

Invasive Catfish Symposium

VCU Rice Rivers Center

November 6-7, 2017

Objectives/goals

- Characterize the tidal James River freshwater fishery via creel surveys
 - Angler participation, target species, demographics, CPUE, harvest, economics...
- Extensive information from monitoring of freshwater fish populations, but characterization of angler component in freshwater tidal fisheries limited to:
 - Spring fall-line anadromous species on James and Rappahannock
 - Chickahominy Largemouth Bass fishery

Methods

- Creel surveys of tidal James River system in 2002 and 2015-2016
 - Access point with instantaneous boat counts via flights
 - Nine months in 2002 and full 12 month survey 2015-2016
- Estimate of economic value derived from 2002 creel data and angler expenditure data from 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

Results/Findings

- What did you discover?
 - Angler effort directed at Blue Catfish in 2015/16 was less than half that of 2002
 - 51,168 angler-hours over 12 months compared to 115,000 angler-hours over 9 months
 - Angler catch rate in 2015-16 (0.73 fish/hour) was comparable to 2002 (0.77 fish/hour)
 - Reduced participation concurrent with a decline in trophy potential in the fishery resultant from declines in Blue Catfish abundance and size structure

Results/Findings

- \$2.5 million estimated total economic value of the James River recreational Blue Catfish fishery in 2002
- With a reduction of over 50% in angler effort in 2015-16, the economic benefit to the regional economy has likely diminished substantially
- Anecdotally, a shift in angler pressure from the James to Potomac in recent years and few, if any, full-time guides remaining active on the James by 2016

Results/Findings

- Anglers harvested 58% (42,716) of Blue Catfish catch in 2015/16 compared to 41% (67,556) over nine months in 2002.
- Harvest of 100% of Blue Catfish catch in 2015/16 would have been an additional 30,932 fish/year.
 - Many fish caught are too small to be of interest and others too large to be safely consumed

Results/Findings

- In 2015/16 43.6% of effort on tidal James River was targeted towards Blue Catfish; with 40.6% targeted towards black bass
- The James is by far the largest Blue Catfish fishery in tidal waters of Virginia
 - The James River still is a destination fishery; anglers from 179 zip codes from as far away as California and New York
 - A fishery in decline, particularly in terms of its trophy component

Results/Findings

- What are the management implications?
 - Trophy James River fishery in decline, as has been the case in Rappahannock and appears to be the case in the York
 - Recreational harvest, at current participation rates, has minimal potential to contribute significantly to increases in total harvest

Discussion Questions

- What is the value of this research to fishery managers?
 - Characterization of recreational component, with snapshot pictures '02 and '15/'16
- How do you foresee the results being used?
 - Status and trends in angler component of recreational fishery
- What modifications should we make to current management strategies?
 - VDGIF will continue to monitor Blue Catfish fisheries, making regulation changes accordingly
- Where are there still data gaps?
 - Rappahannock and York – need creel surveys
 - These were just two snapshots of James fishery
- What should be the next steps?
 - Assess potential of the “kill all” public information strategy to have an impact