

Lake Name: Island

Survey Type: Standard Survey

DOW Number: 42-0096-00

Survey ID Date: 07/17/2023

Lake Identification

Alternate Lake Name: N/A
Primary Lake Class ID: 43

DNR Sounding Map Number: C2931
Alternate Lake Class ID: N/A

Lake Location

Primary County: Lyon

Nearest Town: Lynd

Legal Descriptions

Lake Center: Township - 111N Range - 43W Section - 34
PLS Section Lake Center: 11104334

All Legal Descriptions:

Lyon County: Township - 111N Range - 43W Sections - 27, 34

Area Office

Area Name: Windom
Region Name: Southern

ORG Code: F418
Region Number: 4

Lake Access

(Information based on Population Assessment dated 07/05/1994)

| <u>Station ID</u> | <u>Ownership</u> | <u>Public Use</u> | <u>Type</u> | <u>Location / Comments</u> |
|-------------------|------------------|--------------------|-------------|--|
| AC - 1 | DNR | Open to Public use | Concrete | STATE OWNED ACCESS ON WEST SIDE OF LAKE. |

Lake Characteristics

Lake Area (planimetered acres): 163.00
GIS Lake Area (acres): 169.73
DOW Lake Area (acres): 163.00
Littoral Area (acres): 169.73
Area in MN (acres): 169.73
Maximum Depth (feet): 8.0
Mean Depth (feet): N/A

GIS Shoreline Length (miles): 2.87
Maximum Fetch (miles): 0.68
Fetch Orientation (degrees): 337
USGS Quad Map Number: U05a
USGS Quad 24K GIS Index: 4010

Watershed Characteristics

Major Watershed

Name: Redwood River
Watershed Number: 27
Watershed size (acres): 447,531

Minor Watershed

Name: Three Mile Cr
Watershed Number: 1
Watershed size (acres): 20,031

Surveys and Investigations

Initial Survey: 07/11/1988.
Re-Survey: 07/19/1999.
Population Assessment: 07/25/2011, 07/25/2005, 07/05/1994.
Dissolved Oxygen Check: 01/22/2015, 01/02/2014, 02/06/2013, 01/03/2013.
Standard Survey: 07/17/2023, 07/24/2017.
Targeted Survey: 02/05/2020, 06/28/2018, 06/27/2018, 02/28/2018, 02/08/2017.

Water Level History - Readings

| <u>Station ID</u> | <u>Date</u> | <u>Level</u> | <u>Reading (feet)</u> | <u>Reading Type</u> |
|-------------------|-------------|--------------|-----------------------|--------------------------|
| BM - 1 | 07/24/2017 | Normal | -4.00 | Above or below Benchmark |

Water Level History - Station Summary

| <u>Station ID</u> | <u>Minimum Level</u> | | <u>Maximum Level</u> | | <u>Range (feet)</u> | <u>Average Level (feet)</u> | <u>Reading Type (and number of readings)</u> |
|-------------------|----------------------|-------------|----------------------|-------------|---------------------|-----------------------------|--|
| | <u>Feet</u> | <u>Date</u> | <u>Feet</u> | <u>Date</u> | | | |
| BM - 1 | -4.00 | 07/24/2017 | -4.00 | 07/24/2017 | 0.00 | -4.00 | Above or below Benchmark (1) |

Dissolved Oxygen and Temperature Profile of Lake Water

| <u>Station ID</u> | <u>Sampling Date</u> | <u>Bottom Depth (Feet)</u> | <u>Sample Depth (Feet)</u> | <u>Water Temperature (°F)</u> | <u>Dissolved Oxygen (ppm)</u> |
|-------------------|----------------------|----------------------------|----------------------------|-------------------------------|-------------------------------|
| WQ - 1 | 07/17/2023 | 8.7 | Surface | 70.7 | 8.7 |
| | | | 1.0 | 70.7 | 8.7 |
| | | | 2.0 | 70.7 | 8.7 |
| | | | 3.0 | 70.7 | 8.7 |
| | | | 4.0 | 70.7 | 8.7 |
| | | | 5.0 | 70.7 | 8.6 |
| | | | 6.0 | 70.7 | 8.6 |
| | | | 7.0 | 70.7 | 8.5 |
| | | | 8.0 | 70.7 | 8.5 |
| | | | 8.7 | 70.7 | 5.9 |

Field Measurements of Water Quality

| <u>Station ID</u> | <u>Sampling Date</u> | <u>Sample Depth (Feet)</u> | <u>Secchi Depth (Feet)</u> | <u>Field pH</u> | <u>Alkalinity (ppm)</u> | <u>Water Color</u> | <u>Color Cause</u> |
|-------------------|----------------------|----------------------------|----------------------------|-----------------|-------------------------|--------------------|--------------------|
| WQ - 1 | 07/17/2023 | Surface | 0.8 | 8.31 | 180 | Green | Algae |

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 1
First Set Date: 07/17/2023
Last Lift Date: 07/18/2023
Target Species: N/A

| Abbr | Species | Total Fish | Number Per Set | Quartiles for Lake Class 43 ¹ | | |
|-----------------|----------------|------------|----------------|---|-------|--------|
| | | | | 25% | 50% | 75% |
| BLB | Black Bullhead | 70 | 70.00 | 30.34 | 75.58 | 150.62 |
| BRB | Brown Bullhead | 86 | 86.00 | 0.50 | 1.50 | 5.63 |
| NOP | Northern Pike | 3 | 3.00 | 1.08 | 3.00 | 8.00 |
| YEP | Yellow Perch | 35 | 35.00 | 2.65 | 8.00 | 25.00 |
| Total Fish/Set: | | | 194.00 | ¹ Quartiles for Number Per Set | | |

Net Catch Summary by Weight for GN

Standard gill net sets

| Abbr | Species | Total Weight (Pounds) | Pounds Per Set | Mean Weight ² | Quartiles for Lake Class 43 ¹ | | |
|------------------------|----------------|-----------------------|----------------|--|--|------|------|
| | | | | | 25% | 50% | 75% |
| BLB | Black Bullhead | 11.84 | 11.84 | 0.17 | 0.17 | 0.26 | 0.39 |
| BRB | Brown Bullhead | 18.31 | 18.31 | 0.21 | 0.30 | 0.50 | 0.70 |
| NOP | Northern Pike | 13.90 | 13.90 | 4.63 | 1.82 | 2.50 | 3.35 |
| YEP | Yellow Perch | 3.36 | 3.36 | 0.10 | 0.13 | 0.21 | 0.31 |
| Total Pounds Fish/Set: | | | 47.41 | ¹ Quartiles for Mean Weight | | | |

² Mean Weights are based on measured fish counts only.

Net Catch Summary by Numbers for TN

Standard 3/4-in mesh, double frame trap net sets

Number of Sets: 8
First Set Date: 07/17/2023
Last Lift Date: 07/20/2023
Target Species: N/A

| Abbr | Species | Total Fish | Number Per Set | Quartiles for Lake Class 43 ¹ | | |
|-----------------|----------------|------------|----------------|---|-------|--------|
| | | | | 25% | 50% | 75% |
| BLB | Black Bullhead | 128 | 16.00 | 11.50 | 42.00 | 132.61 |
| BRB | Brown Bullhead | 228 | 28.50 | 0.37 | 1.00 | 4.53 |
| NOP | Northern Pike | 20 | 2.50 | N/A | N/A | N/A |
| WAE | Walleye | 1 | 0.13 | 0.50 | 1.33 | 2.95 |
| YEP | Yellow Perch | 75 | 9.38 | 0.33 | 1.37 | 3.76 |
| Total Fish/Set: | | | 56.50 | ¹ Quartiles for Number Per Set | | |

Net Catch Summary by Weight for TN

Standard 3/4-in mesh, double frame trap net sets

| Abbr | Species | Total Weight (Pounds) | Pounds Per Set | Mean Weight ² | Quartiles for Lake Class 43 ¹ | | |
|------------------------|----------------|-----------------------|----------------|--|--|------|------|
| | | | | | 25% | 50% | 75% |
| BLB | Black Bullhead | 25.08 | 3.14 | 0.24 | 0.18 | 0.28 | 0.40 |
| BRB | Brown Bullhead | 161.49 | 20.19 | 0.78 | 0.24 | 0.46 | 0.74 |
| NOP | Northern Pike | 103.30 | 12.91 | 5.17 | N/A | N/A | N/A |
| WAE | Walleye | 4.96 | 0.62 | 4.96 | 0.82 | 1.44 | 2.28 |
| YEP | Yellow Perch | 5.98 | 0.75 | 0.08 | 0.11 | 0.18 | 0.30 |
| Total Pounds Fish/Set: | | | 37.60 | ¹ Quartiles for Mean Weight | | | |

² Mean Weights are based on measured fish counts only.

Length Frequency Distribution for GN

Standard gill net sets

(Field work conducted between 07/17/2023 and 07/18/2023)

| | <u>BLB</u> | <u>BRB</u> | <u>NOP</u> | <u>YEP</u> |
|---------------|------------|------------|------------|------------|
| < 3.00 | - | - | - | - |
| 3.00 - 3.49 | - | - | - | - |
| 3.50 - 3.99 | - | - | - | - |
| 4.00 - 4.49 | - | - | - | - |
| 4.50 - 4.99 | 1 | - | - | 1 |
| 5.00 - 5.49 | 3 | 1 | - | 5 |
| 5.50 - 5.99 | 14 | 9 | - | 25 |
| 6.00 - 6.49 | 17 | 11 | - | 4 |
| 6.50 - 6.99 | 18 | 16 | - | - |
| 7.00 - 7.49 | 11 | 18 | - | - |
| 7.50 - 7.99 | - | 9 | - | - |
| 8.00 - 8.49 | 1 | 9 | - | - |
| 8.50 - 8.99 | - | 7 | - | - |
| 9.00 - 9.49 | 2 | 4 | - | - |
| 9.50 - 9.99 | 2 | 2 | - | - |
| 10.00 - 10.49 | - | - | - | - |
| 10.50 - 10.99 | - | - | - | - |
| 11.00 - 11.49 | - | - | - | - |
| 11.50 - 11.99 | - | - | - | - |
| 12.00 - 12.99 | - | - | - | - |
| 13.00 - 13.99 | - | - | - | - |
| 14.00 - 14.99 | 1 | - | - | - |
| 15.00 - 15.99 | - | - | - | - |
| 16.00 - 16.99 | - | - | - | - |
| 17.00 - 17.99 | - | - | - | - |
| 18.00 - 18.99 | - | - | - | - |
| 19.00 - 19.99 | - | - | - | - |
| 20.00 - 20.99 | - | - | - | - |
| 21.00 - 21.99 | - | - | - | - |
| 22.00 - 22.99 | - | - | - | - |
| 23.00 - 23.99 | - | - | - | - |
| 24.00 - 24.99 | - | - | 1 | - |
| 25.00 - 25.99 | - | - | 1 | - |
| 26.00 - 26.99 | - | - | - | - |
| 27.00 - 27.99 | - | - | - | - |
| 28.00 - 28.99 | - | - | - | - |
| 29.00 - 29.99 | - | - | - | - |
| 30.00 - 30.99 | - | - | 1 | - |
| 31.00 - 31.99 | - | - | - | - |
| 32.00 - 32.99 | - | - | - | - |
| 33.00 - 33.99 | - | - | - | - |
| 34.00 - 34.99 | - | - | - | - |
| 35.00 - 35.99 | - | - | - | - |
| = > 36.00 | - | - | - | - |

| | <u>BLB</u> | <u>BRB</u> | <u>NOP</u> | <u>YEP</u> |
|----------------|------------|------------|------------|------------|
| Total | 70 | 86 | 3 | 35 |
| Min. Length | 4.76 | 5.43 | 24.41 | 4.69 |
| Max. Length | 14.65 | 9.84 | 30.51 | 6.18 |
| Mean Length | 6.65 | 7.26 | 26.86 | 5.65 |
| # Measured | 70 | 86 | 3 | 29 |
| No Lengths for | 0 | 0 | 0 | 6 |

Note: Unless all fish were measured in the catch, totals shown for some length-frequency distributions may differ from the total number of fish in the catch, due to rounding of fractions used in the estimation of length frequency from a subsample of measured fish.

Length Frequency Distribution for TN

Standard 3/4-in mesh, double frame trap net sets

(Field work conducted between 07/17/2023 and 07/20/2023)

| | <u>BLB</u> | <u>BRB</u> | <u>NOP</u> | <u>WAE</u> | <u>YEP</u> |
|---------------|------------|------------|------------|------------|------------|
| < 3.00 | - | - | - | - | - |
| 3.00 - 3.49 | - | - | - | - | - |
| 3.50 - 3.99 | - | - | - | - | - |
| 4.00 - 4.49 | 1 | - | - | - | - |
| 4.50 - 4.99 | 8 | 5 | - | - | - |
| 5.00 - 5.49 | 13 | 14 | - | - | 38 |
| 5.50 - 5.99 | 7 | 10 | - | - | 26 |
| 6.00 - 6.49 | 18 | 10 | - | - | 3 |
| 6.50 - 6.99 | 50 | 13 | - | - | 2 |
| 7.00 - 7.49 | 7 | 17 | - | - | - |
| 7.50 - 7.99 | 8 | 12 | - | - | - |
| 8.00 - 8.49 | 1 | 20 | - | - | - |
| 8.50 - 8.99 | 2 | 16 | - | - | - |
| 9.00 - 9.49 | 3 | 14 | - | - | - |
| 9.50 - 9.99 | 2 | 6 | - | - | - |
| 10.00 - 10.49 | 4 | 3 | - | - | - |
| 10.50 - 10.99 | 1 | 3 | - | - | - |
| 11.00 - 11.49 | 1 | - | - | - | - |
| 11.50 - 11.99 | 1 | - | - | - | - |
| 12.00 - 12.99 | - | 7 | - | - | - |
| 13.00 - 13.99 | 1 | 25 | - | - | - |
| 14.00 - 14.99 | - | 45 | - | - | - |
| 15.00 - 15.99 | - | 8 | - | - | - |
| 16.00 - 16.99 | - | - | - | - | - |
| 17.00 - 17.99 | - | - | - | - | - |
| 18.00 - 18.99 | - | - | - | - | - |
| 19.00 - 19.99 | - | - | - | - | - |
| 20.00 - 20.99 | - | - | - | - | - |
| 21.00 - 21.99 | - | - | - | - | - |
| 22.00 - 22.99 | - | - | - | 1 | - |
| 23.00 - 23.99 | - | - | 2 | - | - |
| 24.00 - 24.99 | - | - | - | - | - |
| 25.00 - 25.99 | - | - | 4 | - | - |
| 26.00 - 26.99 | - | - | 1 | - | - |
| 27.00 - 27.99 | - | - | - | - | - |
| 28.00 - 28.99 | - | - | 4 | - | - |
| 29.00 - 29.99 | - | - | 1 | - | - |
| 30.00 - 30.99 | - | - | 3 | - | - |
| 31.00 - 31.99 | - | - | 3 | - | - |
| 32.00 - 32.99 | - | - | 1 | - | - |
| 33.00 - 33.99 | - | - | 1 | - | - |
| 34.00 - 34.99 | - | - | - | - | - |
| 35.00 - 35.99 | - | - | - | - | - |
| = > 36.00 | - | - | - | - | - |

| | <u>BLB</u> | <u>BRB</u> | <u>NOP</u> | <u>WAE</u> | <u>YEP</u> |
|----------------|------------|------------|------------|------------|------------|
| Total | 128 | 228 | 20 | 1 | 69 |
| Min. Length | 4.33 | 4.72 | 23.27 | 22.64 | 5.04 |
| Max. Length | 13.31 | 15.28 | 33.07 | 22.64 | 6.61 |
| Mean Length | 7.24 | 10.47 | 28.63 | 22.64 | 5.50 |
| # Measured | 75 | 120 | 20 | 1 | 39 |
| No Lengths for | 53 | 108 | 0 | 0 | 36 |

Note: Unless all fish were measured in the catch, totals shown for some length-frequency distributions may differ from the total number of fish in the catch, due to rounding of fractions used in the estimation of length frequency from a subsample of measured fish.

Other Species

| <u>Gear Type (1)</u> | <u>Other Species (Gender) (2)</u> | <u>Total Num</u> | <u>Number Measured</u> | <u>Length (inches) Min - Mean - Max</u> | <u>Number Weighed</u> | <u>Weight (pounds) Min - Mean - Max</u> |
|----------------------|-----------------------------------|------------------|------------------------|---|-----------------------|---|
| TN | Painted Turtle | 36 | 0 | N/A | 0 | N/A |

(1) Key to sampling gear abbreviations:

TN = Standard 3/4-in mesh, double frame trap net sets

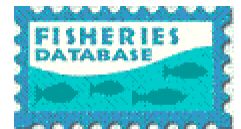
(2) Gender: If identified and reported.

Approval Dates And Notices

Date Approved By Windom Area Fisheries Supervisor: _____

Date Approved By Southern Region Fisheries Manager: _____

This DRAFT VERSION of the Lake Survey Report contains preliminary data (as of 07/28/2023), and is therefore subject to change at any time.



Minnesota Department of Natural Resources

By accepting the data in this report, the user agrees the data will be used for personal benefit and not for profit. Any other uses or publication of the data needs the consent of the Department. The Minnesota Department of Natural Resources assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on the data.

Lake Survey Report revision: 20230207-RJE. Data Date: 07/28/2023 at 11:15 am .

REPORT OVERVIEW - FOR OFFICE USE ONLY

(This page is not part of the Lake Survey Report and should be discarded)

Lake Name: Island
DOW Number: 42-0096-00

Survey Type: Standard Survey
Survey ID Date: 07/17/2023

Survey Status: Field Work Complete

The following 23 (of 34) report components are not included in this Lake Survey Report:

1. Current Water Level
2. Benchmark And Gauge Descriptions / Locations
3. Water Level History¹
4. Lake Inlets
5. Additional Inlet Information
6. Lake Outlets
7. Additional Outlet Information
8. Water Control Structure (Dam)
9. Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations²
10. Resorts And Campgrounds
11. Fish Spawning Conditions
12. Erosion And Pollution
13. Fish Diseases And Parasites
14. Aquatic Vegetation And Shoalwater Substrates
15. Water Quality (Winter Observations) (added to revision 01/21/2010)
16. Laboratory Analysis Of Water Chemistry
17. Zooplankton Sampling (added to revision 20221130)
18. Catch Summary (Pre-1993 Format) (added to revision 20201001)
19. Length At Capture With Last Incremental Length*
20. Back-Calculated Lengths
21. Age Class Frequency Distributions
22. Status Of Fishery And Field Notes
23. Survey Attachments (added to revision 20150622)

¹ Water Level History report: This data has not yet been migrated into the Fisheries LSM database. On 01/08/2009, two additional Water Level History report components (Readings and Station Summary) were added.

² Effective 03/25/2014, the Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations report component was modified to be included in the Lake Survey report if it did not include any Watershed and Shoreline characteristics and only consisted of Riparian Landscape Observations.

* Length At Capture With Last Incremental Length report: The following criteria must be met for a report to be generated:

1. The fish species must have an assigned body scale constant.
2. Fish must have an "official" age assigned.
3. Fish must have a digitized measurement marked for back calculation use.

Note: The data source for Length and Age Class Frequency Distribution tables is updated twice daily - once at noon and once overnight. Any changes to the data made before noon on 07/28/2023 may not be reflected in the Distribution tables until after 12:30 pm on 07/28/2023.

The following survey component was flagged to be specifically excluded from this report: TN - 2

FOR OFFICE USE ONLY: As of revision 20150622, this page is automatically suppressed on signed versions of this report (area supervisor, region manager, research biologist, research supervisor, program staff, or program manager signed).