

National Park Service  
U.S. Department of the Interior  
Grand Canyon National Park



# Native Fish Population Trends – Grand Canyon Tributaries

## Razorback Sucker: Status and Habitat Use

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Joe Tomelleri Illustrations

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# Cooperators

- Funded by Reclamation and NPS



- Volunteers (several thousand hours)



# Native Fish Monitoring

## Shinumo Creek –

- **Humpback Chub Translocations (netting)**
- **Rainbow Trout Control (electro-fishing)**



## Havasu Creek –

- **Humpback Chub Translocations (netting)**
- **Data analysis incomplete**



# Shinumo Creek – Background

- Non-native Trout Control Uncertainties:
  - Electro-fishing impact upon native fish/humpback chub?
  - Effectiveness?
- Methods - Timeline:
  - 2009:
    - Pre-translocation electro-fishing
    - No population estimates
  - 2010 -Present:
    - Electro-fishing - Multiple pass depletion
      - Upstream of translocation areas
    - Netting - Mark-recapture population estimates
      - Translocation areas

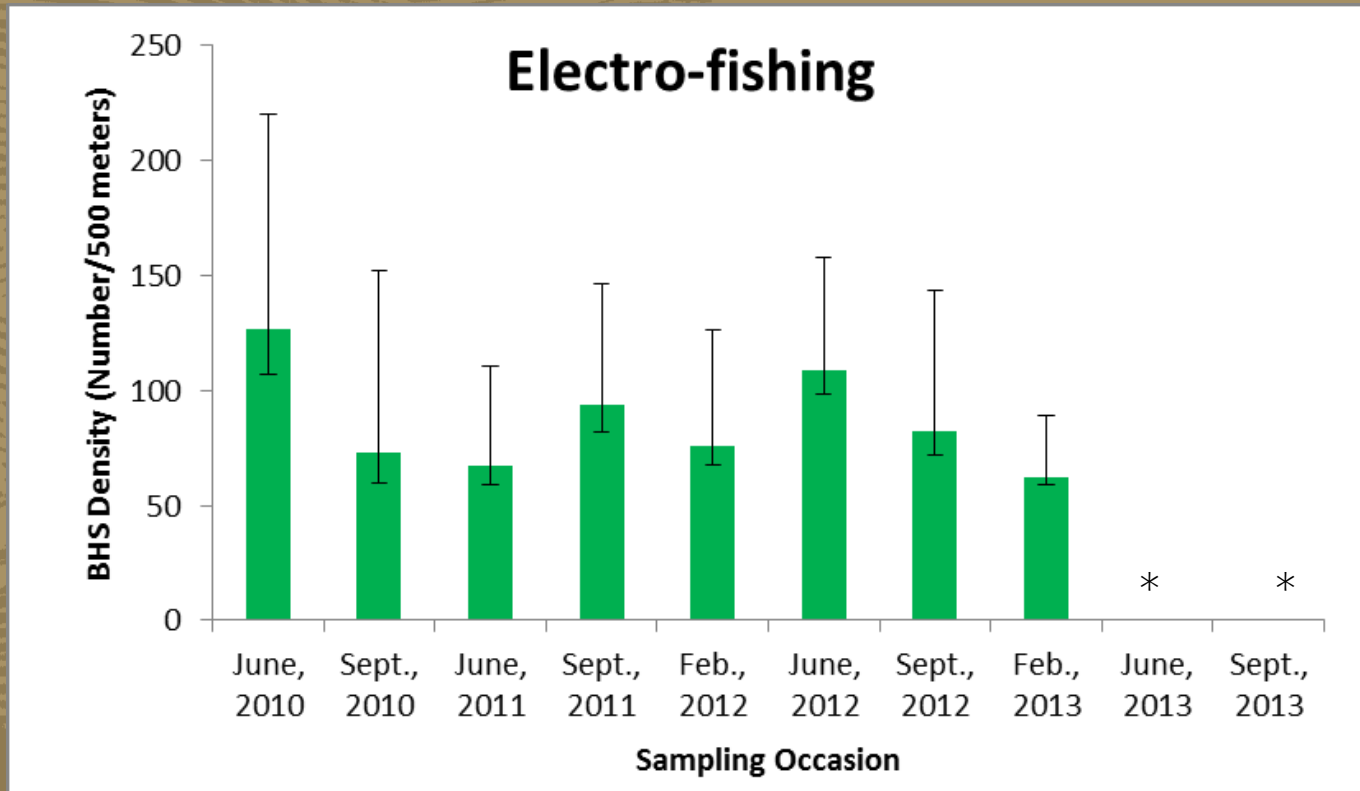




# Shinumo Creek - Results



- Bluehead Sucker – Upstream of Translocation Areas

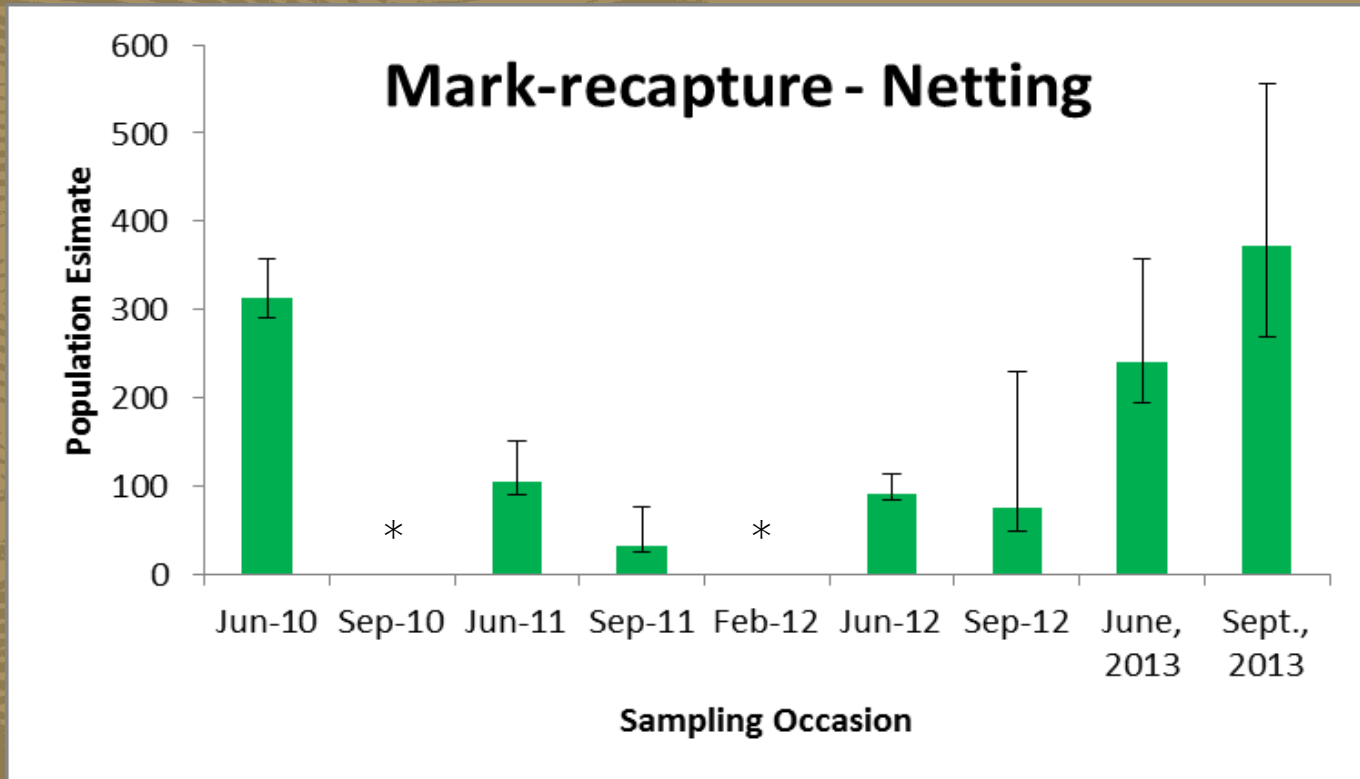


\* = No Data/No Sample

# Shinumo Creek - Results



- Bluehead Sucker – Within Translocation Areas



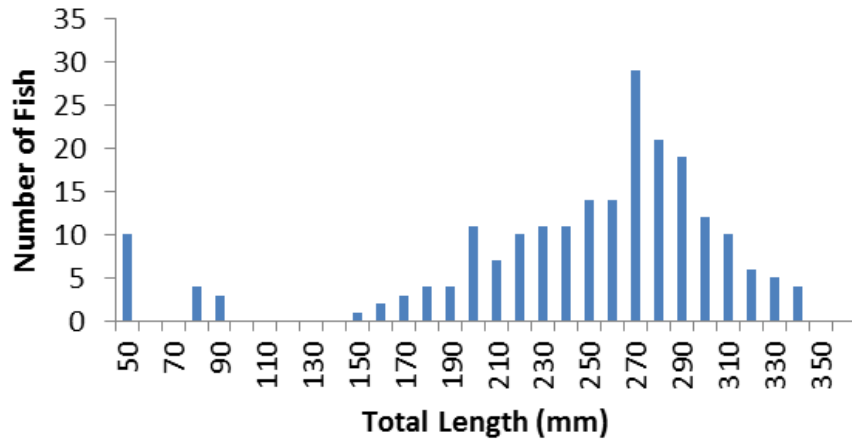
\* = No Data/No Sample

# Shinumo Creek - Results

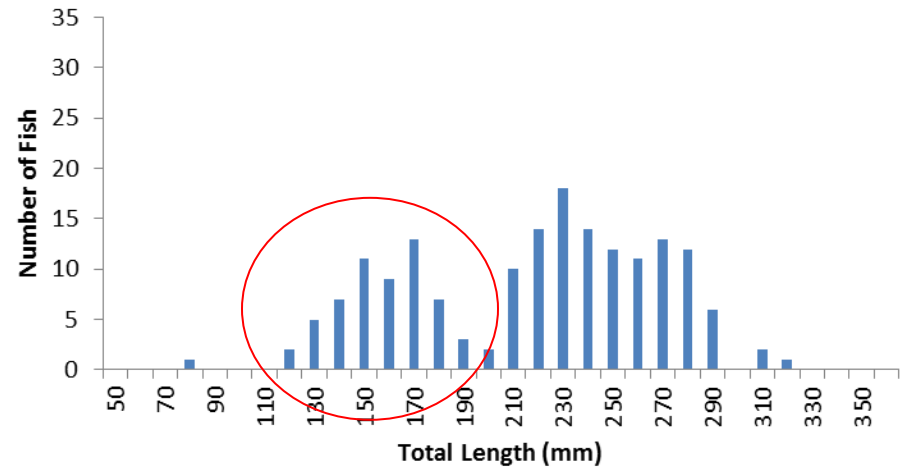


- Bluehead Sucker – Length-Frequency
- Increased recruitment since 2012

## Bluehead Sucker, Sept. 2011



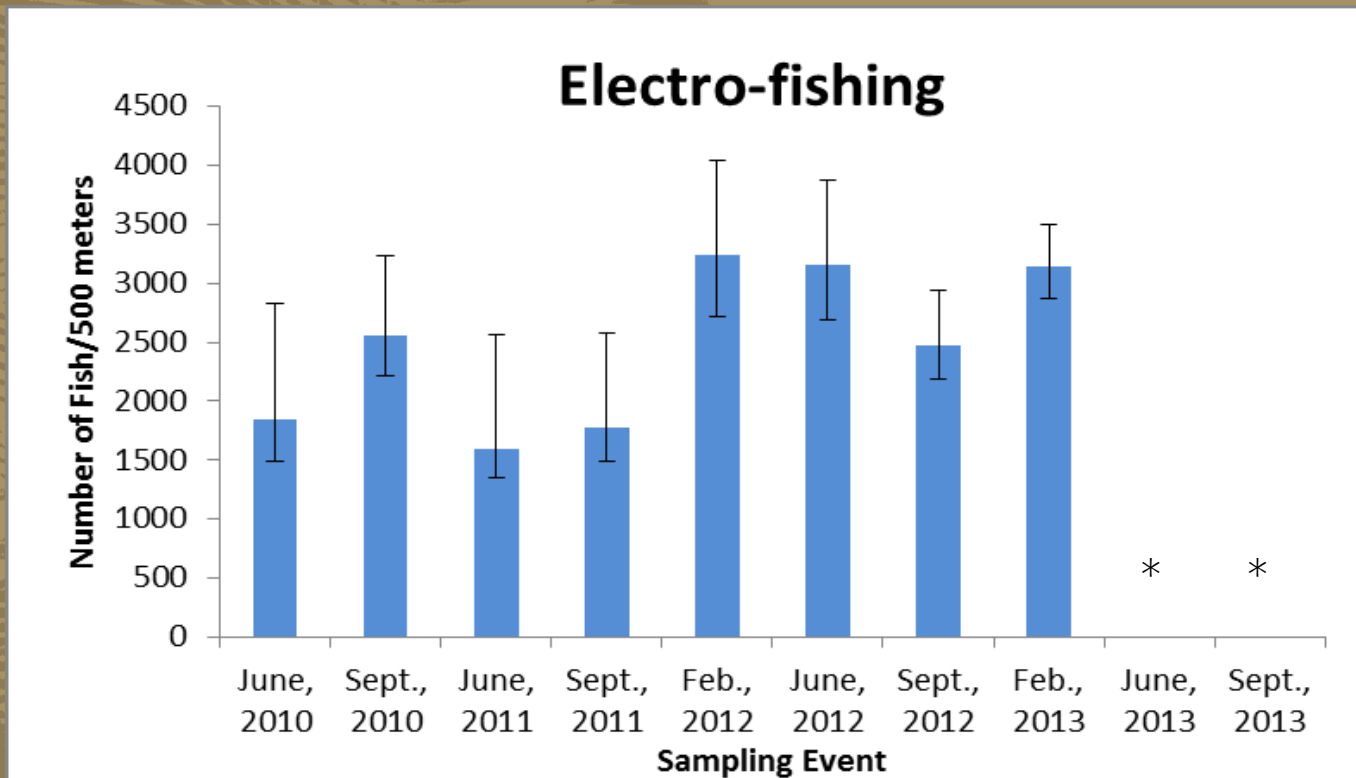
## Bluehead Sucker, Sept. 2013



# Shinumo Creek - Results



- Speckled Dace – Upstream of Translocation Areas



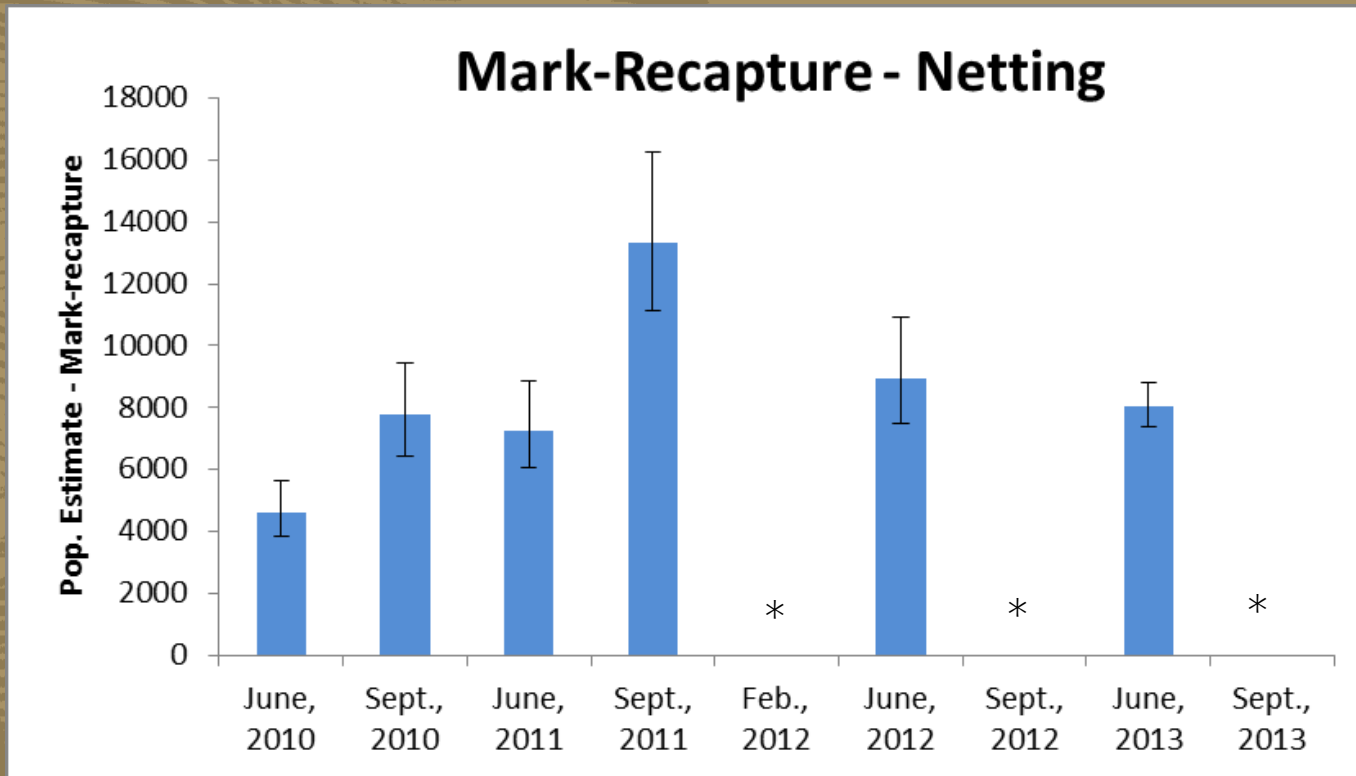
\* = No Data/No Sample



# Shinumo Creek - Results



- Speckled Dace – Within Translocation Areas



\* = No Data/No Sample

# Summary – Tributary Monitoring

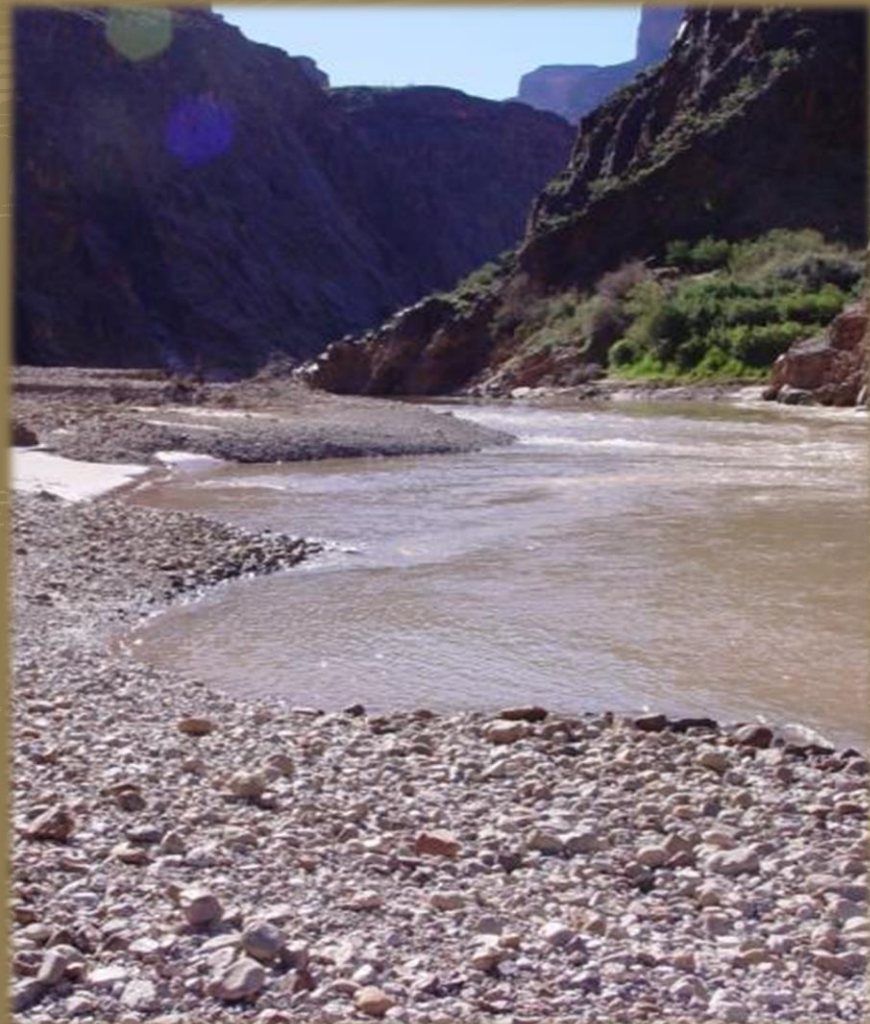
- Control methods or translocations don't appear to be impacting natives significantly:
  - Stable native fish populations
  - Increased numbers of young-of-year 2012-2013
- Next Steps
  - Shinumo Creek:
    - Complete bluehead sucker survival analysis
    - Continue trout control, translocations, monitoring
  - Havasu Creek:
    - Bluehead sucker survival and abundance analyses

# Razorback Sucker – Lower Grand Canyon (LGC)



## Objectives

1. Determine:
  - Reproduction, spawning, and nursery areas
2. Determine RBS presence and habitat use in LGC
3. Determine population trends in LGC and Colorado River Inflow of Lake Mead





# Razorback Sucker – Lower Grand Canyon (LGC)

## 2014 Activities:

- Up to 7 trips in the LGC through October 2014 (monthly)
- March: Release 10 sonic-tagged razorback – below Lava Falls (downstream of River Mile 180)
- Install Sonic Receivers from Lava Falls to Diamond Creek
- Larval fish sampling from Lava falls downstream to Lake Mead
- Continue RBS monitoring at the Colorado River Inflow

Work conducted by Bio-West and ASIR (contractors),  
logistics supported by NPS/Reclamation



# Questions?

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