

**Testimony of Mr. Duane Harris, Past Chairman
South Atlantic Fishery Management Council
On NOAA's Fishery Science: Is the Lack of Basic Science Costing Jobs
Before
The Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs
House Committee on Natural Resources
July 26, 2011**

Mister Chairman and members of the Subcommittee, thank you for allowing me to appear before you. My name is Duane Harris and I represent the State of Georgia on the South Atlantic Fishery Management Council (Council). Today I will address the questions posed and provide the information requested by the Subcommittee. All of my comments are made with the sincere intent of providing a clear understanding about how the 2007 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (Act) have affected our Council's management of the marine fisheries resources in the South Atlantic. I will also address the NOAA Fisheries science required to support the mandates in the amended Act and how the lack of needed information has affected fishermen and fishing communities.

1. How Magnuson-Stevens Fishery Conservation and Management Act amendments have affected fishery management.

The 2007 amendments have had a profound effect on fisheries management. The Council no longer has the ability to deviate from scientific recommendations, even when those recommendations are acknowledged to contain considerable uncertainty, be based on out-of-date or "stale" information that may be contradicted by more recent anecdotal observations, or may result in numerous known and, in some cases, unintended consequences for fishermen and fishing communities. The provisions to end overfishing immediately upon implementation, combined with the requirements that the Scientific and Statistical Committee (SSC) establish the limits that prevent overfishing, remain the most influential changes affecting management in the South Atlantic.

In testimony I presented on October 27, 2009 before this Subcommittee, I used red snapper to illustrate problems the Council was encountering as the result of amendments to the Act, and the red snapper example still is pertinent to the issues I am addressing today. An initial red snapper stock assessment suggested large cuts in harvest were necessary to end overfishing, despite evidence that the stock was improving under existing regulations that reduced but did not eliminate overfishing. The only way to achieve the mandated reductions was to prohibit directed harvest of red snapper and to shut down all effort in the multi-species snapper grouper complex fishery where red snapper were concentrated. Although options existed that would achieve the rebuilding strategy, while greatly reducing impacts on fishermen, they were not available to the

Council under the amended Act because they would have resulted in continued overfishing on red snapper beyond the date for which overfishing was mandated to end. As would be expected, such measures were met with considerable opposition by a public experiencing the best red snapper fishing in over a decade. This led the Council to request a delay in closing a large area off of south Georgia and northeast Florida until the public's anecdotal observations could be vetted through our stock assessment process.

A new stock assessment conducted in 2010 agreed in part with the observations of the fishermen and verified that a large year class of red snapper had entered the fishery. The biomass increased sufficiently for the Council to take action to recommend the Secretary of Commerce not implement the large area closure off of Georgia and Florida. However, the new stock assessment results indicated the prohibition of harvest on red snapper was still needed to end overfishing. Prior to the recent Magnuson-Stevens Act amendments, the Council could have chosen that option initially and developed regulations to phase out the overfishing over several years and in doing so balance the needs of the stock with those of the fishery. During this time, progress on other much needed stock assessments was delayed to accommodate resources directed toward red snapper. The Council also expended considerable time and effort evaluating numerous alternatives in its attempts to address the enormous social and economic impacts and public dissatisfaction. Public faith in the process declined considerably as the red snapper issue dragged on and still continues today.

2. Increased role of the Scientific and Statistical Committee

The South Atlantic Council's Scientific and Statistical Committee (SSC) has always played a strong role in the management process, with the Council typically adopting regulations consistent with SSC recommendations even prior to the recent amendments to the Act. However, the SSC has struggled as it attempts to comply with the mandate to provide recommendations to end overfishing and rebuild overfished stocks in the absence of the necessary information and stock assessments. For many species stock status or relationships between current landings and stock abundance and productivity are not available. As a scientific body, the SSC is, not surprisingly, hesitant to provide recommendations that will be considered scientific advice when there is no science to support them. However, under the amended Act, this is exactly what the SSC is required to do for the majority of the species managed by the Council. These circumstances lead the SSC to provide very precautionary catch levels that generally have significant impacts on the fishery.

We have several Fishery Management Plans (FMPs), including Coral, Sargassum, Golden crab, and Dolphin Wahoo, that lack reliable data on landings, effective effort, and the basic survey information that is considered necessary for proper management. This is also true for many species in the Snapper Grouper FMP. Despite the lack of scientific information indicating the level of landings that would result in overfishing, the amended Act requires the SSC to provide an Allowable Biological Catch that will prevent overfishing from occurring. Forcing a scientific

body such as the SSC to make recommendations to the Council in the absence of the necessary data and stock assessments does a disservice to the entire management system and threatens to undermine the integrity of all scientific recommendations.

3. Mechanism for establishing Annual Catch Limits (ACLs) to prevent overfishing.

The mechanism we use for establishing Annual Catch Limits to prevent overfishing begins with our stock assessment process called the SouthEast Data, Assessment, and Review or SEDAR. SEDAR is a cooperative fishery management council process initiated in 2002 to improve the quality and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and US Caribbean. The improved stock assessments from the SEDAR process provide higher quality information to address fishery management issues. SEDAR emphasizes constituent and stakeholder participation in assessment development, transparency in the assessment process, and a rigorous and independent scientific review of completed stock assessments.

SEDAR is organized around three workshops. First is the Data Workshop, during which fisheries, monitoring, and life history data are reviewed and compiled. Second is the Assessment process, which is conducted via webinars, during which assessment models are developed and population parameters are estimated using the information provided from the Data Workshop. Third is the Review Workshop, during which independent experts review the input data, assessment methods, and assessment products. SEDAR is a good stock assessment process. Unfortunately in most instances the data to feed the processes is lacking.

After completion of a SEDAR stock assessment, all three workshop reports and all supporting documentation, including the findings of the independent experts relative to the status of the stock, is then forwarded to the Council's Scientific and Statistical Committee for certification as appropriate for management based on the "best scientific information available". The SSC then meets and develops specific management recommendations, including such things as Overfishing Level (OFL) and Allowable Biological Catch (ABC), as appropriate. For the species that have not had a stock assessment or for stocks considered data-poor, the SSC and Council have developed a control rule that provides a mechanism for providing an Allowable Biological Catch level. However, the problem this mechanism creates is when data are insufficient to determine what level of harvest will ensure that overfishing does not occur, the SSC must use the precautionary approach in developing its management recommendations to the Council, which results in very low Allowable Biological Catch.

The SSC recommendations are provided to the Council and from these the Council must develop the Annual Catch Limit. Prior to the recent amendments to the Act, the Council was not bound by the SSC's recommendations and had more flexibility in establishing catch levels. We could consider such things as uncertainty in the stock assessment, the specific life histories of the stocks and characteristics of the fishery itself in establishing what could be done to rebuild fisheries and at the same time mitigate the social and economic impacts on the fishermen and

fishing communities. The Council no longer has that flexibility and must establish Annual Catch Limits that do not exceed the Allowable Biological Catch recommendation of the SSC, regardless of the social and economic impacts.

4. Whether data generated by NOAA are adequate.

Data provided by the NOAA Fisheries are currently insufficient for the majority of the stocks in our jurisdiction. Stocks with reliable catch statistics, adequate biological sampling and measures of population abundance comprise only a very small percentage of the stocks managed by the Council. To compound this problem, many of the remaining stocks suffer from a lack of data in more than one of the necessary areas (catch, biological characteristics, and abundance measures). Because of this, data-poor approaches developed in other parts of the country to provide Allowable Biological Catch for unassessed stocks have not helped the situation in the southeast.

In recent years there have been some improvements. Catch statistics have become more reliable. However, there is still a lack of resources to provide for much needed fisheries observers in the southeast. Without observer coverage, it is difficult to determine the accuracy of self-reported landings in logbooks. Biological data collection has increased considerably also, especially for age structures of fish (otoliths). Unfortunately, in many cases there are inadequate personnel resources available to analyze these otoliths. There have been improvements in the fisheries surveys conducted by NOAA Fisheries, but currently they are only a small fraction of what is truly needed for management.

Since the red snapper fishery closure, the Southeast Fisheries Science Center has received additional funding to develop and implement a comprehensive fishery independent survey. This is a positive step forward. Without such a survey the Council will have no way to evaluate improvements in the red snapper fishery or to compensate for the information lost as the result of the closure. The importance of this survey to the future success of the Council's management program cannot be overstated and funding must be maintained.

Another positive effort in recent years has been the Cooperative Research Program, where funds have been appropriated to enlist commercial and recreational fishermen to help with data collection. This program has been beneficial in a number of ways. Not only has it provided more resources for gathering information in terms of people and vessels, but perhaps most importantly it has increased the credibility of data collection in the eyes of the fishermen. Funding for this program should be continued.

In addition, the Council has recommended developing a comprehensive biological sampling program. At the most basic level the program should include hiring additional port samplers to monitor commercial and for-hire fisheries throughout the region as well as increasing sampling from recreational catches. Also, the Southeast Fisheries Science Center should become part of the Atlantic Coast Cooperative Statistics Program. There are two additional areas we believe that

NOAA Fisheries should address: First is quota monitoring. The existing Atlantic Coast Cooperative Statistics Program (ACCSP) Commercial Quota Monitoring Program that operates in the states of North Carolina northward could be extended to the states of South Carolina, Georgia, and Florida at no cost for software. This ongoing ACCSP program provides automatic daily reports on species with a commercial quota. Contrast this with the existing system used by NOAA Fisheries in the southeast using black sea bass as an example: On July 6, 2011 the Council received a memo from the Regional Administrator to our Executive Director showing preliminary black sea bass landings of 139,052 pounds (45% of the quota) being landed as of June 30, 2011. On Friday July 8, 2011 we received a notice that the commercial black sea bass fishery would close on July 15, 2011, culminating in a 45 day season. This fishery will not reopen until June 1, 2012. The estimated level of landings for the season or what the revised quota was based on the commercial overage last season is still not available. It is unfair to have the fishermen pay the price for an ineffective quota monitoring program through payback of overages when the more efficient ACCSP system could have been used at no cost to NOAA Fisheries. We are concerned that once our Comprehensive Annual Catch Limits Amendment is implemented, which will add more species to the quota monitoring program, the NOAA Fisheries current system will crash and it will be the fishermen and the resource paying the price.

The second area that should be addressed is bycatch monitoring. The existing NOAA Fisheries data programs do not provide estimates of bycatch mortality that can be used to calculate total mortality for use in tracking Annual Catch Limits. This has led our Council to specify Annual Catch Limits in terms of landings only and then examine the impacts of the unaccounted for bycatch mortality when stock assessments are conducted. To help resolve part of the problem in the snapper grouper fishery, NOAA Fisheries should increase the current 25% bycatch logbook coverage to 100% logbook coverage. In the absence of a fishery independent data program, 100% logbook coverage would greatly improve the current 25% coverage. The Council cannot meet the Magnuson-Stevens Act requirement to specify Annual Catch Limits to account for all sources of mortality with the existing data programs.

5. Agency guidance on use of old or stale data.

Overall, there has been very little guidance from NOAA Fisheries relative to use of “old” or “stale” data. Generally, because of the lack of data noted earlier, the Council is forced to use the information that is available regardless of how old or stale it may be considered. It is either that or nothing.

6. Is the precautionary approach combined with decreased funding and depressed harvest levels impacting jobs and communities?

Most of the stock assessments in the South Atlantic must rely largely on harvest data from the fishermen. These “fisheries dependent” data can give an accurate representation of what is being

taken out of the water; however, they may not yield reliable information on the status of the stock. Without reliable fisheries independent and dependent data streams, true stock status cannot be determined. This is the scenario the Council and Scientific and Statistical Committee find themselves in many instances, dictating a precautionary approach to management. This generally results in low Allowable Biological Catch and Annual Catch Limits, ultimately restricting harvest, not because the stock status is known to be in bad shape, but because not enough information is available to make an accurate assessment. Error on the side of conservation is the phrase often used. We are already paying the price on stocks like red snapper, black sea bass and Spanish mackerel for inadequate sampling in the past that has led to the current precautionary management strategies.

A recent example of how the lack of adequate data resulted in extremely negative impacts on commercial fishermen involves two minor fish stocks, speckled hind and Warsaw grouper. Both stocks were declared to be undergoing overfishing and overfished back in the early 1990's by NOAA Fisheries, based on annual trends in fishermen's catches alone. At the time the Council took action to protect these species by eliminating all directed harvest, however, some incidental catch was allowed. No stock assessment has been completed on these stocks since the initial determination. The only data available since the 1990's have been derived from the very low incidental catches that have occurred. The directed fishery for these species has been closed nearly 20 years. Without data and a new stock assessment, there is no way of knowing whether the stocks have rebuilt, are rebuilding, or continue to undergo overfishing and are overfished. Stock assessments have been scheduled for these species; however, these assessments have been postponed to deal with higher priority species such as red snapper, black sea bass, etc.

The most recent revisions to the Act required the Councils to end overfishing by December 31, 2010 for all stocks that are undergoing overfishing. Without data to know whether or not overfishing had ended for speckled hind and Warsaw grouper and if they were still overfished or not, the Council's Scientific and Statistical Committee was required to set Allowable Biological Catch so that no landings of these species would be allowed. Subsequently, when setting the Annual Catch Limits, the Council was obliged to ensure that harvest of these two species be avoided. Fish that live at the depths inhabited by speckled hind and Warsaw grouper are almost always dead when brought to the surface, therefore fishing in areas where speckled hind and Warsaw grouper might be caught had to be closed. Based on the information available, the Council believed the only way to accomplish this was to close all bottom fishing from a depth of 240 foot seaward. This action in effect closed off more than half of the EEZ to bottom fishing, and resulted in significant losses to commercial and recreational fishermen (primarily fishing for blueline tilefish) and fishing dependent businesses. Due to lack of information, the impact of this closure was much greater than anticipated. The Council is just now completing an amendment that will rectify the current situation by reopening the closed area, and developing plans to implement other measures to protect speckled hind and Warsaw grouper.

A specific example of how jobs can be affected when NOAA science is lacking occurred in the Spanish mackerel fishery. In 2008, a Spanish mackerel stock assessment was conducted. However, during the stock assessment process review phase (the final peer review phase) the stock assessment was rejected by the panel members due to too many uncertainties in the biomass values from the assessment. That left Spanish mackerel without a recent stock assessment, requiring the Scientific and Statistical Committee to use the data poor control rule to derive a precautionary Allowable Biological Catch. Consequently, the Council's proposed Spanish mackerel Annual Catch Limit would be expected to result in a reduction in ex-vessel revenues to commercial fishers of approximately \$680,000 due to a reduction in commercial harvest and the accountability measure requirement that harvest, possession, and sale of Spanish mackerel be prohibited when the commercial quota is met. If compensating revenue is not obtained from alternative species, these reduced revenues could result in the loss of an estimated 17 harvester and 10 dealer/processor full-time equivalent jobs.

7. Is the requirement to use the best available information becoming an excuse to use old data rather than collect more data?

I do not believe NOAA Fisheries reliance on using the best scientific information available is an excuse to use old data rather than collect more data. The impediment, at least in the southeast region, simply seems to be resources. Although recent budgets have provided more funding for data collection in the southeast, funding levels are still insufficient to resolve the lack of data needed for management.

The Southeast Fisheries Science Center has shown a willingness to collect more data, e.g. added logbook discards for both commercial vessels and headboats, increased trip interview sampling, initiated a fisheries independent survey, expanded the Marine Resources Monitoring, Assessment, & Prediction Program (MARMAP) and the Southeast Area Monitoring and Assessment Program (SEAMAP) and added new stock assessment scientists. The problem is that all of these efforts still fall short of meeting identified needs due to funding shortages.

8. Views on Marine Recreational Information Program, improving data collection but perhaps falling short of providing info for in-season adjustments, thus impacting planning by industry.

Concerns with recreational statistics provided through the old Marine Recreational Fisheries Statistics Program (MRFSS) are well documented by many sources and need not be repeated here. The Council supports efforts underway to resolve recreational data collection issues through the Marine Recreational Information Program (MRIP), and the Council hopes that Marine Recreational Information Program will not only reduce uncertainty in estimates and considerably improve the timeliness of their availability, but also take advantage of current technology to address fishermen's willingness to submit information.

Recreational data collection improvements through the development of Marine Recreational Information Program are necessary to improve management under the amended Act. Precision and reliability are bigger concerns than timeliness in the South Atlantic, perhaps because many of our stocks have suffered from high uncertainty in old Marine Recreational Fisheries Statistics Program estimates. Whether the Marine Recreational Information Program will fall short of providing information to accommodate in-season adjustments remains to be seen. However, when the program is implemented, it will be the timeliest data on recreational catch and discard rates available to us.

In some cases the recreational allocation for some of the stocks managed by the Council is very low. In the South Atlantic, the recreational fishing sector Annual Catch Limits for snowy grouper was 523 fish per year under the rebuilding plan. Even under Marine Recreational Information Program, NOAA Fisheries will not be able to monitor the recreational catches in a timely manner. In 2010, recreational anglers were estimated to have caught more than 1,500 snowy grouper. With Council required fishing sector paybacks (accountability measures) for overfished stocks, this could result in the recreational fishery for snowy grouper being closed for two years.

Let me summarize the main points in my testimony this afternoon. First, the goal of the 2007 amendments to the Act to end overfishing is an absolute necessity to recover stocks and provide additional opportunities for commercial and recreational fishermen. Despite the difficulty of the task at hand as illustrated by the South Atlantic red snapper fishery closure, ending overfishing, is, without question, in the best interest of the nation. But there is definitely a cost associated with ending overfishing and many of the other requirements.

Data provided by NOAA Fisheries are currently insufficient for the majority of the stocks we manage. In some instances, the Council taking mandated management actions without the accurate and timely data needed has impacted fishermen and fishing businesses, resulting in reduced revenues and/or job losses. However, there have been improvements during the last couple of years in a number of areas, such as development of fisheries independent surveys, hiring more stock assessment scientists and working with fishermen to collect scientific data through cooperative research programs. There is still much improvement needed. NOAA Fisheries must continue to improve fisheries data collection that is essential for providing accurate and timely stock assessments. Conducting a stock assessment for a species like red snapper every five or six years is not acceptable. The Science Center staff of stock assessment scientists needs to continue to be increased in order to provide this information. Improving the data on which stock assessments are based, both fishery dependent and fishery independent data, is essential if we are to gain back the trust of the fishing public. We cannot continue in the adversarial role that has been created between the Council and fishermen as the result of our recent management actions.

The Southeast Region of the U.S., including the South Atlantic, Gulf of Mexico, and Caribbean, has not been funded at the level needed to provide data and stock assessments on as timely a

basis as is needed for the three councils in this region to effectively and efficiently do their job. The budgets of the Southeast Fisheries Science Center and the Southeast Regional Office must be reviewed and increased as necessary to provide timely stock assessments on which the councils base management recommendations.

Mister Chairman, in closing I would like to again thank you and the Subcommittee for allowing me to appear before you on behalf of the South Atlantic Fishery Management Council. We appreciate you holding this hearing and for your Subcommittee's interest in NOAA's fisheries science and how the lack of necessary data to effectively manage is impacting fishermen and fishing communities.