



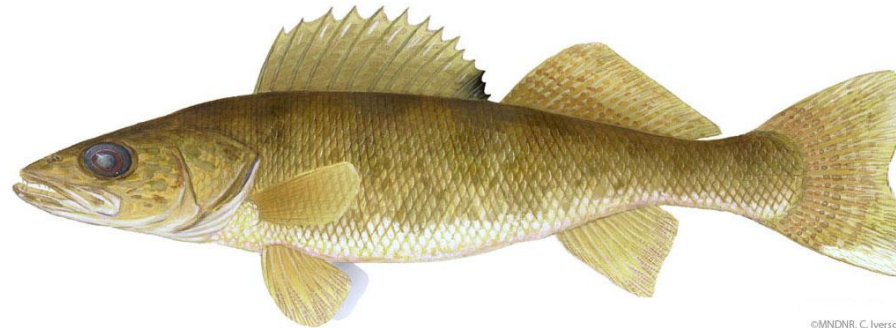
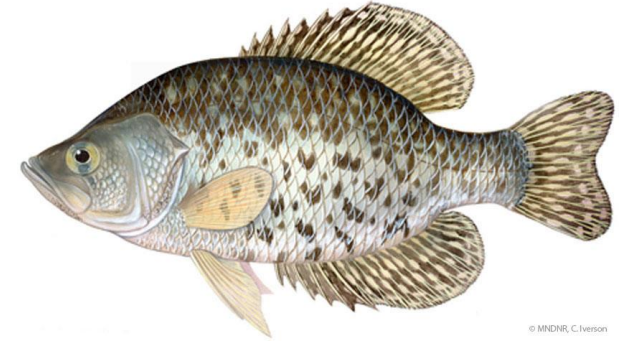
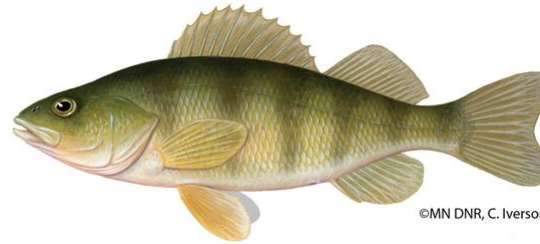
**DEPARTMENT OF  
NATURAL RESOURCES**

# **Long Lake Fisheries Update**

Wade Massure | Park Rapids Area Fisheries Supervisor

# Topics

- Fisheries Surveys
  - Past and Present
- Species Updates
- Walleye
  - Stocking





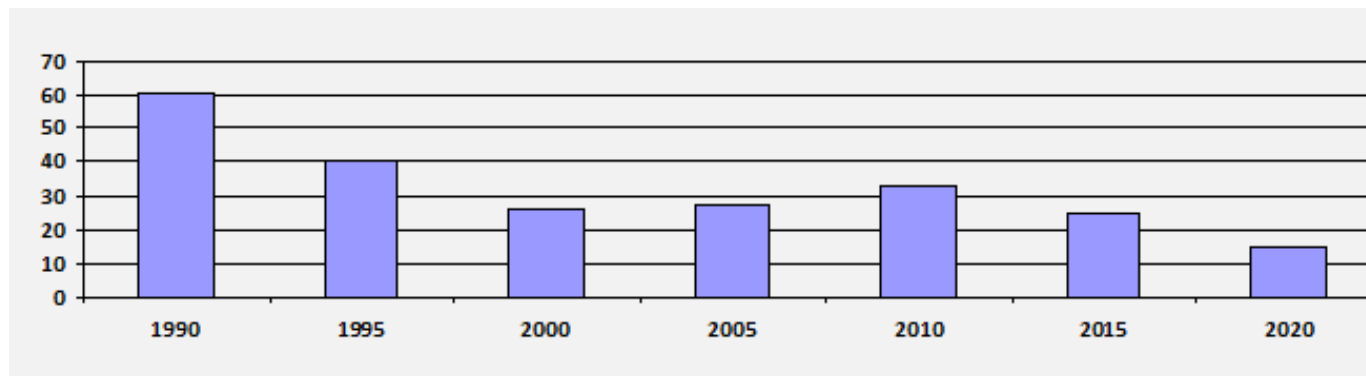
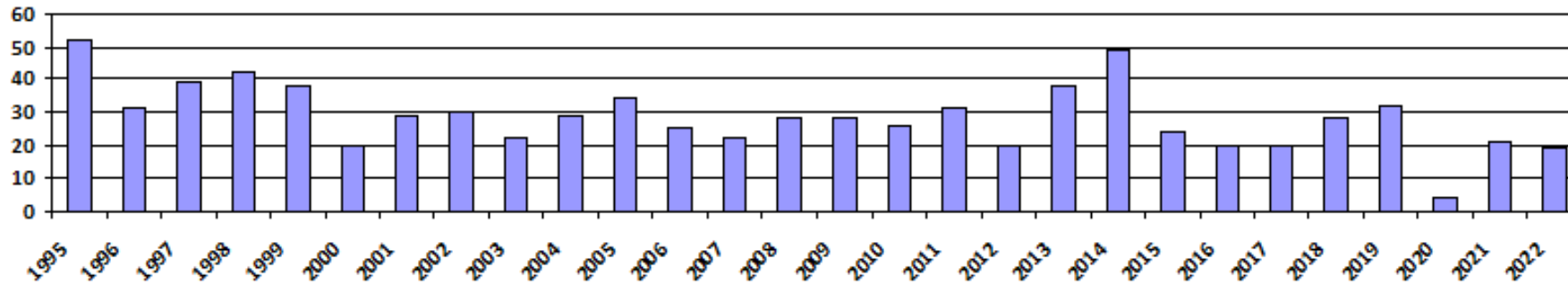
# Surveys

- Standard – 5 years
  - Gill nets (15), Trap nets (13), Electrofishing, Vegetation sampling, Shoreline characteristics
- Targeted – As needed
  - Trap nets, Electrofishing, Vertical Gill nets, IBI sampling, Seining



# Fisheries Surveys cont.

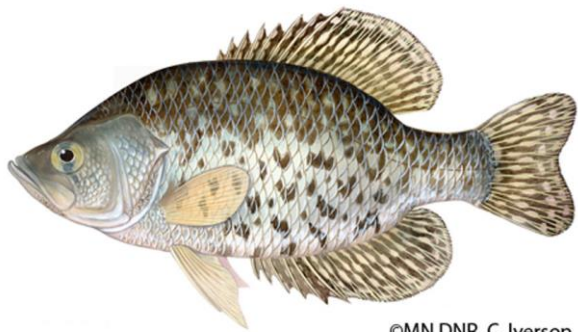
- Annual Fish House Counts
  - Annual and 5yr average



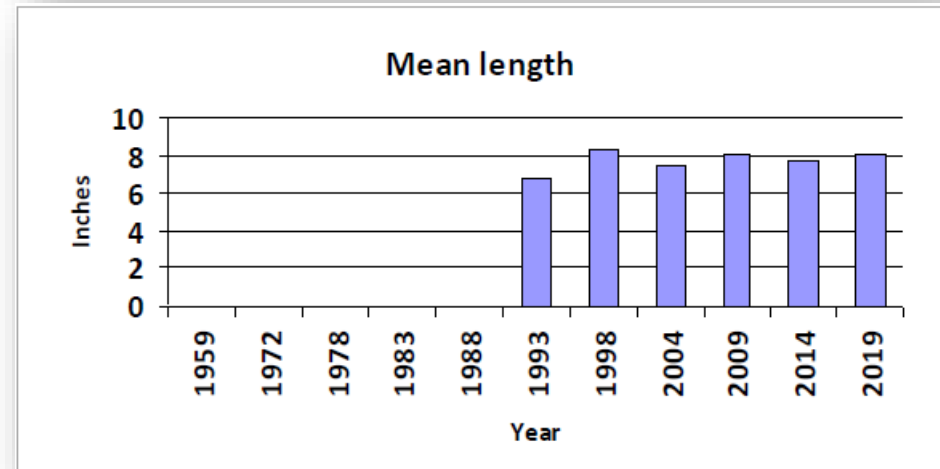
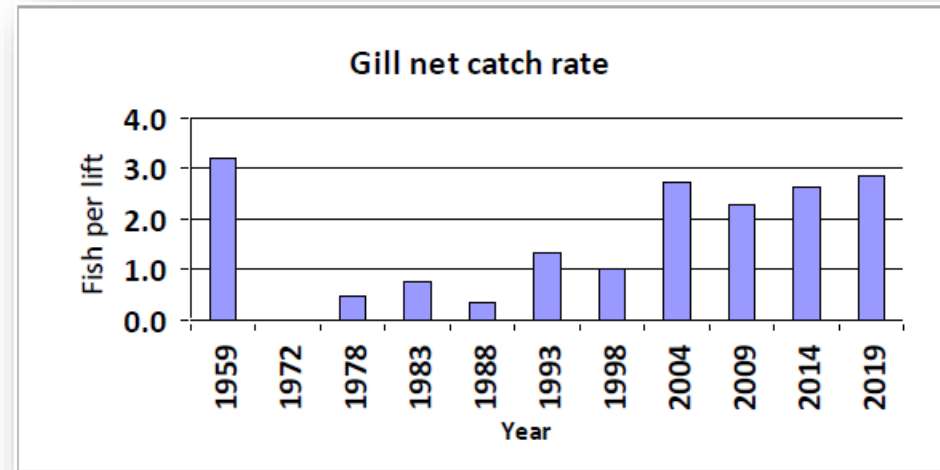


# Black Crappie

- Poorly sampled
- Fairly stable population
- Catch rates increasing
- Good size quality
  - 11+ inches sampled in 2019 GN

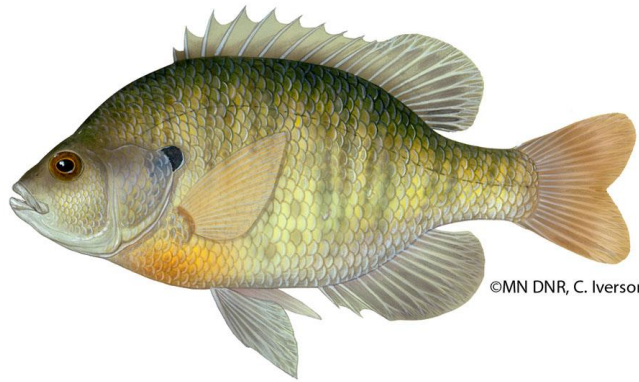


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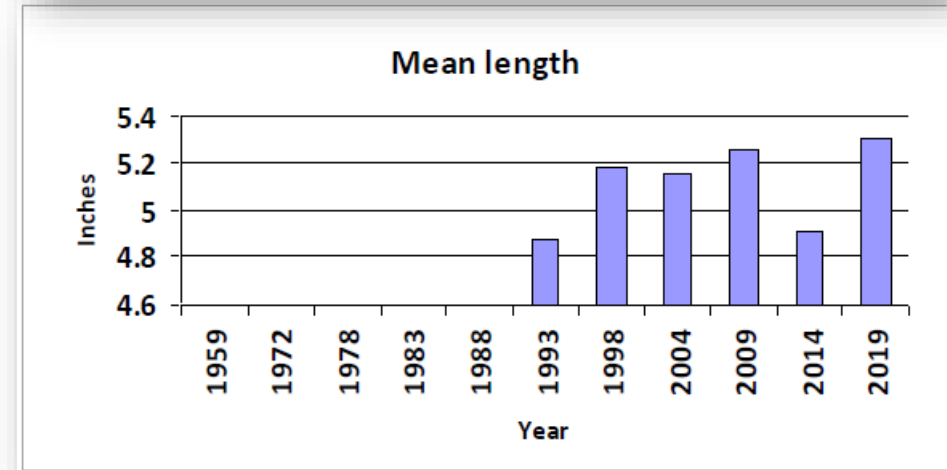
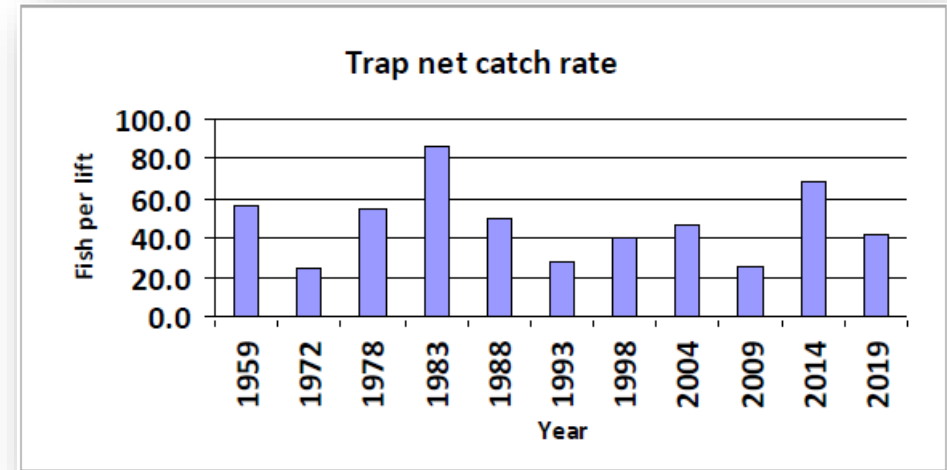


# Bluegill

- Abundant population
- Small average size
  - Majority of population in the 5" range

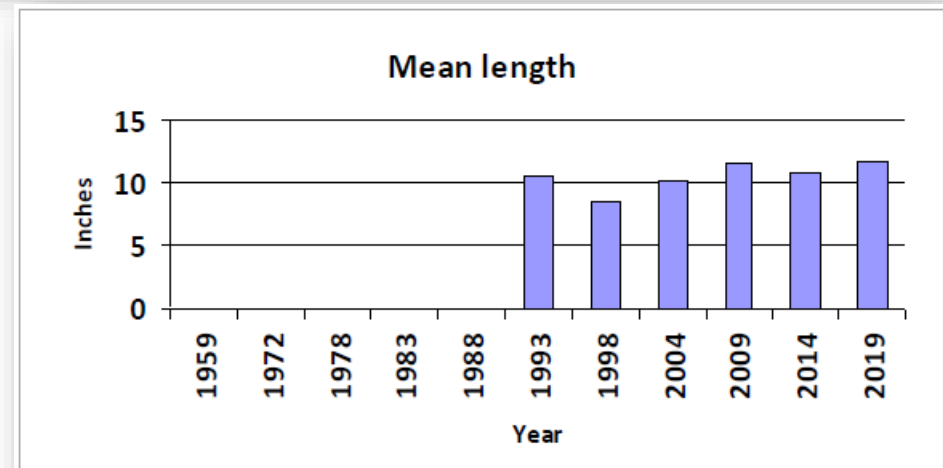
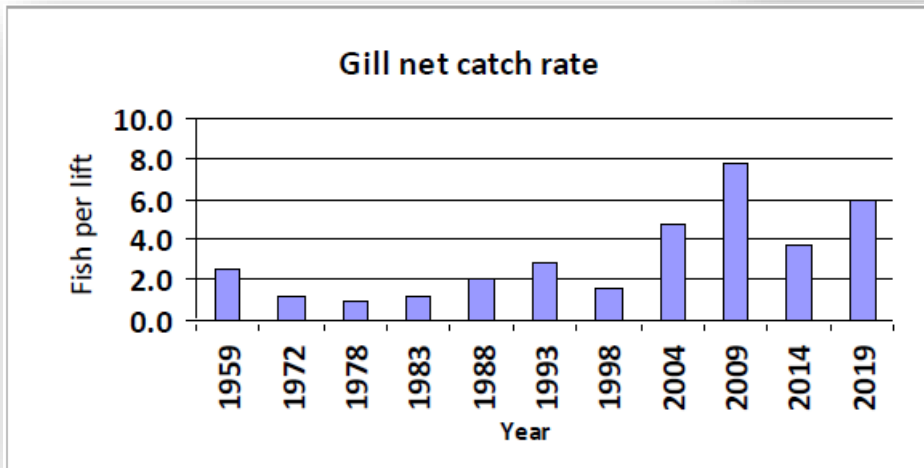
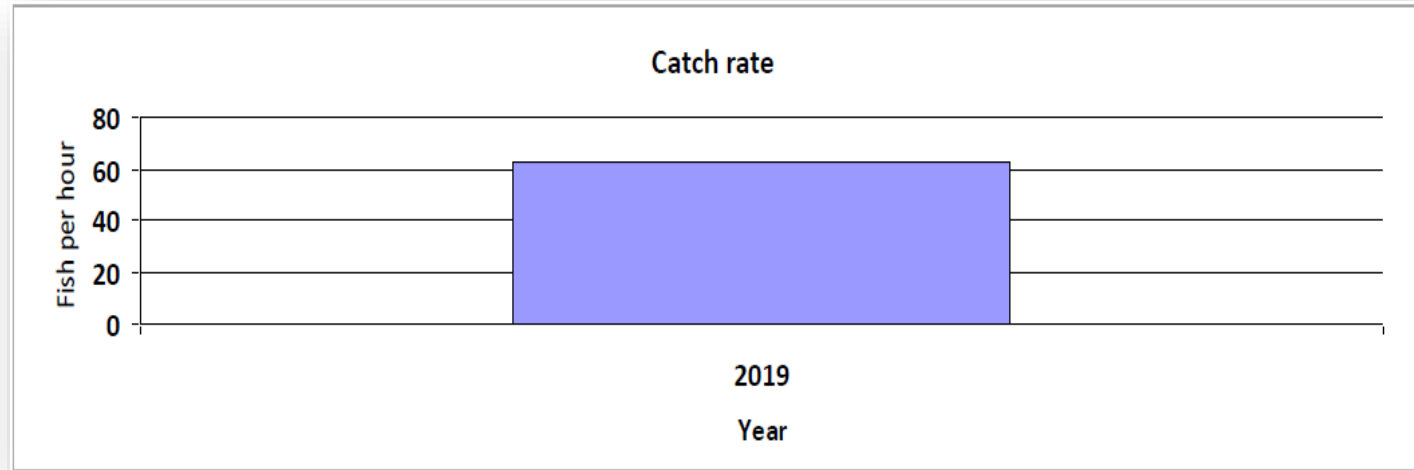


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# Largemouth Bass

- Targeted sampling needed
  - electrofishing
- Healthy Bass population
  - 12 – 14 inches
- Predominantly found in shallow basins

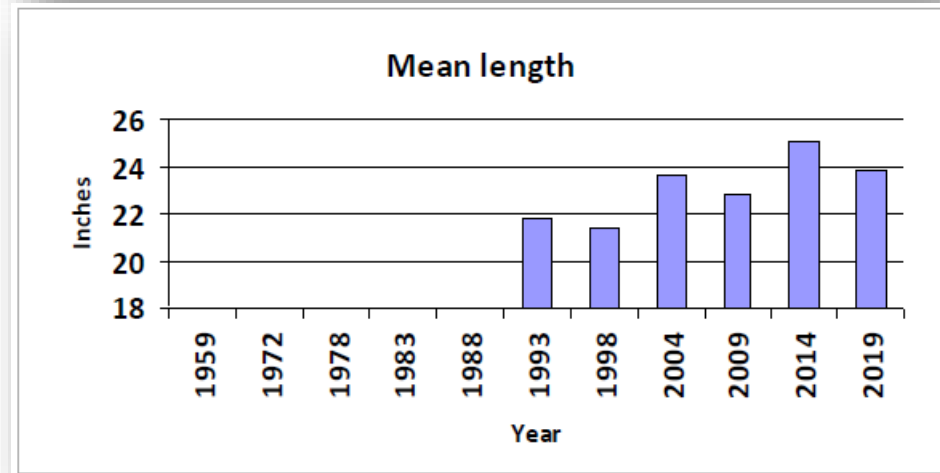
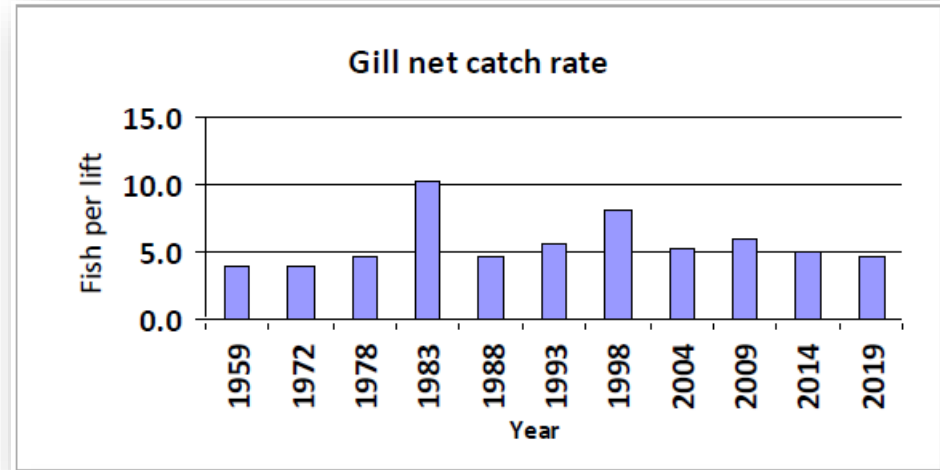


# Northern Pike

- Stable Pike population
- Majority of population between 20-24"

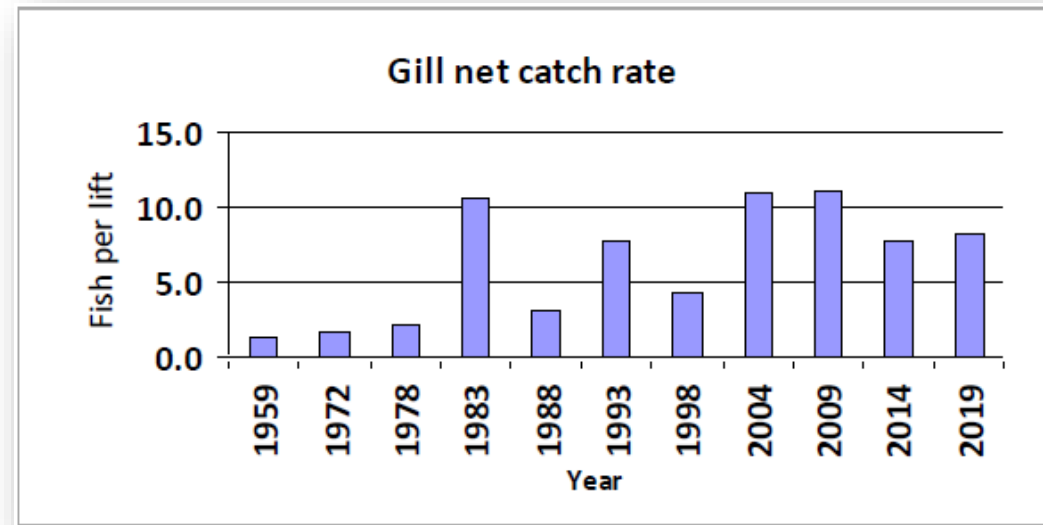


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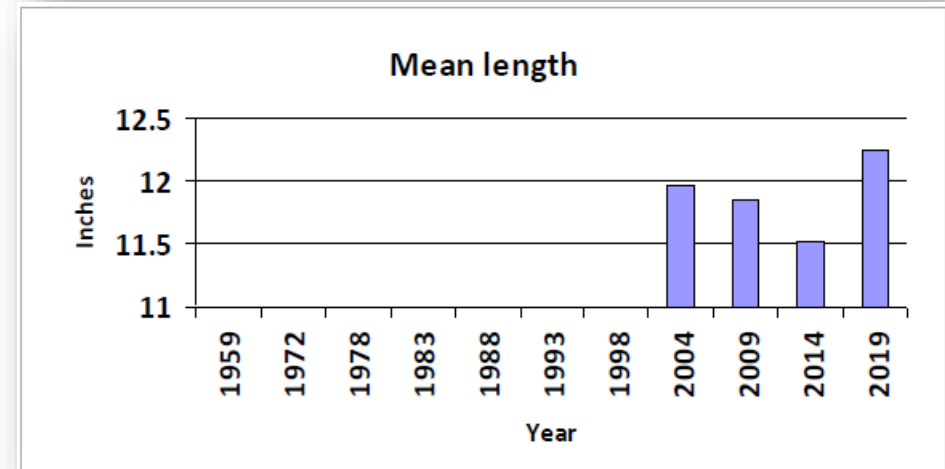
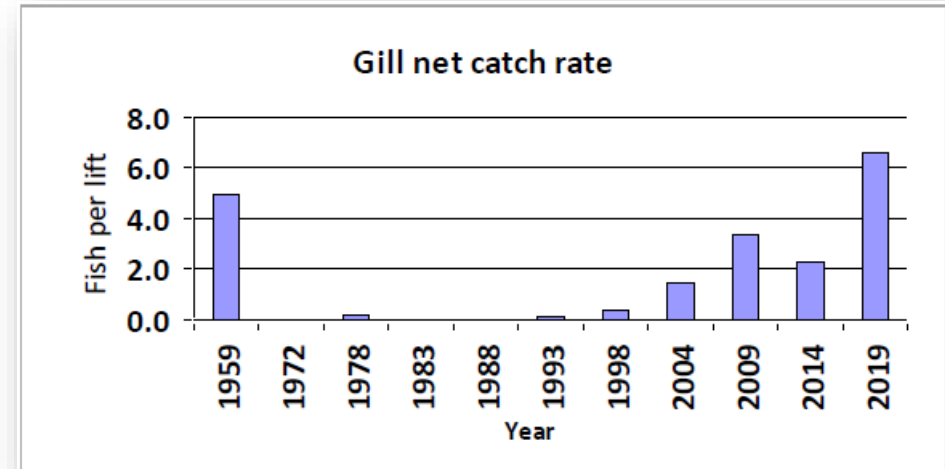
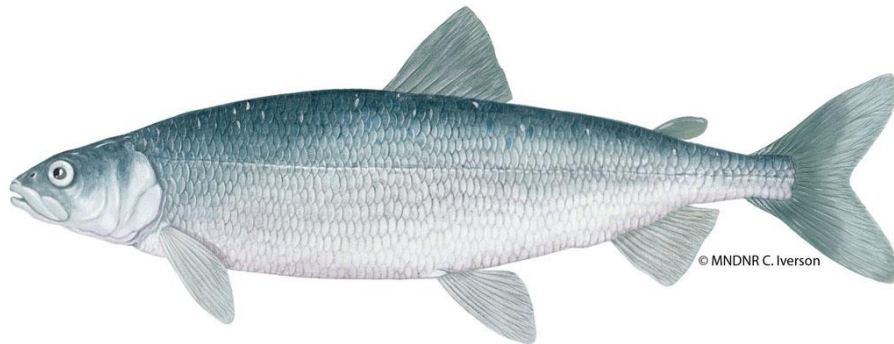
# Rock Bass

- Indicators of excellent water quality
- Fun to catch
- Abundant population
  - Excellent table fair



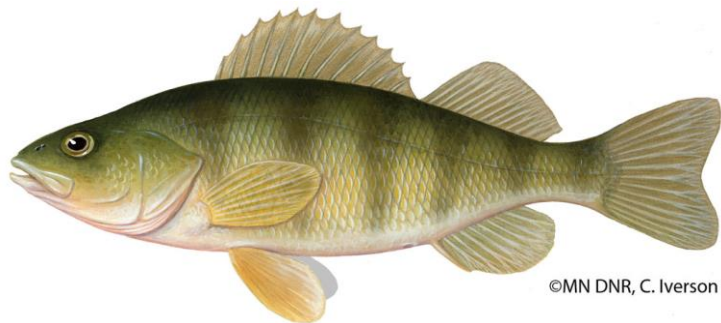
# Tullibee

- Preferred food for Walleye
- Population increasing
- Excellent size structure
- Prefer cold, deep water

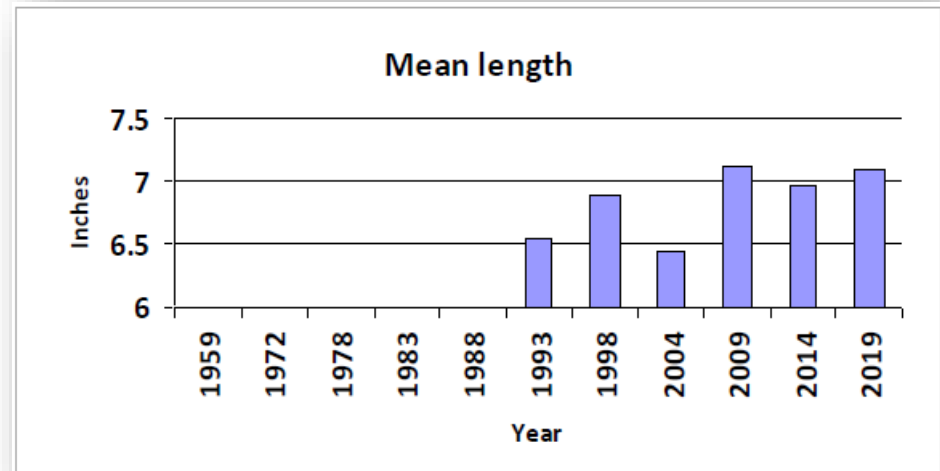
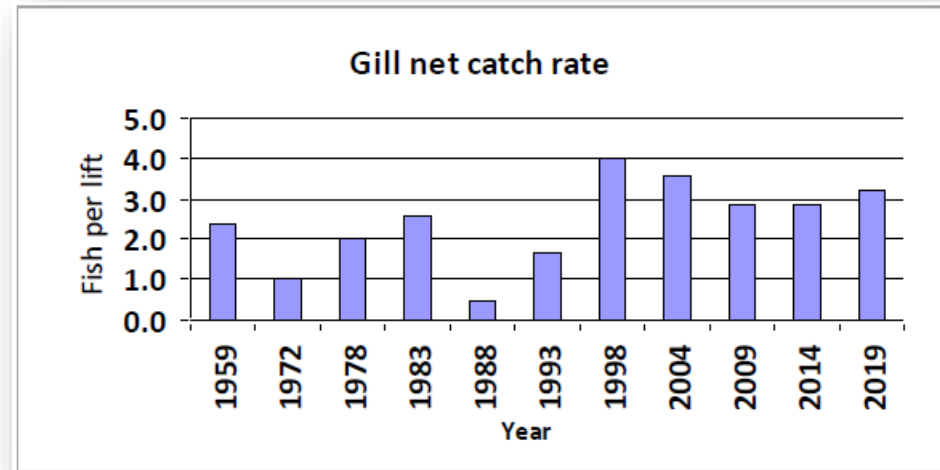


# Yellow Perch

- Preferred food for Walleye
- Low population numbers
- Moderate to Low size quality

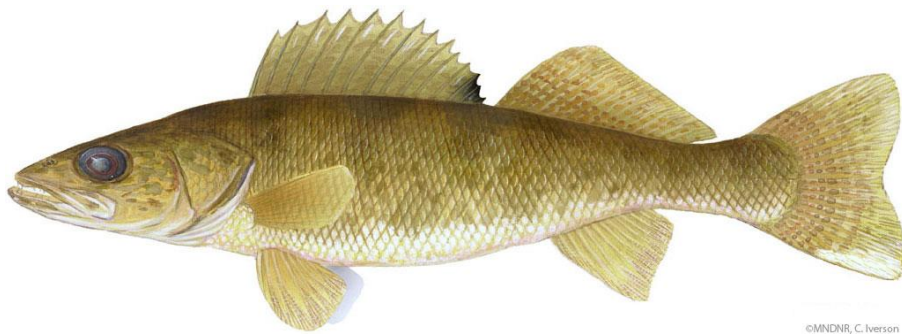


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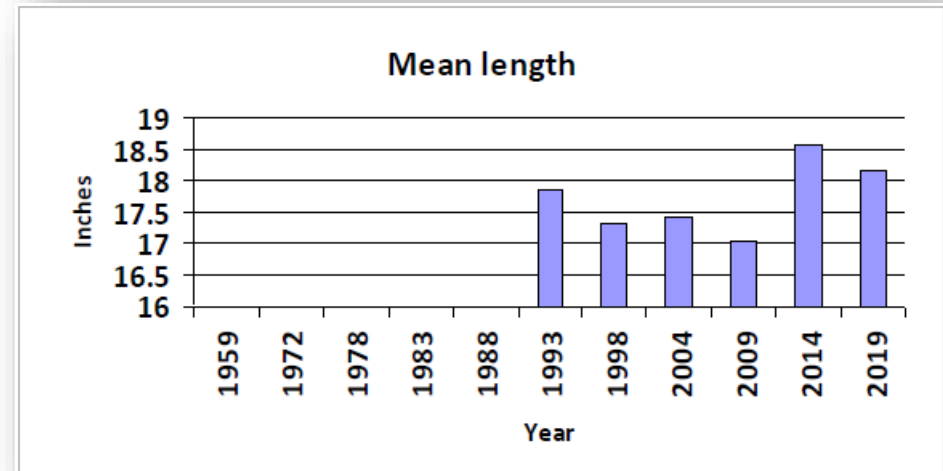
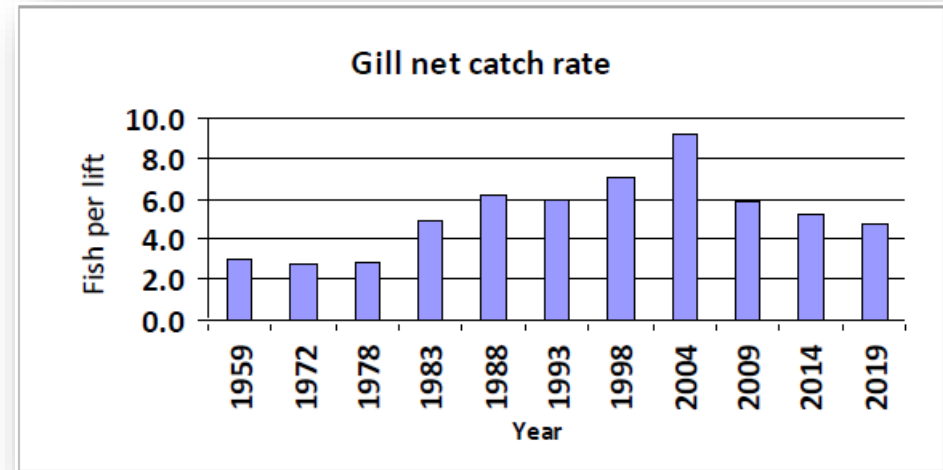


# Walleye

- Population down
  - Within range for lake class
- Large proportion of larger older fish
- Minimal contribution to natural reproduction



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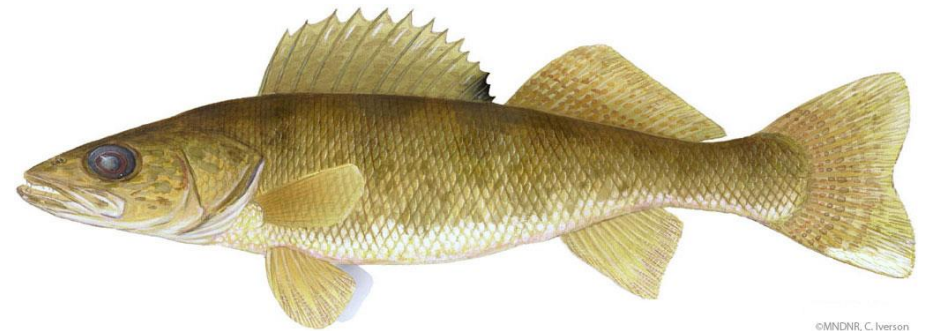
# Walleye Catch Rate Data

- Do not sample young of year and age – 1 fish well
- Catch rates ramp up to age 3
- Decline to age 5
- Steady from age 6 on
- Little decline in age 5, 6, 7+ fish

	Age 1	Age 2	Age 3	Age 4	Age 5	Age 6	Age 7+
Average 1988 – 2019	1%	10%	21%	14%	9%	10%	36%

# Walleye Stocking

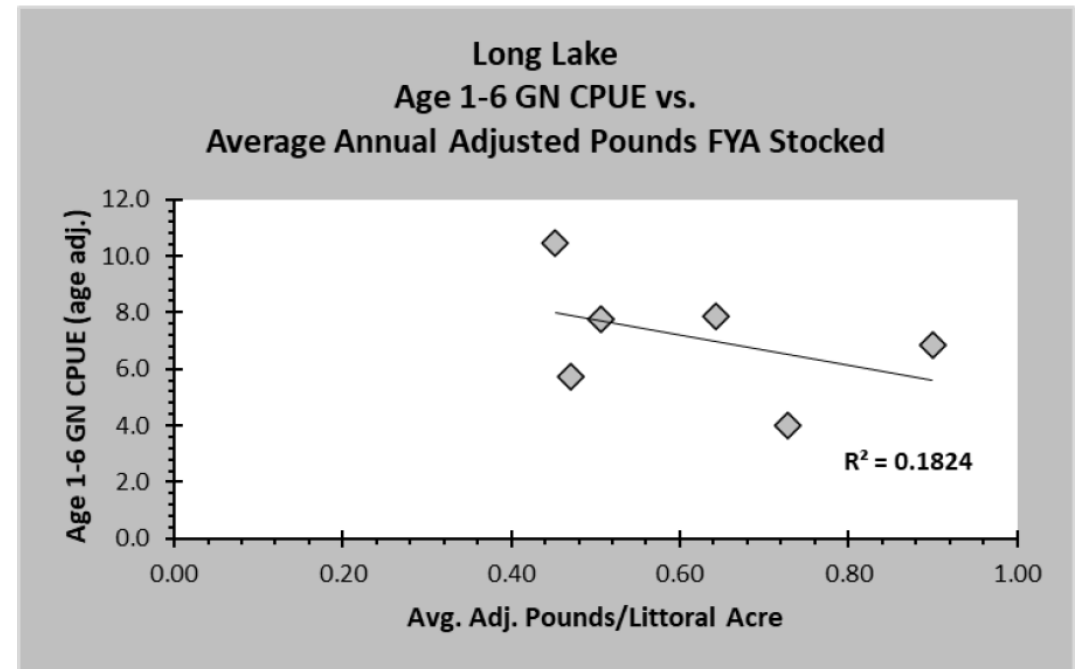
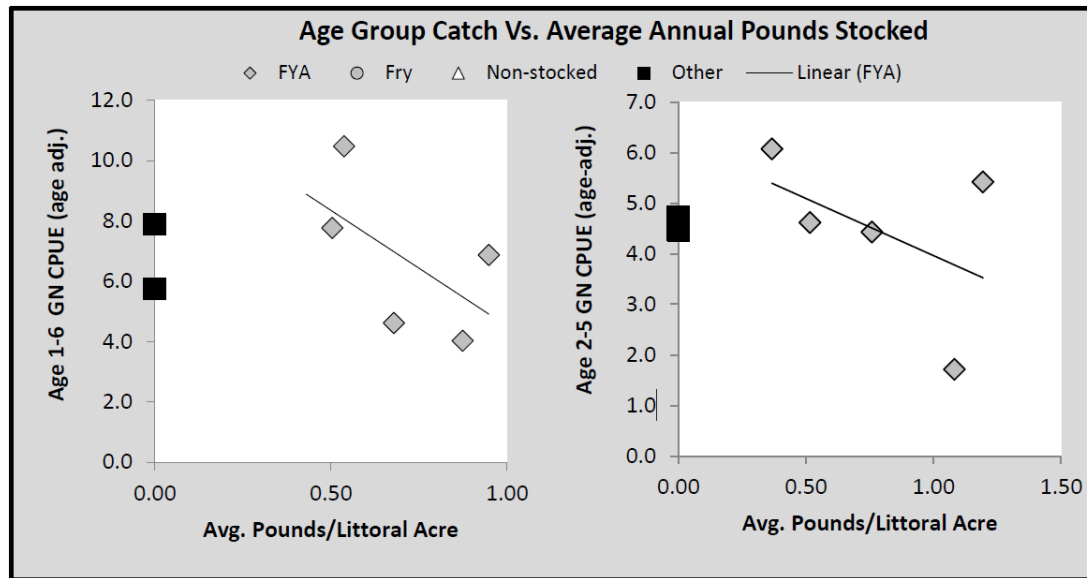
- Based on Littoral Acres (15' or less) in a lake
  - Long Lake - 468 Littoral Acres
  - Stock at 1lbs per littoral acre = ~485lbs true fingerlings
  - Stocked in Fall on even numbered years since 2016
  - 2006 – 2014 stocking rate of 2lbs per littoral acre
  - Data shows years stocked at 2 lb/LA produced lower year class strengths compared to 1 lb/LA



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# Walleye Stocking cont.

- Negative trend in Catch per Unit Effort compared to increasing pounds stocked per Littoral Acre



# Summary

- Black Crappie and Pike Stable
- Abundant Bluegill, Largemouth Bass, and Rock Bass
- Increasing population of Tullibee
- Walleye population stable with a large proportion of big fish
- Low population of Yellow Perch
- Next standard Survey – 2024
  - Assess Walleye stocking regime and adjust as needed
- Potential to try fry stocking
  - Requirement of 6 years to assess

# Thank You!

**Wade Massure**

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