

Invasive Catfish Symposium

VCU Rice Rivers Center

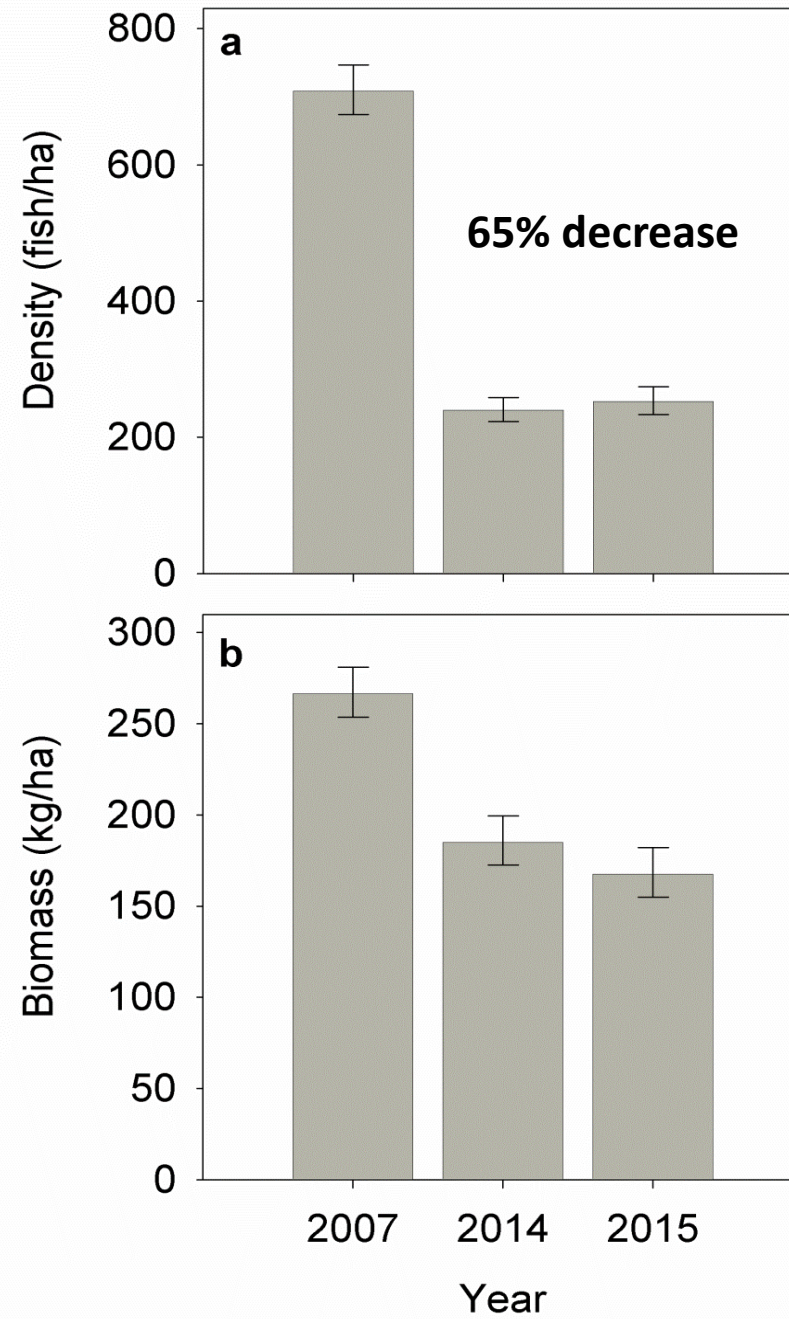
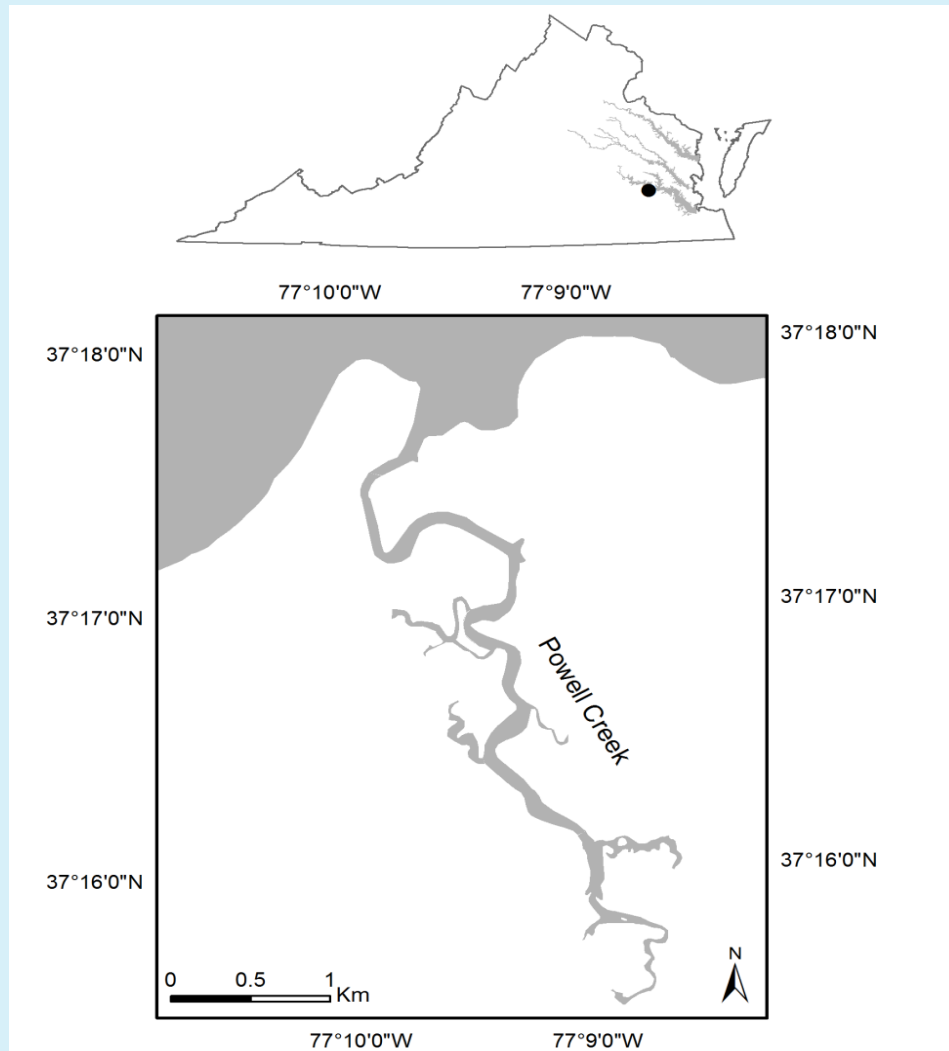
November 6-7, 2017

Aaron Bunch, Tidal Rivers Project Leader

Objectives/goals – VDGIF Tidal Rivers Catfish Mark-Recapture Studies

- To estimate Blue Catfish population density and biomass in several tidal rivers in Virginia

Powell Creek Mark-Recapture Studies



Mark-Recapture Studies

Pamunkey & Rappahannock rivers (2015)

- Late summer (8/18/15 – 9/2/15)
- Low-frequency boat electrofishing
- 7 boats and ~15 netters each event
- 3 mark-recap events (1 week intervals)
- 3 sections (upstream, middle, downstream)
- Unique fin clip for each event and section
- Bayesian Model Approach considered w/ migration rates estimated from movement among sections

Mark-Recapture Studies

Pamunkey

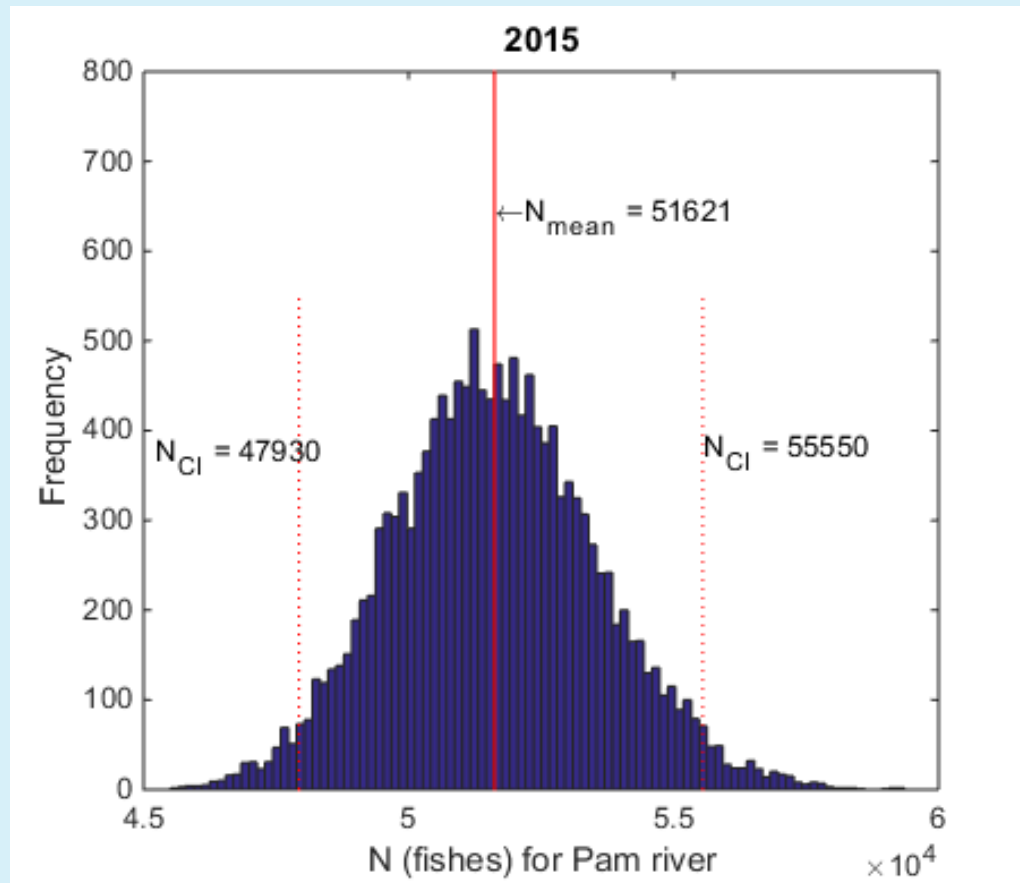


Rappahannock



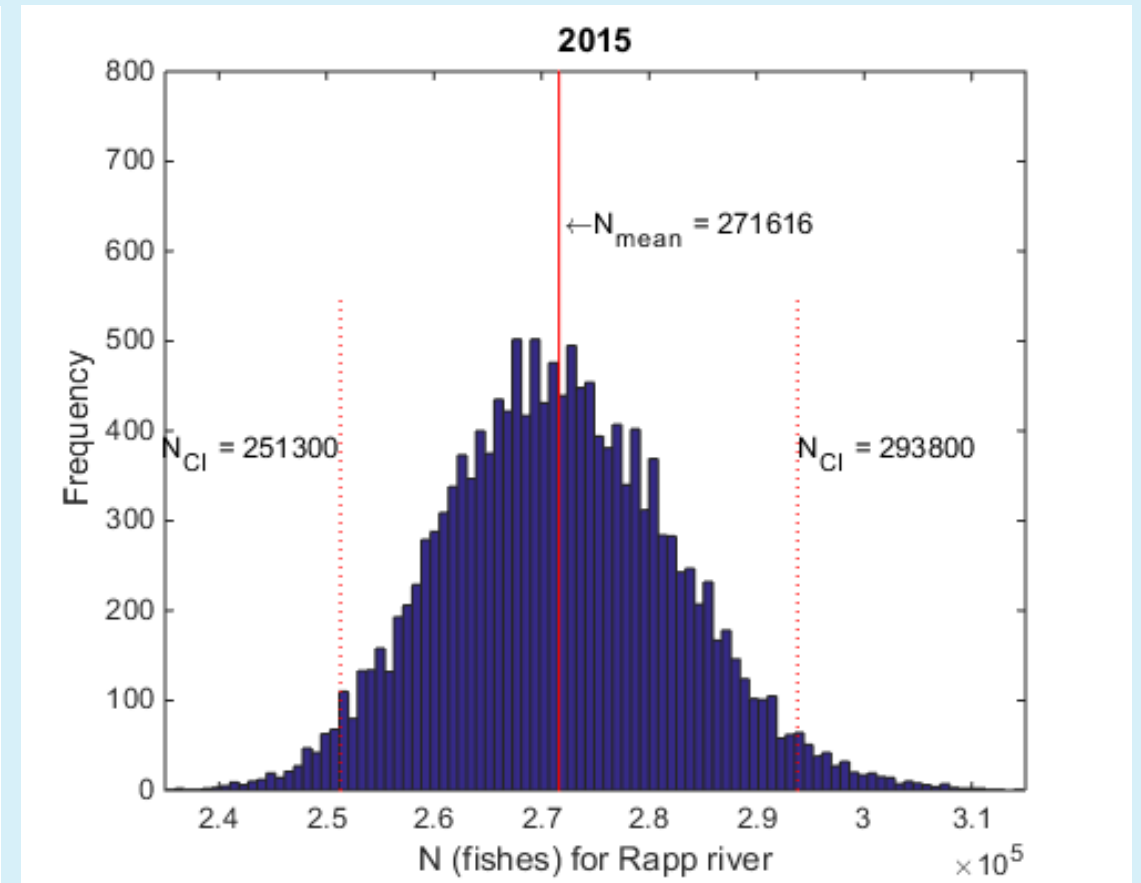
Mark-Recapture Studies

Pamunkey



BCF/ha = 565 (95% CI: 525-608)

Rappahannock



BCF/ha = 1127 (95% CI: 1043-1219)

Mark-Recapture Studies

Source	Year	Location	Density (BCF/ha)
DGIF	2007	James River – Tributary (Powell Creek)	708
DGIF	2014	James River – Tributary (Powell Creek)	239
DGIF	2015	James River – Tributary (Powell Creek)	252
VIMS	2013	James River - Mainstem	544
DGIF/VT	2015	Pamunkey River - Mainstem	565
DGIF/VT	2015	Rappahannock River - Mainstem	1127