

State of the Fishery Lees Ferry

(TWG Meeting April 2015)

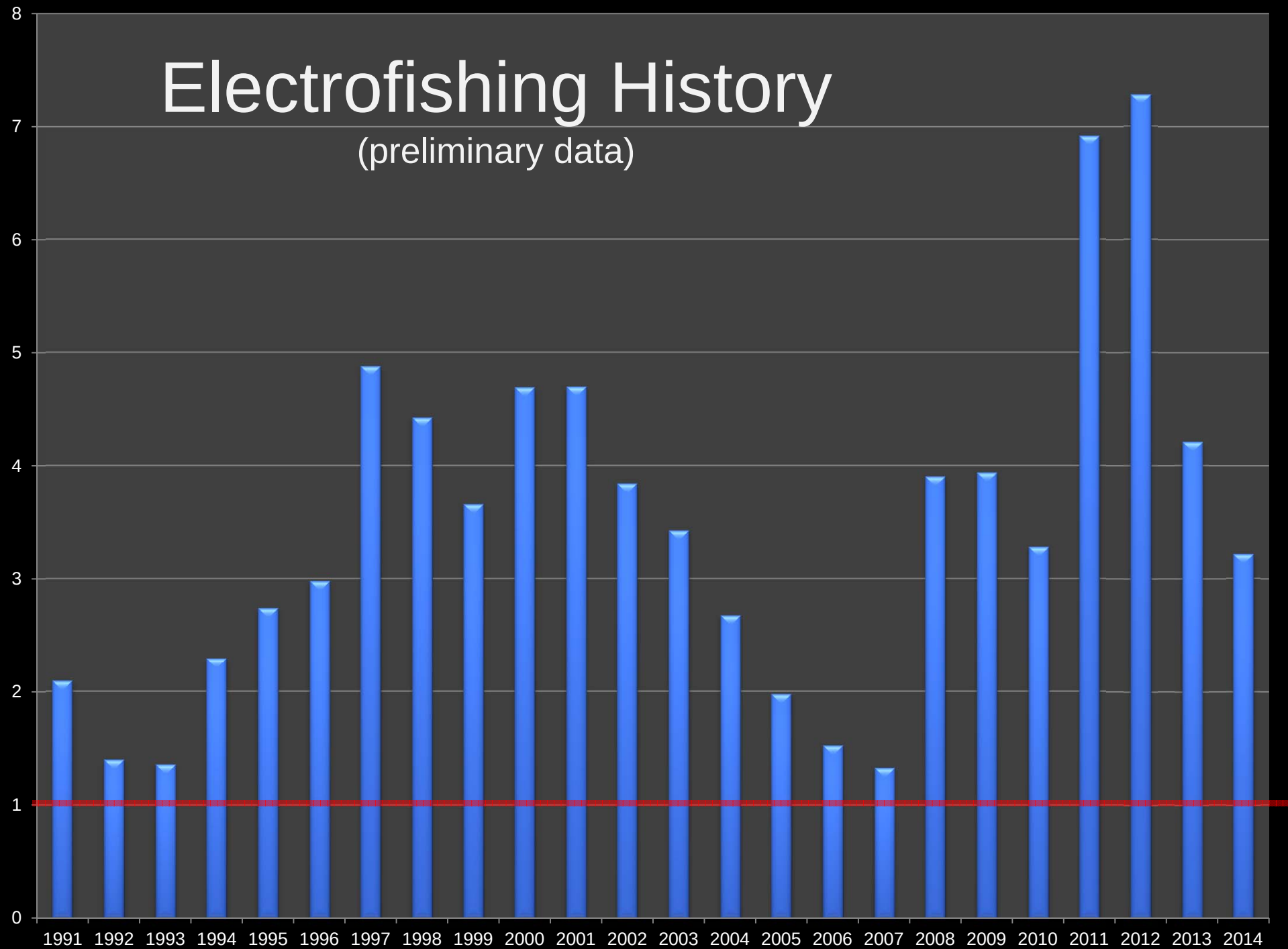
Bill Stewart



- **NPS Comprehensive Fish Management Plan**
 - **Low recruitment <20% for 3 consecutive years**
 - **Low population < 1 fish/min for 2 consecutive years**
 - **Low angler catch rates <0.5 fish/hr for two consecutive years**

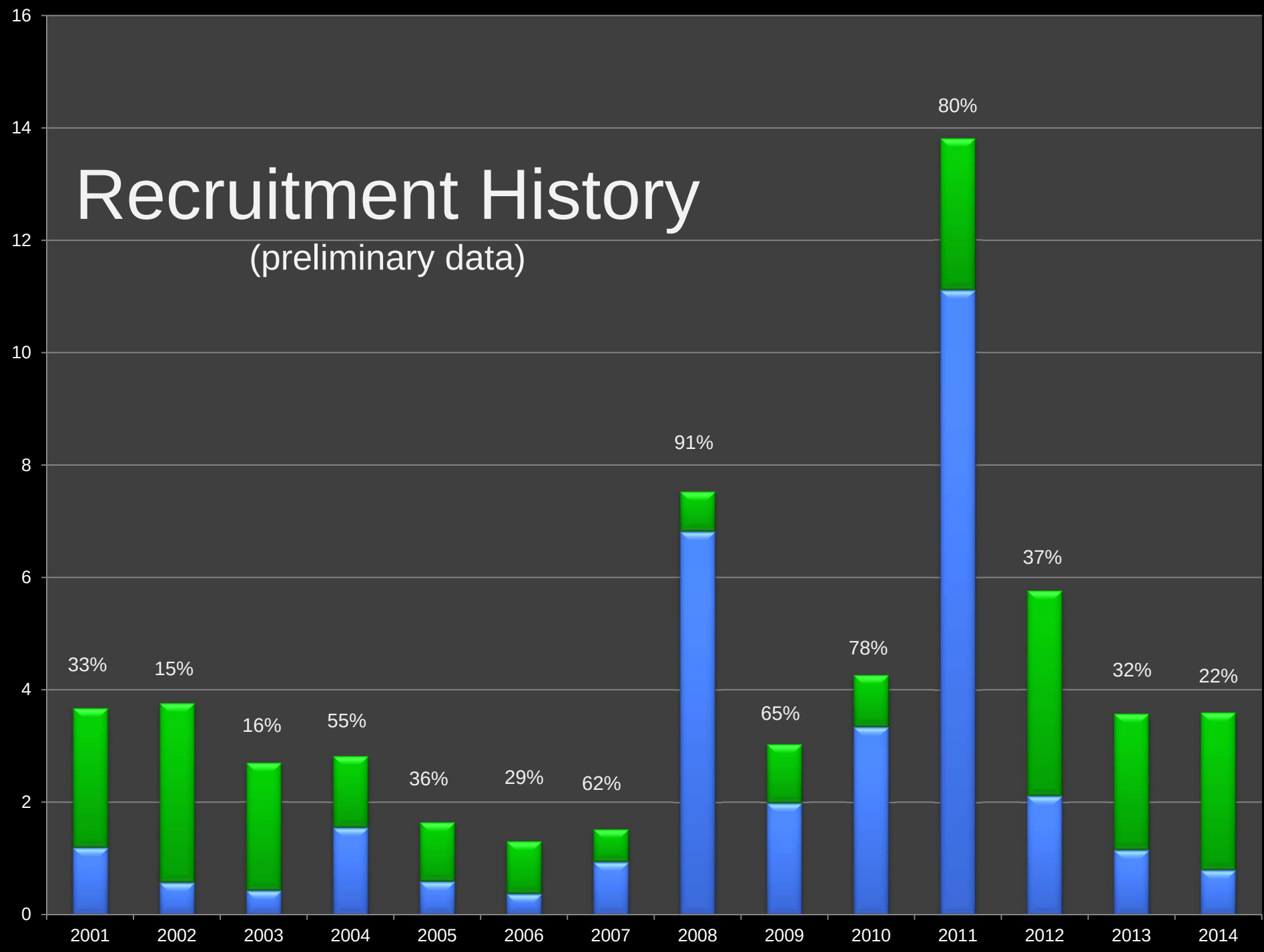
Electrofishing History

(preliminary data)



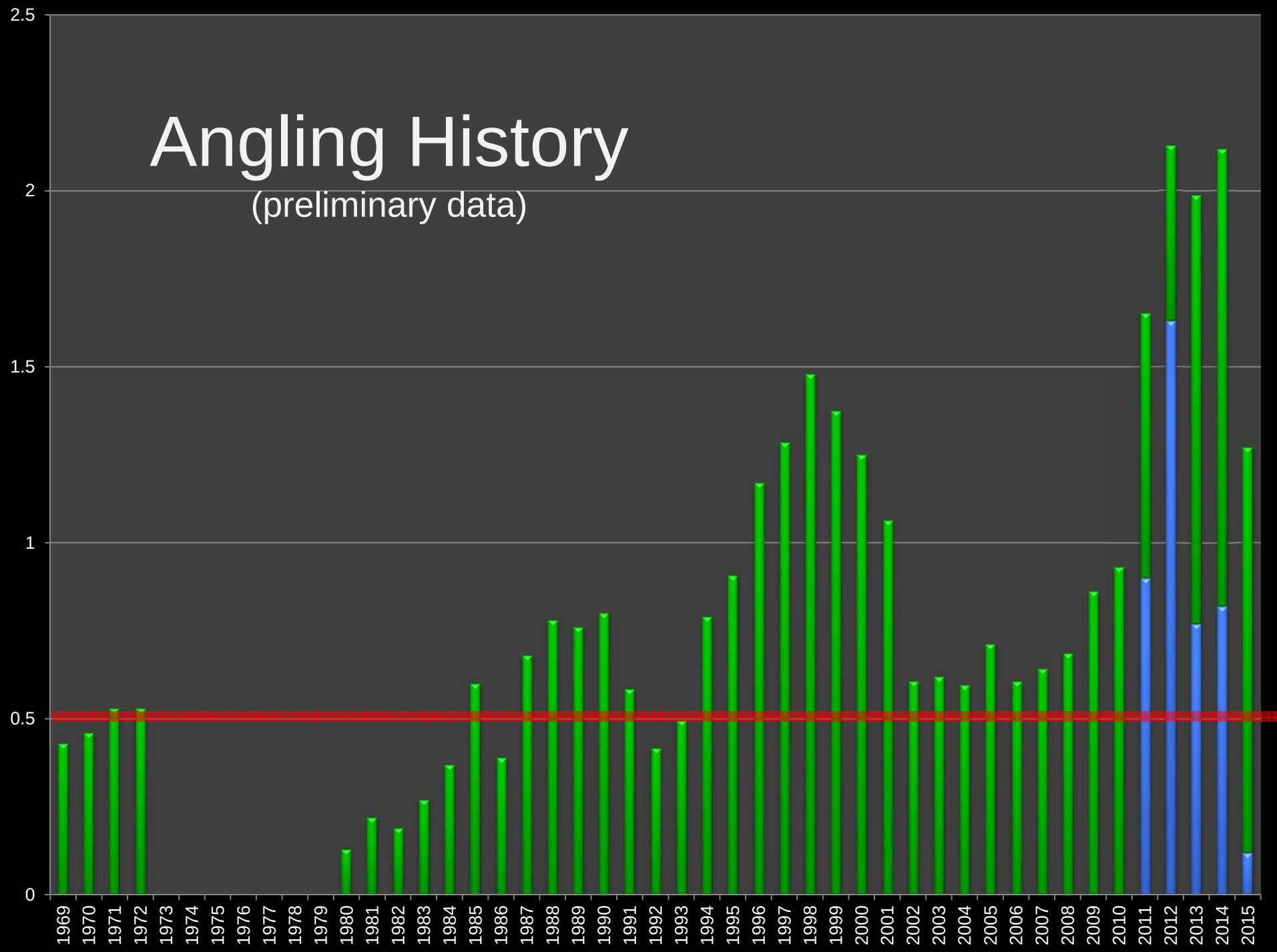
Recruitment History

(preliminary data)



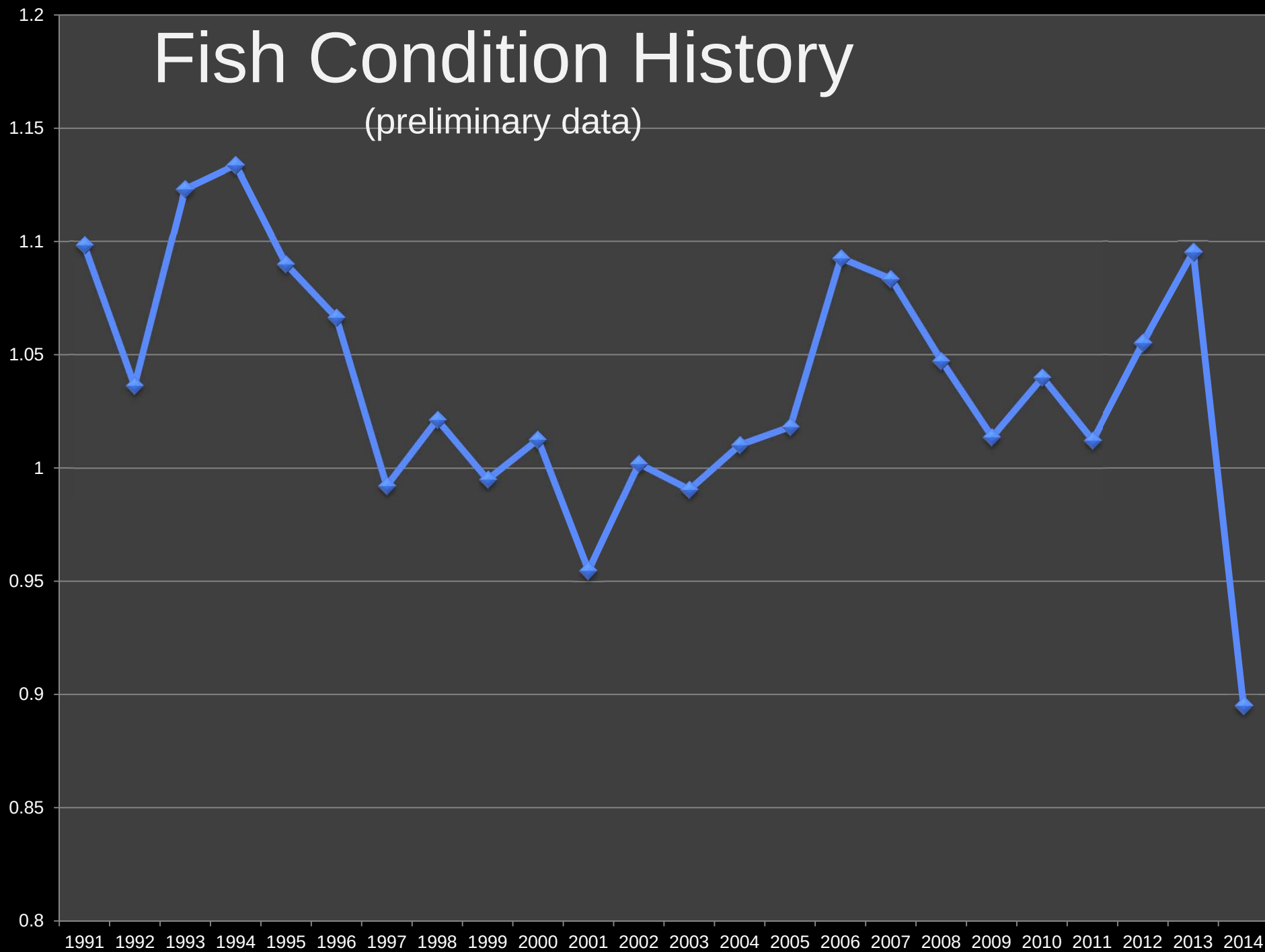
Angling History

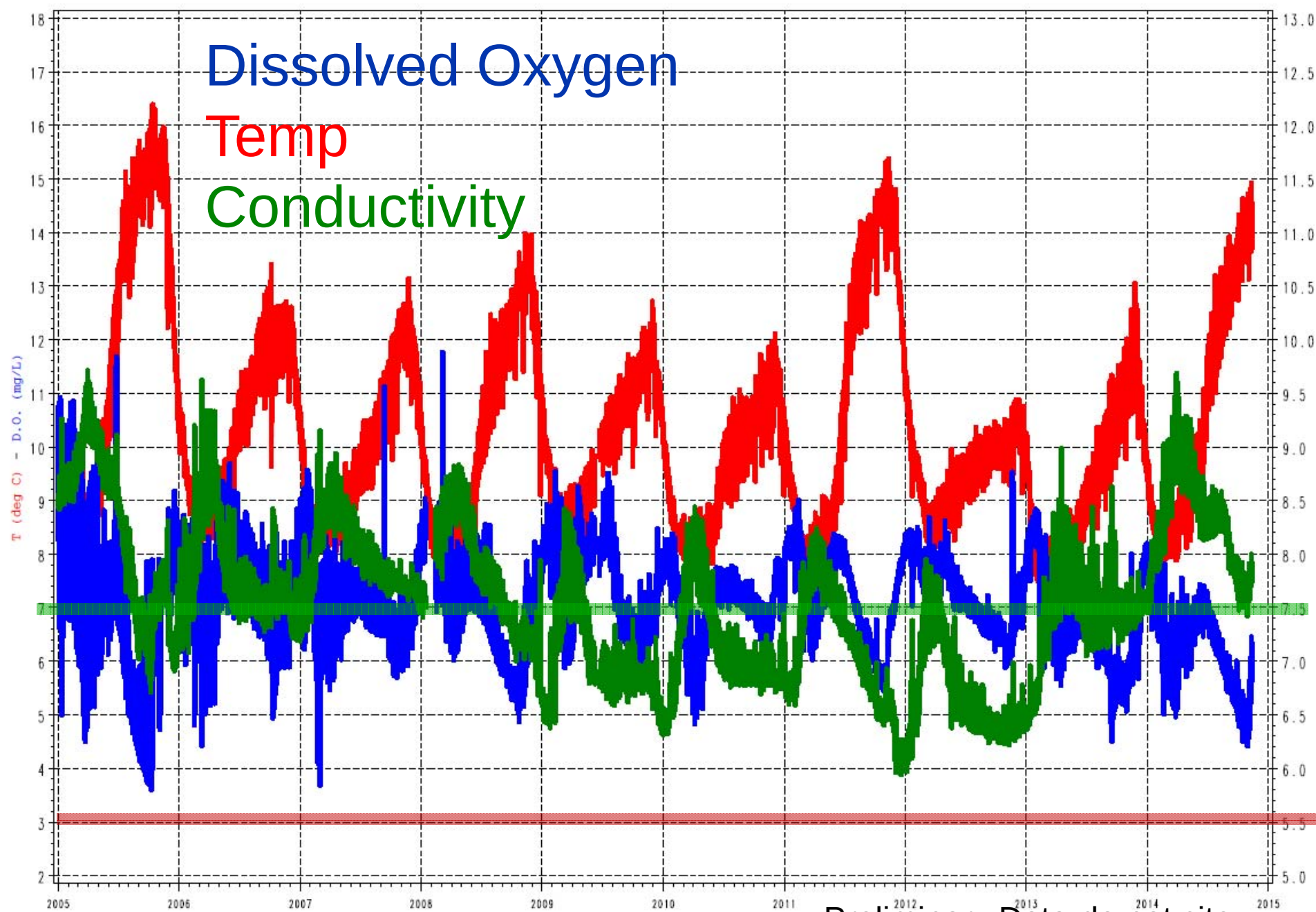
(preliminary data)



Fish Condition History

(preliminary data)





Preliminary Data-do not cite

Current Status (angler catch rates)

- **Boat anglers**
 - 24 year ave = 1.04
 - Oct - Dec 2014 = 1.82
 - Jan - March 2015 = 1.35
- **Walk-in anglers**
 - 4 year ave = 1.03
 - Oct - Dec 2014 = 1.08
 - Jan - March 2015 = 0.12

Preliminary data-do not cite

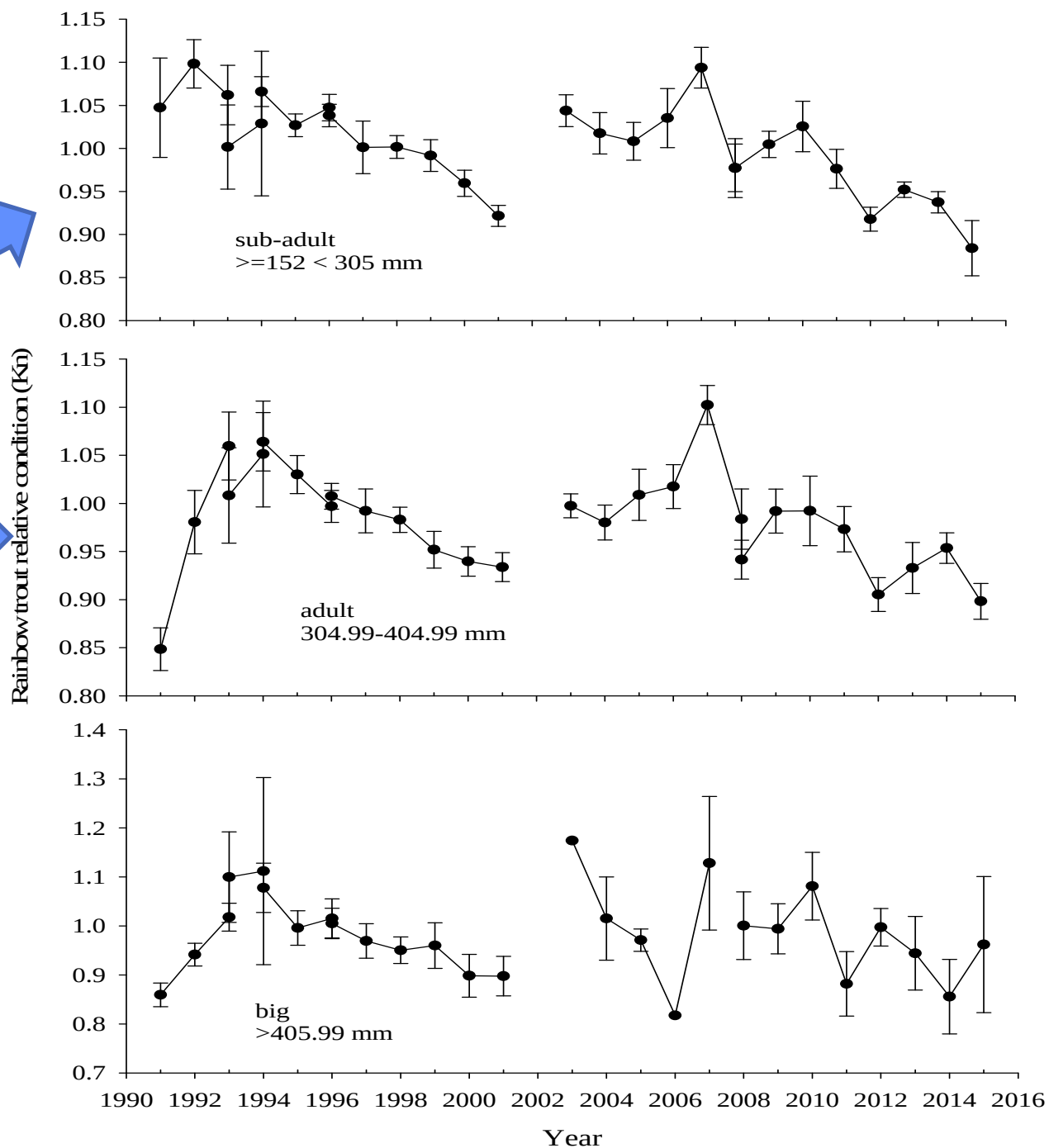
Current status (spring fish condition)

6-12 inch fish

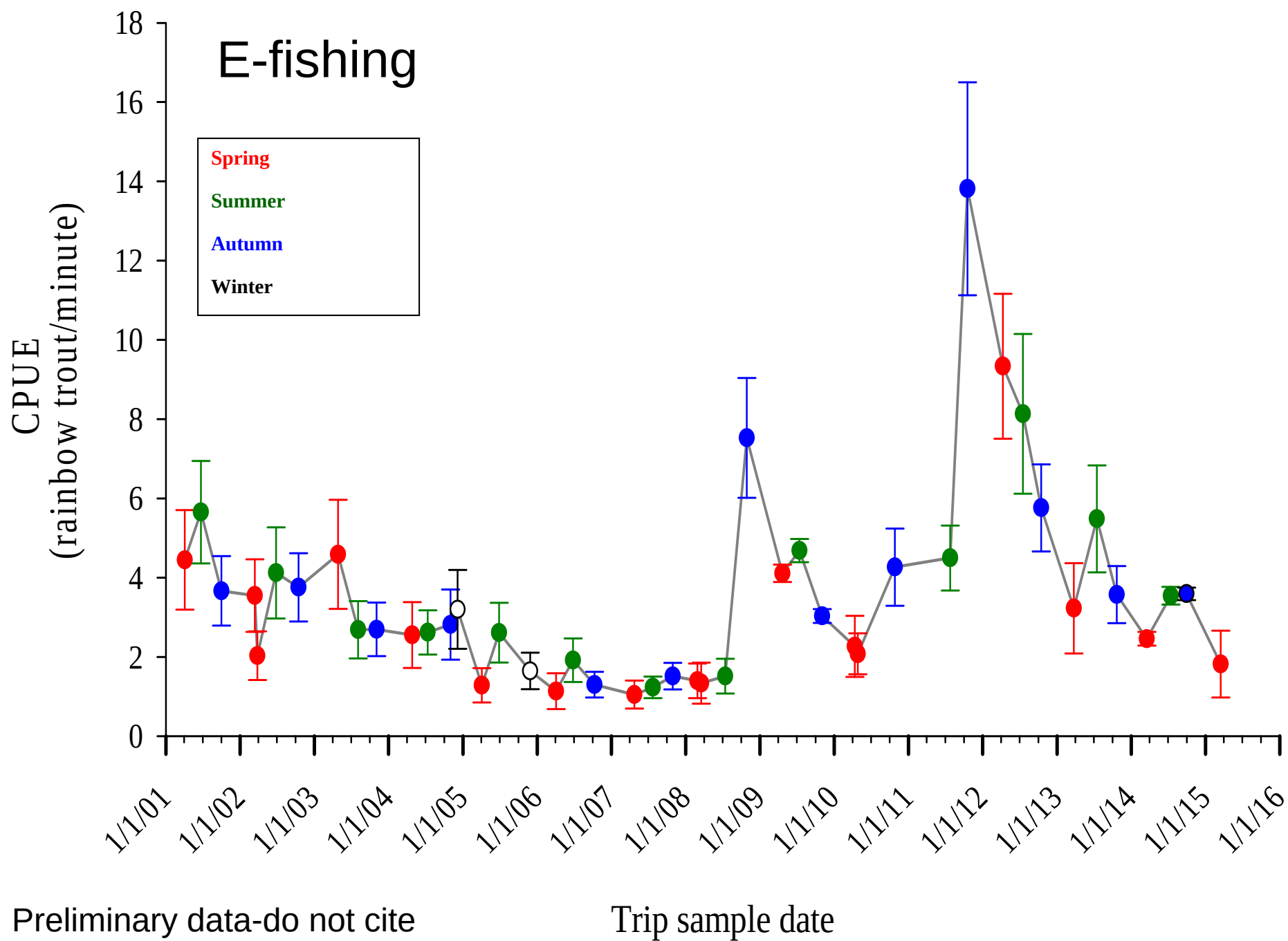
- 24 yr mean = 1.01
- 2015 = 0.88

12-16 inch fish

- 24 yr mean = 0.99
- 2015 = 0.89



Preliminary data-do not cite



Summary of Current Status

- **Spring e-fishing CPUE declining since 2012, but still above mid-2000 levels**
- **Spring fish condition lowest since 1991**
- **Anger catch rates dropping, but still high for boat anglers. Very low for walk-in anglers**



Lees Ferry and Marble Canyon Rainbow Trout Update

TWG Meeting, April 2015

Scott VanderKooi

Southwest Biological Science Center

Grand Canyon Monitoring and Research Center

U.S. Department of the Interior
U.S. Geological Survey

Rainbow Trout Abundance Estimates By Reach

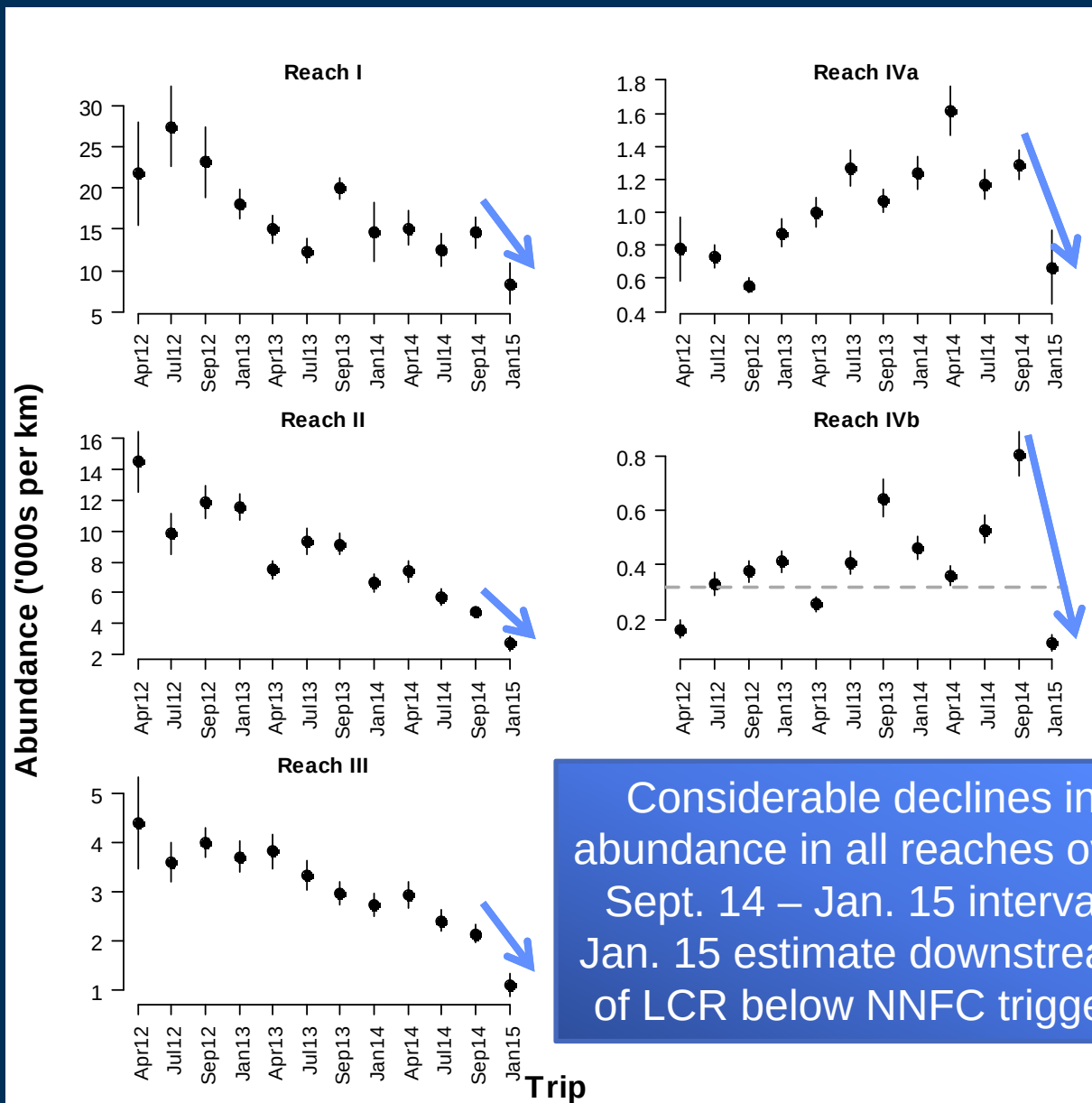
I – Glen Canyon/Lees Ferry

II – House Rock

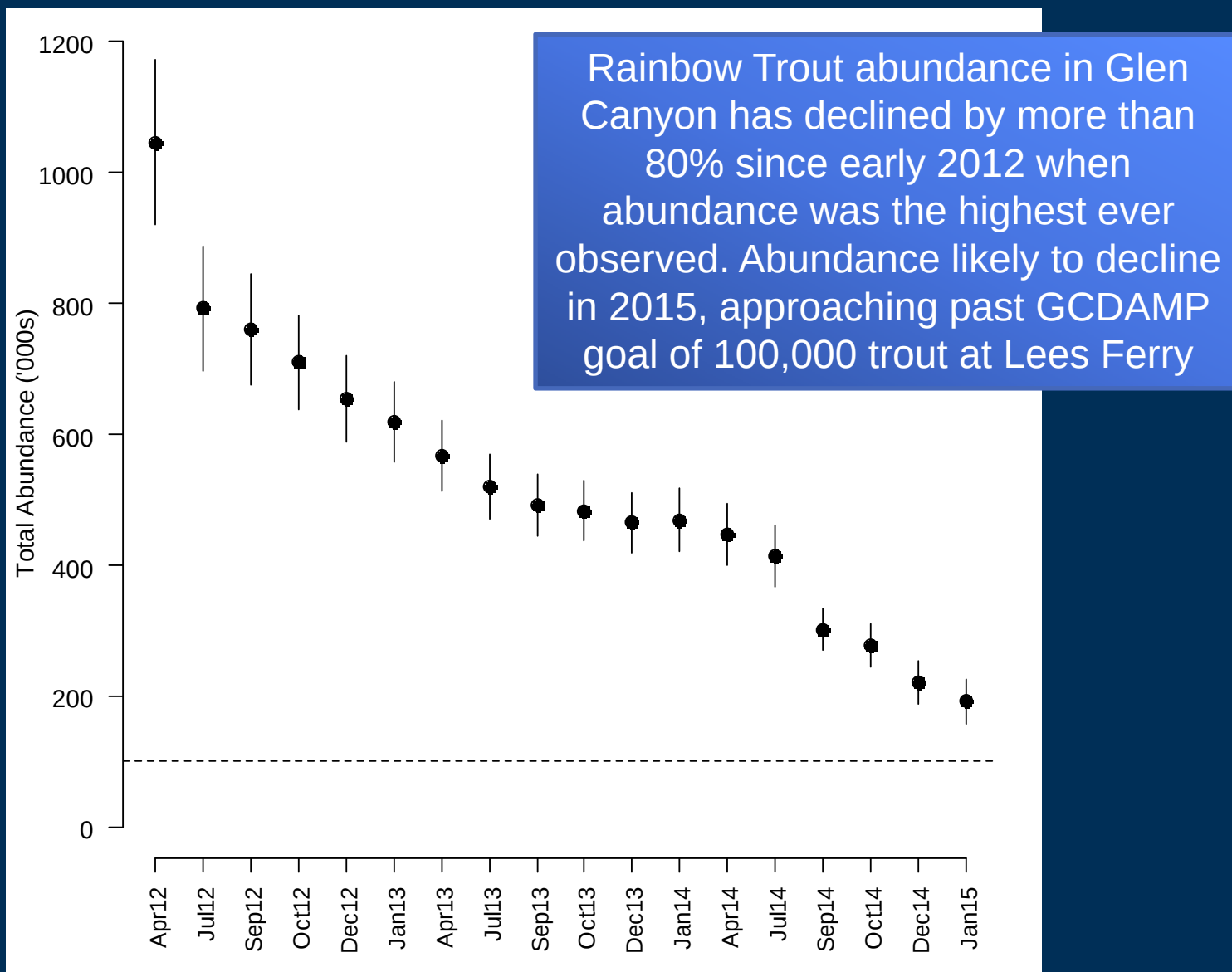
III – Buck Farm

IVa – Upstream of LCR

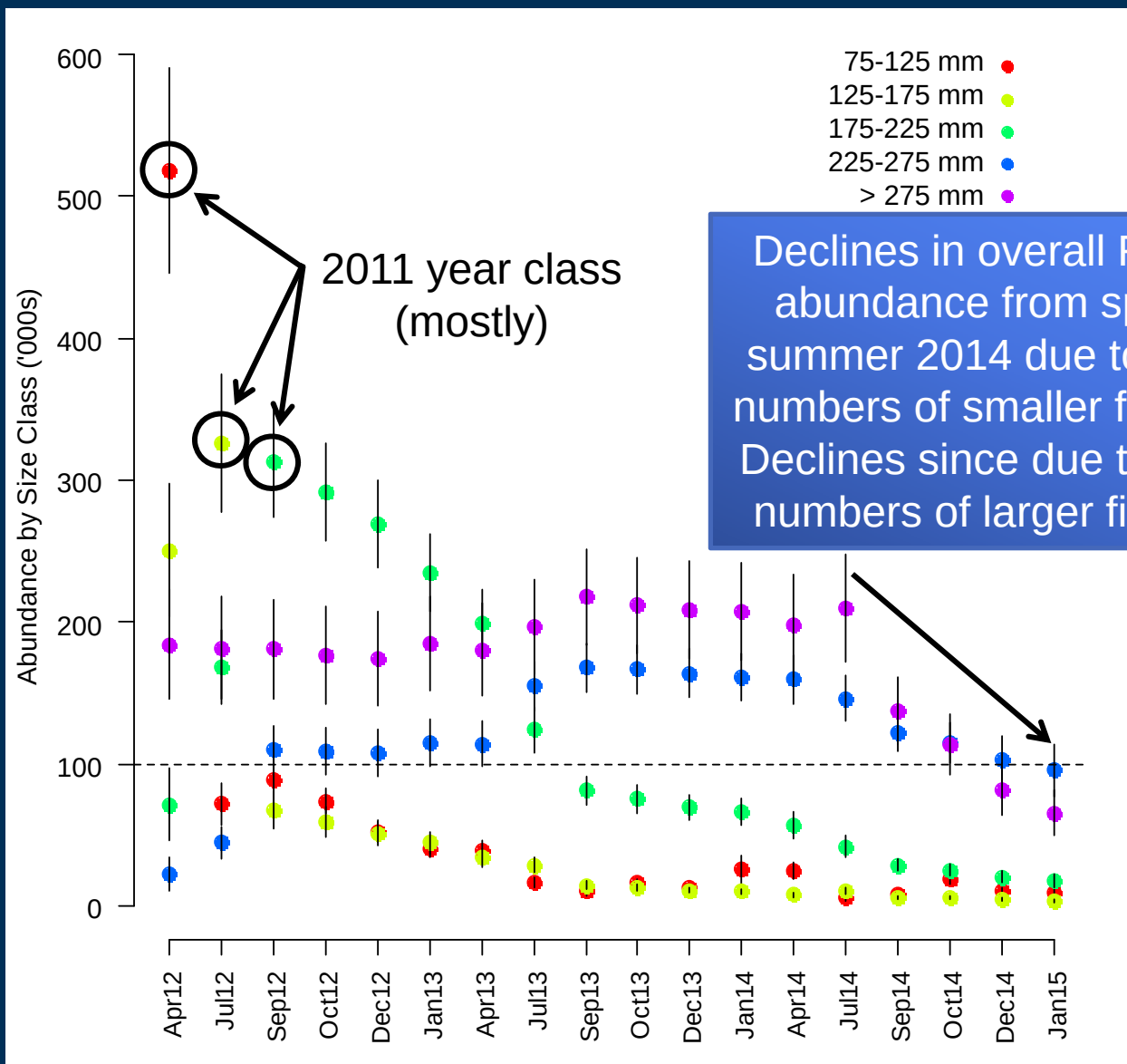
IVb – Downstream of LCR



Rainbow Trout Abundance Estimates in Glen Canyon

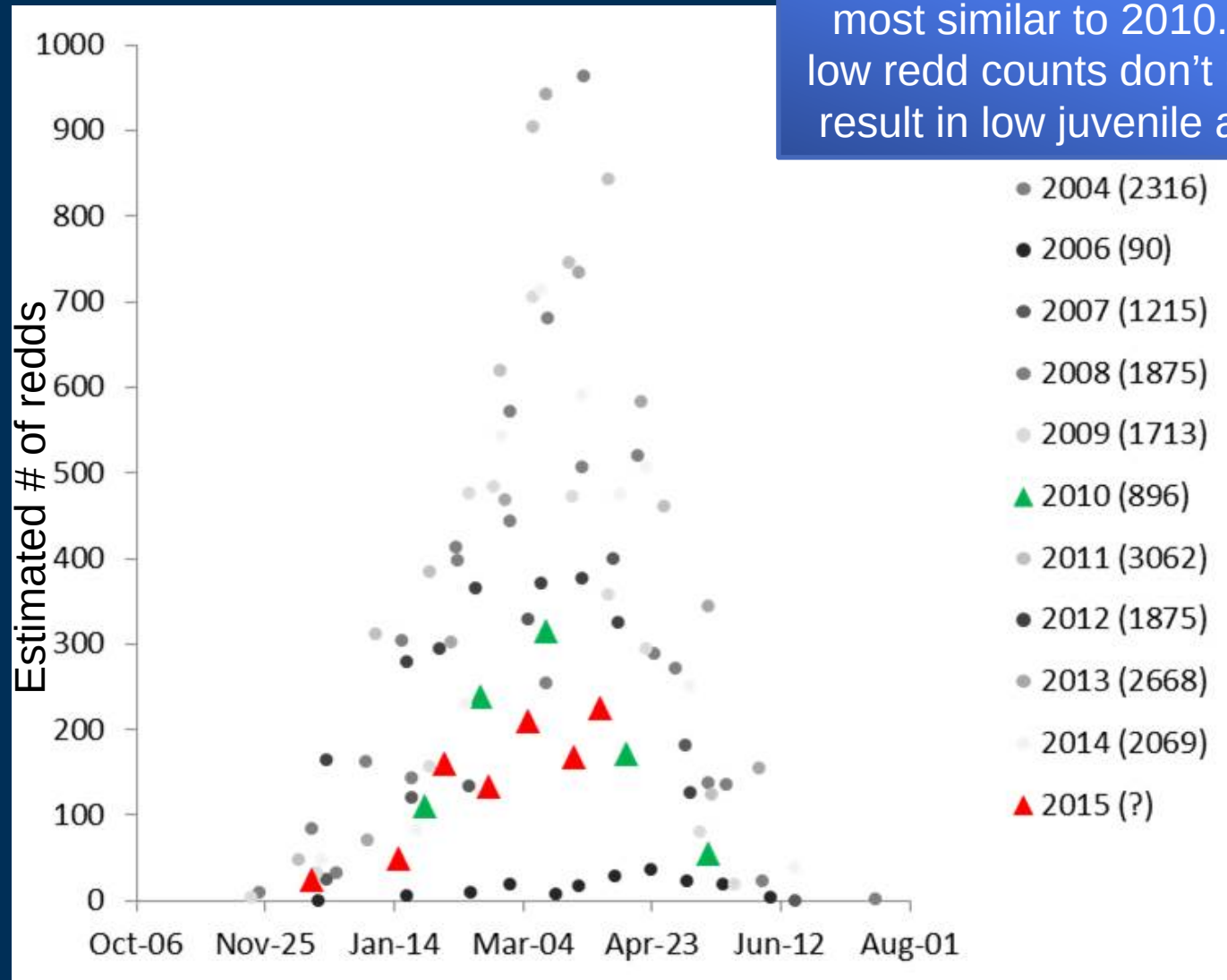


Rainbow Trout Abundance Estimates in Glen Canyon By Size Class



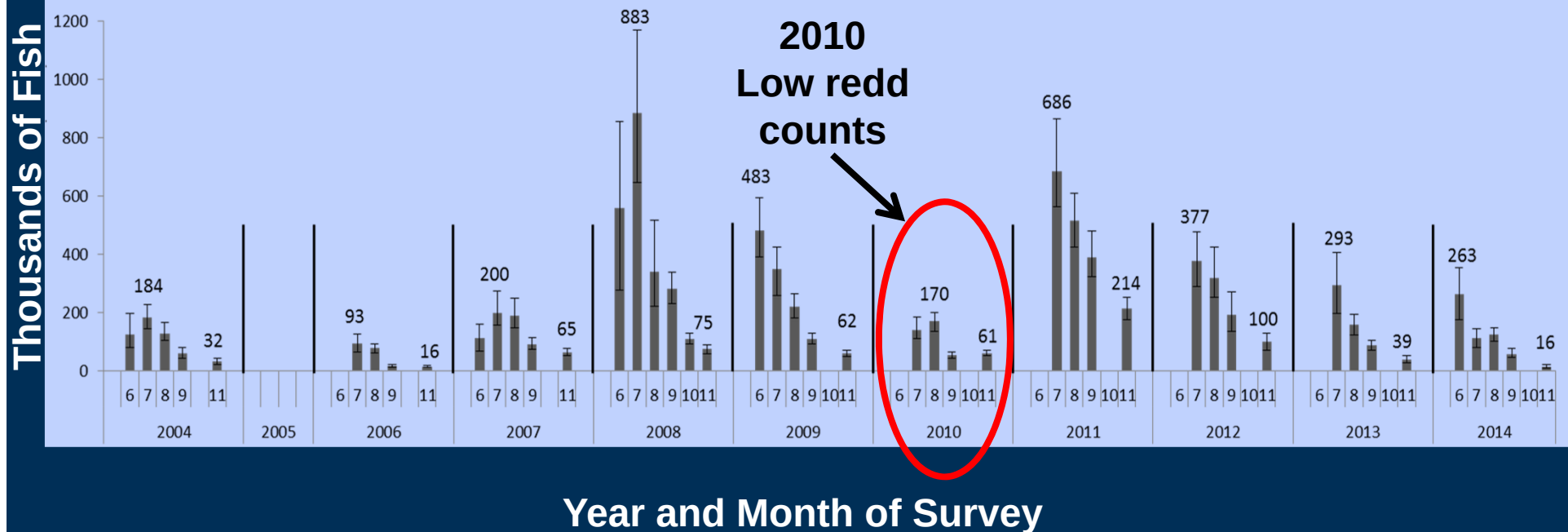
Rainbow Trout Early Life Stage Studies: Redd Counts

Number of redds to date is low, most similar to 2010. Note that low redd counts don't necessarily result in low juvenile abundance



Rainbow Trout Early Life Stage Studies: Age-0 Population Estimates

Relatively high age-0 abundance in November 2010 despite low redd counts. Likely due to compensatory survival related to low densities.

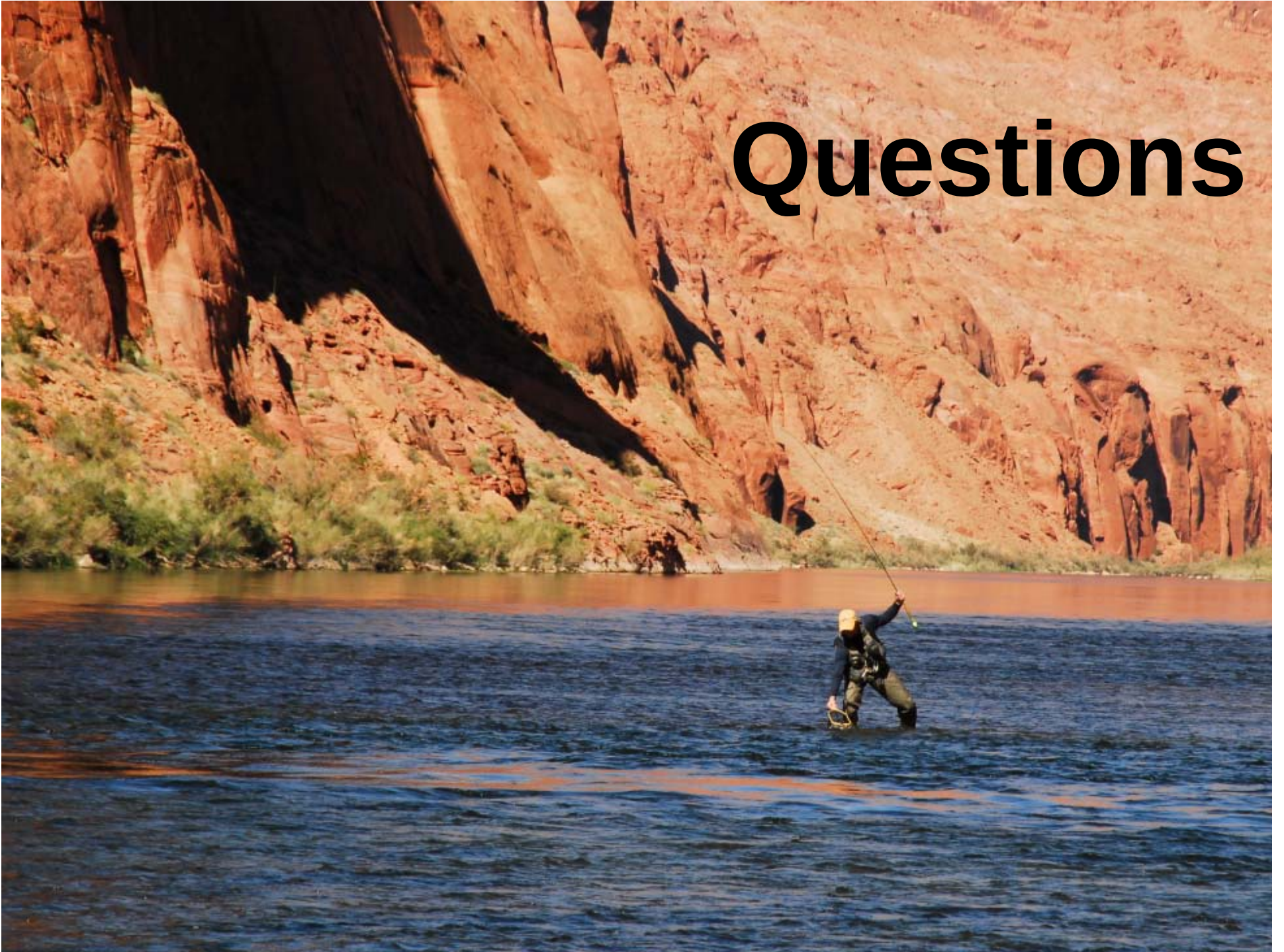


Preliminary Findings:

■ Rainbow Trout

- Decline in abundance at all Natal Origins sampling reaches (Sept. 2014 – Jan. 2015)
- Low redd counts to date, similar to 2010
- >80 % decline in abundance in Glen Canyon since spring 2012
 - Initially due to declines in numbers of small fish, but recent changes due to fewer large fish
- Initial observations from April trip
 - Continued declines in catches in most reaches; greatest change upstream, little change near LCR confluence
 - Apparent shift in size/age structure, now dominated by small/young fish
 - Condition of smaller fish appears to be good, need to review data to confirm

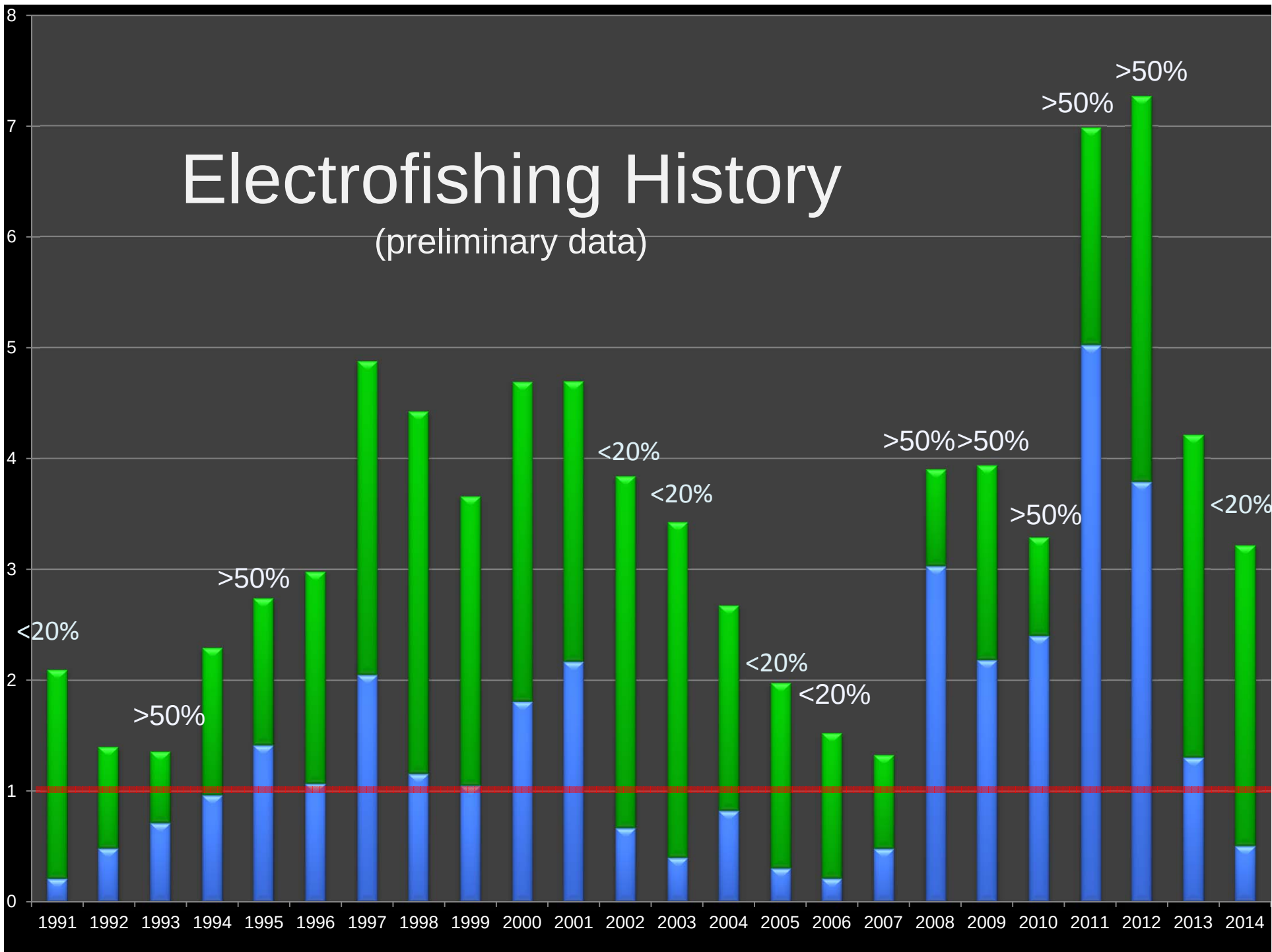
Questions



- **NPS Comprehensive Fish Management Plan**
 - Low recruitment <20% for 3 consecutive years
 - Low population < 1 fish/min for 2 consecutive years
 - Low angler catch rates <0.5 fish/hr for two consecutive years
- **Preliminary Lees Ferry Fish Plan goals and objectives**
 - Maintain recruitment between 20-50%
 - Angler catch rates > 1 fish/hr
 - Angler catch rates for 20"+ fish 1/day
 - Summer fish condition > 1.0
 - Increase EPT such that index is >0
 - Maintain DO levels >5 mg/L out of GCD

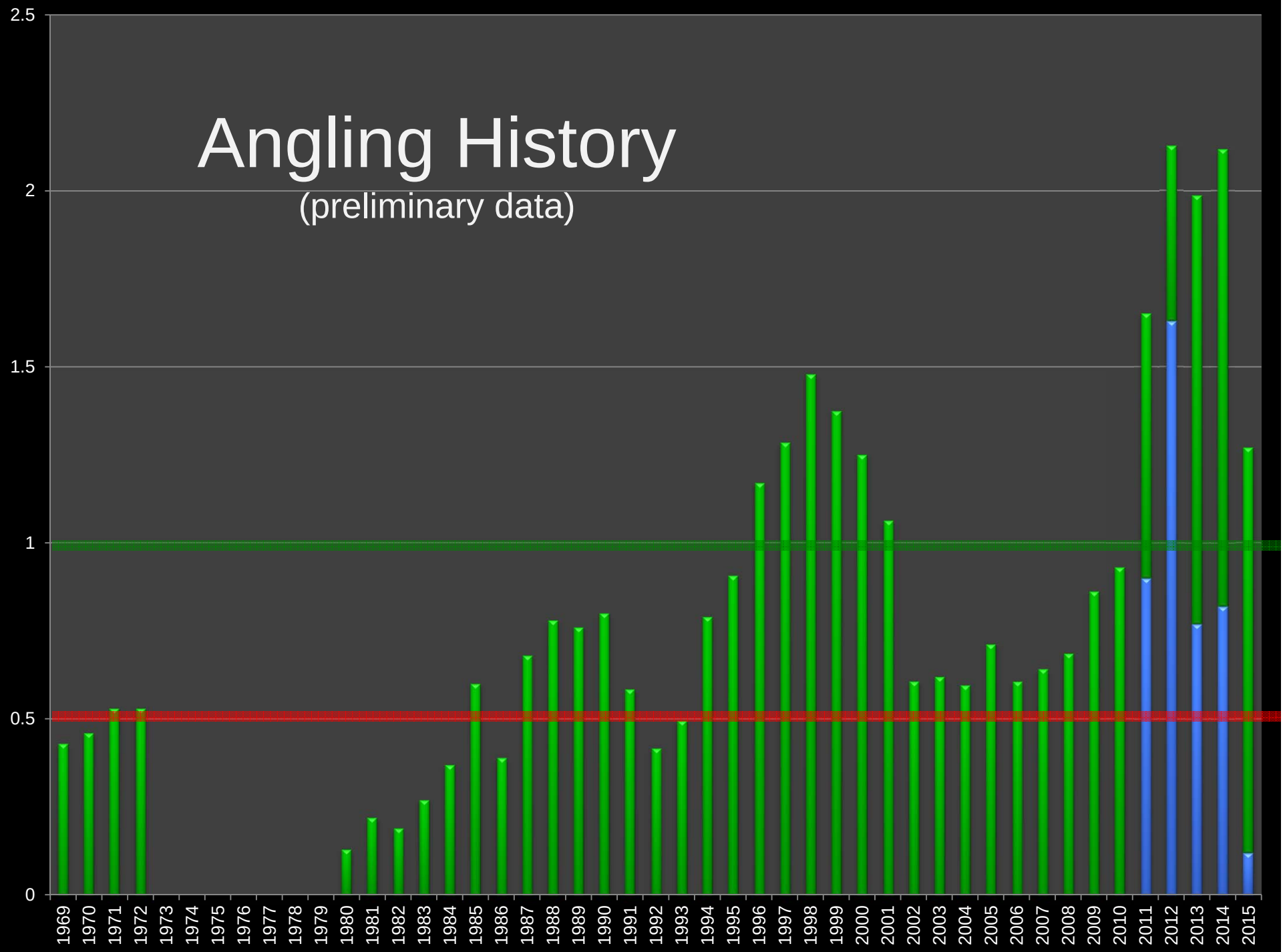
Electrofishing History

(preliminary data)



Angling History

(preliminary data)



Fish Condition History

(preliminary data)

