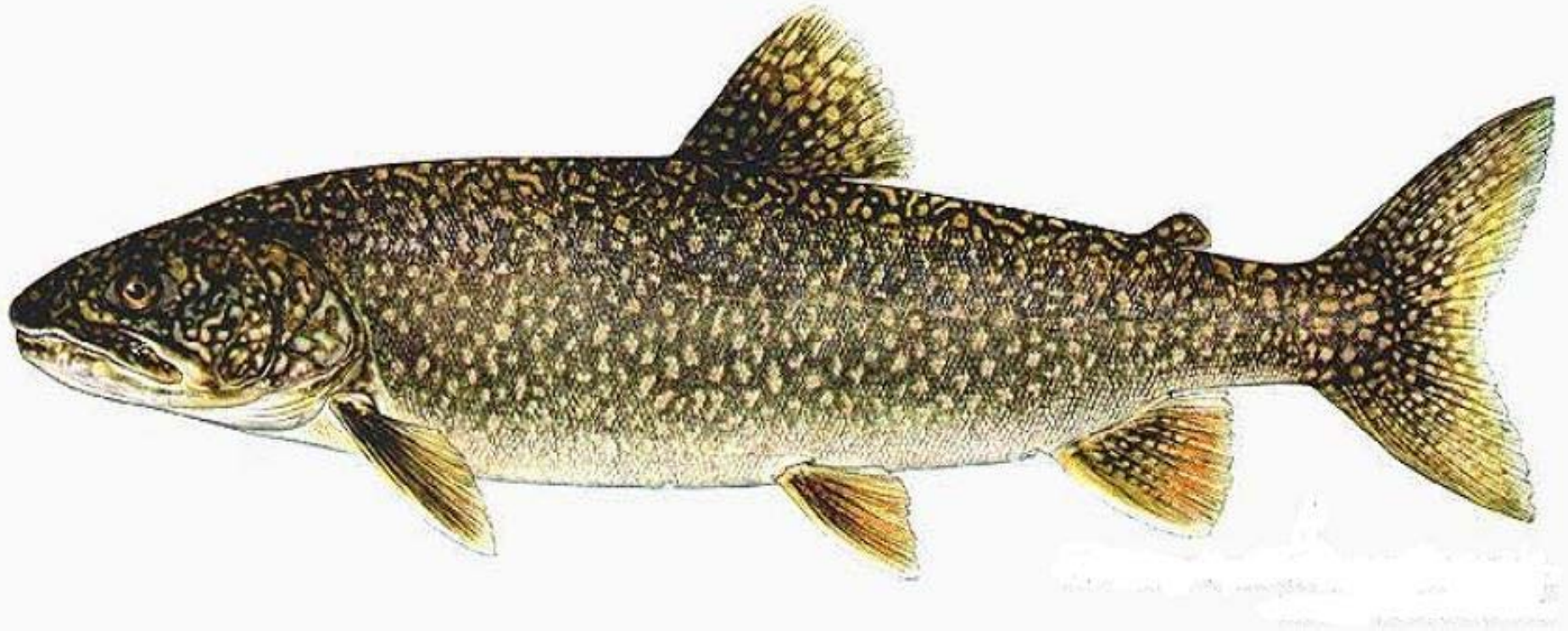


# Trends in lake trout catches from USGS Lake Huron trawl surveys

Stephen Riley  
Tim Desorcie  
Ed Roseman  
Tim O'Brien

Western Basin Ecosystems Branch  
USGS Great Lakes Science Center  
Ann Arbor, MI





***“...the Great Lakes cannot be considered healthy until this species and its natural diversity of forms become self-sustaining in each lake.”***

**GLFC Strategic Vision (2001)**



# **Lake Huron fall bottom trawl dataset**

- **1976-2007**
- **Gear changed in 1992**
- **Survey conducted in Sept. 1992, 1993**
- **No survey in 2000**
- **Goderich, Ontario added in 1998**

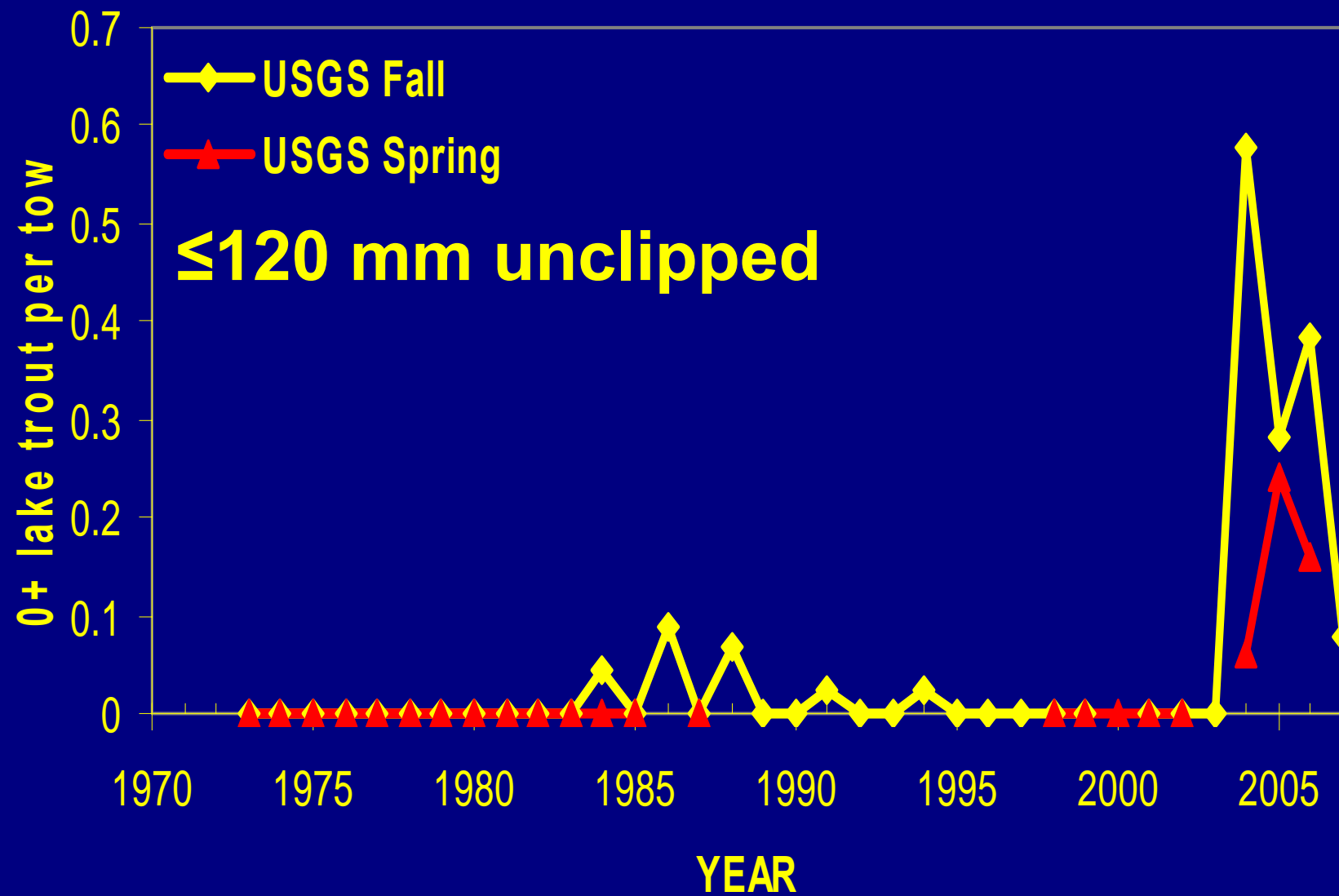
# Limitations

- Small sample sizes
- U.S. waters only
- Bias

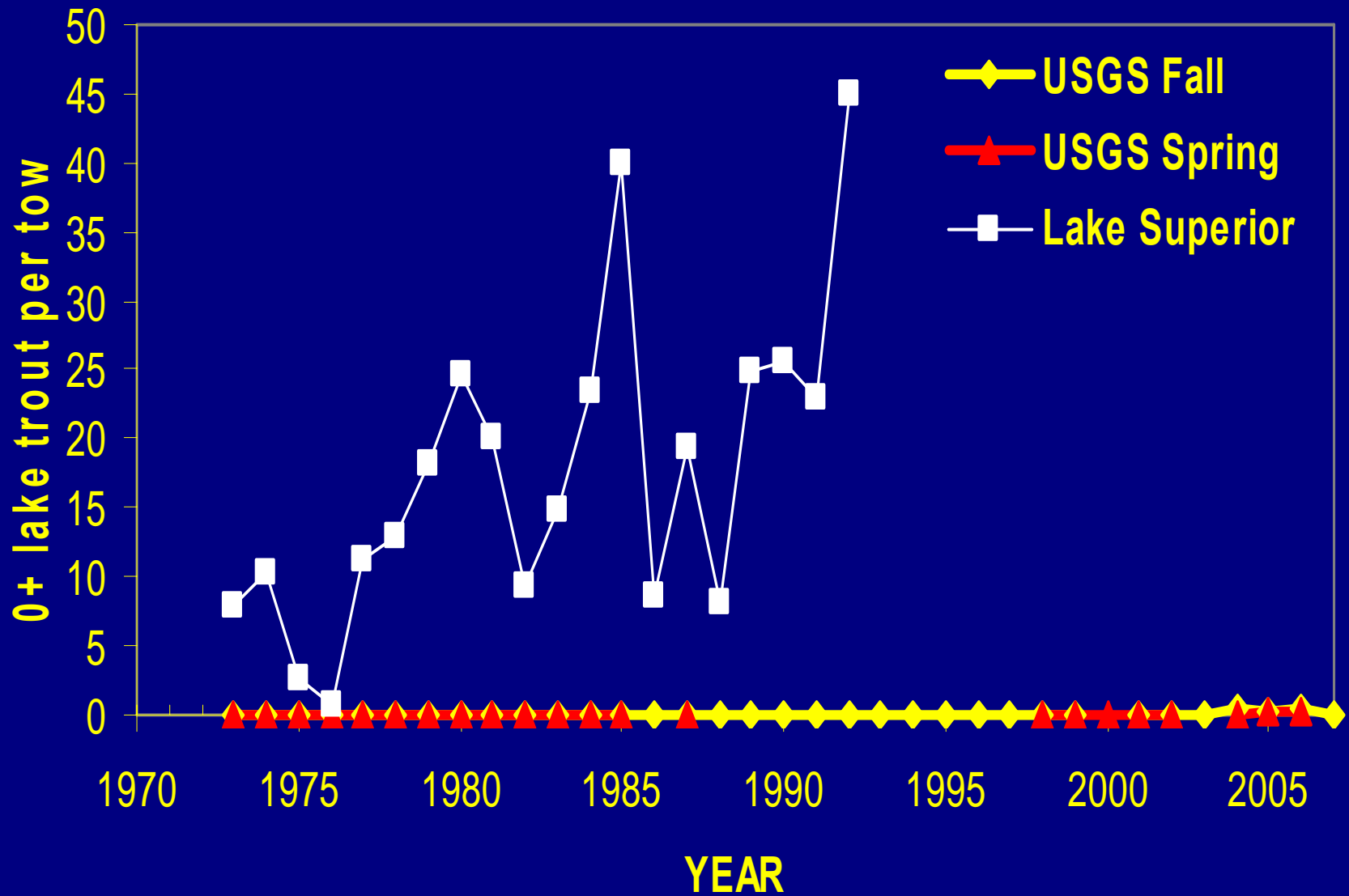


**Lake trout fry**





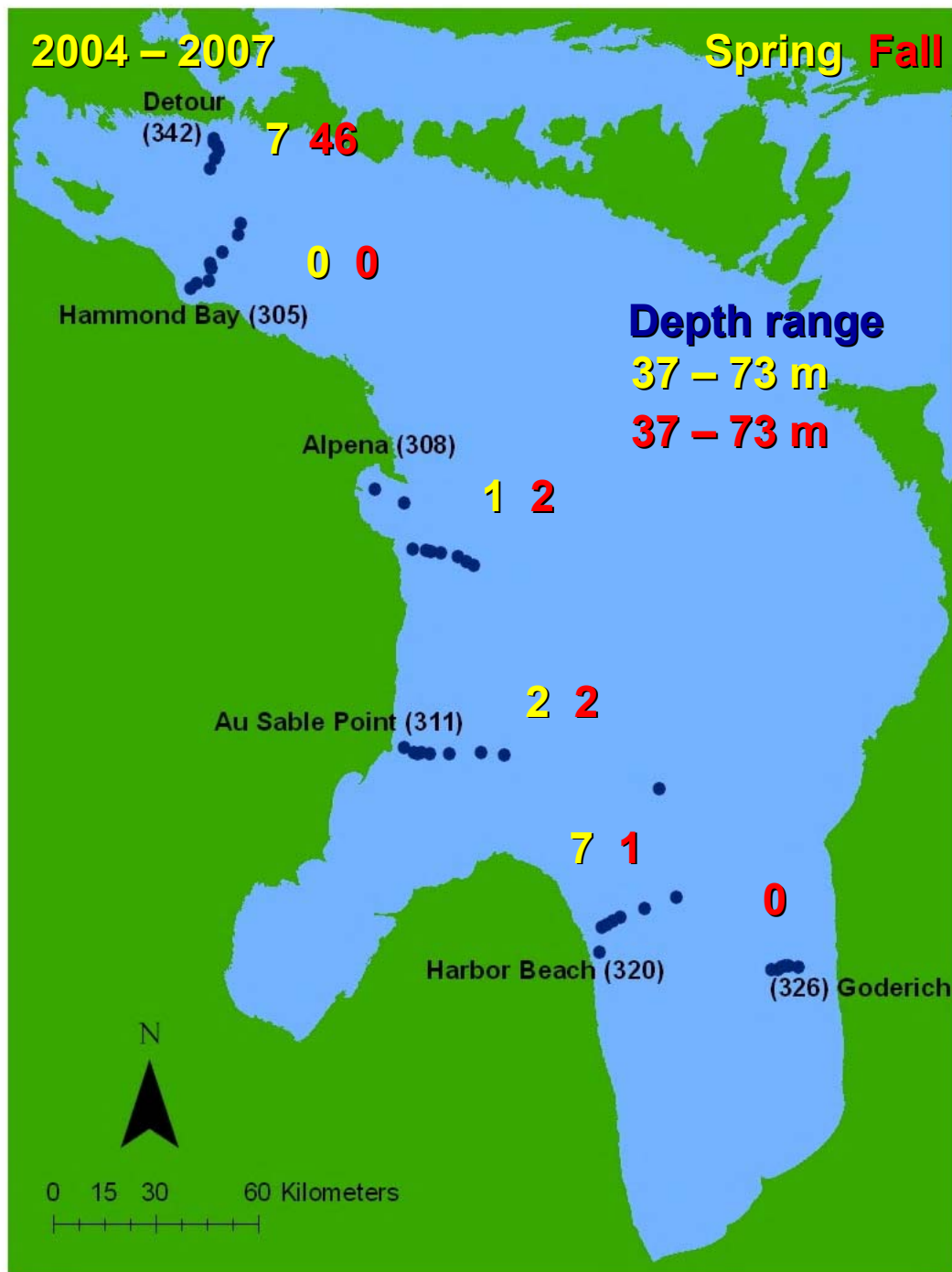




Lake Superior data from Schram et al. 1995

2004 – 2007

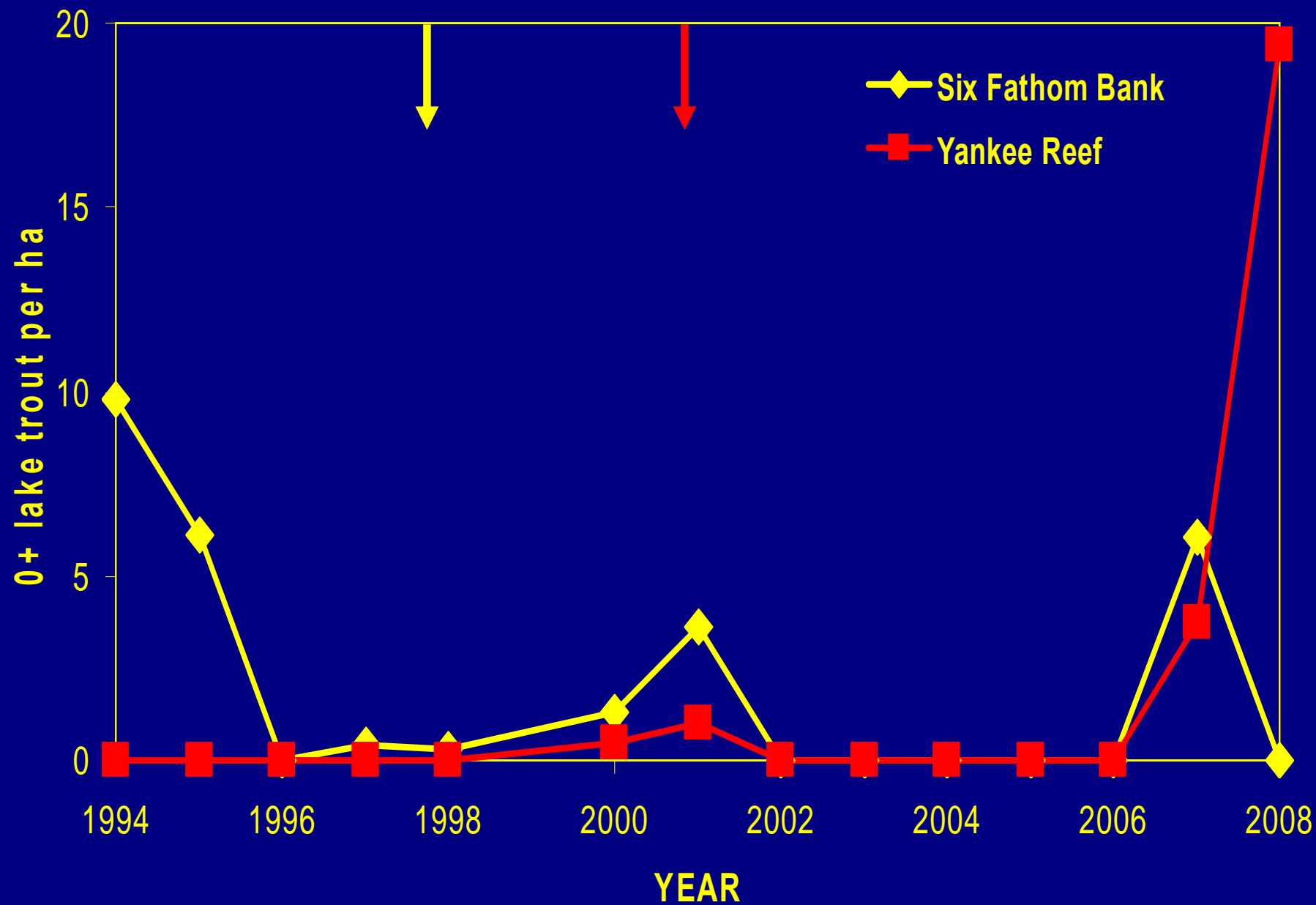
Spring Fall



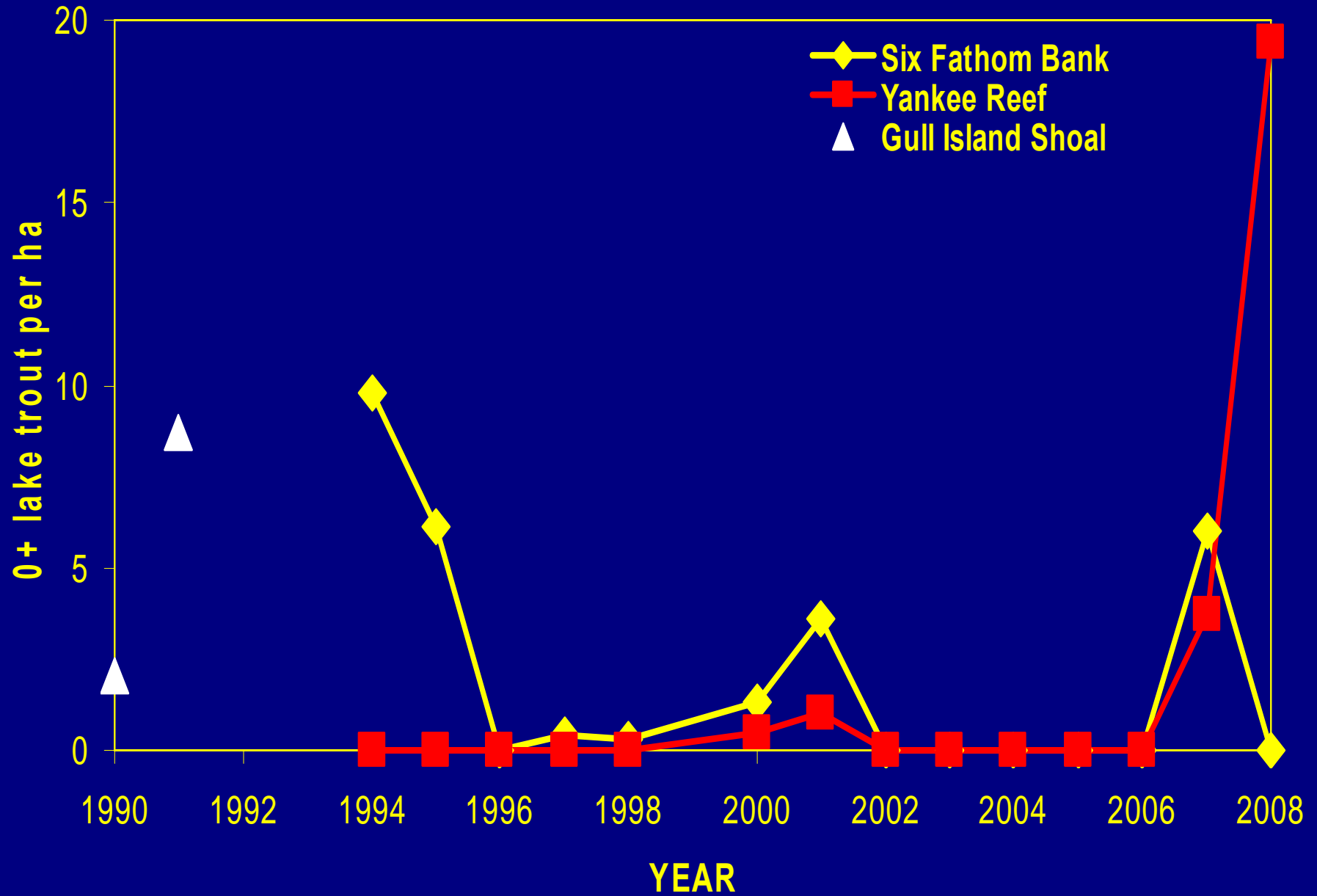


# Beam trawling on offshore reefs



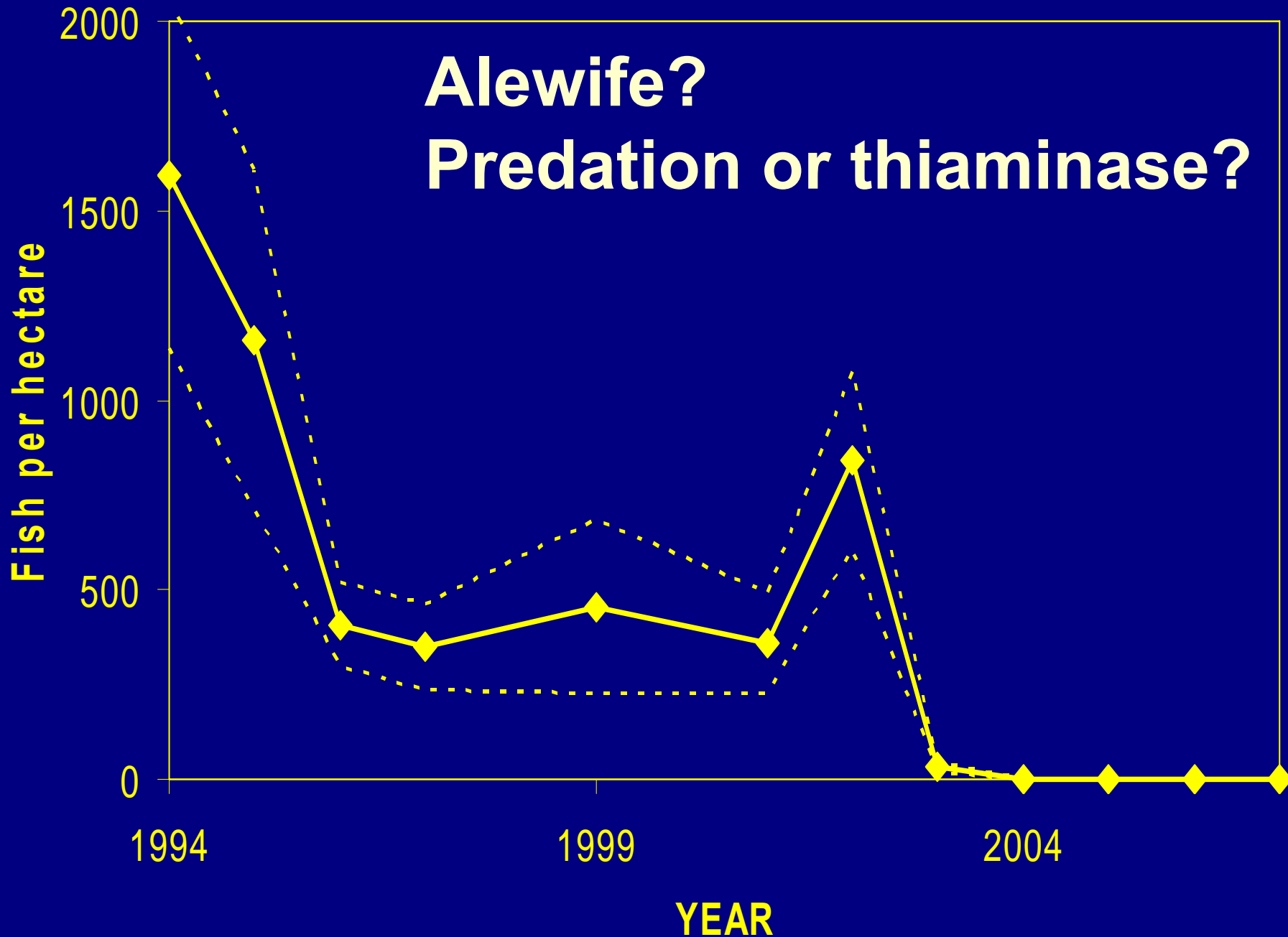


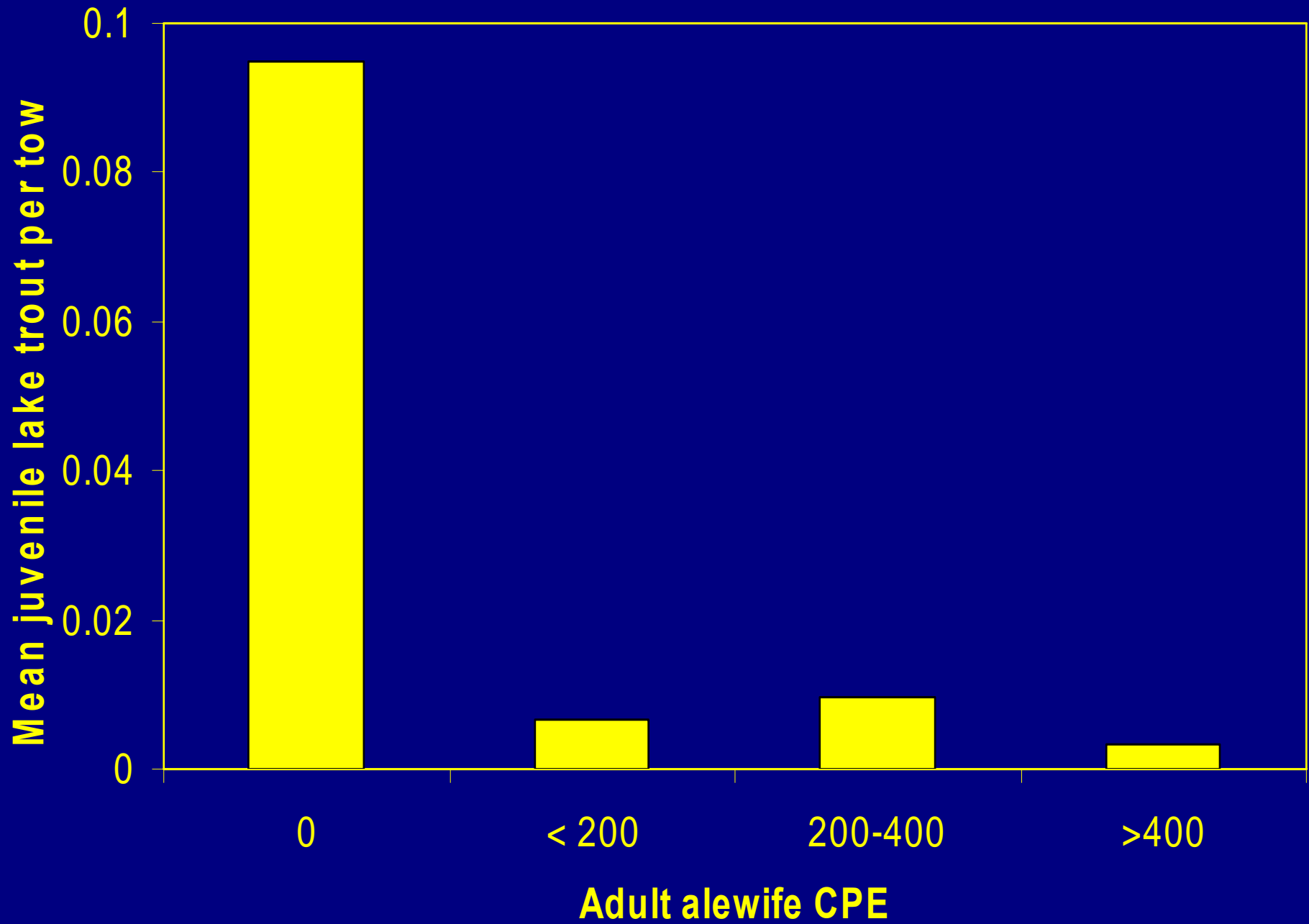
# Gull Island Shoal data from Bronte et al. 1995

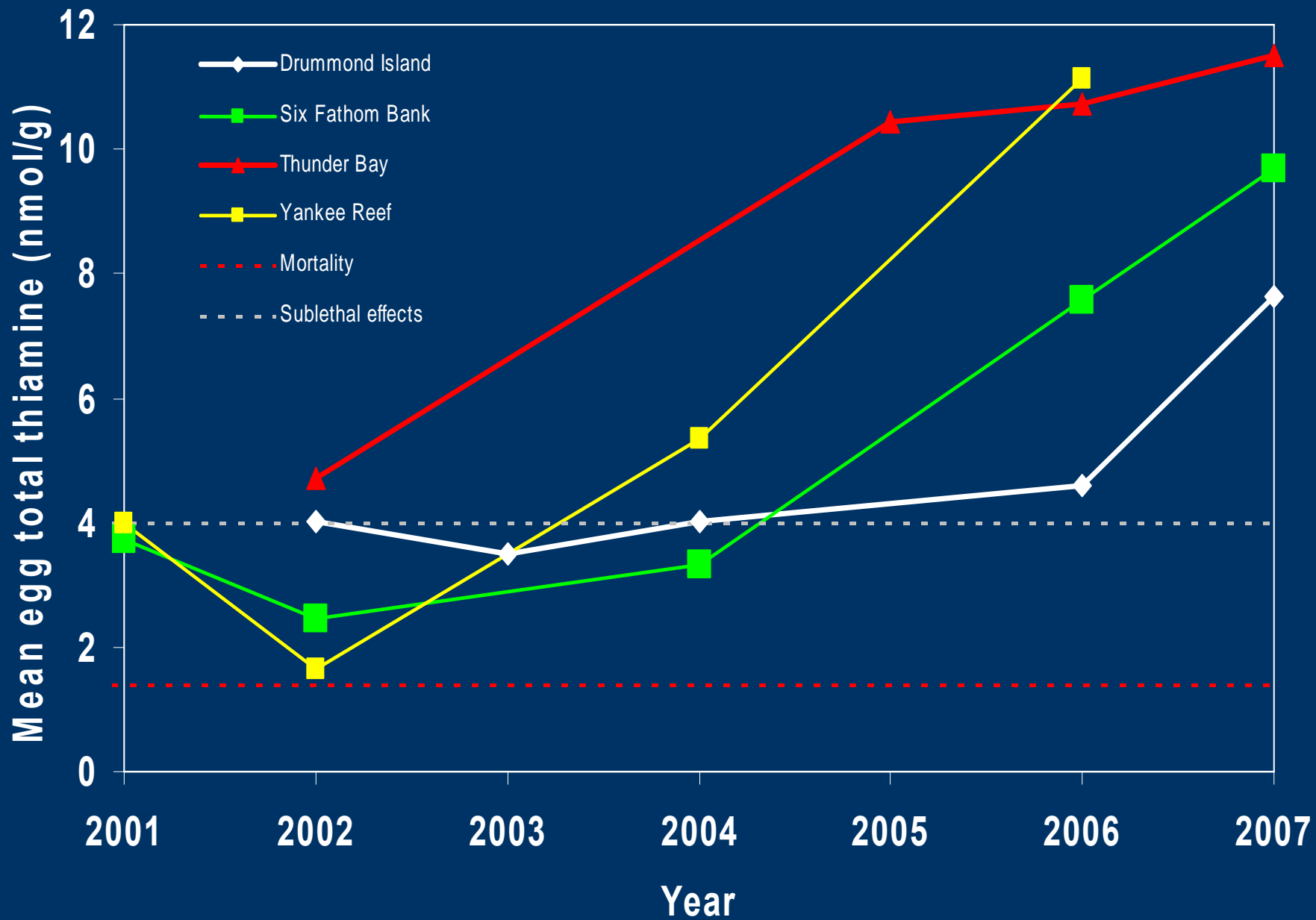




# Alewife? Predation or thiaminase?



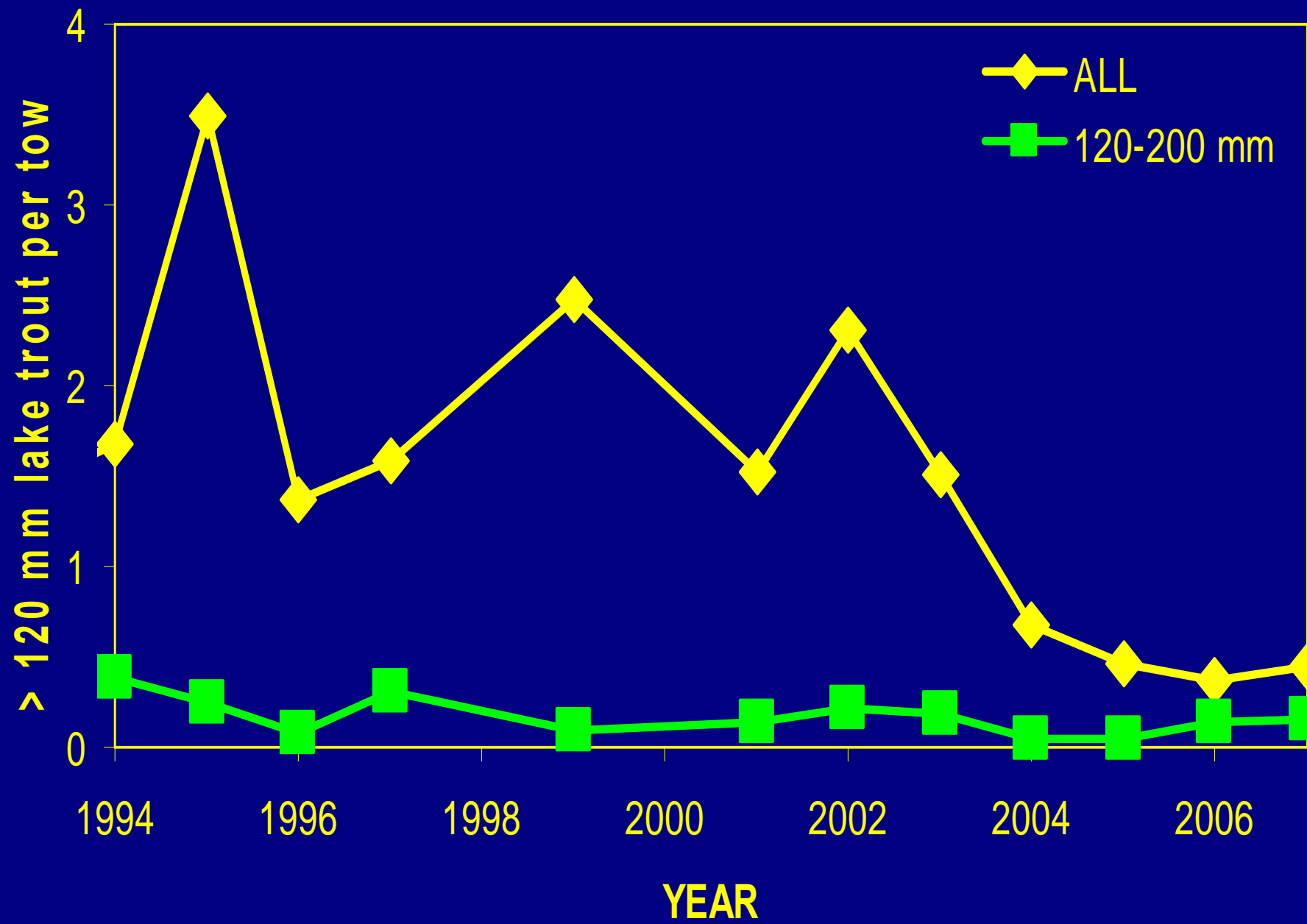


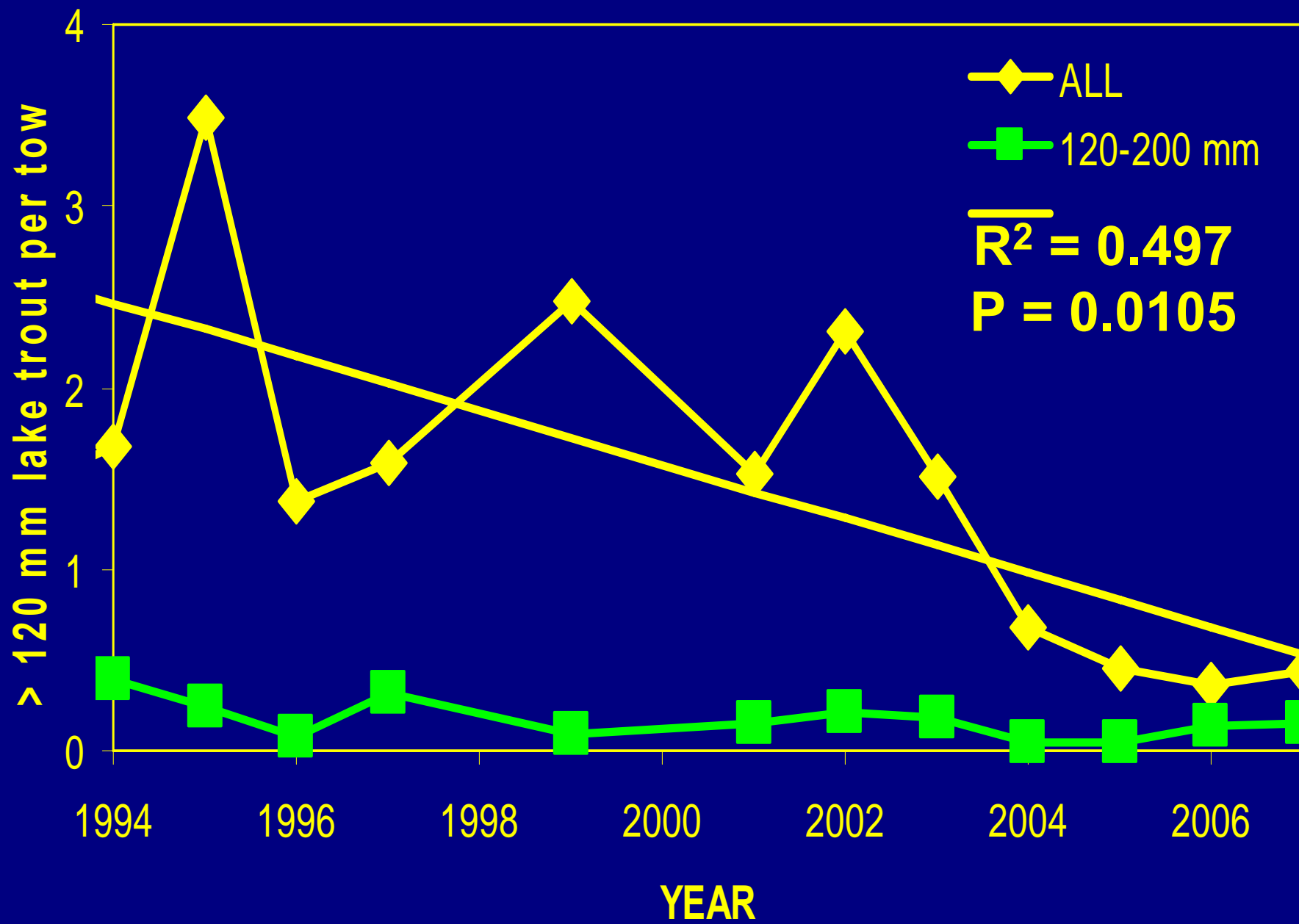




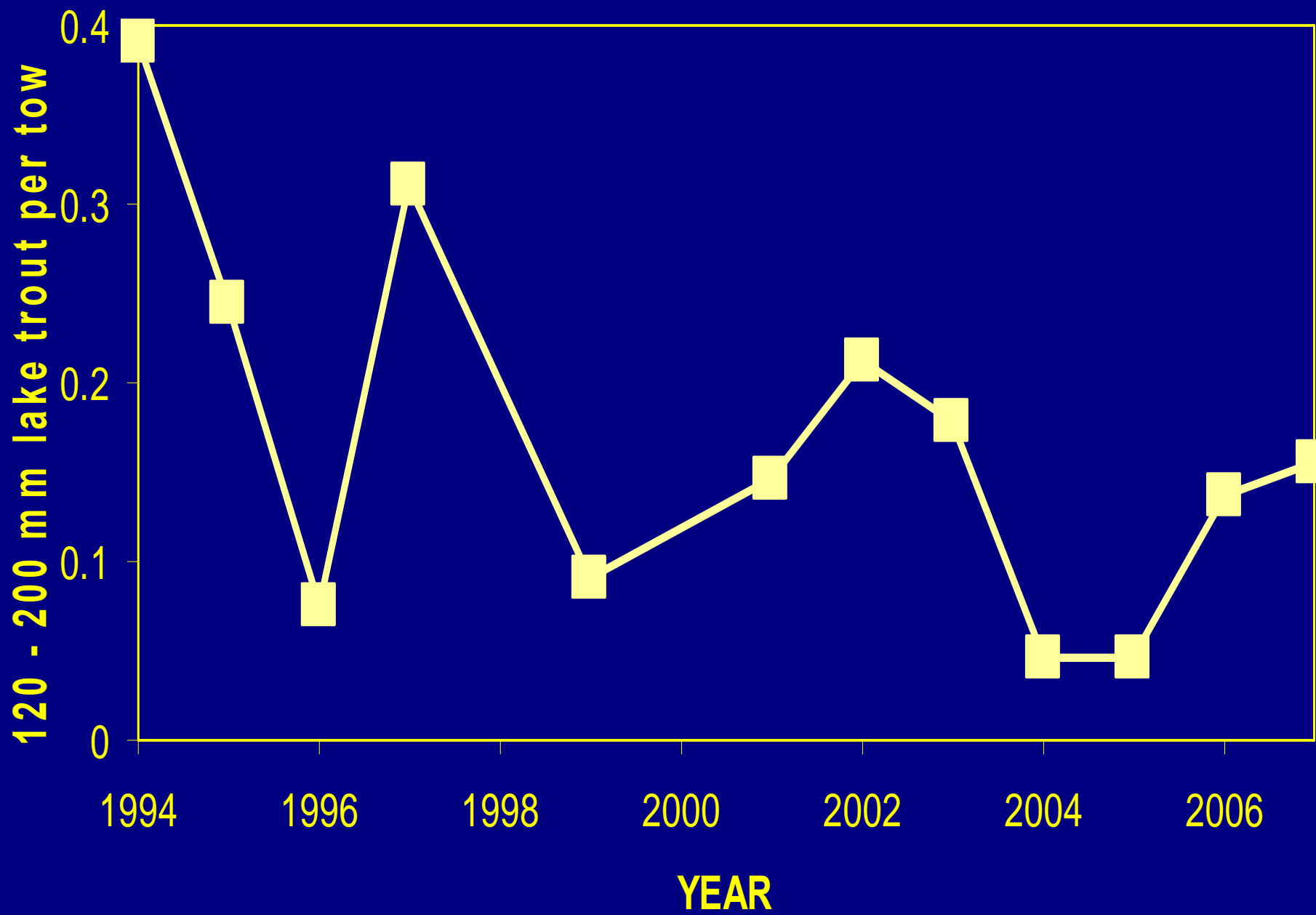


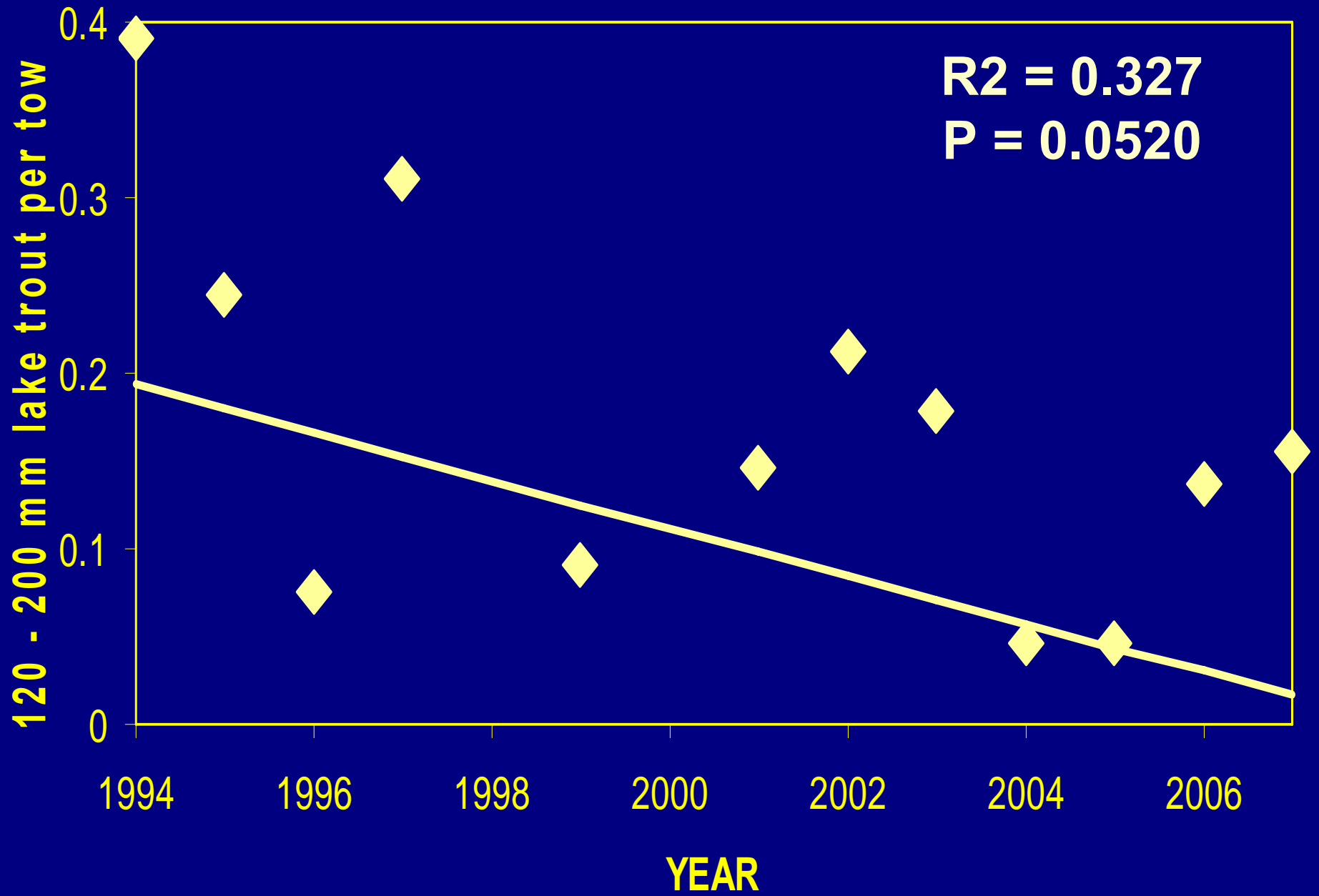
**Large lake trout**

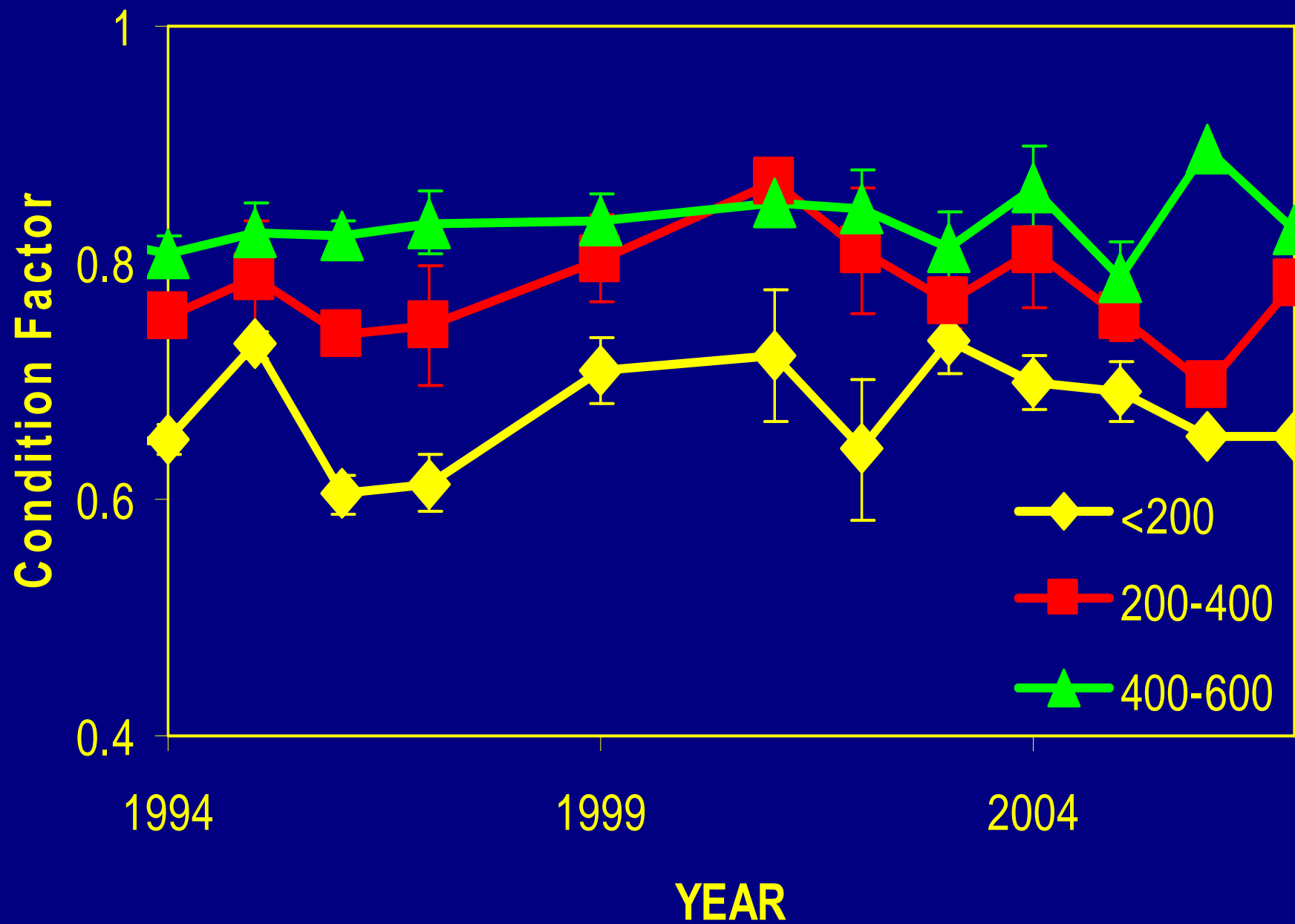


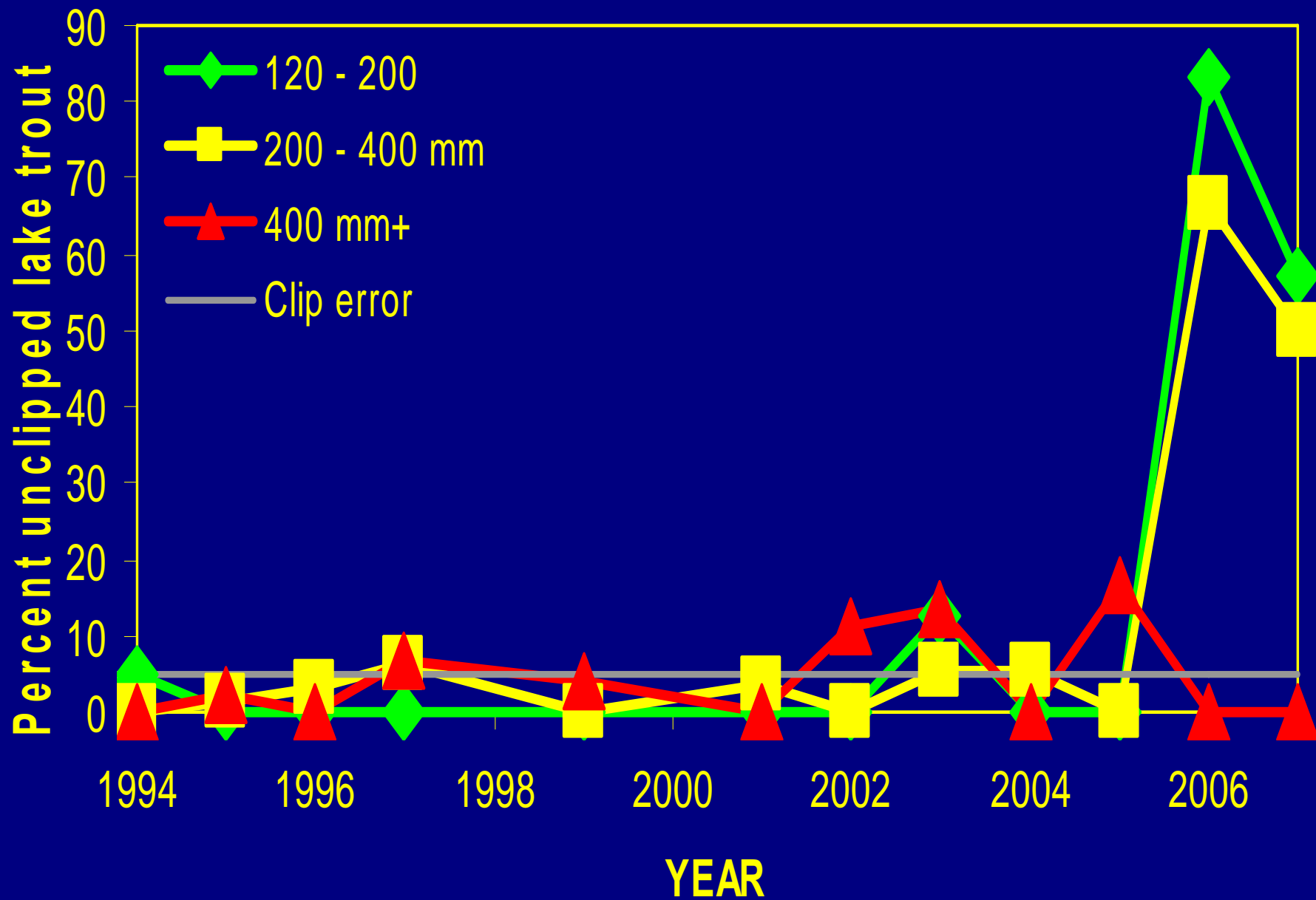




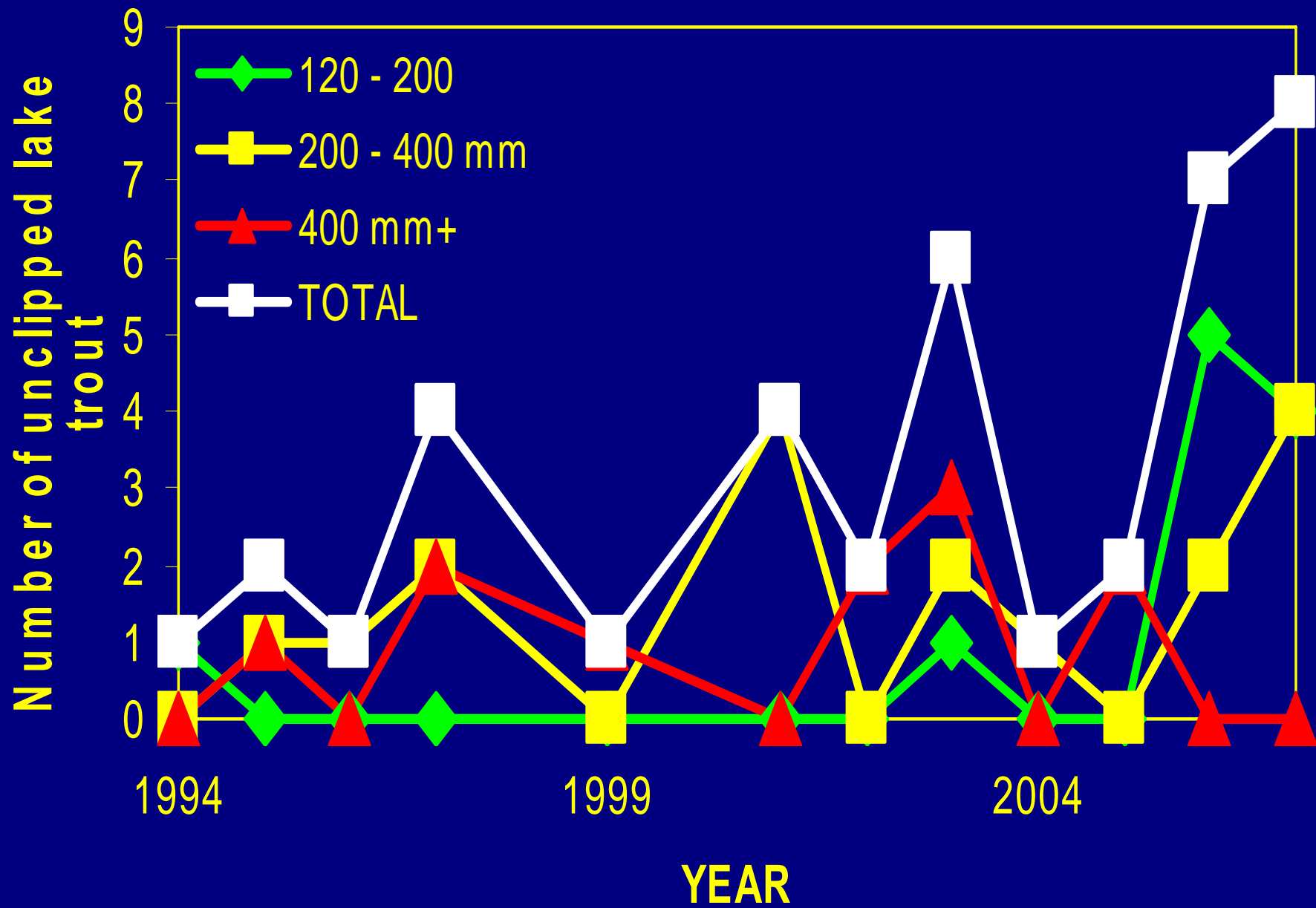




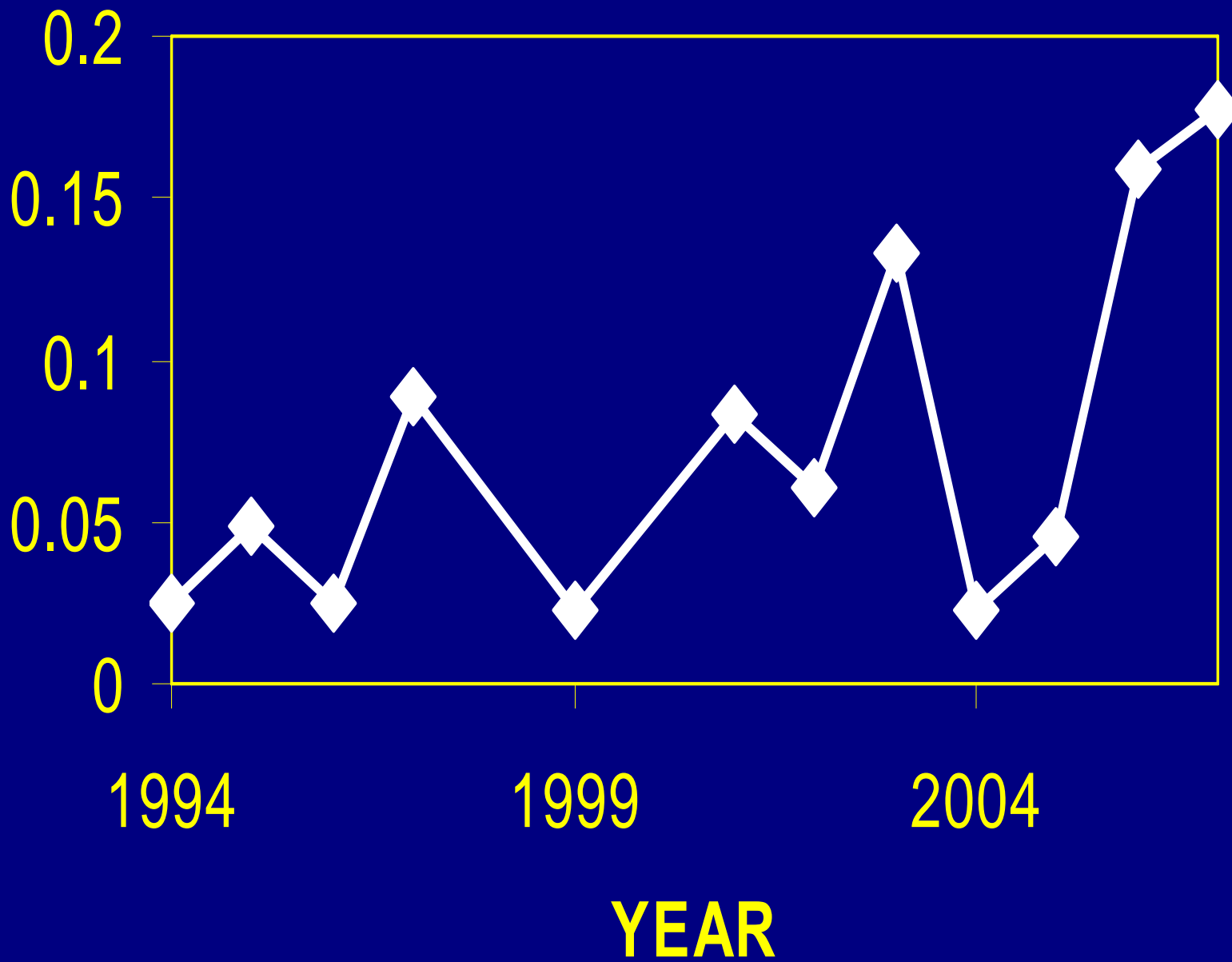




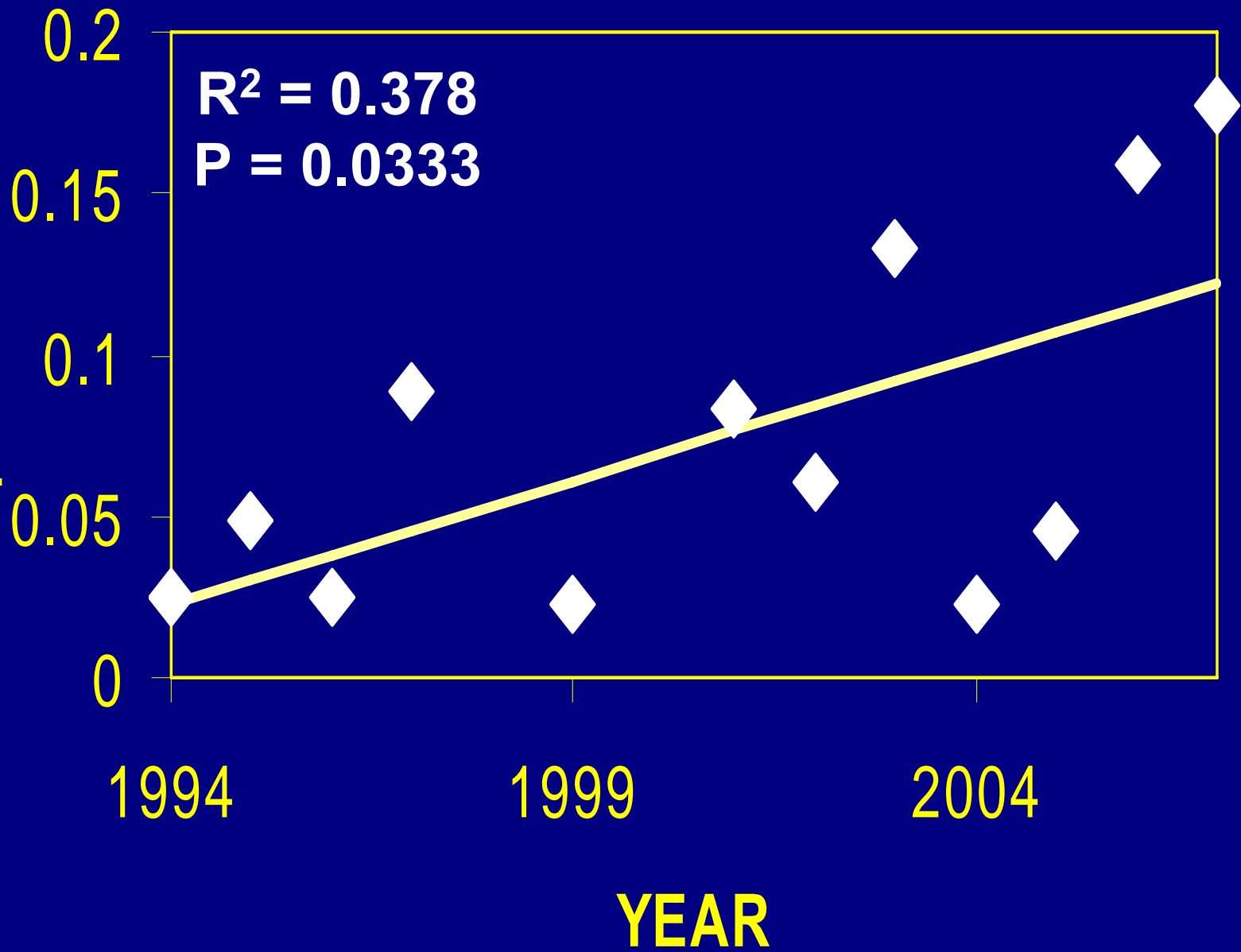





Unclipped lake trout  
per tow



Unclipped lake trout  
per tow



# SUMMARY

- Recent fry catches provide evidence of widespread natural reproduction by lake trout in Lake Huron
  - Bottom trawl data suggest lake trout abundance decreasing in Lake Huron
  - No evidence of trend in condition
  - Some evidence of recruitment to older age classes
- 
- A close-up photograph of a small lake trout fry being held gently in the palm of a person's hand. The fish is silver with dark spots and a blue eye. The background is dark, making the fish and the hand stand out.



