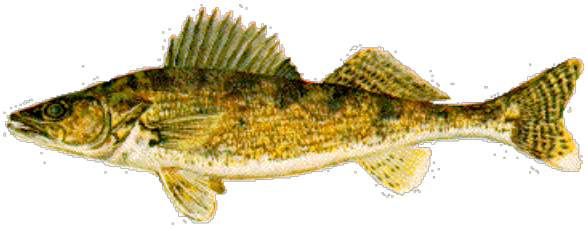

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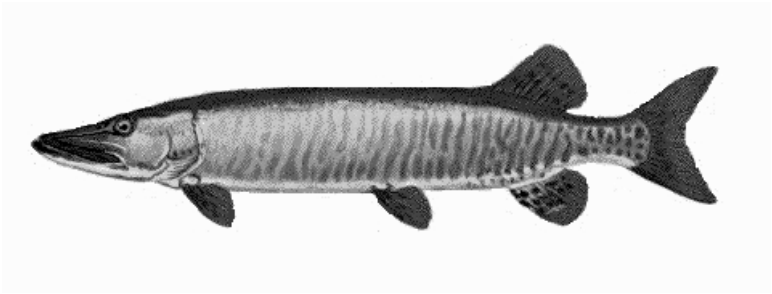

Thomas A. Cichosz

Administrative Report # 78

Treaty Fisheries Assessment Unit
Bureau of Fisheries Management
Madison, Wisconsin
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Walleye illustration Virgil Beck

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INTRODUCTION

The northern portion of Wisconsin, encompassing 22,400 square miles and including all or parts of 30 counties, was ceded by the Lake Superior Chippewa Tribes to the United States in the Treaties of 1837 and 1842 (Figure 1). Although the lands were ceded to the United States, the Chippewa Tribes retained hunting, fishing, and gathering rights throughout this area (USDI 1991). The Wisconsin Ceded Territory contains 77% of Wisconsin's lakes accounting for 53% of the total inland lake surface acreage in Wisconsin (Staggs et al. 1990). Of lakes within the Ceded Territory, over 900 contain walleye (*Sander vitreus*) and more than 600 contain musky (*Esox masquinongy*), and the vast majority of naturally reproducing walleye and musky populations are found within the Ceded Territory.

Figure 1. Map of Wisconsin showing the Ceded Territory (shaded).

Walleye and muskellunge are tremendously popular with Wisconsin anglers and are important economically. Chippewa tribal members rely on these same fisheries for preservation of their cultural heritage and as a food source. In 1983, the United States Court of Appeals for the Seventh Circuit affirmed the rights of six Wisconsin Chippewa Bands (Bad River, Lac Courte Oreilles, Lac du Flambeau, Sokaogon, Red Cliff, and St. Croix) to fish off-reservation waters in the Wisconsin Ceded Territory. Tribal fishing uses traditional methods (e.g. spearing and netting) as determined by Treaties of 1837 and 1842 between the Bands and the United States government. Since affirmation of tribal fishing rights in 1983 the Wisconsin Department of Natural Resources (WDNR) has worked to integrate tribal harvest opportunities with sport fisheries in the Ceded Territory.

To facilitate and manage shared tribal and recreational angler harvest, an intensive data collection and analysis effort began in 1987. The program evolved as knowledge of unique aspects of the Ceded Territory shared fisheries increased, and developed into the current program in 1990. The primary goal is to collect information essential to protecting Ceded Territory fish populations from over-exploitation by the combined tribal and recreational fisheries.

As part of this effort WDNR works with the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) to establish safe harvest quotas for walleye and muskellunge and to monitor the shared fisheries throughout the Ceded Territory. The majority of tribal harvest occurs during spring while walleye and muskellunge are congregated in shallow water to spawn and are readily taken by spear. A smaller number are harvested throughout the remainder of the year with a variety of capture methods including spearing, gill netting, fyke netting, set-lining, and angling. Netting and spearing are highly efficient methods and, unlike low efficiency methods such as angling, are not self-regulating (Beard et al. 1997, Hansen et al. 2000). Based on the inclusion of high efficiency tribal harvest in these fisheries, over-exploitation is a strong possibility in the absence of intensive management and could result in long-lasting and potentially irreversible damage.

Wisconsin DNR gathers data from a representative sample of lakes throughout the Ceded Territory each year in order to assess abundance and stability of walleye populations. Walleye populations are evaluated by WDNR using three primary methods: spring adult and total population estimates, fall age-0 (young-of-year) relative abundance estimates, and creel surveys of angler catch and

harvest. When combined, these methods provide information on the current harvestable population, an indication of the future harvestable population, and the degree of exploitation in the walleye fishery. Wisconsin DNR also conducts muskellunge and black bass *Micropterus* spp. population estimates each year and estimates harvest of these species via creel surveys; WDNR does not quantify recruitment of these species via young-of-year (YOY) surveys.

Population estimates are critical to the management of Ceded Territory fisheries. Accurate population estimates allow calculation of "safe harvest" levels that allow harvest while minimizing the potential of jeopardizing a species' future abundance or persistence.

Creel surveys provide vital information about the use of fisheries by recreational anglers, including angling effort, catch, and harvest; Estimates from surveyed lakes can be extrapolated across larger areas (e.g. Ceded Territory). When coupled with population estimates, creel harvest data can be used to estimate angler exploitation for individual species. The WDNR treaty fisheries program focuses primarily on game species (walleye, muskellunge, largemouth *Micropterus salmoides* and smallmouth *Micropterus dolomieui* bass, and northern pike *Esox lucius*), but creel information on all species is recorded.

In support of this effort, data is collected and provided by GLIFWC and the United States Fish and Wildlife Service (USFWS) which conduct spring adult population estimates and fall age-0 surveys on additional lakes each year. Tribal harvest data is made available by GLIFWC which censuses open-water tribal harvest of all species and conducts periodic creel surveys to assess winter harvest of muskellunge through the ice.

This annual report summarizes WDNR efforts related to management of the shared Ceded Territory fishery from early 2013 through early 2014. In doing so, it reports on one 'annual cycle' of work related to management of these fisheries. The typical annual cycle begins with establishment of safe harvest levels prior to spring spearing activities, includes conducting creel surveys, population estimates, and YOY walleye surveys on selected lakes, and results in summarization of tribal and angler exploitation rates for Ceded Territory lakes[1].

[1] For the purposes of this report 'Tribal' refers to catch and harvest by traditional methods used by tribal fishers (e.g. spearing and netting); 'Angler' indicates catch and harvest by hook and line, and may include tribal members angling during open seasons if interviewed during creel surveys.

METHODS

Estimation of Population Size

With more than 900 walleye lakes and 600 muskellunge lakes in the Wisconsin Ceded Territory it is logistically impossible to obtain precise population estimates from all lakes in a single year. In addition fish populations in general and walleye populations in particular are extremely variable and can change dramatically from year to year. Therefore, WDNR selects a number of lakes each year for walleye population estimates and corresponding nine-month creel surveys[2]. The lakes sampled by the WDNR within the Ceded Territory during 2013-14 were chosen using a stratified random design considering size, historic level of tribal harvest, and primary walleye recruitment source. Of the lakes sampled each year, four are 'trend lakes' which are evaluated every three years to provide meaningful data on temporal trends within walleye populations; trend lakes sampled in 2013 were Lipsett (Burnett Co.), Middle Eau Claire (Bayfield Co.), Metonga (Forest Co.), Plum and Trout (Vilas Co.) lakes. In addition, at least one large lake or lake chain is chosen to be surveyed each year. In 2013 the Eagle Chain (includes Catfish, Cranberry, Duck, Eagle, Otter/Lynx, Scattering Rice and Yellow Birch lakes, Vilas Co.), Beaver Dam (Barron Co.), Eau Claire (Eau Claire Co.), Cedar (St. Croix Co.), Owen (Bayfield Co.), Shell (Washburn Co.), and Devils (Barron Co.) lakes were large waters sampled.

The continuing randomized survey of lakes throughout the history of this program (Appendix A) provides data necessary for successful management of the shared fisheries. Data from lake surveys is used to estimate walleye population size and derive safe harvest levels, estimate tribal and angler harvest and exploitation rates, examine temporal and spatial trends in walleye populations and angler effort, and maintain up to date characterizations of population status for each lake.

Walleye

Walleye spawning population estimates[3] for various lakes in the Ceded Territory were made using a standard mark-recapture methodology. Walleyes were initially captured for marking using fyke

[2] Creel surveys are conducted from the first Saturday in May through early March and correspond to the Wisconsin open season for game fish species. The month of November was excluded from analyses due to poor ice conditions and low angler effort.

[3] Spawning population estimates may be less than adult population sizes if all adults do not spawn in every year. The degree to which this occurs in Wisconsin is currently unknown and may vary by lake.

nets shortly after ice out. Each fish was measured (total length; inches and tenths) and marked with one of two lake specific fin clip; two clips were used in each lake to classify fish as either 'adult' or 'juvenile'. Adult (mature) walleyes were defined as all fish 15" or longer and all fish for which sex could be determined (regardless of length). Walleye of unknown sex less than 15" long were classified as juvenile (immature). In lakes where previous estimates of walleye spawner abundance were available, the goal was to mark 10% of the anticipated spawning population. Where no preliminary abundance estimate was available, at least one walleye per acre of lake surface area was targeted for marking. Marking continued until the target number was reached or spent females began appearing in the fyke nets.

Two electrofishing recapture runs were conducted in each lake and the data used to estimate abundance of the spawning or total walleye population. Due to rapid dispersal and decreased vulnerability of adult walleye following spawning, only mark-recapture results from the first electrofishing recapture run were used to estimate spawning walleye abundance; results from the second electrofishing recapture run were used to augment those results when estimating total walleye population abundance.

Walleyes were initially recaptured with AC electrofishing gear within one week (typically 1-4 days) after netting and marking were completed. In each lake the entire shoreline (including islands) was sampled to ensure equal vulnerability of marked and unmarked walleyes to capture. All walleyes in the captured were measured and examined for marks; in most lakes any unmarked walleyes collected in the first electrofishing run were fin clipped accordingly for the lake and fish maturity. A second whole-shore electrofishing recapture run was conducted approximately 1-4 weeks after the first electrofishing run.

Based on electrofishing recapture data, population estimates were calculated with the Chapman (1951) modification of the Petersen Estimator as:

$$N = \frac{(M+1)(C+1)}{(R+1)}$$

where N was the population estimate, M was the number of fish marked and released, C was the total number of fish captured and examined for marks in the recapture sample, and R was the total number of marked fish observed in C.

The Chapman Modification method was used because it provides more accurate population estimates in cases when R is relatively small (Ricker 1975). Walleye population and variance estimates

were calculated by length-class (≤ 11.9", 12-14.9", 15-19.9", and ≥ 20.0") and summed accordingly to estimate adult and total walleye abundance.

Fish population size structure is described using proportional stock density (PSD) and relative stock density (RSD) as reviewed by Anderson et al. (1996). Walleye size data were analyzed to compare proportions of both quality (PSD) and preferred (RSD) length fish gathered in spring surveys (April and May); data were limited to spring surveys to minimize bias associated with fish growth throughout the year and to best characterize the size structure of walleye populations near the outset of the harvest seasons. For the purpose of this report stock, quality and preferred walleye lengths were set at 12, 15 and 18 inches, respectively. Walleye length data were taken from WDNR statewide PSD/RSD database. Proportional stock density (PSD) is calculated as:

$$PSD = \frac{\text{number of fish} \geq 15 \text{ inches}}{\text{number of fish} \geq 12 \text{ inches}} X\ 100$$

Relative stock density (RSD) is calculated as:

$$RSD = \frac{\text{number of fish} \geq 18 \text{ inches}}{\text{number of fish} \geq 12 \text{ inches}} X\ 100$$

Muskellunge

Muskellunge population estimates were conducted over a two-year period, with marking in year-1 and recapture in year-2. In year-1, muskellunge were marked during fyke netting and electrofishing efforts throughout the sampling season. All muskellunge 20" and larger were given a primary fin clip (the same clip given to adult walleye and bass). Muskellunge less than 20" long were given an alternate fin-clip (generally top caudal). In year-2, muskellunge were recaptured using fyke nets in mid-May, to coincide with the muskellunge spawning season. Adult muskellunge population estimates (considered all sexable fish of any size, plus all fish of unknown sex ≥30" at the time of marking) were made using Chapman modification of the Petersen estimate:

$$N = \frac{(M+1)(C+1)}{(R+1)}$$

Where N is the estimated adult population size; M is the total number of muskellunge marked in the lake in year-1 equal to or larger in length than the smallest sexable fish; C is the number of muskellunge re-captured in year-2, excluding fish smaller than the minimum length counted in year-1 plus 2 inches; and R is the number of marked fish recaptured (Wisconsin Technical Working Group 1999; Margenau and AveLallemant 2000).

Largemouth and Smallmouth Bass

In a subset of sampled lakes designated as "comprehensive survey" lakes, largemouth *Micropterus salmoides* and smallmouth *Micropterus dolomieu* bass encountered during fish surveys were marked by fin clips. Bass larger than 12.0" were given the same primary (adult) fin-clip as was given to walleye in the same lake; bass 8.0- 11.9" were given the secondary (juvenile) fin-clip for the lake. In these lakes, fyke nets were set just after ice-out in the spring and again after the first electrofishing recapture run. A total of four electrofishing surveys were conducted in each lake. The first electrofishing run was conducted within a week of pulling the early fyke nets. The second run was conducted approximately two weeks after the first electrofishing run. Third and fourth electrofishing runs were conducted at approximately weekly intervals thereafter between mid-late May and mid-June. The entire shoreline of the lake (including islands) was sampled. Bass populations were estimated after both the third and fourth runs. For each bass species population estimates were calculated for various size classes (8.0-13.9", 14.0-17.9" and ≥18.0") using the same Chapman modification of the Petersen estimator as described for walleyes. The recapture run yielding the population estimate with the lowest coefficient of variation is reported.

Establishment of Safe Harvest

The Wisconsin joint fishery is managed by calculating total allowable catch for walleye and muskellunge on a lake-by-lake basis. Angler bag limits ranging between 1 and 5 walleye/day in the Ceded Territory are set on an annual basis using a "sliding bag-limit" system in which bags are determined based upon tribal declarations and harvest (Appendix B). "Safe harvest" is set such that the risk of exceeding 35% exploitation for walleye or 27% for muskellunge is less than 1-in-40 (Hansen 1989;

Hansen et al. 1991). This risk-management system differs from a quota system, which would potentially close fisheries once a harvest cap was reached.

Safe harvest levels are set on all Ceded Territory walleye and muskellunge lakes using the most accurate population estimates available. The most reliable estimates are clearly taken from mark-recapture estimates performed in the same year for which safe harvest is calculated. However, because the temporal overlap of the spearing season and spring population estimate sampling make this logistically impossible, these population estimates are used to estimate abundance for the following two years. In addition, given the year-to-year variability associated with fish populations, safety factors are incorporated to account for the largest potential decrease between years (Hansen et al. 1991). Population estimates older than two years are not considered to accurately represent a lake's current population and are not directly used to set safe harvest. In this case, an estimate is calculated from a regression model using lake acreage as a predictor of population abundance (Hansen 1989). Each year new population estimates are incorporated into the regression model but no estimates are removed. Lakes with multiple population estimates are averaged before being entered into the regression model. Three regression models are used depending on the primary source of walleye recruitment in the lake (Nate et al. 2000). Separate models are used for: (A) lakes sustained primarily by natural reproduction (NR; Figure 2), (B) lakes sustained primarily through stocking efforts (ST; Figure 3), and (C) lakes with low density populations maintained through intermittent natural reproduction (REM; Figure 4). Refer to Appendix C for a complete description of recruitment code designations used for lakes throughout the Wisconsin Ceded Territory. These models are used to set safe harvest yearly for the majority of the walleye lakes in the Ceded Territory.

A similar method is employed to set safe harvest for muskellunge. Because muskellunge mark-recapture surveys are conducted over a two year period, a population estimate for a given lake is employed to directly set safe harvest only once. In the absence of a recent population estimate, a regression model is used to make an estimate of muskellunge abundance. As with walleye, population predictions in this model are based on lake acreage, but a single model is used for all muskellunge waters in the Ceded Territory (Figure 5).

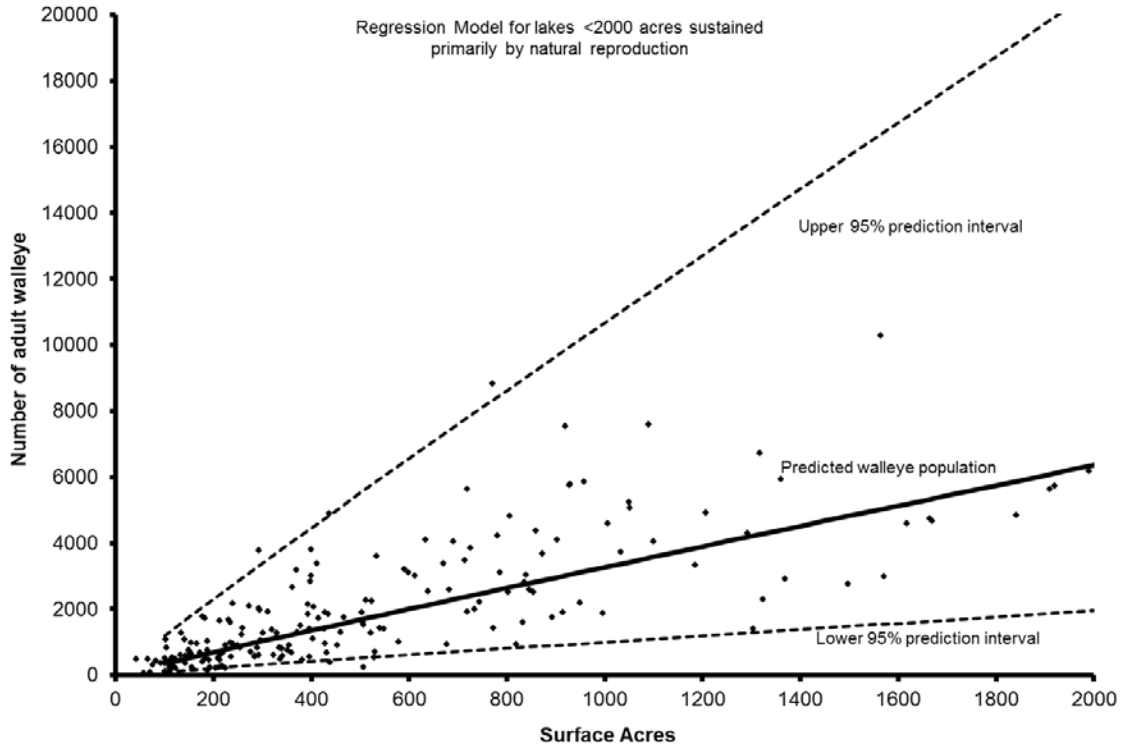

Figure 2. Regression model used to set 2013 safe harvest levels for lakes sustained primarily by natural reproduction (applies to all lake sizes; only lakes <2000 acres are shown for illustrative clarity).

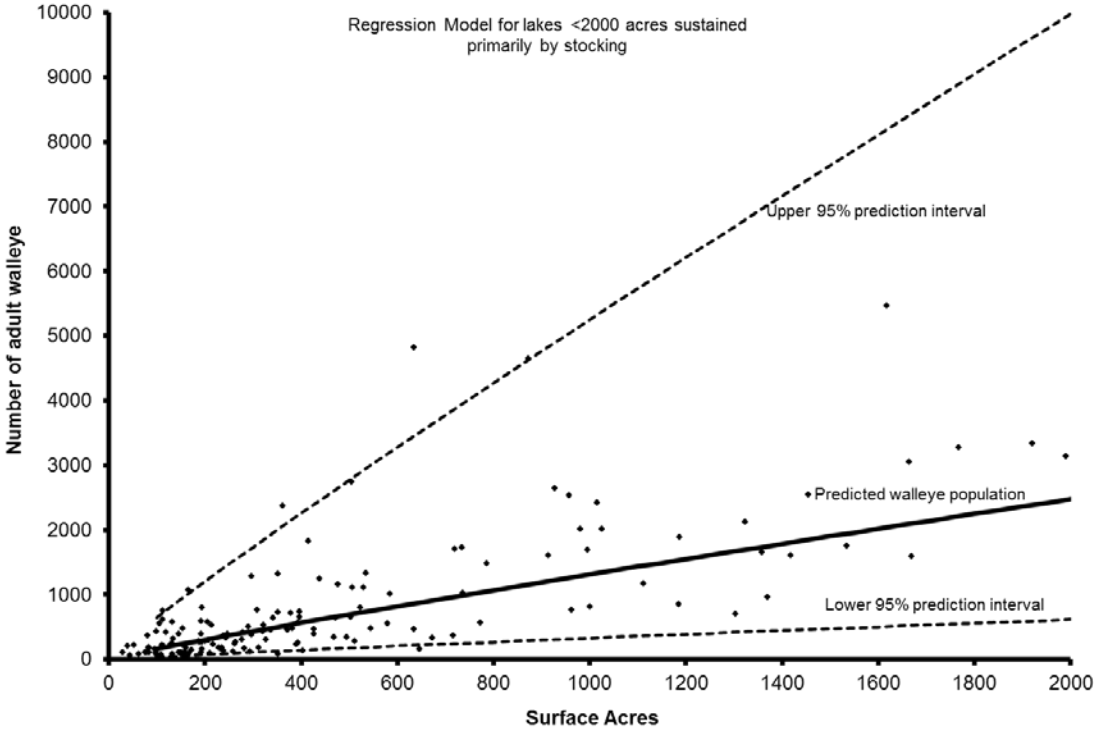

Figure 3. Regression model used to set 2013 safe harvest levels for lakes <2000 acres sustained primarily by stocking (applies to all lakes; only lakes <2000 ac. are shown for illustrative clarity).

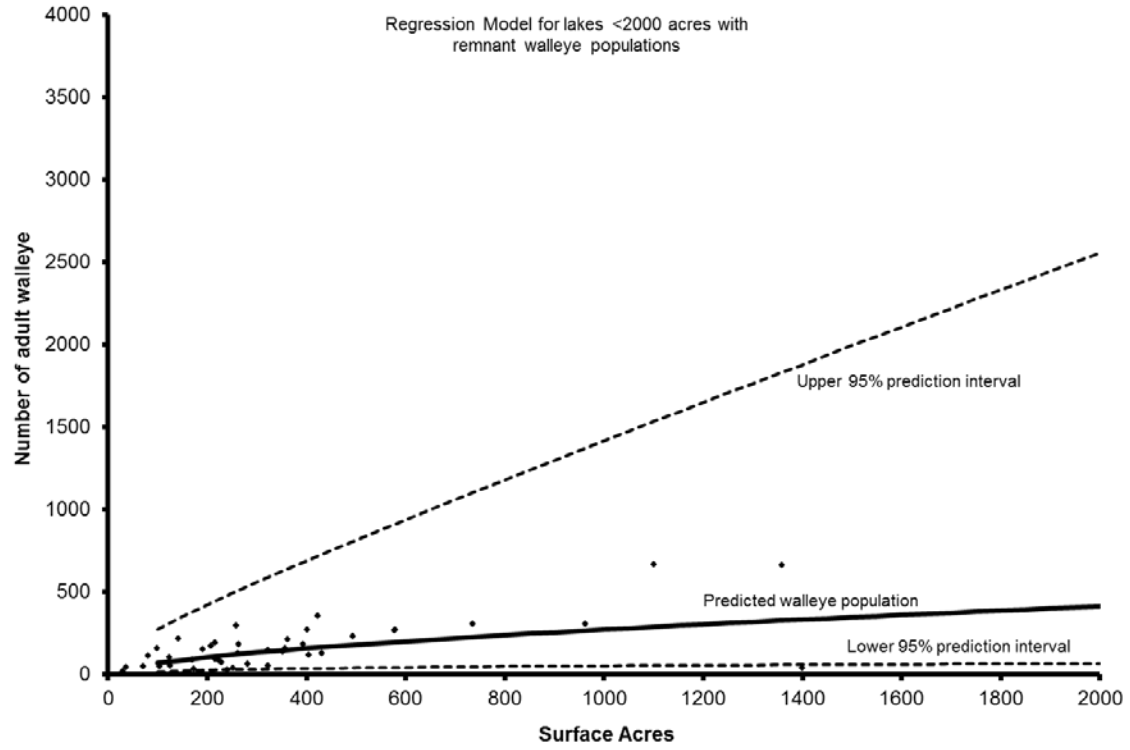

Figure 4. Regression model used to set 2013 safe harvest levels for lakes <2000 acres with remnant walleye populations (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

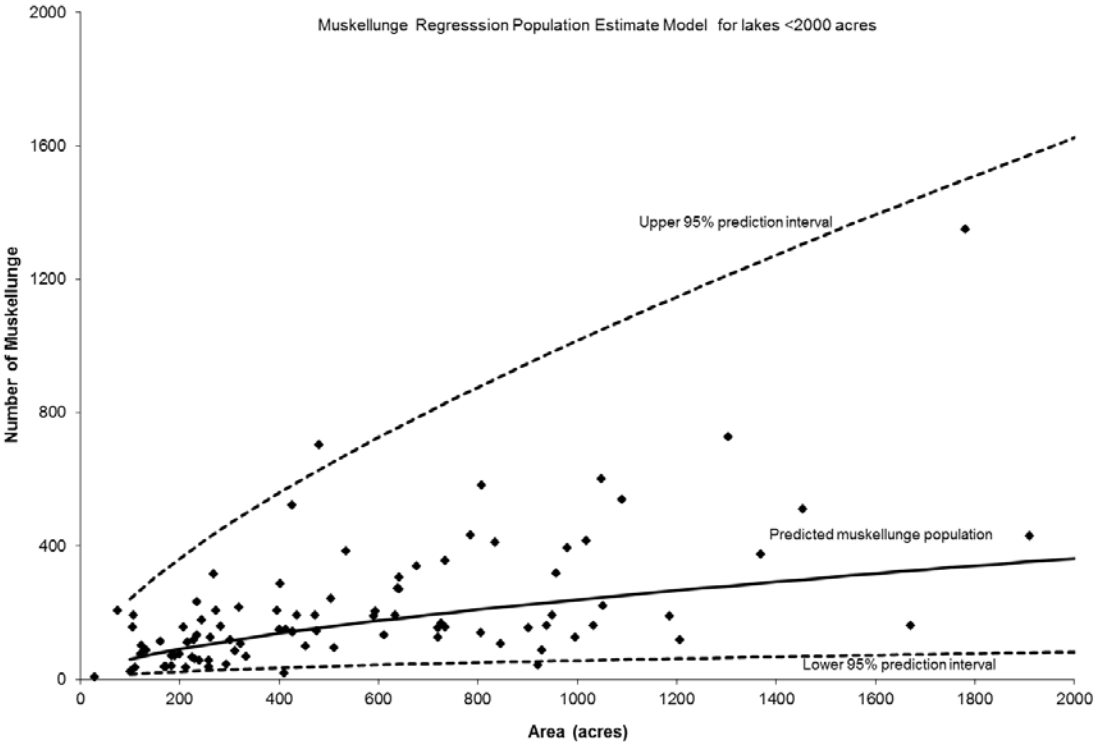

Figure 5. Regression model used to set 2013 safe harvest levels for muskellunge populations in lakes <2000 acres (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

Estimating Fishing Effort and Harvest

Tribal Harvest and Exploitation

In lakes where current walleye population estimates are available, tribal harvest numbers are used in conjunction with population estimates to estimate tribal exploitation of walleye populations. Tribal harvest numbers for individual lakes are supplied to WDNR by GLIFWC and encompass all tribal harvest methods used (e.g. spring or winter spearing, netting). Tribal exploitation is estimated by dividing the total tribal walleye harvest within each lake by the estimated adult walleye population size for that same lake.

Angler Harvest and Exploitation - Creel Surveys

Creel surveys are generally conducted each year in the same lakes in which a walleye population estimate is done. Coordinating efforts in this way allows for year-long recovery in the creel of fish marked during spring population estimates, and subsequently allows for estimation angler exploitation of walleye.

WDNR creel surveys use a random stratified roving access design (Beard et al. 1997; Rasmussen et al. 1998). The surveys were stratified by month and day-type (weekend / holiday or weekday), and creel clerks conducted their interviews at random within these strata. Surveys were conducted on all weekends and holidays, and two to three randomly chosen weekdays per week. Angler effort was recorded twice daily based on instantaneous counts of angler activity.

Clerks counted the number of anglers and recorded effort, catch, harvest, and targeted species from anglers completing their fishing trip. Clerks also measured harvested fish and recorded any fin-clips observed. Only completed-trip interview information was used for analyses. Information from interviews was expanded over the appropriate stratum to provide an estimate of total effort, catch, and harvest of each species in each lake for the year. Creel data were summarized according to lake size, population recruitment source and current state regulations (Appendix D). In cases where lakes were connected (as either defined or undefined chains), creel clerks were not necessarily present at each individual lake on a given day; however, during the interview clerks collected information specific to lakes within the chain thereby enabling creel related estimates to be determined for individual lakes.

Angling effort was estimated for each stratum and summed across all strata to estimate total angler effort for each lake (angler hours/lake). Angler catch and harvest (hours/fish) rates were calculated for each game fish species encountered, giving an indication of average angler success and providing an index of the relative abundance of each species. Species-specific catch and harvest rates were calculated using only species-specific fishing effort. General catch and harvest rates were calculated using total angler effort, regardless of the species targeted.

Tribal and angler walleye exploitation rates were calculated in lakes where adult population estimates and creel surveys were conducted. Angler exploitation rates for adult walleye were calculated by dividing the estimated number of marked fish harvested by the total number of marked fish present in the lake (R/M; Ricker 1975). Although anglers are able to harvest immature walleye in some waters, only adult walleye exploitation rates were calculated. Tribal exploitation was calculated as the total number of adult walleyes harvested divided by the adult population estimate (C/N; Ricker 1975). Total adult walleye exploitation rates were calculated by summing angling and tribal exploitation.

Young-of-Year Walleye Surveys

Electrofishing for YOY walleyes was done after sunset in early autumn, beginning when water temperatures had fallen below 70° F. In most cases, the entire shoreline of a lake was electrofished and all sub-adult walleyes were examined and measured. Two-sample t-tests were used to test various hypotheses: that YOY density (fish/mile shocked) observed in natural and stocked model lakes was equal during 2013, that within each recruitment model the YOY density observed in 2013 did not differ from the average over the previous 22 years (1990-2011), and that in stocked model lakes YOY density did not differ between those lakes that were stocked and those that were not stocked during 2013. A general linear model was used to evaluate the effects of recruitment model (natural or stocked), year, and the year*model interaction on YOY walleye/mile over time. The interaction term was evaluated as indicative of significant trends over time in YOY walleye/mile for lakes within one or both recruitment models.

Hansen et al. (2004) updated a previous analysis by Serns (1982) to establish a relationship between the number of YOY walleyes collected per mile of shoreline electrofished and their lake-wide density (#/acre) where:

$$Density = 0.0345 * (Catch\ per\ mile)^{1.564}$$

The Hansen et al. (2004) metric of YOY density is used in evaluation of differences between various lake classes (e.g. Natural or Stocked recruitment model lakes). Use of the Hansen et al. metric for this purpose began with the 2006-2007 annual report; in years prior to 2006 the Serns index was used for the same purpose.

To assess any potential for natural reproduction, a portion of lakes classified as 'stocked', 'remnant', or where the primary component of year class strength is uncertain are selected to receive fish with an internal oxytetracycline (OTC) otolith mark. A proportion of the YOY fish sampled from these lakes in the fall were sacrificed to assess the relevant contribution of stocking to the number of surviving YOY fish and to provide evidence of any contribution by natural reproduction.

RESULTS AND DISCUSSION

Population Estimates and Densities

In 2013, spawning walleye populations were estimated in 30 lakes, ranging in size from 81 to 3,816 acres and representing a range of walleye recruitment categorizations and angler regulations (Table 1). Due to sample size restrictions, separate analyses were conducted to evaluate differences in spawner population size across (1) primary recruitment source (natural, stocked, or remnant; refer to Appendix C) and (2) angling regulations in place during the 2013-14 angling season. Statistical comparisons were made for spawner density (fish/acre) which provides a better comparative measure across lakes of varying size (relative to spawner abundance).

All population estimates were reviewed by a Technical Working Group (TWG) for reliability. Factors considered in determining reliability of estimates included numbers of fish marked and/or recaptured by sex and in total and coefficients of variation associated with derived estimates. In cases where population estimates are not deemed reliable by the TWG, estimates are rejected for use in setting safe harvest levels. For consistency across data groups, any population estimates rejected by the TWG for other purposes were also excluded from summaries and analyses presented in this report.

Table 1. Lakes surveyed by WDNR crews in spring 2013, with corresponding information on adult (spawning) walleye population abundance and density. Only lakes with population estimates accepted for use by the TWG are shown.

WBIC[1]	County	Lake	Acres	Size Limit (in)	Recruitment Code	Recruitment Model	Adult Pop. Estimate	Adult Density (#/Acre)
Natural Model Lakes								
2742500	Bayfield	Bony	191	1>14	C-NR	Natural	419	2.19
2742100	Bayfield	Middle Eau Claire	902	1>14	C-NR	Natural	2169	2.40
2133200	Eau Claire	Lake Eau Claire	860	15	NR	Natural	5755	6.69
394400	Forest	Metonga	1991	18	C-NR	Natural	9836	4.94
2306300	Iron	Spider	352	1>14	NR	Natural	473	1.34
1586600	Oneida	Spider	123	15	NR	Natural	489	3.98
1875900	Rusk	Pulaski	126	15	C-NR	Natural	386	3.06
2275100	Sawyer	Connors	429	15	NR	Natural	1084	2.53
2615100	St. Croix	Cedar	1100	Slot14-18	NR	Natural	3768	3.43
1603700	Vilas	Catfish	978	Slot14-18	NR	Natural	5082	5.20
1603800	Vilas	Cranberry	924	Slot14-18	NR	Natural	5869	6.35
1600200	Vilas	Eagle	575	Slot14-18	NR	Natural	2118	3.68
2339900	Vilas	Escanaba	293	28	NR	Natural	2359	8.05
160010x	Vilas	Otter/Lynx[2]	205	Slot14-18	NR	Natural	866	4.22
2963200	Vilas	Plum	225	15	NR	Natural	888	3.95
1599600	Vilas	Yellow Birch	192	Slot14-18	NR	Natural	1337	6.96
2496300	Washburn	Shell	2580	None	NR	Natural	1490	0.58
Stocked Model Lakes								
2081200	Barron	Beaver Dam	1112	18	C-ST	Stocked	419	0.38
2469800	Barron	Horseshoe	115	18	ST	Stocked	136	1.18
2900200	Bayfield	Lake Owen	1323	18	C-ST	Stocked	1140	0.86
2461100	Burnett	Devils	1001	15	ST	Stocked	347	0.35
2678100	Burnett	Lipsett	393	15	ST	Stocked	98	0.25
677100	Florence	Fay	282	15	ST	Stocked	216	0.76
2309700	Iron	Cedar	193	1>14	C-ST	Stocked	361	1.87
2429300	Sawyer	Lower Clam	203	15	C-ST	Stocked	136	0.67
2331600	Vilas	Trout	3816	15	C-ST	Stocked	10016	2.62
Remnant Model Lakes								
679300	Florence	Halsey	512	15	O-ST	Remnant	688	1.34
608400	Forest	Van Zile	81	15	REM	Remnant	128	1.58
1502400	Lincoln	Grandfather Fl[3]	350	Slot20-28	NR-2	Remnant	1659	4.74
1503000	Lincoln	Grandmother Fl[3]	562	Slot20-28	NR-2	Remnant	2041	3.63

1 - WBIC is a Water Body Identification Code unique to each lake.
2 - A single, combined estimate was done for Otter and Lynx lakes.
3 - Acreage includes total wetted area upstream to next dam.

Spawning Adult Walleye Abundance

Adult spawning walleye abundance estimates averaged 2,059 walleye (2.99/acre) across all lakes with population estimates successfully completed during 2013 (Table 1). Average abundance estimates for natural-model lakes (Avg. 2,611, range 386-9,836) were greater than in stocked- (Avg.1,430, range 98-10,016) and remnant-model (Avg.1,129, range 128-2,041) lakes during 2013 (Appendix E). Spawning walleye abundance was lowest (98 adult walleye) in Lipsett Lake, Burnett County, and highest in Trout Lake, Vilas County (10,016 adult walleye; Table 1).

Average spawner density estimates for natural-model lakes sampled in 2013 (Avg. 4.09/acre, range 0.58-8.05) was greater than in stocked- (Avg. 0.99/acre, range 0.25-2.62) or remnant- (Avg. 2.82/acre, range 1.34-4.74) model lakes (Appendix E). Spawning walleye density was lowest (0.25/acre) in Lipsett Lake, Burnett County, and highest in Escanaba Lake, Vilas County (8.05/acre; Table 1).

Consistent with most previous years, differences observed during 2013 in walleye spawner density between lakes in different recruitment classes (natural, stocked, or remnant) were statistically significant (General Linear Model, $P<0.01$). Spawner densities observed in 2013 in lakes dominated by natural recruitment and those with remnant populations were greater than those in stocked model lakes (Tukey-Kramer LS Means, $P<0.01$ and $P<0.03$, respectively); no significant difference was found between mean spawner density in natural and remnant-model lakes (Figure 8).

Analysis of variance suggests that differences in spawner density existed between lakes with varying harvest regulations (General Linear Model, $P=0.04$). However, subsequent pairwise comparisons showed no significant differences in spawner density between any paired harvest regulation classes (Tukey Kramer, $P>0.13$ in all comparisons). In 2013 the majority of lakes included in the analysis had 15" minimum regulations in place (12 lakes), with only four 1>14" regulation classifications, one 'no size limit', four 18" minimum, one 28" minimum, six 14-18" protected slot and two 20-28" protected slot.

There is no statistically significant trend in walleye spawner density in natural-model lakes (GLM, $P=0.62$) in the Ceded Territory since 1995[4] (Figure 6). A significant downward trend in density of stocked-model walleye waters since 1995 was noted (GLM, Slope=-.064, $P=0.012$; Figure 7).

[4] Data prior to 1995 was excluded due to a difference in the protocol used to select lakes for assessment (Hewett No Date)

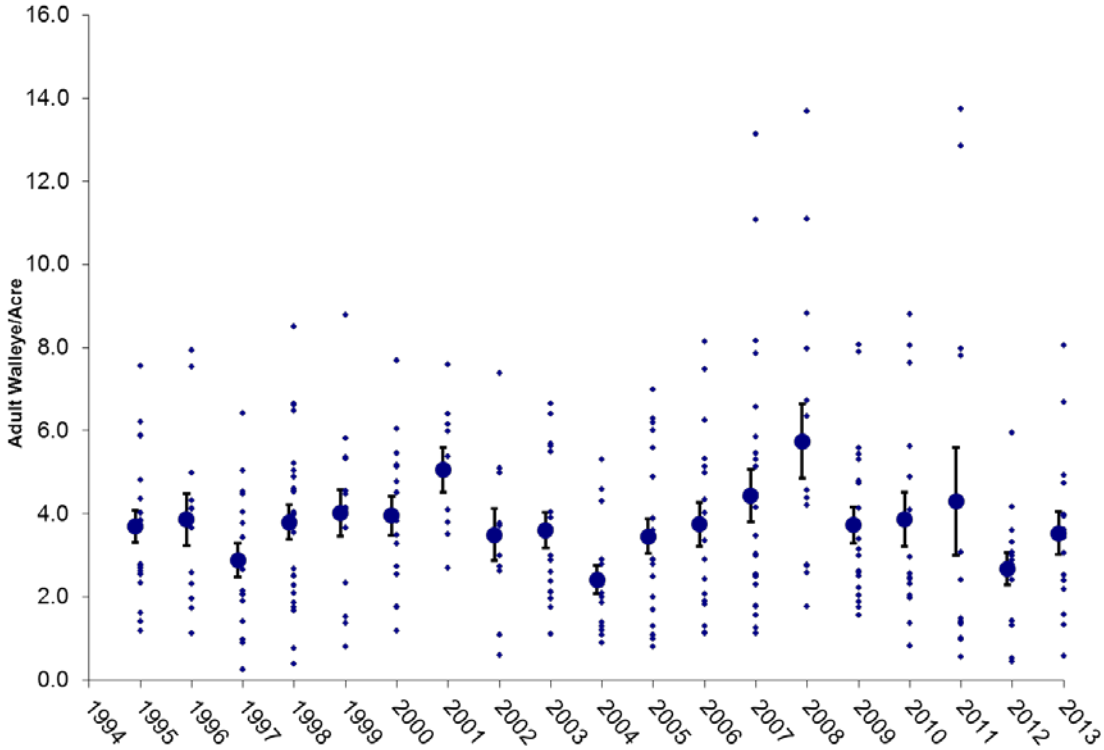

Figure 6. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by natural reproduction, 1995 – 2013. Small circles represent individual lakes; large circles represent yearly means (±SE).

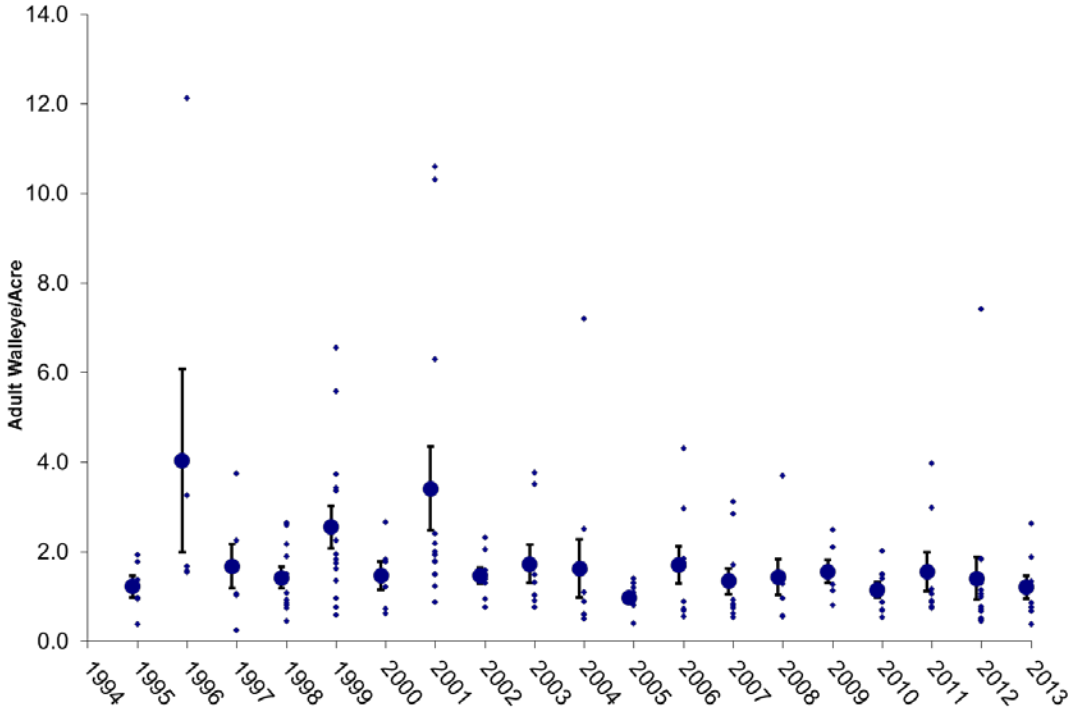

Figure 7. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by stocking, 1995 – 2013. Small circles represent individual lakes; large circles represent yearly means (±SE).

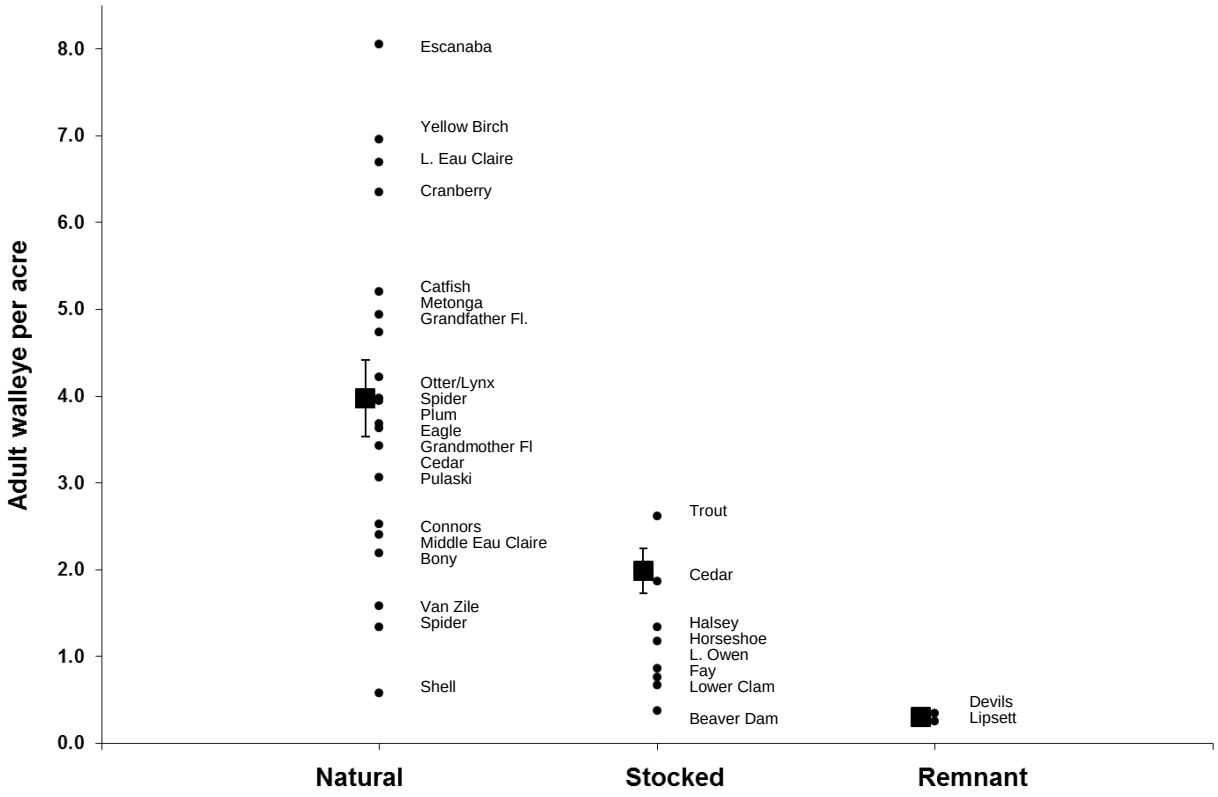

Figure 8. Adult walleye density estimates for lakes sampled by WDNR in spring 2013 based on primary population recruitment source.

Spawning Adult walleye size structure

Spawning adult walleye populations were estimated for each lake by length class in both natural (Figure 9), stocked (Figure 10) and remnant (Figure 11) production model lakes. Natural model lakes generally had higher walleye spawner densities than stocked model lakes, although the size structure sampled in stocked lakes tended to be larger relative to that in natural model lakes, with proportionately far fewer adult fish <15" in length observed in stocked waters. The two remnant model waters sampled in 2013 showed very low adult walleye densities (<0.5/acre) with size structures comparable to those seen in stocked model waters.

In natural model lakes spawning walleye abundance was highly variable although the size structure was typically dominated by 12-20" walleye; the exceptions to this were Catfish and Cranberry lakes that had substantial proportions of the adult population <12" in length (Figure 9). The natural model lakes sampled had overall densities ranging from <1 to just over 8 fish/acre. Fourteen of 20 sampled lakes had walleye densities equal to or exceeding 3 fish/acre; five of 20 sampled lakes had walleye densities exceeding 5 fish/acre. Walleye spawning in the 7-11.9 inch category were very limited in relative abundance in most natural production lakes sampled. It is unclear if the limited abundance of small adult walleye in these waters is due to a lack of young fish recruiting into the population, fish simply not maturing at young ages (and smaller size), or some other factor.

In stocked model lakes spawning walleye abundance and size structures were less variable than that observed in natural model lakes (Figure 10). With the exception of Trout Lake (Vilas Co.; 2.6/acre), walleye densities observed in stocked model lakes were less than 2 adult fish/acre. Despite lower fish densities than those observed in natural model lakes, stocked model lakes generally had a high percentage (e.g. >70%) of the spawning population made up of relatively large fish (>15") available for angler harvest under general statewide regulations.

As is typical, remnant model lakes had very low adult population densities in 2013. All remnant model waters sampled during 2013 had adult walleye population densities less than 0.5 fish/acre. Also typical of remnant model waters, the size structure of the populations was typically dominated by larger walleye >15", and in some cases, >20" in length (Figure 11).

Data were available for calculation of PSD and RSD-18 for 27 natural, 18 stocked, and five remnant-model lakes sampled in 2013 (Table 2). In lakes where walleye regulations involve a 15" minimum size limit, calculating PSD as the percent of stock sized fish over 15" essentially makes this value a comparative tool to evaluate the percentage of harvestable fish across lakes.

In natural model lakes observed PSD and RSD-18 values were highly variable, with PSDs ranging from 17 to 100 percent and RSD-18s ranging from 3 to 50 percent. In stocked model lakes observed PSD and RSD values showed similar variability to natural model lakes (24-100 percent and 13-100 percent, respectively). Remnant model lakes sampled in 2013 showed PSDs ranging from 50-94 percent and RSDs ranging from 21-89 percent (Table 2).

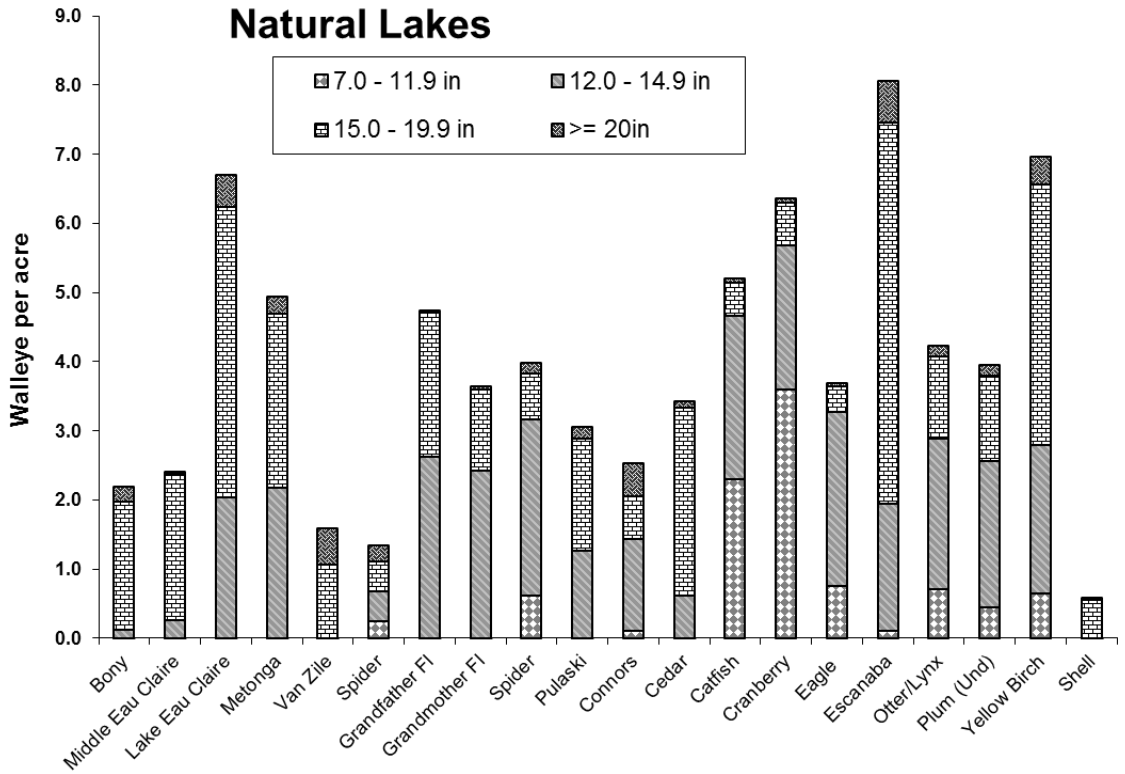

Figure 9. Size distribution of spawning walleye sampled in natural production model lakes during 2013.

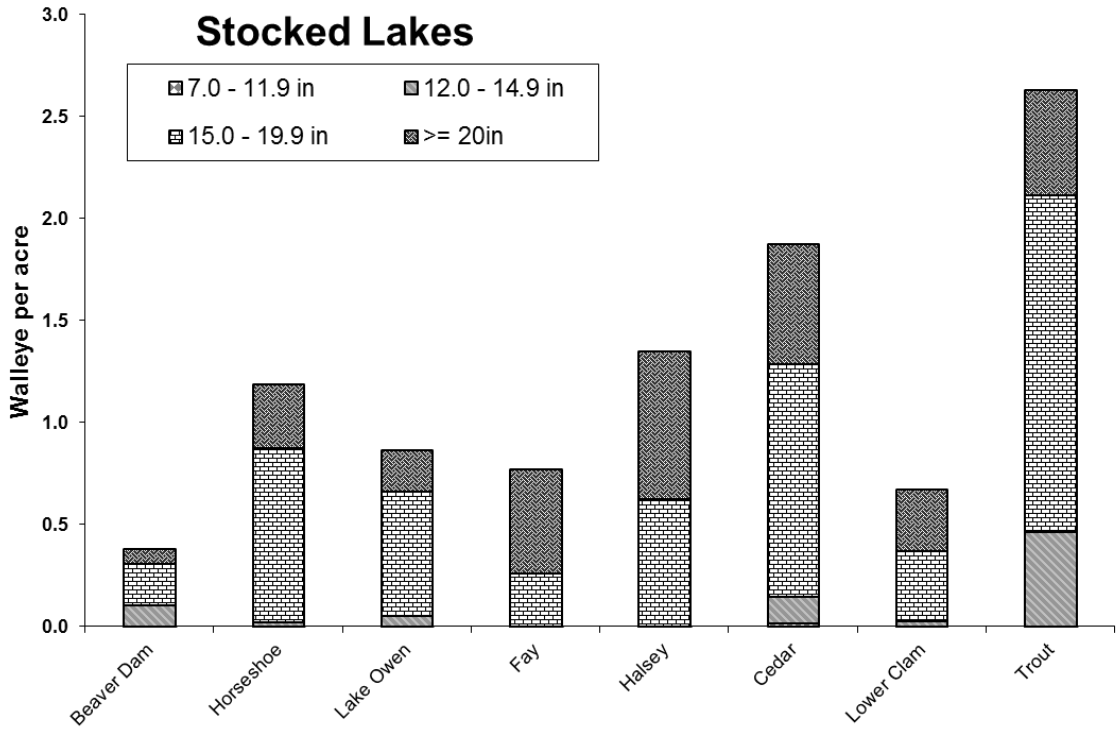

Figure 10. Size distribution of spawning walleye sampled in stocked production model lakes during 2013.

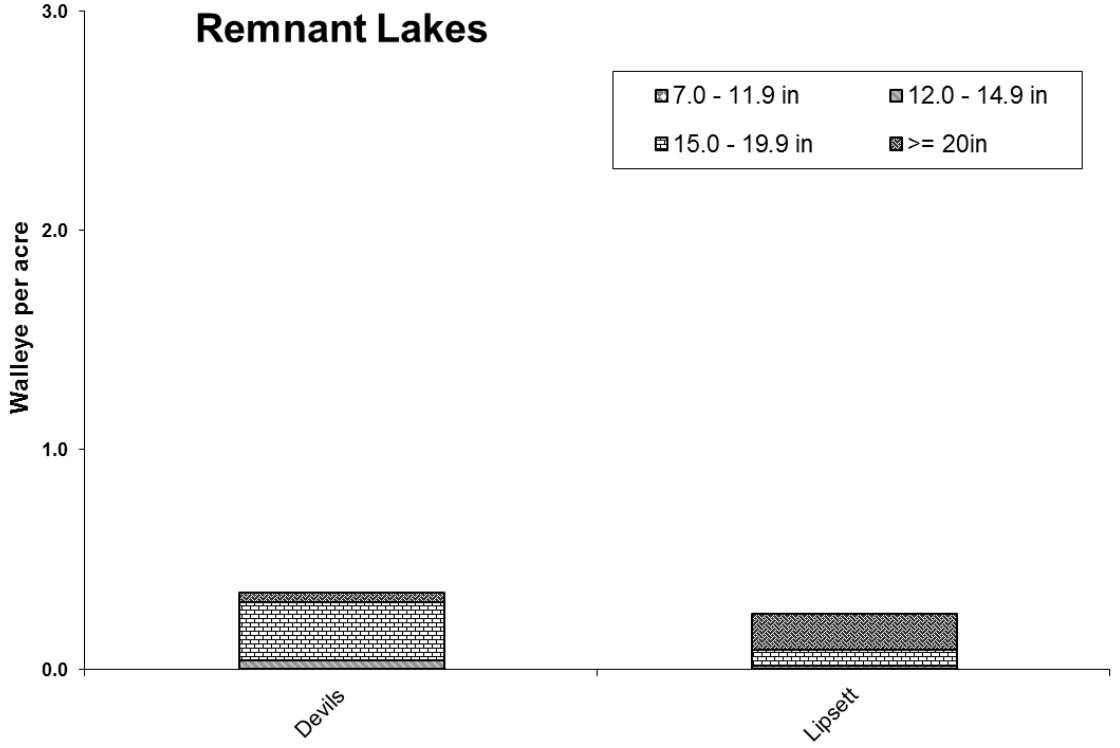

Figure 11. Size distribution of spawning walleye sampled in remnant production model lakes during 2013.

Table 2. Walleye Proportional and Relative Stock Density values for lakes surveyed in spring, 2013.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Natural Recruitment Lakes						
Bayfield	Bony Lake	191	C-NR	1>14	87	20
Bayfield	Middle Eau Claire Lake	902	C-NR	1>14	88	20
Chippewa	Holcombe Flowage	3,890	NR	14-18 Slot	66	23
Eau Claire	Eau Claire Lake	860	NR	15	75	33
Forest	Metonga Lake	1,991	C-NR	15	70	15
Iron	Spider Lake	352	NR	1>14	40	14
Iron	Turtle Flambeau Flowage	13,545	NR	No Min.	38	4
Iron	Trude Lake	781	NR	No Min.	23	5
Lincoln	Grandfather Flowage	350	NR	15	42	3
Lincoln	Grandmother Flowage	562	NR	15	48	3
Oneida	Buckskin Lake	634	C-NR	1>14	36	10
Oneida	Chain Lake	219	NR	15	72	50
Oneida	Cranberry Lake	956	NR	15	18	7
Oneida	Spider Lake	118	NR	15	22	7
Polk	Cedar Lake	1,100	NR	14-18 Slot	78	21
Price	Grassy Lake	81	NR	No Min.	100	33
Price	Lac Sault Dore	561	NR	No Min.	66	50
Rusk	Pulaski Lake	126	C-NR	15	64	15
Sawyer	Connors Lake	429	NR	15	40	23
Sawyer	Lake Of The Pines	273	NR	15	54	30
Vilas	Catfish Lake	1,012	NR	14-18 Slot	22	8
Vilas	Duck Lake	108	NR	14-18 Slot	68	26
Vilas	Eagle Lake	572	NR	14-18 Slot	17	4
Vilas	Otter Lake	196	NR	14-18 Slot	39	9
Vilas	Scattering Rice Lake	267	NR	14-18 Slot	63	41
Vilas	Yellow Birch Lake	202	NR	14-18 Slot	46	15
Washburn	Shell Lake	2,580	NR	No Min.	90	33
Stocked Recruitment Lakes						
Barron	Beaver Dam Lake	1,112	C-ST	18	78	22
Barron	Horseshoe Lake	115	ST	18	55	30
Bayfield	Lake Owen	1,323	C-ST	18	84	54
Burnett	Round Lake	204	ST	15	83	78
Burnett	Dunham Lake	243	C-ST	15	100	25
Burnett	Rooney Lake	322	ST	15	24	13
Clark	Mead Lake	320	C-ST	15	86	43
Florence	Fay Lake	282	ST	15	98	86
Florence	Halsey Lake	512	ST	15	100	85
Iron	Cedar Lake	193	C-ST	1>14	70	35
Iron	Fisher Lake	410	ST	15	98	84
Marinette	Hilbert Lake	247	C-ST	15	100	100
Oneida	Gilmore Lake	320	ST	15	88	88
Oneida	Pier Lake	257	ST	15	75	33
Polk	Wapogasset Lake	1,186	C-ST	15	93	84
Rusk	Potato Lake	534	ST	15	76	45
Vilas	Trout Lake	3,816	C-ST	15	70	21
Taylor	Sackett Lake	63	ST	14-18 Slot	100	100

Table continued on next page.

Table 2. Continued.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Remnant Population Lakes						
Burnett	Devils Lake	1,001	O-ST	15	74	21
Burnett	Lipsett Lake	393	O-ST	15	94	89
Douglas	Person Lake	172	O-ST	15	71	37
Oneida	Willow Lake	395	O-ST	15	62	37
Polk	Bear Trap Lake	241	O-ST	15	50	50

In 2013, average size structure was generally smallest in natural model lakes, with comparable larger size structures observed in stocked lakes and remnant model lakes (Figure 12). Mean PSDs for natural, stocked, and remnant model lakes were 55, 80 and 70, respectively. Mean RSD-18s for natural, stocked, and remnant model lakes were 18, 53 and 47, respectively. Differences in PSD and RSD-18 values across lakes in various recruitment models could be caused by any number of potential factors including, but not limited to, high or low recruitment levels of younger/smaller fish, differing angler regulations, harvest patterns and harvest levels, or differences in survival or year class strength leading to differences in the relative abundance of quality (PSD, ≥15") or preferred (RSD, ≥18") sized fish in some lakes relative to others.

Mean annual PSD values in both natural and stocked model lakes are trending upward over time; the regression of natural model lakes over time has a slope of 1.2 ($p<0.01$); the regression of stocked model lakes has a slope of 0.7 ($P=0.03$; Figure 13). PSD and RSD values are highly correlated in both natural and stocked model waters over time ($r2>0.8$), so the trends presented for PSD values are very similar to those observed for RSD values. The implication of increasing trends in PSD (and RSD) is that, over time, both natural and stocked model lakes are seeing an increased percentage of larger walleye in the overall population. The observed trends in PSD values could be due to introduction and increased use of size selective fishing regulations over time (e.g. minimum or protective slot categories), declining recruitment of young fish into the population, increased growth rates, or other factors.

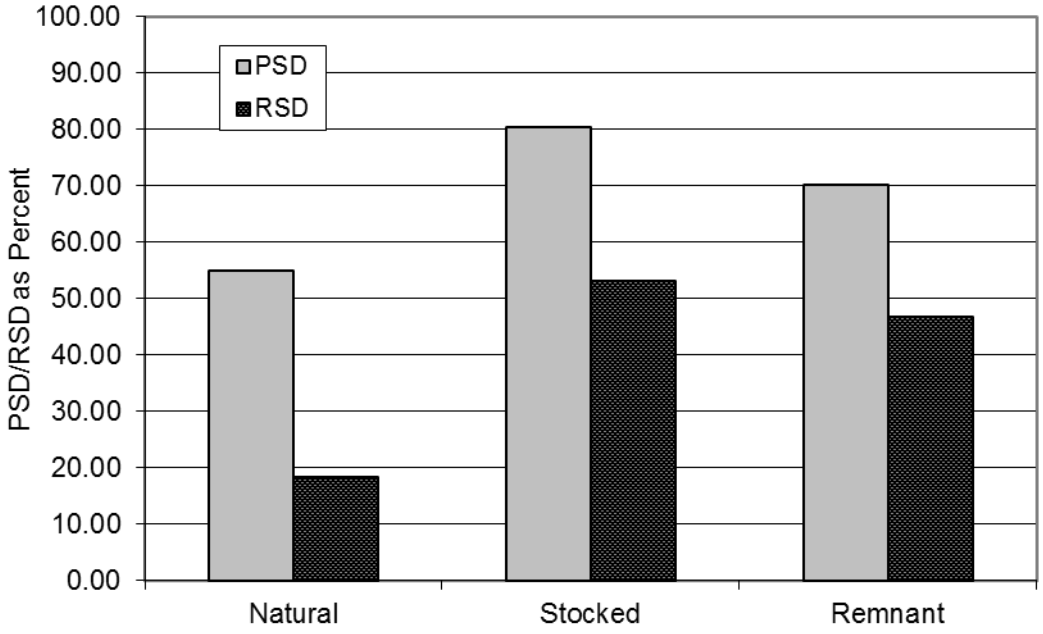

Figure 12. Comparison of mean PSD and RSD-18 values across lakes in various walleye recruitment models for lakes sampled in 2013.

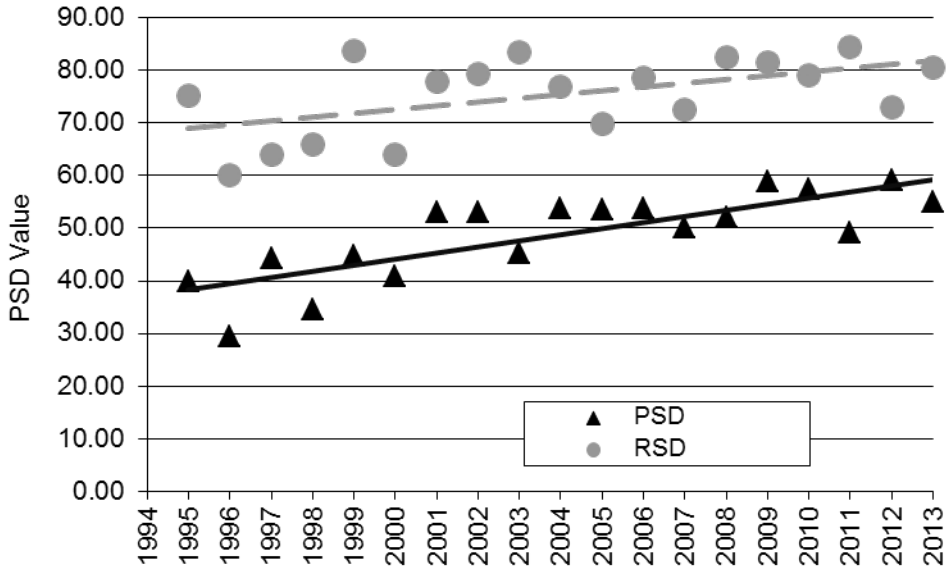

Figure 13. Trends in PSD values observed for walleye in Ceded Territory lakes since 1995.

Muskellunge Abundance

Adult muskellunge population and density estimates were completed in ten Ceded Territory waters during spring 2013 (Table 3). Population estimates completed in 2013 reflect 2012 population numbers because of the two-year mark-recapture time span used to derive estimates. Muskellunge densities ranged between 0.04 and 0.87 adult fish/ acre and did not appear to be related to lake size or angler regulations (Table 3).

Bass Abundance

Largemouth bass population estimates were completed in three lakes in 2013; Smallmouth bass population estimates were completed in one lake during 2013 (Table 4). Estimated largemouth bass density was 8.9 fish per acre in Devils Lake, 6.8/acre in Lipsett Lake, and 1.3/ acre in Shell Lake (Table 4). The size structure of largemouth bass populations in Devils and Shell lakes was dominated by fish less than 14" in length, whereas approximately 40% of the largemouth bass in Lipsett Lake were greater than 14" in length (Figure 14). Smallmouth bass density was estimated to be 2.0 fish/acre in Shell Lake during 2013 (Table 4) with a size structure similar to that of largemouth bass in the same lake (approximately 50% >14" in length; Figure 14).

Table 3. Adult muskellunge population estimates completed in 2013 in the Wisconsin Ceded Territory. Regulations presented are for 2013.

County	Lake	Angler Regulation (inches)	Acres	Minimum length in PE (inches)		Adult PE	CV(%)	Total per acre
				Male	Female			
Iron	Moose	40	269	29.5	27.0	125	25.3	0.39
Washburn	Shell	40	2,580	23.0	30.0	92	19.5	0.04
Sawyer	Spider	28	1,454	20.0	22.0	817	13.5	0.56
Sawyer	Fawn	40	23	20.0	22.0	13	13.5	0.57
Vilas	Presque Isle	40	1,280	27.5	30.0	147	22.7	0.11
Vilas	Van Vliet	40	220	29.5	30.0	192	18.2	0.87
Vilas	Papoose	40	428	22.0	30.0	116	15.9	0.27
Vilas	Plum	40	1,033	30.0	30.0	40	13.2	0.04
Vilas	Big Sand	50	1,418	30.0	30.0	148	25.0	0.10
Clark	Mead	40	320	22.5	27.5	212	30.6	0.66

Table 4. Largemouth and Smallmouth bass population estimates for lakes sampled in the Wisconsin Ceded Territory in spring 2013.

County	Lake	Acres	Angler Regulation	Total PE	CV(%)	Total /acre	8.0-13.9" /acre	14.0-17.9" /acre	18.0"+ /acre
Largemouth Bass									
Burnett	Devils-LMB	1,001	14" minimum	8,894	27	8.9	8.8	0.1	<0.1
Burnett	Lipsett-LMB	393	14" minimum	2,671	22	6.8	3.8	3.0	<0.1
Washburn	Shell-LMB	2,580	14" minimum	3,354	29	1.3	0.8	0.5	0.0
Smallmouth Bass									
Washburn	Shell	2,580	14" minimum	5,047	15	2.0	0.8	1.1	0.0

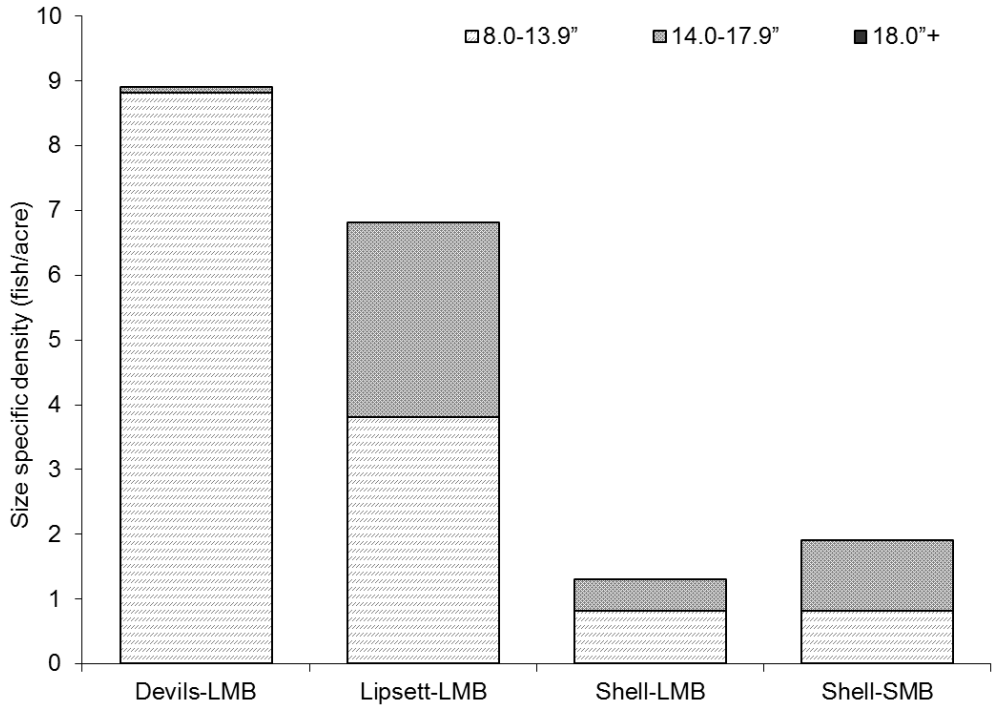

Figure 14. Large- and smallmouth bass population densities (fish ≥ 8.0") by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2013.

Creel Surveys

In 2013-2014 (May through March), creel surveys were conducted for 20 waters in which walleye population estimates were made during spring 2013 (Appendix D). Eight of the 20 surveyed lakes were part of the Eagle Chain of Lakes system located in Vilas Co. Creel surveyed lakes ranged in size from 31 to 3,816 acres (Lynx Lake-Vilas Co. and Trout Lake-Vilas Co., respectively) and were located across ten counties within the Ceded Territory.

Overall Angler Effort

From 1995 through 2013 total angler effort has been variable but no trend has been observed across all ceded territory lakes monitored [$F(1; 367) = 0.2$, $P = 0.89$]. This finding is consistent with other studies and evaluations on angling pressure in Ceded Territory lakes (Cichosz 2009, Hansen 2008, Deroba et al. 2007, Hennessy 2005; Figure 15). Since 1995 when random lake selection began, mean total angler effort has been significantly lower in large lakes (≥500 acres; 26.5 hours/ acre) than in small lakes (<500 acres; 36.5 hours/ acre; t-test (unequal variances) $t = -3.95$, $df = 270$, $P < 0.01$). In 2013-14 the mean total angler effort per acre in large lakes (8 lakes, 25.6 hours/acre) was lower than that in small lakes (12 lakes, 46.5 hours/acre) although that difference was not statistically relevant (t-test equal variances, $t = -1.54$, $df = 18$, $P = 0.14$).

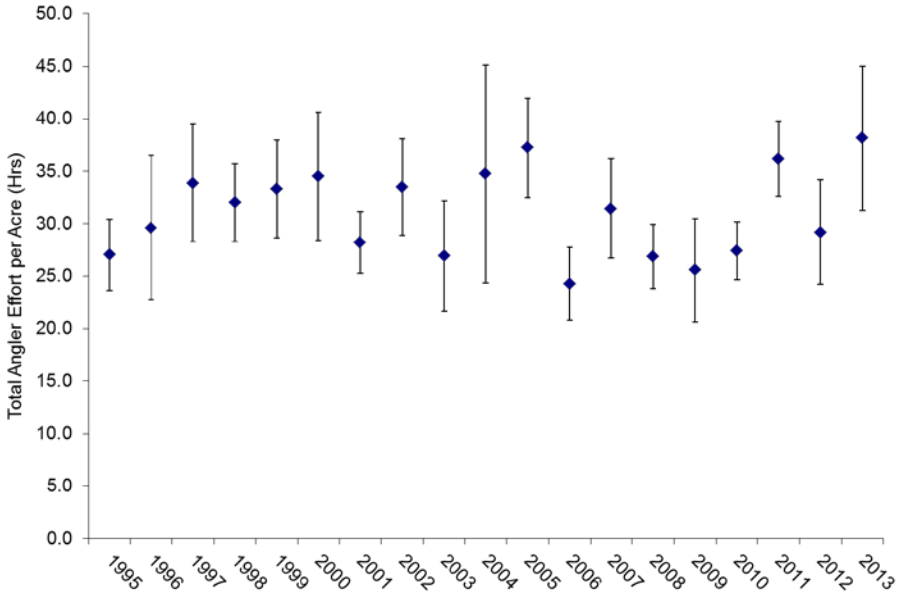

Figure 15. Average total angler effort per acre (±SE) in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2013.

Walleye Effort, Catch and Exploitation

Directed effort for walleye averaged 9.1 hours per acre across lakes during the 2013-14 angling season; Directed effort is defined as hours reported by anglers fishing for a specific species. The majority (16) of creel surveys in 2013-14 were in lakes dominated by natural reproduction, with very few in those dominated by stocking (2) or with remnant (2) populations, making comparison of effort level between these groups impractical. No significant difference was found in directed fishing effort for walleye between large (≥500 ac., 8.0 hours/ acre) and small lakes (<500 ac., 9.8 hours/ acre; t-test (equal variances) t = -0.61, df = 18, P = 0.55) surveyed during the 2013-14 angling season. Since 1995, directed angler effort (hours/acre) for walleye has shown a statistically significant downward trend [Slope = -0.24, F(1;367) = 13.9, P < 0.01), although visually the statistical significance seems driven by high observed value in 1996 and the abnormally low level seen in 2012 rather than by any notable long term trend (Figure 16).

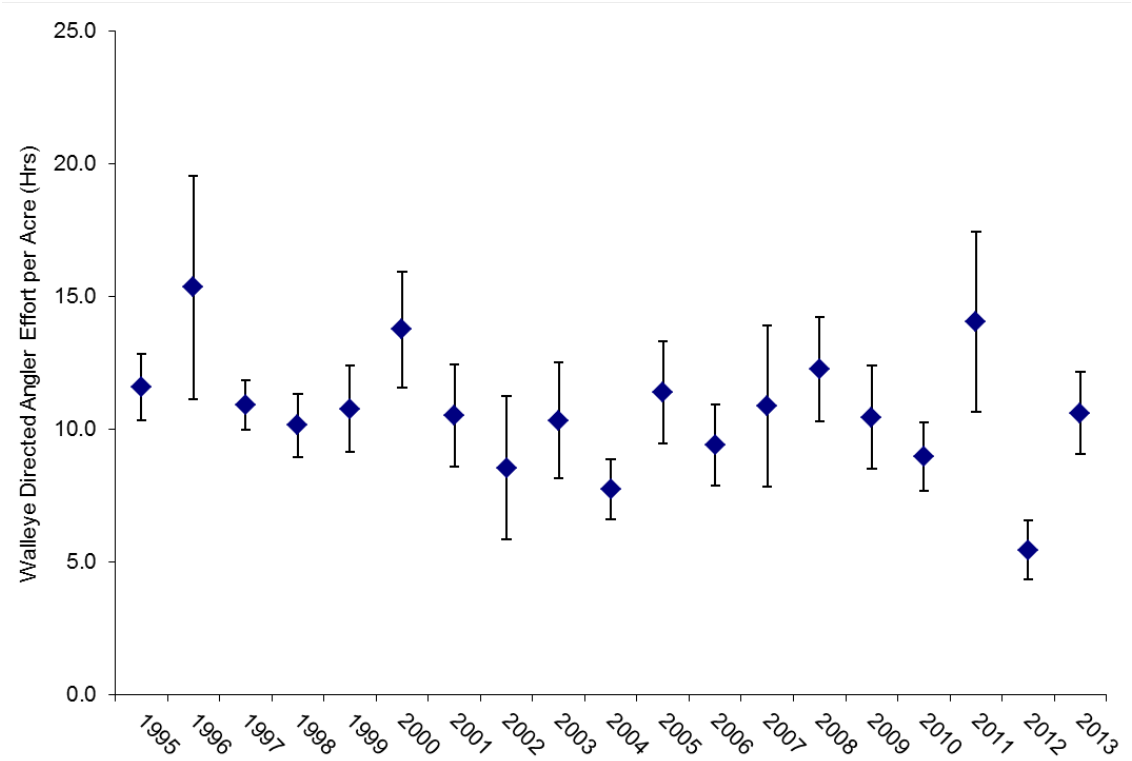

Figure 16. Directed angler effort per acre (±SE) for walleye in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2013.

In 2013-14 the mean specific catch rates (SCR) was 0.22 walleye/hour of directed effort (1 fish per 4.5 walleye angling hours). In lakes with naturally sustained or stocked populations, respectively, mean SCRs were 0.25 walleye per hour (4.0 hours directed effort/ walleye caught; n=16) and 0.15 walleye/ hour (1 fish per 6.7 hours of directed effort; n=2). Specific harvest rates averaged 0.06 walleye/hour of directed effort (17.2 hours directed effort/walleye harvested) and ranged between 0.00 and 0.15 walleye/hour for individual lakes surveyed (Appendix D). Based on creel survey results, anglers harvested approximately 28% of all walleye caught during the 2013-14 season; this is moderately below the average percentage estimated across all lakes creeled between 1995 and 2012 (37%).

Between 1995 and 2013 a statistically relevant downward trend in SCR was observed [Figure 17; Slope = -0.006, F(1, 367) = 5.85, P = 0.016]. Although statistically relevant this trend appears driven by relatively high catch rates estimated in 1996 and 1997; with a slope very near zero, there is likely no biological or other relevance to this trend. No discernible trend was noted for specific harvest rate by year since 1995 [F(1, 367) = 0.93, P = 0.33] for walleye in the Wisconsin Ceded Territory (Figure 17).

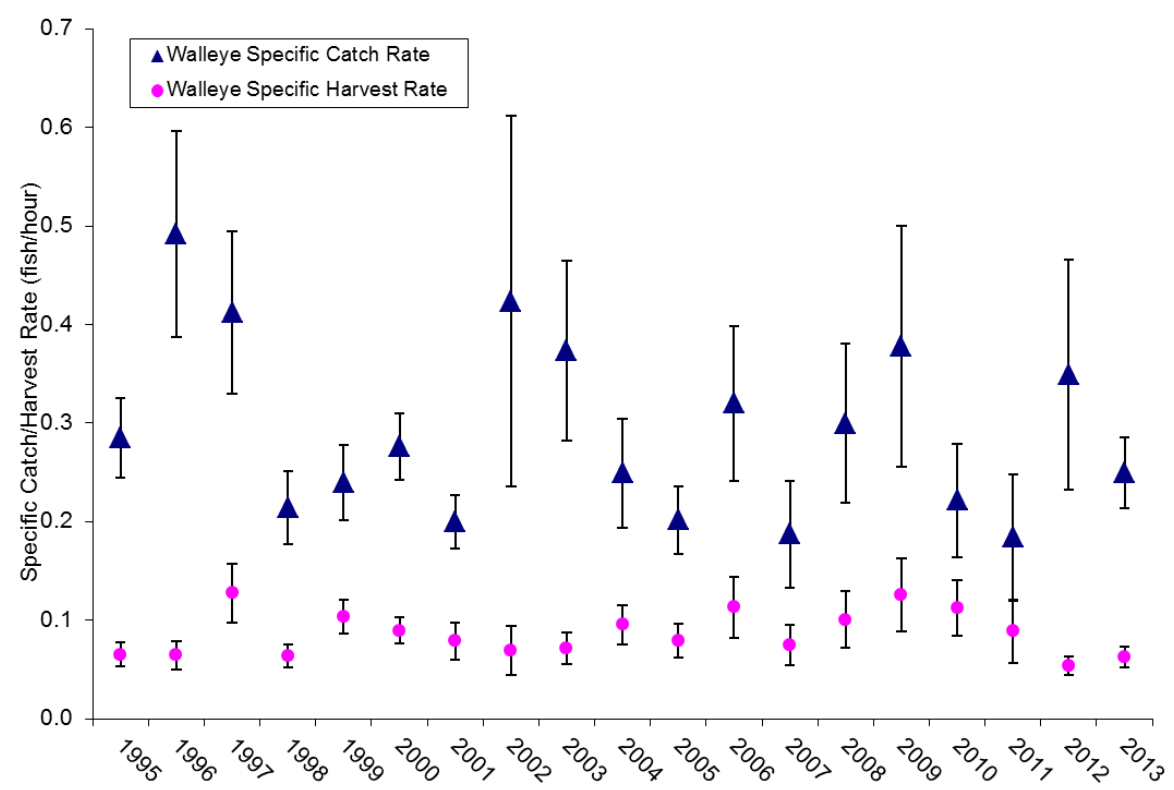

Figure 17. Specific catch and harvest rates (±SE) for walleye in surveyed lakes in the Wisconsin Ceded Territory, 1995-2013. Specific catch or harvest rate is number of walleye caught or harvested divided by time spent fishing specifically for walleye.

Walleye exploitation rates were estimated for 16 lakes during 2013-14 (Table 5; Appendix G). Estimates of angler walleye exploitation ranged from 0% to 14.4%; Angler exploitation of walleyes in various size classes was variable with exploitation of walleye 14" or longer ranging from 0% to 16.8% whereas that of walleyes 20" or longer ranged from 0.0% to 28.6%. Both tribal and total (angler = tribal) exploitation of walleyes ranged from 0.0% to 46.9% across all lakes, and tribal exploitation rates exceeded those of anglers in half (8) of the surveyed lakes. Based on 2013-14 survey results angler exploitation of walleye populations was estimated as zero in five of 16 lakes surveyed; three of the 16 lakes surveyed incurred no tribal exploitation of walleye.

Safe harvest limits are set so that over time there is less than a 1-in-40 chance that exploitation will exceed 35% in any given year on any single lake. In 2013-14 total walleye exploitation was below 35% in 15 of 16 lakes evaluated, with Lipsett Lake (Burnett Co.) being the exception with 46.9% total walleye exploitation (Table 5).

Table 5. Adult walleye exploitation rates by lake and harvest type for 2013, with comparison to 1995-2012 mean exploitation rates.

County	Lake	Acres	Angler exploitation	Angler expl. ≥14"	Angler expl. ≥20"	Tribal expl.[1]	Total adult exploitation
Barron	Horseshoe	115	0.000	0.000	0.000	0.000	0.000
Bayfield	Middle Eau Claire	902	0.046	0.048	0.000	0.111	0.157
Burnett	Devils	1,001	0.089	0.093	0.000	0.104	0.193
Burnett	Lipsett	393	0.000	0.000	0.000	0.469	0.469
Eau Claire	Eau Claire	860	0.144	0.168	0.085	0.000	0.144
Forest	Metonga	1,991	0.004	0.005	0.000	0.018	0.022
Oneida	Spider	123	0.020	0.053	0.000	0.000	0.020
Rusk	Pulaski	126	0.138	0.156	0.000	0.117	0.254
Sawyer	Connors	429	0.078	0.144	0.158	0.122	0.199
Vilas	Catfish	978	0.077	0.130	0.286	0.040	0.117
Vilas	Cranberry	924	0.015	0.000	0.000	0.049	0.063
Vilas	Eagle	575	0.000	0.000	0.000	0.007	0.007
Vilas	Otter/Lynx	31	0.000	0.000	0.000	0.000	0.000
Vilas	Trout	3,816	0.089	0.098	0.118	0.032	0.122
Vilas	Yellow Birch	192	0.000	0.000	0.000	0.000	0.000
Washburn	Shell	2,580	0.031	0.032	0.000	0.174	0.206
2013 mean			**0.046**	**0.058**	**0.040**	**0.078**	**0.123**
1995-2012 mean			**0.090**	**0.113**	**0.135**	**0.047**	**0.137**

1 Tribal harvest data used to calculate tribal exploitation provided by the Great Lakes Indian Fish and Wildlife Commission (Ngu 1995 and 1996, Krueger 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, Krueger and Brost 2010, White 2012).

Muskellunge Effort and Catch

Of the 20 lakes surveyed in 2013-14, 16 are classified as musky waters. Creel clerks recorded at least one musky caught from 16 of the 20 lakes surveyed. Musky were reported as caught from one non-classified musky waters (Shell Lake, Washburn Co.) and no musky catch was reported from one classified musky water (Lake Metonga, Forest Co.); All other classified musky waters surveyed had musky catches reported (Appendix D). For the purpose of analyses and summarization of catch and effort, lakes not classified as musky waters and those without directed fishing effort were excluded even if limited numbers of musky were reported in creel surveys.

In general, the "action classification" assigned to lakes (WDNR 1996) is a better predictor of musky catch and effort than recruitment source or lake size to describe variability in catch and effort (Simonson and Hewett 1999). In most cases the 2013 estimates of angler catch, catch rate, and directed effort were not significantly different than the prior 10 year averages for each lake classification (Analysis of variance, Proc GLM; Table 6). The exceptions were angler catch/acre in Class A1 waters which was significantly less in 2013 than in the ten previous years, and angler catch/acre and Directed Effort in Class A2 waters which were both significantly greater in 2013 than in the ten previous years ($P < 0.05$; Table 6). It should be noted that Class A2 waters creeled during 2013 were primarily in the Eagle Chain of Lakes, a high density musky fishery that supports many musky tournaments throughout the year, contributing to both the noted high directed effort and angler catch observed in this lake class during 2013.

Trends in directed effort and catch rates of muskellunge were evaluated since 1995; Trend evaluations were not done independently for each muskellunge 'action class' since limited or no data was available for some year/action class categories. There has been no observed trend in muskellunge catch rates [GLM; $F(1, 282) = 0.52$, $P = 0.47$] or directed fishing effort [$F(1, 284) = 0.00$, $P = 0.996$] in the Ceded Territory since 1995 (Figure 18).

Table 6. Comparison of muskellunge catch and effort rates in 2013 and average values from 2003-2012, by musky lake classification.

Class	Class Description	Lakes sampled	Angler catch/ acre	Specific catch rate (fish/ hour)	Directed effort (hours/ acre)
2013					
A1	Trophy waters	3	0.02*	0.01	1.26
A2	Action waters	10	1.43*	0.05	27.21*
B	Intermediate action/ size	3	0.31	0.04	4.00
C	Low importance	0	---	---	---
Total		16	0.95*	0.04	18.00
2003-2012 Averages (Prior 10 years)					
A1	Trophy waters	59	0.22*	0.03	6.75
A2	Action waters	62	0.47*	0.04	10.15*
B	Intermediate action/ size	22	0.16	0.03	4.58
C	Low importance	10	0.02	0.01	0.58
Total		153	0.30*	0.03	7.41

* Difference between 2013 and prior 10 year average is statistically significant ($p<0.05$).

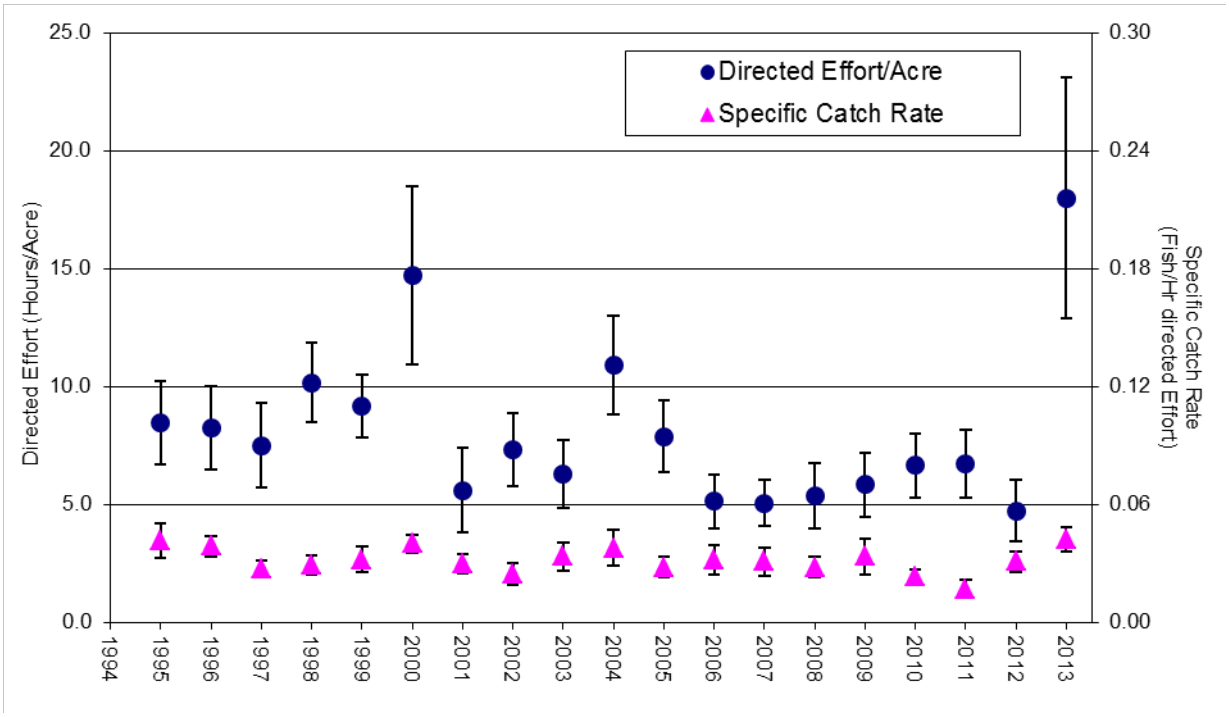

Figure 18. Directed angler effort per lake surface acre and specific catch rate (±SE) for muskellunge in surveyed lakes in the Wisconsin Ceded Territory, 1995-2013.

Northern Pike Effort and Catch

Directed effort and catches of northern pike were recorded in each of 20 lakes surveyed in 2013-14 (Appendix D). Of the 20 lakes with northern pike effort and catch, twelve were smaller than 500 acres and eight were 500 acres or larger (Table 7). There were no significant differences between large and small lakes with regard to directed angler effort, specific catch or harvest rate, or angler catch or harvest per acre of northern pike during the 2013-14 angling season (Table 7). Significant differences were found between 2013-14 creel values and the corresponding prior 10 year averages (2003 -2012) for northern pike directed effort/acre and harvest/acre in small lakes and all lakes combined; for large lakes, no significant differences between current and prior 10 year averages were noted for any creel statistic evaluated (Table 7).

Estimates of angler effort directed toward northern pike have been highly variable across years (Figure 19), and since 1995 there has not been a statistically detectable trend in directed angler effort for northern pike [$F(1, 346) = 0.17$, $P = 0.68$]. Similarly, specific catch rates of northern pike show no significant trend since 1995 [$F(1, 346) = 0.71$, $P = 0.40$].

Table 7. Mean estimates calculated from 2013 and 2003-2012 northern pike creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2013*							
	< 500 acres	12	1.80	0.17	0.16	0.03	2.66
	> 500 acres	8	1.65	0.16	0.27	0.04	2.14
	All lakes	20	1.74	0.16	0.20	0.03	2.45
2003-2012**							
	< 500 acres	91	2.63	0.48**	0.24	0.05	5.84**
	> 500 acres	112	1.84	0.26	0.18	0.05	3.49
	All lakes	203	2.19	0.36**	0.21	0.05	4.55**

* Small lake values differ significantly from corresponding large lake values observed during the 2013-14 angling season (T-test, $p>0.05$

** 10 yr. averages differ significantly from corresponding 2013-14 annual values (T-test, $p\leq0.05$.

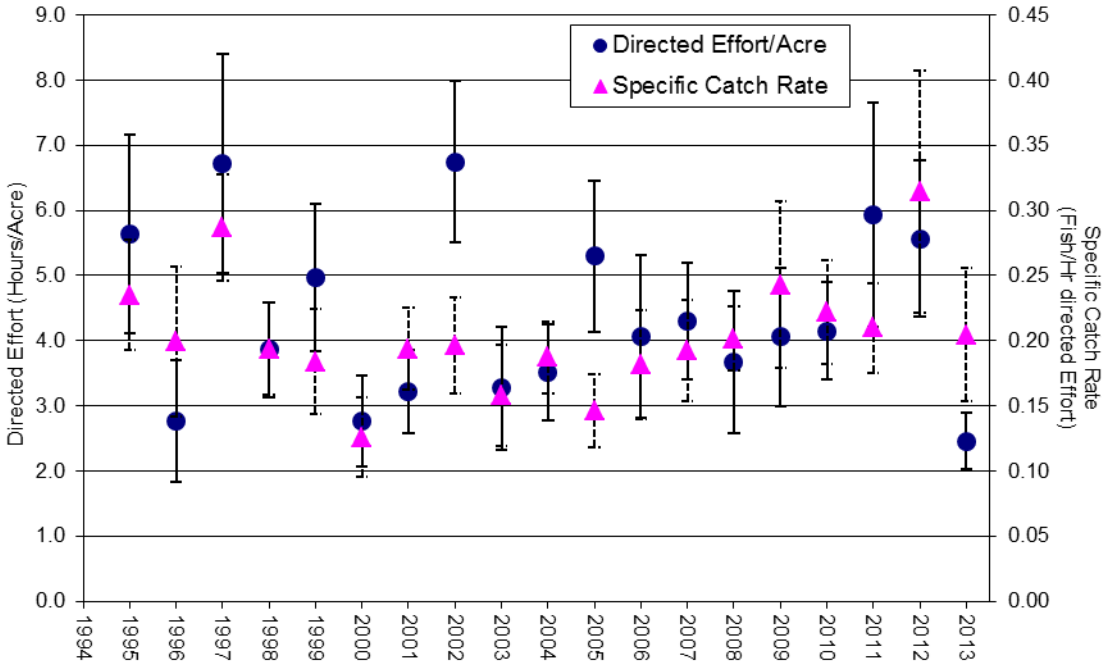

Figure 19. Directed angler effort per lake surface acre and specific catch rate (±SE) for northern pike in surveyed lakes in the Wisconsin Ceded Territory, 1995-2013.

Largemouth Bass Effort and Catch

Directed angler effort toward, and catches of largemouth bass were reported each of the 20 lakes surveyed in 2013-14 (Appendix D). Of surveyed lakes with largemouth bass catch, twelve were smaller than 500 acres and eight were 500 acres or larger (Table 8). In 2013-14, angling effort directed toward largemouth bass differed significantly ($P<0.05$) between large and small lakes, with greater effort in small lakes. There were no significant differences between large and small lakes with regard to angler catch or harvest numbers or specific catch or harvest rates (T-tests, equal variance, $P >0.05$) related to largemouth bass. None of the creel statistics evaluated during 2013-14 differed from the respective prior 10 year averages for large lakes, small lakes or all lakes combined (T-tests, $P >0.05$; Table 8).

Since 1995 there has been a statistically relevant increase in both directed angler effort [Slope = 0.12, $F(1, 338) = 5.01$, $P = 0.03$] and specific catch rates [Slope = 0.024, $F(1, 338) = 32.42$, $P < 0.01$] in largemouth bass fishing in Wisconsin Ceded Territory lakes (Figure 20).

Table 8. Mean estimates calculated from 2013 and 2003-2012 largemouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2013							
Small	< 500 acres	12	4.45	0.45	0.37	0.04	5.56*
Large	> 500 acres	8	2.64	0.34	0.55	0.08	2.19
	All lakes	20	3.73	0.41	0.44	0.06	4.21
2003-2012**							
Small	< 500 acres	80	5.63	0.25	0.48	0.02	5.80
Large	> 500 acres	104	5.09	0.22	0.44	0.02	3.89
	All lakes	184	5.33	0.24	0.46	0.02	4.72

* Small lake values differ significantly from corresponding large lake values observed during the 2013-14 angling season (T-test, p>0.05).
** No significant differences exist between 10 yr. averages and corresponding 2013-14 annual values (T-test, p≥0.05).

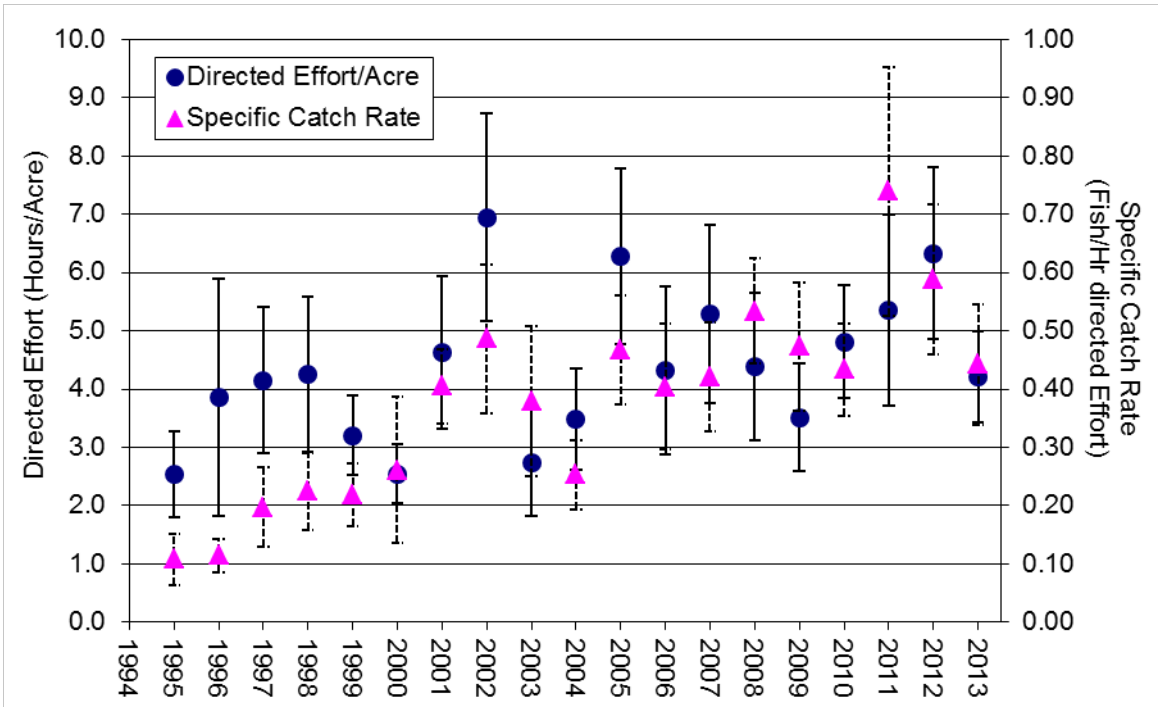

Figure 20. Directed angler effort per lake surface acre and specific catch rate (±SE) for largemouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2013.

Smallmouth Bass Effort and Catch

Seventeen of 20 lakes surveyed in the 2013-14 angling season had some level of angler effort directed toward smallmouth bass, and catches of smallmouth bass were reported in 16 lakes surveyed (Appendix D). Horseshoe (Barron Co.), Devils and Lipsett lakes (Burnett Co.) had no directed angler

effort nor catch of smallmouth bass reported. Spider Lake (Oneida Co.) had angling effort directed toward smallmouth bass but no catch was recorded in the creel survey. Of the lakes with smallmouth bass catch in 2013-14, ten were classified as 'small' (<500 ac.) and seven as 'large' (≥500 ac.; Table 9). There were no significant differences in smallmouth bass directed angler effort, catch/acre, specific catch rate, harvest/acre, or specific harvest rate (T-test, P>0.05) between large or small lakes in 2013-14 (Table 9). In small lakes, smallmouth bass catch/acre and harvest rate were significantly less than the corresponding 10 year average (T-test, P<0.05) although both contemporary and historic harvest rates so low as to likely have no functional difference. No other creel statistics evaluated during 2013-14 in small lakes differed from the respective 10 year averages (Table 9). In large lakes, no creel statistics evaluated during 2013-14 differed from the respective 10 year averages (Table 9).

Both directed effort and specific catch rates of smallmouth bass anglers in the Ceded Territory have been variable over time. The average of both directed effort and specific catch rates in surveyed lakes during 2013-14 was within the observed range of values in other years since 1995 (Figure 21). Since 1995 when a randomized lake selection process was instituted there have been no statistically detectable trends in directed angler effort/acre [$F(1, 332) = 0.10$, $P = 0.76$] or specific catch rates [$F(1, 332) = 2.08$, $P = 0.15$] over time (Figure 21).

Table 9. Mean estimates calculated from 2013 and 2003-2012 smallmouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2013*							
Small	< 500 acres	10	0.78	0.02	0.09	<0.01	3.05
Large	> 500 acres	7	1.32	0.05	0.39	0.01	2.56
	All lakes	17	0.99	0.03	0.22	<0.01	2.85
2003-2012							
Small	< 500 acres	85	1.71**	0.03	0.36**	<0.01**	2.86
Large	> 500 acres	112	2.09	0.08	0.38	0.02	3.06
	All lakes	197	1.92**	0.06	0.37	0.02	2.97

* No significant differences exist between large and small lakes for any parameter for the 2013-14 angling season (T-test, p>0.05).
** 10 yr. averages differ significantly from corresponding 2013-14 annual values (T-test, $p \leq 0.05$).

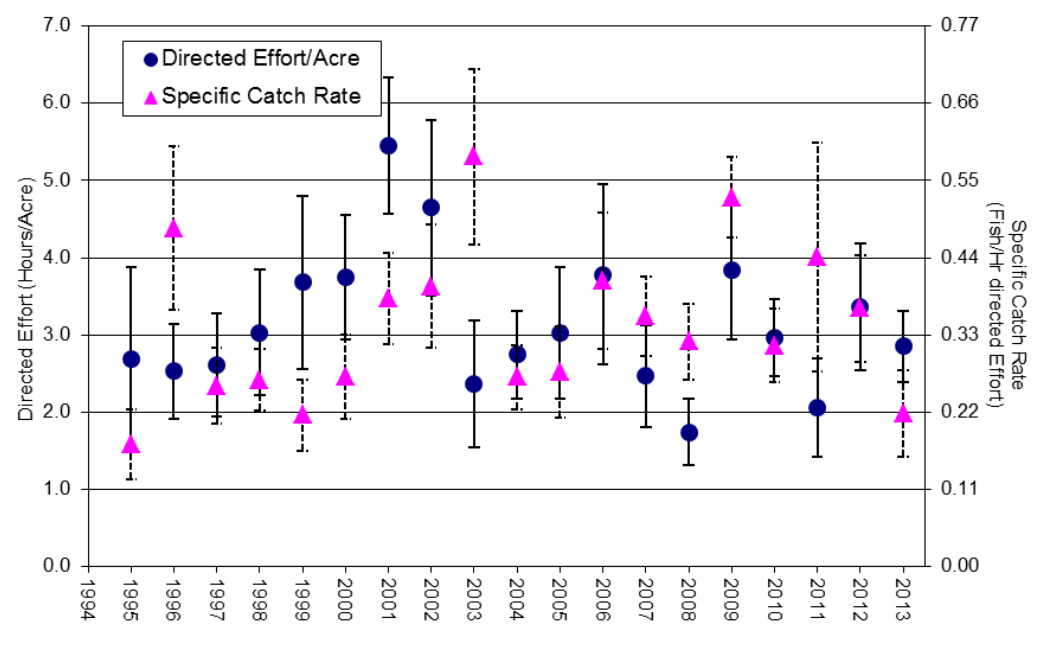

Figure 21. Directed angler effort per lake surface acre and specific catch rate (±SE) for smallmouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2013.

Safe Harvest

Safe harvest calculated for the 2013 harvest season was 84,013 walleye and 4,128 musky across the entire Wisconsin Ceded Territory (Table 10). Safe harvest of both walleye and musky has been shown to be highly correlated to the surface acreage of water found in each county (Linear regression, r^2>0.9; Cichosz 2009). For both walleye and musky the greatest total safe harvest numbers for individual counties were observed in Vilas (18,182 walleye, 1,202 musky), Oneida (15,504 walleye, 804 musky), Sawyer (11,206 walleye, 441 musky) and Iron (7,264 walleye, 299 musky) counties. When totaled, safe harvest from these four counties accounted for 62 percent of overall walleye and 67 percent of overall musky safe harvest for the Wisconsin Ceded Territory during 2013. Safe harvest numbers for individual lakes are listed in Appendix H.

Table 10. Walleye and musky safe harvest levels and ranks by county for the 2013 harvest season.

County	Lake Acreage*	Total Calculated Safe Harvest		Ranks (1 = Greatest #)	
		Walleye	Musky	Walleye	Musky
Ashland	2,862	363	92	23	12
Barron	13,684	1,774	33	12	17
Bayfield	12,585	3,006	115	8	9
Burnett	11,190	1,486	94	14	11
Chippewa	14,418	3,261	132	7	7
Clark	320	20	4	26	24
Douglas	6,211	1,619	40	13	16
Dunn	1,752	599		19	
Eau Claire	2,571	651	27	18	19
Florence	1,858	181		25	
Forest	10,832	2,419	45	9	14
Iron	24,651	7,264	299	**4**	**4**
Langlade	4,828	493	33	20	17
Lincoln	15,809	3,956	136	5	6
Marathon	9,583	1,866	45	11	14
Marinette	3,361	692	16	17	23
Oconto	3,082	391	20	21	20
Oneida	60,039	15,504	804	**2**	**2**
Polk	11,605	1,173	122	16	8
Portage	74	5		27	
Price	9,232	2,379	204	10	5
Rusk	5,633	1,445	108	15	10
Sawyer	48,007	11,206	441	**3**	**3**
St. Croix	1,100	384	17	22	22
Taylor	4,082	249	20	24	20
Vilas	71,304	18,182	1,202	**1**	**1**
Washburn	14,758	3,445	79	6	13
Grand Total	**365,431**	**84,013**	**4,128**	**---**	**---**

* Sum of acreage for lakes with defined safe harvest of one or both species; does not include total county-wide lake acreage.

Walleye Young-of-Year Surveys

Young of the year (YOY) surveys provide an index of the abundance and survival of the current year class of walleyes from hatching or stocking to their first fall. These surveys provide fisheries managers with insight into potential adult population changes in the near future. Early indication of these potential changes allows fisheries managers to develop management strategies to accommodate expected changes in adult populations. Although YOY relative abundance gives some indication of possible future adult abundance it does not necessarily correspond directly, as survival to adulthood varies (Hansen et al. 1998).

During 2013 WDNR completed fall surveys on 141 different lakes in the Wisconsin Ceded Territory (Appendix F). Of the lakes sampled, 62 had walleye populations classified as sustained by naturally reproduction (recruitment codes NR, C-NR, or C-), 53 as sustained by stocking (ST or C-ST), and 20 as remnant or newly established populations (REM, O-ST, NR-2; Appendix C). Six lakes surveyed were classified as having no known walleye population (NONE/0). Water temperatures during 2013 YOY walleye surveys ranged from 46 - 72° F; mean and median water temperatures during YOY surveys were 62° and 62.5°F, respectively. Young-of-year walleye lengths ranged from 3.5 to 8.7 inches across all lakes and dates surveyed in 2013 (Appendix F).

Differences in mean YOY walleye density between natural and stocked recruitment categories was significant during 2013 (t-test-unequal variance, t = 2.44, df = 107, P = 0.02). Consistent with all previous years since 1990, lakes sustained primarily by natural reproduction had higher mean walleye YOY density (mean = 12.3/mile of shoreline shocked, range = 0.0–117.7) than lakes sustained by stocking (mean = 3.5/mile, range = 0.0–119.1) during 2013 (Figure 22). The mean YOY walleye density observed in natural recruitment lakes during 2013 (12.3/mile) was statistically dissimilar (t-test unequal variance, P<0.01) to the average across the previous 23 years studied (31.8/mile from 1990-2012). The mean YOY walleye density observed in stocked lakes during 2013 (3.5/mile) was statistically similar to that observed over the previous 23 years studied (5.6/mile from 1990-2012; t-test equal variance, t = -0.9, df = 855, P=0.35; Figure 22).

It appears that within the Wisconsin Ceded Territory there may be region-wide annual effects on walleye recruitment since mean recruitment varies dramatically from year to year when data from all lakes are combined (Figure 22); In the absence of an annual regional effect one might expect annual percentages for the entire region to be similar across years. Lack of recruitment in a given lake for one or more years is natural and not necessarily alarming. Sporadic recruitment is common for walleye populations both within and among individual lakes. It is common to have almost complete lack of recruitment in 25% or more of lakes with natural reproduction, and year class failures are even more common in lakes with populations maintained by stocking. Generally, successful recruitment occurs in a given lake every 3-4 years which may reduce competition between year classes of walleye (Li et al. 1996).

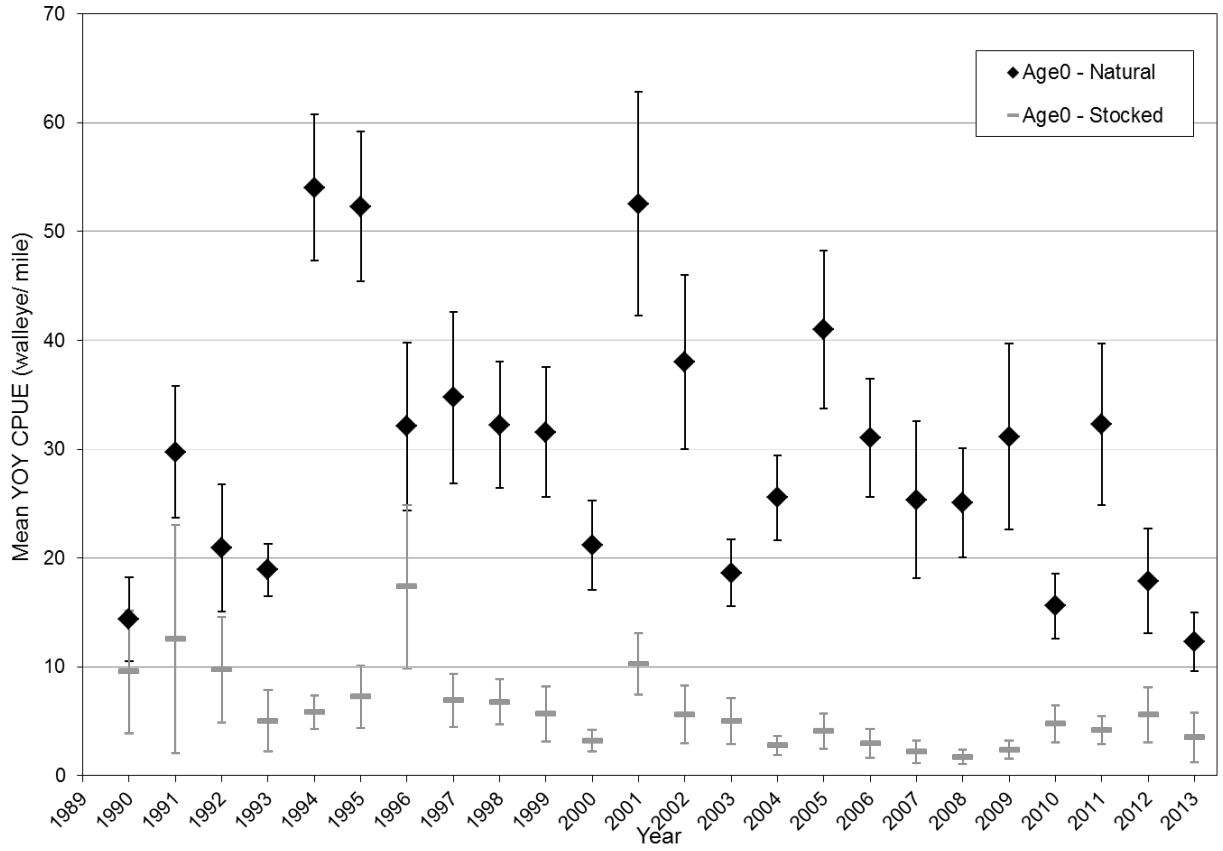

Figure 22. Comparison of mean YOY walleye density (± SE) observed in fall electrofishing surveys since 1990 in lakes dominated by natural recruitment or stocking.

A general linear model used to assess the impact of year and/or recruitment model on YOY walleye density was significant ($p<0.0\ 01$; Table 11). The significance of the model was driven by differences in YOY density between recruitment models (natural or stocked; $p<0.0001$), years ($p<0.001$), and the interaction of year*recruitment model ($p=0.003$). Based on the significance of the year*recruitment model interaction term, regressions were done to evaluate trends independently for natural and stocked model lakes. YOY walleye densities have declined significantly over time in both natural (slope=-0.67, $p<0.001$) and stocked (slope=-0.30, $p<0.001$) model lakes since 1990 (Figure 22).

Table 11. GLM results comparing YOY walleye density across years and primary walleye recruitment source.

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	47	491009	10447	8.28	<0.0001
Error	2,029	2560350	1262		
		Type III SS	**Mean Square**	**F Value**	**Pr > F**
Year	23	82965	3607	2.86	<0.0001
Recruitment Model[a]	1	228205	228205	180.85	<0.0001
Year x Recruitment Model	23	58860	2559	2.03	0.0027

a –Recruitment Models compared are 'natural' and 'stocked'.

The percentages of natural-model lakes with greater than 25 YOY walleye per mile and greater than 100 YOY walleye per mile are also used to indicate strong annual year classes in the Wisconsin Ceded Territory. These values are less affected by large values for individual lakes than the mean number of YOY walleye caught per mile. In 2013, 11/59 natural model lakes (19%) had YOY indices > 25 per mile, and 1 NR lakes (2%) had YOY walleye indices > 100 per mile (Appendix F). Overall, the proportion of lakes with YOY catch rates greater than 25 or 100 fish per mile in 2013 was less than the mean proportion of lakes observed with the same catch rates between 1990-2012 (mean percentage > 25 YOY/mi = 35%; 100 >100/mi = 7%). These finding suggest a below average naturally produced walleye year class across the ceded territory in 2013 despite localized conditions that allowed for large year classes to be found in a limited number of waters.

In lakes categorized as being sustained primarily by stocking, differences in the mean number of YOY walleye captured per mile in lakes that were stocked (16.1 YOY/ mile) with fry or small fingerlings was not significantly different (t-test unequal variance, t = -0.1.17, df = 8.0, P = 0.28) from those that were not stocked (1.0 YOY/ mile) in 2013 (Table 12). Despite the non-significant finding, the mean number of YOY/mile observed in stocked waters was notably higher than that in un-stocked waters. Such differences are commonly observed and most often statistically significant; In 2013, the lack of statistical significance was unusual and largely driven by low sample size in stocked waters and the inequality of variances between stocked and non-stocked waters.

Table 12. Young-of-the-year indices in lakes categorized as being sustained primarily by stocking (ST or C-ST), separated by whether or not the lake was stocked in 2013.

	Stocked in 2013	Not Stocked in 2013
No. Lakes	9	44
Mean YOY walleye/ mile	16.10	0.96
Q1/Median/Q3	0.7 / 3.0 / 4.44	0.0 / 0.0 / 0.0
Lakes with 0 YOY/ mile	1 (11%)	35 (80%)
Lakes with ≤5 YOY/ mile	7 (78%)	41 (93%)
Lakes with ≤10 YOY/ mile	7 (78%)	42 (95%)

The Hansen et al (2004) index of lake-wide YOY walleye density (fish/acre) for natural-model lakes ranged from 0.0–59.7 with a mean of 6.6 during 2013. In stocked-model lakes, the same index ranged from 0.0–60.9 YOY walleye/acre with a mean of 3.6. Within stocked-model lakes, those stocked prior to fall surveys logically had a greater average index value than lakes that were not stocked (16.2 Vs. <0.1, respectively). This generally indicates greater levels of recruitment in natural model lakes relative to stocked model lakes, and within the stocked model lakes greater recruitment in stocked versus un-stocked waters.

Fall surveys were conducted on six lakes that were previously stocked with oxytetracycline (OTC) marked walleyes in 2013; samples of OTC marked fish the same fall only exceeded ten fish in three of the six lakes sampled (Table 13). The percent of marked fish tends to align well with recruitment code designations for lakes monitored during 2013, with higher values in predominantly stocked (C-ST) lakes, and lower values in lakes presumed to be dominated by natural reproduction (C-NR). Results of OTC sampling are not considered for recruitment code designation unless a minimum of 30 individual fish are sampled from the water body in question, and are not the sole factor used to define recruitment codes.

Table 13. Lakes stocked with oxytetracycline (OTC) marked fish sampled in 2013, number of sampled fish where OTC marks were noted on the otolith, and percent contribution of stocked fish to the total sample.

County	Lake	Recruit Code*	WBIC	With OTC	Without OTC	Total	% Contrib.
Oneida	Two Sisters L	C-NR	1588200	27	8	35	77
Vilas	Long L	C-ST	1602300	2	3	5	40
Vilas	Lac Vieux Desert	C-ST	1631900	5	0	5	100
Vilas	Sparkling L	C-ST	1881900	50	0	50	100
Vilas	Dead Pike L	C-ST	2316600	2	0	2	100
Vilas	Circle Lily L	C-ST	2326700	47	2	49	96

* Recruitment code C-ST is in the stocked model, C-NR is in the natural model (Appendix C).

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APPENDICES

Appendix A. WDNR Lake Sampling Rotation 2011-2014.

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	CURRENT MODEL	# LAKES	ROTATION
2011	Spooner	2949200	IRON	PINE	312	N	1	TREND
2011	Spooner	2620600	POLK	BALSAM	2,054	S	1	TREND
2011	Spooner	2399700	Sawyer	L Chippewa	15,300	N	1	Spatial
2011	Spooner	2046500	Sawyer	Windfall	102	N	1	Spatial
2011	Spooner	2767099	Bayfield	Long	263	S	1	Spatial
TOTAL	**Spooner**				**18,031**		**5**	
2011	Woodruff	1588200	ONEIDA	TWO SISTERS	719	N	1	TREND
2011	Woodruff	1545600	VILAS	BIG ARBOR VITAE	1,090	N	1	TREND
2011	Woodruff	1579900	Oneida	Pelican	3,585	N	1	Spatial
2011	Woodruff	Multiple	Oneida	Rhinelander Chain	2,059	N	4	Spatial
2011	Woodruff	1595600	Oneida	Muskellunge	284	N	1	Spatial
2011	Woodruff	1591100	Vilas	Big St. Germain	1,617	S	1	Spatial
2011	Woodruff	Multiple	Vilas	Ballard Chain	1,025	S	3	Spatial
2011	Woodruff	417400	Oconto	Archibald	430	S	1	Spatial
2011	Woodruff	1630100	Vilas	Black Oak	584	S	1	Spatial
TOTAL	**Woodruff**				**11,393**		**14**	
2011	**TOTAL**				**29,424**		**19**	
2012	Spooner	2897100	BAYFIELD	DIAMOND	341	S	1	TREND
2012	Spooner	2391200	SAWYER	GRINDSTONE	3,111	N	1	TREND
2012	Spooner		Barron	L Chetek Chain	3,763	S	4	Spatial
2012	Spooner	2627400	Polk	Big Round	1,015	S	1	Spatial
2012	Spooner		Rusk	Island Lake Chain	1,222	S	4	Spatial
2012	Spooner	2691500	Washburn	L Nancy	772	S	1	Spatial
2012	Spooner	2351400	Chippewa	Long	1,052	N	1	Spatial
2012	Spooner	2661100	Barron	Sand	322	S	1	Spatial
TOTAL	**Spooner**				**11,598**		**14**	
2012	Woodruff	1018500	VILAS	SNIPE	239	N	1	TREND
2012	Woodruff	1592400	VILAS	PLUM	1,033	N	1	TREND
2012	Woodruff	1516401	Lincoln/Oneida	Nokomis/Rice Chain	3,916	N	3	Spatial
2012	Woodruff	1595300	Oneida	Rainbow Fl	2,035	N	1	Spatial
2012	Woodruff	2956501	Vilas	Presque Isle Chain	1,571	N	3	Spatial
2012	Woodruff	2328700	Vilas	Papoose	428	N	1	Spatial
TOTAL	**Woodruff**				**9,222**		**10**	
2012	**TOTAL**				**20,820**		**24**	

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	CURRENT MODEL	# LAKES	ROTATION
2013	Spooner	2678100	BURNETT	LIPSETT	393	S	1	TREND
2013	Spooner	2742100	BAYFIELD	MIDDLE EAU CLAIRE	902	N	1	TREND
2013	Spooner	2496300	Washburn	Shell	2,580	N	1	Spatial
2013	Spooner	1764500	Taylor	Sackett	63	S	1	Spatial
2013	Spooner	2461100	Burnett	Devils	1,001	S	1	Spatial
2013	Spooner	2133200	Eau Claire	L Eau Claire	860	N	1	Spatial
2013	Spooner		Sawyer	Connors/L of the Pines	702	N	2	Spatial
2013	Spooner	2469800	Barron	Horseshoe	115	S	1	Spatial
2013	Spooner	1875900	Rusk	Pulaski	126	N	1	Spatial
TOTAL	**Spooner**				**6,742**		**10**	
2013	Woodruff	394400	FOREST	L METONGA	1,991	S	1	TREND
2013	Woodruff	2331600	VILAS	TROUT	3,816	S	1	TREND
2013	Woodruff	Multiple	Vilas	Eagle Chain	4,174	N	10	Spatial
2013	Woodruff	1586600	Oneida	Spider	118	N	1	Spatial
TOTAL	**Woodruff**				**10,281**		**14**	
2013	**TOTAL**				**17,023**		**24**	
2014	Spooner	2949200	IRON	PINE	312	N	1	TREND
2014	Spooner	2620600	POLK	BALSAM	2,054	S	1	TREND
2014	Spooner	2710800	Washburn	Matthews	263	S	1	Spatial
2014	Spooner	2157000	CHIPPEWA	OTTER LAKE	602	S	1	Spatial
2014	Spooner	1864000	Barron	Lower Devils	162	N	1	Spatial
2014	Spooner	2725500	Sawyer	Hayward	247	S	1	Spatial
2014	Spooner	2470000	Washburn	Horseshoe	194	S	1	Spatial
2014	Spooner	2694000	Douglas	Whitefish	832	N	1	Spatial
TOTAL	**Spooner**				**4,124**		**9**	
2014	Woodruff	1588200	ONEIDA	TWO SISTERS	719	N	1	TREND
2014	Woodruff	1545600	VILAS	BIG ARBOR VITAE	1,090	N	1	TREND
2014	Woodruff	Multiple	Oneida	Three Lakes Chain	6,024	N	16	Spatial
2014	Woodruff	1613500	Oneida	Whitefish	205	R	1	Spatial
2014	Woodruff	1543300	Oneida	Squirrel	590	N	1	Spatial
TOTAL	**Woodruff**				**8,883**		**21**	
2014	**TOTAL**				**13,007**		**30**	

Appendix B. Reduced daily bag limits for walleye angling, based on Tribal Declarations as percentage of safe harvest. Reprinted from Wisconsin Administrative Code (NR 20.36).

Daily bag limit	Current population estimate	Population estimate made 1-2 years ago	Population estimate made 3 years ago or more or regression model
4	1-7	1-14	1-20
3	8-18	15-39	21-54
2	19-36	40-76	55-84
1	37-68	77-94	85-94
0	69 or more	95 or more	95 or more

Appendix C. Walleye Recruitment Code Descriptions (primary source of walleye recruitment; U.S. Department of the Interior, 1991).

Recruitment Code[1]	Recruitment Model[2]	Description
blank	None	unknown
NONE/ O	None	No walleye are present
REM	Remnant	Stocking provides the only source of recruitment but was discontinued. The stock is expected to disappear at some time in the future.
0-ST	Remnant	Stocking provides the only source of recruitment but was initiated only recently and has not yet resulted in a harvestable population of adults.
ST	Stocked	Stocking provides the only source of recruitment and is consistent enough to result in a multi-year class adult population.
C-ST	Stocked	Stocking provides the primary source of recruitment but some natural reproduction occurs and may augment the adult population.
C-	Natural	Natural reproduction and stocking provide more or less equal recruitment to the adult population.
C-NR	Natural	Natural reproduction is adequate to sustain the population even though the lake is being stocked.
NR	Natural	Natural reproduction only; consistent enough to result in multi-year class adult populations.
NR-2	Remnant	Natural reproduction only; inconsistent, results in missing year classes.

1 - Recruitment Code = Designation of the *primary* recruitment source and done by a technical working group.
2 - Recruitment Model is used for data analysis and groups various recruitment codes into one of three categories.

Appendix D. 2013-2014 Creel Survey Summaries.

Angler Effort Summary

County	Lake	MWBIC	Acres	Walleye recruit code	Musky recruit code	Total angler effort	Total angler effort/ acre	Directed Effort Walleye	Walleye Effort/ Acre	Directed Effort Musky	Musky Effort/ Acre	Directed Effort Pike	Pike Effort/ Acre	Directed Effort LMB	LMB Effort/ Acre	Directed Effort SMB	SMB Effort/ Acre
Barron	Horseshoe	2469800	115	ST	O	2,733	23.77	107	0.93	--	--	164	1.43	1,144	9.95	--	--
Bayfield	Middle Eau Claire	2742100	902	C-NR	C-	14,398	15.96	2,990	3.31	2,609	2.89	2,380	2.64	1,869	2.07	2,457	2.72
Burnett	Devils	2461100	1,001	O-ST	O	19,223	19.20	2,108	2.11	--	--	1,710	1.71	2,899	2.90	--	--
Burnett	Lipsett	2678100	393	O-ST	O-ST	10,076	25.64	2,025	5.15	850	2.16	3,032	7.72	2,993	7.62	--	--
Eau Claire	Eau Claire	2133200	860	NR	ST	58,504	68.03	19,440	22.60	1,762	2.05	5,330	6.20	7,474	8.69	6,061	7.05
Forest	Metonga	394400	1,991	C-NR	C-ST	29,913	15.02	5,717	2.87	--	--	249	0.13	134	0.07	3,935	1.98
Oneida	Spider	1586600	123	NR	NR	3,018	24.54	913	7.42	961	7.81	282	2.29	893	7.26	159	1.29
Rusk	Pulaski	1875900	126	C-NR	O	4,424	35.11	1,217	9.66	--	--	485	3.85	1,285	10.20	778	6.17
Sawyer	Connors	2275100	429	NR	C-ST	11,302	26.34	5,716	13.32	3,047	7.10	1,217	2.84	2,174	5.07	2,920	6.81
Sawyer	Lake of the Pines	2275300	273	NR	C-ST	9,335	34.19	2,014	7.38	4,387	16.07	649	2.38	1,244	4.56	905	3.32
Vilas	Catfish	1603700	978	NR	C-	28,785	29.43	12,111	12.38	11,914	12.18	1,887	1.93	565	0.58	756	0.77
Vilas	Cranberry	1603800	924	NR	C-	23,849	25.81	8,703	9.42	12,668	13.71	2,616	2.83	291	0.31	2,339	2.53
Vilas	Duck	1599900	106	NR	C-	7,705	72.69	1,646	15.53	5,016	47.32	153	1.44	134	1.26	56	0.53
Vilas	Eagle	1600200	575	NR	C-	19,958	34.71	5,092	8.86	12,599	21.91	663	1.15	749	1.30	790	1.37
Vilas	Lynx	1600000	31	NR	C-ST	4,254	137.23	554	17.87	2,377	76.68	66	2.13	294	9.48	87	2.81
Vilas	Otter	1600100	174	NR	C-	6,849	39.36	1,003	5.76	3,436	19.75	126	0.72	490	2.82	253	1.45
Vilas	Scattering Rice	1600300	263	NR	C-	12,134	46.14	2,880	10.95	6,012	22.86	573	2.18	1,173	4.46	664	2.52
Vilas	Trout	2331600	3,816	C-ST	C-NR	21,563	5.65	14,080	3.69	1,714	0.45	446	0.12	571	0.15	2,567	0.67
Vilas	Yellow Birch	1599600	192	NR	C-	15,019	78.22	3,988	20.77	6,635	34.56	924	4.81	760	3.96	697	3.63
Washburn	Shell	2496300	2,580	NR	O	15,066	5.84	4,174	1.62	1,148	0.44	1,407	0.55	3,906	1.51	7,287	2.82

Walleye

County	Lake	MWBIC	Acres	WAE Recruit Code	Initial WAE Bag	Final WAE Bag	WAE Size Reg.	Adult PE	APEAc	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Barron	Horseshoe	2469800	115	ST	3	3	18	136	1.18	9	0.08	0	0.00	0.00	0.00	0		0.01	0.00
Bayfield	Middle Eau Claire	2742100	902	C-NR	2	2	1>14	2,169	2.40	566	0.63	347	0.38	0.19	0.11	64	15.6	0.04	0.02
Burnett	Devils	2461100	1,001	O-ST	2	2	15	347	0.35	231	0.23	71	0.07	0.07	0.02	10	17.7	0.01	0.00
Burnett	Lipsett	2678100	393	O-ST	1	1	15	98	0.25	27	0.07	7	0.02	0.01	0.00	2	16.9	0.00	0.00
Eau Claire	Eau Claire	2133200	860	NR	5	5	15	5,755	6.69	8,060	9.37	1,146	1.33	0.36	0.05	132	16.5	0.14	0.02
Forest	Metonga	394400	1,991	C-NR	2	2	15	9,836	4.94	3,228	1.62	230	0.12	0.23	0.04	47	19.5	0.11	0.01
Oneida	Spider	1586600	123	NR	5	5	15	489	3.98	80	0.65	14	0.11	0.09	0.02	4	16.8	0.03	0.00
Rusk	Pulaski	1875900	126	C-NR	1	1	15	386	3.06	254	2.02	63	0.50	0.19	0.04	12	17.0	0.06	0.01
Sawyer	Connors	2275100	429	NR	2	2	15	1,084	2.53	1,743	4.06	133	0.31	0.30	0.02	21	17.3	0.15	0.01
Sawyer	Lake of the Pines	2275300	273	NR	5	5	15	69	0.25	734	2.69	102	0.37	0.36	0.05	11	16.5	0.09	0.01
Vilas	Catfish	1603700	978	NR	2	2	14-18 slot	5,082	5.20	5,609	5.74	1,750	1.79	0.46	0.14	202	13.0	0.19	0.06
Vilas	Cranberry	1603800	924	NR	2	2	14-18 slot	5,869	6.35	3,449	3.73	867	0.94	0.39	0.10	134	12.6	0.15	0.04
Vilas	Duck	1599900	106	NR	3	3	14-18 slot	209	1.97	127	1.20	19	0.18	0.07	0.01	2	14.4	0.02	0.00
Vilas	Eagle	1600200	575	NR	3	3	14-18 slot	2,118	3.68	1,860	3.23	650	1.13	0.36	0.13	63	12.3	0.09	0.03
Vilas	Lynx	1600000	31	NR	3	3	14-18 slot	87	4.22	283	9.13	11	0.35	0.51	0.02	2	13.5	0.17	0.01
Vilas	Otter	1600100	174	NR	3	3	14-18 slot	779	4.22	140	0.80	84	0.48	0.11	0.08	9	12.6	0.02	0.01
Vilas	Scattering Rice	1600300	263	NR	3	3	14-18 slot	214	0.81	427	1.62	178	0.68	0.13	0.06	25	14.1	0.05	0.02
Vilas	Trout	2331600	3,816	C-ST	2	2	15	10,016	2.62	4,289	1.12	2,084	0.55	0.30	0.15	388	18.4	0.21	0.10
Vilas	Yellow Birch	1599600	192	NR	3	3	14-18 slot	1,337	6.96	400	2.08	187	0.97	0.09	0.04	34	16.2	0.03	0.01
Washburn	Shell	2496300	2,580	NR	3	3	none	1,490	0.58	695	0.27	337	0.13	0.16	0.08	74	15.3	0.05	0.02

Musky

County	Lake	MWBIC	Acres	MRC	Musky size limit	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	General catch rate	General harvest rate	No. fish measured	Mean length
Barron	Horseshoe	2469800	115	O	40		0.00		0.00	--	--	--	--	--	--
Bayfield	Middle Eau Claire	2742100	902	C-	40	32	0.04	0	0.00	0.0082	0.0000	0.0024	0.0000	0	
Burnett	Devils	2461100	1001	O	40		0.00		0.00	--	--	--	--	--	--
Burnett	Lipsett	2678100	393	O-ST	40	28	0.07	0	0.00	0.0285	0.0000	0.0038	0.0000	0	
Eau Claire	Eau Claire	2133200	860	ST	40	178	0.21	0	0.00	0.0211	0.0000	0.0043	0.0000	0	
Forest	Metonga	394400	1991	C-ST	40		0.00		0.00	--	--	--	--	--	--
Oneida	Spider	1586600	123	NR	40	81	0.66	0	0.00	0.0722	0.0000	0.0277	0.0000	0	
Rusk	Pulaski	1875900	126	O	40		0.00		0.00	--	--	--	--	--	--
Sawyer	Connors	2275100	429	C-ST	40	318	0.74	0	0.00	0.0833	0.0000	0.0332	0.0000	0	
Sawyer	Lake of the Pines	2275300	273	C-ST	40	363	1.33	0	0.00	0.0747	0.0000	0.0466	0.0000	0	
Vilas	Catfish	1603700	978	C-	40	456	0.47	13	0.01	0.0347	0.0011	0.0168	0.0005	1	45.5
Vilas	Cranberry	1603800	924	C-	40	588	0.64	9	0.01	0.0426	0.0007	0.0252	0.0004	1	44.3
Vilas	Duck	1599900	106	C-	40	199	1.88	0	0.00	0.0396	0.0000	0.0279	0.0000	0	
Vilas	Eagle	1600200	575	C-	40	571	0.99	0	0.00	0.0436	0.0000	0.0294	0.0000	0	
Vilas	Lynx	1600000	31	C-ST	40	114	3.68	0	0.00	0.0479	0.0000	0.0303	0.0000	0	
Vilas	Otter	1600100	174	C-	40	263	1.51	0	0.00	0.0766	0.0000	0.0386	0.0000	0	
Vilas	Scattering Rice	1600300	263	C-	40	342	1.30	0	0.00	0.0527	0.0000	0.0285	0.0000	0	
Vilas	Trout	2331600	3816	C-NR	45	5	0.00	0	0.00	0.0005	0.0000	0.0003	0.0000	0	
Vilas	Yellow Birch	1599600	192	C-	40	335	1.74	0	0.00	0.0421	0.0000	0.0237	0.0000	0	
Washburn	Shell	2496300	2580	O	40	15	0.01	0	0.00	0.0134	0.0000	0.0011	0.0000	0	

Northern Pike

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	General catch rate	General harvest rate	No. fish measured	Mean length
Barron	Horseshoe	2469800	115	190	1.65	9	0.08	0.14	0.00	0.07	0.00	2	22.8
Bayfield	Middle Eau Claire	2742100	902	3,246	3.60	348	0.39	0.64	0.12	0.23	0.02	85	21.2
Burnett	Devils	2461100	1,001	2,979	2.98	87	0.09	0.77	0.01	0.16	0.00	11	16.2
Burnett	Lipsett	2678100	393	1,324	3.37	257	0.65	0.24	0.08	0.13	0.03	76	21.4
Eau Claire	Eau Claire	2133200	860	2,194	2.55	298	0.35	0.06	0.02	0.04	0.01	34	23.3
Forest	Metonga	394400	1,991	127	0.06	37	0.02	0.11	0.11	0.01	0.00	10	26.1
Oneida	Spider	1586600	123	80	0.65	3	0.02	0.10	0.01	0.03	0.00	1	33.5
Rusk	Pulaski	1875900	126	355	2.82	40	0.32	0.27	0.05	0.09	0.01	8	21.9
Sawyer	Connors	2275100	429	58	0.14	17	0.04	0.02	0.01	0.01	0.00	5	26.1
Sawyer	Lake of the Pines	2275300	273	5	0.02	0	0.00	0.00	0.00	0.00	0.00	0	
Vilas	Catfish	1603700	978	1,363	1.39	137	0.14	0.17	0.06	0.05	0.00	22	20.7
Vilas	Cranberry	1603800	924	1,547	1.67	194	0.21	0.17	0.05	0.07	0.01	26	21.3
Vilas	Duck	1599900	106	320	3.02	0	0.00	0.24	0.00	0.09	0.00	1	24.8
Vilas	Eagle	1600200	575	442	0.77	11	0.02	0.09	0.01	0.03	0.00	2	22.1
Vilas	Lynx	1600000	31	166	5.35	0	0.00	0.70	0.00	0.11	0.00	0	
Vilas	Otter	1600100	174	71	0.41	31	0.18	0.00	0.00	0.02	0.01	2	26.6
Vilas	Scattering Rice	1600300	263	278	1.06	17	0.06	0.05	0.03	0.03	0.00	2	22.7
Vilas	Trout	2331600	3,816	58	0.02	6	0.00	0.01	0.01	0.00	0.00	1	20.3
Vilas	Yellow Birch	1599600	192	584	3.04	125	0.65	0.12	0.07	0.04	0.01	42	24.6
Washburn	Shell	2496300	2,580	568	0.22	104	0.04	0.20	0.04	0.04	0.01	31	25.6

Smallmouth Bass

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	General catch rate	General harvest rate	No. fish measured	Mean length
Barron	Horseshoe	2469800	115		0.00		0.00	--	--	--	--	--	--
Bayfield	Middle Eau Claire	2742100	902	2,044	2.27	48	0.05	0.73	0.01	0.15	0.00	8	17.49
Burnett	Devils	2461100	1,001		0.00		0.00	--	--	--	--	--	--
Burnett	Lipsett	2678100	393		0.00		0.00	--	--	--	--	--	--
Eau Claire	Eau Claire	2133200	860	2,680	3.12	67	0.08	0.27	0.00	0.05	0.00	5	17.14
Forest	Metonga	394400	1,991	3,084	1.55	84	0.04	0.47	0.02	0.16	0.00	20	17.24
Oneida	Spider	1586600	123	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0	
Rusk	Pulaski	1875900	126	177	1.40	17	0.13	0.05	0.00	0.05	0.00	3	16.90
Sawyer	Connors	2275100	429	782	1.82	36	0.08	0.15	0.01	0.08	0.00	7	15.73
Sawyer	Lake of the Pines	2275300	273	61	0.22	0	0.00	0.01	0.00	0.01	0.00	0	
Vilas	Catfish	1603700	978	326	0.33	17	0.02	0.22	0.01	0.02	0.00	2	17.15
Vilas	Cranberry	1603800	924	1,085	1.17	0	0.00	0.25	0.00	0.05	0.00	0	
Vilas	Duck	1599900	106	43	0.41	0	0.00	0.00	0.00	0.02	0.00	0	
Vilas	Eagle	1600200	575	128	0.22	0	0.00	0.00	0.00	0.01	0.00	0	
Vilas	Lynx	1600000	31	14	0.45	0	0.00	0.00	0.00	0.01	0.00	0	
Vilas	Otter	1600100	174	300	1.72	0	0.00	0.06	0.00	0.10	0.00	0	
Vilas	Scattering Rice	1600300	263	62	0.24	0	0.00	0.04	0.00	0.01	0.00	0	
Vilas	Trout	2331600	3,816	1,182	0.31	4	0.00	0.31	0.00	0.06	0.00	2	19.30
Vilas	Yellow Birch	1599600	192	296	1.54	0	0.00	0.16	0.00	0.02	0.00	0	
Washburn	Shell	2496300	2,580	8,001	3.10	605	0.23	0.98	0.08	0.55	0.04	103	16.01

Largemouth Bass

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	General catch rate	General harvest rate	No. fish measured	Mean length
Barron	Horseshoe	2469800	115	1,442	12.54	342	2.97	1.05	0.25	0.59	0.14	71	13.24
Bayfield	Middle Eau Claire	2742100	902	1,499	1.66	31	0.03	0.44	0.01	0.11	0.00	5	15.26
Burnett	Devils	2461100	1,001	12,361	12.35	1,992	1.99	1.58	0.25	0.69	0.11	223	11.83
Burnett	Lipsett	2678100	393	2,154	5.48	622	1.58	0.39	0.20	0.22	0.06	129	14.48
Eau Claire	Eau Claire	2133200	860	3,294	3.83	117	0.14	0.38	0.00	0.06	0.00	9	16.59
Forest	Metonga	394400	1,991	30	0.02	0	0.00	0.05	0.00	0.00	0.00	0	
Oneida	Spider	1586600	123	1,762	14.33	19	0.15	1.25	0.01	0.64	0.01	4	15.00
Rusk	Pulaski	1875900	126	1,432	11.37	73	0.58	0.58	0.04	0.33	0.02	14	15.16
Sawyer	Connors	2275100	429	584	1.36	36	0.08	0.17	0.01	0.06	0.00	5	14.70
Sawyer	Lake of the Pines	2275300	273	117	0.43	4	0.01	0.05	0.00	0.01	0.00	1	16.20
Vilas	Catfish	1603700	978	417	0.43	0	0.00	0.26	0.00	0.02	0.00	0	
Vilas	Cranberry	1603800	924	214	0.23	0	0.00	0.12	0.00	0.01	0.00	0	
Vilas	Duck	1599900	106	36	0.34	0	0.00	0.00	0.00	0.01	0.00	0	
Vilas	Eagle	1600200	575	359	0.62	220	0.38	0.35	0.29	0.03	0.02	0	
Vilas	Lynx	1600000	31	92	2.97	0	0.00	0.17	0.00	0.06	0.00	0	
Vilas	Otter	1600100	174	172	0.99	0	0.00	0.19	0.00	0.03	0.00	0	
Vilas	Scattering Rice	1600300	263	439	1.67	0	0.00	0.20	0.00	0.05	0.00	0	
Vilas	Trout	2331600	3,816	41	0.01	0	0.00	0.03	0.00	0.00	0.00	0	
Vilas	Yellow Birch	1599600	192	365	1.90	0	0.00	0.32	0.00	0.03	0.00	0	
Washburn	Shell	2496300	2,580	5,151	2.00	486	0.19	1.25	0.12	0.36	0.03	112	14.86

Appendix E. WDNR Walleye Population Estimates Accepted For Use by the Treaty TWG in 2013.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	Adult PE	CV Adult PE	L95 C.I. Adults	Adult PE/Acre	Adult 0-12"	Adult 12-15"	Adult 15-20"	Adult 20+"
2081200	Barron	Beaver Dam	1112	18	C-ST	419	0.22	236	0.38	1	108	226	84
2469800	Barron	Horseshoe	115	18	ST	136	0.16	92	1.18	1	1	98	36
2742500	Bayfield	Bony	191	1>14	C-NR	419	0.22	239	2.19	1	21	355	42
2900200	Bayfield	Lake Owen	1,323	18	C-ST	1,140	0.22	653	0.86	1	60	809	270
2742100	Bayfield	Middle Eau Claire	902	1>14	C-NR	2,169	0.19	1,370	2.40	1	230	1,914	24
2461100	Burnett	Devils	1,001	15	ST	347	0.26	168	0.35	1	38	266	42
2678100	Burnett	Lipsett	393	15	ST	98	0.26	48	0.25	1	4	30	63
2133200	Eau Claire	Lake Eau Claire	860	15	NR	5,755	0.15	4,079	6.69	4	1,741	3,612	398
2309700	Iron	Cedar	193	1>14	C-ST	361	0.30	147	1.87	2	25	220	114
2306300	Iron	Spider	352	1>14	NR	473	0.15	332	1.34	84	153	152	84
1875900	Rusk	Pulaski	126	15	C-NR	386	0.19	244	3.06	1	157	205	22
2275100	Sawyer	Connors	429	15	NR	1,084	0.24	572	2.53	40	570	265	210
2429300	Sawyer	Lower Clam	203	15	C-ST	136	0.31	52	0.67	1	3	70	62
2615100	St. Croix	Cedar	1,100	Slot14-18	NR	3,768	0.13	2,841	3.43	16	652	2,992	108
2496300	Washburn	Shell	2,580	None	NR	1,490	0.36	445	0.58	2	8	1,408	72
677100	Florence	Fay	282	15	ST	216	0.13	163	0.76	1	1	71	143
679300	Florence	Halsey	512	15	O-ST	688	0.12	521	1.34	1	1	317	369
394400	Forest	Metonga	1,991	18	C-NR	9,836	0.21	5,721	4.94	3	4,308	5,035	490
608400	Forest	Van Zile	81	15	REM	128	0.27	60	1.58	1	1	84	42
1502400	Lincoln	Grandfather Fl	350	Slot20-28	NR-2	1,659	0.23	929	4.74	0	0	0	0
1503000	Lincoln	Grandmother Fl	562	Slot20-28	NR-2	2,041	0.16	1,387	3.63	14	1,341	660	26
1586600	Oneida	Spider	123	15	NR	489	0.10	392	3.98	75	314	81	20
2331600	Vilas	Trout	3,816	15	C-ST	10,016	0.12	7,640	2.62	12	1,739	6,307	1,958
1603700	Vilas	Catfish	978	Slot14-18	NR	5,082	0.20	3,106	5.20	2,239	2,319	465	60
1603800	Vilas	Cranberry	924	Slot14-18	NR	5,869	0.18	3,814	6.35	3,317	1,930	575	47
1600200	Vilas	Eagle	575	Slot14-18	NR	2,118	0.11	1,644	3.68	427	1,449	216	26
160010x	Vilas	Otter/Lynx	205	Slot14-18	NR	866	0.23	470	4.22	143	447	245	32
1599600	Vilas	Yellow Birch	192	Slot14-18	NR	1,337	0.18	858	6.96	124	410	725	78
2963200	Vilas	Plum (Und)	225	15	NR	888	0.20	534	3.95	98	479	275	36
2339900	Vilas	Escanaba	293	28	NR	2,359	0.14	1,732	8.05	28	540	1,615	177

Appendix E. Continued.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	PE - Males	CV Male PE	PE - Females	CV Female PE	M:F Ratio
2081200	Barron	Beaver Dam	1112	18	C-ST	281	0.28	92	0.38	3.05
2469800	Barron	Horseshoe	115	18	ST	30	0.16	48	0.16	0.63
2742500	Bayfield	Bony	191	1>14	C-NR	289	0.23	110	0.40	2.63
2900200	Bayfield	Lake Owen	1,323	18	C-ST	634	0.23	539	0.51	1.18
2742100	Bayfield	Middle Eau Claire	902	1>14	C-NR	1,640	0.19	586	0.66	2.80
2461100	Burnett	Devils	1,001	15	ST	291	0.25	22	0.27	13.23
2678100	Burnett	Lipsett	393	15	ST	52	0.25	50	0.52	1.04
2133200	Eau Claire	Lake Eau Claire	860	15	NR	4,219	0.16	2,570	0.59	1.64
2309700	Iron	Cedar	193	1>14	C-ST	164	0.55	171	0.29	0.96
2306300	Iron	Spider	352	1>14	NR	307	0.13	312	0.51	0.98
1875900	Rusk	Pulaski	126	15	C-NR	334	0.21	55	0.39	6.07
2275100	Sawyer	Connors	429	15	NR	756	0.29	258	0.42	2.93
2429300	Sawyer	Lower Clam	203	15	C-ST	25	0.26	63	0.38	0.40
2615100	St. Croix	Cedar	1,100	Slot14-18	NR	2,875	0.13	780	0.58	3.69
2496300	Washburn	Shell	2,580	None	NR	709	0.35	372	0.59	1.91
677100	Florence	Fay	282	15	ST	130	0.12	61	0.23	2.13
679300	Florence	Halsey	512	15	O-ST	263	0.12	465	0.25	0.57
394400	Forest	Metonga	1,991	18	C-NR	6,476	0.29	6,088	0.66	1.06
608400	Forest	Van Zile	81	15	REM	65	0.34	38	0.26	1.71
1502400	Lincoln	Grandfather Fl	350	Slot20-28	NR-2	1,180	0.36	504	0.29	2.34
1503000	Lincoln	Grandmother Fl	562	Slot20-28	NR-2	1,716	0.27	502	0.18	3.42
1586600	Oneida	Spider	123	15	NR	429	0.10	49	0.27	8.76
2331600	Vilas	Trout	3,816	15	C-ST	4,691	0.10	11,576	0.60	0.41
1603700	Vilas	Catfish	978	Slot14-18	NR	4,642	0.21	420	0.45	11.05
1603800	Vilas	Cranberry	924	Slot14-18	NR	5,394	0.19	343	0.43	15.73
1600200	Vilas	Eagle	575	Slot14-18	NR	1,966	0.12	124	0.46	15.85
160010x	Vilas	Otter/Lynx	205	Slot14-18	NR	720	0.25	74	0.52	9.73
1599600	Vilas	Yellow Birch	192	Slot14-18	NR	941	0.41	206	0.46	4.57
2963200	Vilas	Plum (Und)	225	15	NR	686	0.24	56	0.28	12.25
2339900	Vilas	Escanaba	293	28	NR	1,225	0.16	887	0.26	1.38

Appendix F. YOY Walleye Survey Summaries.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Total Shore	ShockMi	%Shock	Age0	Age0 Min Length	Age0 Max Length	Age0 Modal Length	Age0Mi	Serns	Hansen	Age1	Age1 Min Length	Age1 Max Length	Age1 Modal Length	Age1Mi	WEStock
BEAR	ASHLAND	2403200	204	NR	natural	10/01/2013	61	6	2.9	48	19	4.8	6.6	None	6.55	NA	NA	4	8.9	9.2	None	1.38	N
ENGLISH	ASHLAND	2914800	244	ST	stocked	10/02/2013	64	4.1	3.8	93	0	-	-	-	0	0	0	0	-	-	-	0	N
LAKE GALILEE	ASHLAND	2935500	213	O-ST	remnant	09/23/2013	60	2.9	2.9	100	54	4	6.8	4.7	18.62	4.36	3.34	8	9	10.3	None	2.76	N
MINERAL	ASHLAND	2916900	225	C-NR	natural	10/10/2013	58	5.3	4.8	91	41	4.8	6.9	5.3	8.54	NA	NA	42	8.1	10.8	9.6	8.75	N
POTTER	ASHLAND	2917200	29	ST	stocked	10/07/2013	57	0.9	0.9	100	4	5.5	7.4	None	4.44	1.04	0.36	0	-	-	-	0	Y
SPILLERBERG	ASHLAND	2936200	75	NR	natural	10/07/2013	57	1.5	1.5	100	59	4.1	7.4	4.8	39.33	9.2	10.77	4	11	11.8	None	2.67	N
BEAR	BARRON	2105100	1358	O-ST	remnant	10/14/2013	56	14.9	6.4	43	0	-	-	-	0	NA	NA	4	9	10.4	None	0.63	Y
BEAVER DAM	BARRON	2081200	1112	C-ST	stocked	09,10/30-01/2	63	18	15	83	1	6.5	6.9	None	0.07	NA	NA	20	8.5	12.4	11.0-11.4	1.33	N
HORSESHOE	BARRON	2469800	115	ST	stocked	09/18/2013	62	2.5	2.5	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
LOWER TURTL	BARRON	2079700	276	C-ST	stocked	10/03/2013	62	3.8	3.8	100	0	-	-	-	0	0	0	22	8.5	11.9	9.0-9.4,10.0-1	5.79	N
RED CEDAR	BARRON	2109600	1841	C-NR	natural	09/23/2013	63-65	15.9	12.4	78	97	3.9	7.5	6.4	7.82	NA	NA	87	8	10	9.4	7.02	N
UPPER TURTLE	BARRON	2079800	438	C-ST	stocked	10/07/2013	69	4.8	4.8	100	0	-	-	-	0	NA	NA	*	-	-	-	-	N
BASS	BAYFIELD	2754900	56			09/23/2013	65	1.6	1.6	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
BONY	BAYFIELD	2742500	191	C-NR	natural	09/23/2013	62	2.7	2.7	100	4	6.6	7.1	None	1.48	0.35	0.06	3	9.7	10.6	None	1.11	N
DIAMOND	BAYFIELD	2897100	341	C-ST	stocked	09/18/2013	64	5	5	100	0	-	-	-	0	0	0	12	9	11.4	None	2.4	N
DRUMMOND	BAYFIELD	2899400	99	ST	stocked	09/24/2013	63	3.1	3.1	100	1	5	5.4	None	0.32	NA	NA	0	-	-	-	0	N
MIDDLE EAU C	BAYFIELD	2742100	902	C-NR	natural	09/17/2013	63-65	11	7.7	70	191	3.5	7	5.5,5.8	24.81	NA	NA	39	7.8	10.2	9.3,9.6	5.06	N
TAYLOR	BAYFIELD	2734100	94	REM	remnant	09/23/2013	60	1.7	1.7	100	0	-	-	-	0	0	0	*	-	-	-	-	N
BIG MCKENZIE	BURNETT	2706800	1185	C-ST	stocked	09/25/2013	67	7.1	7.1	100	5	5.3	6	None	0.7	NA	NA	35	8.3	11.4	9.9	4.93	Y
DEVILS	BURNETT	2461100	1001	ST	stocked	09/17/2013	67	5.2	5.2	100	1	7.5	7.5	None	0.19	NA	NA	7	9.1	11.9	None	1.35	Y
UPSETT	BURNETT	2678100	393	ST	stocked	09/16/2013	65	3.5	3.5	100	0	-	-	-	0	NA	NA	11	9.7	11.2	None	3.14	N
SAND (NORTH)	BURNETT	2495100	962	O-ST	remnant	09/24/2013	65	8.3	6.3	76	0	-	-	-	0	NA	NA	51	7.8	11.6	8.9,9.5	8.1	N
CORNELL	CHIPPEWA	2171000	194	O-ST	remnant	09/18/2013	67	2.3	2.3	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
LAKE WISSOTA	CHIPPEWA	2152800	6300	NR	natural	10/14/2013	58-60	56.3	10.3	18	406	4.8	7.8	6.2	39.42	NA	NA	*	-	-	-	-	N
LONG	CHIPPEWA	2351400	1052	NR	natural	10/16/2013	56	14	14	100	89	5.5	8	6.9	6.36	1.49	0.62	*	-	-	-	-	N
OTTER	CHIPPEWA	2157000	661	C-ST	stocked	09/17/2013	65-66	20	12.1	61	0	-	-	-	0	NA	NA	27	8.6	11.2	9.5	2.23	N
ROUND	CHIPPEWA	2169200	216	O-ST	remnant	09/23/2013	66	2.9	2.9	100	0	-	-	-	0	NA	NA	5	9.4	10.6	None	1.72	N
LAKE MINNESU	DOUGLAS	2866200	432	C-NR	natural	09/16/2013	65	6.9	6.9	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
LAKE NEBAGAM	DOUGLAS	2865000	914	C-NR	natural	09/12/2013	67-68	10.8	10.8	100	15	4.4	7.1	None	1.39	NA	NA	108	7.3	11.2	8.7,8.8	10	N
ALTOONA	EAU CLAIRE	2128100	840	NR	natural	10/09/2013	60	9.4	4	43	37	6.1	7.3	6.8,7.2	9.25	NA	NA	249	7.6	10.7	9.2	62.25	N
LAKE EAU CLAI	EAU CLAIRE	2133200	860	NR	natural	10/02/2013	62-65	24.3	6.5	27	8	6	7	None	1.23	NA	NA	311	7.6	11	8.7	47.85	N
EMILY	FLORENCE	651600	191	C-ST	stocked	09/12/2013	63	2.5	2.5	100	0	-	-	-	0	0	0	0	-	-	-	0	N
FAY	FLORENCE	677100	282	ST	stocked	09/17/2013	60	4.5	3.7	82	0	-	-	-	0	NA	NA	0	-	-	-	0	N
HALSEY	FLORENCE	679300	517	O-ST	remnant	10/07/2013	54	4.1	0.5	12	0	-	-	-	0	NA	NA	0	-	-	-	0	N
KEYES	FLORENCE	672900	210	C-ST	stocked	09/12/2013	62	3.3	3.3	100	4	6.1	6.4	6.2	1.21	0.28	0.05	0	-	-	-	0	N
LONG	FLORENCE	677400	340	O		10/07/2013	54	4.8	4.8	100	0	-	-	-	0	0	0	0	-	-	-	0	N
PATTEN	FLORENCE	653700	255	NR	natural	09/26/2013	62	3.9	3.9	100	197	4.2	7.9	6.3,6.8	50.51	11.82	15.92	13	9.3	11.3	10.2	3.33	N
SEA LION	FLORENCE	672300	125	O-ST	remnant	09/10/2013	69	3.8	2.8	74	0	-	-	-	0	NA	NA	0	-	-	-	0	N
BEAR	FOREST	552100	68	REM	remnant	09/26/2013	62	1.7	1.7	100	0	-	-	-	0			0	-	-	-	0	N
BUTTERNUT	FOREST	692400	1293	C-NR	natural	10/02/2013	61	7.8	9.1	117	693	4.1	7.7	5.7	76.15	NA	NA	19	8.1	10.5	8.8,8.9,9.5,9.7	2.09	N
CRANE	FOREST	388500	337	ST	stocked	10/01/2013	61	3.9	4.8	123	21	6.4	8.7	7.5-7.7	4.38	NA	NA	11	11.4	12.5	11.5,11.8,12.0	2.29	Y
FRANKLIN	FOREST	692900	892	C-NR	natural	10/08/2013	57	6.6	6.6	100	55	4.3	7.3	6.4,6.6,6.8	8.33	NA	NA	1	10.3	10.3	10.3	0.15	N
JUNGLE	FOREST	377900	177	NR	natural	10/01/2013	62	2.2	2.2	100	0	-	-	-	0	0	0	0	-	-	-	0	N
METONGA	FOREST	394400	1991	C-ST	stocked	09/23/2013	61	7.9	7.9	100	162	5.6	6.8	6.4	20.51	NA	NA	93	6.8	9.8	7.1	11.77	N
ROBERTS	FOREST	378400	415	C-ST	stocked	09/11/2013	68	4.5	4.5	100	0	-	-	-	0	0	0	10	9.7	10.8	-	2.22	N
SILVER	FOREST	555700	334	O-ST	remnant	09/11/2013	67	3.8	3.8	100	0	-	-	-	0	0	0	0	-	-	-	0	N
VAN ZILE	FOREST	608400	81	O		10/07/2013	56	1.8	1.8	100	17	6.4	7.7	7.1	9.44	NA	NA	2	10.9	11.3	-	1.11	N
CEDAR	IRON	2309700	193	C-ST	stocked	09/26/2013	59	4.4	4.2	95	0	-	-	-	0	NA	NA	1	8	8	None	0.24	N
ECHO	IRON	2301800	220	C-NR	natural	09/17/2013	59-61	4.9	4.2	86	0	-	-	-	0	NA	NA	4	9.7	10.7	None	0.95	N
GILE FLOWAGE	IRON	2942300	3384	NR	natural	10/08/2013	54	27.2	6	22	-	-	-	-	NA	NA	NA	-	-	-	-	-	N
ISLAND	IRON	2945500	352	C-NR	natural	09/24/2013	56-61	7.4	6.9	93	9	4.7	6.1	None	1.3	NA	NA	56	8.1	10.9	9.6	8.12	N
LONG	IRON	2303500	396	ST	stocked	09/18/2013	60-61	12.5	6	48	0	-	-	-	0	NA	NA	45	8.2	10.4	10	7.5	N
PINE	IRON	2949200	312	NR	natural	09/16/2013	61-65	6	6	100	91	3.9	6.8	4.8	15.17	3.55	2.43	49	8	9.8	8.8,9.1	8.17	N
SANDY BEACH	IRON	2316100	111	C-	natural	09/19/2013	62-65	2.1	2.1	100	0	-	-	-	0	0	0	0	-	-	-	0	N
SPIDER	IRON	2306300	352	NR	natural	09/25/2013	59	7.3	7.3	100	14	5.6	7	6.4	1.92	0.45	0.1	117	7.5	10.6	8.5	16.03	N
TRUDE	IRON	2295200	792	NR	natural	09/30/2013	58-62	15.1	6	40	-	-	-	-	-	NA	NA	-	-	-	-	-	N
TURTLE FLAMB	IRON	2294900	13122	NR	natural	10/01,07/201	55-58	206.3	12	6	-	-	-	-	-	NA	NA	-	-	-	-	-	N
DEEP WOOD	LANGLADE	1445100	63	NONE	none	10/22/2013	46	2.6	2.4	92	0	-	-	-	0	#VALUE!		0	-	-	-	0	N
DYNAMITE	LANGLADE	1451700	97	NONE	none	10/23/2013	46	2.6	2.6	100	0	-	-	-	0	#VALUE!		0	-	-	-	0	N
ROSE	LANGLADE	494200	112	C-ST	stocked	09/26/2013	66	7.3	2.9	40	0	-	-	-	0	NA	NA	0	-	-	-	0	N
SAWYER	LANGLADE	198100	149	NR	natural	10/03/2013	64	5.2	3	58	0	-	-	-	0	NA	NA	0	-	-	-	0	N
SUMMIT	LANGLADE	1445600	282	O-ST	remnant	09/17/2013	63	3.3	3.3	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
UPPER POST	LANGLADE	399200	757	C-ST	stocked	09/16/2013	64	7.6	4.7	62	0	-	-	-	0	NA	NA	8	8.7	9.7	9.7	1.7	N
WATER POWE	LANGLADE	1445400	22	NONE	none	10/14/2013	57	1.5	1.5	100	0	-	-	-	0	0	0	0	-	-	-	0	N
GRANDFATHER	LINCOLN	1502400	223	NR-2	remnant	10/01/2013	62	11.9	4	34	3	4.3	4.6	4.3	0.75	NA	NA	4	8.7	9.9	-	1	N
GRANDMOTHE	LINCOLN	1503000	758	NR-2	remnant	09/12/2013	69	17.2	4	23	8	5.2	6.1	-	2	NA	NA	23	8.4	10.3	9.3	5.75	N
PINE	LINCOLN	1012100	134	ST	stocked	09/24/2013	61	2.7	2.7	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
SEVEN ISLAND	LINCOLN	1490300	132	C-ST	stocked	09/18/2013	64	4	4	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
SILVER	LINCOLN	1017400	82	NR	natural	09/30/2013	63	2.1	2.1	100	3	6.2	7.5	-	1.43	NA	NA	0	-	-	-	0	N
SOMO	LINCOLN	1547700	472	C-ST	stocked	09/23/2013	63	14.2	4	28	0	-	-	-	0	NA	NA	0	-	-	-	0	N
SPIRIT RESERV	LINCOLN	1506800	1664	NR	natural	09/25/2013	62	50.3	4.3	9	16	3.7	5.2	4.5	3.72	NA	NA	162	8	11.2	8.9, 9.2	37.67	N
SQUAW	LINCOLN	1564400	79	ST	stocked	10/02/2013	67	2.3	2.3	100	0	-	-	-	0	0	0	0	-	-	-	0	N
TUG	LINCOLN	1482400	151	NR	natural	10/09/2013	59	2.7	2.7	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
FIFTH	ONEIDA	1571100	240	NR	natural	09/16/2013	65	4.5	3.8	84	0	-	-	-	0	NA	NA	0	-	-	-	0	N
FOURTH	ONEIDA	1572000	258	NR	natural	09/16/2013	65	2.6	2.6	100	0	-	-	-	0	NA	NA	0	-	-	-	0	Y
INDIAN	ONEIDA	1598900	397	NR	natural	09/17/2013	64	5.1	5.1	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
PELICAN	ONEIDA	1579900	3585	NR	natural	10/02/2013	61	16.7	16.7	100	330	3.9	8.4	4.6,6.3,6.7	19.76	NA	NA	156	8.5	10	9.8	9.34	N
PIER	ONEIDA	1529700	257	C-ST	stocked	09/12/2013	67	5	5	100	0	-	-	-	0	NA	NA	3	7.2	8.9	-	0.6	N
SEVENMILE	ONEIDA	1605800	503	C-ST	stocked	09/23/2013	63	6.1	3.5	57	20	5.4	7.4	6.5,6.6	5.71	NA	NA	6	8.8	9.9	-	1.71	N
SPIDER	ONEIDA	1586600	123	NR-2	remnant	09/18/2013	63	3.1	3.1	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
TWO SISTERS	ONEIDA	1588200	719	C-NR	natural	09/26/2013	64	9.3	9.3	100	39	5.6	7.5	6.5	4.19	0.98	0.32	7	7.6	7.9	7.6	0.75	Y
WILLOW LAKE	ONEIDA	1529500	395	O-ST	remnant	09/11/2013	72	3.6	3.6	100	0	-	-	-	0	0	0	2	8.8	9	-	0.56	N
BALSAM	POLK	2620600	2054	C-ST	stocked	10/08/2013	57-62	22.7	22.7	100	0	-	-	-	0	NA	NA	1	11.5	11.5	None	0.04	N
BEAR TRAP	POLK	2618100	241	O-ST	remnant	10/10/2013	61	3.5	3.5	100	0	-	-	-	0	0	0	1	10.6	10.6	None	0.29	N

Appendix F. Continued.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Total Shore	ShockMi	%Shock	Age0	Age0 Min Length	Age0 Max Length	Age0 Modal Length	Age0Mi	Serns	Hansen	Age1	Age1 Min Length	Age1 Max Length	Age1 Modal Length	Age1Mi	WEStock
BIG BUTTERNU	POLK	2641000	378	C-ST	stocked	10/15/2013	55	3.4	3.4	100	0	-	-	-	0	0	0	0	-	-	-	0	N
HALF MOON	POLK	2621100	579	O-ST	remnant	09/24/2013	64	7.1	5.6	79	0	-	-	-	0	0	0	1	11.1	11.1	None	0.18	N
PIPE	POLK	2490500	284	C-ST	stocked	09/25/2013	65	5	5	100	2	6.5	6.9	None	0.4	NA	NA	1	11.5	11.9	None	0.2	N
WAPOGASSET	POLK	2618000	1186	C-ST	stocked	10/09/2013	60	9.9	9.1	92	0	-	-	-	0	0	0	9	9.6	11.6	None	0.99	N
WARD	POLK	2599400	91	ST	stocked	09/26/2013	65	2.3	2.3	100	0	-	-	-	0	NA	NA	21	8	11.9	8.5-8.9	9.13	N
GRASSY	PRICE	2238100	81	NR	natural	09/30/2013	63	2.1	2.1	100	2	5.4	5.5	None	0.95	NA	NA	0	-	-	-	0	N
LAC SAULT DO	PRICE	2236800	561	NR	natural	10/14/2013	52-55	14.1	4	28	48	5.1	8	6.2	12	NA	NA	5	10.7	11.5	None	1.25	N
PATTERSON	PRICE	1872500	70	O-ST	remnant	10/03/2013	62	1.8	1.8	100	1	6.8	6.8	None	0.56	NA	NA	*	-	-	-	-	Y
SOLBERG	PRICE	2242500	859	NR	natural	10/09/2013	58-59	12.4	4	32	6	5.2	6.8	None	1.5	NA	NA	41	7.6	10	9.2	10.25	N
PULASKI	RUSK	1875900	126	C-NR	natural	09/23/2013	62-64	2.5	2.5	100	0	-	-	-	0	0	0	2	11.3	11.3	None	0.8	Y
SAND	RUSK	2353600	262	C-NR	natural	09/16/2013	68	4.8	4.8	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
BLACK	SAWYER	2401300	129	O-ST	remnant	09/30/2013	62	3	3	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
CONNORS	SAWYER	2275100	429	NR	natural	10/01/2013	61-62	5	5	100	19	5.2	6.8	None	3.8	0.89	0.28	142	6.9	9.6	8.5	28.4	N
GHOST	SAWYER	2423000	372	C-ST	stocked	10/08/2013	58	7.3	3.6	49	0	-	-	-	0	NA	NA	0	-	-	-	0	N
GRINDSTONE	SAWYER	2391200	3111	C-NR	natural	09/24/2013	62-65	10.5	10.5	100	216	3.5	7.3	5.2	20.57	4.81	3.91	48	7.6	10	9.0,9.9	4.57	N
LAKE CHIPPEW	SAWYER	2399700	15300	C-NR	natural	09/09-10/201	72-73	232.9	9.6	4	17	4.9	6.4	5.4	1.77	NA	NA	27	8	9.9	8.4,8.8	2.81	N
LAKE OF THE P	SAWYER	2275300	273	NR	natural	10/01/2013	63	4.9	4.9	100	0	-	-	-	0	0	0	30	7.4	9.7	8.3	6.12	N
LOST LAND	SAWYER	2418600	1304	C-ST	stocked	09/12/2013	67-69	11.3	10.7	95	1	7.8	7.8	None	0.09	NA	NA	3	10	10.7	None	0.28	N
LOWER CLAM	SAWYER	2429300	203	C-ST	stocked	10/09/2013	59	4.2	4	95	12	5.8	7.8	None	3	NA	NA	3	8.8	9.9	None	0.75	Y
SAND	SAWYER	2393200	928	C-NR	natural	10/01/2013	62	5.1	5.1	100	148	5.2	7.4	6.1,6.2	29.02	6.79	6.69	23	8.6	11.5	10	4.51	N
TEAL	SAWYER	2417000	1049	C-NR	natural	09/11/2013	71-72	11.8	9.8	83	4	7.8	8.6	None	0.41	NA	NA	*	-	-	-	-	N
WHITEFISH	SAWYER	2392000	786	C-ST	stocked	09/16/2013	67	8.1	8.1	100	4	5.3	6.7	None	0.49	NA	NA	26	8	10.9	9.2	3.21	N
WINDIGO	SAWYER	2046600	522	C-NR	natural	10/02/2013	63	9	2.9	32	2	5.6	6.1	None	0.69	NA	NA	1	11.4	11.4	None	0.34	N
CEDAR	ST. CROIX	2615100	1100	NR	natural	10/07/2013	62	6.3	4.3	68	27	4.9	6.9	6.3	6.28	NA	NA	-	-	-	-	-	N
BIG ARBOR VI	VILAS	1545600	1090	NR	natural	10/17/2013	56	7.8	7.8	100	278	5.6	7.9	7.0,7.2	35.64	8.34	9.23	3	8	8	-	0.38	N
CATFISH	VILAS	1603700	978	NR	natural	10/09/2013	58	11.2	11.2	100	7	5.4	7.1	6.3	0.63	NA	NA	49	8.2	9.5	9.4	4.38	N
CIRCLE LILY	VILAS	2326700	223	C-ST	stocked	10/01/2013	60	3.8	4.1	108	49	4.9	7.4	5.7,5.8	11.95	2.8	1.67	14	8.1	9.4	9.4	3.41	Y
CRANBERRY	VILAS	1603800	924	NR	natural	09/25/2013	64	9.4	9.4	100	37	5.2	7	5.9,6.1	3.94	NA	NA	16	8	8.6	8.5	1.7	N
DEAD PIKE	VILAS	2316600	297	C-ST	stocked	10/02/2013	61	3.8	3.8	99	0	-	-	-	0	NA	NA	28	7.7	9.4	9.3	7.37	N
DUCK	VILAS	1599900	106	NR	natural	10/10/2013	59	1.7	1.7	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
EAGLE	VILAS	1600200	575	NR	natural	10/14/2013	56	4.9	4.9	100	0	-	-	-	0	NA	NA	10	8.1	9.8	-	2.04	N
ESCANABA	VILAS	2339900	293	NR	natural	09/20/2013	62	5.2	5.2	100	204	3.6	5.1	4.6	39.23	9.18	10.72	10	8.5	9.9	9.0,9.9	1.92	N
FOUND	VILAS	1593800	326	C-ST	stocked	09/22/2013	61	3.7	4.6	124	0	-	-	-	0	0	0	2	7.6	10.7	-	0.43	N
LITTLE ARBOR	VILAS	1545300	534	NR	natural	10/08/2013	58	7.1	5.3	75	6	6.7	7.4	-	1.13	NA	NA	40	7.8	12.5	11.7	7.55	N
LITTLE SPIDER	VILAS	1540400	235	C-ST	stocked	09/10/2013	71	4.6	4.6	100	0	-	-	-	0	0	0	0	-	-	-	0	N
LITTLE ST GER	VILAS	1596300	980	ST	stocked	09/23/2013	64	12.9	15.3	119	0	-	-	-	0	NA	NA	0	-	-	-	0	N
LONG	VILAS	1602300	872	C-ST	stocked	09/12/2013	66	8.2	7.8	95	0	-	-	-	0	0	0	17	8.2	10.1	8.8	2.18	N
MUSKELLUNGE	VILAS	1596600	272	ST	stocked	09/16/2013	66	3.6	3.6	100	0	-	-	-	0	NA	NA	1	9.6	9.6	-	0.28	N
OTTER/LYNX	VILAS	1600100	205	NR	natural	10/14/2013	57	3.1	3.1	100	0	-	-	-	0	NA	NA	2	9.6	10	-	0.65	N
PICKEREL	VILAS	1619700	293	ST	stocked	09/17/2013	64	4.4	4.4	100	0	-	-	-	0	0	0	0	-	-	-	0	N
PLUM	VILAS	1592400	1033	NR	natural	10/07/2013	57	14.5	14.5	100	242	3.6	6.5	4.6,5.0,5.2	16.69	3.91	2.82	12	6.6	7.3	6.6,6.9	0.83	N
PLUM (UNDER	VILAS	2963200	225	NR	natural	09/23/2013	62	3.5	3.5	100	99	5.8	7	6.2	28.29	6.62	6.43	9	9.4	10	10	2.57	N
SCATTERING R	VILAS	1600300	263	NR	natural	10/14/2013	56	3.6	3.6	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
SHERMAN	VILAS	1880700	123	NR	natural	09/17/2013	64	2.2	2.2	100	76	4.7	7.1	6	34.55	8.08	8.79	47	8.7	11	9.9	21.36	N
SNIPE	VILAS	1018500	239	NR	natural	09/24/2013	63	3.5	3.5	100	0	-	-	-	0	0	0	11	6.7	9.1	7	3.14	N
SPARKLING	VILAS	1881900	154	C-ST	stocked	09/24/2013	63	2.3	2.3	100	274	4.6	6.9	5.4,5.6,5.7	119.13	27.88	60.91	5	8.9	10.8	-	2.17	Y
TOWANDA	VILAS	1022900	146	ST	stocked	09/09/2013	70	3.3	2.8	85	0	-	-	-	0	NA	NA	0	-	-	-	0	N
UPPER GRESH	VILAS	2330800	366	ST	stocked	10/10/2013	59	5.8	6.2	107	0	-	-	-	0	0	0	0	-	-	-	0	N
YELLOW BIRCH	VILAS	1599600	192	NR	natural	10/10/2013	59	4.3	4.3	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
BIG BASS	WASHBURN	2453300	203	ST	stocked	09/16/2013	69	2.4	2.4	100	0	-	-	-	0	NA	NA	10	8.5	12.4	None	4.17	N
GILMORE	WASHBURN	2695800	389	O-ST	remnant	09/18/2013	66	7.6	5.3	70	2	5.1	5.8	None	0.38	NA	NA	13	9.1	11.5	10.1	2.45	N
LAKE NANCY	WASHBURN	2691500	772	ST	stocked	10/07/2013	63	10.9	5.5	50	6	4.8	7.1	None	1.09	NA	NA	51	8.8	12.9	12.0-12.4	9.27	Y
MIDDLE MCKE	WASHBURN	2706500	530	C-ST	stocked	10/01/2013	65	4.1	4.1	100	0	-	-	-	0	NA	NA	42	9.1	12.9	12.0-12.4	10.24	Y
MINONG FLOV	WASHBURN	2692900	1564	NR	natural	10/02/2013	65	24.8	4.9	20	201	4.9	7.4	6.3	41.02	NA	NA	31	9.7	11.7	11	6.33	N
SHELL	WASHBURN	2496300	2580	NR	natural	09/25/2013	61-65	10.2	10.2	100	1200	4.1	7.9	6.1,6.2	117.65	27.53	59.73	246	8	10.7	9.8	24.12	N
SLIM	WASHBURN	2109300	224	C-ST	stocked	09/17/2013	68	2.6	2.6	100	0	-	-	-	0	NA	NA	0	-	-	-	0	N
STONE	WASHBURN	1884100	523	C-ST	stocked	09/23/2013	65	4	4	100	54	4.3	7.4	6.5	13.5	3.16	2.02	10	8.7	11.9	None	2.5	Y

Appendix G. Walleye Exploitation Rates.

G-1. Information on fin clipped fish in population (prior to creel) and those observed in angler creels used to estimate angler harvest and exploitation rates during the 2013-2014 fishing season.

							Clips Given Prior to Creel				Clips Observed in Creel					
Year	WBIC	County	Lake	Acres	Recruit. Code	Size Limit	Clip Given	# Clips Given	#Clips ≥14"	#Clips ≥20"	# Clips Observed	# Clips Projected	# Clips Obs. ≥14"	# Clips Proj. ≥14"	# Clips Obs. ≥20"	# Clips Proj. ≥20"
2013	2469800	Barron	Horseshoe	115	ST	18	LV	86	86	31	0	0	0	0	0	0
2013	2742100	Bayfield	M. Eau Claire	902	C-NR	1>14	LV	437	421	8	4	20	4	20	0	0
2013	2461100	Burnett	Devils	1001	O-ST	15	LV	180	172	21	2	16	2	16	0	0
2013	2678100	Burnett	Lipsett	393	O-ST	15	LV	47	44	30	0	0	0	0	0	0
2013	2133200	Eau Claire	Eau Claire	860	NR	15	LV	1,049	901	93	19	151	19	151	1	8
2013	394400	Forest	Metonga	1991	C-NR	15	RP	1,644	1,502	75	2	7	2	7	0	0
2013	1586600	Oneida	Spider	123	NR	15	RV	295	114	16	2	6	2	6	0	0
2013	1875900	Rusk	Pulaski	126	C-NR	15	LV	196	173	11	5	27	5	27	0	0
2013	2275100	Sawyer	Connors	429	NR	15	LV	245	132	40	3	19	3	19	1	6
2013	1603700	Vilas	Catfish	978	NR	14-18 slot	RV	808	205	31	7	62	3	27	1	9
2013	1603800	Vilas	Cranberry	924	NR	14-18 slot	LV	884	189	31	2	13	0	0	0	0
2013	1600200	Vilas	Eagle	575	NR	14-18 slot	LP	730	225	17	0	0	0	0	0	0
2013	600100/160030	Vilas	Otter/Lynx	31	NR	14-18 slot	DF	199	95	10	0	0	0	0	0	0
2013	2331600	Vilas	Trout	3816	C-ST	15	RP	2,732	2,487	541	46	244	46	244	12	64
2013	1599600	Vilas	Yellow Birch	192	NR	14-18 slot	LV	448	300	27	0	0	0	0	0	0
2013	2496300	Washburn	Shell	2580	NR	none	LV	255	253	15	1	8	1	8	0	0

G-2. Estimated angler and tribal harvest and associated walleye exploitation rates for lakes surveyed during the 2013-2014 fishing season.

County	Lake	Acres	Adult PE	Angler Harvest	Tribal Harvest	Total Harvest	Angler Exploitation	Angler Exploitation ≥14"	Angler Exploitation ≥20"	Tribal Exploitation	Total Exploitation
Barron	Horseshoe	115	136	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000
Bayfield	M. Eau Claire	902	2169	347	241	588	0.0458	0.0475	0.0000	0.1111	0.1569
Burnett	Devils	1001	347	71	36	107	0.0889	0.0930	0.0000	0.1037	0.1926
Burnett	Lipsett	393	98	7	46	53	0.0000	0.0000	0.0000	0.4694	0.4694
Eau Claire	Eau Claire	860	5755	1146	0	1146	0.1439	0.1676	0.0855	0.0000	0.1439
Forest	Metonga	1991	9836	230	177	407	0.0043	0.0047	0.0000	0.0180	0.0223
Oneida	Spider	123	489	14	0	14	0.0203	0.0526	0.0000	0.0000	0.0203
Rusk	Pulaski	126	386	63	45	108	0.1378	0.1561	0.0000	0.1166	0.2543
Sawyer	Connors	429	1084	133	132	265	0.0776	0.1439	0.1583	0.1218	0.1993
Vilas	Catfish	978	5082	1750	203	1953	0.0767	0.1296	0.2857	0.0399	0.1167
Vilas	Cranberry	924	5869	867	285	1152	0.0147	0.0000	0.0000	0.0486	0.0633
Vilas	Eagle	575	2118	650	14	664	0.0000	0.0000	0.0000	0.0066	0.0066
Vilas	Otter/Lynx	31	866	95	0	95	0.0000	0.0000	0.0000	0.0000	0.0000
Vilas	Trout	3816	10016	2084	325	2409	0.0893	0.0981	0.1177	0.0324	0.1218
Vilas	Yellow Birch	192	1337	187	0	187	0.0000	0.0000	0.0000	0.0000	0.0000
Washburn	Shell	2580	1490	337	260	597	0.0314	0.0316	0.0000	0.1745	0.2059

Appendix H. Safe harvest of walleye and musky calculated for individual lakes within the Wisconsin Ceded Territory during 2013.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Ashland	Augustine L	2410400	166		.	Other	5
Ashland	Bear L	2403200	204	Other	76	Other	6
Ashland	Beaver Dam L	2916700	118		.	Other	4
Ashland	Beaver L	2935400	25		.	Other	2
Ashland	Cub L	1842600	31		.	Other	2
Ashland	Day L	2430300	641		.	Other	12
Ashland	E Twin L	2429000	110		.	Other	4
Ashland	English L	2914800	244	1-2 Year Pe	22	1-2 Year Pe	19
Ashland	Eureka L	2935600	39		.	Other	2
Ashland	Gordon L	2406500	142	1-2 Year Pe	53	Other	5
Ashland	L Galilee	2935500	213	Other	9	Other	6
Ashland	Meder L	2935300	135	Other	18		.
Ashland	Mineral L	2916900	225	Other	84	Other	6
Ashland	Moquah L	2918200	50		.	Other	3
Ashland	Pelican L	2404800	46	Other	18	Other	2
Ashland	Potter L	2917200	29	Other	4		.
Ashland	Spider L	2918600	103		.	Other	4
Ashland	Spillerberg L	2936200	75	Other	29	Other	3
Ashland	Tea L	2922700	50	Other	20		.
Ashland	Torrey L	2406700	29		.	Other	2
Ashland	Upper Clam L	2429600	166	Other	22	Other	5
Ashland	Zielke L	2406900	21	Other	8		.
Barron	Bass L	1832800	118	Other	7		.
Barron	Bear L	2105100	1358	Other	27		.
Barron	Beaver Dam L	2081200	1112	Other	126		.
Barron	Big Dummy L	1835100	111	Other	15		.
Barron	Big Moon L	2079000	191	Other	25	Other	6
Barron	Butternut L	2105800	141	Other	7		.
Barron	Duck L	2100300	100	1-2 Year Pe	71		.
Barron	Echo L	2630200	161	Other	8		.
Barron	Granite L	2100800	154	Other	58		.
Barron	Hemlock L	2109800	357	Other	13		.
Barron	Horseshoe L	2469800	115	Other	16		.
Barron	Horseshoe L	2630100	377	Other	13		.
Barron	L Chetek	2094000	770	Other	90		.
Barron	L Montanis	2103200	200	Other	26		.
Barron	Little Sand L	2661600	101		.	Other	4
Barron	Loon L	2478600	94	Other	13		.
Barron	Lower Devils L	1864000	162	Other	61		.
Barron	Lower Turtle L	2079700	276	Other	35		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Barron	Lower Vermillion	2098200	208	Other	27		.
Barron	Minnow L	1866600	26	Other	2		.
Barron	Mud L	2094600	577	1-2 Year Pe	38		.
Barron	Pokegama L	2094300	506	1-2 Year Pe	33		.
Barron	Poskin L	2098000	150	Other	20		.
Barron	Prairie L	2094100	1534	1-2 Year Pe	110		.
Barron	Red Cedar L	2109600	1841	Other	628		.
Barron	Rice L	2103900	939		.	Other	15
Barron	Sand L	2661100	322	1-2 Year Pe	8	Other	8
Barron	Scott L	2630700	81	Other	5		.
Barron	Silver L	1881100	337	Other	124		.
Barron	Spring L	1882800	60	Other	23		.
Barron	Staples L	2631200	305	Other	39		.
Barron	Tenmile L	2089500	376	Other	47		.
Barron	Upper Devils L	2043500	86	Other	5		.
Barron	Upper Turtle L	2079800	438	1-2 Year Pe	54		.
Bayfield	Armstrong L	2754600	48	Other	19		.
Bayfield	Atkins L	2734000	176	Other	66		.
Bayfield	Bellevue L	2755800	65	Other	4		.
Bayfield	Bladder L	2756200	81	Other	31		.
Bayfield	Bony L	2742500	191	Other	72	Other	6
Bayfield	Buffalo L	1837700	179	Other	8	Other	6
Bayfield	Buskey Bay	2903800	100	Other	0	Other	4
Bayfield	Camp One L	2965700	37	Other	15		.
Bayfield	Chippewa L	2431300	274		.	Other	7
Bayfield	Cisco L	2899200	95	Other	13		.
Bayfield	Cranberry L	2732800	58	Other	4		.
Bayfield	Crystal L	2874700	94	Other	6		.
Bayfield	Crystal L	2897300	111	1-2 Year Pe	8		.
Bayfield	Deep L	2760100	125	Other	7		.
Bayfield	Diamond L	2897100	341	1-2 Year Pe	23		.
Bayfield	Drummond L	2899400	99	Other	14		.
Bayfield	Eagle L	2902900	170		.	Other	5
Bayfield	Everett L	2761600	34	Other	3		.
Bayfield	Finger L	2965500	76	Other	5		.
Bayfield	Flynn L	2902800	29		.	Other	2
Bayfield	Ghost L	2423900	142		.	Other	5
Bayfield	Hammil L	2467900	83	Other	12		.
Bayfield	Hart L	2903200	259	Other	0	Other	7
Bayfield	Hildur L	2902600	67		.	Other	3
Bayfield	Iron L	2877000	248	Other	10		.
Bayfield	Jackson L	2734200	142	Other	7		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Bayfield	Kelly L	2472000	56	Other	4		.
Bayfield	Kern L	2900500	91	Other	35		.
Bayfield	L Millicent	2903700	183	Other	0	Other	6
Bayfield	L Owen	2900200	1323	Other	148		.
Bayfield	L Ruth	2765900	66	Other	4		.
Bayfield	L Tahkodah	2473500	152	Other	8		.
Bayfield	Little Siskiwit L	2882200	37	Other	15		.
Bayfield	Long L	2767100	263	Other	34		.
Bayfield	Marengo L	2921100	99	Other	38		.
Bayfield	Mccarry L	2903400	32		.	Other	2
Bayfield	Middle Eau Claire	2742100	902	Other	318	Other	15
Bayfield	Mill Pond L	2899700	62	Other	24		.
Bayfield	Mullenhoff L	2876500	69	Other	5		.
Bayfield	Muskellunge L	2903600	45	Other	3		.
Bayfield	Namekagon L	2732600	3227	1-2 Year Pe	1490	Other	32
Bayfield	Perch L	2770800	25	Other	10		.
Bayfield	Pike L Treaty Cha	2902700	714	Other	254		.
Bayfield	Samoset L	2494800	46	Other	4		.
Bayfield	Siskiwit L	2882300	330	1-2 Year Pe	142		.
Bayfield	Spider L	2774200	75	Other	5		.
Bayfield	Spider L	2876200	124	Other	7		.
Bayfield	Swett L	2743700	88	Other	34		.
Bayfield	Trapper L	2734500	84	Other	33		.
Bayfield	Twin Bear L	2903100	172	Other	0	Other	5
Bayfield	Upper Eau Claire	2742700	996	1-2 Year Pe	64	1-2 Year Pe	10
Burnett	Big Mckenzie L	2706800	1185	1-2 Year Pe	87	Other	18
Burnett	Big Sand L	2676800	1400	Other	27		.
Burnett	Big Trade L	2638700	304		.	Other	8
Burnett	Clam R Fl	2654500	359	Other	132		.
Burnett	Danbury Fl	2674500	256		.	Other	7
Burnett	Des Moines L	2674200	229		.	Other	7
Burnett	Devils L	2461100	1001	Other	115		.
Burnett	Dunham L	2651800	243	Other	31		.
Burnett	Elbow L	2463100	233	Other	10		.
Burnett	Fish L	2464500	356	Other	13		.
Burnett	Lipsett L	2678100	393	Other	49		.
Burnett	Little Mcgraw L	2477000	55	Other	8		.
Burnett	Little Trade L	2639300	130		.	Other	5
Burnett	Little Yellow L	2674800	348	Other	128	Other	8
Burnett	Poquettes L	2491100	97	Other	13		.
Burnett	Rice L	2677900	311		.	Other	8
Burnett	Rooney L	2493100	322	Other	41		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Burnett	Round L	2640100	204	Other	27		.
Burnett	Sand L	2495100	962	Other	22		.
Burnett	Twenty-Six L	2672500	230		.	Other	7
Burnett	Viola L	2598600	285	Other	11		.
Burnett	Yellow L	2675200	2287	Other	772	Other	26
Chippewa	Axhandle L	2092500	84	Other	5		.
Chippewa	Chippewa Falls Fl	2152600	282	Other	104		.
Chippewa	Cornell Fl	2181400	577	Other	207	Other	11
Chippewa	Cornell L	2171000	194	Other	9		.
Chippewa	Holcombe Fl	2184900	3890	Other	1278	Other	35
Chippewa	L Wissota	2152800	6300	1-2 Year Pe	743	Other	47
Chippewa	Long L	2351400	1052	1-2 Year Pe	435	Other	16
Chippewa	Old Abe L	2174700	1072	Other	375	Other	17
Chippewa	Otter L	2157000	661	Other	79		.
Chippewa	Popple L	2173900	90	Other	13		.
Chippewa	Round L	2169200	216	1-2 Year Pe	13	Other	6
Clark	Mead L	2143900	320	Other	20	Other	4
Douglas	Amnicon L	2858100	426	Other	155	Other	10
Douglas	Bass L	2451700	126	Other	48		.
Douglas	Bear L	2857700	49	Other	19	Other	2
Douglas	Beauregard L	2452400	93	Other	36		.
Douglas	Bond L	2693700	293	Other	108		.
Douglas	Clear L	2457700	36	Other	14		.
Douglas	Dowling L	2858300	154	Other	58	Other	5
Douglas	Hoodoo L	2763900	32	Other	3		.
Douglas	L Minnesuing	2866200	432	Other	157		.
Douglas	L Nebagamon	2865000	914	Other	322		.
Douglas	Leader L	2693800	165	Other	62		.
Douglas	Lower Eau Claire	2741600	802	1-2 Year Pe	198	Other	14
Douglas	Lund L	2480300	75	Other	5		.
Douglas	Lyman L	2856400	403	Other	14	Other	9
Douglas	Person L	2488600	172	Other	8		.
Douglas	Peterson L	2488700	33	Other	3		.
Douglas	Red L	2492100	258	Other	11		.
Douglas	Round L	2493900	34	Other	3		.
Douglas	Upper St Croix L	2747300	855	Other	99		.
Douglas	Whitefish L	2694000	832	Other	294		.
Douglas	Wilson L	2600800	27	Other	2		.
Dunn	Tainter L	2068000	1752	Other	599		.
Eau Claire	Altoona L	2128100	840	1-2 Year Pe	218	Other	7
Eau Claire	Dells Pond	2149900	739	Other	263	Other	13
Eau Claire	Halfmoon L	2125400	132	Other	18		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Eau Claire	L Eau Claire	2133200	860	Other	152	Other	7
Florence	Bass L	652500	50	Other	4		.
Florence	Emily L	651600	191	1-2 Year Pe	21		.
Florence	Fay L	677100	282	Other	36		.
Florence	Fisher L	704200	54	Other	4		.
Florence	Halsey L	679300	512	Other	16		.
Florence	Keyes L	672900	210	1-2 Year Pe	14		.
Florence	Patten L	653700	255	1-2 Year Pe	29		.
Florence	Pine R Fl	651300	127	Other	48		.
Florence	Sand L	591600	52	Other	4		.
Florence	Sea Lion L	672300	125	1-2 Year Pe	5		.
Forest	Arbutus L	181400	158	Other	21		.
Forest	Birch L	555500	468	Other	170		.
Forest	Butternut L	692400	1292	1-2 Year Pe	761		.
Forest	Crane L	388500	337	Other	42		.
Forest	Franklin L	692900	892	Other	315		.
Forest	Ground Hemlock L	395900	88	Other	12		.
Forest	Howell L	691800	177	Other	67		.
Forest	Jungle L	377900	177	1-2 Year Pe	99		.
Forest	King L	501700	33	Other	13		.
Forest	L Lucerne	396500	1026	1-2 Year Pe	76		.
Forest	L Metonga	394400	1991	1-2 Year Pe	297		.
Forest	Lily L	376900	213	1-2 Year Pe	222	Other	6
Forest	Little Long L	190500	102	Other	6		.
Forest	Pine L	406900	1670	Other	182		.
Forest	Quartz L	591000	47		.	Other	2
Forest	Range Line L	478200	82	Other	12		.
Forest	Riley L	557100	213		.	Other	6
Forest	Roberts L	378400	414	Other	51	Other	9
Forest	Silver L	555700	334	Other	12	1-2 Year Pe	7
Forest	Stevens L	683000	297	Other	38		.
Forest	Trump L	479300	172	Other	23		.
Forest	Wabikon L	556900	594		.	Other	12
Forest	Windfall L	373500	55		.	Other	3
Iron	Bearskull L	2265100	75	Other	11		.
Iron	Big Pine L	2270700	632	Other	226	Other	12
Iron	Boot L	2297800	180	Other	8	Other	6
Iron	Catherine L	2309100	118	Other	7		.
Iron	Cedar L	2309700	193	Other	25	Other	6
Iron	Charnley L	1840400	71	Other	5		.
Iron	Clear L	2303700	67	Other	5	Other	3
Iron	Echo L	2301800	220	Other	82	Other	6

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Iron	Fisher L	2307300	410	Other	51	Other	9
Iron	French L	1849600	92	Other	6	Other	4
Iron	Gile Fl	2942300	3384	Other	1119	Other	33
Iron	Grand Portage L	2314100	144	Other	19	Other	5
Iron	Grant L	2312500	107	Other	6	Other	4
Iron	Hewitt L	2763300	78		.	Other	3
Iron	Island L	2945500	352	Other	129	Other	9
Iron	L Of The Falls	2298300	338	Other	43	Other	8
Iron	L Tahoe	2314000	37	Other	3	Other	2
Iron	Little Martha L	2314700	35	Other	3	Other	2
Iron	Long L	2303500	396	Other	49	Other	9
Iron	Lower Springstead	2267000	95	Other	37	Other	4
Iron	Martha L	2314300	146	Other	55		.
Iron	Mcdermott L	2296500	84	1-2 Year Pe	16		.
Iron	Mercer L	2313600	184	Other	24	Other	6
Iron	Moose L	2299300	269		.	Other	7
Iron	Mud L	2316400	56	Other	22		.
Iron	Muskie L	2266800	81	Other	31	Other	3
Iron	N Bass L	1868900	180	Other	8	Other	6
Iron	Owl L	2307600	129	Other	18	Other	5
Iron	Oxbow L	2302300	80	Other	31	Other	3
Iron	Pardee L	2308000	206	Other	77	Other	6
Iron	Pike L	2299900	165	Other	62	Other	5
Iron	Pine L	2949200	312	1-2 Year Pe	288	1-2 Year Pe	11
Iron	Plunkett L	2325200	48	Other	4		.
Iron	Randall L	2318500	115	1-2 Year Pe	46	Other	4
Iron	Rice L	2300600	125	Other	48	Other	4
Iron	Sandy Beach L	2316100	111	1-2 Year Pe	20		.
Iron	Saxon Falls Fl	2941100	41	Other	16	Other	2
Iron	Second Black L	2298600	60	Other	23		.
Iron	Spider L	2306300	352	Other	129	Other	9
Iron	Stone L	2267200	82	Other	5	Other	3
Iron	Third Black L	2298800	68	Other	27		.
Iron	Trude L	2295200	781	Other	277	Other	14
Iron	Turtle-Flambeau F	2294900	13545	Other	4155	Other	72
Iron	Upper Springstead	2267100	126	Other	48	Other	5
Iron	Virgin L	2304500	119		.	Other	4
Iron	Wilson L	2297000	162		.	Other	5
Langlade	Big Twin L	182200	60	Other	4		.
Langlade	Deep Wood L	1445100	72		.	Other	3
Langlade	Duck L	981500	123	Other	7		.
Langlade	Enterprise L	1579700	505	1-2 Year Pe	100	Other	11

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Langlade	Goto L	348700	28	Other	2		.
Langlade	Greater Bass L	1445500	258		.	Other	7
Langlade	Jessie L	188700	35	Other	3		.
Langlade	Lawrence L	997300	50	Other	4		.
Langlade	Moccasin L	1005600	110	Other	15	Other	4
Langlade	Mueller L	194000	88	Other	12		.
Langlade	Otter L	387200	83	Other	32		.
Langlade	Pickerel L	388100	1256	Other	26		.
Langlade	Rolling Stone L	389300	672	Other	80		.
Langlade	Rose L	494200	112	Other	43		.
Langlade	Sawyer L	198100	149	Other	57		.
Langlade	Summit L	1445600	282	Other	11	Other	7
Langlade	Upper Post L	399200	757	Other	89		.
Langlade	Water Power L	1445400	22		.	Other	1
Langlade	White L	365500	166	Other	8		.
Lincoln	Alexander L	1494600	677	1-2 Year Pe	107	Other	13
Lincoln	Bass L	969600	100	Other	6		.
Lincoln	Clear L	1555400	272	Other	11		.
Lincoln	Crystal L	979100	109	Other	6		.
Lincoln	Deer L	1519600	156	Other	59	Other	5
Lincoln	Grandfather Fl	1502400	223	Other	10		.
Lincoln	Grandmother Fl	1503000	119	Other	7		.
Lincoln	Jersey City Fl	1516000	404	Other	147	Other	9
Lincoln	L Alice	1555900	1369	Other	473	Other	19
Lincoln	L Mohawksin	1515400	1910	Other	650	Other	23
Lincoln	L Nokomis	1516500	2433	Other	0	1-2 Year Pe	11
Lincoln	Long L	1001000	132	Other	18		.
Lincoln	Merrill Fl	1481100	164	Other	62		.
Lincoln	Muskellunge L	1555500	167	Other	8		.
Lincoln	Pesabic L	1481600	146	Other	20		.
Lincoln	Pine L	1012100	134	Other	7	Other	5
Lincoln	Rice R Fl	1516400	920	Other	0	1-2 Year Pe	4
Lincoln	Rice R Fl. Treaty	1516401	3764	1-2 Year Pe	1619		.
Lincoln	Seven Island L	1490300	132	Other	18	Other	5
Lincoln	Silver L	1017400	82	Other	32		.
Lincoln	Somo L	1547700	472	Other	58	Other	10
Lincoln	Spirit R Fl	1506800	1664	Other	570	Other	22
Lincoln	Squaw L	1564400	79	Other	11	Other	3
Lincoln	Thompson L	1022200	30		.	Other	2
Lincoln	Tug L	1482400	151	Other	57	Other	5
Marathon	Big Eau Pleine Re	1427400	6830	Other	1742	Other	39
Marathon	L Wausau	1437500	1918	Other	65	Other	2

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Marathon	Lost L	1407000	42	Other	3		.
Marathon	Mayflower L	310500	98	Other	14		.
Marathon	Mission L	1005400	107		.	Other	4
Marathon	Norrie L	310100	99	Other	6		.
Marathon	Pike L	1406300	205	Other	27		.
Marathon	Wausau Dam L	1469700	284	Other	9		.
Marinette	Big Newton L	498800	68	Other	27		.
Marinette	Caldron Falls Res	545400	1018	Other	23	Other	16
Marinette	Eagle L	500200	56	Other	4		.
Marinette	High Falls Reserv	540600	1498	Other	516		.
Marinette	Hilbert L	501200	247	Other	32		.
Marinette	Johnson Falls Fl	533300	68	Other	27		.
Marinette	Little Newton L	502300	60	Other	23		.
Marinette	Oneonta L	503300	66	Other	4		.
Marinette	Sandstone Fl	531300	153	Other	29		.
Marinette	Thunder L	533600	127	Other	7		.
Oconto	Archibald L	417400	393	1-2 Year Pe	53	Other	9
Oconto	Bass L	417900	142	Other	54		.
Oconto	Bear L	471200	78	Other	5		.
Oconto	Boot L	418700	235	Other	88	Other	7
Oconto	Boundary L	499000	37	Other	3		.
Oconto	Crooked L	462000	143	Other	7		.
Oconto	Horn L	467100	132	Other	7		.
Oconto	John L	470600	104	Other	6		.
Oconto	Maiden L	487500	290	Other	11		.
Oconto	Munger L	470900	97	Other	6	Other	4
Oconto	Paya L	425600	121	Other	7		.
Oconto	Reservoir Pond	466700	417	Other	14		.
Oconto	Townsend Fl	465000	476	Other	15		.
Oconto	Waubee L	439500	124	Other	7		.
Oconto	Wheeler L	439800	293	Other	108		.
Oneida	Aldridge L	967400	134	Other	51		.
Oneida	Alva L	968100	201	Other	75		.
Oneida	Baker L	1546000	42	Other	17		.
Oneida	Bass L	970000	74	Other	5		.
Oneida	Bass L	1580300	124	Other	47	Other	4
Oneida	Bear L	1527800	312	Other	40		.
Oneida	Bearskin L	1523600	400	1-2 Year Pe	566	Other	9
Oneida	Big Carr L	971600	213	Other	28	Other	6
Oneida	Big Fork L	1610700	690	Other	246	Other	13
Oneida	Big L	1613000	865	Other	306	Other	15
Oneida	Big Stone L	1612200	548	Other	197	Other	11

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Birch L	1523800	180	Other	68		.
Oneida	Bird L	972000	99	Other	38		.
Oneida	Blue L	1538600	456	Other	166		.
Oneida	Bolger L	973000	119	Other	16		.
Oneida	Boom L	1580200	437	Other	14	Other	10
Oneida	Booth L	1537800	207	Other	27	Other	6
Oneida	Bridge L	1516800	411	Other	0	1-2 Year Pe	2
Oneida	Brown L	973700	98	Other	6		.
Oneida	Buckskin L	2272600	634	Other	159	Other	9
Oneida	Buffalo L	974200	104	Other	40		.
Oneida	Burrows L	975000	156	Other	8	Other	5
Oneida	Carrol L	1544800	352	Other	44	Other	9
Oneida	Chain L	1598000	219	Other	82	Other	6
Oneida	Clear L	977100	36	Other	3		.
Oneida	Clear L	977200	30	Other	12	Other	2
Oneida	Clear L	977400	62	Other	24	Other	3
Oneida	Clear L	977500	846	1-2 Year Pe	272	Other	14
Oneida	Clear L	2272555	212	Other	78	Other	6
Oneida	Clearwater L	1616400	351	Other	129	Other	8
Oneida	Columbus L	1616900	670	Other	239		.
Oneida	Crescent L	1564200	612	Other	219	Other	12
Oneida	Crooked L	1613300	176	Other	8		.
Oneida	Cunard L	1590000	43	Other	17		.
Oneida	Currie L	979300	96	Other	37		.
Oneida	Dam L	1596900	744	1-2 Year Pe	221	Other	13
Oneida	Deer L	1612300	177	Other	67	Other	6
Oneida	Diamond L	1537100	124	Other	47	Other	4
Oneida	Dog L	1590200	37	Other	3		.
Oneida	Dog L	1612900	216	Other	81	Other	6
Oneida	E Horsehead L	1523000	184	Other	69	Other	6
Oneida	Echo L	1597800	107	Other	41	Other	4
Oneida	Fifth L	1571100	240	Other	89	Other	7
Oneida	Fish L	1570600	70	Other	27	Other	3
Oneida	Fourmile L	1610800	218	Other	82	Other	6
Oneida	Fourth L	1572000	258	Other	96	Other	7
Oneida	Franklin L	986000	161	Other	22	Other	5
Oneida	Fuller L	2272000	101	Other	6		.
Oneida	Garth L	986600	114	Other	44		.
Oneida	George L	1569600	435	Other	158	Other	10
Oneida	Gilmore L	1589300	320	Other	41	Other	8
Oneida	Hancock L	1517900	259	Other	11	Other	7
Oneida	Hasbrook L	1589100	302	Other	112	Other	8

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Hat Rapids Fl	1567325	650	Other	233		.
Oneida	Hemlock L	989200	39	Other	15		.
Oneida	Hill L	990200	30	Other	3		.
Oneida	Hixon L	1568900	50	Other	4		.
Oneida	Hodstradt L	990700	126	Other	17		.
Oneida	Indian L	1598900	397	Other	145		.
Oneida	Island L	1610500	295	Other	109	Other	8
Oneida	Jennie Webber L	1574300	226	Other	29		.
Oneida	Julia L (Three La	1614300	401	Other	146	Other	9
Oneida	Kate Pier L	1586300	34	Other	14		.
Oneida	Kathan L	1598300	189	Other	71		.
Oneida	Katherine L	1543300	590	Other	212	Other	12
Oneida	Kawaguesaga L	1542300	670	Other	239	Other	13
Oneida	Killarney L	1520900	421	Other	14		.
Oneida	L Creek	1580500	172	Other	65	Other	5
Oneida	L Julia (Rhinelan	995000	238	1-2 Year Pe	62	Other	7
Oneida	L Seventeen	996100	172	Other	23		.
Oneida	L Thompson	1569900	382	Other	48	Other	9
Oneida	Laurel L	1611800	232	Other	87	Other	7
Oneida	Little Bearskin L	1523500	164	Other	8		.
Oneida	Little Carr L	998800	52	Other	4		.
Oneida	Little Fork L	1610600	354	Other	130	Other	9
Oneida	Little Tomahawk L	1543900	160	Other	0	Other	5
Oneida	Lone Stone L	1605600	172	Other	8	Other	5
Oneida	Long L	1001300	113	Other	43	Other	4
Oneida	Long L	1609000	620	Other	222	Other	12
Oneida	Long L	1618300	56	Other	22	Other	3
Oneida	Lost L	1575100	155	Other	59		.
Oneida	Lower Kaubashine	1534800	187	Other	25	Other	6
Oneida	Lumen L	1002800	49	Other	19		.
Oneida	Madeline L	1544700	159		.	Other	5
Oneida	Manson L	1517200	236	Other	88	Other	7
Oneida	Maple L	1609900	144	Other	7		.
Oneida	Margaret L	1615900	88	Other	34		.
Oneida	Mars L	1577100	41	Other	16		.
Oneida	Mccormick L	1526600	118	Other	16		.
Oneida	Medicine L	1611700	372	Other	136	Other	9
Oneida	Mercer L	1538900	257	Other	96	Other	7
Oneida	Mid L	1542600	215	Other	9	Other	6
Oneida	Mildred L	1004600	191	Other	9		.
Oneida	Minocqua L	1542400	1360	Other	471	Other	19
Oneida	Moccasin L	1612100	95	Other	37	Other	4

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Moen L	1573800	460	Other	167	Other	10
Oneida	Mud L	1544000	41	Other	16		.
Oneida	Mud L	1612500	124	Other	7	Other	4
Oneida	Muskellunge L	1595600	284	1-2 Year Pe	49	Other	7
Oneida	Muskie L	1524300	43	Other	3		.
Oneida	N Nokomis L	1595800	476	Other	58	Other	10
Oneida	N Two L	1007500	146	Other	55		.
Oneida	Nose L	1008200	40	Other	3		.
Oneida	Oatmeal L	1597300	97	Other	6		.
Oneida	Oneida L	1518200	255	Other	95	Other	7
Oneida	Paradise L	1009400	89	Other	12		.
Oneida	Pelican L	1579900	3585	1-2 Year Pe	997	1-2 Year Pe	25
Oneida	Pickerel L	1583000	49	Other	4		.
Oneida	Pickerel L	1590400	736	Other	19	Other	13
Oneida	Pier L	1529700	257	Other	33		.
Oneida	Pine L	1012200	203	Other	76		.
Oneida	Pine L	1581700	240	Other	89	Other	7
Oneida	Planting Ground L	1609100	1012	Other	355	Other	16
Oneida	Prairie L	1013000	58	Other	23		.
Oneida	Rainbow Fl	1595300	2035	1-2 Year Pe	971	Other	24
Oneida	Range Line L	1610300	123	Other	47	Other	4
Oneida	Rhinelander Fl	1580100	1326	Other	459	Other	19
Oneida	Rocky Run Fl	1525500	96	Other	37		.
Oneida	Round L	1610400	150	Other	57	Other	5
Oneida	S Blue L	1015100	80	Other	5		.
Oneida	S Pine L	1580700	77	Other	30		.
Oneida	S Two L	1015500	214	Other	80		.
Oneida	Sand L	1597000	540	1-2 Year Pe	104	Other	11
Oneida	Second L	1572300	111	Other	43	Other	4
Oneida	Sevenmile L	1605800	503	Other	61	Other	11
Oneida	Shepard L	1576100	179	Other	8	Other	6
Oneida	Shishebogama L	1539600	716	Other	42	Other	7
Oneida	Skunk L	1533200	130	Other	50		.
Oneida	Soo L	1018900	135	Other	51	Other	5
Oneida	Spider L	1586600	118	Other	45	Other	4
Oneida	Spirit L	1612000	368	Other	135	Other	9
Oneida	Squash L	1019500	396	Other	145		.
Oneida	Squirrel L	1536300	1317	1-2 Year Pe	476	Other	19
Oneida	Stella L	1575700	405	Other	14	Other	9
Oneida	Stone L	1597600	188		.	Other	6
Oneida	Stone L	2272700	248	Other	92		.
Oneida	Sunday L	1020600	88	Other	5		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Sunset L	1572500	33	Other	13	Other	2
Oneida	Swamp L	1522400	296	Other	11		.
Oneida	Swamsauger L	1528700	141	Other	54		.
Oneida	Sweeney L	1589600	187	Other	70	Other	6
Oneida	Tamarack L	1582200	99	Other	38		.
Oneida	Third L	1572200	103	Other	40	Other	4
Oneida	Thunder L	1580400	172	Other	65	Other	5
Oneida	Thunder L	1618100	1768	Other	192		.
Oneida	Tim Lynn L	1597400	84	Other	33		.
Oneida	Tom Doyle L	1586800	102	Other	14	Other	4
Oneida	Tomahawk L	1542700	3392	Other	0	Other	33
Oneida	Townline L	1609600	152	Other	58	Other	5
Oneida	Turtle L	1587400	53	Other	4		.
Oneida	Two Sisters L	1588200	719	1-2 Year Pe	115	1-2 Year Pe	7
Oneida	Tomahawk Treaty C	1542701	3552	Other	359		.
Oneida	Upper Kaubashine	1535000	190	Other	71	Other	6
Oneida	Venus L	1577000	65	Other	25		.
Oneida	Virgin L	1614100	276	Other	102	Other	7
Oneida	W Horsehead L	1522900	145	Other	7	Other	5
Oneida	Walters L	1582800	61	Other	24		.
Oneida	Whitefish L	1613500	205	Other	9	Other	6
Oneida	Wildwood L	1178600	28	Other	4		.
Oneida	Willow Fl	1528300	5135	Other	1662	Other	42
Oneida	Willow L	1529500	395	Other	14	Other	9
Polk	Antler L	2449400	101	Other	6		.
Polk	Apple R Fl	2624200	639		.	Other	12
Polk	Balsam L	2620600	2054	1-2 Year Pe	176		.
Polk	Bear L	2452200	155	Other	59		.
Polk	Bear Trap L	2618100	241	Other	10		.
Polk	Big Butternut L	2641000	378	1-2 Year Pe	121		.
Polk	Big L	2615900	259	Other	11		.
Polk	Big Round L	2627400	1015	1-2 Year Pe	156		.
Polk	Bone L	2628100	1781		.	1-2 Year Pe	96
Polk	Church Pine L	2616100	107	Other	6		.
Polk	Clear L	2623500	30	Other	3		.
Polk	Deer L	2619400	807		.	Other	14
Polk	Half Moon L	2621100	579	1-2 Year Pe	39		.
Polk	Indianhead Fl	2634400	776	Other	275		.
Polk	Little Butternut	2640700	189	Other	25		.
Polk	Magnor L	2624600	231	Other	30		.
Polk	N Pipe L	2485700	58	Other	23		.
Polk	N Twin L	2623900	135	Other	7		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Polk	Pike L	2624000	159	Other	8		.
Polk	Pipe L	2490500	284	Other	36		.
Polk	Poplar L	2491000	125	Other	7		.
Polk	Sand L	2495000	187	Other	25		.
Polk	Wapogasset L	2618000	1186	Other	134		.
Polk	Ward L	2599400	91	Other	13		.
Polk	Wind L	2616000	38	Other	3		.
Portage	Tree L	289400	74	Other	5		.
Price	Amik L	2268600	224		.	Other	6
Price	Bass L	2279800	84	Other	5		.
Price	Bass L	2282200	58	Other	23	Other	3
Price	Big Dardis L	2244200	144	Other	19	Other	5
Price	Butternut L	2283300	1006	Other	353	Other	16
Price	Crane + Chase L	2237500	86	Other	33	Other	4
Price	Crowley Fl	2287200	422	Other	14	Other	9
Price	Deer L	2239100	145		.	Other	5
Price	Duroy L	2240100	379	Other	139	Other	9
Price	Elk L	2240000	88	Other	34	Other	4
Price	Grassy L	2238100	81	Other	31	Other	3
Price	Island L	2260900	29	Other	3		.
Price	Lac Sault Dore	2236800	561	Other	202	Other	11
Price	Long L	2239300	418	Other	152	Other	9
Price	Long L	2282000	241	Other	90	Other	7
Price	Lower Park Falls	2290100	71	Other	28	Other	3
Price	Miles L	2271100	32		.	Other	2
Price	Musser L	2245100	563	Other	68	Other	11
Price	N Spirit L	1515200	213	Other	28	Other	6
Price	Patterson L	1872500	70	Other	5		.
Price	Pike L	2268300	806	1-2 Year Pe	182	Other	14
Price	Pixley Fl	2288900	334	Other	123	Other	8
Price	Round L	2267800	726	1-2 Year Pe	235	Other	13
Price	Schnur L	2284000	158	Other	60	Other	5
Price	Solberg L	2242500	859	Other	304	Other	15
Price	Spirit L	1513000	126	Other	7	Other	5
Price	Stone L	1513800	79	Other	5		.
Price	Thompson L	2265900	111	Other	6	Other	4
Price	Turner L	2268500	149	Other	57	Other	5
Price	Upper Park Falls	2290500	431		.	Other	10
Price	Upper Price L	2235300	43		.	Other	2
Price	Whitcomb L	2266100	44	Other	6	Other	2
Price	Wilson L	2239400	351	Other	129	Other	8
Price	Worcester L	2210900	100	Other	38		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Rusk	Amacoy L	2359700	278	Other	36	Other	7
Rusk	Audie L	2368700	128		.	Other	5
Rusk	Bass L	2090900	88	Other	5		.
Rusk	Big Falls Fl	2230100	369	Other	135	Other	9
Rusk	Chain L	2350500	468	1-2 Year Pe	49	Other	10
Rusk	Clear L	2350600	95	Other	13	Other	4
Rusk	Dairyland Reservo	2229200	1745	Other	597	Other	22
Rusk	Fireside Lakes	2349500	302	Other	112		.
Rusk	Island L	2350200	526	Other	64	Other	11
Rusk	Ladysmith Fl	2228700	288	Other	107	Other	8
Rusk	Mccann L	2350400	133	Other	18	Other	5
Rusk	Perch L	2368500	23		.	Other	2
Rusk	Potato L	2355300	534	Other	65	Other	11
Rusk	Pulaski L	1875900	126	Other	48		.
Rusk	Sand L	2353600	262	Other	97	Other	7
Rusk	Thornapple Fl	2227500	268	Other	99	Other	7
St. Croix	Cedar L	2615100	1100	Other	384	Other	17
Sawyer	Barber L	2382300	238	Other	31	Other	7
Sawyer	Barker L	2400000	238	Other	89	Other	7
Sawyer	Beverly L	2387200	9		.	Other	1
Sawyer	Black Dan L	2381900	128	Other	7	Other	5
Sawyer	Black L	2401300	129	Other	7	Other	5
Sawyer	Blaisdell L	2402200	356	Other	13	Other	9
Sawyer	Boos L	2425000	37	Other	15	Other	2
Sawyer	Burns L	2436400	37	Other	3	Other	2
Sawyer	Callahan L	2434700	106		.	Other	4
Sawyer	Clear L	1841300	77		.	Other	3
Sawyer	Connors L	2275100	429	Other	156	Other	10
Sawyer	Durphee L	2396800	193	1-2 Year Pe	36		.
Sawyer	Evergreen L	2277600	200	Other	75	Other	6
Sawyer	Fawn L	2435900	23	Other	2		.
Sawyer	Fishtrap L	2401100	216		.	Other	6
Sawyer	Ghost L	2423000	372	Other	47	Other	9
Sawyer	Grimh Fl	2385100	86		.	Other	4
Sawyer	Grindstone L	2391200	3111	1-2 Year Pe	312	Other	15
Sawyer	Ham L	1852300	100	Other	38		.
Sawyer	Hayward L	2725500	247	Other	32	Other	7
Sawyer	Holmes L	2419600	62		.	Other	3
Sawyer	Hunter L	2400600	126	Other	48	Other	5
Sawyer	Island L	2381800	67	Other	5	Other	3
Sawyer	L Chetac	2113300	1920	Other	653		.
Sawyer	L Chippewa	2399700	15300	1-2 Year Pe	3609	Other	52

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Sawyer	L Of The Pines	2275300	273	Other	101	Other	7
Sawyer	L Placid	2436500	160	Other	21	Other	5
Sawyer	L Winter	2381100	676	Other	18	Other	13
Sawyer	Lac Courte Oreill	2390800	5039	Other	1066	Other	27
Sawyer	Lewis L	1860200	52	Other	4		.
Sawyer	Little Round L	2395500	229	Other	8		.
Sawyer	Little Sissabagam	2394100	299		.	Other	8
Sawyer	Loretta L	2382700	126		.	Other	5
Sawyer	Lost Land L	2418600	1304	Other	146	Other	19
Sawyer	Lovejoy L	2395900	76	Other	30		.
Sawyer	Lower Clam L	2429300	229	Other	30	Other	7
Sawyer	Mason L	2277200	190	Other	71	Other	6
Sawyer	Meadow L	2424800	39	Other	15	Other	2
Sawyer	Mirror L	1866900	38	Other	3		.
Sawyer	Moose L	2420600	1670	Other	572	Other	22
Sawyer	Mud L	2434800	480	Other	15	Other	10
Sawyer	Nelson L	2704200	2503	Other	262		.
Sawyer	North L	2436000	129	Other	7	Other	5
Sawyer	Partridge Crop L	2424600	45	Other	18	Other	2
Sawyer	Perch L	1873600	129	Other	18	Other	5
Sawyer	Radisson Fl	2397400	255	Other	95	Other	7
Sawyer	Round L	2395600	3054	Other	1016	Other	31
Sawyer	Sand L	2393200	928	1-2 Year Pe	1126	Other	15
Sawyer	Sissabagama L	2393500	719	Other	256	Other	13
Sawyer	Smith L	2726100	323	Other	12		.
Sawyer	Spider L	2435700	1454	Other	161	Other	20
Sawyer	Spring L	2724900	220	Other	9		.
Sawyer	Squaw L	2395100	208	Other	14		.
Sawyer	Teal L	2417000	1049	Other	367	Other	16
Sawyer	Teal R Fl	2416900	75	Other	29	Other	3
Sawyer	Tiger Cat Fl	2435000	819	Other	96	Other	14
Sawyer	Whitefish L	2392000	786	Other	92	Other	14
Sawyer	Windfall L	2046500	102	1-2 Year Pe	162		.
Sawyer	Windigo L	2046600	522	Other	188		.
Taylor	Anderson L	2165700	43	Other	3		.
Taylor	Chelsea L	2200400	59	Other	4		.
Taylor	Chequamegon Water	2160700	2714	Other	38		.
Taylor	Diamond L	1757200	49	Other	19		.
Taylor	Esadore L	1764000	46	Other	4		.
Taylor	Hulls L	1762700	67	Other	5		.
Taylor	Kathryn L	2166100	62	1-2 Year Pe	9		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Taylor	Mondeaux Fl	2193300	416		.	Other	9
Taylor	N Harper L	2204000	54	Other	21	Other	3
Taylor	Rib L	1469100	320	Other	118	Other	8
Taylor	Richter L	1760000	45	Other	3		.
Taylor	S Harper L	2204100	80	Other	11		.
Taylor	Sackett L	1764500	63	Other	9		.
Taylor	Shearer L	2197600	21	Other	2		.
Taylor	Wellington L	1467800	43	Other	3		.
Vilas	Alder L	2329600	274	Other	102	Other	7
Vilas	Allequash L	2332400	426	Other	53	Other	10
Vilas	Alma L	967900	55	Other	8	Other	3
Vilas	Annabelle L	2953800	213	1-2 Year Pe	72	Other	6
Vilas	Anvil L	968800	398	Other	145		.
Vilas	Apeekwa L	2269400	188	Other	71	Other	6
Vilas	Armour L	2953200	320	Other	118	Other	8
Vilas	Arrowhead L	1541500	99	Other	14	Other	4
Vilas	Averill L	2956700	71	Other	0	Other	3
Vilas	Ballard L	2340700	505	1-2 Year Pe	231	Other	11
Vilas	Bass L	1604200	266	Other	11	Other	7
Vilas	Bear L	2335400	76	Other	5	Other	3
Vilas	Beaver L	2960600	68	Other	5		.
Vilas	Belle L	2955700	53	Other	21	Other	3
Vilas	Benson L	2327100	28	Other	11	Other	2
Vilas	Big Arbor Vitae L	1545600	1090	1-2 Year Pe	983	1-2 Year Pe	47
Vilas	Big Crooked L	2338800	682	Other	243	Other	13
Vilas	Big Donahue L	971700	92	Other	6		.
Vilas	Big Gibson L	1835200	116	Other	44	Other	4
Vilas	Big Hurst L	2756000	48	Other	4		.
Vilas	Big Kitten L	2336700	55	Other	4	Other	3
Vilas	Big L (Boulder Jc	2334700	835	Other	295	Other	14
Vilas	Big L (Mi Border)	2963800	771	Other	217	Other	11
Vilas	Big Muskellunge L	1835300	930	1-2 Year Pe	951	Other	15
Vilas	Big Portage L	1629500	638	1-2 Year Pe	339		.
Vilas	Big Sand L	1602600	1418	1-2 Year Pe	137	Other	20
Vilas	Big St Germain L	1591100	1617	1-2 Year Pe	559	Other	21
Vilas	Bills L	1835500	37		.	Other	0
Vilas	Birch L	2311100	528	Other	191	Other	11
Vilas	Black Oak L	1630100	584	1-2 Year Pe	59		.
Vilas	Boot L	1619100	284	Other	11	Other	7
Vilas	Boot L	2756400	29	Other	3	Other	2
Vilas	Boulder L	2338300	524	Other	189	Other	11
Vilas	Brandy L	1541300	110	Other	6	Other	4

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Carpenter L	976100	333	Other	12		.
Vilas	Catfish L	1603700	1012	Other	355	Other	16
Vilas	Circle Lily L	2326700	223	Other	29	Other	6
Vilas	Clear L	2329000	555	Other	200	Other	11
Vilas	Cleveland L	2758600	32	Other	3		.
Vilas	Cochran L	2963500	126	Other	7	Other	5
Vilas	Crab L	2953500	949	1-2 Year Pe	252	Other	15
Vilas	Crampton L	2759000	59	Other	4		.
Vilas	Cranberry L	1603800	956	Other	336	Other	16
Vilas	Crystal L	1842400	88	Other	5		.
Vilas	Dead Pike L	2316600	297	Other	38	Other	8
Vilas	Deer L	980600	65	Other	4		.
Vilas	Deer L	2311500	37	Other	3		.
Vilas	Deerskin L	1601300	309	Other	39	Other	8
Vilas	Diamond L	1844700	122	Other	7	Other	4
Vilas	Dorothy Dunn L	1845600	70	Other	5	Other	3
Vilas	Duck L	1599900	108	Other	41	Other	4
Vilas	E Ellerson L	2331300	136	Other	52	Other	5
Vilas	E Witches L	982500	34	Other	3		.
Vilas	Eagle L	1600200	572	Other	206	Other	11
Vilas	Eleanore L	1631500	28	Other	11	Other	2
Vilas	Erickson L	983600	106	Other	15		.
Vilas	Escanaba L	2339900	293	1-2 Year Pe	250	Other	8
Vilas	Fawn L	1591000	22	Other	9	Other	1
Vilas	Fawn L	2328900	74	Other	29	Other	3
Vilas	Finger L	984700	90	Other	5		.
Vilas	Fishtrap L	2343200	329	Other	121	Other	8
Vilas	Forest L	2762200	466	Other	169		.
Vilas	Found L	1593800	326	Other	41	Other	8
Vilas	Frank L	985900	141	Other	7		.
Vilas	Harmony L	988300	88	Other	5		.
Vilas	Harris L	2958500	507	Other	183	Other	11
Vilas	Helen L	2964400	111	Other	43	Other	4
Vilas	Hiawatha L	2328400	36	Other	3		.
Vilas	High L	2344000	734	Other	261	Other	13
Vilas	Horsehead L	2953100	234	Other	87	Other	7
Vilas	Hunter L	991700	184	Other	24		.
Vilas	Imogene L	586800	66	Other	4		.
Vilas	Indian L	2764400	68		.	Other	3
Vilas	Irving L	2340900	403	Other	14	1-2 Year Pe	30
Vilas	Island L	2334400	1023	Other	359	Other	16
Vilas	Jag L	1855900	158	Other	60	Other	5

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Jenny L	1856400	59	Other	23		.
Vilas	Johnson L	1541100	78	Other	5	Other	3
Vilas	Jute L	1857400	194		.	Other	6
Vilas	Katinka L	2957000	172	Other	65		.
Vilas	Kentuck L	716800	957	1-2 Year Pe	227	Other	16
Vilas	Kenu L	1629800	73	Other	5		.
Vilas	Kildare L	1631700	54	Other	4	Other	3
Vilas	L Content	1592000	244	Other	91	Other	7
Vilas	L Laura	995200	599	Other	215	Other	12
Vilas	Lac Des Fleurs	1630900	49	Other	4		.
Vilas	Lac Vieux Desert	1631900	4300	1-2 Year Pe	460	Other	24
Vilas	Little Arbor Vita	1545300	534	Other	65	Other	11
Vilas	Little Crooked L	2335500	153	Other	8	Other	5
Vilas	Little Horsehead	2953000	52	Other	20		.
Vilas	Little John L	2332300	166	Other	63	Other	5
Vilas	Little Papoose L	2328200	46	Other	4	Other	2
Vilas	Little Portage L	1629200	170	Other	64	Other	5
Vilas	Little Presque Is	2959700	85		.	Other	3
Vilas	Little Rice L	2338900	59	Other	4	Other	3
Vilas	Little Spider L	1540400	235	Other	31	Other	7
Vilas	Little St Germain	1596300	980	Other	112	Other	16
Vilas	Little Star L	2334300	244	Other	91	Other	7
Vilas	Little Trout L	2321600	978	Other	103	Other	5
Vilas	Lone Pine L	2961600	142	Other	7	Other	5
Vilas	Long L	1602300	872	1-2 Year Pe	929	Other	15
Vilas	Loon L	1001600	31	Other	3		.
Vilas	Lost Canoe L	2339800	249	Other	93		.
Vilas	Lost L	1593400	544	1-2 Year Pe	57	Other	11
Vilas	Lower Aimer L	2955000	34	Other	3		.
Vilas	Lower Buckatabon	1621000	352	Other	13	Other	9
Vilas	Lower Gresham L	2330300	149		.	Other	5
Vilas	Lynx L	1600000	22	Other	9	Other	1
Vilas	Lynx L	2954500	339	Other	125	Other	8
Vilas	Mamie L	2964100	400	Other	141	Other	9
Vilas	Manitowish L	2329400	506	Other	183	Other	11
Vilas	Mann L	2332000	261	Other	11		.
Vilas	Marshall L	1626600	87	Other	5	Other	4
Vilas	Mccullough L	2960400	216	Other	9	Other	6
Vilas	Mermaid L	2768100	60	Other	4		.
Vilas	Meta L	1004400	175	Other	8		.
Vilas	Middle Ellerson L	1866100	60		.	Other	1
Vilas	Middle Gresham L	2330700	53	Other	4	Other	3

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Moccasin L	1005700	83	Other	5	Other	3
Vilas	Moon L	1005800	131	Other	18	Other	5
Vilas	Morton L	2960300	163	Other	8	Other	5
Vilas	Murphy L	2769700	81	Other	5	Other	3
Vilas	Muskellunge L	1596600	272	Other	35	Other	7
Vilas	N Crab L	2953400	56	Other	22	Other	3
Vilas	N Turtle L	2310400	369	Other	135	Other	9
Vilas	N Twin L	1623800	2788	Other	0	Other	29
Vilas	Nelson L	1007600	104	Other	6	Other	4
Vilas	Nelson L	1869900	27		.	Other	2
Vilas	Nixon L	2341200	110	Other	6	Other	4
Vilas	No Mans L	2312100	225	Other	84	Other	6
Vilas	Norwood L	1008100	125	Other	12		.
Vilas	Oswego L	1871800	66		.	Other	3
Vilas	Otter L	1600100	196	Other	74	Other	6
Vilas	Oxbow L	2954800	511	Other	185	Other	11
Vilas	Pallette L	1872100	173		.	Other	5
Vilas	Palmer L	2962900	635	Other	76	Other	12
Vilas	Papoose L	2328700	428	1-2 Year Pe	148	Other	10
Vilas	Partridge L	2341500	228	Other	10	Other	7
Vilas	Pickerel L	1619700	293	Other	37	Other	8
Vilas	Pine Island L	1011900	79	Other	5	Other	3
Vilas	Pioneer L	1623400	427	Other	53	Other	10
Vilas	Plum L	1592400	1033	1-2 Year Pe	456	Other	16
Vilas	Plum L	2963200	100	Other	10		.
Vilas	Presque Isle L	2956500	1280	Other	0	Other	18
Vilas	Presque Is. Treat	2956501	1571	1-2 Year Pe	298		.
Vilas	Rainbow L	2310800	146	Other	55	Other	5
Vilas	Razorback L	1013800	362	Other	133	Other	9
Vilas	Rest L	2327500	608	Other	218	Other	12
Vilas	Rice L	1618600	71	Other	28	Other	3
Vilas	Roach L	1014000	51	Other	20	Other	3
Vilas	Roach L	2772500	125	Other	2		.
Vilas	Rock L	2311700	122	Other	47	Other	4
Vilas	Rosalind L	1877900	43		.	Other	2
Vilas	Round L	2334900	116	Other	6	Other	4
Vilas	Rudolph L	2954300	79		.	Other	3
Vilas	Rush L	2343600	44	Other	17	Other	2
Vilas	S Turtle L	2310200	454	Other	165	Other	10
Vilas	S Twin L	1623700	642	Other	0	Other	12
Vilas	Sanford L	2335300	88	Other	34	Other	4
Vilas	Scattering Rice L	1600300	267	Other	99	Other	7

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Sherman L	1880700	123	1-2 Year Pe	33	Other	4
Vilas	Smoky L	1018300	610		.	Other	0
Vilas	Snipe L	1018500	239	1-2 Year Pe	143	Other	7
Vilas	Sparkling L	1881900	154	1-2 Year Pe	41	Other	5
Vilas	Spectacle L	717400	171	Other	8		.
Vilas	Spider L	2329300	272	Other	101	Other	7
Vilas	Spring L	2964800	205	Other	77		.
Vilas	Squaw L	2271600	785	1-2 Year Pe	547	Other	14
Vilas	Star L	1593100	1206	1-2 Year Pe	534	Other	18
Vilas	Stateline L	2952100	199	Other	3		.
Vilas	Stewart L	1020000	39	Other	15		.
Vilas	Stone L	2328800	139	Other	53	Other	5
Vilas	Sturgeon L	2327200	32	Other	13	Other	2
Vilas	Sumach L	1020500	60	Other	4	Other	3
Vilas	Sunset L	1020900	185	Other	9	Other	6
Vilas	Tenderfoot L	2962400	437	Other	139	Other	8
Vilas	Towanda L	1022900	146	Other	20	Other	5
Vilas	Trout L	2331600	3816	Other	383	Other	35
Vilas	Twin Island L	2959300	205		.	Other	6
Vilas	Twin L Treaty Cha	1623801	3430	Other	1134		.
Vilas	Upper Aimer L	2955100	33	Other	3		.
Vilas	Upper Buckatabon	1621800	494	Other	15	Other	10
Vilas	Upper Gresham L	2330800	366	Other	46	Other	9
Vilas	Van Vliet L	2956800	220	Other	0	Other	6
Vilas	Vance L	2327300	30	Other	12	Other	2
Vilas	Verna L	1540300	77		.	Other	3
Vilas	Voyageur L	1603400	130	Other	50	Other	5
Vilas	W Bay L	2964000	368	Other	64	Other	4
Vilas	W Plum L	1592500	75	Other	29	Other	3
Vilas	W Witches L	1177500	30	Other	3		.
Vilas	Watersmeet L	1599400	100	Other	38	Other	4
Vilas	White Birch L	2340500	112	1-2 Year Pe	19	Other	4
Vilas	White Sand L	2339100	734	Other	87	Other	13
Vilas	Wild Rice L	2329800	379	Other	111	Other	7
Vilas	Wildcat L	2336800	305	Other	39	Other	8
Vilas	Wolf L	2336100	393	Other	144	Other	9
Vilas	Yellow Birch L	1599600	202	Other	76	Other	6
Washburn	Balsam L	2112800	295	Other	109		.
Washburn	Bass L	1833300	130	Other	50		.
Washburn	Bass L	2451300	144	Other	19		.
Washburn	Bass L	2451900	188	1-2 Year Pe	108	Other	6
Washburn	Bean L	2718500	100	Other	6		.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Washburn	Beartrack North L	2452399	33	Other	13		.
Washburn	Beartrack South L	2452300	65	Other	25		.
Washburn	Big Bass L	2453300	203	Other	27		.
Washburn	Birch L	2113000	368	Other	46		.
Washburn	Cable L	2456100	185	Other	24		.
Washburn	Chippanazie L	2722800	58	Other	23		.
Washburn	Colton Fl	2702100	58	Other	23		.
Washburn	Deep L	1844000	43	Other	17		.
Washburn	Dunn L	2709800	193	Other	73		.
Washburn	Gilmore L	2695800	389	Other	13		.
Washburn	Horseshoe L	2470000	194	Other	26		.
Washburn	Island L	2470600	276	Other	35		.
Washburn	L Nancy	2691500	772	Other	91	Other	14
Washburn	Leach L	2474400	30	Other	12		.
Washburn	Leisure L	2475000	75		.	Other	3
Washburn	Little Long L	2664500	112	Other	6		.
Washburn	Little Mud L	2107100	71	Other	28		.
Washburn	Little Sand L	2477700	74	Other	10		.
Washburn	Little Stone L	1862400	27	Other	2		.
Washburn	Long L	2106800	3290	1-2 Year Pe	828		.
Washburn	Matthews L	2710800	263	Other	34	Other	7
Washburn	Mclain L	2481600	150	Other	20		.
Washburn	Middle Mckenzie L	2706500	530	Other	64	Other	11
Washburn	Minong Fl	2692900	1564	Other	538		.
Washburn	Mud L	2107700	103	Other	6		.
Washburn	Pavlas L	2488100	44	Other	3		.
Washburn	Rice L	2696000	132	Other	50		.
Washburn	Ripley L	2492600	190	Other	25		.
Washburn	S Twin L	2494500	115	Other	16		.
Washburn	Shell L	2496300	2580	Other	865	Other	28
Washburn	Silver L	2496900	188	Other	25		.
Washburn	Slim L	2109300	224	Other	29		.
Washburn	Spring L	1882900	42	Other	3		.
Washburn	Spring L	2498600	211	Other	28		.
Washburn	Stone L	1884000	39	Other	3		.
Washburn	Stone L	1884100	523	Other	64		.
Washburn	Tozer L	2502000	36	Other	3		.
Washburn	Trego L	2712000	451	Other	55	Other	10