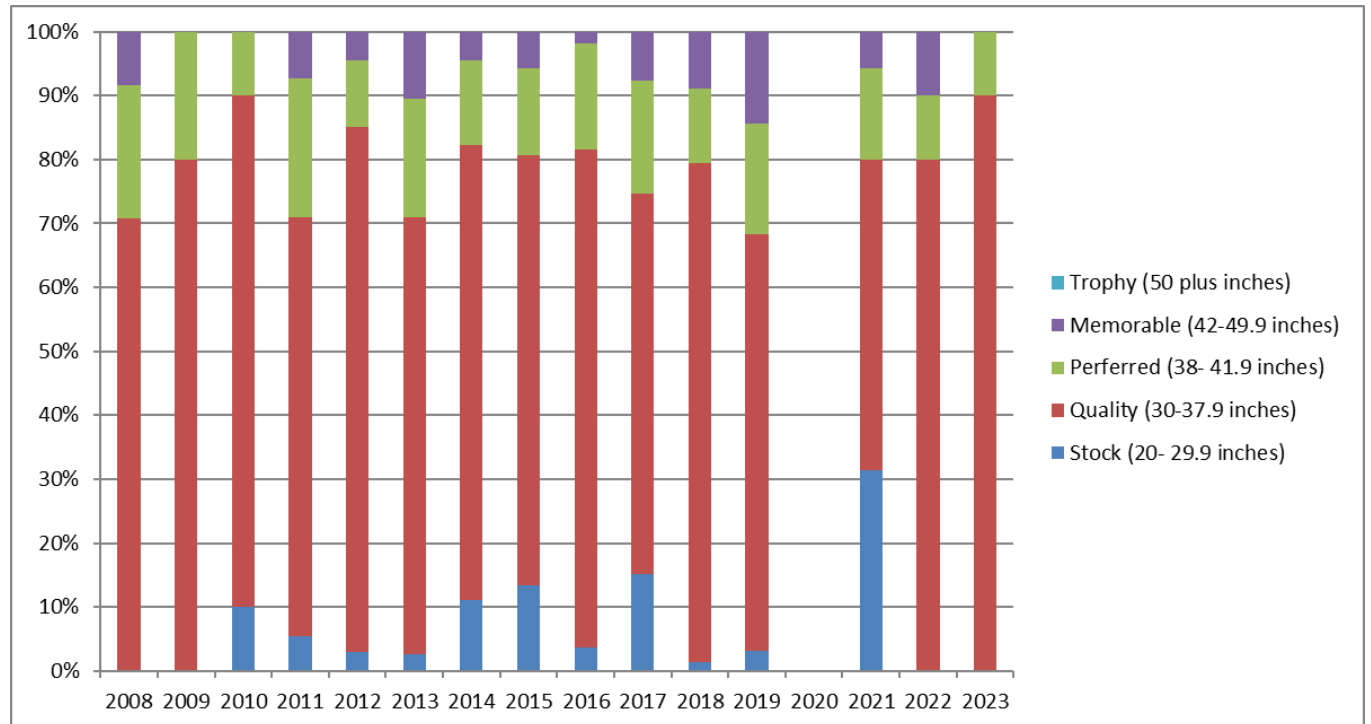




Avg Wr Female	98	114	105	94	101	102	101	110	95
Avg Wr Male	87	89	98	93	85	90	90	94	
<b>42.1-50</b>									
Avg Wr Female	96	89	96	106	101	95	92	105	
Avg Wr Male									
<b>50+</b>									

Figure 1. Yearly Musky sample composition percentage by length distribution groups



**Largemouth Bass:**

The Largemouth bass (LMB) population was sampled on 10/5-6/2022 by 1 DC electrofishing boat with 2 dippers. A total of 145 Largemouth bass were sampled. The population sample had a PSD of 80 and RSD 15 of 50. The size distribution was more like historical sample but the week 2022-year class was indicated in the CPUE decline of the 8-12 inch group. The 2023-year class looks to be moderate. Fall relative weights for all size groups sampled was good to excellent. Overall fishing in 2024 will remain stable. The Largemouth population was also sampled in the spring, 5/16-17/2023 for age and growth data (Table 3,4, 5). The sample is similar to the Fall 2022 survey for 2022 and also indicates the week 2022-year class. 43 Largemouth were aged from this survey and result can be found in Table 3 and 5. Growth is good with fish reaching legal size in 3.8 years and a mean length at age 3 of 12.3 inches.

<u>1.Management Plan Fall: Goal</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
# Stock (200mm)>100	65	142	85	79	56	60	38	20
PSD 40-60	80	75	75	80	59	70	82	80
RSD 14 10-20	55	61	53	55	43	32	66	70
RSD 15 10-40	34	54	44	41	29	27	42	50
RSD 18 0-10	0	7	7	9	4	2	6	15
Effort(Min)	120	120	120	120	120	120	120	120

2.Fall diurnal DC electrofishing CPUE (fish/hr.) of each length group of Largemouth bass collected at Shabbona Lake

<u>Year</u>	<u>&lt;7.9</u>	<u>7.9-11.8</u>	<u>11.8-15</u>	<u>15-20.1</u>	<u>&gt; 20</u>	<u>Total</u>
2016	53.0	6.5	15.0	11.0	0.0	85.0
2017	101.5	18.0	15.0	37.0	1.0	172.5
Avg Wr	(111)	(104)	(102)	(105)	(96)	
2018	114.0	10.5	13.5	18.5	0.0	156.5
Avg Wr	(103)	(93)	(98)	(98)		
2019	156.5	8.0	15.5	15.5	0.5	196.0
Avg Wr	(100)	(98)	(100)	(96)	(121)	
2020	111.0	11.5	8.5	8.0	0.0	139.0
Avg Wr	(111)	(104)	(104)	(95)		
2021	121.0	9.0	12.5	8.0	0.5	151.0
Avg Wr	(121)	(122)	(96)	(94)	(93)	
2022	23.0	3.5	7.0	8.0	0.5	42.0
Avg Wr	(125)	(116)	(104)	(99)	(108)	
2023	62.5	2.0	3.0	5.0	0.0	72.5
Avg Wr	(126)	(112)	(102)	(90)		

### 3.Spring Electrofishing Population assessment

<u>Management Plan</u>	<u>:Goal</u>	<u>2023</u>
# Stock (200mm)	>100	61
PSD (95% CI)	40-60	82 (13)
Mean length Age 3*		12.3"(311.4)
Years to 14		3.8

\*average length of age 3 fish aged

### 4.Spring Electrofishing CPUE (fish/hr) of each length group of Largemouth Bass collected at Shabbona Lake

<u>Year</u>	<u>&lt;7.9</u>	<u>7.9-11.8</u>	<u>11.8-15</u>	<u>15-20.1</u>	<u>&gt; 20</u>	<u>Total</u>
2023	0.5	5.5	13.5	5.5	0.5	25.5

### 5. Age length key of Largemouth Bass collected from Shabbona Lake collected 5/16-17/2023

<u>Length (mm)</u>	<u>Age 1</u>	<u>Age 2</u>	<u>Age 3</u>	<u>Age 4</u>	<u>Age 5</u>	<u>Age 6</u>	<u>Age 7</u>	<u>Age 8</u>	<u>Age 9</u>	<u>Age 10</u>	<u>Age 11</u>	<u>Age 12</u>	<u>Total</u>
160	1												1
170													0
180													0
190													0
200													0
210		1											1
220													0
230													0
240		1											1
250		1											1
260			1										1
270		2											2
280			3										3
290		2											2
300			2										2
310			1										1
320				1									1
330			1	1									2
340			5										5
350				2									2
360				4	1								5
370				2			1						3
380				2	1								3
390													0
400				1	1		1						3

410								1						1
420									1					2
430							1							1
Total	1	7	13	13	3	1	3	0	1	0	0	1	1	43

### Smallmouth Bass:

The Smallmouth bass population was sampled on 10/2/2023 a total of 120 minutes as part of the fall community sample. The Smallmouth bass population continues to be low density population. Habitat and competition with Largemouth bass will be the limiting factors for this population. Lower lake sample sites have the highest numbers of Smallmouth bass sampled.

1.Management Plan Fall:	Goal:	2016	2017	2018	2019	2020	2021	2022	2023
# Stock (180mm)	>100	13	9	4	1	19	13	5	11
PSD		39	33	100	0	94	85	80	9
RSD 14		8	11	50	0	5	23	60	0
RSD 15		0	11	25	0	5	23	20	0
RSD 18		0	0	0	0	0	0	0	0

### 2.Fall diurnal DC electrofishing CPUE (fish/hr.) of each length group of Smallmouth bass collected at Shabbona Lake

Year	<7.1	7.1-11	11.1-13.8	13.8-16.9	>16.9	Total
2022	1.0	0.5	0.5	1.5	0.0	3.5
Avg Wr		(99)	(99)	(99)		
2023	0.0	5.0	0.5	0.0	0.0	5.5
Avg Wr		(99)	(88)			

### Walleye:

The Walleye population was sampled on 4/10/2023 by nocturnal DC electrofishing for 1 run (30 min). The 2023 sample was a total of 172 individuals, manly males, which is to be expected when sampling the dam face during the spawn. The 2023 survey resulted in the highest overall CPUE at 344 fish per hour. The 15–20-inch size group was again the dominate size class sampled. The 20–25-inch group was the only size that declined from historical collection rates. 2024 should be an excellent year for harvestable size fish for fishermen from the large numbers of the 15–20-inch group that were just under the legal limit of 18”.

1.Management Plan Spring:	2017	2019	2021	2023
# Stock(250mm)	125	99	105	169
PSD	90	68	82	65
RSD 18	37	29	25	8
Years to 18 inches	n/a	n/a	n/a	n/a

### 2.Spring nocturnal DC electrofishing CPUE (fish/hr) of each length group of Walleye collected at Shabbona Lake

Year	<9.8	9.8-15	15-20.1	20.1-24.8	> 24.8	Total
2017	0.0	24.0	198.0	26.0	0.0	248.0
2019	2.0	64.0	110.0	20.0	4.0	200.0
2021	18.0	38.0	144.0	28.0	0.0	228.0
2023	6.0	118.0	204.0	10.0	6.0	344.0

### Crappie:

The Crappie population was sampled 10/24-26/2023. A total of 10 nets per day for a grand total of 30 net nights were completed. Otoliths were removed from 5-10 fish per species per cm group for age determination. A total of 61 crappie were sampled by trap nets. Black Crappie were the dominate species with 60 sampled. Only 1 White crappie was sampled in 2023. Black Crappie overall CPUE rates remained stable from the 2020 survey. Age data was also very similar to the 2020 survey with max age fish at 8 and 9 years old. Growth did slow in the 2023 survey and relative weights fell for larger individuals in the 2023 survey. The lack of White crappie in the 2023 survey will have to be monitored in 2024.

**Black crappie:**

Management Plan	:Goal	2020	2023
# Stock (130mm)	>100	96	58
PSD	40-60	97	72
RSD 10	5-10	70	50
Mean length Age 2+		9.6"	8.3"
CPUE $\geq$ 8.0 inches		3.1	1.4
CPUE age-1(fish/nn)		0.2	0.5
Net nights: (# nets)		3(30)	3(30)
CPUE (fish/nn) (n)		3.2(96)	2.0(60)

2. Fall trap netting CPUE (fish/nn) of each length group of Black crappie collected at Shabbona Lake

Year	<5	5.1-8	8.1-10	10.1-12	12.1-15	>15	Total
2020	0.0	0.1	1.1	1.7	0.3	0.0	3.2
Avg Wr		(99)	(105)	(99)	(96)		
2023	0.1	0.5	0.4	0.7	0.3	0.0	2.0
Avg Wr	(94)	(90)	(94)	(87)	(87)		

3a. Age length key of Black crappie collected from Shabbona Lake 10/24-26/2023

Length (mm)	Age 0	1	2	3	4	5	6	7	8	9	Total
70	1										1
80											0
90											0
100											0
110											0
120		2									2
130		5									5
140		5									5
150		3									3
160		1									1
170											0
180			1								1
190			1								1
200			6								6
210			2	1							3
220			2								2
230			1								1
240			1								1
250				1							1
260				1	1						2
270				4	1						5
280				6	2						8
290				2	2						4
300					2					1	3

310					1				1		2
320					1						1
330						1				1	2
Total	1	16	14	15	10	1	0	0	1	2	60

3b. Age length key of Black crappie collected from Shabbona Lake 10/27-29/2020

Length (mm)	Age - 1	Age - 2	Age - 3	Age - 4	Age - 5	Age - 6	Age - 7	Age - 8	Total
160	1								1
170	1								1
180									0
190	1								1
200	1								1
210	1	1							2
220		3							3
230		5							5
240		15							15
250		8						2	10
260		3	7			1			11
270			4	2	6		3		15
280			2		2	8			12
290					3	5	5		13
300					1	3	1		5
310									0
320					1				1
Total	5	35	13	2	13	17	9	2	96

**White crappie:**

1.Management Plan	:Goal	2020	2023
# Stock (130mm)	>100	62	1
PSD	40-60	77	100
RSD 10	5-10	37	100
Mean length Age 2+		9.4"	n/a
CPUE $\geq$ 8.0 inches		1.6	0.03
CPUE age-1(fish/nn)		0.8	0.0
Net nights: (# nets)		3(30)	3(30)
CPUE (fish/nn) (n)		2.0(63)	0.03(1)

2.Fall trap netting CPUE (fish/nn) of each length group of White crappie collected at Shabbona Lake

Year	<5	5.1-8	8.1-10	10.1-12	12.1-15	Total
2020	0.0	0.4	0.8	0.8	0.0	2.0
Avg Wr		(97)	(100)	(95)		
2023	0.0	0.0	0.0	0.03	0.0	0.03
Avg Wr				(94)		

3. Age length key of White crappie collected from Shabbona Lake 10/27-29/2020

Length (mm)	Age - 1	Age - 2	Age - 3	Age - 4	Total
-------------	---------	---------	---------	---------	-------

160	1				1
170	1	1			2
180	4				4
190	7				7
200	6				6
210	6				6
220	2				2
230	2	1	1		4
240		4	3		7
250		7	2	2	11
260			6	2	8
270			2	1	3
280					0
290				1	1
Total	29	13	14	6	62

### Bluegill:

The Bluegill population was sampled using DC electrofishing for 120 minutes as part of the fall community sample. A total of 140 Bluegill were sampled. The 2022 sample was like the past 2 years in overall CPUE and size distribution. The population continues to be stable with excellent relative weights. A spring survey of Bluegill was completed in 2023. A total of 162 Bluegill were sampled. Spring and Fall size distributions were very similar. A total of 60 Bluegill were aged (Table 5.) Age data shows a population with excellent growth, fish reaching near 5 inches in 2 years (Table 4).

A total of 162 Bluegill were sampled.

<u>1.Management Plan:</u>	<u>Goal:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
#Stock(80mm)	>100	105	160	298	176	236	21	79	51
PSD(95% CI)	20-60	40	33	12	26	21	33(20)	4(4)	14(13)
RSD 7	5-20	6	6	1	4	5	14	4	6
RSD 8	5-10	0	0	0	0	0	0	0	2
Effort		120	120	120	120	120	120	120	120

### 2.Fall diurnal DC electrofishing CPUE (fish/hr) of each length group of Bluegill collected at Shabbona Lake

<u>Year</u>	<u>&lt;3</u>	<u>3.1-6</u>	<u>6.1-8</u>	<u>8.1-10</u>	<u>Total</u>
2016	27.1	10.3	6.7	0.0	44.1
2017	21.5	54.0	26.0	0.0	101.5
Avg Wr		(115)	(101)		
2018	133.0	130.0	18.5	0.0	281.5
Avg Wr		(104)	(89)		
2019	80.0	62.0	23.0	0.0	165.0
Avg Wr		(96)	(90)		
2020	143.0	63.5	24.5	0.0	231.0
Avg Wr		(97)	(94)		
2021	57.5	7.0	3.5	0.0	68.0
Avg Wr		(108)	(100)		
2022	26.0	38.0	1.0	0.5	65.5
Avg Wr		(106)	(91)	(94)	
2023	44.5	22.0	3.0	0.5	70.0

Avg Wr (100) (101) (95)

3.Spring Bluegill Electrofishing Population assessment

<u>Management Plan</u>	<u>:Goal</u>	<u>2023</u>
# Stock (80mm)	>100	61
PSD (95% CI)	40-60	24 (10)
Mean length Age 2*		4.9"(125.5)
Years to 6 inches		2.4
*average length of age 3 fish aged		

4.Spring Electrofishing CPUE (fish/hr) of each length group of Bluegill collected at Shabbona Lake

<u>Year</u>	<u>&lt;3</u>	<u>3.1-6</u>	<u>6.1-8</u>	<u>8.1-10</u>	<u>Total</u>
2023	15.5	49.5	14.0	2.0	81.0

5. Age length key of Bluegill collected from Shabbona Lake 5/16-17/2023

<u>Length (mm)</u>	<u>Age</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>Total</u>
80		1						1
90		2	3					5
100		3	3					6
110			5					5
120			5					5
130			5					5
140			5					5
150			2					2
160			1					1
170				3	1			4
180				3				3
190					2	2		4
200					1	1		2
<u>210</u>							1	<u>1</u>
Total		6	29	6	4	3	1	49

**Gizzard Shad:**

Gizzard shad are the primary food for all the predators in Shabbona Lake. Small Gizzard shad are preferred for Walleye, Hybrids, intermediate Largemouth bass and larger Crappie species. Larger Gizzard shad are preferred for Muskie and larger Largemouth bass.

<u>Management Plan:</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
CPUE (fish/hr) < 6inches	316.5	76.0	395.0	1834.0	531.0	6.0	312.0
CPUE (fish/hr)	481.5	127.5	436.0	1886.0	556.0	72.0	7.0

**FISHING REGULATIONS** – Statewide fishing regulations apply at this lake (see current Illinois Fishing Information booklet and IFISHILLINOIS website <http://www.ifishillinois.org/> for specific details).

Additional Site Specific fishing regulations:

- All Fish . . . . . 2 Pole and Line Fishing Only
- Large or Smallmouth Bass . . . . . 1 Fish Daily Creel Limit (14" Minimum Length Limit)
- Bluegill or Redear Sunfish . . . . . 10 Fish Daily Creel Limit (No Minimum Length Limit)



- Channel Catfish . . . . . 6 Fish Daily Creel Limit (No Minimum Length Limit)
- Pure Muskellunge . . . . . 1 Fish Daily creel Limit (48" Minimum Length Limit)
- Striped, White, or Hybrid Striped Bass . . . 3 Fish Daily Creel Limit (17" Minimum Length Limit)
- Walleye, Sauger, or Hybrid Walleye. . . . . 6 Fish Daily Creel Limit (18" Minimum Length Limit)
- White, Black, or Hybrid Crappie . . . . . 10 Fish Daily Creel Limit (No Minimum Length Limit)

Boat motor: Unlimited HP, No wake

**CONTACT INFORMATION –** Shabbona Lake State Park: 815-824-2106  
IDNR Fisheries County Biologist: 630-360-4185

**Shabbona Lake Map**

