

SEG Striped Bass Committee Meeting Summary

Date: June 11, 2001

Time: 10:00 A.M.

Place: USACOE Savannah District Office

Members Present:

Ted Will	GADNR
Carl Hall	GADNR
Terry Stratton	USACE
Bill Bailey	USACE
Ed Eudaly	USFWS
Larry Keegan	Lockwood Greene
Tom Reinert	UGA-Cooperative Fish and Wildlife Research Unit
Cecil Jennings	UGA-Cooperative Fish and Wildlife Research Unit

AGENDA:

SUMMARY OF PAST MEETING

DISCUSSION

- I. Update for the 1135 Project - Terry Stratton
- II. UGA Study - Ted Will and Tom Reinert
- III. Overview of 2001 Field Sampling by GA-DNR - Ted Will
- IV. Future Study Topics - Open

CLOSE

MINUTES:

I. Update for the 1135 Project - Terry Stratton

Terry briefly discussed the status of the ATM's report "Evaluation of Existing and Historic and Salinities in the Back River for Striped Bass Restoration Project". Ed had pointed out from the past 1135 meeting that the report contained only 90th percentile velocities and salinities, and data was only reported up to mile 16 in the Little Back River. Ed determined that some preliminary conclusions as to the suitability of Little Back River velocities could be reached with mean (or 50 percentile, if equivalent) surface, bottom, and mid-depth velocity for the entire length of the Little Back River at 12,000 cfs and 16,000 cfs during both spring and neap tides. Terry and Bo Elis are still discussing value and feasibility of reporting this additional data requested. Terry also mentioned that he might have some additional data that could help us better define "normal" spring flows.

II. UGA Study - Ted Will and Tom Reinert

Ted and Tom gave an overview of the findings from the UGA's report "Assessment of spawning sites and reproductive status of striped bass, *Morone saxatilis*, in the Savannah River Estuary". No problems or comments about the report were mentioned. Larry, wanted to know why we could not take the information from this study and make some predictions about total egg abundances from data collected in past studies. Cecil explained that they would need at least two data collection points, each at a different discharge. Since this study was performed in a low discharge year, predictions of total egg production from data collected in past years under normal or high discharges would not be valid.

III. Overview of 2001 Field Sampling by GA-DNR - Ted Will

Ted gave a brief overview of striped bass standardized sampling results of the Savannah River in spring 2001. The numbers of large (>9 kg) females continues to increase. As with many other species (e.g., red drum) these large females are the primary contributors to the total egg abundances in the estuary. Most (70 %) of these females were collected in the Back River, however there was no data to indicate whether these fish spawned in the Back River. Ted also mentioned that only 6% of age 2 fish collected in spring 2000 were naturally recruited. This was a decrease from previous years where natural recruitment ranged from an estimated 15 to 30%. These fish were from the 1998 year class; which discharge was high throughout 1998 spawning season. Carl Hall mentioned that striped bass recruitment is generally low when you have high or low spring discharges. Natural recruitment data for age 2 fish collected in spring 2001 should be available in October 2001.

IV. Future Study Topics - Open

(1) Tom mentioned releasing additional gellan beads under higher spring discharges. UGA have determined relationships between the number of eggs needed at large in the Savannah River Estuary (SRE) before their standardized egg sampling gear can collect one; however, these studies were conducted in low discharge years (1999 and 2000). Data collected under "normal" flows may provide additional insight into gear sampling efficiencies and detection thresholds. These data may also help clarify comparisons of current egg detection thresholds as compared to historical egg data collected under similar discharges.

(2) Ted is still interested in collecting additional egg data. Monitoring studies have shown a recent increase in the numbers of large (>9 kg) female striped bass. It has been suspected that survival of eggs and ensuing recruitment of juvenile striped bass is higher in the Back River than in the Front River. In 2001, 70% of the large (>9kg) striped bass were collected in the Back River. Since no egg sampling was conducted in 2001, we have no idea if these fish spawned in the Front, Middle, or Back river. As the population of these large female striped bass continues to increase, documenting spatial egg abundances under normal flows

would be beneficial in providing information to assess the fishery and mitigation alternatives (e.g., minimum flow requirements for Back River). Based on present data collections, we assume that 90-100% of striped bass reproduction is occurring in the Front River, and assessing impacts and mitigation alternatives for harbor deepening would be evaluated accordingly.

(3) Ted mentioned the idea proposed in the previous meeting of ATM modeling gellan bead transport under “normal” discharge years, and having UGA ground truth ATM’s model with their gellan bead work. From my understanding, this information would help determine egg transport, egg distribution pathways, and help strengthen UGA’s standardized egg sampling efficiencies and detection thresholds over different discharges. Also, it may be possible to have the model output number of eggs and the amount of time each egg was subjected to a predefined salinity (e.g. 9 ppt) under the deepening scenarios (need Bo Elis’s confirmation on this).

(4) Ed mentioned the possibility of ATM performing Acoustic Doppler Current Profiler (ADCP) velocity transects under normal seasonal flows (12,000-16,000 cfs). This work should be conducted at the previous Little Back River stations as well as striped bass spawning sites in the Front River. The ADCP transects taken in these locations could be used to compare documented spawning sites in the Front River to other available spawning habitat in the Back River. This additional data would provide one data point in the relationship between current velocity in Little Back River and river discharge. The results may point to alternatives utilizing appropriate flow releases from upstream reservoirs or modifications within the Little Back River to facilitate different flows in that river. This work has also been requested under the 1135 study group.

(5) Larry mentioned the idea looking back at past Savannah River striped bass data collections and studies, and then synthesize this information into a report. The intent of this synthesis is to document our present knowledge, the avenues we considered to improve the present status of the population, and the rationale for the path the researchers and resource managers are now taking. By putting everything on paper, it may be easier to spot something that we’ve overlooked. It will also provide support for why we recommend a given action whenever we get to that point in the process. Tom is presently working on a dissertation that would closely follow this type of document, and will have a have prospectus completed shortly. Terry was also interested in the this type of report for the 1135 study team.

Committee consensus to the merits of the above reference discussions will be determined through email.

