Naomikong Lake
Chippewa County, T47N, R06W, S24
Naomikong Creek, Last Surveyed 2007

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Environment

Naomikong Lake lies within U.S. Forest Service (USFS) ownership about 6 miles northeast of Eckerman. The topography around the lake is level to gently rolling hills; the southern slope is quite steep. Soils in the area are sandy. The vegetation consists of aspen, birch, spruce, and balsam. A coarse glacial moraine escarpment lies to the south and east, vegetated with hardwoods and conifers. Lower ground to the west and north is wetter and vegetated with lowland conifers and aspen (Figure 1). The lake has no development around it, and appears almost as untouched by human hand as it was when first surveyed by Fisheries personnel in 1939. Access to the lake is walk-in only, across private property. The land is open to public hunting and fishing due to participation in the Commercial Forest Act. Vehicles cannot get to the lake, anglers must walk the last 400-500 ft to the shoreline (Figure 2). The lake is 7 acres in size, and very shallow; anglers can either carry canoes, use float tubes, or wade the sand shoreline. Only about 30% of the lake is deeper than 5 ft, and nowhere is it deeper than seven ft. Even so, the lake remains cold enough for brook trout, thanks to inflow from several submerged and shoreline springs draining from the adjacent escarpment. An August 2007 limnological survey found bottom temperature of 49F at 6 ft. The surface was 58F. Dissolved oxygen was somewhat lower at the bottom, 8 mg/l compared with 11.6 mg/l at the surface, possibly due to less oxygen in the inflowing spring water. Specific conductance remained similar top-to-bottom with about 145 mS/cm, as did pH at about 8 and alkalinity at 76 mg/l. The bottom type is mostly sand overlain with a thin layer of organic material. Cover in the lake is provided by drop offs, some logs, and aquatic vegetation.

Naomikong Lake is the headwater source for Naomikong Creek, which is approximately 6 inches deep at the outflow. The creek immediately downstream of the lake is under two private ownerships until it gets north of the East-West Road (Figure 3). Several beaver dams exist downstream from the lake, which probably block upstream spawning migrations by trout and other species.

History

Water level has fluctuated over time depending upon beaver activity and their maintenance of the large dam at the outflow. The Newberry office received complaints of excessive aquatic vegetation in 1962, apparently because of low lake level resulting from degradation of the beaver-maintained dam. At that time, there was discussion about constructing a low-head dam to replace the natural dam. That project never occurred.

Earliest file records for Naomikong Lake are of District Fisheries Supervisor Leland Anderson responding to requests for more stocked fish. He had apparently stocked 500 legal sized brook trout in 1955, and the local anglers wanted even more. Many letters flew back and forth between Lansing, Marquette, Newberry and Sault Ste. Marie from 1956 to 1958 concerning the local demand for

stocking more legal sized trout. Stocking rate increased to 800 legal sized trout for several years during the late 1950s, but the locals were requesting 1,000.

Stocking records in local management unit files are non-existent prior to 1980, and after 1980 the paper records are incomplete. Since 1980, statewide stocking records have been maintained in an electronic database, the Fisheries Division Fish Stocking Information System. Those records show that sub-legal fall and spring fingerlings have been stocked almost annually (Table 1). A DNR netting and angling survey in May 1985 captured seven brook trout up to 16 in. Angler reports from that time described a good fishery for brook trout 10 - 18 in, and one 3.5 lb fish that was caught on opening day 1985. A similar survey in September 1988 caught only three trout 10 - 14 in, all from angling. No growth data was generated from either survey. Stocking was changed to 700 spring fingerlings in 1990. A USFS netting survey was conducted in September 1994, capturing 15 trout. Growth analysis from that survey found only two year classes, ages 1 and 2, and estimated that the brook trout were growing 1.9 in faster than state average. The annual number of trout stocked was increased in 2001 from 700 spring fingerlings to roughly 800, because of the documented good growth. Stocking currently remains at 800 spring fingerlings annually.

Current Status

The 2007 Status and Trends netting survey captured 28 brook trout up to 18 in (Table 2). There were no other large species captured. Other fish species captured were brook stickleback, creek chub, fathead minnow, central mudminnow, northern redbelly dace, ninespine stickleback, and some other minnow species. The northern redbelly dace were most numerous, comprising 9% of the catch, compared with the brook trout component of 88% (Table 3). Growth analysis found five year classes, ages 1 - 5, growing about 0.7 in faster than state average (Table 4).

Analysis and Discussion

Naomikong Lake has supported a good brook trout fishery for over seventy years, with documented stocking only during the last fifty years. Growth rates were determined only for the USFS survey in 1994 and the MDNR survey in 2007. The 1994 survey captured only age 1 and 2 fish, and the growth rate (for age 1 fish) was 1.9 in faster than state average (Table 4). The 2007 brook trout sample had representation from five year classes, ages 1 - 5, and the growth rate was determined from fish aged 2 and 3 (Table 4). Their growth rates were considerably slower than the 1994 estimate, however, with an estimate of only 0.6 in faster than state average. The 2007 specimens exhibited good condition with deep bodies for their size. Actual sizes in this small lake were surprising, as 6 of 28 were 16-18 in, and six more were 12-13 in. Over 20% of the 2007 brook trout were <=15 in, and 75% were <=10 in.

Management Direction

Naomikong Lake continues to be a successful brook trout lake, and is managed as a Designated Trout Lake under Type A regulations. This small, 7-acre, isolated, walk-in fishery will reward those anglers willing to make the effort. Management should continue the current stocking and regulations protocols.

References

File data is stored in the Newberry Operations Service Center, 5100 S. M-123, Newberry, MI, 49868.

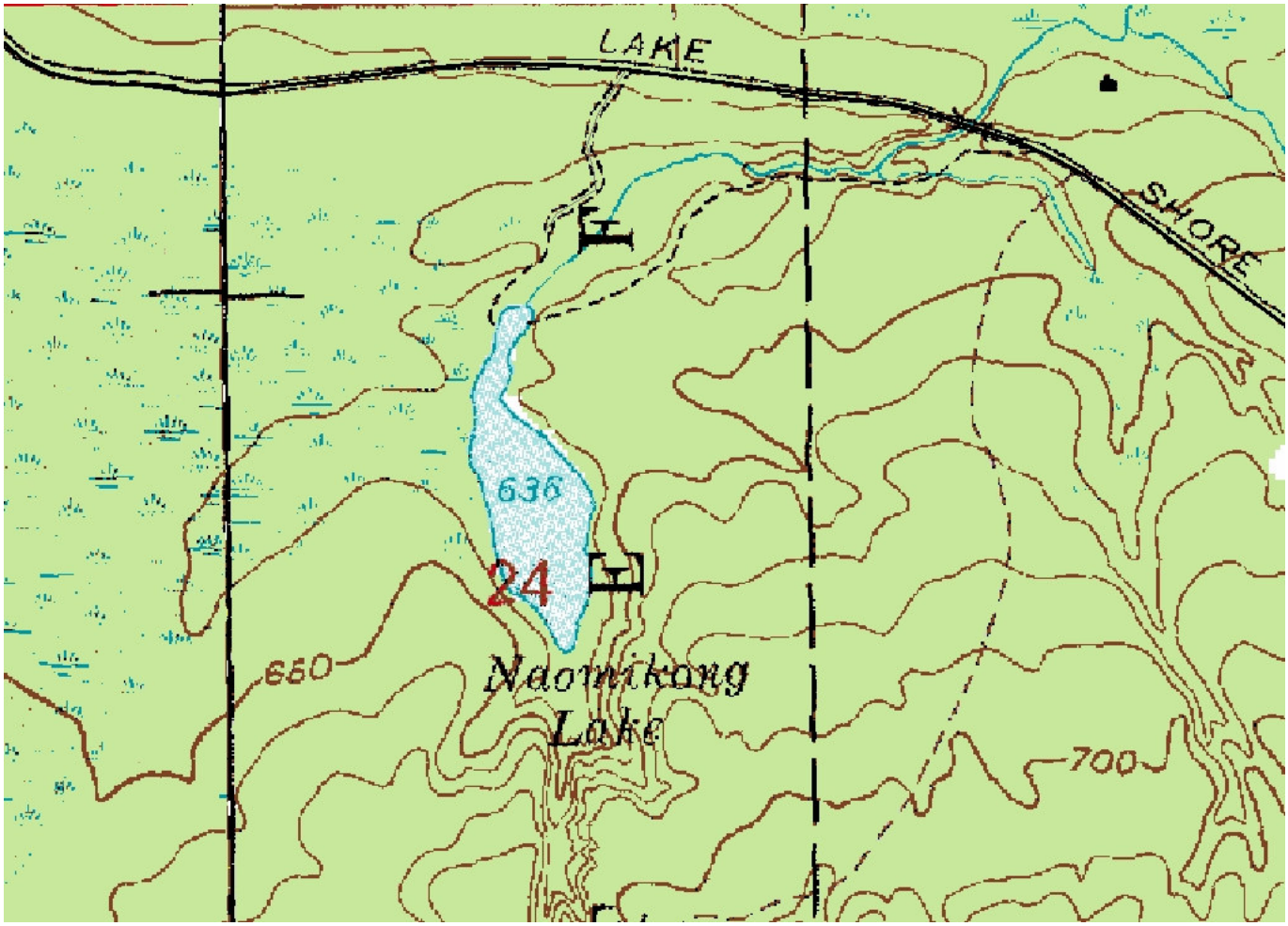

Figure 1. Naomikong Lake topographic map showing escarpment to the south and east, and the lowland wetlands to the northwest.

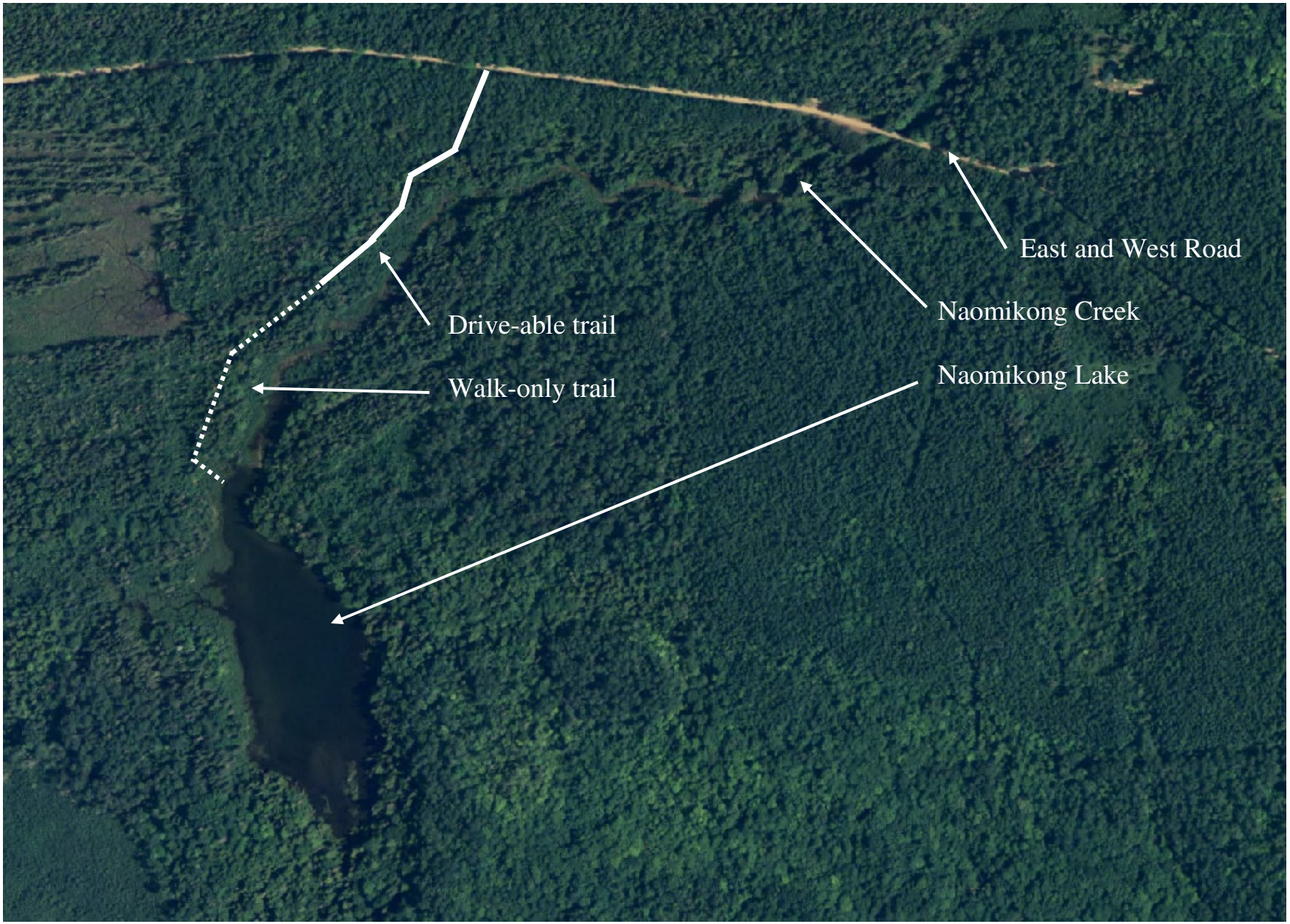

Figure 2. Angling access into Naomikong Lake.

Figure 3. Roxbury Platmap for Naomikong Lake, Chippewa County area, 2003.

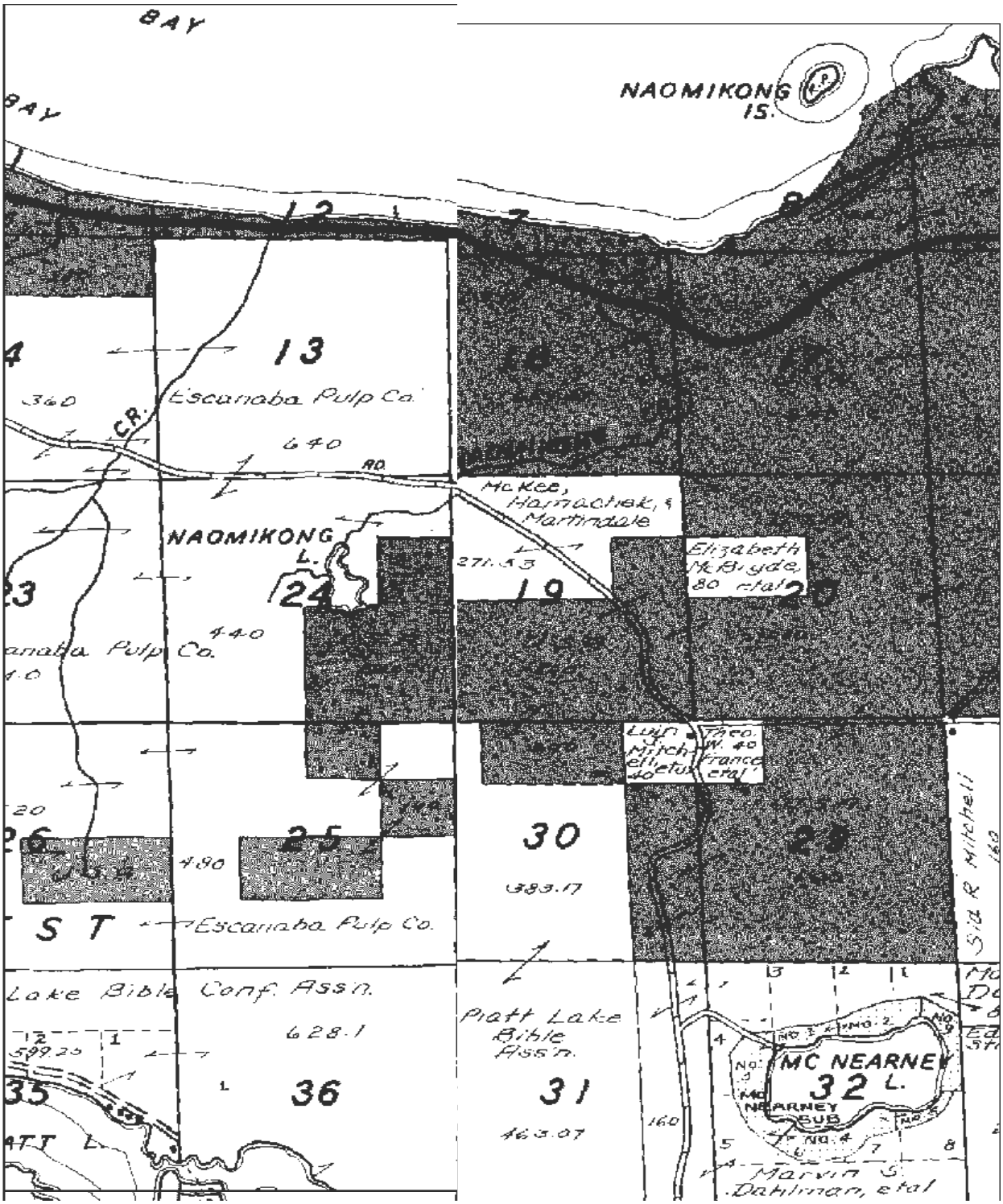

Table 1. Stocking history for Naomikong Lake, Chippewa County, 1980 - 2007.

Date	Species	Strain	Age	Number	Length (in)	Weight (lb)
10/20/80	Brook Trout		Fall fingerling	600	4.9	28.6
6/2/81	Brook Trout	Assinica	Spring fingerling	600	2.0	2.0
5/18/82	Brook Trout	Assinica/Rome	Spring fingerling	600	1.9	1.5
10/5/83	Brook Trout	Assinica/Rome	Fall fingerling	580	3.3	8.1
10/16/84	Brook Trout	Assinica/Rome	Fall fingerling	600	3.7	11.9
10/23/85	Brook Trout	Assinica/Rome	Fall fingerling	500	3.8	10.8
10/24/86	Brook Trout	Assinica	Fall fingerling	600	4.3	18.9
9/21/87	Brook Trout	Assinica/Maine	Fall fingerling	600	5.0	29.9
6/4/90	Brook Trout	Owhi	Spring fingerling	700	1.7	1.5
5/21/91	Brook Trout	Soda Lake	Spring fingerling	700	2.3	3.5
6/11/92	Brook Trout	Assinica/Maine	Spring fingerling	700	3.1	8.1
6/24/93	Brook Trout	Assinica/Maine	Spring fingerling	700	2.8	6.4
6/2/94	Brook Trout	Assinica/Maine	Spring fingerling	700	2.6	5.1
6/13/95	Brook Trout	Assinica	Spring fingerling	700	2.3	3.3
6/10/96	Brook Trout	Assinica	Spring fingerling	700	2.9	6.6
5/20/97	Brook Trout	Temiscame	Spring fingerling	700	1.9	2.0
5/21/98	Brook Trout	Assinica	Spring fingerling	700	2.0	2.4
5/18/99	Brook Trout	Assinica	Spring fingerling	700	2.6	4.4
4/26/00	Brook Trout	Assinica	Spring fingerling	700	1.8	1.5
5/24/01	Brook Trout	Assinica	Spring fingerling	850	2.3	3.3
6/6/02	Brook Trout	Assinica	Spring fingerling	800	2.5	3.5
5/13/04	Brook Trout	Assinica	Spring fingerling	775	1.8	2.1
4/29/05	Brook Trout	Assinica	Spring fingerling	790	1.9	2.0
5/9/06	Brook Trout	Assinica	Spring fingerling	800	2.0	2.2
5/23/07	Brook Trout	Assinica	Spring fingerling	800	1.9	3.1

Table 2 – Number, weight, and length by species for Naomikong Lake, Chippewa County, from a netting survey using gillnets and mini-fyke nets, May 31, 2007.

Species	Number	Percent by number	Weight (lbs)	Percent by weight	Length range (inch)[1]	Average length (inch)	Percent legal Sized[2]
Brook trout	28	7.2	22.8	88.4	2 – 18	11.9	75
Brook stickleback	7	1.8	0	0	1 – 2	1.8	100
Creek chub	16	4.1	0.5	2.1	2 – 6	4.3	100
Fathead minnow	14	3.6	0.1	0.4	2 – 2	2.5	100
Central Mudminnow	3	0.8	0	0.2	2 – 3	3.2	100
Northern redbelly dace	283	72.9	2.3	9.0	1 – 3	2.6	100
Ninespine stickleback	23	5.9	0	0	1 – 2	1.9	100
Shiner (non-specific)	14	3.6	0	0	2 – 3	2.6	100

[1] Note some fish were measured to 0.1 inch, others to inch group: eg., "5"=5.0 to 5.9 inches, "12"=12.0 to 12.9 inches, etc.

[2] Percent legal sized is the percent of the population legal or acceptable size for angling harvest.

Table 3 - Survey catch summary for the Nawakwa Lake, Chippewa County status and trends survey using gill and mini-fyke nets, 5/30-31/2007.

Species		Brook trout		Brook Stickleback		Creek chub		Fathead minnow		Central mudminnow		N. redbelly dace		Ninespine stickleback		Shiner spp.	
Legal size (in)		>=10.00		>=		>=		>=		>=		>=		>=		>=	
Avg. length (in)		11.9		1.8		4.3		2.5		3.2		2.6		1.9		2.6	
Avg. weight (lb)			0.8		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total		28	22.8	7	0.0	16	0.5	14	0.1	3	0.0	283	2.3	23	0.0	14	0.0
No. legal		21		7		16		14		3		283		23		14	
% Legal size		75.0%															
% Total catch		7.2%	88.4%	1.8%	0.0%	4.1%	2.1%	3.6%	0.4%	0.8%	0.2%	72.9%	9.0%	5.9%	0.0%	3.6%	0.0%
CPE		7.0		1.8		4.0		3.5		0.8		70.8		5.8		3.5	
Inch group	1			5	0.0							5	0.0	13	0		
	2	1	0.0	2	0.0	2	0.0	14	0.1	1	0.0	253	1.8	10	0	12	0.0
	3					5	0.1			2	0.0	25	0.5			2	0.0
	4					5	0.2										
	5					3	0.2										
	6	1	0.1			1	0.1										
	7																
	8	1	0.2														
	9	4	1.2														
	10	5	2.1														
	11	4	2.3														
	12	3	2.2														
	13	3	2.8														
	14																
	15	1	1.5														
	16	2	3.5														
	17	2	4.3														
	18	1	2.5														
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Sample total:		28	22.735	7	0	16	0.53	14	0.1	3	0	283	2.3	23	0	14	0
All species total:		Number:		388		Pounds:		25.8									

Table 4. Comparison of average total length (inches) at age, and growth relative to state average, for brook trout captured from Naomikong Lake, Chippewa County, in September 1994 and May 2007. All brook trout sampled were collected using gill nets. Number of brook trout aged is given in parentheses.

Date	I	II	III	IV	V	Mean Growth Index[1]
September, 1994	10.5 (5)	14.7 (3)				+1.9
May, 2007	7.7 (2)	10.4 (9)	12.3 (10)	16.0 (3)	17.4 (3)	+0.7

[1] Mean growth index is the average deviation from the state average length at age.