

Movement Ecology of Blue Catfish in Virginia's Tidal Rivers: Preliminary Findings

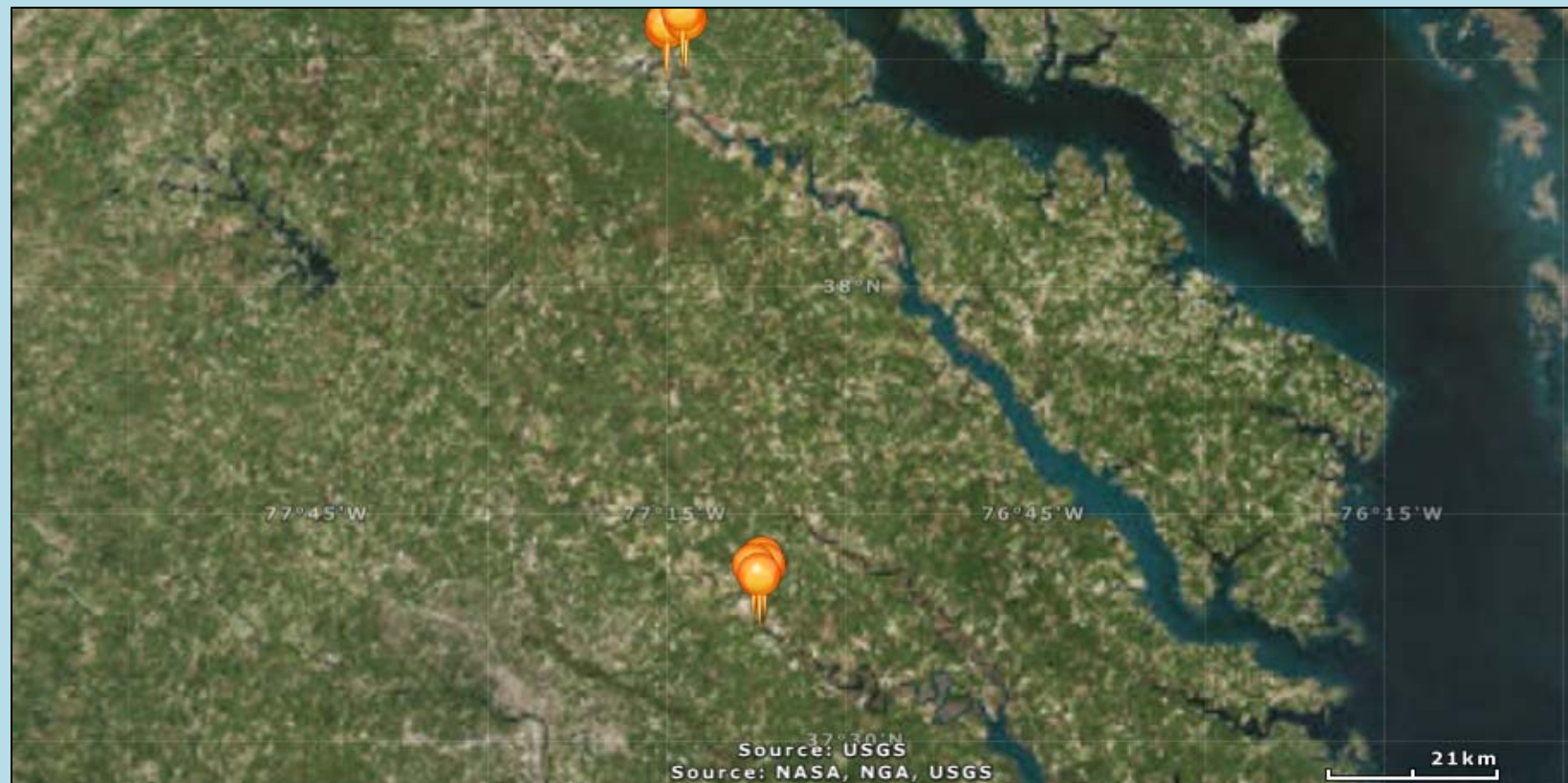
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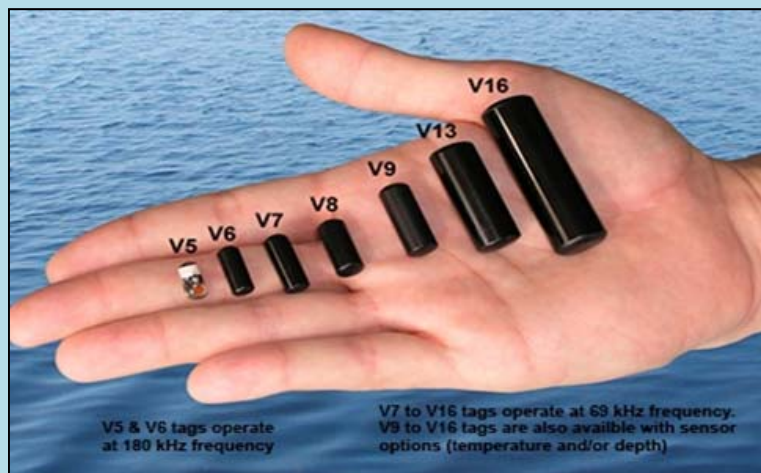
Objectives

- 1 - Evaluate spatial and temporal movement patterns in Blue Catfish
- 2 - Determine if movement varies by fish size
- 3 - Understand factors influencing movement



Methods

- Low-frequency electrofishing used to collect fish
- 30 Vemco acoustic tags (V9 or V13) surgically implanted per river (N=60 total) – all released in upper tidal sections
- 10 tags each size group (350-500 mm, 501-650 mm, & >650 mm TL) per river
- Secondary tags (Floy tag and ADP clip)

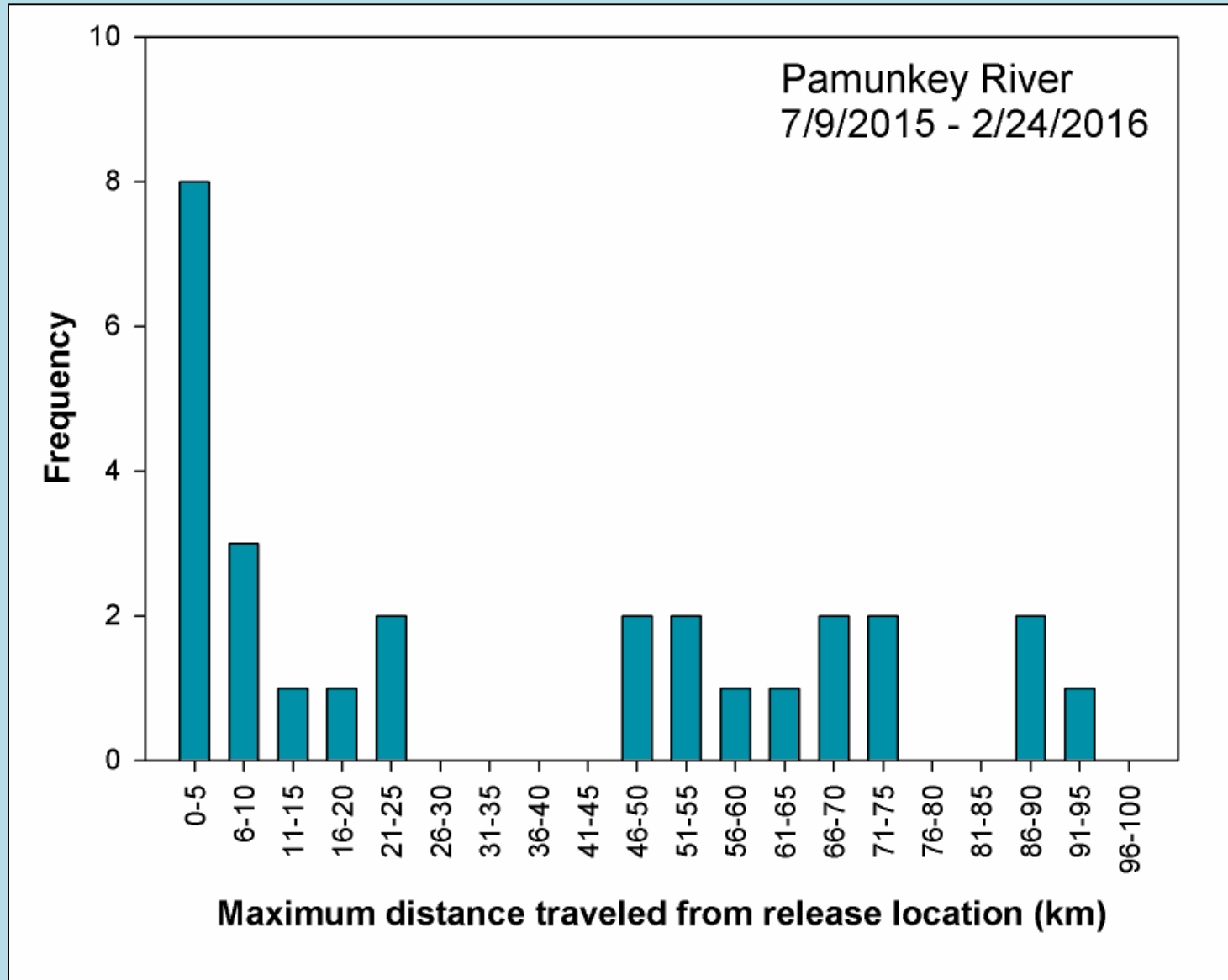


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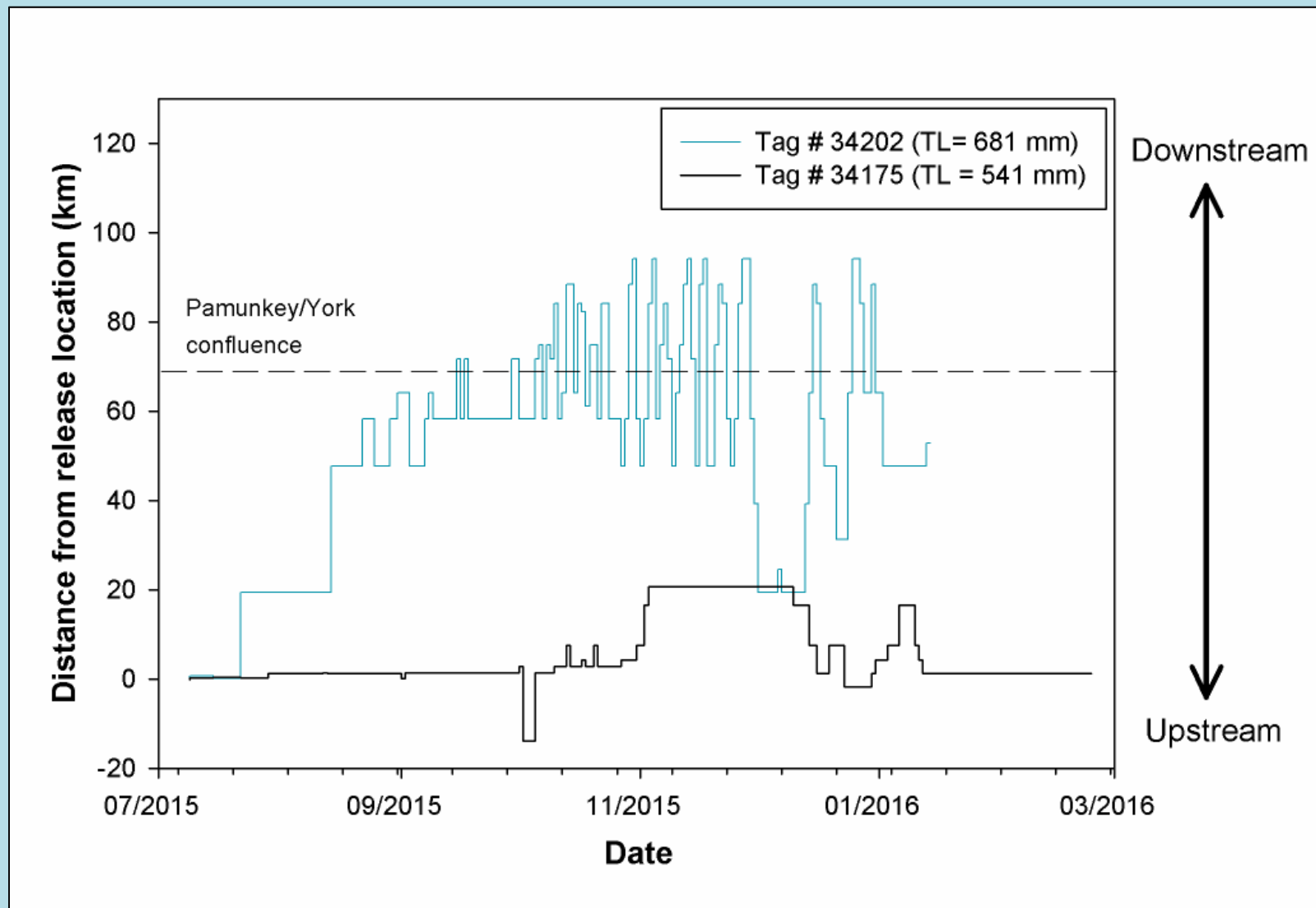
- Passive tracking
 - Supplemented existing arrays: Pamunkey = 30, York = 11, Rappahannock = 9
- Active tracking
 - Weekly tracking using Vemco VR100 unit w/ directional & omnidirectional hydrophone for first 2 months, then monthly thereafter until batteries expire (through July 2017)
 - Moved w/ tide stopping every 300-600 meters; listening for 300 seconds.
 - Water quality (DO, temp, salinity, conductivity) taken at each detection location at a depth of four meters



Preliminary Results



Preliminary Results



What's next

- Continued monitoring
- More elaborate analyses
 - Exploring various models
 - Does size matter?
 - Correlate data to environmental factors (e.g., water quality, flow, and tide)

