

# Young-of-the-year yellow perch survey in nearshore waters of Lake Michigan, 2018

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An annual survey of young-of-the-year (YOY) yellow perch along the Lake Michigan shoreline was conducted using a beach seine and micromesh gillnets from 8/23/18 to 9/28/18.

## *Seining assessment*

The seining survey was carried out from 8/23/18 to 9/11/18. We used a standard 25-foot beach seine which was pulled by two persons in shallow nearshore waters of Lake Michigan. In general, each pull consisted of a 100-foot sweep either parallel to the beach or perpendicular to the beach along piers and jetties depending on the depth and feasibility of seining. At each station, depending on conditions, two 100-foot pulls were attempted unless algae bloom limited our ability to effectively pull the net, especially when sampling around jetties and windward shores.

A total of fifteen stations were sampled from Sheboygan to Kenosha (Sheboygan – 3, Ozaukee – 3, Milwaukee – 5, Racine -2, and Kenosha -2). Seining conditions during the sampling period varied among different sites on different days depending on wind direction. Some sites were difficult to seine due to cladophora clogging the net while others were clear and easy to sample. In general seining conditions this year were favorable for this assessment. A total of 56 seine hauls were taken in the fifteen sites for a total 5,375 ft of seine haul. The water temperature during the survey was in the mid 60's to upper 70's in late August and mid 50's and 60's in September.

Very few young perch were caught in the seining effort in 2018. Only three YOY perch were caught in one pull near Kenosha North Pier on 8/27 (53mm 54mm 63mm) yielding a catch per effort (CPE) of 0.05 YOY yellow perch per 100 foot of seine haul (Figure 1). A total of 18 species of fish were captured during the survey (Table 1). Young-of-the-year alewife dominated the catch followed by spottail shiner, longnose dace and common shiner. Large schools of YOY black bullhead were caught in our nets in the Port Washington Marina.

## *Micromesh gill net assessment:*

Generally, two index stations, Shoop Park (Racine Co.) and Doctors Park (Milwaukee Co.), have been used for setting micromesh gill net for our annual survey. Starting in 2016 we added a third site at the North end of Bradford Beach (Milwaukee Co.) over ideal habitat. This gives us an opportunity to sample in less than ideal conditions using the inflatable and use our 20' work boat to set and lift nets at this site. The nets are set in

nearshore waters at depths ranging from 5 ft. to 6 ft. and fished overnight. In 2018, we had six sets using two 100-foot long and 5-foot deep monofilament net panels tied together consisting of 12mm stretch mesh. No YOY Yellow Perch were caught in our micro mesh nets in 2018. On 9/11 and 9/26 we set off Bradford beach. The water temperature was 66 F and 65 F. The water was a little silty with little cladophora. The bottom substrate consisted of gravel and boulders. There was no submerged vegetation. On 9/12 and 9/13 we lifted 200 feet of net fished for one night each off Doctors Park using our inflatable with a 2.5HP Suzuki outboard. No YOY Perch were caught. The water temperature was 68 F and 66 F the water was clear with no cladophora. The net was set in 5-6 ft. of water with gravelly and rocky bottom. A similar net was set on the south side off Shoop Park in Racine using the inflatable on 9/13 and 9/28. The water was turbid with fine silt. No YOY Perch were captured. The water temperature here was on average 64 F. Both sets at this site were left for two nights due to changing easterly winds not allowing us to reach our nets safely using the inflatable.

Thus, six micromesh gill net lifts were taken from 9/11 to 9/28 with two sets off Bradford Beach using our larger boat and two lifts each at Shoop and Doctors Park using our inflatable. A total of nine species of fish were captured in these nets with alewife on the top followed by round goby and spot tail shiner (Table 2). No YOY Perch were caught in these nets. The water temperature ranged 64 to 68 °F.

Table 1. Numbers of fish captured in the YOY yellow perch beach seining assessment (Lake Michigan shoreline from Kenosha to Sheboygan), WDNR 2018

Fish species	Number of fish
Alewife (YOY+juvenile)	3582
Gizzard shad	27
Rainbow smelt	5
Common shiner	25
Spottail shiner	897
Fathead Minnow	24
Longnose dace	45
White sucker	10
Black bullhead	600
Banded killifish	5
Smallmouth bass	2
Largemouth bass	1
Yellow perch (YOY)	3
Round goby (YOY+juvenile)	5
Golden Shiner	2
Emerald Shiner	2
Stickleback Brook	1
Bluegill	10

Table 2. Numbers of fish captured in the YOY yellow perch micromesh gillnet survey at index stations (Lake Michigan nearshore waters), WDNR – 2018.

Species	Number of fish
Alewife	397
Gizzard Shad	1
Coho Salmon	1
Chinook Salmon	1
Spottail Shiner	67
Longnose dace	22
Rainbow Smelt	27
Yellow Perch juvenile	1
Round Goby (YOY and juvenile)	140

*Summary:*

Micromesh gill net surveys were conducted at index sites like the previous years of sampling. Overall, the conditions for sampling were good with little cladophora. Beach seining was resumed in 2018 with none in 2017 due to budget restraints. We met our goal in covering the area of Milwaukee and Racine for micromesh, visiting each site twice and covered our beach seining sites from Sheboygan to Kenosha twice. The nets were effective in capturing multiple species of fish although no YOY Yellow Perch were found. 2018 follows poor catches as was 2017.

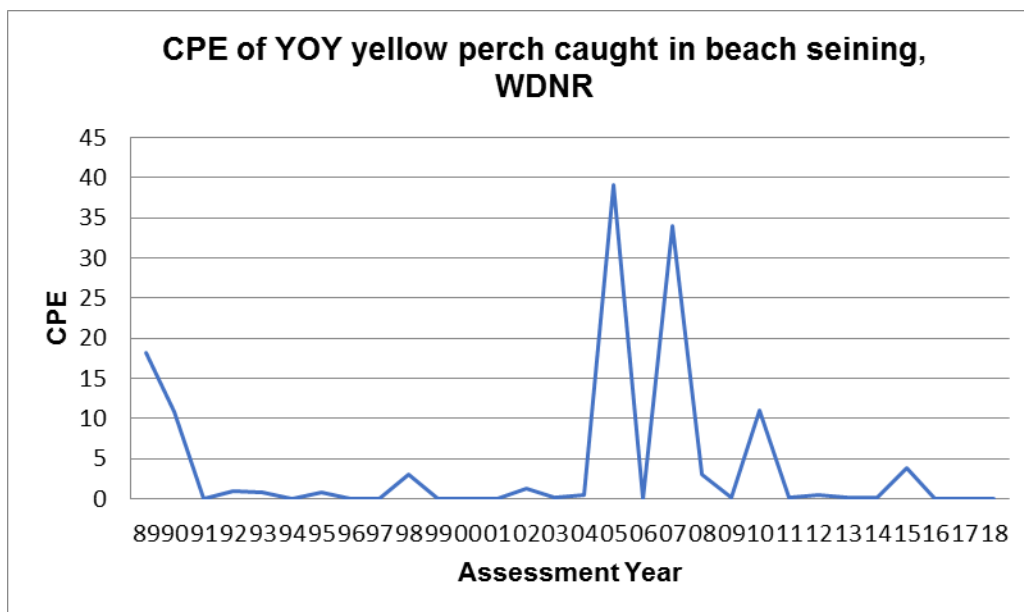


Figure 1. Beach seining catch per 100 feet of young-of-the-year perch in the nearshore waters of Lake Michigan. WDNR.

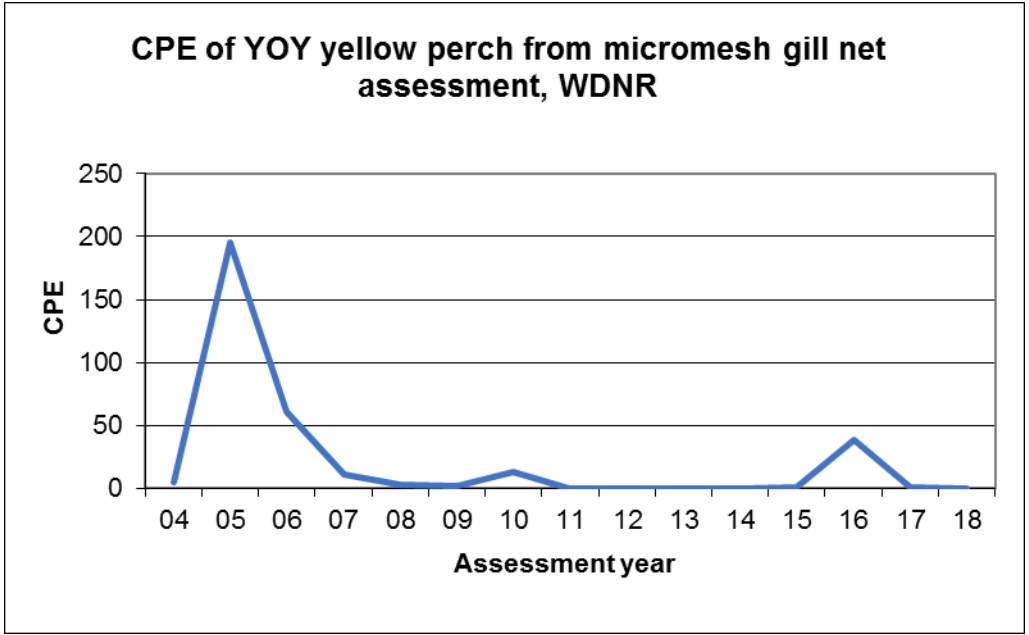


Figure 2. Micromesh gill net catch per 100 feet of young-of-the-year yellow perch in the nearshore waters of Lake Michigan, WDNR.