

Summary of the Ad Hoc Review Panel for Red Drum Meeting

**July 23-24, 2007
W Hotel
New Orleans, Louisiana**

Panel Members:

Mike Murphy, FFWCC – Chair
Randall Pausina, LDWF - V. Chair
Mike Buchanan, MDMR
Guy Davenport, NMFS
Mark Fisher, TPWD
Harry Blanchet, LDWF
Mark Van Hoose, ADCNR
Elbert Whorton, SSC GMFMC

Council/Staff:

Harlon Pearce, GMFMC Red Drum Subcom
Corky Perret, GMFMC
Charlotte Schiaffo, GMFMC
Wayne Swingle, GMFMC

Others:

Two unidentified members of the public

Mr. Pearce welcomed everyone and conducted the election of the panel chair and vice-chair, Michael Murphy and Randall Pausina, respectively.

Mr. Swingle presented the Council charge to the Panel as follows:

The Council set as your charge to assess the availability of the information needed to conduct a SEDAR Assessment for Red Drum, which is scheduled in 2009. In doing this, we ask you to assess the available data, current research and monitoring programs, and whether they provide adequate information for that purpose, or if additional information is needed. If you think additional research on data collection is needed, we ask that you design short-term research that could be completed by the fall of 2009.

Mr. Swingle then reviewed the SEDAR process that would be used to conduct the stock assessment for red drum. The SEDAR schedule for red drum is proposed for 2009, beginning in January and concluding in July of that year. Much of the new data used in this assessment would come from the period 1998-2007. The panel was also tasked to determine if other short-term data collection programs could be added in 2007 and early 2008 to further enhance the newly available data.

The representatives from each of the Gulf States, along with GSMFC and NMFS representatives, summarized fisheries dependent and independent red drum data available from their respective agencies, thereby familiarizing the panel members with those data newly available since the last assessment. (The agency reports, or summaries thereof, are appended to this summary of the Panel recommendations)

The Panel members were provided the more recent stock assessments for red drum and the Red Drum Stock Assessment Panel's (RDSAP) comments and recommendations. The RDSAP, at their April 2000 meeting, had reviewed the most recent stock assessments (Porch 2000, versions 2.0 and 2.1), and noted that Porch had indicated the results as a whole were quite uncertain. He cited uncertainty in (1) stock structure, (2) the flat stock recruitment relationship even at very small stock sizes, (3) the small sample size for offshore age composition, (4) the unknown age composition of the shrimp bycatch, (5) the unknown length composition of the inshore commercial fisheries, and (6) the unknown magnitude and composition of the inshore shrimp fleet bycatch. Faced with these uncertainties and the base case assessment finding that the stock was overfished and overfishing was occurring in 1997, the RDSAP recommended to the Council that TAC remain at zero in the EEZ.

The Ad Hoc Review Panel noted that the 2000 stock assessment, for the most part, utilized information through 1997. The proposed assessment as currently outlined would utilize information through 2007.

There was considerable discussion on whether to proceed with the 2009 SEDAR process or to defer it to a later date when additional data collection programs could be completed.

The Panel members decided, based on the reviews of all the information available for the new stock assessment and the deficiencies in data and assessment model structure noted for the last assessment, to make the following **motion**, which passed with one opposed:

The Panel believes that the data presented at this meeting would make the next assessment in 2009 less uncertain concerning the red drum stock status than the 2000 assessment, therefore the 2009 SEDAR should go forward as scheduled, especially since there has been almost 10 years of additional information collected since that last assessment.

The Panel discussed many aspects of informational needs, deficiencies, and possible remedies, both long term and short term, and concluded that, for the Council, they should list specific improvements in the database and collection programs that they believed would reduce the uncertainty noted in the 2000 assessment and improve the subsequent assessment. By consensus, the Panel compiled the following list of important improvements:

The Panel has reviewed the reports and finds there are:

- **Increased fisheries dependent aging data for the recreational landings.**
- **Increased sampling effort of MRFSS since 1996, therefore increased precision of estimated landings, releases, and length structure of landed red drum.**
- **Additional age composition information on the offshore stock.**
- **New information on size/length of released fish in the recreational fisheries.**
- **Additional state-level fishery-independent sampling programs, and additional time and regional coverage to ongoing datasets that were previously established**

- **Potential for improvements to the assessment by using a geographically partitioned model that could make better use of the additional state-level fishery independent information.**
- **Observer data on shrimp trawl bycatch is becoming available for all portions of the shrimp fleet.**
- **Improvements in the precision of MRFSS effort estimates (and thereby catch estimates) through implementation of the new (2000) for-hire survey.**

While the Panel felt that the changes listed above should provide such improvements in the assessment database that it justified their motion to proceed with the 2009 SEDAR process, it nonetheless recognized that there will still be significant deficiencies in the information. The panel, by consensus, cited below what they felt were the deficiencies that could be partially addressed by short-term (data made available for 2009 assessment) and more fully addressed by long-term studies, so that if pursued, could possibly result in an improved assessment.

For the short-term (data available by late 2008):

- **Monitor shrimp trawl, and other commercial fishery bycatch sizes/lengths and age and their release mortality.**
- **Monitor recreational release sizes/lengths and age and their mortality or release condition.**

Because the time interval before initiation of the SEDAR process is so short that most new data collection programs cannot be implemented and completed prior to convening a SEDAR data workshop, the agencies represented on the panel indicated that they might be able to increase sampling in the following programs:

- **Enhanced age composition data for adults off the Gulf States. (primarily FL, LA, TX)**
- **Measurement of the length frequencies in the existing commercial red drum fisheries. (MS, AL)**
- **Lengths of released fish for the 2007 and 2008 years. (LA, FL, TX)**
- **Analyses of tagging data for estimated selectivities (relative age-specific fishing mortalities rates). (LA, TX, FL)**
- **Observer sampled shrimp trawl bycatch for length frequency purposes. (NMFS)**
- **Possible availability of first year lengths and ages data from recreational Gulf-States Marine Fisheries Commission Fishery Information Network (FIN) biological sampling.**

For the long-term (help improve post-2009 assessments):

- **Develop a continuous long-term monitoring program of the age composition of the adult stock(s).**

The Panel recognizes that adequate well-designed characterization of the age-structure of the spawning stock is important, especially for a long-lived species. One possible mechanism for establishing a long-term program to collect age structure is to use the Cooperative Research Program (CRP), MARFIN, and similar programs that use recreational and commercial harvesters to collect samples and associated data. The panel asks the Council and NMFS to evaluate the potential to collect additional information on age structure of offshore adults utilizing a small, controlled fishery harvest. The North Pacific and Mid-Atlantic Councils have programs in place that may be useful models for developing such a program.

- **Develop a study to estimate the abundance of adult spawning red drum stocks in all areas.**
- **Identify the individual states' contributions to the offshore adult stocks which will help in the comparison of the federal assessment findings with those of the states.**

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Ad Hoc Review Panel for Red Drum
Summary of State, GSMFC, and NMFS Reports

Florida

The Florida summary was given as a PowerPoint by **Mr. Murphy**. He noted that Florida's Red Drum Fishery had been recreational only since 1988, and that the figures he was showing were only from the Gulf side of Florida, not the Atlantic. He reviewed the MRFSS data that had been collected, most of which was sampled from the mid-gulf coast area, around the Tampa Bay area. He added that most of the lengths measured by the surveys were in the 18"-27" range.

He noted that there was a small electronic logbook program in Florida, so anglers could record the size of the fish being released, and that it was the only current method Florida had of measuring the lengths of the fish caught and the mortality in the fishery. He added that of the million and a half fish captured and released, the logbook program showed around a 5% kill rate. He acknowledged that the samplings that were taken in the surveys were a small percentage of the fish caught; however, the data did give information that had not been collected before. When asked how the survey was conducted, he explained that 200 anglers were randomly selected from the Florida license database, and sent surveys. He added that the response rate from anglers was around 10%, attributing some of the low response rate to deficiencies in the database, mainly outdated angler addresses. He then covered the fishery independent data, which was a stratified random survey run in the Tampa Bay, Apalachicola, Cedar Key, and Charlotte Harbor areas. They involved using 21-meter seines for juvenile fish, and 193-meter seines for catching sub-adult fish. He added that this method was how most of the otolith information was acquired, and that this helped give the lengths of landed fish. He noted that between 2004-2006, about 100 adults were captured offshore each year. He added that this method was a comprehensive program in that it covered several zones and depths, and gave an accurate description of the indices and abundance of the stock. He concluded by explaining this type of data was what was given to the Southeast Fishery Science Center (SEFSC) for their assessments.

Alabama

The Alabama summary was given by **Mr. Van Hoose**.

Mr. Van Hoose noted that Alabama used different survey methods, but MRFSS was the main one used for gathering data. He added that the state also had a fishery dependant survey method that targeted private fishers, such as those who take out their own boats, who were not normally covered by the MRFSS process. He noted surveys of these anglers reported frequent sightings and catches of red drum. He stated that it should not be a problem to add a question or two about the size and length of red drum caught and released, which was not on the current survey used for these anglers. He added that this option might not be feasible for states such as Florida, with many miles of shoreline, but for his state with its limited shoreline, this did not present a problem. As for independent

surveys, he noted the state had a program that utilized trawls/seines, but very few red drum were caught or observed with this method. He stated that Alabama now had a gill net sampling program in place with twenty gillnets, and that this method surveyed 4 out of the 5 areas once a month that had been designated for research on red drum. He noted that this method worked very well for the inshore areas, but did not give much data for offshore stocks. He added that this program was started in 2000.

Mississippi

The Mississippi report was given by **Mr. Buchanan**.

Mr. Buchanan noted that Mississippi's independent fisheries sampling program was started in 1987 by the Gulf Coast Research Laboratory (GCRL) until the state took over in 2002. He added that this program used 4 different sizes of mesh to sample the red drum stock inshore, but the state was trying to standardize the size of the mesh openings. He explained that Hurricane Katrina had wiped out two years of information, 2004 and 2005, so there were gaps in the state's research results. He explained the dependant fisheries sampling program used MRFSS data, that around 200 fish per year were caught for sampling, and that the release mortality rate was close to zero.

Louisiana

The Louisiana report was given by **Mr. Pausina**.

Mr. Pausina noted that the state took around 2000 otoliths per year in their samplings until 2001, when the samplings dropped to 1000. He stated that in the mid 80, the Coastal Conservation Association (CCA) started an inshore tagging program, and then the state had taken over the task. He noted that around 1000 fish per year were captured in the program. He added that Hurricane Katrina had interrupted the collection process, so the numbers had gone down, but he felt the taggings would soon go back to the 1000 captured fish threshold. He also noted that a juvenile red drum study was started in the late 90's but never finished. He explained that the tagging program had started in 1987 and was strictly based on volunteer information, noting that the CCA was involved again in helping to collect data. He noted that the tagging program had covered 120,000 fish from 60 species. In answer to a question about how the data was verified and analyzed, he explained that two universities were reviewing the data and it was still being analyzed. He expressed hope that the state would have more concrete information by 2010.

Texas

The Texas report was given by **Mr. Fisher**.

Mr. Fisher reviewed the handout on the Texas data collection programs, noting that the state had 31 years of fishery independent gillnet data and krill surveys. He added that the state had been collecting otoliths in the gillnet program since 1991, around 15,000 fish that were almost exclusively age five and younger. He said that Texas had tried twice to relax recreational regulations on red drum, but had not been successful.

Gulf States Marine Fisheries Council (GSMFC)

The GSMFC report was given by **Mr. Donaldson**, who reviewed a PowerPoint presentation. He noted that interviews had been conducted in the Gulf states using MRFSS methodology since 1997, routinely exceeding quotas for all modes (Gulf-wide). He added that this had resulted in more interviews, lengths and weights for red drum which contributed to better data analysis. He explained that in 2007 the GSMFC began targeting red drum under the Fisheries Initiative Network (FIN) for a biological sampling, and that the target of 1,500 otoliths was divided into the East and West Gulf of Mexico. He added that it was only a recreational sampling, and that it had been conducted with state and federal partners. He noted that the new information on red drum made a significant difference in analyzing the data.

National Marine Fishery Service (NMFS)

Mr. Davenport reviewed a PowerPoint presentation and handout which went over the GOM Red Drum Otolith Sampling FY2002 Cooperative Research Project. He noted that the draft paper he was handing out did not yet have the data in the PowerPoint included in its analyses. He explained that The Gulf of Mexico Fishery Management Council's Red Drum Stock Assessment Panel (RSAP) had indicated in that in March 2001, the stock may not have recovered as projected due to a combination of factors including inadequate escapement from estuarine waters to the offshore adult population. There was considerable uncertainty in this result, however, due to limited information about the age structure of the offshore population. In the absence of an offshore fishery, the ability to collect biological hard parts for aging of this adult stock was very limited. In order to obtain hard parts samples for aging the offshore stock, a cooperative research project was implemented utilizing charter and commercial Hook and Line vessels to capture adult fish and collect otoliths for aging.

He noted that a cooperative research grant of \$298K was secured to conduct the sampling and processing of the GOM red drum population. Previous samplings of adult red drum were conducted in 1997-1998 utilizing a commercial purse seine vessel along with a NOAA research vessel. Due to budget constraints and lack of interest by the purse seine industry, it was decided to attempt at sea sampling aboard commercial and chartered hook and line vessels with a NMFS field biologist/observer on board. In addition to collecting otoliths, each field biologist/observer also collected data on areas of capture and environmental data on all areas fished. He added that all of the Gulf states had cooperated on the program, and that while there were challenges initiating such a plan, it was doable. Several panel members questioned if the program told people where to fish in order to gather data. **Mr. Davenport** responded that people could fish wherever they wanted to under the program, and that they were paid \$1000 per vessel. He added that no paying customers were onboard when these studies were done.

Mr. Whorton asked if a registry was maintained of people who might want to participate.

Mr. Davenport responded that there was not a registry per se, that advertisements were sent out advising people of the specific qualifications required to participate in the program.

Mr. Pearce interjected that if Congress could be convinced to fund the program, more people would be encouraged to participate, adding that the black sea bass program in the Pacific had success with a similar program. He posited that the credibility of the Council was at stake, and that decisions the Council made needed to be based on best information and not on incomplete data. He added that unlike the Gulf states program, the Pacific program instructed people where to fish for purposes of the study, and the fish they caught were allowed to be sold, thus helping to pay for the program.

Mr. Murphy noted that the Pacific fishery was entirely commercial, which gave it an added incentive to participate in the program, whereas the Gulf fishery was all recreational, which might make enacting such a program more difficult in the Gulf.

Mr. Pearce agreed that this was a possible impediment to initiating the program, but felt overall; the benefits outweighed any initial problems.

Mr. Davenport responded that he also felt the program was doable, and that with funding support from Congress, it would be much easier to make the program become a reality.

Mr. Pearce added that with proper support, such a program could be used to help open up other fisheries in the Gulf and elsewhere.

Mr. Murphy noted that knowing the age composition of the discard stock was as important as knowing the biomass of the stock, and any research that would get this data would be beneficial.