Beal Lake Conservation Area

2014 Summary
Lower Colorado River Multi Species Conservation Program

Balancing Resource, Use and Conservation

- 215 acres
- Dredge Channels ≈ 1.5 – 2m
- Passive Filtration
## Fish Stocking Summary

### No Fish Stocked in FY13 or FY14

<table>
<thead>
<tr>
<th>Date</th>
<th>Species</th>
<th>Total Stocked</th>
<th>Mean TL (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>RASU</td>
<td>10000</td>
<td>120</td>
</tr>
<tr>
<td>6/14/06</td>
<td>BONY</td>
<td>1844</td>
<td>183</td>
</tr>
<tr>
<td>6/15/06</td>
<td>RASU</td>
<td>69</td>
<td>292</td>
</tr>
<tr>
<td>8/28/06</td>
<td>RASU</td>
<td>302</td>
<td>346</td>
</tr>
<tr>
<td>1/31/08</td>
<td>RASU</td>
<td>2970</td>
<td>358</td>
</tr>
<tr>
<td>5/8/08</td>
<td>BONY</td>
<td>333</td>
<td>391</td>
</tr>
<tr>
<td>11/20/08</td>
<td>RZB</td>
<td>3445</td>
<td>323</td>
</tr>
<tr>
<td>12/28/09</td>
<td>BONY</td>
<td>27859</td>
<td>123</td>
</tr>
<tr>
<td>2/24/10</td>
<td>RASU</td>
<td>610</td>
<td>332</td>
</tr>
<tr>
<td>11/30/10</td>
<td>RASU</td>
<td>400</td>
<td>381</td>
</tr>
</tbody>
</table>
Biweekly Population Estimates for RASU in Beal Lake

*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 2014

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)
  - Increasing since 2010 and currently 11000
Summary

- Poor survival for unknown reasons
- MSCP and USFWS are evaluating the potential possibilities for the future
Big Bend Conservation Area

2014 Summary
Lower Colorado River Multi Species Conservation Program
Balancing Resource, Use and Conservation

15 Acre Backwater
• 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

- RASU (299) were released directly into the backwater on Feb 27, 2014
Results

• Small Mesh Trammels
  • 0 RASU
  • 1 FLSU (Telemetry fish)
Results

- Large Mesh Trammels
  - 8 RASU
  - 0 FLSU
Results

- Larval Sampling
  - RASU - 4 (early spawn)
  - FLSU - 15 (late spawn)
Results
• Remote Sensing
  • RASU (14)
  • FLSU (0)
  • Low effort
• Telemetry (C53) – Juvenile FLSU have show some residence
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)
Fish Monitoring

- Continue larval, netting, and scanning
- Continue FLSU monitoring in conjunction with C53
  - Two Juvenile FLSU detected for extended periods

Water Quality Monitoring