

**Gulf and South Atlantic Regional Panel Update
Georgia
April 2011
Charleston, S.C.**

Satilla River Flathead Removal Project

- For the 2010 sampling season, the crew removed 6,289 flathead catfish totaling 11,101 pounds. Since the implementation of the full time flathead management program in 2007, more than 53,671 pounds of flathead catfish (19,761 fish) have been removed from the river in 4 years. The size structure of the flathead population has been significantly affected with the average size fish removed dropping from 5.8 pounds in 2007, to 2.9 pounds in 2008, to 1.4 pounds in 2009, but did slightly increase in 2010 to 1.8 pounds. In addition, the average length fish removed has declined from 512 mm TL in 2007, to 352 mm TL in 2008, to 281 mm TL in (2009), and also slightly increased to 296 mm TL in 2010. Biomass per effort has also declined from 57.1 kg/hr in 2007, to 23.6 kg/hr in 2008, to 19.9 kg/hr in 2009, but increased in 2010 to 31.1 kg/hr.
- In addition, to changes in the size structure, the age structure was also truncated by removal efforts. In 2007, 15% of population was made up of age-1 & age-2 fish, and it was dominated by a strong 2003 year-class of age-4 fish (50%), and 5% of the population consisted of fish Age-6 or older. In 2008, the strong 2003 year-class of now Age-5 fish was still present and made up 13% of the population and the same amount of older fish (>age-6) still comprised 5% of the population, but the population began to show signs of being heavily exploited, because 50% of the catch was now age-1 or age-2 fish. In 2009, the age-structure data revealed a typical population that has received high exploitation, characterized by a large numbers of small fish (<356mm TL), with over 80% of the fish being age-1 or age-2 and only 3% of the population was age-6 or older, including that once strong 2003 year class. The 2010 age sample is currently being analyzed.
- There was evidence for higher recruitment and earlier maturation. The electrofishing catch rate continues to climb and was calculated at 38.7 fish per hour in 2010, which was also up from 2009, where it increased dramatically from 32.5 fish per hour in comparison to 22 fish per hour in 2007 and 18 fish per hour in 2008. Gravid, turning Age-2 females were found in ranging in size from 200 to 251 mm TL. There appears to be a shift in sexual maturity due to over a decade of increased exploitation.
- Maintenance control of flathead catfish in the Satilla River is possible given our reported changes in biomass, size and age-structure but higher recruitment and earlier maturation was demonstrated, as a result this will require intensive harvest

to be maintained to prevent the flathead population from rebuilding within 2 to 5 years.

- Also, in the summer of 2010, WRD personnel discovered the first field observation of flathead catfish predation on a sturgeon of any species, an Atlantic sturgeon *Acipenser oxyrinchus* in the Satilla River, Georgia. The finding demonstrates a potential impact of flathead catfish predation on sturgeon populations, and provides further context for ongoing efforts to control flathead catfish invasions.

ANS Plan

- Georgia has submitted its proposal to the ANS Taskforce to receive funding in 2011.

Apple Snail Projects

- As reported in October '10, the first phase to evaluate factors controlling the spread and distribution of apple snails has been completed and WRD should have the results soon. Phase 2 data concerning potential habitats would assist managers in planning surveys to investigate the occurrence of the species in Georgia. In addition, will synthesize information on existing locations, abiotic factors effecting growth, reproduction, survival and invasiveness, and ultimately use all this vital information to build a predictive model of the spread of the invasive apple snail within Georgia. The study will also initiate baseline monitoring in existing invasive snail locations and adjacent control sites to begin investigating impacts of the snail on aquatic ecosystems.

Asian Swamp Eel

- Work will begin soon to determine the status of Asian swamp eels in the Chattahoochee drainage.