

Crooked Lake 2017 Status and Trends Survey

Lake Information: 206 acres; 108 feet max depth Located: Columbia City, IN; Noble County Access: Boat ramp on northwest shore off of State Road 109 GPS Coordinates: N 41.27014, W 85.48909 Amenities: Restroom, ADA access, and nature preserve with hiking trail Outboard Motor Restriction: 10 mph limit Fishing Regulations: Statewide Recent Stocking: None Best Fishing: Largemouth Bass, Bluegill, and

Redear Sunfish

Methods

Fish

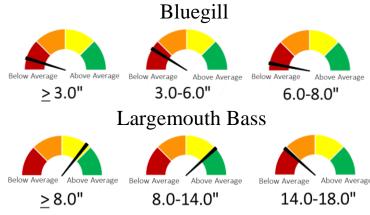
- Dates: 6/7/2017 6/8/2017
- Electrofishing: 0.5 hours pulsed DC with 2 dippers
- Trap nets: 2 overnight lifts
- Gill nets: 2 overnight lifts

Habitat

- Chemistry: Water clarity and oxygen profiles
- Date: 6/8/2017 and 8/22/2017
- Vegetation: 8/15/2017
- Depth Map: <u>Click for link to map</u>

Summary

Sport Fish



Bluegill and Largemouth Bass catch rates at Crooked Lake compared to regional averages among all glacial lakes in northern Indiana.



Your purchase of fishing equipment and motor boat fuel supports boating access and Sport Fish Restoration.

DNR Contact Information:

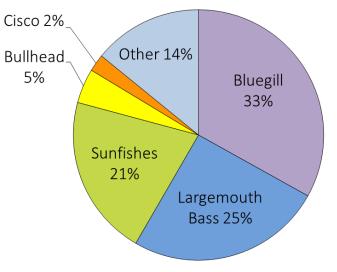
Steven Gratz North Fisheries Research Assistant Biologist (260) 244-6805; Nfishres@dnr.IN.gov

Report Approved By: Matthew Linn, Research Biologist Date Approved: 12/21/2017

Jeremy Price, Regional Supervisor Date approved:

Fish Community

- Overall, 269 fish were collected representing 17 species.
- Bluegill were the most abundant species with 89 individuals that measured up to 9.9 inches in length.
- Bluegill had an average length of 4.4 inches with twenty-two percent greater than 6.0 inches.
- Seventy-one percent of the Redear Sunfish were greater than 6.0 inches in length.
- Sixty-eight Largemouth Bass were collected with two greater than 14.0 inches.
- Six Cisco, an environmentally sensitive fish in Indiana, were collected and ranged from 13.1 to 14.2 inches.
- The abundance of Yellow Perch was similar to other northern Indiana lakes.



Indiana Fishing Regulation Guide: http://www.in.gov/dnr/fishwild/2347.htm



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Species	Num.	The second se	Length Range (in)	
		by Num.	Min	Max
Bluegill	89	33.1	1.7	9.9
Largemouth Bass	68	25.3	2.4	16.4
Redear Sunfish	35	13.0	4.7	10.1
Warmouth	13	4.8	5.2	6.8
Brook Silverside	12	4.5	3.2	3.9
Lake Chubsucker	8	3.0	3.5	9.5
Yellow Perch	8	3.0	3.4	8.4
Black Bullhead	7	2.6	12.6	16.5
Cisco	6	2.2	13.1	14.2
Pumpkinseed	4	1.5	6.4	7.0
Rock Bass	4	1.5	3.6	8.0
Spotted Gar	4	1.5	17.7	26.2
Brown Bullhead	3	1.1	12.1	16.0
Blackchin Shiner	2	0.7	2.4	2.7
Bluntnose Minnow	2	0.7	2.6	3.2
Golden Shiner	2	0.7	2.8	8.7
Yellow Bullhead	2	0.7	9.5	12.0
Total	269			_

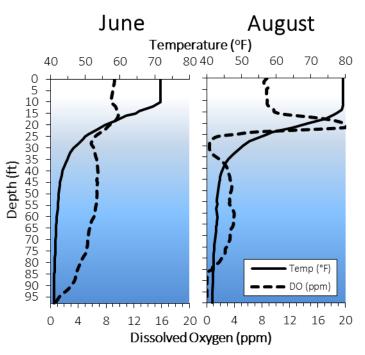
Stocking

Species	Years	Average Number Stocked
Lake Trout	1976, 1977, 1979	12,746
Brown Trout	1976, 1977, 1979,	2,151
	1981-1983	
Rainbow Trout	1976, 1979, 1980,	1,946
	1983-1994	

Habitat

- Oxygen (≥3 ppm) was available for fish down to 90.0 feet in June and 25.0 feet in August. Oxygen (≥3 ppm) was also available between 42.0 and 74.0 feet in August.
- Water clarity was 17.5 feet in June and 12.5 feet in August.
- Aquatic plants were collected to 19.0 feet and comprised 21 species.
- Three non-native species, Eurasian watermilfoil, Curly-leaf pondweed, and Brittle naiad, were collected.

• Plant coverage in the littoral zone was 95% with *Chara* sp., Coontail, and Eelgrass being the dominant plants (20%, 20%, and 12%, respectively).



Highlights

- Crooked Lake was identified as a Conservation Opportunity Area in the State Wildlife Action Plan, because it supports a population of Cisco. Cisco are listed as a species-of-special-concern in Indiana and are indicators of good water quality.
- The DFW should work with conservation partners to limit the effects of nutrient loading in order to sustain cold-water habitat at Crooked Lake.



Fisheries Aide, Jim Sittler, holding a Cisco captured during a general fisheries survey on Crooked Lake 6/8/2017.



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