



Illinois Department of Natural Resources

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JB Pritzker, Governor
Colleen Callahan, Director

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

This newsletter covers information from field sampling activities during 2021 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 fishillinois.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. Many of the trends presented are comparisons between 2019 and 2021 since the prior represents data from the most recent non-pandemic year.

Illinois Sport Harvest of Salmonids Increases

Total harvest of salmon and trout in Illinois waters increased by 33% between 2019 and 2021 and corresponded to an increase in effort (angler hours) for sport anglers (+27%) and a modest decrease in effort for charter anglers (-8%). Changes in the composition of the catch also occurred. The most notable differences were an increase in sport and charter harvest of Chinook Salmon and Lake Trout. Sport harvest of Chinook Salmon more than tripled and charter harvest was up 40% between 2019 and 2021. Similarly, harvest of Lake Trout almost tripled for sport anglers and increased by 15% for charter anglers. A new Illinois State record Lake Trout was caught during a charter fishing trip last spring; the fish weighed 39 pounds and 2.6 ounces and was 45 inches long. Sport angler harvest of Coho Salmon also increased but charter harvest declined compared to 2019. Harvest of Rainbow Trout declined for sport anglers and increased for charter anglers. Brown trout continue to be a relatively small part of overall Illinois harvest but sport harvest in 2021 (approx. 1,100 fish) was almost double that in 2019. Our multi-species salmon and

trout fishery continues to provide good fishing opportunities despite fluctuations in individual species abundances in Illinois waters.

Fish Stocking

Stocking targets for the Illinois waters of Lake Michigan remain at the increased levels which began in 2020. Jake Wolf Hatchery staff delivered healthy Salmon and Trout fingerlings to meet these quotas in 2020 and 2021, despite pandemic related challenges. Targets for 2022:

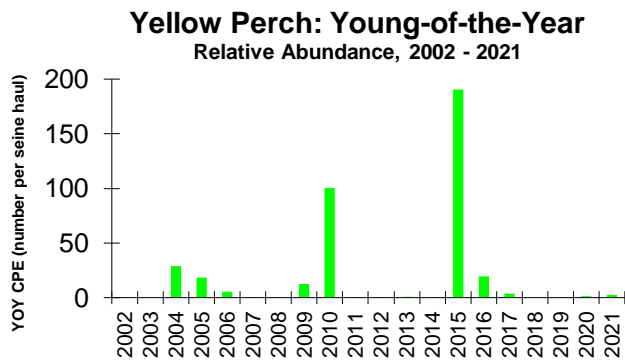
300,000 Coho Salmon
180,000 Chinook Salmon
120,000 Lake Trout
110,000 Brown Trout
75,000 Skamania-strain Steelhead
60,000 Arlee-strain Rainbow Trout

Lake Trout raised by the US Fish and Wildlife Service and allocated to Illinois were stocked from shore in Wisconsin in 2020 and 2021 due to COVID-19 restrictions on operations. Our federal partners are poised to resume delivery of 120,000 Lake Trout to Illinois waters of Lake Michigan (Julian's Reef) later this year.

Yellow Perch Abundance Remains Low; Angler Harvest of Yellow Perch Lowest on Record

Gill net catches of adult Yellow Perch remained low at our two sampling sites. Catches in 2021 declined to an average of 4 perch per 100 feet of net, down from 7 perch in 2019. Yellow Perch were found to be up to 9 years old, but most were age 6 or younger.

Yellow Perch seining in 2021 yielded the fifth consecutive poor catch of young-of-year, including no young-of-year perch caught in 2018. Inconsistent recruitment, as documented in IDNR seine and gill net surveys and the INHS creel survey, continues to be an important factor preventing sustained population growth and abundance of Yellow Perch in southern Lake Michigan.

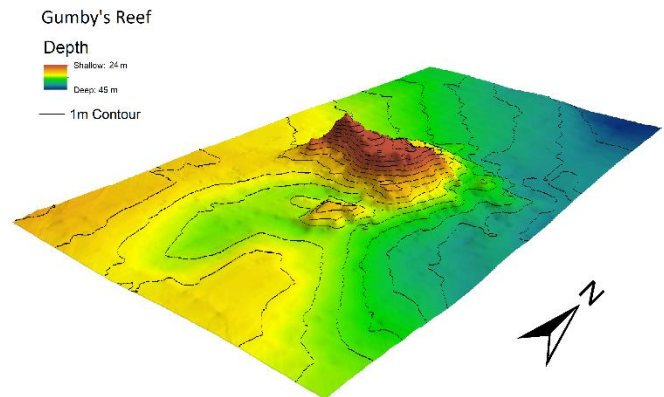


Sport harvest of Yellow Perch during April-September 2021 (1,121 fish) was the lowest on record since the creel survey began in 1985 and an 88% decrease from the 9,547 fish taken in 2019 despite similar effort. Yellow Perch harvest over this 6-month period had been approximately 10,000 fish since 2015. Notably, winter harvest of Yellow Perch has been on the rise, accounting for over 50% of total annual harvest since 2015-2016. During October 2020 – February 2021 anglers harvested an estimated 29,341 additional Yellow Perch.

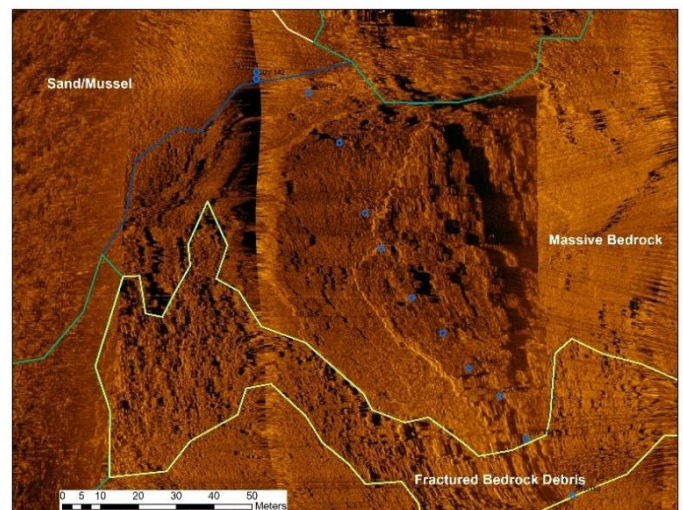
Mapping of Offshore Reefs Continues

In 2020 and 2021, INHS biologists completed side-scan sonar surveys at four offshore reefs to

document the availability of spawning habitat for Lake Trout. Lake Bluff, Gumby's, North, and Wilmette reefs were surveyed, and post-processing of the sonar imagery is being conducted to produce maps showing the distribution of bottom substrates. A more thorough documentation of these deep-water habitats will enable LMP biologists to expand sampling efforts for spawning Lake Trout and gain a deeper understanding of the rehabilitation of this important species.



Three-dimensional contour map of the lake bottom at Gumby's Reef where depths range from 24 -45 meters. Bathymetric maps of other offshore reefs can be found on ifishillinois.org under the Lake Michigan Fish Habitat tab.

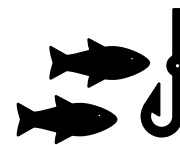
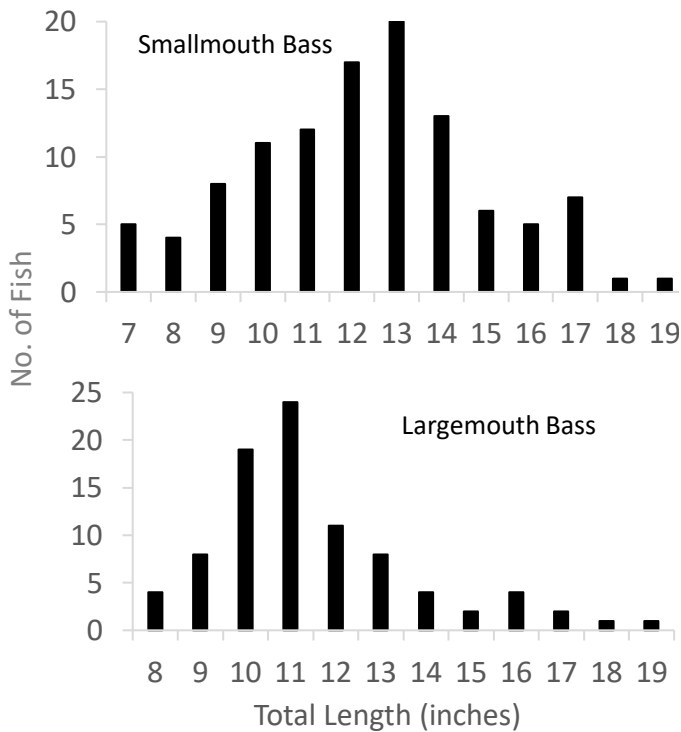


Delineation of bottom substrates such as massive bedrock and fractured bedrock debris from side-scan sonar imagery at Gumby's Reef.

Quality Smallmouth and Largemouth Bass

Smallmouth Bass abundance in Jackson Park Inner Harbor and along the shoreline at Calumet Harbor was up from that in 2019, while abundance at other LMP assessment sites was stable. Abundance of Largemouth Bass also increased at Jackson Park Inner Harbor in 2021 but declined at Waukegan South Harbor and North Point Marina compared to 2019. The size structure of Smallmouth Bass was ideal with 75% of fish ≥ 11 inches, 35% ≥ 14 inches and 10% ≥ 17 inches. Largemouth Bass were also of good size with 40% of fish ≥ 12 inches and 13% ≥ 15 inches. Body weight-length relationships for both species showed bass to be in good condition and not limited by food availability.

Size Structure of Bass in Illinois Waters of Lake Michigan During 2021



CARES Act II COVID Relief Funding

The Illinois Department of Natural Resources (IDNR) participated in a CARES Act II COVID-19 relief funding program for Illinois-resident Lake Michigan Charter Sportfishing Operators. The program provided relief funding for operators who experienced a greater than 35 percent loss in charter sportfishing revenue during March 20, 2020 through June 30, 2020, due to the pandemic as compared to average revenue during the same eligible period the previous five years (2015-2019).

The economic impact of the pandemic on the Great Lakes fishing industry was recognized by the US Congress with the passage of supplemental appropriations (Consolidated Appropriations Act, 2021, P.L. 116-260 Fisheries Industry Relief) in December 2020 that specified \$15 million for non-tribal commercial, aquaculture, processor, and charter fishery participants in States of the United States bordering the Great Lakes. The program was administered through a grant from the National Oceanic and Atmospheric Administration to the Great Lakes Fishery Commission, with participation by the IDNR.

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