

Cornell University

Fisheries Surveys of Oneida Lake, NY 1957-2025



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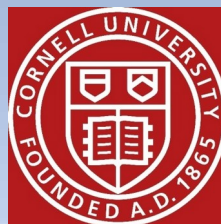


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Cornell Biological Field Station Brown Endowment



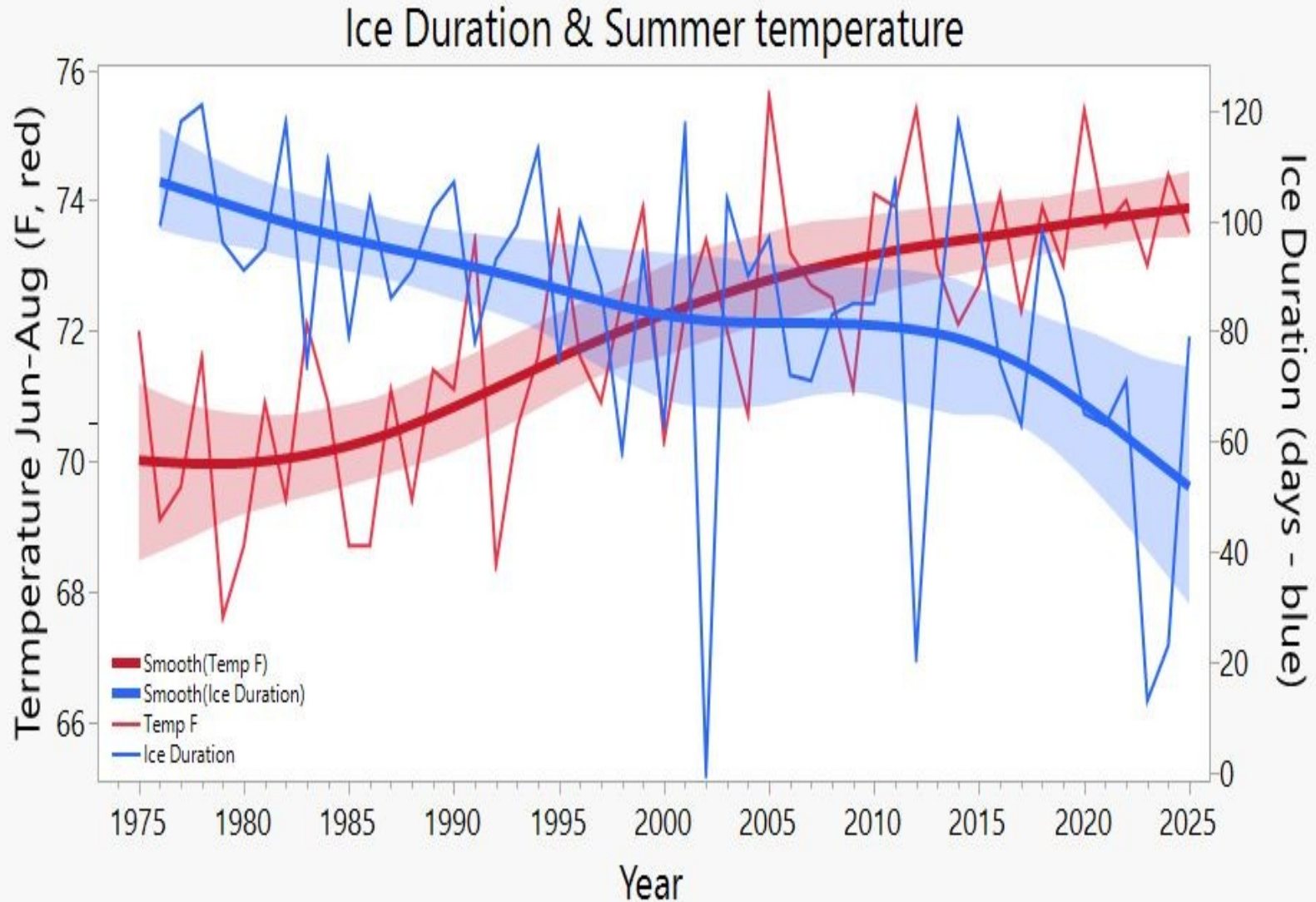
Cornell Biological Field Station
900 Shackelton Point Rd.
Bridgeport, NY 13030



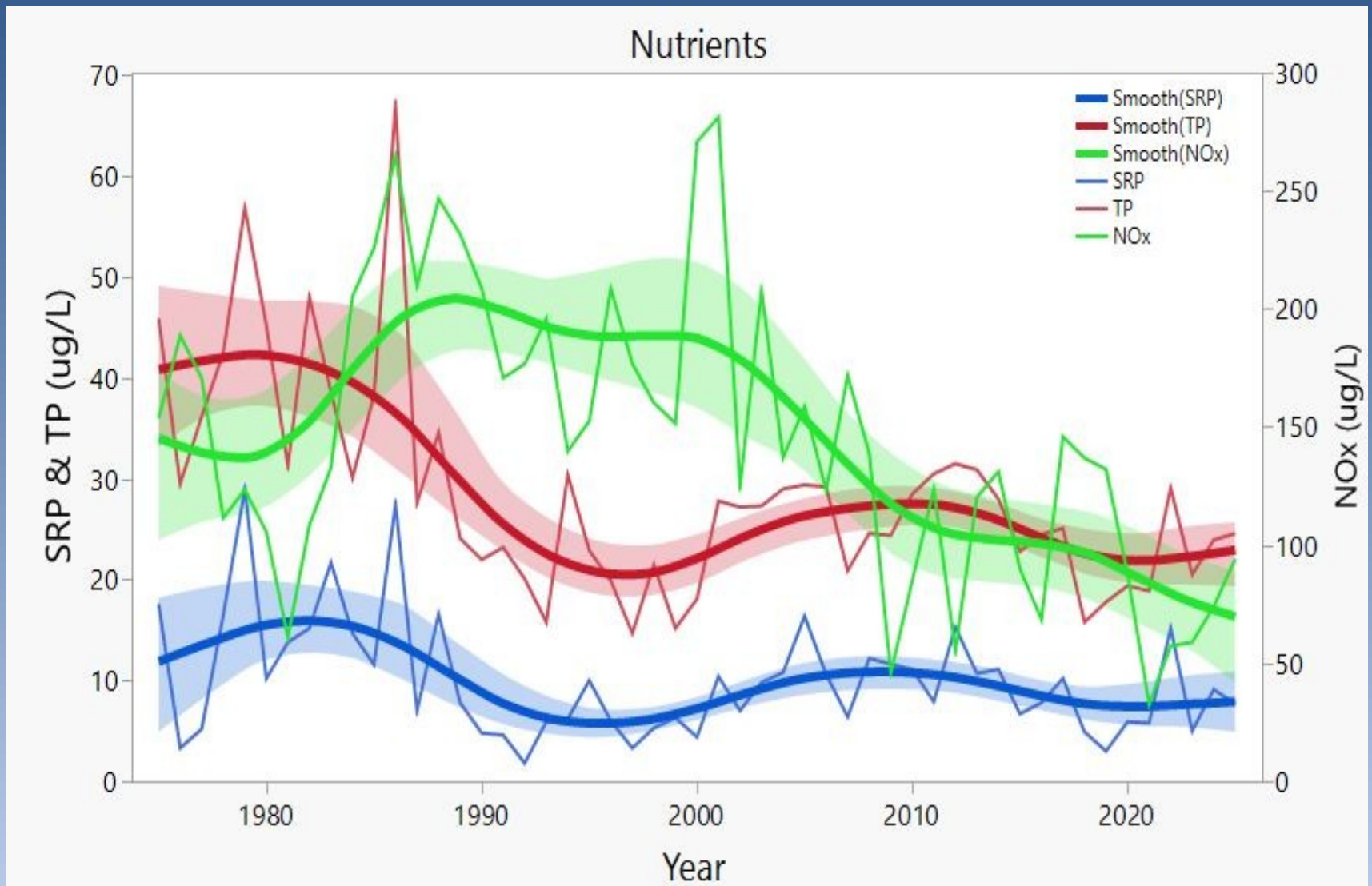
Outline – 2025

- Water quality and benthic invertebrates
- Walleye – Population, growth, young
- Yellow Perch – Population, growth, young
- White perch
- Largemouth and smallmouth bass
- Lake sturgeon
- Round goby
- Cormorant
- Angler catch rates – Creel Survey
- Summary

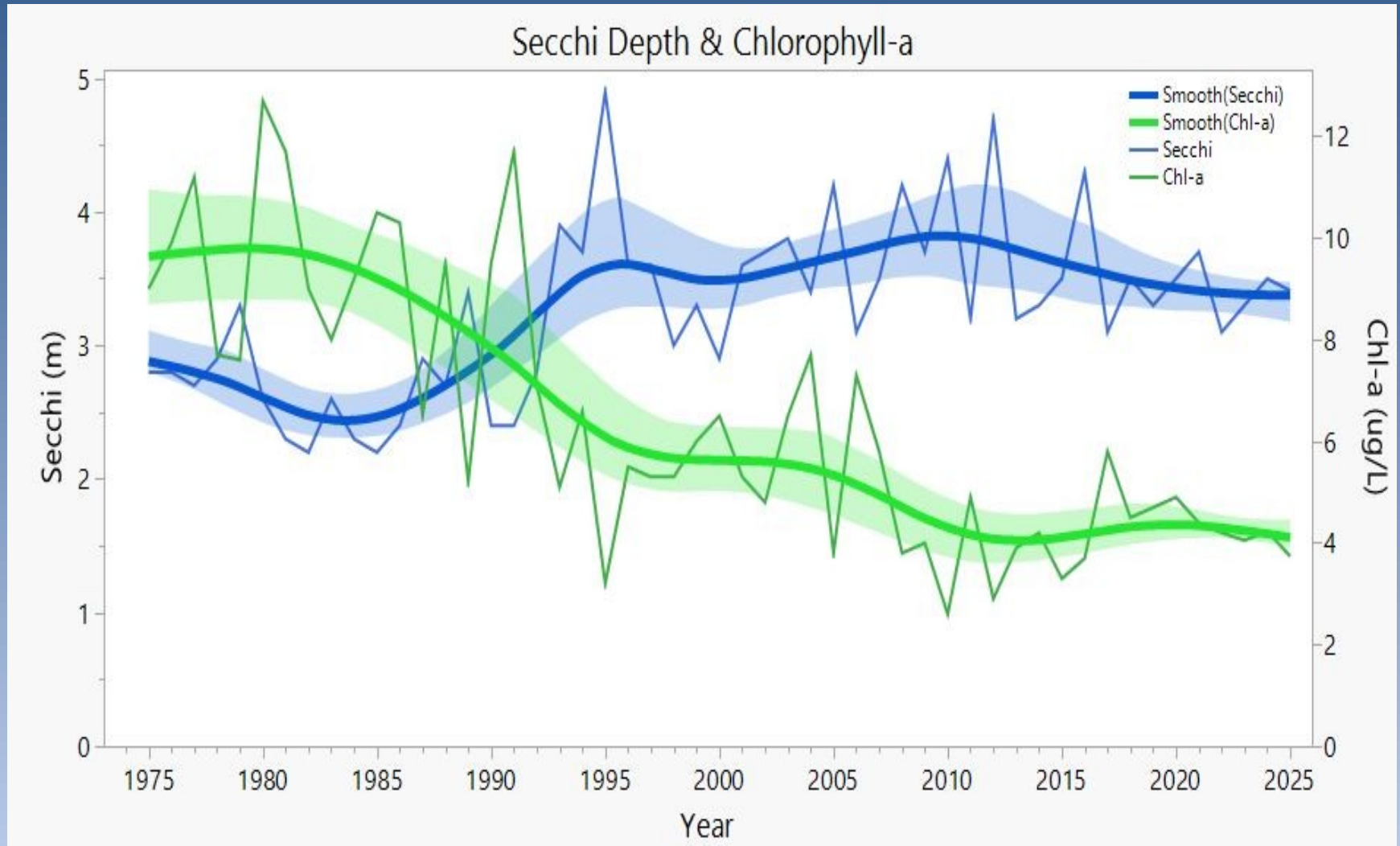
Water Temperature and Ice Duration



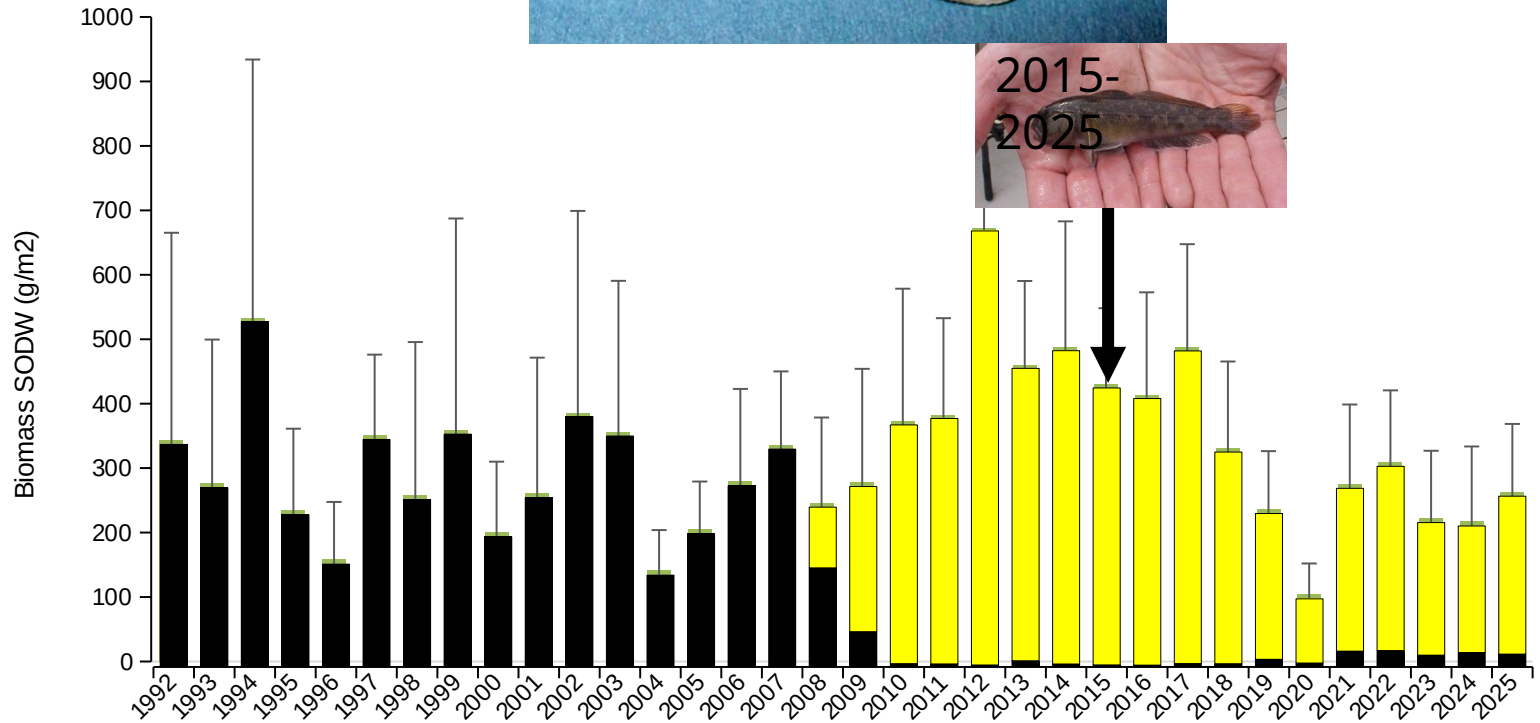
Nutrients – Phosphorus and Nitrogen



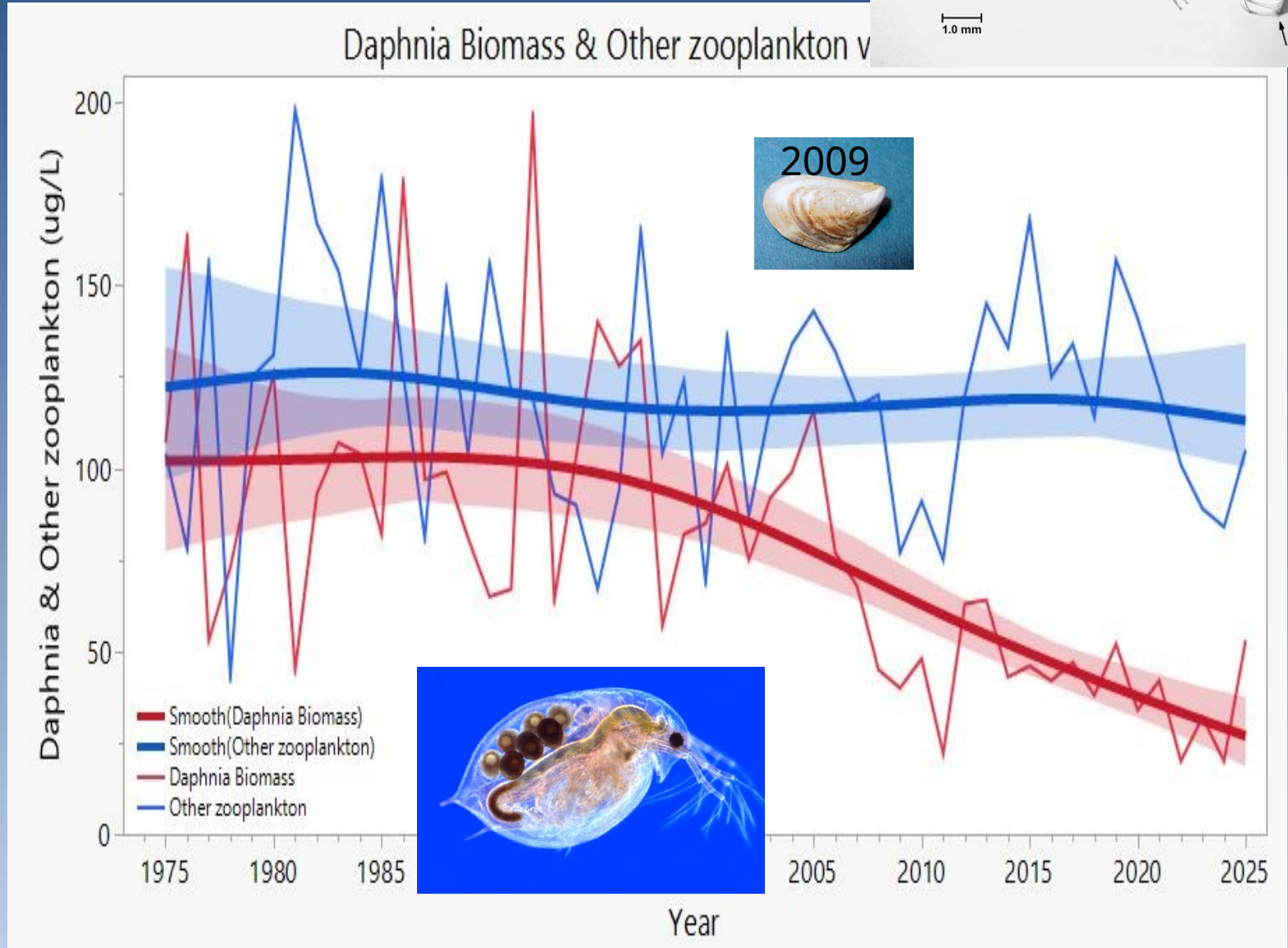
Water Clarity and Chlorophyll-*a*



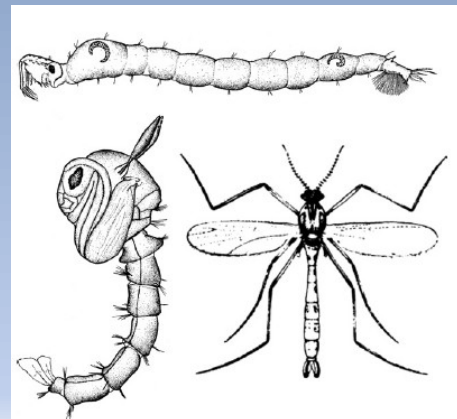
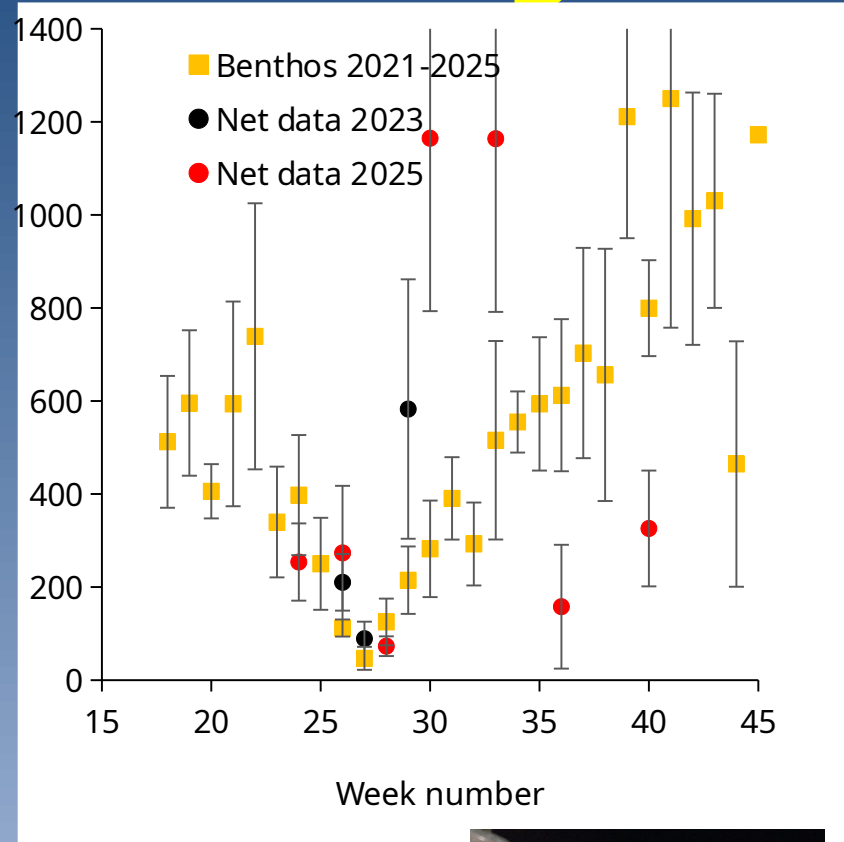
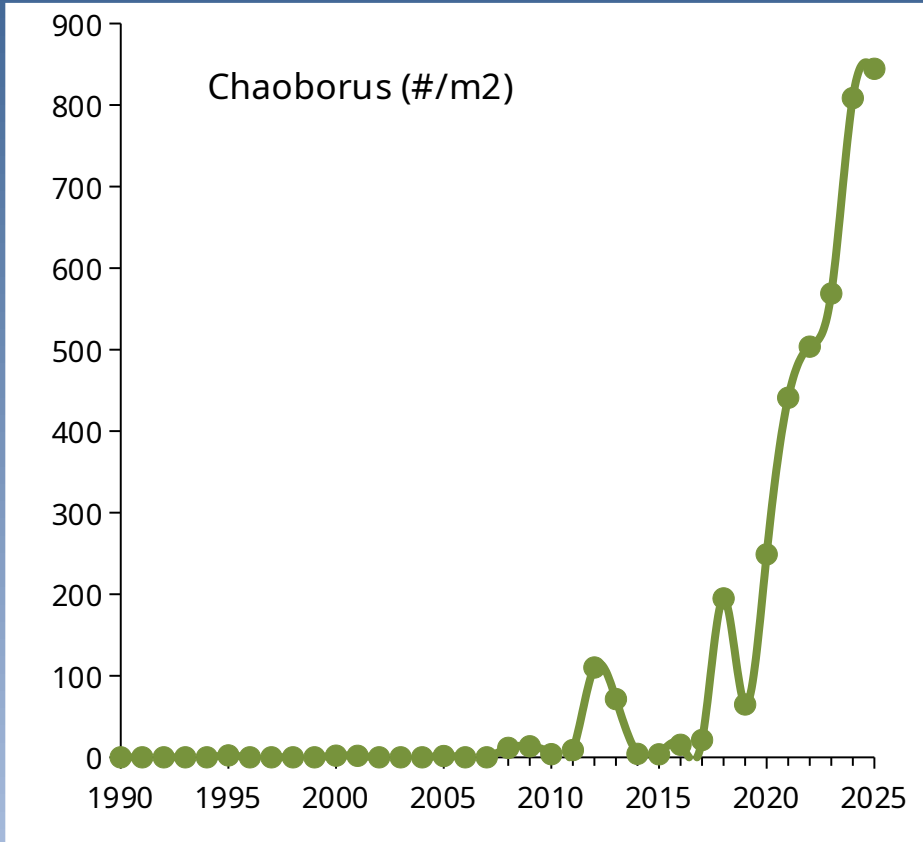
Zebra and Quagga Mussels



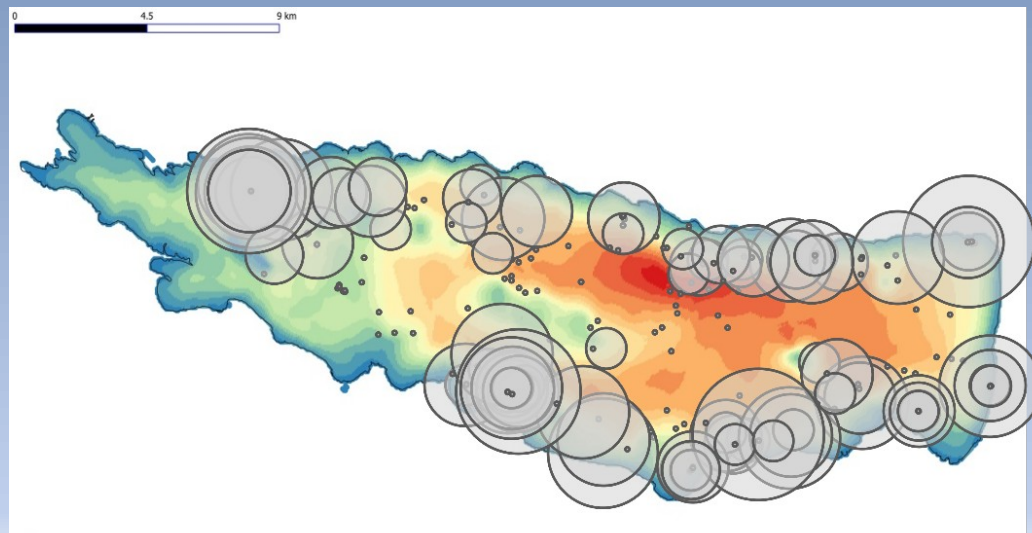
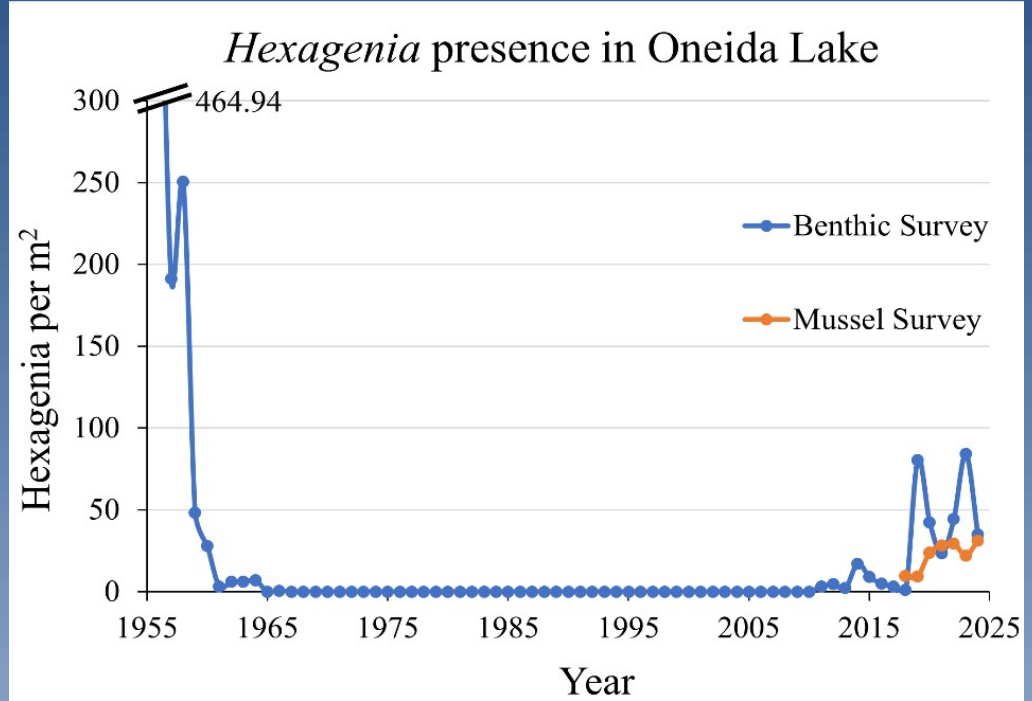
Zooplankton



Chaoborus – phantom midge



Mayflies



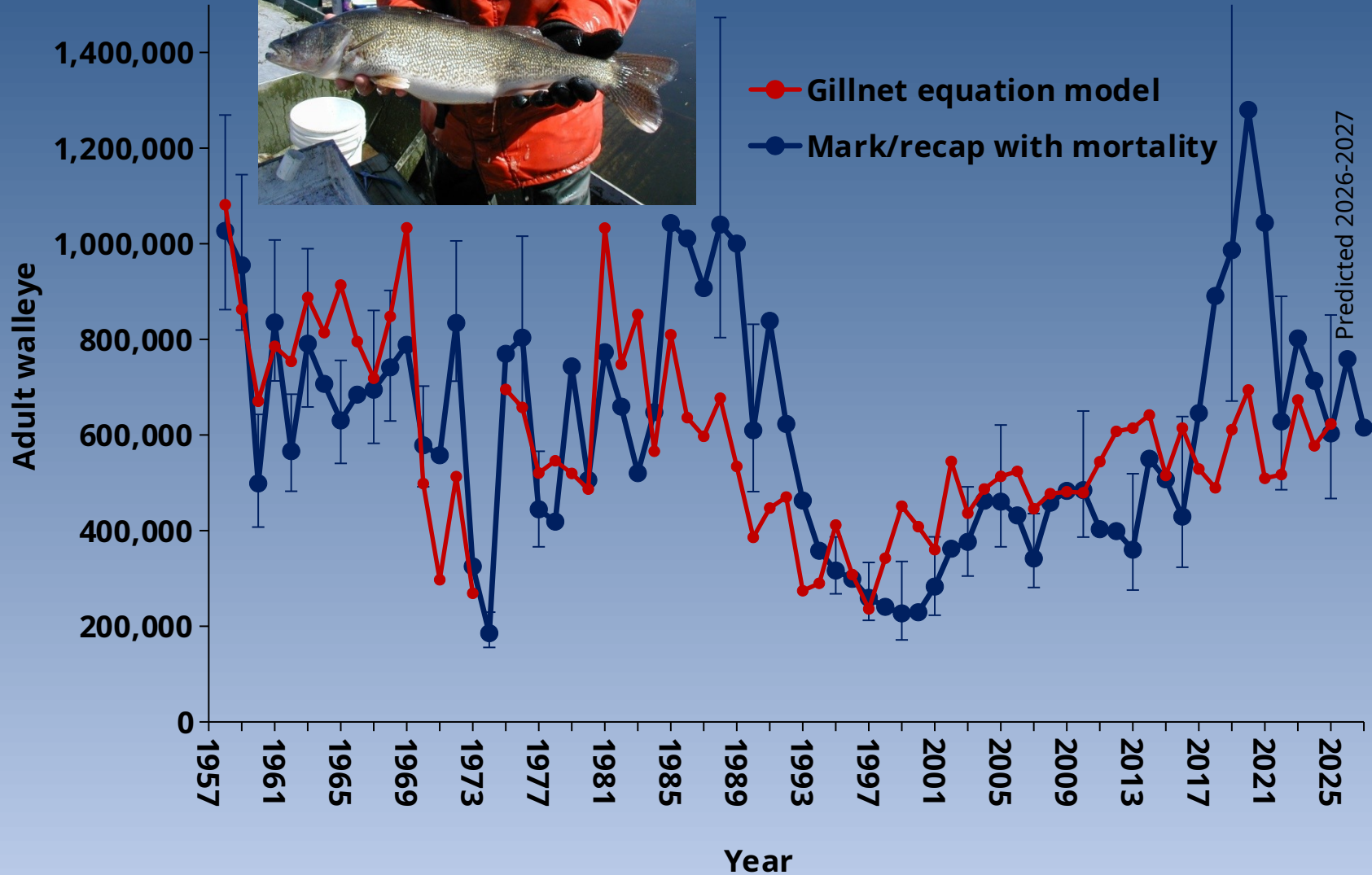
Fish



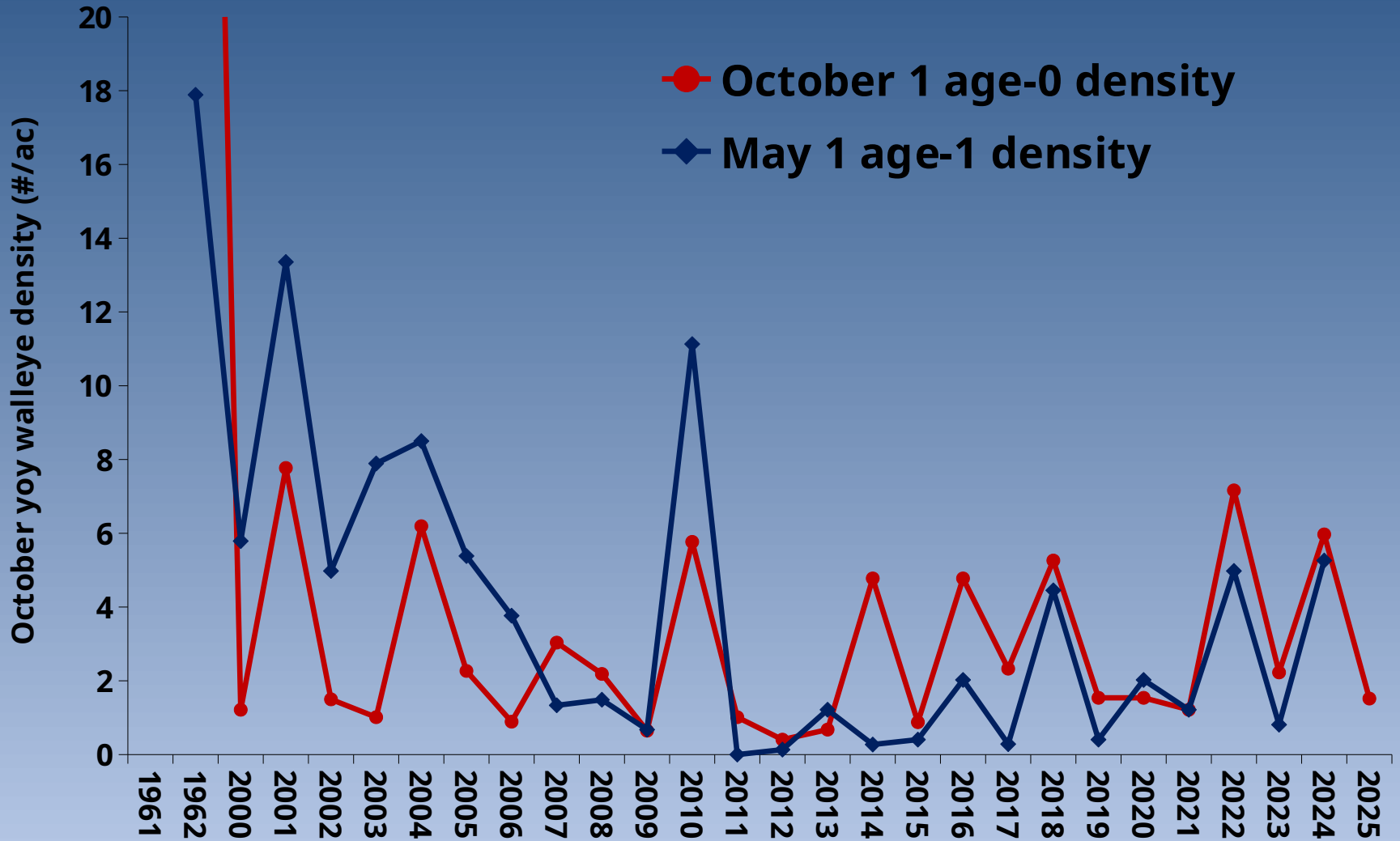
2025 Walleye Population Estimate

- Marked 12,986 walleye at hatchery with fin clip
- Checked 2,693 walleye over summer and fall
 - 1,354 from Electrofishing
 - 215 from Gillnet
 - 383 from Trawl
 - 741 from Fall Trapnet
- Captured 57 with fin clip
- Estimate = 603,177 adult walleye in 2025

Walleye adult population



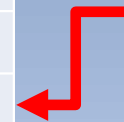
Walleye young fish



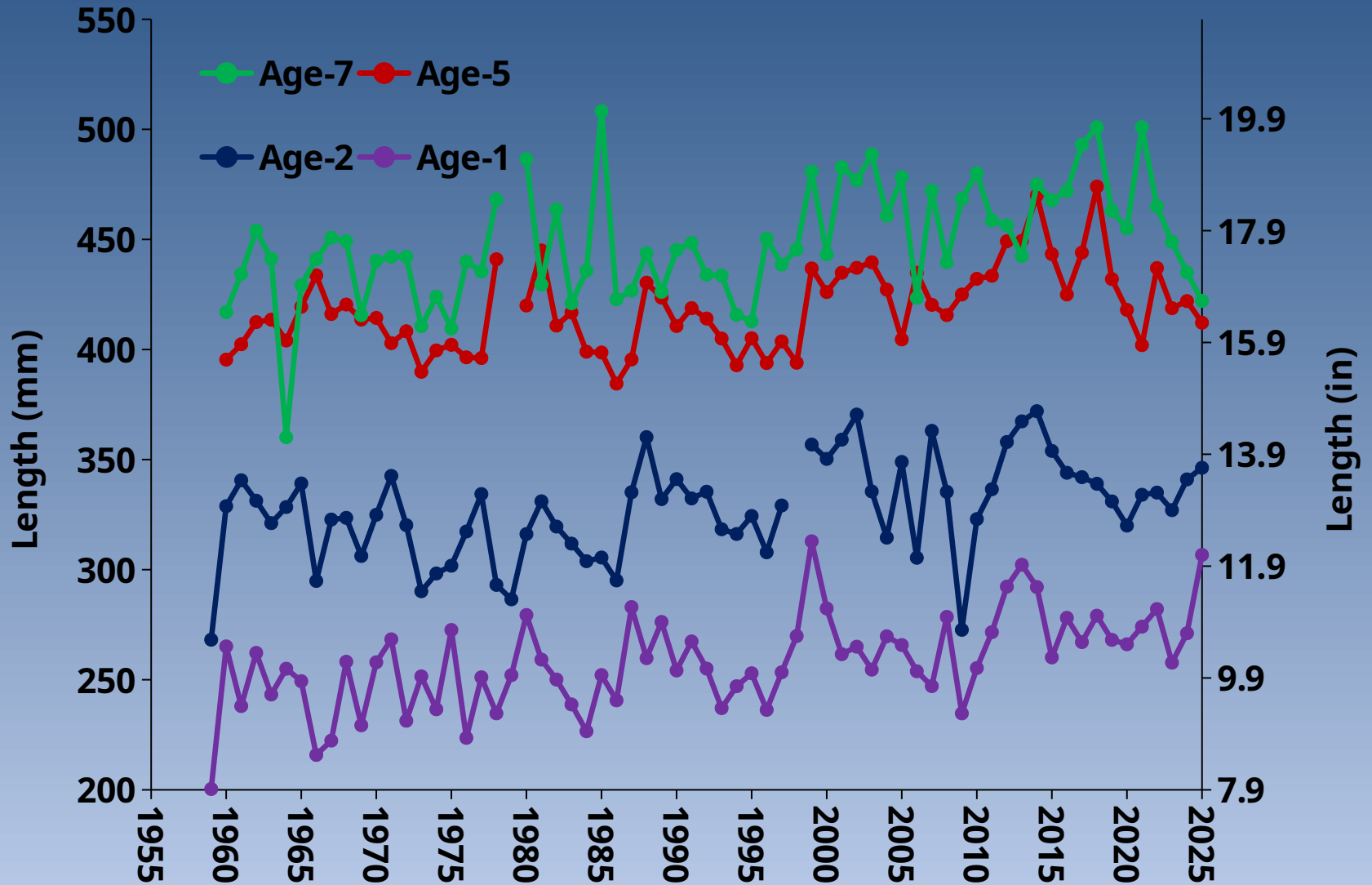
Walleye recruitment of young fish

Year age-4	Year class	Predicted recruit at age-4
2014	2010	108,367
2015	2011	81,704
2016	2012	121,635
2017	2013	133,019
2018	2014	138,705
2019	2015	166,227
2020	2016	270,421
2021	2017	65,502
2022	2018	104,365
2023	2019	89,873
2024	2020	132,987
2025	2021	136,558
2026	2022	330,318
2027	2023	76,897

Should see lots
of 15-16" fish
("shorts" from
last year)



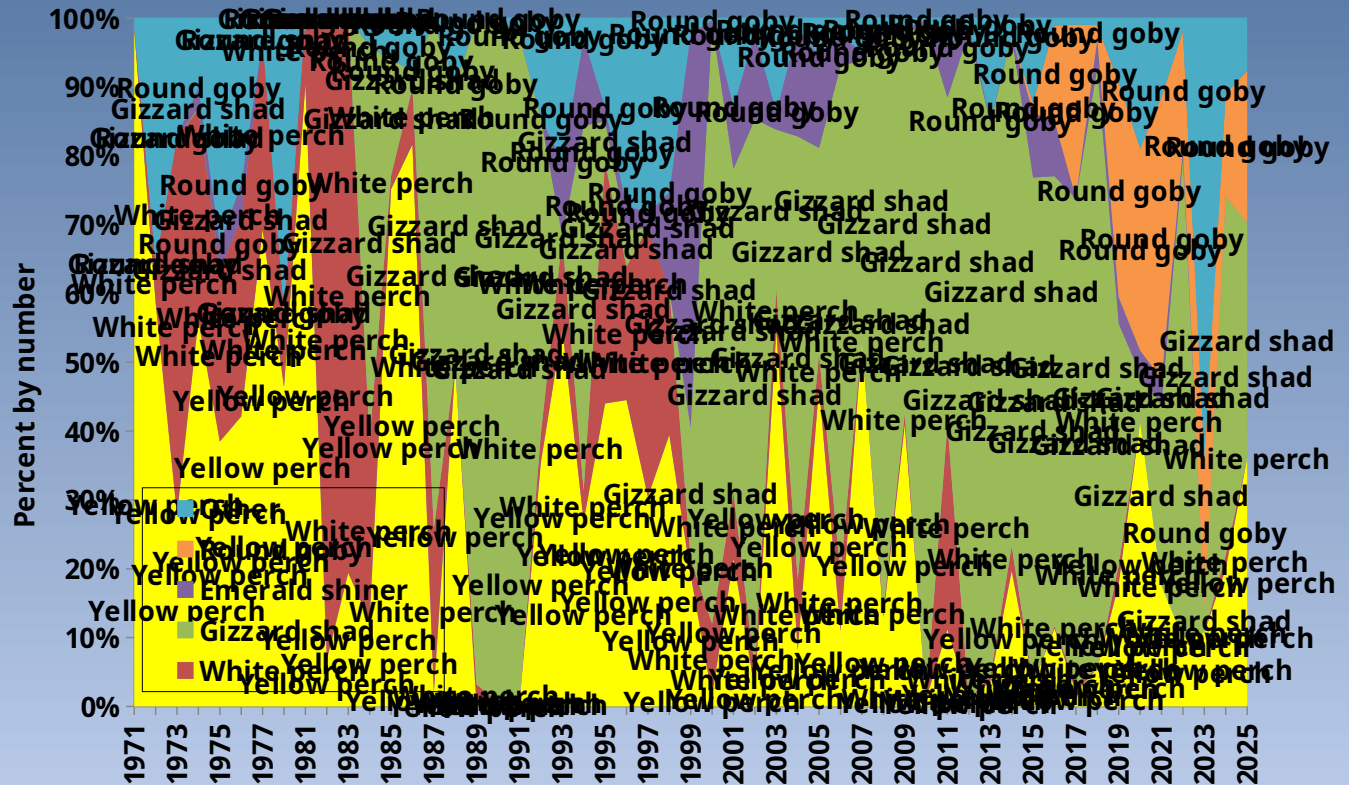
Walleye length at age



Walleye diet

White perch

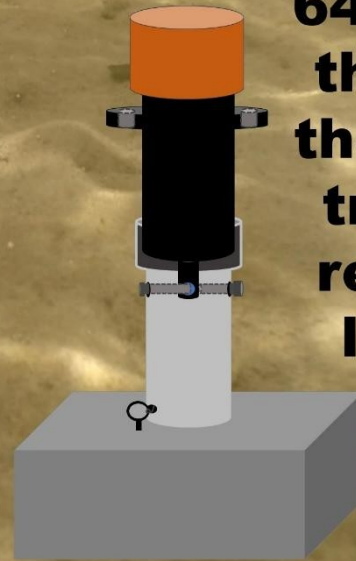
Gizzard shad



Oneida Lake Walleye Telemetry Project

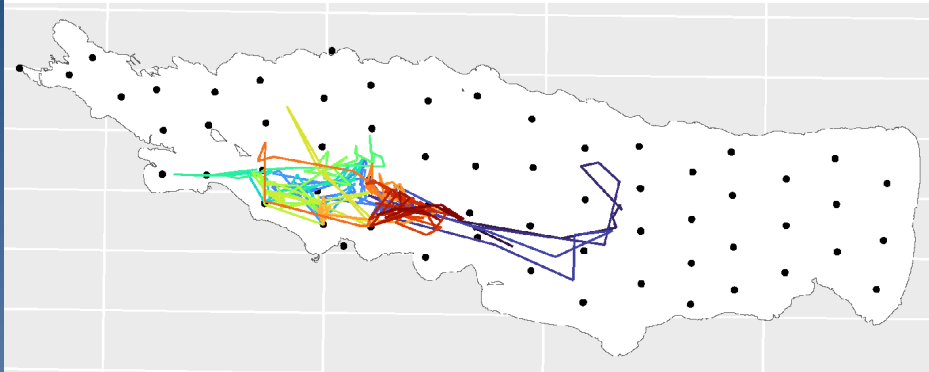


**Transmitters
implanted inside
200 walleye;
send out a signal
every 4 minutes**

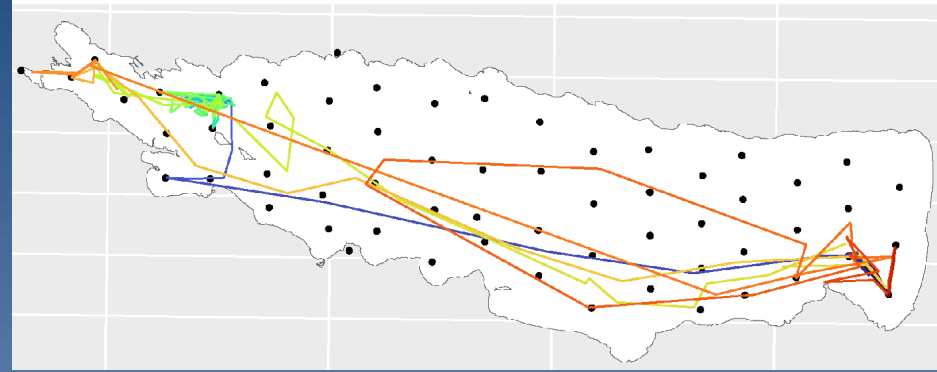


**64 receivers
throughout
the lake and
tributaries
record fish
locations**

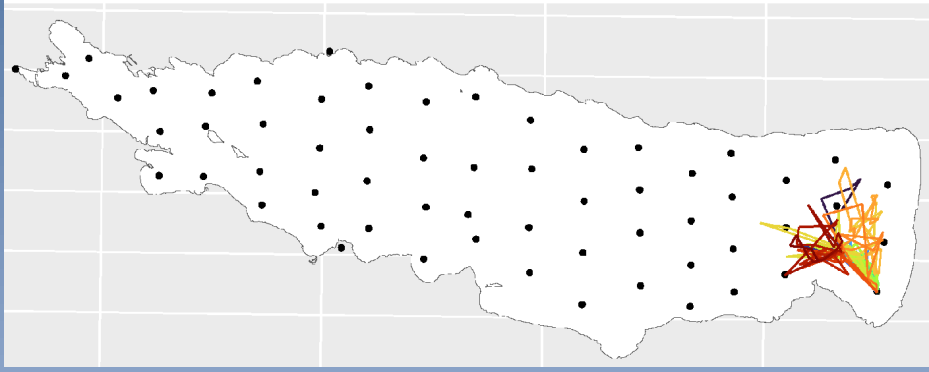
22472001, release: 2023-09-20, location: Shackelton Pt, sex: NA



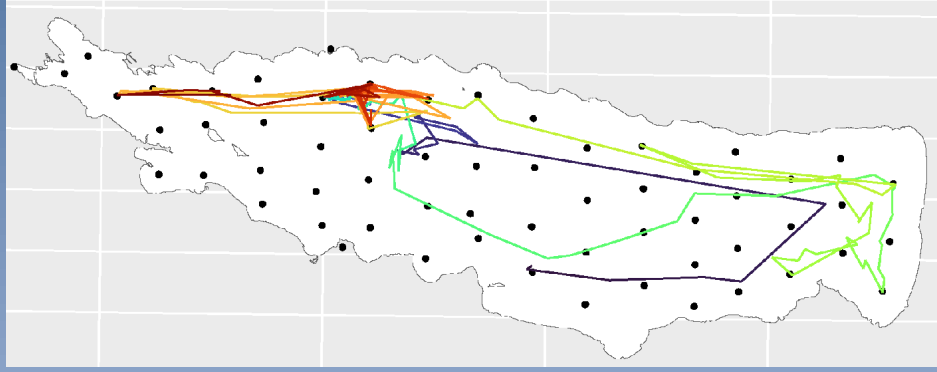
22398001, release: 2023-10-03, location: Lewis Pt, sex: NA



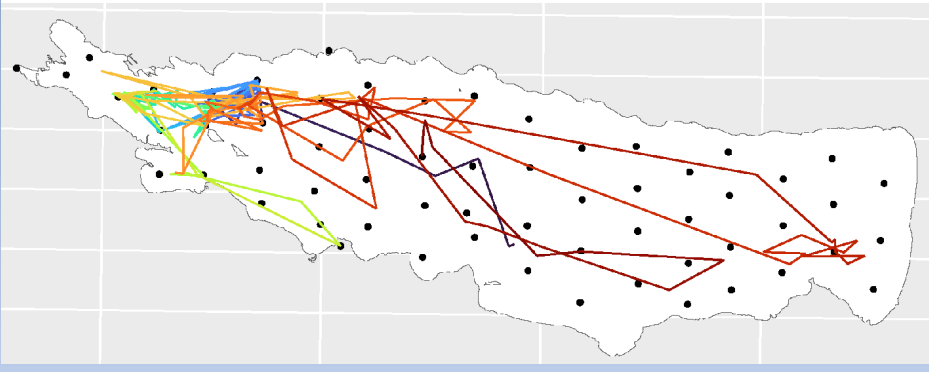
22394001, release: 2023-10-03, location: Lewis Pt, sex: NA



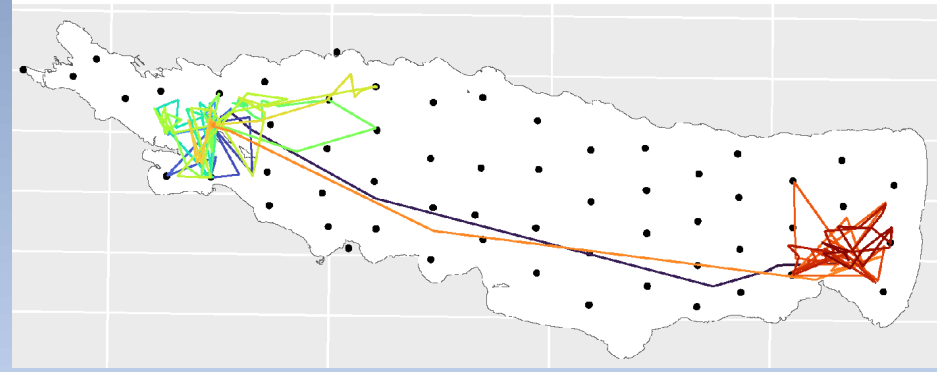
22412001, release: 2023-10-03, location: Shackelton Pt, sex: NA



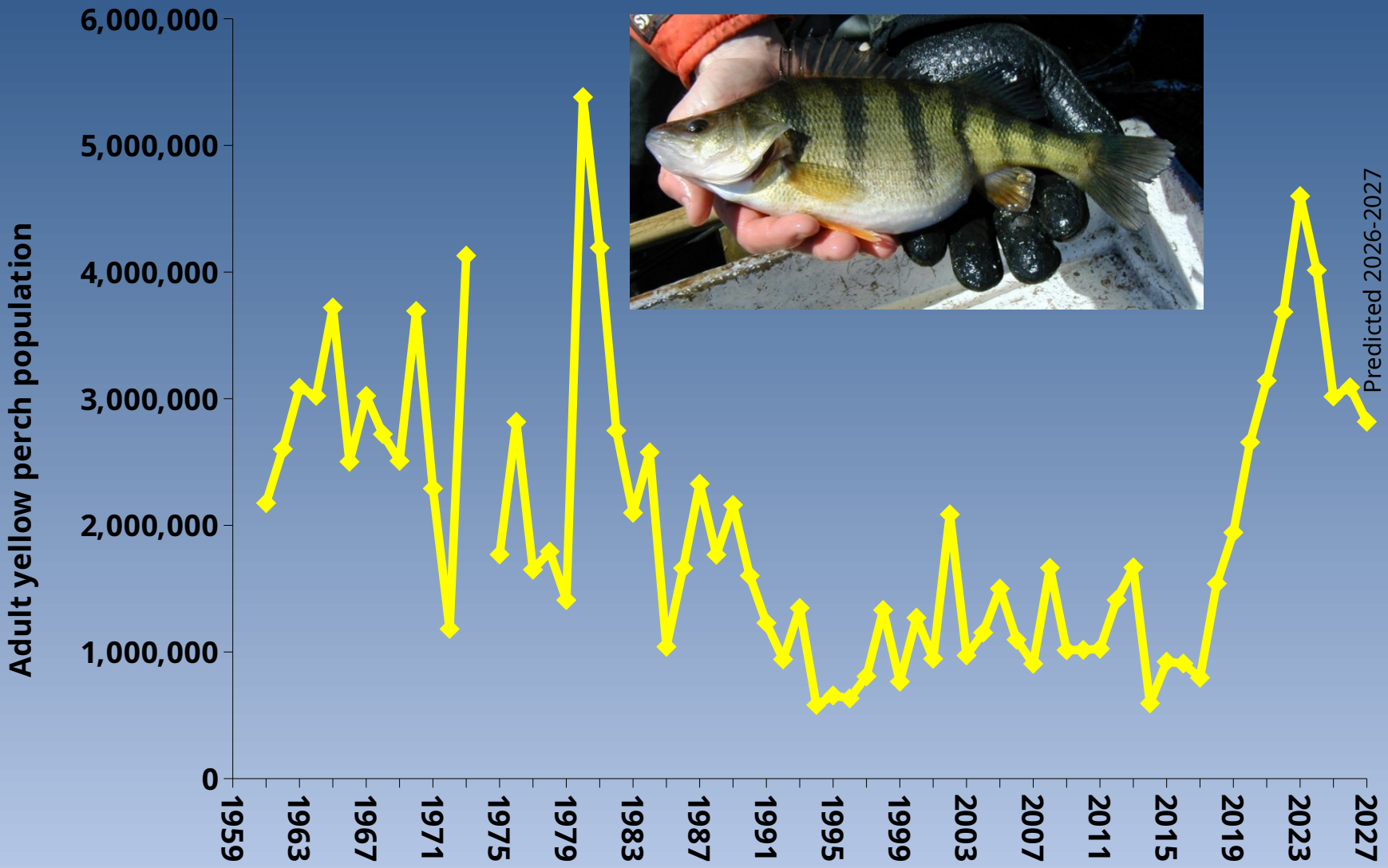
22389001, release: 2023-10-03, location: Shackelton Pt, sex: NA



22407001, release: 2023-10-03, location: Lewis Pt, sex: F

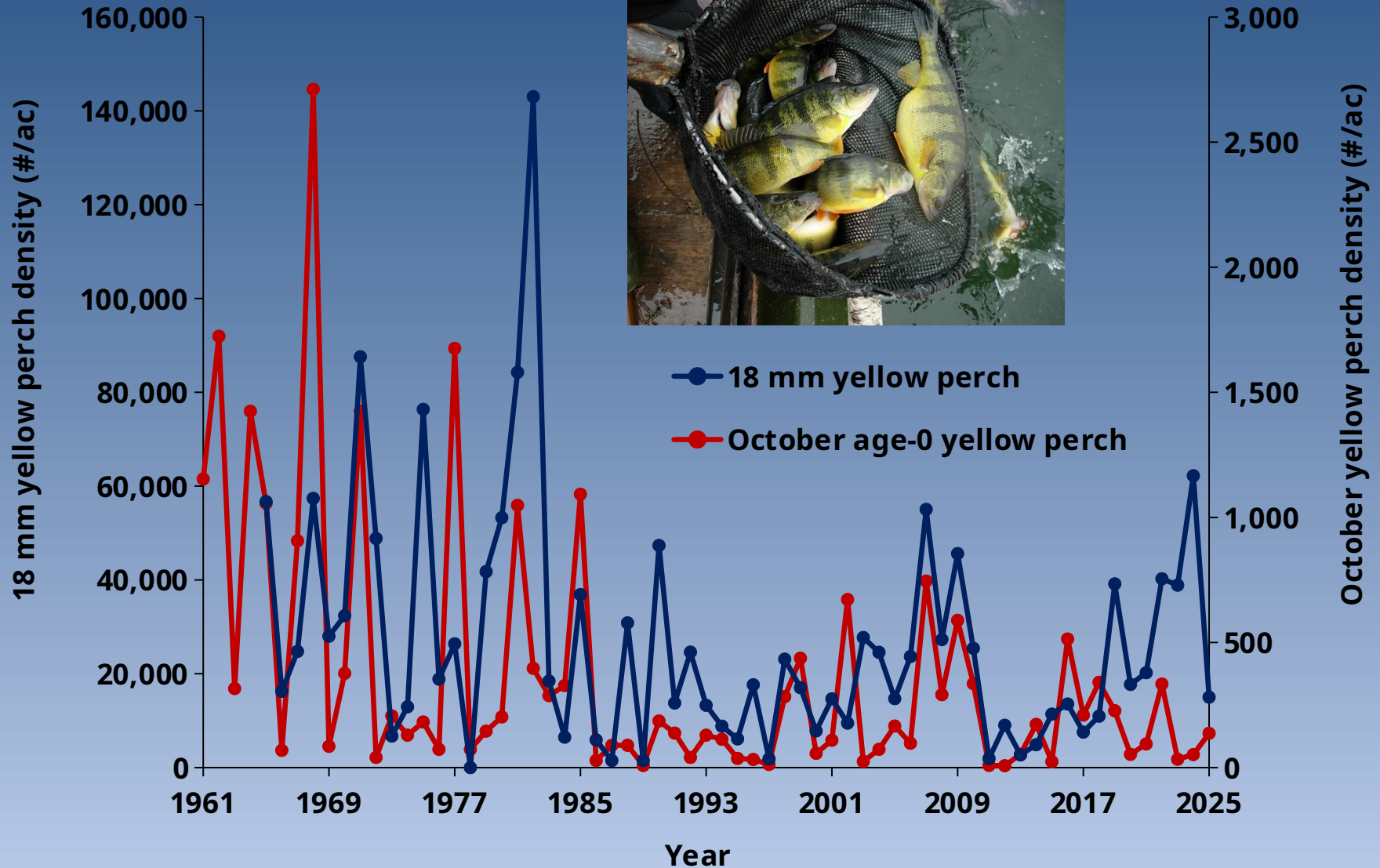


Yellow Perch population

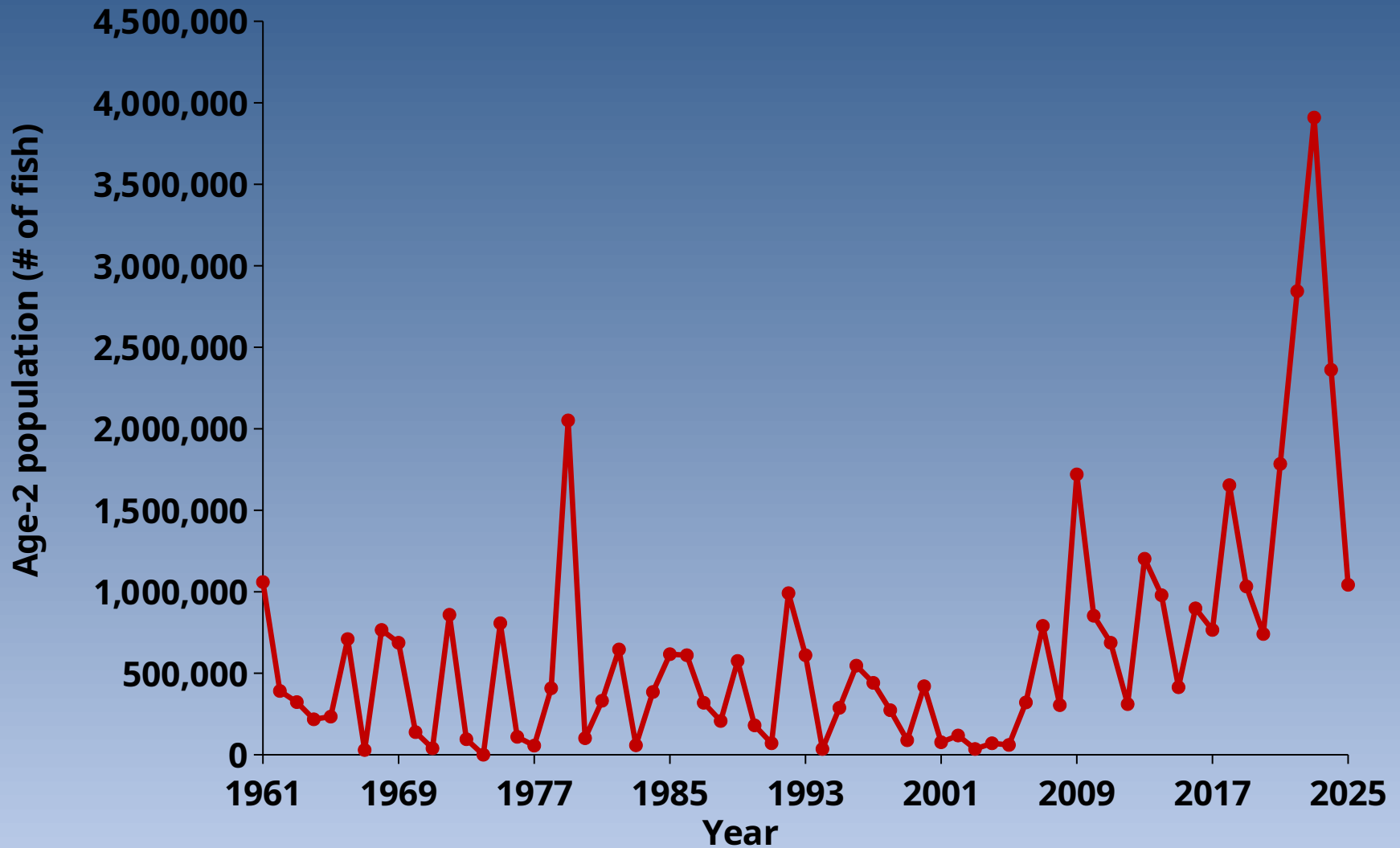


Predicted 2026-2027

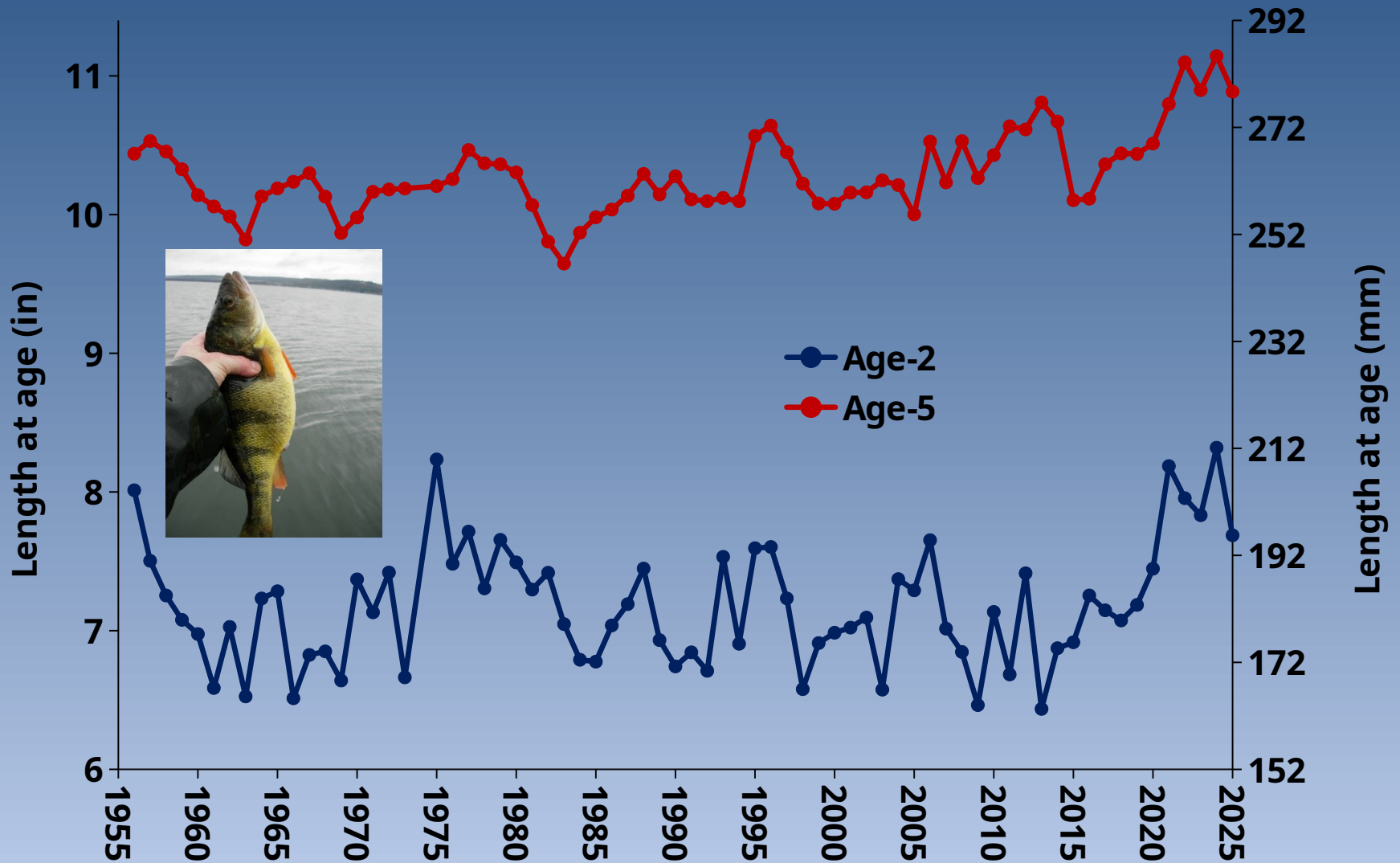
Yellow perch young fish



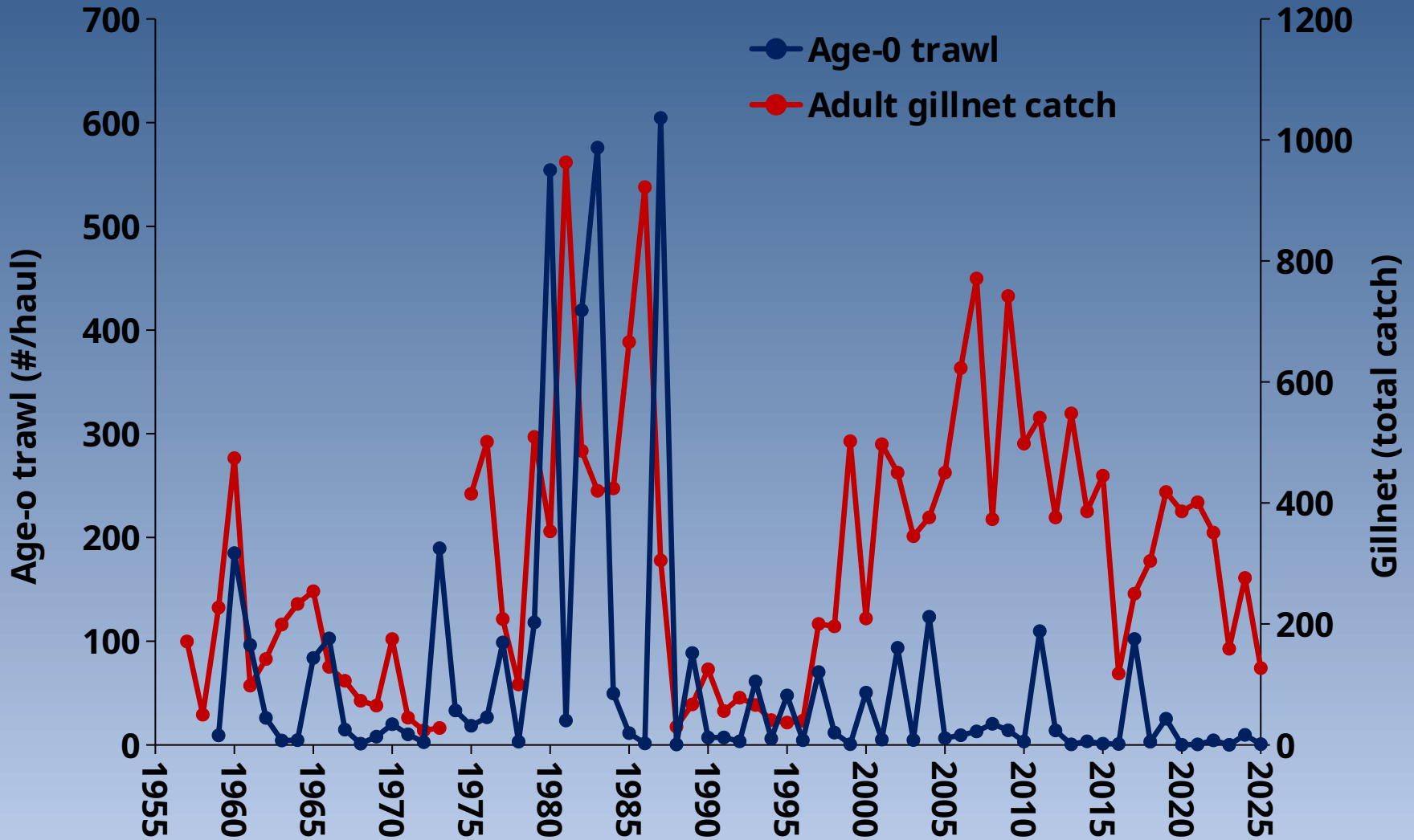
Yellow Perch Age-2



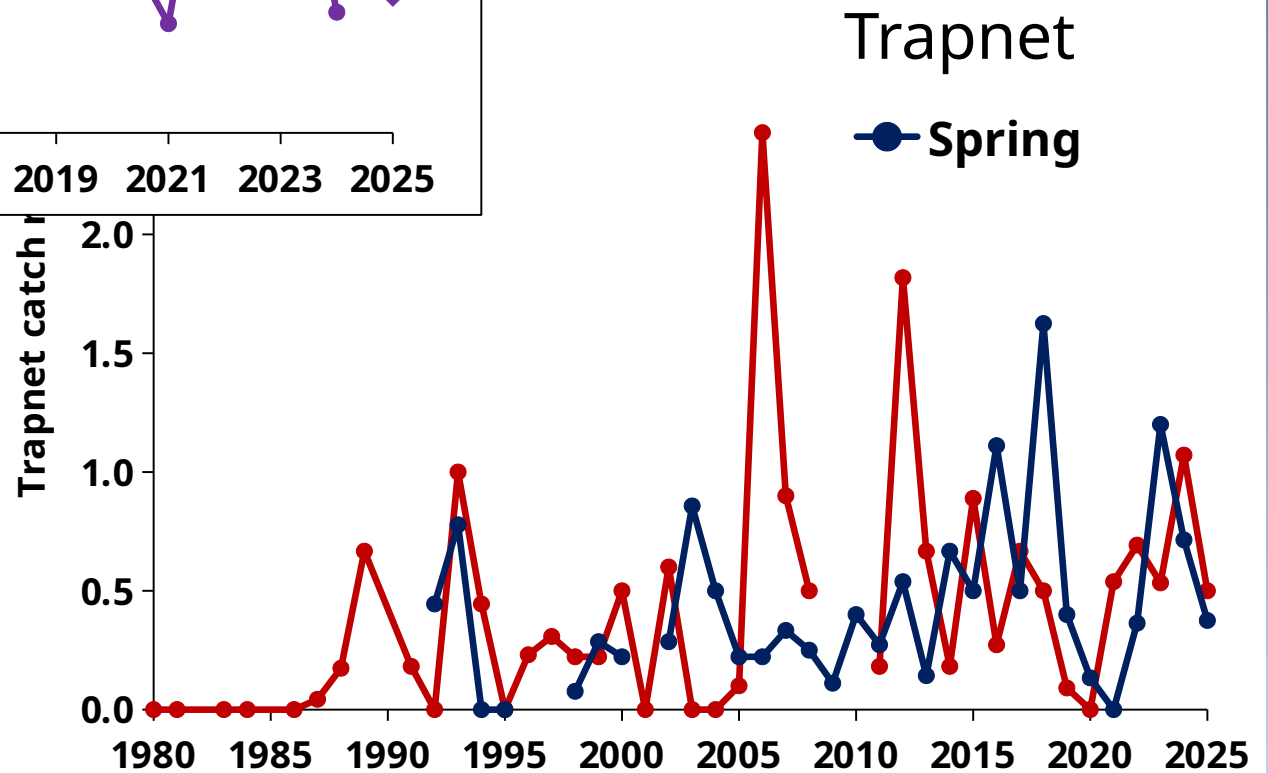
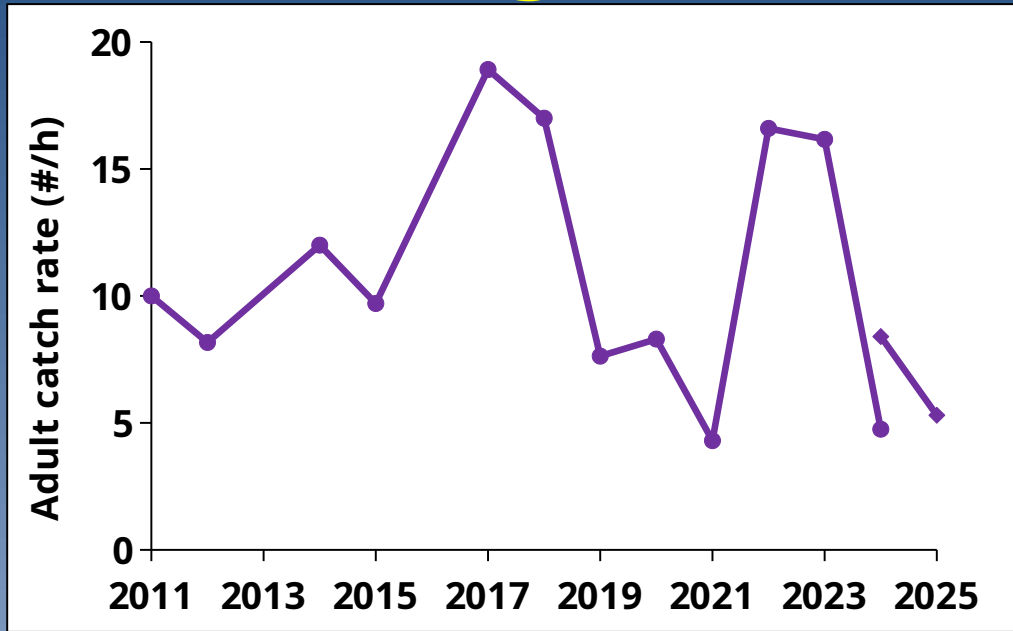
Yellow Perch length at age



White Perch net Catch



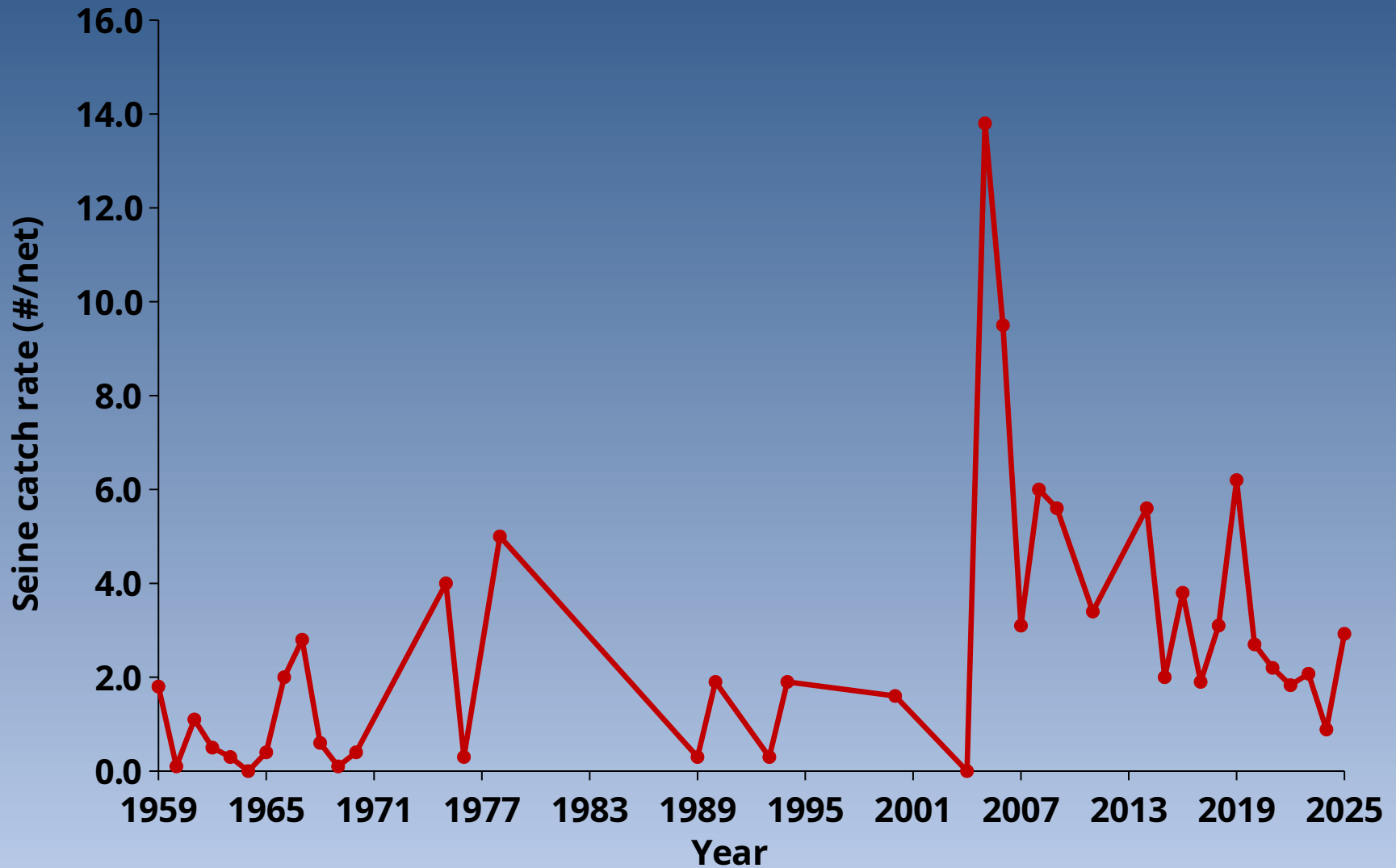
Largemouth Bass Adults



Beach Seine

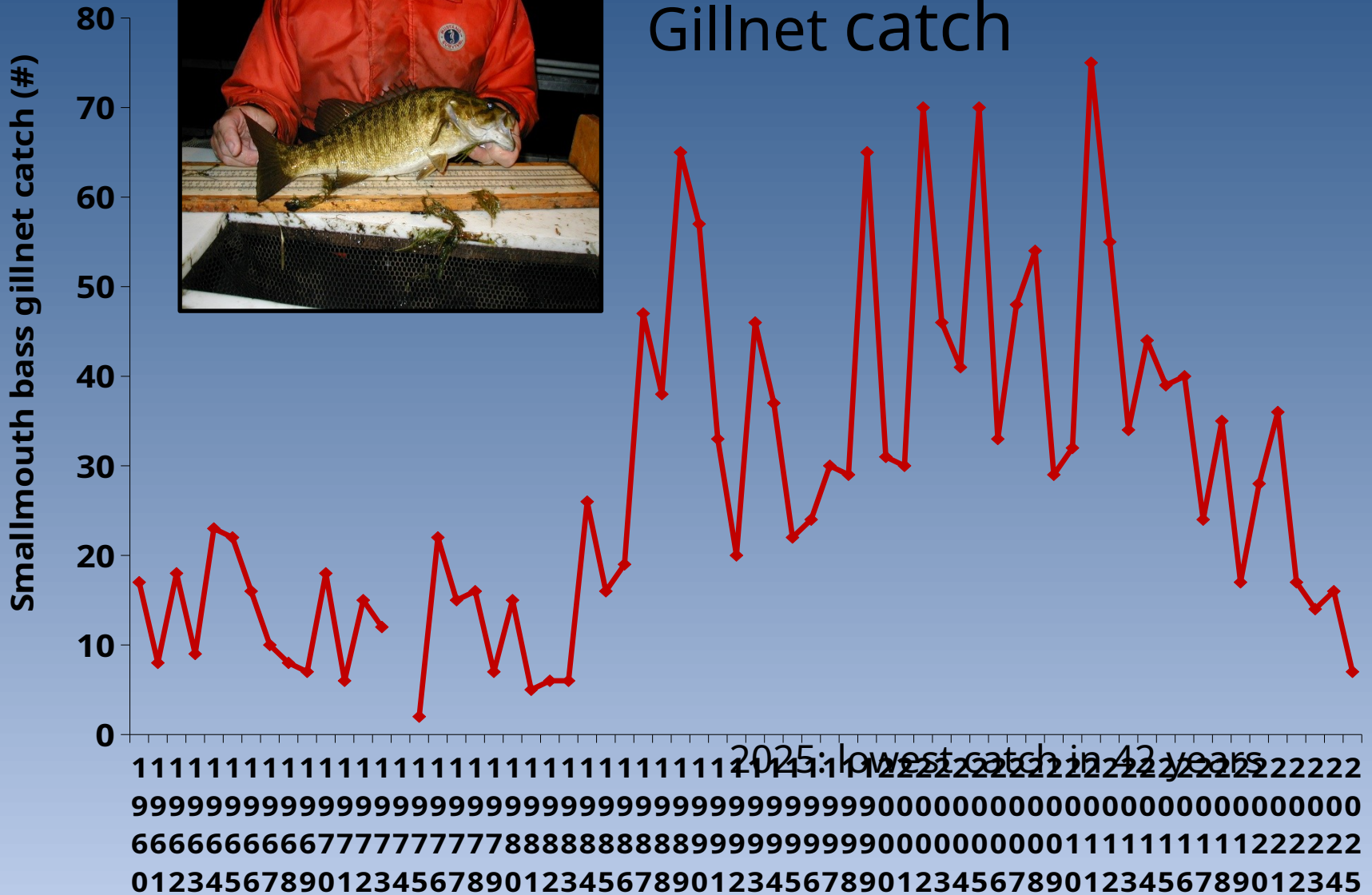


Largemouth Bass young



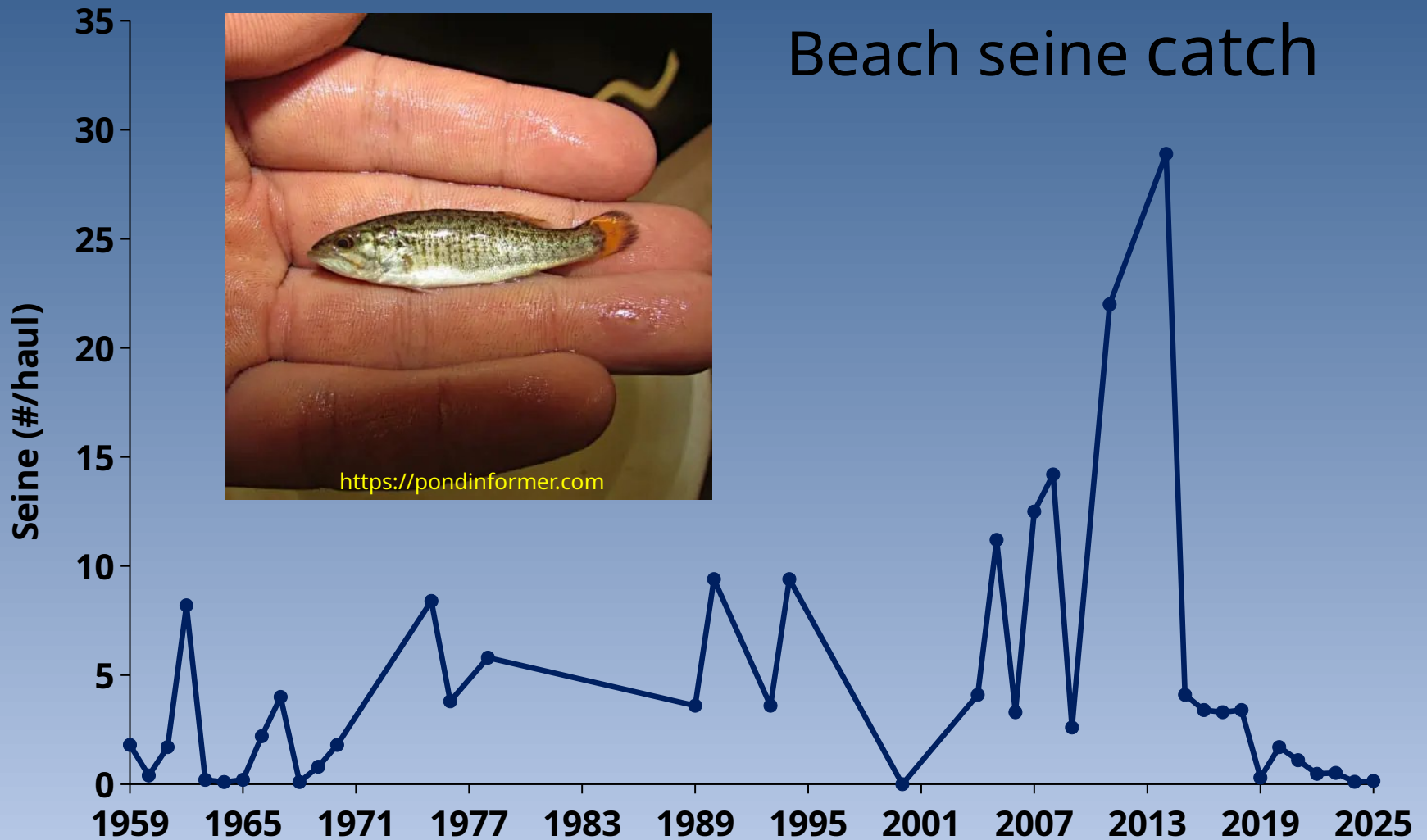
Smallmouth Bass Adults

Gillnet catch



Smallmouth Bass Young

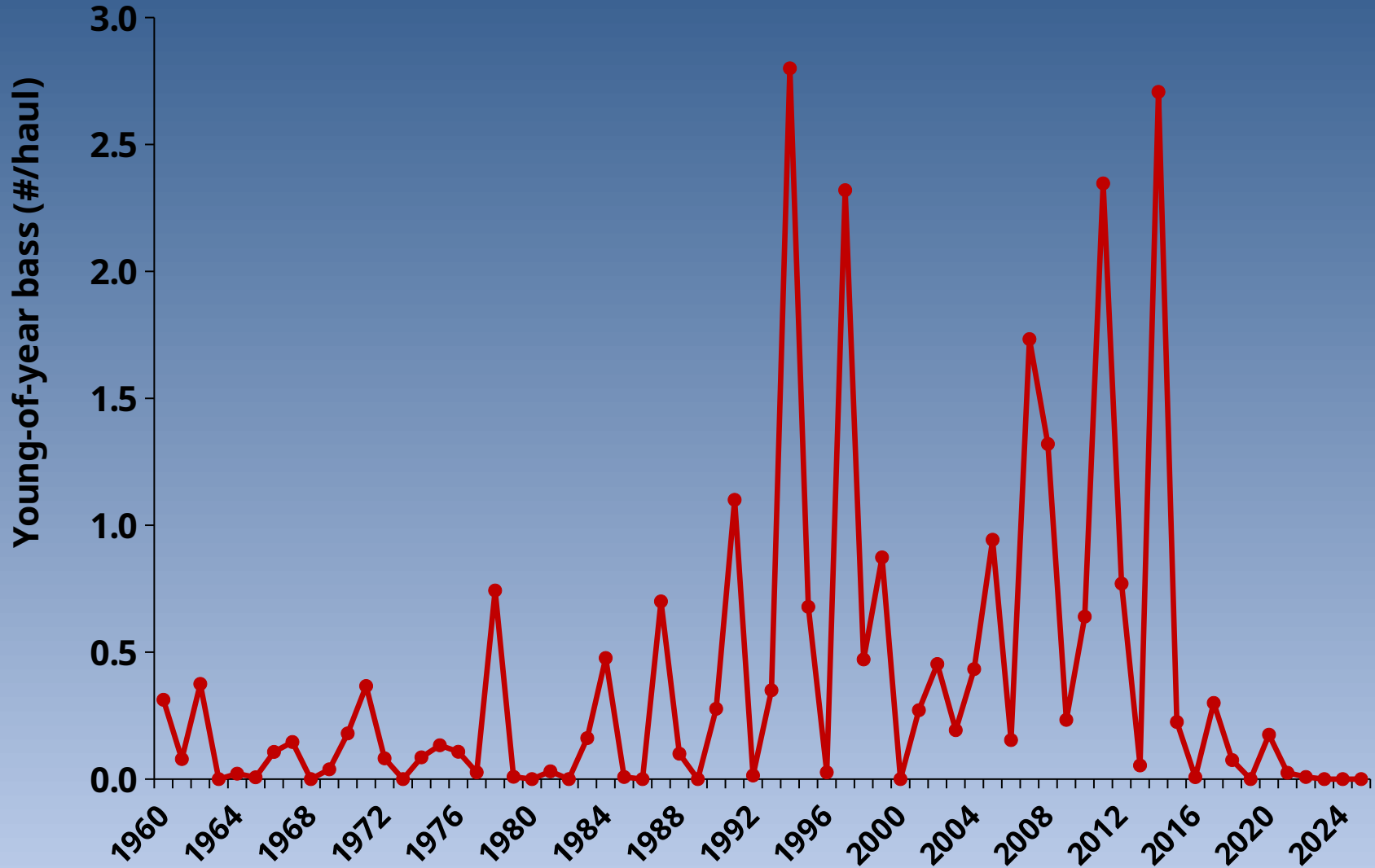
Beach seine catch



Smallmouth Bass young trawl catch



Smallmouth Bass young Trawl catch



Sturgeon

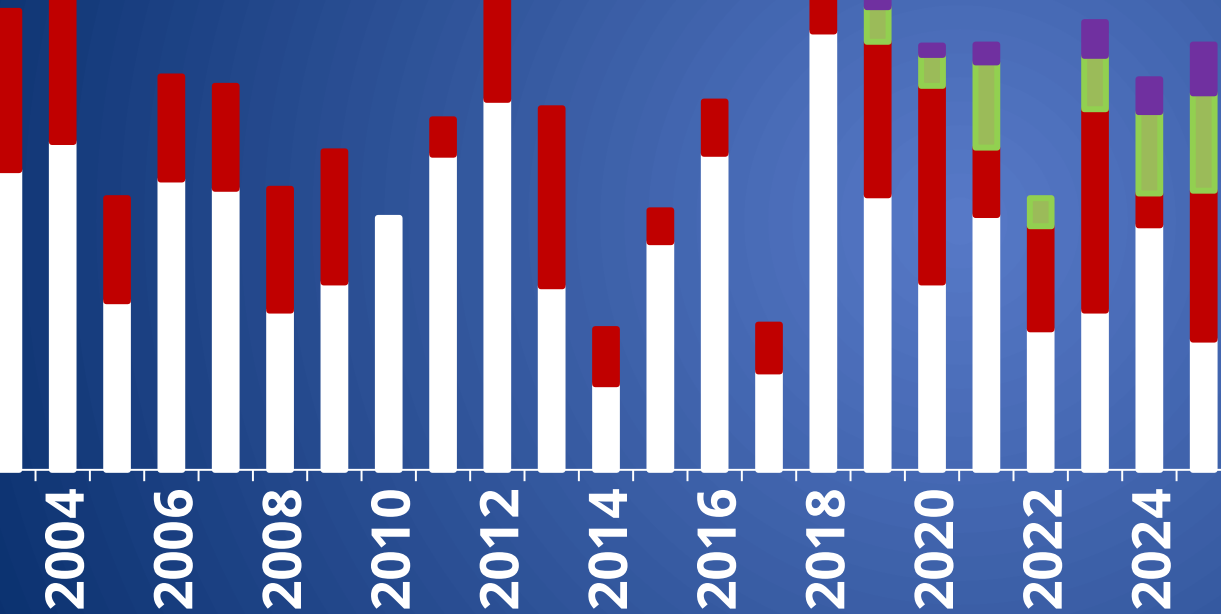


Adult Sturgeon net catch

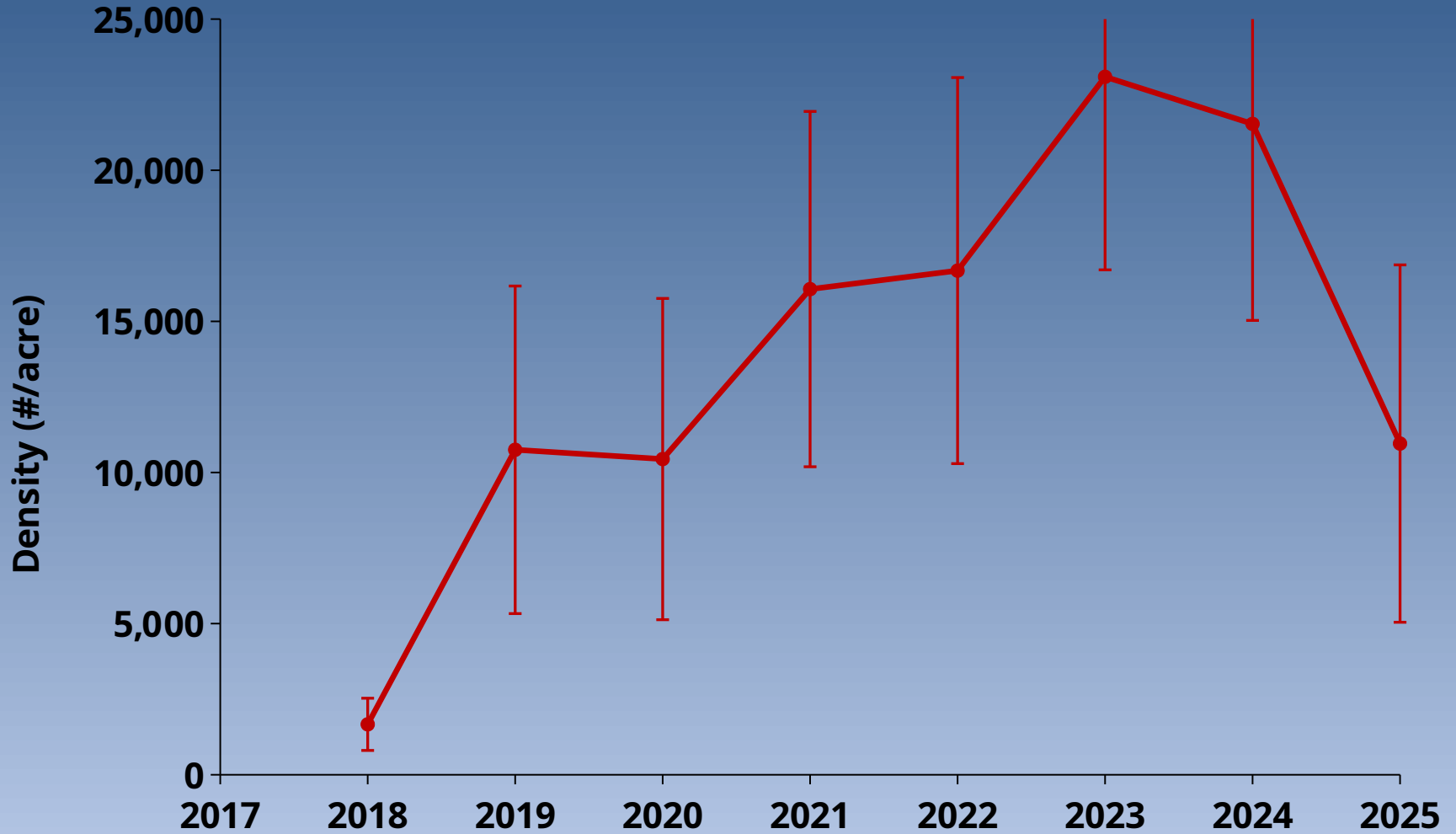
Largest - 159 lbs, May 19, 2021

5 wild fish since 2011

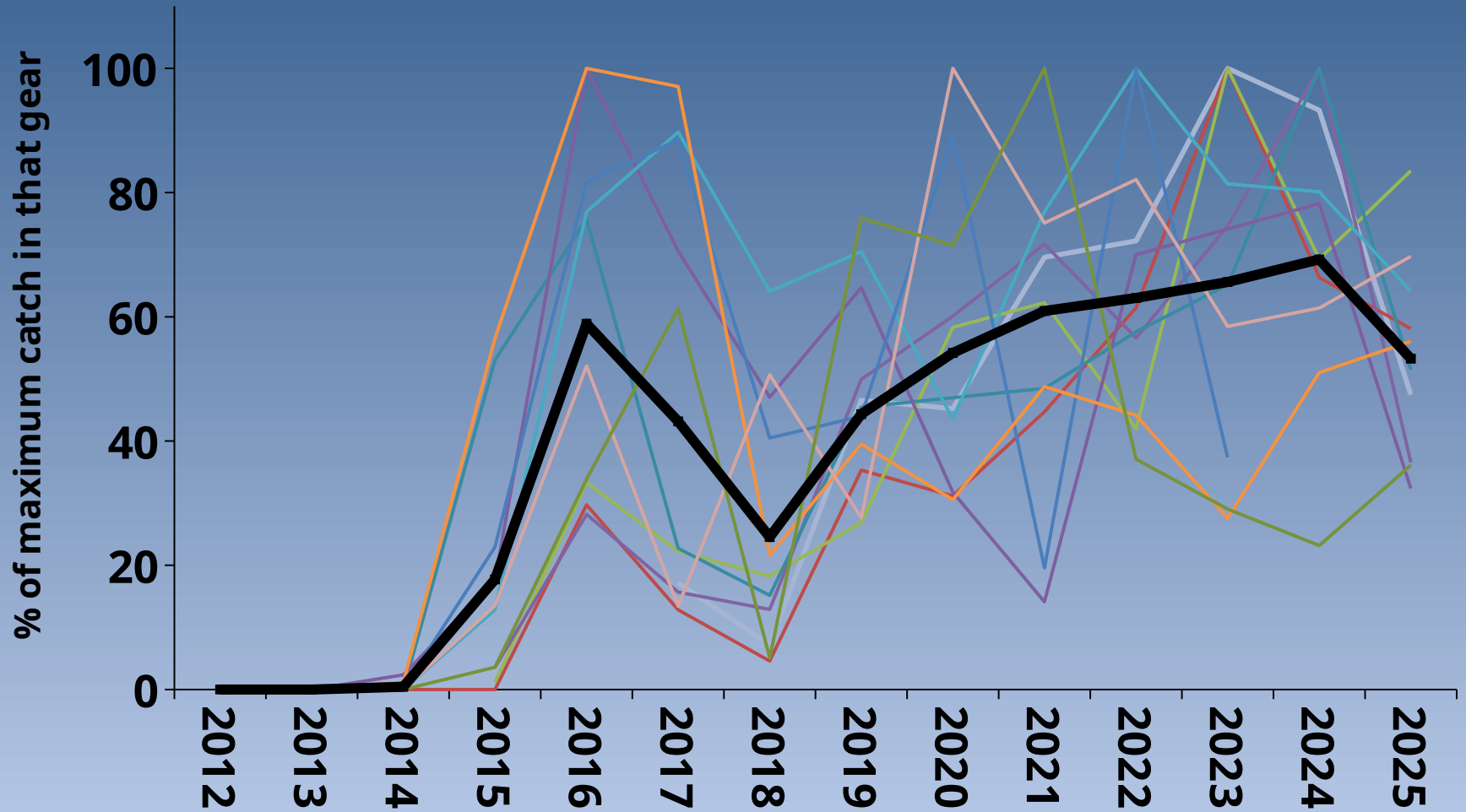
- June 14"
- May 14"
- June 6"-12"
- May 6"-12"



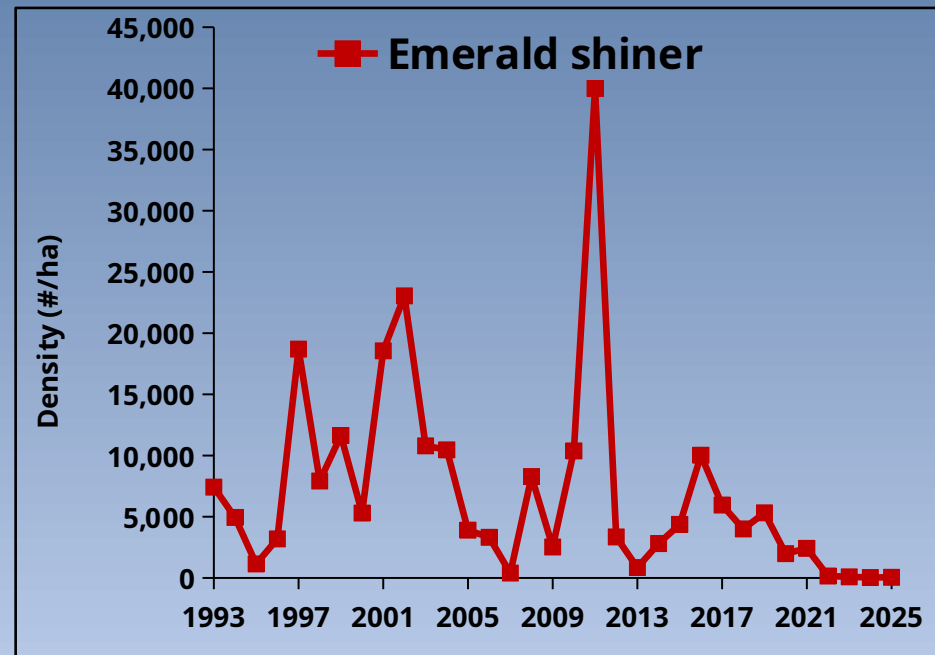
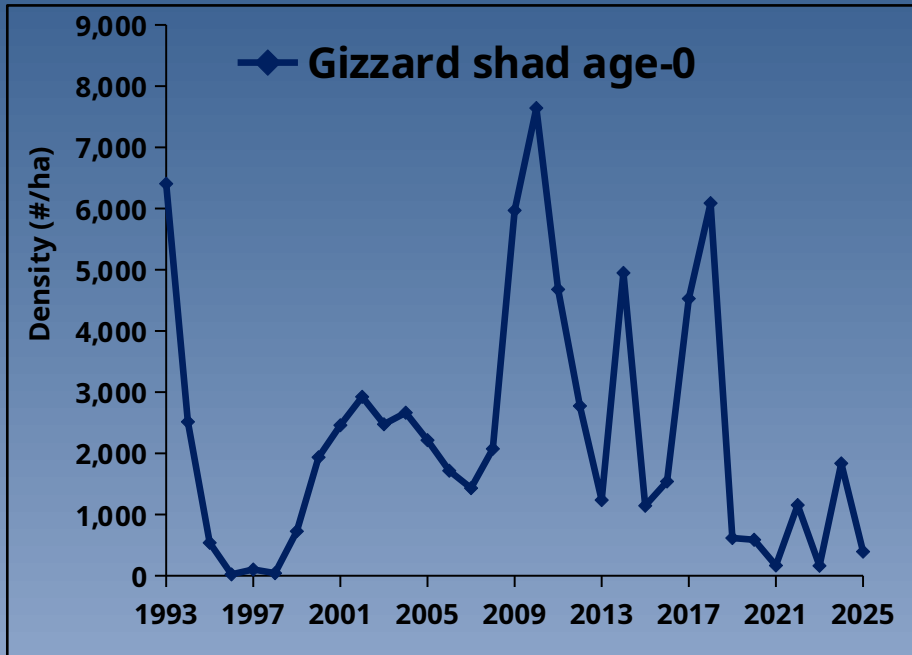
Round Goby Video Survey



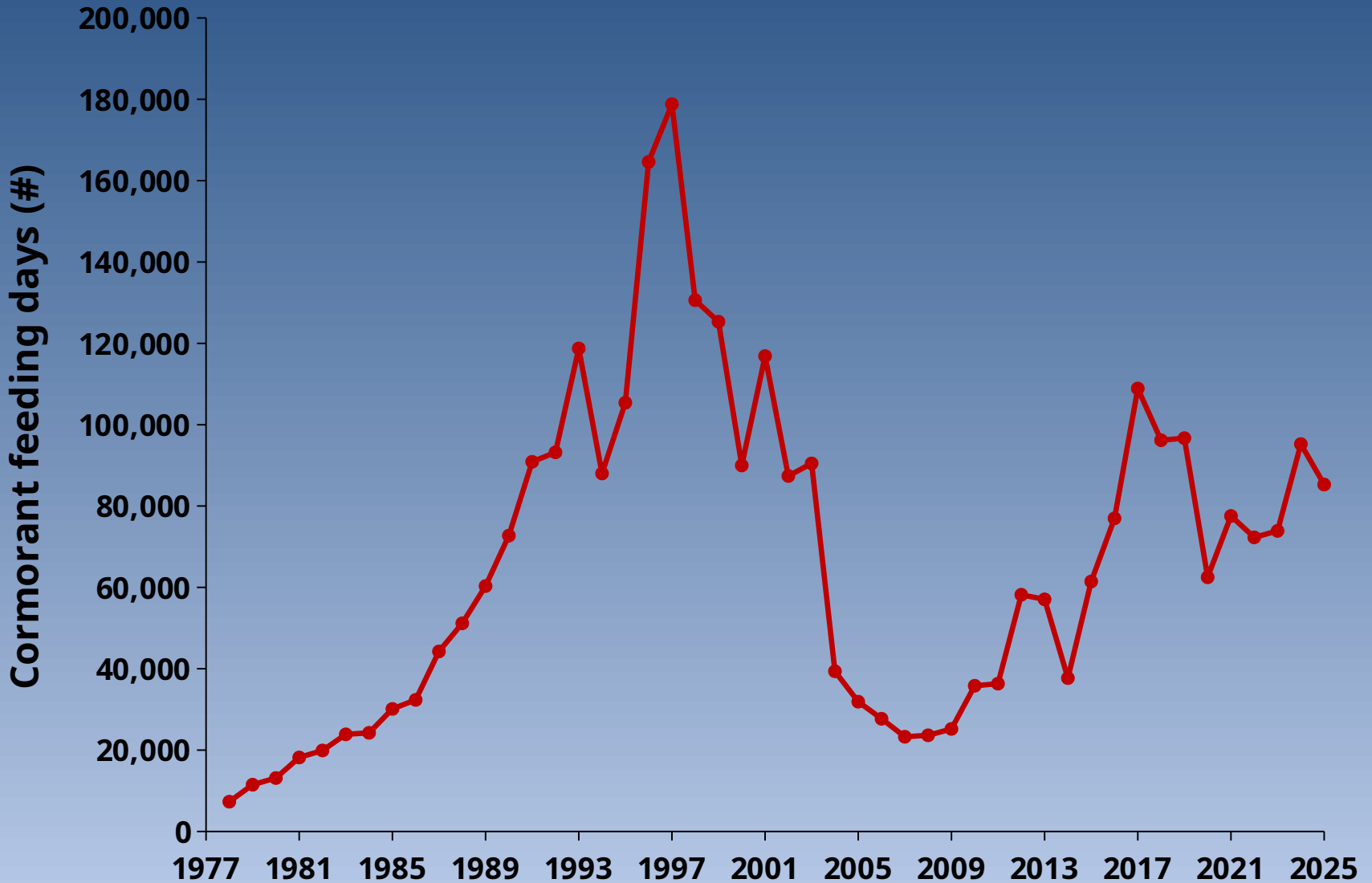
Round Goby All Gears



Gizzard Shad and Emerald Shiners

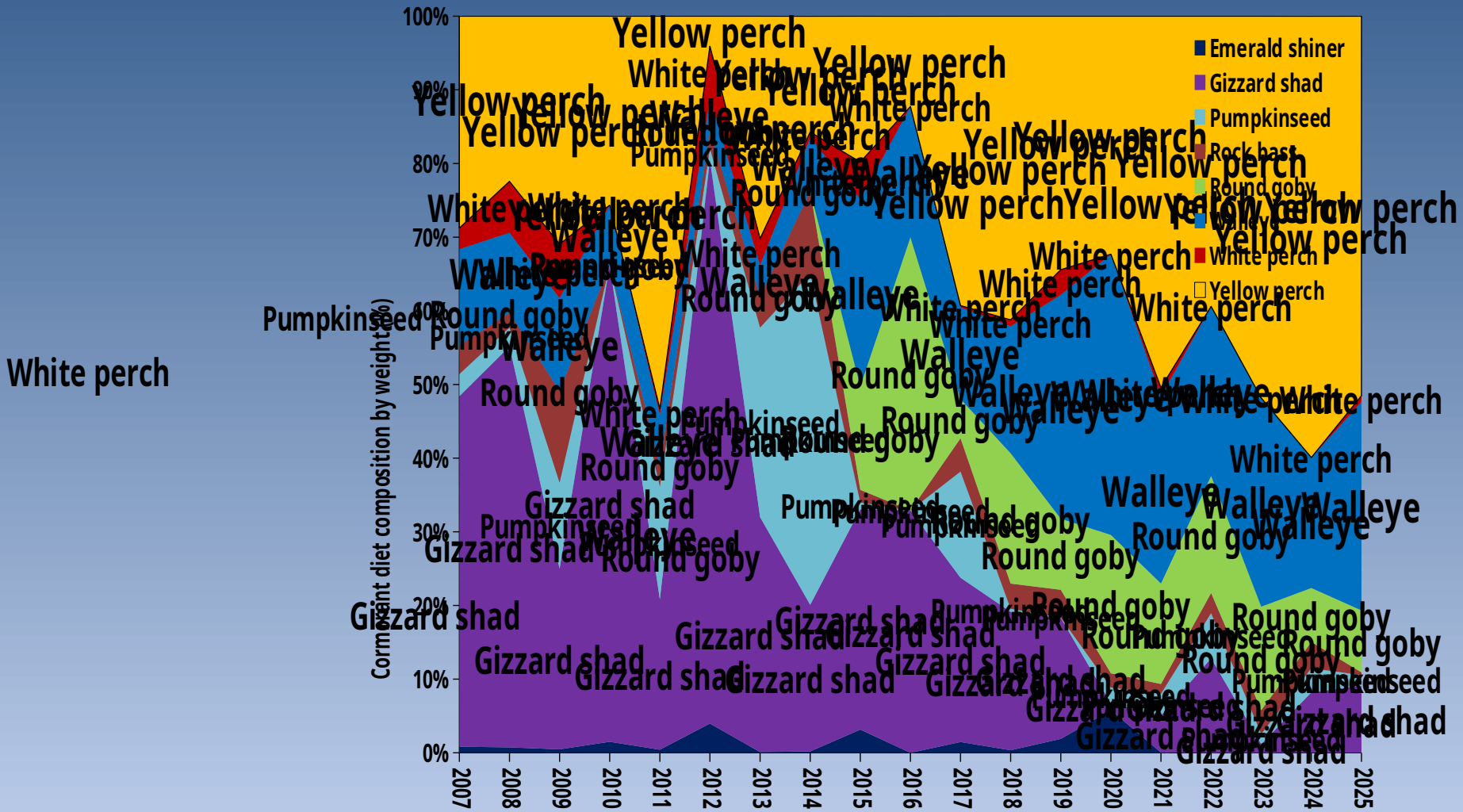


Cormorants - # Feeding Days



Cormorant Diets 2025

270 birds, 1,221 diet items, 15 species



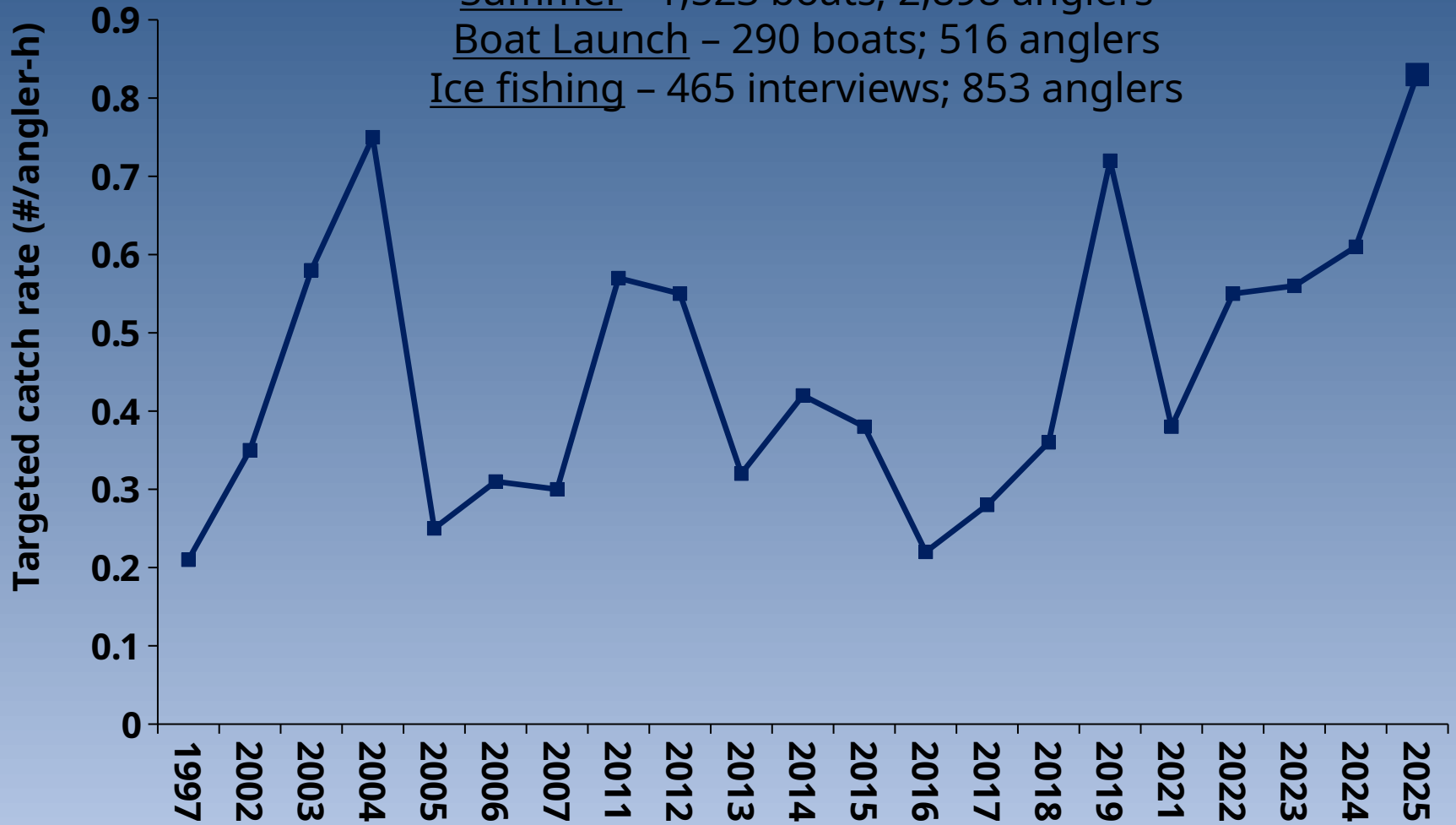
Walleye Angler Catch Rates

Interviews:

Summer - 1,523 boats; 2,898 anglers

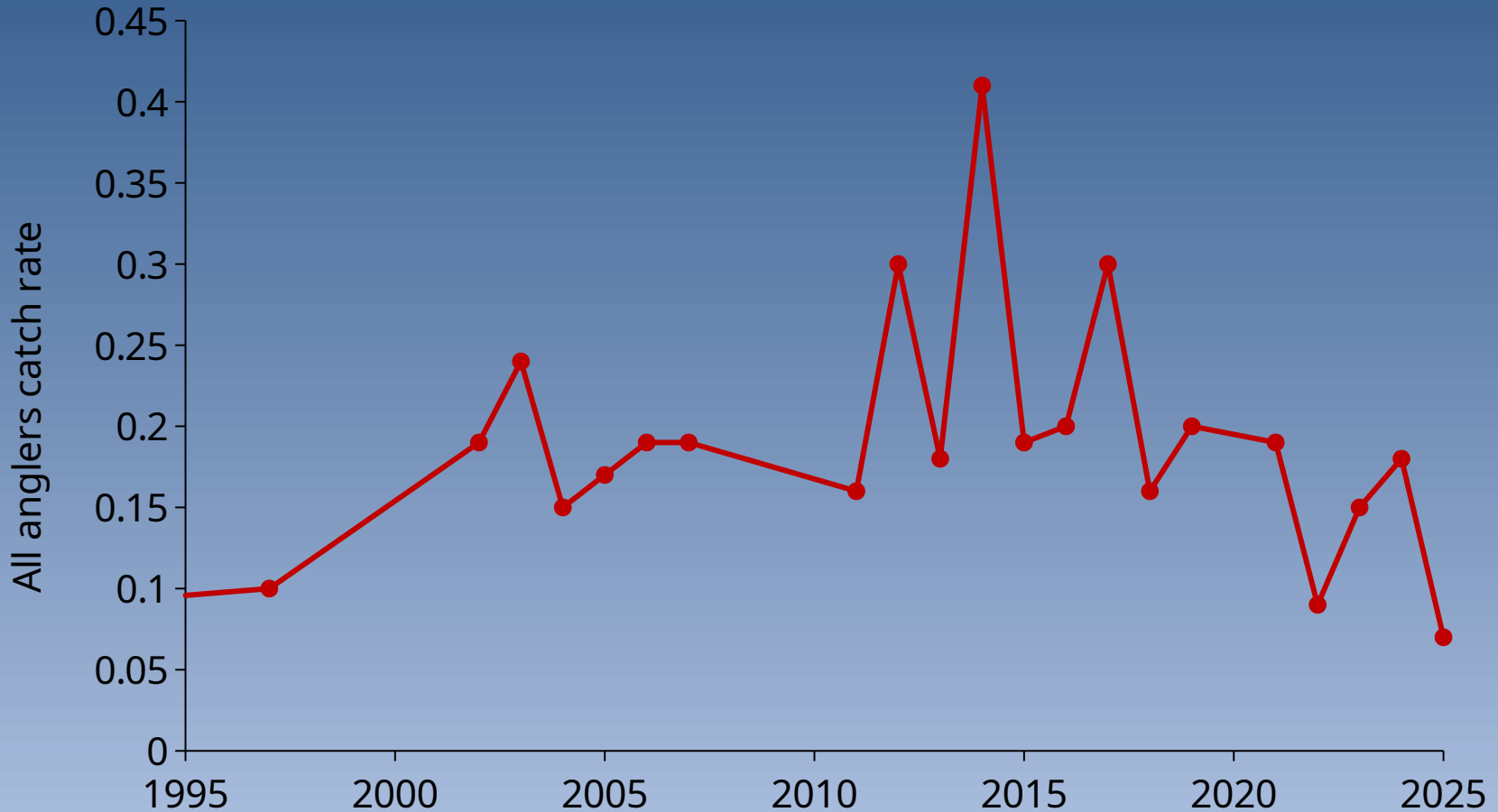
Boat Launch - 290 boats; 516 anglers

Ice fishing - 465 interviews; 853 anglers

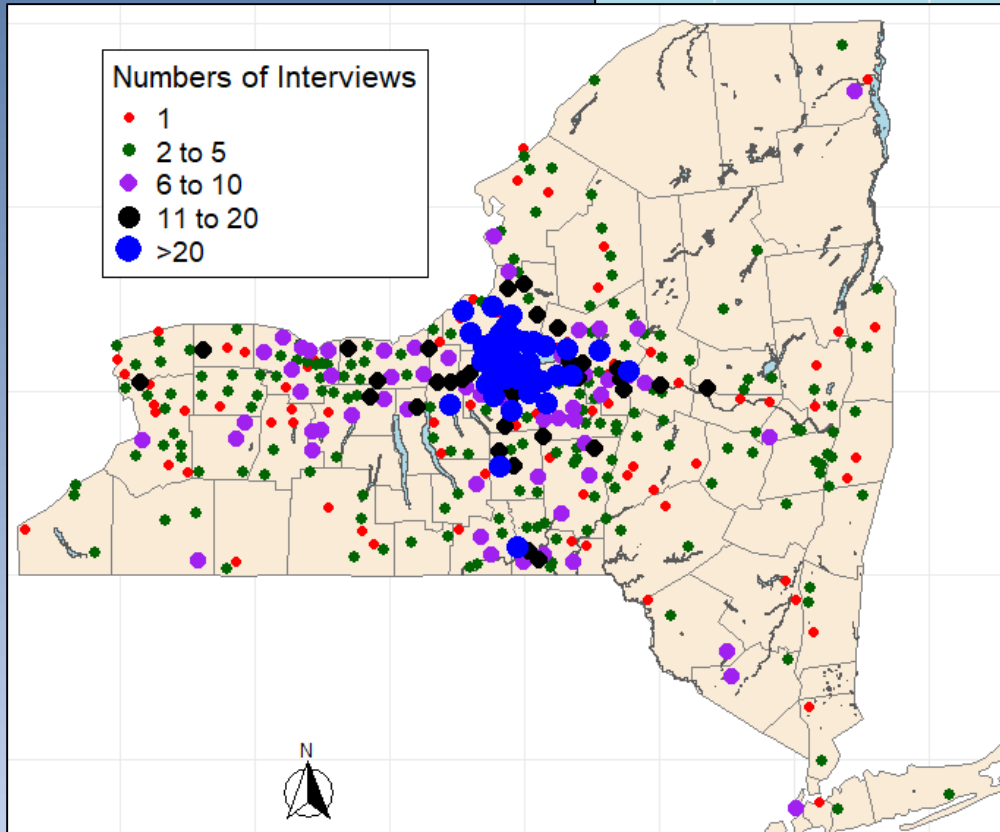


Smallmouth Bass Angler Catch Rates

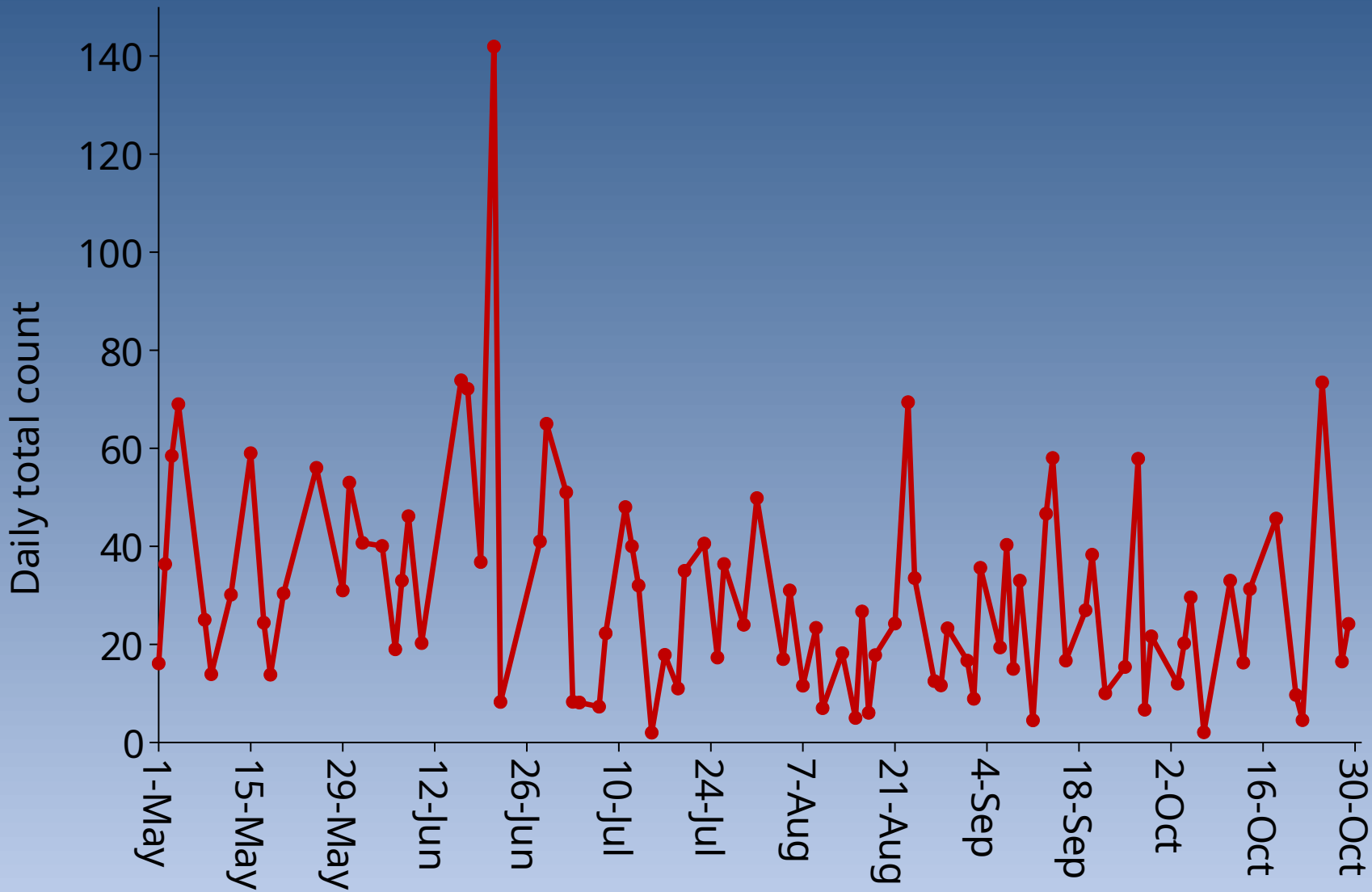
Smallmouth Bass Angler Catch Rates



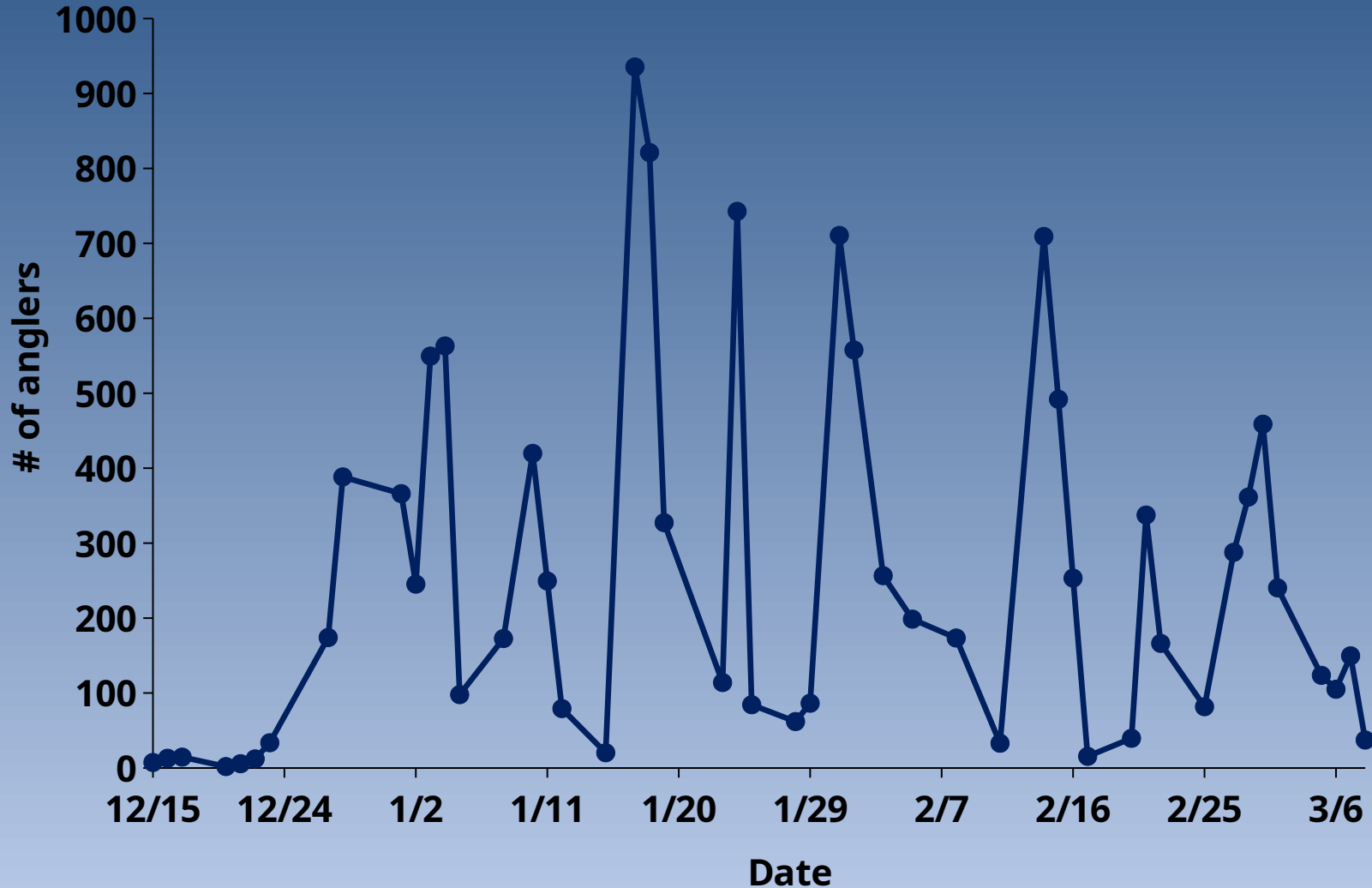
Angler Zip Codes



Boat Counts, May 1 – October 31



Ice Fishing Daily Angler Counts



Summary

- 1) Walleye population expected to remain stable in the next couple yrs
- 2) YP populations still above average
- 3) Smallmouth Bass populations are decreasing

Thank you!

