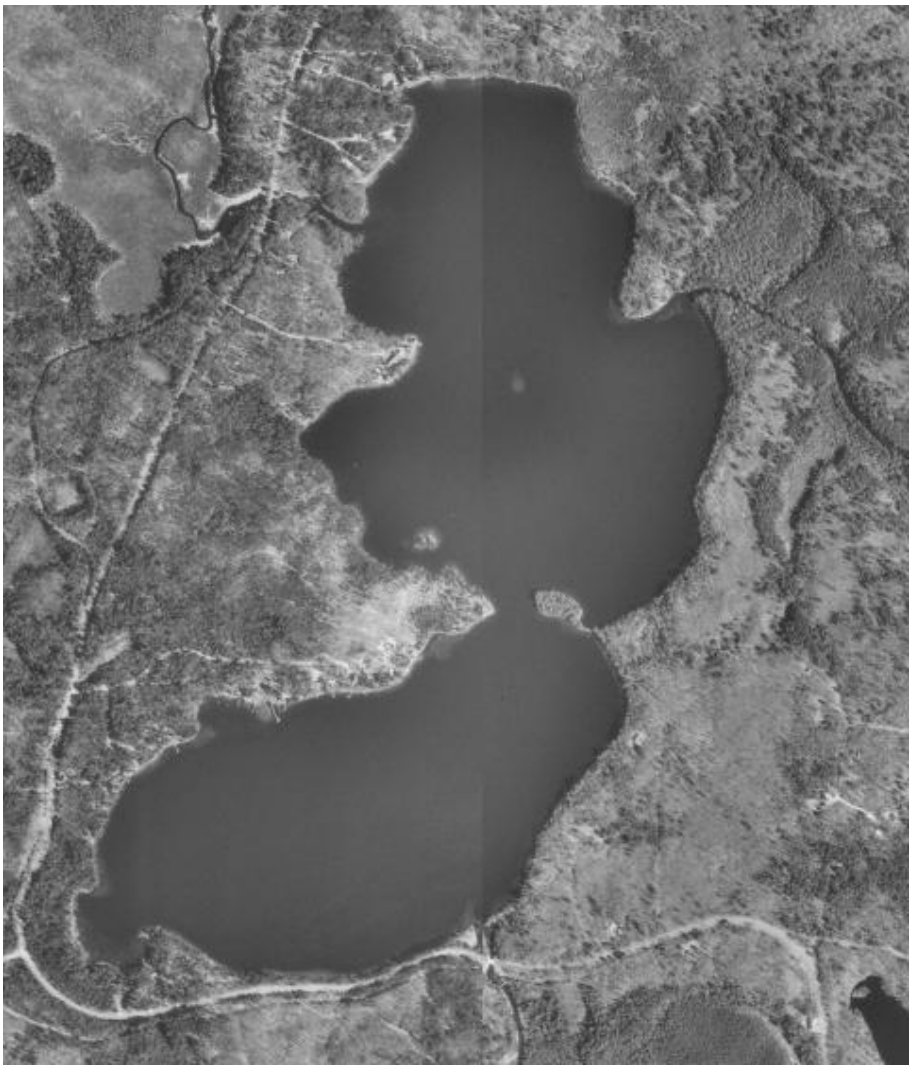
Comprehensive Fisheries Survey of Gilmore Lake, Oneida County Wisconsin during 2009.

Waterbody Identification Code 1588900



John Kubisiak
Senior Fisheries Biologist
Rhinelander
December, 2009

WISCONSIN
DEPT. OF NATURAL RESOURCES

SPORT FISH RESTORATION

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

Comprehensive Fisheries Survey of Gilmore Lake, Oneida County Wisconsin during 2009.

John Kubisiak
Senior Fisheries Biologist
December, 2009

EXECUTIVE SUMMARY

A comprehensive fisheries survey was conducted in Gilmore Lake during spring and fall, 2009. Northern pike (population estimate, PE = 4.8 adults per acre), largemouth bass (PE = 6.3 adults per acre) and muskellunge were the dominant gamefish, along with moderate numbers of walleye (PE = 1.6 adults per acre) and low numbers of smallmouth bass. All game species showed good size and appeared to be in excellent condition. Panfish species were also abundant, with low to moderate size and growth rates. We found high catches of bluegill, black crappie, pumpkinseed, bluegill x pumpkinseed hybrids and yellow perch, along with lower numbers of black bullhead, rock bass and yellow bullhead. Non-game species in the catch include common shiner, golden shiner, shorthead redhorse, silver redhorse and white sucker. I recommend managing Gilmore Lake for northern pike, largemouth bass, muskellunge, walleye and panfish. Muskellunge stocking has produced a solid population with good size potential. Stocked walleye are at moderate abundance and appear to be providing an additional opportunity. Other species are self-sustaining.

Lake and location:
Gilmore Lake, north-central Oneida County, T39N R07E Sec24. Gilmore Lake is in the town of Newbold, about 3 miles northeast of the Village of Lake Tomahawk. Gilmore is part of the Upper Wisconsin River watershed. It is fed by two inlets, including Sweeney Creek and an unnamed tributary from Dog Lake. A dam maintaining one foot of head and owned by Wisconsin Valley Improvement Company (WVIC) regulates the Gilmore Creek outlet, which drains to Wisconsin River just downstream of Rainbow Flowage.

Physical/Chemical attributes (Andrews and Threinen 1966):
Morphometry: 320 acres (1962 lake map) with maximum depth of 24 feet.
Watershed: 88 square miles, including 24 acres of adjoining wetlands.
Lake type: Drainage with a low-head dam at the outlet.
Basic water chemistry: Soft – alkalinity 36 mg/l, conductance 59 μmhos.
Water clarity: Clear water of low transparency.
Littoral substrate: 70% sand, 15% gravel and 15% muck.
Aquatic vegetation: abundant
Winterkill: none reported.
Boat landing: One concrete plank ramp with parking for 7 vehicles with trailers.
Other features: Shoreline 75% upland with wetland adjoining portions of the lake.

Purpose of Survey: Assess status of game and panfish species, assess walleye and muskellunge stocking success and develop management recommendations.
Dates of fieldwork: Gamefish netting, April 19-25 2009. Panfish netting, June 1-5 2009. Electroshocking (entire shoreline) April 27, May 14, May 28, June 2 and September 8, 2009.

BACKGROUND

A netting survey was conducted during October 3-6, 1949 (Burdick 1950). Fifteen net lifts captured 2.3 walleye, 1.7 largemouth bass, 0.27 northern pike, 0.07 muskellunge, 8.5 bluegill, 9.5 "sunfish" (likely pumpkinseed), 8.6 perch, 0.4 rock bass, 2.3 crappie, 0.6 bullheads, 0.2 suckers and 0.13 redhorse per net night. Common shiners were also noted. Growth rates of walleye, largemouth bass, bluegill, crappies, perch and sunfish were considered normal for the area.

A netting, shocking and seining survey was conducted during 1975-76 (Carlson 1977). Electroshocking surveys on June 16 and October 30 1975, and May 10 1976 resulted in 35.8 walleye, 2.8 muskellunge, 6.6 northern pike, 0.2 largemouth bass and 1.7 smallmouth bass per hour. Seventy-six net lifts during May 6-8 and 28-30, 1975 and April 19-21, 1976 captured 4.3 walleye, 3.4 northern pike, 0.7 muskellunge, 0.1 smallmouth bass and 0.2 largemouth bass per net-night. Panfish catch per net-night included, 0.5 black bullhead, 4.0 black crappie, 4.1 bluegill, 5.8 pumpkinseed, 7.3 rock bass, 1.2 yellow bullhead and 40.6 yellow perch. Non-game species include burbot, white sucker, silver redhorse, shorthead redhorse, mottled sculpin, creek chub, golden shiner, common shiner, bluntnose minnow, northern redbelly dace, mudminnow and hornyhead chub. Additional species captured in the minnow seine include log perch, fathead minnow and blackchin shiner. Johnny darter are described as "common" in a species list, but do not show up in the catch tables, and one troutperch is also noted as "found dead". Gamefish were considered "quite abundant" and were growing about average. Panfish were growing above average, except yellow perch, which were growing slowly. Natural reproduction was considered adequate for all species except muskellunge. Some natural reproduction of muskellunge was noted, and fin clipping was recommended for future stocked muskellunge. Aquatic vegetation was described as "abundant and diverse."

The 1975-76 survey report (Carlson 1977) suggests that walleye were reproducing adequately, despite no stocking since 1968. The stocking file contains a July 5, 1983 letter to the editor of The Lakeland Times, complaining of poor walleye fishing in Gilmore Lake. Walleye stocking was resumed in 1984 and continued regularly to present.

On October 24, 1989, 9,800 4-inch walleye bearing a left-ventral (LV) fin clip were stocked. A May 29, 1990 electroshocking survey captured four 3.6 – 4.0 inch walleye bearing the LV clip, along with four 10.5 – 11.2 inch unmarked fish. During a 1994 population estimate, 43 of the LV-clipped fish were captured, averaging 15.5 inches in length. Their population was estimated at 76 fish, and corresponds to 21% of the adult walleye population estimate of 355 ($\pm$ 101 SD).

In 1994, 3,520 7.3-inch walleye bearing a right-ventral (RV) fin clip were stocked. Electroshocking surveys on May 23, May 29 and June 6, 1996 captured 71 RV-marked fish (8.0 to 12.9 inches in length) and 54 unmarked walleye (4.5 to 6.4 inches in length, likely from an unmarked 1995 stocking). Bottom caudal (BC) clips were given to the fish, and 5 BC-RV recaptures were among the 71 RV fish collected on June 6. This results in a mark-recapture population estimate of 142 RV-clipped walleye ($\pm$ 33 SD). The data sheets only listed fish up to 14.9 inches, but four adult walleye were included in the margin on May 23, 15.7 to 20.0 inches in length.

Fall young-of-year (yoy) electroshocking surveys were conducted by DNR in 1975-77, 94, 2001 and 03 and by GLIFWC in 1989 and 92. Two spring and one fall survey in 1975 and 76 averaged 9.7 yoy per mile of shoreline. Two fall, 1977 surveys averaged 22.0 yoy per mile and resulted in a mark-recapture population estimate of 958 ($\pm$ 574 SD) yoy walleye. Five subsequent fall surveys

from 1989 to 2003 captured fewer than 1 yoy walleye per mile. Except for an age-1 walleye in 2003, these few fish originated from stocked years.

In 2005, 15,050 1.5 inch walleye marked with Oxytetracycline (OTC) were stocked as part of an evaluation of size at stocking (Kampa and Hatzenbeler 2009). Electrofishing surveys on May 9 and 22, 2006 captured 17 and 32 age-1 walleye (6.9 to 8.9 inches). The fish were marked with a top caudal (TC) fin clip. Only two of the May 22 fish had a TC clip from May 9, so the population was not estimated. However, despite being stocked as small fingerlings, the catch rate of 11.1 per mile of shoreline is similar to the study's mean catch for large fingerling stockings (11.2 per mile) rather than small fingerlings (2.8 per mile). Only 49% of 35 fish examined bore the OTC mark of stocked fish, suggesting a contribution from natural reproduction. Another 3 walleye (9.1 – 9.4 inches) were scale-aged at 2 years, from a non-stocked 2004 yearclass.

An angler creel survey was performed during May 1 1994 through March 1 1995. Estimated angler effort of 16,231 hours, or 53.9 hours per acre, is 45% above the Oneida County average of 37.2. An estimated 45 walleye, 221 largemouth bass, 98 smallmouth bass, 101 muskellunge and 2,174 northern pike were captured. Panfish catch was led by bluegill (17,558), yellow perch (4,608) and black crappie (3,021).

METHODS

The ice was mostly out when 8 standard fyke nets (¾-inch mesh, bar measure) were set on April 19, 2009. These nets targeted walleye, northern pike and muskellunge. The nets were pulled on April 25. Effort totaled 48 net-nights.

A WDNR-standard alternating current electrofishing boat was used to collect gamefish on April 27, May 14, May 19, May 28 and September 8, 2009**.** Six standard ¾-inch fyke nets (except one ½-inch mesh was set to target smaller fish) were fished June 1-5, 2009 (24 net-nights), targeting panfish. Length or length category (nearest half-inch) was recorded for all gamefish and for panfish in June. Adult gamefish captured in spring were given a right-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 fish per species, per half-inch group.

RESULTS AND DISCUSSION

Walleye

During walleye netting, 153 walleye were captured in 6 nights, including 20 recaptures and 3 juvenile fish (walleye of unknown sex shorter than 15 inches), at a rate of 3.2 walleye per net night (Table 1). The electrofishing sample on April 27 yielded 49 walleye (10.4 fish per mile), including 3 juveniles. The mark-recapture population estimate of 500 adult walleye ($\pm$ 167 SD), or 1.6 per acre, is right at the predicted value for a 320-acre lake supported by stocking. Walleye showed good size with a moderate amount of recent recruitment (Figure 1). Growth rates were very fast, with length-at-age about two years ahead of the regional averages (Appendix A).

Fall surveys during 1975-77 found naturally-reproduced walleye. Six of seven young-of-year surveys between 1989 and 2009 found less than one walleye per mile, despite small fingerling stocking in all survey years except 1994. The notable exception was 2006, with 11.1 per mile. Although 15,050 OTC-marked small-fingerling walleye were stocked in 2005, only 49% of walleye captured in spring of 2006 bore the mark, while another three age-1 walleye were from a natural

2004 yearclass. Five age-15 and ten age-10 (fin-clipped stocked as large fingerlings) made up almost 10% of our spring, 2009 walleye catch. This demonstrates good contribution by large fingerling stocking. Natural reproduction and stocking of small fingerlings have shown sporadic success in Gilmore, but they have contributed most of the current population. The three large fingerling stockings made good contributions that persisted through time. Large fingerlings are the most reliable product to stock, but small fingerlings may be adequate to support a fishery.

Table 1. Fish catch per unit effort during a 2009 survey of Gilmore Lake, Oneida County WI. 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 shocking runs.

species	spring netting	April 27 shocking	May 14 shocking	May 19 shocking	May 28 shocking	panfish netting
walleye	3.2	10.4	1.3	1.3	1.9	0.13
largemouth bass	1.8	10.6	21.5	11.5	17.9	2.2
muskellunge	0.96	1.9	1.5	0.43	0.43	0.17
northern pike	3.5	13.2	6.8	1.7	4.0	1.0
smallmouth bass	0.08	0.21	2.8	2.5	1.5	0
black bullhead	0.02					0
black crappie	98.3					7.6
bluegill	122.9					185.5
hybrid bluegill x pumpkinseed	4.6					22.7
common shiner	0.02					0
golden redhorse	0.08					0
golden shiner	0.85					1.3
pumpkinseed	4.1					57.5
rock bass	4.2					2.5
silver redhorse	0					0.13
white sucker	0.19					0.13
yellow bullhead	1.8					3.9
yellow perch	43.4					2.3

Figure 1. Length-frequency of adult walleye during 2009 in Gilmore Lake, Oneida County WI.

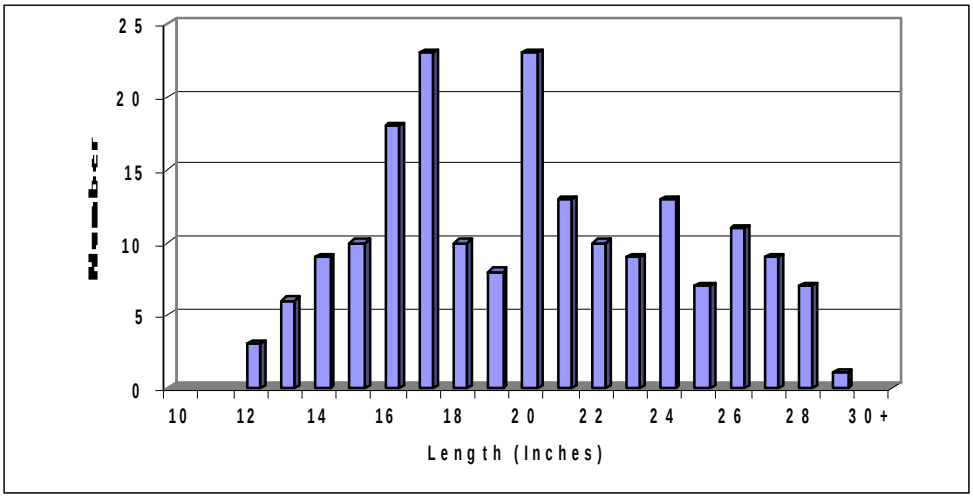


Table 2. Fish stocking record during 1989 through 2009 in Gilmore Lake, Oneida County WI.

Year	Species	Size	Number	Comments
1989	muskellunge	large fingerling (11 inch)	438	
1989	walleye	small fingerling (4 inch)	9,800	left-ventral fin clip
1990	walleye	small fingerling (2 inch)	15,345	
1991	muskellunge	large fingerling (11.2 inch)	300	
1991	walleye	small fingerling (2.9 inch)	7,182	
1992	walleye	small fingerling (2 inch)	8,034	
1992	muskellunge	large fingerling (9.7 inch)	314	
1993	walleye	small fingerling (2 inch)	14,619	
1993	muskellunge	large fingerling (10.0 inch)	310	
1994	walleye	large fingerling (7.3 inch)	3,520	right-ventral fin clip
1995	walleye	small fingerling (2.1 inch)	15,159	
1996	muskellunge	large fingerling (9.3 inch)	600	
1997	walleye	small fingerling	15,050	
1998	muskellunge	large fingerling (12.0 inch)	600	
1999	walleye	large fingerling (8.2 inch)	3,000	left-ventral fin clip
2000	muskellunge	large fingerling (10.9 inch)	600	
2001	walleye	small fingerling (1.3 inch)	30,167	
2002	muskellunge	large fingerling (10.7 inch)	150	
2003	walleye	small fingerling (1.4 inch)	30,100	marked with Oxytetracycline
2004	muskellunge	large fingerling (11.1 inch)	150	
2005	walleye	small fingerling (1.5 inch)	15,050	marked with Oxytetracycline
2006	muskellunge	large fingerling (10.7 inch)	150	
2008	muskellunge	large fingerling (10.4 inch)	146	
2009	walleye	small fingerling (1.7 inch)	10,535	marked with Oxytetracycline

Largemouth and Smallmouth Bass

Four hundred ninety-seven largemouth bass were captured during spring sampling, including thirty-seven recaptures of previously-marked fish and thirty-two juveniles smaller than 8 inches in length. The mark-recapture population estimate is 2,008 adult largemouth bass (± 460 SD), or 6.3 per acre.

Largemouth bass size structure was dominated by a broad range of 10 to 16 inch fish (Figure 2). The longest largemouth was 19.1 inches and 35% were 14 inches and larger. Forty smallmouth bass (including two recaptures) were captured during the survey. The majority of the smallmouth were less than 13 inches, but 7 larger fish ranged from 17 to 21.1 inches**.** Length-at-ages of both species of bass were near regional averages through age 5, and were a year or more above average at age 6 and older (although only 2 older smallmouth were captured, Appendix A).

Figure 2. Length-frequency of adult largemouth bass during 2009 in Gilmore Lake, Oneida County Wisconsin.

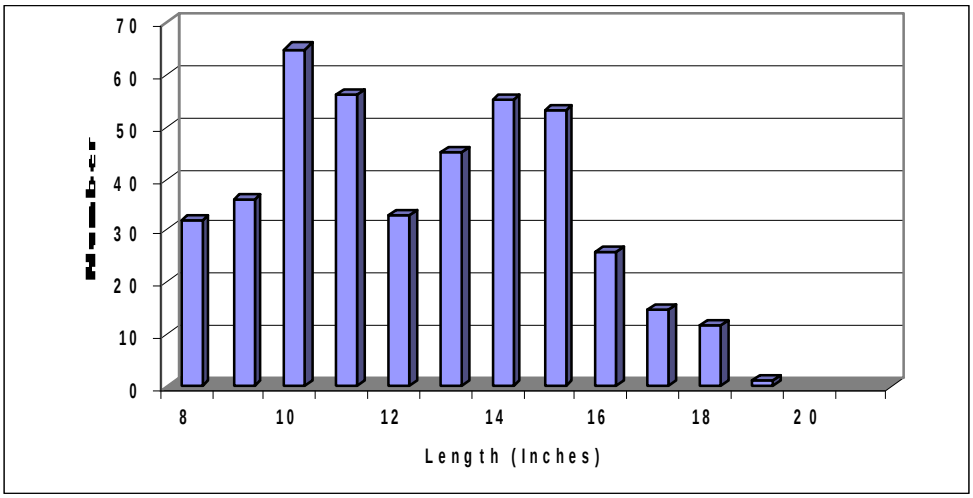
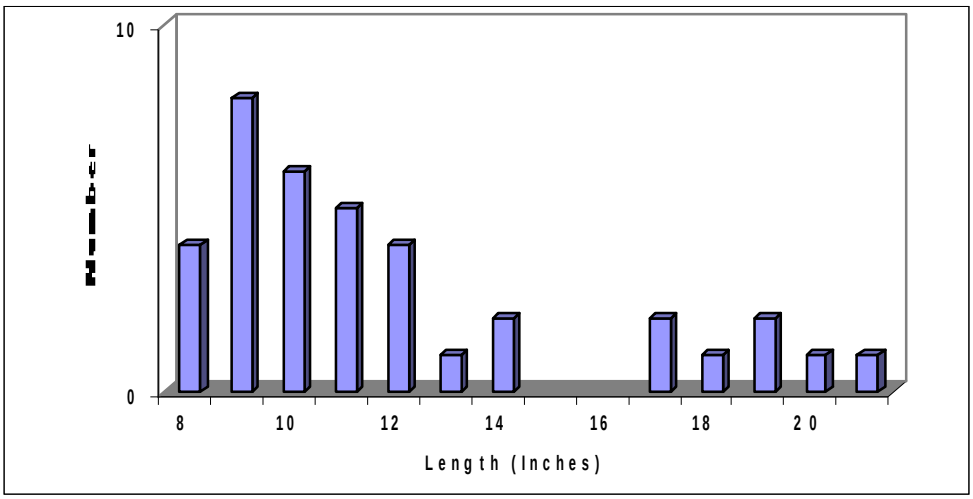


Figure 2A. Length-frequency of adult smallmouth bass during 2009 in Gilmore Lake, Oneida County Wisconsin.

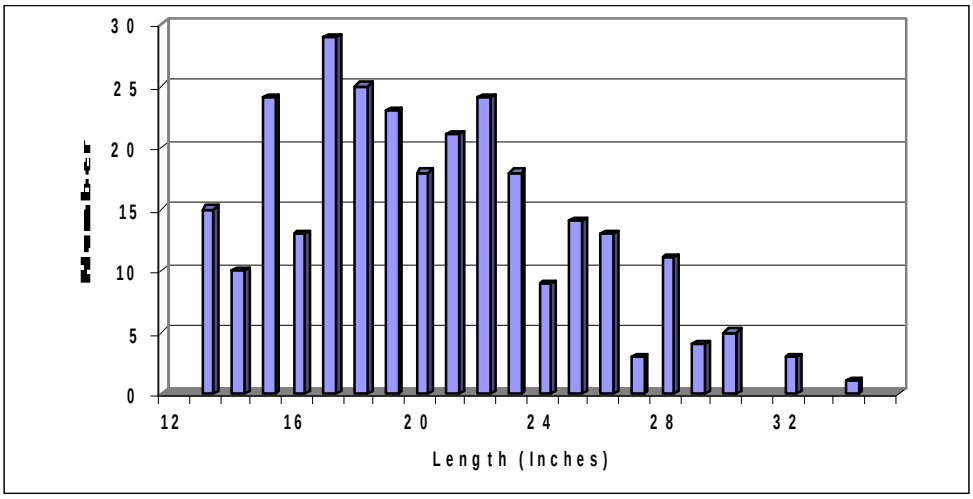


Northern Pike

We captured 326 northern pike (including 26 recaptures of previously-marked fish and 5 immature fish less than 12 inches in length). The northern pike population (including sexually mature fish and all fish over 12 inches) was estimated at 1,524 (± 299 SD), or 4.8 per acre, using the Schnabel multiple-capture method (Ricker 1975). This is considered moderate to high density for a northern pike population. Too few male pike were recaptured for a reliable estimate, but the female population was estimated at 1.3 (± 0.37) per acre. Average size of adult northern pike was 20.1 inches; 13.5% of adult pike were 26 inches or larger but only 3% exceeded 30 inches (Figure 3).

Length-at-ages were near regional averages for males and above average for female pike (Appendix A). The largest northern pike was a 34.0 inch fish of unknown gender.

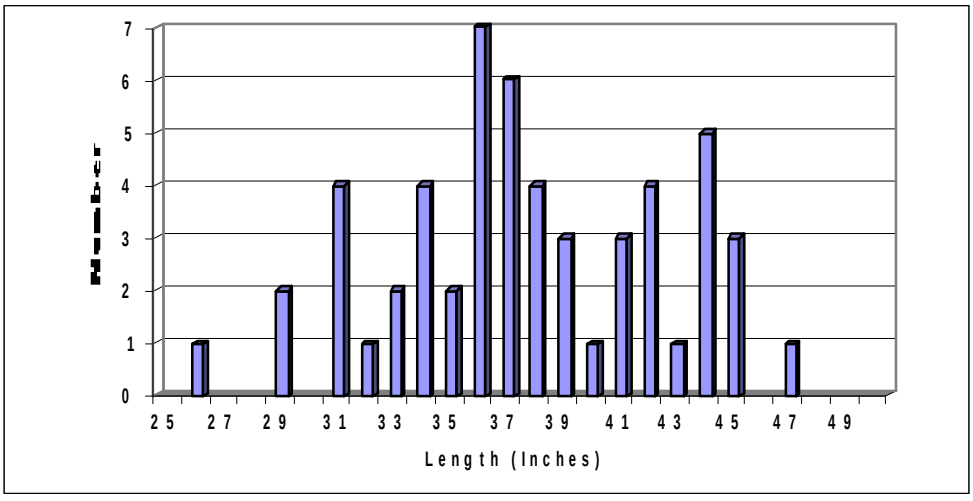
Figure 3. Length-frequency of adult northern pike during 2009 in Gilmore Lake, Oneida County Wisconsin.



Muskellunge

Seventy-one muskellunge were captured during the survey, including eight recaptures of previously-marked fish and nine immature fish less than 30 inches in length. Adult muskellunge ranged from 12 to 47 inches in length. The largest fish was a 47.0 inch, 25.8 pound female, aged at 11 years based on a scale (Figure 4). Scale ages tend to underestimate the age of older muskellunge, but accurate aging structures like otoliths and cleithral bones require the fish to be sacrificed. Large fingerling muskellunge are stocked in Gilmore Lake in even-numbered years at a rate of about 0.5 per acre. We captured seven immature fish 11.5 to 12.9 inches in length, and two fish 22.3 and 22.8 inches in length, presumably from the 2008 and 2006 stocked yearclasses. Margenau (1999) suggests that abundant northern pike can inhibit survival of stocked muskellunge, but muskellunge appear to be surviving and producing a fishery in spite of the moderately-high pike density we found in Gilmore Lake.

Figure 5. Length-frequency of adult muskellunge during 2009 in Gilmore Lake, Oneida County WI.



Panfish

Gilmore is a shallow lake with moderate fertility and abundant aquatic vegetation, resulting in high panfish abundance. Bluegill dominated the netting catch, with an April catch of 123 and a June catch of 185 bluegill per net night. Black crappie were also abundant in the early netting period, at 98 per net night. There were high numbers of pumpkinseed, bluegill x pumpkinseed hybrids, and yellow perch (Table 1).

The high panfish densities in Gilmore might be expected to retard growth. Bluegill catch of over 150 per net night is considered very high density and is usually associated with over-population and stunting. Length-at-ages were about 1-2 years behind the regional averages for bluegill and pumpkinseed, while black crappie and yellow perch were growing about half a year behind average and rock bass growth was about average (Appendix A). Panfish size structure in Gilmore Lake was generally poor. However, a few preferred-size fish were present (Figures 6-11), and we encountered a good number of panfish anglers at the boat landing.

Figure 6. Length-frequency of bluegill during 2009 in Gilmore Lake, Oneida County Wisconsin.

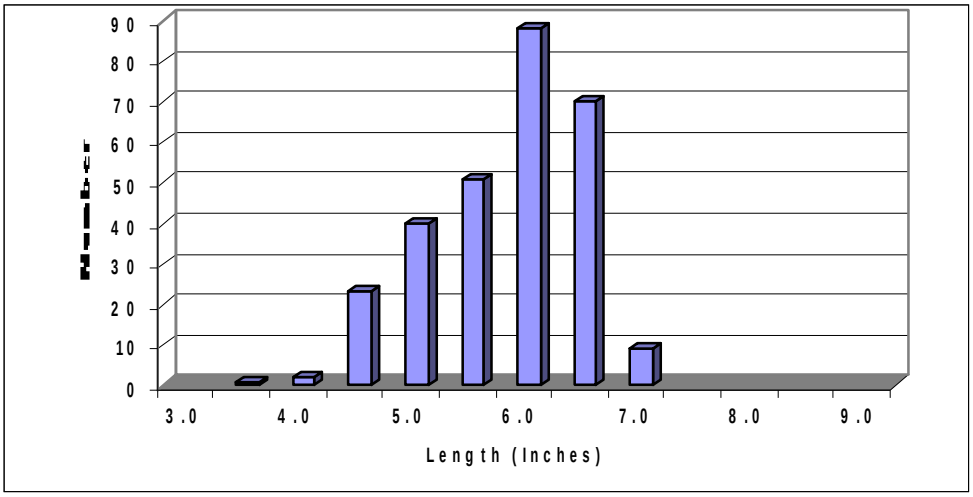


Figure 7. Length-frequency of pumpkinseed during 2009 in Gilmore Lake, Oneida County Wisconsin.

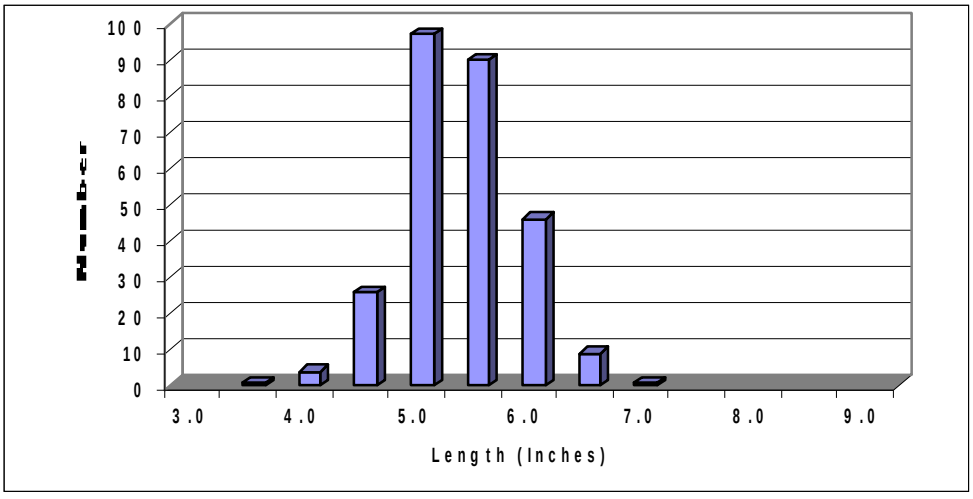


Figure 8. Length-frequency of bluegill x pumpkinseed hybrids during 2009 in Gilmore Lake, Oneida County Wisconsin.

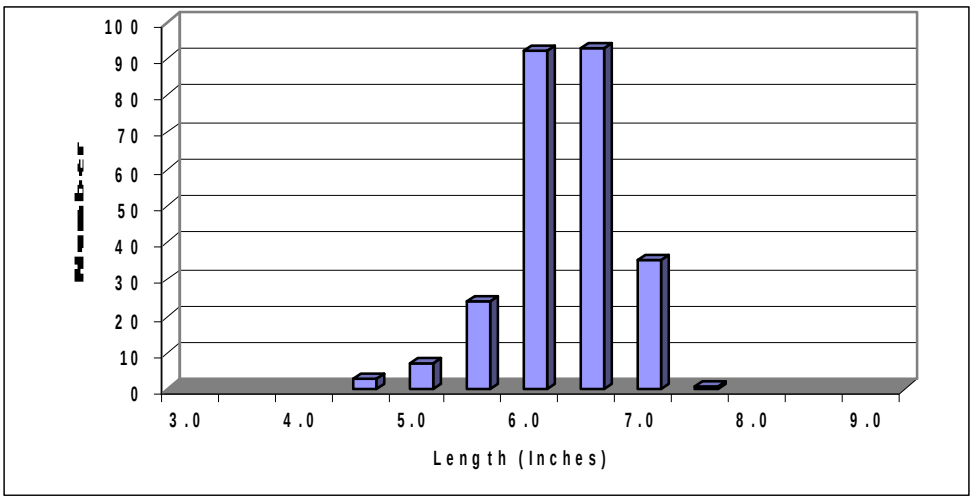


Figure 9. Length-frequency of yellow perch during 2009 in Gilmore Lake, Oneida County Wisconsin.

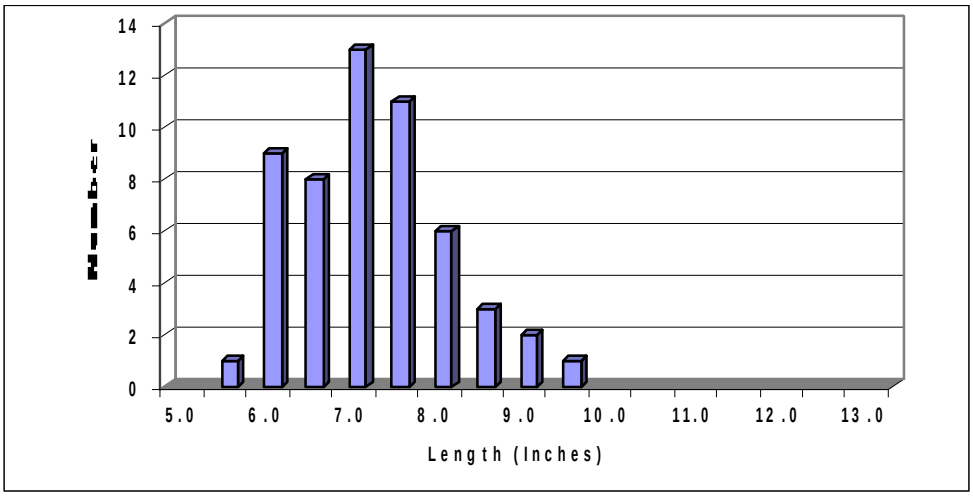


Figure 10. Length-frequency of black crappie during 2009 in Gilmore Lake, Oneida County Wisconsin.

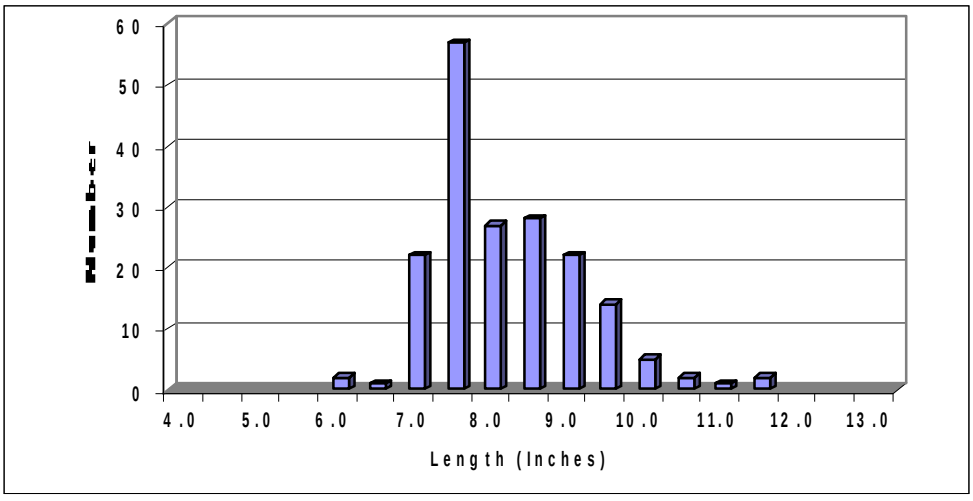


Figure 11. Length-frequency of rock bass during 2009 in Gilmore Lake, Oneida County Wisconsin.

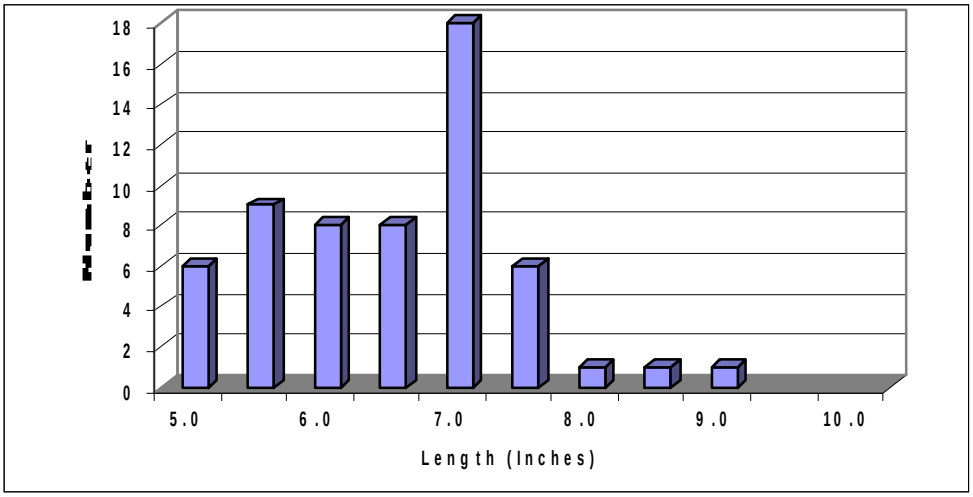
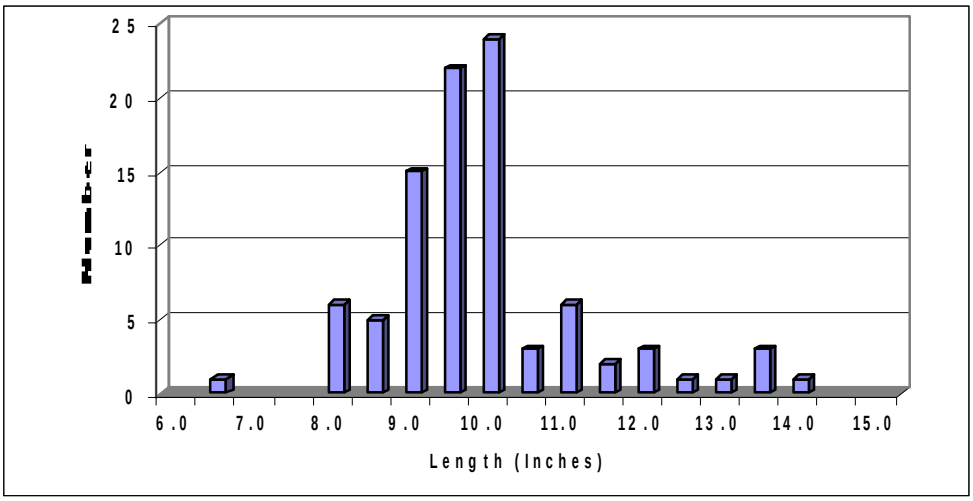


Figure 12. Length-frequency of yellow bullhead during 2009 in Gilmore Lake, Oneida County Wisconsin.



MANAGEMENT RECOMMENDATIONS

Gilmore Lake supports a diverse fishery. Northern pike, largemouth bass and stocked muskellunge were the dominant gamefish, along with a moderate-density, stocked walleye population and a small number of smallmouth bass. Size structure of game species was excellent, growth rates were very good and the fish appeared to be very healthy. Bluegill and black crappie dominated the panfish catch, and pumpkinseed, yellow perch and bluegill x pumpkinseed hybrids were also found at relatively high abundance, with lesser numbers of rock bass, yellow bullhead and black bullhead. Panfish size was poor, although some moderate-size fish were present. Forage and non-game species included common shiner, golden redhorse, golden shiner, silver redhorse and white sucker. Gilmore is best managed for northern pike, largemouth bass and stocked muskellunge, while a moderate-density walleye population can be maintained by stocking.

Fall surveys show poor recruitment by stocked small fingerling walleye. However, much of the current population is a result of small-fingerling stocking with some natural reproduction. The two large fingerling stockings produced solid yearclasses that persisted 10 and 15 years to show up in the present survey.

ACKNOWLEDGEMENTS

Steve Timler and I supervised the field work for this survey with assistance from Steve Kramer, Aaron Nelson, Tim Tobias and Joelle Underwood. Steve Timler assigned fish ages from scales. Mike Coshun calculated the walleye and bass population estimates.

LITERATURE CITED

Andrews, L. M. and C. W. Threinen. 1966. Surface water resources of Oneida County. Wisconsin Conservation Department, Madison, Wisconsin. 284 pages.

Burdick, M. E. 1950. Gilmore Lake Oneida County. Wisconsin Conservation Department, Fishery Biology Section, Investigational Report No. 721, Madison WI. 6 pages.

Carlson, H. 1977. Comprehensive survey report of Gilmore Lake, Oneida County. State of Wisconsin, Department of Natural Resources, Woodruff, WI. Three-page memorandum with 20 attached pages of tables and figures.

Kampa, J. M. and G. R. Hatzenbeler. 2009. Survival and growth of walleye fingerlings stocked at two sizes in 24 Wisconsin lakes. N. Am. J. Fish. Mgmt. 29:996-1000.

Margenau, T. M. 1999. Muskellunge stocking strategies in Wisconsin: The first century and beyond. N. Am. J. Fish. Mgmt. 19:223-229.

Ricker, W. E. 1975. Computation and interpretation of biological statistics of fish populations. Bull 191, Dept. Env. Fish. Mar. Sci., Ottawa.

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

APPENDIX A
FISH AGE RESULTS

For species with at least 50 lengths, a length-age key from the aged sub-sample was applied against the full length-frequency to eliminate bias from a non-random subsample.

Table A.1. Male walleye length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
3	2	13.1	11.6
4	3	15.5	13.0
5	2	17.3	14.5
6			15.8
7			16.9
8			18.1
9			18.9
10			19.7
11			20.4

Table A.2. Female walleye length at age in Gilmore Lake, Oneida County Wisconsin during 2009. *Ages 10 and 15 were known-age fish, stocked with fin clips.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
4	4	18.1	14.7
5	11	18.9	16.1
6	22	21.1	17.6
7	11	23.0	19.5
8	13	25.6	21.2
9	5	26.1	22.6
10*	10	25.2	23.8
12	1	27.4	25.4
15*	5	27.8	27.7

Table A.3. Largemouth bass length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
2	4	6.5	6.6
3	5	8.4	8.9
4	17	10.8	10.5
5	13	11.7	12.1
6	19	14.5	13.6
7	13	15.9	14.9
8	8	17.2	15.8
9	1	18.1	16.2
10			17.1

Table A.4. Smallmouth bass length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
2			6.9
3	1	8.6	9.3
4	11	10.8	11.8
5	2	13.9	13.5
6	1	18	15.2
7			16.1
8	1	21.1	17.1
9			17.7
10			18.3

Table A.5. Male muskellunge length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
5	2	31.3	29.2
6	4	33.8	33.7
7	2	38.3	35.8
8	3	37.1	38.1
9	1	37.4	39.5
10	1	38.7	41.0
11			43.2
12			43.7
13			44.3

Table A.6. Female muskellunge length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
4	1	31.6	
5	2	34.7	29.2
6	2	37.3	31.5
7	6	38.7	33.3
8	5	40.7	34.4
9	4	42.0	35.8
10	3	44.3	37.3
11	1	47.0	37.9
12			39.0
13			38.9

Table A.7. Male northern pike length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
2	4	12.5	13.4
3	13	15.4	16.2
4	18	18.0	18.9
5	5	20.4	20.6
6	3	23.3	22.3
7	1	20.2	23.4
8			24.8
9			23.9

Table A.8. Female northern pike length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
2	8	14.9	
3	18	19.4	16.9
4	24	21.7	20.4
5	17	24.9	23.1
6	5	28.0	24.4
7	10	26.3	27.3
8	7	29.9	28.8
9			32.1
12	1	28.2	

Table A.9. Bluegill length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
2	2	3.7	3.9
3	1	4.3	5.0
4	15	5.0	6.2
5	12	5.7	6.8
6	23	6.3	7.8
7	3	6.9	8.2
8	4	6.8	8.7
9			8.7
10			9.2

Table A.10. Pumpkinseed length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
2			3.6
3	1	3.8	4.8
4	20	5.0	5.7
5	14	5.5	6.5
6	11	6.0	6.8
7	6	6.7	7.3
8	2	6.3	7.3

Table A.11. Hybrid bluegill x pumpkinseed length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length
4	2	4.6
5	5	5.8
6	12	5.8
7	18	6.6
8	8	6.7
9	1	7.1

Table A.12. Black crappie length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
2	3	6.4	5.3
3	15	7.9	7.1
4	32	8.2	9.0
5	22	9.6	10.0
6			10.7
7			11.6
8			11.7
9			10.4

Table A.13. Rock bass length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
3	12	5.2	5.1
4	14	6.2	6.4
5	15	7.1	7.2
6	10	7.5	7.9
7			8.4
8			9.0
9			9.4

Table A.14. Yellow perch length at age in Gilmore Lake, Oneida County Wisconsin during 2009.

Age	Number of fish	Gilmore avg. length	Northern WI avg.
3			6.0
4	10	6.6	6.9
5	29	7.2	7.9
6	10	8.3	9.0
7	1	8.8	9.9
8			10.8
9			12.1

WISCONSIN CONSERVATION DEPARTMENT

LAKE SURVEY MAP

LAKE GILMORE
SECTIONS 13-24
TOWNSHIP T-39-N
RANGE R-7-E
TOWN WOODRUFF
COUNTY ONEIDA

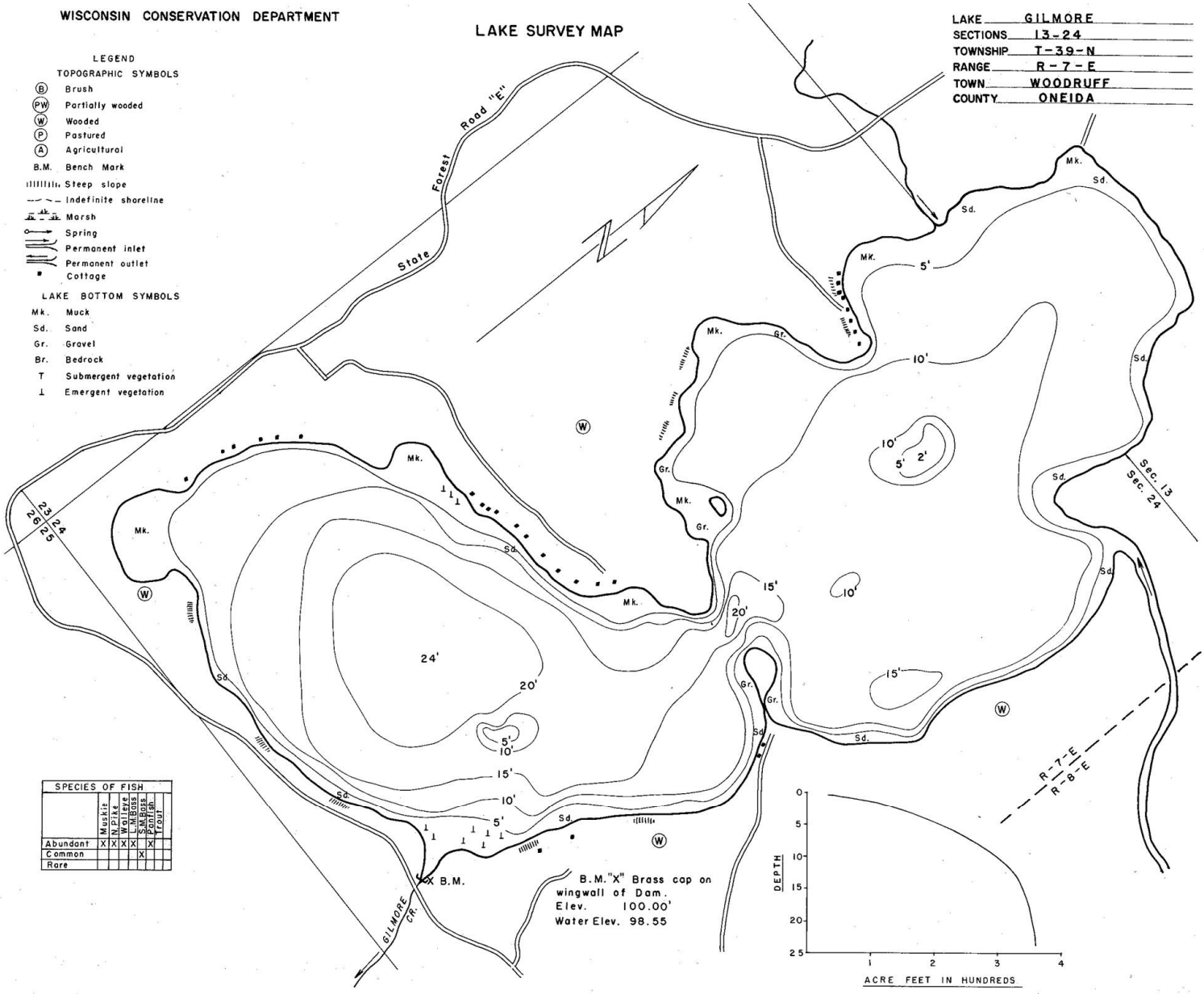
LEGEND

TOPOGRAPHIC SYMBOLS

- (B) Brush
- (PW) Partially wooded
- (W) Wooded
- (P) Pastured
- (A) Agricultural
- B.M. Bench Mark
- Steep slope
- Indefinite shoreline
- Marsh
- Spring
- Permanent inlet
- Permanent outlet
- Cottage

LAKE BOTTOM SYMBOLS

- Mk. Muck
- Sd. Sand
- Gr. Gravel
- Br. Bedrock
- T Submergent vegetation
- ⊥ Emergent vegetation



SPECIES OF FISH	Muskie	N. Pike	Walleye	L.M.Bass	S.M.Bass	Panfish	Trout
Abundant	X	X	X	X		X	
Common					X		
Rare							

LAKE MAPPED JULY 1962
SOURCE OF INFORMATION W. C. D.
SOUNDINGS RECORDING SONAR

400' 0' 400' 800' 1200' 1600' 2000'
SCALE

◇ ACCESS ◆ ACCESS WITH PARKING ◆ BOAT LIVERY

AREA 320 ACRES
TOTAL SHORELINE 4.4 MILES
MAX. DEPTH 24 FEET
SCALE: AS SHOWN