

**Lake Michigan yellow perch winter graded mesh assessment – 2018
(11/30/2017 to 12/11/2017)**

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Our annual winter graded mesh assessment of the yellow perch population in Lake Michigan for 2018 was conducted between November 30, 2017 and December 11, 2017. The survey was conducted in Lake Michigan, north and south from the main gap of the Milwaukee Harbor using the DNR research vessel *R/V Coregonus*. We set three gangs of 1,600 ft. each on 11/30/2017 North East of the North gap in 58 to 76 feet of water and caught zero Yellow Perch. The second set was conducted on 12/7/2016 using three gangs over a depth range of 30 to 80 ft. and fished 1.5 miles of the main gap. Again, no Yellow Perch were caught in this set. We fished another two gangs on 12/8/2017 to the south of the main gap at 70 to 75 ft. depth range, and no yellow perch were caught. A final lift of two gangs was made on December 11, 2017 at depths. From 73' to 107' which produced one yellow perch. We caught a total of one yellow perch in four lifts of 16,000 ft. of graded mesh gill net effort.

The catch per 1000 ft. in the 2018 assessment was less than 1 yellow perch (for all meshes combined) which is less than 2017 CPE (1.1) and 2016 (1.5). The only perch caught was in 32 mesh (Table 1). This perch was a 13- year- old female. (Table 2).

Table 1. Number of yellow perch caught in the graded mesh assessment by mesh size in the 2018 assessment.

Mesh size (inch)	1.0	1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0	3.25
# perch	0	0	0	0	0	0	0	0	0	1

Table 2. Number of yellow perch caught in the graded mesh assessment by age in the 2018 assessment.

Age	2	3	4	5	6	7	8	9	10	11	12	13
# perch	0	0	0	0	0	0	0	0	0	0	0	1
Ave. length (mm)												312

We have maintained a consistent protocol from year to year in our yellow perch graded mesh assessment in terms of sampling window, sampling location, gear and depths. We do vary depth and specific locations to make sure we sample areas that represent the habitat yellow perch would be found in. Even though we varied depth, we did not see much variation in the catches. The nets appeared to be fishing effectively which was evident in the good numbers of gizzard shad (66), round white fish (187) and lake trout (22) caught in the nets. Other species included burbot (13), round goby (1), and rainbow smelt (1). The cause of low catches of yellow perch is probably unrelated to the gear and more likely due to the dwindling numbers of yellow perch in Lake Michigan offshore of Milwaukee County.

We collected biological data from round whitefish including collecting 63 otolith samples for age determination. The round whitefish ages ranged from 2 to 14, and male to female ratio was 50/50.

The continued low numbers of yellow perch caught during this graded mesh assessment (Figure 1) indicate continued poor recruitment to the fishery.

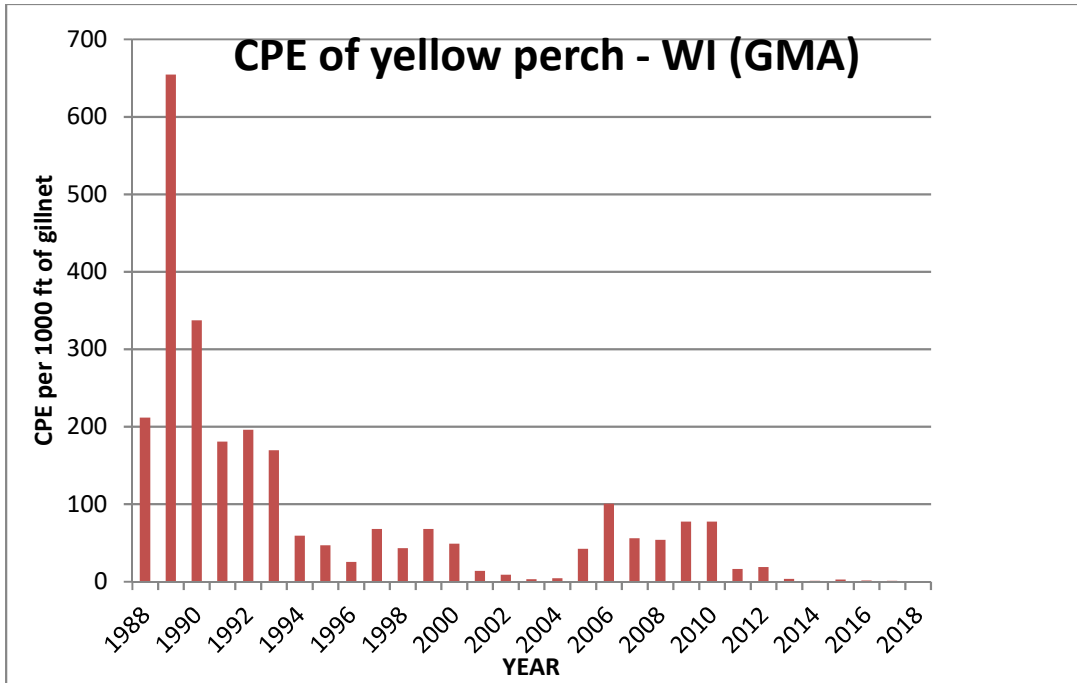


Figure 1. Yellow perch catch per 1000 feet of graded mesh gill net effort in the Lake Michigan waters off Milwaukee.