

Lake Michigan yellow perch winter graded mesh assessment – 2016 (12/4/15 to 12/12/15)

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Our annual winter graded mesh assessment of the yellow perch population in Lake Michigan for 2016 was conducted between December 4, 2015 and December 12, 2015. 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 on 12/04/2015, about 1.5 miles east of Fox Point in 58 to 76 feet of water and caught two yellow perch. Three gangs of 1600 ft. each were set at three different depths. The second set was conducted on 12/8/2015 over a depth range of 68 to 81 ft. and fished approximately 2 miles east of the main gap. We fished another three gangs, and caught eight yellow perch. A third lift of two gangs to the south of the harbor was done on 12/09/2015, with six yellow perch caught in the gill nets. A final lift of two gangs was made on Saturday December 12, 2015 which produced eight yellow perch. This set was the southernmost set from the Milwaukee harbor at a depth range of 70 to 79 ft. We caught a total of twenty four yellow perch in four lifts of 16,000 ft. of graded mesh gill net effort.

The catch per 1000 ft. in the 2016 assessment was 1.5 yellow perch (for all meshes combined) which is less than 2015 CPE (2.5). Most perch were caught in the larger size meshes. There were only four males out of twenty four perch caught in this assessment. The perch ages ranged from 4 to 13, with the majority (62.5%) of them being age 11 (2005 year-class). There were only two perch in the total catch in mesh 2.5 inch or less in this assessment indicating poor recruitment of younger perch to the fishery.

Table 1. Number of yellow perch caught in the graded mesh assessment by age in the 2015 assessment.

Age	1	2	3	4	5	6	7	8	9	10	11	12	13
# perch	0	0	0	2	0	1	0	2	2	0	15	0	2

Males: 17%; Females: 83%

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. During this year's assessment, we varied depth in our four sets according the Table 2 below. 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 round white fish (169) caught in the nets. Other species included alewife (28), burbot (14), lake trout (9), round goby (2), sculpin (1), bloater chub (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 extremely low numbers of yellow perch in Lake Michigan offshore of Milwaukee County.

Table 2. Sampling depth ranges of graded mesh gill net sets in the yellow perch assessment off Milwaukee harbor (12/04/2015-12/12/2015).

Sampling date	Gill net Gang #	Depth (ft.)
12/04/2015	1	63-76
	2	62-71
	3	58-66
12/08/2015	1	68-75

	2	76-80
	3	73-81
12/09/2015	1	65-66
	2	70-77
12/12/2015	1	70-75
	2	78-79

In addition to collecting yellow perch information during this survey, we assisted Researchers from UWM-School of Freshwater Sciences to collect round whitefish eggs for their research project. We collected biological data from round whitefish including collecting 54 otolith samples for age determination. The majority of them were within the size range of 411 mm to 510 mm. It was interesting to note that similar to yellow perch population, there were very few male round whitefish in the sample.

The gill nets were free from Cladophora for the most part except a few panels in each gang. There were some clumps of quagga mussel stuck to the nets. The continued low numbers of yellow perch caught during this graded mesh assessment (Figure 1) indicate continued poor recruitment to the fishery. There were no perch less than age 4 in the sample.

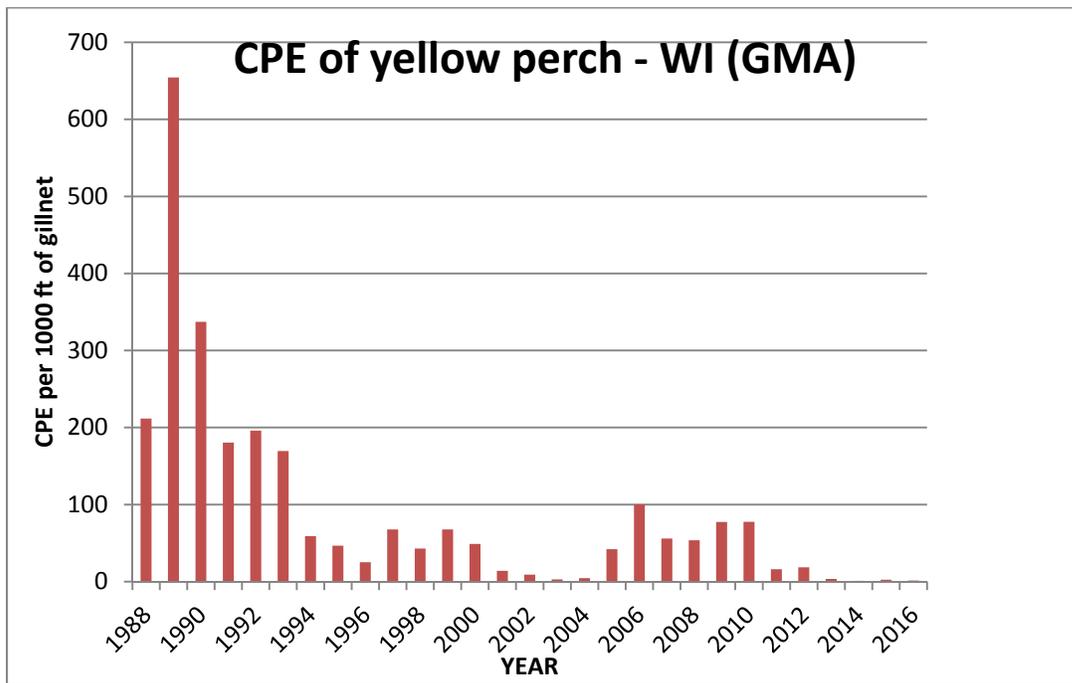


Figure 1. Yellow perch catch per 1000 feet of graded mesh gill net effort in the Lake Michigan waters off Milwaukee.