Lower Colorado River Multi Species Conservation Program

Balancing Resource, Use and Conservation

Big Bend Conservation Area

2015 Summary

Lower Colorado River Multi Species Conservation Program

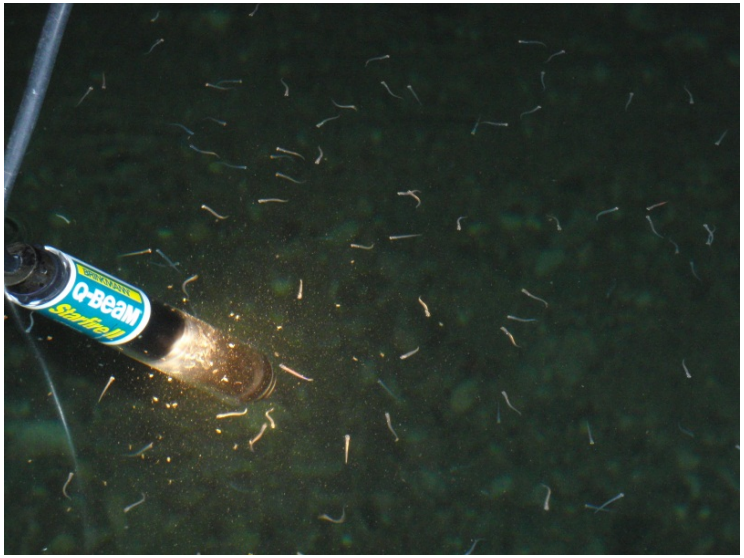
Balancing Resource, Use and Conservation

- Fish Monitoring
- Water Quality Monitoring

Monitoring

Methods

- Presence/absence surveys
  - Two nights/month (November, Jan –May)
  - Netting (3 – 5 nets/night)
  - Larval Collections (3 sites/night)
  - Remote Sensing

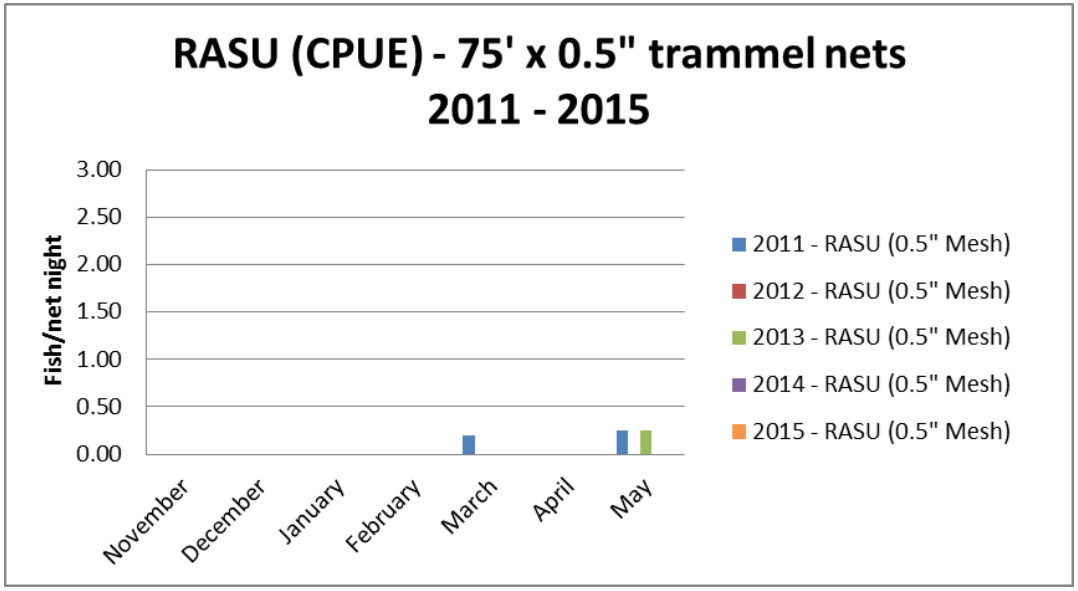


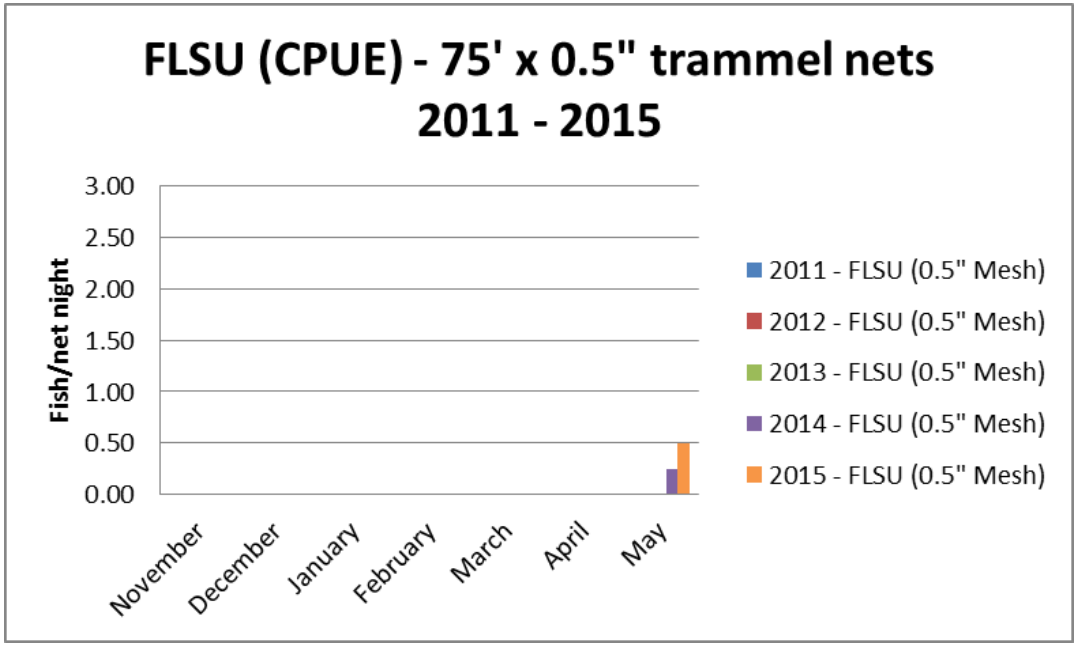
Lower Colorado River Multi Species Conservation Program

Balancing Resource, Use and Conservation

Results

- Small Mesh Trammels
  - 0 RASU
  - 1 FLSU (Telemetry fish)





Lower Colorado River Multi Species Conservation Program

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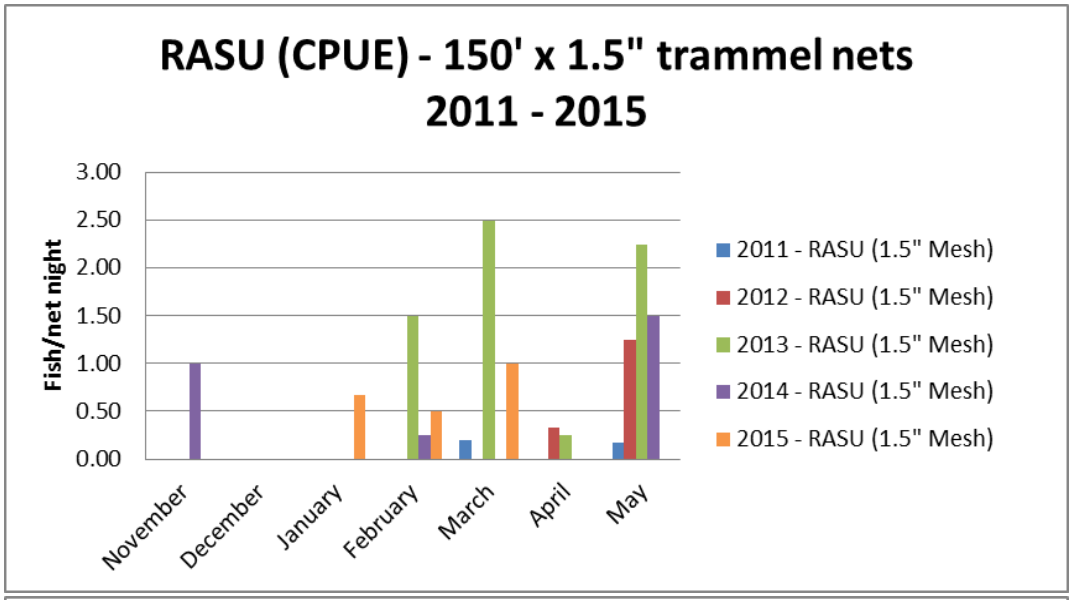
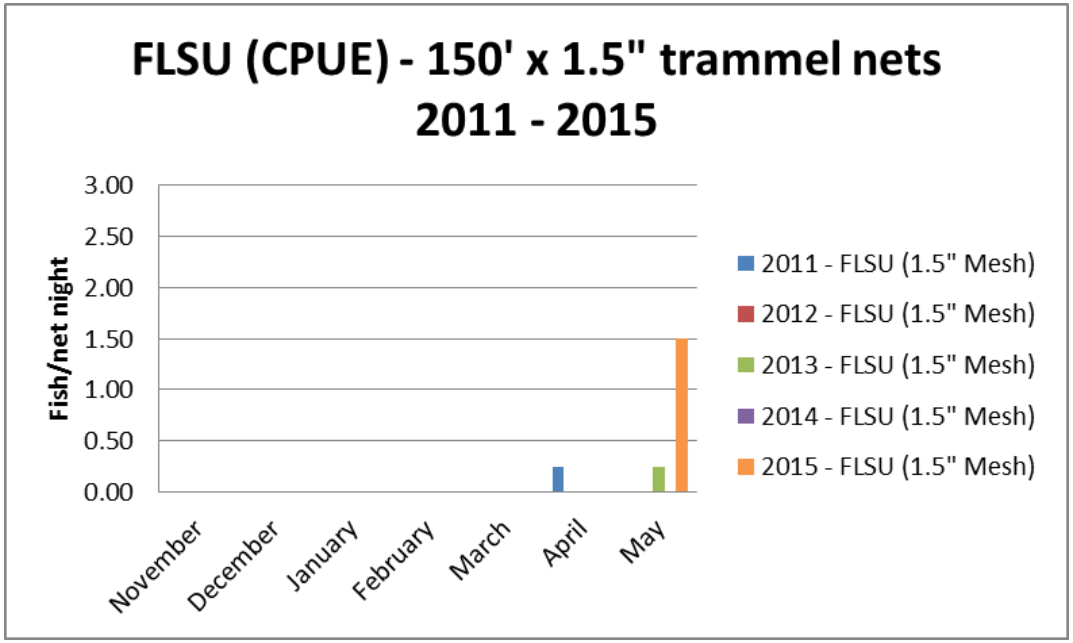
Results

- Large Mesh Trammels
  - 9 – RASU
  - 3 – FLSU (Telemetry fish)





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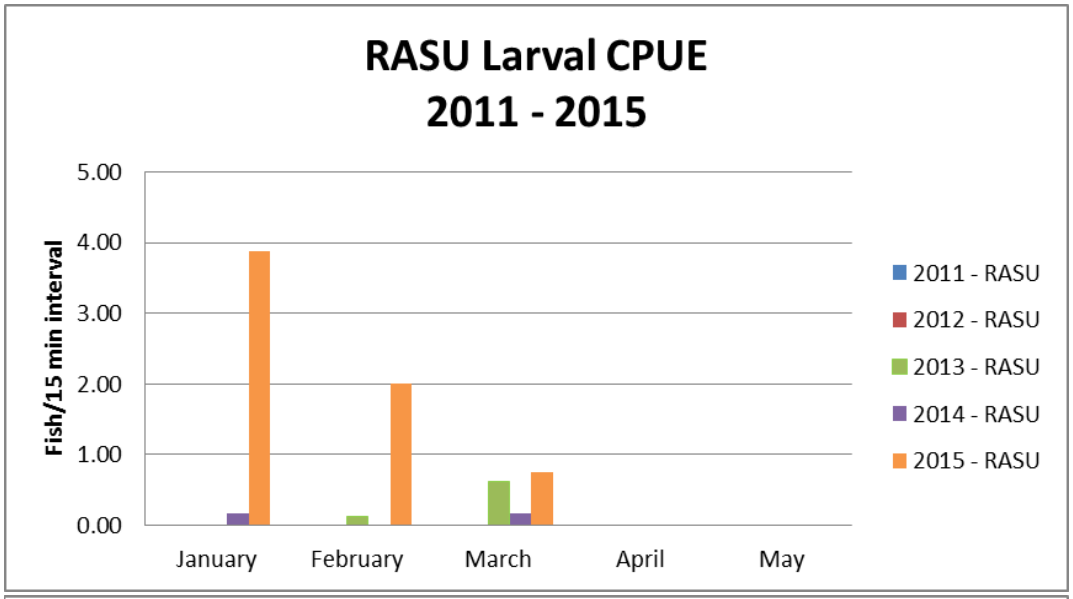
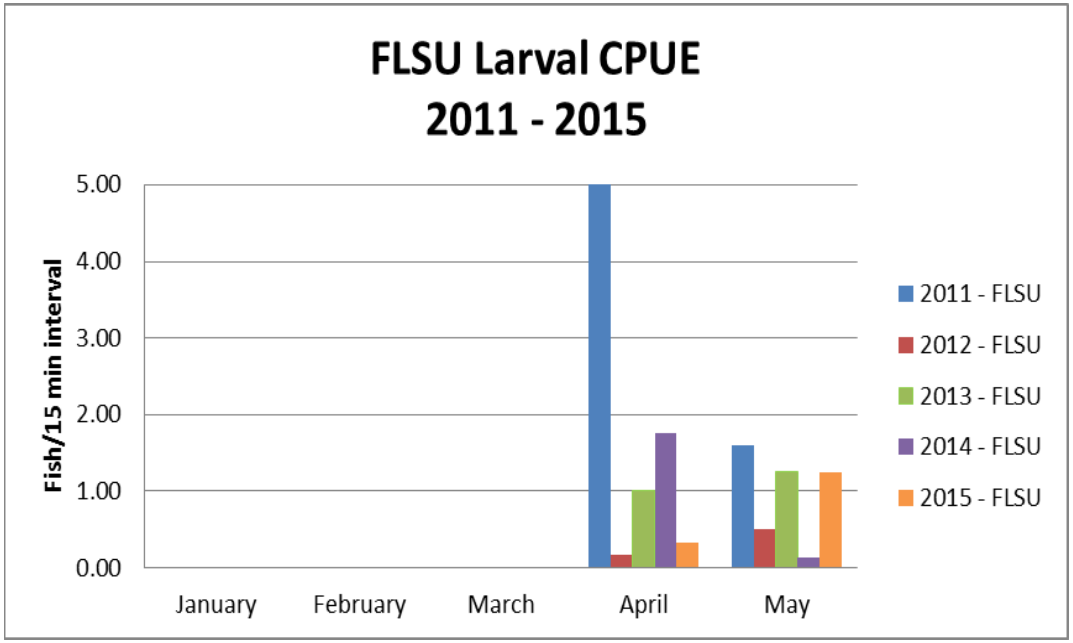
Results

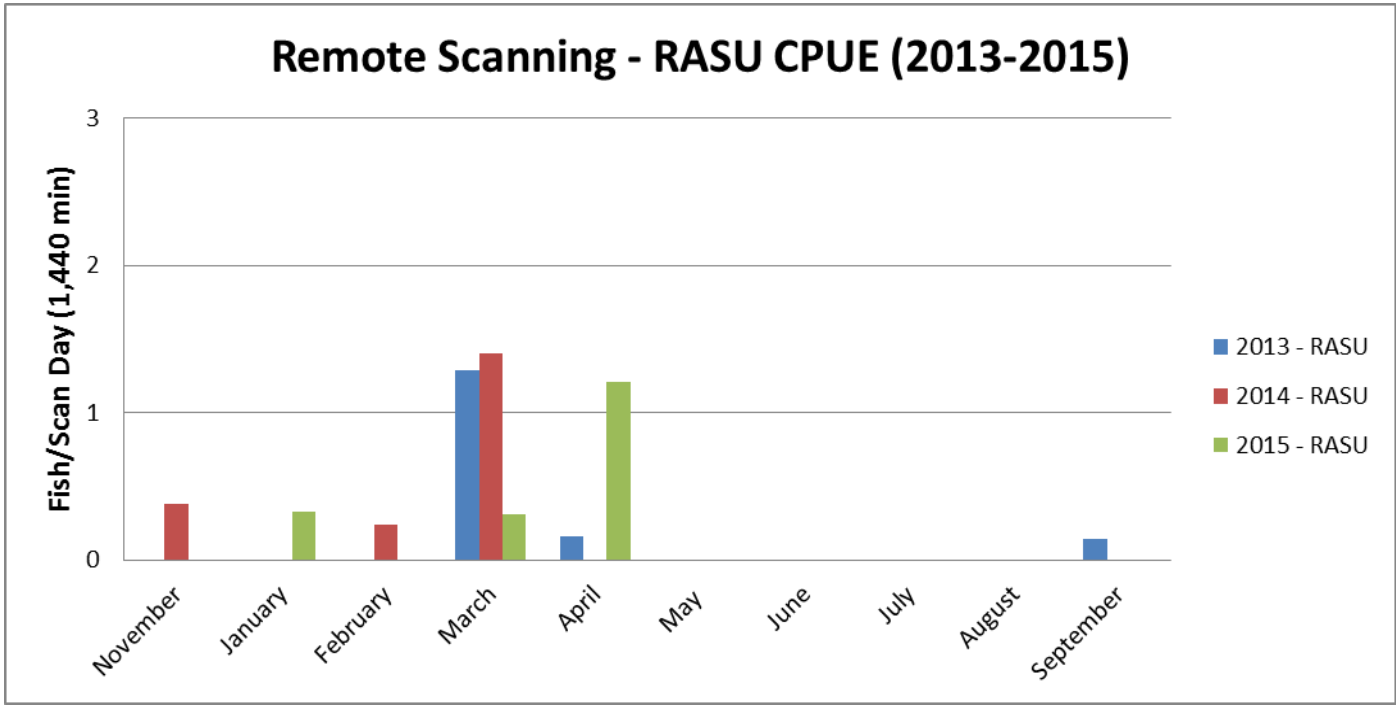
- Larval Sampling
  - 22 - RASU (early spawn)
  - 7 - FLSU (late spawn)





Results

- Remote PIT Scanning
  - 4 – RASU
  - 0 – FLSU
    - FLSU Telemetry (C53) – juveniles have shown some residency

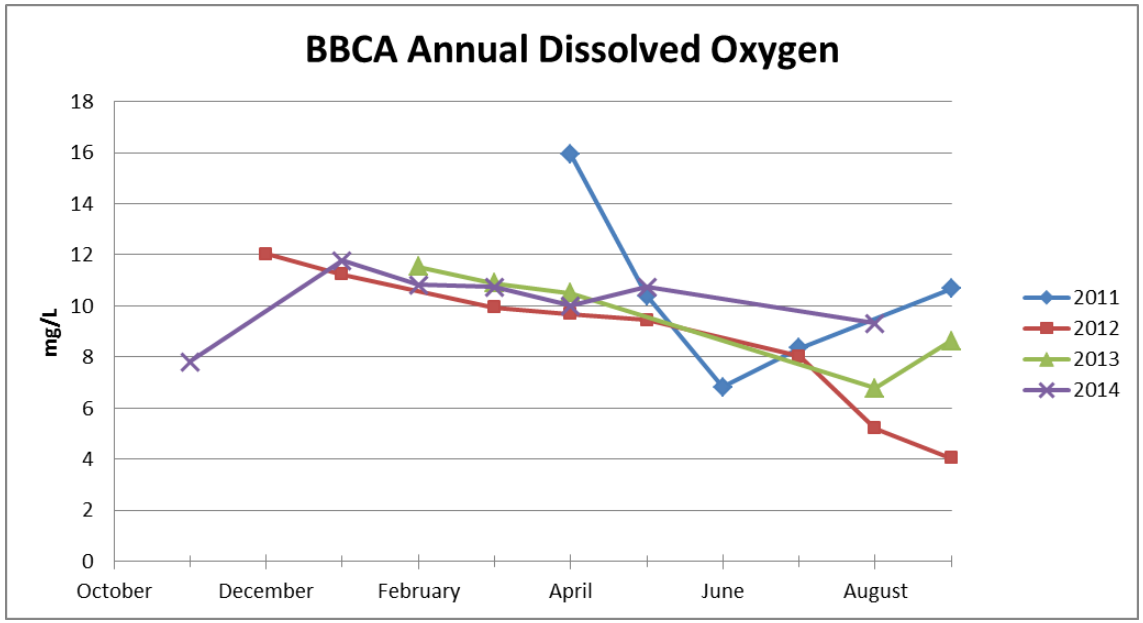


Methods

- 8 events
  - Single Survey Point
  - All fish monitoring trips and Summer
  - Vertical Profiles at 0.5m intervals
  - Multi parameter probe

Results

- Temperature (10 - 22°C)
- Dissolved Oxygen (7 – 12 mg/L)
- pH (8 – 8.5)
- Conductivity (900 – 1,000 µS/cm)



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Beal Lake Conservation Area

2015 Summary

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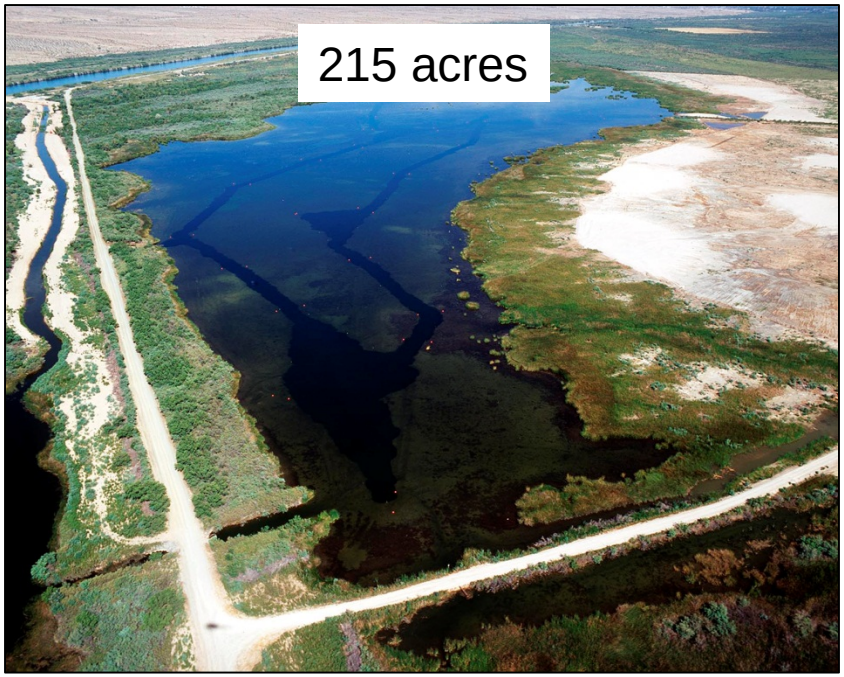
Balancing Resource, Use and Conservation



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Date	Species	Total Stocked	Mean TL(mm)
2002	RASU	10000	120
6/14/06	BONY	1844	183
6/15/06	RASU	69	292
8/28/06	RASU	302	346
1/31/08	RASU	2970	358
5/8/08	BONY	333	391
11/20/08	RZB	3445	323
12/28/09	BONY	27859	123
2/24/10	RASU	610	332
11/30/10	RASU	400	381

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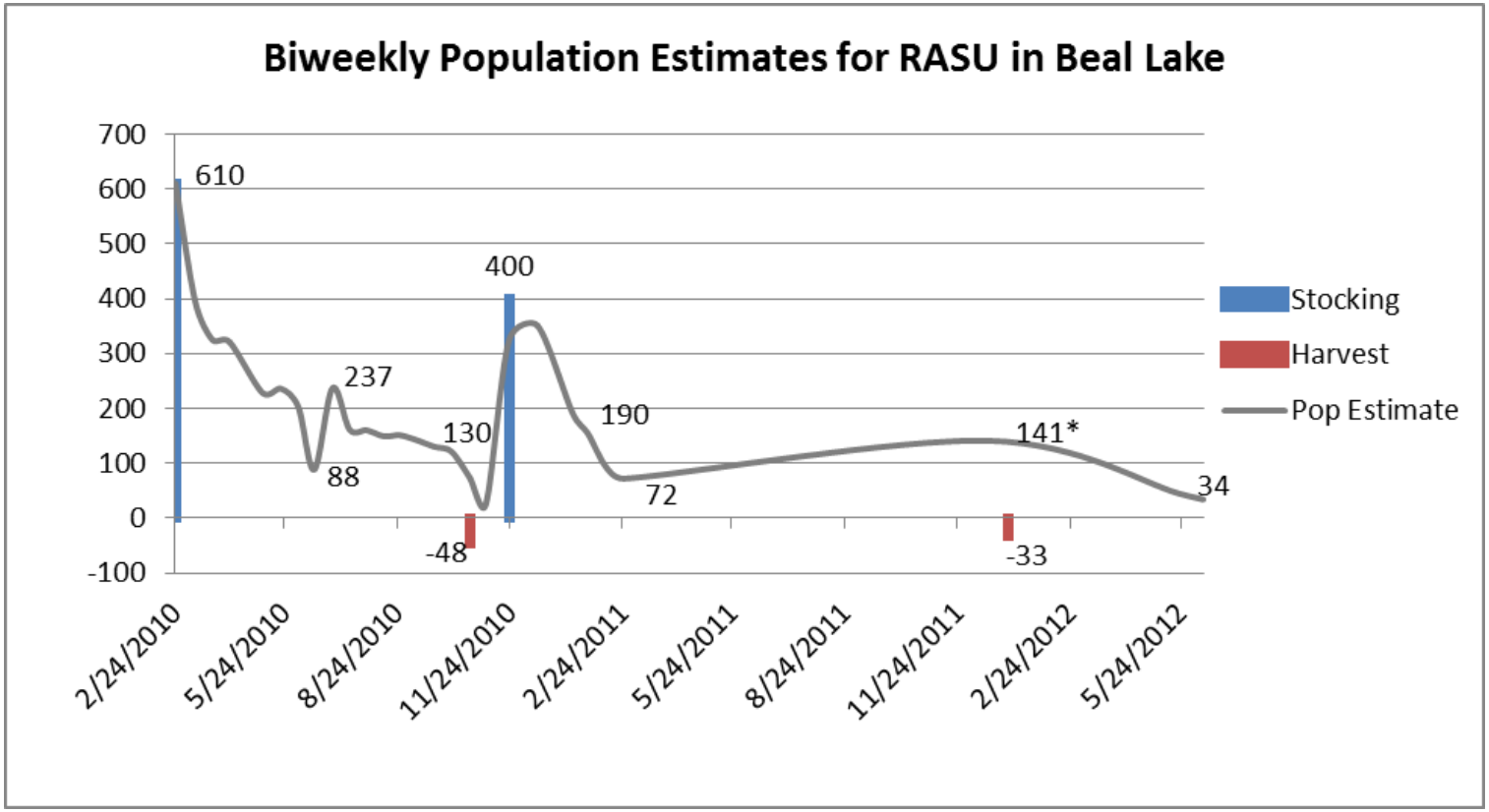


*Estimate derived from netting and includes non-PIT tagged RASU

2013

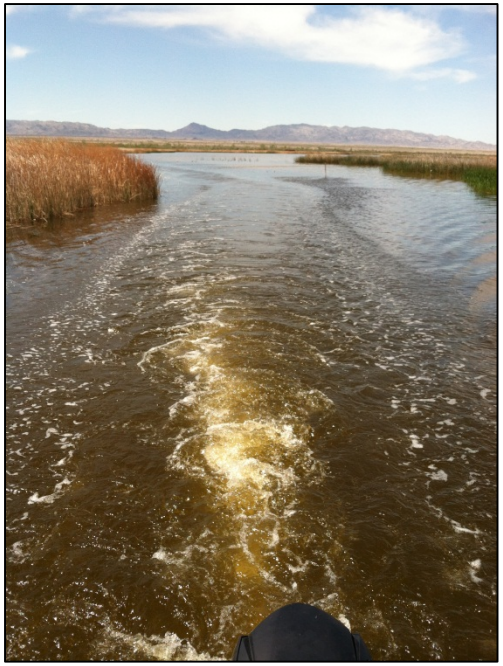
February – Observed large carp die off
- No live fish observed

March – AZGFD confirmed Golden Algae
- No fish via E-fishing or scanning

April – Initiated monthly monitoring

May – Last month algae was detected

June – Observed YOY largemouth



Fish Monitoring
FY15

Methods

- Targeted young and small fish
  - Hoop nets
  - Minnow traps
  - Electro-fishing

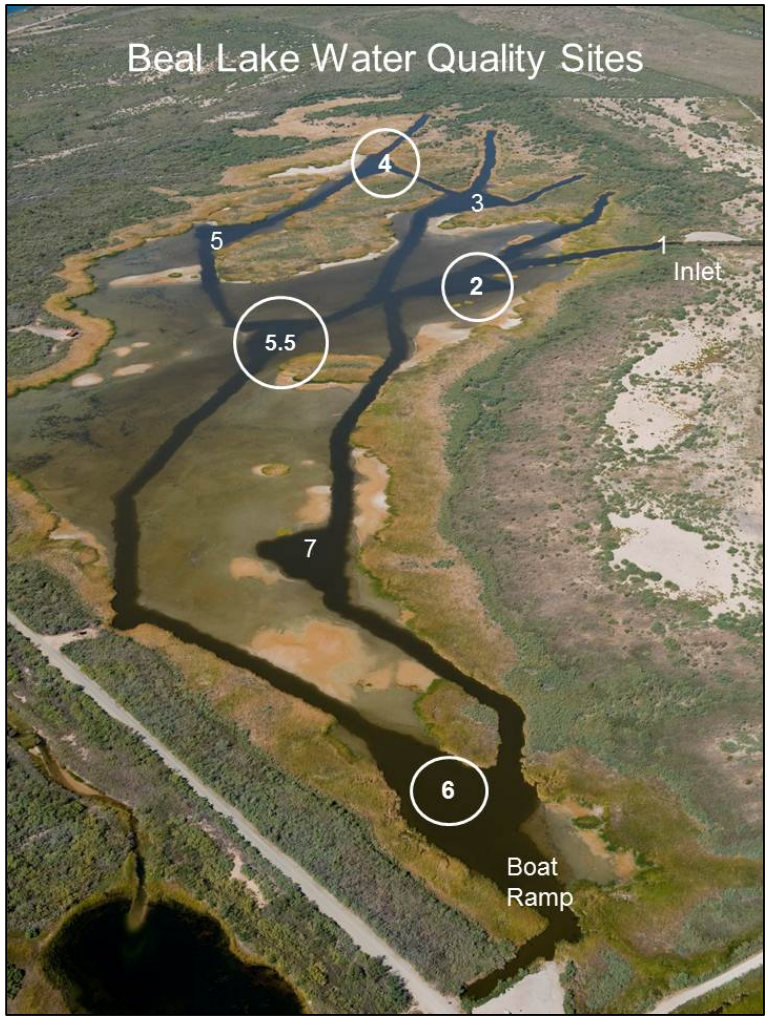
Results (all gear types)

- Largemouth Bass: 9 (210-235mm)
- Blue Gill: 12 (30-105)
- Yellow Bullhead: 2 (180-260)
- Carp: 1 (720)
- Lots of small fish observed throughout the year

Water Quality Monitoring

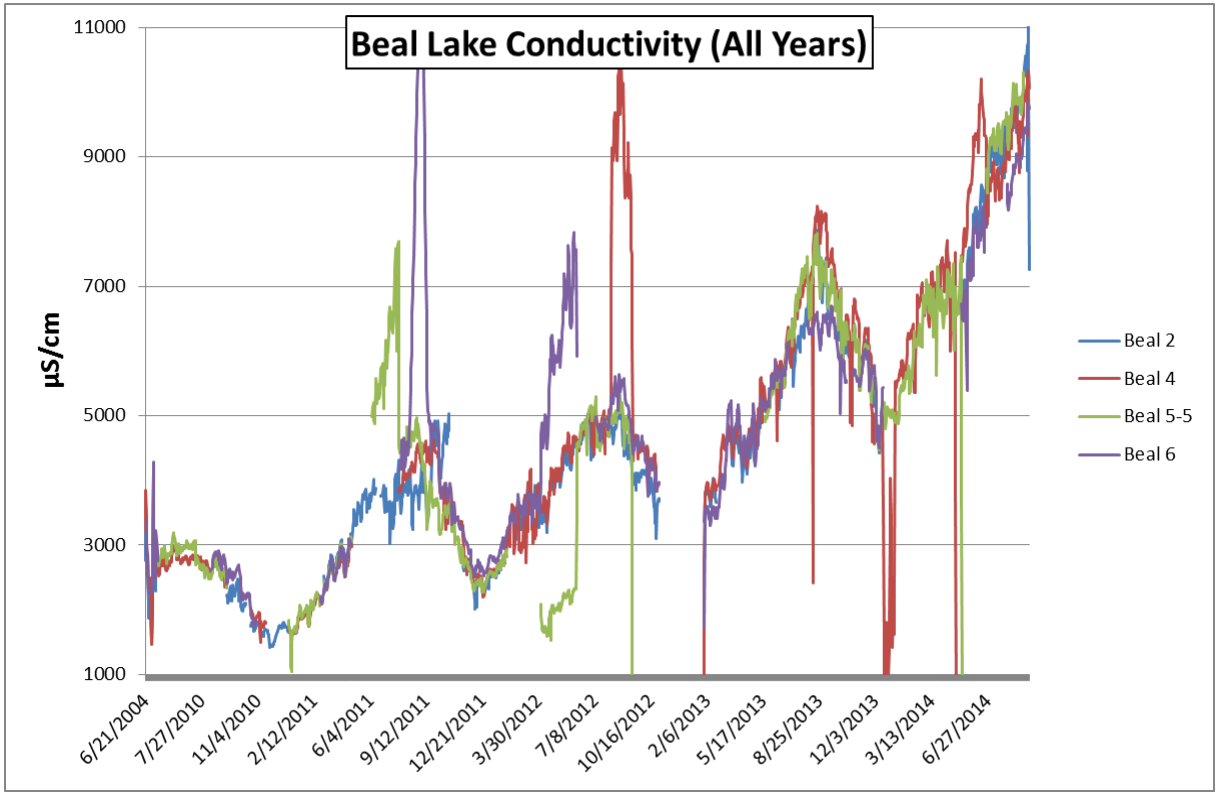
Continuous deployment of Troll 9500 in 2010

- Four locations ≈ 1 meter deep
- Two records/day (sunrise and sunset)
- Replaced probes 1-2 months



Results

- Temperature (6 - 33°C)
- Dissolved Oxygen (2 – 13 mg/L)
- pH (8 – 8.7)
- Conductivity (1500 – 11,000 µS/cm)
  - Peaked at 11,000 and currently 5,000



Summary

- Poor survival for unknown reasons
- Infrastructure improvements to water delivery
- MSCP and USFWS are evaluating the potential possibilities for the future

Beal Slough

- Large (> 50 acres)
- Man made
- Disconnected (?)
- Great water quality
- Recreational fishery

- Native fish stockings
  - Hatchery and Backwater YOY's
  - 200 BONY

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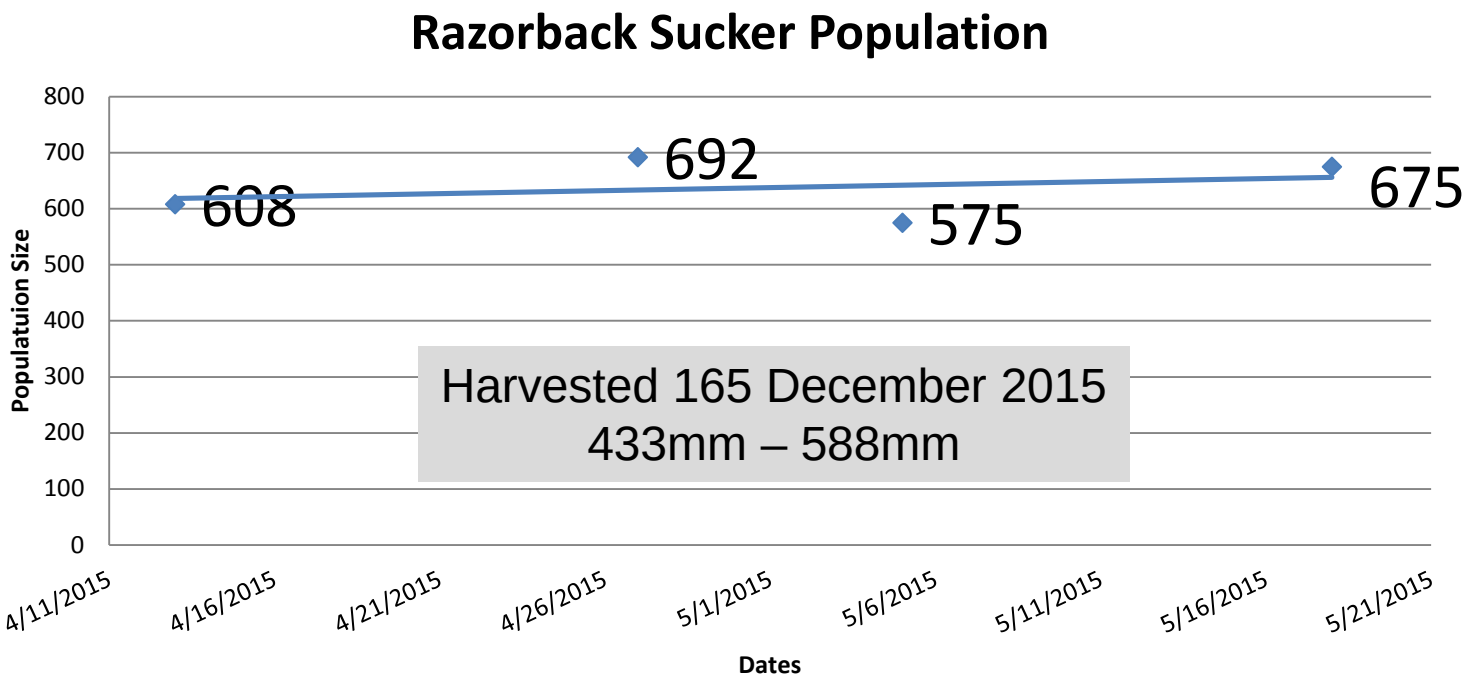
Date	Species	Stocking Location	# of Fish	AvgTLmm	RangeTL
4/1/2010	RASU	Beal Slough	755	337	300-440
4/19/2012	RASU	Beal Slough	742	385	300-480
Total			**1,497**	**361**	



Summary

- Considerably different from Beal Lake
- Excellent Survival and can be used as a grow out facility at the very least
- Serve as a template for creating backwaters