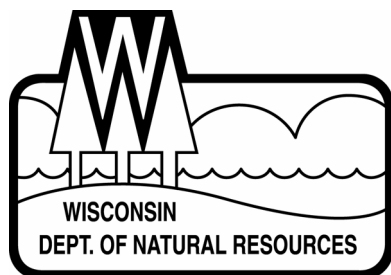


Fisheries Survey of Buckskin Lake, Oneida County Wisconsin during 2006.

Waterbody Identification Code 2272600



John Kubisiak
Senior Fisheries Biologist
Rhinelander
May, 2007



Your purchase of fishing equipment
and motor boat fuel supports boating
access and Sport Fish Restoration.

Fisheries Survey of Buckskin Lake, Oneida County Wisconsin during 2006.

John Kubisiak
Senior Fisheries Biologist
May, 2007

EXECUTIVE SUMMARY

A survey targeting gamefish species was conducted in Buckskin Lake during spring, 2006. Walleye were abundant (population estimate, PE = 6.3 adults per acre), along with good numbers of northern pike (PE = 3.2 per acre), muskellunge and largemouth bass. Largemouth bass growth rates were about average, while walleye, muskellunge and northern pike length-at-age generally lagged behind regional averages. Yellow perch dominated the panfish catch, followed by rock bass. Black crappie, bluegill and pumpkinseed were found at moderate abundance. Non-game species include bluntnose minnow, golden shiner, johnny darter, silver redhorse and white sucker. I recommend continuing to manage Buckskin Lake for walleye, muskellunge, bass and panfish.

Lake and location:

Buckskin Lake, Oneida and Vilas Counties, T39N R4E Sec11

Located in northwest Oneida County and partially in Vilas County. Buckskin is in the town of Minocqua, about 10 miles west of the city of Minocqua. Buckskin is part of the Chippewa River watershed. It has no inlet and the outlet is Buckskin Creek.

Physical/Chemical attributes (Andrews and Threinen 1966):

Morphometry: 634 acres, maximum depth 22 feet.

Watershed: 2.5 square miles, including 292 acres of adjoining wetlands.

Lake type: Spring. Outlet forms Buckskin Creek.

Basic water chemistry: Soft – alkalinity 26 mg/l, conductance 56 µmhos.

Water clarity: Clear water of moderate transparency.

Littoral substrate: 65% sand, 20% gravel and some muck.

Aquatic vegetation: abundant

Winterkill: periodically occurred until an aerator was installed in fall, 1982.

Boat landing: Concrete plank ramp with parking for 11 vehicles with trailers and 3 additional vehicles.

Other features: Shoreline 70% bog wetlands with a moderate amount of upland adjoining the lake.

Purpose of Survey: Assess status of gamefish species and develop management recommendations.

Dates of fieldwork: Walleye netting, April 12-16 2006.

Muskellunge netting April 21-28 2006.

Mini-fyke netting August 28-29 2006.

Electroshocking (entire shoreline) April 17 and September 19 2006.

BACKGROUND

A single handwritten page from a May 28-30, 1975 walleye netting survey lists 1 walleye (11.0 inches), 6 muskellunge (23.0 to 28.1 inches), 9 northern pike (13.7 to 23.0 inches), 5 perch (6.9 to 8.2 inches), 32 sunfish (12 measured, 4.6 to 5.8 inches), 7 bluegill (1 measured, 7.7 inches), 229 bullhead (29 measured, 7.3 to 10.1 inches) and 17 suckers (13.7 to 23.0 inches). In the margins is penned: *“Many walleyes are being caught by hook & line ranging 10 to 12” in length. Also many musky are being caught on big minnows all are between 24-28” long. Many sucker were dying.”*

Periodic winterkill was a recurring problem on Buckskin Lake in the years before aeration. A September 27, 1979 letter from Erv. Hemb to then-governor Lee Dreyfus references past winterkill in Buckskin Lake: *“I understand Buckskin once was considered the best Muskie Lake in the State back in the 1930’s and it froze out. Again in 1964 it froze out and we have had some partials since then.”* I did not find results from a 1979 survey, but a letter from DNR Fish Manager Ronald Theis to Erv Hemb dated September 28, 1979 states: *“Buckskin Lake did suffer a winterkill last winter. This was the first kill in many years on this lake. A shocker survey of the lake shortly after ice-out found northern pike, yellow perch, pumpkinseeds and various minnow species inhabiting the lake.”* Buckskin Lake Improvement Association was formed in 1982, and the Association installed an aerator that fall with DNR assistance.

A 1991 survey targeted walleyes (see below), but 39 muskellunge were also handled. The largest was 42 inches, while 19 of the fish were smaller than 32 inches.

Walleye mark-recapture population estimates were conducted by DNR in 1991 and 1996; by United States Fish and Wildlife Service (USFWS) in 1992 and by Great Lakes Indian Fish and Wildlife Commission (GLIFWC) in 1995 and 1999. The 1991 survey estimated a population of 3.1 adults per acre, but there were low numbers of small adults: modal size was 17.75 inches and 88% of the walleyes were 15 inches or larger. By the following year, the population had increased by 85%, but 72% of the fish were 12 to 14.9 inches in length, indicating a substantial influx of young fish. Subsequent population estimates continued to increase to a peak of 12.1 per acre in 1996 and declined to 6.7 per acre in 1999. This compares to a predicted adult walleye population of 3.43 per acre in an average 634-acre lake with good natural reproduction (Figure 1).

Juvenile walleye surveys were completed during two years and showed substantial recruitment in Buckskin during mid-1990s. The total walleye population (including both adult and juvenile fish) was estimated to be 15.4 per acre in 1995 and 22.0 per acre in 1996.

Fall young-of-year (yoy) electroshocking surveys were conducted by DNR in 1962, 91, 96, and 2001 and by Great Lakes Indian Fish and Wildlife Commission (GLIFWC) in 1987, 92-95, and 97-2005.

Buckskin is a shallow lake, with much of the basin around 6 to 8 feet in depth. Shallow lakes generally alternate between two states: a clear-water state with extensive beds of rooted aquatic vegetation and a turbid-water state characterized by algae blooms and low amounts of rooted vegetation. Dams on shallow lakes often cause deeper water and reduced light penetration to the bottom, inhibiting the growth of rooted plants. Nutrients that are no longer taken up by the rooted plants may be utilized by free-floating algae. If enough of an algae bloom occurs, light penetration is further reduced, additional rooted plants are shaded out and the lake shifts to the turbid-water state. A variety of other factors contribute to this process, including turbidity levels, wave-driven mixing, nutrient loading and runoff patterns. On Buckskin Lake, illegal dams on the outlet stream raised the water level during early to mid-1990s, and rooted plants subsequently declined. Removal

of the dams and recent low water levels due to regional drought conditions have been accompanied by a recovery of Buckskin's plant beds and a shift back to the clear-water state, with large, productive beds of aquatic vegetation. The walleye population has remained strong during these changes, while yellow perch and vegetation-dependent Centrarchids such as largemouth bass and bluegill had declined by mid-1990s and then increased with the increasing vegetation. These observations form a very incomplete picture of the interplay between water levels, nutrient loading, vegetation and fisheries in Buckskin Lake, but suggest that maintaining high water levels with a dam will not improve the fishery and may be detrimental to species such as largemouth bass and bluegill.

Angler creel surveys were conducted in 1991, 1996 and 2006 (reported separately and summarized below). The surveys covered the entire gamefish season during May through early March, excluding the low-effort month of November. Angler effort ranged from about 41 hours per acre in 1991 to only 12 during 1996, compared to a 1990-2005 Oneida County average of 38.8 hours per acre. Walleye harvest increased dramatically in 2006 (Table 1), probably because there is currently no minimum length limit (but only 1 fish may be over 14 inches), while there was a 15-inch minimum in place during 1990 through 1996. Black crappie declined over time, while yellow perch and bluegill increased in the 2006 catch and harvest (Table 2).

Table 1. Angler creel survey, gamefish results from Buckskin Lake, Oneida County Wisconsin during 1991, 1996 and 2006. Creel surveys were conducted during the gamefish open season (early May through early March), excluding the low-effort month of November.

	hours per acre	walleye catch	walleye harvest	muskie catch	muskie harvest	northern pike catch	northern pike harvest	largemouth bass catch	largemouth bass harvest
1991	40.7	5,060	823	369	16	4,253	911	622	90
1996	12.0	2,357	600	60	4	139	19	12	0
2006	35.2	4,539	1,924	180	0	5,721	492	825	20

Table 2. Angler creel survey, panfish results from Buckskin Lake, Oneida County Wisconsin during 1991, 1996 and 2006. Creel surveys were conducted during the gamefish open season (early May through early March), excluding the low-effort month of November.

	hours per acre	crappie catch	crappie harvest	perch catch	perch harvest	bluegill catch	bluegill harvest
1991	40.7	3,958	3,145	6,692	5,518	1,546	1,251
1996	12.0	256	220	676	110	73	19
2006	35.2	127	118	43,501	25,601	6,581	2,816

METHODS

Eight standard fyke nets (3/4" bar measure) were set on April 12, 2006. These nets targeted walleye and northern pike and were fished through April 16. Six standard fyke nets were fished April 21 through April 28, targeting muskellunge. Nine mini-fyke nets (3/16" bar mesh with 1" bar mesh exclusion netting across the mouth) were fished one night on August 28-29, targeting juvenile and non-game fish. Two WDNR-standard alternating current electrofishing boats were used to collect fish on April 17, and September 19, 2006. Recapture netting for muskellunge is planned for spring, 2007. Length or length category (nearest half-inch) was recorded for all gamefish. Adult gamefish were given a left-ventral fin clip and juveniles were given a top-tail clip for use in mark-recapture population estimates. Age structures (scales or spines) were removed from ten gamefish per species, per half-inch group.

RESULTS AND DISCUSSION

Walleye

During walleye netting, 2,377 walleye were captured in 4 nights, including 235 recaptures and 137 juvenile fish (walleye of unknown sex shorter than 15 inches), at a rate of 74.3 walleye per net night (Table 3). The electrofishing sample on April 17 yielded 637 walleye (67.8 fish per mile), including 180 juveniles. The mark-recapture population estimate of 3,964 adult walleye (± 175 SD), or 6.3 per acre, is well above the predicted value of 3.4 for a lake supported by natural reproduction (Figure 1).

Walleye showed poor size structure. Only 6.7% of adult walleye were 15 inches or larger, while 3.7% were at least 20 inches (Figure 2). The truncated size structure (Figure 2) is likely a combination of high angler harvest removing the relatively larger fish and compensatory strong recent recruitment swamping the adult numbers with small recruits. Anglers released 59% of their walleye catch (Table 1). Nevertheless, average size of walleye harvested by anglers during summer, 2006 was 11.6 inches, compared to a 12.4-inch average adult size during spring netting and shocking. This length discrepancy may be due to high angler catch of small, immature fish that are not included in the adult population estimate. Angler exploitation can be estimated from the creel survey using the harvest of walleye bearing the adult fin clip; exploitation was an estimated 13.7% during May through October of 2006. Length-at-age was generally low for females but not for 4 to 5-year-old males, which contributed the bulk of the male numbers (Figures 3 and 4; Appendix A). Many female walleye were mature by age 4, a year earlier than in most regional lakes, and small female length-at-age (Figure 3; Appendix A) may reflect energy being diverted to producing eggs instead of growing.

Prior to 1990 there was no minimum length limit on walleye, while during 1990 through 1996 there was a 15-inch minimum length limit. The current walleye regulation (no minimum length limit but only one walleye may be larger than 14 inches, or "1-over-14") has been in effect since 1997. This 1-over-14 regulation is best suited for lakes with high recruitment and below-average growth rates, with the intent that high harvest of over-abundant smaller fish will improve growth. An experimentally sustained 35% exploitation rate on Big Crooked Lake in Vilas County has dramatically increased recruitment and growth rates (Steve Newman, Wisconsin DNR, personal communication). However, under the 15-inch minimum in 1991 and 1996 Buckskin walleyes had average growth rates, while growth is slow under the current 1-over-14 regulation. It may be that other factors including early maturation of females and competition with abundant yellow perch are affecting walleye growth rates.

Walleye recruitment has been strong since 1991 (Figure 5). A walleye population can be sustained by one good yearclass every 3 to 4 years. A benchmark for recruitment is the modal catch of yoy walleye in lakes with good natural reproduction, about 16 per mile. Age-1 walleyes from a strong yearclass do not always show up in fall surveys, perhaps because they switch to off-shore habitat. When they do show up, a catch of 5 to 10 age-1 walleye per mile seems to indicate a strong yearclass. On Buckskin, some years with moderate or poor numbers of yoy walleye (i.e., 1993, 2002 and 2003) were followed by very strong numbers of age-1 walleye, suggesting strong yearclasses that didn't show up as yoy fish (Figure 5).

Figure 1. Adult walleye population estimates in Buckskin Lake, Oneida County Wisconsin. The population predicted by a regression model of naturally reproducing walleye populations in northern Wisconsin and the lower 95% prediction interval are shown for comparison.

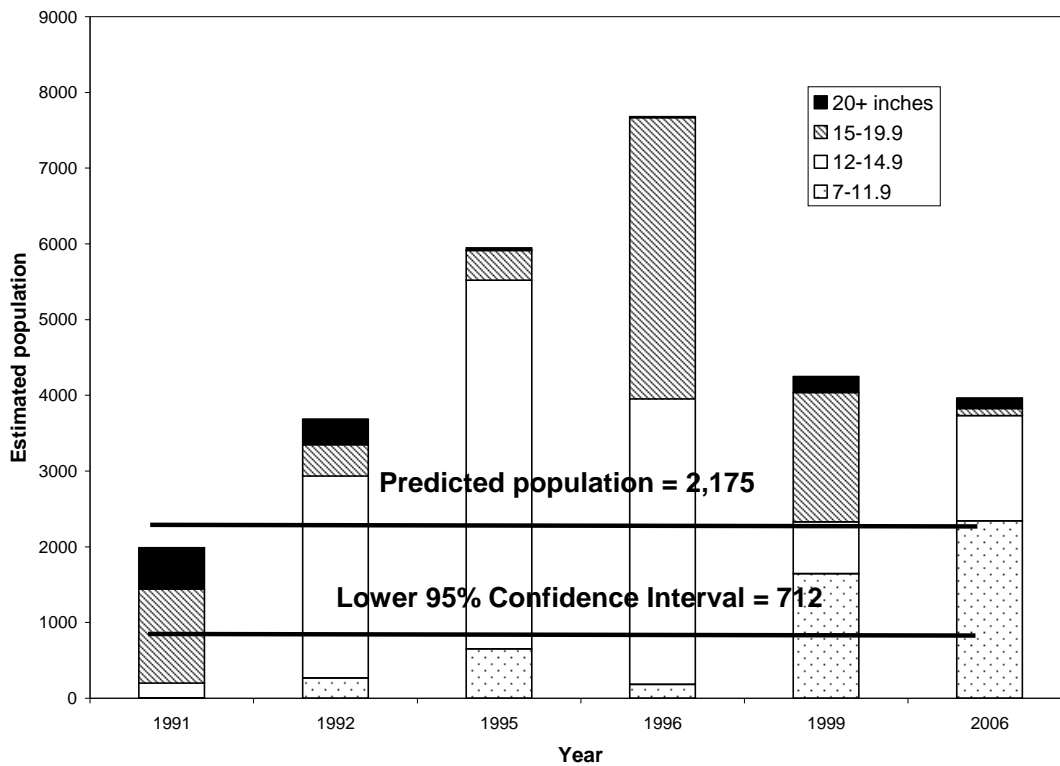


Figure 2. Length-frequency of adult walleye during 2006 in Buckskin Lake, Oneida County WI.

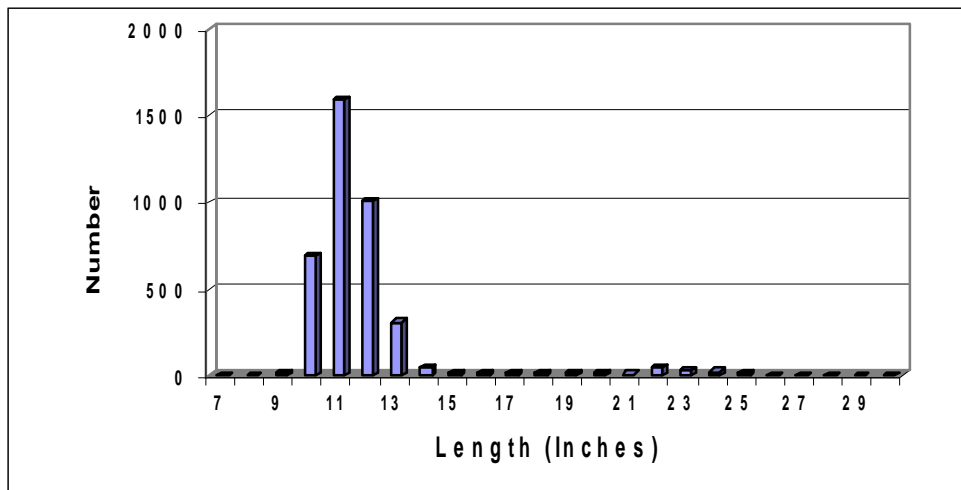


Figure 3. Female walleye length-at-age during 1991, 1996 and 2006 in Buckskin Lake, Oneida County WI.

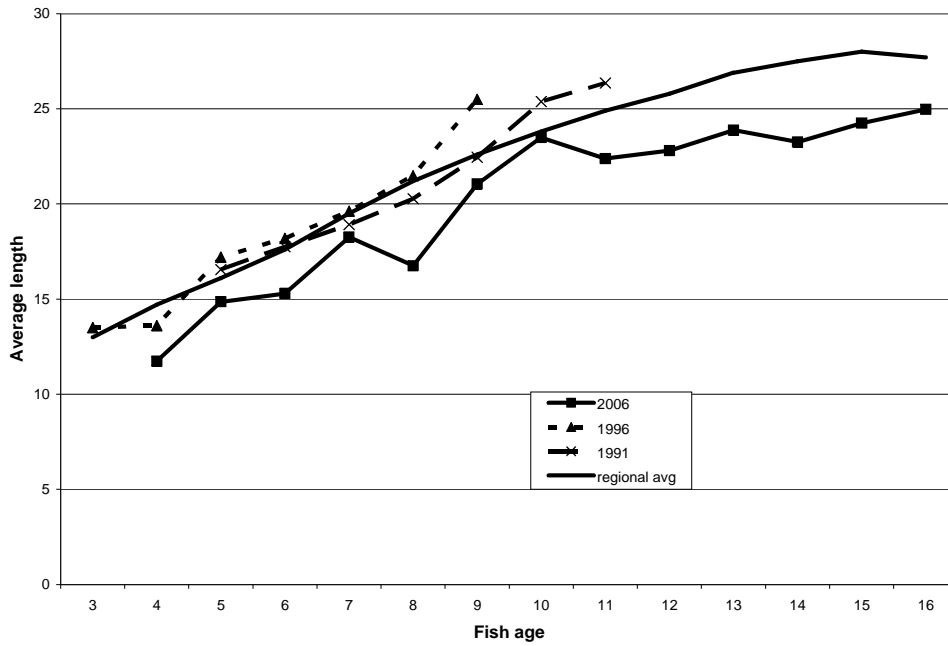


Figure 4. Male walleye length-at-age during 1991, 1996 and 2006 in Buckskin Lake, Oneida County WI.

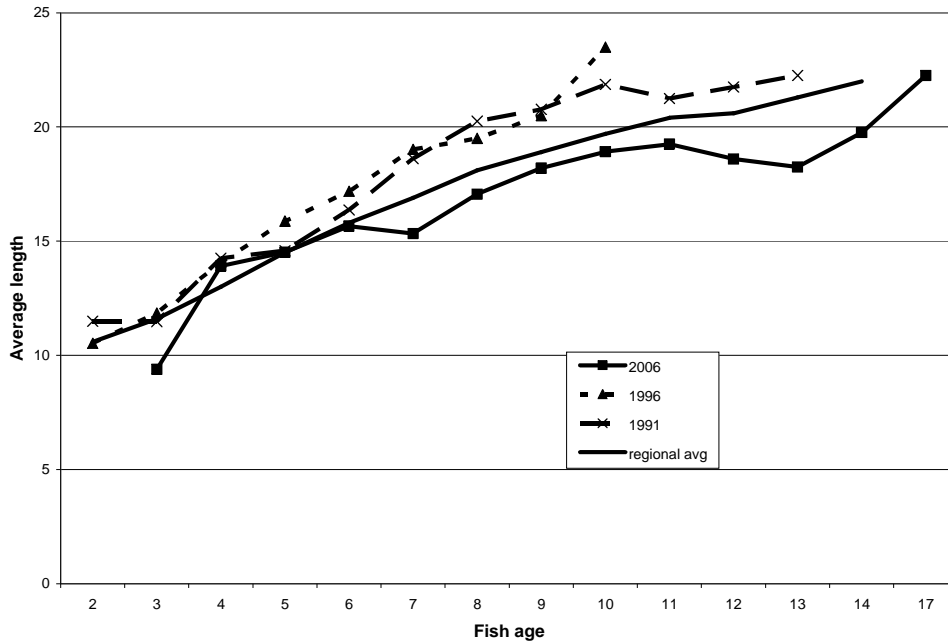


Figure 5. Walleye young-of-year (yoy) surveys in Buckskin Lake, Oneida County Wisconsin. The solid line at about 16 per mile is the modal number of yoy walleye observed in northern Wisconsin lakes supported by natural reproduction.

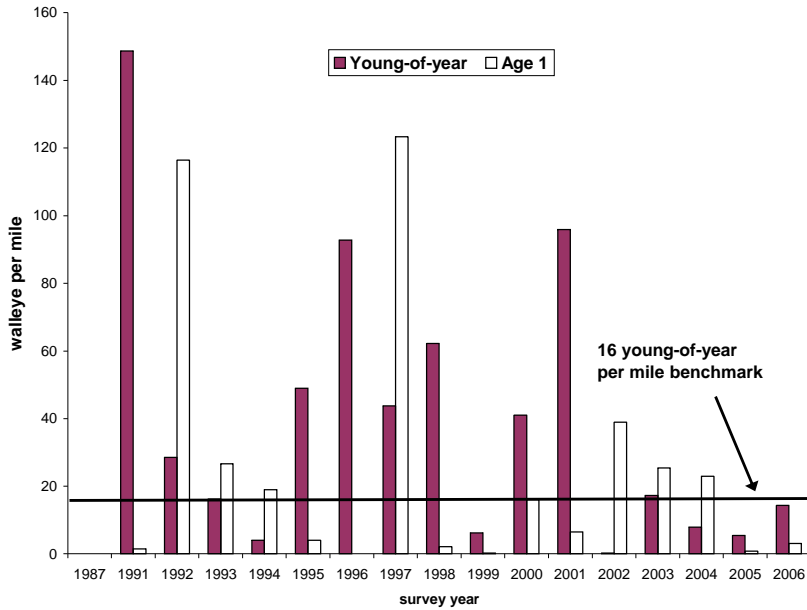


Table 3. Fish catch per unit effort during a 2006 survey of Buckskin Lake, Oneida County Wisconsin. Netting catch rates are reported as number of fish per net night, while electrofishing catch rates are number of fish per mile of shoreline. Only gamefish data were collected during April shocking and non-game data were only collected from two 0.5-mile index stations on October 11.

species	walleye netting	April 17 shocking	muskie netting	Aug 29 mini-fyke	Sept 19 shocking
walleye	74.3	67.8	4.5	0	30.7
largemouth bass	0.5	2.2	2.2	2.0	4.5
muskellunge	0.7	0.5	0.9	0	0
northern pike	1.1	1.4	2.7	0	4.5
black crappie	0.6		1.2	0	0
bluegill	1.9		2.6	172.0	5.0
bluntnose minnow	0		0	32.7	2.0
golden shiner	0		0	0	1.0
johnny darter	0		0	0.11	0
pumpkinseed	2.3		5.9	88.8	7.0
rock bass	19.8		8.0	7.6	0
silver redhorse	0		0	0	1.0
white sucker	1.2		1.0	0	7.0
yellow perch	850.5		24.7	8.0	35.0

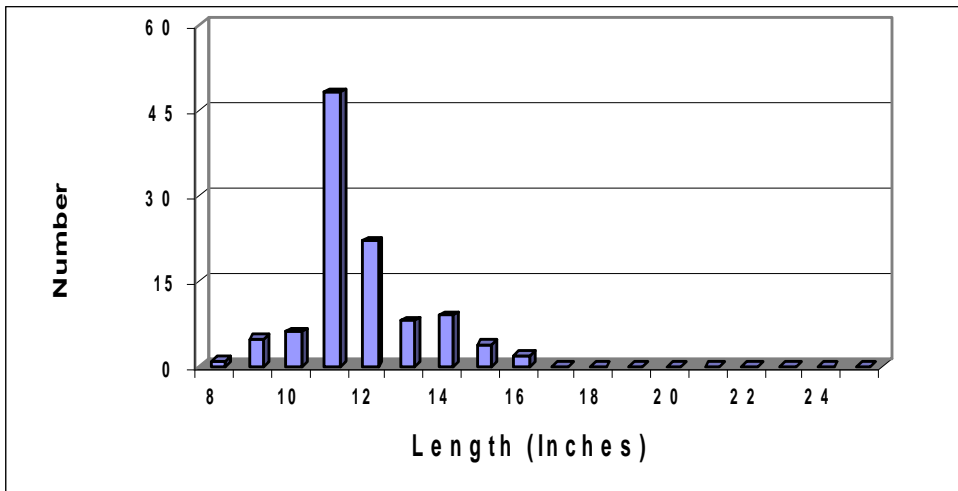
Table 4. Fish-stocking record during 1980 through 2006 in Buckskin Lake, Oneida County WI.

Year	Species	Size	Number	Comments
1980	largemouth	small fingerling (2.0 inch)	10,035	
1980	walleye	small fingerling (2 inch)	31,200	
1980	muskellunge	large fingerling (8 inch)	1,400	
1981	largemouth	small fingerling (1.0 inch)	15,000	
1981	walleye	small fingerling (3.0 inch)	20,710	
1981	muskellunge	large fingerling (10 inch)	670	
1982	muskellunge	large fingerling (11 inch)	300	
1983	muskellunge	large fingerling (8 inch)	1200	
1984	walleye	small fingerling (4.0 inch)	14,412	
1984	muskellunge	large fingerling (12.0 inch)	639	
1985	walleye	small fingerling (2.0 inch)	30,600	
1985	muskellunge	large fingerling (8 inch)	1,260	
1986	muskellunge	large fingerling (8 inch)	1,200	
1987	walleye	small fingerling (2.0 inch)	30,000	
1988	muskellunge	large fingerling (11 inch)	1,200	
1989	walleye	small fingerling (2 inch)	30,090	
1990	muskellunge	large fingerling (11 inch)	1,200	
1991	walleye	small fingerling (2.9 inch)	15,120	
1992	walleye	small fingerling (2.0 inch)	16,252	
1993	muskellunge	large fingerling (9.9 inch)	1,260	
1994	walleye	small fingerling (1.7-2.4")	31,583	
1995	muskellunge	large fingerling (11.7 inch)	1,260	
1996	walleye	small fingerling (1.8 inch)	31,860	
1996	muskellunge	fry (0.5 inch)	100,000	
1997	muskellunge	large fingerling	630	
1999	walleye	fry	1,200,000	Lac du Flambeau hatchery
1999	muskellunge	large fingerling (11.4 inch)	630	
2000	walleye	small fingerling (4.0 inch)	1,513	Lac du Flambeau hatchery
2001	walleye	fry	250,000	Lac du Flambeau hatchery
2001	walleye	small fingerling	24,062	Lac du Flambeau hatchery
2001	muskellunge	large fingerling (10.2 inch)	317	
2001	bluegill	adult (5.0 inch)	28,071	Field transfer from Burrows L.
2002	bluegill	adult (5.5 inch)	11,489	Field transfer from Burrows L.
2003	muskellunge	large fingerling (10.5 inch)	317	
2005	walleye	small fingerling	17,250	Lac du Flambeau hatchery
2005	muskellunge	large fingerling (10.6 inch)	317	

Largemouth Bass

One hundred and thirty-two largemouth bass were captured during spring sampling, including 11 recaptures of previously-marked fish and 29 juvenile fish less than 8 inches in length. Another 20 juvenile largemouth were captured in August mini-fyke nets and 18 bass were captured during the fall electroshocking survey. Largemouth bass size structure was dominated by abundant 4 and 5-year-old fish, 11 to 12.5 inches in length (Figure 6). The longest bass was 16.7 inches and 12.9% were 14 inches and larger. Largemouth bass growth rates were about average for northern Wisconsin (Appendix A). No smallmouth bass were captured during the survey.

Figure 6. Length-frequency of largemouth bass during 2006 in Buckskin Lake, Oneida County Wisconsin.

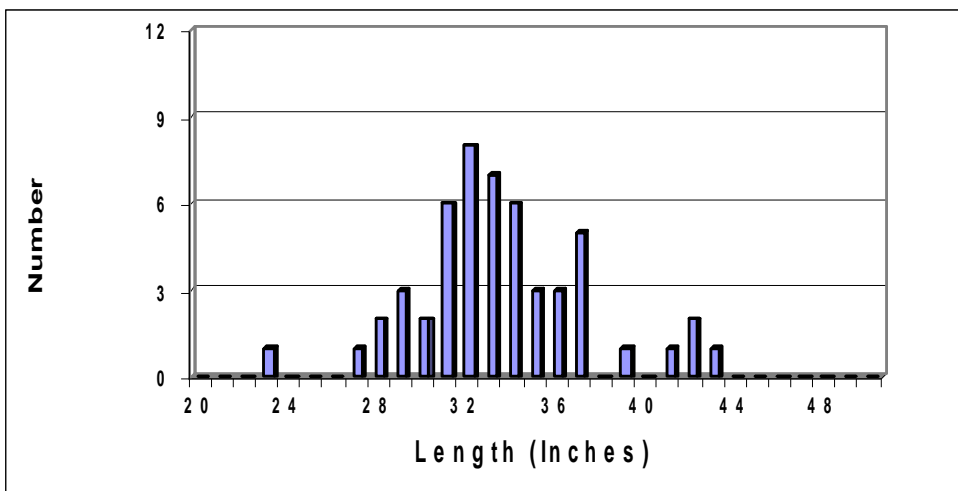


Muskellunge

Sixty-one muskellunge were captured during spring netting and shocking, including 9 recaptures and 8 juvenile fish. The largest fish captured were two 42.3 inch females aged at 12 and 14 years (Figure 7). Muskellunge do not shock well, and they appear to avoid nets for a short time after capture. For these reasons, the netting recapture-portion of the mark-recapture population estimate is planned for spring, 2007.

Buckskin has had a 40-inch minimum length limit for muskellunge since 2002, but too little time has passed to evaluate it. Although muskellunge are capable of living for well over 20 years, the aged sample contained only 7 fish age 10 and older (Appendix A). In this sample, growth was normal for males up to age 8, but length-at-age for females and older males was below average and may impact the number of fish over 40 inches.

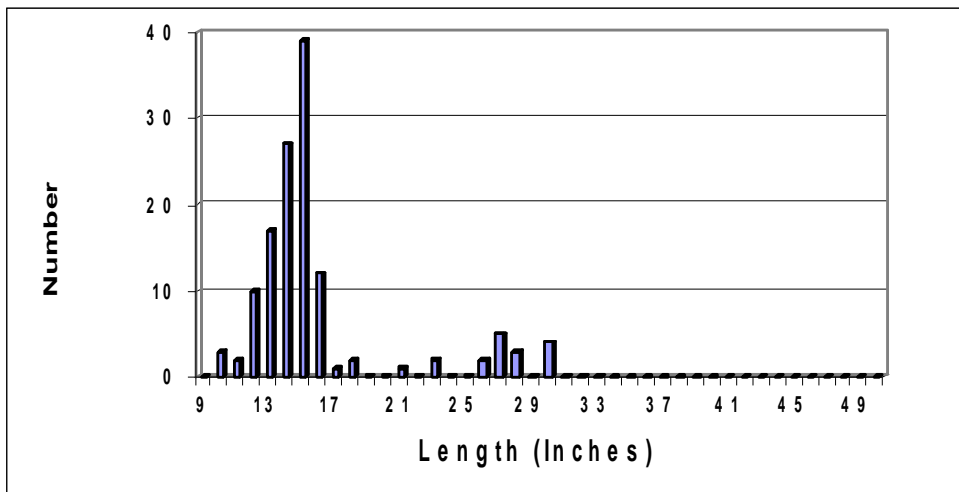
Figure 7. Length-frequency of adult muskellunge during 2006 in Buckskin Lake, Oneida County Wisconsin.



Northern Pike

One hundred sixty-four northern pike were captured during spring netting and shocking (including 1 juvenile and 5 recaptures). Another 18 northern pike were captured during fall shocking. The northern pike population (including sexually mature fish and all fish over 12 inches) was estimated at 2,035 (± 910 SD), or 3.2 per acre, using the Schnabel multiple-capture method (Ricker 1975). This is considered moderate density for a northern pike population. Pike lengths-at-age were well behind the regional average, but the few older pike appeared to be growing well (Appendix A). Average size of adult northern pike was 16.9 inches. The largest northern pike was a 34.8 inch female aged at 11 years and 15.2% of adult pike were 26 inches or larger (Figure 8).

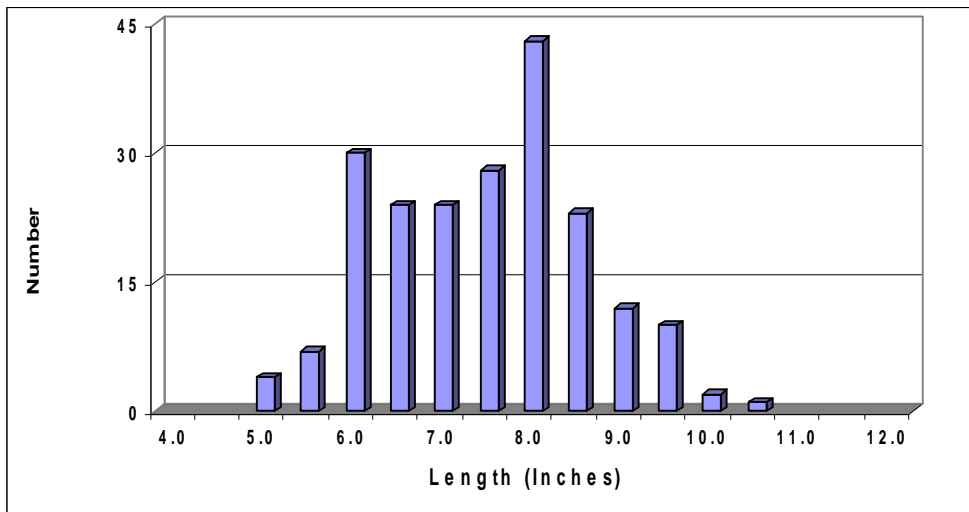
Figure 8. Length-frequency of adult northern pike during 2006 in Buckskin Lake, Oneida County Wisconsin.



Panfish

Buckskin is relatively shallow with moderate fertility and abundant aquatic vegetation, resulting in high panfish abundance. A targeted panfish survey was not performed, and netting during the cold early spring period typically yields high catches of yellow perch and crappie but few bluegill or pumpkinseed. Yellow perch and rock bass dominated the panfish catch, along with low numbers of bluegill, pumpkinseed and black crappie, but large numbers of juvenile bluegill and pumpkinseed were found in the fine-mesh mini-fyke nets (Table 3). A measured sample of 208 yellow perch found abundant 6 to 9 inch fish with a mean length of 7.4 inches (Figure 9).

Figure 9. Length-frequency of yellow perch during 2006 in Buckskin Lake, Oneida County Wisconsin.



MANAGEMENT RECOMMENDATIONS

Buckskin Lake supports a diverse fishery. Walleye were the dominant gamefish, along with moderate populations of largemouth bass, northern pike and muskellunge. Size structure of walleye was poor, likely reflecting very high angler harvest and strong recruitment in recent years. Muskellunge size was centered around 34 inches, with low numbers of fish over 37 inches. Few bass exceeded 15 inches. Although average size of northern pike was only 16.9 inches and small pike lagged behind regional growth rates, the 15% of pike larger than 26 inches were growing well. Yellow perch were the dominant panfish, followed by rock bass. Lower numbers of bluegill, pumpkinseed and black crappie were also present. Forage and non-game species included white sucker, silver redhorse, bluntnose minnow, golden shiner and johnny darter. Stocking of large fingerlings helps maintain the muskellunge population, while other species are reproducing naturally. Buckskin is best managed for walleye, muskellunge, and panfish, with largemouth bass and northern pike providing a secondary fishery.

ACKNOWLEDGEMENTS

Mike Coshun supervised the field work for this survey with assistance from Jason Halverson, Wesley Jahns, Marty Kiepkke, Steve Kramer, Steve Timler, Tim Tobias, Joelle Underwood and me. Steve Kramer assigned ages from fish scales and entered and summarized data. Creel survey results provided by Tim Tobias. Mike Coshun calculated the walleye population estimate.

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Cover image courtesy of TerraServer-USA website and the United States Geological Survey.
<http://terraserver-usa.com>

APPENDIX A FISH AGE RESULTS

The walleye and largemouth bass aged sub-samples were applied against the full length-frequency to eliminate bias from a non-random subsample.

Table A.1. Female walleye length-at-age in Buckskin Lake, Oneida County Wisconsin during 2006, 1996 and 1991.

Age	Northern WI avg	2006		1996		1991	
		Number of fish	Buckskin avg length	Number of fish	Buckskin avg length	Number of fish	Buckskin avg length
3				1	13.5		
4	14.7	15	11.7	11	13.6		
5	16.1	23	14.9	23	17.2	3	16.5
6	17.6	6	15.3	8	18.2	2	17.7
7	19.5	1	18.3	10	19.6	22	18.9
8	21.2	1	16.7	2	21.5	11	20.3
9	22.6	2	21.1	2	25.5	7	22.5
10	23.8	9	23.5			32	25.4
11	24.9	15	22.4			12	26.3
12	25.8	10	22.8				
13	26.9	5	23.9				
14	27.5	1	23.3				
15	28.0	1	24.3				
16	27.7	2	25.0				

Table A.2. Male walleye length-at-age in Buckskin Lake, Oneida County Wisconsin during 2006, 1996 and 1991.

Age	Northern WI avg	2006		1996		1991	
		Number of fish	Buckskin avg length	Number of fish	Buckskin avg length	Number of fish	Buckskin avg length
2	10.6			6	10.5	2	11.5
3	11.6	18	9.4	22	11.8	3	11.5
4	13.0	15	13.9	6	14.1	16	14.2
5	14.5	12	14.5	9	15.9	12	14.6
6	15.8	7	15.7	17	17.2	13	16.4
7	16.9	3	15.3	9	19.0	12	18.6
8	18.1	7	17.1	1	19.5	13	20.3
9	18.9	6	18.2	2	20.5	11	20.8
10	19.7	12	18.9	1	23.5	7	21.9
11	20.4	5	19.3			1	21.3
12	20.6	3	18.6			1	21.7
13	21.3	1	18.3			1	22.3
14	22.0	1	19.7				
17		1	22.3				

Table A.3. Largemouth bass length-at-age in Buckskin Lake, Oneida County Wisconsin during 2006.

Age	Number of fish	Buckskin avg length	Northern WI avg
2	4	6.2	6.6
3	2	9.6	8.9
4	20	11.4	10.5
5	16	11.9	12.1
6	10	13.1	13.6
7	7	14.7	14.9
8	4	15.8	15.8
9	2	16.0	16.2

Table A.4. Female muskellunge length-at-age in Buckskin Lake, Oneida County Wisconsin during 2006.

Age	Number of fish	Buckskin avg length	Northern WI avg
6	4	33.4	33.7
7	8	33.7	35.8
8	2	37.2	38.1
9	3	37.2	39.5
10			41.0
11	1	41	43.2
12	1	42.3	43.7
13			44.3
14	1	42.3	47.5

Table A.6. Female northern pike length-at-age in Buckskin Lake, Oneida County Wisconsin during 2006.

Age	Number of fish	Buckskin avg length	Northern WI avg
3	10	14.6	16.9
4	2	14.3	20.4
5	1	21.1	23.1
6			24.4
7	1	23.6	27.3
8			28.8
9	1	30.2	32.1
10			33.8
11	1	34.8	

Table A.5. Male muskellunge length-at-age in Buckskin Lake, Oneida County Wisconsin during 2006.

Age	Number of fish	Buckskin avg length	Northern WI avg
4	4	28.6	27.3
5	9	30.9	29.2
6	3	33.3	31.5
7	4	33.1	33.3
8	2	35.3	34.4
9	2	33.6	35.8
10	1	34.7	37.3
11	1	36.0	37.9
12	2	37.0	39.0

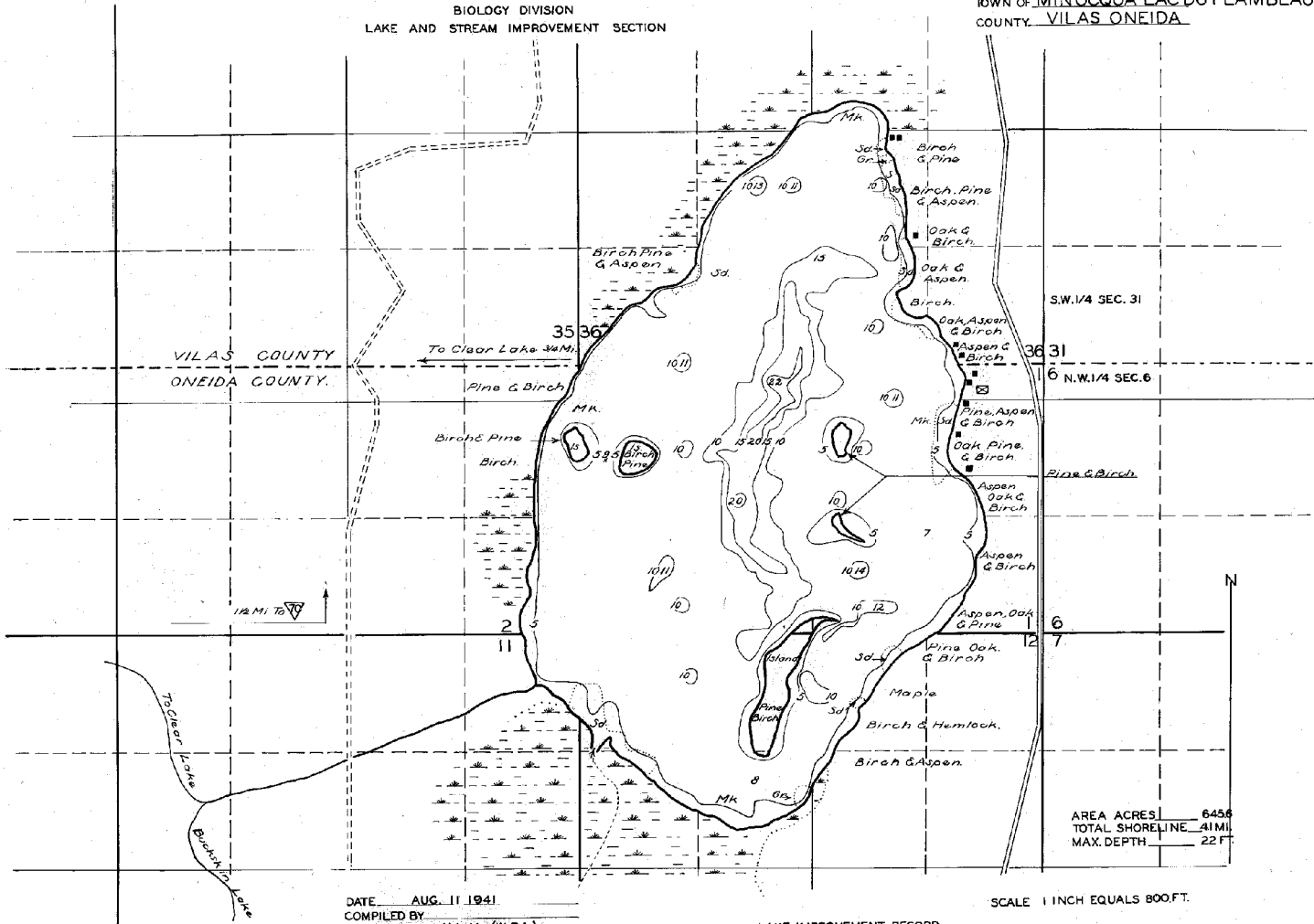
Table A.7. Male northern pike length-at-age in Buckskin Lake, Oneida County Wisconsin during 2006.

Age	Number of fish	Buckskin avg length	Northern WI avg
2	8	11.5	13.4
3	1	15.3	16.2
4	1	15.3	18.9
5	2	15.1	20.6
6	1	18.9	22.3
7			23.4
8	1	26.5	24.8
9	6	27.5	23.9
10	2	27.9	21.5

LAKE SURVEY MAP

LAKE BUCKSKIN FORM F1117
 SECTION 12 11 12 36
 TOWNSHIP 39 40 N
 RANGE 4 E
 TOWN OF MINOCQUA-LAC DU FLAMBEAU
 COUNTY VILAS ONEIDA

WISCONSIN CONSERVATION DEPARTMENT
 BIOLOGY DIVISION
 LAKE AND STREAM IMPROVEMENT SECTION



AREA ACRES 6456
 TOTAL SHORELINE 41 MI
 MAX. DEPTH 22 FT

DATE AUG. 11 1941
 COMPILED BY _____
 TRACED BY N.L.M. (W.P.A.)
 SOURCE OF INFORMATION _____
CAMP BLUE LAKE 575 C.C.C.
LAKE SURVEY PROJECT FEB-1941
 SOUNDINGS AT 200 FT. INTERVALS

 DATES OF MAP REVISION _____

 WORK AGENCY C.C.C.

SCALE 1 INCH EQUALS 800 FT.

LAKE IMPROVEMENT RECORD		LEGEND	
TYPE	DATE	Symbol	Description
BRUSH REFUGES	_____	(Symbol)	WEED BEDS
SAPLING TANGLES	_____	(Symbol)	ROCKY SHOALS
SPAWNING BOXES	_____	(Symbol)	SD. SAND
MINNOW SPAWNERS	_____	(Symbol)	CL. CLAY
TOTAL	_____	(Symbol)	GR. GRAVEL
		(Symbol)	MK. MUCK
		(Symbol)	DWELLING
		(Symbol)	ABANDONED DWELLING
		(Symbol)	RESORT
		(Symbol)	FARM