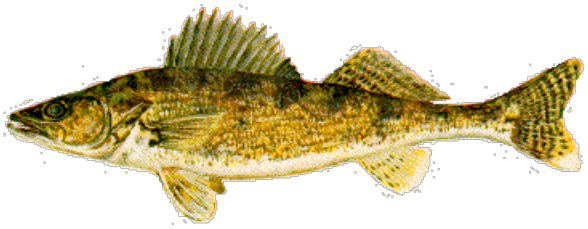

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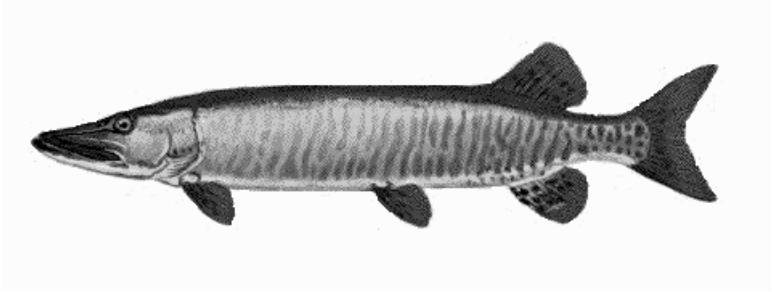
Fishery Assessment Report



Thomas A. Cichosz

Administrative Report # 69

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 harvest of muskellunge through ice.

This annual report summarizes WDNR efforts related to management of the shared Ceded Territory fishery from early 2009 through early 2010. 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 2009-10 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 2009 were Grindstone (Sawyer Co.), Plum and Snipe (Vilas Co.) lakes. A 2009 Diamond Lake (Bayfield Co.) trend PE was rejected due to low numbers of fish captured. In addition, at least one large lake or lake chain is chosen to be surveyed each year. In 2009 the Tomahawk Lake Chain and three large (>1,000 acres) lakes were surveyed: Lake Mohawksin (Lincoln Co.), Minocqua Lake (Oneida Co.) and Plum Lake (Vilas Co).

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).

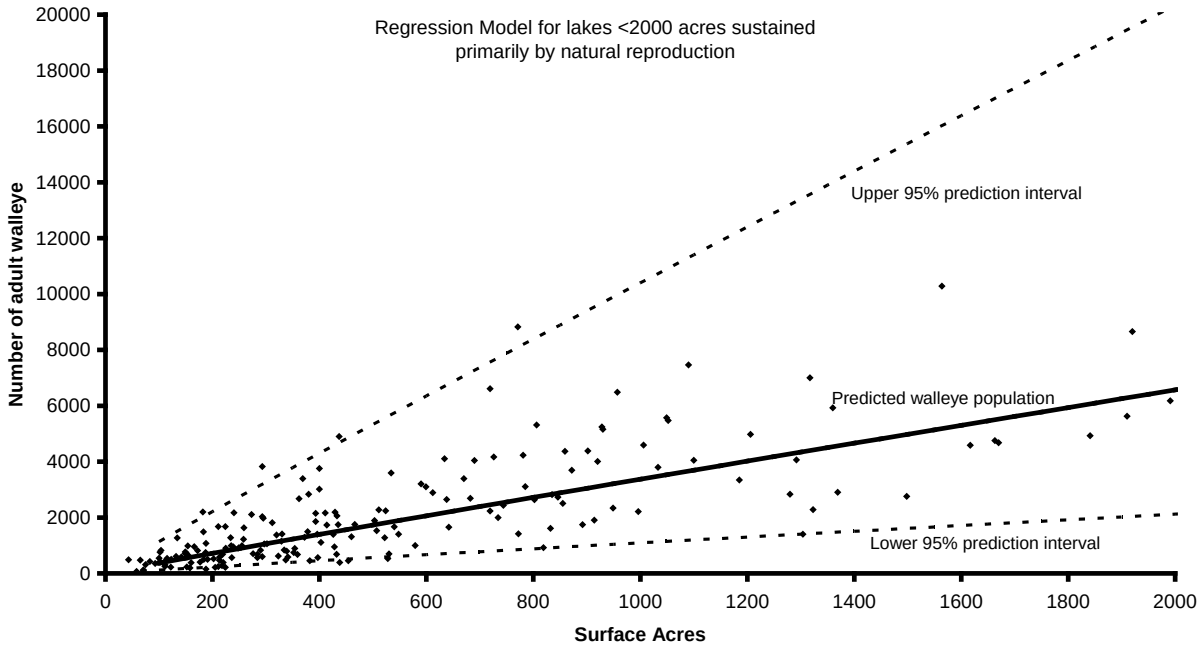

Figure 2. Regression model used to set 2009 safe harvest levels for lakes sustained primarily by natural reproduction (applies to all lake sizes; only lakes <2000 acres are shown for illustrative clarity).

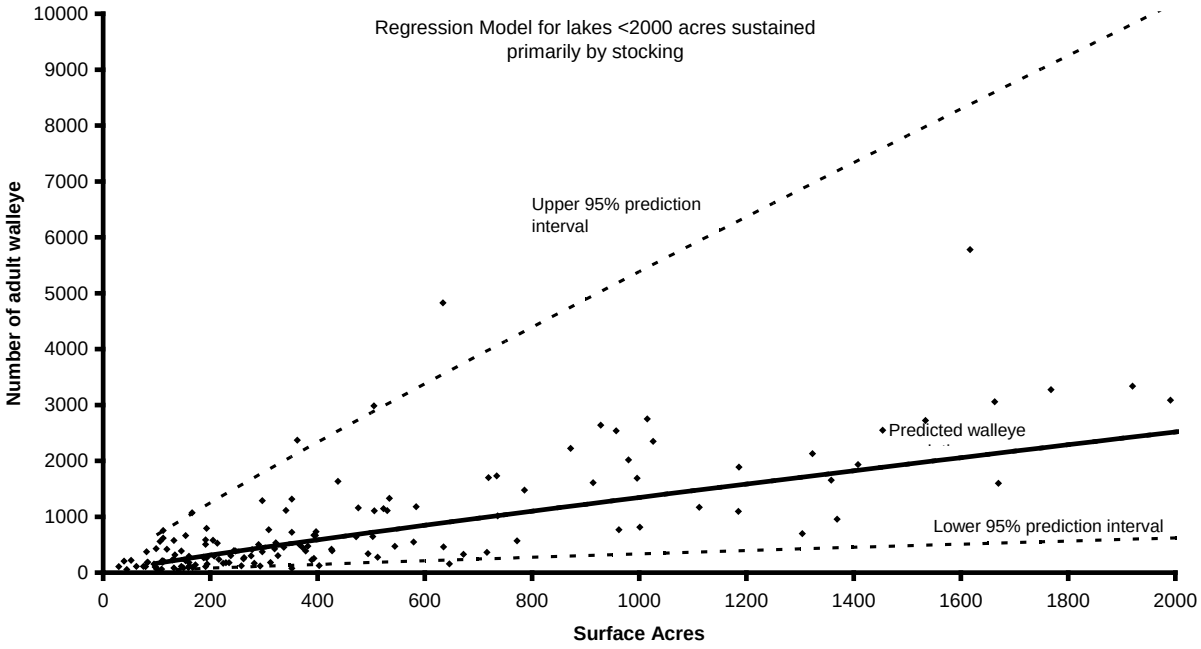

Figure 3. Regression model used to set 2009 safe harvest levels for lakes <2000 acres sustained primarily by stocking (applies to all lakes; only lakes <2000 ac. are shown for illustrative clarity).

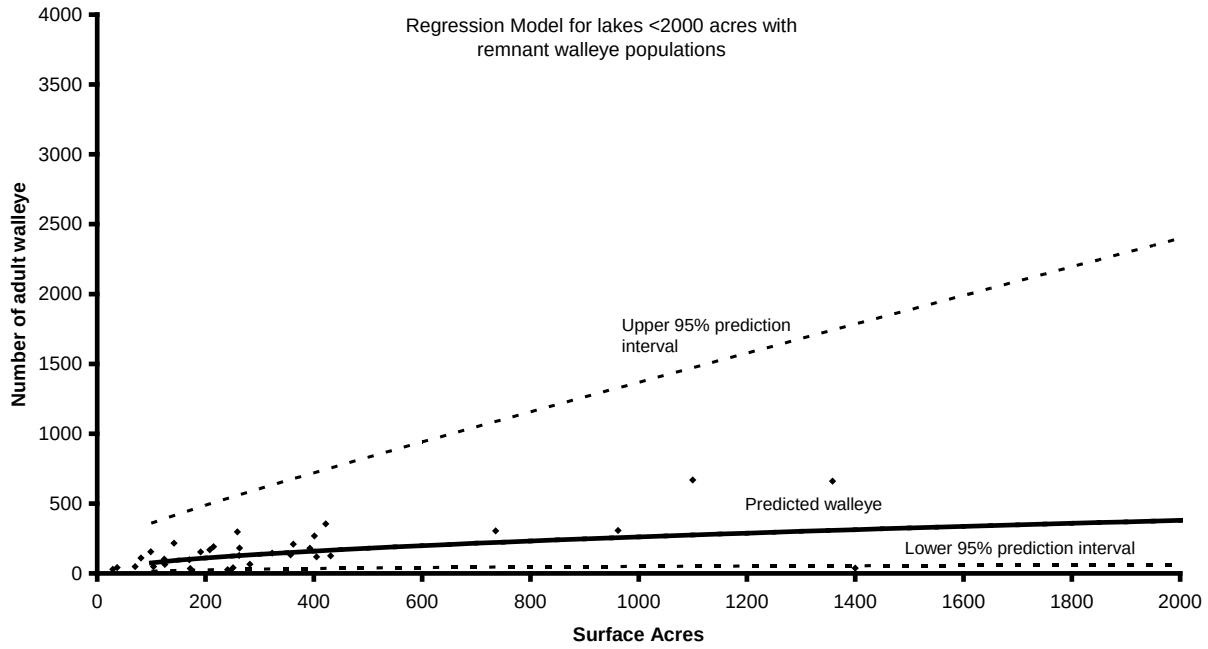

Figure 4. Regression model used to set 2009 safe harvest levels for lakes <2000 acres with remnant walleye populations (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

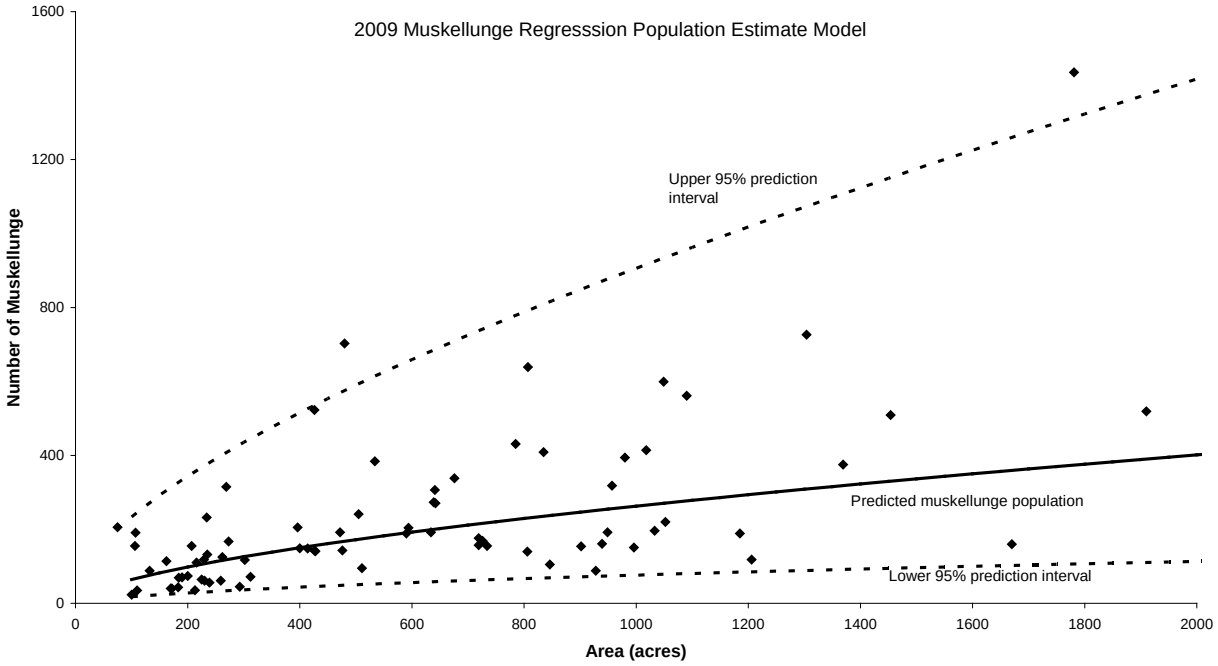

Figure 5. Regression model used to set 2009 safe harvest levels for muskellunge populations in lakes <2000 acres (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

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 gamefish 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 2009, that within each recruitment model the YOY density observed in 2009 did not differ from the average over the previous 18 years (1990-2008), and that in stocked model lakes YOY density did not differ between those lakes that were stocked and those that were not stocked during 2009. 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.

Due to corresponding water level declines in seepage lakes across much of northern Wisconsin, we compared differences in mean YOY walleye density between drainage and seepage lakes under both pre-drought and drought conditions. The objective was characterize any difference in YOY abundance in seepage lakes due to drought conditions; data from drainages lakes where water levels have not changed appreciably under drought conditions were used as a pseudo-control for comparative purposes. A GLM Anova was used to evaluate differences in YOY abundance (mean YOY/mile shocked) tied to hydrologic class (drainage/seepage), time period (pre-drought or drought) and the interaction of these terms.

RESULTS AND DISCUSSION

Population Estimates and Densities

In 2009, spawning walleye populations were estimated in 28 lakes, ranging in size from 100 to 13,545 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 2009. 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 comparative statistical analyses.

Table 1. Lakes surveyed by WDNR sampling crews in spring 2009 with corresponding information on adult and total walleye populations abundance and density.

WBIC[1]	County	Lake	Acres	Size Limit (in)	Recruitment code	Recruitment Model	Adult Pop. Estimate	Adult Density (#/Acre)
2100300	Barron	Duck	100	15	NR	Natural	544	5.44
1881100	Barron	Silver	337	15	C-NR	Natural	588	1.74
2897300	Bayfield	Crystal	111	15	C-NR	Natural	278	2.50
2747300	Douglas	Upper St Croix	855	15	C-NR	Natural	2,570	3.01
2694000	Douglas	Whitefish	832	15	NR	Natural	2,618	3.15
2295200	Iron	Trude	781	none	NR	Natural	4,437	5.68
2294900	Iron	Turtle Flambeau Fl.	13,545	none	NR	Natural	54,208	4.00
1515400	Lincoln	Mohawksin	1,910	15	NR	Natural	9,063	4.75
1542300	Oneida	Kawaguesaga	670	15	NR	Natural	2,274	3.39
1542400	Oneida	Minocqua	1,360	15	C-NR	Natural	2,764	2.03
2391200	Sawyer	Grindstone	3,111	Slot14-18	C-NR	Natural	5,891	1.89
2615100	St. Croix	Cedar	1,100	Slot14-18	NR	Natural	5,838	5.31
2338800	Vilas	Big Crooked	682	none	NR	Natural	1,758	2.58
2339900	Vilas	Escanaba	293	28	NR	Natural	2,313	7.89
2344000	Vilas	High	734	1>14	NR	Natural	1,148	1.56
1592400	Vilas	Plum	1,033	Slot14-18	C-NR	Natural	4,964	4.81
1018500	Vilas	Snipe	239	15	NR	Natural	626	2.62
2962400	Vilas	Tenderfoot	437	15	NR	Natural	3,528	8.07
2899200	Bayfield	Cisco	95	15	ST	Stocked	107	1.13
1589300	Oneida	Gilmore	320	15	ST	Stocked	500	1.56
1542701	Oneida	Tomahawk Chain	3,552	15	C-ST	Stocked	4,321	1.22
983600	Vilas	Erickson	106	15	ST	Stocked	265	2.50
2962900	Vilas	Palmer	635	15	C-ST	Stocked	509	0.80
2106800	Washburn	Long	3,290	15	C-ST	Stocked	6,915	2.10
2676800	Burnett	Big Sand	1,400	15	O-ST	Remnant	37	0.03
470600	Oconto	John Lake	104	15	O-ST	Remnant	49	0.47
1019500	Oneida	Squash	396	1>14	NR-2	Remnant	809	2.04
2343200	Vilas	Fishtrap	329	1>14	NR-2	Remnant	730	2.22

1 - WBIC is a Water Body Identification Code unique to each lake.

Spawning Adult Walleye Abundance

Spawning adult walleye abundance was estimable in each of the 28 Ceded Territory lakes in which walleye population estimates were attempted during 2009 (Table 1). Adult spawning walleye abundance estimates averaged 4,273 walleye (3.0/acre) across all lakes surveyed during 2009. Average abundance estimates for natural-model lakes (Avg. 5,856, range 278-54,208) were greater than in stocked- (Avg. 2,103, range 107-6,915) or remnant-model (Avg. 406, range 37-809) lakes during 2009 (Appendix E). Spawning walleye abundance was lowest (37 adult walleye) in Big Sand Lake, Burnett County, and highest in the Turtle Flambeau Flowage, Iron County (54,208 adult walleye; Table 1).

Spawning walleye density (walleye/acre) estimates averaged 3.0 adults/acre across all lakes surveyed during 2009. Average density estimates for natural-model lakes (Avg. 3.91, range 1.56-8.07) were greater than in stocked- (Avg. 1.55, range 0.80-2.50) or remnant-model (Avg. 1.19, range 0.03-2.22) lakes during 2009. Adult walleye density was lowest (0.03/acre) in Big Sand Lake, Burnett County, and highest in Tenderfoot Lake, Vilas County (8.07/acre; Table 1). There have been no statistically significant trends, up or downward, in walleye spawner density in natural (GLM, P=0.157) or stocked-model (P=0.063) walleye waters in the Ceded Territory since 1995[4] (Figure 6 and Figure 7).

As in most previous years, differences observed during 2009 in walleye spawner density between lakes in different recruitment classes (natural, stocked, or remnant; Figure 8) were significant (General Linear Model, P<0.001). Spawner densities observed in 2009 were greater in lakes dominated by natural recruitment than in remnant-model lakes (Tukey-Kramer LS Means, P<0.001); no significant difference was found in comparison of natural vs stocked waters or stocked vs. remnant waters.

No significant differences were found in walleye spawner densities between lakes with differing harvest regulations during 2009 (GLM, P=0.224); this is consistent with most previous years examined (Cichosz 2009, 2010). In 2009 the majority of lakes included in analyses had 15” minimum regulations in place (16 lakes), with only four “exempt” regulation classifications, three 14-18” protected slot and one 28” minimum.

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

Excluding the three WDNR research lakes (Escanaba, Big Crooked, and Wolf, Vilas Co.), 15 lakes sampled in 2009 had at least one historic WDNR adult walleye population estimate (Table 2). Of the 10 lakes or chains sampled in 2009 with historic population estimates in the natural recruitment model, six had increased in populations whereas four had decreased populations since the prior survey. Whitefish Lake (Douglas Co.) showed the most marked population increase of 197 percent since 2005; High Lake (Vilas Co.) showed the most marked population decrease of 59 percent since 1993. Of fivelakes or chains sampled in 2009 with historic population estimates in the stocked recruitment model, three had increased populations and two had decreased populations since the previous survey. Gilmore (Oneida Co.) and Long (Washburn Co) lakes each saw population increases of about 40 percent since the prior survey in 1994 and 2001, respectively. Tomahawk Chain (Oneida Co.) showed the most marked population decrease of 49 percent since 1998. No remnant-model lakes sampled during 2009 had prior population estimates available for comparison.

Information in Table 2 is intended to present current walleye population levels concurrently with past observations, but is not suitable (nor intended) for defining or illustrating trends in walleye populations. Fish populations in general and walleye populations in particular are extremely variable and can change dramatically from year to year making interpretation of values in Table 2 difficult at best. This inherent variability in walleye populations is readily evident in Table 2 where most of the lakes with more than two estimates show both positive and negative changes in population levels over time; Crystal, Upper St. Croix, Whitefish, Turtle Flambeau Flowage, Trude, Kawaguesaga and Long lakes each show positive and negative fluctuations through time.

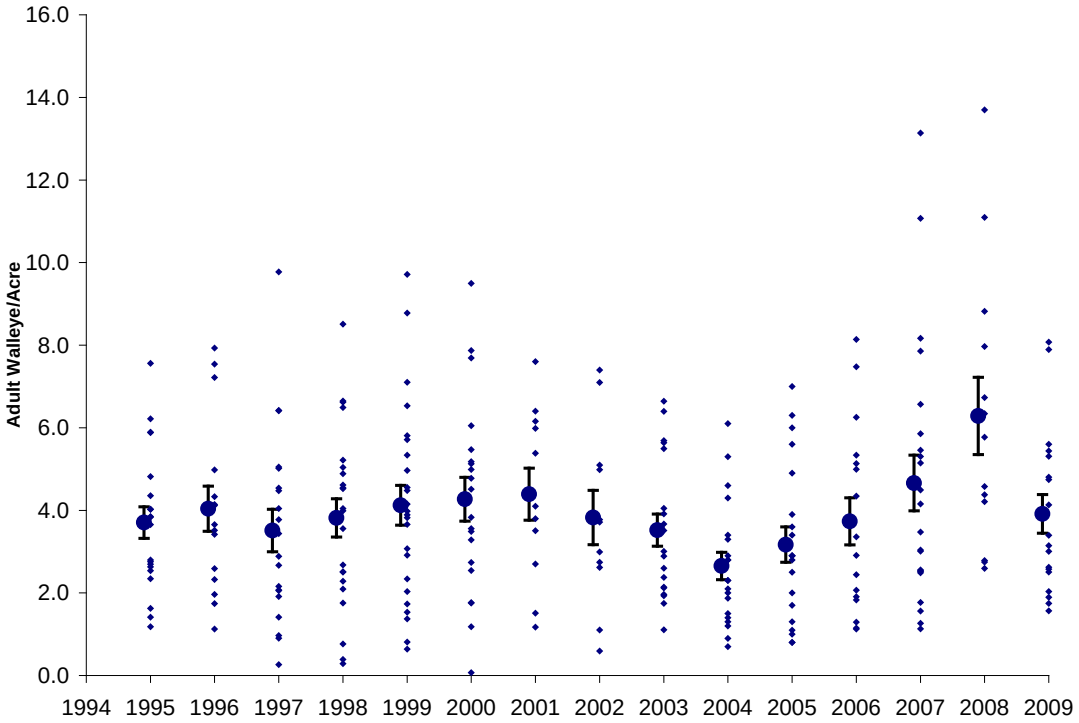

Figure 6. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by natural reproduction, 1990 – 2009. Small circles represent individual lakes; Large circles represent yearly means (±SE).

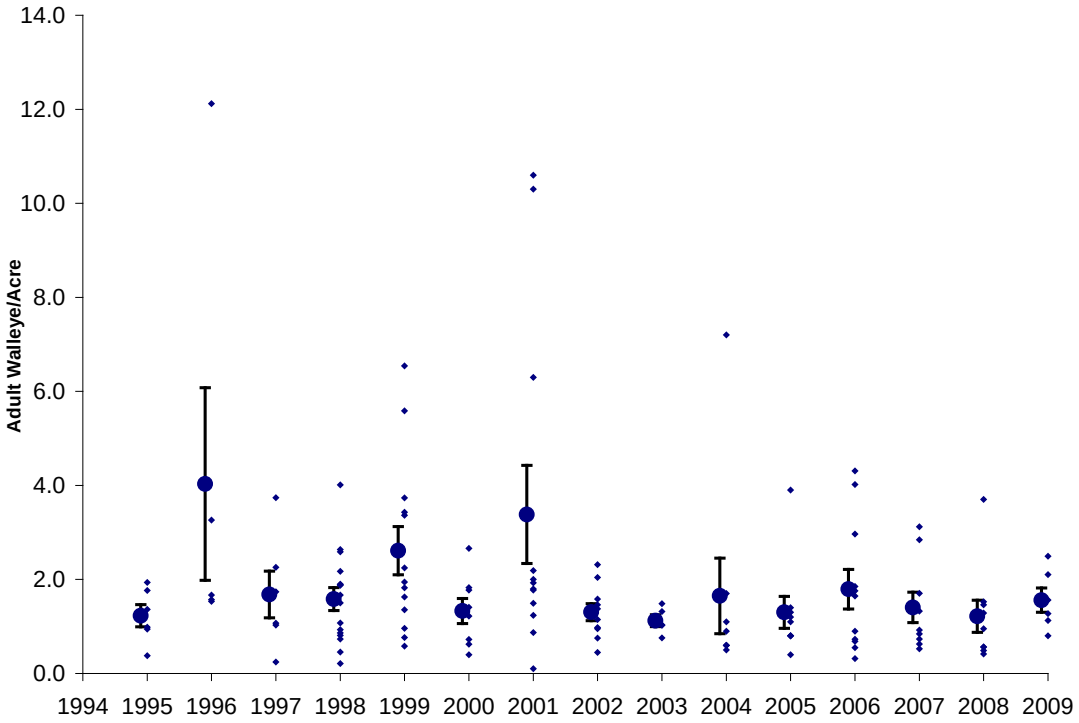

Figure 7. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by stocking, 1995 – 2009. Small circles represent individual lakes; Large circles represent yearly means (±SE).

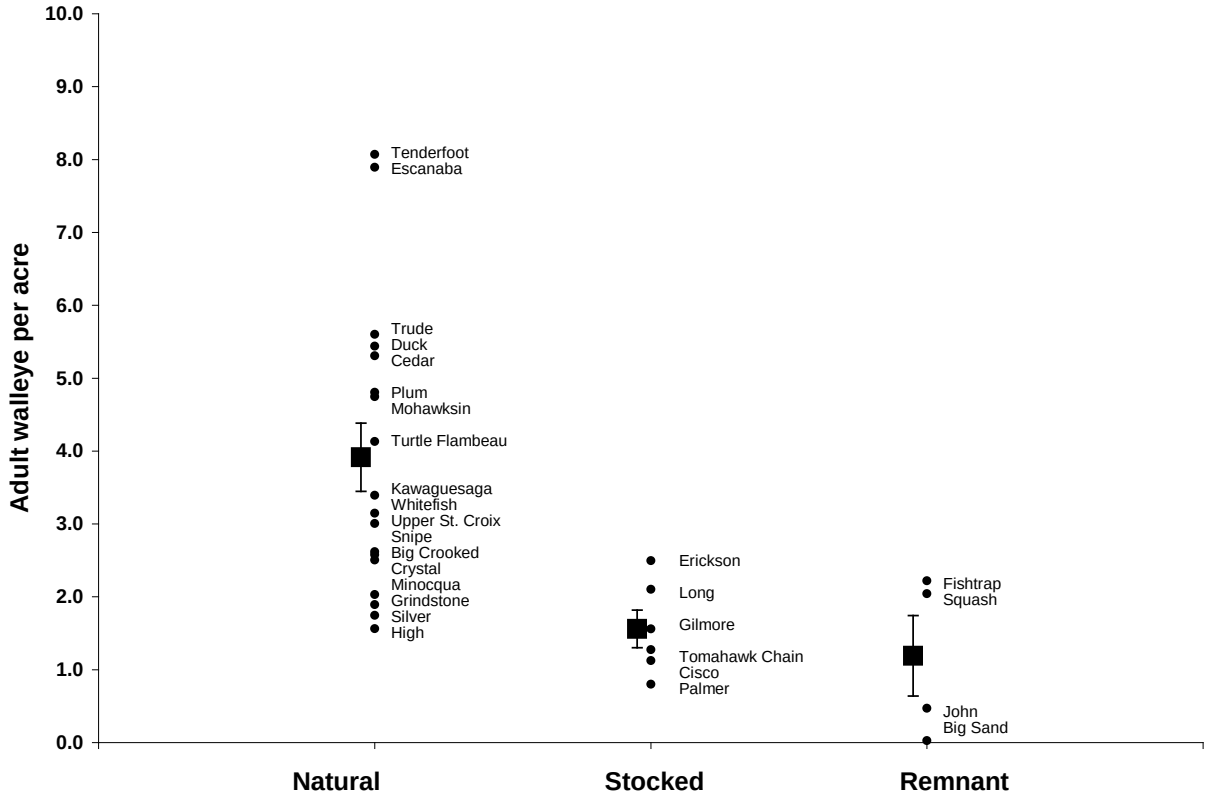

Figure 8. Adult walleye density estimates for lakes sampled by WDNR in spring 2009 based on primary population recruitment source.

Table 2. Comparison of current and historic walleye population estimates and percent change by recruitment model for lakes surveyed during 2009 (Trend lakes excluded).

County	Lake	Acres	Year	Recruit. Code	Adult PE	Density (#/acre)	Percent Change
Natural Recruitment Lakes							
Bayfield	Crystal	111	2009	C-NR	278	2.5	36.9
			2006	C-NR	203	1.8	-23.1
			2003	C-NR	264	2.4	42.7
			1996	C-ST	185	1.7	
Douglas	Upper St. Croix	855	2009	C-NR	2,570	3.0	4.2
			1997	C-NR	2,467	2.9	-15.9
			1992	C-NR	2,933	3.4	
Douglas	Whitefish	832	2009	NR	2,618	3.1	197.5
			2005	NR	880	1.1	-53.4
			1991	C-NR	1,888	2.3	
Iron	Turtle Flambeau Fl	13,545	2009	NR	54,208	4.0	-1.0
			1997	NR	54,771	4.0	-8.6
			1992	NR	59,938	4.4	
Iron	Trude	781	2009	NR	4,437	5.7	27.0
			1997	NR	3,495	4.5	-10.8
			1992	NR	3,920	5.0	
Lincoln	Mohawksin	1910	2009	NR	9,063	4.7	76.1
			1995	NR	5,147	2.7	
Oneida	Kawaguesaga	670	2009	NR	2,274	3.4	-34.9
			1998	NR	3,495	5.2	17.6
			1992	NR	2,973	4.4	
Oneida	Minocqua	1,360	2009	C-NR	2,764	2.0	-56.0
			1998	NR	6,276	4.6	-17.8
			1992	NR	7,638	5.6	
St. Croix	Cedar	1100	2009	NR	5,838	5.3	158.2
			2004	NR	2,261	2.1	320.3
			1994	NR-2	538	0.6	
Vilas	High	734	2009	NR	1,148	1.6	-59.1
			1993	NR	2,810	3.8	
Stocked Recruitment Lakes							
Bayfield	Cisco	95	2009	ST	107	1.1	-41.8
			1995	ST	184	1.9	
Oneida	Gilmore	320	2009	ST	500	1.6	40.8
			1994	C-ST	355	1.1	
Oneida	Tomahawk Chain	3,552	2009	C-ST	4,321	1.2	-49.2
			1998	C-	8,508	2.5	
Vilas	Palmer	635	2009	C-ST	509	0.8	23.5
			1994	C-	412	0.6	
Washburn	Long	3,290	2009	C-ST	6,915	2.1	39.2
			2001	C-	4,966	1.5	-51.5
			1994	C-	10,238	3.1	

Spawning Adult walleye size structure

Spawning adult walleye populations were estimated for each lake by length class in both natural (Figure 9) and stocked (Figure 10) 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.

In natural model lakes spawning walleye abundance and size structures were highly variable (Figure 9). The majority of natural model lakes sampled had overall densities between 1.7 and 8.1 fish/acre. Eight of 18 sampled lakes had walleye densities exceeding 4 fish/acre; of those 5 have specialized harvest regulations in place (Escanaba Lake=28" minimum; Trude and Turtle Flambeau Flowage = no minimum size, and Cedar and Plum lakes = 14-18" protected slots). Walleye spawning in the 7-11.9 inch category were very limited in relative abundance in most natural production lakes sampled, which may be indicative of sporadic recruitment amongst lakes 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). Walleye densities observed in stocked model lakes were ≤ 2.5 fish/acre. Despite lower fish densities than those observed in natural model lakes, stocked model lakes generally had a high percentage (e.g. >50%) of the spawning population made up of relatively large fish (>15") available for angler harvest under general statewide regulations.

Data were available for calculation of PSD and RSD-18 for 15 natural, 3 stocked, and 7 remnant model lakes sampled in 2009 (Table 3). 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.

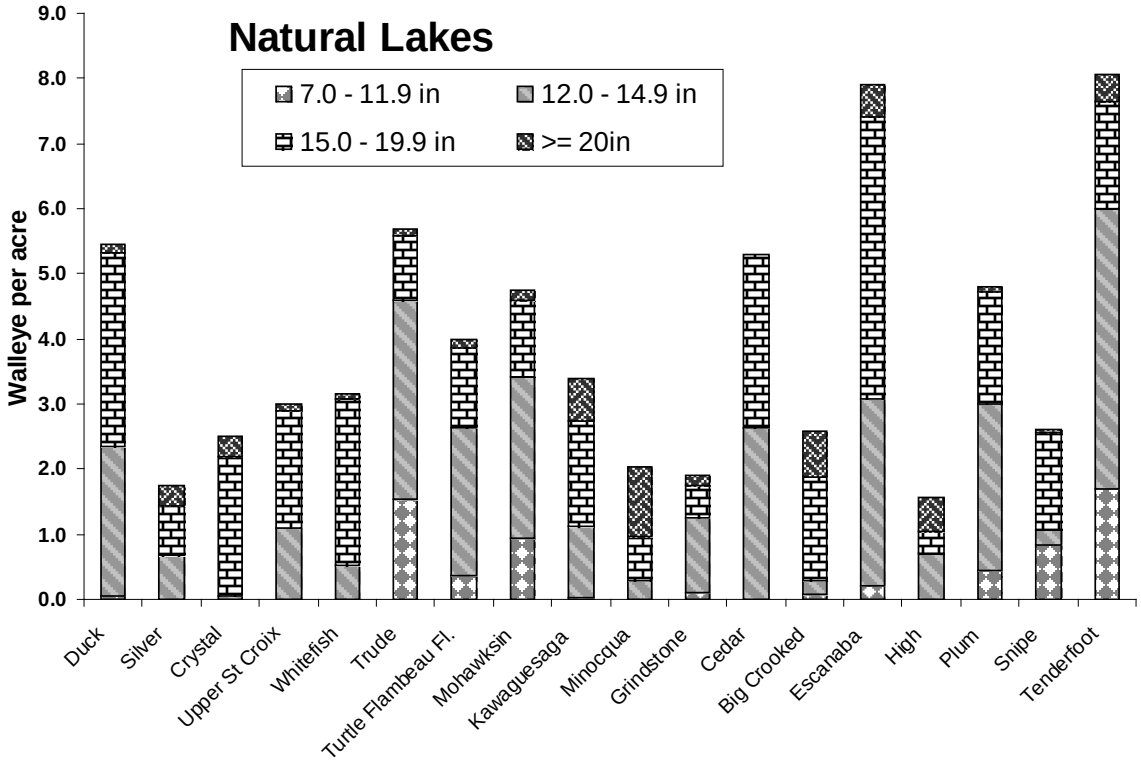

Figure 9. Size distribution of spawning walleye sampled in natural production model lakes during 2009.

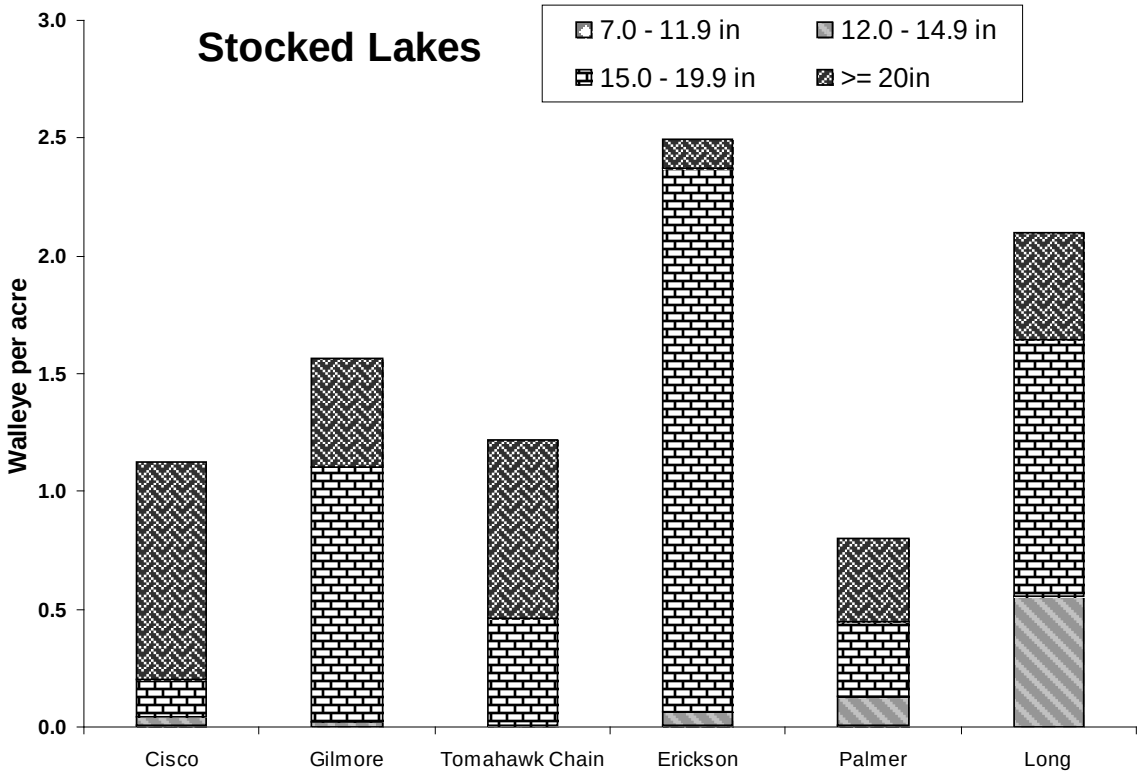

Figure 10. Size distribution of spawning walleye sampled in stocked production model lakes during 2009.

Table 3. Walleye Proportional and Relative Stock Density values for lakes surveyed in spring, 2009.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Natural Recruitment Lakes						
Barron	Duck Lake	100	NR	15	14	5
Barron	Silver Lake	337	C-NR	15	78	11
Bayfield	Crystal Lake	111	C-NR	15	0	0
Douglas	Upper Saint Croix Lake	855	C-NR	15	81	8
Iron	Gile Flowage	3384	NR	1>14	50	0
Iron	Trude Lake	781	NR	none	100	0
Iron	Turtle Flambeau Flowage	13545	NR	none	21	4
Lincoln	Lake Mohawksin	1910	NR	15	9	3
Oneida	East Horsehead Lake	184	NR	15	93	23
Polk	Cedar Lake	1100	NR	Slot14-18	62	0
Rusk	Dairyland Reservoir				0	0
Sawyer	Barker Lake	238	NR	15	25	25
Sawyer	Lake Chetac	1920	C-NR	15	88	38
Taylor	Diamond Lake	49	NR	Slot14-18	100	100
Vilas	High Lake	734	NR	1>14	38	16
Stocked Recruitment Lakes						
Chippewa	Popple Lake	90	C-ST	15	100	46
Forest	Julia Lake	401	C-ST	none	29	16
Price	Big Dardis Lake	144	ST	15	88	63
Remnant Population Lakes						
Oconto	Bear Lake	78	0-ST	15	60	20
Oconto	Boundary Lake	37	0-ST	15	100	100
Oconto	Lake John	104	0-ST	15	100	100
Polk	Poplar Lake	125	0-ST	15	100	100
Price	Spirit Lake	126	REM	Slot14-18	100	100
Sawyer	Blaisdell Lake	356	NR-2	15	88	38
Vilas	Fishtrap Lake	329	NR-2	1>14	43	27

In natural model lakes observed PSD and RSD-18 values were highly variable, with both ranging from 0 to 100 percent (Table 3). In both stocked and remnant model lakes observed PSD values showed less variability than was noted in natural model lakes although RSDs in these lakes were more variable than PSDs. PSD in two of three stocked model lakes exceeded 85 percent but was only 29 percent in Julia Lake (Forest Co.). PSDs in remnant model lakes exceeded 40 percent in all surveyed lakes. RSD-18s in stocked and remnant model lakes ranged from 16-63 and 20-100 percent, respectively.

In 2009, average size structure was generally smallest in natural model lakes, intermediate in stocked lakes, and largest in remnant model lakes (Figure 11). Mean PSDs for natural, stocked, and

remnant model lakes were 37, 66 and 84, respectively. Mean RSD-18s for natural, stocked, and remnant model lakes were 19, 56 and 60, 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 have increased over time in natural model lakes (Figure 12). Observed PSD and RSD-18 values were found to be highly correlated over time for both natural (r^2=0.69) and stocked (r^2=0.86) lakes, so only PSD values are discussed here. When regressed across years mean annual PSD values did not trend significantly in either natural (slope=0.47, p=0.58) or stocked (slope= -0.88, p=0.54) model lakes (Figure 12). In both regressions only mean annual data points with a minimum of three associated lake observations were included in this analysis; this precluded inclusion of data from some years in natural and stocked model analyses, and prevented analysis of PSD in remnant model lakes.

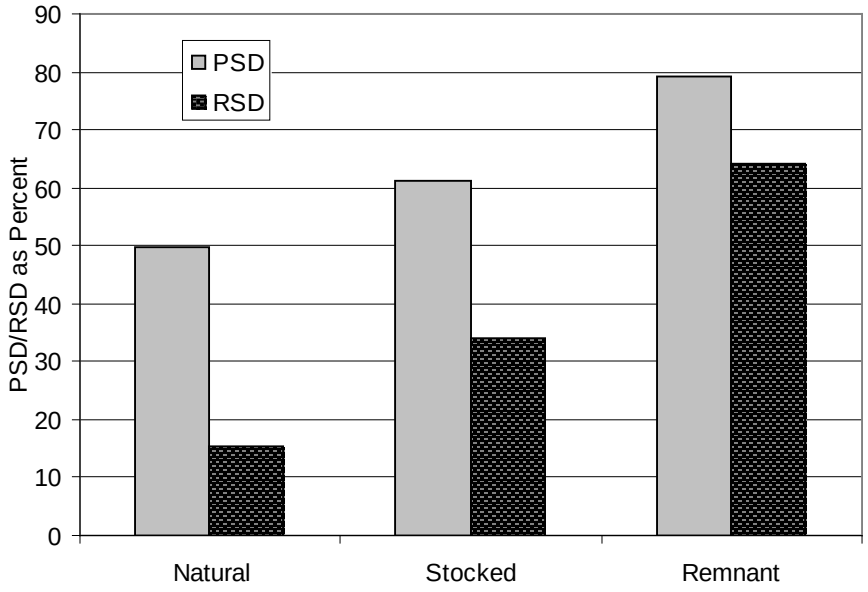

Figure 11. Comparison of mean PSD and RSD-18 values across lakes in various walleye recruitment models for lakes sampled in 2009.

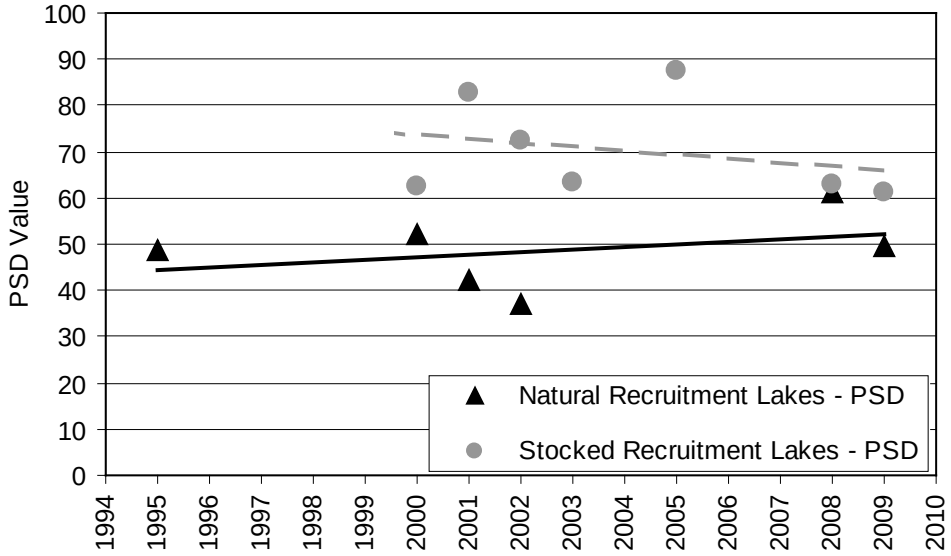

Figure 12. Trends in PSD values observed for walleye in Ceded Territory lakes since 1995.

Muskellunge Abundance

Adult muskellunge population and density estimates were completed in three Ceded Territory lakes during spring 2009 (Table 4, Appendix F); An estimate for Two Sisters Lake was rejected by the Technical Working Group due to a lack of female recaptures, and is therefore not presented here. Population estimates completed in 2009 reflect 2008 population numbers because of the two-year mark-recapture time span used to derive estimates. Muskellunge densities in Big Arbor Vitae and Oxbow lakes, respectively, were 0.59 and 0.19 adult fish/ acre (Table 4). Both lakes are managed under the statewide regulation with a 34 inch minimum size for muskellunge harvest.

Table 4. Adult muskellunge population estimates completed in 2009 in the Wisconsin Ceded Territory. Regulations presented are for 2009.

County	Lake	Angler Regulation (inches)	Acres	Minimum length in PE (inches)		Adult PE	CV(%)	Total per acre
				Male	Female			
Vilas	Big Arbor Vitae	34	1090	24	27.5	642	14.8	0.59
Vilas	Oxbow	34	511	30	30	95	36.5	0.19

Bass Abundance

Smallmouth bass population estimates were made in two lakes and largemouth bass population estimates in four lakes in 2009 (Table 5). Smallmouth bass densities were 0.51 and 3.9 fish per acre in Plum and Tomahawk lakes, respectively (Table 5).

Largemouth bass density ranged from 3.5–11.5 fish per acre with the greatest densities observed in Erickson (11.5) and High (7.0) lakes in Vilas County and Gilmore Lake in Oneida County (6.3/acre). Largemouth bass densities in other lakes surveyed were all less than 4.5 fish/acre (Table 5).

The size structure of both largemouth and smallmouth bass was dominated by 8.0-14” fish in nearly all lakes sampled (Figure 13 and Figure 14). Larger fish (>14”) however did make up substantial portions of the smallmouth bass populations in Plum Lake, and the largemouth bass population in Gilmore Lake.

Table 5. Bass population estimates for lakes sampled in the Wisconsin Ceded Territory in spring 2009.

County	Lake	Acres	Angler Regulation	Total PE	CV	Total /acre	8.0-13.9" /acre	14.0-17.9" /acre	18.0"+ /acre
Smallmouth Bass									
Oneida	Tomahawk	3,392	14	13,082	0.25	3.86	3.42	0.44	0.00
Vilas	Plum	1,033	18	531	0.19	0.51	0.09	0.30	0.13
Largemouth Bass									
Oneida	Gilmore	320	14	2,008	0.23	6.28	4.20	2.03	0.04
Oneida	Tomahawk	3,392	14	11,891	0.16	3.51	3.16	0.34	0.01
Vilas	Erickson	106	14	1,214	0.29	11.45	11.33	0.04	0.08
Vilas	High	734	14	5,117	0.28	6.97	6.39	0.57	0.01

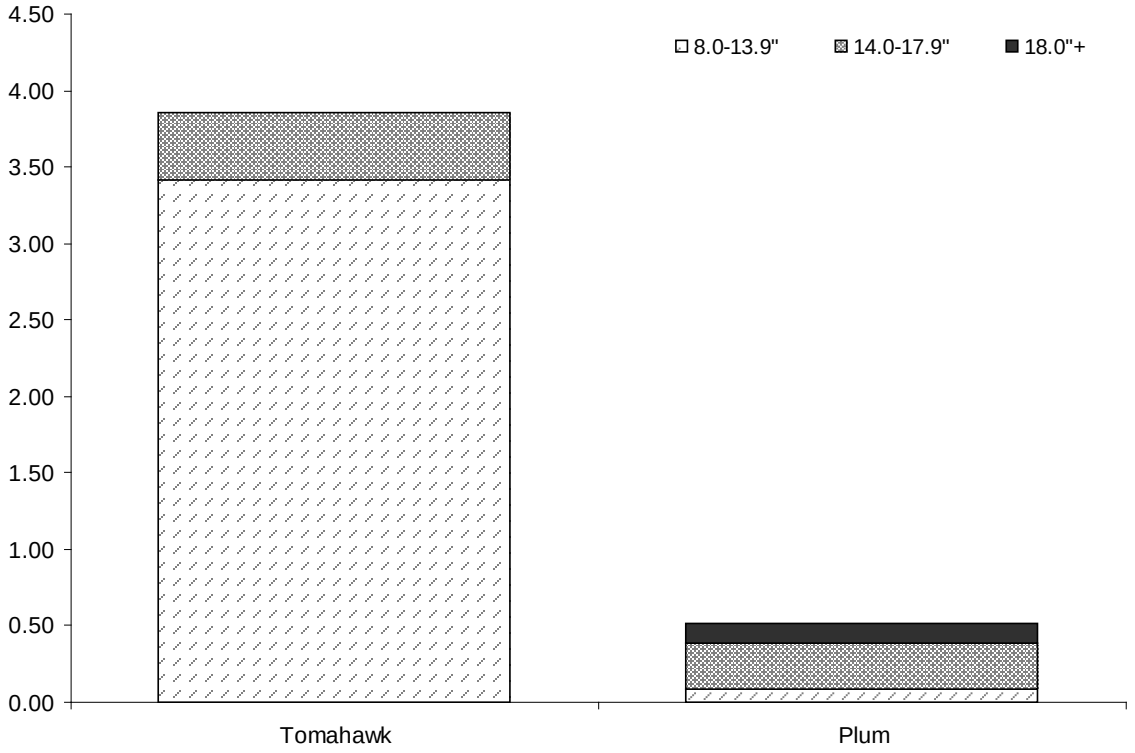

Figure 13. Smallmouth bass population densities (fish ≥ 8.0") by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2009.

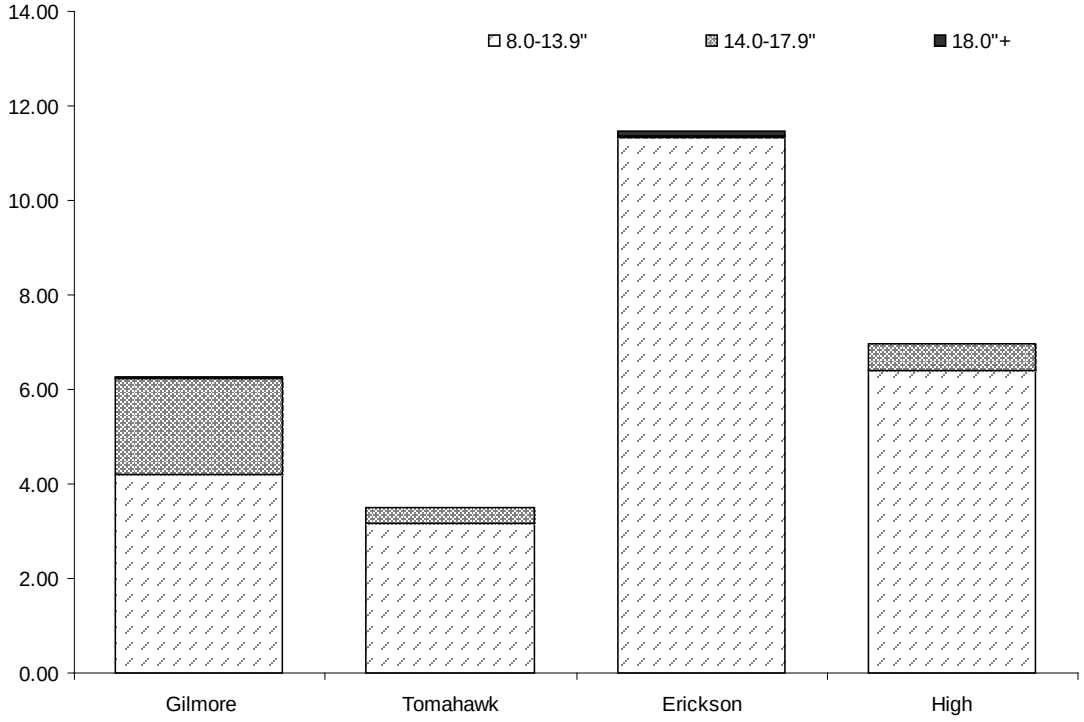

Figure 14. Largemouth bass population densities (fish ≥ 8.0") by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2009.

Creel Surveys

In 2009-2010 (May through March), creel surveys were conducted for 15 lakes in which walleye population estimates were made during spring 2009 (Appendix D). Creel surveyed lakes ranged in size from 239 to 13,122 acres (Snipe Lake-Vilas Co. and Turtle Flambeau Flowage-Iron Co., respectively) and were located across 9 counties within the Ceded Territory.

Overall Angler Effort

The mean total angler effort per acre in lakes 500 acres and larger (33.9 hours/acre) did not statistically differ from the effort recorded on lakes smaller than 500 acres (20.7 hours/acre) in 2009-2010 (t-test (equal variances) $t = 1.16$, $df = 12$, $P = 0.27$). Since 1995 when random lake selection began, mean total angler effort has been significantly lower in large lakes (26.8 hours/ acre) than in small lakes (36.5 hours/ acre; t-test (unequal variances) $t = -3.25$, $df = 191$, $P < 0.01$). No trend in total angler effort has been observed since 1995 across all lakes [$F(1, 289) = 0.02$, $P = 0.88$]. 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).

Walleye Effort, Catch and Exploitation

Directed effort for walleye averaged 10.9 hours per acre in surveyed lakes during the 2009-10 angling season; Directed effort is defined as hours reported by anglers fishing for a specific species. Directed walleye fishing pressure in surveyed lakes was highly variable, so although directed effort in lakes sustained by natural reproduction (12.3 hours/ acre) appeared to be higher than in those lakes sustained by stocking (5.5 hours/ acre), the observed difference was not statistically significant (t-test-equal variances, $t = 1.90$, $df = 12$, $P = 0.08$). Directed effort was also comparable in large (≥500 ac., 11.5 hours/ acre) and small lakes (<500 ac., 9.3 hours/ acre; t-test (equal variances) $t = 0.59$, $df = 12$, $P = 0.56$) surveyed during the 2009-10 angling season. Overall directed angler effort (hours/acre) for walleye has declined since 1995 [Slope = -0.22, $F(1,289) = 2.27$, $P = 0.02$; Figure 16).

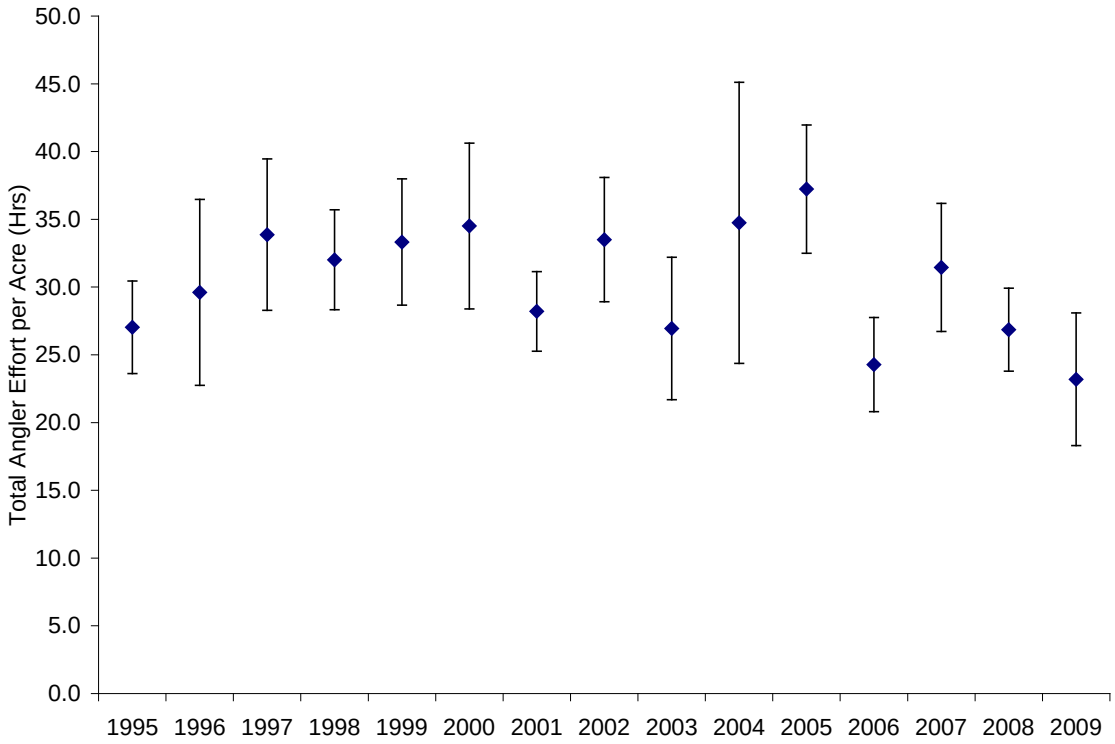

Figure 15. Average total angler effort per acre (±SE) in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2009.

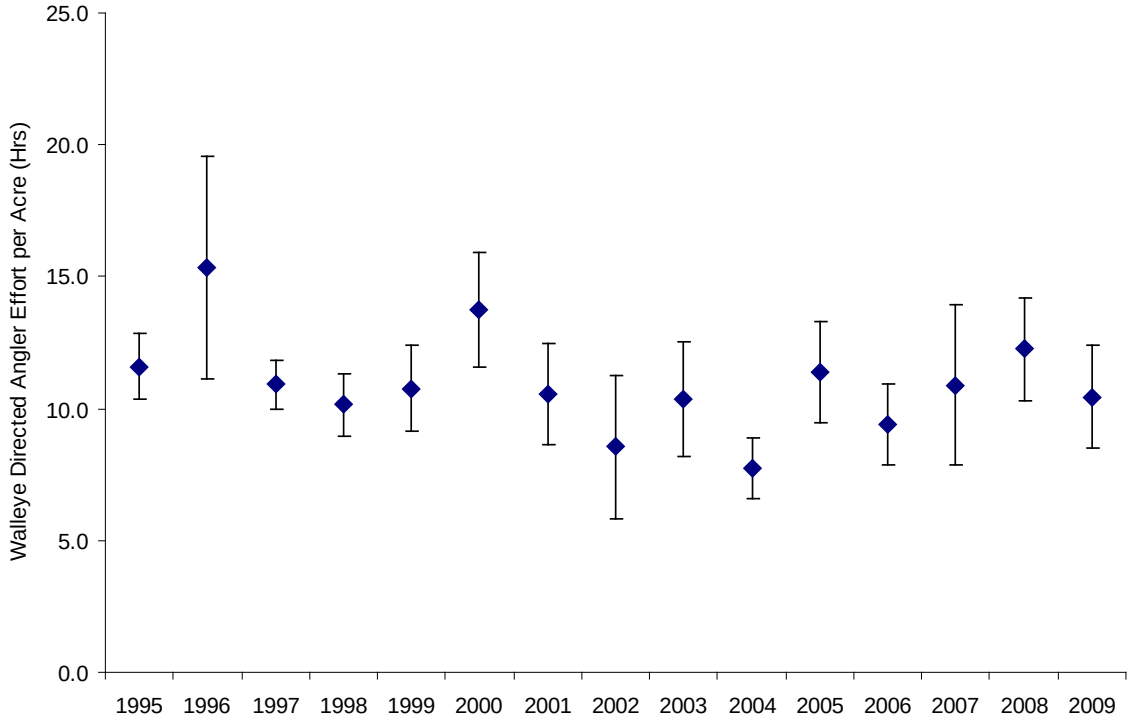

Figure 16. Directed angler effort per acre (±SE) for walleye in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2009.

In 2009-10 the mean specific catch rates (SCR) was 0.32 walleye/hour of directed effort (1 fish per 3.2 hours). In lakes with naturally sustained or stocked populations, respectively, mean SCRs were 0.39 walleye per hour (2.6 hours directed effort/ walleye caught) and 0.07 walleye/ hour (1 fish per 14.3 hours of directed effort). Specific harvest rates averaged 0.084 walleye/hour of directed effort (11.9 hours directed effort/walleye harvested) and ranged between 0.00 and 0.42 walleye/hour for individual lakes surveyed (Appendix D). Based on creel survey results, anglers harvested approximately 32% of all walleye caught during the 2009-10 season; this is slightly above the average annual percentage estimated between 1995 and 2008 (27%).

Between 1995 and 2009 no statistically relevant trend in SCR was observed [Figure 17; Slope = -0.006, $F(1, 289) = 3.24$, $P = 0.07$]. No discernable trend was noted for specific harvest rate by year since 1995 [$F(1, 289) = 0.15$, $P = 0.70$] for walleye in the Wisconsin Ceded Territory (Figure 17).

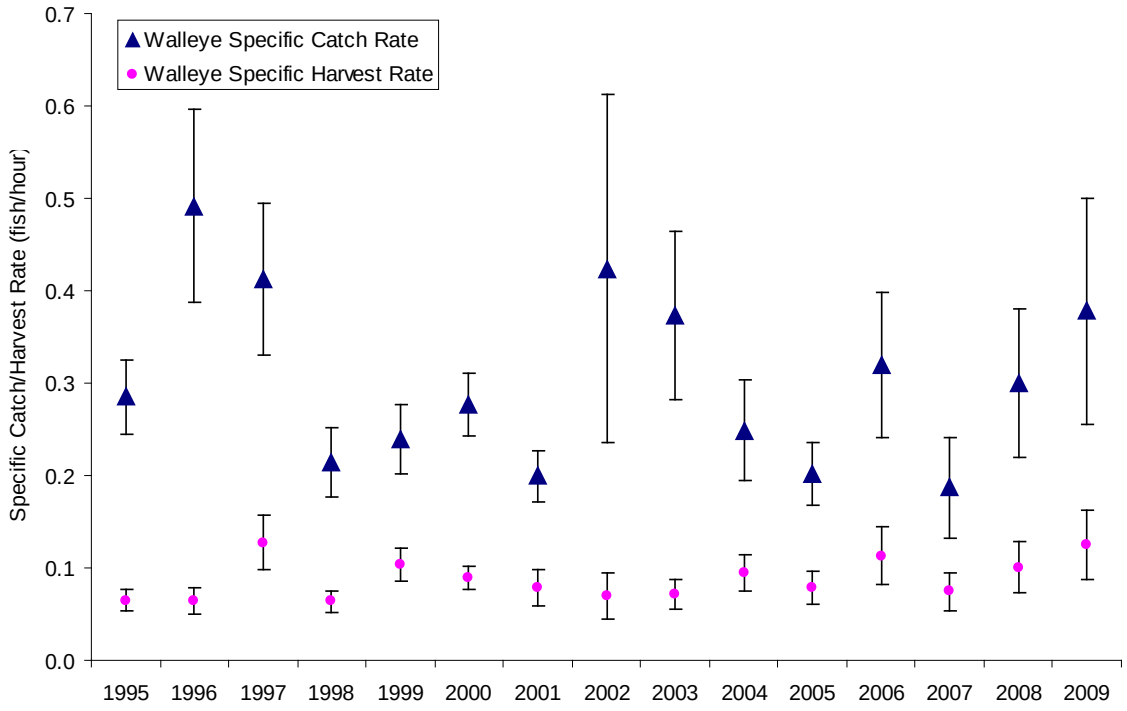

Figure 17. Specific catch and harvest rates (±SE) for walleye in surveyed lakes in the Wisconsin Ceded Territory, 1995-2009. Specific catch or harvest rate is number of walleye caught or harvested divided by time spent fishing specifically for walleye.

Walleye exploitation rates were estimated for 14 lakes during 2009-10 (Table 6; Appendix H). Estimated total (angler + tribal) exploitation of walleye ranged from 0% to 41.3%. Angler exploitation of walleyes in various size classes showed a slightly broader range with exploitation of walleye 14" or longer ranging from 0% to 50.9% whereas that of walleyes 20" or longer ranged from 0.0% to 49.1%. Tribal exploitation of walleyes ranged from 0.0% to 13.4% across all lakes and was exceeded by estimates of angler exploitation in all but three surveyed lakes. Based on 2009-10 survey results angler exploitation of walleye populations was estimated as zero in one of 14 lakes surveyed; Three of the 14 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 2009-10 total walleye exploitation was below 35% in all but one lake evaluated.

Table 6. Adult walleye exploitation rates by lake and harvest type for 2009, with comparison to 1995-2008 mean exploitation rates.

Lake	County	Acres	Angler exploitation	Angler expl. ≥14"	Angler expl. ≥20"	Tribal expl.[1]	Total adult exploitation
Silver	Barron	337	0.0675	0.0750	0.1176	0.1344	0.2019
Big Sand	Burnett	1,400	0.0000	0.0000	0.0000	0.0000	0.0000
Upper St Croix	Douglas	855	0.2428	0.2828	0.0000	0.0755	0.3183
Trude	Iron	792	0.1648	0.3120	0.4907	0.0101	0.1749
Turtle Flambeau Fl.	Iron	13,122	0.0804	0.0825	0.1449	0.0331	0.1135
Mohawksin	Lincoln	1,515	0.0382	0.0964	0.0000	0.0339	0.0721
Kawaguesaga	Oneida	670	0.0802	0.0937	0.0749	0.0616	0.1418
Minocqua	Oneida	1,360	0.0791	0.0876	0.0543	0.0995	0.1786
Tomahawk	Oneida	3,392	0.0282	0.0283	0.0222	0.0482	0.0764
Grindstone	Sawyer	3,111	0.0719	0.0752	0.1560	0.0540	0.1259
Palmer	Vilas	635	0.2632	0.2903	0.1527	0.0000	0.2632
Plum	Vilas	1,033	0.0676	0.0188	0.1902	0.0423	0.1099
Snipe	Vilas	239	0.3295	0.5088	0.2302	0.0831	0.4126
Tenderfoot	Vilas	437	0.0264	0.0557	0.1915	0.0000	0.0264
2009 mean			**0.1100**	**0.1434**	**0.1304**	**0.0483**	**0.1582**
1995-2008 mean			**0.0853**	**0.1057**	**0.1253**	**0.0453**	**0.1304**

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 and 2010).

Muskellunge Effort and Catch

Of the 15 lakes and chains surveyed in 2009, 11 are classified as musky waters. Creel clerks recorded at least one musky caught from 9 of the 15 lakes surveyed including one non-classified water with a remnant musky population (Upper St. Croix Lake, Douglas Co.; 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). Estimates of angler catch, catch rate, and directed effort in 2009 were not significantly different than the prior 10 year averages within any lake musky classification (Analysis of variance, Proc GLM, $p>0.05$; Table 7).

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 directed effort [GLM; $F(1, 220) = 2.80$, $P = 0.10$] or catch rates [$F(1, 220) = 0.04$, $P = 0.85$] in the Ceded Territory since 1995 (Figure 18).

Table 7. Comparison of muskellunge catch and effort rates in 2009 and average values from 1999-2008, by musky lake classification.

Class	Class Description	Lakes sampled	Angler catch/ acre	Specific catch rate (fish/ hour)	Directed effort (hours/ acre)
2009					
A1	Trophy waters	6	0.35	0.04	5.40
A2	Action waters	4	0.31	0.04	7.07
B	Intermediate action/ size	1	0.40	0.05	9.34
C	Low importance	0	--	--	--
Total		11	0.34	0.04	6.36
1999-2008 Averages (Prior 10 years)					
A1	Trophy waters	57	0.24	0.03	7.28
A2	Action waters	62	0.67	0.04	12.15
B	Intermediate action/ size	21	0.21	0.04	4.51
C	Low importance	8	0.03	0.01	0.52
Total		148	0.40	0.03	8.56

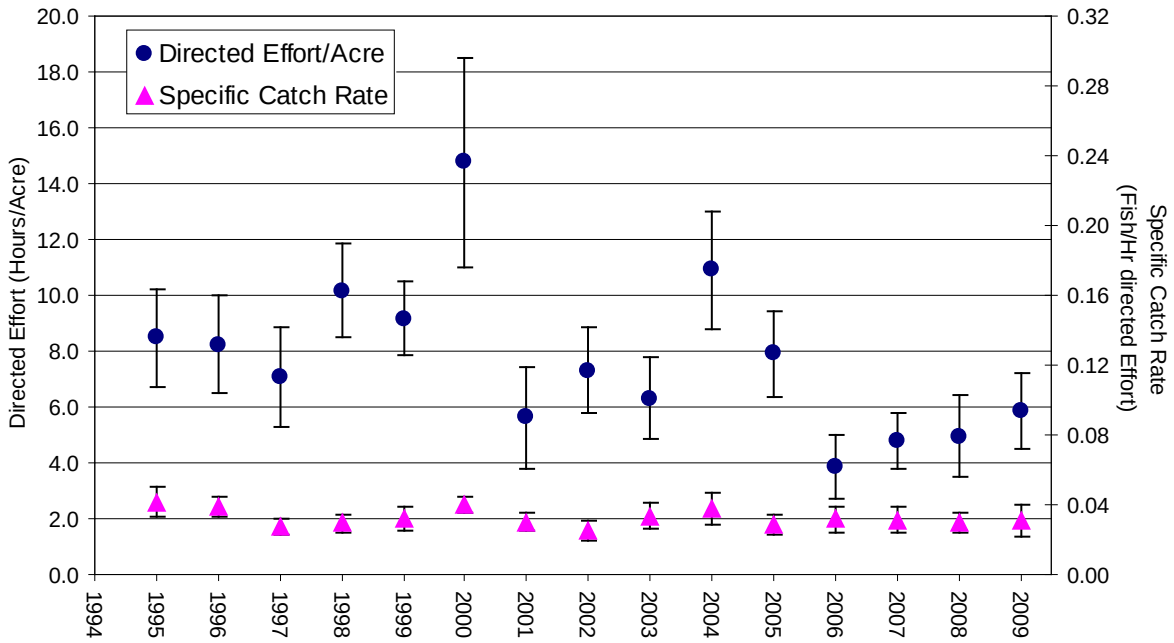

Figure 18. Directed angler effort per lake surface acre and specific catch rate (±SE) for muskellunge in surveyed lakes in the Wisconsin Ceded Territory, 1995-2009.

Northern Pike Effort and Catch

Directed fishing effort and catches of northern pike were recorded for all of the 15 lakes surveyed in 2009 (Appendix D). Of the 15 lakes with northern pike recorded, four were smaller than 500 acres and eleven were 500 acres or larger (Table 8). Although differences in mean values appeared substantial for some creel variables evaluated, the only statistically significant difference between large and small lakes was in specific catch rate of northern pike during the 2009-10 angling season (Table 8). For northern pike no significant differences were found between 2009 creel values and the corresponding prior 10 year averages (1999 -2008) for any of the variables evaluated in Table 8.

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 [$F(1, 271) = 0.36$, $P = 0.55$]. Similarly, specific catch rates of northern pike show no significant trend since 1995 [$F(1, 271) = 0.25$, $P = 0.62$].

Table 8. Mean estimates calculated from 2009 and 1999-2008 northern pike creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2009							
	< 500 acres	4	1.87	0.20	0.29	0.02*	3.08
	> 500 acres	11	2.27	0.33	0.34	0.06*	5.14
	All lakes	15	2.16	0.29	0.32	0.05	4.60
1999-2008**							
	< 500 acres	94	2.32	0.40	0.18	0.05	5.10
	> 500 acres	99	1.87	0.28	0.19	0.05	3.19
	All lakes	193	2.09	0.34	0.18	0.05	4.12

* Of all parameters evaluated, Specific Harvest Rate had the only significant difference between large and small lakes for the 2009-10 angling season (T-test, $p<0.05$).
** No 2009 values differ significantly (T-test, $p \geq 0.05$) from corresponding 10 yr. averages.

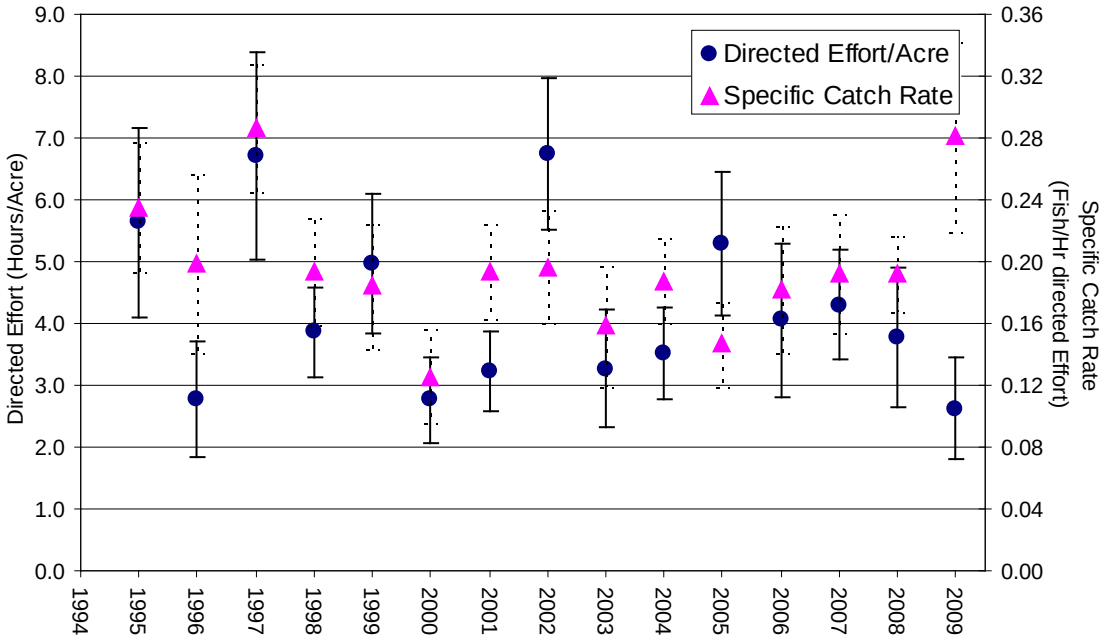

Figure 19. Directed angler effort per lake surface acre and specific catch rate (±SE) for northern pike in surveyed lakes in the Wisconsin Ceded Territory, 1995-2009.

Largemouth Bass Effort and Catch

Catches of largemouth bass were reported for 13 of the 15 lakes surveyed in 2009 although there was directed effort for largemouth bass on 14 of the surveyed lakes (Appendix D). No specific angling effort was directed at largemouth bass in Trude Lake (Iron County); In Snipe Lake (Vilas Co.) no

largemouth bass were reported caught, although only three hours of specific angling effort was estimated for largemouth bass (Appendix D). Of surveyed lakes with largemouth bass catch, four were smaller than 500 acres and eleven were 500 acres or larger (Table 9). In 2009, there were no significant differences between large and small lakes with regard to directed (toward largemouth bass) angler effort, nor angler catch or harvest numbers or rates (T-tests, P >0.05). Of creel metrics and lake sizes evaluated, only harvest/acre of largemouth bass estimated in large lakes during 2009-10 differed from the average value over the prior 10 years.

During the 2009-10 angling season specific catch rate for largemouth bass in Ceded Territory lakes was the third highest estimated since 1995; the same was not true for of directed effort for largemouth bass which was approximately average compared to other years since 1995 (Figure 20). Since 1995 there has been a statistically detectable increase in specific catch rates [Slope = 0.028, $F(1, 264) = 25.45$, $P < 0.01$] in largemouth bass fishing in Wisconsin Ceded Territory lakes. Over the same time period directed angler effort has been variable with no significant trend over time [Slope = 0.133, $F(1, 264) = 2.81$, $P = 0.095$; Figure 20].

Table 9. Mean estimates calculated from 2009 and 1999-2008 largemouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2009*							
Small	< 500 acres	4	5.85	0.17	0.56	0.02	4.16
Large	> 500 acres	11	4.14	0.08**	0.46	0.01	3.91
	All lakes	15	4.60	0.10	0.49	0.01	3.98
1999-2008							
Small	< 500 acres	92	5.85	0.16	0.38	0.02	4.94
Large	> 500 acres	95	4.19	0.21	0.46	0.01	3.80
	All lakes	187	4.25	0.19	0.38	0.02	4.36

* No significant differences exist between large and small lakes for any parameter for the 2009-10 angling season (T-test, $p>0.05$).
** 2009 values differ significantly (T-test, $p \leq 0.05$) from corresponding 10 yr. averages.

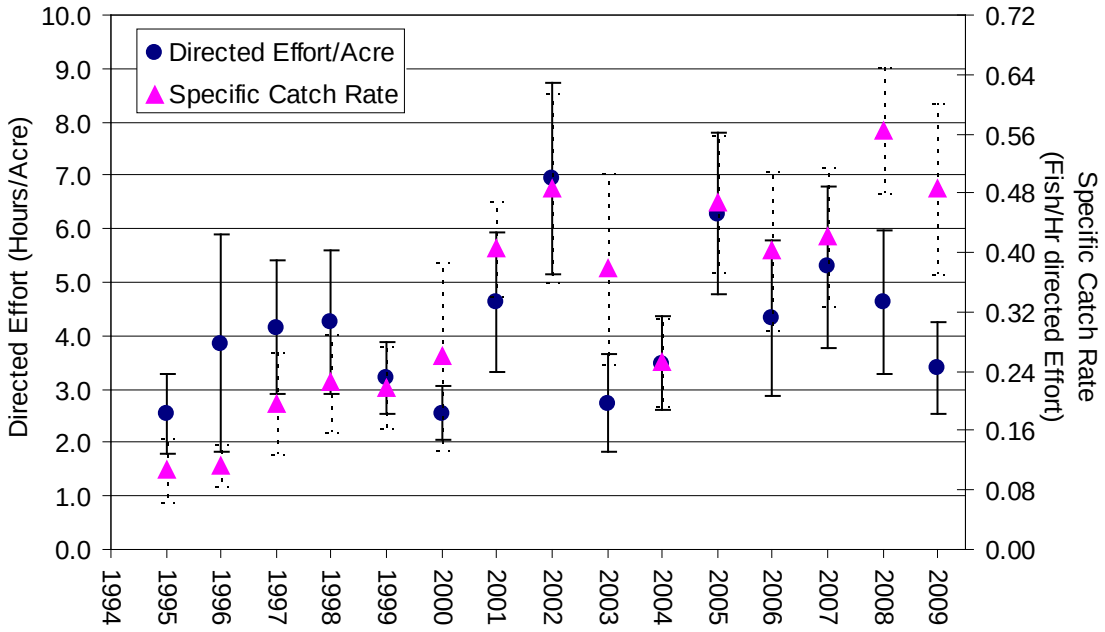

Figure 20. Directed angler effort per lake surface acre and specific catch rate (±SE) for largemouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2009.

Smallmouth Bass Effort and Catch

Angling effort directed toward smallmouth bass and catches of smallmouth bass were reported in each of the 15 lakes surveyed in 2009 (Appendix D). Of the lakes with smallmouth bass catch in 2009, four were classified as 'small' (<500 ac.) and eleven as 'large' (≥500 ac.; Table 10). There were no significant differences in directed angler effort, catch/acre, harvest/acre, specific catch rate or specific harvest rate (T-test, P>0.05) between large or small lakes in 2009 (Table 10). Across all lakes sampled, the mean specific harvest rate estimated in 2009 creel surveys was significantly greater than the 10 year average (T-test, P<0.05; Table 10). No other creel parameters evaluated in 2009 differed from the respective 10 year average value.

Both directed effort and specific catch rates of smallmouth bass anglers in the Ceded Territory have been variable over time. Both the average specific catch rate and directed effort for smallmouth bass in surveyed lakes during 2009-10 were slightly higher than values in most other years since 1995 (Figure 21). However, since 1995 when a randomized lake selection process was instituted there have been no statistically detectable trends in directed angler effort/acre [$F(1, 262) = 0.04$, $P = 0.85$]. Specific

catch rates showed a statistically relevant trend since 1995 [Slope=0.014, F(1, 262) = 9.51, P = 0.002] although any such trend is not obvious in Figure 21, and unless it is maintained over additional time is probably an artifact of the data rather than one of any biological relevance.

Table 10. Mean estimates calculated from 2009 and 1999-2008 smallmouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2009*							
Small	< 500 acres	4	3.77	0.10	0.58	0.02	4.51
Large	> 500 acres	11	3.52	0.10	0.55	0.01	4.29
	All lakes	15	3.59	0.01	0.56**	0.02	4.35
1999-2008							
Small	< 500 acres	88	2.27	0.07	0.32	0.01	3.76
Large	> 500 acres	95	1.90	0.07	0.38	0.02	2.98
	All lakes	183	2.08	0.07	0.35	0.02	3.36

* No significant differences exist between large and small lakes for any parameter for the 2009-10 angling season (T-test, p>0.05).
** 2009 values differ significantly (T-test, p≤0.05) from corresponding 10 yr. averages.

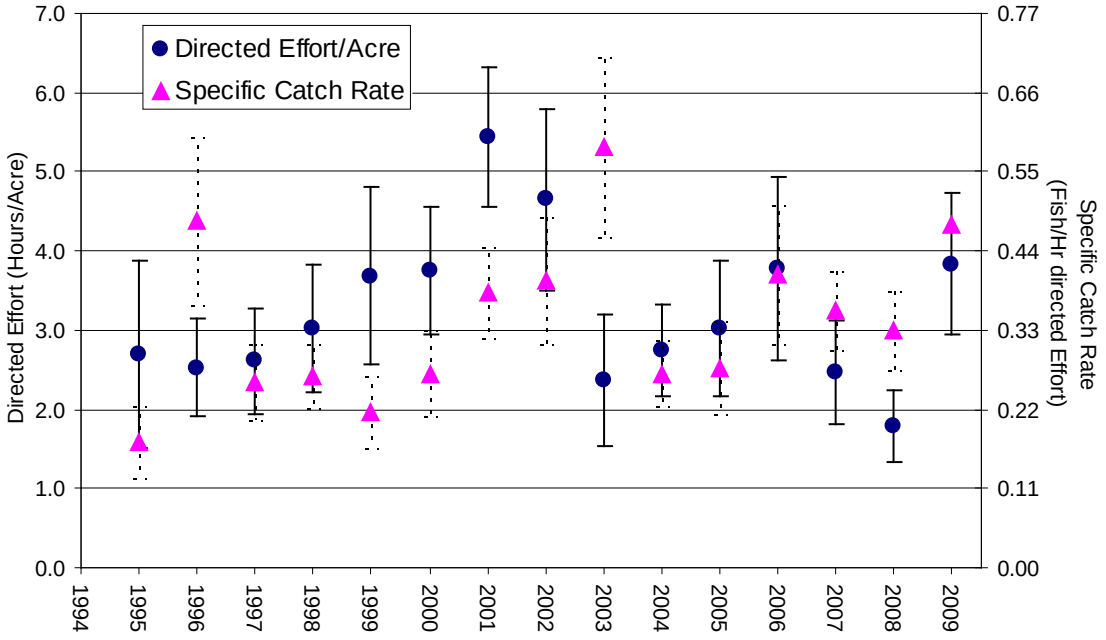

Figure 21. Directed angler effort per lake surface acre and specific catch rate (±SE) for smallmouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2009.

Safe Harvest

Safe harvest calculated for the 2009 harvest season was 94,537 walleye and 5,190 musky across the entire Wisconsin Ceded Territory (Table 11). 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 (21,848 walleye, 1,476 musky), Oneida (18,755 walleye, 1,058 musky), Sawyer (10,683 walleye, 565 musky) and Iron (7,762 walleye, 385 musky) counties, respectively. 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 2009. Safe harvest numbers for individual lakes are listed in Appendix I.

Table 11. Walleye and musky safe harvest levels and ranks by county for the 2009 harvest season.

County	Lake Acreage*	Total Calculated Safe Harvest		Ranks (1 = Greatest #)	
		Walleye	Musky	Walleye	Musky
Ashland	2,861	426	104	22	11
Barron	13,327	2,115	39	10	18
Bayfield	12,596	3,382	150	7	8
Burnett	11,200	2,074	119	11	10
Chippewa	14,418	5,280	172	5	7
Clark	320	21	5	26	24
Douglas	6,117	1,660	52	14	16
Dunn	1,752	642		18	
Eau Claire	2,571	623	35	20	19
Florence	1,748	276		25	
Forest	10,897	1,814	59	13	14
Iron	24,693	7,762	385	**4**	**4**
Langlade	4,816	632	44	19	17
Lincoln	15,561	3,847	209	6	6
Marathon	9,541	2,002	59	12	14
Marinette	3,178	737	21	17	23
Oconto	3,481	473	25	21	20
Oneida	60,295	18,755	1,058	**2**	**2**
Polk	11,630	1,328	63	16	13
Portage	74	6		27	
Price	9,117	2,663	265	9	5
Rusk	5,633	1,546	137	15	9
Sawyer	48,007	10,683	565	**3**	**3**
St. Croix	1,100	412	22	23	22
Taylor	4,037	284	25	24	20
Vilas	71,276	21,848	1,476	**1**	**1**
Washburn	15,136	3,246	101	8	12
Grand Total	**365,382**	**94,537**	**5,190**	**---**	**---**

* Sum of acreage for lakes declared for potential 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 2009 WDNR completed fall surveys in 81 different lakes in the Wisconsin Ceded Territory (Appendix G). Of the lakes sampled, 34 had walleye populations classified as sustained by naturally reproduction (recruitment codes NR, C-NR, or C-), 30 as sustained by stocking (ST or C-ST), and 12 as remnant or newly established populations (REM, O-ST, NR-2; Appendix C). Five lakes were classified as having no known walleye population (NONE/0). Water temperatures during 2009 YOY walleye surveys ranged from 44 - 73° F; mean and median water temperatures during YOY surveys were 59° and 58° F, respectively. Young-of-year walleye lengths ranged from 2.9 to 9.4 inches across all lakes and dates surveyed in 2009 (Appendix G).

Differences in mean YOY walleye density between natural and stocked recruitment categories was statistically significant during 2009 (t-test-unequal variance, $t = 3.35$, $df = 33.6$, $P = 0.002$). Consistent with all previous years since 1990, lakes sustained primarily by natural reproduction had higher mean walleye YOY density (mean = 31.1/mile of shoreline shocked, range = 0.0–214.3) than lakes sustained by stocking (mean = 2.4/mile, range = 0.0–22.3) during 2009 (Figure 22). The mean YOY walleye density observed in natural recruitment lakes during 2009 (31.1/mile) was slightly below the average across the previous 19 years studied (32.6/mile from 1990-2008) although this difference was not significant (t-test unequal variance, $t = -0.17$, $df = 35.1$, $P = 0.87$). In contrast, the mean YOY walleye density observed in stocked lakes during 2009 (2.3/mile) was significantly less than the average across all previous years studied since 1990 (5.9/mile from 1990-2008; t-test-unequal variance, $t = -3.33$, $df = 71.4$, $P = 0.0014$; Figure 22).

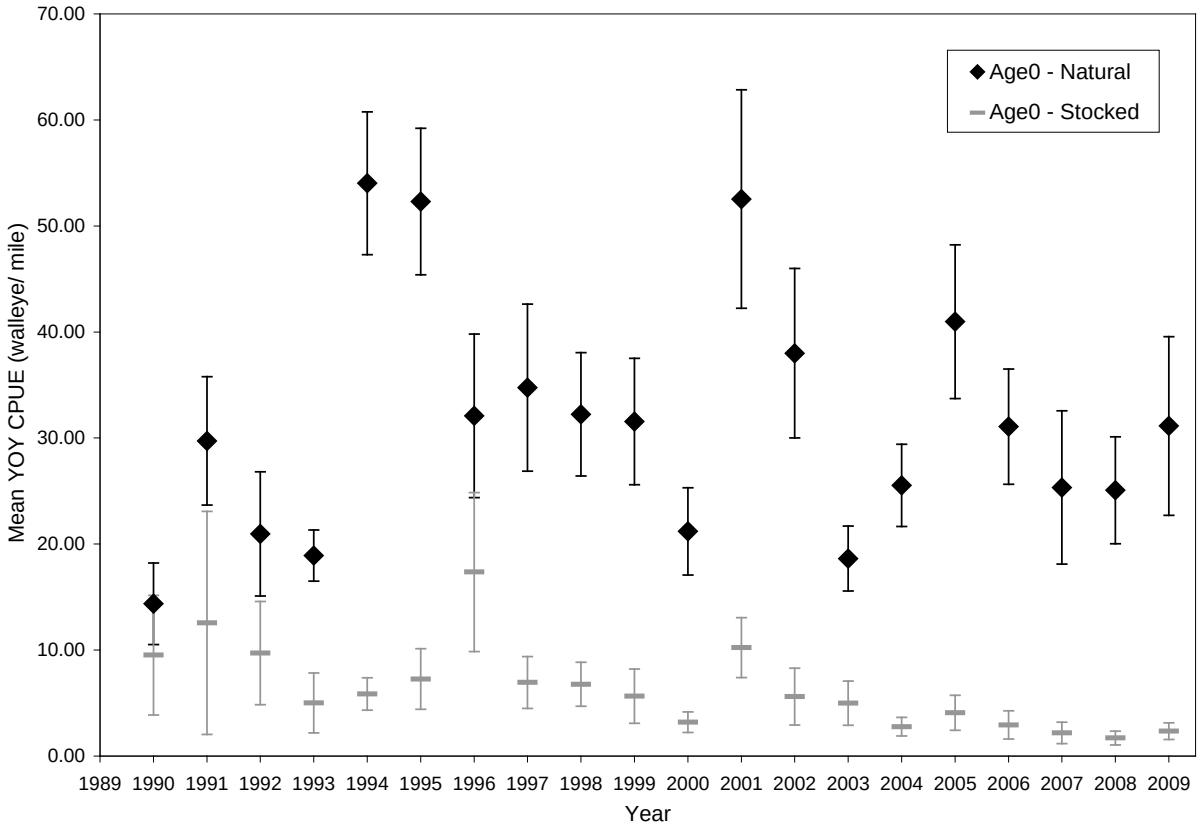

Figure 22. Comparison of mean YOY walleye density (± SE) observed in fall electrofishing surveys since 1990 in lakes dominated by natural recruitment or stocking.

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 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).

A general linear model used to assess the impact of year and/or recruitment model on YOY walleye density was significant ($p<0.0001$; Table 12). The significance of the model was driven by

differences in YOY density between years (p<0.0001) and recruitment models (natural or stocked; p<0.0001); the interaction of year*recruitment model showed suggestive significance (p=0.0569). Based on the suggestive significance of the year*recruitment model interaction term, regressions were done to evaluate trends independently for natural and stocked model lakes. No significant trend was noted for YOY densities over time in natural model lakes (p=0.39; see Figure 22). YOY walleye densities have declined significantly over time in stocked model lakes since 1990 (slope=-0.48, p=0.0002; see Figure 22).

Table 12. 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	39	430441	11036	7.86	<0.0001
Error	1,654	2323825	1405		
		Type III SS	**Mean Square**	**F Value**	**Pr > F**
Year	19	60222	3170	2.26	0.0015
Recruitment Model[a]	1	207429	207429	147.64	<0.0001
Year x Recruitment Model	19	41772	2199	1.56	0.0569

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 2009, 11/34 natural model lakes (32%) had YOY indices > 25 per mile, and three NR lakes (9%) had YOY walleye indices > 100 per mile (Appendix G). Overall, the proportion of lakes with YOY catch rates greater than 25 and 100 fish per mile in 2009 was comparable to the mean proportion of lakes observed with the same catch rates between 1990-2008 (mean percentage > 25 YOY/mi = 37%; >100/mi = 8%) illustrating the presence of average natural walleye year class across the ceded territory in the fall of 2009.

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 (3.6 YOY/ mile) with fry or small fingerlings and those that were not stocked (0.5 YOY/ mile) in 2009 were significant (t-test unequal variance, t = -2.90, df

= 11.6, P = 0.01; Table 13). These findings illustrate that as expected amongst stocked-model lakes, those that were stocked during 2009 generally had stronger fall recruitment than those that were not stocked.

Table 13. 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 2009.

	Stocked in 2009	Not Stocked in 2009
No. Lakes	11	16
Mean YOY walleye/ mile	3.6	0.5
Q1/Median/Q3	0.1 / 2.9 / 5.8	0.0 / 0.0 /0.2
Lakes with 0 YOY/ mile	2 (18%)	10 (63%)
Lakes with <5 YOY/ mile	7 (64%)	16 (100%)
Lakes with <10 YOY/ mile	11 (100%)	16 (100%)

The Hansen et al (2004) index of lake-wide YOY walleye density (fish/acre) for natural-model lakes ranged from 0.0–37.3 with a mean of 4.5 during 2009. In stocked-model lakes, the same index ranged from 0.0–1.2 YOY walleye/acre with a mean of 0.12. Within stocked-model lakes, those stocked prior to fall surveys logically had a greater average index value than lakes that were not stocked (0.28 Vs. 0.03, respectively). This is consistent with findings based on counts of YOY/mile observed in surveys and discussed above and 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 9 lakes that were previously stocked with oxytetracycline marked walleyes in 2009 (Table 14). Most stocking events took place in the month of June. In general, the percent of marked fish tends to align well with and support recruitment code designations for lakes monitored during 2009, with higher values in ST and C-ST lakes, and lower values C-NR lakes. In Silver Lake marking success was not verified prior to release of fish from a mobile hatchery, so OTC results are presented for informational purposes only. Note that OTC sampling itself is not indicative of recruitment code designations, and is not considered in the designation process unless a minimum of 30 individual fish are sampled from a given water body.

Table 14. Lakes stocked with oxytetracycline (OTC) marked fish sampled in 2009, 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.
Barron	Silver	C-NR	1881100	2	29	31	6.5**
Oneida	N Nokomis	ST	1595800	45	5	50	90.0
Oneida	Shishebogama	C-ST	1539600	1	0	1	100
Oneida	Thunder	C-ST	1618100	12	0	12	100
Oneida	Two Sisters	C-NR	1588200	27	22	49	55.1
Sawyer	Lac Courte Oreilles	C-NR	2390800	7	43	50	14.0
Vilas	Long	C-ST	1602300	4	0	4	100
Vilas	Sparkling	C-ST	1881900	3	0	3	100
Vilas	Trout	C-ST	2331600	45	4	49	91.8

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

** Marking success was not verified; Results are presented for informational purposes only as their validity is unknown.

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APPENDICES

Appendix A. WDNR Lake Sampling Rotation 2009-2013.

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	CURRENT MODEL	# LAKES	ROTATION
2009	Spooner	2897100	BAYFIELD	DIAMOND	341	S	1	TREND
2009	Spooner	2391200	SAWYER	GRINDSTONE	3,111	N	1	TREND
2009	Spooner	2294900	Iron	Turtle-Flambeau	13,545	N	1	Spatial
2009	Spooner	2295200	Iron	Trude	781	N	1	Spatial
2009	Spooner	2676800	Burnett	Big Sand	1,400	0-ST	1	Spatial
2009	Spooner	1881100	Barron	Silver	337	N	1	Spatial
2009	Spooner	2747300	Douglas	Upper St. Croix	855	N	1	Spatial
TOTAL	**Spooner**				**20,370**		**7.0**	
2009	Woodruff	1018500	VILAS	SNIPE	239	N	1	TREND
2009	Woodruff	1592400	VILAS	PLUM	1,033	N	1	TREND
2009	Woodruff		Oneida	Tomahawk/Minocqua Chain	5,805	S	5	Spatial
2009	Woodruff		Vilas	Palmer/Tenderfoot	1,072	S / N	2	Spatial
2009	Woodruff	1515400	Lincoln	L Mohawksin	1,910	N	1	Spatial
TOTAL	**Woodruff**				**10,059**		**10**	
2009	**TOTAL**				**30,429**		**17**	
2010	Spooner	2678100	BURNETT	LIPSETT	393	S	1	TREND
2010	Spooner	2742100	BAYFIELD	MIDDLE EAU CLAIRE	902	N	1	TREND
2010	Spooner		Bayfield	Pike Lake Chain	714	N	4	Spatial
2010	Spooner		Sawyer	Round/Little Round	3,283	N	2	Spatial
2010	Spooner	2382300	Sawyer	Barber	238	S	1	Spatial
2010	Spooner	2393500	Sawyer	Sissabagama	719	N	1	Spatial
2010	Spooner	2303500	Iron	Long	396	S	1	Spatial
2010	Spooner	1884100	Washburn	Stone	523	N	1	Spatial
TOTAL	**Spooner**				**7,168**		**12**	
2010	Woodruff	394400	FOREST	L METONGA	1,991	S	1	TREND
2010	Woodruff	2331600	VILAS	TROUT	3,816	S	1	TREND
2010	Woodruff		Vilas	Upper/Lower Buckatabon	846	S	2	Spatial
2010	Woodruff		Vilas	Turtle Chain	945	N	2	Spatial
2010	Woodruff	2332400	Vilas	Allequash	426	C-ST	1	Spatial
2010	Woodruff	1569600	Oneida	George	435	N	1	Spatial
2010	Woodruff	1564200	Oneida	Crescent	612	N	1	Spatial
TOTAL	**Woodruff**				**9,071**		**9**	
2010	**TOTAL**				**16,239**		**21**	

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		VILAS	BIG ARBOR VITAE	1,090	N	1	TREND
2011	Woodruff	1579900	Oneida	Pelican	3,585	N	1	Spatial
2011	Woodruff		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		Vilas	Ballard Chain	1,025	N	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	N	4	Spatial
2012	Spooner	2691500	Washburn	L Nancy	772	S	1	Spatial
2012	Spooner	2351400	Chippewa	Long	1,052	N	1	Spatial
2012	Spooner	2856400	Douglas	Lyman	403	NR-2	1	Spatial
2012	Spooner	2661100	Barron	Sand	322	S	1	Spatial
TOTAL	**Spooner**				**12,001**		**15**	
2012	Woodruff	1018500	VILAS	SNIPE	239	N	1	TREND
2012	Woodruff	1592400	VILAS	PLUM	1,033	N	1	TREND
2012	Woodruff		Lincoln/Oneida	Nokomis/Rice Chain	3,916	N	3	Spatial
2012	Woodruff	1595300	Oneida	Rainbow Fl	2,035	N	1	Spatial
2012	Woodruff	1623400	Vilas	Pioneer	427	S	1	Spatial
2012	Woodruff		Vilas	Presque Isle Chain	1,571	N	3	Spatial
2012	Woodruff	2328700	Vilas	Papoose	428	N	1	Spatial
TOTAL	**Woodruff**				**9,649**		**11**	
2012	**TOTAL**				**21,650**		**26**	

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		Vilas	Eagle Chain	4,174	N	10	Spatial
2013	Woodruff	1586600	Oneida	Spider	118	N	1	Spatial
2013	Woodruff	377900	Forest	Jungle	182	N	1	Spatial
TOTAL	***Woodruff***				***10,281***		***14***	
2013	**TOTAL**				**17,023**		**24**	

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 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. Creel Survey Summaries.

Angling Effort

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	Silver	1881100	337	C-NR	O	9672	28.70	4672	13.86	0	0.00	2699	8.01	3045	9.04	3204	9.51	
Bayfield	Diamond	2897100	341	C-ST	O	4355	12.77	1027	3.01	0	0.00	1364	4.00	2201	6.45	2231	6.54	
Burnett	Big Sand	2676800	1400	0-ST	O	17645	12.60	1535	1.10	0	0.00	3890	2.78	6965	4.98	349	0.25	
Douglas	Upper St Croix	2747300	855	C-NR	REM	33071	38.68	7383	8.64	104	0.12	10060	11.77	4271	5.00	2498	2.92	
Iron	Trude	2295200	792	NR	C-ST	1327	1.68	1049	1.32	--	--	0	0.00	0	0.00	0	0.00	Winter Creel Only
Iron	Trude	2295200	792	NR	C-ST	6648	8.39	3118	3.94	1502	1.90	309	0.39	0	0.00	345	0.44	Openwater Creel
Iron	Turtle Flambeau Fl	2294900	13122	NR	C-ST	33551	2.56	18150	1.38	--	--	0	0.00	0	0.00	0	0.00	Winter Creel Only
Iron	Turtle Flambeau Fl	2294900	13122	NR	C-ST	96442	7.35	60189	4.59	12123	0.92	8267	0.63	803	0.06	20637	1.57	Openwater Creel
Sawyer	Grindstone	2391200	3111	C-NR	ST	46564	14.97	27326	8.78	5715	1.84	2045	0.66	968	0.31	11233	3.61	
Oneida	Kawaguesaga	1542300	670	NR	C-ST	30262	45.17	10308	15.39	5271	7.87	4269	6.37	3843	5.74	4524	6.75	
Oneida	Minocqua	1542400	1360	C-NR	C-ST	76183	56.02	23819	17.51	18572	13.66	16238	11.94	15057	11.07	8892	6.54	
Lincoln	Mohawksin	1515400	1515	NR	C-ST	118211	78.03	39625	26.16	14151	9.34	17537	11.58	7092	4.68	12857	8.49	
Vilas	Palmer	2962900	635	C-ST	C-	20404	32.13	3871	6.10	6944	10.94	2533	3.99	507	0.80	84	0.13	
Vilas	Plum	1592400	1033	NR	C-	26150	25.31	14344	13.89	5495	5.32	5208	5.04	1205	1.17	5571	5.39	
Vilas	Snipe	1018500	239	NR	NR	3488	14.60	2285	9.56	885	3.70	29	0.12	3	0.01	201	0.84	
Vilas	Tenderfoot	2962400	437	NR	NR	11750	26.89	4727	10.82	5017	11.48	91	0.21	504	1.15	503	1.15	
Oneida	Tomahawk	1542700	3392	C-ST	C-ST	98064	28.91	24897	7.34	10383	3.06	4957	1.46	31386	9.25	37681	11.11	

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	Silver	1881100	337	C-NR	2	2	15	588	1.74	373	1.11	151	0.45	0.07	0.03	42	18.00	0.04	0.02
Bayfield	Diamond	2897100	341	C-ST	2	3	15, 20-28 slot	359	1.05	26	0.08	3	0.01	0.00	0.00	1	29.00	0.01	0.00
Burnett	Big Sand	2676800	1400	0-ST	5	5	15	37	0.03	20	0.01	8	0.01	0.01	0.01	1	27.10	0.00	0.00
Douglas	Upper St Croix	2747300	855	C-NR	2	2	15	2570	3.01	1394	1.63	787	0.92	0.17	0.09	126	16.62	0.04	0.02
Iron	Trude	2295200	792	NR	2	3	none	4437	5.60	498	0.63	442	0.56	0.47	0.42	71	15.71	0.44	0.39
Iron	Trude	2295200	792	NR	2	3	none	4437	5.60	1891	2.39	1283	1.62	0.56	0.39	61	14.00	0.30	0.21
Iron	Turtle Flambeau Fl	2294900	13122	NR	3	3	none	54208	4.13	2833	0.22	2587	0.20	0.16	0.14	132	15.41	0.09	0.09
Iron	Turtle Flambeau Fl	2294900	13122	NR	3	3	none	54208	4.13	17077	1.30	9580	0.73	0.28	0.16	1077	14.20	0.18	0.10
Sawyer	Grindstone	2391200	3111	C-NR	2	2	14-18 slot	5891	1.89	7917	2.54	1948	0.63	0.29	0.07	350	15.66	0.17	0.04
Oneida	Kawaguesaga	1542300	670	NR	3	3	15	2274	3.39	2322	3.47	1641	2.45	0.09	0.04	66	17.27	0.03	0.01
Oneida	Minocqua	1542400	1360	C-NR	3	3	15	2764	2.03	618	0.45	164	0.12	0.03	0.01	16	18.07	0.01	0.00
Lincoln	Mohawksin	1515400	1515	NR	3	3	15	9063	5.98	20550	13.56	626	0.41	0.49	0.02	32	16.40	0.17	0.01
Vilas	Palmer	2962900	635	C-ST	3	3	15	509	0.80	868	1.37	343	0.54	0.20	0.08	75	18.71	0.04	0.02
Vilas	Plum	1592400	1033	NR	3	3	14-18 slot	4964	4.81	2456	2.38	701	0.68	0.17	0.05	138	13.67	0.09	0.03
Vilas	Snipe	1018500	239	NR	3	3	15	626	2.62	3955	16.55	356	1.49	1.73	0.16	111	16.66	1.17	0.11
Vilas	Tenderfoot	2962400	437	NR	2	3	15	3528	8.07	1982	4.54	236	0.54	0.41	0.05	52	18.32	0.17	0.02
Oneida	Tomahawk	1542700	3392	C-ST	3	3	15	4126	1.22	420	0.12	255	0.08	0.01	0.01	49	21.77	0.00	0.00

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	Silver	1881100	337	O	34	0	0.00	0	0.0000	0.00	0.00	0.00	0.00	0	
Bayfield	Diamond	2897100	341	O	34	0	0.00	0	0.0000	0.00	0.00	0.00	0.00	0	
Burnett	Big Sand	2676800	1400	O	34	0	0.00	0	0.0000	0.00	0.00	0.00	0.00	0	
Douglas	Upper St Croix	2747300	855	REM	34	9	0.01	0	0.0000	0.00	0.00	0.00	0.00	0	
Iron	Trude	2295200	792	C-ST	40	--	--	--	--	--	--	--	--	--	--
Iron	Trude	2295200	792	C-ST	40	0	0.00	0	0.0000	0.00	0.00	0.00	0.00	0	
Iron	Turtle Flambeau Flowage	2294900	13122	C-ST	40	--	--	--	--	--	--	--	--	--	--
Iron	Turtle Flambeau Flowage	2294900	13122	C-ST	40	581	0.04	19	0.0014	0.04	0.00	0.01	0.00	2	43.10
Sawyer	Grindstone	2391200	3111	ST	50	176	0.06	0	0.0000	0.01	0.00	0.00	0.00	0	
Oneida	Kawaguesaga	1542300	670	C-ST	34	322	0.48	0	0.0000	0.05	0.00	0.01	0.00	0	
Oneida	Minocqua	1542400	1360	C-ST	34	285	0.21	0	0.0000	0.01	0.00	0.00	0.00	0	
Lincoln	Mohawksin	1515400	1515	C-ST	40	609	0.40	17	0.0112	0.05	0.00	0.01	0.00	1	42.00
Vilas	Palmer	2962900	635	C-	34	636	1.00	4	0.0063	0.09	0.00	0.04	0.00	1	43.20
Vilas	Plum	1592400	1033	C-	34	42	0.04	0	0.0000	0.00	0.00	0.00	0.00	0	
Vilas	Snipe	1018500	239	NR	34	113	0.47	0	0.0000	0.07	0.00	0.03	0.00	0	
Vilas	Tenderfoot	2962400	437	NR	40	413	0.95	0	0.0000	0.07	0.00	0.04	0.00	0	
Oneida	Tomahawk	1542700	3392	C-ST	34	273	0.08	0	0.0000	0.01	0.00	0.00	0.00	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	Silver	1881100	337	681	2.02	162	0.48	0.10	0.05	0.07	0.02	16	22.1
Bayfield	Diamond	2897100	341	1249	3.66	34	0.10	0.42	0.02	0.29	0.01	9	24.0
Burnett	Big Sand	2676800	1400	7190	5.14	286	0.20	0.93	0.06	0.41	0.02	14	19.2
Douglas	Upper St Croix	2747300	855	2708	3.17	664	0.78	0.16	0.06	0.08	0.02	142	20.8
Iron	Trude	2295200	792	30	0.04	14	0.02			0.03	0.01	2	24.5
Iron	Trude	2295200	792	64	0.08	24	0.03	0.04	0.00	0.03	0.01	2	25.2
Iron	Turtle Flambeau Fl	2294900	13122	432	0.03	181	0.01			0.02	0.01	8	25.2
Iron	Turtle Flambeau Fl	2294900	13122	11634	0.89	582	0.04	0.51	0.04	0.12	0.01	66	20.9
Sawyer	Grindstone	2391200	3111	416	0.13	214	0.07	0.05	0.05	0.01	0.00	57	25.1
Oneida	Kawaguesaga	1542300	670	1577	2.35	429	0.64	0.15	0.09	0.05	0.01	67	27.3
Oneida	Minocqua	1542400	1360	2638	1.94	534	0.39	0.07	0.03	0.04	0.01	91	24.3
Lincoln	Mohawksin	1515400	1515	6246	4.12	646	0.43	0.14	0.03	0.05	0.01	31	23.4
Vilas	Palmer	2962900	635	2748	4.33	370	0.58	0.22	0.09	0.13	0.02	109	22.1
Vilas	Plum	1592400	1033	2615	2.53	346	0.33	0.18	0.05	0.10	0.05	116	20.3
Vilas	Snipe	1018500	239	6	0.03	0	0.00	0.00	0.00	0.01	0.00	0	
Vilas	Tenderfoot	2962400	437	773	1.77	92	0.21	0.62	0.00	0.07	0.01	13	22.1
Oneida	Tomahawk	1542700	3392	819	0.24	177	0.05	0.05	0.03	0.01	0.00	35	25.5

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	Silver	1881100	337	2983	8.85	77	0.23	0.61	0.02	0.44	0.01	14	15.81
Bayfield	Diamond	2897100	341	1065	3.12	10	0.03	0.34	0.00	0.25	0.00	2	18.90
Burnett	Big Sand	2676800	1400	39	0.03	0	0.00	0.11	0.00	0.01	0.00	0	
Douglas	Upper St Croix	2747300	855	3095	3.62	119	0.14	0.58	0.03	0.13	0.01	19	14.56
Iron	Trude	2295200	792	0	0.00		0.00					0	
Iron	Trude	2295200	792	277	0.35	0	0.00	0.70	0.00	0.14	0.00	0	
Iron	Turtle Flambeau Fl	2294900	13122	20	0.00	0	0.00			0.00	0.00	0	
Iron	Turtle Flambeau Fl	2294900	13122	16393	1.25	558	0.04	0.45	0.03	0.45	0.01	67	16.50
Sawyer	Grindstone	2391200	3111	10849	3.49	411	0.13	0.80	0.02	0.30	0.01	58	15.62
Oneida	Kawaguesaga	1542300	670	3790	5.66	197	0.29	0.40	0.03	0.15	0.01	16	16.59
Oneida	Minocqua	1542400	1360	4337	3.19	0	0.00	0.36	0.00	0.09	0.00	0	
Lincoln	Mohawksin	1515400	1515	6422	4.24	176	0.12	0.31	0.00	0.07	0.00	7	15.00
Vilas	Palmer	2962900	635	119	0.19	4	0.01	0.65	0.00	0.01	0.00	1	14.60
Vilas	Plum	1592400	1033	1619	1.57	12	0.01	0.25	0.00	0.07	0.00	2	20.20
Vilas	Snipe	1018500	239	13	0.05	0	0.00	0.80	0.00	0.01	0.00	0	
Vilas	Tenderfoot	2962400	437	1329	3.04	67	0.15	0.57	0.07	0.12	0.01	11	16.06
Oneida	Tomahawk	1542700	3392	51333	15.13	1085	0.32	0.96	0.03	0.61	0.01	71	14.27

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	Silver	1881100	337	4147	12.31	125	0.371	0.85	0.02	0.58	0.02	21	14.15
Bayfield	Diamond	2897100	341	3525	10.34	81	0.238	1.08	0.03	0.84	0.02	20	15.88
Burnett	Big Sand	2676800	1400	12381	8.84	200	0.143	1.28	0.03	0.70	0.01	17	14.52
Douglas	Upper St Croix	2747300	855	1316	1.54	200	0.234	0.16	0.03	0.04	0.01	52	15.29
Iron	Trude	2295200	792	0	0.00	0	0.000					0	
Iron	Trude	2295200	792	0	0.00	0	0.000					0	
Iron	Turtle Flambeau Fl	2294900	13122	0	0.00	0	0.000					0	
Iron	Turtle Flambeau Fl	2294900	13122	219	0.02	0	0.000	0.08	0.00	0.08	0.00	0	
Sawyer	Grindstone	2391200	3111	207	0.07	22	0.007	0.12	0.00	0.01	0.00	3	16.17
Oneida	Kawaguesaga	1542300	670	7682	11.47	161	0.24	0.76	0.03	0.28	0.01	16	17.33
Oneida	Minocqua	1542400	1360	21410	15.74	68	0.05	1.09	0.00	0.29	0.00	7	15.83
Lincoln	Mohawksin	1515400	1515	539	0.36	0	0.00	0.03	0.00	0.01	0.00	0	
Vilas	Palmer	2962900	635	466	0.73	5	0.01	0.31	0.00	0.03	0.00	2	16.65
Vilas	Plum	1592400	1033	74	0.07	0	0.00	0.03	0.00	0.00	0.00	0	
Vilas	Snipe	1018500	239	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0	
Vilas	Tenderfoot	2962400	437	321	0.73	33	0.08	0.30	0.03	0.03	0.00	6	16.03
Oneida	Tomahawk	1542700	3392	22815	6.73	533	0.16	0.53	0.01	0.25	0.01	53	14.01

Appendix E. WDNR Walleye Population Estimates Accepted For Use by the Treaty TWG in 2009.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	Adult PE	CV Adult PE	L 95 C.I. Adults	Adult PE/Acre	Adult 0-12"	Adult 12-15"	Adult 15-20"	Adult 20+"
1515400	Lincoln	Mohawksin	1,910	15	NR	9,063	0.09	7,513	4.75	1,817	4,725	2,209	312
1589300	Oneida	Gilmore	320	15	ST	500	0.33	173	1.56	1	5	348	146
1542300	Oneida	Kawaguesaga	670	15	NR	2,274	0.08	1,913	3.39	18	731	1,094	431
1542400	Oneida	Minocqua	1,360	15	C-NR	2,764	0.17	1,858	2.03	4	381	944	1,435
1019500	Oneida	Squash	396	1>14	NR-2	809	0.07	698	2.04	3	129	646	30
1542701	Oneida	Tomahawk Chain	3,552	15	C-ST	4,321	0.12	3,297	1.22	1	25	1,610	2,685
2338800	Vilas	Big Crooked	682	none	NR	1,758	0.18	1,133	2.58	46	141	1,086	484
983600	Vilas	Erickson	106	15	ST	265	0.09	219	2.5	1	6	245	13
2339900	Vilas	Escanaba	293	28	NR	2,313	0.09	1,925	7.89	59	843	1,269	141
2343200	Vilas	Fishtrap	329	1>14	NR-2	730	0.18	469	2.22	9	455	178	88
2344000	Vilas	High	734	1>14	NR	1,148	0.20	708	1.56	3	515	240	390
2962900	Vilas	Palmer	635	15	C-ST	509	0.19	318	0.8	6	77	202	224
1592400	Vilas	Plum	1,033	Slot 14-18	C-NR	4,964	0.07	4,328	4.81	468	2,634	1,770	91
1018500	Vilas	Snipe	239	15	NR	626	0.13	469	2.62	200	59	352	15
2962400	Vilas	Tenderfoot	437	15	NR	3,528	0.16	2,446	8.07	745	1,877	714	192
470600	Oconto	John Lake	104	15	O-ST	49	0.10	40	0.47	1	1	19	28
2100300	Barron	Duck	100	15	NR	544	0.10	435	5.44	4	232	296	12
1881100	Barron	Silver	337	15	C-NR	588	0.12	450	1.74	1	230	253	104
2899200	Bayfield	Cisco	95	15	ST	107	0.24	56	1.13	1	3	15	88
2897300	Bayfield	Crystal	111	15	C-NR	278	0.18	181	2.5	1	6	235	36
2676800	Burnett	Big Sand	1,400	15	O-ST	37	0.31	14	0.03	1	1	12	23
2747300	Douglas	Upper St C	855	15	C-NR	2,570	0.08	2,189	3.01	3	924	1,543	100
2694000	Douglas	Whitefish	832	15	NR	2,618	0.20	1,598	3.15	2	423	2,129	64
2295200	Iron	Trude	781	none	NR	4,437	0.03	4,166	5.68	1,193	2,396	771	78
2294900	Iron	Turtle Fla	13,545	none	NR	54,208	0.03	51,468	4	5,016	30,605	16,727	1,860
2615100	St. Croix	Cedar	1,100	Slot 14-18	NR	5,838	0.08	4,985	5.31	12	2,872	2,943	11
2391200	St. Croix	Grindstone	3,111	Slot 14-18	C-NR	5,891	0.07	5,135	1.89	342	3,522	1,547	480
2106800	Washburn	Long	3,290	15	C-ST	6,915	0.07	6,013	2.1	8	1,810	3,586	1,511

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	PE - Males	CV Male PE	PE - Females	CV Female PE	M:F Ratio
1515400	Lincoln	Mohawksin	1,910	15	NR	7,243	0.13	2,036	0.19	3.56
1589300	Oneida	Gilmore	320	15	ST	30	0.46	216	0.24	0.14
1542300	Oneida	Kawaguesaga	670	15	NR	1,362	0.08	1,044	0.22	1.30
1542400	Oneida	Minocqua	1,360	15	C-NR	892	0.14	1,890	0.26	0.47
1019500	Oneida	Squash	396	1>14	NR-2	610	0.07	282	0.37	2.16
1542701	Oneida	Tomahawk Chain	3,552	15	C-ST	1,647	0.10	2,607	0.22	0.63
2338800	Vilas	Big Crooked	682	none	NR	858	0.08	918	0.35	0.93
983600	Vilas	Erickson	106	15	ST	164	0.10	102	0.16	1.61
2339900	Vilas	Escanaba	293	28	NR	1,238	0.09	799	0.17	1.55
2343200	Vilas	Fishtrap	329	1>14	NR-2	458	0.24	341	0.43	1.34
2344000	Vilas	High	734	1>14	NR	632	0.11	592	0.39	1.07
2962900	Vilas	Palmer	635	15	C-ST	145	0.20	442	0.33	0.33
1592400	Vilas	Plum	1,033	Slot14-18	C-NR	3,976	0.07	1,490	0.29	2.67
1018500	Vilas	Snipe	239	15	NR	467	0.15	141	0.28	3.31
2962400	Vilas	Tenderfoot	437	15	NR	2,890	0.18	853	0.50	3.39
470600	Oconto	John Lake	104	15	O-ST	35	0.14	18	0.00	1.94
2100300	Barron	Duck	100	15	NR	486	0.10	66	0.49	7.36
1881100	Barron	Silver	337	15	C-NR	451	0.11	186	0.51	2.42
2899200	Bayfield	Cisco	95	15	ST	94	0.24	9	0.00	10.44
2897300	Bayfield	Crystal	111	15	C-NR	204	0.20	64	0.29	3.19
2676800	Burnett	Big Sand	1,400	15	O-ST	17	0.00	21	0.43	0.81
2747300	Douglas	Upper St C	855	15	C-NR	1,533	0.07	1,213	0.24	1.26
2694000	Douglas	Whitefish	832	15	NR	2,325	0.20	138	0.36	16.85
2295200	Iron	Trude	781	none	NR	3,746	0.03	2,116	0.35	1.77
2294900	Iron	Turtle Fla	13,545	none	NR	43,840	0.03	19,971	0.15	2.20
2615100	St. Croix	Cedar	1,100	Slot14-18	NR	5,160	0.08	334	0.42	15.45
2391200	St. Croix	Grindstone	3,111	Slot14-18	C-NR	5,367	0.07	1,155	0.49	4.65
2106800	Washburn	Long	3,290	15	C-ST	4,867	0.05	2,349	0.29	2.07

Appendix F. Muskellunge Population Estimates.

Muskellunge population estimates were conducted over two years and completed in spring 2009; They represent 2008 population sizes. In year one, all sexable fish plus unknowns ≥ 30" are counted. In year two, all sexable fish plus unknowns ≥ 32" are counted, except take the lesser of 30" or the smallest half-inch group observed for each sex in the first year; for the second year, do not count sexable fish less than this minimum length plus 2", or plus a different growth correction derived from the data for the lake. No stratification by length or sex is used, and the Chapman correction of the Petersen estimator is used, (M+1)(C+1)/(R+1).

MWBC	County	Lake	Acres	Angler Regulation (Min Size)	Recruit Code	Adult PE	CV of PE	Density #/Acre
1545600	Vilas	Big Arbor Vitae	1,090	34	C-	642	14.8	0.59
2954800	Vilas	Oxbow	511	34	NR	95	36.5	0.19

Appendix G. 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
Potter	Ashland	2917200	29	NR	natural	10/20/2009	46	0.9	0.9	100	0				0.00	0.00	0.00	0				0.00	N
Spillerberg	Ashland	2936200	75	NR	natural	10/20/2009	46	1.5	1.5	100	33	3.9	5.4	4.7	22.00	5.15	4.34	12	8.4	10.8	NONE	8.00	N
Beaver Dam	Barron	2081200	1112	C-ST	stocked	10/13/2009	49	18.0	9.9	55	57	5.0	8.4	6.0-6.4	5.76	NA	NA	1	10.5	10.9	NONE	0.10	B
Duck	Barron	2100300	100	NR	natural	10/11/2009	50	1.5	1.5	100	8	6.0	7.4	6.5-6.9	5.33	1.25	0.47	0				0.00	N
Silver	Barron	1881100	337	C-NR	natural	10/08/2009	57	4.4	4.4	100	31	4.6	6.6	NONE	7.05	1.65	0.73	0				0.00	N
Cisco	Bayfield	2899200	95	ST	stocked	09/17/2009	71-72	2.9	2.9	100	11	5.5	6.9	6.0-6.4	3.79	NA	NA	0				0.00	B
Crystal	Bayfield	2897300	111	C-NR	natural	10/07/2009	54-56	2.5	2.5	100	1	4.9	4.9	NONE	0.40	0.09	0.01	0				0.00	N
Middle Eau Claire	Bayfield	2742100	902	C-NR	natural	09/30/2009	61-62	11.0	7.7	70	468	3.2	6.8	4.5	60.78	NA	NA	77	7.2	10.3	8.2	10.00	N
Big Sand	Burnett	2676800	1400	0-ST	remnant	09/29/2009	57	7.6	7.6	100	0				0.00	0.00	0.00	0				0.00	N
Lipsett	Burnett	2678100	393	ST	stocked	10/08/2009	54	3.5	3.5	100	0				0.00	0.00	0.00	1	11.7	11.7	NONE	0.29	N
Holcombe Fl	Chippewa	2184900	3890	NR	natural	10/07/2009	53	60.8	11.1	18	1000	5.0	8.8	6.7	90.09	NA	NA						N
Upper St. Croix	Douglas	2747300	855	C-NR	natural	10/05/2009	57	10.0	10.0	100	28	5.3	7.8	NONE	2.80	0.66	0.17	0				0.00	B
Tainter	Dunn	2068000	1752	NR	natural	10/14/2009	48	25.7	2.9	11	101	5.0	7.4	5.9	34.83	NA	NA						N
Lost	Florence	588000	92	O	#N/A	09/15/2009	72	2	2	100	0				0	NA	NA	0				0.0	N
Gordon	Forest	501800	50	REM	remnant	09/23/2009	69	1	1	100	0				0	NA	NA	0				0.0	N
Range Line	Forest	478200	82	C-ST	stocked	09/23/2009	69	1	1	100.0	6	6	7.4		4.62	1.08	0.38	0				0.0	N
Grand Portage	Iron	2314100	144	ST	stocked	10/01/2009	57	3.1	3.1	100	0				0.00	0.00	0.00	0				0.00	N
North Bass	Iron	1868900	180	0-ST	remnant	10/13/2009	38	2.4	2.4	100	0				0.00	NA	NA	0				0.00	N
Pine	Iron	2949200	312	NR	natural	09/29/2009	57-60	6.0	6.0	100	117	4.1	6.5	5.1	19.50	NA	NA	54	6.7	8.4	NONE	9.00	N
Trude	Iron	2295200	792	NR	natural	10/01/2009	58-60	15.1	5.7	38	916	3.2	7.5	4.3	160.70	NA	NA	41	7.7	10.5	8.6	7.19	N
Turtle-Flambeau	Iron	2294900	13122	NR	natural	09/30/2009	52-62	206.3	6.7	3	1436	2.9	6.9	4.1-4.4	214.33	NA	NA	55	7.4	10.7	8.6	8.21	N
Mary	Langlade	496300	156	O	#N/A	09/24/2009	67	2	2	100.0	0				0.00	0.00	0.00	0				0.0	N
Rose	Langlade	494200	112	C-ST	stocked	09/24/2009	50	7	7	100.0	0				0.00	NA	NA	0				0.0	N
Mohawksin	Lincoln	1515400	1910	NR	natural	10/07/2009	52	35	24	68.3	238	4.3	8.8	5.6, 8.2	9.92	NA	NA	60	8.9	10.7	9.7	2.5	N
Archibald	Oconto	417400	393	C-ST	stocked	10/20/2009	47	9	5	51.1	1	6.8	6.8		0.22	NA	NA	0				0.0	N
Bass	Oconto	417900	142	C-NR	natural	10/19/2009	49	3	3	100.0	0				0.00	0.00	0.00	4	8.0	8.4		1.5	B
Bear & Munger	Oconto	471200/47090(	174	O-ST	remnant	09/29/2009	55	4	4	100.0	0				0.00	0.00	0.00	0				0.0	N
Boot	Oconto	418700	235	C-NR	natural	10/27/2009	45	4	4	94.7	1	6.4	6.4		0.28	0.07	0.00	0				0.0	N
John	Oconto	470600	104	O-ST	remnant	09/30/2009	57	2	2	100.0	0				0.00	0.00	0.00	0				0.0	N
Waubee	Oconto	439500	124	O-ST	remnant	10/01/2009	59	3	3	100.0	0				0.00	0.00	0.00	0				0.0	A
Gilmore	Oneida	1589300	320	ST	stocked	09/08/2009	69	4	4	100.0	0				0.00	NA	NA	0				0.0	B
Kawaguesaga	Oneida	1542300	670	NR	natural	09/30/2009	58	11	11	97.3	7	5.6	6.4		0.65	0.15	0.02	2	10.0	10.5		0.2	N
Minocqua	Oneida	1542400	1360	C-NR	natural	10/01/2009	58	19	19	100.0	17	5.4	7		0.89	NA	NA	0				0.0	N
Moen	Oneida	1573800	460	NR	natural	09/17/2009	68	4	4	100.0	0				0.00	NA	NA	0				0.0	N
North Nokomis	Oneida	1595800	476	ST	stocked	09/21/2009	68	7	6	86.3	61	5.9	7.7	6.5	9.68	2.27	1.20	0				0.0	B
Shishebogama	Oneida	1539600	716	C-ST	stocked	09/09/2009	69	10	10	100.0	1	6.5	6.9		0.10	0.02	0.00	0				0.0	B
Squash	Oneida	1019500	396	NR-2	remnant	09/22/2009	69	7	7	94.6	5	4.9	5.5		0.71	0.17	0.02	0				0.0	N
Squirrel	Oneida	1536300	1317	NR	natural	10/27/2009	44	14	7	50.4	0				0.00	NA	NA	0				0.0	N
Thunder	Oneida	1618100	1768	C-ST	stocked	09/14/2009	73	11	11	100.0	14	4.1	8.2	5.4	1.32	0.31	0.05	2	9.4	9.4		0.2	B
Tomahawk	Oneida	1542700	3392	C-ST	stocked	10/19/2009	50	30	30	100.0	1	7	7.4		0.03	0.01	0.00	0				0.0	N
Two Sisters	Oneida	1588200	719	C-NR	natural	09/29/2009	60	9	9	100.0	309	5.1	7.8	6.8	33.23	7.77	8.27	0				0.0	B
Balsam	Polk	2620600	2054	C-ST	stocked	10/15/2009	44-51	22.7	22.7	100	0				0.00	0.00	0.00	2	9.1	9.6	NONE	0.09	N
Big Butternut	Polk	2641000	378	C-ST	stocked	09/30/2009	61	3.4	3.4	100	10	5.5	7.4	6.5-6.9	2.94	0.69	0.19	0				0.00	B
Halfmoon	Polk	2621100	579	ST	stocked	10/07/2009	58	7.1	7.1	100	1	9.0	9.4	NONE	0.14	0.03	0.00	4	11.0	11.9	11.5-11.9	0.56	B/A
North Twin	Polk	2623900	135	0-ST	remnant	09/29/2009	60	2.5	2.5	100	0				0.00	0.00	0.00	17	8.5	12.9	10.5-10.9	6.80	B
Pike	Polk	2624000	159	0-ST	remnant	09/29/2009	60	4.7	2.1	45	0				0.00	NA	NA	10	7.0	10.9	9.0-9.4	4.76	B
Pipe	Polk	2490500	284	C-NR	natural	10/04/2009	60	5.0	4.4	88	35	5.5	7.9	6.0-6.4	7.95	NA	NA	0				0.00	B
Ward	Polk	2599400	91	ST	stocked	10/08/2009	57	2.3	2.3	100	0				0.00	0.00	0.00	7	9.0	10.9	10.0-10.4	3.04	N

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
Patterson	Price	1872500	70		#N/A	09/29/2009	60	1.8	1.8	100	19	4.0	4.7	NONE	10.56	NA	NA	0				0.00	B
Riley	Price	2263400	182	NONE	none	09/21/2009	71	2.5	2.5	100	0				0.00	NA	NA	0				0.00	N
Whitcomb	Price	2266100	44	ST	stocked	10/07/2009	53	1.7	1.7	100	0				0.00	0.00	0.00	0				0.00	N
Fishtrap	Sawyer	2401100	216	REM	remnant	10/13/2009	40-43	6.8	3.7	54	0				0.00	NA	NA	1	10.1	10.1	NONE	0.27	N
Ghost	Sawyer	2423000	372	C-ST	stocked	10/05/2009	52	7.3	2.7	37	24	5.6	7.7	6.2	8.89	NA	NA	0				0.00	B
Grindstone	Sawyer	2391200	3111	C-NR	natural	10/07/2009	53-58	10.5	10.5	100	388	3.7	7.1	4.7	36.95	8.65	9.76	43	7.3	10.2	NONE	4.10	N
Chippewa	Sawyer	2399700	15300	C-NR	natural	10/06/2009	54	232.9	3.5	2	0				0.00	NA	NA	-->					N
Lac Courte Oreilles	Sawyer	2390800	5039	C-NR	natural	09/30/2009	61-63	25.4	7.5	30	907	4.0	7.9	5.5-5.9	120.93	NA	NA	-->					B
Lower Clam	Sawyer	2429300	203	C-ST	stocked	10/08/2009	52	4.2	4.0	95	8	6.4	7.6	NONE	2.00	0.47	0.10	2	9.8	10.0	NONE	0.50	B
Nelson	Sawyer	2704200	2503	C-ST	stocked	9/17,21,23/20(	71-74	31.4	6.4	20	143	4.9	8.1	6.0	22.34	NA	NA	5	8.7	11.1	NONE	0.78	B/A
Teal	Sawyer	2417000	1049	NR	natural	09/29/2009	60-62	11.8	4.2	36	0				0.00	NA	NA	-->					N
Cedar	St. Croix	2615100	1100	NR	natural	10/13/2009	52	6.3	4.3	68	138	6.2	8.7	7.6	32.09	NA	NA						N
Big Arbor Vitae	Vilas	1545600	1090	NR	natural	10/08/2009	51	8	8	100.0	679	4.1	6.9	5.2	87.05	20.37	37.29	7	8.5	9.9		0.9	N
Big Crooked	Vilas	2338800	682	NR	natural	09/22/2009	67	5	5	100.0	28	4	6.6	5.8	5.60	1.31	0.51	114	7.5	10.5	8.6	22.8	N
Big Muskellunge	Vilas	1835300	930	NR	natural	10/20/2009	49	10	10	100.0	123	3.9	7.1	5	12.06	2.82	1.69	16	7.4	9.5		1.6	B
Circle Lily	Vilas	2326700	223	C-ST	stocked	09/08/2009	66	4	4	100.0	3	5.2	5.5		0.79	0.18	0.02	2	8.7	9.1		0.5	N
Dead Pike	Vilas	2316600	297	C-ST	stocked	10/04/2009	54	4	3	80.7	0				0.00	0.00	0.00	7	7.8	9.9		2.3	N
Erickson	Vilas	983600	106	ST	stocked	10/22/2009	48	2	2	85.7	0				0.00	0.00	0.00	0				0.0	B
Escanaba	Vilas	2339900	293	NR	natural	09/21/2009	69	5	5	100.0	127	3	6.5	4.5	24.42	5.72	5.11	36	7.0	9.5	8.5	6.9	N
Fishtrap	Vilas	2343200	329	NR-2	remnant	10/13/2009	51	6	6	100.0	7	5.2	7.4		1.25	0.29	0.05	0				0.0	N
High	Vilas	2344000	734	NR	natural	10/13/2009	50	9	9	100.0	0				0.00	0.00	0.00	0				0.0	N
Long	Vilas	1602300	872	C-ST	stocked	09/16/2009	67	8	8	95.1	12	6.1	8.3		1.54	0.36	0.07	16	8.5	9.9	9.2	2.1	A
Palmer	Vilas	2962900	635	C-ST	stocked	09/29/2009	50	7	6	89.6	0				0.00	0.00	0.00	0				0.0	N
Plum	Vilas	1592400	1033	NR	natural	10/14/2009	49	15	15	100.0	343	2.9	7.6	4.3	23.66	5.54	4.86	87	7.7	9.8	8.8	6.0	N
Snipe	Vilas	1018500	239	NR	natural	09/30/2009	53	4	4	100.0	155	4.7	8.9	7.8	44.29	10.36	12.96	17	9.0	10.0		4.9	N
Sparkling	Vilas	1881900	154	C-ST	stocked	09/09/2009	68	2	2	95.8	0				0.00	0.00	0.00	9	5.9	10.4		3.9	A
Sugar Maple	Vilas	1632200	137	REM	remnant	09/30/2009	58	3	3	100.0	0				0.00	0.00	0.00	0				0.0	N
Tenderfoot	Vilas	2962400	437	NR	natural	09/29/2009	58	7	6	92.4	5	4.9	8.5		0.82	0.19	0.03	0				0.0	N
Trout	Vilas	2331600	3816	C-ST	stocked	10/20/2009	47	18	18	100.0	91	4.3	7.2	5.6	5.08	1.19	0.44	2	8.9	9.4		0.1	B
Vandercook	Vilas	1176400	95	NONE	none	09/08/2009	70	2	2	100.0	0				0.00	NA	NA	0				0.0	N
Nancy	Washburn	2691500	772	C-ST	stocked	10/07/2009	56	10.9	3.9	36	0				0.00	NA	NA	0				0.00	N
Long	Washburn	2106800	3290	C-ST	stocked	10/14,15/2009	50	38.0	9.6	25	12	5.5	8.9	6.0-6.4	1.25	NA	NA	0				0.00	B/A
Middle Mckenzie	Washburn	2706500	530	C-ST	stocked	09/30/2009	64	4.1	4.1	100	1	7.0	7.0	NONE	0.24	0.06	0.00	0				0.00	N

Appendix H. Walleye Exploitation Rates.

H-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.

							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"
2009	1881100	Barron	Silver	337	C-NR	15	LV	311	280	51	7	21	7	21	2	6
2009	2676800	Burnett	Big Sand	1,400	0-ST	15		20	20	10	0	0	0	0	0	0
2009	2747300	Douglas	Upper St Croix	855	C-NR	15	RV	692	594	39	26	168	26	168	0	0
2009	2295200	Iron	Trude*	792	NR	none	RV	2,233	629	25	30	368	16	196	1	12
2009	2294900	Iron	Turtle Flambeau Fl*	13,122	NR	none	LV	11,442	6,542	276	92	920	54	540	4	40
2009	1515400	Lincoln	Mohawksin	1,515	NR	15	RV	2,120	840	77	4	81	4	81	0	0
2009	1542300	Oneida	Kawaguesaga	670	NR	15	RV	835	715	149	12	67	12	67	2	11
2009	1542400	Oneida	Minocqua	1,360	C-NR	15	RP	670	605	279	7	53	7	53	2	15
2009	1542700	Oneida	Tomahawk	3,392	C-ST	15	LV	1,136	1,131	722	4	32	4	32	2	16
2009	2391200	Sawyer	Grindstone	3,111	C-NR	14-18 slot	AN	1,293	907	159	15	93	11	68	4	25
2009	2962900	Vilas	Palmer	635	C-ST	15	RV	171	155	68	13	45	13	45	3	10
2009	1592400	Vilas	Plum	1,033	NR	14-18 slot	LP	1,523	867	57	19	103	3	16	2	11
2009	1018500	Vilas	Snipe	239	NR	15	RP	352	228	14	36	116	36	116	1	3
2009	2962400	Vilas	Tenderfoot	437	NR	15	LV	682	323	47	4	18	4	18	2	9

* Combines data from separate Winter (busroute) and Open water (Standard) creels to get single exploitation estimate.

H-2. Estimated angler and tribal harvest and associated walleye exploitation rates for lakes surveyed during the 2008/2009 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	Silver	337	588	151	79	230	0.0675	0.0750	0.1176	0.1344	0.2019
Burnett	Big Sand	1400	37	8	0	8	0.0000	0.0000	0.0000	0.0000	0.0000
Douglas	Upper St Croix	855	2570	787	194	981	0.2428	0.2828	0.0000	0.0755	0.3183
Iron	Trude**	792	4,437	1725	45	1770	0.1648	0.3120	0.4907	0.0101	0.1749
Iron	Turtle Flambeau Fl**	13122	54,208	12167	1792	13959	0.0804	0.0825	0.1449	0.0331	0.1135
Lincoln	Mohawksin	1515	9063	626	307	933	0.0382	0.0964	0.0000	0.0339	0.0721
Oneida	Kawaguesaga	670	2274	1641	140	1781	0.0802	0.0937	0.0749	0.0616	0.1418
Oneida	Minocqua	1360	2764	164	275	439	0.0791	0.0876	0.0543	0.0995	0.1786
Oneida	Tomahawk	3392	4126	255	199	454	0.0282	0.0283	0.0222	0.0482	0.0764
Sawyer	Grindstone	3111	5891	1948	318	2266	0.0719	0.0752	0.1560	0.0540	0.1259
Vilas	Palmer	635	509	343	0	343	0.2632	0.2903	0.1527	0.0000	0.2632
Vilas	Plum	1033	4964	701	210	911	0.0676	0.0188	0.1902	0.0423	0.1099
Vilas	Snipe	239	626	356	52	408	0.3295	0.5088	0.2302	0.0831	0.4126
Vilas	Tenderfoot	437	3528	236	0	236	0.0264	0.0557	0.1915	0.0000	0.0264

Appendix I. Safe harvest of walleye and musky calculated for individual lakes within the Wisconsin Ceded Territory during 2009.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Ashland	Augustine L	2410400	166			Other	7
Ashland	Bear L	2403200	204	Other	82	Other	8
Ashland	Beaver Dam L	2916700	118			Other	6
Ashland	Beaver L	2935400	25			Other	2
Ashland	Cub L	1842600	31			Other	2
Ashland	Day L	2430300	641			Other	16
Ashland	E Twin L	2429000	110			Other	5
Ashland	English L	2914800	244	Other	33	Other	9
Ashland	Eureka L	2935600	39			Other	3
Ashland	Gordon L	2406500	142	Other	58	Other	6
Ashland	L Galilee	2935500	213	Other	12	Other	8
Ashland	Meder L	2935300	135	Other	19		
Ashland	Mineral L	2916900	225	Other	90	Other	8
Ashland	Moquah L	2918200	50			Other	3
Ashland	Pelican L	2404800	46	Other	19	Other	3
Ashland	Potter L	2917200	29	Other	12		
Ashland	Spider L	2918600	103	Other	7	Other	5
Ashland	Spillerberg L	2936200	75	1-2 Year Pe	41	Other	4
Ashland	Tea L	2922700	50	Other	21		
Ashland	Torrey L	2406700	29			Other	2
Ashland	Upper Clam L	2429600	165	Other	23	Other	7
Ashland	Zielke L	2406900	21	Other	9		
Barron	Bass L	1832800	118	Other	8		
Barron	Bear L	2105100	1358	1-2 Year Pe	81		
Barron	Beaver Dam L	2081200	1112	Other	127		
Barron	Big Dummy L	1835100	111	Other	16		
Barron	Big Moon L	2079000	191	1-2 Year Pe	13	Other	7
Barron	Butternut L	2105800	141	Other	9		
Barron	Duck L	2100300	100	Other	41		
Barron	Echo L	2630200	161	Other	10		
Barron	Granite L	2100800	154	Other	62		
Barron	Horseshoe L	2469800	115	Other	16		
Barron	Horseshoe L	2630100	377	Other	18		
Barron	L Chetek	2094000	770	Other	92		
Barron	L Montanis	2103200	200	Other	27		
Barron	Little Sand L	2661600	101			Other	5
Barron	Loon L	2478600	94	Other	14		
Barron	Lower Devils L	1864000	162	Other	65		
Barron	Lower Turtle L	2079700	276	Other	36		
Barron	Lower Vermillion L	2098200	208	Other	28		
Barron	Minnow L	1866600	26	Other	3		
Barron	Mud L	2094600	577	Other	71		
Barron	Pokegama L	2094300	506	Other	196		
Barron	Poskin L	2098000	150	Other	21		
Barron	Prairie L	2094100	1534	Other	170		
Barron	Red Cedar L	2109600	1841	Other	673		
Barron	Rice L	2103900	939			1-2 Year Pe	17
Barron	Sand L	2661100	322	Other	42	Other	10
Barron	Scott L	2630700	81	Other	6		
Barron	Silver L	1881100	337	Other	133		
Barron	Spring L	1882800	60	Other	25		
Barron	Staples L	2631200	305	Other	40		
Barron	Tenmile L	2089500	376	Other	18		
Barron	Upper Devils L	2043500	86	Other	6		
Barron	Upper Turtle L	2079800	438	1-2 Year Pe	48		
Bayfield	Armstrong L	2754600	48	Other	20		
Bayfield	Atkins L	2734000	176	Other	71		
Bayfield	Bellevue L	2755800	65	Other	5		
Bayfield	Bladder L	2756200	81	Other	33		
Bayfield	Bony L	2742500	191	1-2 Year Pe	60	Other	7
Bayfield	Buffalo L	1837700	190	Other	11	Other	7
Bayfield	Buskey Bay	2903800	100			Other	5

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Bayfield	Camp One L	2965700	37	Other	16		
Bayfield	Chippewa L	2431300	274			Other	9
Bayfield	Cisco L	2899200	95	Other	14		
Bayfield	Cranberry L	2732800	58	Other	5		
Bayfield	Crystal L	2874700	94	Other	7		
Bayfield	Crystal L	2897300	111	Other	45		
Bayfield	Deep L	2760100	125	Other	8		
Bayfield	Diamond L	2897100	341	Other	44		
Bayfield	Drummond L	2899400	99	Other	14		
Bayfield	Eagle L	2902900	170	Other	10	Other	7
Bayfield	Everett L	2761600	34	Other	3		
Bayfield	Finger L	2965500	76	Other	6		
Bayfield	Flynn L	2902800	29	Other	3	Other	2
Bayfield	Ghost L	2423900	142			Other	6
Bayfield	Hammil L	2467900	83	Other	6		
Bayfield	Hart L	2903200	259			Other	9
Bayfield	Hildur L	2902600	67			Other	4
Bayfield	Iron L	2877000	248	Other	14		
Bayfield	Jackson L	2734200	142	Other	9		
Bayfield	Kelly L	2472000	56	Other	5		
Bayfield	Kern L	2900500	91	Other	37		
Bayfield	L Millicent	2903700	183			Other	7
Bayfield	L Owen	2900200	1323	1-2 Year Pe	157		
Bayfield	L Ruth	2765900	66	Other	5		
Bayfield	L Tahkodah	2473500	152	Other	10		
Bayfield	Little Siskiwit L	2882200	37	Other	16		
Bayfield	Long L	2767100	263	Other	35		
Bayfield	Marengo L	2921100	99	Other	41		
Bayfield	Mccarry L	2903400	32			Other	2
Bayfield	Middle Eau Claire L	2742100	902	1-2 Year Pe	622	1-2 Year Pe	16
Bayfield	Mill Pond L	2899700	62	Other	26		
Bayfield	Mullenhoff L	2876500	69	Other	5		
Bayfield	Muskellunge L	2903600	45	Other	4		
Bayfield	Namekagon L	2732600	3227	Other	1148	Other	41
Bayfield	Perch L	2770800	25	Other	11		
Bayfield	Samoset L	2494800	46	Other	4		
Bayfield	Siskiwit L	2882300	330	1-2 Year Pe	105		
Bayfield	Spider L	2774200	75	Other	6		
Bayfield	Spider L	2876200	124	Other	8		
Bayfield	Swett L	2743700	88	Other	36		
Bayfield	Trapper L	2734500	84	Other	35		
Bayfield	Twin Bear L	2903100	172			Other	7
Bayfield	Upper Eau Claire L	2742700	996	Other	375	Other	21
Burnett	Big Mckenzie L	2706800	1185	1-2 Year Pe	115	Other	23
Burnett	Big Sand L	2676800	1400	Other	41		
Burnett	Big Trade L	2638700	304			Other	10
Burnett	Clam R Fl	2654500	359	Other	141		
Burnett	Clear L	2457600	115	Other	8		
Burnett	Danbury Fl	2674500	256			Other	9
Burnett	Des Moines L	2674200	229	Other	13	Other	8
Burnett	Devils L	2461100	1001	Other	116		
Burnett	Dunham L	2651800	243	Other	32		
Burnett	Elbow L	2463100	233	Other	13		
Burnett	Lipsett L	2678100	393	1-2 Year Pe	22		
Burnett	Little Mcgraw L	2477000	55	Other	8		
Burnett	Little Trade L	2639300	130			Other	6
Burnett	Little Yellow L	2674800	348	Other	137	Other	11
Burnett	Long L	2674100	251	Other	14		
Burnett	Poquettes L	2491100	97	Other	14		
Burnett	Rice L	2677900	311			Other	10
Burnett	Rooney L	2493100	322	Other	42		
Burnett	Round L	2640100	204	Other	28		
Burnett	Sand L	2495100	962	Other	33		
Burnett	Twenty-Six L	2672500	230			Other	8

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Burnett	Viola L	2598600	285	Other	15		
Burnett	Yellow L	2675200	2287	1-2 Year Pe	1282	Other	34
Chippewa	Axhandle L	2092500	84	Other	6		
Chippewa	Chippewa Falls Fl	2152600	282	Other	112		
Chippewa	Cornell Fl	2181400	577	Other	222	Other	15
Chippewa	Cornell L	2171000	194	Other	11		
Chippewa	Holcombe Fl	2184900	3890	Other	1371	Other	46
Chippewa	L Wissota	2152800	6300	Other	2166	Other	61
Chippewa	Long L	2351400	1052	1-2 Year Pe	868	Other	21
Chippewa	Old Abe L	2174700	1072	Other	402	Other	21
Chippewa	Otter L	2157000	661	Other	80		
Chippewa	Popple L	2173900	90	Other	13		
Chippewa	Round L	2169200	216	Other	29	Other	8
Clark	Mead L	2143900	320	Other	21	Other	5
Douglas	Amnicon L	2858100	426	Other	166	Other	12
Douglas	Bass L	2451700	126	Other	51		
Douglas	Bear L	2857700	49	Other	21	Other	3
Douglas	Beauregard L	2452400	93	Other	38		
Douglas	Bond L	2693700	293	1-2 Year Pe	64		
Douglas	Clear L	2457700	36	Other	15		
Douglas	Dowling L	2858300	154	Other	62	Other	7
Douglas	Hoodoo L	2763900	32	Other	3		
Douglas	L Minnesuing	2866200	432	Other	168		
Douglas	L Nebagamon	2865000	914	Other	107		
Douglas	Leader L	2693800	165	Other	67		
Douglas	Lower Eau Claire L	2741600	802	1-2 Year Pe	209	Other	18
Douglas	Lund L	2480300	75	Other	6		
Douglas	Lyman L	2856400	403	Other	19	Other	12
Douglas	Person L	2488600	172	Other	11		
Douglas	Red L	2492100	258	Other	14		
Douglas	Upper St Croix L	2747300	855	Other	324		
Douglas	Whitefish L	2694000	832	Other	315		
Dunn	Tainter L	2068000	1752	Other	642		
Eau Claire	Altoona L	2128100	840	Other	159	Other	9
Eau Claire	Dells Pond	2149900	739	Other	282	Other	17
Eau Claire	Halfmoon L	2125400	132	Other	19		
Eau Claire	L Eau Claire	2133200	860	Other	163	Other	9
Florence	Emily L	651600	191	Other	26		
Florence	Fay L	677100	282	1-2 Year Pe	24		
Florence	Fisher L	704200	54	Other	5		
Florence	Halsey L	679300	512	Other	22		
Florence	Keyes L	672900	202	1-2 Year Pe	38		
Florence	Patten L	653700	255	Other	101		
Florence	Pine R Fl	651300	127	Other	52		
Florence	Sea Lion L	672300	125	Other	8		
Forest	Arbutus L	181400	161	Other	22		
Forest	Birch L	555500	468	Other	182		
Forest	Butternut L	692400	1292	1-2 Year Pe	146		
Forest	Crane L	388500	337	Other	44		
Forest	Franklin L	692900	892	Other	337		
Forest	Ground Hemlock L	395900	88	Other	13		
Forest	Howell L	691800	177	1-2 Year Pe	43		
Forest	Jungle L	377900	182	1-2 Year Pe	200		
Forest	King L	501700	33	Other	14		
Forest	L Lucerne	396500	1026	Other	118		
Forest	L Metonga	394400	1991	1-2 Year Pe	176		
Forest	Lily L	376900	211	Other	84	Other	8
Forest	Little Long L	190500	102	Other	7		
Forest	Mole L	390600	73	Other	6		
Forest	Pine L	406900	1670	Other	183		
Forest	Quartz L	591000	47			Other	3
Forest	Range Line L	478200	82	Other	12		
Forest	Riley L	557100	213			Other	8
Forest	Roberts L	378400	414	Other	52	Other	12

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Forest	Silver L	555700	320	Other	16	Other	10
Forest	Stevens L	683000	297	1-2 Year Pe	135		
Forest	Trump L	479300	172	Other	24		
Forest	Wabikon L	556900	594			Other	15
Forest	Windfall L	373500	55			Other	3
Iron	Bearskull L	2265100	75	Other	11		
Iron	Big Pine L	2270700	632	Other	242	Other	16
Iron	Boot L	2297800	180	Other	11	Other	7
Iron	Catherine L	2309100	118	Other	17		
Iron	Cedar L	2309700	193	Other	26	Other	8
Iron	Charnley L	1840400	71	Other	6		
Iron	Clear L	2303700	67	Other	5	Other	4
Iron	Echo L	2301800	220	Other	88	Other	8
Iron	Fisher L	2307300	452	Other	57	Other	13
Iron	French L	1849600	92	Other	7	Other	5
Iron	Gile Fl	2942300	3384	Other	1201	Other	42
Iron	Grand Portage L	2314100	144	Other	20	Other	6
Iron	Grant L	2312500	107	Other	8	Other	5
Iron	Hewitt L	2763300	78			Other	4
Iron	Island L	2945500	352	Other	45	Other	11
Iron	L Of The Falls	2298300	338	Other	133	Other	11
Iron	L Tahoe	2314000	37	Other	3	Other	3
Iron	Little Martha L	2314700	35	Other	3	Other	3
Iron	Long L	2303500	396	Other	50	Other	12
Iron	Lower Springstead L	2267000	95	Other	39	Other	5
Iron	Martha L	2314300	146	Other	59		
Iron	Mcdermott L	2296500	84	Other	6		
Iron	Mercer L	2313600	184	Other	25	Other	7
Iron	Moose L	2299300	269			Other	9
Iron	Mud L	2316400	56	Other	23		
Iron	Muskie L	2266800	81	Other	33	Other	4
Iron	N Bass L	1868900	180	Other	11	Other	7
Iron	Owl L	2307600	129	Other	18	Other	6
Iron	Oxbow L	2302300	80	Other	33	Other	4
Iron	Pardee L	2308000	206	Other	83	Other	8
Iron	Pike L	2299900	165	Other	67	Other	7
Iron	Pine L	2949200	312	1-2 Year Pe	337	Other	10
Iron	Plunkett L	2325200	48	Other	4		
Iron	Randall L	2318500	115	Other	47	Other	5
Iron	Rice L	2300600	125	Other	51	Other	6
Iron	Sandy Beach L	2316100	111	Other	45		
Iron	Saxon Falls Fl	2941100	41	Other	17	Other	3
Iron	Second Black L	2298600	60	Other	25		
Iron	Spider L	2306300	352	1-2 Year Pe	58	Other	11
Iron	Stone L	2267200	82	Other	6	Other	4
Iron	Third Black L	2298800	68	Other	28		
Iron	Trude L	2295200	781	Other	297	Other	18
Iron	Turtle-Flambeau Fl	2294900	13545	Other	4466	Other	94
Iron	Upper Springstead L	2267100	126	Other	51	Other	6
Iron	Virgin L	2304500	119			Other	6
Iron	Wilson L	2297000	162			Other	7
Langlade	Big Twin L	182200	60	Other	5		
Langlade	Deep Wood L	1445100	72			Other	4
Langlade	Duck L	981500	123	Other	8		
Langlade	Enterprise L	1579700	505	Other	195	Other	14
Langlade	Goto L	348700	28	Other	3		
Langlade	Greater Bass L	1445500	246			Other	9
Langlade	Jessie L	188700	35	Other	3		
Langlade	Lawrence L	997300	50	Other	8		
Langlade	Moccasin L	1005600	110	Other	16	Other	5
Langlade	Mueller L	194000	88	Other	13		
Langlade	Otter L	387200	83	Other	34		
Langlade	Pickerel L	388100	1256	Other	38		
Langlade	Rolling Stone L	389300	672	Other	81		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Langlade	Rose L	494200	112	1-2 Year Pe	50		
Langlade	Sawyer L	198100	149	1-2 Year Pe	63		
Langlade	Summit L	1445600	282	Other	15	Other	10
Langlade	Upper Post L	399200	757	Other	90		
Langlade	Water Power L	1445400	22			Other	2
Langlade	White L	365500	166	Other	10		
Lincoln	Alexander L	1494600	677	Other	26	Other	16
Lincoln	Bass L	969600	100	1-2 Year Pe	7		
Lincoln	Crystal L	979100	109	Other	16		
Lincoln	Deer L	1519600	152	Other	62	Other	6
Lincoln	Grandfather Fl	1502400	223	Other	13		
Lincoln	Grandmother Fl	1503000	119	Other	8		
Lincoln	Jersey City Fl	1516000	433	Other	169	Other	12
Lincoln	L Alice	1555900	1369	Other	508	Other	25
Lincoln	L Mohawksin	1515400	1910	Other	697	Other	30
Lincoln	L Nokomis	1516500	2433			Other	35
Lincoln	Long L	1001000	132	1-2 Year Pe	9		
Lincoln	Merrill Fl	1481100	164	Other	66		
Lincoln	Muskellunge L	1555500	167	Other	23		
Lincoln	Pesabic L	1481600	146	Other	20		
Lincoln	Pine L	1012100	134	Other	19	Other	6
Lincoln	Rice R Fl	1516400	920			Other	20
Lincoln	Seven Island L	1490300	132	Other	19	Other	6
Lincoln	Silver L	1017400	82	Other	34		
Lincoln	Somo L	1547700	472	Other	59	Other	13
Lincoln	Spirit R Fl	1506800	1663	Other	611	Other	28
Lincoln	Squaw L	1564400	79	Other	12	Other	4
Lincoln	Thompson L	1022200	30			Other	2
Lincoln	Tug L	1482400	151	1-2 Year Pe	84	Other	6
Marathon	Big Eau Pleine Reser	1427400	6830	Other	1871	Other	51
Marathon	L Wausau	1437500	1918	Other	70	Other	3
Marathon	Mayflower L	310500	98	Other	14		
Marathon	Mission L	1005400	107			Other	5
Marathon	Norrie L	310100	99	Other	7		
Marathon	Pike L	1406300	205	Other	28		
Marathon	Wausau Dam L	1469700	284	Other	12		
Marinette	Big Newton L	498800	68	Other	28		
Marinette	Caldron Falls Reserv	545400	1018	Other	34	Other	21
Marinette	High Falls Reservoir	540600	1498	Other	553		
Marinette	Hilbert L	501200	247	Other	33		
Marinette	Johnson Falls Fl	533300	68	Other	28		
Marinette	Little Newton L	502300	60	Other	25		
Marinette	Oneonta L	503300	66	Other	5		
Marinette	Sandstone Fl	531300	153	Other	31		
Oconto	Archibald L	417400	430	1-2 Year Pe	70	Other	12
Oconto	Bass L	417900	142	Other	58		
Oconto	Bear L	471200	78	Other	6		
Oconto	Boot L	418700	235	Other	94	Other	8
Oconto	Boulder L	491800	362	Other	17		
Oconto	Boundary L	499000	37	Other	3		
Oconto	Crooked L	462000	143	Other	9		
Oconto	Horn L	467100	132	Other	9		
Oconto	John L	470600	103	Other	7		
Oconto	Maiden L	487500	290	Other	38		
Oconto	Munger L	470900	97	Other	7	Other	5
Oconto	Paya L	425600	121	Other	8		
Oconto	Reservoir Pond	466700	418	Other	19		
Oconto	Townsend Fl	465000	476	Other	21		
Oconto	Waubee L	439500	124	Other	8		
Oconto	Wheeler L	439800	293	1-2 Year Pe	99		
Oneida	Aldridge L	967400	134	Other	55		
Oneida	Alva L	968100	201	Other	81		
Oneida	Baker L	1546000	42	Other	18		
Oneida	Bass L	1580300	124	Other	51	Other	6

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Bear L	1527800	312	Other	41		
Oneida	Bearskin L	1523600	400	1-2 Year Pe	533	Other	12
Oneida	Big Carr L	971600	213	Other	85	Other	8
Oneida	Big Fork L	1610700	690	1-2 Year Pe	424	Other	16
Oneida	Big L	1613000	865	Other	327	Other	19
Oneida	Big Stone L	1612200	548	1-2 Year Pe	147	Other	14
Oneida	Birch L	1523800	180	Other	72		
Oneida	Bird L	972000	99	Other	41		
Oneida	Blue L	1538600	456	Other	177		
Oneida	Bolger L	973000	119	Other	17		
Oneida	Boom L	1580200	437	Other	170	Other	12
Oneida	Booth L	1537800	207	Other	28	Other	8
Oneida	Bridge L	1516800	411			Other	12
Oneida	Brown L	973700	98	Other	7		
Oneida	Buckskin L	2272600	634	Other	54	Other	11
Oneida	Buffalo L	974200	104	Other	43		
Oneida	Burrows L	975000	156	Other	10	Other	7
Oneida	Carrol L	1544800	352	Other	45	Other	11
Oneida	Chain L	1598000	219	Other	88	Other	8
Oneida	Clear L	977100	36	Other	3		
Oneida	Clear L	977200	30	Other	13	Other	2
Oneida	Clear L	977400	62	Other	26	Other	4
Oneida	Clear L	977500	846	Other	320	Other	19
Oneida	Clear L	2272555	212	Other	83	Other	8
Oneida	Clearwater L	1616400	351	Other	138	Other	11
Oneida	Columbus L	1616900	670	Other	256		
Oneida	Crescent L	1564200	612	Other	235	Other	15
Oneida	Crooked L	1613300	176	Other	11		
Oneida	Cunard L	1590000	43	Other	18		
Oneida	Currie L	979300	96	Other	39		
Oneida	Dam L	1596900	744	Other	283	Other	17
Oneida	Deer L	1612300	177	Other	71	Other	7
Oneida	Diamond L	1537100	124	Other	51	Other	6
Oneida	Dog L	1590200	37	Other	3		
Oneida	Dog L	1612900	216	Other	86	Other	8
Oneida	E Horsehead L	1523000	184	Other	74	Other	7
Oneida	E Twin L	982400	47	Other	4		
Oneida	Echo L	1597800	107	Other	44	Other	5
Oneida	Emma L	983500	223	Other	30		
Oneida	Fifth L	1571100	240	1-2 Year Pe	331	Other	9
Oneida	Fish L	1570600	70	Other	29	Other	4
Oneida	Fourmile L	1610800	218	1-2 Year Pe	29	Other	8
Oneida	Fourth L	1572000	258	1-2 Year Pe	122	Other	9
Oneida	Franklin L	986000	161	Other	22	Other	7
Oneida	Fuller L	2272000	101	Other	7		
Oneida	Garth L	986600	114	Other	47		
Oneida	George L	1569600	435	1-2 Year Pe	223	Other	12
Oneida	Gilmore L	1589300	301	Other	39	Other	10
Oneida	Hancock L	1517900	259	Other	14	Other	9
Oneida	Hasbrook L	1589100	302	Other	119	Other	10
Oneida	Hat Rapids Fl	1567325	650	Other	249		
Oneida	Hemlock L	989200	39	Other	16		
Oneida	Hill L	990200	30	Other	3		
Oneida	Hixon L	1568900	50	Other	4		
Oneida	Hodstradt L	990700	126	Other	18		
Oneida	Indian L	1598900	397	Other	155		
Oneida	Island L	1610500	295	Other	117	Other	10
Oneida	Jennie Webber L	1574300	226	Other	30		
Oneida	Julia L (Three Lakes	1614300	401	Other	51	Other	12
Oneida	Kate Pier L	1586300	34	Other	14		
Oneida	Kathan L	1598300	189	Other	76		
Oneida	Katherine L	1543300	590	1-2 Year Pe	711	Other	15
Oneida	Kawaguesaga L	1542300	670	Other	256	Other	16
Oneida	Killarney L	1520900	421	Other	19		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	L Creek	1580500	172	Other	69	Other	7
Oneida	L Julia (Rhinelander	995000	238	Other	32	Other	9
Oneida	L Seventeen	996100	172	Other	24		
Oneida	L Thompson	1569900	382	Other	49	Other	11
Oneida	Laurel L	1611800	232	Other	93	Other	8
Oneida	Little Bearskin L	1523500	164	Other	23		
Oneida	Little Carr L	998800	52	Other	4		
Oneida	Little Fork L	1610600	354	1-2 Year Pe	94	Other	11
Oneida	Little Tomahawk L	1543900	160			Other	7
Oneida	Lone Stone L	1605600	172	Other	11	Other	7
Oneida	Long L	1001300	113	Other	46	Other	5
Oneida	Long L	1609000	620	Other	238	Other	15
Oneida	Long L	1618300	56	Other	23	Other	3
Oneida	Lost L	1575100	155	Other	63		
Oneida	Lower Kaubashine L	1534800	187	Other	26	Other	7
Oneida	Lumen L	1002800	49	Other	21		
Oneida	Madeline L	1544700	159			Other	7
Oneida	Manson L	1517200	236	Other	94	Other	9
Oneida	Maple L	1609900	144	Other	9		
Oneida	Margaret L	1615900	88	Other	36		
Oneida	Marion L	1003100	62	Other	5		
Oneida	Mars L	1577100	41	Other	17		
Oneida	Mccormick L	1526600	118	Other	8		
Oneida	Medicine L	1611700	372	1-2 Year Pe	136	Other	11
Oneida	Mercer L	1538900	257	Other	102	Other	9
Oneida	Mid L	1542600	215	Other	12	Other	8
Oneida	Mildred L	1004600	191	Other	11		
Oneida	Minocqua L	1542400	1360	Other	504	Other	25
Oneida	Moccasin L	1612100	95	Other	39	Other	5
Oneida	Moen L	1573800	460	1-2 Year Pe	86	Other	13
Oneida	Mud L	1544000	41	Other	17		
Oneida	Mud L	1612500	124	Other	8	Other	6
Oneida	Muskellunge L	1595600	284	Other	112	Other	10
Oneida	Muskie L	1524300	43	Other	4		
Oneida	N Nokomis L	1595800	476	Other	59	Other	13
Oneida	N Two L	1007500	146	Other	59		
Oneida	Oatmeal L	1597300	97	Other	7		
Oneida	Oneida L	1518200	255	Other	101	Other	9
Oneida	Paradise L	1009400	89	Other	13		
Oneida	Pelican L	1579900	3585	1-2 Year Pe	1060	Other	44
Oneida	Pickerel L	1583000	49	Other	4		
Oneida	Pickerel L	1590400	736	1-2 Year Pe	37	Other	17
Oneida	Pier L	1529700	257	Other	34		
Oneida	Pine L	1012200	203	Other	81		
Oneida	Pine L	1581700	240	Other	96	Other	9
Oneida	Planting Ground L	1609100	1012	Other	380	Other	21
Oneida	Prairie L	1013000	58	Other	24		
Oneida	Rainbow Fl	1595300	2035	Other	741	Other	31
Oneida	Range Line L	1610300	123	Other	50	Other	6
Oneida	Rhinelander Fl	1580100	1326	Other	492	Other	24
Oneida	Rocky Run Fl	1525500	96	Other	39		
Oneida	Round L	1610400	150	Other	61	Other	6
Oneida	S Blue L	1015100	80	Other	6		
Oneida	S Pine L	1580700	77	Other	32		
Oneida	S Two L	1015500	214	Other	86		
Oneida	Sand L	1597000	540	Other	208	Other	14
Oneida	Scotchman L	1016200	33	Other	3		
Oneida	Second L	1572300	111	Other	45	Other	5
Oneida	Sevenmile L	1605800	503	1-2 Year Pe	79	Other	14
Oneida	Shepard L	1576100	179	Other	11	Other	7
Oneida	Shishebogama L	1539600	716	Other	43	Other	8
Oneida	Skunk L	1533200	130	Other	53		
Oneida	Soo L	1018900	135	Other	55	Other	6
Oneida	Spider L	1586600	118	Other	48	Other	6

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Spirit L	1612000	368	Other	144	Other	11
Oneida	Squash L	1019500	392	Other	18		
Oneida	Squirrel L	1536300	1317	1-2 Year Pe	653	Other	24
Oneida	Stella L	1575700	405	Other	19	Other	12
Oneida	Stone L	1597600	188			Other	7
Oneida	Stone L	2272700	248	Other	99		
Oneida	Sunday L	1020600	88	Other	7		
Oneida	Sunset L	1572500	33	Other	14	Other	2
Oneida	Swamp L	1522400	296	Other	39		
Oneida	Swamsauger L	1528700	141	Other	57		
Oneida	Sweeney L	1589600	187	Other	75	Other	7
Oneida	Tamarack L	1582200	99	Other	41		
Oneida	Third L	1572200	103	Other	42	Other	5
Oneida	Thunder L	1580400	172	Other	69	Other	7
Oneida	Thunder L	1618100	1768	Other	192		
Oneida	Tim Lynn L	1597400	84	Other	35		
Oneida	Tom Doyle L	1586800	102	Other	15	Other	5
Oneida	Tomahawk L	1542700	3392			Other	42
Oneida	Townline L	1609600	152	Other	62	Other	6
Oneida	Turtle L	1587400	53	Other	4		
Oneida	Two Sisters L	1588200	719	1-2 Year Pe	242	Other	17
Oneida	Upper Kaubashine L	1535000	190	Other	76	Other	7
Oneida	Venus L	1577000	65	Other	27		
Oneida	Virgin L	1614100	276	Other	109	Other	9
Oneida	W Horsehead L	1522900	145	Other	9	Other	6
Oneida	W Twin L	1177400	28	Other	3		
Oneida	Walters L	1582800	61	Other	25		
Oneida	Whitefish L	1613500	205	Other	12	Other	8
Oneida	Wildwood L	1178600	28	Other	4		
Oneida	Willow Fl	1528300	5135	1-2 Year Pe	3254	Other	54
Oneida	Willow L	1529500	395	Other	18	Other	12
Polk	Antler L	2449400	101	Other	7		
Polk	Apple R Fl	2624200	639			Other	16
Polk	Balsam L	2620600	2054	1-2 Year Pe	240		
Polk	Bear L	2452200	155	Other	63		
Polk	Bear Trap L	2618100	241	Other	13		
Polk	Big Butternut L	2641000	378	Other	48		
Polk	Big L	2615900	259	Other	14		
Polk	Big Round L	2627400	1015	1-2 Year Pe	149		
Polk	Bone L	2628100	1781			Other	29
Polk	Church Pine L	2616100	107	Other	8		
Polk	Clear L	2623500	30	Other	3		
Polk	Deer L	2619400	807			Other	18
Polk	Half Moon L	2621100	579	Other	71		
Polk	Indianhead Fl	2634400	776	Other	295		
Polk	Little Butternut L	2640700	189	Other	26		
Polk	Magnor L	2624600	224	1-2 Year Pe	18		
Polk	N Pipe L	2485700	58	Other	24		
Polk	N Twin L	2623900	135	Other	9		
Polk	Pike L	2624000	159	Other	10		
Polk	Pipe L	2490500	284	Other	112		
Polk	Poplar L	2491000	125	Other	8		
Polk	Sand L	2495000	187	Other	26		
Polk	Vincent L	2598500	70	Other	6		
Polk	Wapogasset L	2618000	1186	1-2 Year Pe	165		
Polk	Ward L	2599400	91	Other	13		
Portage	Tree L	289400	74	Other	6		
Price	Amik L	2268600	224			Other	8
Price	Bass L	2282200	58	Other	24	Other	4
Price	Big Dardis L	2244200	144	Other	20	Other	6
Price	Butternut L	2283300	1006	Other	378	Other	21
Price	Crane + Chase L	2237500	86	Other	35	Other	5
Price	Crowley Fl	2287200	422	Other	19	Other	12
Price	Deer L	2239100	145			Other	6

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Price	Duroy L	2240100	379	Other	148	Other	11
Price	Elk L	2240000	88	Other	36	Other	5
Price	Grassy L	2238100	81	Other	33	Other	4
Price	Island L	2260900	29	Other	3		
Price	Lac Sault Dore	2236800	561	Other	216	Other	15
Price	Long L	2239300	418	Other	163	Other	12
Price	Long L	2282000	241	Other	96	Other	9
Price	Lower Park Falls Fl	2290100	71	Other	29	Other	4
Price	Miles L	2271100	32			Other	2
Price	Musser L	2245100	563	Other	69	Other	15
Price	N Spirit L	1515200	213	Other	29	Other	8
Price	Pike L	2268300	806	Other	306	Other	18
Price	Pixley Fl	2288900	334	Other	131	Other	11
Price	Round L	2267800	726	Other	277	Other	17
Price	Schnur L	2284000	158	Other	64	Other	7
Price	Solberg L	2242500	859	Other	325	Other	19
Price	Spirit L	1513000	126			Other	6
Price	Thompson L	2265900	111	Other	8	Other	5
Price	Tucker L	2269000	118	Other	8		
Price	Turner L	2268500	149	Other	60	Other	6
Price	Upper Park Falls Fl	2290500	431			Other	12
Price	Upper Price L	2235300	43			Other	3
Price	Whitcomb L	2266100	44	Other	7	Other	3
Price	Wilson L	2239400	351	Other	138	Other	11
Price	Worcester L	2210900	100	Other	41		
Rusk	Amacoy L	2359700	278	Other	37	Other	9
Rusk	Audie L	2368700	128			Other	6
Rusk	Bass L	2090900	88	Other	7		
Rusk	Big Falls Fl	2230100	369	Other	145	Other	11
Rusk	Chain L	2350500	468	Other	59	Other	13
Rusk	Clear L	2350600	95	Other	14	Other	5
Rusk	Dairyland Reservoir	2229200	1745	Other	640	Other	29
Rusk	Fireside Lakes	2349500	302	Other	119		
Rusk	Island L	2350200	526	Other	65	Other	14
Rusk	Ladysmith Fl	2228700	288	Other	114	Other	10
Rusk	Mccann L	2350400	133	Other	19	Other	6
Rusk	Perch L	2368500	23			Other	2
Rusk	Potato L	2355300	534	Other	66	Other	14
Rusk	Pulaski L	1875900	126	Other	51		
Rusk	Sand L	2353600	262	Other	104	Other	9
Rusk	Thornapple Fl	2227500	268	Other	106	Other	9
St. Croix	Cedar L	2615100	1100	Other	412	Other	22
Sawyer	Barber L	2382300	238	Other	32	Other	9
Sawyer	Barker L	2400000	238	Other	95	Other	9
Sawyer	Beverly L	2387200	9			Other	1
Sawyer	Black Dan L	2381900	128	Other	9	Other	6
Sawyer	Black L	2401300	129	Other	9	Other	6
Sawyer	Blaisdell L	2402200	356	Other	17	Other	11
Sawyer	Boos L	2425000	37	Other	16	Other	3
Sawyer	Burns L	2436400	37	Other	3	Other	3
Sawyer	Callahan L	2434700	106			Other	5
Sawyer	Clear L	1841300	77			Other	4
Sawyer	Connors L	2275100	429	Other	167	Other	12
Sawyer	Durphee L	2396800	193	Other	78		
Sawyer	Evergreen L	2277600	200	Other	80	Other	8
Sawyer	Fawn L	2435900	23	Other	2		
Sawyer	Fishtrap L	2401100	216			Other	8
Sawyer	Ghost L	2423000	372	Other	48	Other	11
Sawyer	Grimh Fl	2385100	86	Other	6	Other	5
Sawyer	Grindstone L	2391200	3111	Other	543	Other	20
Sawyer	Ham L	1852300	100	Other	41		
Sawyer	Hayward L	2725500	247	Other	33	Other	9
Sawyer	Holmes L	2419600	62			Other	4
Sawyer	Hunter L	2400600	126	Other	51	Other	6

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Sawyer	Island L	2381800	67	Other	5	Other	4
Sawyer	L Chetac	2113300	1920	Other	701		
Sawyer	L Chippewa	2399700	15300	Other	3331	Other	67
Sawyer	L Of The Pines	2275300	273	Other	108	Other	9
Sawyer	L Placid	2436500	160	Other	10	Other	7
Sawyer	L Winter	2381100	676	Other	26	Other	16
Sawyer	Lac Courte Oreilles	2390800	5039	Other	1145	Other	35
Sawyer	Lewis L	1860200	52	Other	4		
Sawyer	Little Round L	2395500	229	Other	73		
Sawyer	Little Sissabagama L	2394100	299			Other	10
Sawyer	Loretta L	2382700	126			Other	6
Sawyer	Lost Land L	2418600	1304	Other	147	Other	24
Sawyer	Lovejoy L	2395900	76	Other	31		
Sawyer	Lower Clam L	2429300	229	Other	31	Other	8
Sawyer	Mason L	2277200	190	Other	76	Other	7
Sawyer	Meadow L	2424800	39	Other	16	Other	3
Sawyer	Mirror L	1866900	38	Other	3		
Sawyer	Moose L	2420600	1670	Other	613	Other	28
Sawyer	Mud L	2434800	480	Other	21	Other	13
Sawyer	Nelson L	2704200	2503	1-2 Year Pe	173		
Sawyer	North L	2436000	129	Other	9	Other	6
Sawyer	Partridge Crop L	2424600	45	Other	19	Other	3
Sawyer	Perch L	1873600	129	Other	9	Other	6
Sawyer	Radisson Fl	2397400	255	Other	101	Other	9
Sawyer	Round L	2395600	3054	Other	1090	Other	40
Sawyer	Sand L	2393200	928	1-2 Year Pe	277	Other	20
Sawyer	Sissabagama L	2393500	719	Other	274	Other	17
Sawyer	Smith L	2726100	323	Other	16		
Sawyer	Spider L	2435700	1454	1-2 Year Pe	260	Other	26
Sawyer	Spring L	2724900	220	Other	11		
Sawyer	Squaw L	2395100	208	Other	14		
Sawyer	Teal L	2417000	1049	Other	394	Other	21
Sawyer	Teal R Fl	2416900	75	Other	31	Other	4
Sawyer	Tiger Cat Fl	2435000	819	Other	97	Other	18
Sawyer	Whitefish L	2392000	786	Other	93	Other	18
Sawyer	Windfall L	2046500	102	Other	42		
Sawyer	Windigo L	2046600	522	Other	202		
Taylor	Anderson L	2165700	43	Other	4		
Taylor	Chelsea L	2200400	59	Other	5		
Taylor	Chequamegon Waters F	2160700	2714	Other	60		
Taylor	Diamond L	1757200	49	Other	21		
Taylor	Esadore L	1764000	46	Other	4		
Taylor	Hulls L	1762700	67	Other	5		
Taylor	Kathryn L	2166100	62	Other	9		
Taylor	Mondeaux Fl	2193300	416			Other	12
Taylor	N Harper L	2204000	54	Other	23	Other	3
Taylor	Rib L	1469100	320	Other	126	Other	10
Taylor	S Harper L	2204100	80	Other	12		
Taylor	Sackett L	1764500	63	Other	9		
Taylor	Shearer L	2197600	21	Other	2		
Taylor	Wellington L	1467800	43	Other	4		
Vilas	Alder L	2329600	274	Other	109	Other	9
Vilas	Allequash L	2332400	426	Other	54	Other	12
Vilas	Alma L	967900	55	Other	8	Other	3
Vilas	Annabelle L	2953800	213	1-2 Year Pe	49	Other	8
Vilas	Anvil L	968800	380	1-2 Year Pe	228		
Vilas	Apeekwa L	2269400	188	Other	76	Other	7
Vilas	Armour L	2953200	320	Other	126	Other	10
Vilas	Arrowhead L	1541500	99	Other	14	Other	5
Vilas	Averill L	2956700	71			Other	4
Vilas	Ballard L	2340700	505	Other	195	Other	14
Vilas	Bass L	1604200	266	Other	14	Other	9
Vilas	Bear L	2335400	76	Other	11	Other	4
Vilas	Beaver L	2960600	68	Other	5		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Belle L	2955700	53	Other	22	Other	3
Vilas	Benson L	2327100	28	Other	12	Other	2
Vilas	Big Arbor Vitae L	1545600	1090	1-2 Year Pe	771	Other	22
Vilas	Big Crooked L	2338800	682	1-2 Year Pe	233	Other	16
Vilas	Big Donahue L	971700	92	Other	7		
Vilas	Big Gibson L	1835200	116	Other	47	Other	5
Vilas	Big Hurst L	2756000	48	Other	4		
Vilas	Big Kitten L	2336700	55	Other	5	Other	3
Vilas	Big L (Boulder Jct)	2334700	835	Other	316	Other	18
Vilas	Big L (Mi Border)	2963800	771	1-2 Year Pe	1027	Other	14
Vilas	Big Muskellunge L	1835300	930	Other	351	Other	20
Vilas	Big Portage L	1629500	638	Other	245		
Vilas	Big Sand L	1602600	1408	Other	157	Other	25
Vilas	Big St Germain L	1591100	1617	Other	178	Other	27
Vilas	Bills L	1835500	37			Other	0
Vilas	Birch L	2311100	528	Other	204	Other	14
Vilas	Black Oak L	1630100	584	1-2 Year Pe	109		
Vilas	Boot L	1619100	284	Other	37	Other	10
Vilas	Boot L	2756400	29	Other	3	Other	2
Vilas	Boulder L	2338300	524	Other	202	Other	14
Vilas	Brandy L	1541300	110	Other	16	Other	5
Vilas	Carpenter L	976100	333	Other	17		
Vilas	Catfish L	1603700	1012	Other	380	Other	21
Vilas	Circle Lily L	2326700	223	Other	30	Other	8
Vilas	Clear L	2329000	555	Other	214	Other	14
Vilas	Cleveland L	2758600	32	Other	3		
Vilas	Cochran L	2963500	126	Other	8	Other	6
Vilas	Crab L	2953500	949	Other	358	Other	20
Vilas	Crampton L	2759000	59	Other	5		
Vilas	Cranberry L	1603800	956	Other	360	Other	20
Vilas	Crystal L	1842400	88	Other	7		
Vilas	Dead Pike L	2316600	297	Other	39	Other	10
Vilas	Deer L	980600	65	Other	5		
Vilas	Deer L	2311500	37	Other	3		
Vilas	Deerskin L	1601300	309	Other	40	Other	10
Vilas	Diamond L	1844700	122	Other	8	Other	6
Vilas	Dorothy Dunn L	1845600	70	Other	6	Other	4
Vilas	Duck L	1599900	108	Other	44	Other	5
Vilas	E Ellerson L	2331300	136	Other	55	Other	6
Vilas	E Witches L	982500	34	Other	3		
Vilas	Eagle L	1600200	572	Other	220	Other	15
Vilas	Eleanore L	1631500	28	Other	12	Other	2
Vilas	Erickson L	983600	106	Other	15		
Vilas	Escanaba L	2339900	293	1-2 Year Pe	286	Other	10
Vilas	Fawn L	1591000	22	Other	9	Other	2
Vilas	Fawn L	2328900	74	Other	31	Other	4
Vilas	Finger L	984700	90	Other	7		
Vilas	Fishtrap L	2343200	329	Other	16	Other	10
Vilas	Forest L	2762200	466	Other	181		
Vilas	Found L	1593800	326	Other	42	Other	10
Vilas	Frank L	985900	141	Other	9		
Vilas	Harmony L	988300	88	Other	7		
Vilas	Harris L	2958500	507	Other	196	Other	14
Vilas	Helen L	2964400	111	Other	45	Other	5
Vilas	Hiawatha L	2328400	36	Other	6		
Vilas	High L	2344000	734	Other	280	Other	17
Vilas	Horsehead L	2953100	234	Other	93	Other	8
Vilas	Hunter L	991700	184	Other	25		
Vilas	Imogene L	586800	66	Other	5		
Vilas	Indian L	2764400	68			Other	4
Vilas	Irving L	2340900	403			Other	12
Vilas	Island L	2334400	1023	Other	384	Other	21
Vilas	Jag L	1855900	158	Other	64	Other	7
Vilas	Jenny L	1856400	59	Other	25		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Johnson L	1541100	78	Other	11	Other	4
Vilas	Jute L	1857400	194			Other	8
Vilas	Katinka L	2957000	172	Other	69		
Vilas	Kentuck L	716800	957	1-2 Year Pe	1622	1-2 Year Pe	23
Vilas	Kenu L	1629800	73	Other	6		
Vilas	Kildare L	1631700	54	Other	5	Other	3
Vilas	L Content	1592000	244	Other	97	Other	9
Vilas	L Laura	995200	599	Other	230	Other	15
Vilas	Lac Des Fleurs	1630900	49	Other	4		
Vilas	Lac Vieux Desert	1631900	4300	Other	975	Other	31
Vilas	Little Arbor Vitae L	1545300	534	1-2 Year Pe	458	1-2 Year Pe	32
Vilas	Little Crooked L	2335500	153	Other	21	Other	6
Vilas	Little Horsehead L	2953000	52	Other	22		
Vilas	Little John L	2332300	166	1-2 Year Pe	250	Other	7
Vilas	Little Papoose L	2328200	46	Other	4	Other	3
Vilas	Little Portage L	1629200	170	Other	69	Other	7
Vilas	Little Presque Isle	2959700	85			Other	4
Vilas	Little Rice L	2338900	59	Other	5	Other	4
Vilas	Little Spider L	1540400	235	Other	31	Other	8
Vilas	Little St Germain L	1596300	980	Other	114	1-2 Year Pe	24
Vilas	Little Star L	2334300	244	Other	97	Other	9
Vilas	Little Trout L	2321600	978	Other	110	Other	6
Vilas	Lone Pine L	2961600	142	Other	20	Other	6
Vilas	Long L	1602300	872	Other	102	Other	19
Vilas	Loon L	1001600	31	Other	3		
Vilas	Lost Canoe L	2339800	249	Other	99		
Vilas	Lost L	1593400	544	Other	67	Other	14
Vilas	Lower Aimer L	2955000	34	Other	3		
Vilas	Lower Buckatabon L	1621000	352	Other	45	Other	11
Vilas	Lower Gresham L	2330300	149			Other	6
Vilas	Lynx L	1600000	22	Other	9	Other	2
Vilas	Lynx L	2954500	339	Other	133	Other	11
Vilas	Mamie L	2964100	400	1-2 Year Pe	523	Other	11
Vilas	Manitowish L	2329400	506	Other	196	Other	14
Vilas	Mann L	2332000	261	Other	14		
Vilas	Marshall L	1626600	87	Other	6	Other	5
Vilas	Mccullough L	2960400	216	Other	12	Other	8
Vilas	Mermaid L	2768100	60	Other	5		
Vilas	Meta L	1004400	175	Other	11		
Vilas	Middle Ellerson L	1866100	60			Other	2
Vilas	Middle Gresham L	2330700	53	Other	4	Other	3
Vilas	Moccasin L	1005700	83	Other	6	Other	4
Vilas	Moon L	1005800	131	Other	18	Other	6
Vilas	Morton L	2960300	163	Other	10	Other	7
Vilas	Murphy L	2769700	81	Other	6	Other	4
Vilas	Muskellunge L	1596600	272	Other	36	Other	9
Vilas	N Crab L	2953400	56	Other	23	Other	3
Vilas	N Turtle L	2310400	369	Other	145	Other	11
Vilas	N Twin L	1623800	2788			Other	38
Vilas	Nelson L	1007600	104	Other	7	Other	5
Vilas	Nelson L	1869900	27			Other	2
Vilas	Nixon L	2341200	110	Other	8	Other	5
Vilas	No Mans L	2312100	225	Other	90	Other	8
Vilas	Norwood L	1008100	125	Other	13		
Vilas	Oswego L	1871800	66			Other	4
Vilas	Otter L	1600100	196	Other	79	Other	8
Vilas	Oxbow L	2954800	511	1-2 Year Pe	274	Other	14
Vilas	Pallette L	1872100	173			Other	7
Vilas	Palmer L	2962900	635	Other	77	Other	16
Vilas	Papoose L	2328700	428	Other	167	Other	12
Vilas	Partridge L	2341500	228	Other	13	Other	8
Vilas	Pickerel L	1619700	293	Other	15	Other	10
Vilas	Pine Island L	1011900	79	Other	6	Other	4
Vilas	Pioneer L	1623400	427	Other	54	Other	12

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Plum L	1592400	1033	Other	388	Other	21
Vilas	Plum L	2963200	100	Other	10		
Vilas	Presque Isle L	2956500	1280			Other	24
Vilas	Rainbow L	2310800	146	Other	59	Other	6
Vilas	Razorback L	1013800	362	1-2 Year Pe	280	Other	11
Vilas	Rest L	2327500	608	Other	234	Other	15
Vilas	Rice L	1618600	71	Other	29	Other	4
Vilas	Roach L	1014000	51	Other	21	Other	3
Vilas	Roach L	2772500	125	Other	2		
Vilas	Rock L	2311700	122	Other	50	Other	6
Vilas	Rosalind L	1877900	43			Other	3
Vilas	Round L	2334900	116	Other	8	Other	5
Vilas	Rudolph L	2954300	79			Other	4
Vilas	Rush L	2343600	44	Other	19	Other	3
Vilas	S Turtle L	2310200	454	Other	176	Other	13
Vilas	S Twin L	1623700	642			Other	16
Vilas	Sanford L	2335300	88	Other	36	Other	5
Vilas	Scattering Rice L	1600300	267	Other	106	Other	9
Vilas	Sherman L	1880700	123	1-2 Year Pe	67	Other	6
Vilas	Smoky L	1018300	610			Other	1
Vilas	Snipe L	1018500	239	Other	95	Other	9
Vilas	Sparkling L	1881900	154	Other	21	Other	7
Vilas	Spectacle L	717400	171	Other	10		
Vilas	Spider L	2329300	272	Other	108	Other	9
Vilas	Spring L	2964800	205	Other	82		
Vilas	Squaw L	2271600	785	1-2 Year Pe	345	Other	18
Vilas	Star L	1593100	1206	Other	450	Other	23
Vilas	Stateline L	2952100	199	Other	4		
Vilas	Stewart L	1020000	39	Other	16		
Vilas	Stone L	2328800	139	Other	56	Other	6
Vilas	Sturgeon L	2327200	32	Other	14	Other	2
Vilas	Sumach L	1020500	60	Other	5	Other	4
Vilas	Sunset L	1020900	185	Other	11	Other	7
Vilas	Tenderfoot L	2962400	437	1-2 Year Pe	311	Other	11
Vilas	Towanda L	1022900	146	Other	20	Other	6
Vilas	Trout L	2331600	3816	1-2 Year Pe	1250	1-2 Year Pe	24
Vilas	Twin Island L	2959300	205			Other	8
Vilas	Upper Aimer L	2955100	33	Other	3		
Vilas	Upper Buckatabon L	1621800	494	Other	62	Other	13
Vilas	Upper Gresham L	2330800	366	Other	47	Other	11
Vilas	Van Vliet L	2956800	220			Other	8
Vilas	Vance L	2327300	30	Other	13	Other	2
Vilas	Verna L	1540300	77			Other	4
Vilas	Voyageur L	1603400	130	Other	53	Other	6
Vilas	W Bay L	2964000	368	Other	68	Other	5
Vilas	W Plum L	1592500	75	Other	31	Other	4
Vilas	W Witches L	1177500	30	Other	3		
Vilas	Watersmeet L	1599400	100	Other	41	Other	5
Vilas	White Birch L	2340500	112	Other	46	Other	5
Vilas	White Sand L	2339100	734	Other	88	Other	17
Vilas	Wild Rice L	2329800	379	Other	119	Other	9
Vilas	Wildcat L	2336800	305	Other	40	Other	10
Vilas	Wolf L	2336100	393	1-2 Year Pe	305	Other	12
Vilas	Yellow Birch L	1599600	202	Other	81	Other	8
Washburn	Balsam L	2112800	295	Other	117		
Washburn	Bass L	1833300	130	Other	53		
Washburn	Bass L	2451300	144	Other	20		
Washburn	Bass L	2451900	188	1-2 Year Pe	80	Other	7
Washburn	Bean L	2718500	100	Other	7		
Washburn	Beartrack North Lake	2452399	33	Other	14		
Washburn	Beartrack South Lake	2452300	65	Other	27		
Washburn	Big Bass L	2453300	203	Other	28		
Washburn	Birch L	2113000	368	Other	47		
Washburn	Cable L	2456100	185	Other	25		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Washburn	Chippanazie L	2722800	58	Other	24		
Washburn	Colton Fl	2702100	58	Other	24		
Washburn	Cranberry Fl	2722400	201	Other	12		
Washburn	Deep L	1844000	43	Other	18		
Washburn	Dunn L	2709800	193	Other	78		
Washburn	Gilmore L	2695800	389	Other	18		
Washburn	Horseshoe L	2470000	194	Other	26		
Washburn	Island L	2470600	276	Other	36		
Washburn	L Nancy	2691500	772	Other	92	Other	18
Washburn	Leach L	2474400	30	Other	13		
Washburn	Leisure L	2475000	75			Other	4
Washburn	Little Long L	2664500	112	Other	8		
Washburn	Little Mud L	2107100	71	Other	29		
Washburn	Little Sand L	2477700	74	Other	11		
Washburn	Little Stone L	1862400	27	Other	3		
Washburn	Long L	2106800	3290	Other	334		
Washburn	Matthews L	2710800	263	Other	35	Other	9
Washburn	Mclain L	2481600	150	Other	21		
Washburn	Middle Mckenzie L	2706500	530	Other	66	Other	14
Washburn	Minong Fl	2692900	1564	Other	576		
Washburn	Mud L	2107700	103	Other	7		
Washburn	Pavlas L	2488100	44	Other	4		
Washburn	Rice L	2696000	132	Other	54		
Washburn	Ripley L	2492600	190	Other	26		
Washburn	S Twin L	2494500	115	Other	16		
Washburn	Shell L	2496300	2580	Other	928	Other	36
Washburn	Silver L	2496900	188	Other	26		
Washburn	Slim L	2109300	224	Other	30		
Washburn	Spider L # 5	1882500	177	Other	11		
Washburn	Spring L	1882900	42	Other	4		
Washburn	Spring L	2498600	211	Other	29		
Washburn	Stone L	1884000	39	Other	4		
Washburn	Stone L	1884100	523	Other	202		
Washburn	Tozer L	2502000	36	Other	6		
Washburn	Trego L	2712000	451	Other	57	Other	13
Lincoln	Rice R Fl Chain	1516401	3764	Other	1385		
Oneida	Tomahawk L Chain	1542701	3552	Other	365		
Vilas	Twin L Chain	1623801	3430	1-2 Year Pe	1095		
Vilas	Presque Isle L Chain	2956501	1571	Other	593		
Bayfield	Pike L Chain	2902700	714	Other	287		