/772-225-3700

September 14-18, 2009
Charleston Marriott Hotel
170 Lockwood Boulevard
Charleston, SC 29403
Phone: 1/800-968-3569

Dec 6-11, 2009
Sheraton Atlantic Beach
2717 W. Fort Macon Rd.
Atlantic Beach, NC 28512
Phone: 1/800/624-8875

Acronyms

ABC - Allowable Biological Catch

ACCSP - Atlantic Coast Cooperative Statistics Program

ACL - Annual Catch Limit

AM - Accountability Measure

ACT - Annual Catch Target

AP - Advisory Panel

ASMFC - Atlantic States Marine Fisheries Commission

BRD - Bycatch Reduction Device

EEZ - Exclusive Economic Zone

EFH - Essential Fish Habitat

EFH/HAPC - Essential Fish Habitat/ Habitat Area of Particular Concern

FMP - Fishery Management Plan

HMS - Highly Migratory Species

ITQ - Individual Transferable Quota

LAPP - Limited Access Privilege Program

MSY - Maximum Sustainable Yield

MRFSS - Marine Recreational Fishing Statistics Survey

NMFS - National Marine Fisheries Service

OY - Optimum Yield

SEDAR - Southeast Data, Assessment, and Review (stock assessment process)

SSC - Scientific & Statistical Committee

SFA - Sustainable Fisheries Act

TAC - Total Allowable Catch

VMS - Vessel Monitoring System

South Atlantic Fishery Management Council Meeting



June 7-12, 2009

Hutchinson Island Marriott
555 NE Ocean Boulevard
Stuart, FL
Phone: 772/225-3700

For a detailed agenda contact the Council office toll free at 1-866 SAFMC-10 or 843/571-4366. The agenda is also available on the Council's web site www.safmc.net

DRAFT MEETING AGENDA

Sunday	**9:00 - 10:30**	**Golden Crab AP and Scientific & Statistical Committee (SSC) Workshop**
	10:30 - 12:00	**Wreckfish AP and SSC Workshop**
	1:30 - 5:00	**SSC Meeting**
Monday	**8:30 - 5:00**	**SSC Meeting *(continued)***
	-Concurrent Sessions	
	8:30 - 10:30	**Golden Crab Advisory Panel Meeting**
	10:30 - 12:00	**Wreckfish Advisory Panel Meeting**
	1:30 - 4:00	**LAPP Committee Meeting**
	4:00 - 5:30	**Golden Crab Committee Meeting**
Tuesday	**8:30 - 5:00**	**SSC Meeting *(continued)***
	-Concurrent Sessions-	
	8:30 - 10:00	**SSC Selection Committee Meeting (Closed Session)**
	10:00 - 11:00	**Jt. Exec/Finance Committee Meeting**
	11:00 - 12:00	**Dolphin/Wahoo Committee Meeting**
	1:30 - 2:30	**Spiny Lobster Committee Meeting**
	2:30 - 4:00	**Mackerel Committee Meeting**
	4:00 - 5:30	**SOPPs Committee**
	5:30 PM	**Open Public Comment Session**
Wednesday	**8:30 - 9:30**	**AP Selection Committee Meeting (Closed Session)**
	9:30 - 10:30	**SEDAR Committee Meeting**
	10:30 - 12:00	**Ecosystem-Based Mgmt. Committee Meeting**
	1:30 - 5:00	**Snapper Grouper Committee Meeting**
	5:30 PM	**Informal Public Q&A Session (red snapper)**
Thursday	**8:30 - 12:00**	**Snapper Grouper Committee Meeting *(continued)***
	1:30 - 5:00	**Council Session**
Friday	**8:30 - 12:30**	**Council Session**

2009

Mark your calendar...

June 9 - 11	***Mid-Atlantic Fishery Management Council Meeting*** New York, NY www.mafmc.org
June 9 - 11	***Capital Hill Oceans Week*** Washington, DC http://nmsfocean.org/capital-hill-ocean-week-2009
June 15 - 18	***Gulf of Mexico Fishery Management Council Meeting*** Tampa, FL www.gulfcouncil.org
June 22 - 26	***SEDAR 19 Red Grouper and Black Grouper Stock Assessment Data Workshop*** N. Charleston, SC Contact John Carmichael 843/571-4366
August 17 - 20	***Atlantic States Marine Fisheries Commission Meeting*** Alexandria, VA www.asmfc.org
August 30 - Sept. 3	***American Fisheries Society 139th Annual Meeting*** Nashville, TN www.fisheries.org

South Atlantic Fishery Management Council Meeting
June 7-12, 2009
Stuart, FL

NOTE: **Regulation Highlights for 2009 - Marine Protected Areas and more...**
See inside for details

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North Charleston, SC 29405

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