



The Honeoye Lake Fishery

Photo from: www.lakelubbers.com

Honeoye Lake

- Surface Area: 1,742 acres (2nd smallest Finger Lake by area)
- Volume: 9.2 Billion Gallons (smallest Finger Lake by volume)
- Depth: Average depth = 16 feet; Max depth = 31 feet (shallowest Finger Lake)

Fish Species

- Large Predators – chain pickerel, largemouth bass, smallmouth bass, northern pike, walleye
- Small Predators/Prey – black crappie, bluegills, pumpkinseeds, rock bass, yellow perch
- Prey – banded killifish, bluntnose minnows, golden shiners, logperch, and many other minnows and darters
- Other – brown bullhead, common carp, white sucker

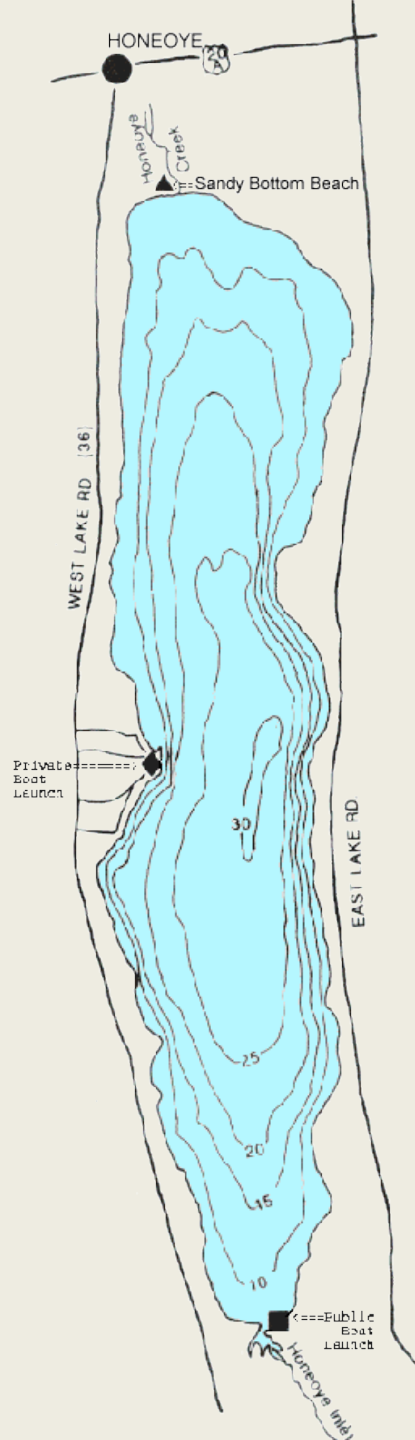


Why Those Fish Species?

- Lake depth
- Water Temperature
- Drainage basin/lake volume
- Habitat

Honeoye Lake

*Honeoye Lake has the most shallow average depth among all the Finger Lakes



Water Temperature

- Water temperatures regularly exceed 75° Fahrenheit during the summer
- Influences which fish species are best suited in Honeoye Lake
 - » Limits trout survival
 - » Limits walleye growth
 - » Allows for good growth of fishes in Sunfish Family

Drainage Basin/Lake Volume

- Honeoye Lake has a large drainage area relative to the volume of the lake
- Large area supplying nutrients to relatively small amount of water
- Honeoye Lake would be considered a “fertile” lake compared to other Finger Lakes

Habitat

- Nutrients, substrate, depth, and temperature conducive to aquatic vegetation growth
- Sunfish, darters, and many minnow species thrive in diverse beds of vegetation
- Spawning substrate good for species like largemouth bass and bluegills but poor for walleye

Fishing in Honeoye Lake



Very popular black crappie fishery.
Primarily late March through early May.



One of the most popular walleye fisheries
in Region 8. Often at night during late
Spring/early Summer.

Fishing in Honeoye Lake



Honeoye Lake has one of the highest catch rates for largemouth bass in all of New York (sampling and fishing).



Very popular fishery for bluegills and pumpkinseeds throughout most of the year, including ice fishing.

2007 Statewide Angler Survey

- 28th most fished water body in NY
- Most targeted species:
 1. Black Bass (Largemouth and Smallmouth)
 2. Walleye
 3. Bluegill/Sunfish
 4. Yellow Perch
 5. Black Crappie

Fisheries Management

- Fish Stocking
- Population Monitoring
- Fishing Regulations

Fish Stocking

- Walleye are the only fish species stocked in Honeoye lake on a regular basis
 - 8.6 million fry each year
 - One of the few NY lakes with good results from fry stocking
- Other fishes sustained through natural reproduction and are managed primarily through fishing regulations





Walleye Stocking History

- 1947 – 1979

- 1 to 4 million fry annually (none in 1970, 1972, 1974, 1975, 1978)

- 1980 – present

- 8.7 million fry annually (3.9 million in 1992; none in 1982, 1987, 1999, 2002)

- Boat Stock most years

Stocking

- 1941
 - 12,000 3-inch Yellow Perch
 - 1,500 3.5-inch Largemouth Bass
- 1942
 - 12,000 3-inch Yellow Perch
 - 4,700 3.5-inch Largemouth Bass
- Pre-1941 ??????????

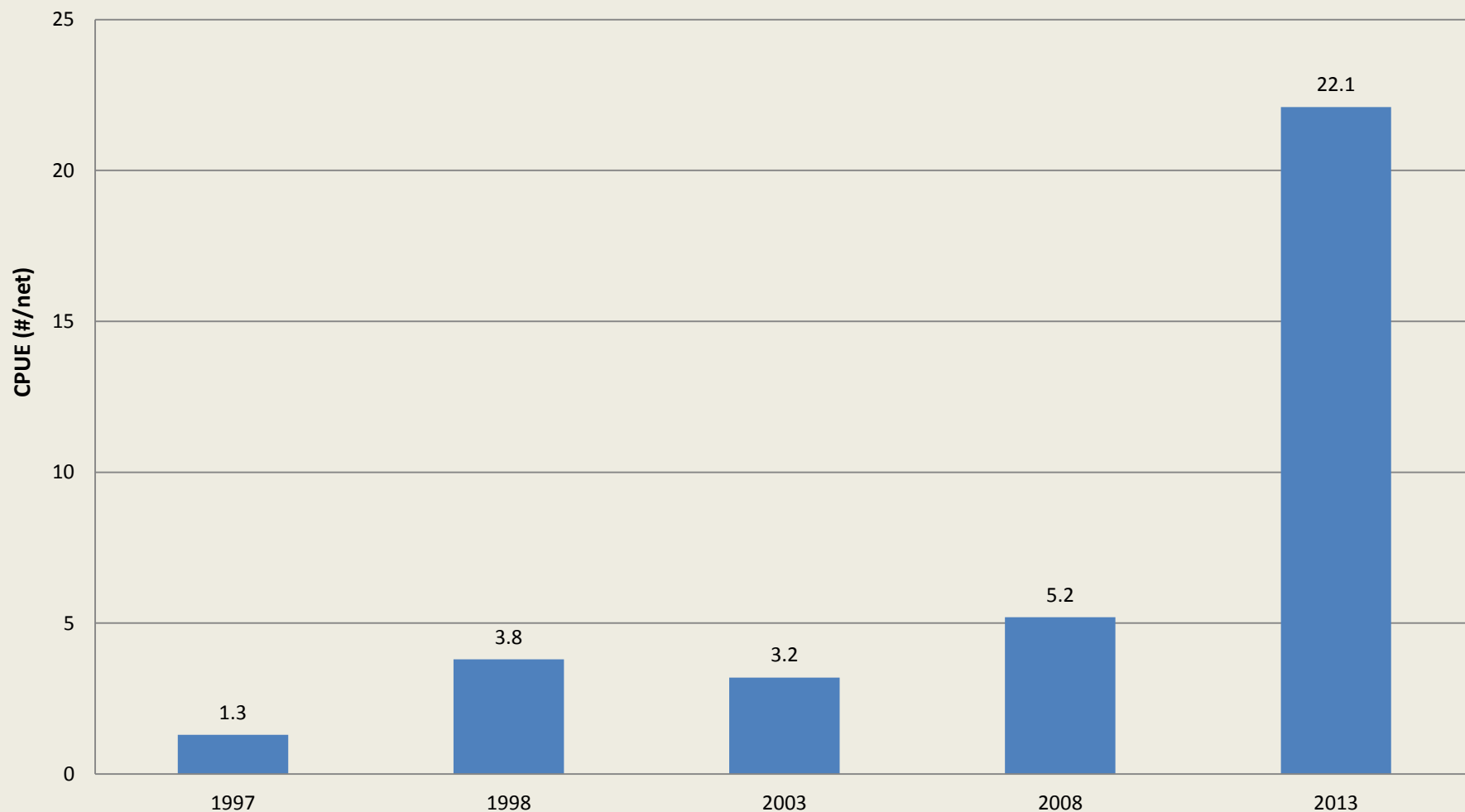
Population Monitoring

- Gill netting
- Electrofishing
- Walleye Population Estimates
 - Mark and Recapture using Trap Netting and Electrofishing
- Cooperative Angler Diary Program

2013 Gill Netting - Results

- 8 net nights
- 587 total fish
- Top 5: Black Crappie, Walleye, Bluegills, Yellow Perch, and Largemouth Bass

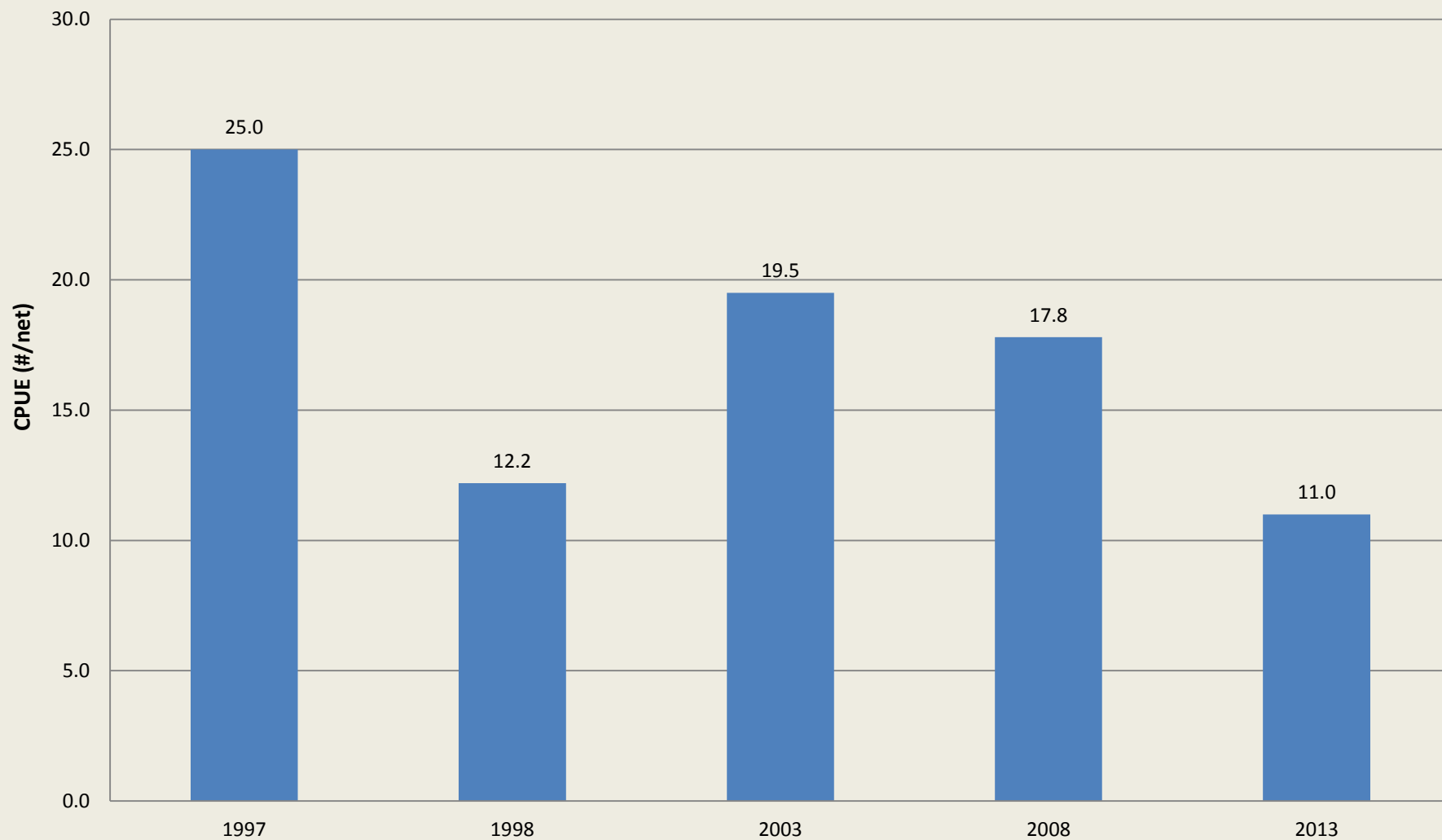
Black Crappie



Black Crappie

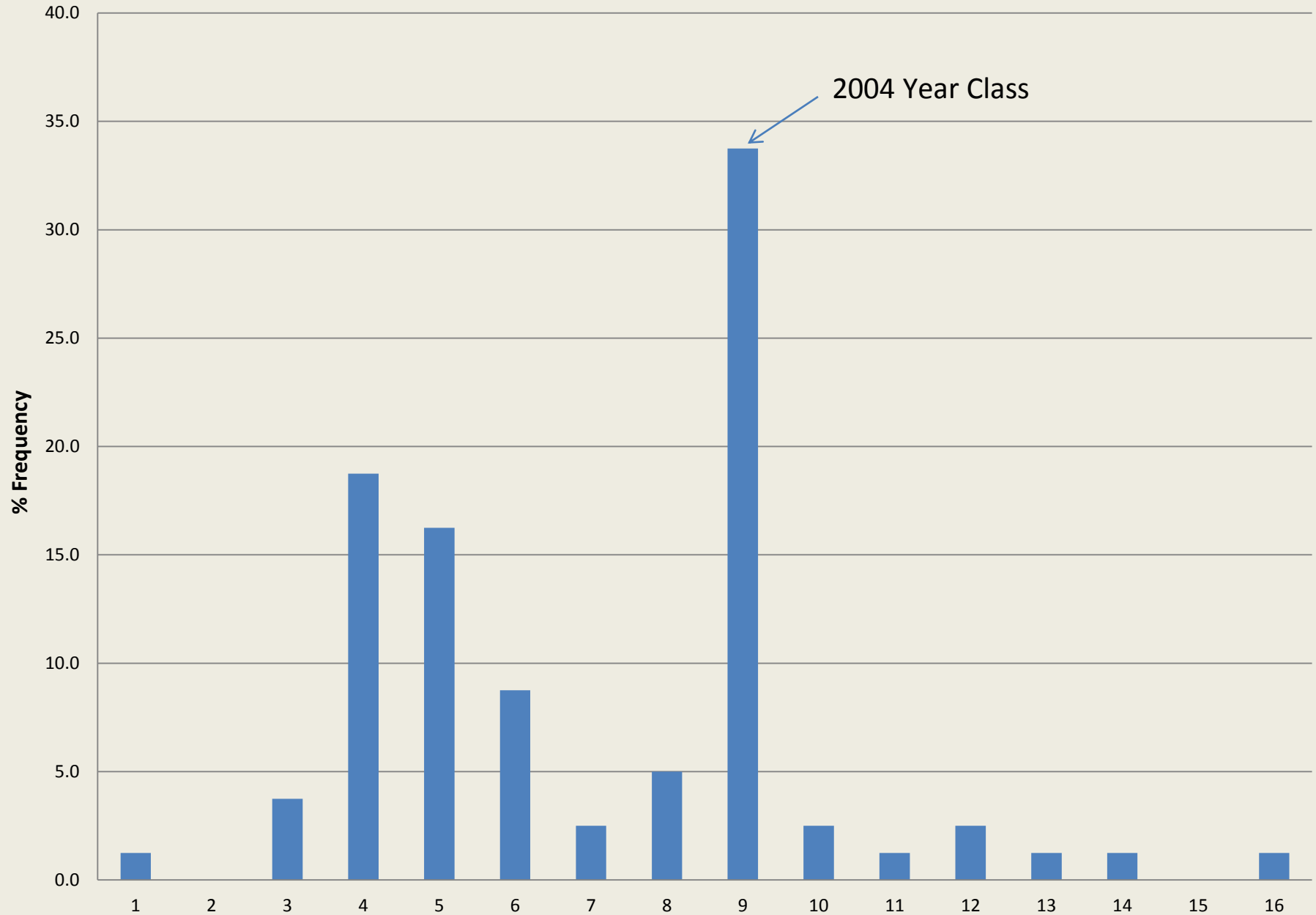
- Huge increase in Black Crappie catch
- 89% sub-legal (< 9 inches)
- Good survival in recent years due to:
 - Lower Walleye population?
 - Reduced Bluegill/Pumpkinseed population?
 - Weather patterns?

Walleye



Honeoye Lake Gill Netting 2013

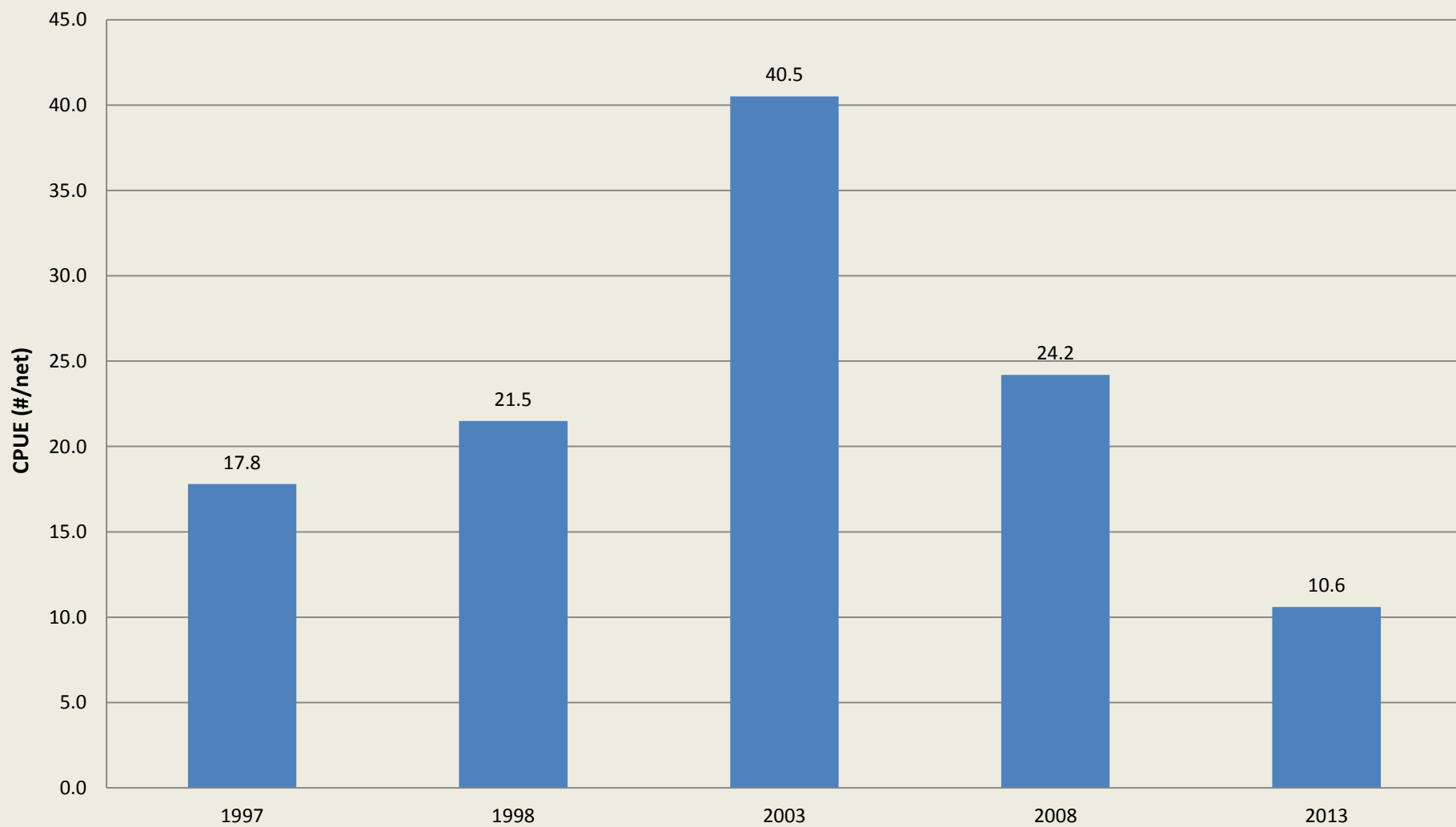
Walleye Age - Frequency



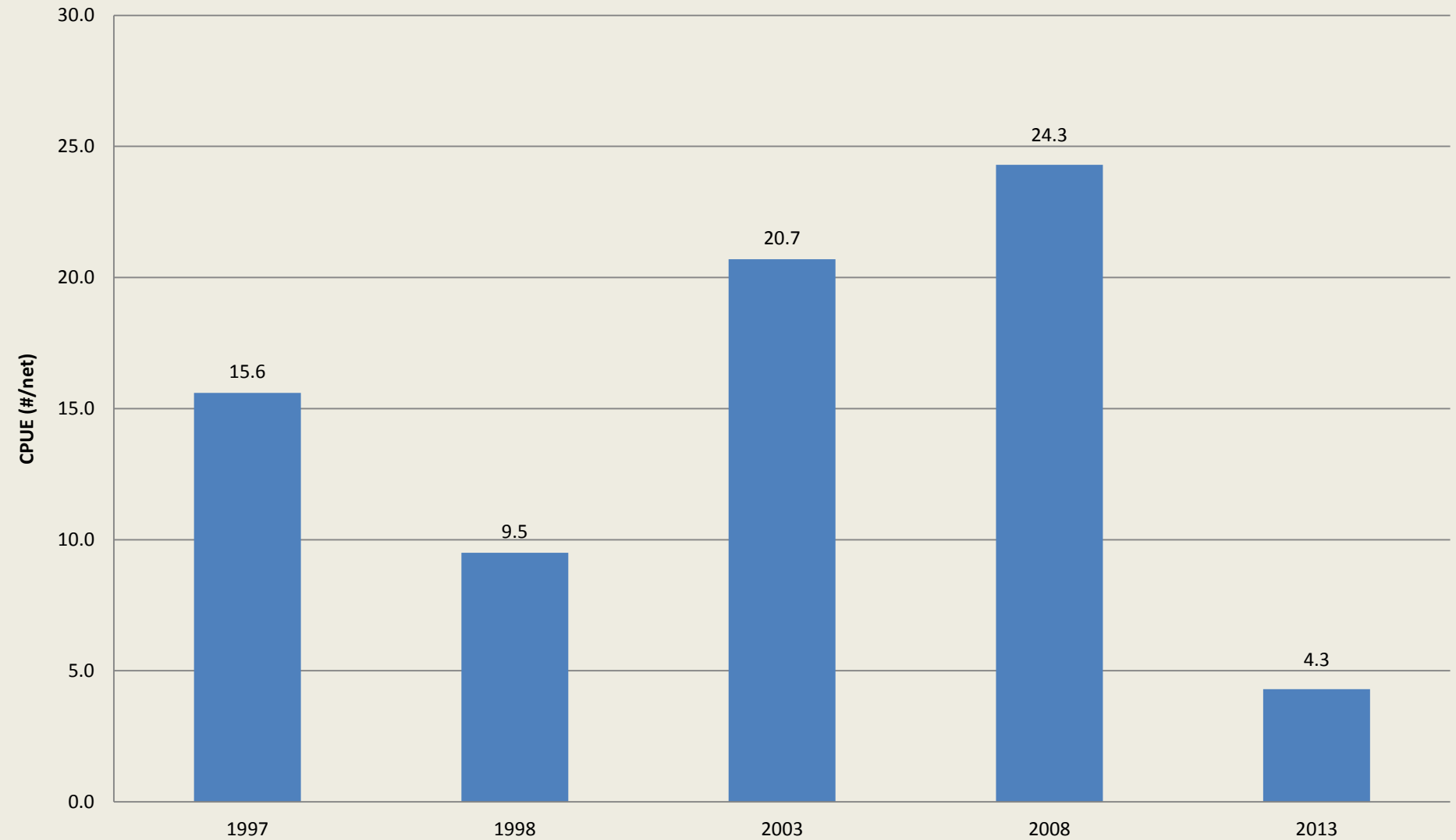
Walleye

- Lowest catch in last 5 nettings
- Population still dominated by 2004 year class (age 9+)
- 77% of sample in the 15 – 20 inch size range
- Condition has not improved significantly
- Move size limit back to 18” from current 15” ??
 - All signs point to reduced population
 - Growth and condition not improving significantly
 - Multiple unsuccessful year classes

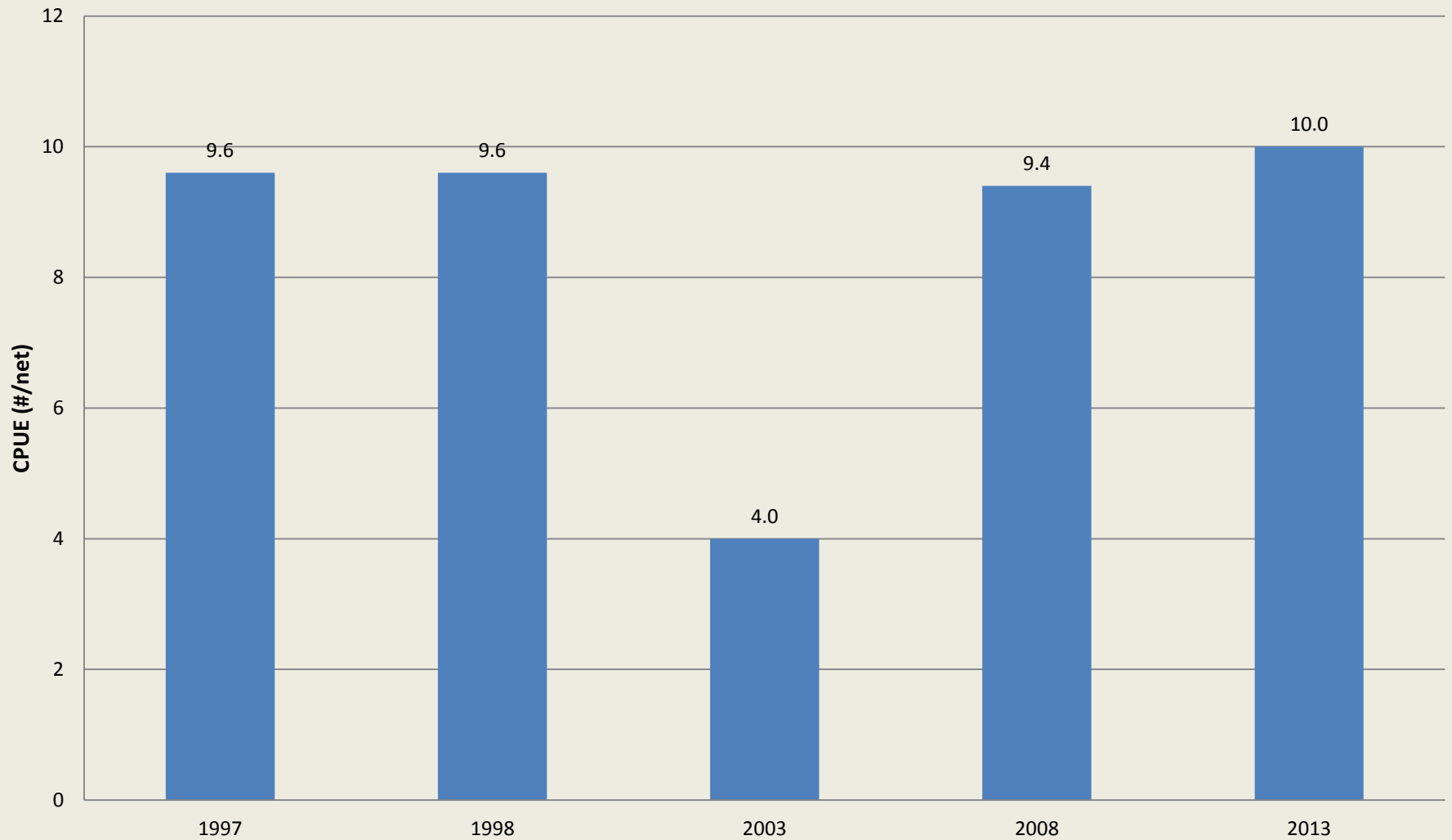
Bluegills



Pumpkinseeds



Yellow Perch

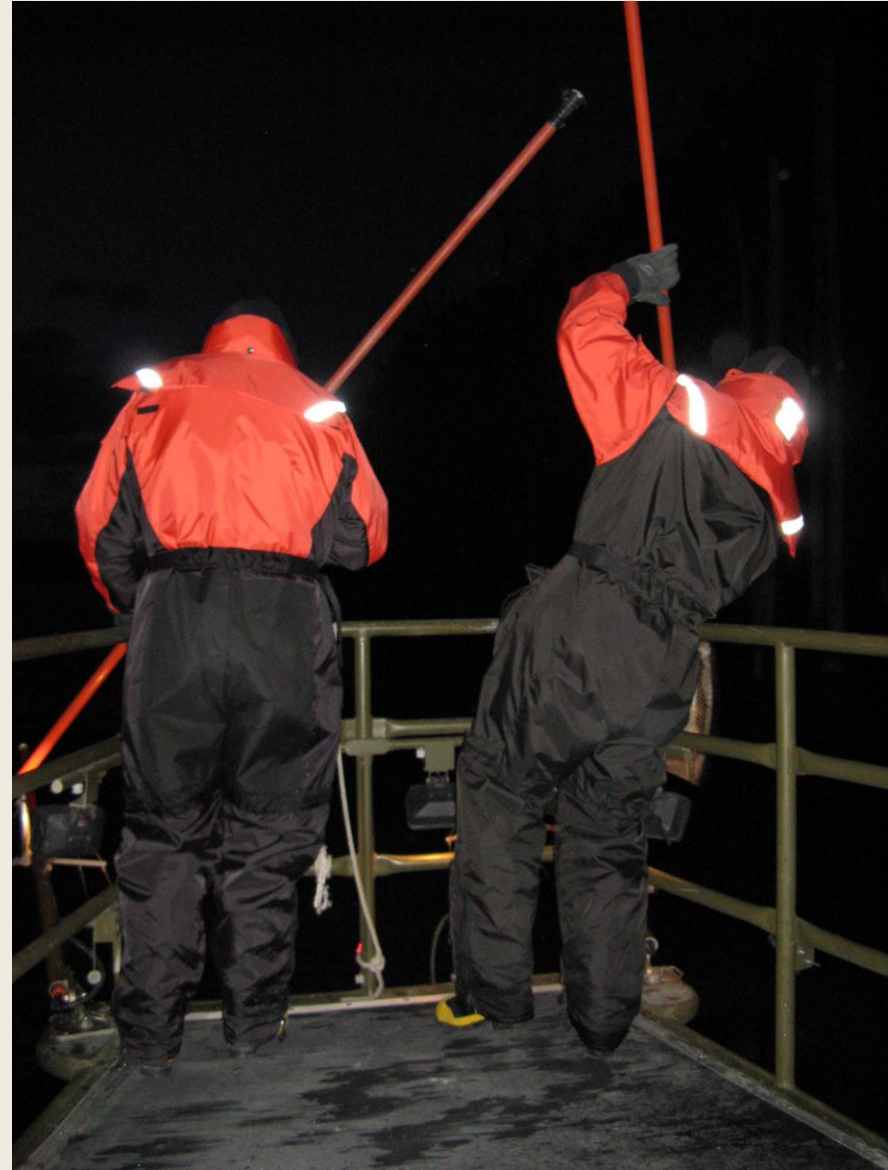


Yellow Perch

- Appeared to be very abundant during earlier electrofishing
- Very poor condition ($W_r = 79$)
- Overpopulated?
- Change in forage?

Electrofishing

- Target shallow shoreline areas at night
- Best method for sampling Bass

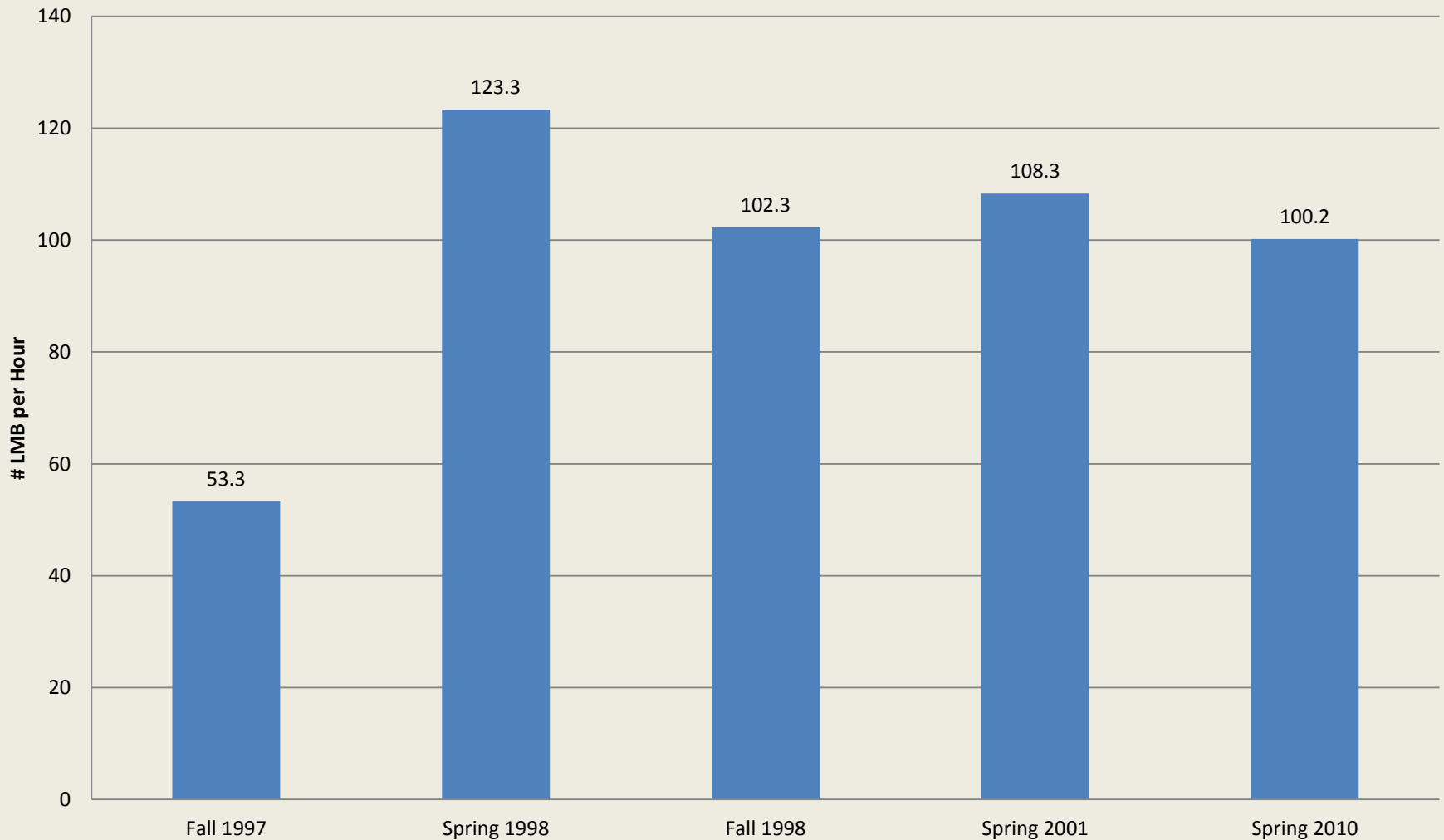




2010 Electrofishing - Results

- 2.3 hours night electrofishing in mid-May
- 446 total fish
- Top 5: Largemouth Bass, Bluegills, Rock Bass, Yellow Perch, and Pumpkinseeds

Largemouth Bass Electrofishing Catch Rates



Largemouth Bass – 2010 Electrofishing

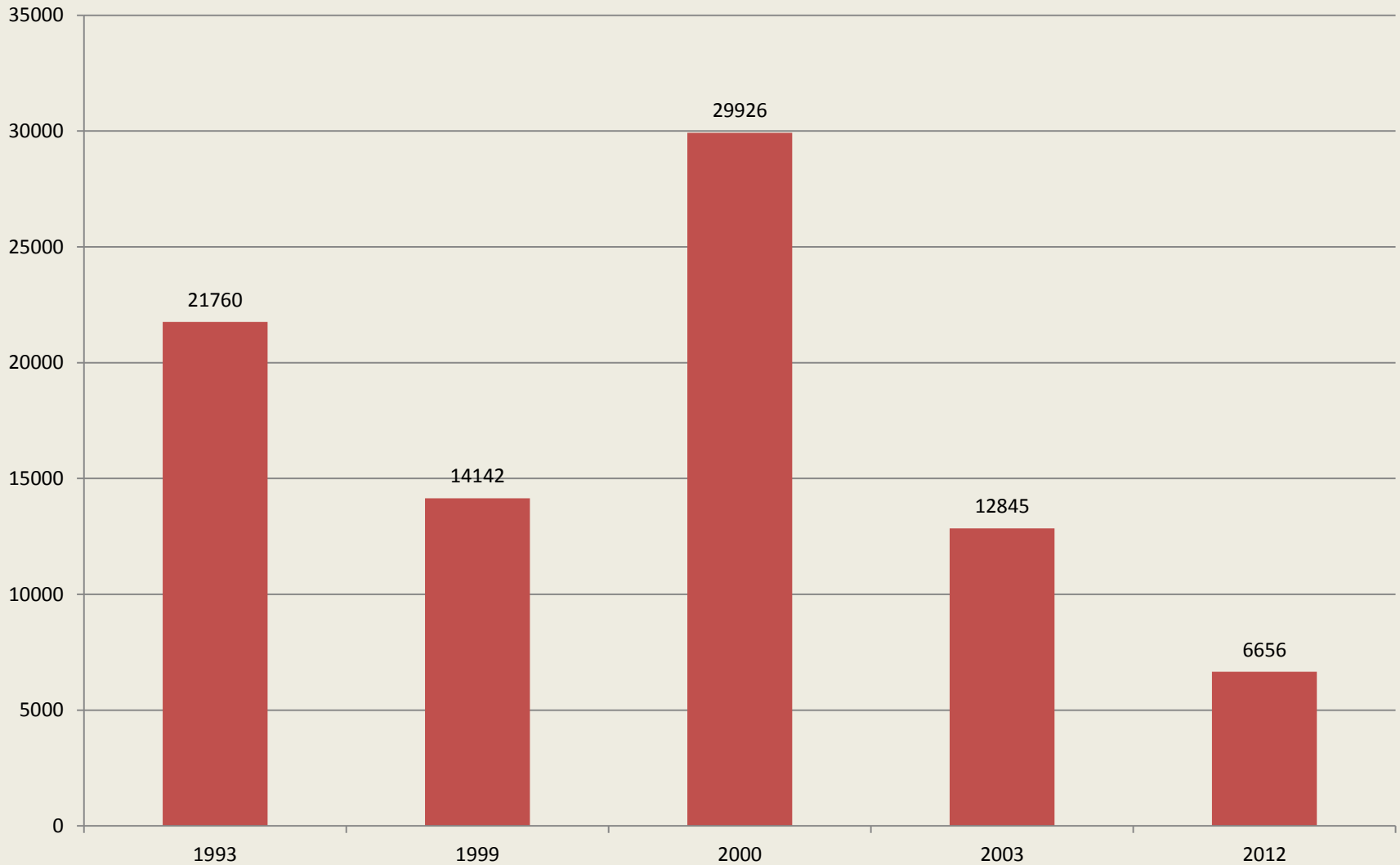
- Catch Rate = 100 per hour (considered high density in NY)
- Relative Weight = 98 (100 is good condition)
- Mean Length = 11.5 inches (70% of sample between 10 and 14 inches)
- 8 LMB between 16 and 20 inches

2012 Walleye Population Estimate

- Mark and Recapture Method
 - Mark walleye caught in trap nets in late March
 - Recapture walleye with boat electrofishing in late April
 - Use ratio of marked and unmarked walleye to estimate population size
- Estimated 6,656 adult walleye in Honeoye Lake (3.8 per acre)



Walleye Population Estimates



**Warmwater
Fish Species
Fishing Diary
For
Angler Cooperators**

Honeoye Lake

Write in body of water fished

Name of Angler

Jim Bob

Address

Abbey Rd

Honeoye, NY

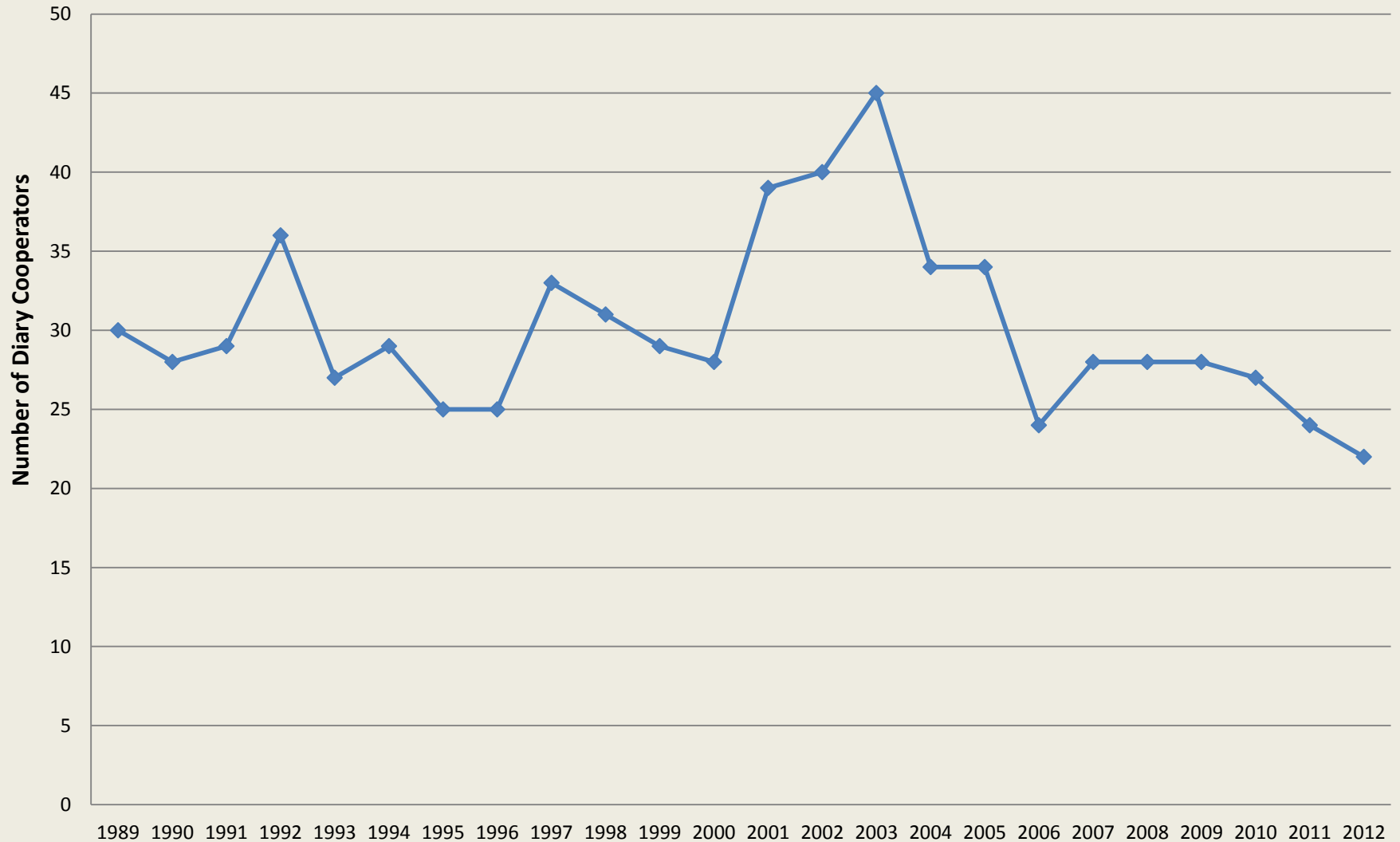
Year

2013

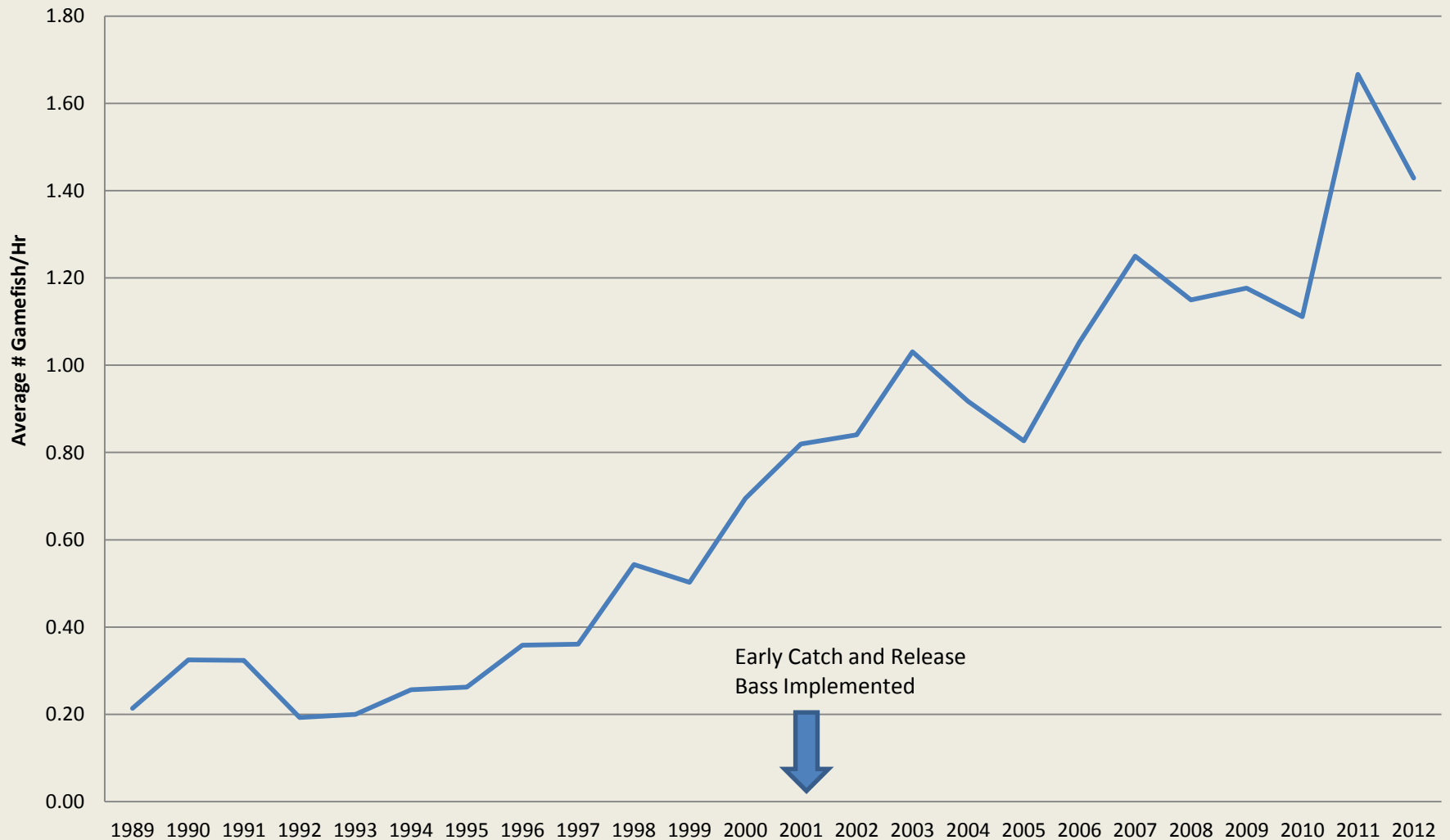


New York State
Department of Environmental Conservation

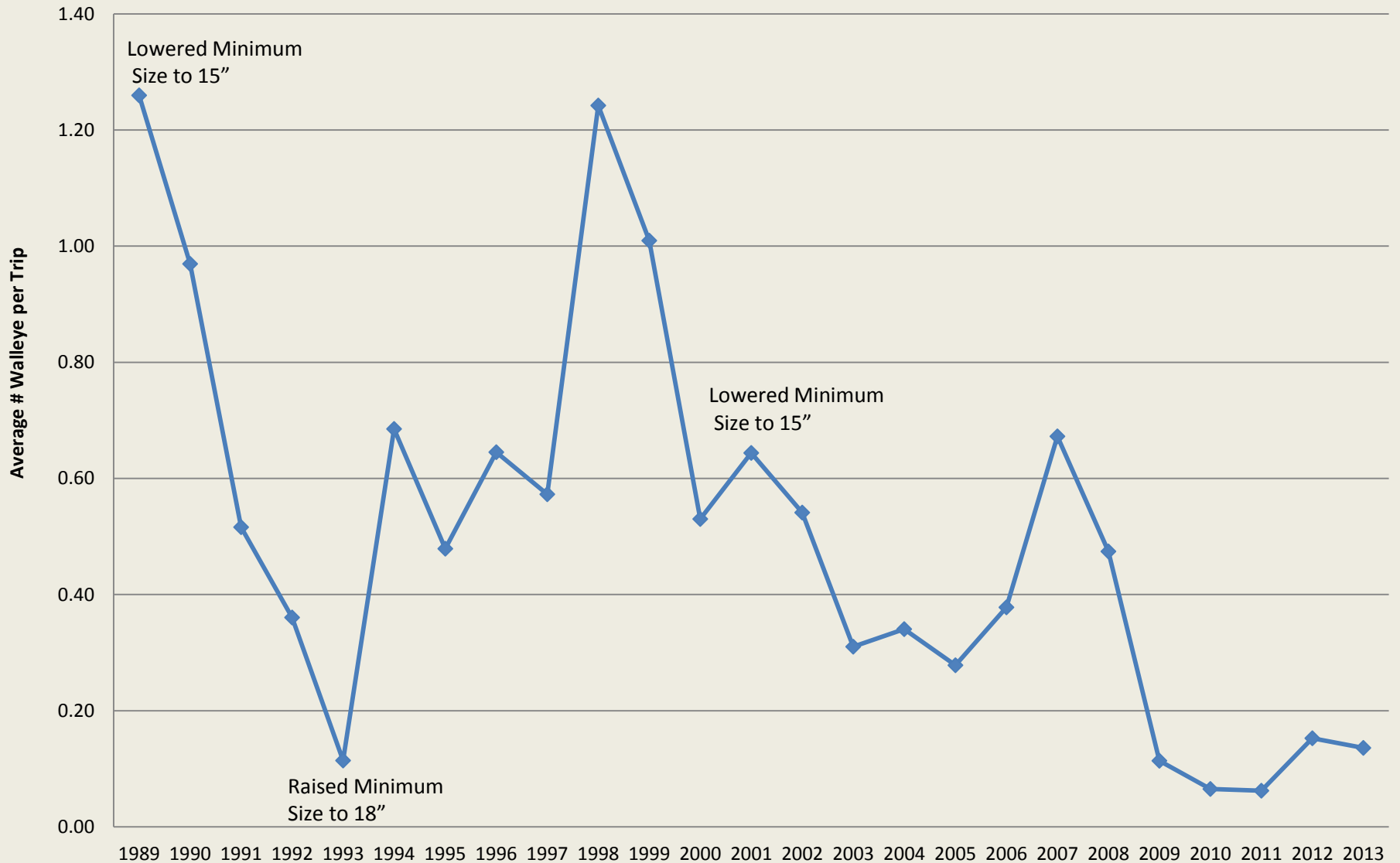
Angler Participation



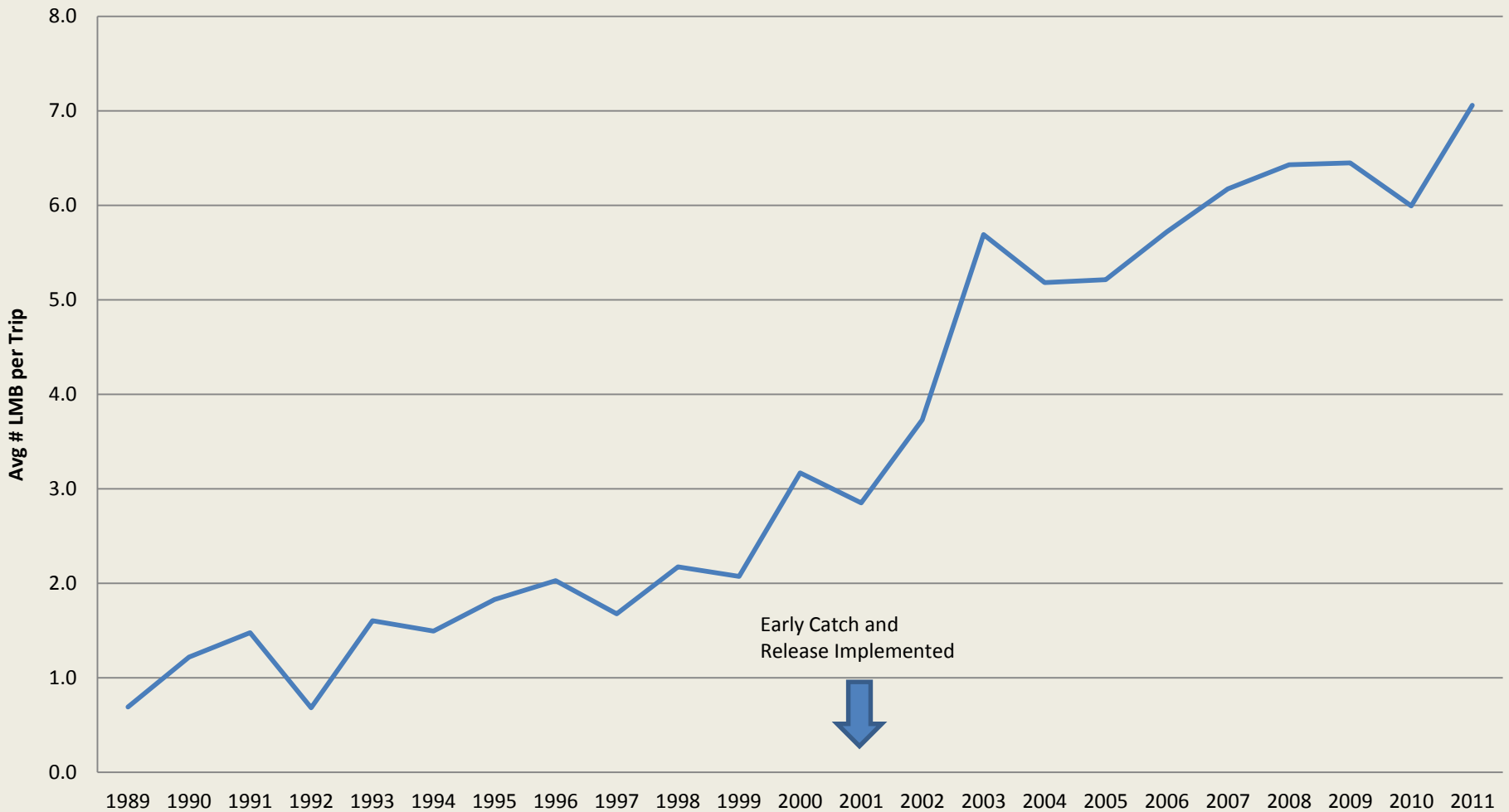
Game Fish Catch Rate



Angler Catch Rates for Walleye



Angler Catch Rates for Largemouth Bass



Angler Diary Program

- Largemouth Bass catch rates increased dramatically since 1990's
- Walleye catch rates declining over last 5 years
- More cooperators would help upcoming evaluation of regulation changes

Fishing Regulations

- Use population monitoring data to determine if fishing regulation changes are necessary
- Most recent regulation changes have been related to walleye and largemouth bass
- Very few regulation changes on Honeoye Lake related to other fish species

Largemouth Bass Regulations

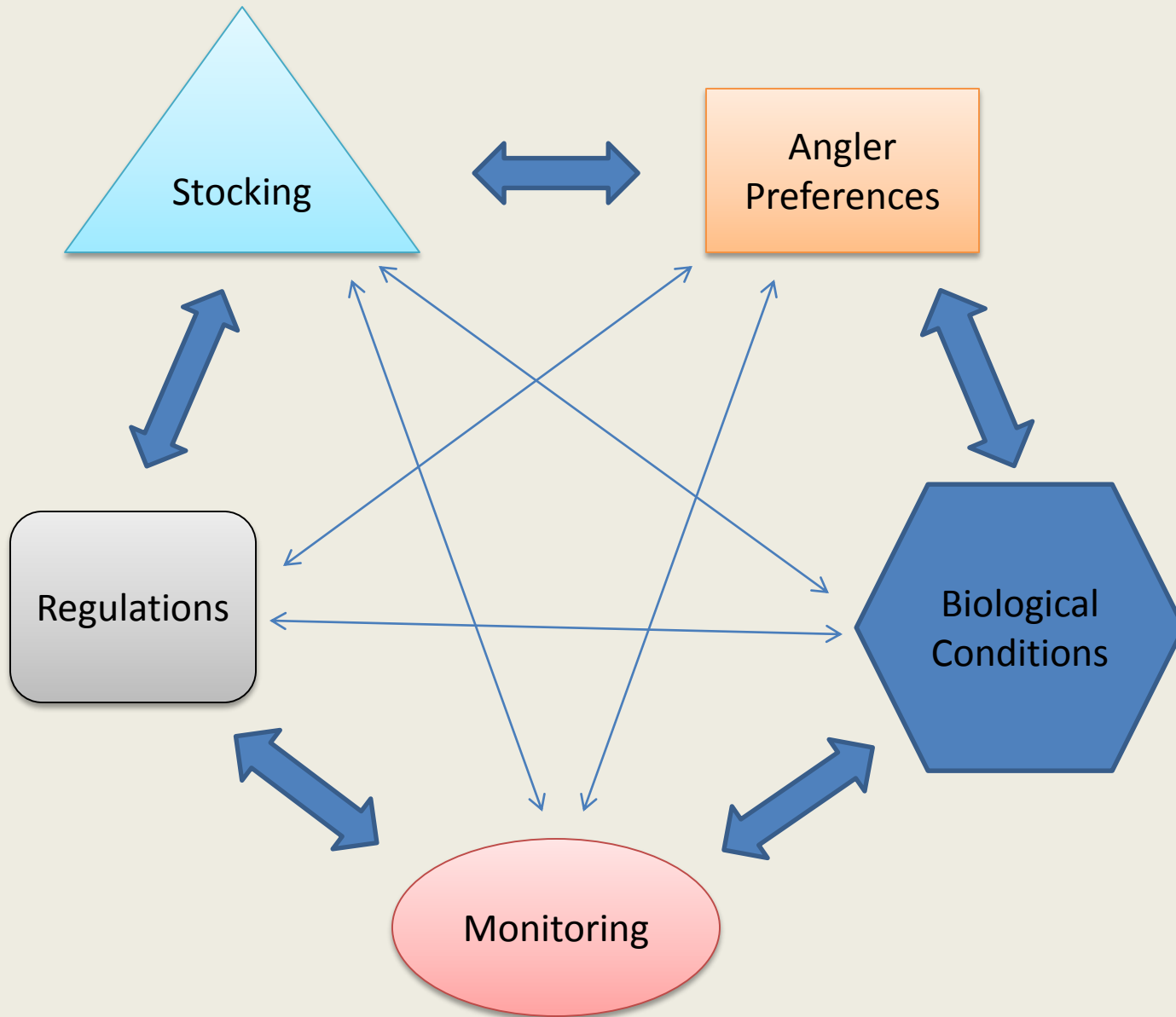
- Catch and release/artificial lures early season implemented in 2001
 - March 16th through 3rd Saturday in June
- Bass harvest : from 3rd Saturday in June to March 15th in Region 8 Finger Lakes
 - Most other NY waters – bass harvest : 3rd Saturday in June through November 30th

Walleye Regulations

- Prior to 1989 – 18 inch minimum; 3 per day
- 1989 to 1992 – 15 inch minimum; 3 per day
- 1993 to 2000 – 18 inch minimum; 3 per day
- 2000 to present – 15 inch minimum; 3 per day

Walleye Regulations

- Minimum size may be raised to 18 inches beginning April 2015
 - 2012 population estimate down
 - Angler Diary catch rates down
 - Yellow Perch abundant
 - Few successful year classes



Any Questions?

