

# Young-of-the-year yellow perch survey in nearshore waters of Lake Michigan, 2017

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An annual survey of young-of-the-year (YOY) yellow perch along the Lake Michigan shoreline was conducted using micromesh gillnets from 8/22/17 to 9/21/17. We were not able to do our beach seining survey this year due to budget restraints but anticipate resuming our seining efforts in 2018.

## *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 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 4.8 ft. 5.1 ft. and fished overnight. In 2017, we had four sets using two 100-foot long and 5-foot deep monofilament net panels tied together consisting of 12mm stretch mesh on 8/20, 8/30, 9/19, 9/21. We caught 17 YOY yellow perch which were the only YOY Perch caught from any of our sites. The water temperature was 64 F. The water was clear. The bottom substrate consisted of gravel and boulders. There was no submerged vegetation. On 9/13 and 9/14 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 63 F and the water was very clear. 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 9/14. The water was turbid with a lot of suspended algae and fine silt. No YOY Perch were captured. The water temperature here also was on average 64 F.

Thus, eight micromesh gill net lifts were taken on 8/22, 8/30, 9/13, 8/19, and 9/21 with four sets off Bradford Beach using our larger boat capturing 17 YOY yellow perch and 16 juvenile yellow perch. A total of ten species of fish were captured in these nets with alewife on the top followed by round goby and spot tail shiner. (Table 1). All the YOY yellow perch were caught in the gill net sets at the north end of Bradford beach. The average total length of YOY yellow perch was 62.76mm. The catch per 100 ft. of gillnet was .94 YOY yellow perch (CPE=.94) (Figure 1), and the temperature ranged 62 to 66 °F.

Table 1. Numbers of fish captured in the YOY yellow perch micromesh gillnet survey at index stations (Lake Michigan nearshore waters), WDNR – 2016.

Species	Number of fish
Alewife	1437
Bloater chub	1
Rainbow smelt (adult)	45
Spottail shiner	121
Longnose dace	13
Redhorse	1
Yellow perch (YOY)	17
Yellow Perch juvenile	16
Round Goby (YOY and juvenile)	368

*Summary:*

Micromesh gill net surveys were conducted at index sites like the previous years of sampling. Overall, the conditions for sampling were good for sampling except in some locations that had excessive algae. We will resume our beach seining efforts in 2018. We met our goal in covering the area of Milwaukee and Racine for micromesh, and visiting each site at least twice. The nets were effective in capturing multiple species of fish. The CPE of micromesh gill net was .94 YOY yellow perch per 100 ft. of gill net. The average size of YOY yellow perch was 62.76 mm which is a healthy growth at the end of the summer. The 2017 CPE of YOY Perch was down considerably from 2016.

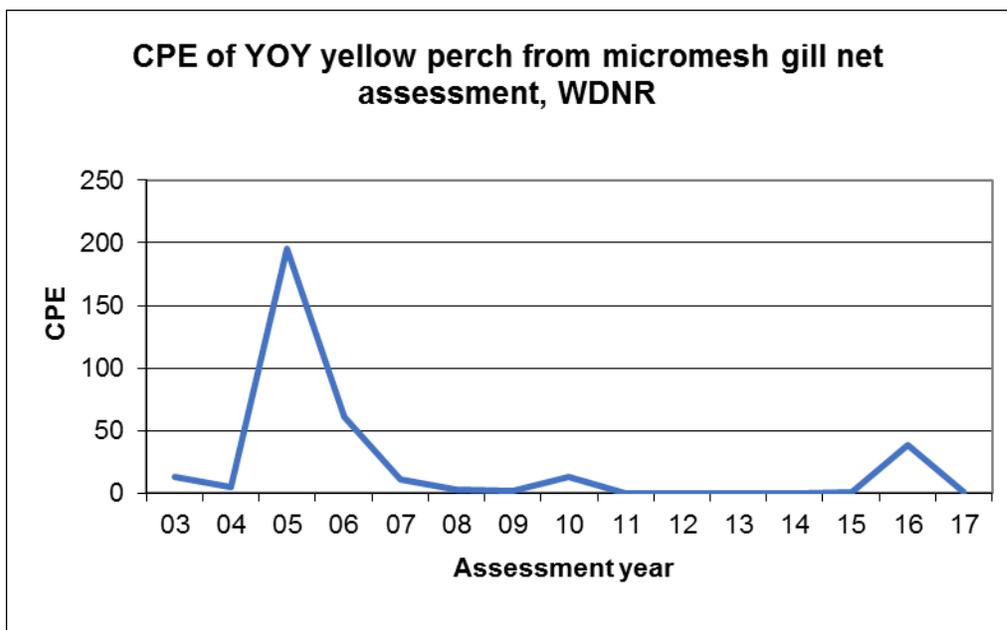


Figure 1. Micromesh gill net catch per 100 feet of young-of-the-year perch in the nearshore waters of Lake Michigan. WDNR

