



Minnesota Department of Natural Resources
 Fisheries Management
 STANDARD LAKE SURVEY REPORT



Lake Name: Sabre

Survey Type: Natural Reproduction Check

DOW Number: 40-0014-00

Survey ID Date: 10/25/2007

Lake Identification

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

DNR Sounding Map Number: C1917
 Alternate Lake Class ID: 43

Lake Location

Primary County: Le Sueur

Nearest Town: Cordova

Legal Descriptions

Lake Center: Township - 110N Range - 23W Section - 30
 PLS Section Lake Center: 2672

All Legal Descriptions:

Le Sueur County: Township - 110N Range - 23W Sections - 29, 30

Area Office

Area Name: Waterville
 Region Name: Southern

ORG Code: F417
 Region Number: 4

Lake Access

(Information based on Re-Survey dated 07/06/2004)

| Station ID | Ownership | Public Use | Type | Location / Comments |
|------------|-----------|------------|------|---------------------|
|------------|-----------|------------|------|---------------------|

(Data excludes records where public use is not designated or is designated "No Public Use")

Lake Characteristics

| | |
|--|------------------------------------|
| Lake Area (planimetered acres): 263.00 | GIS Shoreline Length (miles): 2.70 |
| GIS Lake Area (acres): 258.11 | Maximum Fetch (miles): 1.00 |
| DOW Lake Area (acres): 253.00 | Fetch Orientation (degrees): N/A |
| Littoral Area (acres): 263.00 | USGS Quad Map Number: U15c |
| Area in MN (acres): 258.11 | USGS Quad 24K GIS Index: 4129 |
| Maximum Depth (feet): 13.0 | |
| Mean Depth (feet): N/A | |

Watershed Characteristics

Major Watershed

Name: Cannon River
 Watershed Number: 39
 Watershed size (acres): 941,122

Minor Watershed

Name: Cannon R
 Watershed Number: 103
 Watershed size (acres): 22,898

Surveys And Investigations

Initial Survey: 08/07/1968.

Re-Survey: 07/06/2004, 07/06/1999, 07/21/1994, 07/31/1989, 08/05/1986, 05/28/1981.

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Surveys And Investigations (Continued)

Population Assessment: 09/08/1981.

Special Assessment: 09/29/2005, 09/28/2004, 10/14/2003, 10/10/2002, 10/16/2001, 10/18/2000,
10/28/1999, 10/22/1998, 10/02/1997, 09/23/1996, 10/23/1995, 10/12/1994,
09/29/1993, 10/22/1992, 10/16/1991, 10/16/1990, 10/12/1989, 10/11/1988.

Natural Reproduction Check: 10/25/2007.

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Electrofishing Catch Summary for EF

Standard electrofishing

Total run-time for all stations: 01:00:00
 Total on-time for all stations: 00:58:20
 First Sampling Date: 10/25/2007
 Last Sampling Date: 10/25/2007
 Daylight Flag: No
 Target Species: All juveniles walleye

| Abbr | Species | Summary By Numbers | | | Summary By Weight (Pounds) | | | |
|------|---------|--------------------|--------------------------|---------|----------------------------|-----------------------|---------|-------------|
| | | Total Number | Number per Hour Run-Time | On-Time | Total Weight | Lbs per Hour Run-Time | On-Time | Mean Weight |
| WAE | Walleye | 2 | 2.00 | 2.06 | 0.24 | 0.24 | 0.25 | 0.12 |

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Length Frequency Distribution For EF

Standard electrofishing

(Field work conducted on 10/25/2007)

| | <u>WAE</u> |
|---------------|------------|
| < 3.00 | - |
| 3.00 - 3.49 | - |
| 3.50 - 3.99 | - |
| 4.00 - 4.49 | - |
| 4.50 - 4.99 | - |
| 5.00 - 5.49 | - |
| 5.50 - 5.99 | - |
| 6.00 - 6.49 | - |
| 6.50 - 6.99 | 1 |
| 7.00 - 7.49 | - |
| 7.50 - 7.99 | 1 |
| 8.00 - 8.49 | - |
| 8.50 - 8.99 | - |
| 9.00 - 9.49 | - |
| 9.50 - 9.99 | - |
| 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 | - |
| 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 | - |
| 25.00 - 25.99 | - |
| 26.00 - 26.99 | - |
| 27.00 - 27.99 | - |
| 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>WAE</u> |
|----------------|------------|
| Total | 2 |
| Min. Length | 6.85 |
| Max. Length | 7.99 |
| Mean Length | 7.42 |
| # Measured | 2 |
| No Lengths for | 0 |

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Length At Capture With Last Incremental Length

(Body-Scale constant, all lengths, and all length increments in inches)

Species: Walleye

Body-Scale Constant: 1.10

Total Sample Size: 2

Length at Capture in 2007 for Each Age Class, with Incremental Lengths for 2007

| Year Class | Age | Sample Size | Length At Capture | | | Standard Error | Length Increments | |
|------------|-----|-------------|-------------------|----------------|----------------|----------------|-------------------|----------------|
| | | | Average Length | Maximum Length | Minimum Length | | Increment | Standard Error |
| 2006 | 1 | 2 | 7.42 | 7.99 | 6.85 | 0.571 | 1.40 | 0.226 |

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Back-Calculated Lengths for Each Age Class and Average Annual Increments of Back-Calculated Lengths

Species: Walleye

Gear Type: Combined Gear Types (EF)

| Class | Age | N | 1 |
|-------------|-----|---|------|
| 2006 | 1 | 2 | 6.03 |
| | | | 6.03 |
| Mean Length | | | 6.03 |
| | | | 6.03 |
| | | | 2 |

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Age Class Frequency Distribution

| Species and Gear (1) | Number of Fish (2) | | | Number of Fish in Year Class ('yy) and Age Class | | | | | | | | | | | | | | | |
|----------------------------|--------------------|-------|--------|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-------------|
| | Aged | Keyed | Unaged | '07 0 | '06 1 | '05 2 | '04 3 | '03 4 | '02 5 | '01 6 | '00 7 | '99 8 | '98 9 | '97 10 | '96 11 | '95 12 | '94 13 | '93 14 | <'93 15+ |
| Walleye | | | | | | | | | | | | | | | | | | | |
| EF | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(1) Key to sampling gear abbreviations:

EF = Standard electrofishing

(2) Notes:

Number of Fish Aged: Fish that were aged from bony parts.

Number of Fish Keyed: Fish assigned an age with an age-length key or by expansion of mesh or station age distributions.

Number of Fish Unaged: Fish that were not aged and were not assigned an age.

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Survey Crew Notes

Fall Walleye Electrofishing Survey

Survey by Sean Sisler and Craig Berberich.

Report by Marc Bacigalupi.

Area Signed by user 'huvalian' on 04/03/2008

Field Notes - General Field

Sabre Lake was sampled using standard nighttime boat electrofishing on October 25, 2007 to evaluate the status of the walleye population and determine the presence of young of the year (YOY) walleye. This evaluation is part of an annual assessment of walleye on the Cannon River chain of lakes. Three sites were sampled for 20 minutes each.

Discussion

This fall electrofishing survey was conducted as part of a 20-year monitoring of walleye year-classes in the Cannon River chain of lakes in which walleye fry are stocked at 1500/littoral acre 3 out of 4 years.

In most years, walleye fry stocking appears to be the most effective way to establish a year-class. 2007 was a non-stocked year. Therefore, the catch of 0 young-of-the-year (YOY) walleye per hour of electrofishing is not unexpected. In 7 non-stocked years since 1987, the average catch rate of YOY walleye in Sabre is 4 per electrofishing hour. This number is skewed higher due to the catch of 16/hr in 2001 when significant walleye natural reproduction occurred in the Cannon River chain of lakes. The average catch rate in the 13 stocked years since 1987 is 21 with standard error of 4.5. Sabre Lake was not sampled in 2006 due to low water levels.

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Status Of The Fishery

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Approval Dates And Notices

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Date Approved By Waterville Area Fisheries Supervisor: 04/03/2008

Date Approved By Southern Region Fisheries Manager: *[Handwritten signature]*

4/30/2008

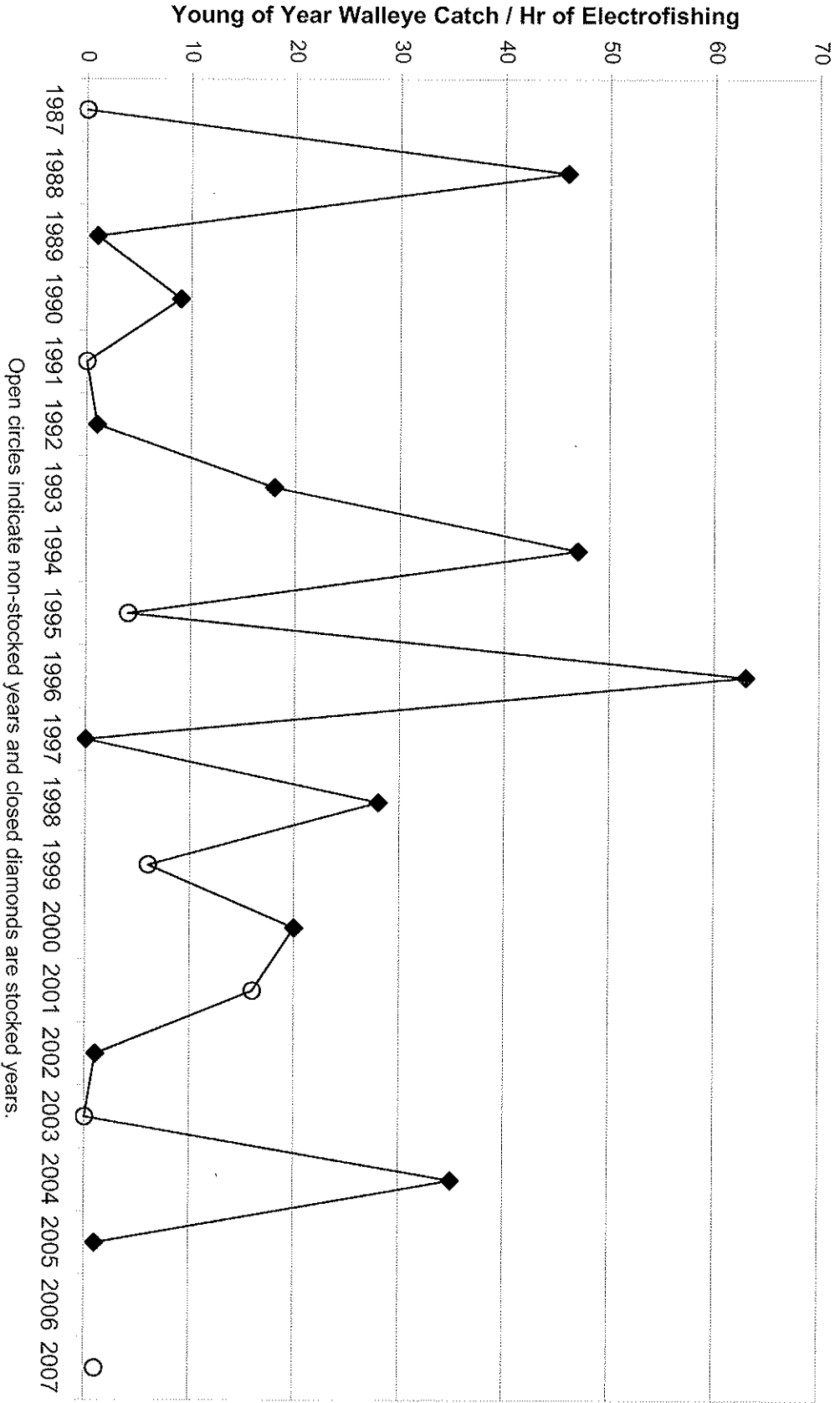


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SABRE LAKE



Cannon River Chain of Lakes

