

Lake Name: Heron (South Heron)

Survey Type: Standard Survey

DOW Number: 32-0057-07

Survey ID Date: 05/22/2023

Lake Identification

Alternate Lake Name: N/A
Primary Lake Class ID: 41

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

Lake Location

Primary County: Jackson

Nearest Town: Lakefield

Legal Descriptions

Lake Center: Township - 103N Range - 37W Section - 11
PLS Section Lake Center: 10303711

All Legal Descriptions:

Jackson County: Township - 103N Range - 36W Sections - 19, 29, 30
Township - 103N Range - 37W (Eleven various sections)

Area Office

Area Name: Windom
Region Name: Southern

ORG Code: F418
Region Number: 4

Lake Access

(Information based on Population Assessment dated 07/06/1993)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Carry-In	DNR access on Northwest side T-103 R-37 S-15.
AC - 2	County	Open to Public use	Concrete	County access on east side T-103 R-36 S-19.
AC - 3	County	Open to Public use	Concrete	County access on West side T-103 R-37 S-24.

Lake Characteristics

Lake Area (planimetered acres): 2,845.00
GIS Lake Area (acres): 2,641.40
DOW Lake Area (acres): 0.00
Littoral Area (acres): 2,641.39
Area in MN (acres): 2,641.40
Maximum Depth (feet): 5.0
Mean Depth (feet): 3.0

GIS Shoreline Length (miles): 14.43
Maximum Fetch (miles): 5.05
Fetch Orientation (degrees): 315
USGS Quad Map Number: X09b
USGS Quad 24K GIS Index: 4617

Watershed Characteristics

Major Watershed

Name: Des Moines-Headwaters
 Watershed Number: 51
 Watershed size (acres): 798,595

Minor Watershed

Name: Division Cr
 Watershed Number: 95
 Watershed size (acres): 16,116

Surveys and Investigations

Re-Survey: 07/08/1991, 07/06/1987, 09/08/1981.
Population Assessment: 06/13/2011, 07/06/1999, 06/29/1998, 07/14/1997, 07/01/1996, 07/10/1995, 07/05/1994, 07/06/1993.
Winter Kill Assessment: 05/01/2014.
Dissolved Oxygen Check: 01/14/2011.
Standard Survey: 05/22/2017.
Targeted Survey: 05/12/2021, 02/04/2020, 03/12/2019.

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	05/24/2023	5.7	Surface	68.0	11.1
			1.0	68.0	11.1
			2.0	68.0	11.1
			3.0	68.0	10.9
			4.0	67.6	10.4
			5.0	67.3	8.6

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	05/24/2023	Surface	1.7	8.40	200	Brown Grn	Algae

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 3
First Set Date: 05/22/2023
Last Lift Date: 05/25/2023
Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 41 ¹		
				25%	50%	75%
BIB	Bigmouth Buffalo	49	16.33	0.33	1.00	6.11
BLB	Black Bullhead	133	44.33	4.56	23.42	83.00
CAP	Common Carp	30	10.00	0.52	1.80	9.13
CSH	Common Shiner	9	3.00	N/A	N/A	N/A
NOP	Northern Pike	4	1.33	1.20	3.50	7.79
OSS	Orangespotted Sunfish	2	0.67	N/A	N/A	N/A
TPM	Tadpole Madtom	1	0.33	N/A	N/A	N/A
WAE	Walleye	40	13.33	3.22	7.67	15.33
WTS	White Sucker	82	27.33	0.75	2.00	5.88
YEP	Yellow Perch	95	31.67	3.00	8.94	22.50
Total Fish/Set:			148.33	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 41 ¹		
					25%	50%	75%
BIB	Bigmouth Buffalo	10.94	3.65	0.22	N/A	N/A	N/A
BLB	Black Bullhead	20.38	6.79	0.15	0.21	0.38	0.60
CAP	Common Carp	89.26	29.75	2.98	1.00	2.39	4.88
CSH	Common Shiner	1.18	0.39	0.14	N/A	N/A	N/A
NOP	Northern Pike	7.17	2.39	1.79	1.53	2.12	2.95
OSS	Orangespotted Sunfish	0.07	0.02	0.04	N/A	N/A	N/A
TPM	Tadpole Madtom	0.04	0.01	0.04	N/A	N/A	N/A
WAE	Walleye	11.80	3.93	0.30	0.88	1.37	1.90
WTS	White Sucker	51.97	17.32	0.64	1.44	1.87	2.20
YEP	Yellow Perch	9.19	3.06	0.11	0.14	0.24	0.36
Total Pounds Fish/Set:			67.33	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: 10
 First Set Date: 05/22/2023
 Last Lift Date: 05/25/2023
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 41 ¹		
				25%	50%	75%
BIB	Bigmouth Buffalo	11	1.10	0.22	0.48	1.45
BLB	Black Bullhead	165	16.50	1.33	14.73	78.13
BLC	Black Crappie	3	0.30	0.98	2.96	12.33
CAP	Common Carp	71	7.10	0.70	1.80	5.11
NOP	Northern Pike	1	0.10	N/A	N/A	N/A
OSS	Orangespotted Sunfish	1	0.10	N/A	N/A	N/A
TPM	Tadpole Madtom	2	0.20	N/A	N/A	N/A
WAE	Walleye	2	0.20	0.31	0.73	1.69
WTS	White Sucker	2	0.20	0.25	0.50	1.29
YEP	Yellow Perch	24	2.40	0.25	0.81	2.62
Total Fish/Set:			28.20	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 41 ¹		
					25%	50%	75%
BIB	Bigmouth Buffalo	72.48	7.25	6.59	1.25	3.18	5.07
BLB	Black Bullhead	29.90	2.99	0.17	0.21	0.36	0.59
BLC	Black Crappie	0.95	0.10	0.32	0.23	0.34	0.49
CAP	Common Carp	445.74	44.57	6.28	2.33	4.10	5.64
NOP	Northern Pike	1.23	0.12	1.23	N/A	N/A	N/A
OSS	Orangespotted Sunfish	0.04	0.00	0.04	N/A	N/A	N/A
TPM	Tadpole Madtom	0.10	0.01	0.05	N/A	N/A	N/A
WAE	Walleye	2.42	0.24	1.21	0.85	1.63	2.41
WTS	White Sucker	2.31	0.23	1.15	1.35	1.97	2.62
YEP	Yellow Perch	2.52	0.25	0.10	0.13	0.20	0.31
Total Pounds Fish/Set:			55.77	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 05/22/2023 and 05/25/2023)

	<u>BIB</u>	<u>BLB</u>	<u>CAP</u>	<u>CSH</u>	<u>NOP</u>	<u>OSS</u>	<u>TPM</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	1	-	-	-	-
3.50 - 3.99	-	1	-	-	-	1	-	-	-	-
4.00 - 4.49	-	2	-	-	-	-	1	-	-	-
4.50 - 4.99	-	9	-	-	-	-	-	-	-	-
5.00 - 5.49	-	17	-	-	-	-	-	-	-	38
5.50 - 5.99	5	15	-	3	-	-	-	-	-	45
6.00 - 6.49	21	17	-	3	-	-	-	-	2	8
6.50 - 6.99	9	32	-	2	-	-	-	1	5	-
7.00 - 7.49	6	22	1	1	-	-	-	2	1	-
7.50 - 7.99	5	11	-	-	-	-	-	4	2	-
8.00 - 8.49	-	5	-	-	-	-	-	1	1	-
8.50 - 8.99	-	1	-	-	-	-	-	7	-	1
9.00 - 9.49	-	-	-	-	-	-	-	11	1	1
9.50 - 9.99	-	-	-	-	-	-	-	7	5	2
10.00 - 10.49	-	-	-	-	-	-	-	6	6	-
10.50 - 10.99	-	-	-	-	-	-	-	-	3	-
11.00 - 11.49	1	-	-	-	-	-	-	-	14	-
11.50 - 11.99	-	-	-	-	-	-	-	-	9	-
12.00 - 12.99	2	-	-	-	-	-	-	-	17	-
13.00 - 13.99	-	-	1	-	1	-	-	1	11	-
14.00 - 14.99	-	-	8	-	-	-	-	-	4	-
15.00 - 15.99	-	-	5	-	-	-	-	-	-	-
16.00 - 16.99	-	-	4	-	1	-	-	-	-	-
17.00 - 17.99	-	-	3	-	1	-	-	-	-	-
18.00 - 18.99	-	-	1	-	-	-	-	-	-	-
19.00 - 19.99	-	-	1	-	-	-	-	-	-	-
20.00 - 20.99	-	-	-	-	-	-	-	-	-	-
21.00 - 21.99	-	-	1	-	-	-	-	-	-	-
22.00 - 22.99	-	-	1	-	-	-	-	-	-	-
23.00 - 23.99	-	-	-	-	-	-	-	-	-	-
24.00 - 24.99	-	-	1	-	-	-	-	-	-	-
25.00 - 25.99	-	-	1	-	-	-	-	-	-	-
26.00 - 26.99	-	-	-	-	1	-	-	-	-	-
27.00 - 27.99	-	-	2	-	-	-	-	-	-	-
28.00 - 28.99	-	-	-	-	-	-	-	-	-	-
29.00 - 29.99	-	-	-	-	-	-	-	-	-	-
30.00 - 30.99	-	-	-	-	-	-	-	-	-	-
31.00 - 31.99	-	-	-	-	-	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-
	<u>BIB</u>	<u>BLB</u>	<u>CAP</u>	<u>CSH</u>	<u>NOP</u>	<u>OSS</u>	<u>TPM</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
Total	49	132	30	9	4	2	1	40	81	95
Min. Length	5.51	3.86	7.40	5.75	13.50	3.43	4.02	6.73	6.10	5.20
Max. Length	12.76	8.70	27.52	7.01	26.02	3.62	4.02	13.23	14.49	9.57
Mean Length	6.91	6.33	17.35	6.33	18.40	3.52	4.02	9.19	11.28	5.88
# Measured	49	114	30	7	4	2	1	40	80	50
No Lengths for	0	19	0	2	0	0	0	0	2	45

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 05/22/2023 and 05/25/2023)

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>NOP</u>	<u>OSS</u>	<u>TPM</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	1	-	-	-	-
4.00 - 4.49	-	2	-	-	-	-	1	-	-	-
4.50 - 4.99	-	9	-	-	-	-	1	-	-	1
5.00 - 5.49	-	5	-	-	-	-	-	-	-	8
5.50 - 5.99	-	27	-	-	-	-	-	-	-	13
6.00 - 6.49	-	35	-	-	-	-	-	-	-	1
6.50 - 6.99	-	29	-	-	-	-	-	-	-	-
7.00 - 7.49	1	24	-	-	-	-	-	-	-	-
7.50 - 7.99	1	14	-	-	-	-	-	-	-	-
8.00 - 8.49	-	6	3	-	-	-	-	1	-	-
8.50 - 8.99	-	2	-	-	-	-	-	-	-	-
9.00 - 9.49	-	6	-	-	-	-	-	-	-	1
9.50 - 9.99	-	-	-	-	-	-	-	-	-	-
10.00 - 10.49	-	5	-	-	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-	-	-	-	-
11.00 - 11.49	-	1	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	1	-
13.00 - 13.99	-	-	-	-	-	-	-	-	-	-
14.00 - 14.99	-	-	-	3	-	-	-	-	-	-
15.00 - 15.99	-	-	-	2	-	-	-	-	1	-
16.00 - 16.99	-	-	-	5	-	-	-	-	-	-
17.00 - 17.99	-	-	-	6	1	-	-	-	-	-
18.00 - 18.99	-	-	-	7	-	-	-	1	-	-
19.00 - 19.99	1	-	-	1	-	-	-	-	-	-
20.00 - 20.99	1	-	-	5	-	-	-	-	-	-
21.00 - 21.99	2	-	-	1	-	-	-	-	-	-
22.00 - 22.99	1	-	-	3	-	-	-	-	-	-
23.00 - 23.99	-	-	-	4	-	-	-	-	-	-
24.00 - 24.99	1	-	-	3	-	-	-	-	-	-
25.00 - 25.99	-	-	-	9	-	-	-	-	-	-
26.00 - 26.99	2	-	-	5	-	-	-	-	-	-
27.00 - 27.99	1	-	-	3	-	-	-	-	-	-
28.00 - 28.99	-	-	-	5	-	-	-	-	-	-
29.00 - 29.99	-	-	-	6	-	-	-	-	-	-
30.00 - 30.99	-	-	-	-	-	-	-	-	-	-
31.00 - 31.99	-	-	-	2	-	-	-	-	-	-
32.00 - 32.99	-	-	-	1	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>NOP</u>	<u>OSS</u>	<u>TPM</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
Total	11	165	3	71	1	1	2	2	2	24
Min. Length	7.01	4.33	8.19	14.29	17.87	3.82	4.33	8.31	12.91	4.92
Max. Length	27.99	11.06	8.46	32.20	17.87	3.82	4.88	18.94	15.08	9.25
Mean Length	20.64	6.58	8.29	22.90	17.87	3.82	4.61	13.62	14.00	5.74
# Measured	11	97	3	71	1	1	2	2	2	23
No Lengths for	0	68	0	0	0	0	0	0	0	1

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

Gear Type (1)	Other Species (Gender) (2)	Total Num	Number Measured	Length (inches) Min - Mean - Max	Number Weighed	Weight (pounds) Min - Mean - Max
TN	Painted Turtle	5	0	N/A	0	N/A
	Snapping Turtle	1	1	9.88	0	N/A
	Spiney Softshell Turtle	1	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 06/01/2023), 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: 06/01/2023 at 1:42 pm .

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: Heron (South Heron)

Survey Type: Standard Survey

DOW Number: 32-0057-07

Survey ID Date: 05/22/2023

Survey Status: Proposed

The following 25 (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. Water Level History - Readings*
5. Water Level History - Station Summary*
6. Lake Inlets
7. Additional Inlet Information
8. Lake Outlets
9. Additional Outlet Information
10. Water Control Structure (Dam)
11. Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations²
12. Resorts And Campgrounds
13. Fish Spawning Conditions
14. Erosion And Pollution
15. Fish Diseases And Parasites
16. Aquatic Vegetation And Shoalwater Substrates
17. Water Quality (Winter Observations) (added to revision 01/21/2010)
18. Laboratory Analysis Of Water Chemistry
19. Zooplankton Sampling (added to revision 20221130)
20. Catch Summary (Pre-1993 Format) (added to revision 20201001)
21. Length At Capture With Last Incremental Length*
22. Back-Calculated Lengths
23. Age Class Frequency Distributions
24. Status Of Fishery And Field Notes
25. 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 after noon on 06/01/2023 may not be reflected in the Distribution tables until 06/02/2023.

The following 2 survey components were flagged to be specifically excluded from this report:

1. TN - 3
2. TN - 4

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