

Yellow perch spawning assessment in Lake Michigan near Green Can Reef area off Milwaukee – 2018

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The 2018 yellow perch spawning survey was conducted near the Green Can Reef using standard protocols (WDNR 2014).

Sampling was conducted using total of 5000 ft. of gillnet effort extending from 5/15/18 through 6/06/18 covering the area around the Green Can Reef at various depths. The mesh sizes of the net were 2", 2.5", 2.75", 3.0" and 3.25". The bottom water temperature ranged from 45 to 51.4 F during the sampling period which is the normal temperature this time of the year at which Lake Michigan perch spawn. All gillnet sets were off the LMWU 20' Lake Sturgeon. We used the WDNR R\V Coregonus for two of the lifts and the Lake Sturgeon for three lifts.

The Green Can Reef area off Milwaukee is our index site for our annual yellow perch spawning assessment. On 5/15/18 two gangs of nets (each 500 ft. long) were set at 20 to 38 ft. depth range fished overnight. We caught thirty-five round whitefish, three alewife, six longnose suckers and no yellow perch. The bottom water temperature was 44.2 F, and the surface temperature was 48 F.

We set two gangs of net on 5/16/18, one set in 57'- 61' of water, the other in 37'- 49'. The bottom temperature had reached 46.4 F. The deepest set net had no perch, but a few round whitefish, three burbot, and one lake trout. Three ripe female yellow perch were caught in the shallower set along with three burbot, four round whitefish, and one alewife. We collected anal spine samples from yellow perch for age determination.

A third lift of two gangs was done on 5/24/18 from the Coregonus in depths of 46'-58'. One ripe female yellow perch was caught, fifteen round whitefish, and two alewife.

A fourth lift using the Coregonus was conducted on 5/30/18. Two gangs were set in depths ranging from 40'-55'. Two more ripe female perch were caught, eight round whitefish, and one alewife.

Our fifth and final lift was on 6/5/18 in 42'-48' of water using two gangs of net. The bottom temperature was now 51.4 F. Two spent female perch, thirty-seven round whitefish, and one burbot was the catch.

Overall this is one of the lowest number of yellow perch caught in our spawning assessment. The total number of yellow perch was six ripe females, two spent females, and no males. We did not get any younger perch indicating extremely poor recruitment in recent years. Lengths of perch caught was 311mm to 352mm and aged 4 to 13 years old. Five of the perch were kept for contaminate testing.

Fin samples were taken from a few of the perch for a graduate student from Purdue University doing a population genetic structure of yellow perch from Lake Michigan.

Other species of fish that were captured during the 2018 yellow perch spawning survey included round whitefish (101), alewife (7), lake trout (1), longnose sucker (6) and burbot (7). Round whitefish dominated the catch.

Egg skein survey

On June 6 we set four 1000' transect near Green Can Reef in depths from 31' to 58' using four divers. Two divers followed each transect with 16' - 20' visibility each. Only 1 yellow perch skein was observed at 32'.

2018 Diving for yellow perch egg deposition					
Date	Divers	Depth	Location	Area searched	# of egg masses
June 6, 2018	Mike B./ Ted J	60 to 45	East of Green Can Reef	20 feet	0
	Brad E			20 feet	0
June 6, 2018	Travis M / Dave B	35 to 25	West of Green Can Reef	16 feet	0
	Brad E			16 feet	1
June 6, 2018	Mike B	40 to 35	South of Green Can	16 feet	0
	Ted J			16 feet	0
June 6, 2018	Travis M	40 to 45	South of Green Can	20 feet	0
	Dave B			20 feet	0

Total number of YP egg skeins = 1
 Total area searched = 13,376 m²
 Total eggs found = 1
 Egg masses per 1000 m² = 0.075