

GSARP FALL UPDATE
October 4-5, 2011
Austin, TX

Flathead Removal

- For the 2011 sampling season (May-September), the crew removed 3,134 flathead catfish totaling 8,058 pounds. Since the implementation of the full time flathead management program in 2007, more than 61,729 pounds of flathead catfish (22,895 fish) have been removed from the river in almost 5 years. Size structure of the flathead population has been 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 has increased in 2010 to 1.8 pounds and 2.6 pounds in 2011. In addition, the average length fish removed has fluctuated from 512 mm TL in 2007, to 352 mm TL in 2008, to 281 mm TL in 2009, to 296 mm TL in 2010, and 345 mm TL in 2011. 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 and then declined to 22.6 kg/hr in 2011.
- 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 also consisted of over 80% of fish being age 1 and age 2 fish. The 2011 sample is currently being analyzed.
- There was evidence for higher recruitment and earlier maturation. Water levels also appear to affecting recruitment. During the drought years, catch rates (CPUE) were down in 2007, 2008 and 2011 (i.e. 21.8, 18.5 & 18.0 fish per hour, respectively), but was considerably higher in 2009 during the high water years of 2009 and 2010 (i.e., 32.5 & 38.7 fish per hour). 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.

Most Recent Finding:

- During sampling in 2011, the WRD removal crew documented the non-indigenous range expansion of the blue catfish *Ictalurus furcatus* occurring in the Satilla River, Georgia. A total of seven blue catfish were recovered this season ranging in length from 360 mm TL to 492 mm TL and in weight from 0.337 to 1.044 kg. This is the second, large, non-native riverine catfish to be found existing in the Satilla River Basin, joining the flathead catfish.
- Non-native blue catfish has also been verified with sampling to be present in the lower Altamaha River Basin.

ANS Plan

- Current funding is earmarked to fill temporary positions to assist with flathead removal. The positions will be used to enhance the sampling effort to remove flathead catfish in the Satilla River. With the remaining funds, educational materials will be developed and distributed.
- An aquatic nuisance species display is currently being developed to be displayed at the Go Fish Georgia Education Center in Perry, GA.