

Yellow perch spawning assessment in Lake Michigan near Green Can Reef area off Milwaukee – 2016

Pradeep Hirethota and Dave Schindelholz
WDNR, LMWU Milwaukee

In 2016, WDNR staff conducted our yellow perch spawning survey near the Green Can Reef using standard protocols (WDNR 2014). In addition, we also sampled the newly constructed WE Energy Reef.

A total of 12,500 ft. of gillnet effort extending from 5/26/2016 through 6/14/2016 covering the area around the Green Can Reef and the WE Energy Reef produced 36 yellow perch - 32 female perch and 4 male perch (Table 1). There were 13 green females, 8 ripe females, 11 spent females and, 2 ripe males and 2 spent male yellow perch in the catch. The bottom water temperature ranged from 44.5 to 53 F which is the normal temperature at which Lake Michigan perch spawn.

Table 1. Gillnet effort to assess yellow perch spawning in Lake Michigan– 2016.

Date	Location	Effort (ft)	# female	# male	Bottom temperature	Depth range (ft)
5/26/2016	Green Can Reef	500	1	0	46.4 F	47-48
6/01/2016	WE Energy Reef	1,500	1	0	44.8	49-50
6/01/2016	Green Can Reef	1,500	3	0	44.5	46-63
6/02/2016	Green Can Reef	3,000	5	2	44.6	29-68
6/06/2016	Green Can Reef	3,000	16	2		27-50
6/14/2016	Green Can Reef	3,000	6	0	53	29-58
TOTAL		12,500	32	4		

Male: 11%, Female: 89%. CPE = 2.9 yellow perch per 1000 ft.

The Green Can Reef area off of Milwaukee is our index site for our annual yellow perch spawning assessment. The nets were set at 27 to 58 ft. depth range overnight on 5 different days. We caught very few yellow perch in each lift (Table 1). We set three boxes of net on June 1 on the WE Energy Reef and only caught one yellow perch. We collected anal spine samples for age determination from twenty-six females and four male yellow perch. The ages of perch ranged from 4 to 11, with eleven-year-old perch (50%) dominating the catch (Table 3). A trend that we have described in previous reports continued in 2016 with very few male perch in the

samples. It seems that male perch comprise a dwindling percentage of the overall yellow perch population.

Other species of fish that were captured during the 2016 yellow perch spawning survey included round whitefish, alewife, longnose sucker, burbot, lake trout, white sucker and brown trout (Table 2). All of the longnose suckers were captured on the WE Energy Reef. We caught 273 round whitefish which dominated the catch on the Green Can Reef. The abundance of round whitefish has increased in recent years. We started keeping track of their catch beginning 2013. There were 76 round whitefish caught in 2,500 ft. of gill net in 2013, and 192 round whitefish caught in 7,000 ft. of gill net 2015, and 273 round whitefish caught in 2016 in 12,500 ft. of gill net. Reasons for the increase in catch may be due to the potential increase in benthic food resources as a result of quagga mussels and cladophora complex. Ages of thirty round whitefish in 2016 ranged from 8 to 15 (Table 3).

Table 2. Incidental catch during the yellow perch spawning assessment in 2016.

Species	Green Can Reef
Alewife	41
Round whitefish	273
Brown trout	3
Lake trout	6
Longnose sucker	28
White sucker	6
Burbot	13

Table 3. Age distribution of yellow perch and round whitefish in the catch: 2016 yellow perch spawning assessment in Lake Michigan.

	Yellow perch	Round whitefish	
Age	# yellow perch	Age	# round whitefish
4	4	8	1
6	4	9	3
8	4	10	4
9	2	11	9
10	1	12	5
11	15	13	2
		14	5
		15	1

Egg skein survey

Due to inclement weather and staff issues, we could not conduct the diving survey for yellow perch egg deposition at the index site.