

Yellow perch spawning assessment in Lake Michigan near Green Can Reef area off Milwaukee  
– 2017

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The 2017 yellow perch spawning survey was conducted near the Green Can Reef using standard protocols (WDNR 2014).

Sampling was conducted using total of 4,300 ft. of gillnet effort extending from 5/31/2017 through 6/14/2017 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 48.7 to 51 F during the sampling period which is the normal temperature at this time of the year at which Lake Michigan perch spawn.

The Green Can Reef area off of Milwaukee is our index site for our annual yellow perch spawning assessment. On 5/31/17 two gangs of nets (each 500 ft. long) were set at 38 to 49 ft. depth range fished overnight. We caught sixteen round whitefish, two alewife, two burbot and no yellow perch. The bottom water temperature was 48.7 F, and the surface temperature was 49.1 F. We collected otolith samples of all sixteen round whitefish for age determination.

We set three gangs of net on 6/8/17 – one 1000' gang with 2 boxes of standard PSA nets at 32-38', second gang 600' including 2.25 mesh at 41-55' and the third gang 600' including 2.25 mesh at 63-69' of water. The bottom temperature had reached 51.8 F. The deepest set net had no perch, but a few round whitefish. Four spent yellow perch (2 F and 2 M) were caught in the shallower sets. Thirty one round whitefish were caught, most of them at 41-55' of water. Only two alewife were caught. We collected anal spine samples from yellow perch for age determination.

The final lift was taken on 6/14/17. Two gangs of net, one 600' with 2.25 mesh and one 500' with standard PSA mesh were set at depths 45-61' of water. One spent female perch, one burbot, one Chinook salmon and five round whitefish were caught.

Overall this is the lowest number of yellow perch caught in our spawning assessment in history. The ages of perch were three 7-year-old and two 9-year-old. We did not get any younger perch indicating extremely poor recruitment in recent years.

Other species of fish that were captured during the 2017 yellow perch spawning survey included round whitefish (55), alewife (4), Chinook salmon (1), and burbot (3). Round whitefish dominated the catch.

#### Egg skein survey

WDNR dive team conducted a diving survey on the Green Can Reef to estimate egg skein density. The survey was conducted on 6/13/2017 using standard protocols. We set four 1000' transect on Green Can Reef in depths from 39' to 50' using four divers and only 4 Yellow Perch skeins were observed.

2017 Diving for yellow perch egg deposition					
Date	Divers	Depth	Location	Area searched	# of egg masses
06/13/17	B. Eggold	50 – 35	East of Green Can	20	2
	M. Baumgartner			20	1
06/13/17	T. Motl	50 – 30	South of Green Can	20	0
	B. Heussner			20	0
06/13/2017	B. Eggold	45 – 40	South of Green Can	15	0
	M. Baumgartner			15	0
06/13/17	T. Motl	44 – 30	North of Green Can	25	1
	B. Heussner			25	0

Total area searched = 10,944 m<sup>2</sup>

Total eggs found = 4

Egg masses per 1000 m<sup>2</sup> = 0.37

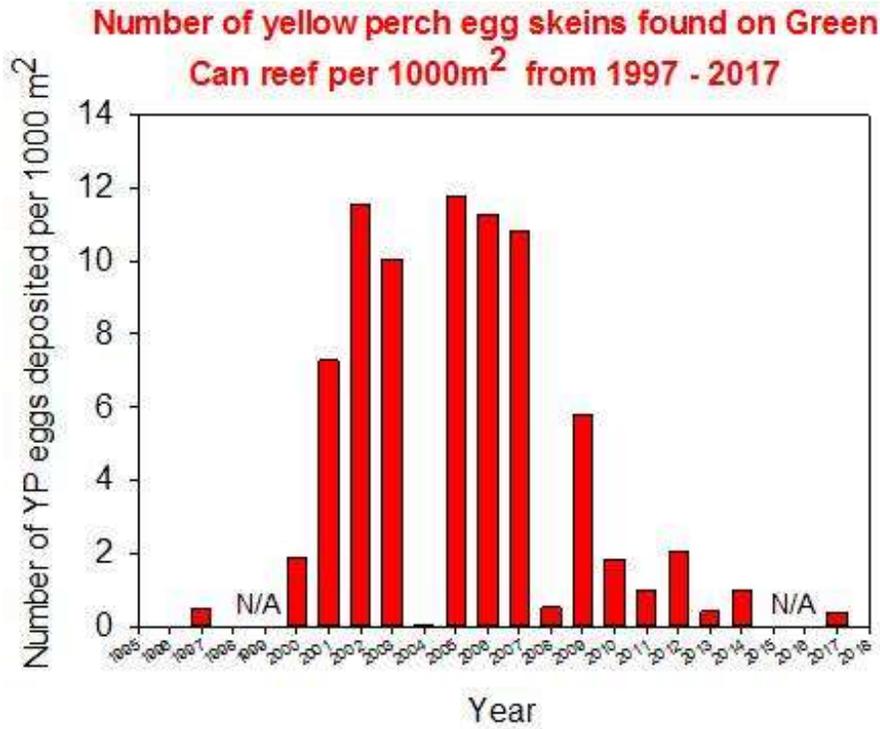


Figure 1. Yellow perch egg skein density survey results from 1997 through 2017 in Lake Michigan waters along the Green Can Reef off Milwaukee.