

Average

14.0-18.0"



Lake Information: 100 acres; 78 feet max depth Located: Plato, IN; LaGrange County Access: Boat ramp on east shore off CR S 525 E GPS Coordinates: N 41.62398; W -85.32890 Amenities: None Outboard Motor Restriction: 10 mph limit Fishing Regulations: Statewide Recent Stocking: Channel Catfish, Walleye, Northern Pike

Best Fishing: Largemouth Bass, Channel Catfish, Walleve **DNR Contact Information:** Matt Horslev **District 2 Assistant Fisheries Biologist** (260) 829-6241; Mhorsley@dnr.IN.gov **Report Approved By:** Jeremy Price, Regional Supervisor Date Approved: May 12, 2020

### **Methods**

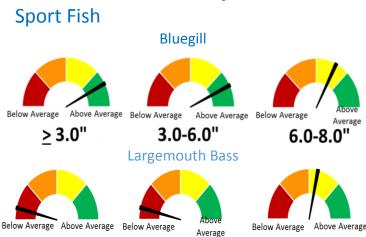
### Fish

- Dates: June 18 19, 2019
- 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
- Dates: June 17, 2019; August 21, 2019
- Vegetation: August 9, 2019
- Depth Map: Click for link to map

Summary



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

8.0-14.0"

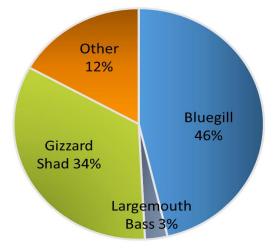


<u>></u> 8.0"

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

### **Fish Community**

- Overall 661 fish were collected representing 18 species, above average for Northern Indiana glacial lakes.
- Bluegill were the most abundant species with 306 individuals that measured up to 7.4 inches in length.
- Twenty-seven percent of the Bluegill were greater than 6.0 inches and up to age 7.
- Nineteen Largemouth Bass were collected that measured up to 15.2 inches in length.
- Largemouth Bass ranged from age 1 to 5, where the average length of an age-4 fish was 11.9 inches.
- Fourteen Walleye were collected and ranged in length from 6.2 to 21.0 inches. Two of the 14 Walleyes collected were legal size (16 in).
- Six Channel Catfish were collected during the survey with 3 individuals being 12 inches or larger.



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





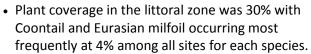
|                       |      | Percent     |             |
|-----------------------|------|-------------|-------------|
|                       |      | Composition | Length      |
| Species               | Num. | by Num.     | Range (in)  |
| Bluegill              | 306  | 46.3        | 2.8 - 7.4   |
| Gizzard Shad          | 224  | 33.9        | 6.6 - 10.2  |
| White Sucker          | 33   | 5.0         | 9.0 - 19.2  |
| Largemouth Bass       | 19   | 2.9         | 4.5 - 15.2  |
| Walleye               | 14   | 2.1         | 6.2 - 21.0  |
| <b>Redear Sunfish</b> | 11   | 1.7         | 3.0 - 8.2   |
| Spotted Gar           | 10   | 1.5         | 24.2 - 29.5 |
| Black Crappie         | 9    | 1.4         | 4.5 -11.2   |
| Yellow Perch          | 8    | 1.2         | 4.0 - 6.5   |
| Channel Catfish       | 6    | 0.9         | 9.6 - 14.4  |
| Pumpkinseed           | 6    | 0.9         | 5.1 - 6.8   |
| Hybrid Sunfish        | 5    | 0.8         | 5.5 - 9.0   |
| Bowfin                | 3    | 0.5         | 21.7 - 23.7 |
| Warmouth              | 3    | 0.5         | 5.0 - 6.0   |
| Brook Silverside      | 1    | 0.2         | 3.7         |
| Common Carp           | 1    | 0.2         | 33.9        |
| Golden Redhorse       | 1    | 0.2         | 18.5        |
| Yellow Bullhead       | 1    | 0.2         | 8.8         |
| Total                 | 661  |             |             |

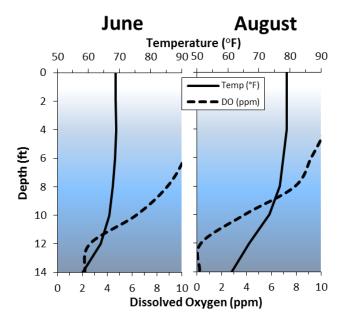
#### **Stocking**

| Species            | Years                              | Average Number<br>Stocked |
|--------------------|------------------------------------|---------------------------|
| Channel<br>Catfish | 2007,2011,2013,2015<br>2018        | 2698                      |
| Walleye            | 2001,2008,2009,2013,<br>2018, 2019 | 2103                      |
| Northern Pike      | 2019                               | 360                       |

### Habitat

- Oxygen (3 ppm) was available for fish down to 11 feet in June and 11 feet in August (average for Northern Indiana lakes).
- Water clarity was 2 feet in June and 2 feet in August (below average).
- Aquatic plants were collected to 4 feet and comprised of 5 species.
- One non-native species, Eurasian watermilfoil, was collected.





### Notes

- Fish Lake continues to be overrun with the invasive Gizzard Shad, which has decreased water quality and negatively impacted the Bluegill population.
- Continued stockings of predatory species has created additional fishing opportunities for the anglers of Fish Lake.
- Submersed aquatic vegetation has decreased significantly and current vegetation control activities should be ceased in order to protect the remaining plant community present in Fish Lake.





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





### Appendix

Pertinent data sheets to Fish Lake Status and Trends sampling 2019

|           |                            |                   |             | GLAC            | CIAL LAKE    | SURVEY      | - STATUS                | S AND TR     | ENDS       |            |                      |          |  |  |  |  |
|-----------|----------------------------|-------------------|-------------|-----------------|--------------|-------------|-------------------------|--------------|------------|------------|----------------------|----------|--|--|--|--|
|           |                            | LAKE              | NAME        |                 |              | COL         | INTY                    |              |            | CI         | TY                   |          |  |  |  |  |
|           |                            | Fi                | sh          |                 |              | LaG         | range                   |              |            | Pla        | ato                  |          |  |  |  |  |
|           |                            | QU                | AD          |                 |              | SAM         | PLE ID                  |              |            | . ,        | of survey<br>18/2019 |          |  |  |  |  |
|           |                            | CLUS              | STER        |                 |              |             |                         | BIOLOGIST(S  | AND CREW   | n          |                      |          |  |  |  |  |
|           |                            |                   |             |                 | I            | ACCES       | SIBILITY                | loisley, i   | laiueima   | 11         |                      |          |  |  |  |  |
| _         |                            | STATE OWN         |             |                 |              |             |                         |              |            | 0.7        | HER                  |          |  |  |  |  |
|           |                            | STATE OWN<br>S 52 |             |                 |              | PRIVATELY O | WNED PUBLIC             |              |            | 01         | HER                  |          |  |  |  |  |
|           |                            | 0.02              |             |                 | <u> </u>     | EFF         | ORT                     |              | 1          |            |                      |          |  |  |  |  |
|           |                            |                   | ELECTROFISH | ING STATION     | 1            |             |                         |              | TRAP       | NET 1      |                      |          |  |  |  |  |
|           |                            | START             |             |                 | END          |             | N 41.6                  | 61949        |            |            | 33177                |          |  |  |  |  |
| N         | 41.6                       | 2518              |             | N 41.6          | 62613        |             |                         | TIME         | LIFT       | TIME       |                      | LHRS     |  |  |  |  |
| w         | -85.3                      | 32676             |             | w -85.          | 32951        |             |                         |              |            |            | 2                    | 24       |  |  |  |  |
|           |                            | E                 | ELECTROFISH | ING STATION     | 2            |             |                         |              | TRAP       | NET 2      |                      |          |  |  |  |  |
|           |                            | START             |             |                 | END          |             | N 41.6                  | 62504        |            | w -85.     | 32660                |          |  |  |  |  |
| Ν         |                            | 2002              |             |                 | 62198        |             | SET                     | TIME         | LIFT       | TIME       |                      | LHRS     |  |  |  |  |
| w         | -85.3                      | 33093             |             |                 | 32951        |             |                         |              |            |            | 2                    | 24       |  |  |  |  |
|           |                            |                   | COMIN       | IENTS           |              |             |                         |              | COMIN      | MENTS      |                      |          |  |  |  |  |
| -         |                            |                   | GILL        | NET 1           |              |             |                         |              | GILL       | NET 2      |                      |          |  |  |  |  |
|           |                            | START             |             |                 | END          |             |                         | START        |            |            | END                  |          |  |  |  |  |
| N         | 41.6                       | 2372              |             | N 41.6          | 62302        |             | N 41.€                  | 62376        |            | N 41.€     | 62328                |          |  |  |  |  |
| w         | -85.3                      | 32528             |             | w -85.          | 32511        |             | w -85.                  | 33234        |            | w -85.     | 33297                |          |  |  |  |  |
|           | SET                        | TIME              | LIFT        | TIME            |              | LHRS        | SET                     | TIME         | LIFT       | TIME       |                      |          |  |  |  |  |
|           | DEPTH                      | RANGE             |             | COM             | ∠<br>⊿ENTS   | 24          | DEPTH                   | RANGE        |            | COMI       | L ∠<br>∕IENTS        | 24       |  |  |  |  |
|           |                            | -14               |             | 0000            |              |             |                         | - 12         |            | 0000       |                      |          |  |  |  |  |
|           | Previous Surveys Completed |                   |             |                 |              |             |                         |              |            |            |                      |          |  |  |  |  |
|           |                            |                   |             | PHY             | SICAL AN     | ID CHEMIC   | HEMICAL CHARACTERISTICS |              |            |            |                      |          |  |  |  |  |
|           | AC                         | RES               | MAX         | DEPTH           | MEAN         | DEPTH       | ACRE                    | FEET         | WATER      | R LEVEL    | SECCHI               |          |  |  |  |  |
|           | 10                         | 00                | 7           | 8               | 4            | -0          | 40                      | 000          | 93         | 6.5        | 2 ft                 |          |  |  |  |  |
|           | AIR T                      | EMP               | WATER       | COLOR           |              |             |                         | LAKE B       | OTTOM      |            |                      |          |  |  |  |  |
|           |                            |                   | Bro         | own             | BOULDEF      | R GRA       | VEL                     | SAND         | MUC        | K CL       | MARL                 |          |  |  |  |  |
|           | CONDU                      | CTIVITY           | ALKA        | LINITY          | рН           | TDS         | BARO                    | METER        | WATER      | RCHEMISTRY | AND ZOOPLA           | NKTON    |  |  |  |  |
| s         | 370                        |                   | s 68.6      | 64              | s 9.7        |             |                         |              | N 41.€     | 62398      | тіме 10              | :00 AM   |  |  |  |  |
| в         |                            |                   | в 68.6      | 64              | в 9.0        |             | R S                     | F            | w -85      | .32886     |                      |          |  |  |  |  |
|           |                            |                   | LA          | <b>KE TEMPE</b> | RATURE       | AND DISS    | OLVED O                 | XYGEN (D     | O) PROFI   | LES        |                      |          |  |  |  |  |
|           | DEPTH                      | TEM P(°F)         | DO (ppm)    | DEPTH           | TEM P(℃F)    | DO (ppm)    | DEPTH                   | TEM P(℃F)    | DO (ppm)   | DEPTH      | TEM P(℃F)            | DO (ppm) |  |  |  |  |
| <u> </u>  | 0                          | 68.8              | 11.2        | 34              | 46.6         | 2.0         | 68                      | 42.7         | 2.0        |            |                      |          |  |  |  |  |
|           | 2                          | 68.7              | 11.2        | 36              | 46.3         | 2.0         | 70                      | 42.7         | 2.0        |            |                      |          |  |  |  |  |
| $\vdash$  | 4<br>6                     | 68.9<br>68.5      | 10.9        | 38<br>40        | 46.2<br>45.7 | 2.0         | 72<br>74                | 42.7         | 2.0<br>2.0 |            |                      |          |  |  |  |  |
| $\vdash$  | 8                          | 68.5<br>67.8      | 10.2<br>8.8 | 40              | 45.7         | 2.0<br>2.0  | 74                      | 42.7<br>42.7 | 2.0        |            |                      |          |  |  |  |  |
|           | 10                         | 66.7              | 6.3         | 44              | 44.7         | 2.0         | 70                      | 42.7         | 2.0        |            |                      |          |  |  |  |  |
| $\vdash$  | 12                         | 63.9              | 2.6         | 46              | 44.5         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
| $\square$ | 14                         | 58.2              | 2.2         | 48              | 44.0         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
|           | 16                         | 52.9              | 2.2         | 50              | 43.6         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
|           | 18                         | 52.3              | 2.1         | 52              | 43.4         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
|           | 20                         | 51.2              | 2.1         | 54              | 43.3         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
|           | 22                         | 50.1              | 2.1         | 56              | 43.2         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
|           | 24                         | 49.5              | 2.1         | 58              | 43.1         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
|           | 26                         | 48.7              | 2.0         | 60              | 43.0         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
| $\vdash$  | 28                         | 48.2              | 2.0         | 62              | 42.9         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
| ┣—        | 30                         | 47.6              | 2.0         | 64              | 42.8         | 2.0         |                         |              |            |            |                      |          |  |  |  |  |
| 1         | 32                         | 47.1              | 2.0         | 66              | 42.7         | 2.0         |                         | 1            | 1          | 1          | 1                    |          |  |  |  |  |



# Fish Lake

# INDIANA DIVISION OF FISH & WILDLIFE

## 2019 Status and Trends Survey

| LAKE NAME     COUNTY     CITY       Fish     LaGrange     Plato       QUAD     SAMPLE ID     DATE(S) OF SURVEY     8/21/2019       QUAD     SAMPLE ID     BIOLOGIST(S) AND CREW     8/21/2019       CLUSTER     BIOLOGIST(S) AND CREW     Horsley, Koza       CECESSIBILITY       STATE OWINED PUBLIC     OTHER       STATE OWINED PUBLIC     OTHER       STATE OWINED PUBLIC     OTHER       STATE OWINED FUBLIC     OTHER       STATE OWINED FUBLIC     OTHER       STATE OWINED FUBLIC     OTHER       STATE OWINED FUBLIC       STATE OWINED STATION 1       N       N       SETTIME       SETTIME       SETTIME       SETTIME       SETTIME       SETTIME       SETTIME       SETTIME       SETTIME       SETTIME </th  |
|--|
| QUAD         DATE(S) OF SURVEY<br>8/21/2019           CLUSTER         BIOLOGIST(S) AND CREW<br>HORSLEY, KOZA           CLUSTER         BIOLOGIST(S) AND CREW<br>HORSLEY, KOZA           STATE OWNED PUBLIC<br>S 525 E         OTHER           STATE OWNED PUBLIC<br>S 525 E         OTHER           EFFORT           EFFORT           ELECTROFISHING STATION 1         TRAP NET 1           TRAP NET 1           START         N         W           START         N         W           OTHER         OTHER           START         N         W           OTHER         END         N           START         N         W           OTHER         END         N           OTHER         END         N           COMMENTS         COMMENTS         END         N           START         END         N         N         <   |
| $ \begin{tabular}{ c                                   $   |
| Horsley, Koza         ACCESSIBILITY         STATE OWINED PUBLIC       OTHER         START       REFORT         START       N       W         START       END       N         N       W         START       END       N         N       W         START       N       W         START       N       W         N       W       N         OTHENTS       COMMENTS         START       N       W         N       N       N         N       N       N         N <th< td=""></th<>  |
| ACCESSIBILITY         STATE OWNED PUBLIC       OTHER         STATE OWNED PUBLIC       OTHER         STATE OWNED PUBLIC       OTHER         STATE OWNED PUBLIC       OTHER         START       START START       START START       N       W         N       <  |
| STATE OWNED PUBLIC<br>S 525 E     PRIVATELY OWNED PUBLIC     OTHER       EFFORT       ELECTROFISHING STATION I     TRAP NET 1       N       V       START N       N     N       V     N       V     SET TIME     LIFT TIME       TRAP NET 2     TOTAL HR       V     N     V       START     N     V       START     N     V       START     END     N       N     V     V       START     N     V       N     V     V       START     N     V       N     V     V       N     N     V       V     N     V       START     SET TIME     LIFT TIME       START     END     N       V     V     V       START     END     N       N     N     V       V     N     N       V     V     V       START     END     N       N     V     V       N     V     V       N     V     V       N     V     V  |
| EFFORT         ELECTROFISHING STATION 1       TRAP NET 1         N       W         START       END       N       W         CELECTROFISHING STATION 2       N       W       TOTAL HR         START       END       N       W       OTAL HR         START       END       N       W       OTAL HR         START       END       N       W       W       OTAL HR         N       W       SET TIME       LIFT TIME       TOTAL HR         N       N       W       W       W       M         O       SET TIME       LIFT TIME       TOTAL HR       TOTAL HR         N       N       W       W       W       M         GILL NET 1       END       START       COMMENTS       END       N         START       END       START       M       W       W       W         GILL NET 1       END       START       N       N       M         W       W       W       W       W       W       W       M         SET TIME       LIFT TIME       TOTAL HR       SET TIME       LIFT TIME   |
| EFFORT       ELECTROFISHING STATION 1     TRAP NET 1       START     END     N     W       N     W     SET TIME     LIFT TIME     TOTAL HR       W     W     N     W     W     W       ELECTROFISHING STATION 2     TRAP NET 2     TRAP NET 2       START     END     N     W       N     N     W     W     W       START     END     N     W       N     N     W     SET TIME     LIFT TIME     TOTAL HR       W     W     W     SET TIME     UFT TIME     TOTAL HR       GILL NET 1     END     START     END     N       M     W     W     W     W     W       GILL NET 1     END     START     END     N       M     W     W     W     W     W       START     N     N     N     W       W     W     W     W     W     W       START     N     N     N     W       START     N     N     N     W       SET TIME     LIFT TIME     TOTAL HRS     SET TIME     LIFT TIME     TOTAL HR       DEPTH RANGE  |
| ELECTROFISHING STATION 1         TRAP NET 1           START         END         N         W           N         SET TIME         LIFT TIME         TOTAL HR           W         W         SET TIME         LIFT TIME         TOTAL HR           ELECTROFISHING STATION 2         TRAP NET 2         TRAP NET 2           START         END         N         W           N         W         W         SET TIME         LIFT TIME         TOTAL HR           V         W         W         SET TIME         LIFT TIME         TOTAL HR           W         W         W         SET TIME         LIFT TIME         TOTAL HR           W         W         W         SET TIME         LIFT TIME         TOTAL HR           GILL NET 1         END         START         END         N           START         N         W         W         W           W         W         W         W         W         W           START         N         START         END         N         N           W         W         W         W         W         W         W         N           START         N  |
| START     END     N     W       N     N     SET TIME     LIFT TIME     TOTAL HR       W     W     SET TIME     LIFT TIME     TOTAL HR       START     END     N     W     W       N     N     SET TIME     LIFT TIME     TOTAL HR       W     W     W     START     END       N     N     START     END     N       W     W     W     W     W     N       COMMENTS     END     START     END     N       START     END     START     END     N       W     W     W     W     W     W       START     N     N     N     N       W     W     W     W     W     W       START     N     N     N     N       W     W     W     W     W     W       START     N     N     N     N       W     W     W     W     W     W       SET TIME  |
| N     N     N       W     W     SET TIME     LIFT TIME     TOTAL HR       ELECTROFISHING STATION 2     TRAP NET 2     TRAP NET 2       START     END     N     W       N     N     W     SET TIME     LIFT TIME     TOTAL HR       V     N     N     W     W     TOTAL HR       V     N     N     W     W     TOTAL HR       V     N     N     SET TIME     LIFT TIME     TOTAL HR       V     N     N     SET TIME     SET TIME     END     N       START     END     START     END     N     N       N     N     N     N     W     W       START     END     N     N     N     N       W     W     W     W     W     W     W       START     N     N     N     N     N       N     N     N     N     W     W       START     N     N     W     W     W       START     N     N     N     W     W       SET TIME     LIFT TIME     TOTAL HRS     SET TIME     LIFT TIME     TOTAL HR       DEPTH RANGE     C  |
| W     Image: Constraint of the second of the s                           |
| TRAP NET 2       TRAP NET 2       START     END     N     W       N     N     SET TIME     LIFT TIME     TOTAL HR       W     W     SET TIME     SET TIME     TOTAL HR       COMMENTS     COMMENTS     COMMENTS     SET TIME     TOTAL HR       GILL NET 1     END     START     END     N       N     N     N     W     W     W       START     END     START     END     N       N     N     N     W     W     W       START     END     N     N     W       START     END     N     N     W       START     END     N     W     W       W     W     W     W     W     W       SET TIME     LIFT TIME     TOTAL HRS     SET TIME     LIFT TIME     TOTAL HR       DEPTH RANGE     COMMENTS     DEPTHRANGE     COMMENTS     COMMENTS     COMMENTS   |
| START     END     N     W       N     N     SET TIME     LIFT TIME     TOTAL HR       W     W     SET TIME     LIFT TIME     TOTAL HR       COMMENTS     COMMENTS     COMMENTS     GILL NET 2       GILL NET 1     END     START     END       N     N     N     W       START     END     START     END       N     N     N     W       START     TOTAL HRS     START     END       N     W     W     W     W   |
| N N N SET TIME LIFT TIME TOTAL HR W W W W COMMENTS COMMEN |
| W     W     N     N       COMMENTS     GILL NET 1     GILL NET 2       GILL NET 1     END     START     END       N     N     N     N       W     W     W     W     W       START     END     START     END       N     N     N     N     N       W     W     W     W     W  |
| COMMENTS     COMMENTS       GILL NET 1     GILL NET 2       START     END       N     N       W     W       SET TIME     LIFT TIME       TOTAL HRS     SET TIME       DEPTH RANGE     COMMENTS       Previous Surveys Completed  |
| GILL NET 1     GILL NET 2       START     END     START     END       N     N     N     N       W     W     W     W       SET TIME     LIFT TIME     TOTAL HRS     SET TIME     LIFT TIME     TOTAL HRS       DEPTH RANGE     COMMENTS     DEPTH RANGE     COMMENTS     COMMENTS   |
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| W     W     W       SET TIME     LIFT TIME     TOTAL HRS     SET TIME     LIFT TIME     TOTAL HR       DEPTH RANGE     COMMENTS     DEPTH RANGE     COMMENTS     COMMENTS     COMMENTS   |
| W         W         W           SET TIME         LIFT TIME         TOTAL HRS         SET TIME         LIFT TIME         TOTAL HR           DEPTH RANGE         COMMENTS         DEPTH RANGE         COMMENTS         DEPTH RANGE         COMMENTS  |
| SET TIM E     LIFT TIM E     TOTAL HRS     SET TIM E     LIFT TIM E     TOTAL HR       DEPTH RANGE     COM MENTS     DEPTH RANGE     COM MENTS     DEPTH RANGE     COM MENTS       Previous Surveys Completed  |
| Previous Surveys Completed   |
| Previous Surveys Completed   |
|  |
|  |
|  |
| ACRES MAX DEPTH MEAN DEPTH ACRE FEET WATER LEVEL SECCHI  |
| 100 78 40 4000 936.5 2 ft  |
| AIR TEMP WATER COLOR LAKE BOTTOM   |
| 75 Brown Boulder GRAVEL SAND MUCK CLAY MA  |
|  |
|  |
| s s s n 41.62398 n 41.62398 n 10:15  |
| в в в к я в <b>85.32886</b>  |
| LAKE TEMPERATURE AND DISSOLVED OXYGEN (DO) PROFILES  |
| DEPTH         TEM P(%)         DO (ppm)         DEPTH         TEM P(%)         DO (ppm) <t< td=""></t<>  |
| 0 79.0 10.3 34 45.2 0.0 68 41.3 0.0  |
| 2 78.9 10.3 36 44.7 0.0 70 41.3 0.0  |
| <u>4</u> 78.9 10.3 38 44.3 0.0 72 41.3 0.0   |
| 6         77.8         9.2         40         43.8         0.0         74         41.3         0.0   |
|  |
| 8         76.7         7.9         42         43.8         0.0         76         41.3         0.0           10         73.3         3.8         44         43.1         0.0         78         41.3         0.0   |
| 10 73.3 3.8 44 43.1 0.0 78 41.3 0.0  |
| 10         73.3         3.8         44         43.1         0.0         78         41.3         0.0           12         66.9         0.3         46         42.8         0.0   <  |
| 10       73.3       3.8       44       43.1       0.0       78       41.3       0.0         12       66.9       0.3       46       42.8       0.0  |
| 10       73.3       3.8       44       43.1       0.0       78       41.3       0.0       10         12       66.9       0.3       46       42.8       0.0       1   |
| 10       73.3       3.8       44       43.1       0.0       78       41.3       0.0       12         12       66.9       0.3       46       42.8       0.0       12       1   |
| 10       73.3       3.8       44       43.1       0.0       78       41.3       0.0       12         12       66.9       0.3       46       42.8       0.0       12       1   |
| 10       73.3       3.8       44       43.1       0.0       78       41.3       0.0           12       66.9       0.3       46       42.8       0.0 <td< td=""></td<>  |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  |
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# Fish Lake



## 2019 Status and Trends Survey

|                 |              |         |    | NUM                | <b>IBER, PE</b>       | RCENTAGE, WE              | IGHT, AI        | ND AG | E OF  | BLU | EGILL              |                   |       |
|-----------------|--------------|---------|----|--------------------|-----------------------|---------------------------|-----------------|-------|-------|-----|--------------------|-------------------|-------|
| TOTAL<br>LENGTH |              | NUM BEF |    | PERCENT<br>OF FISH | A VER A GE<br>WEIGH T | AGEOF                     | TOTAL<br>LENGTH | N     | UMBER | 2   | PERCENT<br>OF FISH | AVERAGE<br>WEIGHT | AGEOF |
| (inches)        | TN           | GN      | EF | COLLECTED          | (pounds)              | FISH                      | (inches)        | TN    | GN    | EF  | COLLECTED          | (pounds)          | FISH  |
| 1.0             |              |         |    |                    |                       |                           | 17.5            |       |       |     |                    |                   |       |
| 1.5             |              |         |    |                    |                       |                           | 18.0            |       |       |     |                    |                   |       |
| 2.0             |              |         |    |                    |                       |                           | 18.5            |       |       |     |                    |                   |       |
| 2.5             |              |         | 1  | 0.3                | 0.02                  | 1                         | 19.0            |       |       |     |                    |                   |       |
| 3.0             |              |         | 6  | 2.0                | 0.02                  | 1,2                       | 19.5            |       |       |     |                    |                   |       |
| 3.5             | 1            |         | 19 | 6.5                | 0.04                  | 2,3                       | 20.0            |       |       |     |                    |                   |       |
| 4.0             |              |         | 32 | 10.5               | 0.05                  | 1,2,3                     | 20.5            |       |       |     |                    |                   |       |
| 4.5             | 4            |         | 30 | 11.1               | 0.08                  | 3,4                       | 21.0            |       |       |     |                    |                   |       |
| 5.0             | 13           |         | 49 | 20.3               | 0.10                  | 3,4                       | 21.5            |       |       |     |                    |                   |       |
| 5.5             | 16           | 3       | 50 | 22.5               | 0.14                  | 4,5                       | 22.0            |       |       |     |                    |                   |       |
| 6.0             | 19           |         | 32 | 16.7               | 0.18                  | 4,5,6                     | 22.5            |       |       |     |                    |                   |       |
| 6.5             | 4            |         | 21 | 8.2                | 0.22                  | 5,6                       | 23.0            |       |       |     |                    |                   |       |
| 7.0             | 2            |         | 4  | 2.0                | 0.28                  | 5,6                       | 23.5            |       |       |     |                    |                   |       |
| 7.5             |              |         |    |                    |                       |                           | 24.0            |       |       |     |                    |                   |       |
| 8.0             |              |         |    |                    |                       |                           | 24.5            |       |       |     |                    |                   |       |
| 8.5             |              |         |    |                    |                       |                           | 25.0            |       |       |     |                    |                   |       |
| 9.0             |              |         |    |                    |                       |                           | 25.5            |       |       |     |                    |                   |       |
| 9.5             |              |         |    |                    |                       |                           | 26.0            |       |       |     |                    |                   |       |
| 10.0            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 10.5            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 11.0            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 11.5            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 12.0            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 12.5            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 13.0            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 13.5            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 14.0            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 14.5            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 15.0            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 15.5            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 16.0            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 16.5            |              |         |    |                    |                       |                           |                 |       |       |     |                    |                   |       |
| 17.0            | 0            | 0       | 0  |                    | 0.00                  |                           | TOTAL           |       | 306   |     |                    | 37.2              |       |
|                 | CTRO<br>ATCH |         |    | 48                 | 38                    | GILL NET<br>CATCH (/LIFT) |                 | 1.5   | ;<br> |     | TRAP NE<br>(/LI    |                   | 29.5  |





|                 |           | AGE    | E-LENC | <u>STH </u> K | EY FO | or Bl | UEGI | LL  |     |     |   |   |    | Age Distriubtion (Expanded) |      |      |             |             |              |             |            |       |   |    |
|-----------------|-----------|--------|--------|---------------|-------|-------|------|-----|-----|-----|---|---|----|-----------------------------|------|------|-------------|-------------|--------------|-------------|------------|-------|---|----|
| LENGTH<br>GROUP | NUMBER    | NUMBER |        |               |       |       |      | AGE |     |     |   |   |    |                             |      | *Du  | e to roundi | ng total ma | ay be differ | ent than nu | mber colle | ected |   |    |
| (inches)        | COLLECTED | AGED   | 0      | 1             | 2     | 3     | 4    | 5   | 6   | 7   | 8 | 9 | 10 | 0                           | 1    | 2    | 3           | 4           | 5            | 6           | 7          | 8     | 9 | 10 |
| 1.0             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 1.5             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 2.0             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 2.5             | 1         | 1      |        | 1             |       |       |      |     |     |     |   |   |    |                             | 1    |      |             |             |              |             |            |       |   |    |
| 3.0             | 6         | 5      |        | 3             | 2     |       |      |     |     |     |   |   |    |                             | 4    | 2    |             |             |              |             |            |       |   |    |
| 3.5             | 20        | 5      |        |               | 4     | 1     |      |     |     |     |   |   |    |                             |      | 16   | 4           |             |              |             |            |       |   |    |
| 4.0             | 32        | 5      |        | 1             | 3     | 1     |      |     |     |     |   |   |    |                             | 6    | 19   | 6           |             |              |             |            |       |   |    |
| 4.5             | 34        | 5      |        |               |       | 2     | 3    |     |     |     |   |   |    |                             |      |      | 14          | 20          |              |             |            |       |   |    |
| 5.0             | 62        | 5      |        |               |       | 1     | 4    |     |     |     |   |   |    |                             |      |      | 12          | 50          |              |             |            |       |   |    |
| 5.5             | 69        | 5      |        |               |       |       | 3    | 2   |     |     |   |   |    |                             |      |      |             | 41          | 28           |             |            |       |   |    |
| 6.0             | 51        | 5      |        |               |       |       | 1    | 1   | 3   |     |   |   |    |                             |      |      |             | 10          | 10           | 31          |            |       |   |    |
| 6.5             | 25        | 5      |        |               |       |       |      | 2   | 3   |     |   |   |    |                             |      |      |             |             | 10           | 15          |            |       |   |    |
| 7.0             | 6         | 5      |        |               |       |       |      | 2   | 2   | 1   |   |   |    |                             |      |      |             |             | 2            | 2           | 1          |       |   |    |
| 7.5             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 8.0             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 8.5             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 9.0             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 9.5             |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 10.0            |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 10.5            |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 11.0            |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| 11.5            |           |        |        |               |       |       |      |     |     |     |   |   |    |                             |      |      |             |             |              |             |            |       |   |    |
| Total           | 306       | 46     |        | 5             | 9     | 5     | 11   | 7   | 8   | 1   |   |   |    |                             | 11   | 38   | 36          | 122         | 50           | 48          | 1          |       |   |    |
| Mean TL         |           |        |        | 3.8           | 4.0   | 4.7   | 5.4  | 6.1 | 6.5 | 7.3 |   |   |    |                             | 3.8  | 4.0  | 4.7         | 5.4         | 6.1          | 6.5         | 7.3        |       |   |    |
| SE              |           |        |        | 0.18          | 0.05  |       |      |     |     |     |   |   |    |                             | 0.18 | 0.05 | 0.08        | 0.04        | 0.07         | 0.04        | -          |       |   |    |



## **Fish Lake**



## 2019 Status and Trends Survey

|                 |      |         |    |                    | PERCEN             | TAGE, WEIGHT, |                 |     |         |    | UTH BASS           |                   |       |
|-----------------|------|---------|----|--------------------|--------------------|---------------|-----------------|-----|---------|----|--------------------|-------------------|-------|
| TOTAL<br>LENGTH |      | NUM BEI |    | PERCENT<br>OF FISH | A VERAGE<br>WEIGHT | AGEOF         | TOTAL<br>LENGTH |     | NUM BER |    | PERCENT<br>OF FISH | AVERAGE<br>WEIGHT | AGEOF |
| (inches)        | TN   | GN      | EF | COLLECTED          | (pounds)           | FISH          | (inches)        | ΤN  | GN      | EF | COLLECTED          | (po unds)         | FISH  |
| 1.0             |      |         |    |                    |                    |               | 17.5            |     |         |    |                    |                   |       |
| 1.5             |      |         |    |                    |                    |               | 18.0            |     |         |    |                    |                   |       |
| 2.0             |      |         |    |                    |                    |               | 18.5            |     |         |    |                    |                   |       |
| 2.5             |      |         |    |                    |                    |               | 19.0            |     |         |    |                    |                   |       |
| 3.0             |      |         |    |                    |                    |               | 19.5            |     |         |    |                    |                   |       |
| 3.5             |      |         |    |                    |                    |               | 20.0            |     |         |    |                    |                   |       |
| 4.0             |      |         |    |                    |                    |               | 20.5            |     |         |    |                    |                   |       |
| 4.5             |      |         | 1  | 5.3                | 0.04               | 1             | 21.0            |     |         |    |                    |                   |       |
| 5.0             |      |         | 2  | 10.5               | 0.07               | 1             | 21.5            |     |         |    |                    |                   |       |
| 5.5             |      |         | 1  | 5.3                | 0.10               | 1             | 22.0            |     |         |    |                    |                   |       |
| 6.0             |      |         |    |                    |                    |               | 22.5            |     |         |    |                    |                   |       |
| 6.5             |      |         |    |                    |                    |               | 23.0            |     |         |    |                    |                   |       |
| 7.0             |      |         |    |                    |                    |               | 23.5            |     |         |    |                    |                   |       |
| 7.5             |      |         |    |                    |                    |               | 24.0            |     |         |    |                    |                   |       |
| 8.0             |      |         |    |                    |                    |               | 24.5            |     |         |    |                    |                   |       |
| 8.5             |      | 1       | 1  | 10.5               | 0.33               | 2             | 25.0            |     |         |    |                    |                   |       |
| 9.0             |      |         | 1  | 5.3                | 0.35               | 2             | 25.5            |     |         |    |                    |                   |       |
| 9.5             |      |         |    |                    |                    |               | 26.0            |     |         |    |                    |                   |       |
| 10.0            |      |         | 1  | 5.3                | 0.53               | 3             |                 |     |         |    |                    |                   |       |
| 10.5            |      |         |    |                    |                    |               |                 |     |         |    |                    |                   |       |
| 11.0            |      |         | 1  | 5.3                | 0.71               | 4             |                 |     |         |    |                    |                   |       |
| 11.5            |      |         | 3  | 15.8               | 0.78               | 4             |                 |     |         |    |                    |                   |       |
| 12.0            |      |         | 1  | 5.3                | 0.92               | 4             |                 |     |         |    |                    |                   |       |
| 12.5            |      |         | 1  | 5.3                | 1.04               | 4             |                 |     |         |    |                    |                   |       |
| 13.0            |      |         |    |                    |                    |               |                 |     |         |    |                    |                   |       |
| 13.5            |      |         |    |                    |                    |               |                 |     |         |    |                    |                   |       |
| 14.0            |      |         |    |                    |                    |               |                 |     |         |    |                    |                   |       |
| 14.5            |      |         | 3  | 15.8               | 1.58               | 5             |                 |     |         |    |                    |                   |       |
| 15.0            |      |         | 2  | 10.5               | 1.73               | 5             |                 |     |         |    |                    |                   |       |
| 15.5            |      |         |    |                    |                    |               |                 |     |         |    |                    |                   |       |
| 16.0            |      |         |    |                    |                    |               |                 |     |         |    |                    |                   |       |
| 16.5            |      |         |    |                    |                    |               |                 |     |         |    |                    |                   |       |
| 17.0            |      |         |    |                    |                    |               | TOTAL           |     | 19      |    |                    | 15.1              |       |
| FIF             | CTRO | FISHI   | NG |                    |                    | GILL NET      |                 |     |         |    | TRAP NE            | Т САТСН           |       |
|                 | ATCH |         |    | 3                  | 6                  | CATCH (/LIFT) |                 | 0.5 | 5       |    | (/LI               |                   | 0     |





|                   |                      | AGE-LENG         | GTH K | EY FO | OR LA | RGE | NOUT | H BAS | SS |   |   |   |    |   |      |      |             | Age Dist    | riubtion (E | xpanded) |             |       |   |          |
|-------------------|----------------------|------------------|-------|-------|-------|-----|------|-------|----|---|---|---|----|---|------|------|-------------|-------------|-------------|----------|-------------|-------|---|----------|
| LENGTH            |                      |                  |       |       |       |     |      | AGE   |    |   |   |   |    |   |      | *Du  | e to roundi | ng total ma |             |          | umber colle | ected |   |          |
| GROUP<br>(inches) | NUM BER<br>COLLECTED | NUM BER<br>A GED | 0     | 1     | 2     | 3   | 4    | 5     |    | 7 | 8 | 9 | 10 | 0 | 1    | 2    | 3           | 4           | 5           | 6        | 7           | 8     | 9 | 10       |
| 1.0               |                      |                  |       |       |       |     |      |       | -  |   |   | - |    |   |      |      |             |             |             |          |             |       |   |          |
| 1.5               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 2.0               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 2.5               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 3.0               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 3.5               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 4.0               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 4.5               | 1                    | 1                |       | 1     |       |     |      |       |    |   |   |   |    |   | 1    |      |             |             |             |          |             |       |   |          |
| 5.0               | 2                    | 2                |       | 2     |       |     |      |       |    |   |   |   |    |   | 2    |      |             |             |             |          |             |       |   |          |
| 5.5               | 1                    | 1                |       | 1     |       |     |      |       |    |   |   |   |    |   | 1    |      |             |             |             |          |             |       |   |          |
| 6.0               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 6.5               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 7.0               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 7.5               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 8.0               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 8.5               | 2                    | 2                |       |       | 2     |     |      |       |    |   |   |   |    |   |      | 2    |             |             |             |          |             |       |   |          |
| 9.0               | 1                    | 1                |       |       | 1     |     |      |       |    |   |   |   |    |   |      | 1    |             |             |             |          |             |       |   |          |
| 9.5               |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 10.0              | 1                    | 1                |       |       |       | 1   |      |       |    |   |   |   |    |   |      |      | 1           |             |             |          |             |       |   |          |
| 10.5              |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 11.0              | 1                    | 1                |       |       |       |     | 1    |       |    |   |   |   |    |   |      |      |             | 1           |             |          |             |       |   |          |
| 11.5              | 3                    | 3                |       |       |       |     | 3    |       |    |   |   |   |    |   |      |      |             | 3           |             |          |             |       |   |          |
| 12.0              | 1                    | 1                |       |       |       |     | 1    |       |    |   |   |   |    |   |      |      |             | 1           |             |          |             |       |   |          |
| 12.5              | 1                    | 1                |       |       |       |     | 1    |       |    |   |   |   |    |   |      |      |             | 1           |             |          |             |       |   |          |
| 13.0              |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 13.5              |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 14.0              |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 14.5              | 3                    | 3                |       |       |       |     |      | 3     |    |   |   |   |    |   |      |      |             |             | 3           |          |             |       |   |          |
| 15.0              | 2                    | 1                |       |       |       |     |      | 1     |    |   |   |   |    |   |      |      |             |             | 2           |          |             |       |   |          |
| 15.5              |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 16.0              |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| 16.5              |                      |                  |       |       |       |     |      |       |    |   |   |   |    |   |      |      |             |             |             |          |             |       |   |          |
| Total             | 19                   | 18               |       | 4     | 3     | 1   | 6    | 4     |    |   |   |   |    |   | 4    | 3    | 1           | 6           | 5           |          |             |       |   | <u> </u> |
| Mean TL           |                      |                  |       | 5.3   |       |     |      | 15.0  |    |   |   |   |    |   | 5.3  | 8.9  | 10.3        | 11.9        | 15.0        |          |             |       |   | ──       |
| SE                |                      |                  | 1     | 0.20  | 0.17  | -   | 0.21 | 0.12  |    | 1 |   |   | 1  |   | 0.20 | 0.17 | -           | 0.21        | 0.12        |          | 1           |       |   | <u> </u> |

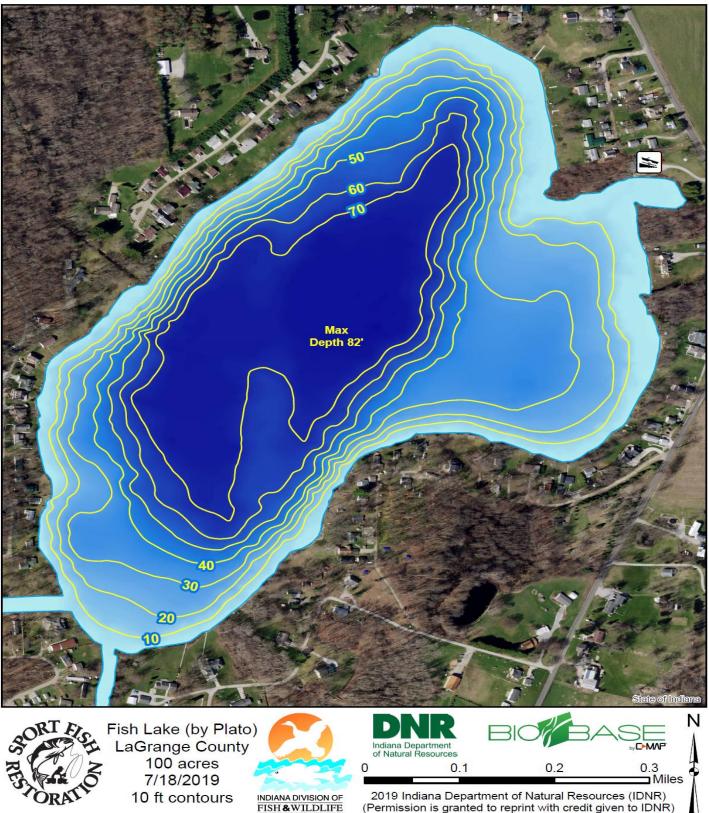




| Lake:  | Fich       |                                       |               |                            |              | )verall     |                    |  |  |  |
|--|------------|---------------------------------------|---------------|----------------------------|--------------|-------------|--------------------|--|--|--|
| County                                       | F1511      | Secchi (ft): 2 Mean species/site: 0.1 |               |                            |              |             |                    |  |  |  |
| County.                                      | Lagrange   | Sites with plants                     | : 6           | S                          | E Mean sp    | ecies/site  | : 0.06             |  |  |  |
| Date:  | 8/9/2019   | Sites with native plants              | : 4           | Mea                        | an native sp | ecies/site  | : 0.10             |  |  |  |
| Littoral Depth (ft):                         | 4.0        | Number of species                     | : 5           | SE Mean natives/site: 0.05 |              |             |                    |  |  |  |
| Littoral Sites:                              | 20         | Number of native species              | : 4           |                            | Specie       | s diversity | : 0.78             |  |  |  |
| Total Sites:                                 | 50         | Maximum species/site                  | : 2           | Na                         | tive specie  | s diversity | : 0.72             |  |  |  |
|  |            |                                       |               |                            |              |             |                    |  |  |  |
| All Depths                                   |            | Frequency of<br>Occurrence            | Rake s        | core frequ                 | ency per s   | species     | Plant<br>Dominance |  |  |  |
| Species                                      |            | Occurrence                            | 0             | 1                          | 3            | 5           | Dominance          |  |  |  |
| Coontail                                     |            | 4.00                                  | 96.00         | 2.00                       | 2.00         | 0.00        | 1.60               |  |  |  |
| Eurasian Watermilfoil                        |            | 4.00                                  | 96.00         | 4.00                       | 0.00         | 0.00        | 0.80               |  |  |  |
| Slender Naiad                                |            | 2.00                                  | 98.00         | 2.00                       | 0.00         | 0.00        | 0.40               |  |  |  |
| Variable Pondweed                            |            | 2.00                                  | 98.00         | 2.00                       | 0.00         | 0.00        | 0.40               |  |  |  |
| Chara  |            | 2.00                                  | 98.00         | 2.00                       | 0.00         | 0.00        | 0.40               |  |  |  |
| Filamentous Algae                            |            |                                       |               |                            |              |             |                    |  |  |  |
| Other species observed:                      | White wate | r lily, Spatterdock, Swam             | p loosestrife | , Cattail, wi              | llow, bulrus | h, Purple   | loosestrife        |  |  |  |
| Filamentous Algae<br>Other species observed: | White wate | r lily, Spatterdock, Swam             | p loosestrife | , Cattail, wi              | llow, ł      | oulrus      | oulrush, Purple    |  |  |  |







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