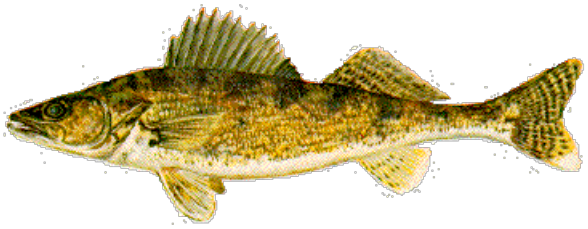

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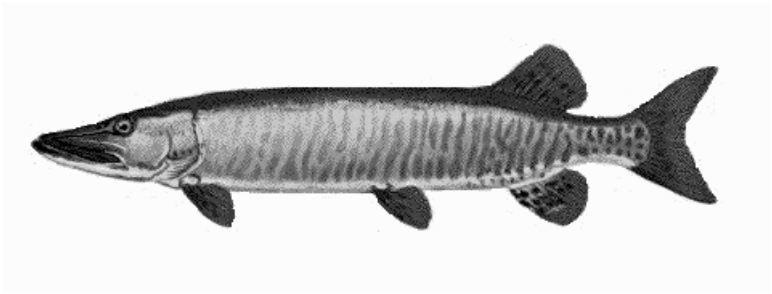

Thomas A. Cichosz

Administrative Report # 70

Treaty Fisheries Assessment Unit
Bureau of Fisheries Management
Madison, Wisconsin

June, 2012

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 2010 through early 2011. 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 2010-11 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 2010 were Middle Eau Claire (Bayfield Co.), Lipsett (Burnett Co.), Metonga (Forest Co.) and Trout (Vilas Co.) lakes. In addition, at least one large lake or lake chain is chosen to be surveyed each year. In 2010 the Pike Lake Chain (Bayfield Co.) and two large (>1,000 acres) lakes were successfully surveyed: Red Cedar (Barron Co.) and Round (Sawyer Co.) lakes.

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).

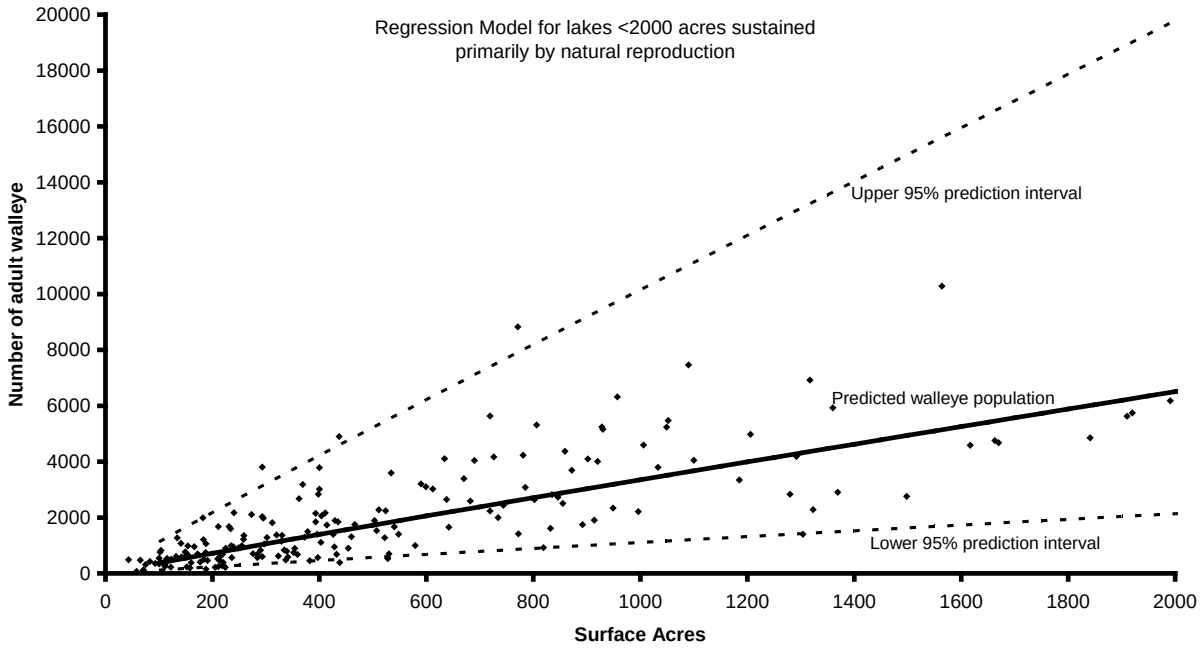

Figure 2. Regression model used to set 2010 safe harvest levels for lakes sustained primarily by natural reproduction (applies to all lake sizes; only lakes <2000 acres are shown for illustrative clarity).

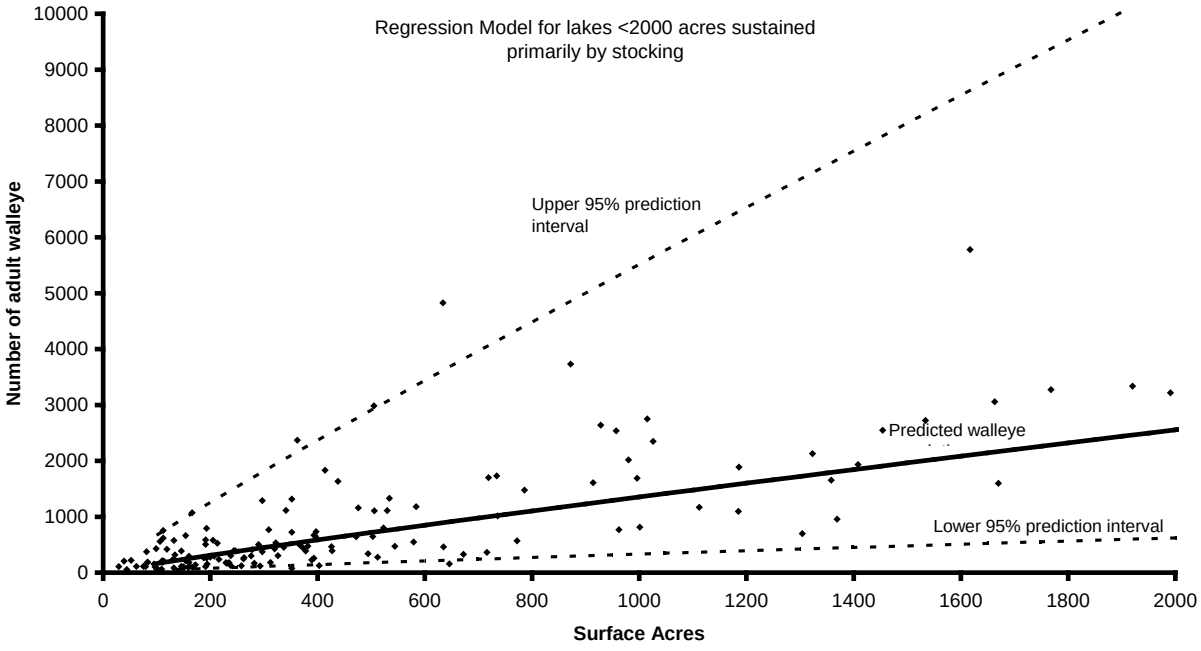

Figure 3. Regression model used to set 2010 safe harvest levels for lakes <2000 acres sustained primarily by stocking (applies to all lakes; only lakes <2000 ac. are shown for illustrative clarity).

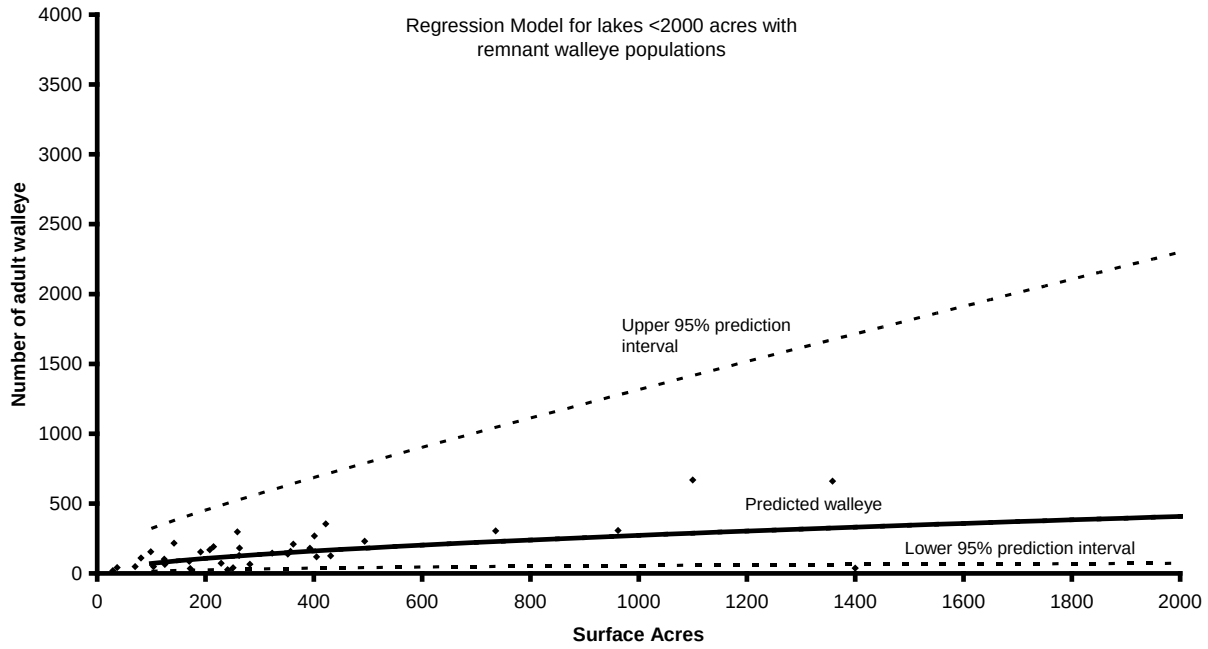

Figure 4. Regression model used to set 2010 safe harvest levels for lakes <2000 acres with remnant walleye populations (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

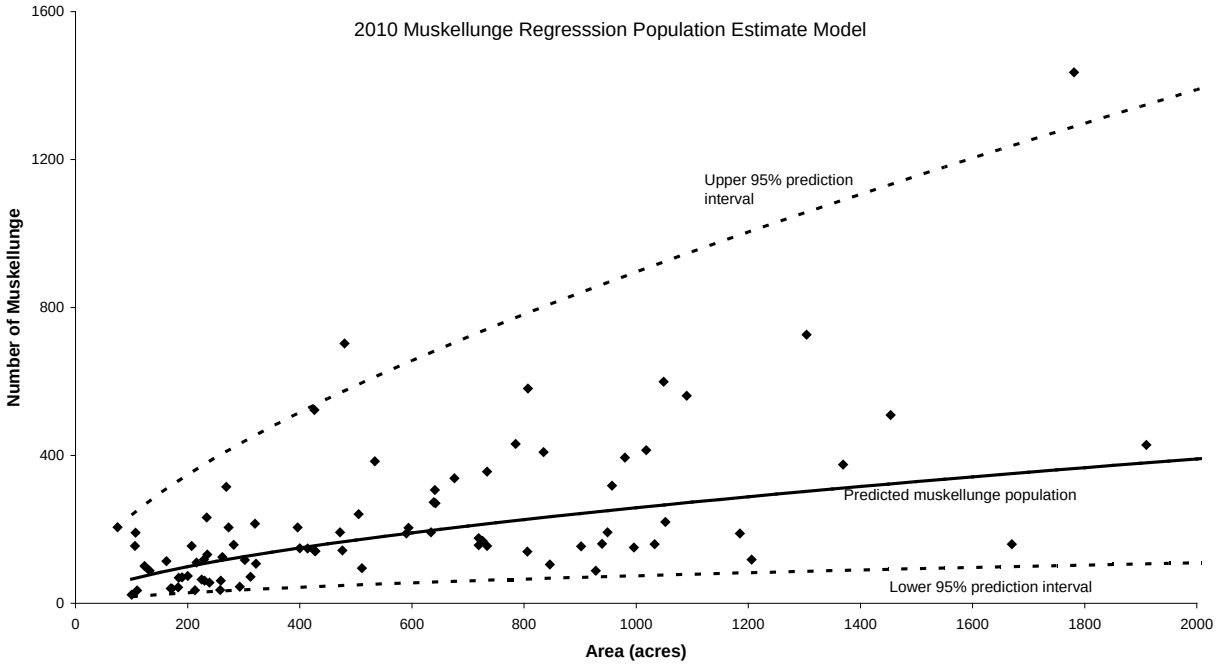

Figure 5. Regression model used to set 2010 safe harvest levels for muskellunge populations in lakes <2000 acres (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

Estimating Fishing Effort and Harvest

Tribal Harvest and Exploitation

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

Angler Harvest and Exploitation - Creel Surveys

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

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

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

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

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

Young-of-Year Walleye Surveys

Electrofishing for YOY walleyes was done after sunset in early autumn, beginning when water temperatures had fallen below 70° F. In most cases, the entire shoreline of a lake was electrofished and all sub-adult walleyes were examined and measured. Two-sample t-tests were used to test various hypotheses: that YOY density (fish/mile shocked) observed in natural and stocked model lakes was equal during 2010, that within each recruitment model the YOY density observed in 2010 did not differ from the average over the previous 18 years (1990-2009), and that in stocked model lakes YOY density did not differ between those lakes that were stocked and those that were not stocked during 2010. 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 2010, spawning walleye populations were estimated in 29 lakes, ranging in size from 141 to 3,816 acres and representing a range of walleye recruitment categorizations and angler regulations (Table 1). Due to sample size restrictions, separate analyses were conducted to evaluate differences in spawner population size across (1) primary recruitment source (natural, stocked, or remnant; refer to Appendix C) and (2) angling regulations in place during 2010. 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 2010 with corresponding information on adult and total walleye population abundance and density.

WBIC[1]	County	Lake	Acres	Size Limit (in)	Recruitment code	Recruitment Model	Adult Pop. Estimate	Adult Density (#/Acre)
2109600	Barron	Red Cedar	1,841	18	C-NR	Natural	4,542	2.47
2742500	Bayfield	Bony	191	1>14	C-NR	Natural	378	1.98
2742100	Bayfield	Middle Eau Claire	902	1>14	C-NR	Natural	2,087	2.31
2902700	Bayfield	Pike Chain	713	1>14	NR	Natural	1,451	2.04
198100	Langlade	Sawyer	149	1>14	NR	Natural	383	2.57
1564200	Oneida	Crescent	626	1>14	NR	Natural	3,526	5.63
1569600	Oneida	George	435	1>14	C-NR	Natural	2,127	4.89
1528700	Oneida	Swamsauger	141	15	C-NR	Natural	1,076	7.63
2395600	Sawyer	Round	3,054	15	C-NR	Natural	2,543	0.83
2393500	Sawyer	Sissabagama	719	15	C-NR	Natural	1,752	2.44
2338800	Vilas	Big Crooked	682	None	NR	Natural	940	1.38
2339900	Vilas	Escanaba	293	28	NR	Natural	2,581	8.81
2310400	Vilas	North Turtle	369	1>14	NR	Natural	2,970	8.05
2310200	Vilas	South Turtle	454	1>14	NR	Natural	1,345	2.96
2336100	Vilas	Wolf	393	15	NR	Natural	1,613	4.10
1884100	Washburn	Stone	523	15	C-NR	Natural	458	0.88
2103200	Barron	Montanis	200	15	C-ST	Stocked	279	1.40
2098000	Barron	Poskin	150	15	ST	Stocked	104	0.69
2678100	Burnett	Lipsett	393	15	ST	Stocked	275	0.70
394400	Forest	Metonga	1,991	15	C-ST	Stocked	3,993	2.01
2303500	Iron	Long	396	15	C-ST	Stocked	589	1.49
2382300	Sawyer	Barber	238	15	C-ST	Stocked	126	0.53
2395500	Sawyer	Little Round	229	15	ST	Stocked	73	0.32
2332400	Vilas	Allequash	426	15	C-ST	Stocked	510	1.20
1621000	Vilas	Lower Buckatabon	352	15	ST	Stocked	138	0.39
1621800	Vilas	Upper Buckatabon	494	15	ST	Stocked	230	0.46
2331600	Vilas	Trout	3,816	15	C-ST	Stocked	5,759	1.51
2109800	Barron	Hemlock	357	18	REM	Remnant	207	0.58
2902xxx	Bayfield	Eagle/Flynn	199	1>14	NR-2	Remnant	63	0.32

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 29 Ceded Territory lakes in which walleye population estimates were attempted during 2010 (Table 1). Adult spawning walleye abundance estimates averaged 1,452 walleye (2.4/acre) across all lakes surveyed during 2010. Average abundance estimates for natural-model lakes (Avg. 1,861, range 383-4,542) were greater than in stocked- (Avg. 1,098, range 73-5,759) or remnant-model (Hemlock Lake, 207 and Eagle/Flynn, 63) lakes during 2010 (Appendix E). Spawning walleye abundance was lowest (63 adult walleye) in Eagle/Flynn Lakes, Bayfield County, and highest in Trout Lake, Vilas County (5,759 adult walleye; Table 1).

Spawning walleye density (walleye/acre) estimates averaged 2.4 adults/acre across all lakes surveyed during 2010. Average density estimates for natural-model lakes (Avg. 3.49, range 0.3-8.8) were greater than in stocked- (Avg. 0.97, range 0.3-2.0) or the lone remnant-model (0.58) lakes during 2010. Adult walleye density was lowest (0.3/acre) in Eagle/Flynn and Little Round lakes (Bayfield and Sawyer counties, respectively), and highest in Escanaba Lake, Vilas County (8.8/acre; Table 1).

As in most previous years, differences observed during 2010 in walleye spawner density between lakes in different recruitment classes (natural, stocked, or remnant) were significant (General Linear Model, $P<0.001$). Spawner densities observed in 2010 were greater in lakes dominated by natural recruitment than in stocked or remnant-model lakes (Tukey-Kramer LS Means, $P<0.003$ and $P<0.001$, respectively); no significant difference was found between mean spawner density in stocked and remnant-model lakes (Figure 8).

Within natural and stocked recruitment lakes surveyed in 2010, spawner density in those with 15” minimum size regulations was significantly less than that in lakes with no minimum size limit (Tukey-Kramer LS Means, $P=0.025$). No significant differences in spawner density were noted between any other regulation classes surveyed; in 2010 the majority of lakes included in the analysis had 15” minimum regulations in place (16 lakes), with only nine “exempt” regulation classifications, one 18” minimum and one 28” minimum.

There is no statistically significant trend in walleye spawner density in natural-model lakes (GLM, P=0.29) in the Ceded Territory since 1995[4] (Figure 6). A significant downward trend in density of stocked-model walleye waters since 1995 was noted (GLM, Slope=-.079, P=0.016; Figure 7. The observed statistical trend may not be 'real'; it is probably due to one exceptionally high density (12/acre) observed in Buckskin Lake, Oneida County in 1996. Although in the stocked model in 1996, Buckskin Lake showed substantive natural reproduction at least a few years prior (the lake was shifted from code ST to C-ST in 1993), and natural reproduction dominated in the lake by 1998 when it was moved to the natural recruitment model. The very high density observed in Buckskin Lake in 1996 was probably a function of ongoing natural recruitment at the time although that is not known for certain.

Excluding the three WDNR research lakes, 13 lakes sampled in 2010 had at least one historic WDNR adult walleye population estimate (Table 2). Of the 9 lakes or chains sampled in 2010 with historic population estimates in the natural recruitment model, four had increased in populations whereas five had decreased populations relative to the prior estimate. South Turtle Lake (Vilas Co.) showed the most marked population increase of 65 percent since 1991; Pike Lake Chain (Bayfield Co.) showed the most marked population decrease of 66 percent since 2001. Of four lakes or chains sampled in 2010 with historic population estimates in the stocked recruitment model, two had increased in population and two had decreased populations since the previous survey. Lower Buckatabon Lake (Vilas Co.) saw the greatest population increase of 77 percent since the prior survey in 1990; Upper Buckatabon Lake (Vilas Co.) showed the most marked population decrease of 32 percent since 1990. No remnant-model lakes sampled during 2010 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 many of the lakes with more than two estimates show both positive and negative changes in population levels over time; Red Cedar, Bony, and Long lakes each show positive and negative fluctuations through time.

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

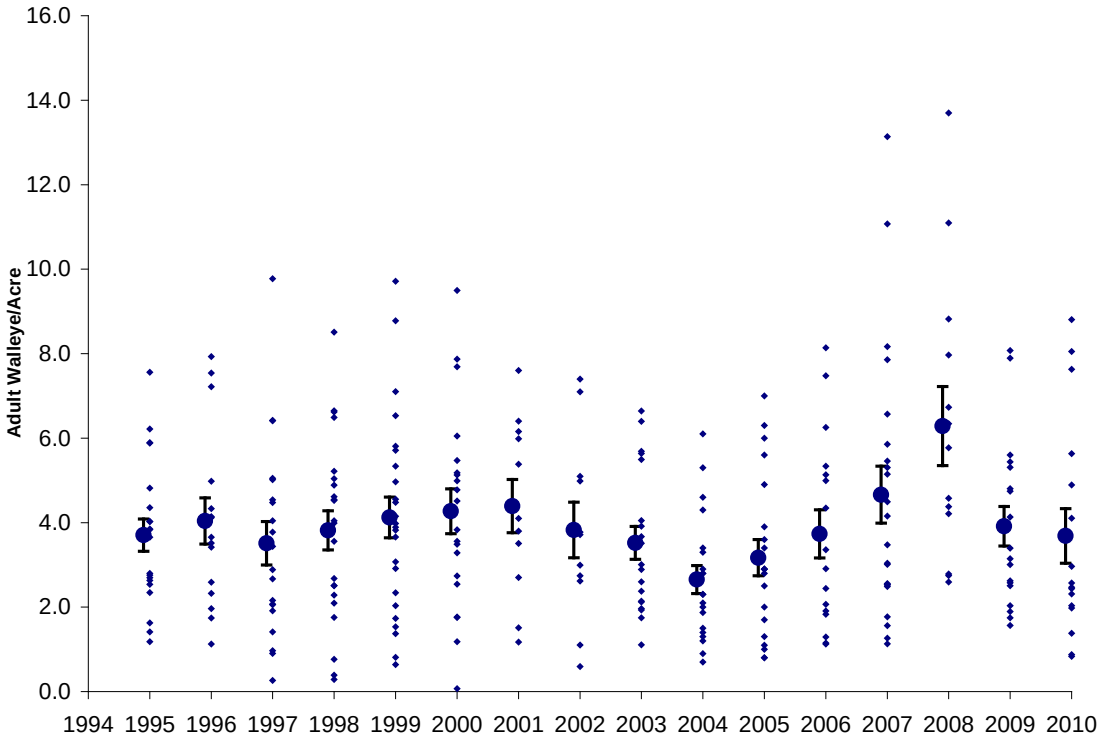

Figure 6. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by natural reproduction, 1990 – 2010. Small circles represent individual lakes; large circles represent yearly means (±SE).

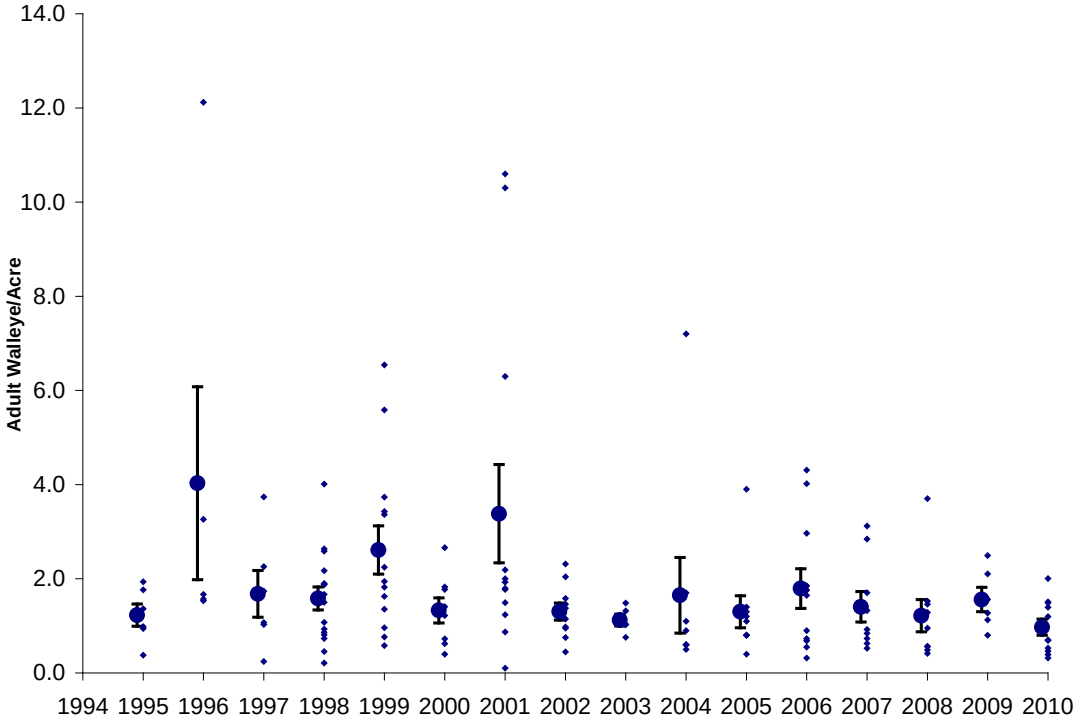

Figure 7. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by stocking, 1995 – 2010. Small circles represent individual lakes; large circles represent yearly means (±SE).

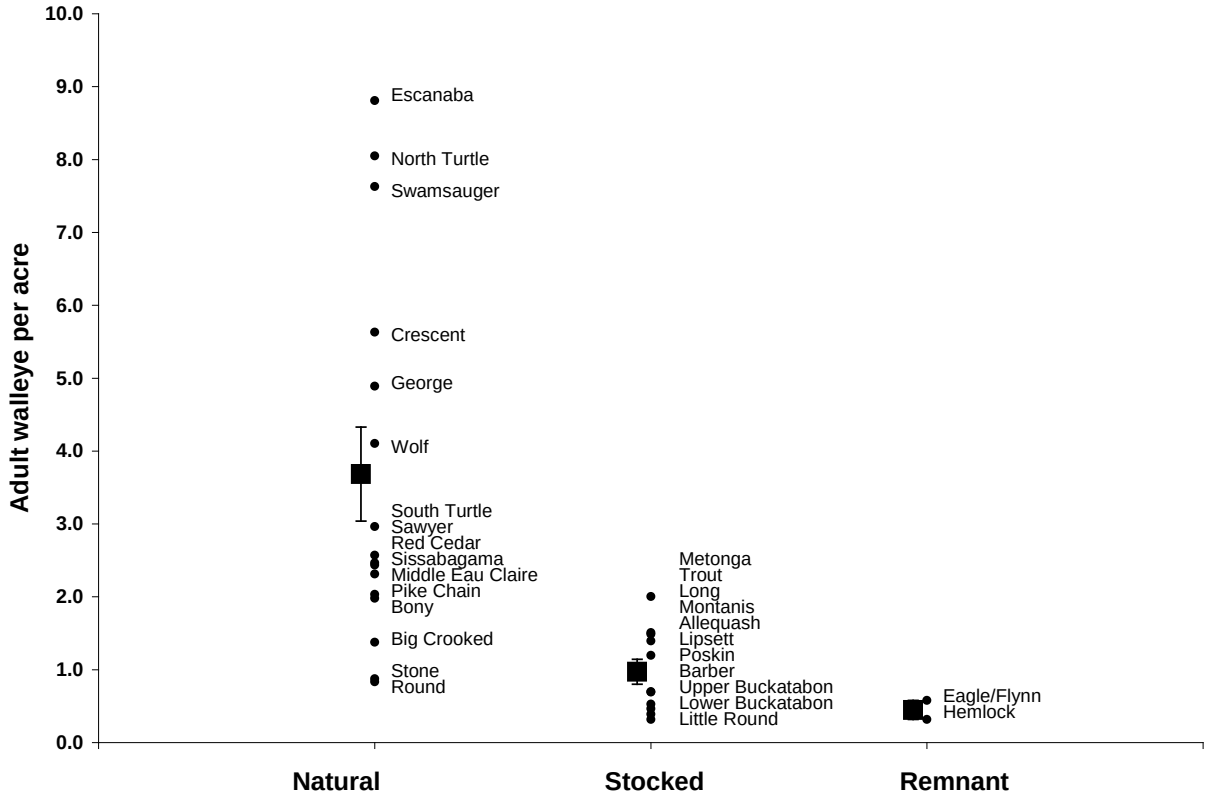

Figure 8. Adult walleye density estimates for lakes sampled by WDNR in spring 2010 based on primary population recruitment source.

Table 2. Comparison of current and historic walleye population estimates and percent change by recruitment model for lakes surveyed during 2010.

County	Lake	Acres	Year	Recruit. Code	Adult PE	Density (#/acre)	Percent Change
Natural Recruitment Lakes							
Barron	Red Cedar	1841	2010	C-NR	4,542	2.5	21.7
			2005	C-NR	3,733	2.0	-13.3
			1992	NR	4,304	2.3	
Bayfield	Bony	191	2010	C-NR	378	2.0	-34.3
			2007	C-NR	575	3.0	33.1
			2004	C-NR	432	2.3	-12.6
			1998	C-ST	494	2.6	
Bayfield	Pike Chain	713	2010	NR	1,451	2.0	-66.0
			2001	NR	4,272	6.0	
Oneida	Crescent	626	2010	NR	3,526	5.6	46.3
			1992	NR	2,410	3.9	
Oneida	George	435	2010	C-NR	2,127	4.9	7.4
			1999	NR	1,981	4.6	73.2
			1995	NR	1,144	2.6	
Sawyer	Round	3,054	2010	C-NR	2,543	0.8	-60.3
			1998	C-NR	6,399	2.1	-33.5
			1991	C-	9,618	3.1	
Sawyer	Sissabagama	719	2010	C-NR	1,752	2.4	-62.1
			1997	NR	4,617	6.4	-16.3
			1991	NR	5,517	9.1	
Vilas	North Turtle	369	2010	NR	2,970	8.0	-1.6
			1991	NR	3,018	8.2	
Vilas	South Turtle	454	2010	NR	1,345	3.0	64.8
			1991	NR	816	1.8	
Stocked Recruitment							
Iron	Long	396	2010	C-ST	589	1.5	-22.8
			2001	C-ST	763	1.9	22.7
			1996	C-ST	622	1.6	
Vilas	Allequash	426	2010	C-ST	510	1.2	21.7
			1995	ST	419	1.0	
Vilas	L. Buckatabon	352	2010	ST	138	0.4	76.9
			1990	ST	78	0.2	
Vilas	U. Buckatabon	494	2010	ST	230	0.5	-32.4
			1990	ST	340	0.7	

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 ranging from <1 to nearly 9 fish/acre. Six of 16 sampled lakes had walleye densities exceeding 4 fish/acre; of those 4 have specialized harvest regulations in place (Escanaba Lake=28" minimum; Crescent, George and North Turtle = no minimum size and only 1 fish>14"). Walleye spawning in the 7-11.9 inch category were very limited in relative abundance in most natural production lakes sampled. Lakes that had substantial proportions of the overall walleye population made up of smaller fish tended to be those with specialized regulations although it is unclear if this is directly related to the harvest regulations or other factors (e.g. sporadic recruitment).

In stocked model lakes spawning walleye abundance and size structures were less variable than that observed in natural model lakes (Figure 10). With the exception of Lake Metonga (Forest Co.; 2.0/acre), walleye densities observed in stocked model lakes were less than 1.5 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 10 natural, 12 stocked, and nine remnant model lakes sampled in 2010 (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.

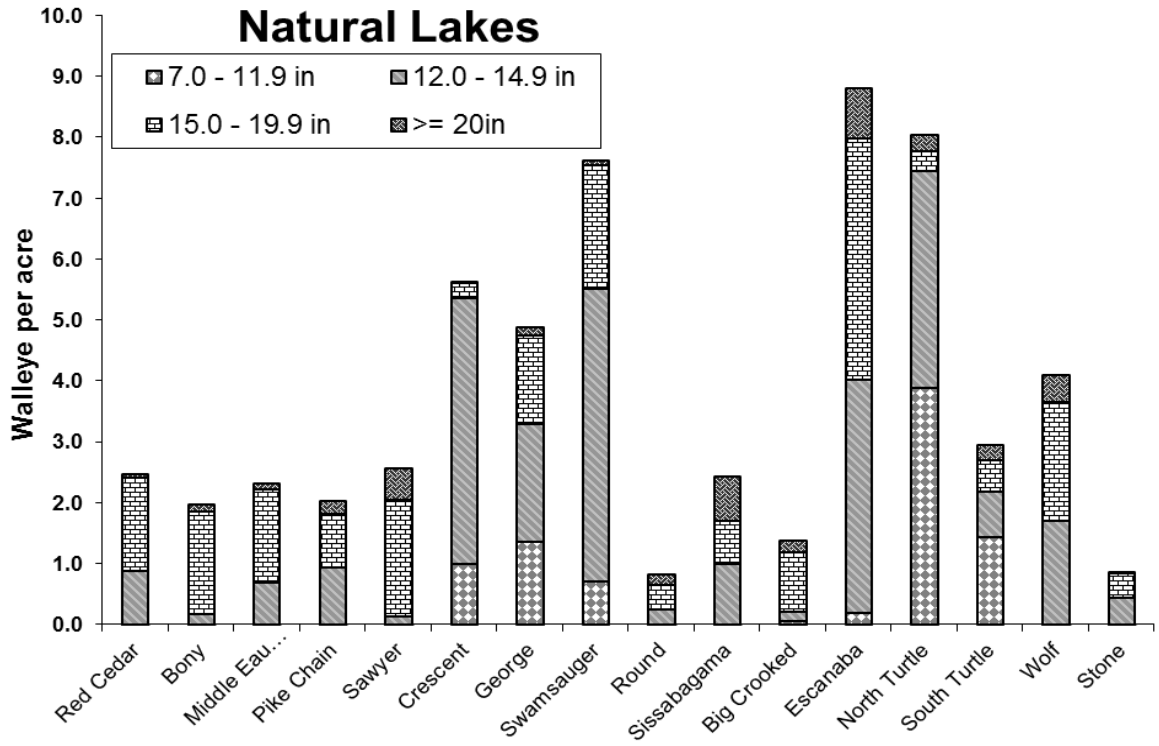

Figure 9. Size distribution of spawning walleye sampled in natural production model lakes during 2010.

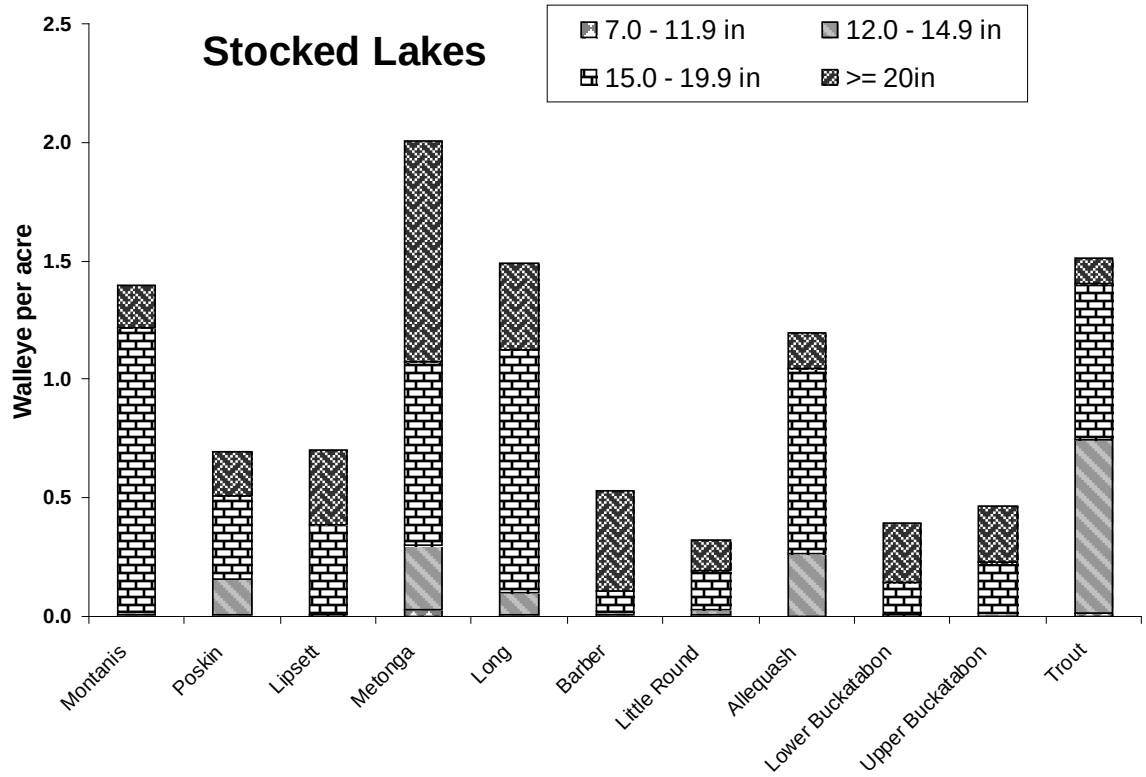

Figure 10. Size distribution of spawning walleye sampled in stocked production model lakes during 2010.

Table 3. Walleye Proportional and Relative Stock Density values for lakes surveyed in spring, 2010.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Natural Recruitment Lakes						
Langlade	Sawyer Lake	149	NR	1>14	79	18
Marinette	High Falls Reservoir	1498	C-NR	15	83	58
Oneida	Crescent Lake	612	NR	1>14	9	2
Oneida	George Lake	435	C-NR	1>14	24	10
Rusk	Dairyland Reservoir	1745	NR	15	21	0
Sawyer	Lac Courte Oreilles	5039	C-NR	15	67	67
Sawyer	Lake Chippewa	15300	C-NR	None	31	7
Sawyer	Lost Land Lake	1304	C-NR	None	50	25
Sawyer	Teal Lake	1049	NR	None	14	7
Vilas	South Turtle Lake	454	NR	1>14	34	20
Stocked Recruitment Lakes						
Barron	Lake Montanis	200	C-ST	15	50	50
Barron	Lower Vermillion Lake	208	C-ST	15	0	0
Barron	Poskin Lake	150	ST	15	75	75
Oneida	Bear Lake	312	ST	15	67	0
Oneida	Pier Lake	257	C-ST	15	50	25
Oneida	Tom Doyle Lake	102	C-ST	15	100	100
Rusk	Chain Lake	468	C-ST	15	100	100
Rusk	Clear Lake	95	C-ST	15	0	0
Rusk	Island Lake	526	C-ST	15	80	60
Sawyer	Barber Lake	238	C-ST	15	14	14
Vilas	Lower Buckatabon Lake	352	ST	15	100	97
Vilas	Upper Buckatabon Lake	494	ST	15	95	85
Remnant Population Lakes						
Barron	Hemlock Lake	357	REM	18	78	67
Chippewa	Cornell Lake	194	0-ST	Slot14-18	100	72
Lincoln	Pickerel Lake	46	REM	15	100	100
Oconto	Waubee Lake	137	0-ST	15	100	0
Oneida	Hancock Lake	259	NR-2	15	64	36
Oneida	Stella Lake	405	0-ST	18	88	75
Polk	Big Lake	259	0-ST	15	38	0
Taylor	Shearer Lake	21	0-ST	15	75	75
Vilas	Pickerel Lake	46	REM	15	100	88

In natural model lakes observed PSD and RSD-18 values were highly variable, with PSDs ranging from 9 to 83 percent and RSD-18s ranging from 0 to 67 percent (Table 3). In stocked and remnant model lakes observed PSD values showed less variability than was noted in natural model lakes although RSDs were more variable than PSDs. PSDs in stocked model lakes typically exceeded 50 percent with few exceptions (0 in L. Vermillion and Clear lakes, 14 in Barber Lake). PSDs in remnant model lakes exceeded 50 percent in all surveyed lakes except Big Lake (Polk Co.). RSD-18s in both stocked and remnant model lakes surveyed ranged from 0-100 percent.

In 2010, 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 in natural model lakes has remained relatively static over time; the regression of natural model lakes over time has a slope of -0.004 and is not statistically significant (p=.99; Figure 12). Mean PSD in stocked model lakes regressed over time has a stronger negative slope (-0.125) although this relationship is not statistically relevant (p=.42). 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.

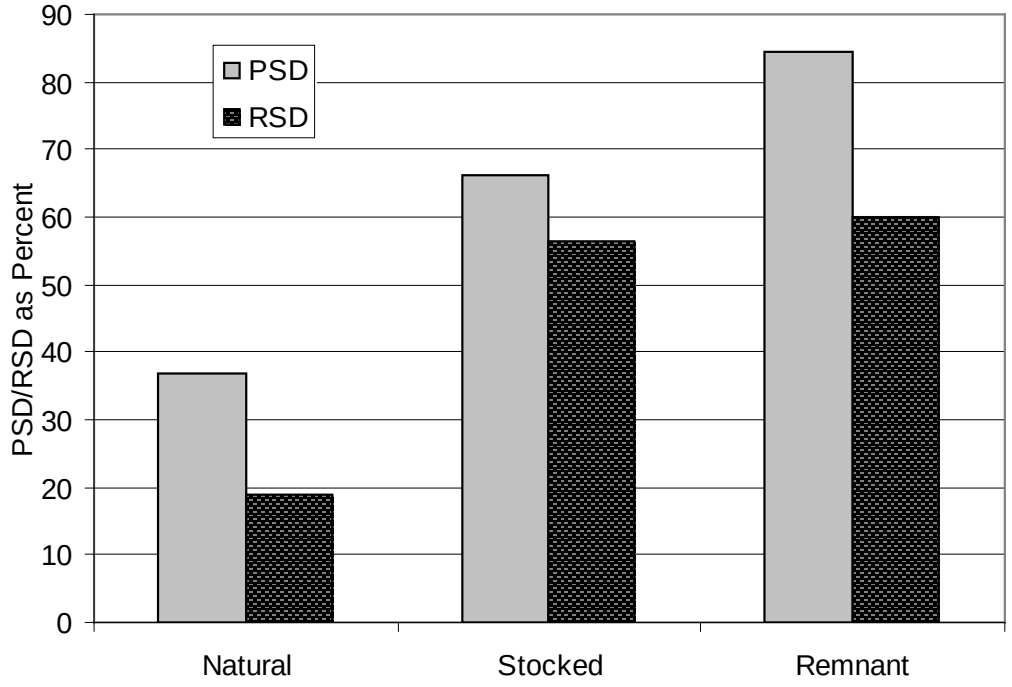

Figure 11. Comparison of mean PSD and RSD-18 values across lakes in various walleye recruitment models for lakes sampled in 2010.

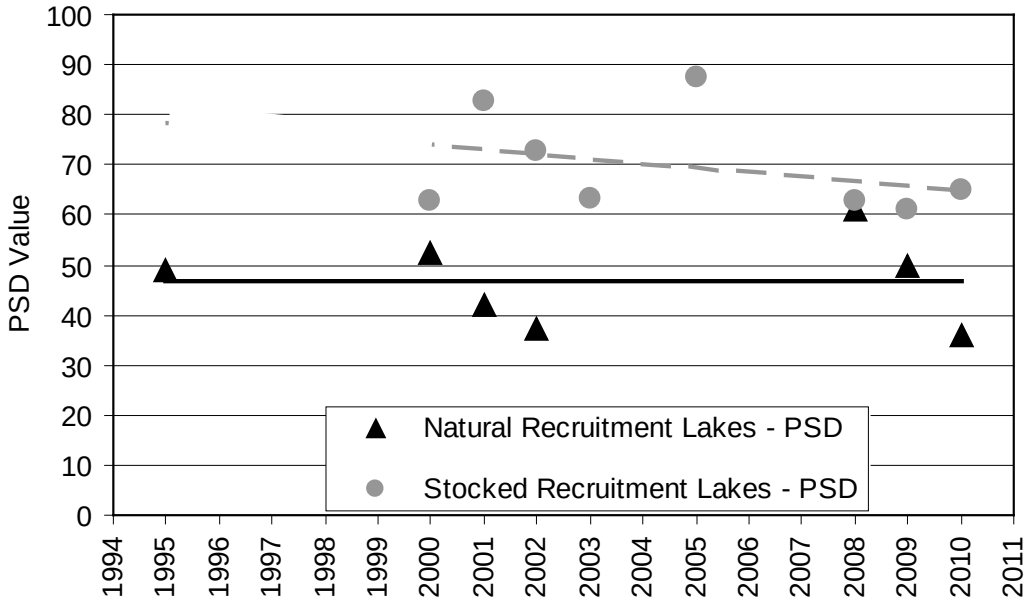

Figure 12. Trends in PSD values observed for walleye in Ceded Territory lakes since 1995.

Muskellunge Abundance

Adult muskellunge population and density estimates were completed in twelve Ceded Territory waters during spring 2010 (Table 4, Appendix G). The estimate for Fishtrap Lake, Vilas Co., was rejected by the Technical Working Group due to a lack of recaptures and is therefore not presented here. Population estimates completed in 2010 reflect 2009 population numbers because of the two-year mark-recapture time span used to derive estimates. Muskellunge densities ranged between 0.04 and 1.17 adult fish/ acre and did not appear to be related to lake size or angler regulations (Table 4).

Bass Abundance

Smallmouth bass population estimates were made in six lakes and largemouth bass population estimates in seven lakes in 2010 (Table 5). Smallmouth bass densities ranged from 0.2–1.5 fish per acre and were greater than 1.0 fish per acre in four of six surveyed lakes (Metonga, Crescent, Red Cedar and Sissabagama). Largemouth bass density ranged from 2.2–9.8 fish per acre with only two lakes (Red Cedar and Montanis) having densities less than 6.5 fish per acre (Table 5).

The size structure of both largemouth and smallmouth bass was dominated by fish less than 18" in length (Figure 13 and Figure 14). Larger fish (>18") were more prevalent in smallmouth bass populations than in largemouth bass population sampled in 2010.

Table 4. Adult muskellunge population estimates completed in 2010 in the Wisconsin Ceded Territory. Regulations presented are for 2010.

County	Lake	Angler Regulation (inches)	Acres	Minimum length in PE (inches)		Adult PE	CV(%)	Total per acre
				Male	Female			
Barron	Sand	34	322	30	30	107	17.4	0.33
Langlade	Greater Bass	34	258	29	30	36	22.8	0.14
Langlade	Summit	34	282	23	30	158	29.3	0.56
Lincoln	Mohawksin	34	1910	22.5	28.5	338	18.7	0.18
Oneida	Gilmore	34	320	26	29.5	215	32.5	0.67
Oneida	Tomahawk	34	3,392	30	30	189	25.3	0.06
Polk	Deer	34	807	29.5	30	465	11	0.58
Sawyer	Grindstone	50	3111	22.5	30	135	29.5	0.04
Sawyer	L. of the Pines	34	273	25	30	320	18.8	1.17
Vilas	High	34	734	28	30	356	26.1	0.49
Vilas	Plum	34	1033	30	28.5	88	18.3	0.09

Table 5. Bass population estimates for lakes sampled in the Wisconsin Ceded Territory in spring 2010.

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									
Forest	Metonga	1,991	14	2,930	0.26	1.47	0.75	0.60	0.13
Oneida	Crescent	626	18	792	0.20	1.27	0.39	0.73	0.15
Oneida	George	435	14	226	0.28	0.52	0.26	0.18	0.08
Barron	L Montanis	200	14	41	0.36	0.21	0.17	0.04	0.01
Barron	Red Cedar	1,841	14	1,915	0.25	1.04	0.66	0.38	0.00
Sawyer	Sissabagama	719	14	725	0.25	1.01	0.91	0.09	0.00
Largemouth Bass									
Langlade	Sawyer	149	12-16" Slot	1,463	0.21	9.82	7.73	2.05	0.03
Lincoln	Hilts	59	14	552	0.14	9.35	8.79	0.54	0.02
Lincoln	Pickerel	46	14	372	0.20	8.09	4.58	3.45	0.07
Barron	L Montanis	200	14	647	0.25	3.24	1.75	1.49	0.01
Barron	Poskin	150	14	978	0.11	6.52	3.55	2.73	0.24
Barron	Red Cedar	1,841	14	3,977	0.13	2.16	1.61	0.54	0.01
Sawyer	Sissabagama	719	14	6,804	0.11	9.46	7.76	1.69	0.01

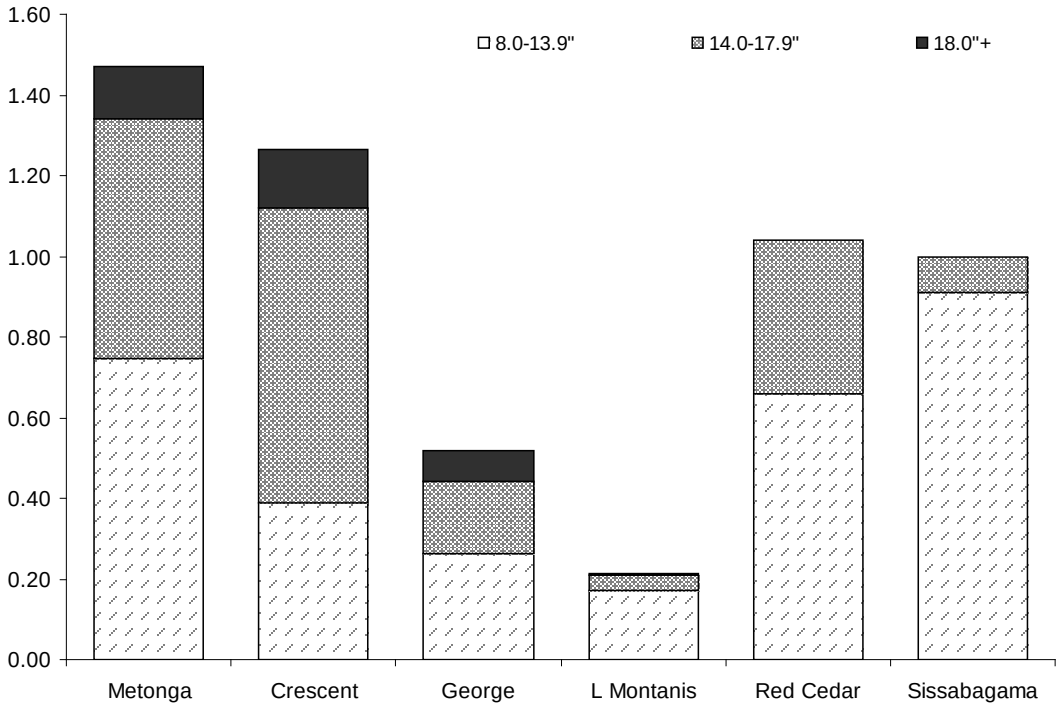

Figure 13. Smallmouth bass population densities (fish ≥ 8.0") by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2010.

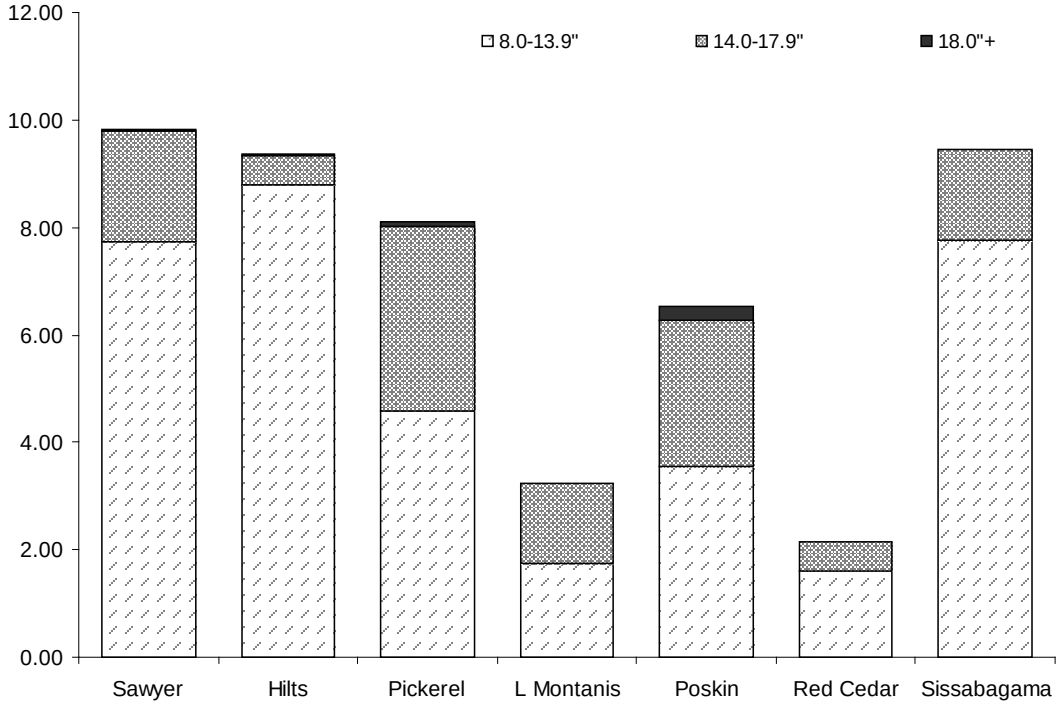

Figure 14. Largemouth bass population densities (fish ≥ 8.0") by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2010.

Creel Surveys

In 2010-2011 (May through March), creel surveys were conducted for 20 waters in which walleye population estimates were made during spring 2010 (Appendix D). Creel surveyed lakes ranged in size from 199 to 3,816 acres (Eagle/Flynn lakes-Bayfield Co. and Trout Lake-Vilas Co., respectively) and were located across 8 counties within the Ceded Territory.

Overall Angler Effort

Despite an apparent difference in the values, the mean total angler effort per acre in lakes 500 acres and larger (8 lakes, 23.5 hours/acre) did not statistically differ from the effort recorded on lakes smaller than 500 acres (12 lakes, 30.0 hours/acre) in 2010-2011 (t-test (equal variances) $t = -1.16$, $df = 18$, $P = 0.26$). Since 1995 when random lake selection began, mean total angler effort has been significantly lower in large lakes (26.7 hours/ acre) than in small lakes (36.0 hours/ acre; t-test (unequal variances) $t = -3.36$, $df = 213$, $P < 0.01$). No trend in total angler effort has been observed since 1995 across all lakes [$F(1; 309) = 0.20$, $P = 0.65$]. 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 6.9 hours per acre in surveyed lakes during the 2010-11 angling season; Directed effort is defined as hours reported by anglers fishing for a specific species. In lakes monitored in 2010-11, directed walleye effort in lakes sustained by natural reproduction (9.4 hours/ acre) was significantly higher than in lakes sustained by stocking (3.8 hours/ acre; t-test-equal variances, $t = 4.22$, $df = 18$, $P < 0.01$). However, no significant difference was found in directed fishing effort for walleye between large (≥500 ac., 7.5 hours/ acre) and small lakes (<500 ac., 6.5 hours/ acre; t-test (equal variances) $t = 0.54$, $df = 18$, $P = 0.59$) surveyed during the 2010-11 angling season. Since 1995, directed angler effort (hours/acre) for walleye has shown a significant decline [Slope = -0.25, $F(1;309) = 8.36$, $P < 0.01$), although this statistical trend seems driven by high observed value(s) in 1996 and possibly 2000 rather than by any notable long term trend (Figure 16).

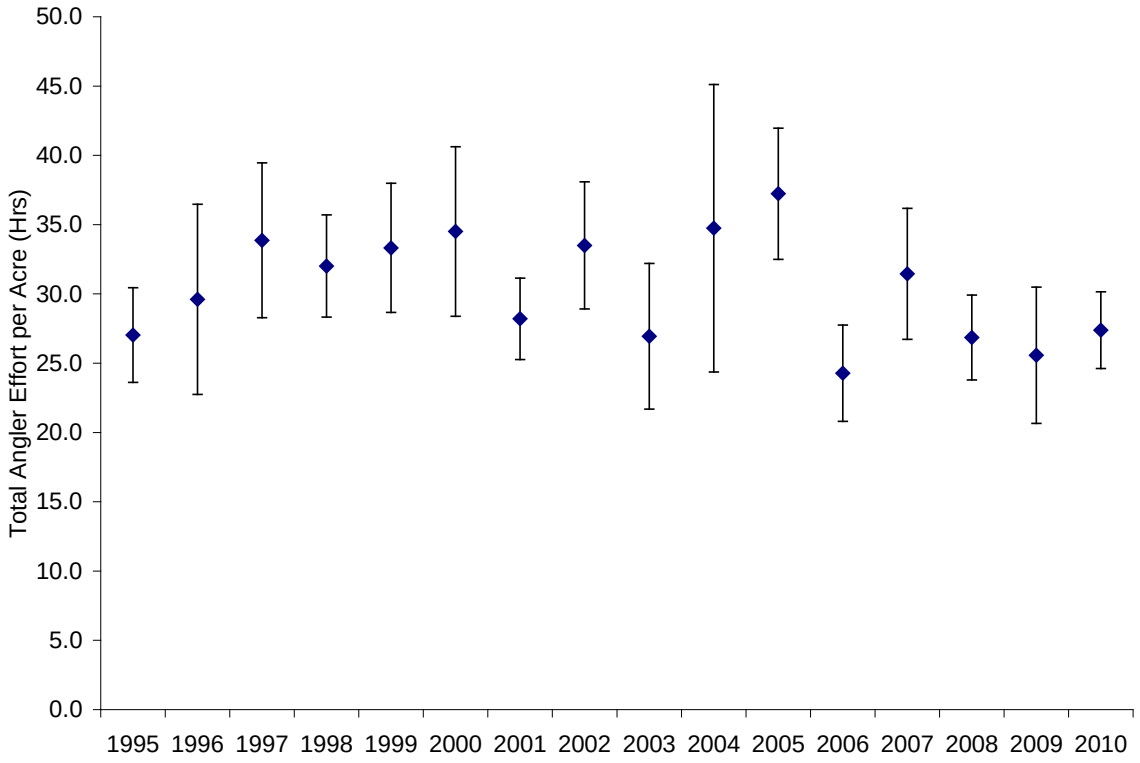

Figure 15. Average total angler effort per acre (±SE) in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2010.

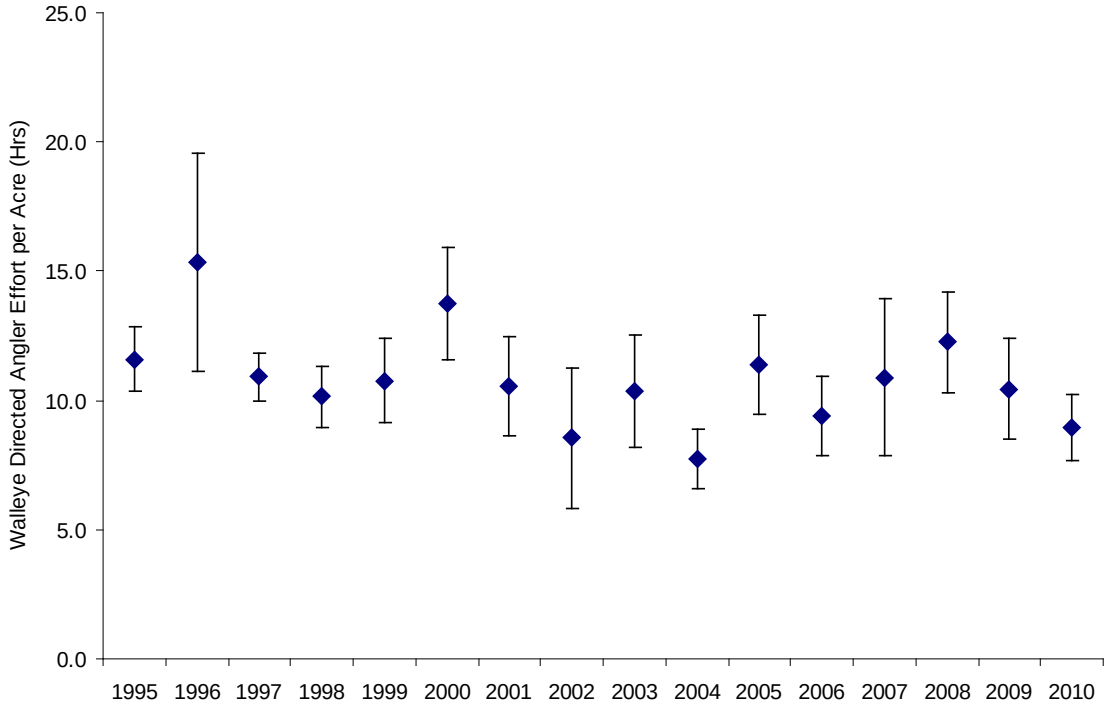

Figure 16. Directed angler effort per acre (±SE) for walleye in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2010.

In 2010-11 the mean specific catch rates (SCR) was 0.17 walleye/hour of directed effort (1 fish per 5.9 walleye angling hours). In lakes with naturally sustained or stocked populations, respectively, mean SCRs were 0.22 walleye per hour (4.5 hours directed effort/ walleye caught) and 0.11 walleye/ hour (1 fish per 8.9 hours of directed effort). Specific harvest rates averaged 0.08 walleye/hour of directed effort (12.5 hours directed effort/walleye harvested) and ranged between 0.00 and 0.33 walleye/hour for individual lakes surveyed (Appendix D). Based on creel survey results, anglers harvested approximately 43% of all walleye caught during the 2010-11 season; this is well above average annual percentage estimated between 1995 and 2009 (28%).

Between 1995 and 2010 a statistically relevant downward trend in SCR was observed [Figure 17; Slope = -0.0070, $F(1, 309) = 4.89$, $P = 0.03$]. Although statistically relevant this trend appears driven by relatively high catch rates estimated in 1996 and 1997; with a slope very near zero, there is likely no biological or other relevance to this trend. No discernible trend was noted for specific harvest rate by year since 1995 [$F(1, 309) = 0.00$, $P = 0.95$] for walleye in the Wisconsin Ceded Territory (Figure 17).

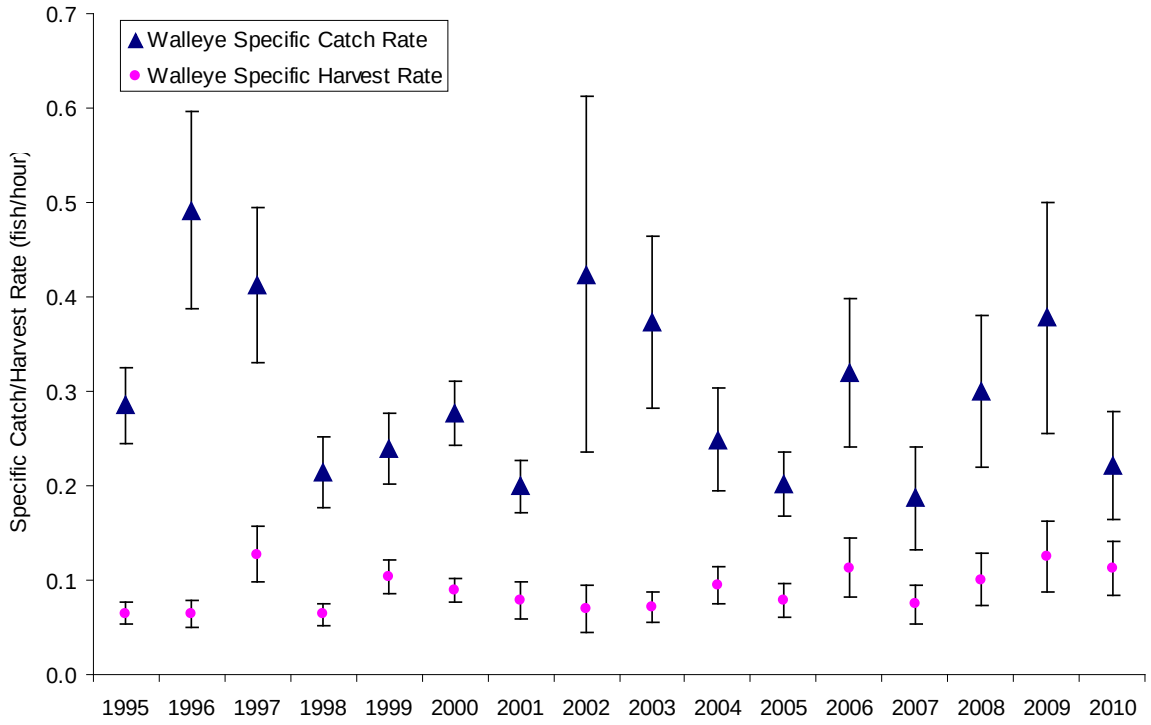

Figure 17. Specific catch and harvest rates (±SE) for walleye in surveyed lakes in the Wisconsin Ceded Territory, 1995-2010. Specific catch or harvest rate is number of walleye caught or harvested divided by time spent fishing specifically for walleye.

Walleye exploitation rates were estimated for 19 lakes during 2010-11 (Table 6; Appendix I). Estimated total (angler + tribal) exploitation of walleye ranged from 0% to 34.3%. Angler exploitation of walleyes in various size classes was variable with exploitation of walleye 14" or longer ranging from 0% to 25.4% whereas that of walleyes 20" or longer ranged from 0.0% to 50.0%. Tribal exploitation of walleyes ranged from 0.0% to 28.8% across all lakes and exceeded estimates of angler exploitation in five surveyed lakes. Based on 2010-11 survey results angler exploitation of walleye populations was estimated as zero in two of 19 lakes surveyed; seven of the 19 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 2010-11 total walleye exploitation was below 35% in all lakes evaluated.

Table 6. Adult walleye exploitation rates by lake and harvest type for 2010, with comparison to 1995-2009 mean exploitation rates.

Lake	County	Acres	Angler exploitation	Angler expl. ≥14"	Angler expl. ≥20"	Tribal expl.[1]	Total adult exploitation
Middle Eau Claire	Bayfield	902	0.1327	0.1483	0.0000	0.0997	0.2324
Pike Chain (BB,H,LM,TB)	Bayfield	713	0.0808	0.1079	0.1587	0.0000	0.0808
Eagle/Flynn (Pike Chain)	Bayfield	199	0.0000	0.0000	0.0000	0.0000	0.0000
Lipsett	Burnett	393	0.0743	0.0747	0.1294	0.0618	0.1361
Metonga	Forest	1991	0.1231	0.1430	0.0848	0.0000	0.1231
Long	Iron	396	0.0824	0.0852	0.5000	0.0000	0.0824
Crescent	Oneida	626	0.0541	0.1427	0.0000	0.0576	0.1116
George	Oneida	435	0.1260	0.1806	0.0000	0.0310	0.1570
Barber	Sawyer	238	0.0568	0.0575	0.0641	0.0079	0.0648
Little Round	Sawyer	229	0.0000	0.0000	0.0000	0.2877	0.2877
Round	Sawyer	3054	0.0568	0.0705	0.0000	0.2403	0.2970
Sissabagama	Sawyer	719	0.1560	0.2086	0.0534	0.1336	0.2895
Allequash	Vilas	426	0.1478	0.1567	0.1364	0.0000	0.1478
L. Buckatabon	Vilas	352	0.0490	0.0490	0.0000	0.0000	0.0490
U. Buckatabon	Vilas	494	0.2514	0.2543	0.3812	0.0392	0.2906
North Turtle	Vilas	369	0.1023	0.0539	0.1540	0.0000	0.1023
South Turtle	Vilas	454	0.0886	0.1429	0.1855	0.1123	0.2009
Trout	Vilas	3816	0.0413	0.0564	0.0936	0.0366	0.0780
Stone	Washburn	523	0.0982	0.1189	0.0000	0.2445	0.3428
2010 mean			**0.0906**	**0.1079**	**0.1022**	**0.0712**	**0.1618**
1995-2009 mean			**0.0864**	**0.1074**	**0.1252**	**0.0454**	**0.1316**

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

Muskellunge Effort and Catch

Of the 20 lakes and chains surveyed in 2010-11, 17 are classified as musky waters. Creel clerks recorded at least one musky caught from 16 of the 20 lakes surveyed; no musky were reported as caught from any non-classified musky waters (Appendix D). For the purpose of analyses and summarization of catch and effort, lakes not classified as musky waters and those without directed fishing effort were excluded even if limited numbers of musky were reported in creel surveys.

In general, the "action classification" assigned to lakes (WDNR 1996) is a better predictor of musky catch and effort than recruitment source or lake size to describe variability in catch and effort (Simonson and Hewett 1999). In most cases the 2010 estimates of angler catch, catch rate, and directed effort were not significantly different than the prior 10 year averages for each lake classification (Analysis of variance, Proc GLM; Table 7). The single exception was angler catch/acre in Class A2 waters which was significantly less in 2010 than in the ten previous years ($P < 0.05$; 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; $F(1, 238) = 2.97$, $P = 0.08$] or catch rates [$F(1, 238) = 1.01$, $P = 0.32$] in the Ceded Territory since 1995 (Figure 18).

Table 7. Comparison of muskellunge catch and effort rates in 2010 and average values from 2000-2009, by musky lake classification.

Class	Class Description	Lakes sampled	Angler catch/ acre	Specific catch rate (fish/ hour)	Directed effort (hours/ acre)
2010					
A1	Trophy waters	6	0.14	0.02	6.91
A2	Action waters	9	0.44*	0.03	10.12
B	Intermediate action/ size	1	0.00	0.00	1.85
C	Low importance	2	0.01	0.00	1.01
Total		18	0.27	0.02*	7.58
2000-2009 Averages (Prior 10 years)					
A1	Trophy waters	52	0.23	0.03	6.54
A2	Action waters	60	0.66*	0.04	11.96
B	Intermediate action/ size	20	0.16	0.03	4.19
C	Low importance	7	0.04	0.01	0.45
Total		139	0.39	0.03*	8.24

* Difference between 2010 and prior 10 year average is statistically significant ($p<0.05$).

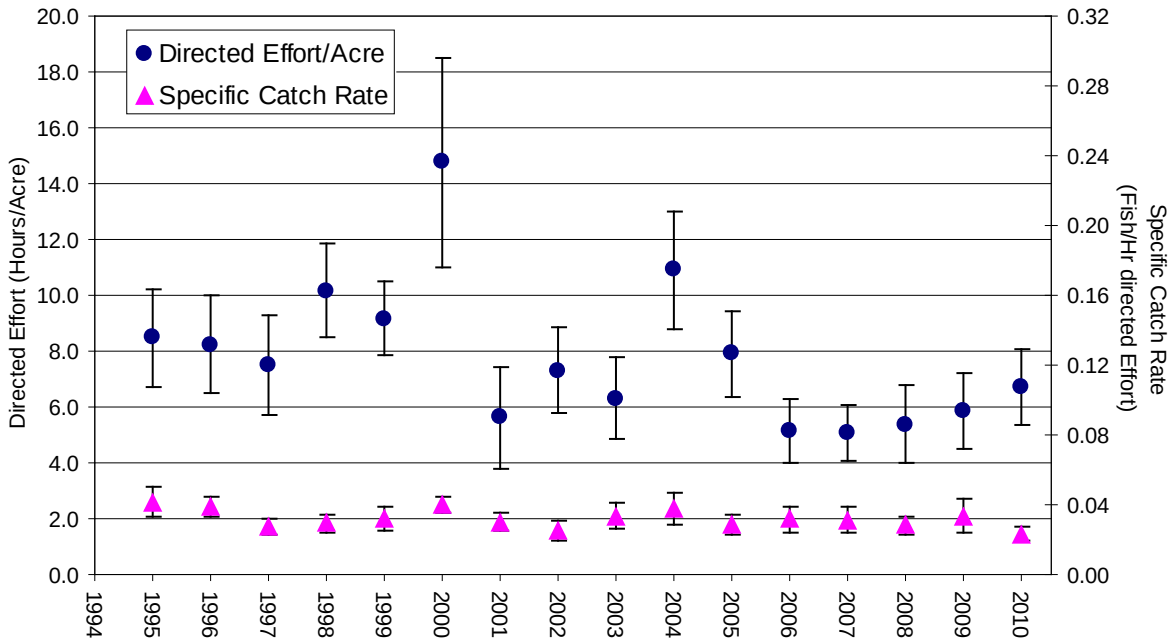

Figure 18. Directed angler effort per lake surface acre and specific catch rate (±SE) for muskellunge in surveyed lakes in the Wisconsin Ceded Territory, 1995-2010.

Northern Pike Effort and Catch

Directed effort and catches of northern pike were recorded for all of the 20 lakes surveyed in 2010-11 (Appendix D). Of the 20 lakes with northern pike effort and catch, twelve were smaller than 500 acres and eight were 500 acres or larger (Table 8). Although differences in mean values appeared substantial for some variables, there were no significant differences between large and small lakes with regard to directed angler effort, specific catch rate, angler catch per acre, or specific harvest rate of northern pike during the 2010-11 angling season (Table 8). For northern pike no significant differences were found between 2010-11 creel values and the corresponding prior 10 year averages (2000 -2009) 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 [$F(1, 291) = 0.16$, $P = 0.69$]. Similarly, specific catch rates of northern pike show no significant trend since 1995 [$F(1, 291) = 0.39$, $P = 0.53$].

Table 8. Mean estimates calculated from 2010 and 2000-2009 northern pike creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2010*							
	< 500 acres	12	3.24	0.33	0.23	0.03	5.84
	> 500 acres	8	1.65	0.19	0.21	0.05	3.15
	All lakes	20	2.60	0.27	0.22	0.04	4.77
2000-2009**							
	< 500 acres	87	2.15	0.38	0.19	0.05	4.80
	> 500 acres	102	1.88	0.29	0.20	0.05	3.46
	All lakes	189	2.00	0.33	0.20	0.05	4.07

* No significant differences exist between large and small lakes for any parameter for the 2010-11 angling season (T-test, $p>0.05$).

** No 2010 values differ significantly (T-test, $p\geq0.05$) from corresponding 10 yr. averages.

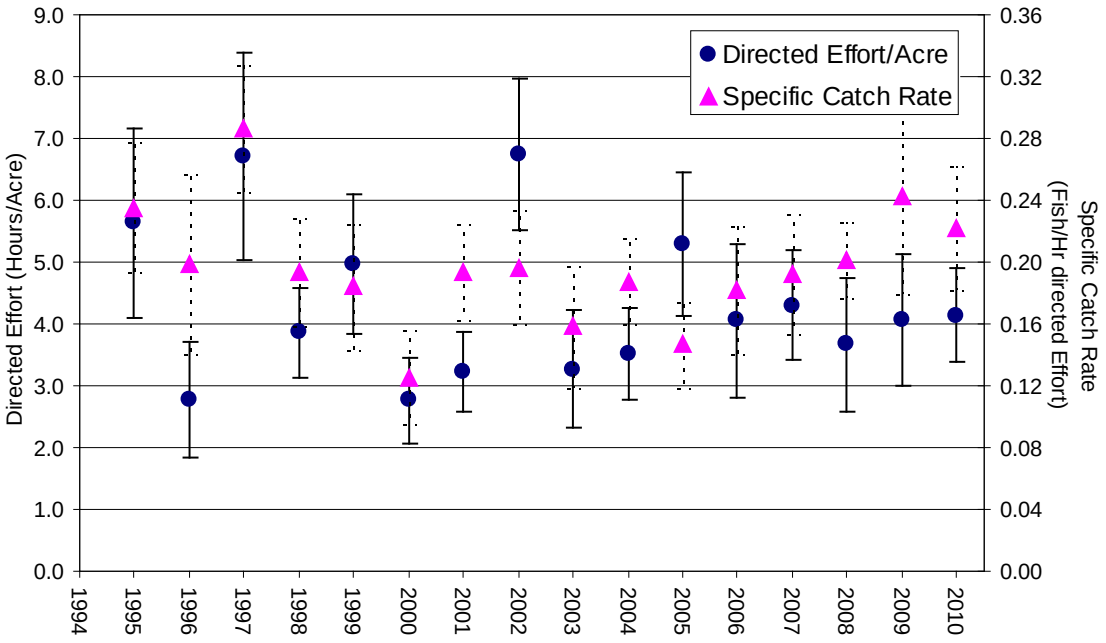

Figure 19. Directed angler effort per lake surface acre and specific catch rate (±SE) for northern pike in surveyed lakes in the Wisconsin Ceded Territory, 1995-2010.

Largemouth Bass Effort and Catch

Catches of largemouth bass were reported for 17 of the 20 lakes surveyed in 2010 although there was directed effort targeting largemouth bass in 19 of the surveyed lakes (Appendix D). No specific angling effort was directed at largemouth bass in Long Lake (Iron County; Appendix D). Of surveyed lakes with largemouth bass catch, ten were smaller than 500 acres and seven were 500 acres or larger (Table 9). In 2010-11, there were no significant differences between large and small lakes with regard to directed (toward largemouth bass) angler effort, angler catch or harvest numbers, nor specific catch or harvest rates (T-tests, equal variance, P >0.05). None of the creel statistics evaluated during 2010-11 differed from the respective prior 10 year averages for large lakes, small lakes, or all lakes combined (T-tests, P >0.05; Table 9).

During the 2010-11 angling season the mean specific catch rate for largemouth bass in Ceded Territory lakes visually approximated the average when compared to the prior 5 years (Figure 20). Since 1995 there has been a statistically detectable increase in both directed angler effort [Slope = 0.150, $F(1, 283) = 4.45$, $P = 0.036$] and specific catch rates [Slope = 0.025, $F(1, 283) = 25.56$, $P < 0.01$] in largemouth bass fishing in Wisconsin Ceded Territory lakes (Figure 20).

Table 9. Mean estimates calculated from 2010 and 2000-2009 largemouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2010*							
Small	< 500 acres	12	6.83	0.18	0.38	0.02	6.89
Large	> 500 acres	8	3.01	0.16	0.47	0.01	3.88
	All lakes	20	5.30	0.17	0.43	0.02	5.68
2000-2009**							
Small	< 500 acres	82	4.81	0.17	0.42	0.02	5.11
Large	> 500 acres	99	4.28	0.21	0.39	0.02	3.93
	All lakes	181	4.52	0.19	0.40	0.02	4.47

* No significant differences exist between large and small lakes for any parameter for the 2010-11 angling season (T-test, p>0.05).
** No significant differences exist between 2010-11 values and corresponding 10 yr. averages for any parameter (T-test, p>0.05) in large, small, or all lakes combined.

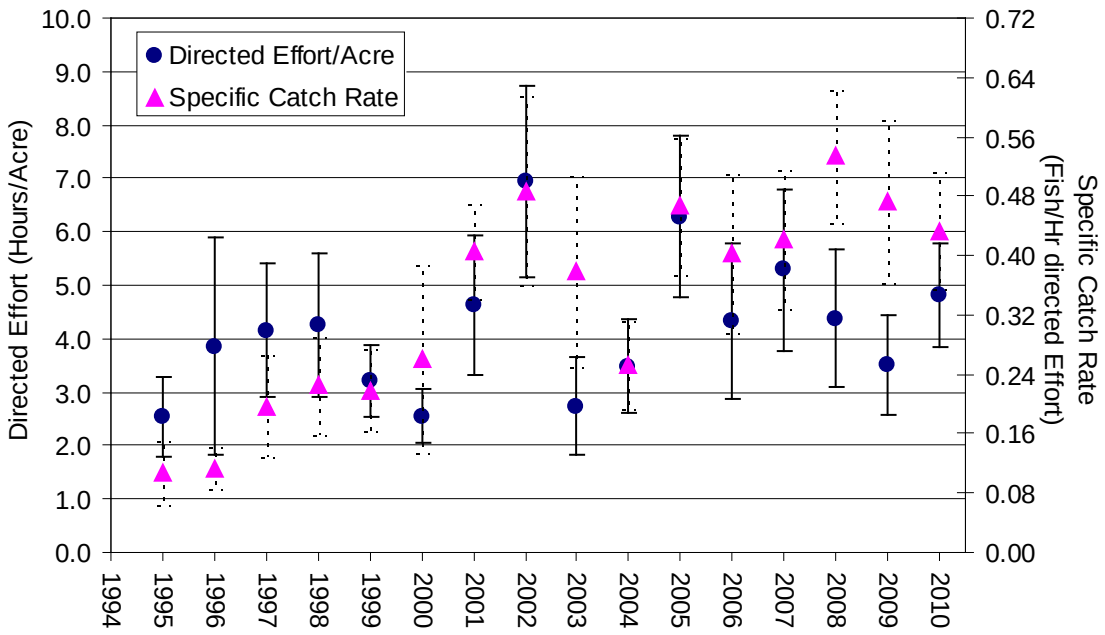

Figure 20. Directed angler effort per lake surface acre and specific catch rate (±SE) for largemouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2010.

Smallmouth Bass Effort and Catch

Catches of smallmouth bass were reported in each of the 20 lakes surveyed in the 2010-11 angling season, and all surveyed lakes had at least some level of directed effort for smallmouth bass (Appendix D). Of the lakes with smallmouth bass catch in 2010-11, twelve were classified as 'small' (<500 ac.) and eight as 'large' (≥500 ac.; Table 10). There were no significant differences in directed angler effort, catch/acre, harvest/acre, or specific harvest rate (T-test, $P>0.05$) between large or small lakes in 2010-11; specific catch rate was significantly greater in large lakes (0.50) than in small lakes (0.19, T-test, $P<0.05$; Table 10). In small lakes specific catch and harvest rates and catch/acre were significantly less than the corresponding 10 year averages (T-test, $P<0.05$;); In large lakes, no creel statistics evaluated during 2010-11 differed from the respective 10 year averages (Table 10).

Both directed effort and specific catch rates of smallmouth bass anglers in the Ceded Territory have been variable over time. The average of both directed effort and specific catch rates in surveyed lakes during 2010-11 was generally similar to values in most other years since 1995 (Figure 21). Since 1995 when a randomized lake selection process was instituted there have been no statistically detectable

trends in directed angler effort/acre [F(1, 282) = 0.13, P = 0.72] (Figure 21). Although not visually discernible, there has been a statistically relevant trend in specific catch rates of smallmouth bass over the same timeframe [F(1, 282) = 6.81, P = 0.01], although the slope of that trend (0.01) is minimal.

Table 10. Mean estimates calculated from 2010 and 2000-2009 smallmouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2010							
Small	< 500 acres	12	1.06	0.03	0.19*	<0.01	3.35
Large	> 500 acres	8	3.19	0.15	0.50*	0.02	4.13
	All lakes	20	1.91	0.08	0.32	0.01	3.66
2000-2009							
Small	< 500 acres	80	2.44	0.07	0.35**	0.01**	3.78
Large	> 500 acres	100	2.15	0.07	0.41	0.02	3.09
	All lakes	180	2.28	0.07	0.38	0.02	3.40

* Differences between large and small lakes within the 2010-11 angling season are significant (T-test, p>0.05).
** 10 yr. averages differ significantly from corresponding 2010-11 annual values (T-test, p≤0.05).

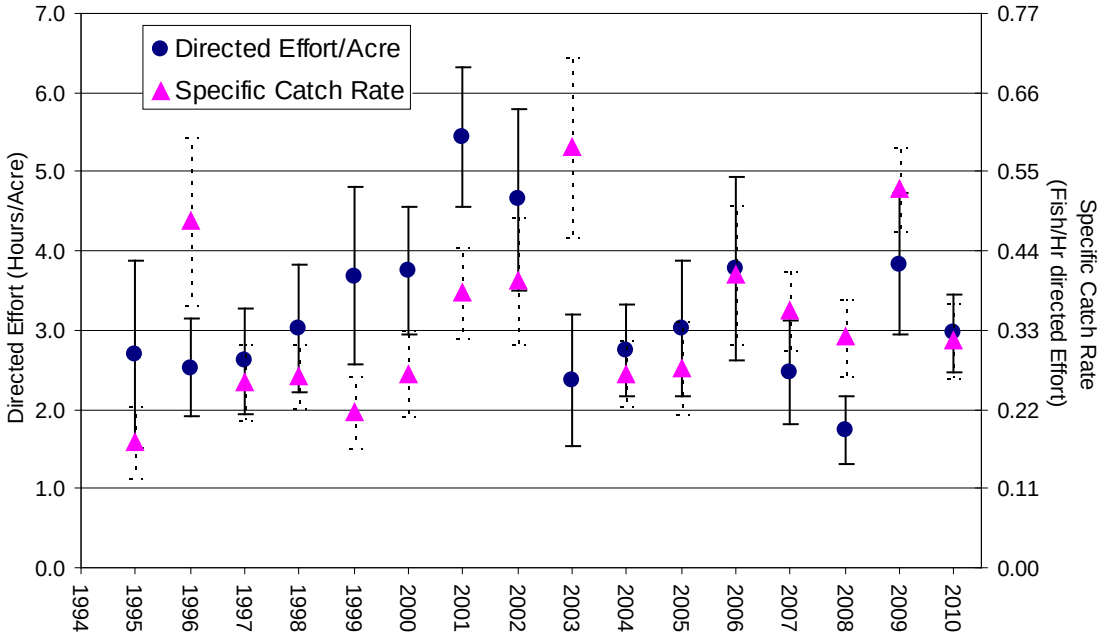

Figure 21. Directed angler effort per lake surface acre and specific catch rate (±SE) for smallmouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2010.

Safe Harvest

Safe harvest calculated for the 2010 harvest season was 96,748 walleye and 5,243 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 (20,133 walleye, 1,518 musky), Oneida (18,327 walleye, 1,060 musky), Sawyer (10,711 walleye, 565 musky) and Iron (10,253 walleye, 387 musky) counties, respectively. When totaled, safe harvest from these four counties accounted for 61 percent of overall walleye and 67 percent of overall musky safe harvest for the Wisconsin Ceded Territory during 2010. Safe harvest numbers for individual lakes are listed in Appendix J.

Table 11. Walleye and musky safe harvest levels and ranks by county for the 2010 harvest season.

County	Lake Acreage*	Total Calculated Safe Harvest		Ranks (1 = Greatest #)	
		Walleye	Musky	Walleye	Musky
Ashland	2,861	409	104	23	11
Barron	13,327	2,067	42	11	18
Bayfield	12,531	3,148	153	8	8
Burnett	11,556	1,893	119	14	10
Chippewa	14,418	5,246	173	5	7
Clark	320	21	5	26	24
Douglas	6,178	1,994	52	13	16
Dunn	1,752	654		19	
Eau Claire	2,571	633	35	20	19
Florence	1,748	272		24	
Forest	10,897	2,659	59	10	14
Iron	24,693	10,253	387	**4**	**4**
Langlade	4,816	607	44	21	17
Lincoln	15,561	4,294	209	6	6
Marathon	9,541	2,040	59	12	14
Marinette	3,234	739	21	17	23
Oconto	3,445	415	25	22	20
Oneida	60,358	18,327	1,060	**2**	**2**
Polk	11,598	1,164	63	16	13
Portage	74	5		27	
Price	9,153	3,070	265	9	5
Rusk	5,633	1,569	137	15	9
Sawyer	48,007	10,711	565	**3**	**3**
St. Croix	1,100	715	22	18	22
Taylor	4,037	257	25	25	20
Vilas	71,276	20,133	1,518	**1**	**1**
Washburn	15,136	3,453	101	7	12
Grand Total	**365,821**	**96,748**	**5,243**	**---**	**---**

* 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 2010 WDNR completed fall surveys on 109 different lakes in the Wisconsin Ceded Territory (Appendix H). Of the lakes sampled, 49 had walleye populations classified as sustained by naturally reproduction (recruitment codes NR, C-NR, or C-), 40 as sustained by stocking (ST or C-ST), and 19 as remnant or newly established populations (REM, O-ST, NR-2; Appendix C). One lake surveyed was classified as having no known walleye population (NONE/0). Water temperatures during 2010 YOY walleye surveys ranged from 56 - 65° F; mean and median water temperatures during YOY surveys were both 59°F. Young-of-year walleye lengths ranged from 3.7 to 10.9 inches across all lakes and dates surveyed in 2010 (Appendix H).

Differences in mean YOY walleye density between natural and stocked recruitment categories was highly significant during 2010 (t-test-unequal variance, $t = 3.15$, $df = 75.2$, $P < 0.001$). Consistent with all previous years since 1990, lakes sustained primarily by natural reproduction had higher mean walleye YOY density (mean = 15.6/mile of shoreline shocked, range = 0.0–80.7) than lakes sustained by stocking (mean = 4.8/mile, range = 0.0–50.4) during 2010 (Figure 22). The mean YOY walleye density observed in natural recruitment lakes during 2010 (15.6/mile) was below the average across the previous 20 years studied (32.6/mile from 1990-2009) and this difference was statistically significant (t-test unequal variance, $t = -5.11$, $df = 74.8$, $P < 0.001$). In contrast, the mean YOY walleye density observed in stocked lakes during 2010(4.8/mile) was slightly less than average relative to the previous 20 years studied (5.7/mile from 1990-2009) although this difference was not statistically significant (t-test-unequal variance, $t = -0.53$, $df = 49.6$, $P=0.60$; Figure 22).

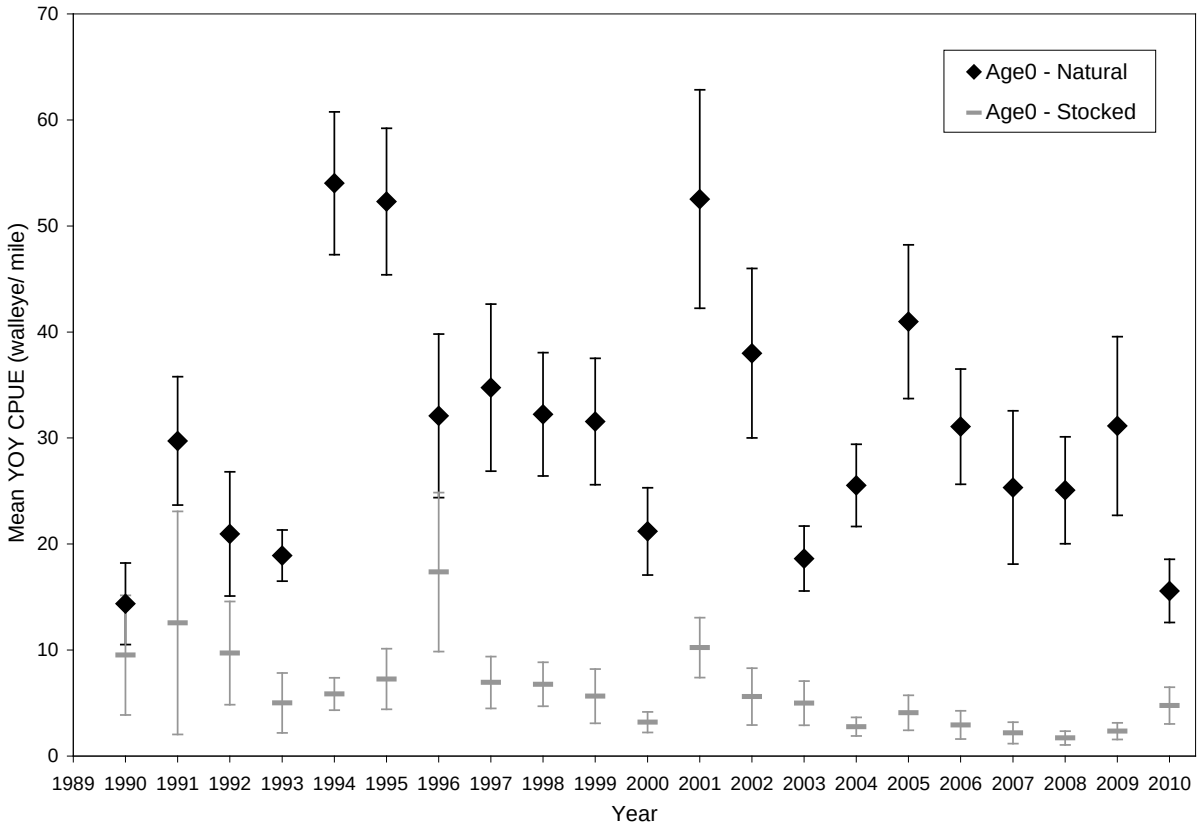

Figure 22. Comparison of mean YOY walleye density (± SE) observed in fall electrofishing surveys since 1990 in lakes dominated by natural recruitment or stocking.

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 recruitment models (natural or stocked; p=0.0001), years (p=0.0003), and the interaction of year*recruitment model (p=0.0213). Based on the 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=0.08; see Figure 22). YOY walleye densities have declined significantly over time in stocked model lakes since 1990 (slope=-0.42, p=0.0003; 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	41	443528	10818	8.02	<0.0001
Error	1,741	2349234	1349		
		Type III SS	**Mean Square**	**F Value**	**Pr > F**
Year	20	67147	3357	2.49	0.0003
Recruitment Model[a]	1	208686	208686	154.66	<0.0001
Year x Recruitment Model	20	47162	2358	1.75	0.0213

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 2010, 11/49 natural model lakes (22%) had YOY indices > 25 per mile, and no NR lakes (0%) had YOY walleye indices > 100 per mile (Appendix H). Overall, the proportion of lakes with YOY catch rates greater than 25 and 100 fish per mile in 2010 was slightly less than the mean proportion of lakes observed with the same catch rates between 1990-2009 (mean percentage > 25 YOY/mi = 37%; >100/mi = 8%) suggesting a below average natural walleye year class across the ceded territory in the fall of 2010.

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 (13.7 YOY/ mile) with fry or small fingerlings

was significantly greater (t-test unequal variance, t = -2.35, df = 10.4, P = 0.04) than in those that were not stocked (1.4 YOY/ mile) in 2010 (Table 13). These findings illustrate that, as expected in stocked-model lakes, those that were stocked during 2010 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 2010.

	Stocked in 2010	**Not Stocked in 2010**
No. Lakes	11	29
Mean YOY walleye/ mile	13.7	1.4
Q1/Median/Q3	0.0 / 3.4 / 23.9	0.0 / 0.0 / 0.0
Lakes with 0 YOY/ mile	3 (27%)	22 (76%)
Lakes with ≤5 YOY/ mile	6 (55%)	27 (93%)
Lakes with ≤10 YOY/ mile	6 (55%)	27 (93%)

The Hansen et al (2004) index of lake-wide YOY walleye density (fish/acre) for natural-model lakes ranged from 0.0–33.1 with a mean of 4.7 during 2010. In stocked-model lakes, the same index ranged from 0.0–15.8 YOY walleye/acre with a mean of 1.3. Within stocked-model lakes, those stocked prior to fall surveys logically had a greater average index value than lakes that were not stocked (3.8 Vs. 0.0, 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 11 lakes that were previously stocked with oxytetracycline (OTC) marked walleyes in 2010; Sparkling lake had 2 samples collected for OTC analysis (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 2010, with higher values in predominantly stocked (C-ST) lakes, and lower values in lakes presumed to be dominated by natural reproduction (C-NR). Results of OTC sampling are not considered in the designation or recruitment codes unless a minimum of 30 individual fish are sampled from the water body in question, and are not the sole factor used to define recruitment codes.

Table 14. Lakes stocked with oxytetracycline (OTC) marked fish sampled in 2010, 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	Upper Turtle	C-NR	2079800	48	0	48	100
Barron	Silver	C-NR	1881100	1	6	7	14.3
Oneida	Bolger	C-NR	973000	5	6	11	45.5
Oneida	Manson	C-NR	1517200	3	5	8	37.5
Oneida	Mccormick	0-ST	1526600	42	3	45	93.3
Oneida	Sevenmile	C-ST	1605800	49	0	49	100
Vilas	Allequash	C-ST	2332400	38	10	48	79.2
Vilas	Lost	C-ST	1593400	2	0	2	100
Vilas	Sparkling (Summer)	C-ST	1881900	9	0	9	100
Vilas	Sparkling (Fall)	C-ST	1881900	40	0	40	100
Vilas	White Sand	C-ST	2339100	50	0	50	100
Bayfield	Diamond	C-ST	2897100	49	0	49	100

* Recruitment code C-ST is in the stocked model, C-NR is in the natural model, and 0-ST is in the remnant model (Appendix C).

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APPENDICES

Appendix A. WDNR Lake Sampling Rotation 2010-2013.

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	CURRENT MODEL	# LAKES	ROTATION
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**	
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**	

YEAR	TREATY UNIT	MWBC	COUNTY	LAKE	AREA	CURRENT MODEL	# LAKES	ROTATION
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**	
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 and done by a technical working group.

2 Recruitment Model is used for data analysis and groups various recruitment codes into one of three categories.

Appendix D. Creel Survey Summaries.

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
Bayfield	Middle Eau Claire	2742100	902	C-NR	2	2	1>14	2087	2.31	2214	2.45	1227	1.36	0.24	0.14	260	15.51	0.11	0.06
Bayfield	Pike Chain (BB,H,LM,TB)	2902700	714	NR	2	2	1>14	1451	1.59	214	0.23	144	0.16	0.03	0.02	23	15.74	0.01	0.01
Bayfield	Eagle/Flynn (Pike Chain)	2902700	199	NR	2	2	1>14	1451	1.59	10	0.01	10	0.01	0.01	0.01	0	--	0.00	0.00
Burnett	Lipsett	2678100	393	ST	2	3	15	275	0.70	72	0.18	56	0.14	0.06	0.05	14	20.04	0.01	0.01
Forest	Metonga	394400	1991	C-ST	2	3	15	3993	2.01	3894	1.96	647	0.32	0.23	0.06	116	18.38	0.06	0.01
Iron	Long	2303500	396	C-ST	2	5	15	589	1.49	162	0.41	83	0.21	0.13	0.06	12	19.19	0.03	0.02
Oneida	Crescent	1564200	626	NR	2	2	1>14	3526	5.63	1316	2.10	924	1.48	0.12	0.09	226	14.48	0.07	0.05
Oneida	George	1569600	435	C-NR	2	3	1>14	2127	4.89	1146	2.63	467	1.07	0.17	0.07	90	13.75	0.05	0.02
Sawyer	Barber	2382300	238	C-ST	2	3	15	126	0.53	203	0.85	5	0.02	0.13	0.00	1	27.40	0.02	0.00
Sawyer	Little Round	2395500	229	ST	2	2	15	73	0.32	0	0.00	0	0.00	0.00	0.00	0	--	0.00	0.00
Sawyer	Round	2395600	3054	C-NR	3	3	15	2543	0.83	2480	0.81	1237	0.41	0.17	0.09	161	17.77	0.08	0.04
Sawyer	Sissabagama	2393500	719	C-NR	5	5	15	1752	2.44	1715	2.39	622	0.87	0.24	0.09	96	17.53	0.05	0.02
Vilas	Allequash	2332400	426	C-ST	3	5	15	510	1.20	538	1.26	156	0.37	0.12	0.04	58	16.57	0.03	0.01
Vilas	L. Buckatabon	1621000	352	ST	3	3	15	138	0.39	55	0.16	2	0.01	0.09	0.00	1	21.00	0.01	0.00
Vilas	U. Buckatabon	1621800	494	ST	3	3	15	230	0.47	115	0.23	102	0.21	0.06	0.06	20	21.24	0.01	0.01
Vilas	North Turtle	2310400	369	NR	2	3	1>14	2970	8.05	2501	6.78	1249	3.38	0.66	0.33	142	12.69	0.37	0.19
Vilas	South Turtle	2310200	454	NR	2	2	1>14	1345	2.96	1761	3.88	724	1.59	0.36	0.15	107	12.70	0.14	0.06
Vilas	Trout	2331600	3816	C-ST	3	3	15	5759	1.51	3445	0.90	1589	0.42	0.20	0.09	332	17.48	0.14	0.06
Vilas	Rock	2311700	122	NR	3	5	1>14	--	--	698	5.72	367	3.01	0.38	0.21	78	12.68	0.18	0.10
Washburn	Stone	1884100	523	C-NR	3	3	15	458	0.88	202	0.39	140	0.27	0.06	0.04	43	17.45	0.03	0.02

Musky

County	Lake	MWBIC	Acres	MRC	Musky size limit	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	General catch rate	General harvest rate	No. fish measured	Mean length
Bayfield	Middle Eau Claire	2742100	902	C-	40	94	0.10	0	0.0000	0.02	0.00	0.01	0.00	0	
Bayfield	Pike Chain (BB,H,LM,TB)	2902700	714	C-NR	40	149	0.16	3	0.0033	0.03	0.00	0.01	0.00	0	
Bayfield	Eagle/Flynn (Pike Chain)	2902700	199	C-NR	40	0	0.00	0	0.0000	0.00	0.00	0.00	0.00	0	
Burnett	Lipsett	2678100	393	O-ST	34	9	0.02	0	0.0000	0.00	0.00	0.00	0.00	0	
Forest	Metonga	394400	1991	O	34	0	0.00	0	0.0000					0	
Iron	Long	2303500	396	C-ST	40	223	0.56	0	0.0000	0.06	0.00	0.04	0.00	0	
Oneida	Crescent	1564200	626	C-	34	193	0.31	0	0.0000	0.04	0.00	0.02	0.00	0	
Oneida	George	1569600	435	C-	34	284	0.65	3	0.0069	0.05	0.00	0.01	0.00	1	35.50
Sawyer	Barber	2382300	238	C-	34	168	0.71	0	0.0000	0.04	0.00	0.02	0.00	0	
Sawyer	Little Round	2395500	229	O	34	0	0.00	0	0.0000	0.00	0.00	0.00	0.00	0	
Sawyer	Round	2395600	3054	ST	34	75	0.02	0	0.0000	0.02	0.00	0.00	0.00	0	
Sawyer	Sissabagama	2393500	719	C-	40	299	0.42	0	0.0000	0.02	0.00	0.01	0.00	0	
Vilas	Allequash	2332400	426	C-	40	29	0.07	0	0.0000	0.01	0.00	0.00	0.00	0	
Vilas	L. Buckatabon	1621000	352	C-ST	34	92	0.26	31	0.0881	0.02	0.01	0.01	0.00	1	42.30
Vilas	U. Buckatabon	1621800	494	C-	34	102	0.21	0	0.0000	0.01	0.00	0.01	0.00	0	
Vilas	North Turtle	2310400	369	C-ST	34	95	0.26	0	0.0000	0.03	0.00	0.02	0.00	0	
Vilas	South Turtle	2310200	454	C-ST	34	126	0.28	0	0.0000	0.02	0.00	0.01	0.00	0	
Vilas	Trout	2331600	3816	C-NR	45	20	0.01	0	0.0000	0.01	0.00	0.00	0.00	0	
Vilas	Rock	2311700	122	NR	34	87	0.71	0	0.0000	0.05	0.00	0.03	0.00	0	
Washburn	Stone	1884100	523	O	34	0	0.00	0	0.0000						

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
Bayfield	Middle Eau Claire	2742100	902	4265	4.73	221	0.25	0.53	0.05	0.22	0.01	79	21.00
Bayfield	Pike Chain (BB,H,LM,TB)	2902700	714	1581	1.73	136	0.15	0.17	0.02	0.06	0.01	22	23.76
Bayfield	Eagle/Flynn (Pike Chain)	2902700	199	1883	2.06	29	0.03	0.36	0.01	0.23	0.00	2	26.00
Burnett	Lipsett	2678100	393	3161	8.04	360	0.92	0.52	0.10	0.29	0.03	131	20.34
Forest	Metonga	394400	1991	443	0.22	142	0.07	0.12	0.07	0.01	0.00	29	25.65
Iron	Long	2303500	396	156	0.39	44	0.11	0.06	0.03	0.02	0.01	14	20.67
Oneida	Crescent	1564200	626	651	1.04	233	0.37	0.10	0.05	0.04	0.01	32	21.25
Oneida	George	1569600	435	458	1.05	122	0.28	0.06	0.02	0.02	0.01	42	23.80
Sawyer	Barber	2382300	238	67	0.28	16	0.07	0.04	0.02	0.01	0.00	2	30.50
Sawyer	Little Round	2395500	229	1419	6.20	290	1.27	0.50	0.11	0.28	0.06	39	21.58
Sawyer	Round	2395600	3054	3489	1.14	473	0.15	0.53	0.08	0.11	0.02	69	23.22
Sawyer	Sissabagama	2393500	719	2461	3.42	266	0.37	0.16	0.05	0.08	0.01	38	24.40
Vilas	Allequash	2332400	426	1035	2.43	190	0.45	0.20	0.07	0.06	0.01	73	21.23
Vilas	L. Buckatabon	1621000	352	1926	5.47	68	0.19	0.32	0.02	0.17	0.01	17	22.57
Vilas	U. Buckatabon	1621800	494	1829	3.70	102	0.21	0.24	0.01	0.08	0.00	16	23.13
Vilas	North Turtle	2310400	369	51	0.14	5	0.01	0.18	0.00	0.02	0.00	1	22.20
Vilas	South Turtle	2310200	454	574	1.26	97	0.21	0.22	0.00	0.05	0.01	13	20.76
Vilas	Trout	2331600	3816	9	0.00	9	0.00	0.04	0.04	0.00	0.00	2	20.00
Vilas	Rock	2311700	122	58	0.48	5	0.04	0.04	0.02	0.02	0.00	4	24.20
Washburn	Stone	1884100	523	225	0.43	89	0.17	0.04	0.02	0.05	0.02	16	23.18

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
Bayfield	Middle Eau Claire	2742100	902	1548	1.72	64	0.07	0.44	0.02	0.09	0.00	15	17.83
Bayfield	Pike Chain (BB,H,LM,TB)	2902700	714	6214	6.81	49	0.05	0.66	0.00	0.27	0.00	6	14.87
Bayfield	Eagle/Flynn (Pike Chain)	2902700	199	700	0.77	17	0.02	0.20	0.01	0.09	0.00	0	
Burnett	Lipsett	2678100	393	6	0.02	0	0.00	0.00	0.00	0.01	0.00	0	
Forest	Metonga	394400	1991	10465	5.26	255	0.13	0.73	0.03	0.30	0.01	45	16.92
Iron	Long	2303500	396	51	0.13	0	0.00	0.03	0.00	0.01	0.00	0	
Oneida	Crescent	1564200	626	953	1.52	4	0.01	0.43	0.00	0.07	0.00	1	19.10
Oneida	George	1569600	435	770	1.77	63	0.14	0.19	0.02	0.05	0.00	11	15.03
Sawyer	Barber	2382300	238	18	0.08	0	0.00	0.12	0.00	0.01	0.00	0	
Sawyer	Little Round	2395500	229	256	1.12	0	0.00	0.39	0.00	0.17	0.00	0	
Sawyer	Round	2395600	3054	8786	2.88	251	0.08	0.75	0.02	0.31	0.01	29	16.22
Sawyer	Sissabagama	2393500	719	1149	1.60	15	0.02	0.09	0.00	0.04	0.00	2	16.60
Vilas	Allequash	2332400	426	270	0.63	12	0.03	0.12	0.01	0.02	0.00	5	14.66
Vilas	L. Buckatabon	1621000	352	693	1.97	0	0.00	0.31	0.00	0.07	0.00	0	
Vilas	U. Buckatabon	1621800	494	747	1.51	0	0.00	0.24	0.00	0.04	0.00	0	
Vilas	North Turtle	2310400	369	484	1.31	19	0.05	0.52	0.01	0.11	0.00	3	16.30
Vilas	South Turtle	2310200	454	239	0.53	0	0.00	0.15	0.00	0.02	0.00	0	
Vilas	Trout	2331600	3816	923	0.24	2	0.00	0.44	0.00	0.05	0.00	1	19.00
Vilas	Rock	2311700	122	20	0.16	0	0.00	0.02	0.00	0.01	0.00	0	
Washburn	Stone	1884100	523	1888	3.61	434	0.83	0.47	0.12	0.36	0.08	90	16.27

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
Bayfield	Middle Eau Claire	2742100	902	629	0.70	32	0.04	0.23	0.01	0.04	0.00	7	16.47
Bayfield	Pike Chain (BB,H,LM,TB)	2902700	714	13688	15.01	146	0.16	1.06	0.01	0.57	0.01	18	14.68
Bayfield	Eagle/Flynn (Pike Chain)	2902700	199	4862	5.33	90	0.10	0.94	0.02	0.65	0.01	4	15.40
Burnett	Lipsett	2678100	393	4416	11.24	373	0.95	0.75	0.07	0.41	0.03	83	14.71
Forest	Metonga	394400	1991	92	0.05	0	0.00	0.09	0.00	0.01	0.00	0	
Iron	Long	2303500	396	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0	
Oneida	Crescent	1564200	626	146	0.23	0	0.00	0.08	0.00	0.01	0.00	0	
Oneida	George	1569600	435	187	0.43	0	0.00	0.05	0.00	0.01	0.00	0	
Sawyer	Barber	2382300	238	1194	5.02	12	0.05	0.47	0.00	0.15	0.00	2	11.40
Sawyer	Little Round	2395500	229	991	4.33	75	0.33	0.40	0.04	0.20	0.02	6	16.70
Sawyer	Round	2395600	3054	3347	1.10	69	0.02	0.67	0.01	0.12	0.00	7	15.19
Sawyer	Sissabagama	2393500	719	1715	2.39	622	0.87	0.79	0.04	0.36	0.01	40	15.15
Vilas	Allequash	2332400	426	1423	3.34	109	0.26	0.33	0.04	0.09	0.01	34	15.91
Vilas	L. Buckatabon	1621000	352	3542	10.06	5	0.01	0.63	0.00	0.31	0.00	2	16.25
Vilas	U. Buckatabon	1621800	494	10282	20.81	53	0.11	0.89	0.00	0.49	0.00	6	14.72
Vilas	North Turtle	2310400	369	30	0.08	0	0.00	0.09	0.00	0.01	0.00	0	
Vilas	South Turtle	2310200	454	985	2.17	23	0.05	0.68	0.02	0.08	0.00	3	14.73
Vilas	Trout	2331600	3816	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0	
Vilas	Rock	2311700	122	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0	
Washburn	Stone	1884100	523	238	0.46	61	0.12	0.09	0.03	0.05	0.01	13	15.92

Appendix E. WDNR Walleye Population Estimates Accepted For Use by the Treaty TWG in 2010.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	Adult PE	CV Adult PE	L95 C.I. Adults	Adult PE/Acre	Adult 0-12”	Adult 12-15”	Adult 15-20”	Adult 20+”
2109800	Barron	Hemlock	357	18	REM	207	2	160	0.58	1	2	160	44
2103200	Barron	L Montanis	200	15	C-ST	279	3	238	1.40	2	3	238	36
2098000	Barron	Poskin	150	15	ST	104	23	52	0.69	1	23	52	28
2109600	Barron	Red Cedar	1841	18	C-NR	4542	1630	2807	2.47	14	1630	2807	91
2742500	Bayfield	Bony	191	1>14	C-NR	378	33	323	1.98	1	33	323	21
2742100	Bayfield	Middle Eau Claire	902	1>14	C-NR	2081	589	1382	2.31	45	589	1382	72
2902700	Bayfield	Pike Chain (BB,H,LM,TB)	713	1>14	NR	1451	671	621	2.04	2	671	621	158
2902xxx	Bayfield	Eagle/Flynn	199	1>14	NR	63	4	12	0.32	1	4	12	47
2678100	Burnett	Lipsett	393	15	ST	275	2	150	0.70	1	2	150	122
394400	Forest	Metonga	1991	15	C-ST	3993	550	1544	2.01	51	550	1544	1848
2303500	Iron	Long	396	15	C-ST	589	36	406	1.49	4	36	406	143
198100	Langlade	Sawyer	149	1>14	NR	383	16	285	2.57	4	16	285	78
1564200	Oneida	Crescent	626	1>14	NR	3526	2737	157	5.63	621	2737	157	10
1569600	Oneida	George	435	1>14	C-NR	2127	844	632	4.89	594	844	632	58
1528700	Oneida	Swamsauger	141	15	C-NR	1076	678	286	7.63	100	678	286	12
2382300	Sawyer	Barber	238	15	C-ST	126	4	21	0.53	1	4	21	100
2395500	Sawyer	Little Round	229	15	ST	73	6	38	0.32	1	6	38	28
2395600	Sawyer	Round	3054	15	C-NR	2541	749	1201	0.83	38	749	1201	556
2393500	Sawyer	Sissabagama	719	15	C-NR	1752	205	121	2.44	14	205	121	22
2332400	Vilas	Allequash	426	15	C-ST	510	113	333	1.20	1	113	333	63
2338800	Vilas	Big Crooked	682	None	NR	940	106	673	1.38	40	106	673	121
2339900	Vilas	Escanaba	293	28	NR	2581	1121	1164	8.81	57	1121	1164	239
1621000	Vilas	Lower Buckatabon	352	15	ST	138	1	48	0.39	1	1	48	88
2310400	Vilas	North Turtle	369	1>14	NR	2970	1313	117	8.05	1439	1313	117	101
2310200	Vilas	South Turtle	454	1>14	NR	1345	339	235	2.96	655	339	235	116
2331600	Vilas	Trout	3816	15	C-ST	5759	2794	2525	1.51	47	2794	2525	393
1621800	Vilas	Upper Buckatabon	494	15	ST	230	5	109	0.47	1	5	109	114
2336100	Vilas	Wolf	393	15	NR	1613	662	769	4.10	9	662	769	173
1884100	Washburn	Stone	523	15	C-NR	458	228	216	0.88	1	228	216	13
2109800	Barron	Hemlock	357	18	REM	207	2	160	0.58	1	2	160	44

Appendix F. Continued.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	PE - Males	CV Male PE	PE - Females	CV Female PE	M:F Ratio
2109800	Barron	Hemlock	357	18	REM	74	0.30	192	0.50	0.39
2103200	Barron	L Montanis	200	15	C-ST	90	0.19	201	0.28	0.45
2098000	Barron	Poskin	150	15	ST	53	0.27	45	0.30	1.18
2109600	Barron	Red Cedar	1841	18	C-NR	3609	0.08	2959	0.56	1.22
2742500	Bayfield	Bony	191	1>14	C-NR	218	0.21	150	0.19	1.45
2742100	Bayfield	Middle Eau Claire	902	1>14	C-NR	1511	0.10	518	0.23	2.92
2902700	Bayfield	Pike Chain (Bb,H,Lm,Tb)	713	1>14	NR	1181	0.05	280	0.31	4.22
2902xxx	Bayfield	Eagle/Flynn	199	1>14	NR	40	0.13	20	0.00	2.00
2678100	Burnett	Lipsett	393	15	ST	154	0.11	177	0.45	0.87
394400	Forest	Metonga	1991	15	C-ST	2265	0.09	2426	0.65	0.93
2303500	Iron	Long	396	15	C-ST	87	0.26	519	0.17	0.17
198100	Langlade	Sawyer	149	1>14	NR	208	0.10	37	0.12	5.62
1564200	Oneida	Crescent	626	1>14	NR	3423	0.06	136	0.41	25.17
1569600	Oneida	George	435	1>14	C-NR	1624	0.20	360	0.51	4.51
1528700	Oneida	Swamsauger	141	15	C-NR	771	0.13	359	0.40	2.15
2382300	Sawyer	Barber	238	15	C-ST	56	0.13	47	0.13	1.19
2395500	Sawyer	Little Round	229	15	ST	41	0.21	24	0.30	1.71
2395600	Sawyer	Round	3054	15	C-NR	1704	0.08	719	0.40	2.37
2393500	Sawyer	Sissabagama	719	15	C-NR	1109	0.06	730	0.30	1.52
2332400	Vilas	Allequash	426	15	C-ST	279	0.05	246	0.20	1.13
2338800	Vilas	Big Crooked	682	None	NR	686	0.06	261	0.14	2.63
2339900	Vilas	Escanaba	293	28	NR	1553	0.09	1055	0.28	1.47
1621000	Vilas	Lower Buckatabon	352	15	ST	69	0.24	61	0.00	1.13
2310400	Vilas	North Turtle	369	1>14	NR	2752	0.17	201	0.21	13.69
2310200	Vilas	South Turtle	454	1>14	NR	1031	0.15	261	0.31	3.95
2331600	Vilas	Trout	3816	15	C-ST	3769	0.11	2170	0.29	1.74
1621800	Vilas	Upper Buckatabon	494	15	ST	122	0.14	107	0.21	1.14
2336100	Vilas	Wolf	393	15	NR	1016	0.08	728	0.21	1.40
1884100	Washburn	Stone	523	15	C-NR	419	0.17	24	0.00	17.46
2109800	Barron	Hemlock	357	18	REM	74	0.30	192	0.50	0.39

Appendix G. Muskellunge Population Estimates.

Muskellunge population estimates were conducted over two years and completed in spring 2010; They represent 2009 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
2661100	Barron	Sand	322	34	ST	107	17.4	0.33
1445500	Langlade	Greater Bass	258	34	ST	36	22.8	0.14
1445600	Langlade	Summit	282	34	C-ST	158	29.3	0.56
1515400	Lincoln	Mohawksin	1,910	34	C-ST	338	18.7	0.18
1589300	Oneida	Gilmore	320	34	C-	215	32.5	0.67
1542700	Oneida	Tomahawk	3,392	34	C-ST	189	25.3	0.06
2619400	Polk	Deer	807	34	ST	465	11	0.58
2391200	Sawyer	Grindstone	3,111	50	ST	135	29.5	0.04
2275300	Sawyer	L. of the Pines	273	34	C-ST	320	18.8	1.17
2344000	Vilas	High	734	34	C-	356	26.1	0.49
1592400	Vilas	Plum	1,033	34	C-	88	18.3	0.09

Appendix H. 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
Augustine	Ashland	2410400	166	REM	remnant	09/14/2010	59	2.3	2	100.0	3.0	7.5	8.4	7.5-7.9	1.30	0.30	0.05	10	9.5	10.4	9.5-9.9	4.3	N
Bear	Ashland	2403200	204	NR	natural	09/22/2010	57-60	6.0	2.9	48.3	3.0	5.0	6.4	5.0-5.4	1.03	NA	NA	11	8.5	10.9	9.0-9.4	3.8	N
English	Ashland	2914800	244	ST	stocked	10/04/2010	57	4.1	3.8	92.7	0.0				0.00	0.00	0.00	16	8.5	10.4	NONE	4.2	N
Mineral	Ashland	2916900	225	C-NR	natural	10/07/2010	57	5.3	2.3	43.4	5.0	5.5	7.4	6.5-6.9	2.17	NA	NA						N
Moquah	Ashland	2918200	50	REM	remnant	09/29/2010	55	2.7	1.3	48.1	0.0				0.00	NA	NA	0				0.0	N
Potter	Ashland	2917200	29	NR	natural	10/12/2010	58	0.9	0.9	100.0	4.0	6.0	6.9	6.0-6.4	4.44	1.04	0.36	2	8.5	9.4	NONE	2.2	B
Spider	Ashland	2918600	103	REM	remnant	09/29/2010	57	2.7	2.7	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Spillerberg	Ashland	2936200	75	NR	natural	10/12/2010	57-60	1.5	1.5	100.0	121.0	5.0	7.4	6.0-6.4	80.67	18.88	33.10	5	8.5	11.4	8.5-8.9	3.3	N
Upper Clam	Ashland	2429600	166	C-ST	stocked	09/27/2010	54	3.2	3	100.0	11.0	6.5	8.4	7.5-7.9	3.44	0.80	0.24	0				0.0	B
Bear	Barron	2105100	1358	0-ST	remnant	10/18/2010	55	14.9	6	43.0	20.0	6.4	8.4	7.0-7.4	3.13	NA	NA	5	9.5	11.4	NONE	0.8	B
Beaver Dam	Barron	2081200	1112	C-ST	stocked	10/14/2010	59	18.0	12	64.4	0.0				0.00	NA	NA	9	9.5	12.4	10.5-10.9	0.8	N
Horseshoe	Barron	2469800	115	ST	stocked	09/21/2010	59	2.5	3	100.0	0.0				0.00	0.00	0.00	0				0.0	B
L Montanis	Barron	2103200	200	C-ST	stocked	09/20/2010	59	2.7	3	100.0	0.0				0.00	NA	NA	5	9.5	11.4	11.0-11.4	1.9	N
Lower Turtle	Barron	2079700	276	C-ST	stocked	10/05/2010	58	3.8	4	100.0	7.0	5.9	8.2	8.2	1.84	0.43	0.09	0				0.0	B
Lower Vermillion	Barron	2098200	208	C-ST	stocked	09/22/2010	61	3.0	3	100.0	0.0				0.00	0.00	0.00	1	10.5	10.9	NONE	0.3	N
Poskin	Barron	2098000	150	ST	stocked	09/26/2010	63	4.1	3	73.2	3.0	6	7.4	NONE	1.00	NA	NA	5	9.5	10.9	9.5-9.9	1.7	Y
Rice	Barron	2103900	939	REM	remnant	10/19/2010	55	19.6	6	28.6													
Silver	Barron	1881100	337	C-NR	natural	10/20/2010	55	4.4	4	100.0	8.0	6.5	8	NONE	1.82	0.43	0.09	2	10.7	11.2	NONE	0.5	B
Upper Turtle	Barron	2079800	438	C-NR	natural	10/07/2010	60	4.8	5	100.0	52.0	5.5	8.1	NONE	10.83	2.53	1.43	0				0.0	B
Bony	Bayfield	2742500	191	C-NR	natural	10/04/2010	57	2.7	3	100.0	27.0	5	7.7	NONE	10.00	2.34	1.26	13	8.5	10.9	NONE	4.8	N
Buffalo	Bayfield	1837700	179	0-ST	remnant	09/21/2010	58	3.3	3	78.8	0.0				0.00	NA	NA	0				0.0	N
Buskey Bay	Bayfield	2903800	100	NR	natural	09/30/2010	58	2.4	2	100.0	1.0	7.2		NONE	0.42	0.10	0.01	1	11.1		NONE	0.4	N
Diamond	Bayfield	2897100	341	C-ST	stocked	09/22/2010	60	5.0	5	100.0	0.0				0.00	0.00	0.00	2	10.6	11.4	NONE	0.4	A
Drummond	Bayfield	2899400	99	ST	stocked	09/20/2010	60	3.1	2	71.0	0.0				0.00	NA	NA	0				0.0	N
Eagle	Bayfield	2902900	170	NR-2	remnant	10/12/2010	58	4.4	4	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Flynn	Bayfield	2902800	29	NR-2	remnant	10/12/2010	58	1.4	1	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Hart	Bayfield	2903200	259	NR	natural	09/30/2010	60	3.5	4	100.0	48.0	5.4	7.8	6.4	13.71	3.21	2.07	4	8.9	10.0	NONE	1.1	N
L Millicent	Bayfield	2903700	183	NR	natural	09/30/2010	59	3.8	4	100.0	14.0	5.3	7.5	6.4	3.68	0.86	0.27	1	8.9		NONE	0.3	N
Middle Eau Claire	Bayfield	2742100	902	C-NR	natural	10/05/2010	57-58	11.0	8	70.0	328.0	4.1	6.9	5.5	42.60	NA	NA	13	7.3	8.8	NONE	1.7	N
Taylor	Bayfield	2734100	94	REM	remnant	09/21/2010	59	1.7	2	100.0	31.0	4.5	7.4	6.0-6.4	18.24	4.27	3.24	0				0.0	N
Twin Bear	Bayfield	2903100	172	NR	natural	09/30/2010	60	3.9	4	100.0	15.0	5.2	6.8	NONE	3.85	0.90	0.28	9	8.3	10.0	NONE	2.3	N
Upper Eau Claire	Bayfield	2742700	996	C-NR	natural	10/07/2010	57-59	11.1	11	100.0	11.0	6.4	8.6	NONE	0.99	0.23	0.03	22	9.2	11.8	NONE	2.0	N
Devils	Burnett	2461100	1001	ST	stocked	09/16/2010	64	5.2	5	100.0	0.0				0.00	0.00	0.00	17	7.5	12.9	NONE	3.3	N
Lipsett	Burnett	2678100	393	ST	stocked	09/22/2010	62	3.5	4	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Upper Clam	Burnett	2656200	1207	REM	remnant	10/05/2010	56	12.5	4	32.0	69.0	6.5	9.4	8.5-8.9	17.25	NA	NA	11	12.5	14.4	14.0-14.4	2.8	N
Halsey	Florence	679300	517	O-ST	remnant	09/27/2010	58	4.1	2.0	48.8	0				0.00	NA	NA	1	10.5	10.9		0.50	N
Keyes	Florence	672900	210	C-ST	stocked	10/06/2010	57	3.3	3.3	100.0	10	5.8	7.5		3.03	0.71	0.20	9	8.4	10.6		2.73	N
Patten	Florence	653700	255	NR	natural	10/06/2010	55	3.9	3.9	100.0	78	4.2	7.9	5.8	20.00	4.68	3.74	6	8.8	10.4		1.54	N
Bear	Forest	552100	68	REM	remnant	09/30/2010	57	1.7	1.7	100.0	0				0.00	0.00	0.00	1	10.0	10.0		0.59	N
Long	Iron	2303500	396	C-ST	stocked	09/16/2010	57-61	12.5	10	76.0	0.0				0.00	NA	NA	0				0.0	N
Pine	Iron	2949200	312	NR	natural	09/22/2010	58-63	6.0	6	100.0	244.0	4.5	7	5.3, 5.7	40.67	9.52	11.34	30	7.1	8.9	7.2	5.0	N
Sandy Beach	Iron	2316100	111	C-	natural	09/21/2010	58	2.1	2	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Sawyer	Langlade	198100	149	NR	natural	10/06/2010	57	5.2	5.2	100.0	0				0.00	0.00	0.00	0				0.00	N
Summit	Langlade	1445600	282	O-ST	remnant	09/13/2010	62	3.3	3.3	100.0	0				0.00	0.00	0.00	47	7.9	10.4	9.3	14.24	N
Upper Post	Langlade	399200	757	C-ST	stocked	09/30/2010	56	7.6	7.6	100.0	0				0.00	0.00	0.00	17	9.0	11.1		2.24	N
Alice	Lincoln	1555900	1369	C-NR	natural	09/21/2010	59	23.2	4.0	17.2	29	5.4	7.6		7.25	NA	NA	60	8.7	10.6	10.1	15.00	N
Jersey City Flowage	Lincoln	1516000	404	NR	natural	09/16/2010	60	17.2	4.0	23.3	12	4.9	6.8		3.00	NA	NA	17	8.5	10.7		4.25	N
Seven Island	Lincoln	1490300	132	C-ST	stocked	10/04/2010	58	4.0	4.0	100.0	1	7.2	7.2		0.25	0.06	0.00	1	10.9	10.9		0.25	N
Somo	Lincoln	1547700	472	C-ST	stocked	10/05/2010	58	14.2	4.0	28.2	0				0.00	NA	NA	0				0.00	N
Spirit Reservoir	Lincoln	1506800	1664	C-NR	natural	09/20/2010	58	50.3	4.3	8.5	2	4.7	5.7		0.47	NA	NA	8	9.1	10.6		1.86	N
Squaw	Lincoln	1564400	79	ST	stocked	09/14/2010	62	2.3	2.3	100.0	0				0.00	0.00	0.00	0				0.00	N
Waubee	Oconto	0439500	124	O-ST	remnant	09/30/2010	59	3.3	3.3	100.0	0				0.00	0.00	0.00	1	8.8	8.8		0.30	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
Bolger	Oneida	973000	119	C-NR	natural	09/20/2010	60	3.1	3.1	100.0	11	5.9	7.3		3.55	0.83	0.25	0				0.00	B
Crescent	Oneida	1564200	626	NR	natural	09/30/2010	60	7.4	7.4	100.0	264	4.5	8.0	6.2	35.68	8.35	9.24	43	8.2	10.6	9.6	5.81	N
George	Oneida	1569600	435	C-NR	natural	09/14/2010	63	6.2	6.0	96.8	75	4.6	7.3	5.4	12.50	2.93	1.79	29	7.5	8.8	7.6	4.83	N
Horsehead	Oneida	1588000	367	O	None	09/08/2010	58	5.0	5.0	100.0	0				0.00	0.00	0.00	0				0.00	N
Kawaguesaga	Oneida	1542300	670	NR	natural	10/14/2010	57	11.1	11.1	100.0	0				0.00	0.00	0.00	6	9.6	10.7		0.54	N
Manson	Oneida	1517200	236	C-NR	natural	09/27/2010	62	3.7	3.7	100.0	9	6.3	7.4		2.43	0.57	0.14	0				0.00	B
Mccormick	Oneida	1526600	118	O-ST	remnant	09/07/2010	63	2.1	2.1	100.0	24	6.0	8.5	6.7	11.43	2.67	1.56	3	10.7	10.9		1.43	B
Minocqua	Oneida	1542400	1360	C-NR	natural	10/11/2010	60	19.1	19.1	100.0	0				0.00	NA	NA	4	10.4	11.1		0.21	N
Muskellunge	Oneida	1595600	284	NR	natural	09/30/2010	57	4.0	4.0	100.0	7	6.6	7.6		1.75	0.41	0.08	17	9.4	10.8		4.25	N
Pelican	Oneida	1579900	3585	C-NR	natural	09/26/2010	61	16.7	16.7	100.0	205	5.7	8.4	7.1	12.28	2.87	1.74	73	8.5	11.9	11.3	4.37	N
Sevenmile	Oneida	1605800	503	C-ST	stocked	10/04/2010	56	6.1	6.1	100.0	80	5.7	7.6	6.7	13.11	3.07	1.93	7	9.1	10.9		1.15	B
Squash	Oneida	1019500	396	NR	natural	09/29/2010	59	7.4	7.4	100.0	15	5.6	7.4		2.03	0.47	0.10	0				0.00	N
Swamsauger	Oneida	1528700	141	C-NR	natural	09/14/2010	61	3.4	3.4	100.0	0				0.00	NA	NA	12	7.8	10.3	9.3	3.53	N
Two Sisters	Oneida	1588200	719	C-NR	natural	09/29/2010	57	9.3	9.0	96.8	25	5.8	7.9	7.1	2.78	0.65	0.17	4	9.2	10.2		0.44	N
Balsam	Polk	2620600	2054	C-ST	stocked	10/06/2010	57-60	22.7	23	100.0	0.0				0.00	NA	NA	0				0.0	B
Big Butternut	Polk	2641000	378	C-ST	stocked	09/13/2010	64	3.4	3	100.0	0.0				0.00	0.00	0.00	6	10.0	12.9	11.0-11.4	1.8	N
Half Moon	Polk	2621100	579	ST	stocked	10/12/2010	59	7.1	7	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Magnor	Polk	2624600	231	ST	stocked	09/14/2010	62	2.6	3	100.0	87.0	7.4	10.9	7.9	33.46	7.83	8.36	0				0.0	B
Pipe	Polk	2490500	284	C-ST	stocked	10/13/2010	59	5.0	4	86.0	0.0				0.00	0.00	0.00	3	10.5	11.9	11.5-11.9	0.7	N
Ward	Polk	2599400	91	ST	stocked	09/30/2010	61	2.3	2	100.0	116.0	5.5	8.4	6.8	50.43	11.80	15.88	0				0.0	B
Newman	Price	1870200	91	REM	remnant	09/16/2010	61	2.0	2	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Patterson	Price	1872500	70	0-ST	remnant	09/16/2010	62	1.8	2	100.0	0.0				0.00	0.00	0.00	2	8.5	9.9	NONE	1.1	N
Turner	Price	2268500	149	C-	natural	10/05/2010	57	2.6	3	100.0	19.0	5.5	7.9	6.5-6.9	7.31	1.71	0.77	5	9.5	11.4	NONE	1.9	N
Barber	Sawyer	2382300	238	C-ST	stocked	09/27/2010	60	4.8	5	100.0	0.0				0.00	0.00	0.00	21	8.3	11.2	10.3	4.4	N
Black	Sawyer	2401300	129	0-ST	remnant	10/13/2010	57	3.0	3	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Grindstone	Sawyer	2391200	3111	C-NR	natural	10/05/2010	57-61	10.5	11	100.0	662.0	3.7	8.2	6.7	63.05	14.75	22.52	8	8.6	10.7	9.2	0.8	N
L Winter	Sawyer	2381100	676	0-ST	remnant	09/21/2010	58	11.0	4	36.4	0.0				0.00	NA	NA	1	10.0	10.4	NONE	0.3	N
Little Round	Sawyer	2395500	229	ST	stocked	10/04/2010	58	6.5	3	49.2	0.0				0.00	0.00	0.00	0				0.0	N
Osprey	Sawyer	2395100	208	C-ST	stocked	09/16/2010	63	6.0	3	48.3	8.0	6.5	7.9	7.5-7.9	2.76	NA	NA	0				0.0	N
Round	Sawyer	2395600	3054	C-NR	natural	10/04/2010	58-60	20.2	20	100.0	1097.0	3.7	7.9	5.7	54.31	12.71	17.83	32	8.1	11.0	8.3	1.6	N
Sissabagama	Sawyer	2393500	719	C-NR	natural	09/21/2010	61-64	8.2	8	100.0	3.0	6.8	7.4	NONE	0.37	0.09	0.01	13	8.7	11.1	10.8	1.6	N
Tiger Cat Flowage	Sawyer	2435000	819	ST	stocked	09/26, 27/2010	58	19.9	6	29.6	0.0				0.00	NA	NA	1	9.5	9.9	NONE	0.2	N
Allequash	Vilas	2332400	426	C-ST	stocked	09/20/2010	57	5.8	3.7	63.8	88	4.9	7.1	5.8	23.78	NA	NA	8	9.3	10.3		2.16	B
Anvil	Vilas	968800	398	NR	natural	09/29/2010	58	4.8	4.6	95.8	30	5.5	8.9	6.4	6.52	1.53	0.65	4	9.6	10.4		0.87	N
Big Arbor Vitae	Vilas	1545600	1090	NR	natural	10/12/2010	60	7.8	7.8	100.0	63	5.9	7.8	6.6	8.08	NA	NA	148	8.0	10.9	9.4	18.97	N
Big Crooked	Vilas	2338800	682	NR	natural	09/08/2010	64	5.0	5.0	100.0	29	4.4	7.5		5.80	1.36	0.54	0				0.00	N
Circle Lily	Vilas	2326700	223	C-ST	stocked	10/13/2010	58	3.8	3.8	100.0	56	5.2	7.2	6.5	14.74	3.45	2.32	13	8.4	10.4	9.9	3.42	N
Dead Pike	Vilas	2316600	297	C-ST	stocked	09/16/2010	61	3.8	3.3	85.9	0				0.00	0.00	0.00	0				0.00	A
Escanaba	Vilas	2339900	293	NR	natural	09/07/2010	62	5.2	5.2	100.0	301	5.0	8.2		57.88	13.55	19.70	6	8.3	10.1		1.15	N
Found	Vilas	1593800	326	C-ST	stocked	09/20/2010	59	3.7	3.7	100.0	0				0.00	0.00	0.00	7	9.9	11.2		1.89	A
Little Arbor Vitae	Vilas	1545300	534	NR	natural	09/22/2010	60	7.1	5.8	81.7	37	6.5	8.9	7.7	6.38	NA	NA	0				0.00	N
Little St Germain	Vilas	1596300	980	ST	stocked	10/06/2010	58	12.9	3.4	26.4	2	8.0	8.7		0.59	NA	NA	9	9.2	10.1		2.65	N
Lost	Vilas	1593400	544	C-ST	stocked	09/26/2010	61	4.6	4.6	100.0	2	7.4	7.8		0.43	0.10	0.01	2	10.8	10.9		0.43	B
Lower Buckatabon	Vilas	1621000	352	ST	stocked	09/13/2010	60	3.8	3.7	97.4	0				0.00	0.00	0.00	0				0.00	N
North Turtle	Vilas	2310400	369	NR	natural	09/21/2010	60	5.0	5.0	100.0	163	4.8	7.2	6.2	32.60	7.63	8.03	15	7.7	9.9		3.00	N
Plum	Vilas	1592400	1033	NR	natural	10/07/2010	57	14.5	14.5	100.0	857	3.7	7.9	5.2	59.10	13.83	20.35	24	8.1	10.1		1.66	N
Rock	Vilas	2311700	122	NR	natural	09/21/2010	60	3.6	3.6	100.0	72	5.1	6.7	5.8	20.00	4.68	3.74	23	8.1	10.0	9.0	6.39	N
Snipe	Vilas	1018500	239	NR	natural	09/26/2010	59	3.5	3.5	100.0	52	6.9	8.4	7.9	14.86	3.48	2.35	1	9.5	9.5		0.29	N
South Turtle	Vilas	2310200	454	NR	natural	09/21/2010	61	6.2	6.2	100.0	90	4.9	7.3	6.2	14.52	3.40	2.26	85	7.5	10.4		13.71	N
Sparkling	Vilas	1881900	154	C-ST	stocked	09/16/2010	63	2.4	2.3	95.8	41	4.5	6.4	5.5	17.83	4.17	3.12	1	10.7	10.7		0.43	B&A
Upper Buckatabon	Vilas	1621800	494	ST	stocked	09/13/2010	60	7.4	5.0	67.6	0				0.00	NA	NA	0				0.00	B
White Sand (K)	Vilas	2339100	734	C-ST	stocked	10/05/2010	58	5.5	5.2	95.1	124	4.7	7.6	6.2	23.85	5.58	4.92	2	9.1	9.1		0.38	B
White Sand (Ldf)	Vilas	2321100	1229	C-NR	natural	10/13/2010	58	11.2	6.0	53.6	348	3.9	8.5	6.8	58.00	NA	NA	12	8.8	10.9		2.00	N
Wolf	Vilas	2336100	393	NR	natural	09/21/2010	61	4.4	4.4	100.0	131	5.4	8.5	7.9	29.77	6.97	6.96	10	9.5	11.0		2.27	N
Balsam	Washburn	2112800	295	C-NR	natural	10/04/2010	56	7.4	5	71.6	7.0	5.7	7.4	NONE	1.32	NA	NA	0				0.0	N
Matthews	Washburn	2710800	263	C-ST	stocked	10/06/2010	59	2.6	3	100.0	0.0				0.00	0.00	0.00	0				0.0	N
Stone	Washburn	1884100	523	C-NR	natural	09/16/2010	65	4.0	4	100.0	12.0	4.4	8.2	6.9, 7.1	3.00	0.70	0.19	3	9.4	10.4	NONE	0.8	B

Appendix I. 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 during the 2010/2011 fishing season.

							Clips Given Prior to Creel				Clips Observed in Creel					
Year	WBIC	County	Lake	Acres	Recruit. Code	Size Limit	Clip Given	# Clips Given	#Clips ≥14"	#Clips ≥20"	# Clips Observed	# Clips Projected	# Clips Obs. ≥14"	# Clips Proj. ≥14"	# Clips Obs. ≥20"	# Clips Proj. ≥20"
2010	2742100	Bayfield	Middle Eau Claire	902	C-NR	1>14	RV	791	649	27	24	105	22	96	0	0
2010	2902700	Bayfield	Pike Ch (BB,H,LM,TB)	713	NR	1>14	LV	866	649	49	9	70	9	70	1	8
2010	2902800/ 2901200	Bayfield	Pike Chain (Eagle,Flynn)	199	NR	1>14	LP	46	46	34	0	0	0	0	0	0
2010	2678100	Burnett	Lipsett	393	ST	15	RV	175	174	67	3	13	3	13	2	9
2010	394400	Forest	Metonga	1,991	C-ST	15	LP	1,348	1,161	270	29	166	29	166	4	23
2010	2303500	Iron	Long	396	C-ST	15	LP	279	270	46	3	23	3	23	3	23
2010	1564200	Oneida	Crescent	626	NR	1>14	LV	1,794	356	23	21	97	11	51	0	0
2010	1569600	Oneida	George	435	C-NR	1>14	LP	619	162	33	16	78	6	29	0	0
2010	2382300	Sawyer	Barber	238	C-ST	15	LV	88	87	78	1	5	1	5	1	5
2010	2395500	Sawyer	Little Round	229	ST	15	RP	39	37	13	0	0	0	0	0	0
2010	2395600	Sawyer	Round	3,054	C-NR	15	RV	951	766	108	10	54	10	54	0	0
2010	2393500	Sawyer	Sissabagama	719	C-NR	15	LP	904	676	132	20	141	20	141	1	7
2010	2332400	Vilas	Allequash	426	C-ST	15	LV	406	383	40	22	60	22	60	2	5
2010	1621000	Vilas	L. Buckatabon***	352	ST	15	RV	102	102	76	1	5	1	5	0	0
2010	1621800	Vilas	U. Buckatabon	494	ST	15	LV	175	173	101	8	44	8	44	7	39
2010	2310400	Vilas	North Turtle *	369	NR	1>14	RV	772	163	57	9	79	1	9	1	9
2010	2310200	Vilas	South Turtle **	454	NR	1>14	LV	519	161	62	8	46	4	23	2	12
2010	2331600	Vilas	Trout	3,816	C-ST	15	RV	1,791	1,313	186	17	74	17	74	4	17
2010	1884100	Washburn	Stone	523	C-NR	15	LV	224	185	12	7	22	7	22	0	0

H-2. Estimated angler and tribal harvest and associated walleye exploitation rates for lakes surveyed during the 2010/2011 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
Bayfield	Middle Eau Claire	902	2,087	1227	208	1435	0.1327	0.1483	0.0000	0.0997	0.2324
Bayfield	Pike Ch (BB,H,LM,TB)	713	1,451	144	0	144	0.0808	0.1079	0.1587	0.0000	0.0808
Bayfield	Pike Chain (Eagle,Flynn)	199	63	10	0	10	0.0000	0.0000	0.0000	0.0000	0.0000
Burnett	Lipsett	393	275	56	17	73	0.0743	0.0747	0.1294	0.0618	0.1361
Forest	Metonga	1,991	3,993	647	0	647	0.1231	0.1430	0.0848	0.0000	0.1231
Iron	Long	396	589	83	0	83	0.0824	0.0852	0.5000	0.0000	0.0824
Oneida	Crescent	626	3,526	924	203	1127	0.0541	0.1427	0.0000	0.0576	0.1116
Oneida	George	435	2,127	467	66	533	0.1260	0.1806	0.0000	0.0310	0.1570
Sawyer	Barber	238	126	5	1	6	0.0568	0.0575	0.0641	0.0079	0.0648
Sawyer	Little Round	229	73	0	21	21	0.0000	0.0000	0.0000	0.2877	0.2877
Sawyer	Round	3,054	2,543	1237	611	1848	0.0568	0.0705	0.0000	0.2403	0.2970
Sawyer	Sissabagama	719	1,752	622	234	856	0.1560	0.2086	0.0534	0.1336	0.2895
Vilas	Allequash	426	510	156	0	156	0.1478	0.1567	0.1364	0.0000	0.1478
Vilas	L. Buckatabon	352	138	2	0	2	0.0490	0.0490	0.0000	0.0000	0.0490
Vilas	U. Buckatabon	494	230	102	9	111	0.2514	0.2543	0.3812	0.0392	0.2906
Vilas	North Turtle	369	2,970	1249	0	1249	0.1023	0.0539	0.1540	0.0000	0.1023
Vilas	South Turtle	454	1,345	724	151	875	0.0886	0.1429	0.1855	0.1123	0.2009
Vilas	Trout	3,816	5,759	1589	211	1800	0.0413	0.0564	0.0936	0.0366	0.0780
Washburn	Stone	523	458	140	112	252	0.0982	0.1189	0.0000	0.2445	0.3428

Appendix J. Safe harvest of walleye and musky calculated for individual lakes within the Wisconsin Ceded Territory during 2010.

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	83	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	9	Other	8
Ashland	Meder L	2935300	135	Other	19		
Ashland	Mineral L	2916900	225	Other	91	Other	8
Ashland	Moquah L	2918200	50			Other	3
Ashland	Pelican L	2404800	46	Other	20	Other	3
Ashland	Potter L	2917200	29	Other	12		
Ashland	Spider L	2918600	103			Other	5
Ashland	Spillerberg L	2936200	75	Other	31	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	6		
Barron	Bear L	2105100	1358	1-2 Year Pe	69		
Barron	Beaver Dam L	2081200	1112	Other	129		
Barron	Big Dummy L	1835100	111	Other	16		
Barron	Big Moon L	2079000	191	1-2 Year Pe	11	Other	7
Barron	Butternut L	2105800	141	Other	7		
Barron	Duck L	2100300	100	1-2 Year Pe	67		
Barron	Echo L	2630200	161	Other	8		
Barron	Granite L	2100800	154	Other	63		
Barron	Horseshoe L	2469800	115	Other	17		
Barron	Horseshoe L	2630100	377	Other	12		
Barron	L Chetek	2094000	770	Other	93		
Barron	L Montanis	2103200	200	Other	28		
Barron	Little Sand L	2661600	101			Other	5
Barron	Loon L	2478600	94	Other	14		
Barron	Lower Devils L	1864000	162	Other	66		
Barron	Lower Turtle L	2079700	276	Other	37		
Barron	Lower Vermillion L	2098200	208	Other	29		
Barron	Minnow L	1866600	26	Other	3		
Barron	Mud L	2094600	577	Other	72		
Barron	Pokegama L	2094300	506	Other	199		
Barron	Poskin L	2098000	150	Other	21		
Barron	Prairie L	2094100	1534	Other	172		
Barron	Red Cedar L	2109600	1841	Other	686		
Barron	Rice L	2103900	939			Other	20
Barron	Sand L	2661100	322	Other	42	Other	10
Barron	Scott L	2630700	81	Other	5		
Barron	Silver L	1881100	337	1-2 Year Pe	72		
Barron	Spring L	1882800	60	Other	25		
Barron	Staples L	2631200	305	Other	40		
Barron	Tenmile L	2089500	376	Other	12		
Barron	Upper Devils L	2043500	86	Other	5		
Barron	Upper Turtle L	2079800	438	1-2 Year Pe	41		
Bayfield	Armstrong L	2754600	48	Other	20		
Bayfield	Atkins L	2734000	176	Other	72		
Bayfield	Bladder L	2756200	81	Other	34		
Bayfield	Bony L	2742500	191	Other	78	Other	7
Bayfield	Buffalo L	1837700	190	Other	8	Other	7
Bayfield	Buskey Bay	2903800	100			Other	5
Bayfield	Camp One L	2965700	37	Other	16		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Bayfield	Chippewa L	2431300	274			Other	9
Bayfield	Cisco L	2899200	95	1-2 Year Pe	13		
Bayfield	Cranberry L	2732800	58	Other	4		
Bayfield	Crystal L	2874700	94	Other	6		
Bayfield	Crystal L	2897300	111	1-2 Year Pe	34		
Bayfield	Deep L	2760100	125	Other	7		
Bayfield	Diamond L	2897100	341	Other	45		
Bayfield	Drummond L	2899400	99	Other	14		
Bayfield	Eagle L	2902900	170	Other	8	Other	7
Bayfield	Everett L	2761600	34	Other	3		
Bayfield	Finger L	2965500	76	Other	5		
Bayfield	Flynn L	2902800	29	Other	3	Other	2
Bayfield	Ghost L	2423900	142			Other	6
Bayfield	Hammil L	2467900	83	Other	12		
Bayfield	Hart L	2903200	259			Other	9
Bayfield	Hildur L	2902600	67			Other	4
Bayfield	Iron L	2877000	248	Other	10		
Bayfield	Jackson L	2734200	142	Other	7		
Bayfield	Kelly L	2472000	56	Other	4		
Bayfield	Kern L	2900500	91	Other	38		
Bayfield	L Millicent	2903700	183			Other	7
Bayfield	L Owen	2900200	1323	Other	151		
Bayfield	L Ruth	2765900	66	Other	5		
Bayfield	L Tahkodah	2473500	152	Other	7		
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	Other	347	Other	19
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	1172	Other	41
Bayfield	Perch L	2770800	25	Other	11		
Bayfield	Pike L Chain	2902700	714	Other	291		
Bayfield	Samoset L	2494800	46	Other	4		
Bayfield	Siskiwit L	2882300	330	1-2 Year Pe	127		
Bayfield	Spider L	2774200	75	Other	5		
Bayfield	Spider L	2876200	124	Other	7		
Bayfield	Swett L	2743700	88	Other	37		
Bayfield	Trapper L	2734500	84	Other	35		
Bayfield	Twin Bear L	2903100	172			Other	7
Bayfield	Upper Eau Claire L	2742700	996	Other	381	Other	21
Burnett	Big Mckenzie L	2706800	1185	Other	137	Other	23
Burnett	Big Sand L	2676800	1400	1-2 Year Pe	5		
Burnett	Big Trade L	2638700	304			Other	10
Burnett	Clam R Fl	2654500	359	Other	143		
Burnett	Clear L	2457600	115	Other	6		
Burnett	Danbury Fl	2674500	256			Other	9
Burnett	Des Moines L	2674200	229	Other	9	Other	8
Burnett	Devils L	2461100	1001	Other	118		
Burnett	Dunham L	2651800	243	Other	33		
Burnett	Elbow L	2463100	233	Other	9		
Burnett	Fish L	2464500	356	Other	12		
Burnett	Lipsett L	2678100	393	Other	51		
Burnett	Little Mcgraw L	2477000	55	Other	8		
Burnett	Little Trade L	2639300	130			Other	6
Burnett	Little Yellow L	2674800	348	Other	139	Other	11
Burnett	Long L	2674100	251	Other	10		
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	19		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Burnett	Twenty-Six L	2672500	230			Other	8
Burnett	Viola L	2598600	285	Other	11		
Burnett	Yellow L	2675200	2287	1-2 Year Pe	1099	Other	34
Chippewa	Axhandle L	2092500	84	Other	5		
Chippewa	Chippewa Falls Fl	2152600	282	Other	113		
Chippewa	Cornell Fl	2181400	577	Other	226	Other	15
Chippewa	Cornell L	2171000	194	Other	9		
Chippewa	Holcombe Fl	2184900	3890	Other	1401	Other	46
Chippewa	L Wissota	2152800	6300	Other	2215	Other	61
Chippewa	Long L	2351400	1052	1-2 Year Pe	744	Other	21
Chippewa	Old Abe L	2174700	1072	Other	409	Other	22
Chippewa	Otter L	2157000	661	Other	81		
Chippewa	Popple L	2173900	90	Other	13		
Chippewa	Round L	2169200	216	Other	30	Other	8
Clark	Mead L	2143900	320	Other	21	Other	5
Douglas	Amnicon L	2858100	426	Other	169	Other	12
Douglas	Bass L	2451700	126	Other	52		
Douglas	Bear L	2857700	49	Other	21	Other	3
Douglas	Beauregard L	2452400	93	Other	39		
Douglas	Bond L	2693700	293	1-2 Year Pe	55		
Douglas	Clear L	2457700	36	Other	15		
Douglas	Dowling L	2858300	154	Other	63	Other	7
Douglas	Hoodoo L	2763900	32	Other	3		
Douglas	L Minnesuing	2866200	432	Other	171		
Douglas	L Nebagamon	2865000	914	Other	351		
Douglas	Leader L	2693800	165	Other	68		
Douglas	Lower Eau Claire L	2741600	802	Other	310	Other	18
Douglas	Lund L	2480300	75	Other	5		
Douglas	Lyman L	2856400	403	Other	13	Other	12
Douglas	Person L	2488600	172	Other	8		
Douglas	Red L	2492100	258	Other	10		
Douglas	Round L	2493900	34	Other	3		
Douglas	Upper St Croix L	2747300	855	1-2 Year Pe	315		
Douglas	Whitefish L	2694000	832	1-2 Year Pe	320		
Douglas	Wilson L	2600800	27	Other	3		
Dunn	Tainter L	2068000	1752	Other	654		
Eau Claire	Altoona L	2128100	840	Other	162	Other	9
Eau Claire	Dells Pond	2149900	739	Other	286	Other	17
Eau Claire	Halfmoon L	2125400	132	Other	19		
Eau Claire	L Eau Claire	2133200	860	Other	166	Other	9
Florence	Emily L	651600	191	Other	26		
Florence	Fay L	677100	282	Other	38		
Florence	Fisher L	704200	54	Other	4		
Florence	Halsey L	679300	512	Other	14		
Florence	Keyes L	672900	202	Other	28		
Florence	Patten L	653700	255	Other	103		
Florence	Pine R Fl	651300	127	Other	52		
Florence	Sea Lion L	672300	125	Other	7		
Forest	Arbutus L	181400	161	Other	23		
Forest	Birch L	555500	468	Other	185		
Forest	Butternut L	692400	1292	1-2 Year Pe	1045		
Forest	Crane L	388500	337	Other	44		
Forest	Franklin L	692900	892	1-2 Year Pe	71		
Forest	Ground Hemlock L	395900	88	Other	13		
Forest	Howell L	691800	177	Other	72		
Forest	Jungle L	377900	182	Other	74		
Forest	King L	501700	33	Other	14		
Forest	L Lucerne	396500	1026	Other	120		
Forest	L Metonga	394400	1991	1-2 Year Pe	315		
Forest	Lily L	376900	211	1-2 Year Pe	270	Other	8
Forest	Little Long L	190500	102	Other	6		
Forest	Mole L	390600	73	Other	5		
Forest	Pine L	406900	1670	Other	186		
Forest	Quartz L	591000	47			Other	3

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Forest	Range Line L	478200	82	Other	12		
Forest	Riley L	557100	213			Other	8
Forest	Roberts L	378400	414	Other	53	Other	12
Forest	Silver L	555700	320	Other	11	Other	10
Forest	Stevens L	683000	297	1-2 Year Pe	116		
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	246	Other	16
Iron	Boot L	2297800	180	Other	8	Other	7
Iron	Catherine L	2309100	118	Other	17		
Iron	Cedar L	2309700	193	Other	27	Other	8
Iron	Charnley L	1840400	71	Other	5		
Iron	Clear L	2303700	67	Other	5	Other	4
Iron	Echo L	2301800	220	Other	89	Other	8
Iron	Fisher L	2307300	452	Other	58	Other	13
Iron	French L	1849600	92	Other	6	Other	5
Iron	Gile Fl	2942300	3384	Other	1227	Other	43
Iron	Grand Portage L	2314100	144	Other	20	Other	6
Iron	Grant L	2312500	107	Other	6	Other	5
Iron	Hewitt L	2763300	78			Other	4
Iron	Island L	2945500	352	Other	46	Other	11
Iron	L Of The Falls	2298300	338	Other	135	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	51	Other	12
Iron	Lower Springstead L	2267000	95	Other	40	Other	5
Iron	Martha L	2314300	146	Other	60		
Iron	Mcdermott L	2296500	84	Other	5		
Iron	Mercer L	2313600	184	Other	25	Other	7
Iron	Moose L	2299300	269			Other	9
Iron	Mud L	2316400	56	Other	24		
Iron	Muskie L	2266800	81	Other	34	Other	4
Iron	N Bass L	1868900	180	Other	8	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	84	Other	8
Iron	Pike L	2299900	165	Other	68	Other	7
Iron	Pine L	2949200	312	1-2 Year Pe	289	Other	10
Iron	Plunkett L	2325200	48	Other	4		
Iron	Randall L	2318500	115	Other	48	Other	5
Iron	Rice L	2300600	125	Other	52	Other	6
Iron	Sandy Beach L	2316100	111	Other	46		
Iron	Saxon Falls Fl	2941100	41	Other	17	Other	3
Iron	Second Black L	2298600	60	Other	25		
Iron	Spider L	2306300	352	Other	140	Other	11
Iron	Stone L	2267200	82	Other	5	Other	4
Iron	Third Black L	2298800	68	Other	29		
Iron	Trude L	2295200	781	1-2 Year Pe	544	Other	18
Iron	Turtle-Flambeau Fl	2294900	13545	1-2 Year Pe	6640	Other	95
Iron	Upper Springstead L	2267100	126	Other	52	Other	6
Iron	Virgin L	2304500	119			Other	6
Iron	Wilson L	2297000	162			Other	7
Langlade	Big Twin L	182200	60	Other	4		
Langlade	Deep Wood L	1445100	72			Other	4
Langlade	Duck L	981500	123	Other	7		
Langlade	Enterprise L	1579700	505	Other	199	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		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Langlade	Otter L	387200	83	1-2 Year Pe	42		
Langlade	Pickerel L	388100	1256	Other	22		
Langlade	Rolling Stone L	389300	672	Other	82		
Langlade	Rose L	494200	112	1-2 Year Pe	43		
Langlade	Sawyer L	198100	149	1-2 Year Pe	54		
Langlade	Summit L	1445600	282	Other	11	Other	10
Langlade	Upper Post L	399200	757	Other	92		
Langlade	Water Power L	1445400	22			Other	2
Langlade	White L	365500	166	Other	8		
Lincoln	Alexander L	1494600	677	Other	16	Other	16
Lincoln	Bass L	969600	100	Other	15		
Lincoln	Crystal L	979100	109	Other	16		
Lincoln	Deer L	1519600	152	Other	62	Other	6
Lincoln	Grandfather Fl	1502400	223	Other	9		
Lincoln	Grandmother Fl	1503000	119	Other	7		
Lincoln	Jersey City Fl	1516000	433	Other	171	Other	12
Lincoln	L Alice	1555900	1369	Other	517	Other	25
Lincoln	L Mohawksin	1515400	1910	1-2 Year Pe	1110	Other	30
Lincoln	L Nokomis	1516500	2433			Other	35
Lincoln	Long L	1001000	132	Other	19		
Lincoln	Merrill Fl	1481100	164	Other	67		
Lincoln	Muskellunge L	1555500	167	Other	23		
Lincoln	Pesabic L	1481600	146	Other	21		
Lincoln	Pine L	1012100	134	Other	19	Other	6
Lincoln	Rice R Fl	1516400	920			Other	20
Lincoln	Rice R Fl Chain	1516401	3764	Other	1412		
Lincoln	Seven Island L	1490300	132	Other	19	Other	6
Lincoln	Silver L	1017400	82	Other	34		
Lincoln	Somo L	1547700	472	Other	60	Other	13
Lincoln	Spirit R Fl	1506800	1663	Other	623	Other	28
Lincoln	Squaw L	1564400	79	Other	12	Other	4
Lincoln	Thompson L	1022200	30			Other	2
Lincoln	Tug L	1482400	151	Other	62	Other	6
Marathon	Big Eau Pleine Reser	1427400	6830	Other	1913	Other	51
Marathon	L Wausau	1437500	1918	Other	71	Other	3
Marathon	Mayflower L	310500	98	Other	14		
Marathon	Mission L	1005400	107			Other	5
Marathon	Norrie L	310100	99	Other	6		
Marathon	Pike L	1406300	205	Other	28		
Marathon	Wausau Dam L	1469700	284	Other	8		
Marinette	Big Newton L	498800	68	Other	29		
Marinette	Caldron Falls Reserv	545400	1018	Other	20	Other	21
Marinette	Eagle L	500200	56	Other	4		
Marinette	High Falls Reservoir	540600	1498	Other	563		
Marinette	Hilbert L	501200	247	Other	33		
Marinette	Johnson Falls Fl	533300	68	Other	29		
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	393	Other	51	Other	12
Oconto	Bass L	417900	142	Other	58		
Oconto	Bear L	471200	78	Other	5		
Oconto	Boot L	418700	235	Other	95	Other	8
Oconto	Boulder L	491800	362	Other	12		
Oconto	Boundary L	499000	37	Other	3		
Oconto	Crooked L	462000	143	Other	7		
Oconto	Horn L	467100	132	Other	7		
Oconto	John L	470600	104	1-2 Year Pe	6		
Oconto	Maiden L	487500	290	Other	39		
Oconto	Munger L	470900	97	Other	6	Other	5
Oconto	Paya L	425600	121	Other	7		
Oconto	Reservoir Pond	466700	418	Other	13		
Oconto	Townsend Fl	465000	476	Other	14		
Oconto	Waubee L	439500	124	Other	7		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oconto	Wheeler L	439800	293	1-2 Year Pe	85		
Oneida	Aldridge L	967400	134	Other	55		
Oneida	Alva L	968100	201	Other	82		
Oneida	Baker L	1546000	42	Other	18		
Oneida	Bass L	1580300	124	Other	51	Other	6
Oneida	Bear L	1527800	312	Other	41		
Oneida	Bearskin L	1523600	400	1-2 Year Pe	457	Other	12
Oneida	Big Carr L	971600	213	Other	29	Other	8
Oneida	Big Fork L	1610700	690	Other	268	Other	16
Oneida	Big L	1613000	865	Other	333	Other	19
Oneida	Big Stone L	1612200	548	Other	215	Other	14
Oneida	Birch L	1523800	180	Other	73		
Oneida	Bird L	972000	99	Other	41		
Oneida	Blue L	1538600	456	Other	180		
Oneida	Bolger L	973000	119	Other	17		
Oneida	Boom L	1580200	437	Other	173	Other	12
Oneida	Booth L	1537800	207	Other	28	Other	8
Oneida	Bridge L	1516800	411			Other	12
Oneida	Brown L	973700	98	Other	6		
Oneida	Buckskin L	2272600	634	Other	55	Other	11
Oneida	Buffalo L	974200	104	Other	43		
Oneida	Burrows L	975000	156	Other	8	Other	7
Oneida	Carrol L	1544800	352	Other	46	Other	11
Oneida	Chain L	1598000	219	Other	89	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	326	Other	19
Oneida	Clear L	2272555	212	Other	84	Other	8
Oneida	Clearwater L	1616400	351	Other	140	Other	11
Oneida	Columbus L	1616900	670	Other	261		
Oneida	Crescent L	1564200	612	Other	239	Other	15
Oneida	Crooked L	1613300	176	Other	8		
Oneida	Cunard L	1590000	43	Other	18		
Oneida	Currie L	979300	96	Other	40		
Oneida	Dam L	1596900	744	Other	288	Other	17
Oneida	Deer L	1612300	177	Other	72	Other	7
Oneida	Diamond L	1537100	124	Other	51	Other	6
Oneida	Dog L	1590200	37	Other	3		
Oneida	Dog L	1612900	216	Other	88	Other	8
Oneida	E Horsehead L	1523000	184	Other	75	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	Other	97	Other	9
Oneida	Fish L	1570600	70	Other	29	Other	4
Oneida	Fourmile L	1610800	218	Other	88	Other	8
Oneida	Fourth L	1572000	258	Other	104	Other	9
Oneida	Franklin L	986000	161	Other	23	Other	7
Oneida	Fuller L	2272000	101	Other	6		
Oneida	Garth L	986600	114	Other	47		
Oneida	George L	1569600	435	Other	172	Other	12
Oneida	Gilmore L	1589300	320	1-2 Year Pe	61	Other	10
Oneida	Hancock L	1517900	259	Other	10	Other	9
Oneida	Hasbrook L	1589100	302	Other	121	Other	10
Oneida	Hat Rapids Fl	1567325	650	Other	253		
Oneida	Hemlock L	989200	39	Other	17		
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	158		
Oneida	Island L	1610500	295	Other	118	Other	10
Oneida	Jennie Webber L	1574300	226	Other	31		
Oneida	Julia L (Three Lakes	1614300	401	Other	52	Other	12

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Kate Pier L	1586300	34	Other	15		
Oneida	Kathan L	1598300	189	Other	77		
Oneida	Katherine L	1543300	590	1-2 Year Pe	609	Other	15
Oneida	Kawaguesaga L	1542300	670	1-2 Year Pe	279	Other	16
Oneida	Killarney L	1520900	421	Other	13		
Oneida	L Creek	1580500	172	Other	70	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	94	Other	8
Oneida	Little Bearskin L	1523500	164	Other	23		
Oneida	Little Carr L	998800	52	Other	4		
Oneida	Little Fork L	1610600	354	Other	141	Other	11
Oneida	Little Tomahawk L	1543900	160			Other	7
Oneida	Lone Stone L	1605600	172	Other	8	Other	7
Oneida	Long L	1001300	113	Other	47	Other	5
Oneida	Long L	1609000	620	Other	242	Other	15
Oneida	Long L	1618300	56	Other	24	Other	3
Oneida	Lost L	1575100	155	Other	64		
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	95	Other	9
Oneida	Maple L	1609900	144	Other	7		
Oneida	Margaret L	1615900	88	Other	37		
Oneida	Marion L	1003100	62	Other	4		
Oneida	Mars L	1577100	41	Other	17		
Oneida	Mccormick L	1526600	118	Other	6		
Oneida	Medicine L	1611700	372	Other	148	Other	11
Oneida	Mercer L	1538900	257	Other	104	Other	9
Oneida	Mid L	1542600	215	Other	9	Other	8
Oneida	Mildred L	1004600	191	Other	9		
Oneida	Minocqua L	1542400	1360	1-2 Year Pe	339	Other	25
Oneida	Moccasin L	1612100	95	Other	40	Other	5
Oneida	Moen L	1573800	460	Other	182	Other	13
Oneida	Mud L	1544000	41	Other	17		
Oneida	Mud L	1612500	124	Other	7	Other	6
Oneida	Muskellunge L	1595600	284	1-2 Year Pe	46	Other	10
Oneida	Muskie L	1524300	43	Other	4		
Oneida	N Nokomis L	1595800	476	Other	60	Other	13
Oneida	N Two L	1007500	146	Other	60		
Oneida	Nose L	1008200	40	Other	3		
Oneida	Oatmeal L	1597300	97	Other	6		
Oneida	Oneida L	1518200	255	Other	103	Other	9
Oneida	Paradise L	1009400	89	Other	13		
Oneida	Pelican L	1579900	3585	Other	1296	Other	44
Oneida	Pickerel L	1583000	49	Other	4		
Oneida	Pickerel L	1590400	736	1-2 Year Pe	32	Other	17
Oneida	Pier L	1529700	257	Other	35		
Oneida	Pine L	1012200	203	Other	82		
Oneida	Pine L	1581700	240	Other	97	Other	9
Oneida	Planting Ground L	1609100	1012	Other	387	Other	21
Oneida	Prairie L	1013000	58	Other	25		
Oneida	Rainbow Fl	1595300	2035	Other	755	Other	32
Oneida	Range Line L	1610300	123	Other	51	Other	6
Oneida	Rhinelander Fl	1580100	1326	Other	501	Other	24
Oneida	Rocky Run Fl	1525500	96	Other	40		
Oneida	Round L	1610400	150	Other	62	Other	6
Oneida	S Blue L	1015100	80	Other	5		
Oneida	S Pine L	1580700	77	Other	32		
Oneida	S Two L	1015500	214	Other	87		
Oneida	Sand L	1597000	540	Other	212	Other	14
Oneida	Scotchman L	1016200	33	Other	3		
Oneida	Second L	1572300	111	Other	46	Other	5

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Sevenmile L	1605800	503	1-2 Year Pe	68	Other	14
Oneida	Shepard L	1576100	179	Other	8	Other	7
Oneida	Shishebogama L	1539600	716	Other	44	Other	8
Oneida	Skunk L	1533200	130	Other	54		
Oneida	Soo L	1018900	135	Other	56	Other	6
Oneida	Spider L	1586600	118	Other	49	Other	6
Oneida	Spirit L	1612000	368	Other	146	Other	11
Oneida	Squash L	1019500	396	1-2 Year Pe	99		
Oneida	Squirrel L	1536300	1317	1-2 Year Pe	765	Other	24
Oneida	Stella L	1575700	405	Other	13	Other	12
Oneida	Stone L	1597600	188			Other	7
Oneida	Stone L	2272700	248	Other	100		
Oneida	Sunday L	1020600	88	Other	5		
Oneida	Sunset L	1572500	33	Other	14	Other	2
Oneida	Swamp L	1522400	296	Other	39		
Oneida	Swamsauger L	1528700	141	Other	58		
Oneida	Sweeney L	1589600	187	Other	76	Other	7
Oneida	Tamarack L	1582200	99	Other	41		
Oneida	Third L	1572200	103	Other	43	Other	5
Oneida	Thunder L	1580400	172	Other	70	Other	7
Oneida	Thunder L	1618100	1768	Other	196		
Oneida	Tim Lynn L	1597400	84	Other	35		
Oneida	Tom Doyle L	1586800	102	Other	15	Other	5
Oneida	Tomahawk L	1542700	3392			Other	43
Oneida	Tomahawk L Chain	1542701	3552	1-2 Year Pe	530		
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	207	Other	17
Oneida	Upper Kaubashine L	1535000	190	Other	77	Other	7
Oneida	Venus L	1577000	65	Other	27		
Oneida	Virgin L	1614100	276	Other	111	Other	9
Oneida	W Horsehead L	1522900	145	Other	7	Other	6
Oneida	W Twin L	1177400	28	Other	3		
Oneida	Walters L	1582800	61	Other	26		
Oneida	Whitefish L	1613500	205	Other	9	Other	8
Oneida	Wildwood L	1178600	28	Other	5		
Oneida	Willow Fl	1528300	5135	1-2 Year Pe	2789	Other	54
Oneida	Willow L	1529500	395	Other	13	Other	12
Polk	Antler L	2449400	101	Other	6		
Polk	Apple R Fl	2624200	639			Other	16
Polk	Balsam L	2620600	2054	1-2 Year Pe	205		
Polk	Bear L	2452200	155	Other	64		
Polk	Bear Trap L	2618100	241	Other	10		
Polk	Big Butternut L	2641000	378	Other	49		
Polk	Big L	2615900	259	Other	10		
Polk	Big Round L	2627400	1015	Other	119		
Polk	Bone L	2628100	1781			Other	29
Polk	Church Pine L	2616100	107	Other	6		
Polk	Clear L	2623500	30	Other	3		
Polk	Deer L	2619400	807			Other	18
Polk	Half Moon L	2621100	579	Other	72		
Polk	Indianhead Fl	2634400	776	Other	300		
Polk	Little Butternut L	2640700	189	Other	26		
Polk	Magnor L	2624600	224	Other	30		
Polk	N Pipe L	2485700	58	Other	25		
Polk	N Twin L	2623900	135	Other	7		
Polk	Pike L	2624000	159	Other	8		
Polk	Pipe L	2490500	284	Other	38		
Polk	Poplar L	2491000	125	Other	7		
Polk	Sand L	2495000	187	Other	26		
Polk	Wapogasset L	2618000	1186	Other	137		
Polk	Ward L	2599400	91	Other	13		
Polk	Wind L	2616000	38	Other	3		
Portage	Tree L	289400	74	Other	5		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Price	Amik L	2268600	224			Other	8
Price	Bass L	2279800	84	Other	5		
Price	Bass L	2282200	58	Other	25	Other	4
Price	Big Dardis L	2244200	144	Other	20	Other	6
Price	Butternut L	2283300	1006	1-2 Year Pe	745	Other	21
Price	Crane + Chase L	2237500	86	Other	36	Other	5
Price	Crowley Fl	2287200	422	Other	13	Other	12
Price	Deer L	2239100	145			Other	6
Price	Duroy L	2240100	379	Other	151	Other	11
Price	Elk L	2240000	88	Other	37	Other	5
Price	Grassy L	2238100	81	Other	34	Other	4
Price	Island L	2260900	29	Other	3		
Price	Lac Sault Dore	2236800	561	Other	220	Other	15
Price	Long L	2239300	418	Other	166	Other	12
Price	Long L	2282000	241	Other	97	Other	9
Price	Lower Park Falls Fl	2290100	71	Other	30	Other	4
Price	Miles L	2271100	32			Other	2
Price	Musser L	2245100	563	Other	70	Other	15
Price	N Spirit L	1515200	213	Other	29	Other	8
Price	Patterson L	1872500	70	Other	5		
Price	Pike L	2268300	806	Other	311	Other	18
Price	Pixley Fl	2288900	334	Other	133	Other	11
Price	Round L	2267800	726	Other	281	Other	17
Price	Schnur L	2284000	158	Other	65	Other	7
Price	Solberg L	2242500	859	Other	331	Other	19
Price	Spirit L	1513000	126	Other	7	Other	6
Price	Thompson L	2265900	111	Other	6	Other	5
Price	Turner L	2268500	149	Other	61	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	140	Other	11
Price	Worcester L	2210900	100	Other	42		
Rusk	Amacoy L	2359700	278	Other	37	Other	9
Rusk	Audie L	2368700	128			Other	6
Rusk	Bass L	2090900	88	Other	5		
Rusk	Big Falls Fl	2230100	369	Other	147	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	652	Other	29
Rusk	Fireside Lakes	2349500	302	Other	121		
Rusk	Island L	2350200	526	Other	66	Other	14
Rusk	Ladysmith Fl	2228700	288	Other	116	Other	10
Rusk	Mccann L	2350400	133	Other	19	Other	6
Rusk	Perch L	2368500	23			Other	2
Rusk	Potato L	2355300	534	Other	67	Other	14
Rusk	Pulaski L	1875900	126	Other	52		
Rusk	Sand L	2353600	262	Other	106	Other	9
Rusk	Thornapple Fl	2227500	268	Other	108	Other	9
Sawyer	Barber L	2382300	238	Other	32	Other	9
Sawyer	Barker L	2400000	238	Other	96	Other	9
Sawyer	Beverly L	2387200	9			Other	1
Sawyer	Black Dan L	2381900	128	Other	7	Other	6
Sawyer	Black L	2401300	129	Other	7	Other	6
Sawyer	Blaisdell L	2402200	356	Other	12	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	170	Other	12
Sawyer	Durphee L	2396800	193	Other	79		
Sawyer	Evergreen L	2277600	200	Other	81	Other	8
Sawyer	Fawn L	2435900	23	Other	2		
Sawyer	Fishtrap L	2401100	216			Other	8

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Sawyer	Ghost L	2423000	372	Other	48	Other	11
Sawyer	Grimh Fl	2385100	86	Other	5	Other	5
Sawyer	Grindstone L	2391200	3111	1-2 Year Pe	354	Other	20
Sawyer	Ham L	1852300	100	Other	42		
Sawyer	Hayward L	2725500	247	Other	33	Other	9
Sawyer	Holmes L	2419600	62			Other	4
Sawyer	Hunter L	2400600	126	Other	52	Other	6
Sawyer	Island L	2381800	67	Other	5	Other	4
Sawyer	L Chetac	2113300	1920	Other	714		
Sawyer	L Chippewa	2399700	15300	Other	3415	Other	67
Sawyer	L Of The Pines	2275300	273	Other	110	Other	9
Sawyer	L Placid	2436500	160	Other	8	Other	7
Sawyer	L Winter	2381100	676	Other	16	Other	16
Sawyer	Lac Courte Oreilles	2390800	5039	Other	1170	Other	35
Sawyer	Lewis L	1860200	52	Other	4		
Sawyer	Little Round L	2395500	229	Other	25		
Sawyer	Little Sissabagama L	2394100	299			Other	10
Sawyer	Loretta L	2382700	126			Other	6
Sawyer	Lost Land L	2418600	1304	Other	493	Other	24
Sawyer	Lovejoy L	2395900	76	Other	32		
Sawyer	Lower Clam L	2429300	229	Other	31	Other	8
Sawyer	Mason L	2277200	190	Other	77	Other	7
Sawyer	Meadow L	2424800	39	Other	17	Other	3
Sawyer	Mirror L	1866900	38	Other	3		
Sawyer	Moose L	2420600	1670	Other	625	Other	28
Sawyer	Mud L	2434800	480	Other	14	Other	13
Sawyer	Nelson L	2704200	2503	1-2 Year Pe	148		
Sawyer	North L	2436000	129	Other	7	Other	6
Sawyer	Partridge Crop L	2424600	45	Other	19	Other	3
Sawyer	Perch L	1873600	129	Other	7	Other	6
Sawyer	Radisson Fl	2397400	255	Other	103	Other	9
Sawyer	Round L	2395600	3054	Other	1112	Other	40
Sawyer	Sand L	2393200	928	Other	110	Other	20
Sawyer	Sissabagama L	2393500	719	Other	279	Other	17
Sawyer	Smith L	2726100	323	Other	11		
Sawyer	Spider L	2435700	1454	1-2 Year Pe	223	Other	26
Sawyer	Spring L	2724900	220	Other	8		
Sawyer	Squaw L	2395100	208	Other	14		
Sawyer	Teal L	2417000	1049	Other	401	Other	21
Sawyer	Teal R Fl	2416900	75	Other	31	Other	4
Sawyer	Tiger Cat Fl	2435000	819	Other	98	Other	18
Sawyer	Whitefish L	2392000	786	Other	95	Other	18
Sawyer	Windfall L	2046500	102	Other	42		
Sawyer	Windigo L	2046600	522	Other	205		
St. Croix	Cedar L	2615100	1100	1-2 Year Pe	715	Other	22
Taylor	Anderson L	2165700	43	Other	4		
Taylor	Chelsea L	2200400	59	Other	4		
Taylor	Chequamegon Waters F	2160700	2714	Other	31		
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	128	Other	10
Taylor	S Harper L	2204100	80	Other	12		
Taylor	Sackett L	1764500	63	Other	10		
Taylor	Shearer L	2197600	21	Other	2		
Taylor	Wellington L	1467800	43	Other	4		
Vilas	Alder L	2329600	274	Other	110	Other	9
Vilas	Allequash L	2332400	426	Other	55	Other	12
Vilas	Alma L	967900	55	Other	8	Other	3
Vilas	Annabelle L	2953800	213	1-2 Year Pe	56	Other	8
Vilas	Anvil L	968800	380	Other	151		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Apeekwa L	2269400	188	Other	77	Other	7
Vilas	Armour L	2953200	320	Other	128	Other	10
Vilas	Arrowhead L	1541500	99	Other	14	Other	5
Vilas	Averill L	2956700	71			Other	4
Vilas	Ballard L	2340700	505	Other	199	Other	14
Vilas	Bass L	1604200	266	Other	10	Other	9
Vilas	Bear L	2335400	76	Other	11	Other	4
Vilas	Beaver L	2960600	68	Other	5		
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	660	1-2 Year Pe	68
Vilas	Big Crooked L	2338800	682	1-2 Year Pe	215	Other	16
Vilas	Big Donahue L	971700	92	Other	6		
Vilas	Big Gibson L	1835200	116	Other	48	Other	5
Vilas	Big Hurst L	2756000	48	Other	4		
Vilas	Big Kitten L	2336700	55	Other	4	Other	3
Vilas	Big L (Boulder Jct)	2334700	835	Other	322	Other	19
Vilas	Big L (Mi Border)	2963800	771	1-2 Year Pe	880	Other	14
Vilas	Big Muskellunge L	1835300	930	Other	357	Other	20
Vilas	Big Portage L	1629500	638	Other	249		
Vilas	Big Sand L	1602600	1408	Other	160	Other	25
Vilas	Big St Germain L	1591100	1617	1-2 Year Pe	412	Other	28
Vilas	Bills L	1835500	37			Other	0
Vilas	Birch L	2311100	528	Other	207	Other	14
Vilas	Black Oak L	1630100	584	1-2 Year Pe	93		
Vilas	Boot L	1619100	284	Other	38	Other	10
Vilas	Boot L	2756400	29	Other	3	Other	2
Vilas	Boulder L	2338300	524	Other	206	Other	14
Vilas	Brandy L	1541300	110	Other	16	Other	5
Vilas	Carpenter L	976100	333	Other	11		
Vilas	Catfish L	1603700	1012	Other	387	Other	21
Vilas	Circle Lily L	2326700	223	Other	30	Other	8
Vilas	Clear L	2329000	555	Other	217	Other	14
Vilas	Cleveland L	2758600	32	Other	3		
Vilas	Cochran L	2963500	126	Other	7	Other	6
Vilas	Crab L	2953500	949	Other	364	Other	20
Vilas	Crampton L	2759000	59	Other	4		
Vilas	Cranberry L	1603800	956	Other	367	Other	20
Vilas	Crystal L	1842400	88	Other	5		
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	41	Other	10
Vilas	Diamond L	1844700	122	Other	7	Other	6
Vilas	Dorothy Dunn L	1845600	70	Other	5	Other	4
Vilas	Duck L	1599900	108	Other	45	Other	5
Vilas	E Ellerson L	2331300	136	Other	56	Other	6
Vilas	E Witches L	982500	34	Other	3		
Vilas	Eagle L	1600200	572	Other	224	Other	15
Vilas	Eleanore L	1631500	28	Other	12	Other	2
Vilas	Erickson L	983600	106	1-2 Year Pe	32		
Vilas	Escanaba L	2339900	293	1-2 Year Pe	283	Other	10
Vilas	Fawn L	1591000	22	Other	10	Other	2
Vilas	Fawn L	2328900	74	Other	31	Other	4
Vilas	Finger L	984700	90	Other	6		
Vilas	Fishtrap L	2343200	329	1-2 Year Pe	89	Other	10
Vilas	Forest L	2762200	466	Other	184		
Vilas	Found L	1593800	326	Other	43	Other	10
Vilas	Frank L	985900	141	Other	7		
Vilas	Harmony L	988300	88	Other	5		
Vilas	Harris L	2958500	507	Other	199	Other	14
Vilas	Helen L	2964400	111	Other	46	Other	5
Vilas	Hiawatha L	2328400	36	Other	6		
Vilas	High L	2344000	734	1-2 Year Pe	141	Other	17

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Horsehead L	2953100	234	Other	95	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	13	Other	12
Vilas	Island L	2334400	1023	Other	391	Other	21
Vilas	Jag L	1855900	158	Other	65	Other	7
Vilas	Jenny L	1856400	59	Other	25		
Vilas	Johnson L	1541100	78	Other	12	Other	4
Vilas	Jute L	1857400	194			Other	8
Vilas	Katinka L	2957000	172	Other	70		
Vilas	Kentuck L	716800	957	1-2 Year Pe	1484	Other	20
Vilas	Kenu L	1629800	73	Other	5		
Vilas	Kildare L	1631700	54	Other	4	Other	3
Vilas	L Content	1592000	244	Other	99	Other	9
Vilas	L Laura	995200	599	Other	234	Other	15
Vilas	Lac Des Fleurs	1630900	49	Other	4		
Vilas	Lac Vieux Desert	1631900	4300	1-2 Year Pe	666	Other	32
Vilas	Little Arbor Vitae L	1545300	534	Other	210	Other	14
Vilas	Little Crooked L	2335500	153	Other	22	Other	6
Vilas	Little Horsehead L	2953000	52	Other	22		
Vilas	Little John L	2332300	166	Other	68	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	4	Other	4
Vilas	Little Spider L	1540400	235	Other	32	Other	8
Vilas	Little St Germain L	1596300	980	Other	115	Other	20
Vilas	Little Star L	2334300	244	Other	99	Other	9
Vilas	Little Trout L	2321600	978	Other	112	Other	6
Vilas	Lone Pine L	2961600	142	Other	20	Other	6
Vilas	Long L	1602300	872	Other	104	Other	19
Vilas	Loon L	1001600	31	Other	3		
Vilas	Lost Canoe L	2339800	249	Other	100		
Vilas	Lost L	1593400	544	Other	68	Other	14
Vilas	Lower Aimer L	2955000	34	Other	3		
Vilas	Lower Buckatabon L	1621000	352	Other	46	Other	11
Vilas	Lower Gresham L	2330300	149			Other	6
Vilas	Lynx L	1600000	22	Other	10	Other	2
Vilas	Lynx L	2954500	339	Other	135	Other	11
Vilas	Mamie L	2964100	400	1-2 Year Pe	449	Other	11
Vilas	Manitowish L	2329400	506	Other	199	Other	14
Vilas	Mann L	2332000	261	Other	10		
Vilas	Marshall L	1626600	87	Other	5	Other	5
Vilas	Mccullough L	2960400	216	Other	9	Other	8
Vilas	Mermaid L	2768100	60	Other	4		
Vilas	Meta L	1004400	175	Other	8		
Vilas	Middle Ellerson L	1866100	60			Other	2
Vilas	Middle Gresham L	2330700	53	Other	4	Other	3
Vilas	Moccasin L	1005700	83	Other	5	Other	4
Vilas	Moon L	1005800	131	Other	19	Other	6
Vilas	Morton L	2960300	163	Other	8	Other	7
Vilas	Murphy L	2769700	81	Other	5	Other	4
Vilas	Muskellunge L	1596600	272	Other	36	Other	9
Vilas	N Crab L	2953400	56	Other	24	Other	3
Vilas	N Turtle L	2310400	369	Other	147	Other	11
Vilas	N Twin L	1623800	2788			Other	38
Vilas	Nelson L	1007600	104	Other	6	Other	5
Vilas	Nelson L	1869900	27			Other	2
Vilas	Nixon L	2341200	110	Other	6	Other	5
Vilas	No Mans L	2312100	225	Other	91	Other	8
Vilas	Norwood L	1008100	125	Other	13		
Vilas	Oswego L	1871800	66			Other	4
Vilas	Otter L	1600100	196	Other	80	Other	8

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Vilas	Oxbow L	2954800	511	1-2 Year Pe	235	1-2 Year Pe	10
Vilas	Pallette L	1872100	173			Other	7
Vilas	Palmer L	2962900	635	1-2 Year Pe	62	Other	16
Vilas	Papoose L	2328700	428	Other	169	Other	12
Vilas	Partridge L	2341500	228	Other	9	Other	8
Vilas	Pickerel L	1619700	293	Other	11	Other	10
Vilas	Pine Island L	1011900	79	Other	5	Other	4
Vilas	Pioneer L	1623400	427	Other	55	Other	12
Vilas	Plum L	1592400	1033	1-2 Year Pe	608	Other	21
Vilas	Plum L	2963200	100	Other	10		
Vilas	Presque Isle L	2956500	1280			Other	24
Vilas	Presque Isle L Chain	2956501	1571	Other	604		
Vilas	Rainbow L	2310800	146	Other	60	Other	6
Vilas	Razorback L	1013800	362	Other	144	Other	11
Vilas	Rest L	2327500	608	Other	237	Other	15
Vilas	Rice L	1618600	71	Other	30	Other	4
Vilas	Roach L	1014000	51	Other	22	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	6	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	179	Other	13
Vilas	S Twin L	1623700	642			Other	16
Vilas	Sanford L	2335300	88	Other	37	Other	5
Vilas	Scattering Rice L	1600300	267	Other	107	Other	9
Vilas	Sherman L	1880700	123	1-2 Year Pe	45	Other	6
Vilas	Smoky L	1018300	610			Other	1
Vilas	Snipe L	1018500	239	1-2 Year Pe	77	Other	9
Vilas	Sparkling L	1881900	154	Other	22	Other	7
Vilas	Spectacle L	717400	171	Other	8		
Vilas	Spider L	2329300	272	Other	109	Other	9
Vilas	Spring L	2964800	205	Other	83		
Vilas	Squaw L	2271600	785	1-2 Year Pe	319	Other	18
Vilas	Star L	1593100	1206	Other	458	Other	23
Vilas	Stateline L	2952100	199	Other	3		
Vilas	Stewart L	1020000	39	Other	17		
Vilas	Stone L	2328800	139	Other	57	Other	6
Vilas	Sturgeon L	2327200	32	Other	14	Other	2
Vilas	Sumach L	1020500	60	Other	4	Other	4
Vilas	Sunset L	1020900	185	Other	8	Other	7
Vilas	Tenderfoot L	2962400	437	1-2 Year Pe	379	Other	11
Vilas	Towanda L	1022900	146	Other	21	Other	6
Vilas	Trout L	2331600	3816	Other	387	Other	46
Vilas	Twin Island L	2959300	205			Other	8
Vilas	Twin L Chain	1623801	3430	Other	1270		
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	48	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	54	Other	6
Vilas	W Bay L	2964000	368	Other	69	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	42	Other	5
Vilas	White Birch L	2340500	112	Other	46	Other	5
Vilas	White Sand L	2339100	734	Other	89	Other	17
Vilas	Wild Rice L	2329800	379	Other	121	Other	9
Vilas	Wildcat L	2336800	305	Other	40	Other	10
Vilas	Wolf L	2336100	393	1-2 Year Pe	262	Other	12
Vilas	Yellow Birch L	1599600	202	Other	82	Other	8

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Washburn	Balsam L	2112800	295	Other	118		
Washburn	Bass L	1833300	130	Other	54		
Washburn	Bass L	2451300	144	Other	20		
Washburn	Bass L	2451900	188	1-2 Year Pe	88	Other	7
Washburn	Bean L	2718500	100	Other	6		
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	48		
Washburn	Cable L	2456100	185	Other	26		
Washburn	Chippanazie L	2722800	58	Other	25		
Washburn	Colton Fl	2702100	58	Other	25		
Washburn	Cranberry Fl	2722400	201	Other	9		
Washburn	Deep L	1844000	43	Other	18		
Washburn	Dunn L	2709800	193	Other	79		
Washburn	Gilmore L	2695800	389	Other	12		
Washburn	Horseshoe L	2470000	194	Other	27		
Washburn	Island L	2470600	276	Other	37		
Washburn	L Nancy	2691500	772	Other	93	Other	18
Washburn	Leach L	2474400	30	Other	13		
Washburn	Leisure L	2475000	75			Other	4
Washburn	Little Long L	2664500	112	Other	6		
Washburn	Little Mud L	2107100	71	Other	30		
Washburn	Little Sand L	2477700	74	Other	11		
Washburn	Little Stone L	1862400	27	Other	3		
Washburn	Long L	2106800	3290	1-2 Year Pe	847		
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	587		
Washburn	Mud L	2107700	103	Other	6		
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	17		
Washburn	Shell L	2496300	2580	1-2 Year Pe	606	Other	36
Washburn	Silver L	2496900	188	Other	26		
Washburn	Slim L	2109300	224	Other	30		
Washburn	Spider L # 5	1882500	177	Other	8		
Washburn	Spring L	1882900	42	Other	3		
Washburn	Spring L	2498600	211	Other	29		
Washburn	Stone L	1884000	39	Other	3		
Washburn	Stone L	1884100	523	Other	205		
Washburn	Tozer L	2502000	36	Other	6		
Washburn	Trego L	2712000	451	Other	57	Other	13