

**Nevada Department of Wildlife**



# **Lake Mohave Annual Sport Fish Surveys & Habitat Enhancement Project**

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2014 Lake Mead Science Symposium**

**EXPERIENCE NEVADA'S WILDLIFE**

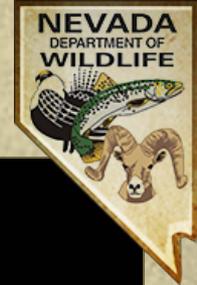
# Annual Fish Surveys



- Conducted by NDOW, AGF, and USBR
- 10<sup>th</sup> year using AGF protocols
  - Sites selected using augmented random sampling
  - Gill nets (50) set over night
  - Electro-shocking (22) 900 seconds/cove



# 2013 Accomplishments



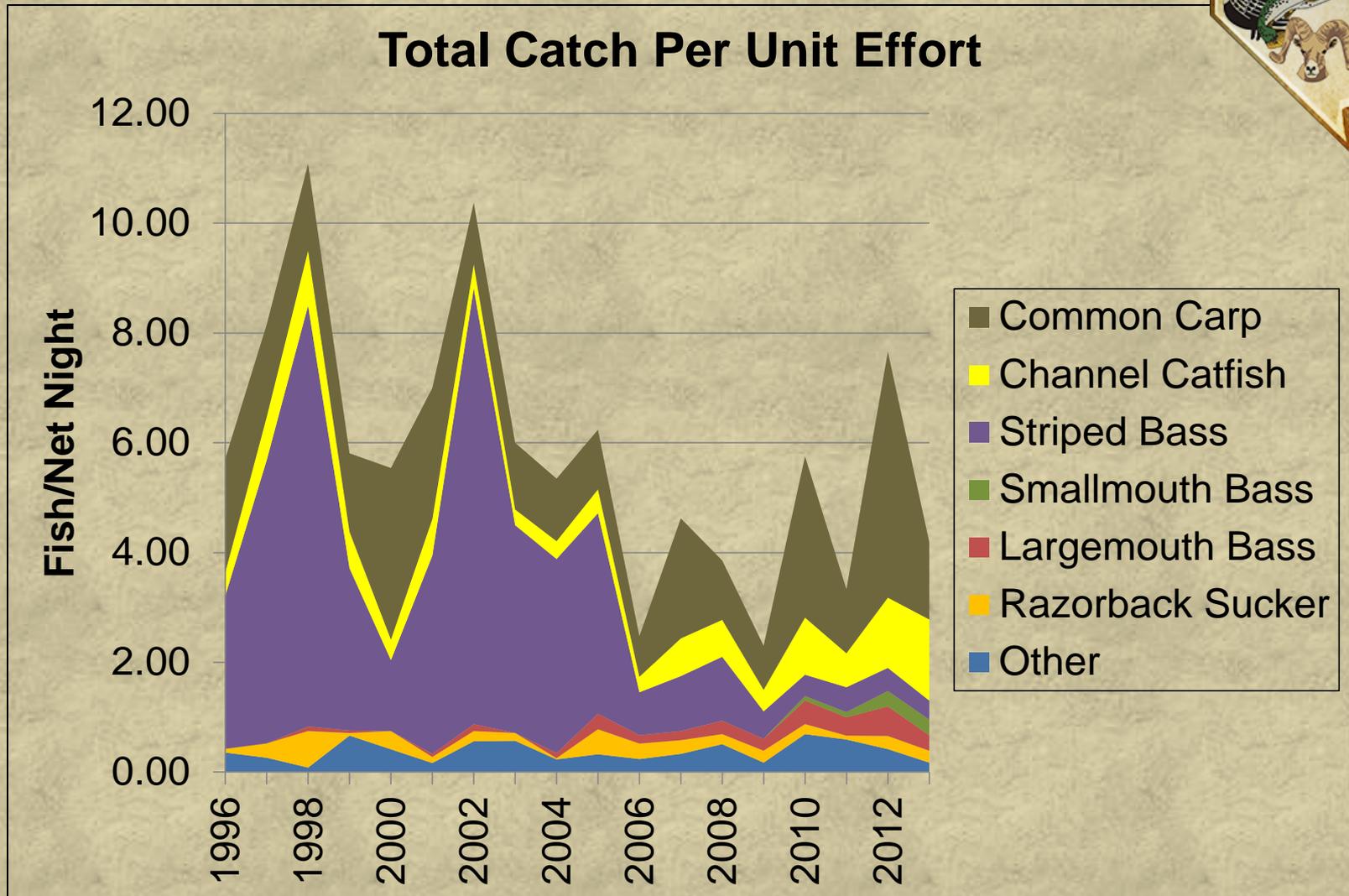
- Gill netted 46 coves
- Electro-shocked 17 coves
  - 226.17 minutes of switch time
- AGF caught a redear sunfish
  - First documentation in Lake Mohave



# Gill Netting Results



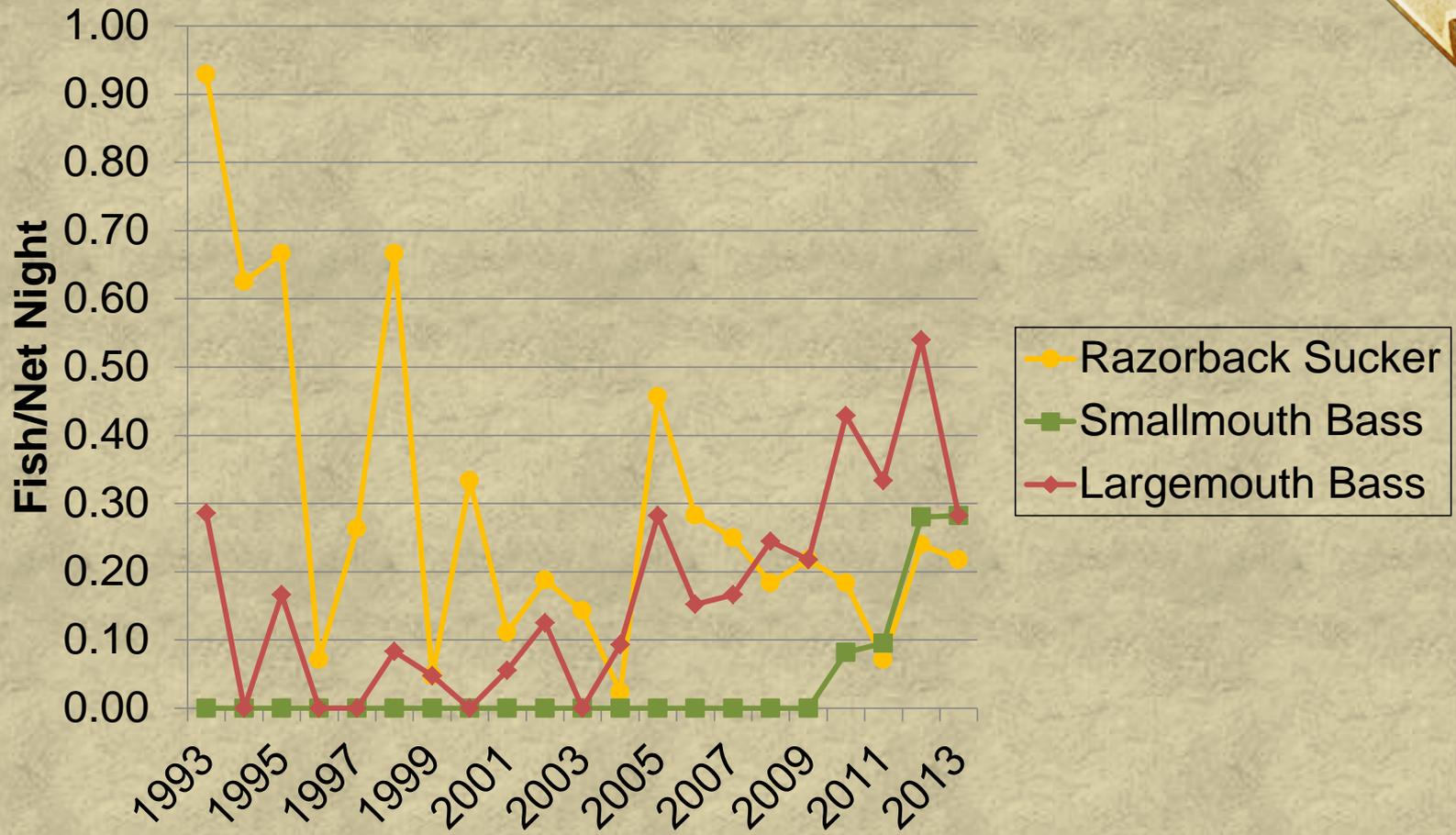
## Total Catch Per Unit Effort



# Gill Netting Results



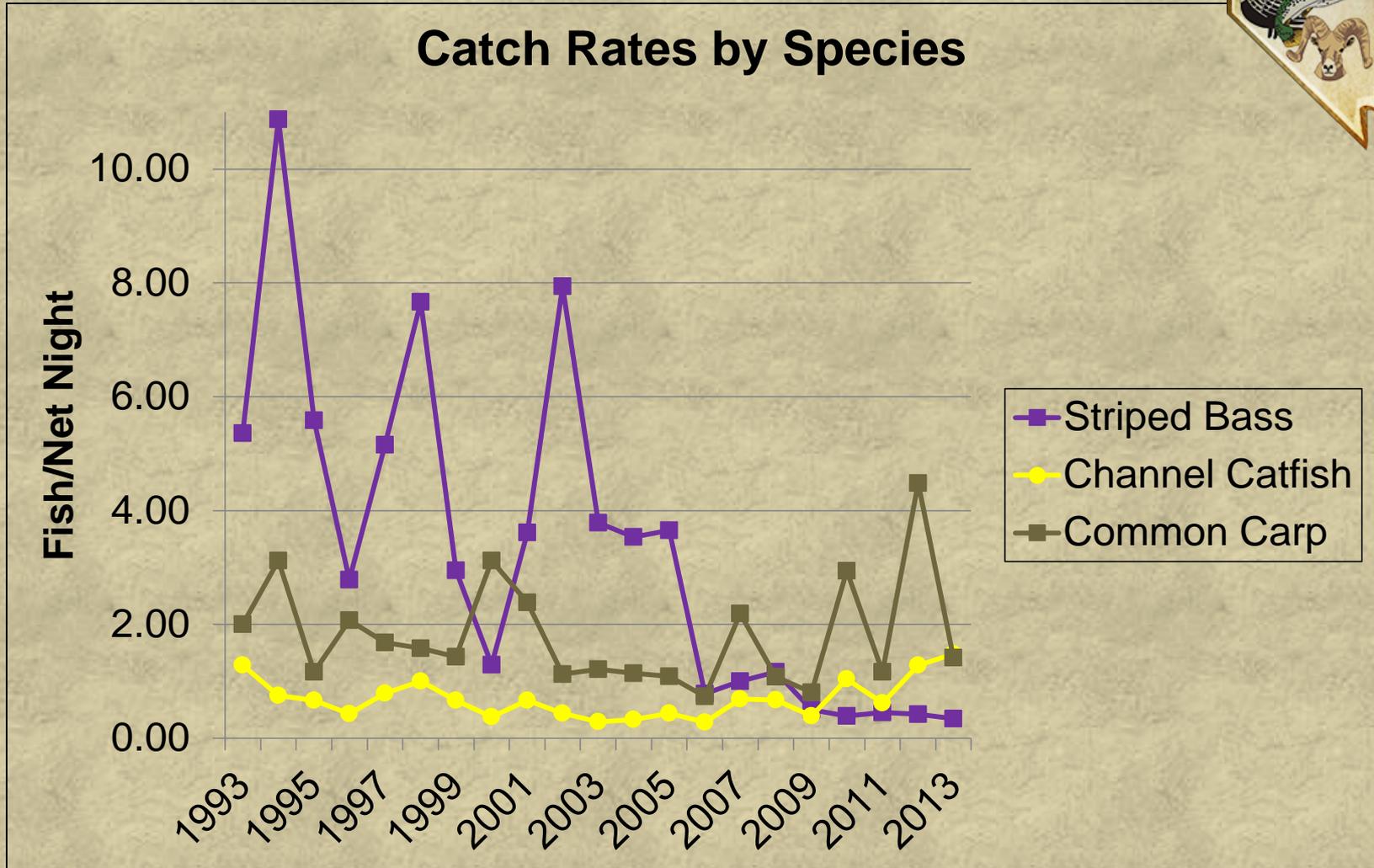
## Catch Rates by Species



# Gill Netting Results



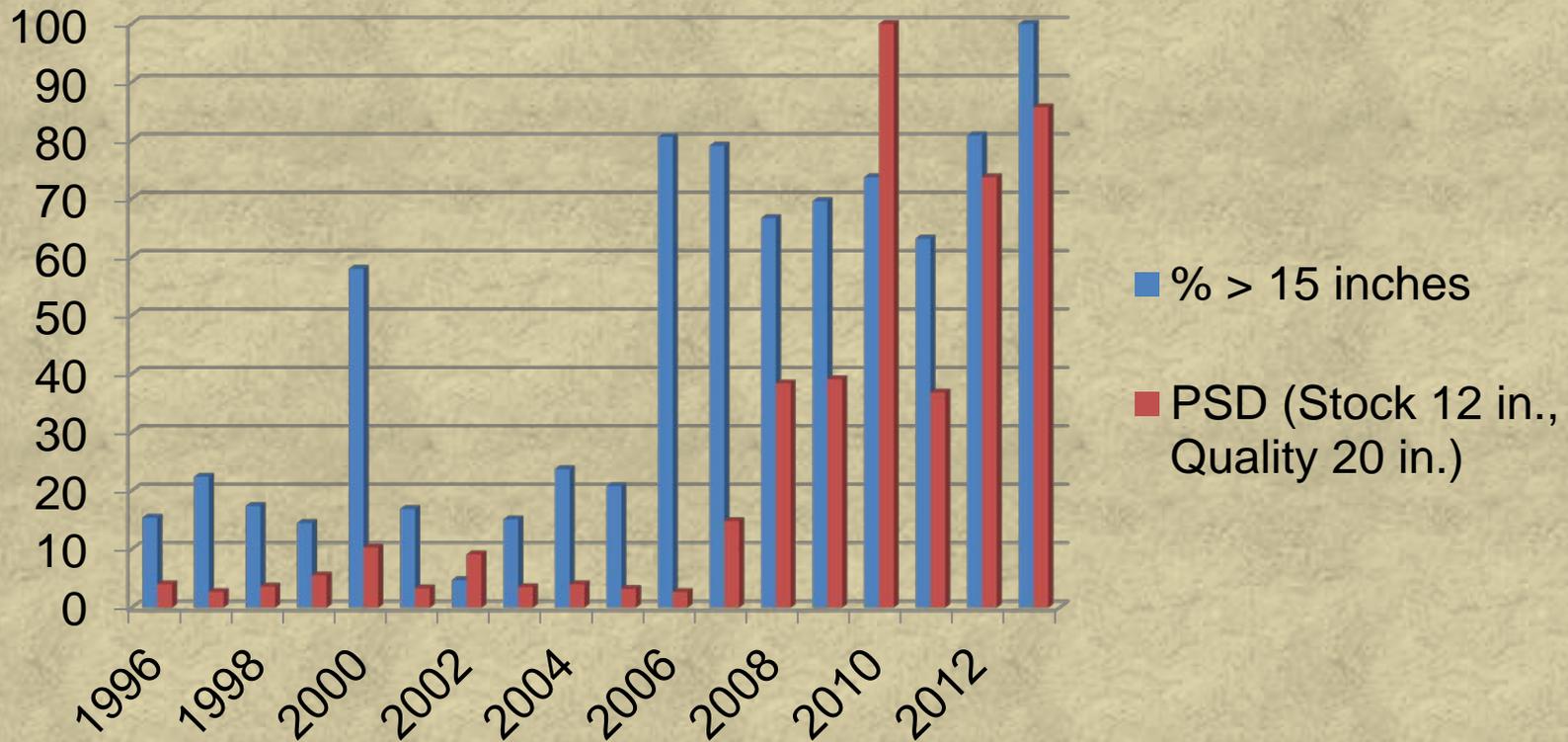
## Catch Rates by Species



# Gill Netting Results



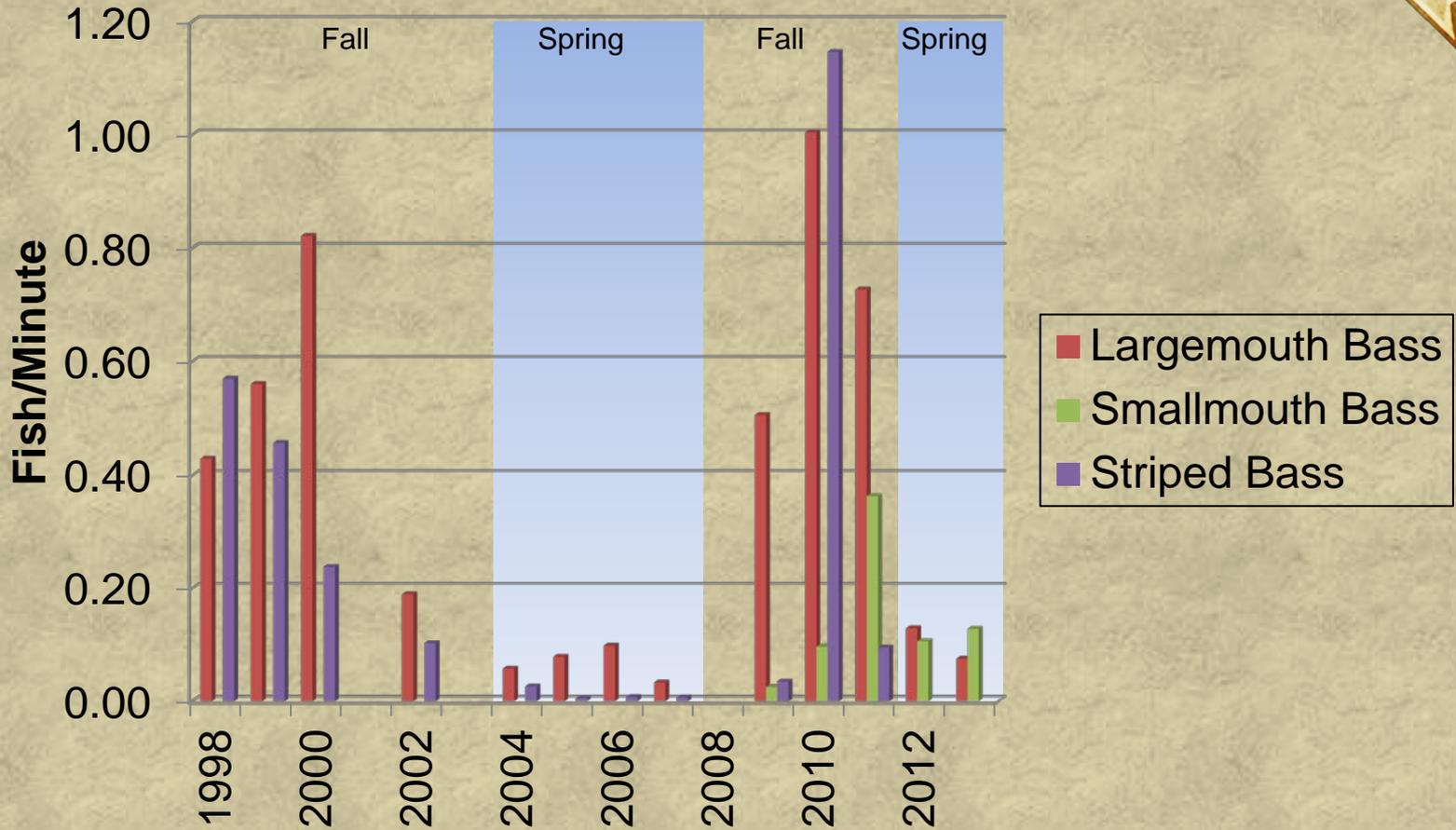
## Striped Bass Proportional Stock Density (PSD) and Percentage of fish caught greater than 15 inches



# Electro-shocking Results



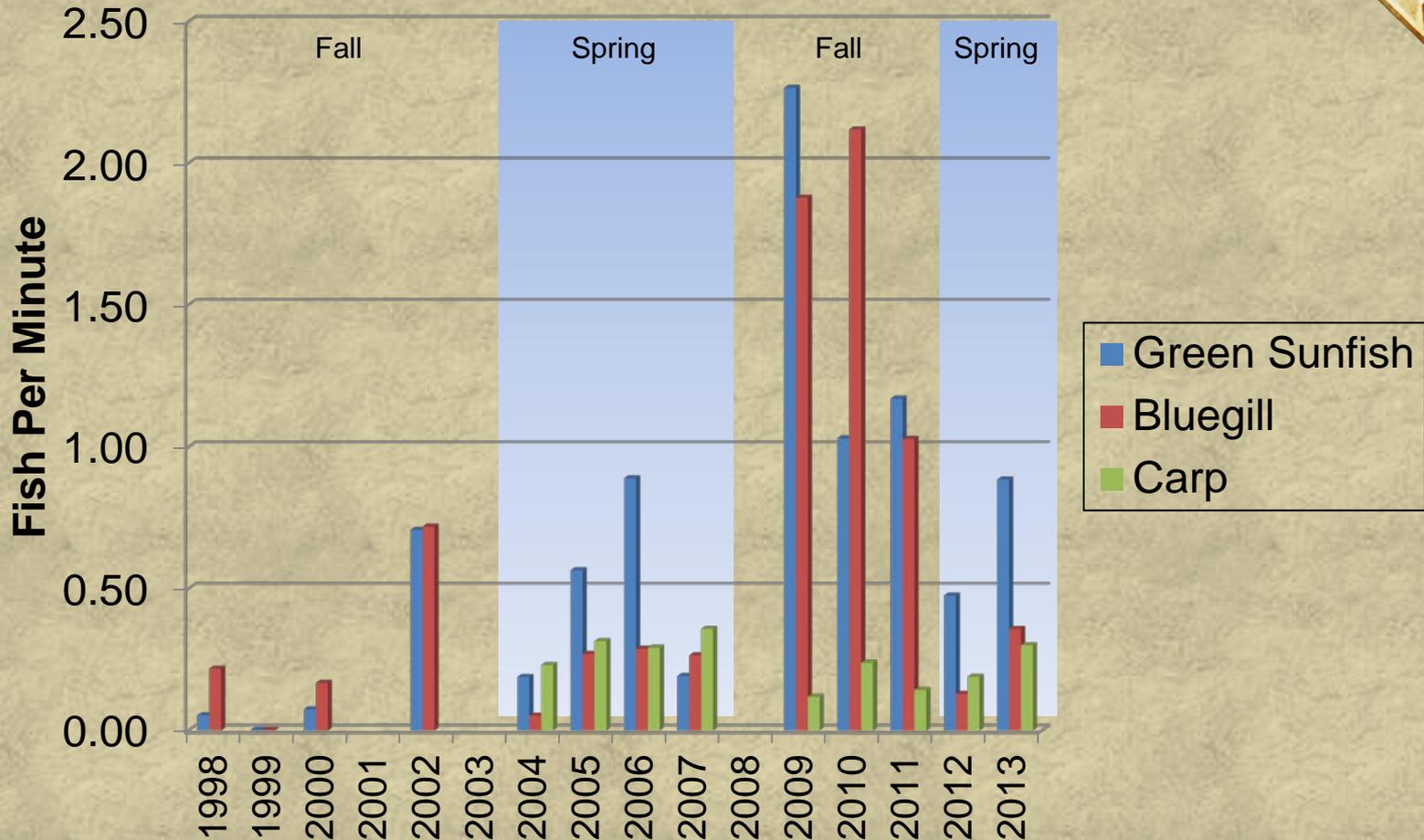
## Catch Rates for Bass



# Electro-shocking Results



## Sunfish and Carp Catch Rates



# Lake Mohave Habitat Enhancement Project Update



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EXPERIENCE NEVADA'S WILDLIFE

# Background



- Started in 2007 with 4 coves
  - Carp, Box, Shoshone, and Arrowhead
- 3 structure types
  - PVC, brush bundles, and pallets (no longer used)
- Working on new habitat design
- Expanded to 4 new coves (8 coves total)
  - Solicitor, Bass, Princess, and Prospect



Mitch Urban

# 2013 Accomplishments



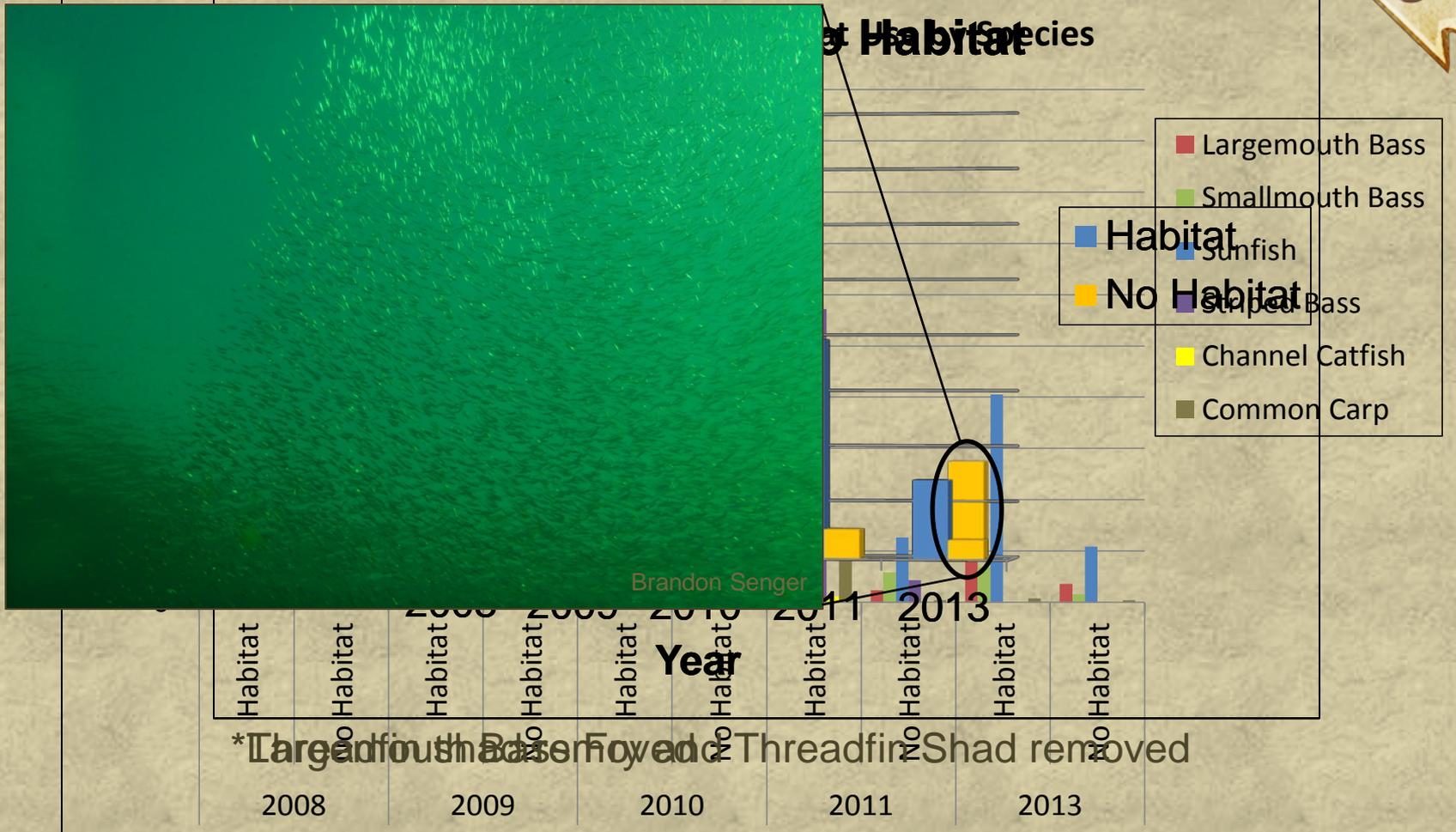
- Placed 23 PVC structures, 5 poly shrubs and 24 brush bundles
  - Total To Date
    - 88 pallet and brush A-frames
    - 24 pallet structures
    - 123 assorted brush bundles
    - 78 PVC Structures
    - 5 poly shrubs
    - 25 loads of Christmas trees Approx. 625 trees
- Completed 13 SCUBA surveys
- Electro-shocked 2 habitat sites



# SCUBA Survey Results



Is fish habitat still working?

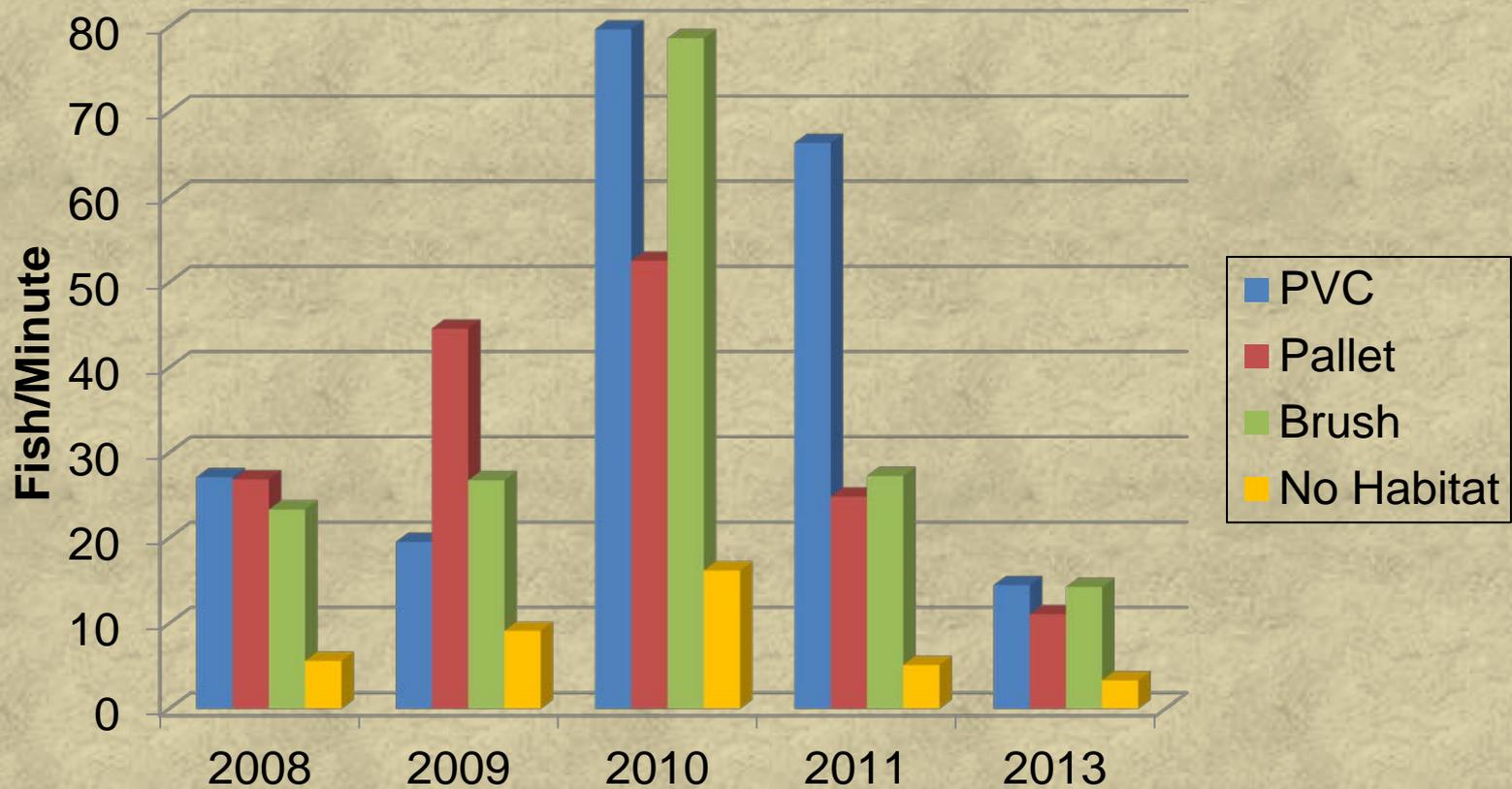


# SCUBA Survey Results



Is there a preference over habitat type?

## Fish Use by Habitat Type

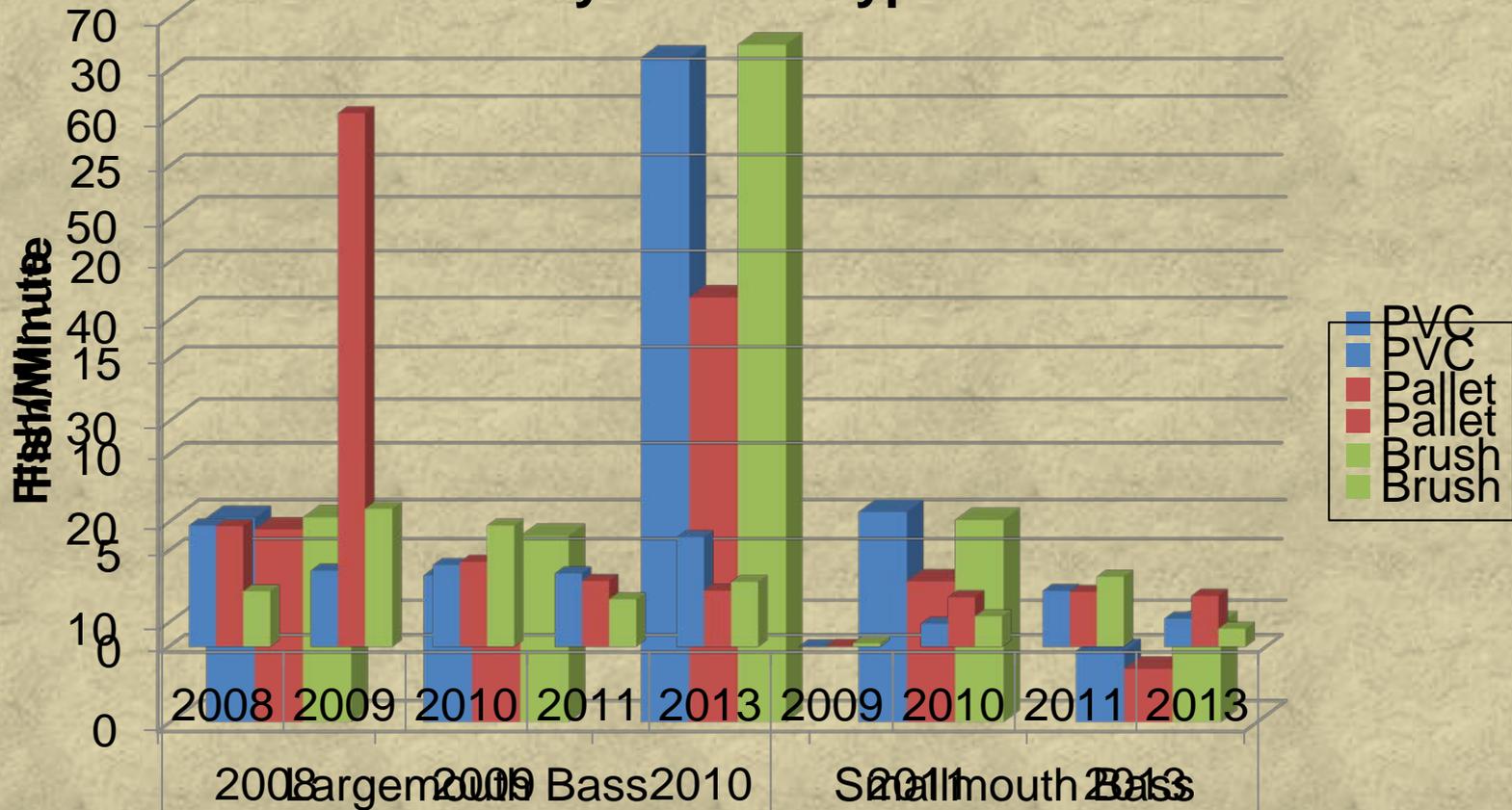


# SCUBA Survey Results

Is there a preference over habitat type by species?



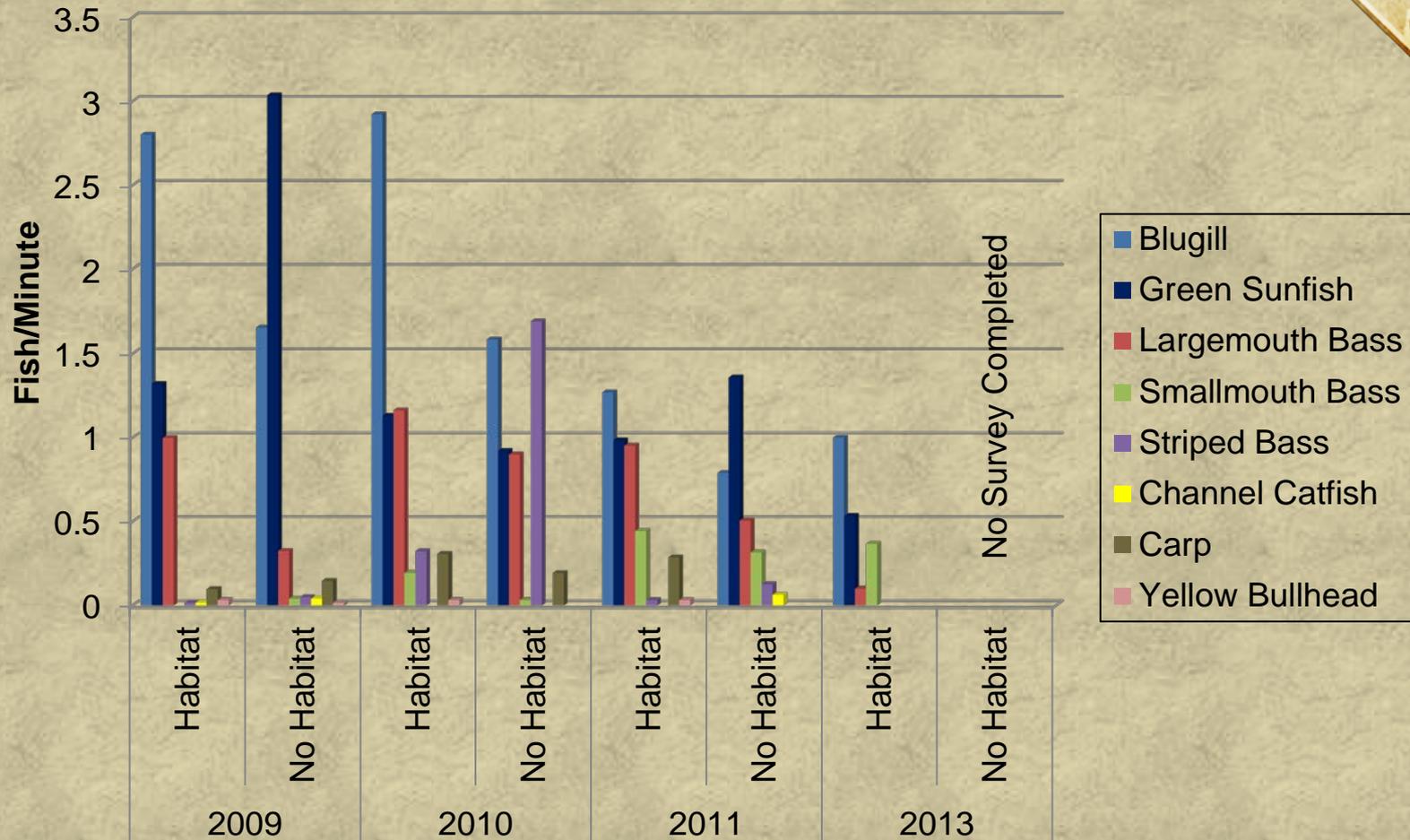
## Largemouth Bass and Smallmouth Bass Use by Habitat Type



# Electro-shocking Survey Results



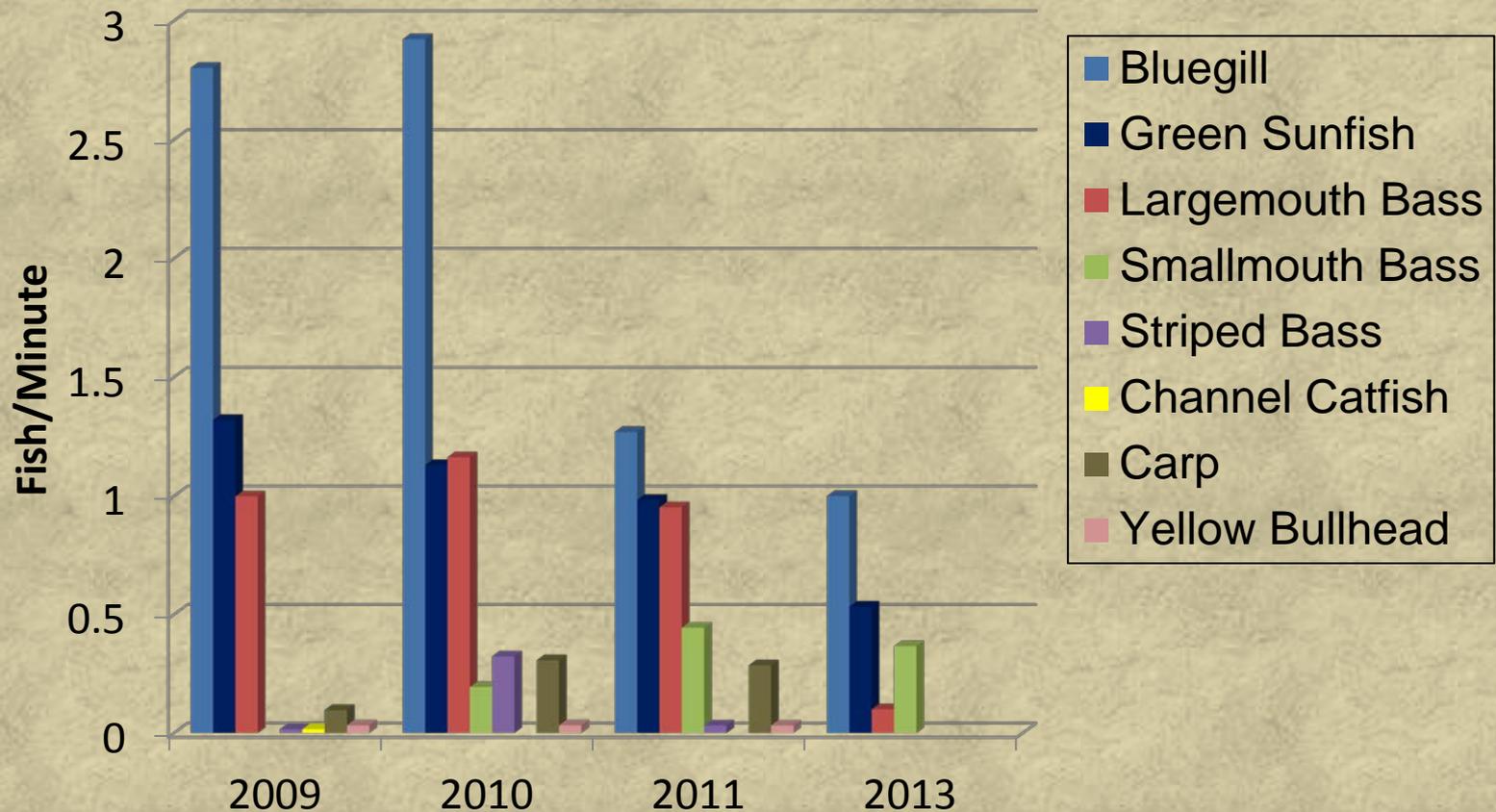
## Electro-shocking Comparison of Catch Rates



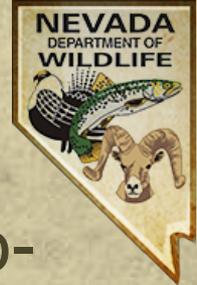
# Electro-shocking Survey Results



## Electro-shocking Comparison of Catch Rates of Habitat Coves



# Review



- Striper gill net catch rates continue to be low and no stripers caught during electroshocking or seen during SCUBA surveys
  - Percentage of fish larger than 15 in. is increasing
- Other species catch rates are increasing
- Habitat continues to be effective
  - PVC has highest fish use over pallets and brush bundles
  - Not a real preference between habitat types by species
- Divers will start using stopwatches in 2014
- Surveys will be conducted each month

# Acknowledgements



- Nevada Department of Wildlife
  - Todd Wright
  - Brandon Senger
  - Debora Herndon
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  - Gregg Cummins
- National Park Service
  - Exotic Plant Management Team
- Bureau of Reclamation
  - Fish Lab
- Numerous Volunteers

