



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Big Bend Conservation Area (BBCA) Monitoring: Reach 3

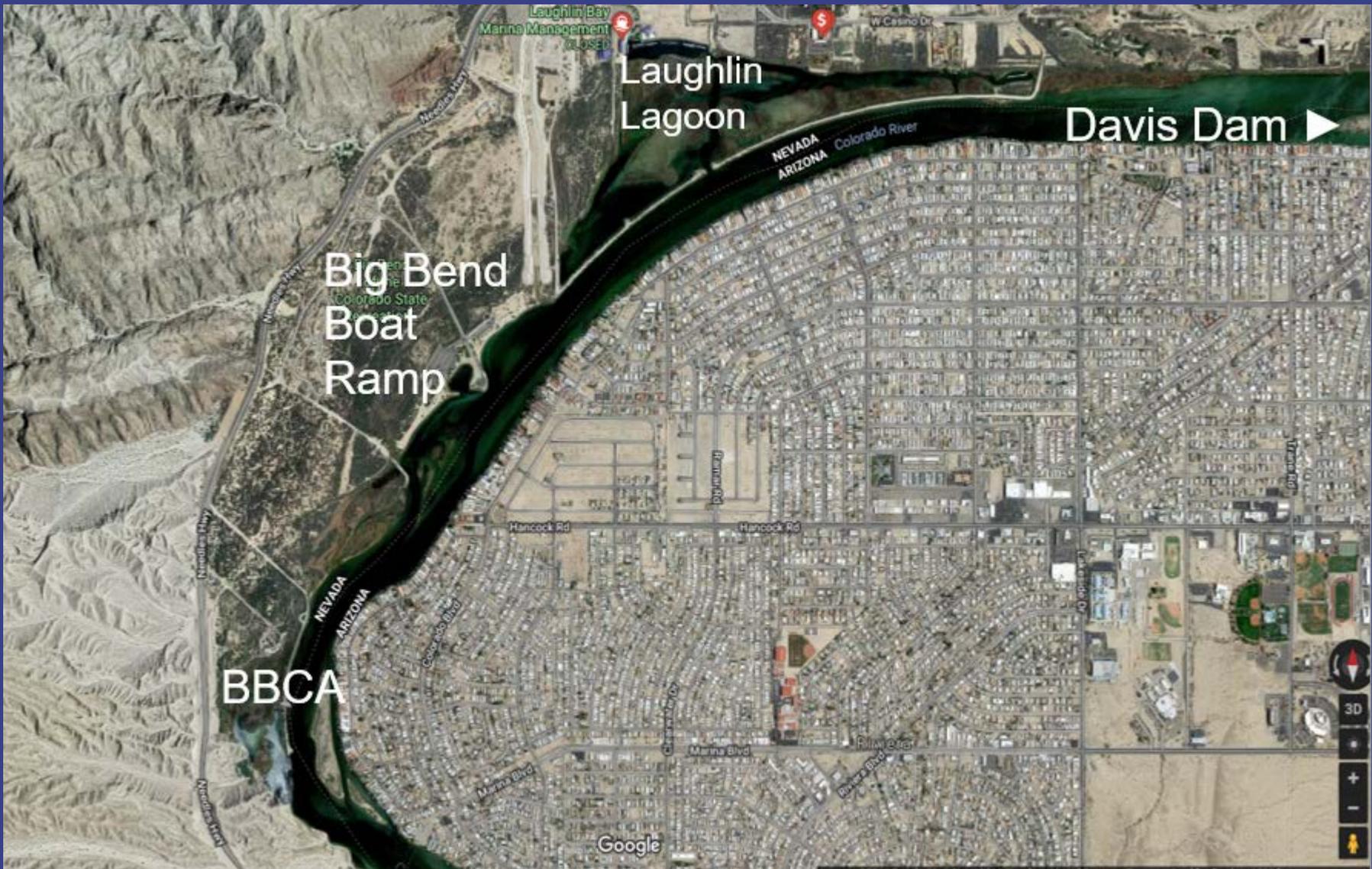
Trish Delrose



Background

- Located on Colorado River below Davis Dam (Reach 3)
- Connected backwater to the river
- Purpose: to assess the use of the backwater by razorback sucker, bonytail, and flannelmouth.
- The data will be used for trend analysis over multiple years.
- The fish monitoring is designed to target multiple life stages throughout the year.





Fisheries Activities and Results

- Fish Monitoring
- Water Quality Monitoring



Fish Monitoring Activities

- **Presence/Absence surveys**
 - Two nights/month (November, January-May)
- **Netting (3 nets/night)**
 - Combination of 75' 1/2" & 150" 1 1/2" trammel nets
 - Discontinued in '19 due to sedimentation and reduced access in the backwater
- **Remote Sensing**
 - 4 scanners/trip
 - Permanent scanner installed May 2016
- **Larval Collections**
 - 3 sites/night ; 15 mins/site



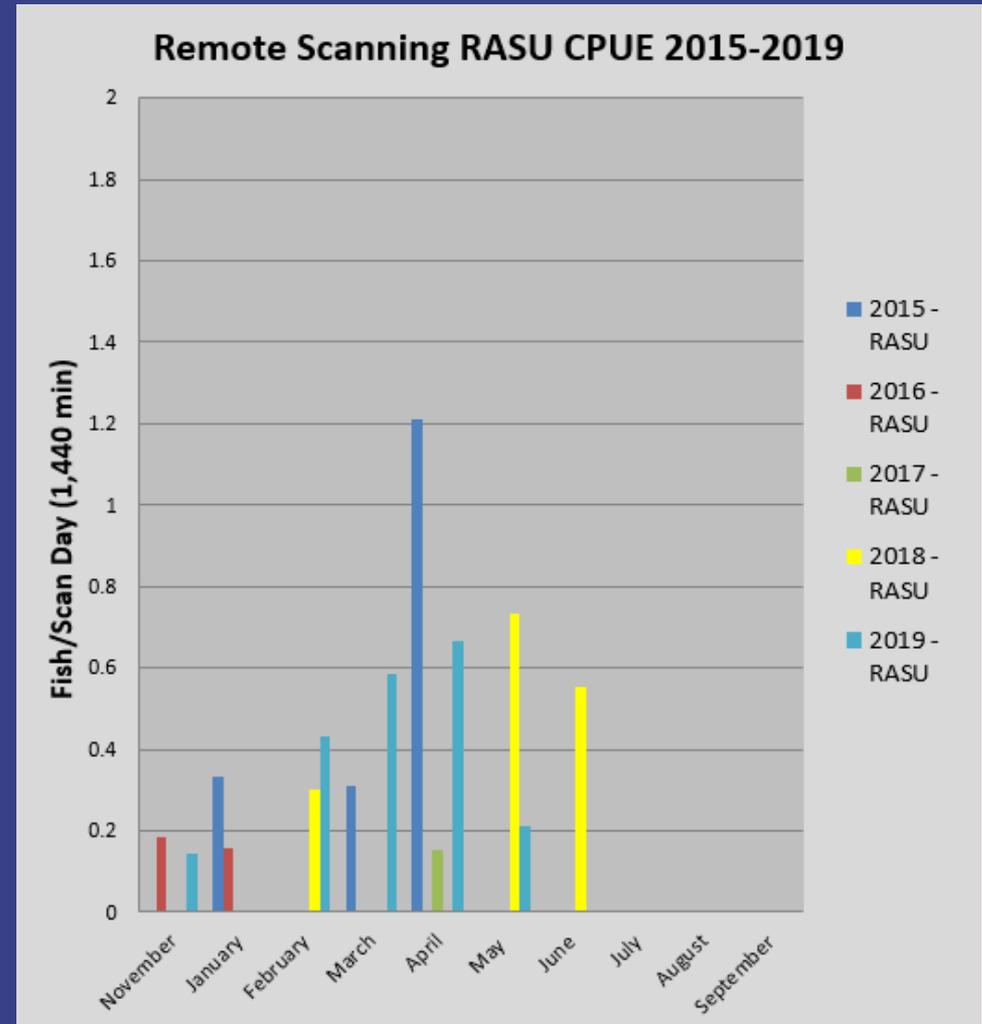
PIT Scanning

- Remote PIT Scanner Locations
 - Mobile Scanner
 - Permanent Scanner



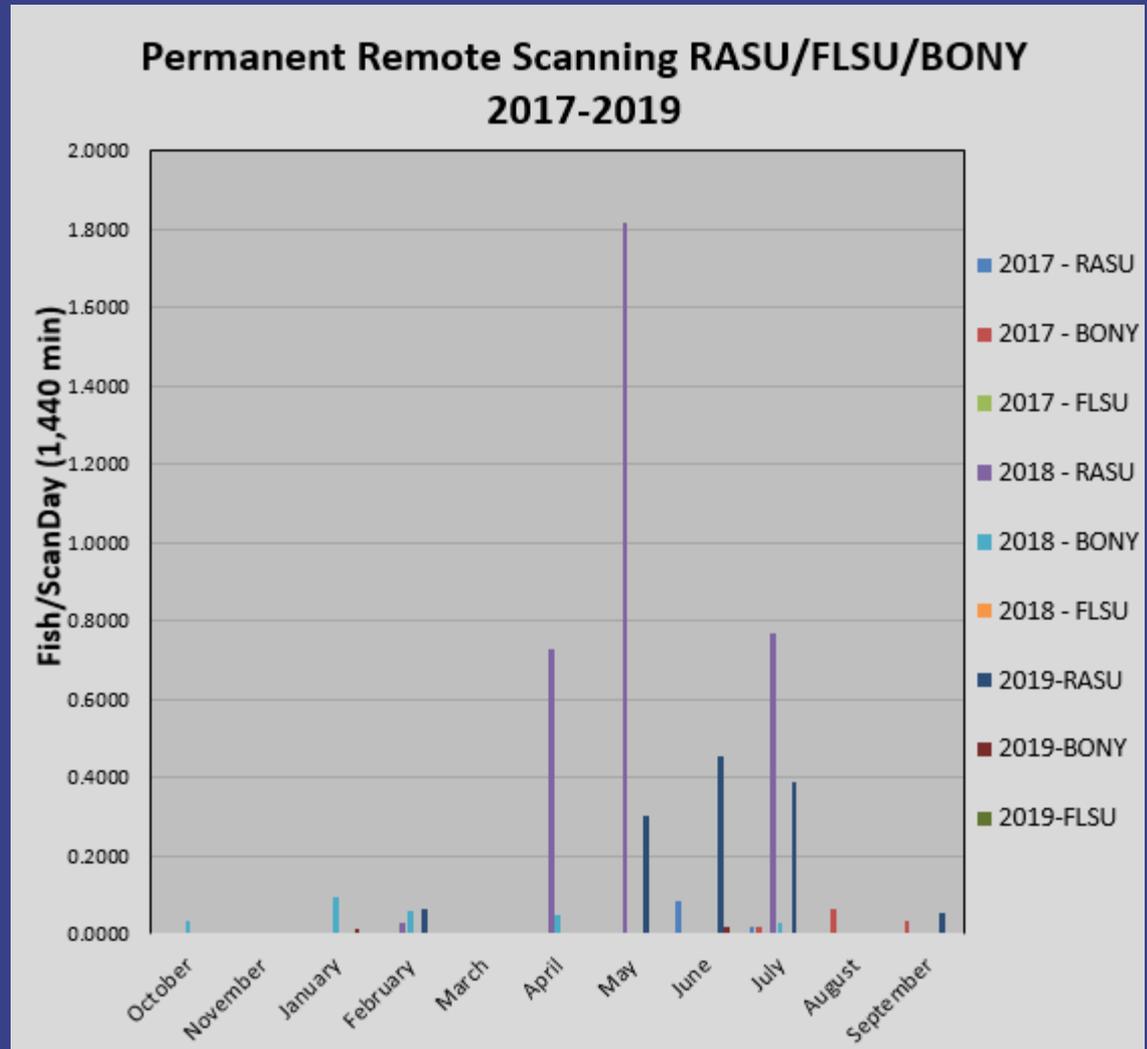
Remote Scanners

- Remote PIT Scanning Results
 - 23 RASU
 - 0 FLSU
 - Low FLSU contacts: low % tagged
 - ~40% tagged
 - 0 BONY



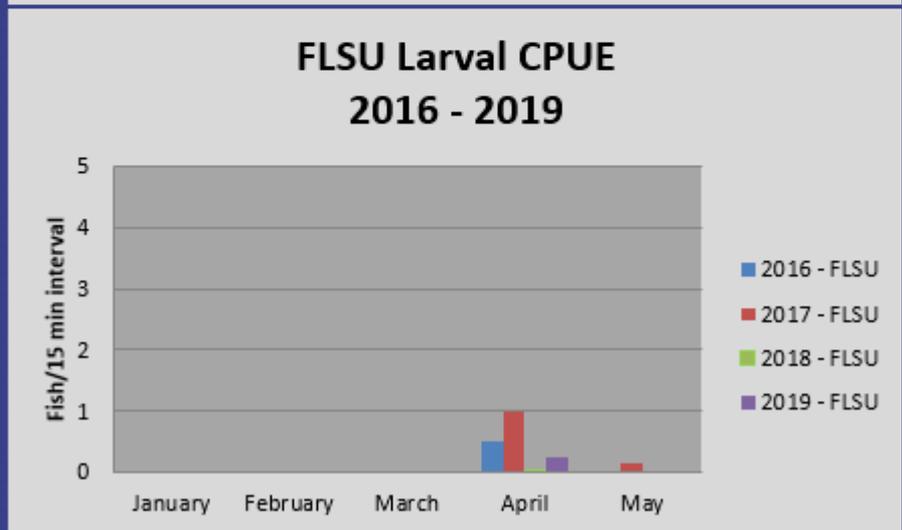
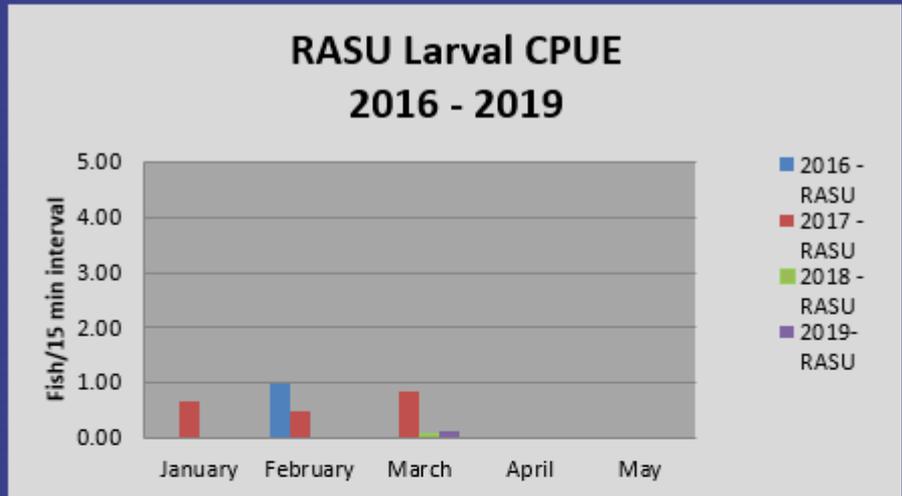
Permanent Scanner

- Installed: 5/16
- Functioning: 4/17
- Issues
 - Beavers
 - Cord length
 - Summer heat
- Results
 - 40 RASU
 - 1 BONY
 - 0 FLSU



Larval Results

- Larval Results
 - Presence/Absence (Jan-May)
 - RASU (Jan-March)
 - FY 16: 6
 - FY 17: 12
 - FY 18: 4
 - FY 19: 12
 - FLSU (April-May)
 - FY 16: 3
 - FY 17: 7
 - FY18: 1
 - FY 19: 26



Water Quality Monitoring

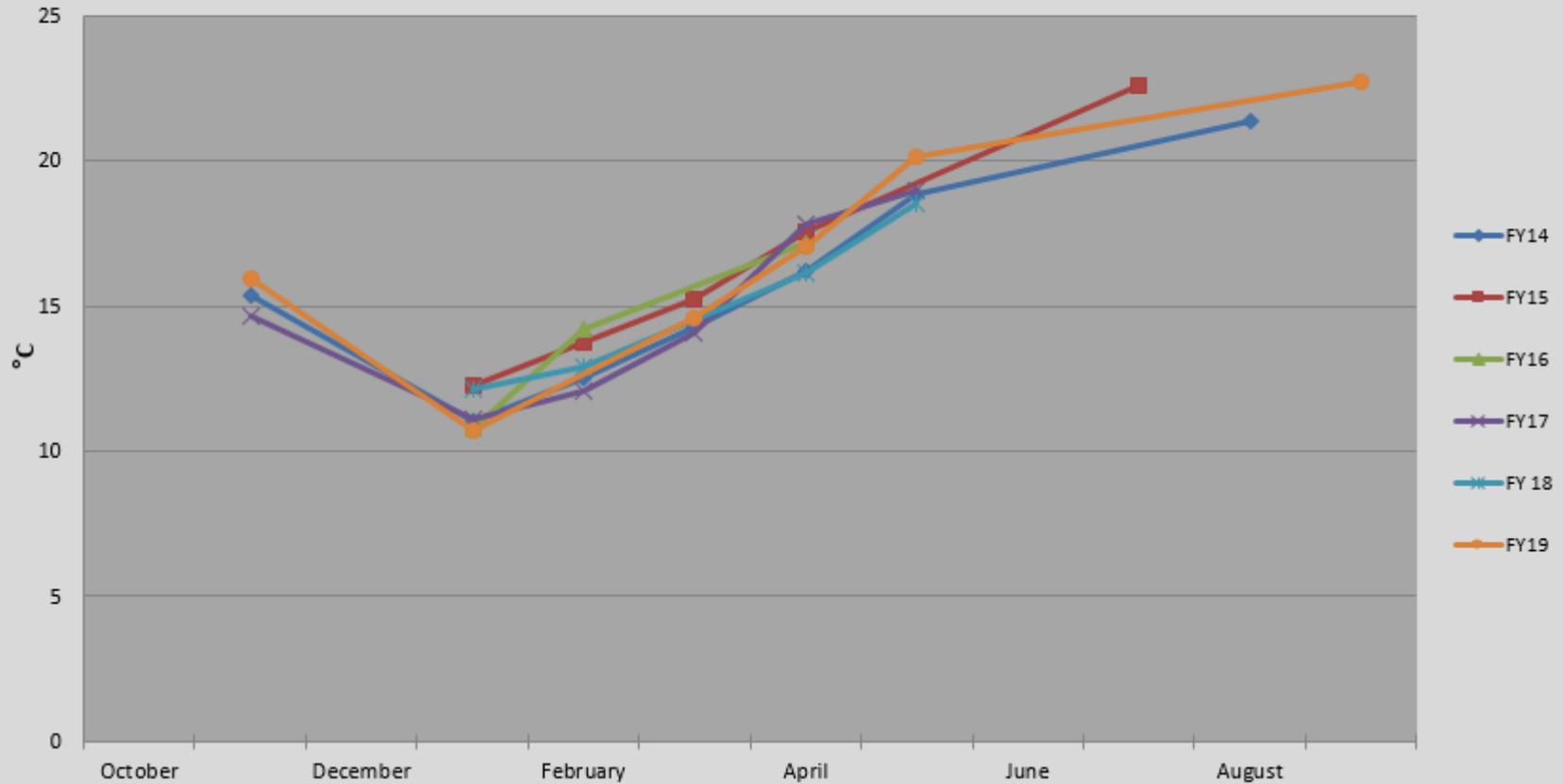
Methods

- 7 events
 - sampling trips
 - July-August
- Single Survey Point
- Vertical profiles
 - (every 0.5 m)
- Multi parameter probes
 - Temperature
 - Dissolved Oxygen
 - pH
 - Conductivity



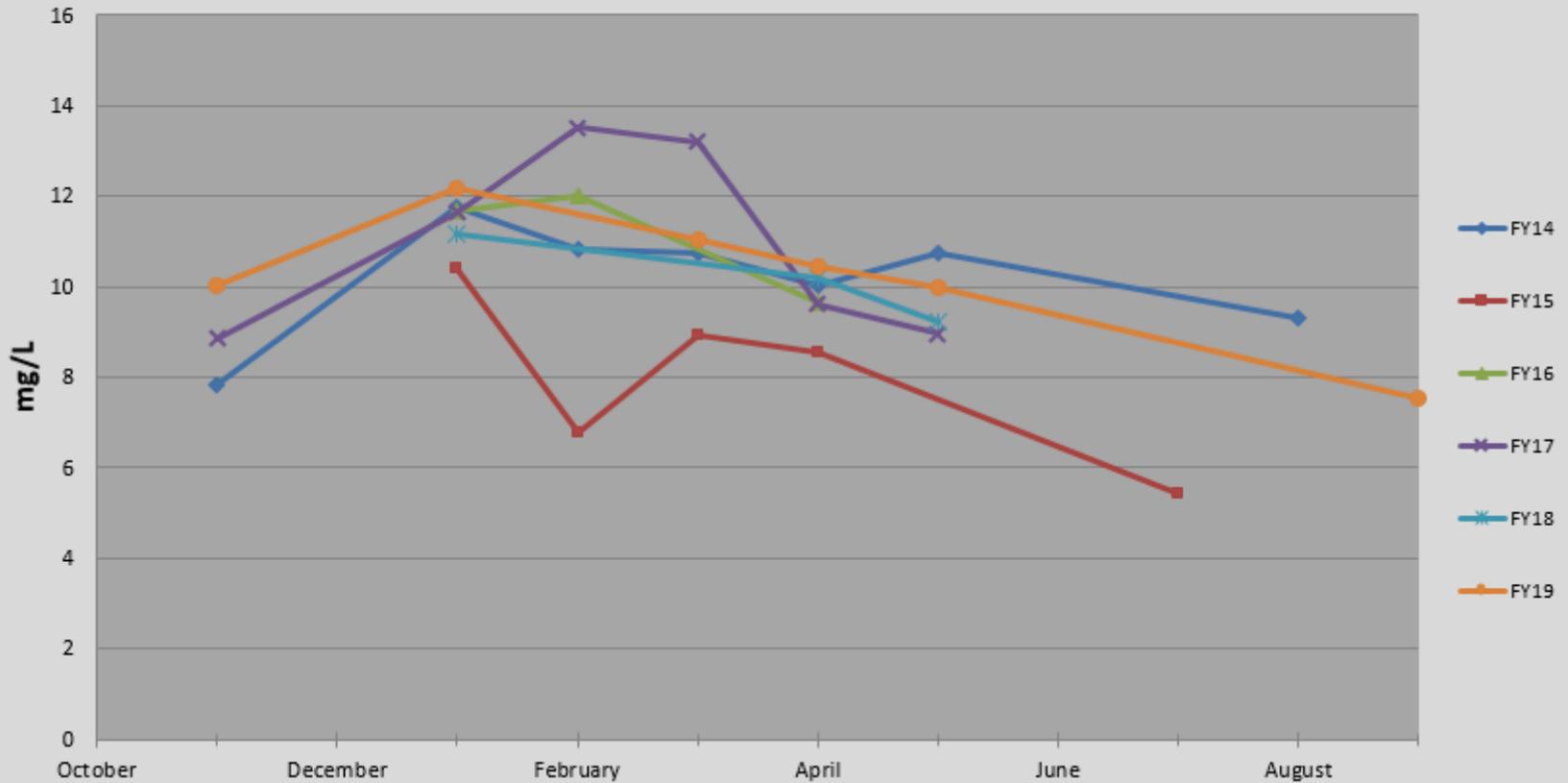
Temperature

BBCA Annual Water Temperature
2014-2019

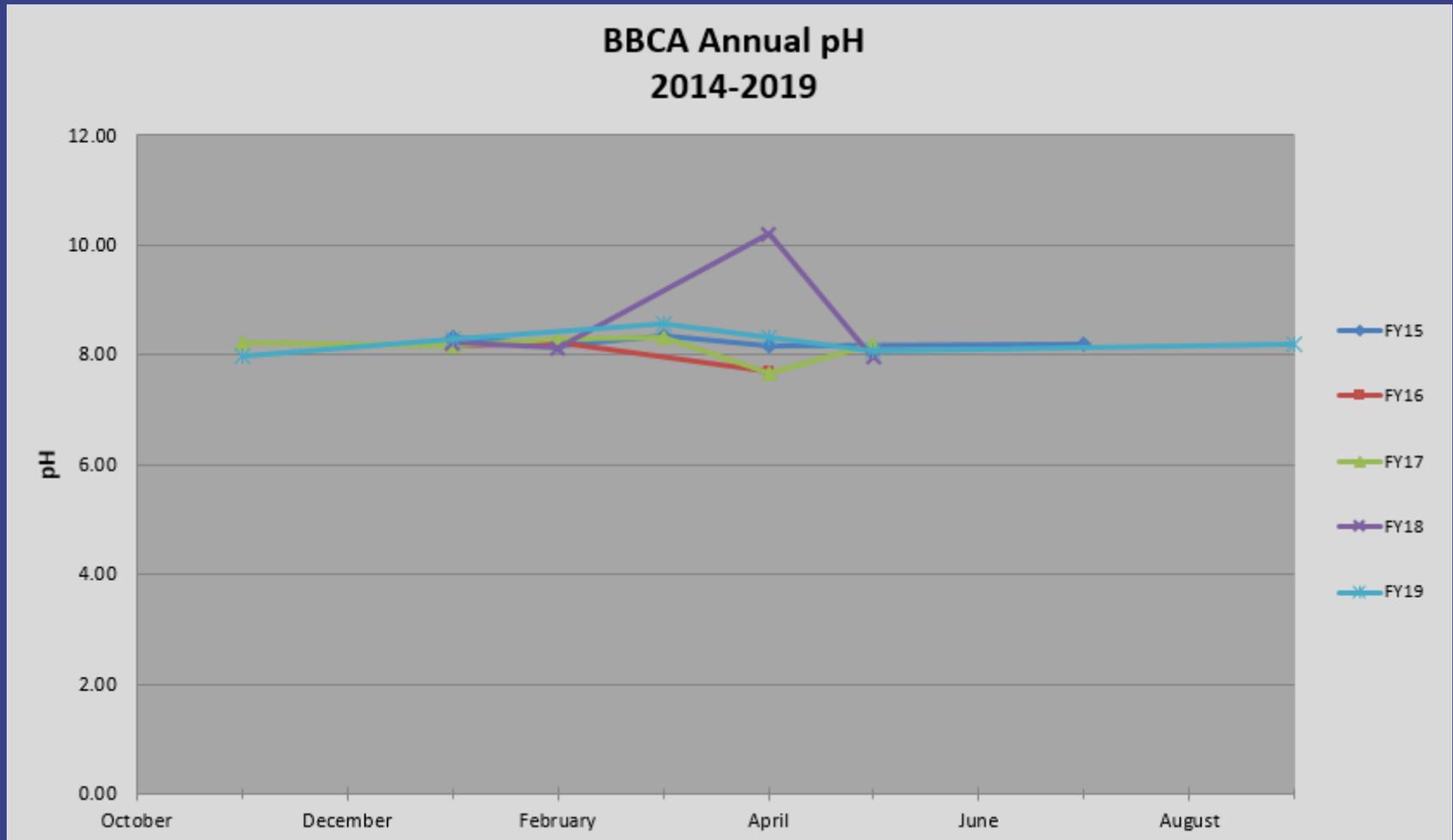


Dissolved Oxygen

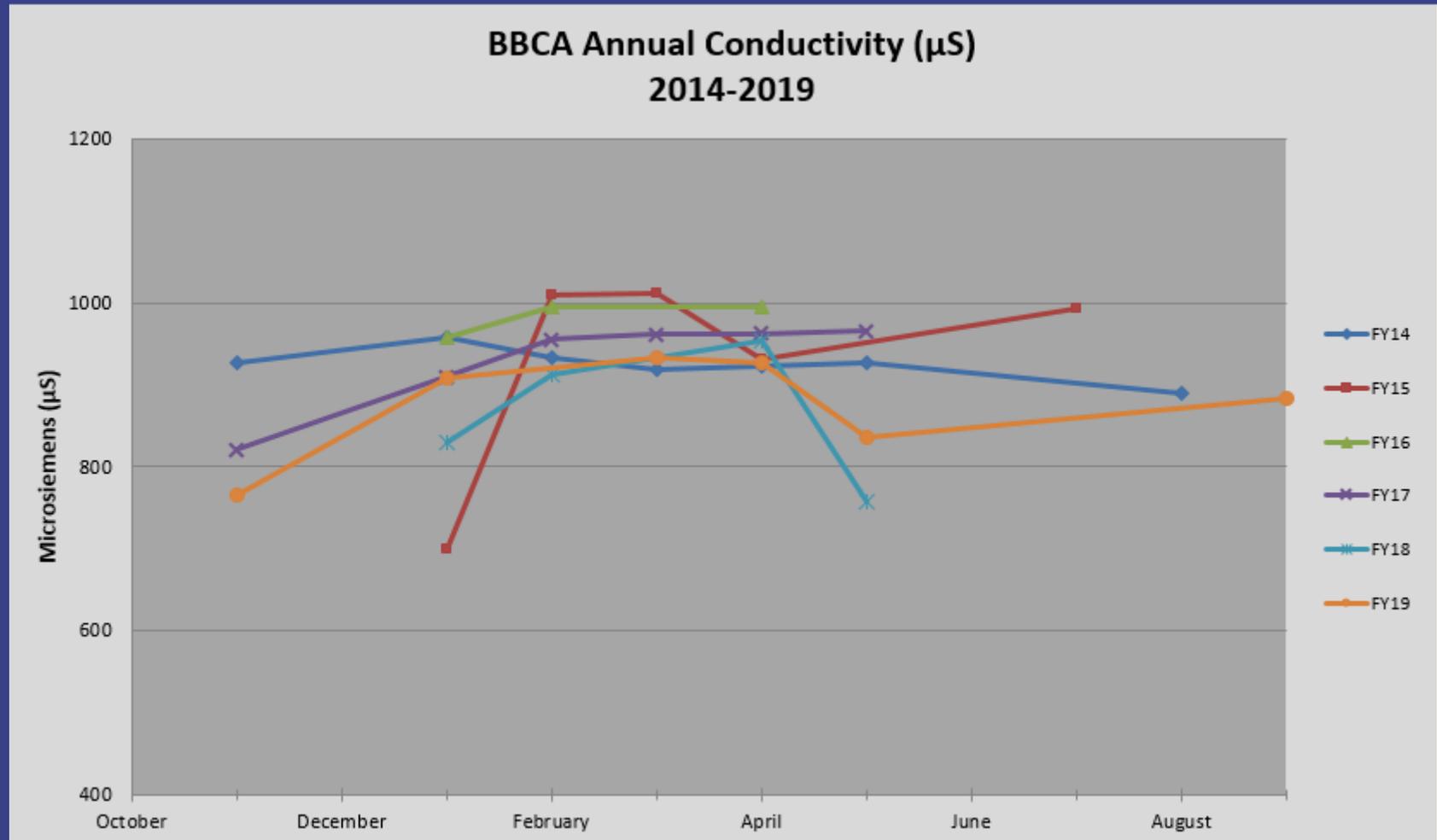
BBCA Annual Dissolved Oxygen
2014-2019



pH



Conductivity



Proposed Activities FY20

- **Changes to fish monitoring**
 - Increase the number of scanner sets per sampling event since the netting portion has been discontinued
- **Continue sampling for larvae**
- **Continue water quality monitoring 7 times a year**
- **Dredging backwater**
 - Proposed dates: 4/1/21-12/31/21



Questions?

Beaver steals scanner

