

Lake Name: Boot

Survey Type: Targeted Survey

DOW Number: 03-0030-00

Survey ID Date: 09/27/2018

**TARGETED SURVEY**  
**Electrofishing targeting Walleye Young Of The Year**

**Lake Identification**

Alternate Lake Name: N/A  
Primary Lake Class ID: 23

DNR Sounding Map Number: C0737  
Alternate Lake Class ID: N/A

**Lake Location**

Primary County: Becker

Nearest Town: Two Inlets

**Legal Descriptions**

Lake Center: Township - 142N Range - 36W Section - 32  
PLS Section Lake Center: 14203632

**All Legal Descriptions:**

Becker County: Township - 141N Range - 36W Sections - 5, 6  
Township - 142N Range - 36W Sections - 29, 32

**Area Office**

Area Name: Park Rapids  
Region Name: Northwest

ORG Code: F117  
Region Number: 1

**Lake Access**

(Information based on Population Assessment dated 08/16/2011)

<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	DNR access located on the north shore.

**Lake Characteristics**

Lake Area (planimetered acres):	348.00	GIS Shoreline Length (miles):	6.78
GIS Lake Area (acres):	385.10	Maximum Fetch (miles):	1.80
DOW Lake Area (acres):	401.00	Fetch Orientation (degrees):	45
Littoral Area (acres):	81.00	USGS Quad Map Number:	J08d
Area in MN (acres):	385.10	USGS Quad 24K GIS Index:	1916
Maximum Depth (feet):	109.0		
Mean Depth (feet):	N/A		

**Watershed Characteristics**

**Major Watershed**

Name: Crow Wing River  
Watershed Number: 12  
Watershed size (acres): 1,268,954

**Minor Watershed**

Name: Basswood Cr  
Watershed Number: 54  
Watershed size (acres): 20,109

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**Surveys and Investigations**

**Initial Survey:** 09/06/1951.  
**Re-Survey:** 08/05/1991, 07/29/1974.  
**Population Assessment:** 08/16/2011, 08/14/2006, 08/08/2001, 08/05/1996, 08/04/1986, 08/12/1981.  
**Special Assessment:** 09/04/2008, 05/31/2006, 08/16/2004, 05/27/2004, 06/05/2002.  
**Standard Survey:** 08/15/2016.  
**Targeted Survey:** 09/27/2018, 07/12/2016.

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**Water Level History - Readings**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	08/15/2016	Normal	-3.40	Above or below Benchmark
	08/11/2011	Normal	-3.34	Above or below Benchmark
	08/14/2006	Low	-3.95	Above or below Benchmark
BM - 2	08/17/2016	Normal	-1.15	Above or below Benchmark
	08/11/2011	Normal	-0.95	Above or below Benchmark
	08/16/2006	Low	-1.20	Above or below Benchmark
BM - 3	08/11/2011	Normal	-2.43	Above or below Benchmark
	08/14/2006	Low	-3.05	Above or below Benchmark

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**Water Level History - Station Summary**

Station ID	Minimum Level		Maximum Level		Range (feet)	Average Level (feet)	Reading Type (and number of readings)
	Feet	Date	Feet	Date			
BM - 1	-3.95	08/14/2006	-3.34	08/11/2011	0.61	-3.56	Above or below Benchmark (3)
BM - 2	-1.20	08/16/2006	-0.95	08/11/2011	0.25	-1.10	Above or below Benchmark (3)
BM - 3	-3.05	08/14/2006	-2.43	08/11/2011	0.62	-2.74	Above or below Benchmark (2)

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**Natural Reproduction Catch Summary for EW**

**Fall electrofishing for walleye**

**Total run-time for all stations:** 01:44:00  
**Total on-time for all stations:** 01:38:57  
**First Sampling Date:** 09/27/2018  
**Last Sampling Date:** 09/27/2018  
**Daylight Sampling:** No  
**Target Species:** Young of the year walleye

<u>Abbr</u>	<u>Species</u>	<u>Age</u>	<u>Total Number</u>	<u>Number Measured</u>	<u>Mean Length (inches)</u>	<u>Length Range (inches)</u>		<u>Catch Rates (number per hour)</u>	
						<u>Min</u>	<u>Max</u>	<u>Run-Time</u>	<u>On-Time</u>
WAE	Walleye	YOY	1	1	7.48	7.48	7.48	0.58	0.61

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**Length Frequency Distribution for EW**

**Fall electrofishing for walleye**

(Field work conducted between 09/27/2018 and 09/27/2018)

	<u>YWAE</u>
< 0.50	-
0.50 - 0.99	-
1.00 - 1.49	-
1.50 - 1.99	-
2.00 - 2.49	-
2.50 - 2.99	-
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	-
7.00 - 7.49	1
7.50 - 7.99	-
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 - 12.49	-
12.50 - 12.99	-
13.00 - 13.49	-
13.50 - 13.99	-
14.00 - 14.49	-
14.50 - 14.99	-
15.00 - 15.49	-
15.50 - 15.99	-
= > 16.00	-

	<u>YWAE</u>
Total	1
Min. Length	7.48
Max. Length	7.48
Mean Length	7.48
# Measured	1
No Lengths for	0

**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

**Survey Crew Notes**

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Area Signed by user 'dokingsl' on 03/26/2019

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**Discussion**

The purpose of this Targeted Survey was to sample young-of-year (YOY) Walleye from natural reproduction and to look for potential sampling sites to effectively sample YOY Walleye. Based on the evaluation of historical stocking, there is a possibility that Walleye fry might be successful. However, the ability to effectively sample for YOY Walleye would be needed to confirm stocking success. Fall electrofishing was conducted on September 27, 2018. The YOY Walleye catch rate was 0.61/hour. Based on the initial exploration of looking for potential sampling sites, the success of effectively sampling for YOY Walleye on Boot Lake would be very low based on limited sampling habitat.

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**Status Of The Fishery**

The purpose of this Targeted Survey was to sample young-of-year (YOY) Walleye from natural reproduction and to look for potential sampling sites to effectively sample YOY Walleye. Fall electrofishing was conducted on September 27, 2018. The YOY Walleye catch rate was 0.61/hour.

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**Survey Attachments**

**Note: The following attachment is excluded from this report:**

(1) Boot graph and map.pdf

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**Approval Dates And Notices**

Date Approved By Park Rapids Area Fisheries Supervisor: 03/26/2019

Date Approved By Northwest Region Fisheries Manager: 05/06/2019



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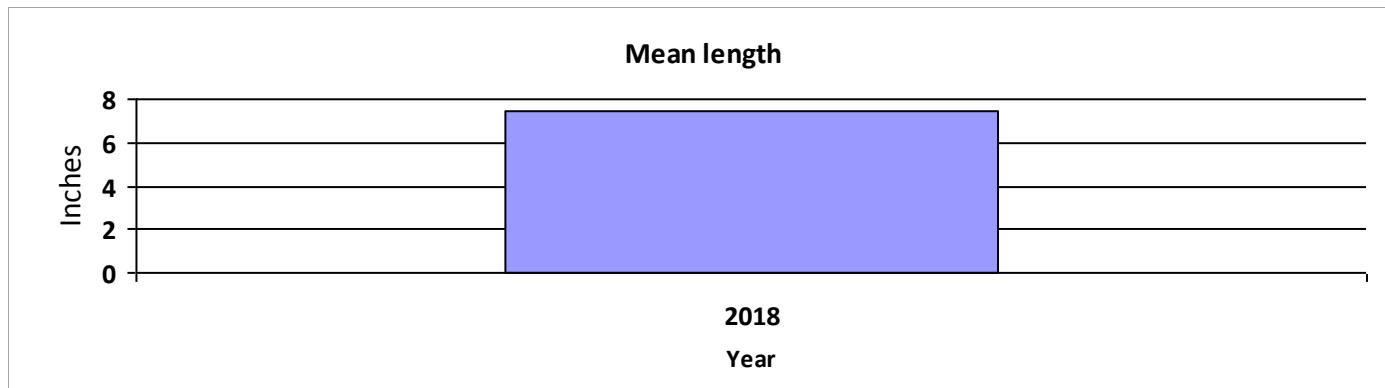
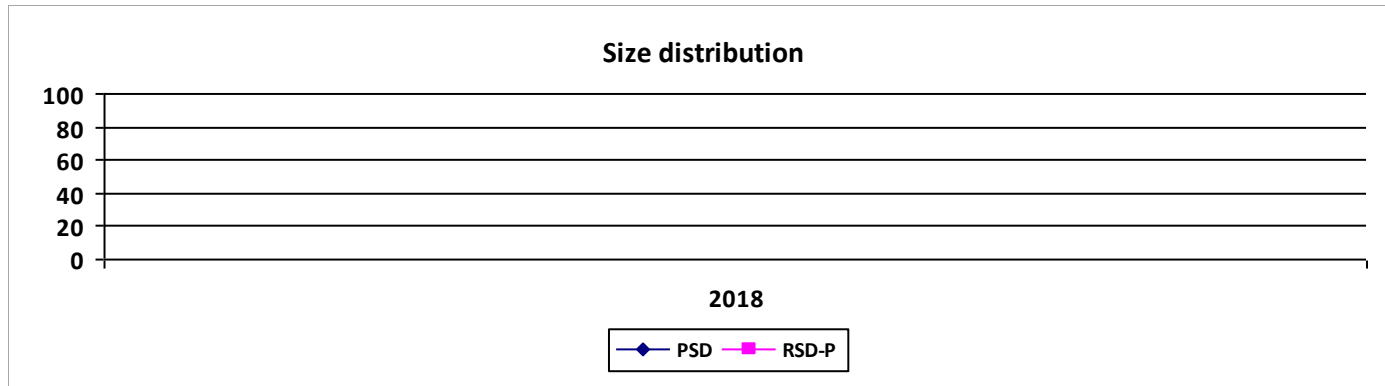
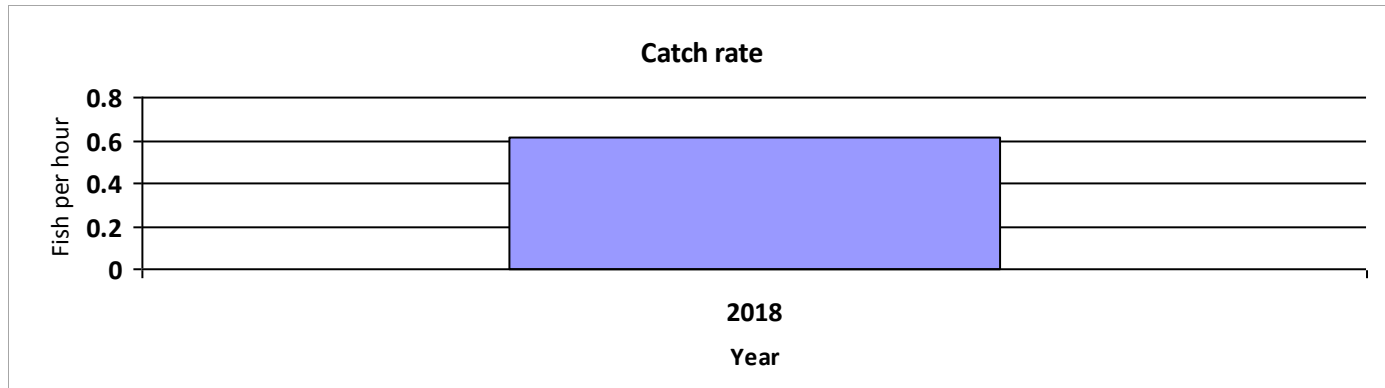
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Lake Survey Report revision: 20190410-RJE. Data Date: 05/07/2019 at 11:06 am .

03-0030-00

BOOT  
FALL ELECTROFISHING

WALLEYE YOY





# Boot (3-0030) Target Survey 2018

