



April 2024

To: **Illinois Lake Michigan anglers and other concerned stakeholders**
From: **Vic Santucci, Lake Michigan Program Manager**
Mike McClelland, Chief of Fisheries

This newsletter covers information from field sampling activities during 2023 that were provided by our Lake Michigan Program (LMP) biologists as well as other Lake Michigan fishery management agencies. Many of our LMP fishery reports can be found on the Lake Michigan pages of the www.ifishillinois.org website along with specific information on stocking sites and numbers. Sport fish creel and other Lake Michigan research reports from the Illinois Natural History Survey (INHS) are available on UIUC's Ideals.illinois.edu website.

Sport and Charter Harvest of Salmonids Increases

Total harvest of salmon and trout in Illinois waters increased by 50% compared to 2022 and corresponded to an 8% increase in effort (angler hours) for sport anglers and 4% increase for charter anglers. Changes in the composition of the catch also occurred. The most notable change was an increase in sport and charter harvest of Coho and Chinook Salmon, as well as Rainbow Trout. Sport harvest of Coho Salmon more than doubled and charter harvest was up 19% from 2022. Similarly, harvest of Chinook Salmon increased 39% for sport anglers and 43% for charter anglers. Harvest of Lake Trout also increased for both sport and charter anglers in 2023. Brown trout continue to be a relatively small part of overall Illinois harvest.

2023 Fish Stocking Totals and Changes in Stocking Plans for 2024

Stocking numbers for the Illinois waters of Lake Michigan remain at the increased levels that began in 2020. Jake Wolf Hatchery staff delivered healthy salmon and trout fingerlings to meet these increased quotas in 2022 and 2023, despite high staff turnover. Additionally, the US Fish and Wildlife Service (FWS) reared and stocked

approximately 120,000 Lake Trout at Julian's Reef during each of the past 2 years.

Illinois DNR is trying a new strain of Brown Trout in 2024. Over the past 20+ years, Plymouth Rock strain eggs were reared at Jake Wolf Hatchery and stocked as large (5- to 6-inch) fingerlings during July. This year, Crawford strain eggs were obtained from the FWS federal hatchery system and will be reared at Jake Wolf before stocking at 11 locations along the Illinois shoreline during May. Earlier stocking is possible because the Crawford strain trout spawn earlier and grow faster than the Plymouth Rock strain. We are anticipating that earlier stocking and faster growth will lead to better Brown Trout survival and higher returns to Illinois anglers.

Due to poor survival of eggs and fry from the 2023 Lake Michigan egg take, there will be substantial reductions in the number of Chinook and Coho Salmon fingerlings available for stocking in Illinois waters this spring. To maintain the total allocated salmonid stocking quota for Illinois, LMP staff have been working with Jake Wolf Hatchery and FWS staff to obtain, raise and mark additional Skamania-strain steelhead and Arlee-strain Rainbow Trout for release in 2024. The current stocking targets are shown below

alongside stocking plan changes for 2024:

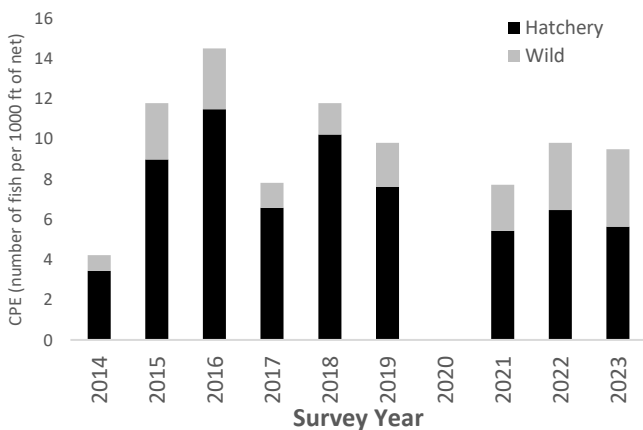
Species	Original Targets	New 2024 Targets
Coho Salmon	300,000	85,000
Chinook Salmon	210,000	150,000
Skamania Steelhead	75,000	150,000
Arlee Rainbow	60,000	305,000

No changes in the number of Lake Trout (120,000) or Brown Trout (110,000) are anticipated in 2024.

Wild Lake Trout Abundance Continues to Increase

Catches of Lake Trout in spring assessment nets were consistent with recent years and showed increases in naturally reproduced fish that continued to offset declines in the abundance of hatchery-reared fish. Fall assessment net catches remain inconsistent due to warm bottom temperatures that delay the arrival of Lake Trout to their spawning grounds at deep offshore reefs.

Spring assessment net catches of hatchery-reared and wild lake trout, 2014-2023



Alewife Biomass Increases in Lakewide Prey Fish Surveys

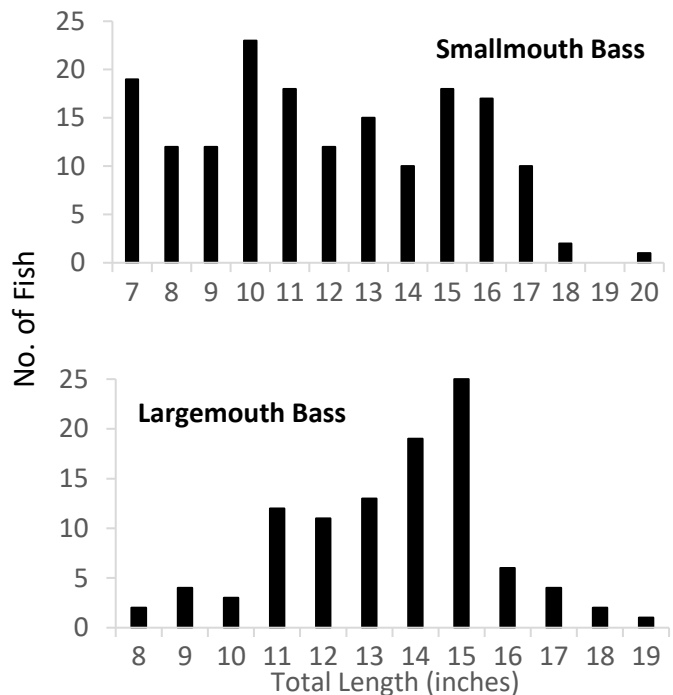
Forage assessments from the USGS Great Lakes Science Center and agency partners showed an increase in yearling and older Alewife in both the acoustic and fall bottom trawl surveys, although

the trawl estimate remained low compared to earlier years in the time series (1973-2014). Large numbers of young-of-year (YOY) Alewife were collected, suggesting a strong 2023 Alewife year class. While the age structure of sampled Alewife was still dominated by younger age groups (ages 0-3), Alewives up to age 7 were sampled this past year.

The Illinois Nearshore Bass Fishery Continues to Thrive

The estimated 16,604 Smallmouth Bass and 1,296 Largemouth Bass released by anglers during the 2022 INHS creel survey illustrates a strong catch-and-release fishery continues to exist in Illinois waters of Lake Michigan. Based on 2023 LMP electrofishing assessments, adult Smallmouth Bass abundance increased at North Point Marina and Waukegan South Harbor. Although catch rate

Length Distribution of Bass in Illinois Waters of Lake Michigan during 2023



along the shoreline at Calumet Harbor decreased slightly last year, it was still the second highest catch-per-effort reported since 2006. Largemouth Bass abundance also increased at North Point Marina but declined at Jackson Inner Harbor, which is the sampled harbor typically

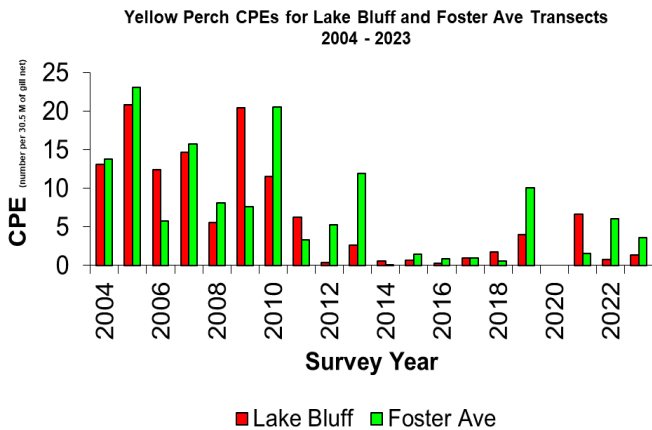
having the highest Largemouth Bass catch rates. The length distribution of Smallmouth Bass was excellent with 61% of fish ≥ 11 inches, 37% ≥ 14 inches, 9% ≥ 17 inches, and 1% ≥ 20 inches. Largemouth Bass were also of good size with 82% of fish ≥ 12 inches and 43% ≥ 15 inches.

Yellow Perch Catches Remain Low in Assessment Surveys; Young Perch Show Good Growth

Perch catches in graded mesh assessment nets remained low in 2023, showing a slight decrease from 2022. Recent catches were higher off Chicago than at more northerly Lake Bluff stations. Sport catches of Yellow Perch also remain low with harvest in the winter being higher than in the summer.

reaching catchable size in just a few years. Faster perch growth may be related to the high abundance of Round Goby in Southern Lake Michigan. Aging of the 2023 assessment catch shows that the population is currently made up of mostly younger fish (ages 1-3).

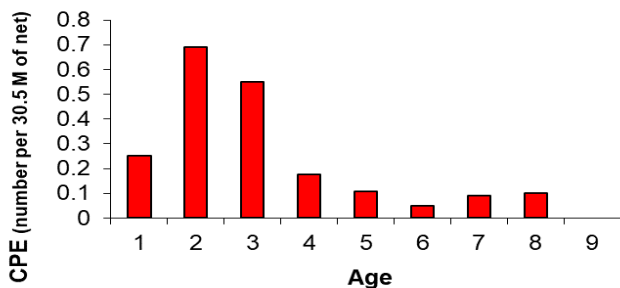
New In-Lake Shoreline Protection Structures at Illinois Beach State Park



Recruitment of young perch remains inconsistent from year to year, resulting in low numbers of fish entering the adult population. However, growth rates for Yellow Perch remain high, as fish are

A series of stone breakwaters are being installed off Illinois Beach State Park to reduce ongoing shoreline erosion. The breakwaters are designed to retain the large volumes of sand that are being added to the beaches inshore of the breakwaters to preserve valuable public beach access on the Illinois Lake Michigan shoreline. The Illinois DNR Coastal Management Program has coordinated for the inclusion of fish habitat elements into the construction of the breakwaters. The Illinois Natural History Survey is conducting research into the use of these types of structures by fish and other aquatic organisms, while the Illinois State Geological Survey is studying their effects on sand movement and hydrologic processes.

2023 Yellow Perch Age Frequency 1 - 3" Mesh



LMP Welcomes new Team Member

William Stacy-Duffy joined the Lake Michigan Program in March as a new project specialist focusing on Lake Trout. Will has been collaborating with IDNR biologists for the past 5 years through his position as an aquatic ecologist with the Illinois Natural History Survey. His research focused on spawning habitat at Lake Michigan's offshore reefs and developing an aging protocol for sampled Lake Trout. Welcome aboard Will!

If you have any questions regarding this newsletter, please contact the Lake Michigan Program office at (847) 294-4134.

