BRIGHTSAND LAKE – 53-20-W3

East of St. Walburg August 8-15, 2007

Introduction:

Brightsand Lake (3,220 ha) is located approximately 23 km east of St. Walburg. A Regional Park is located at the northeast end of the lake. Up until 1993, a commercial fishery operated on this lake each winter with a quota of 13,600 kg Lake Whitefish.

A total of 3.4 million walleye fry were stocked between 1930 and 1943, but the plants were unsuccessful.

A sport fisheries examination in 1970 indicated a poor population of gamefish (i.e. pike). No walleye were captured in test nets.

Between 1971 and 1985, over ten million walleye fry were stocked in this lake in an attempt to establish a walleye population.

In 1978 test nets indicated poor walleye and fair pike populations. Only one walleye and fourteen pike were netted.

In 1984, test nets indicated poor walleye and northern pike populations. Neither species was captured in test nets. All perch were small and no angling-sized perch were netted.

In 1986, test nets indicated a sparse walleye population, a poor northern pike population and a poor angling-sized perch population. This study proved to be inconclusive so another study was recommended for 1987.

In 1987, test nets indicated sparse walleye, pike and angling sized perch populations. The stocking success of walleye in 1984 and 1985 (7.6 million fry) was poor.

In March 1989, 4,100 yearling Atlantic salmon were stocked through the ice. In mid-September, an attempt was made to try to locate and sample these Atlantic salmon without success.

In 1991 test nets indicated sparse walleye, pike and angling sized perch populations. Whitefish numbers were at an all time low.

In the late 1990's and into 2003, a prolonged period of drought reduced the lake level dramatically. The water levels have recovered; at present a "wave berm" has formed around much of the lake, resulting in stagnant pools of water with an abundance of aquatic vegetation growth (ie-cattails), especially on the north and south portions of the lake. 2011 Note: The water quality in the pools behind the sand berms is now excellent.

Stocking History-Brightsand Lake

Year	Species	Amount	Size
1926	Lake Trout	48,480	Fry
1927	Lake Trout	100,000	Fry
1928	Lake Trout	107,770	Fry
1929	Lake Trout	91,228	Fry
1936	Whitefish	750,000	Fry
1937	Whitefish	800,000	Fry
1938	Whitefish	750,000	Fry
1938	Walleye	700,000	Fry
1939	Whitefish	750,000	Fry
1939	Walleye	600,000	Fry
1940	Whitefish	800,000	Fry
1940	Walleye	600,000	Fry
1941	Whitefish	500,000	Fry
1941	Walleye	800,000	Fry
1942	Whitefish	1,000,000	Fry
1943	Whitefish	550,000	Fry
1943	Walleye	700,000	Fry
1944	Whitefish	1,000,000	Fry
1955	Brown Trout	30,000	Fingerlings
1971	Walleye	1,050,000	Fry
1972	Walleye	250,000	Fry
1973	Walleye	800,000	Fry
1982	Walleye	400,000	Fry
1984	Walleye	3,610,000	Fry
1984	Rainbow Trout	10,000	Fingerlings
1985	Walleye	4,000,000	Fry
1986	Rainbow Trout	500	Catchables
1987	Rainbow Trout	499	Catchables
1989	Atlantic Salmon	4,100	Catchables
1990	Atlantic Salmon	3,088	Catchables
1998	Northern Pike	35,000	Fry
2000	Northern Pike	30,000	Fry
2001	Northern Pike	30,000	Fry
2002	Northern Pike	24,000	Fry

Stocking History-Brightsand Pond, Brightsand Creek

1975	Brightsand Ck.	Brook Trout	500	Fingerlings
1977	Brightsand Ck.	Brook Trout	250	Fingerlings
1977	Brightsand Pond	Brook Trout	250	Fingerlings
1984	Brightsand Pond	Walleye	500	Fingerlings
1988	Brightsand Pond	Rainbow Trout	1,000	Catchables
1989	Brightsand Pond	Rainbow Trout	1,011	Catchables
1990	Brightsand Pond	Rainbow Trout	1,489	Catchables
1991	Brightsand Pond	Rainbow Trout	1,963	Catchables
1992	Brightsand Pond	Rainbow Trout	1,514	Catchables
1993	Brightsand Pond	Rainbow Trout	1,135	Catchables
1994	Brightsand Pond	Rainbow Trout	750	Catchables
1994	Brightsand Pond	Salmon	750	Catchables
1995	Brightsand Pond	Rainbow Trout	1,507	Catchables
2000	Brightsand Ck	Brook Trout	??	Catchables
2004	Brightsand Pond	Northern Pike	40,000	Fry
2005	Brightsand Pond	Northern Pike	40,000	Fry
2006	Brightsand Ck	Northern Pike	35,000	Fry
2007	Brightsand Pond	Northern Pike	100,000	Fry

Fish Status:

Gill Net Sets in August 2007:

3-Standard Gang Gill Net Sets of 276 meters of net, or 6-46 meter panels, each consisting of 3.8, 5.0, 7.6, 10.4, 12.7, and 14.0 cm mesh sizes. The nets were set in 3 locations; two in the middle of the lake at depths ranging from 8.8-10.6 m, 12.5-13.0 m, and one shallow set near the south west shore in depths of 1.8-4.3 meters.

Catch:

1060 perch 66 whitefish 179 cisco 53 common suckers

Catch Comparison 1978-2007

Catch per 100m of Net (%)

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	1978		1984		1986		1987		1989		1991		2007	
A. Salmon	N/A		N/A		N/A		N/A		Neg.		Neg.		N/A	
Walleye	Pos.		Neg.		Neg.		Pos.		4	(7)	Neg.		0	
N. Pike	4	(6)	Neg.		2	(5)	Pos.		2	(3)	Neg.		0	
Perch	4	(6)	12	(20)	5	(12.5)	5	(33)	21	(34)	1	(3)	128	78
Whitefish	3	(5)	23	(38)	5	(12.5)	2	(13)	5	(8)	1	(3)	8	5
Cisco	37	(57)	12	(20)	21	(53)	1	(7)	15	(25)	16	(52)	22	13
C. Sucker	17	(26)	13	(22)	7	(17)	7	(47)	14	(23)	13	(42)	6	4
Total	65	(100)	60	(100)	40	(100)	15	(100)	61	(100)	31	(100)	164	(100)

Analysis: See attached Graphs

Comments:

<u>Walleye</u>

Test nets indicate a sparse population.

None captured in test nets.

Northern Pike

Test nets indicate a sparse population.

- None captured in test nets.

 Annually, an average of 35,000 pike fry are stocked in Brightsand Pond, and released to the lake when the pond is

drained in the fall.

Perch

Test nets indicate an excellent population of forage fish, and a poor population of angling-sized perch. The majority of perch were caught in the two deep net sets (1047 out of

1060 caught).

Lake Whitefish

 Test nets indicate a fair population. Numbers are up from an all time low in 1991 (see Catch Comparison). All the whitefish were caught in the one shallow net, in the 1.8-4.3 meter depth range.

- 552 meters or 67% of the nets sets were put in deep water.

Cisco

Test nets indicate a moderate population. Numbers are up

from the 1991 study

C. Suckers

- Test nets indicate a fair population. Numbers are comparable to previous studies.

Angling Information:

-Light angling activity is reported. Angling success is reported as poor for northern pike, with no walleye reported caught in recent years. There have been no recent reports of rainbow trout angled in this lake. These rainbow trout are the catchables that are released from the trout pond every fall when the pond is drained into the lake.

pH 9.0-9.2

Conclusions:

- -Test nets indicate sparse populations of pike and walleye.
- -The perch population has increased significantly, and are at an historic all time high.
- -Test nets indicate a fair whitefish population.

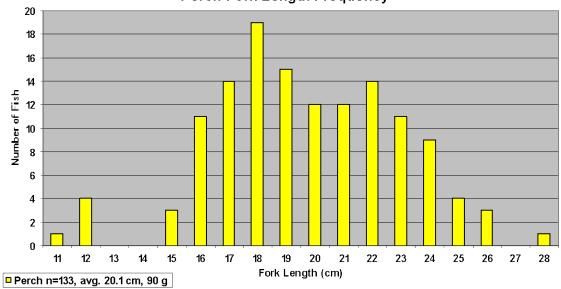
Recommendations:

- Continue to stock pike fry, as the Commercial Fish Production History Records indicate a once sizeable population of pike once existed in the lake.

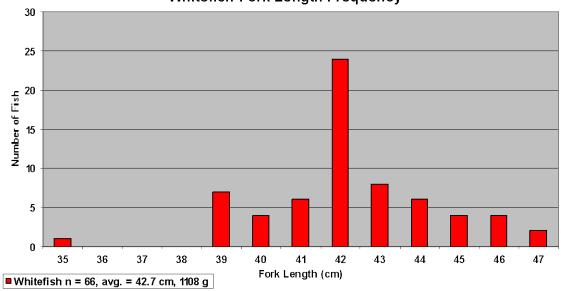
Gord Sedgewick Meadow Lake Area Fisheries Biologist

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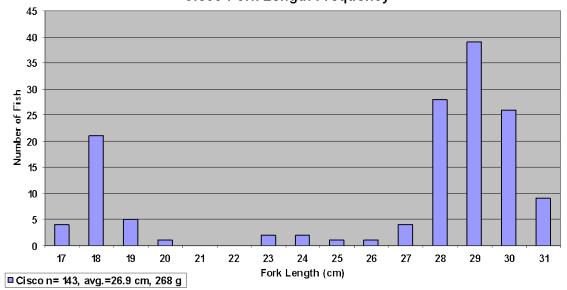
Brightsand Lake Gillnet Survey, August 2007 Perch-Fork Length Frequency



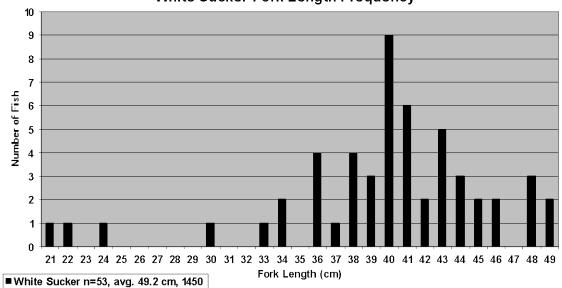




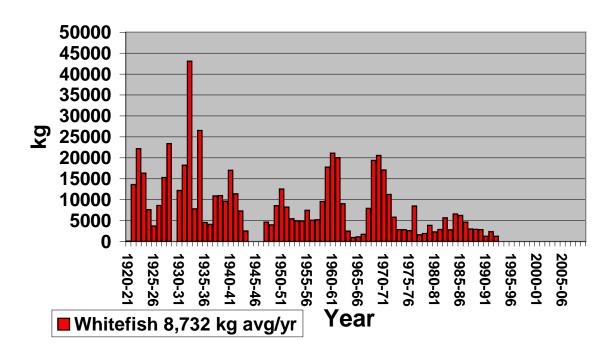
Brightsand Lake Gillnet Survey, August 2007 Cisco-Fork Length Frequency

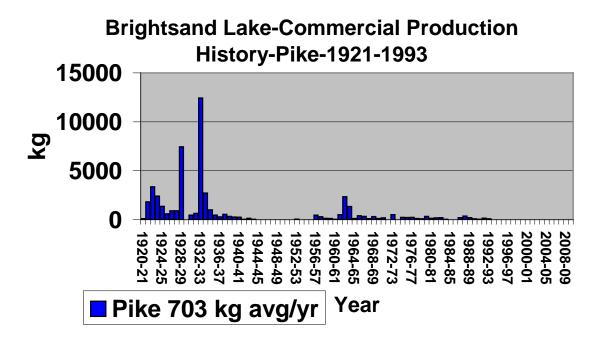


Brightsand Lake Gillnet Survey, August 2007 White Sucker-Fork Length Frequency

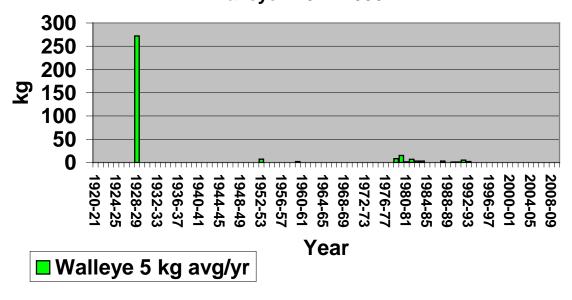


Brightsand Lake-Commercial Production History-Whitefish-1921-1993





Brightsand Lake-Commercial Production History-Walleye - 1921-1993



Brightsand Lake-Commercial Production History Number of licences/yr 1921-1993

