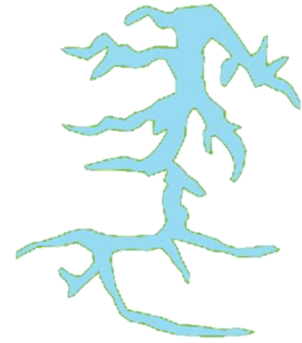


# IDNR – Fisheries

## 2018 Lake Status Summary

### Prairie Lake – JEPC SFWA



**Location:** Jim Edgar Panther Creek State and Fish and Wildlife Area. 8 miles north of Ashland. 40 miles northwest of Springfield.

**Lake history and characteristics:** In the early 1990's the Department of Natural Resources purchased 15,575 acres of ground from Commonwealth Edison. Ten old farm ponds on the site were rehabilitated and restocked and three new larger lakes were constructed. Gridley Lake was completed and stocked in 1997, followed by Prairie and Drake lakes in 1999 and 2002, respectively. Prairie Lake is the largest lake spanning 210 acres, has a maximum depth of 45', an average depth of 18', is steep sided, has extensive beds of aquatic vegetation and woody cover, and is very clear with visibilities of 10-14'. Gridley Lake is 24.6 acres with a maximum depth of 42', while Drake Lake is 35 acres with a maximum depth of 42'.

**Largemouth bass:** The largemouth bass population is doing well, but the 2017 spring survey showed a less than desirable number of fish measuring over 15". Fifteen percent of catchable fish collected in the spring 2017 survey measured over the 15" minimum length limit ( $RSD_{15} = 15$  in 2017), while four percent measured over 18" ( $RSD_{18} = 4$  in 2017). Largemouth bass catch rates have increased over the last several years. We collected 128 bass/hr electrofishing in 2017, which is the second highest catch rate observed in the last 10 years (131/hr in 2016). Many of these fish measure 7-10". This may be due to the switch from 3-phase AC to pulsed-DC electrofishing gear rather than an increase in bass density. Prairie Lake largemouth bass mean body condition was average in 2017 ( $Wr = 93$ ). The largest largemouth bass that was collected in the spring 2017 survey measured 20.5" long and weighed 5.1 pounds. The Prairie Lake Fisheries Management Plan criteria fell short of meeting many of the objectives set for the lake in 2017. If there is not an improvement in largemouth bass population characteristics in 2018, action may need to be taken to improve the size structure of the fishery. This lake can be difficult to fish due to its maximum depth of 45', steep sides, and abundant vegetation and woody cover, but very rewarding. Anglers can catch largemouth bass during the warmer months of the year around beds of aquatic vegetation, points, and deadfalls with plastic worms, jigs, spinners, crank baits, minnows, crayfish and worms.

**Black Crappie:** Black crappie were not stocked by the IDNR, but have appeared in yearly surveys for more than 10 years. We collected 118 black crappie in the 2017 spring trap net survey ranging from 7-15" and 5 black crappie in the spring electrofishing survey ranging from 8-13". Forty-four percent of black crappie collected in the 2017 spring trap net survey measured over 10", while 9% measured over 12". All crappie were in less than desired body condition ( $Wr = 83$ ). Anglers can catch crappie in the spring and fall on submerged structures and stickups with spinners, jigs and minnows.

**Muskie:** Over the last 10 years, the muskie collected via electrofishing were few and far between and in poor body condition (body condition values in the 70's). Many angler accounts also reported muskie in poor body condition. A gizzard shad stocking was implemented in 2010 to supplement muskie diets and improve body condition. We conducted a trap net survey in the spring of 2016 and were pleasantly surprised collect over 100 healthy muskie. We continued the survey in spring 2017 and collected an additional 44 muskie, 15 of which were recaptures from the year before. We set 24 trap nets for two nights during each survey. In 2016, we collected 101 muskie. We collected 24 females, 75 males, and 2 immature fish. The females ranged in size from 37.3" and 16.1 lbs - 45.2" and 26.9 lbs, while the males ranged in size from 26.2" and 4.7 lbs - 40.8" and 19.2 lbs. The average body condition of all fish was 97, which is average. In 2017, we collected 44 muskie, 8 females and 36 males ranging in size from 34" and 12 lbs to 41" and 21 lbs. Mean relative weight (body condition) for muskie was 97 in 2016 and 95 in 2017, which is within the goal of 90-110. Biennial muskie stocking will continue on even years.

Anglers can catch muskie in the spring and fall around beds of aquatic vegetation using minnows, spinners, spoons, jigs, jerk and crank baits.

**Channel catfish:** The channel catfish population is excellent both in quantity and quality. Many 2-8 lb fish are collected in surveys every year. Channel catfish are stocked into Prairie Lake on a biennial basis to supplement the population. Anglers can catch channel catfish around brushy areas, coves, and along the shoreline in the warmer months of the year using bottom fishing techniques with cut bait, shrimp, chicken livers or night crawlers.

**Bluegill/redear sunfish:** The original management plan for Prairie Lake was to provide a trophy panfishery, but the bluegill and redear sunfish populations did not progress as planned. Therefore, a new management strategy was implemented in 2010 that focused on other facets of the fishery. Bluegill and redear sunfish populations in Prairie Lake are poor displaying large numbers of small fish. A Columnaris disease outbreak occurred in late July, 2016, that affected mainly the bluegill population. Columnaris is a naturally occurring bacteria that can cause a fish mortality under the appropriate conditions (warm water temperatures and a stressed fish population followed by a rain event).

	2007	2008	2009	2010	2011	2012	2013	2014*	2015	2016	2017	Management Objectives
<b>Largemouth Bass</b>												
	spring	spring	spring		spring	spring	spring	fall	spring	spring	spring	
% > 12"	95	98	98	97	93.3	79.2	50	51.7	49.3	35.9	26.6	40-60
% > 15"	31	85	82	87	75.8	66.7	41.7	24.7	29.9	16.7	14.5	15-25
% > 18"	6	9	12	19	27.5	23.6	8.3	6.7	12.7	7.6	4	3-5
% > 20"			0.8	0	0.8	2.8	0	1.1	1.5	2.5	0.8	1-5
condition	100		98	102	98	106	101	95	96	97	93	90-110
(fish/hour EF)	128	76	89	110	72	62.1	66	116	120	131	128	>75
<b>Bluegill</b>												
% > 6"	4	0	5	0	0	5.3	0	5.9	17.1	26.1	36.4	30-50
% > 7"	0	0	4	0	0	3.5	0	0	1.2	1.1	0.6	10-20
% > 8"	0	0	2	0	0	1.8	0	0	1.2	0	0	3-5
condition	103		90	90	-	82	89	83	94	93	86	90-100
(fish/hour EF)	69	4	51	85	34	46.1	74	40	92	53	148.7	>50
<b>Redear sunfish</b>												
% > 7"	23	55	12	50	21.7	0	0	5	0	8.7	8	40-60
% > 8"	8	29	6	25	7.2	0	0	0	0	4.3	0	25-35
% > 10"	0	0	0	0	0	0	0	0	0	0	0	15-25
condition	101		98	102	86	93	91	97	98	87	87	90-100
(fish/hour EF)	47	15	10	20	51	6.6	16	22	24	13	17	80-120
<b>Channel Catfish</b>												
% > 16"	40		71		60	100	-	0	100	100	100	50-60
% > 18"	10		50		40	0	-	0	100	83.3	100	10-20
% > 20"			21		20	0	-	0	0	66.7	0	5-10
condition	91	104	106		104	92	-	90	108	108	101	90-100
(fish/hr EF)	10	4	9	2	2.5	0.5	0	1	0.5	0.5	1.3	10-20
(fish/net night)										0.1	0.2	10-20
<b>Black crappie</b>												
% > 8"		75			100	71.4	71.4	88.9	50	98.6	99.2	50-70
% > 10"		75			50	14.3	0	55.6	0	21.7	44.9	30-50
% > 12"		75			33.3	0	0	0	0	4.3	8.5	5-10
condition		86			88	91	88	82	89	89	83	90-110
(fish/hour EF)		4			3	3.5	7	4.5	1	5	3.3	90-120
(fish/net night)	-	-	-	-	-	-	-	-	-	1.4	2.5	
<b>Muskie</b>												
% > 30"	87	100	79	91	84.6	100	100	100	-	97.1	97.7	60-80
% > 40"	33	20	11	19	30.8	0	100	100	-	17.6	18.2	30-50
% > 44"	7		0	9	23.1	0	0	100	-	4.9	4.5	5-15
condition	74		76	71	71	82	86	76	-	97	95	90-110
(fish/hr EF)	2.3	0.7	3.3		14	2.1	1	0.5	0	0.5	0	2-5
(fish/net night)	-	-	-	-	-	-	-	-	-	2.1	0.9	
<b>Gizzard shad</b>												
CPUE (fish/hr EF)					1	1.5	12	1	18	10.2	71.3	

2014\* = pulsed-DC electrofishing replaced 3-phase AC electrofishing

**Fishing Regulations: visit IFISHILLINOIS.ORG for updates – 2 pole and line fishing only**

Largemouth bass - 15" minimum length limit with a creel limit of 3 per day.



Muskie - 48" minimum length limit with a creel limit of 1 fish per day.



Channel catfish - 6 fish per day creel limit.



**Aquatic vegetation and/or chemical treatment:**

-treated nuisance aquatic vegetation at bank fishing areas: 5/22

**Fisheries Management Activities Completed:**

-conducted a spring fish population survey on Prairie Lake using standard protocols (48 trap net sets 3/21 – 3/22) (2-45 min pulsed-DC electrofishing surveys 5/15)

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