



Photo Credit: Matt Gade, Mitchell Daily Republic

James River Catfish Research

Why James River Catfish?

- Strong vocal public interest
 - Concerns about overharvest of trophies
- Limited information
 - Last studied in 1999-2000
- Future management actions
 - Regulations?



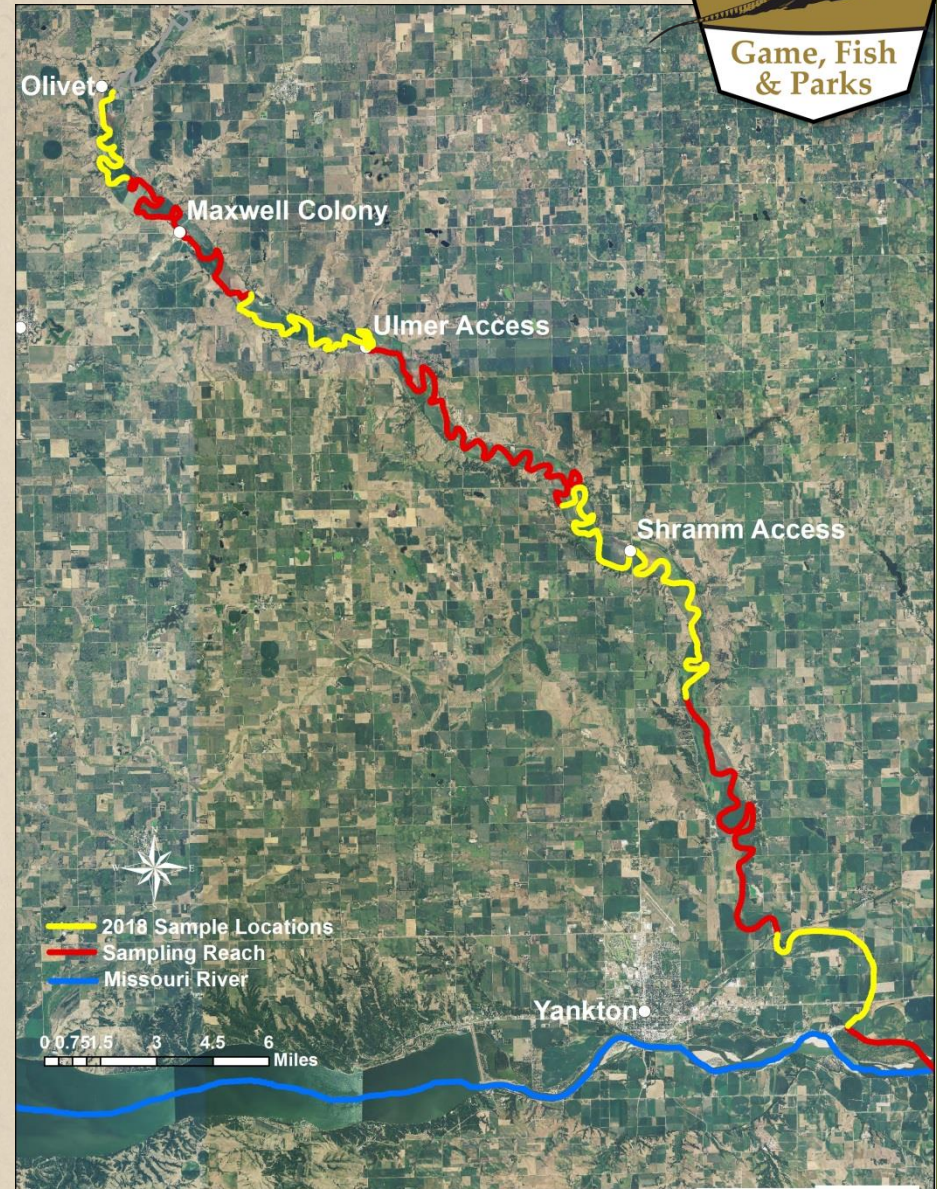
Current Research Goals

- Estimate growth
- Accurate estimate of mortality
 - Using dangler tags to estimate fishing mortality
 - 10% = \$100 60% = \$10 30% = no reward
- Insight into movement
 - Where were fish tagged and where were they caught?



Research Area

- Began in May 2018
- Sample at multiple sites along the James River
 - Yankton to Olivet
- Continue to collect information from tournament caught fish
 - Milltown
 - Yankton
 - Scotland



Sampling Methods

- **Channel Catfish**
 - Tandem hoop nets - 48 hour sets
 - Baited with cheese or soybean cake



Photo Credit: Matt Gade, Mitchell Daily Republic

Sampling Methods

- **Channel Catfish**
 - Tandem hoop nets - 48 hour sets
 - Baited with cheese or soybean cake
- **Flathead Catfish**
 - Low-frequency electrofishing



Sampling Methods



- **Channel Catfish**

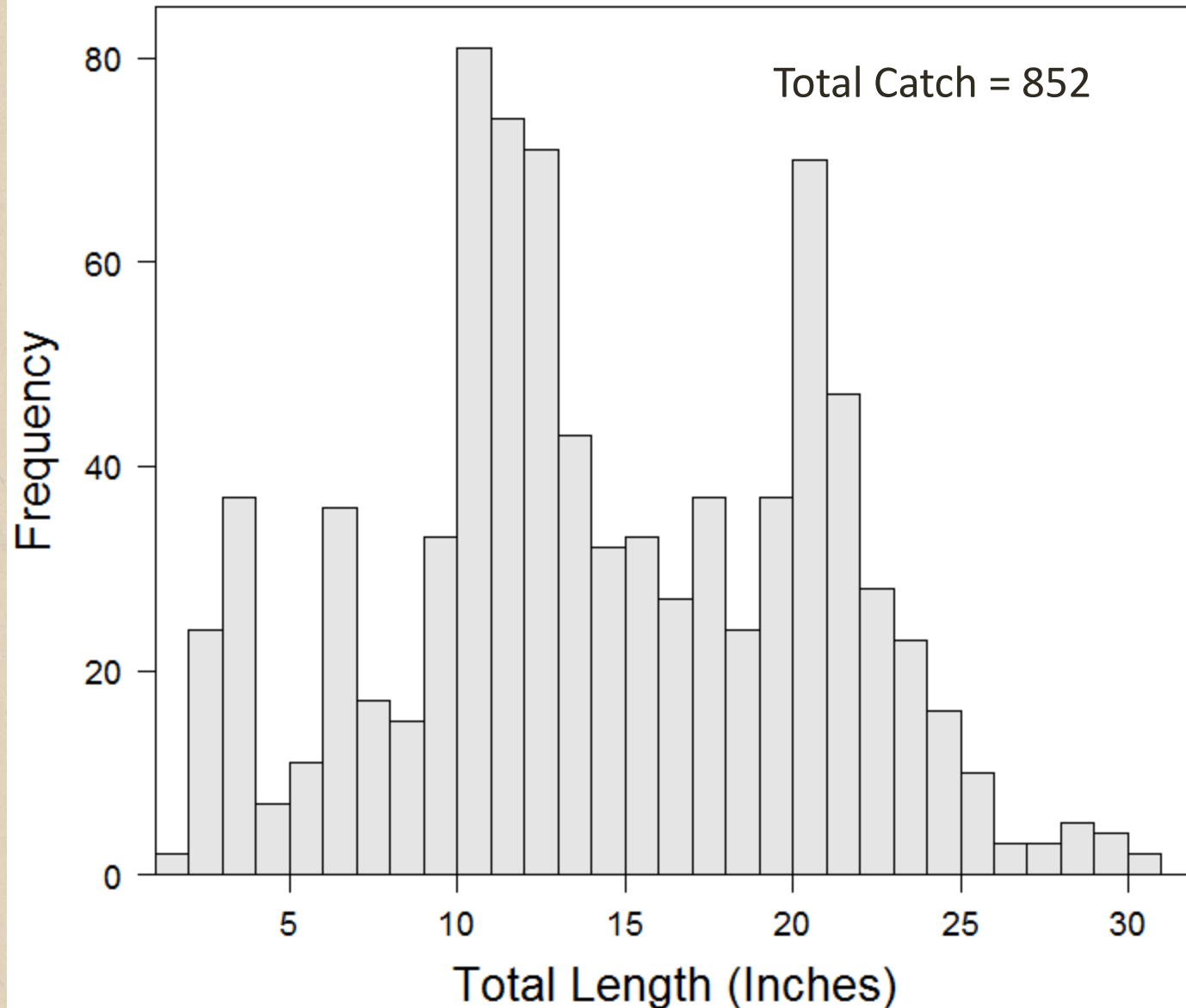
- Tandem hoop nets - 48 hour sets
- Baited with cheese or soybean cake

- **Flathead Catfish**

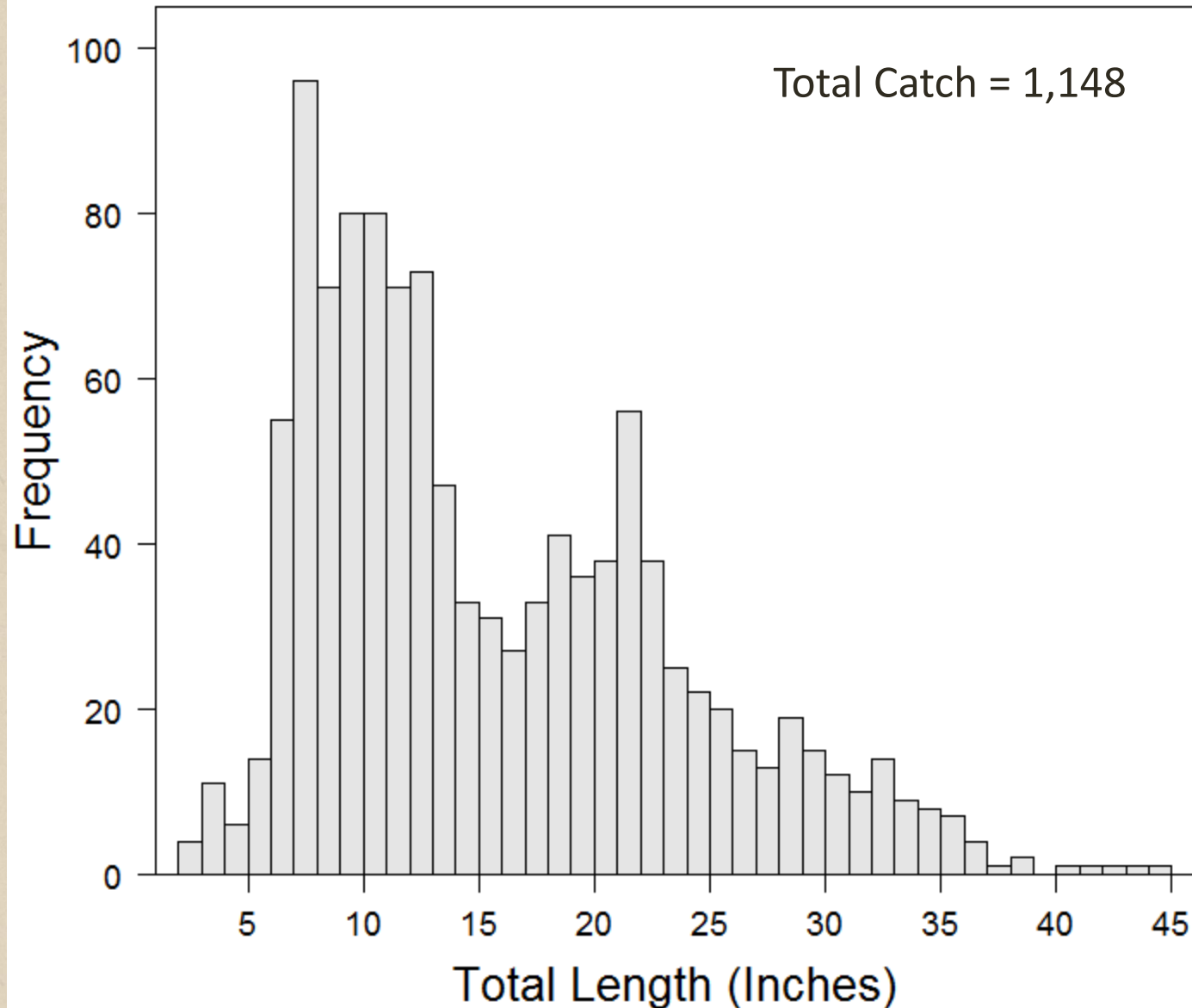
- Low-frequency electrofishing
- Trotlines baited with Black Bullheads



Length Frequency – Channel Catfish



Length Frequency – Flathead Catfish

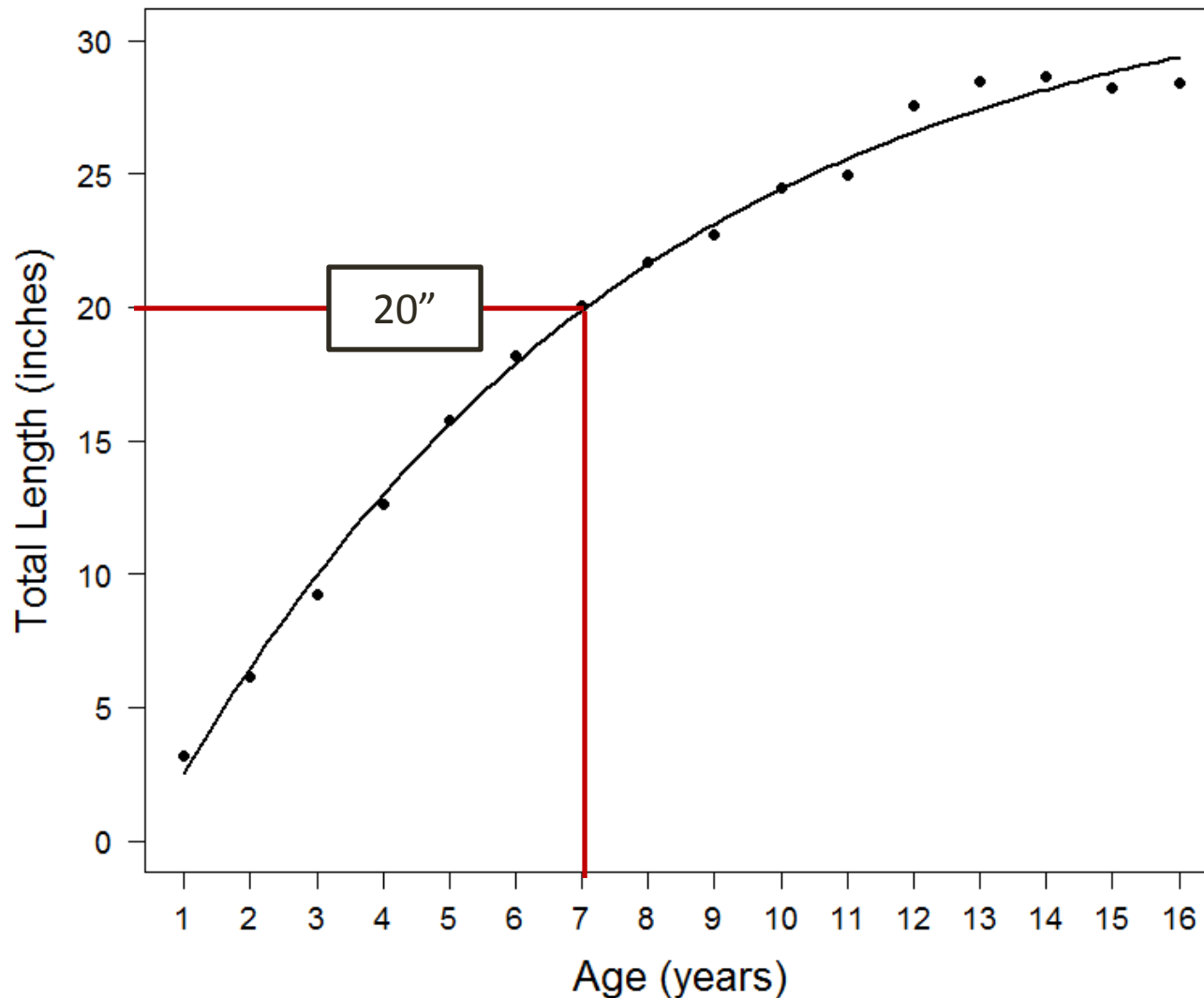


Length

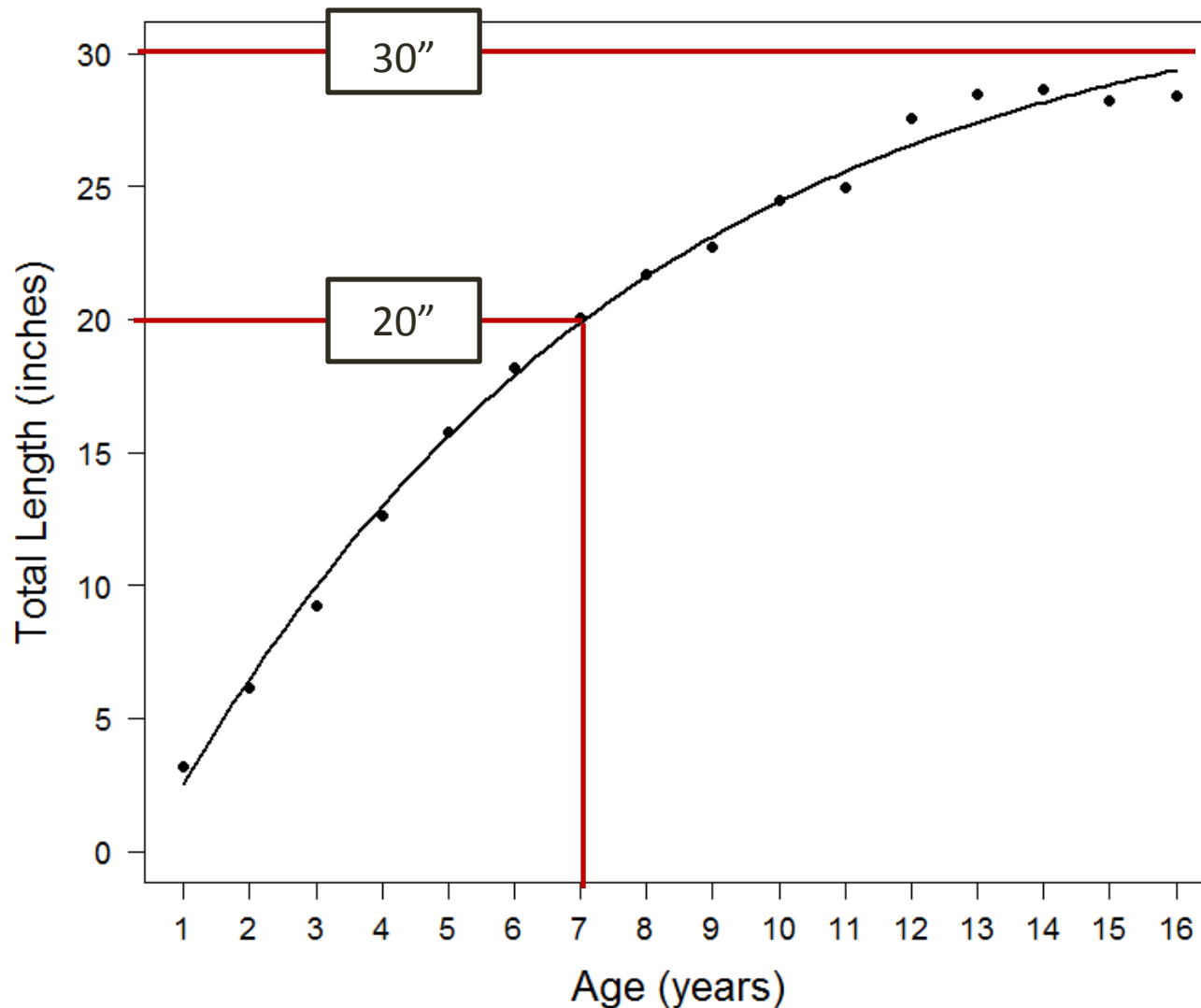
l Catfish



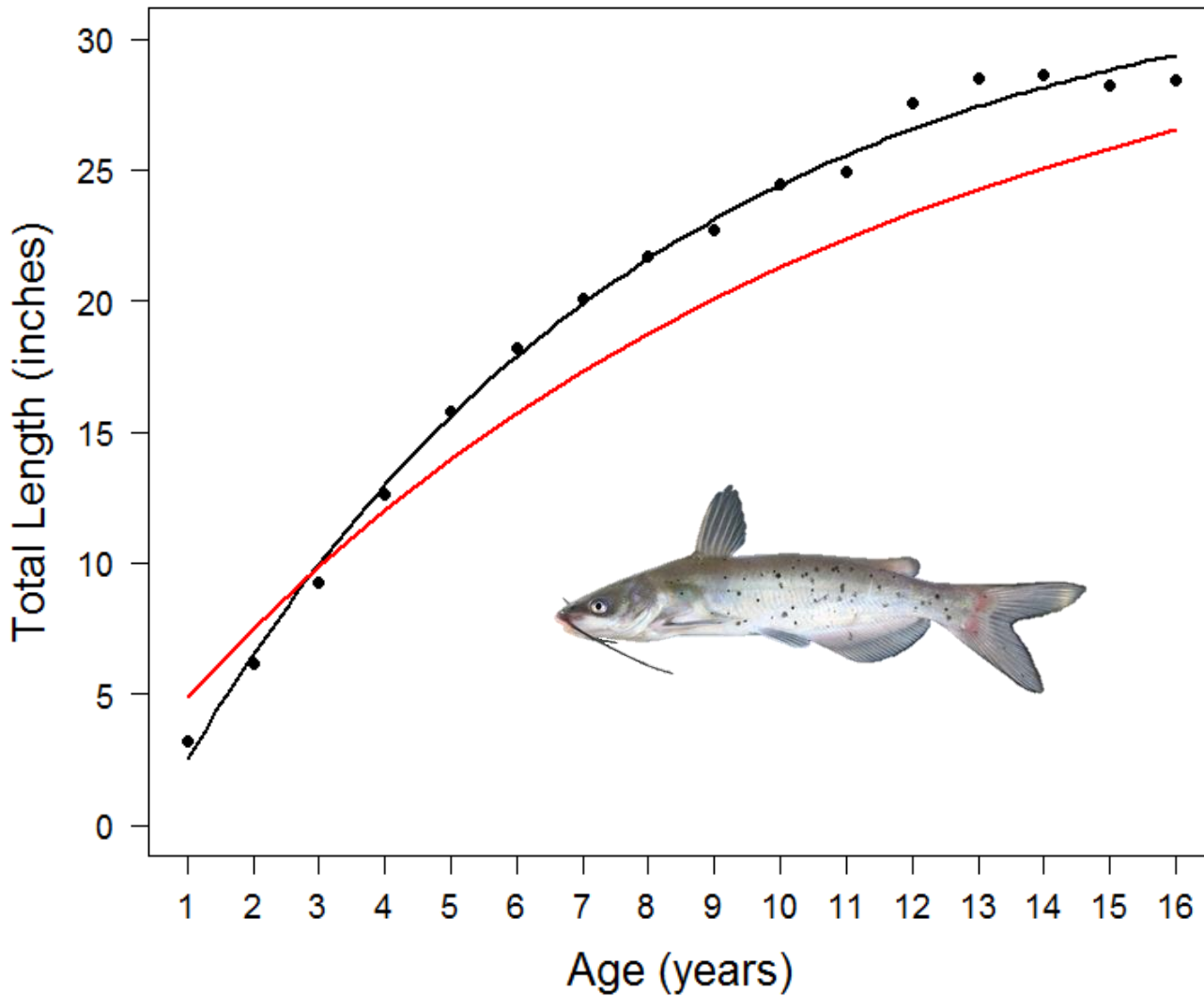
Channel Catfish



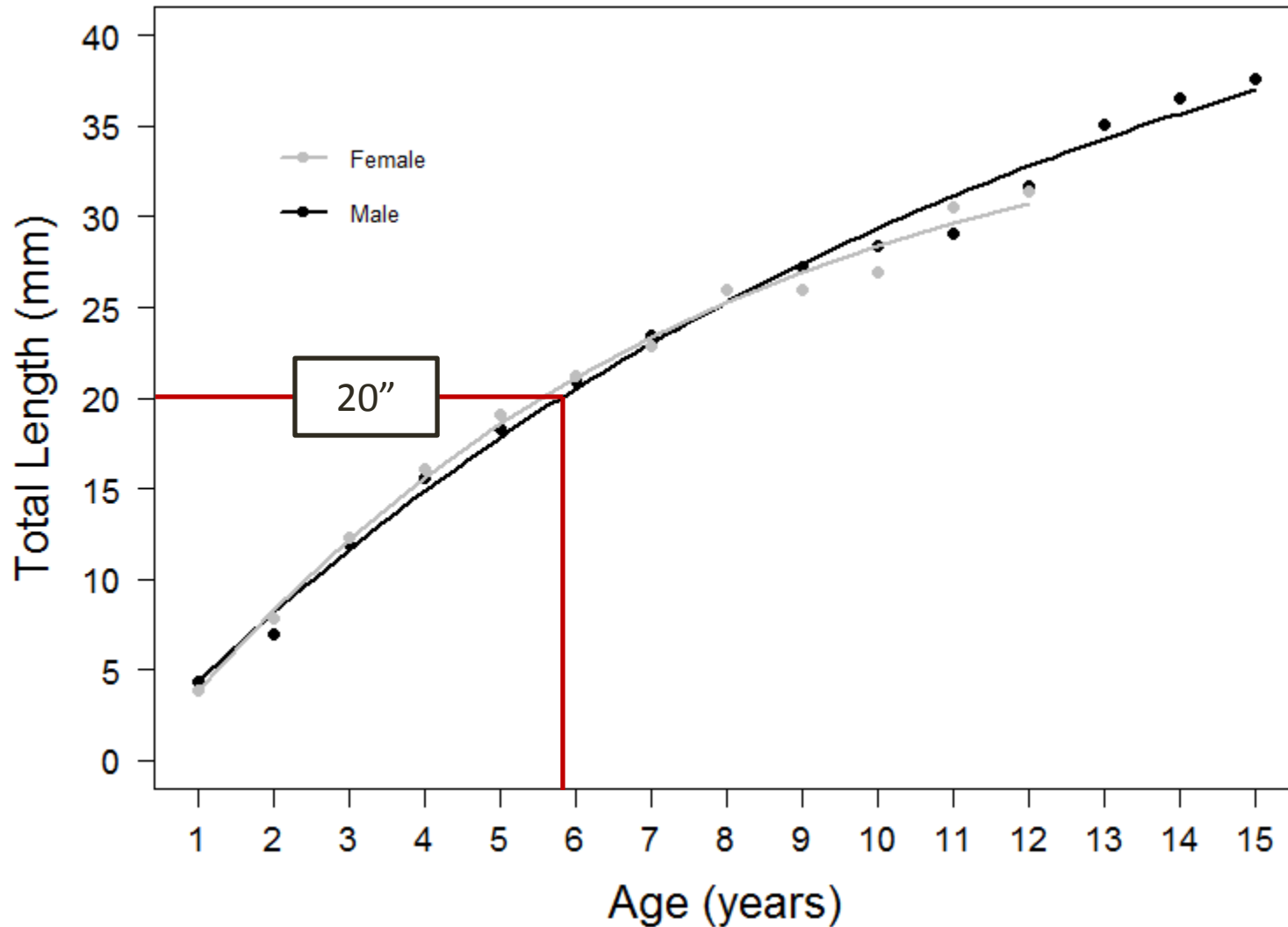
Channel Catfish



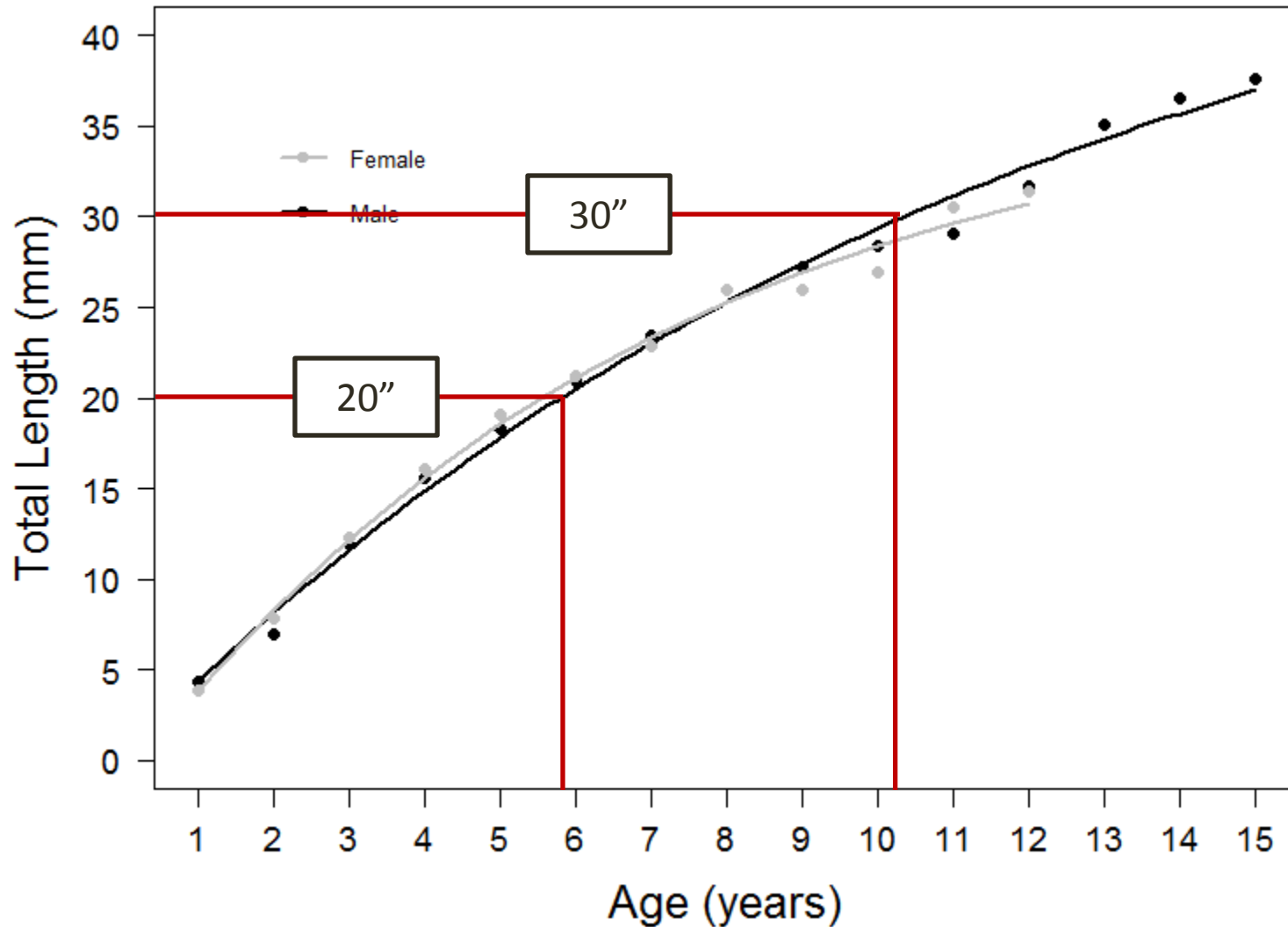
Channel Catfish



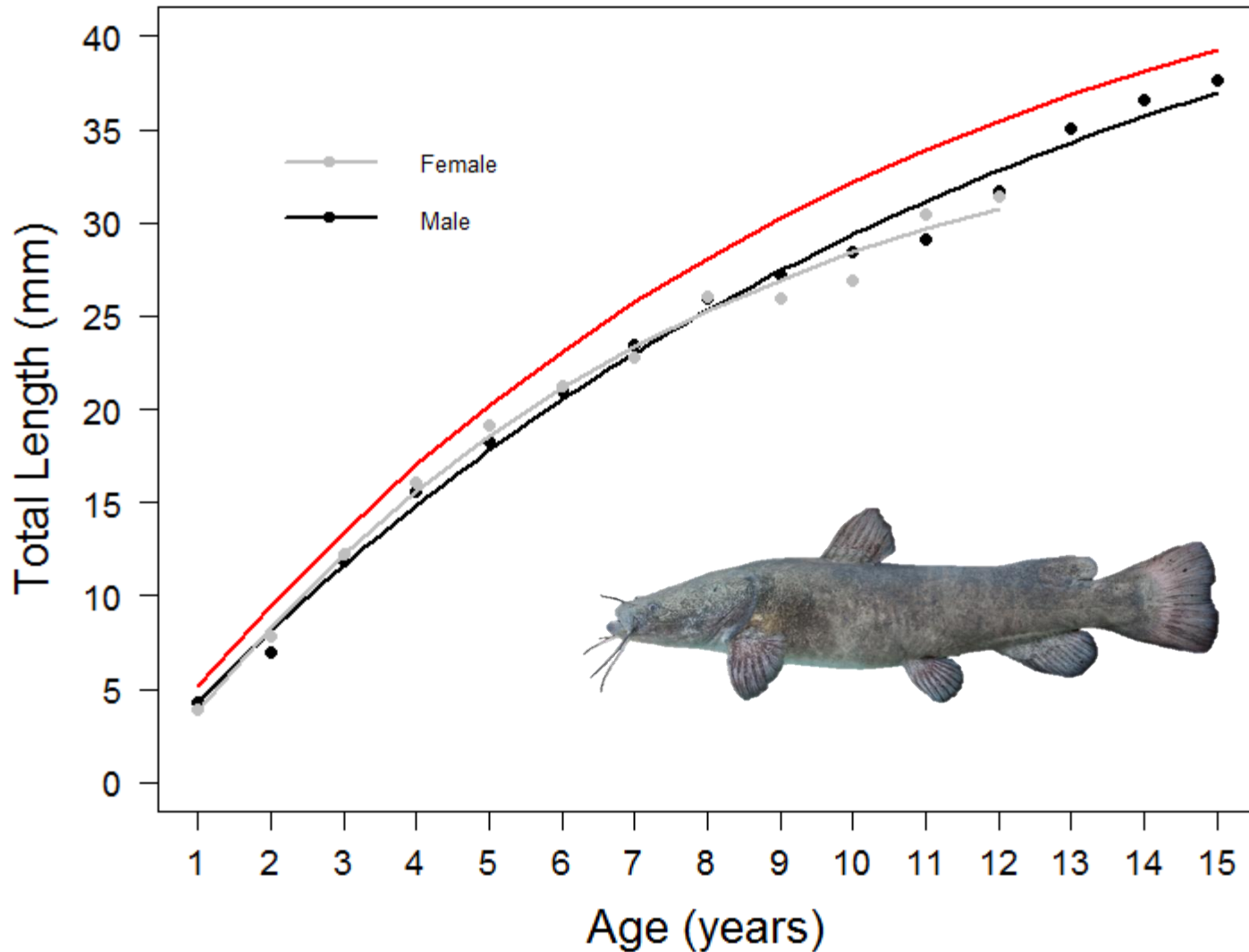
Flathead Catfish



Flathead Catfish



Flathead Catfish



Aging

- **Total Spine Count**

- CCF = 382
- FHC = 392



Tagging

- **Total Tag Count**
 - CCF = 388 tags
 - FHC = 567 tags



Tagging

- **Total Tag Count**

- CCF = 388 tags
- FHC = 567 tags

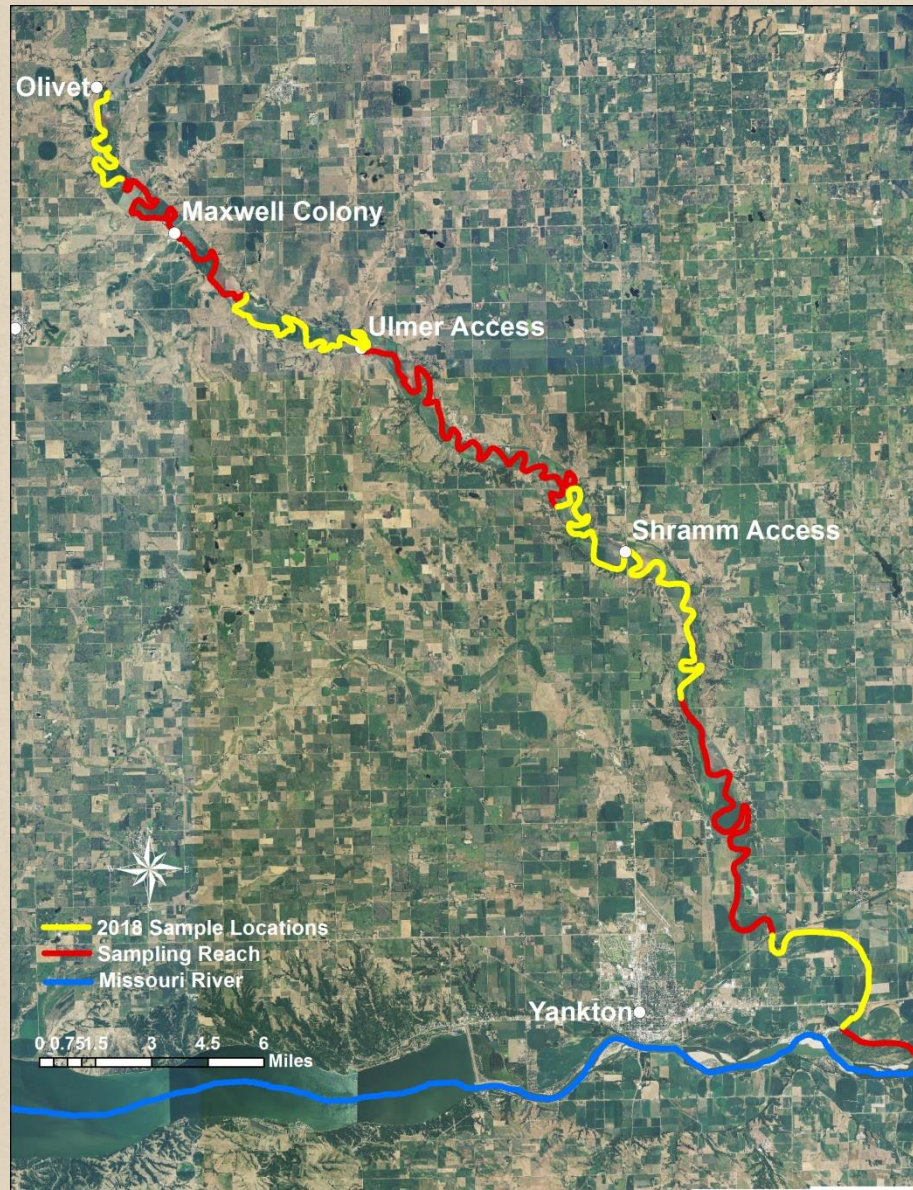
- **Tag Returns**

- CCF = 2 (2 harvested)
- FHC = 11 (3 harvested)

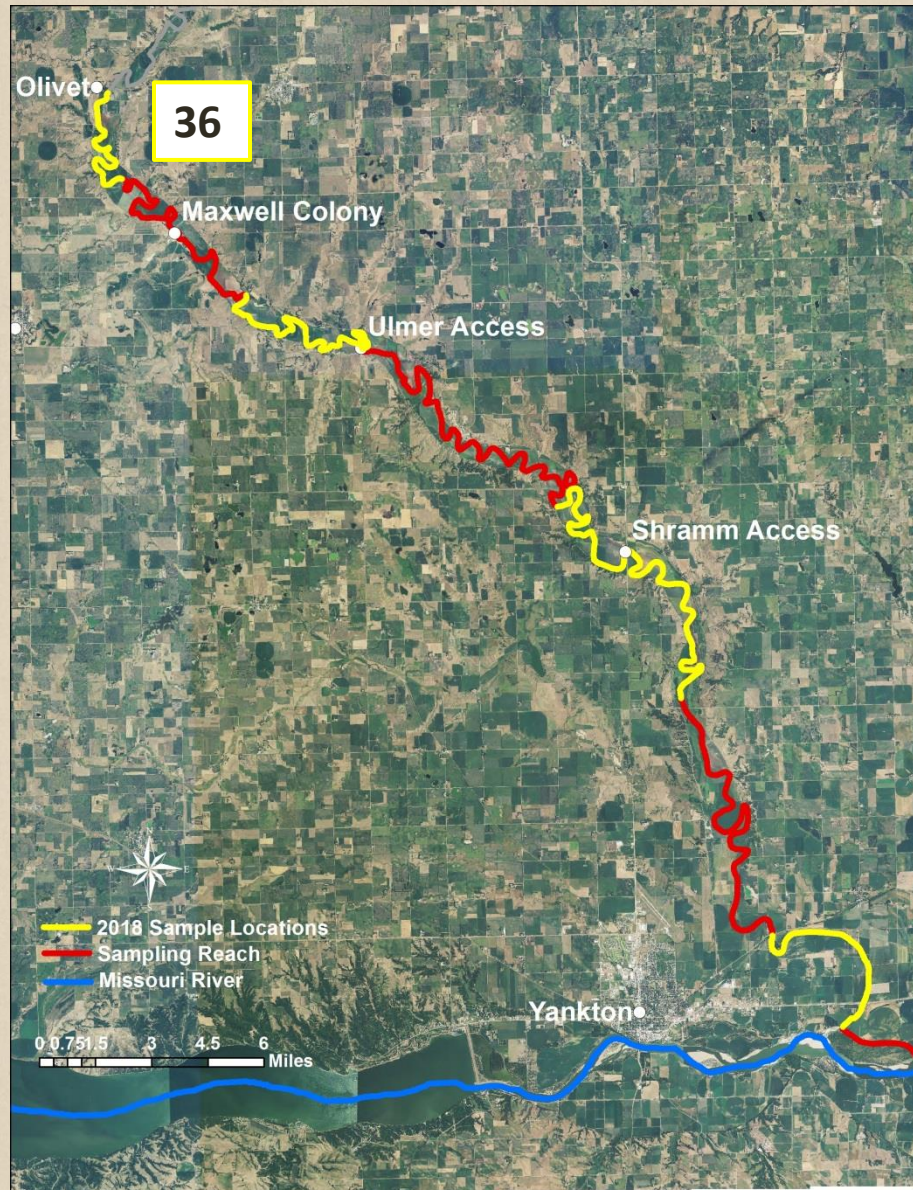


Photo courtesy of Dave Angle

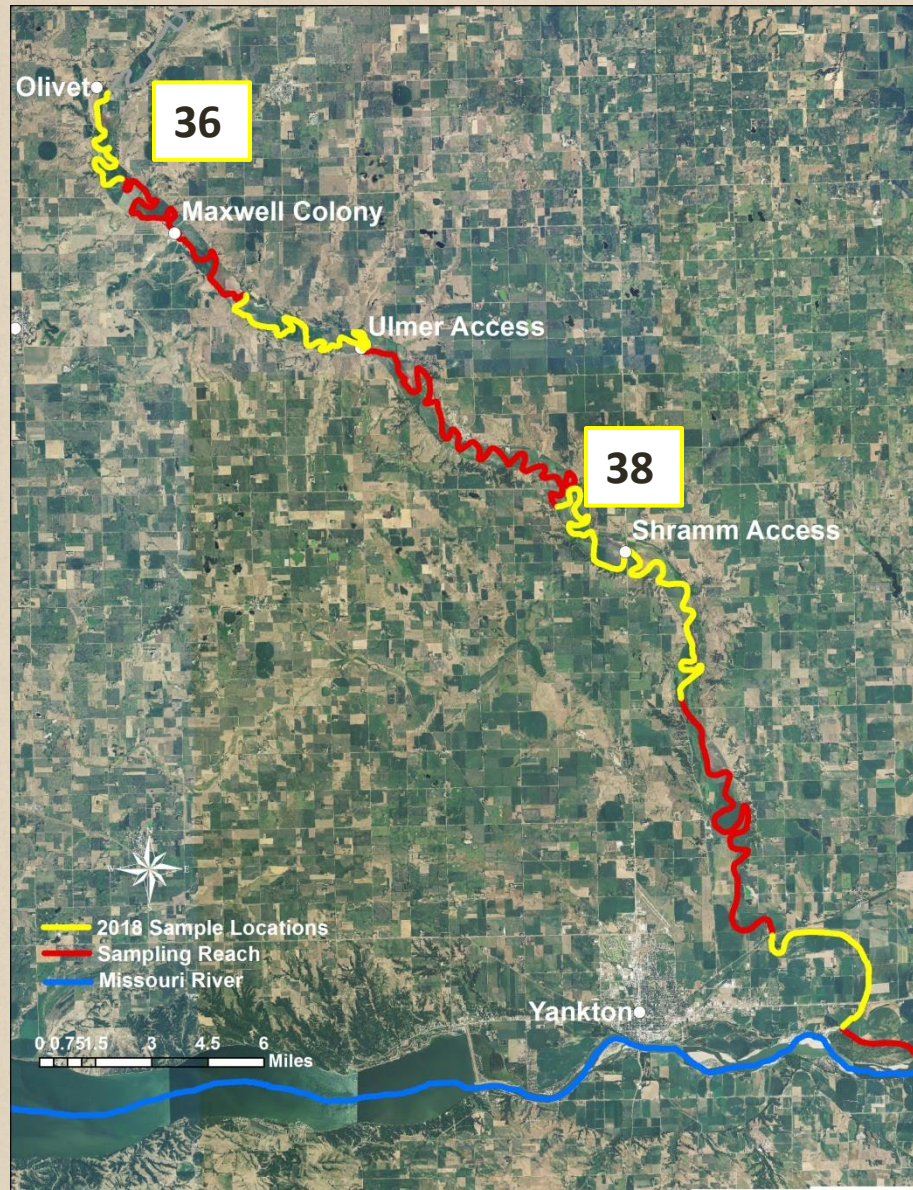
Fall Flathead Recapture



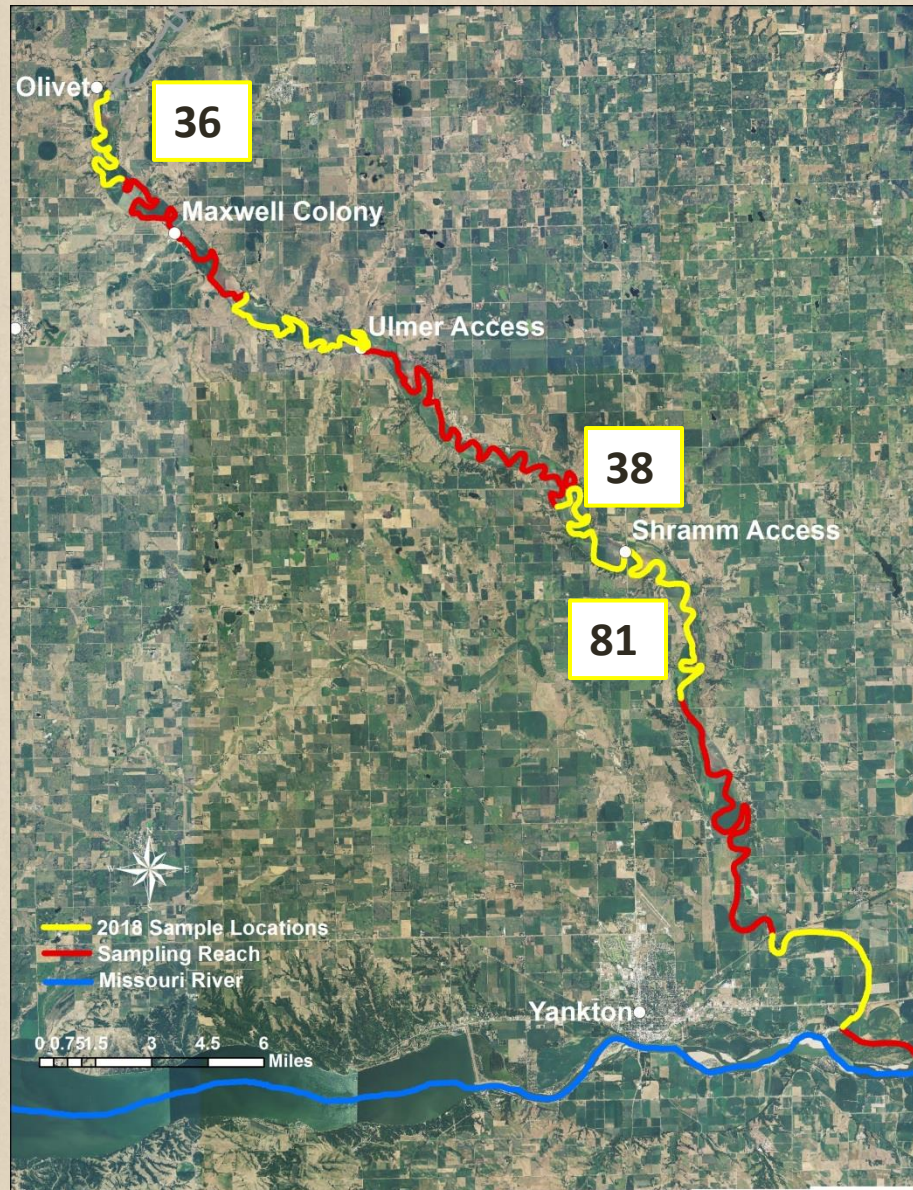
Fall Flathead Recapture



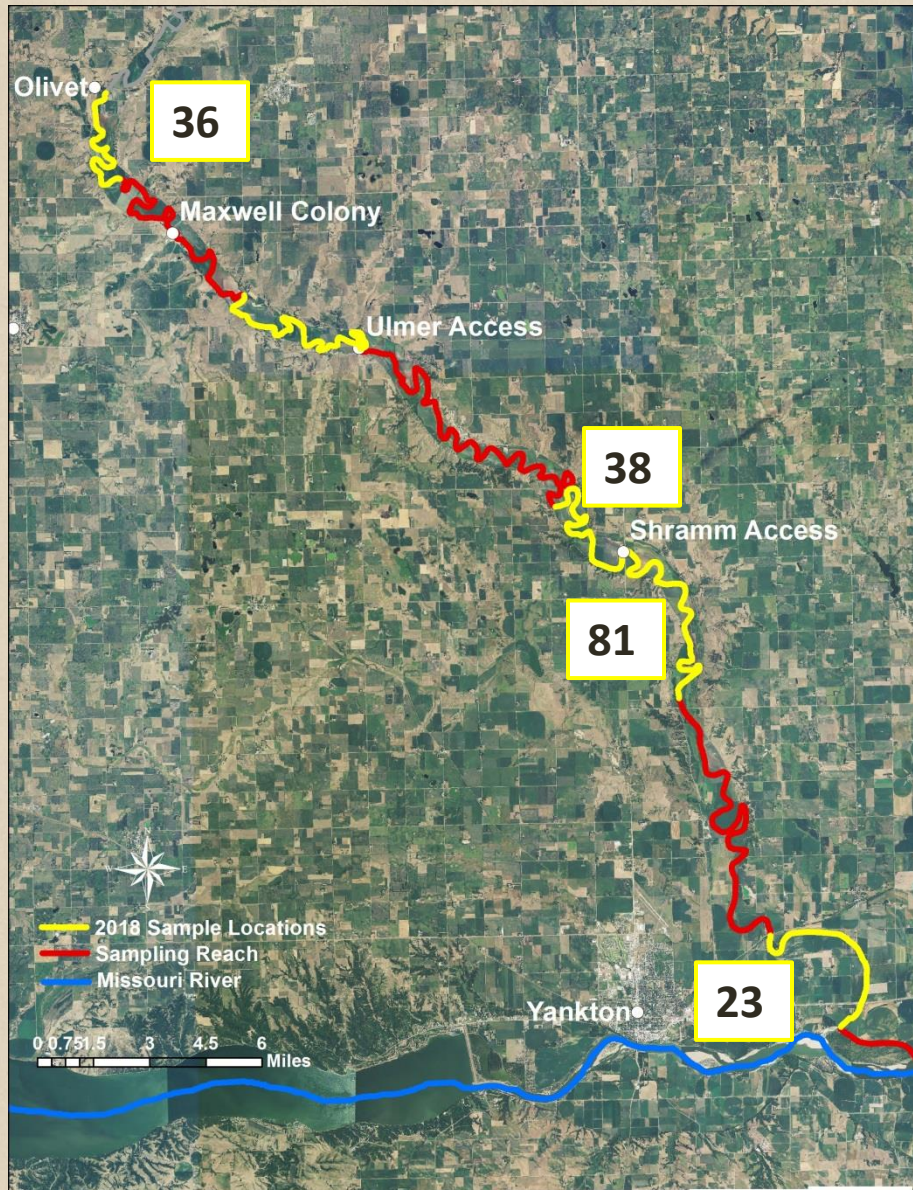
Fall Flathead Recapture



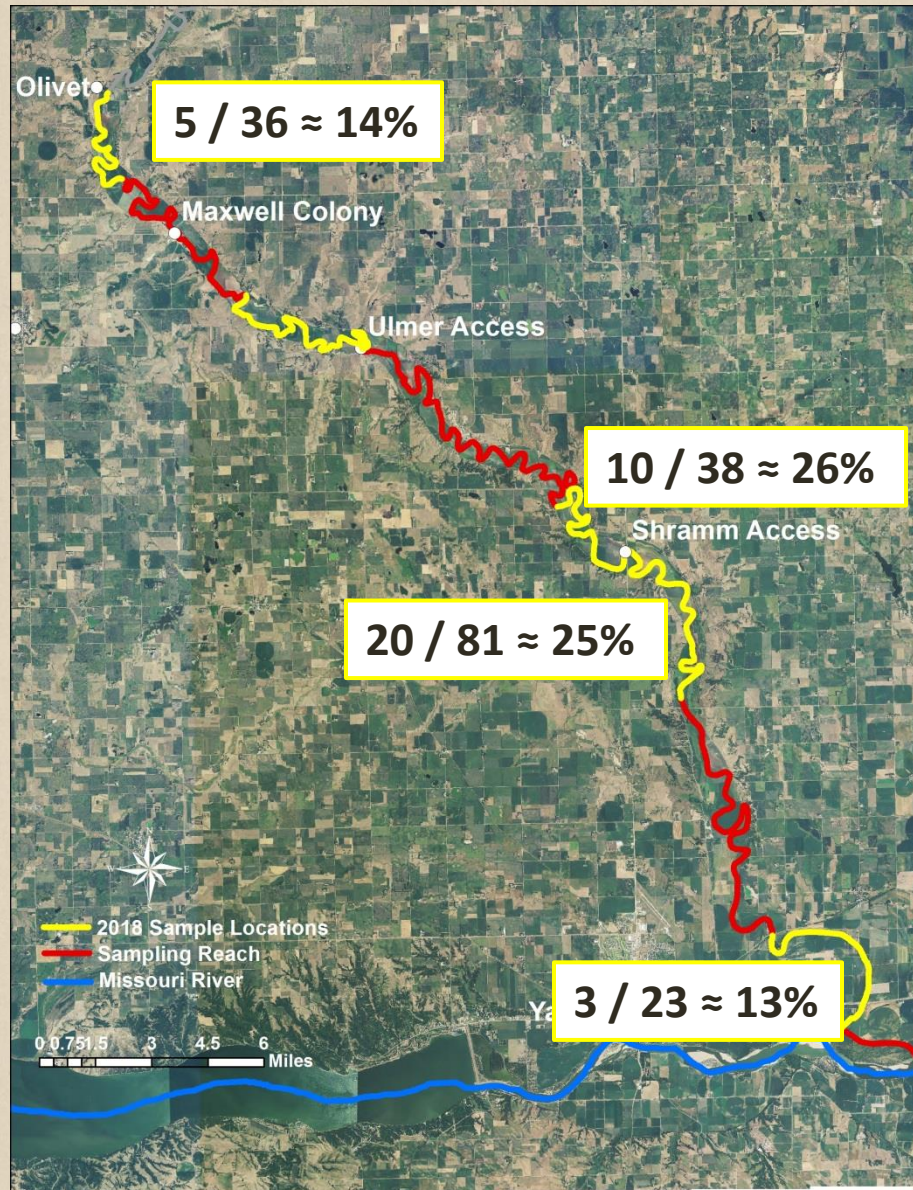
Fall Flathead Recapture



Fall Flathead Recapture

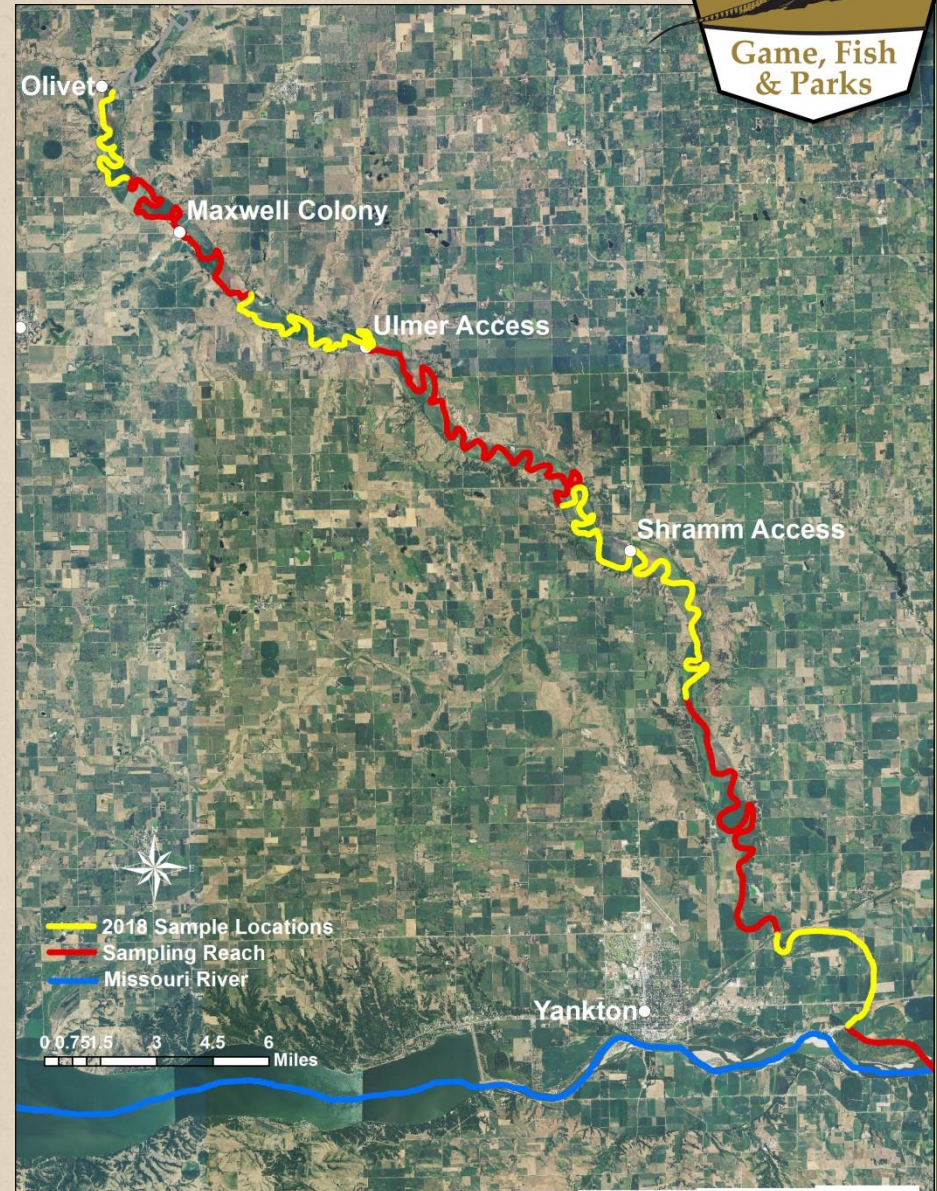


Average Recapture = 19.5%



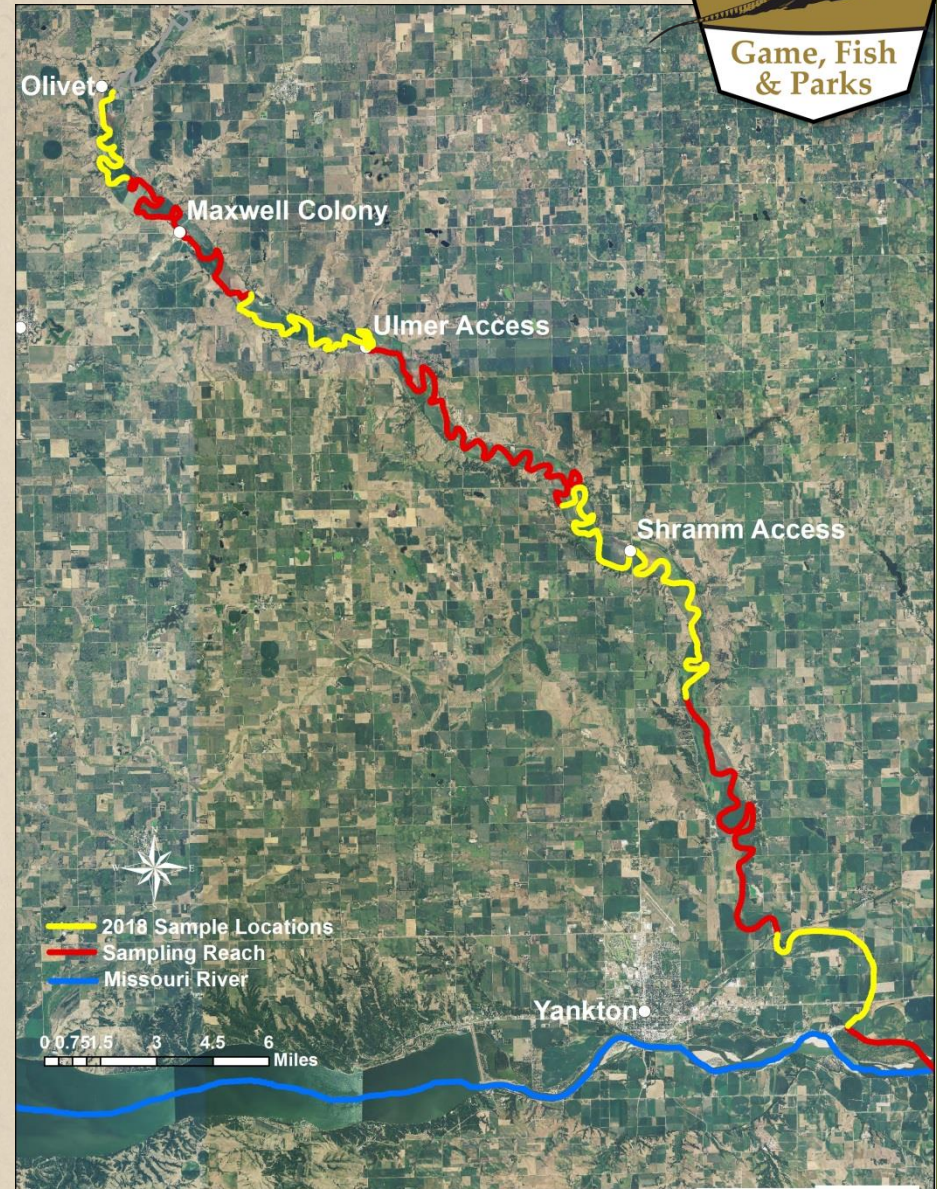
Movement

- 104 recaptures
 - 100 = Flathead Catfish



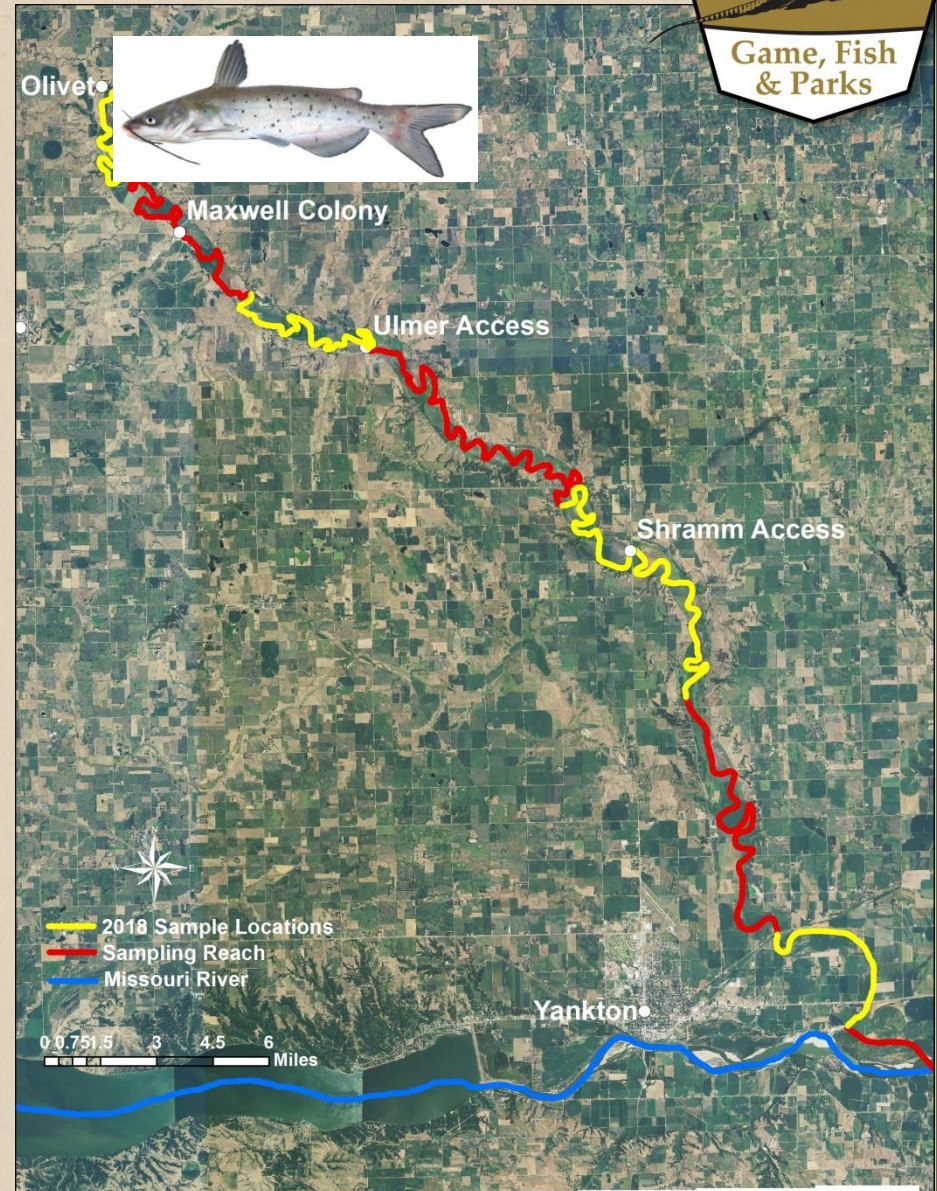
Movement

- 104 recaptures
 - 100 = Flathead Catfish
- 98 didn't move
 - 3 moved < 5 miles



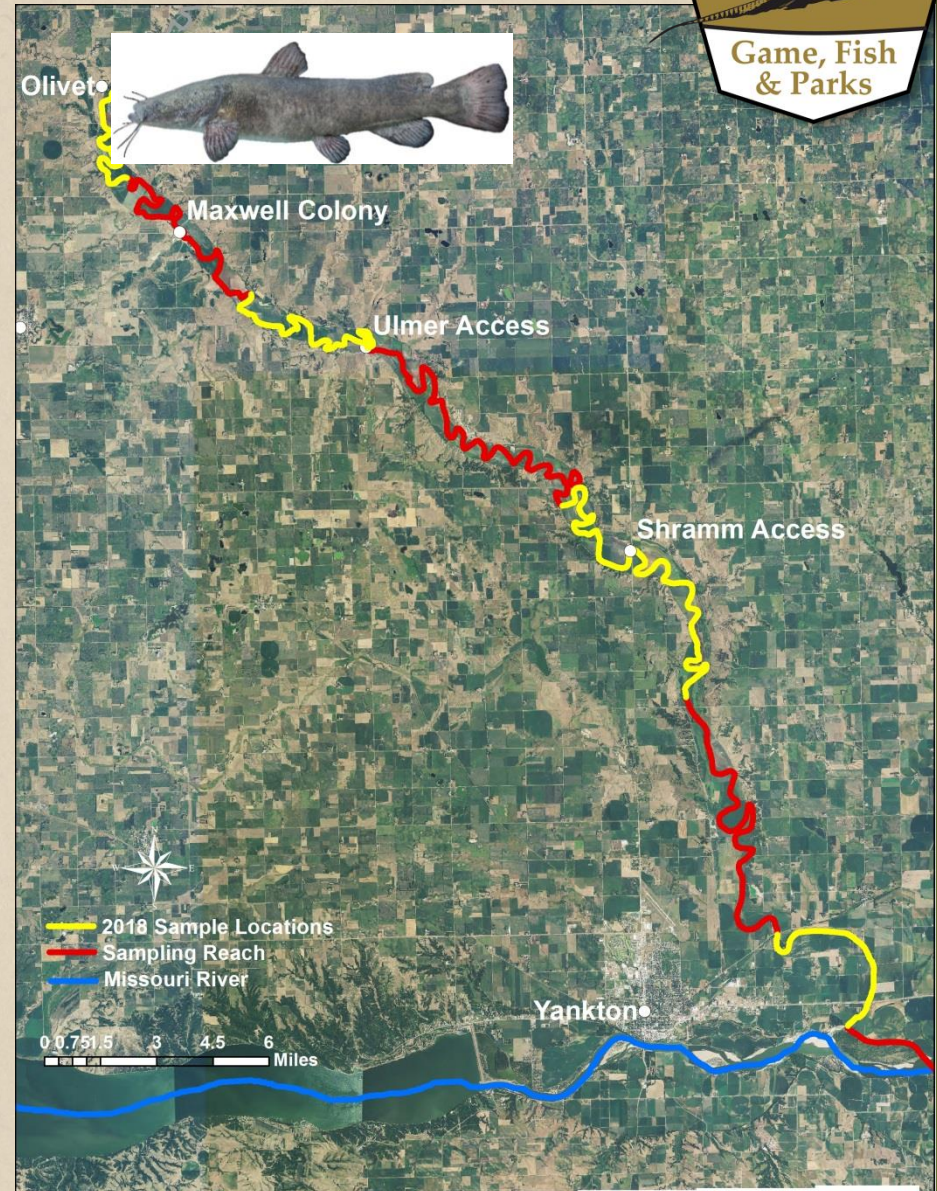
Movement

- 104 recaptures
 - 100 = Flathead Catfish
- 98 didn't move
 - 3 moved < 5 miles



Movement

- 104 recaptures
 - 100 = Flathead Catfish
- 98 didn't move
 - 3 moved < 5 miles

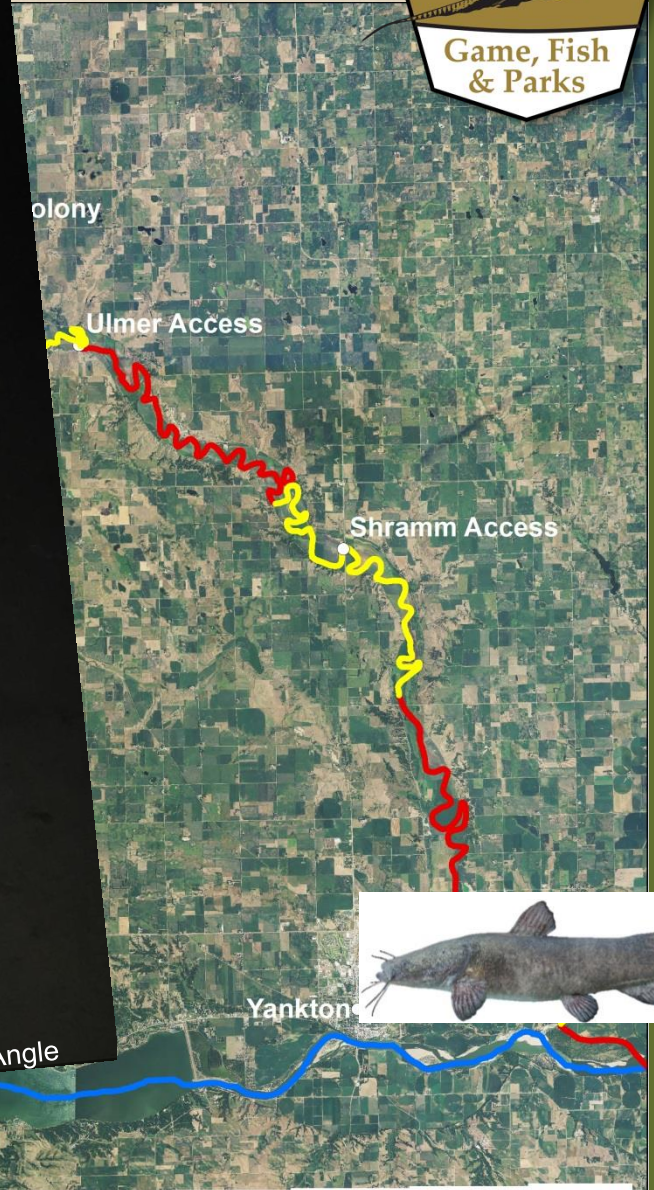


Movement

- 104 recaptured
 - 100 = Flathead
- 98 didn't move
 - 3 moved < 5 m



Photo courtesy of Dave Angle

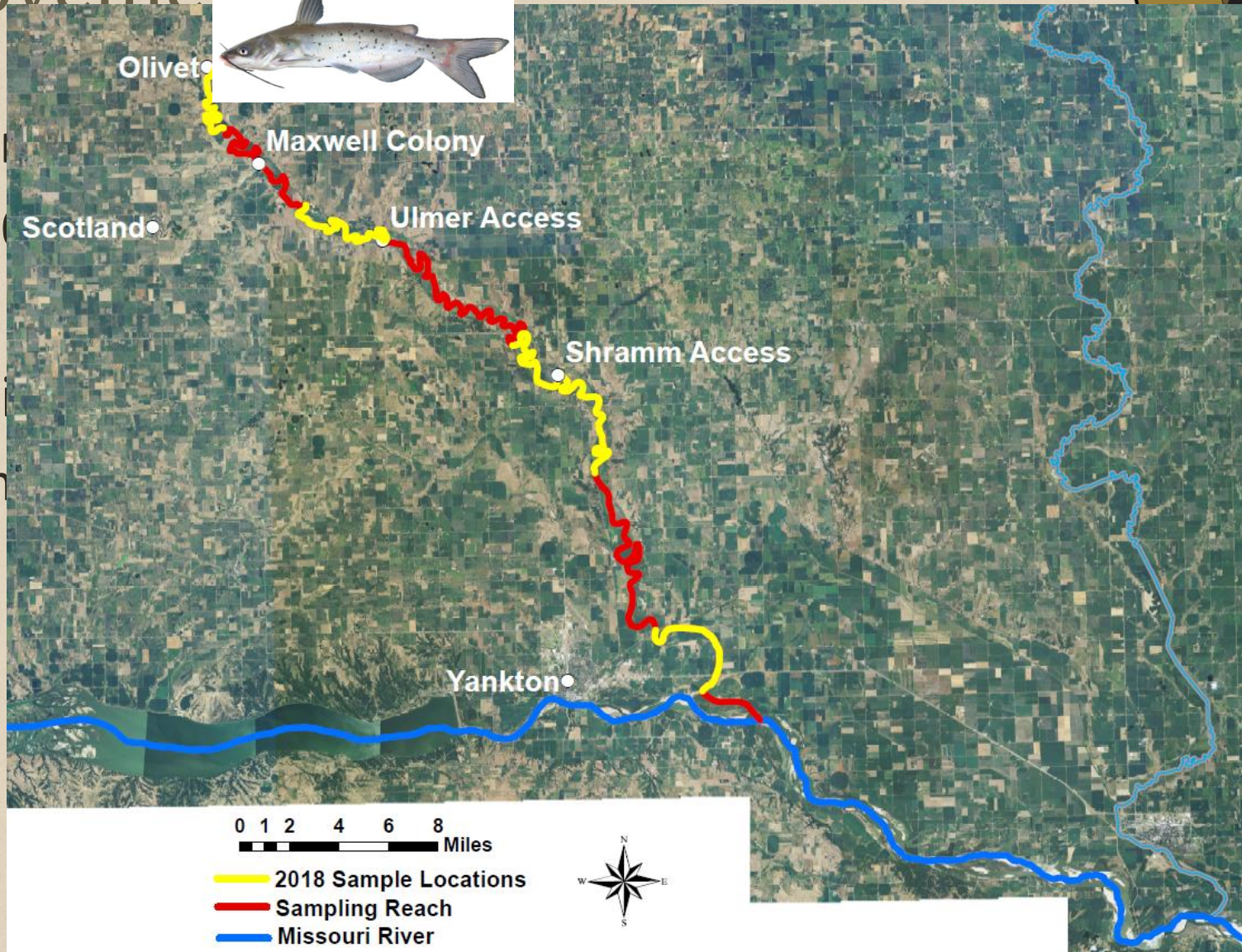




Movement



- 104 m
- 100 m
- 98 d
- 3 m



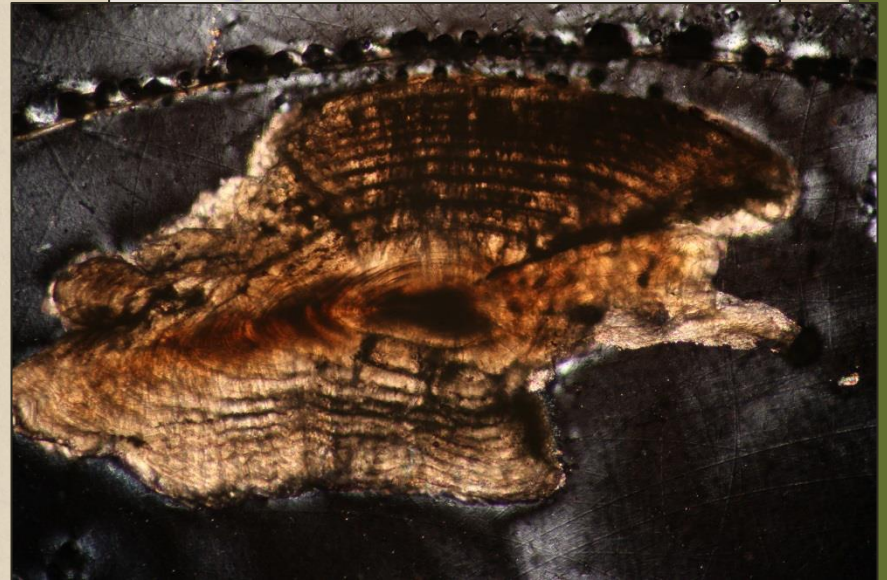
Future Work Plan

- Estimate population size
- Aging Analysis
 - Growth curves
 - Mortality
- Compare aging methods
 - Otoliths vs. Spines – CCF
 - Spine preparation methods



Future Work Plan

- Estimate population size
- Aging Analysis
 - Growth curves
 - Mortality
- Compare aging methods
 - Otoliths vs. Spines – CCF
 - Spine preparation methods



Questions?



Photo Credits: Matt Gade, Mitchell Daily Republic