Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Imperial Ponds Rotenone Treatment

Andrea Finnegan

Imperial Ponds

- non-native species
- Most likely entering through water supply

Changes to Water Supply

Planning

Pre-Treatment
- Native Fish Removal
- Removal of Vegetation
- Addition of water

Rotenone Application
- Fish Survival Stations
- Application
- Native Fish Reviving

Post-Treatment Monitoring

www.lcrmscp.gov

Native Fish Removal

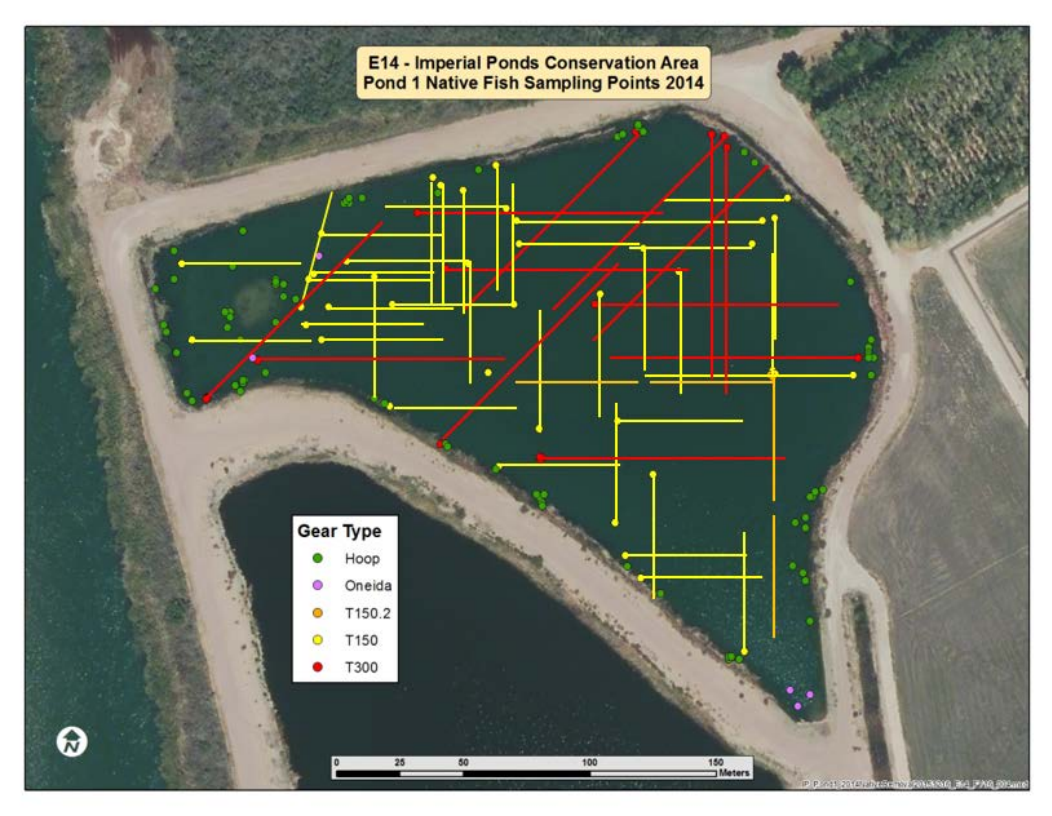
March 2014 through December 2014

Hoop Netting
4,066 hrs and 20 min

Trammel Netting
322 hrs and 19 min

Trap (Oneida) Nets
279 hrs and 59 min

Electrofishing
5 hrs and 11 min



Bonytail

145 Removed

- None were recaptures
  - Average: 233 mm
  - Smallest: 85 mm
  - Largest: 410 mm

Fish Taken to LMFH

Razorback Sucker

86 Removed

- 46 Recaptures
- 38 without PIT tag
- 2 without data
  - Average: 508 mm
  - Smallest: 260 mm
  - Largest: 640 mm

Stocked to A10 backwater

Vegetation Removal

- Ace Crew cleared hummocks and shoreline
- Pond 5 marsh burn

Photo Credit: FWS INWR

Positive Head Pressure

	December	January
Pond 1	184.1	185.0
Pond 2	184.6	185.0
Pond 3	184.0	184.5
Pond 4	182.7	185.0
Pond 5	181.3	185.0
Pond 6	183.5	185.0

Rotenone Application

December 2014 follow-up January 2015

Fish Survival Stations

Nonnatives captured from pond used for first application

Feeder fish for second application

No fish survived

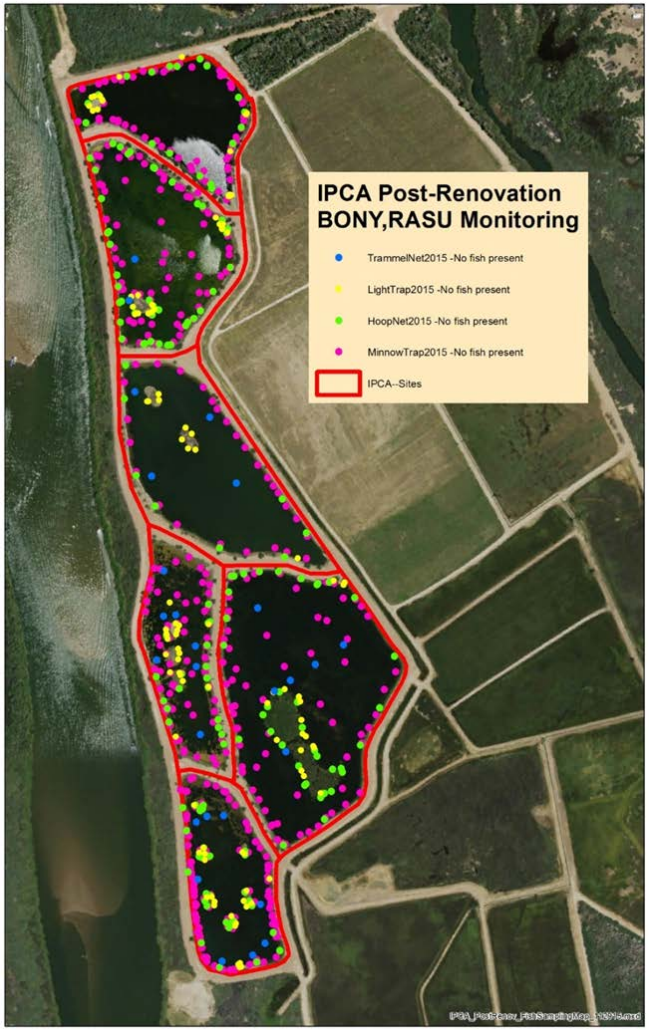
Native Fish Reviving

- Pond 1
  - Razorback sucker

    Population Est: 77 (54, 115)
  - 54 Razorback Sucker removed from Nov – Dec
    - 26 PIT tagged
    - 28 untagged
  - No population estimate for bonytail
- Pond 6
  - 1 Razorback Sucker
- Mortalities
  - Razorback sucker
    - 43 PIT tagged
    - 19 untagged
    - 19 removed with out being scanned
  - Bonytail
    - 71 collected untagged
    - 147 counted on surface

1 year following…

- Monthly sampling
  - Hoop and trammel nets, minnow and light traps and electrofishing.
- Mosquitofish detected in ponds 1 and 5
- Sampling adjusted to quarterly until fish are stocked



Now what

- Install monitoring equipment
- Anticipate Autumn 2016 Stocking Date

Many Thanks

James Stolberg
Trish Delrose
Margie Shaffer
Randy Thomas
Eric Loomis
Wendy Brewer
Jennifer Rottinghaus
Robert Winn
Gregg Garnett
Dan Townsend

Mitch Thorson
Tammy Knecth
Nate Caswell
Vance Wolf
INWR Maintenance Crew
USFWS Arizona Fire District
Terry Murphy
James Knowles
Laken Anderson