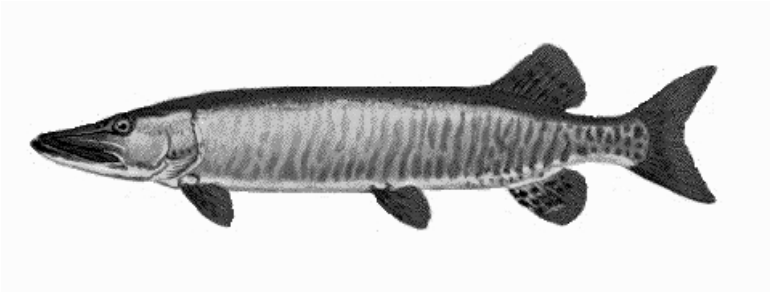
Wisconsin Department of Natural Resources 2014-2015 Ceded Territory Fishery Assessment Report



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Administrative Report # 82

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Walleye illustration Virgil Beck

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INTRODUCTION

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

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

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

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

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

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

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

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

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

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

This annual report summarizes WDNR efforts related to management of the shared Ceded Territory fishery from early 2014 through early 2015. 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 2014-15 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 2014 were Pine (Iron Co.), Balsam (Polk Co.), Two Sisters (Oneida Co.), and Escanaba and Big Arbor Vitae (Vilas Co.) lakes. In addition, at least one large lake or lake chain is chosen to be surveyed each year. In 2015 the Three Lakes Chain (includes Big Fork, Big, Big Stone, Deer, Dog, Fourmile, Island, laurel, Little Fork, Long, Medicine, Moccasin, Planting Ground, Range Line, Round, Spirit and Townline lakes, Oneida Co.), Bear (Barron Co.), Yellow (Burnett Co.), Butternut (Forest Co.), and Nelson (Sawyer Co.), lakes were large waters sampled.

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

Walleye

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

[2] Creel surveys are conducted from the first Saturday in May through early March and correspond to the Wisconsin open season for game fish species. The month of November was excluded from analyses due to poor ice conditions and low angler effort.
[3] Spawning population estimates may be less than adult population sizes if all adults do not spawn in every year. The degree to which this occurs in Wisconsin is currently unknown and may vary by lake.

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

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

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

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

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

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

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

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

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

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

Relative stock density (RSD) is calculated as:

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

Muskellunge

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

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

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

Largemouth and Smallmouth Bass

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

Establishment of Safe Harvest

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

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

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

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

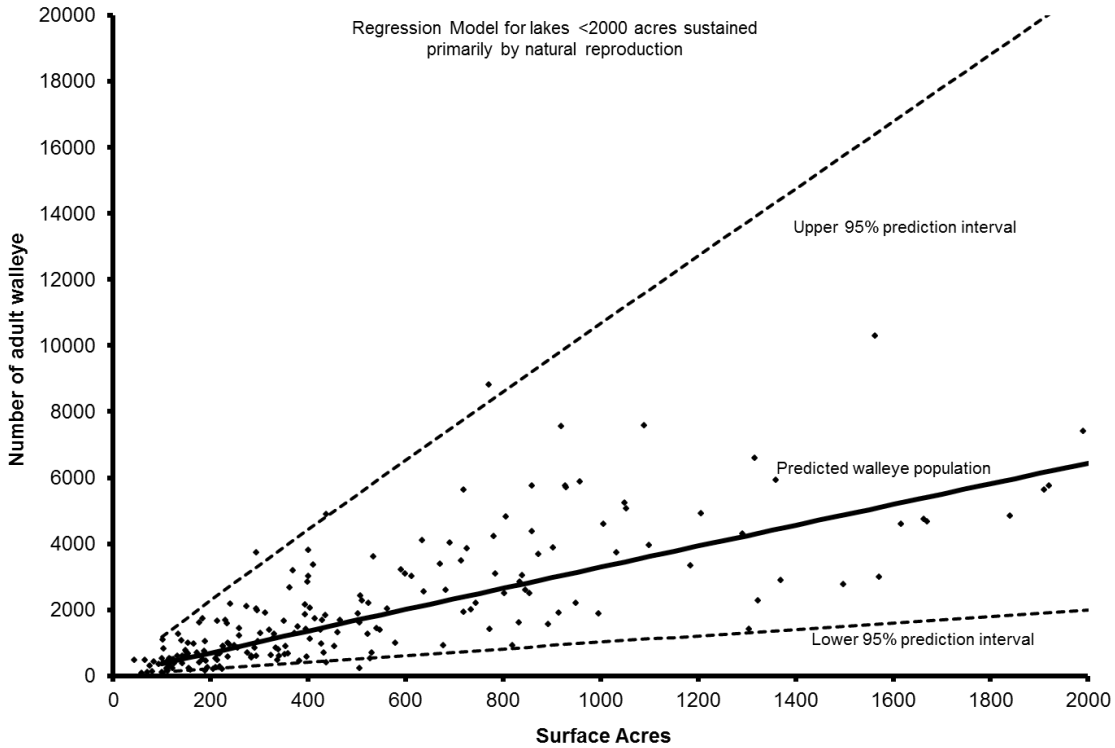

Figure 2. Regression model used to set 2014 safe harvest levels for lakes sustained primarily by natural reproduction (applies to all lake sizes; only lakes <2000 acres are shown for illustrative clarity).

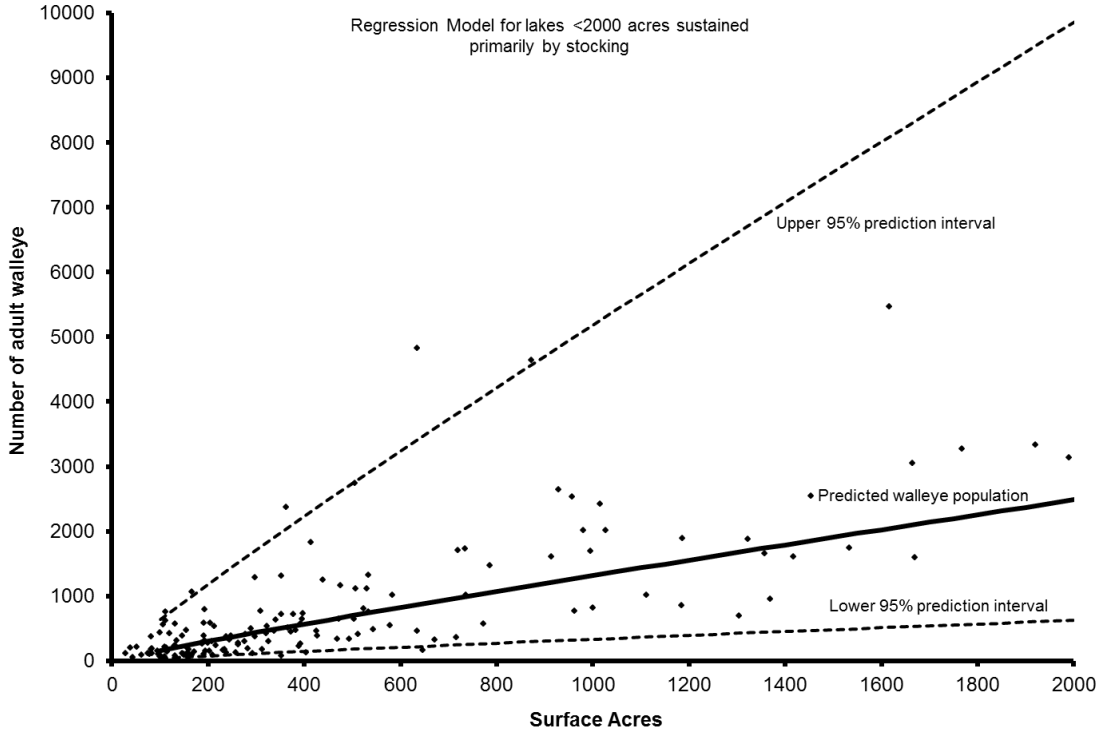

Figure 3. Regression model used to set 2014 safe harvest levels for lakes <2000 acres sustained primarily by stocking (applies to all lakes; only lakes <2000 ac. are shown for illustrative clarity).

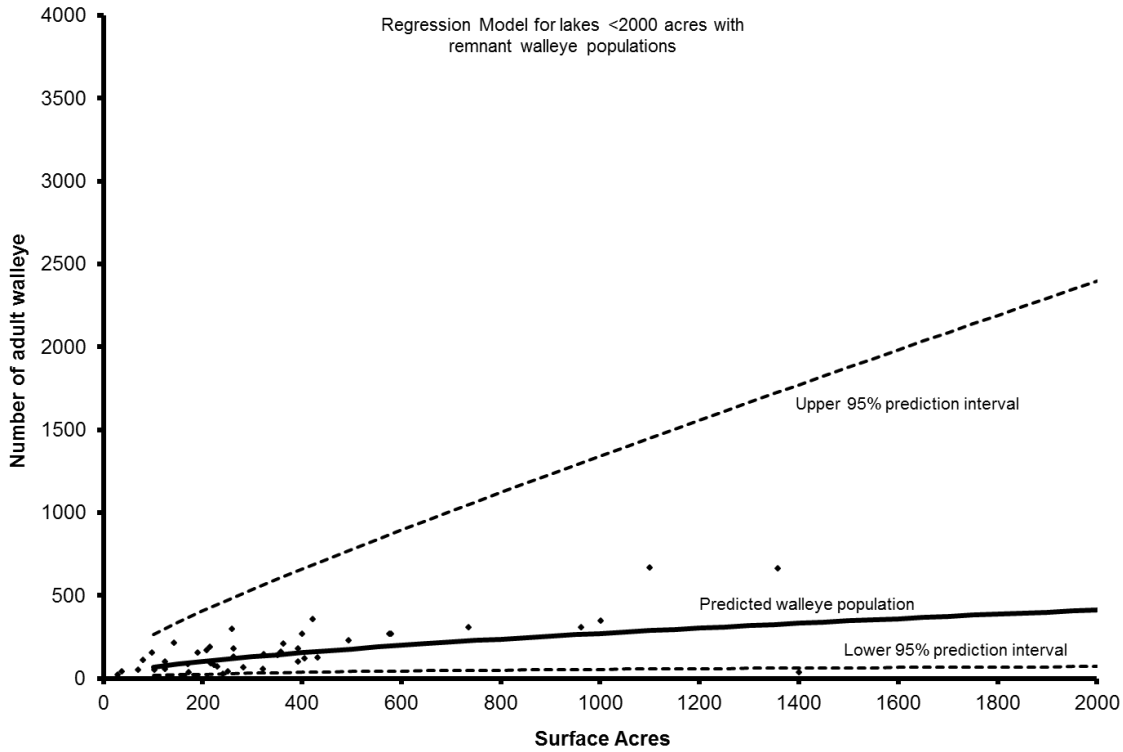

Figure 4. Regression model used to set 2014 safe harvest levels for lakes <2000 acres with remnant walleye populations (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

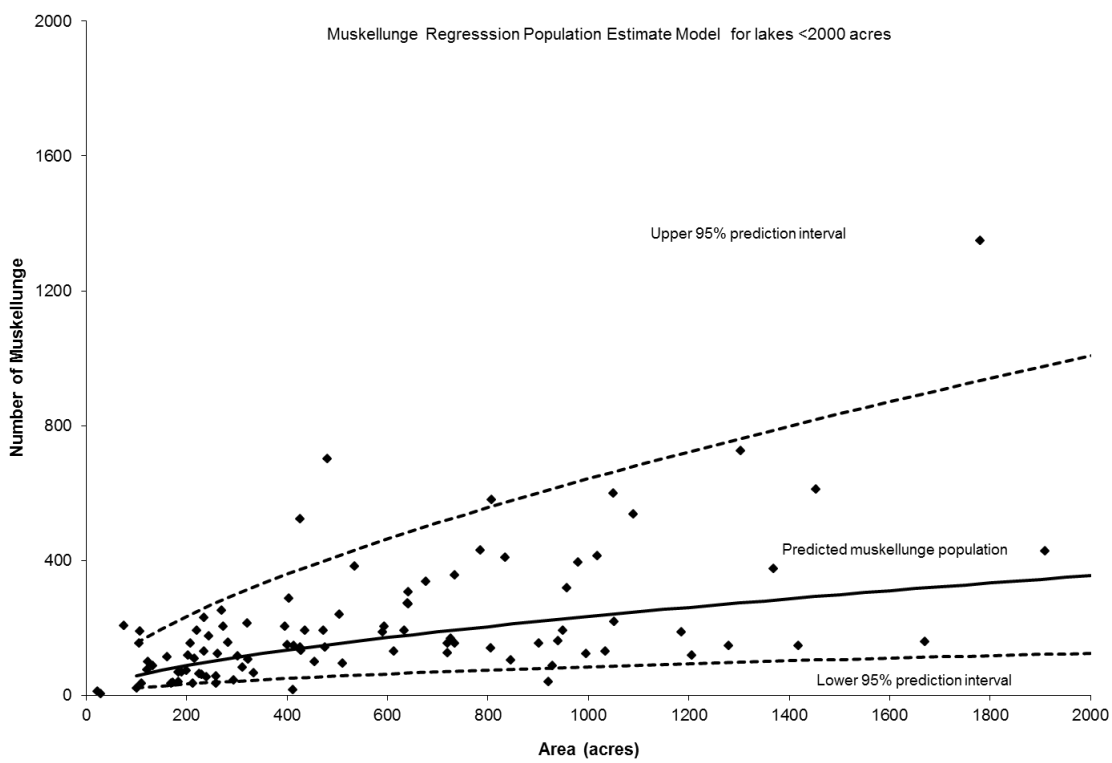

Figure 5. Regression model used to set 2014 safe harvest levels for muskellunge populations in lakes <2000 acres (applies to all lakes; only lakes <2000 acres are shown for illustrative clarity).

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 2014, that within each recruitment model the YOY density observed in 2014 did not differ from the average over the previous 22 years (1990-2011), and that in stocked model lakes YOY density did not differ between those lakes that were stocked and those that were not stocked during 2014. A general linear model was used to evaluate the effects of recruitment model (natural or stocked), year, and the year*model interaction on YOY walleye/mile over time. The interaction term was evaluated as indicative of significant trends over time in YOY walleye/mile for lakes within one or both recruitment models.

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

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

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

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

RESULTS AND DISCUSSION

Population Estimates and Densities

In 2014, spawning walleye populations were estimated in 27 lakes, ranging in size from 74 to 2,503 acres and representing a range of walleye recruitment categorizations and angler regulations (Table 1). Due to sample size restrictions, separate analyses were conducted to evaluate differences in spawner population size across (1) primary recruitment source (natural, stocked, or remnant; refer to Appendix C) and (2) angling regulations in place during the 2014-15 angling season. Statistical comparisons were made for spawner density (fish/acre) which provides a better comparative measure across lakes of varying size (relative to spawner abundance).

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

Table 1. Lakes surveyed by WDNR crews in spring 2014, with corresponding information on adult (spawning) walleye population abundance and density. Only lakes with population estimates accepted for use by the TWG are shown.

WBIC[1]	County	Lake	Acres	Size Limit (in)	Recruitment Code[2]	Recruitment Model[2]	Adult Pop. Estimate	Adult Density (#/Acre)
Natural Model Lakes								
2675200	Burnett	Yellow	2287	15	C-NR	Natural	6987	3.06
2865000	Douglas	L Nebagamon	914	18	C-NR	Natural	1212	1.33
2694000	Douglas	Whitefish	832	15	NR	Natural	2512	3.02
692400	Forest	Butternut	1293	Slot14-18	C-NR	Natural	3509	2.71
692900	Forest	Franklin	892	Slot14-18	C-NR	Natural	692	0.78
2949200	Iron	Pine	312	1>14	NR	Natural	2064	6.62
1613000	Oneida	Big Lake	845	1>14	NR	Natural	2213	2.62
1612200	Oneida	Big Stone	607	1>14	NR	Natural	1084	1.79
1611x00	Oneida	Medicine/Laurel[3]	604	1>14	NR	Natural	1822	2.82
1610x00	Oneida	Big Fk/Fourmile[3]	873	1>14	NR	Natural	3999	4.58
1610600	Oneida	Little Fork	336	1>14	NR	Natural	2574	7.66
1609000	Oneida	Long Lake	604	1>14	NR	Natural	2071	3.43
1609100	Oneida	Planting Ground	1010	1>14	NR	Natural	2553	2.53
1588200	Oneida	Two Sisters	719	15	C-NR	Natural	1989	2.77
1545600	Vilas	Big Arbor Vitae	1090	1>14	NR	Natural	8253	7.57
2339900	Vilas	Escanaba	293	28	NR	Natural	2903	9.91
1013800	Vilas	Razorback	362	15	C-NR	Natural	3082	8.51
Stocked Model Lakes								
478200	Forest	Range Line	82	15	C-ST	Stocked	376	4.58
683000	Forest	Stevens	297	15	C-ST	Stocked	564	1.90
2620600	Polk	Balsam	2054	15	C-ST	Stocked	713	0.35
2704200	Sawyer	Nelson	2503	18	C-ST	Stocked	3390	1.35
2470000	Vilas	Horseshoe	194	15	ST	Stocked	27	0.14
2710800	Vilas	Matthews	263	15	C-ST	Stocked	31	0.12
1619700	Vilas	Pickerel	293	15	ST	Stocked	216	0.74
Remnant Model Lakes								
2105100	Barron	Bear	1358	18	O-ST	Remnant	911	0.67
2495100	Burnett	Sand (North)	962	15	O-ST	Remnant	308	0.32
Other Lakes								
184200	Forest	Crystal	74	15	O	None	287	3.87

1 - WBIC is a Water Body Identification Code unique to each lake.
2 – Recruitment Code and Recruitment Model shown are as defined at the time the population survey was conducted. 2014 survey results lead to subsequent changes in these variables in some instances; any such changes are reflected in subsequent graphs/analyses.
3 - A single, combined estimate was done for Medicine and Laurel lakes and for Big Fork and Fourmile lakes.

Spawning Adult Walleye Abundance

Adult spawning walleye abundance estimates averaged 2,087 walleye (3.18/acre) across all lakes with population estimates successfully completed during 2014. Average abundance estimates for natural-model lakes (Avg. 2,913, range 692-8,253) were greater than in stocked- (Avg.760, range 27-3,390) and remnant-model (Avg.610, range 308-911) lakes during 2014 (Table 1; Appendix E). Spawning walleye abundance was lowest (27 adult walleye) in Horseshoe Lake, Vilas County, and highest in Big Arbor Vitae Lake, Vilas County (8,253 adult walleye; Table 1).

Adult spawning walleye density estimates averaged 3.18 fish/acre across all lakes with population estimates successfully completed during 2014. Average spawner density estimates for natural-model lakes sampled in 2014 (Avg. 4.22/acre, range 0.78-9.91) was greater than in stocked- (Avg. 1.31/acre, range 0.12-4.58) or remnant- (Avg. 0.50/acre, range 0.32-0.67) model lakes (Appendix E). Spawning walleye density was lowest (0.12/acre) in Matthews Lake, Vilas County, and highest in Escanaba Lake, Vilas County (9.91/acre; Table 1).

Consistent with most previous years, differences observed during 2014 in walleye spawner density between lakes in different recruitment classes (natural, stocked, or remnant) were statistically significant (General Linear Model, $P<0.01$). Spawner densities observed in 2014 in lakes dominated by natural recruitment were greater than those in stocked or remnant populations (Tukey-Kramer LS Means, $P<0.04$ and $P<0.01$, respectively); no significant difference was found between mean spawner density in stocked and remnant-model lakes (Figure 8).

Analysis of variance suggests that no significant differences in spawner density existed between lakes with varying harvest regulations (General Linear Model, $P=0.09$). In 2014 the majority of lakes included in the analysis had 15” minimum regulations in place (12 lakes), with nine 1>14” regulation classifications, three 18” minimum, one 28” minimum, and two 14-18” protected slot.

There is no statistically significant trend in walleye spawner density in natural-model lakes (GLM, $P=0.42$) 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=-.058, $P=0.015$; Figure 7).

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

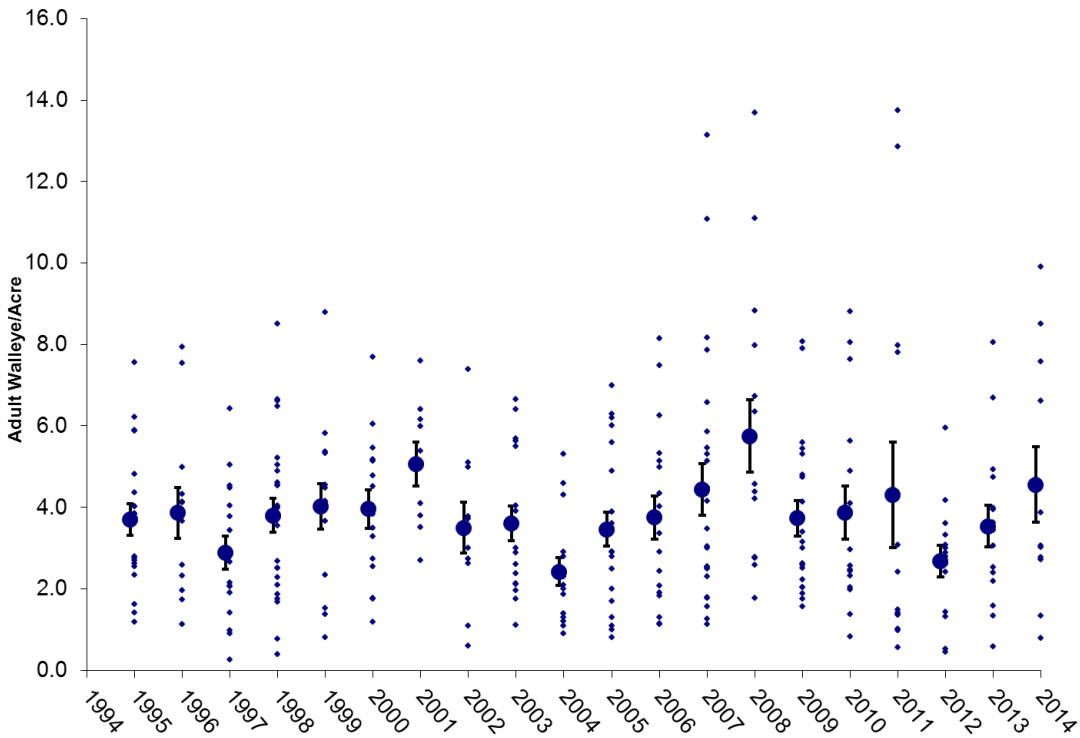

Figure 6. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by natural reproduction, 1995 – 2014. Small circles represent individual lakes; large circles represent yearly means (±SE).

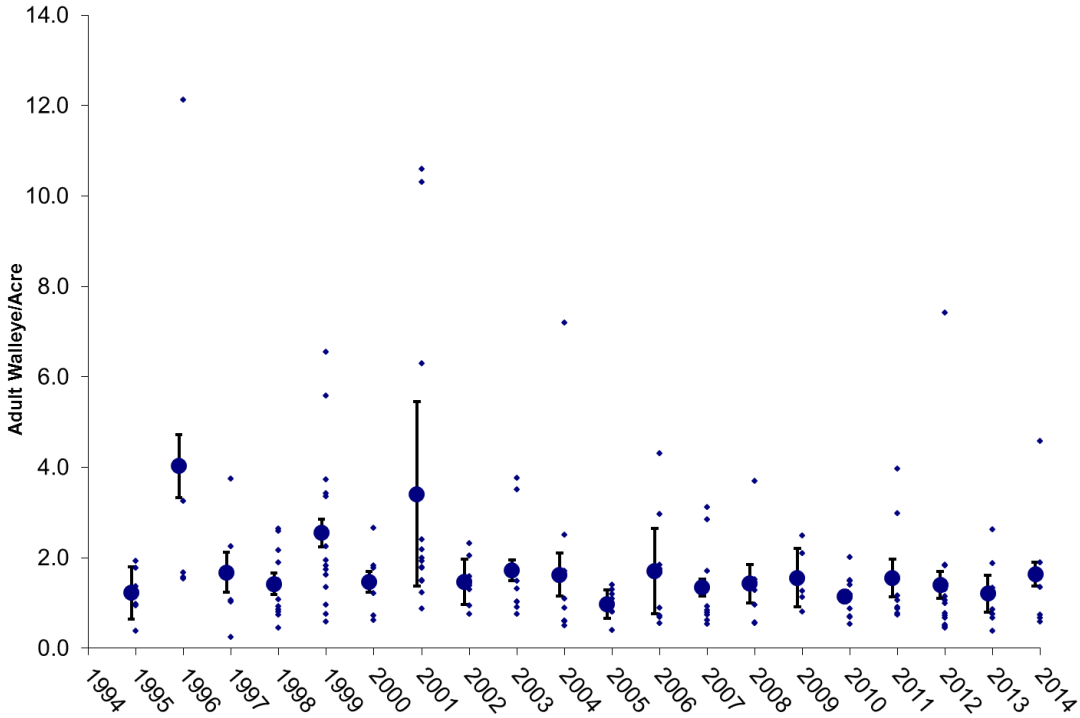

Figure 7. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by stocking, 1995 – 2014. Small circles represent individual lakes; large circles represent yearly means (±SE).

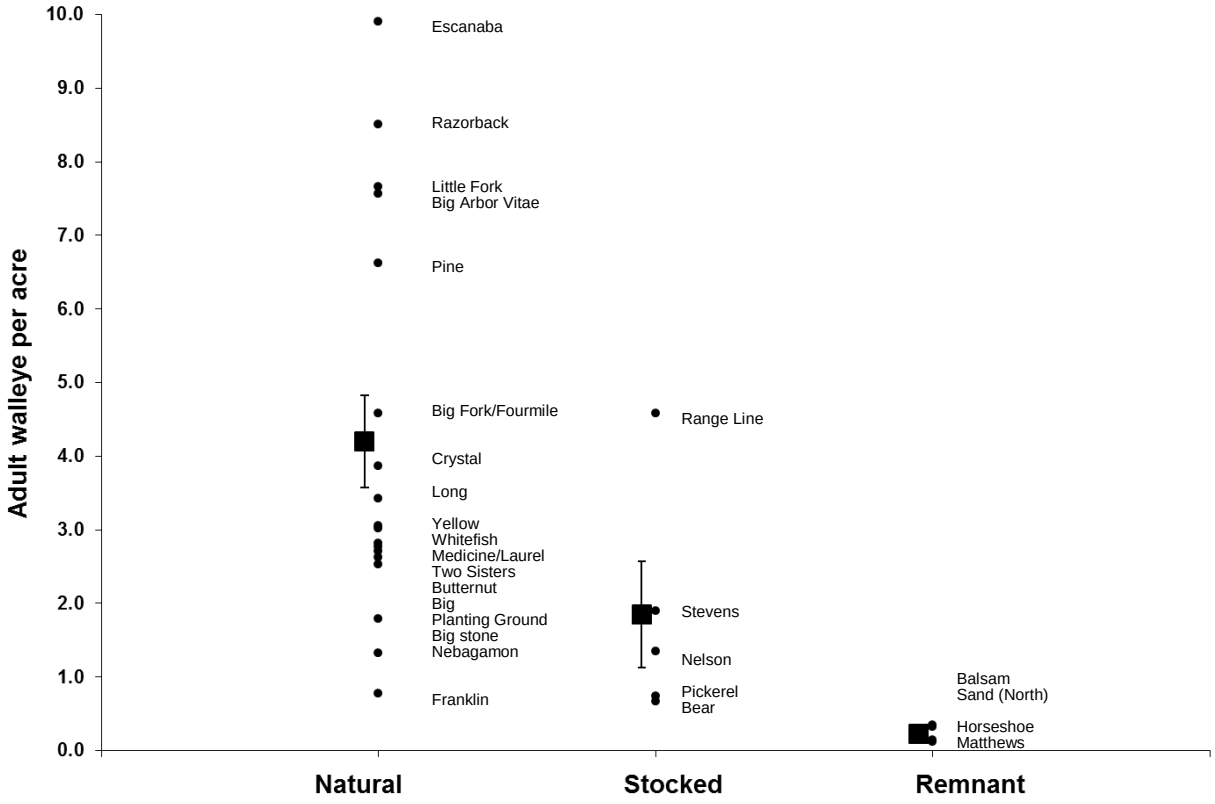

Figure 8. Adult walleye density estimates for lakes sampled by WDNR in spring 2014 based on primary population recruitment source[5].

[5] Primary recruitment source shown here incorporates data collected in 2014, and may not agree with information shown in Table 1 for lakes where new data resulted in a changed recruitment code/model.

Spawning Adult walleye size structure

Spawning adult walleye populations were estimated for each lake by length class in both natural (Figure 9), stocked (Figure 10) and remnant (Figure 11) production model lakes. Natural model lakes generally had higher walleye spawner densities than stocked model lakes, although the size structure sampled in stocked lakes tended to be larger relative to that in natural model lakes, with proportionately far fewer adult fish <15" in length observed in stocked waters. The four remnant model waters sampled in 2014 showed very low adult walleye densities (<0.5/acre) with size structures comparable to those seen in stocked model waters.

In natural model lakes spawning walleye abundance was highly variable although the size structure was typically dominated by 12-20" walleye; the exceptions to this were Pine Lake (Iron Co.) and lakes within the Three Lakes System (Big Fk./Fourmile, Big, Big Stone, L. Fork, Long, Medicine/Laurel and Planting Ground lakes, Oneida County) that had substantial proportions of the adult population <12" in length (Figure 9). The natural model lakes sampled had overall densities ranging from <1 to just nearly 10 fish/acre. Ten of 18 sampled lakes had walleye densities equal to or exceeding 3 fish/acre; five of 18 sampled lakes had walleye densities exceeding 5 fish/acre. Walleye spawning in the 7-11.9 inch category were very limited in relative abundance in many natural production lakes sampled. It is unclear if the limited abundance of small adult walleye in these waters is due to a lack of young fish recruiting into the population, fish simply not maturing at young ages (and smaller size), or some other factor.

In stocked model lakes spawning walleye abundance and size structures were less variable than that observed in natural model lakes (Figure 10). With the exception of Range Line Lake (Forest Co.; 4.6/acre), walleye densities observed in stocked model lakes were less than 2 adult fish/acre. Despite lower fish densities than those observed in natural model lakes, stocked model lakes generally had a high percentage (e.g. >70%) of the spawning population made up of relatively large fish (>15") available for angler harvest under general statewide regulations.

As is typical, remnant model lakes had very low adult population densities in 2014. All remnant model waters sampled during 2014 had adult walleye population densities less than 0.5 fish/acre. Also typical of remnant model waters, the size structure of the populations was typically dominated by larger walleye >15", and in some cases, >20" in length (Figure 11).

Data were available for calculation of PSD and RSD-18 for 41 natural, 7 stocked, and 10 remnant-model lakes sampled in 2014 (Table 2). In lakes where walleye regulations involve a 15" minimum size limit, calculating PSD as the percent of stock sized fish over 15" essentially makes this value a comparative tool to evaluate the percentage of harvestable fish across lakes.

In natural model lakes observed PSD and RSD-18 values were highly variable, with PSDs ranging from 11 to 100 percent and RSD-18s ranging from 1 to 84 percent. In stocked model lakes observed PSD and RSD values showed less variability than natural model lakes (60-100 percent and 36-100 percent, respectively) although substantially fewer lakes were sampled. Remnant model lakes sampled in 2014 showed PSDs ranging from 43-100 percent and RSDs ranging from 21-100 percent (Table 2).

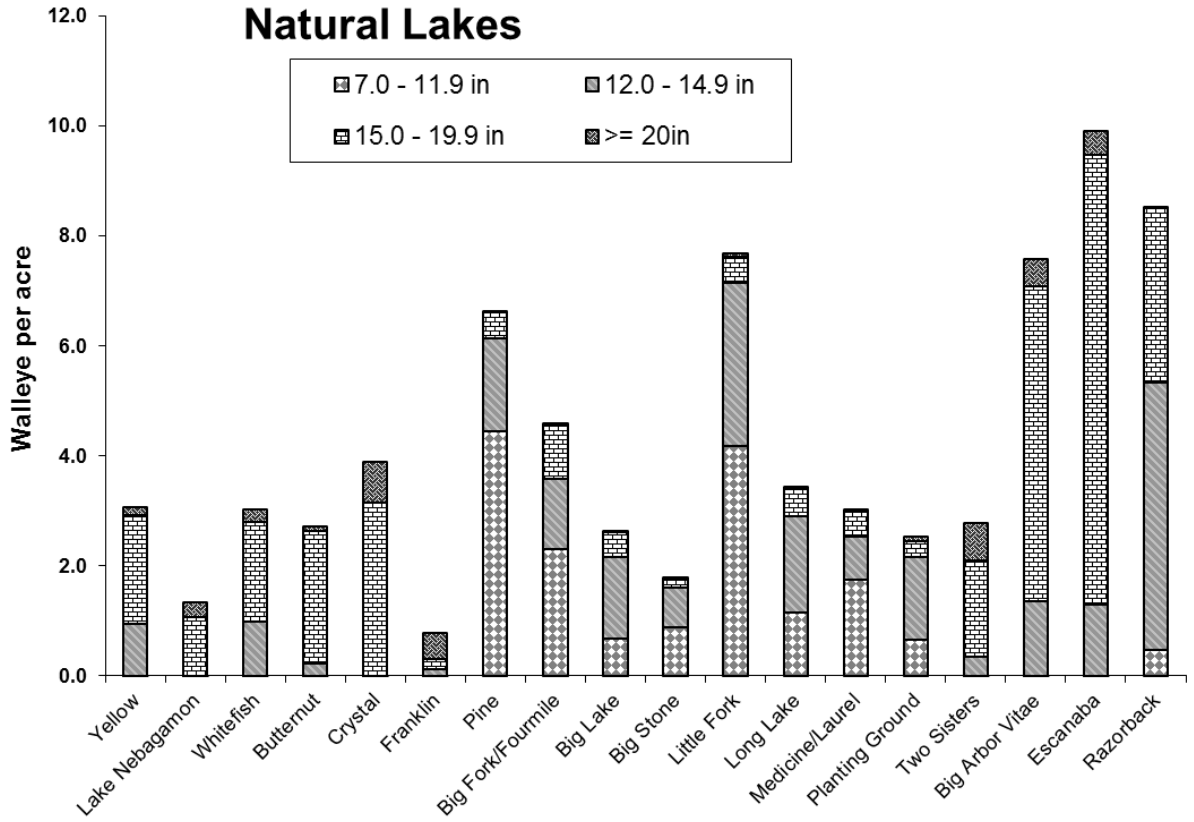

Figure 9. Size distribution of spawning walleye sampled in natural production model lakes during 2014.

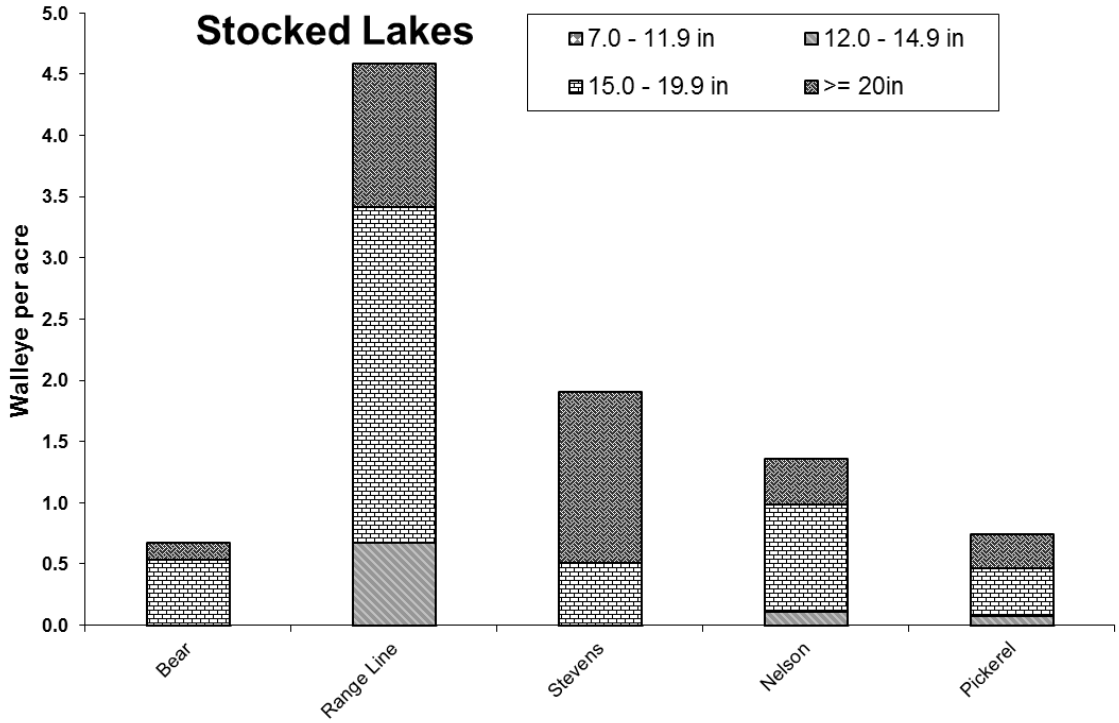

Figure 10. Size distribution of spawning walleye sampled in stocked production model lakes during 2014.

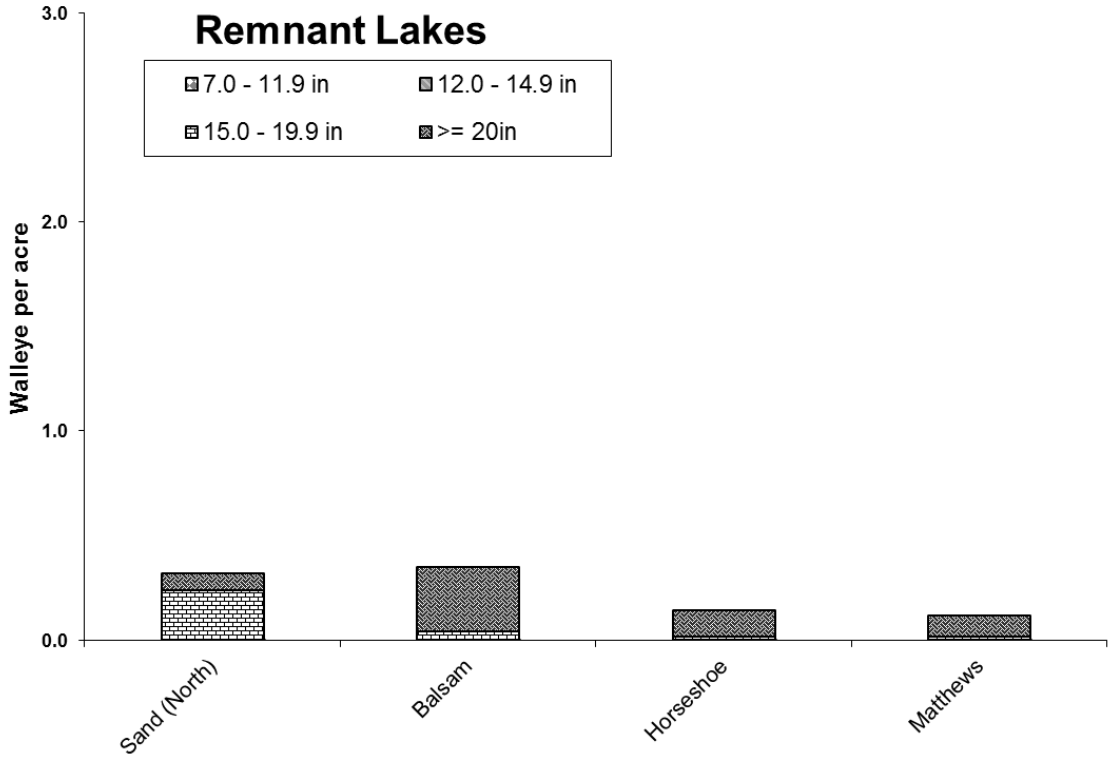

Figure 11. Size distribution of spawning walleye sampled in remnant production model lakes during 2014.

Table 2. Walleye Proportional and Relative Stock Density values for lakes surveyed in spring, 2014.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Natural Recruitment Lakes						
Burnett	Yellow Lake	2,287	C-NR	15	68	21
Douglas	Bardon Lake	832	NR	15	55	19
Douglas	Lake Nebagamon	914	C-NR	18	87	37
Forest	Butternut Lake	1,292	C-NR	14-18 Slot	88	22
Iron	Echo Lake	220	C-NR	1>14"	86	48
Iron	Island Lake	352	C-NR	1>14"	26	1
Iron	Pine Lake	312	NR	1>14"	12	2
Iron	Turtle Flambeau Flowage	13,545	NR	No Min.	35	2
Langlade	Crystal Lake	63	NR	15	100	84
Lincoln	Jersey City Flowage	404	NR	15	51	12
Lincoln	Silver Lake	82	NR	15	95	77
Marathon	Big Eau Pleine Reservoir	6,830	C-NR	15	85	33
Oconto	Wheeler Lake	293	NR	15	99	58
Oneida	Big Fork Lake	690	NR	1>14"	11	3
Oneida	Big Lake	865	NR	1>14"	21	2
Oneida	Big Stone Lake	548	NR	1>14"	15	4
Oneida	Deer Lake	177	NR	1>14"	50	30
Oneida	Dog Lake	216	NR	1>14"	50	13
Oneida	Fourmile Lake	218	NR	1>14"	28	12
Oneida	Island Lake	295	NR	1>14"	26	13
Oneida	Kawaguesaga Lake	670	C-NR	18	64	64
Oneida	Laurel Lake	232	NR	1>14"	56	30
Oneida	Little Fork Lake	354	NR	1>14"	15	3
Oneida	Long Lake	113	C-NR	15	11	5
Oneida	Medicine Lake	372	NR	1>14"	12	2
Oneida	Muskellunge Lake	284	NR	1>14"	76	36
Oneida	Planting Ground Lake	1,012	NR	1>14"	19	5
Oneida	Round Lake	150	NR	1>14"	45	16
Oneida	Squash Lake	396	NR	1>14"	77	31
Oneida	Squirrel Lake	1,317	NR	1>14"	50	26
Oneida	Two Sisters Lake	719	C-NR	1>14"	80	34
Oneida	Long Lake	620	NR	15	16	3
Price	Butternut Lake	1,006	NR	1>14"	25	11
Price	Duroy Lake	379	C-NR	No Min.	32	21
Price	Elk Lake	88	C-NR	No Min.	43	31
Price	Long Lake	418	C-NR	No Min.	64	36
Price	Solberg Lake	859	NR	No Min.	43	8
Price	Wilson Lake	351	NR	No Min.	84	64
Rusk	Dairyland Reservoir	1,745	NR	1>14"	59	31
Vilas	Big Arbor Vitae Lake	1,090	NR	1>14"	79	15

Table continued on next page.

Table 2. Continued.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Stocked Recruitment Lakes						
Chippewa	Otter Lake (Brown)	661	ST	15	89	62
Forest	Range Line Lake	82	C-ST	15	60	36
Polk	Balsam Lake	2054	C-ST	15	100	97
Polk	Wapogasset Lake	1186	C-ST	15	83	75
Sawyer	Lower Clam Lake	203	C-ST	15	60	60
Washburn	Horseshoe Lake	194	ST	15	100	100
Washburn	Matthews Lake	263	C-ST	15	100	98
Remnant Population Lakes						
Ashland	Lake Galilee	213	O-ST	1>14"	84	24
Barron	Bear Lake	1,358	O-ST	18	94	59
Barron	Rice Lake	939	REM	15	43	34
Burnett	Sand Lake	962	O-ST	15	95	54
Forest	Lake Gordon	54	REM	15	80	40
Oconto	Maiden Lake	290	NR-2	15	71	21
Polk	Bear Trap Lake	241	O-ST	15	100	100
Taylor	Chequamegon Flowage	2,714	O-ST	15	100	100
Vilas	Spectacle Lake	171	NR-2	15	100	100
Washburn	Leisure Lake	75	REM	15	100	100

In 2014, average size structure was generally smallest in natural model lakes, with comparable larger size structures observed in stocked lakes and remnant model lakes (Figure 12). Mean PSDs for natural, stocked, and remnant model lakes were 47, 87 and 85, respectively. Mean RSD-18s for natural, stocked, and remnant model lakes were 20, 74 and 57, respectively. Differences in PSD and RSD-18 values across lakes in various recruitment models could be caused by any number of potential factors including, but not limited to, high or low recruitment levels of younger/smaller fish, differing angler regulations, harvest patterns and harvest levels, or differences in survival or year class strength leading to differences in the relative abundance of quality (PSD, ≥15”) or preferred (RSD, ≥18”) sized fish in some lakes relative to others.

Mean annual PSD values in both natural and stocked model lakes are trending upward over time; the regression of natural model lakes over time has a slope of 0.8 ($p<0.01$); the regression of stocked model lakes has a slope of 0.7 ($P=0.03$; Figure 13). PSD and RSD values are highly correlated in both natural and stocked model waters over time ($r2>0.7$), so the trends presented for PSD values are very similar to those observed for RSD values. The implication of increasing trends in PSD (and RSD) is that,

over time, both natural and stocked model lakes are seeing an increased percentage of larger walleye in the overall population. The observed trends in PSD values could be due to introduction and increased use of size selective fishing regulations over time (e.g. minimum or protective slot categories), declining recruitment of young fish into the population, increased growth rates, or other factors.

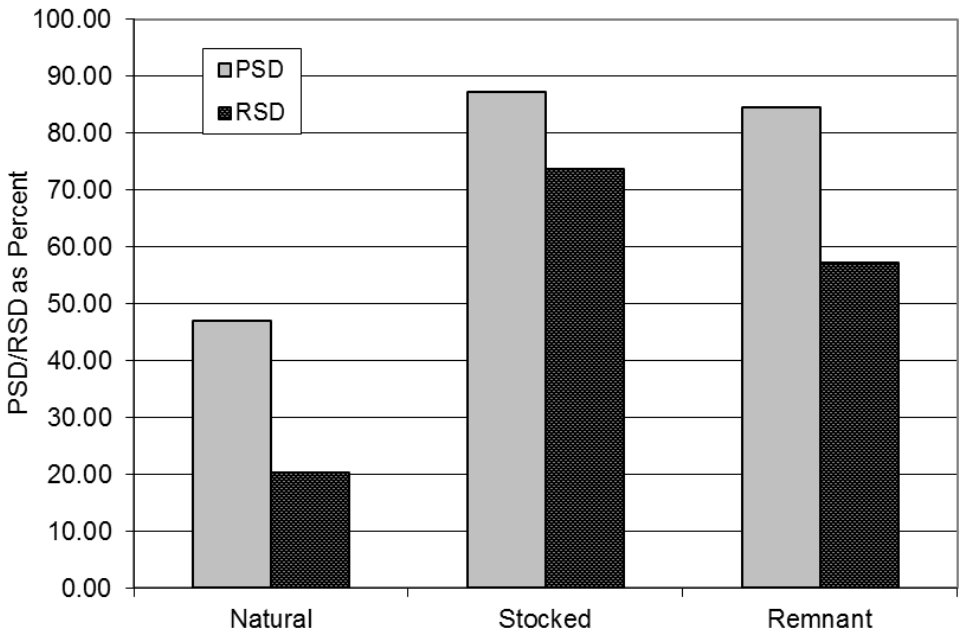

Figure 12. Comparison of mean PSD and RSD-18 values across lakes in various walleye recruitment models for lakes sampled in 2014.

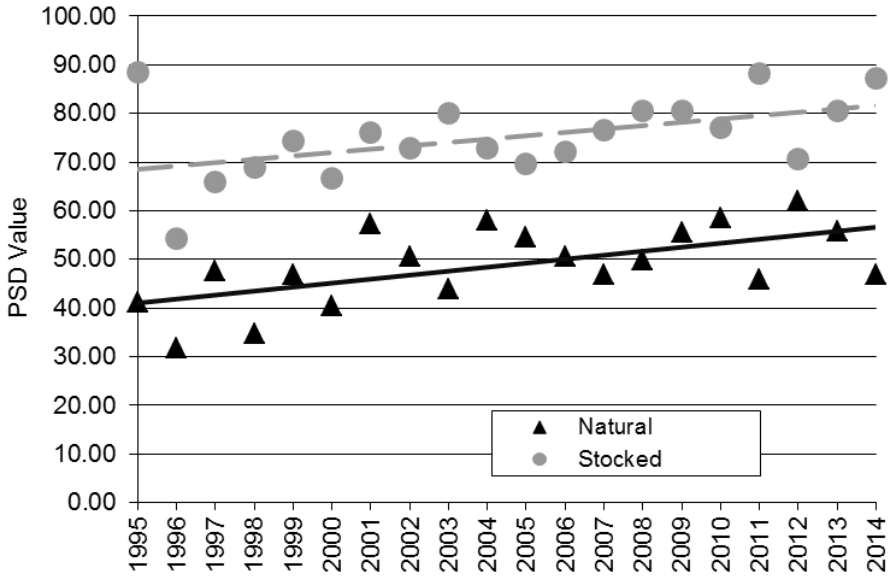

Figure 13. Trends in PSD values observed for walleye in Ceded Territory lakes since 1995.

Muskellunge Abundance

Adult muskellunge population and density estimates were completed in nine Ceded Territory waters during spring 2014 (Table 3). Population estimates completed in 2014 reflect 2013 population numbers because of the two-year mark-recapture time span used to derive estimates. Muskellunge densities ranged between 0.04 and 0.98 adult fish/ acre and did not appear to be related to lake size; all but one lake sampled had a 40" minimum size for musky harvest, so no conclusion can be drawn regarding any potential relationship of angler regulations and musky population density(Table 3).

Bass Abundance

Largemouth bass population estimates were completed in four lakes in 2014; Smallmouth bass population estimates were completed in two of those same lakes during 2014 (Table 4). Estimated largemouth bass density was 17.0 fish per acre in Middle Ellerson Lake, 5.8/acre in East Ellerson Lake, 7.2/acre in Big Twin Lake, and 0.7/ acre in Squirrel Lake (Table 4). Size specific estimates were only available in two lakes during 2014; The size structure of largemouth bass populations in Middle Ellerson Lake showed nearly half of the fish 14" or greater in length. In East Ellerson Lake the largemouth and smallmouth bass populations were similar in density, and each had roughly 20% of the population ≥14" in length (Figure 14).

Table 3. Adult muskellunge population estimates completed in 2014 in the Wisconsin Ceded Territory. Regulations presented are for 2014.

County	Lake	Angler Regulation (inches)	Acres	Minimum length in PE (inches)		Adult PE	CV(%)	Total per acre
				Male	Female			
Vilas	Eagle Chain	40	3,465	23.5	27.5	1,245	20.2	0.36
Vilas	Trout	45	3,816	30.0	30.0	151	17.7	0.04
Vilas	Big Arbor Vitae	40	1,090	27.0	29.5	151	20.1	0.14
Vilas	Found	40	336	29.0	30.0	75	12.0	0.22
Iron	Trude	40	792	24.0	30.0	123	18.5	0.16
Polk	Wapogasset/Bear Trap	40	1,427	27.5	29.5	308	12.8	0.22
Sawyer	Lost Land	40	1,304	24.0	27.2	652	27.2	0.5
Sawyer	Lower Clam	40	203	23.0	29.0	198	33.9	0.98
Sawyer	Teal	40	1,049	23.5	30.0	333	25.4	0.32

Table 4. Largemouth and Smallmouth bass population estimates for lakes sampled in the Wisconsin Ceded Territory in spring 2014.

County	Lake	Acres	Angler Regulation	Total PE	CV(%)	Total /acre	8.0-13.9" /acre	14.0-17.9" /acre	18.0"+ /acre
Largemouth Bass									
Vilas	Middle Ellerson	60	1>18"	1019	26	17.0	9.6	7.4	0.02
Vilas	East Ellerson	136	1>18"	789	24	5.8	4.6	1.1	<0.1
Oneida	Squirrel	1,317	14"	949	19	0.7[1]	---	---	---
Langlade	Big Twin	60	14"	431	25	7.2[1]	---	---	---
Smallmouth Bass									
Vilas	East Ellerson	136	1>18"	639	44	4.7	3.8	0.9	<0.1
Oneida	Squirrel	1317	14"	766	24	0.6[1]	---	---	---

1 Size structure information not available for Squirrel and Big Twin lakes in 2014.

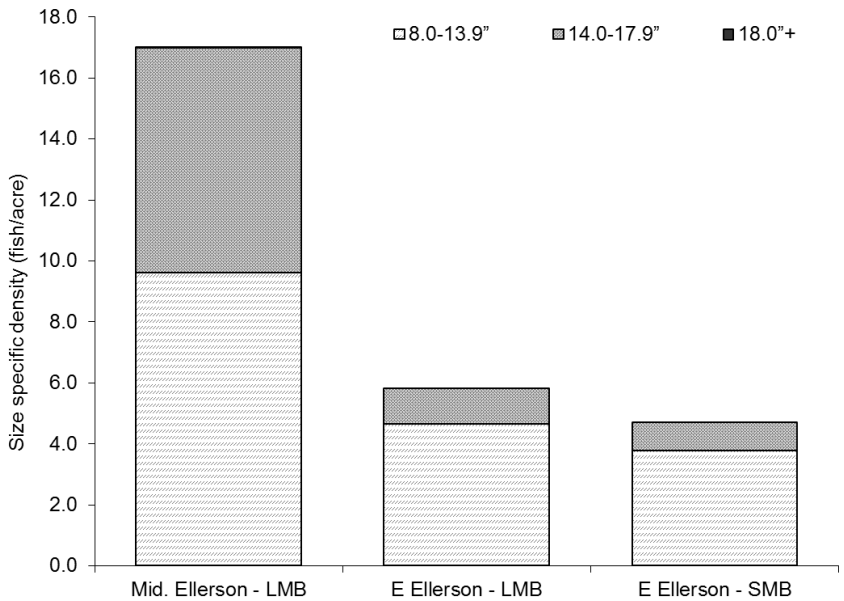

Figure 14. Large- and smallmouth bass population densities (fish ≥ 8.0") by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2014.

Northern Pike Abundance

Adult northern pike population and density estimates were completed in two Ceded Territory waters during spring 2014 (adults defined as all mature fish plus all fish over 20” in total length). Big Twin Lake, a 60 acre waterbody in Langlade Co. was estimated to have 392 adult northern pike, or 6.53 per acre. Stevens Lake, a 297 acre waterbody in Forest Co. was estimated to have 740 adult northern pike, or 2.49 per acre. Northern pike estimates have not previously been conducted during Treaty surveys, so no comparisons can be made across years.

Creel Surveys

In 2014-2015 (May through March), creel surveys were conducted for 22 waters in which walleye population estimates were made during spring 2014 (Appendix D). Eleven of the 22 surveyed lakes were part of the Three Lakes system located in Oneida Co. Creel surveyed lakes ranged in size from 151 to 2,054 acres (Round Lake-Oneida Co. and Balsam Lake-Polk Co., respectively) and were located across nine counties within the Ceded Territory.

Overall Angler Effort

From 1995 through 2014 total angler effort has been variable but no trend has been observed across all ceded territory lakes monitored [$F(1; 390) = 0.07$, $P = 0.79$]. This finding is consistent with other studies and evaluations on angling pressure in Ceded Territory lakes (Cichosz 2015, Cichosz 2009, Hansen 2008, Deroba et al. 2007, Hennessy 2005; Figure 15). Since 1995 when random lake selection began, mean total angler effort has been significantly lower in large lakes (≥500 acres; 26.8 hours/ acre) than in small lakes (<500 acres; 35.6 hours/ acre; t-test (unequal variances) $t = -3.51$, $df = 312$, $P < 0.01$). In contrast to long term patterns, during 2014-15 the mean total angler effort per acre in large lakes (12 lakes, 31.4 hours/acre) was higher than that in small lakes (10 lakes, 19.5 hours/acre) although that difference was not statistically relevant (t-test unequal variances, $t = 0.96$, $df = 12$, $P = 0.36$).

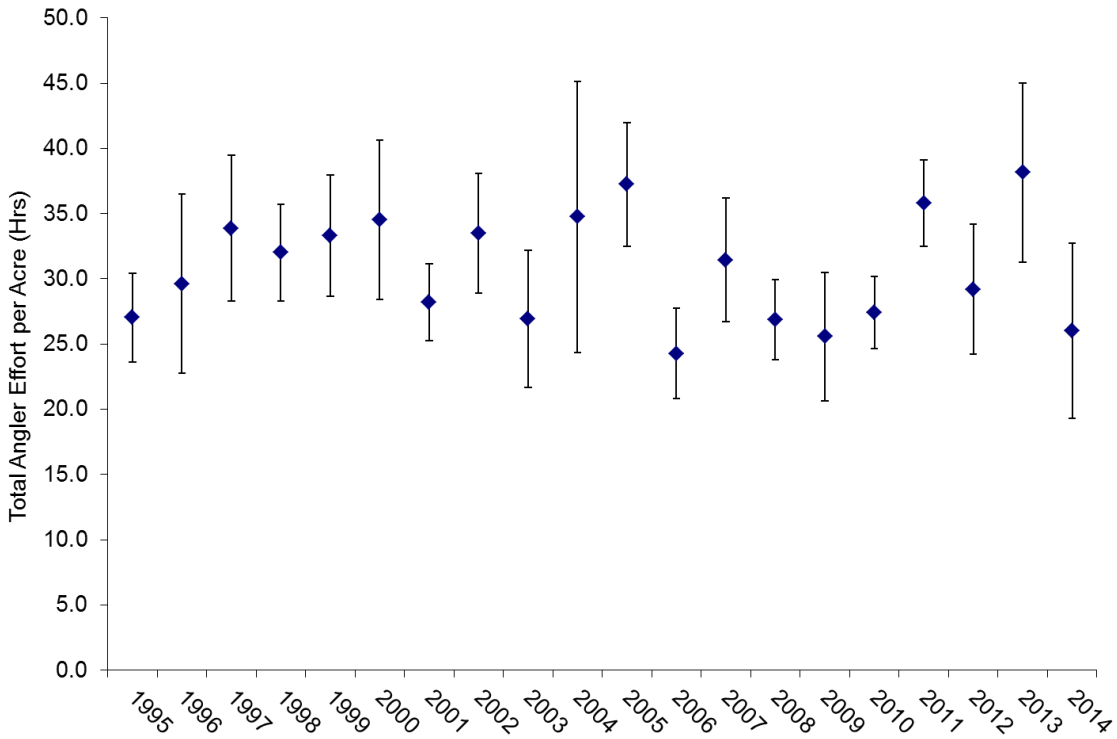

Figure 15. Average total angler effort per acre (±SE) in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2014.

Walleye Effort, Catch and Exploitation

Directed effort for walleye averaged 6.2 hours per acre across lakes during the 2014-15 angling season; Directed effort is defined as hours reported by anglers fishing for a specific species. Directed effort in lakes with natural production (7.3 hours/acre) was significantly greater than that in stocked lakes (3.4 hours/acre; t-test (equal variances) $t = 2.97$, $df = 20$, $P < 0.01$) surveyed during the 2014-15 angling season. No significant difference was found in directed fishing effort for walleye between large (≥500 ac., 6.4 hours/ acre) and small lakes (<500 ac., 5.9 hours/ acre; t-test (equal variances) $t = 0.38$, $df = 20$, $P = 0.70$) surveyed during the 2014-15 angling season. Since 1995, directed angler effort (hours/acre) for walleye has shown a statistically significant downward trend [Slope = -0.25, $F(1;390) = 19.4$, $P < 0.01$), although visually the statistical significance seems driven by high observed value in 1996 and the abnormally low level seen in 2012 rather than by any notable long term trend (Figure 16).

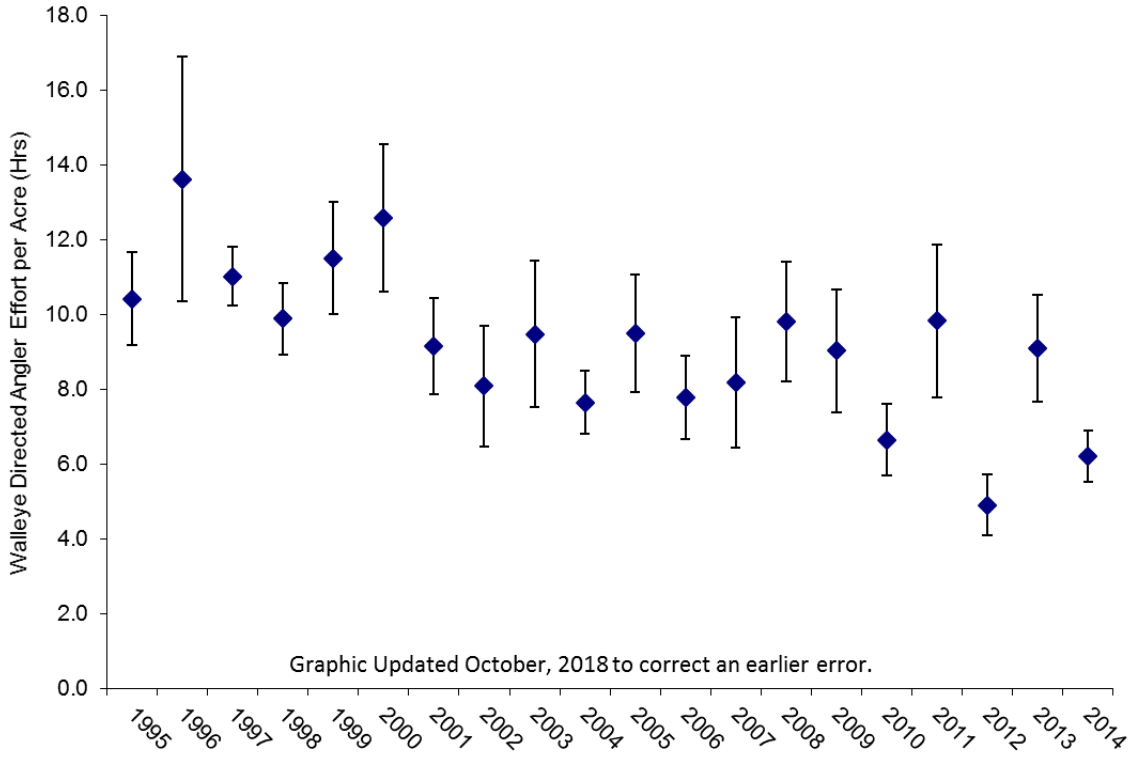

Figure 16. Directed angler effort per acre (±SE) for walleye in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1995-2014.

In 2014-15 the mean specific catch rates (SCR) was 0.52 walleye/hour of directed effort (1 fish per 1.9 walleye angling hours). In lakes with naturally sustained or stocked populations, respectively, mean SCRs were 0.69 walleye per hour (1.4 hours directed effort/ walleye caught; n=16) and 0.06 walleye/ hour (1 fish per 16.7 hours of directed effort; n=6). Specific harvest rates averaged 0.13 walleye/hour of directed effort (7.7 hours directed effort/walleye harvested) and ranged between 0.00 and 0.42 walleye/hour for individual lakes surveyed (Appendix D). Based on creel survey results, anglers harvested approximately 28% of all walleye caught during the 2014-15 season; this is the same proportion noted in the prior (2013-14) season, and moderately below the average percentage estimated across all lakes creeled between 1995 and 2013 (36%).

Between 1995 and 2013 a statistically relevant downward trend in SCR was observed (Cichosz 2015); after inclusion of an unusually high SCR in 2014, that overall trend (1995-2014) is no longer statistically relevant [Figure 17; Slope = -0.0003, $F(1, 390) = 0.02$, $P = 0.88$]. No discernible trend was noted for specific harvest rate by year since 1995 [$F(1, 390) = 0.56$, $P = 0.46$] for walleye in the Wisconsin

Ceded Territory (Figure 17). The notably high values for SCR and SHR observed in 2014 are largely attributable to rates observed in the waters of the Three Lakes System during the 2014-15 angling season (Appendix D).

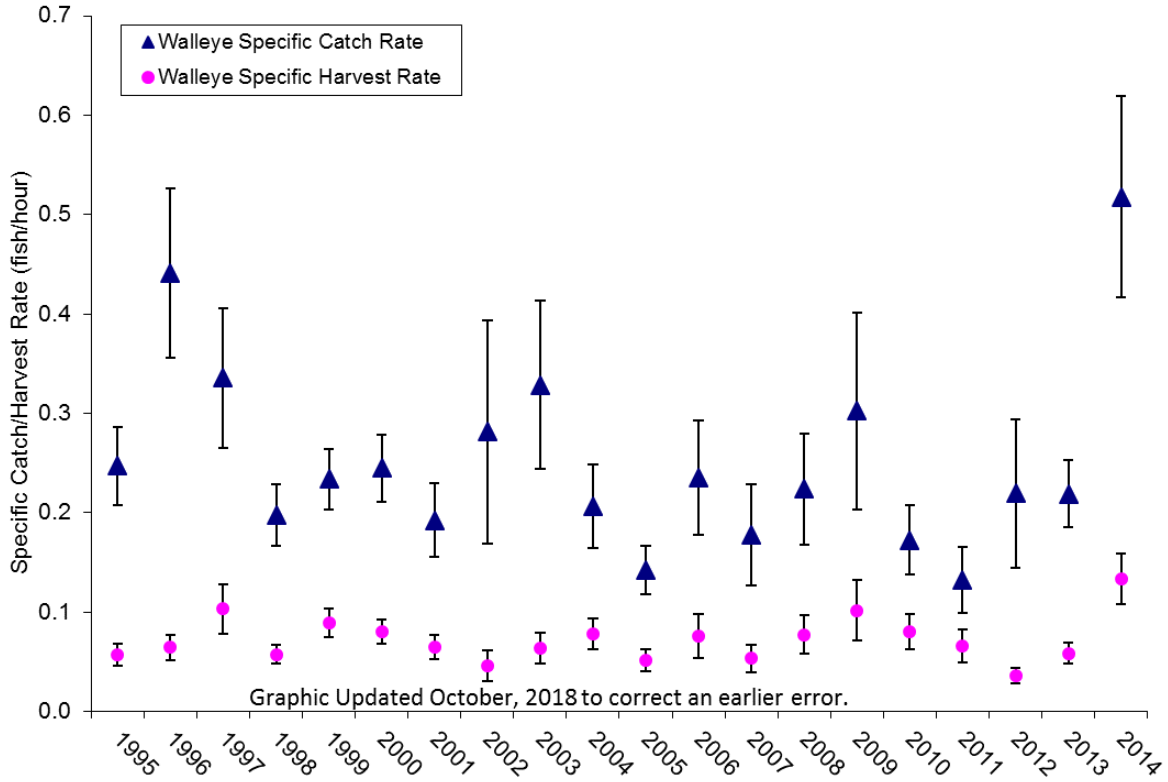

Figure 17. Specific catch and harvest rates (±SE) for walleye in surveyed lakes in the Wisconsin Ceded Territory, 1995-2014. Specific catch or harvest rate is number of walleye caught or harvested divided by time spent fishing specifically for walleye.

Walleye exploitation rates were estimated for 16 lakes during 2014-15 (Table 5; Appendix G). Estimates of angler walleye exploitation ranged from 0% to 20.4%; Angler exploitation of walleyes in various size classes was variable with exploitation of walleye 14” or longer ranging from 0% to 23.8% whereas that of walleyes 20” or longer ranged from 0.0% to 81.3%. Tribal exploitation of walleyes ranged from 0.0% to 11.9%, and tribal exploitation rates exceeded those of anglers in two of the 16 surveyed lakes. Total (angler = tribal) exploitation of walleyes ranged from 0.0% to 22.5% across all lakes. Based on 2014-15 survey results angler exploitation of walleye populations was estimated as zero in two of 16 lakes surveyed; nine of the 16 lakes surveyed incurred no tribal exploitation of walleye.

Safe harvest limits are set so that over time there is less than a 1-in-40 chance that exploitation will exceed 35% in any given year on any single lake. In 2014-15 total walleye exploitation was below 35% in all 16 lakes evaluated (Table 5).

Table 5. Adult walleye exploitation rates by lake and harvest type for 2014, with comparison to 1995-2013 mean exploitation rates.

County	Lake	Acres	Angler exploitation	Angler expl. ≥14"	Angler expl. ≥20"	Tribal expl.[1]	Total adult exploitation
Barron	Bear	1358	0.094	0.096	0.132	0.000	0.094
Douglas	Whitefish(Bardon)	832	0.143	0.191	0.122	0.020	0.163
Iron	Pine	312	0.168	0.238	0.000	0.000	0.168
Oneida	Big	845	0.106	0.092	0.000	0.119	0.225
Oneida	Big Fork/Fourmile	873	0.146	0.093	0.000	0.000	0.146
Oneida	Big Stone	607	0.204	0.000	0.000	0.000	0.204
Oneida	Laurel/Medicine	645	0.095	0.125	0.000	0.000	0.095
Oneida	Little Fork	336	0.169	0.000	0.000	0.000	0.169
Oneida	Long	604	0.078	0.051	0.000	0.000	0.078
Oneida	Planting Ground	1010	0.117	0.143	0.000	0.003	0.120
Oneida	Squirrel	1317	0.120	0.173	0.813	0.060	0.179
Oneida	Two Sisters	719	0.072	0.076	0.189	0.077	0.150
Polk	Balsam	2054	0.098	0.098	0.106	0.045	0.143
Vilas	Big Arbor Vitae	1090	0.108	0.110	0.241	0.044	0.152
Washburn	Horseshoe	194	0.000	0.000	0.000	0.000	0.000
Washburn	Matthews	263	0.000	0.000	0.000	0.000	0.000
		2014 mean	**0.107**	**0.093**	**0.100**	**0.023**	**0.130**
		1995-2013 mean	**0.085**	**0.105**	**0.118**	**0.047**	**0.132**

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

Muskellunge Effort and Catch

Of the 22 lakes surveyed in 2014-15, 17 are classified as musky waters. Creel clerks recorded at least one musky caught from each of the 17 classified musky waters, and no musky were recorded from any non-musky water surveyed(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 2014 estimates of angler catch, catch rate, and directed

effort were not significantly different than the prior 10 year averages for each lake classification (Analysis of variance, Proc GLM; Table 6). The exceptions were angler catch/acre and directed effort in Class A2 waters which was significantly less in 2014 than in the prior 10-year average ($P < 0.05$; Table 6). It should be noted that eight of fifteen Class A2 waters creeled during 2014 were in the Three Lakes System.

Trends in directed effort and catch rates of muskellunge were evaluated since 1995; Trend evaluations were not done independently for each muskellunge 'action class' since limited or no data was available for some year/action class categories. There has been no observed trend in muskellunge catch rates [GLM; $F(1, 300) = 0.08$, $P = 0.78$] or directed fishing effort [$F(1, 304) = 0.79$, $P = 0.38$] in the Ceded Territory since 1995 (Figure 18).

Table 6. Comparison of muskellunge catch and effort rates in 2014 and average values from 2004-2013, by musky lake classification.

Class	Class Description	Lakes sampled	Angler catch/ acre	Specific catch rate (fish/ hour)	Directed effort (hours/ acre)
2014					
A1	Trophy waters	0	---	---	---
A2	Action waters	15	0.29	0.04	5.08
B	Intermediate action/ size	2	0.07	0.02	2.11
C	Low importance	0	---	---	---
Total		17	0.21	0.04	4.73
2004-2013 Averages (Prior 10 years)					
A1	Trophy waters	55	0.22	0.03	6.65
A2	Action waters	62	0.62*	0.04	12.88*
B	Intermediate action/ size	20	0.19	0.04	4.42
C	Low importance	9	0.02	0.01	0.56
Total		148	0.36*	0.03	8.50*

* Difference between 2014 and prior 10 year average is statistically significant ($p<0.05$).

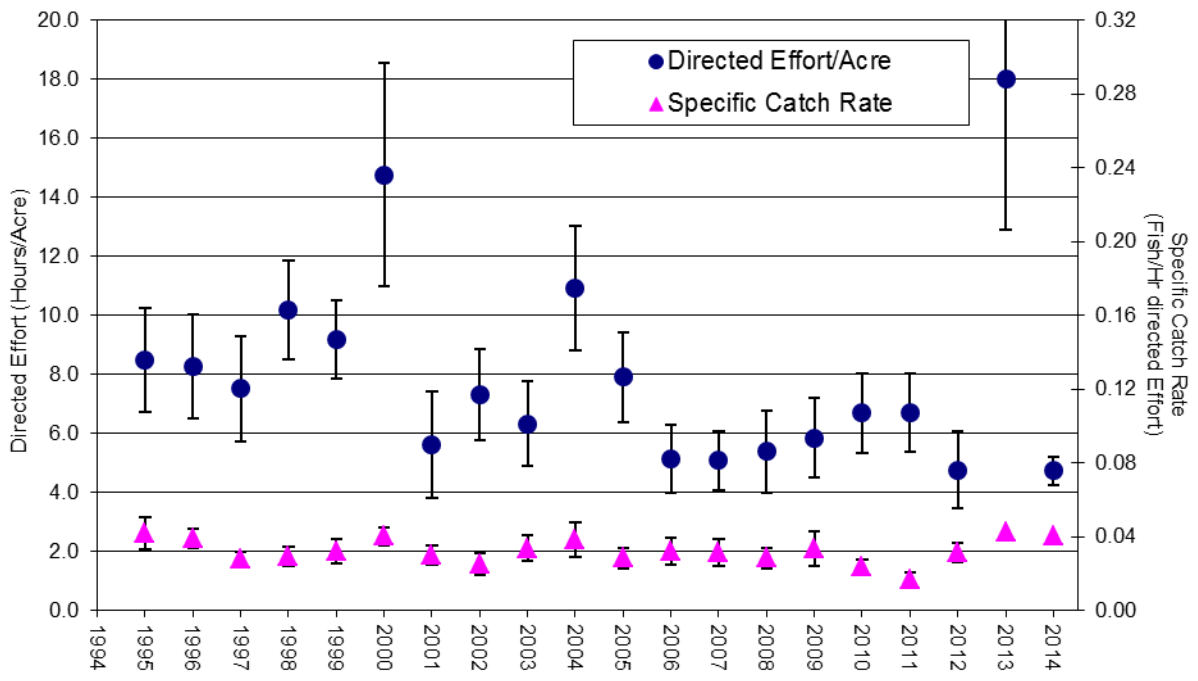

Figure 18. Directed angler effort per lake surface acre and specific catch rate (±SE) for muskellunge in surveyed lakes in the Wisconsin Ceded Territory, 1995-2014.

Northern Pike Effort and Catch

Directed effort and catches of northern pike were recorded in 21 of 22 lakes surveyed in 2014-15 (the exception was Pine Lake, Iron Co.; Appendix D). Of the 21 lakes with northern pike effort and catch, nine were smaller than 500 acres and twelve were 500 acres or larger (Table 7). There were no significant differences between large and small lakes with regard to directed angler effort, specific catch or harvest rate, or angler catch or harvest per acre of northern pike during the 2014-15 angling season (Table 7). Significant differences were found between 2014-15 creel values and the corresponding prior 10 year averages (2004 -2013) for northern pike harvest/acre in small lakes and all lakes combined; for large lakes, no significant differences between current and prior 10 year averages were noted for any creel statistic evaluated (Table 7).

Estimates of angler effort directed toward northern pike have been highly variable across years (Figure 19), and since 1995 there has not been a statistically detectable trend in directed angler effort for northern pike [$F(1, 368) = 0.68$, $P = 0.41$]. Similarly, specific catch rates of northern pike show no significant trend since 1995 [$F(1, 368) = 1.06$, $P = 0.30$].

Table 7. Mean estimates calculated from 2014 and 2004-2013 northern pike creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2014*							
	< 500 acres	9	2.91	0.12	0.32	0.04	3.95
	> 500 acres	12	1.36	0.21	0.16	0.05	2.90
	All lakes	21	2.07	0.17	0.23	0.04	3.35
2004-2013							
	< 500 acres	91	2.55	0.44**	0.24	0.05	5.34
	> 500 acres	104	1.83	0.26	0.19	0.05	3.28
	All lakes	195	2.16	0.35**	0.21	0.05	4.24

* No small lake values differ significantly from corresponding large lake values observed during the 2014-15 angling season (T-test, $p>0.05$)

** 10 yr. averages differ significantly from corresponding 2014-15 annual values (T-test, $p\leq0.05$).

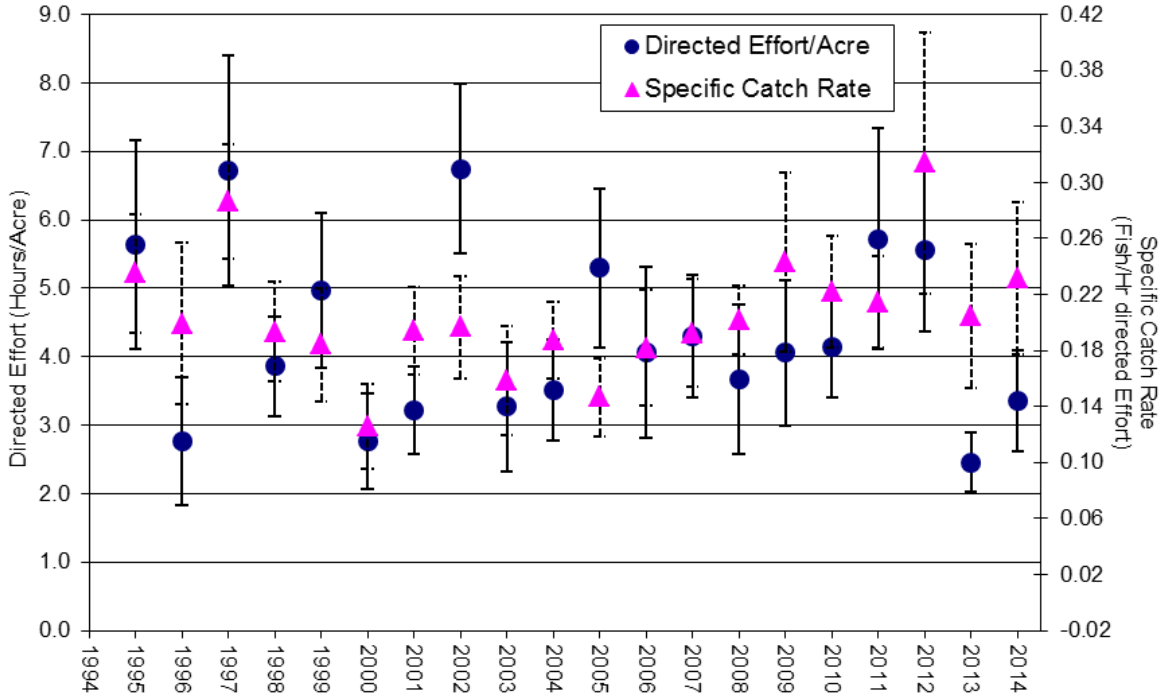

Figure 19. Directed angler effort per lake surface acre and specific catch rate (±SE) for northern pike in surveyed lakes in the Wisconsin Ceded Territory, 1995-2014.

Largemouth Bass Effort and Catch

Directed angler effort toward largemouth bass was reported in 21 of 22 lakes surveyed during 2014-15; catches of largemouth bass were reported from 20 of 22 lakes surveyed (Appendix D). Pine Lake (Iron Co.) was the only lake surveyed without angling effort directed toward largemouth bass; no largemouth were reported caught from Pine or Little Fork (Oneida Co.) lakes. Of surveyed lakes with largemouth bass catch, nine were smaller than 500 acres and twelve were 500 acres or larger (Table 8). In 2014-15, angling effort directed toward largemouth bass differed significantly ($P<0.05$) between large and small lakes, with greater effort in small lakes. There were no significant differences between large and small lakes with regard to angler catch or harvest numbers or specific catch or harvest rates (T-tests, equal variance, $P >0.05$) related to largemouth bass. None of the creel statistics evaluated during 2014-15 differed from the respective prior 10 year averages for large lakes, small lakes or all lakes combined (T-tests, $P >0.05$; Table 8).

Since 1995 there has been a statistically relevant increase in both directed angler effort [Slope = 0.12, $F(1, 360) = 5.28$, $P = 0.02$] and specific catch rates [Slope = 0.021, $F(1, 360) = 29.18$, $P < 0.01$] in largemouth bass fishing in Wisconsin Ceded Territory lakes (Figure 20).

Table 8. Mean estimates calculated from 2014 and 2004-2013 largemouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2014*							
Small	< 500 acres	9	3.39	0.41	0.33	0.04	4.23
Large	> 500 acres	12	9.83	0.76	0.53	0.05	6.47
	All lakes	21	6.91	0.60	0.44	0.05	5.51
2004-2013**							
Small	< 500 acres	87	5.54	0.28	0.46	0.03	5.84
Large	> 500 acres	104	5.10	0.24	0.47	0.03	3.95
	All lakes	191	5.31	0.26	0.46	0.03	4.81

* No small lake values differ significantly from corresponding large lake values observed during the 2014-15 angling season (T-test, $p>0.05$)

** No significant differences exist between 10 yr. averages and corresponding 2014-15 annual values (T-test, $p \geq 0.05$).

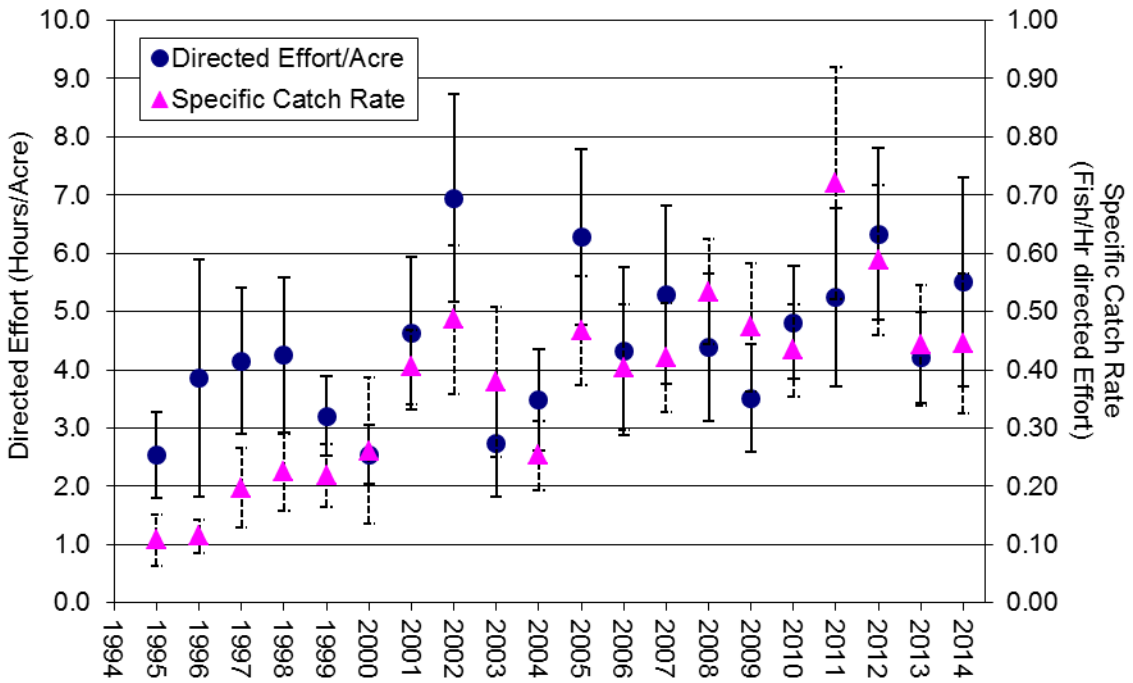

Figure 20. Directed angler effort per lake surface acre and specific catch rate (±SE) for largemouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2014.

Smallmouth Bass Effort and Catch

Twenty-one of 22 lakes surveyed in the 2014-15 angling season had some level of angler effort directed toward smallmouth bass, and catches of smallmouth bass were reported in 21 lakes surveyed (Appendix D). Otter Lake (Chippewa Co.) had no directed angler effort applied; Matthews Lake (Washburn Co.) had angling effort directed toward smallmouth bass but no catch was recorded in the creel survey. Of the lakes with smallmouth bass catch in 2014-15, ten were classified as 'small' (<500 ac.) and eleven as 'large' (≥500 ac.; Table 9). Of creel statistics examined, significant differences between small and large lakes were noted only for specific catch rate (T-test, $P<0.05$) of largemouth bass (Table 9). In large lakes, small lakes, and all lakes combined, smallmouth bass directed effort and catch/acre were significantly less than the corresponding 10 year average (T-test, $P<0.05$; Table 9).

Both directed effort and specific catch rates of smallmouth bass anglers in the Ceded Territory have been variable over time. The mean specific catch rates in surveyed lakes during 2014-15 was within the observed range of values in other years since 1995, but the mean amount of effort/acre directed at angling for smallmouth bass was the lowest value observed 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, 354) = 1.43, P = 0.23] or specific catch rates [F(1, 354) = 1.38, P = 0.24] over time (Figure 21).

Table 9. Mean estimates calculated from 2014 and 2004-2013 smallmouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2014							
Small	< 500 acres	10	0.44	0.01	0.19*	<0.01	1.21
Large	> 500 acres	11	1.12	0.06	0.41*	0.02	1.66
	All lakes	21	0.81	0.04	0.31	0.01	1.45
2004-2013							
Small	< 500 acres	87	1.48**	0.03	0.31	<0.01	2.68**
Large	> 500 acres	103	2.02**	0.08	0.36	0.02	3.07**
	All lakes	188	1.78**	0.06	0.34	0.01	2.89**

* Significant differences exist between large and small for the 2014-15 angling season (T-test, p>0.05).
** 10 yr. averages differ significantly from corresponding 2014-15 annual values (T-test, p≤0.05).

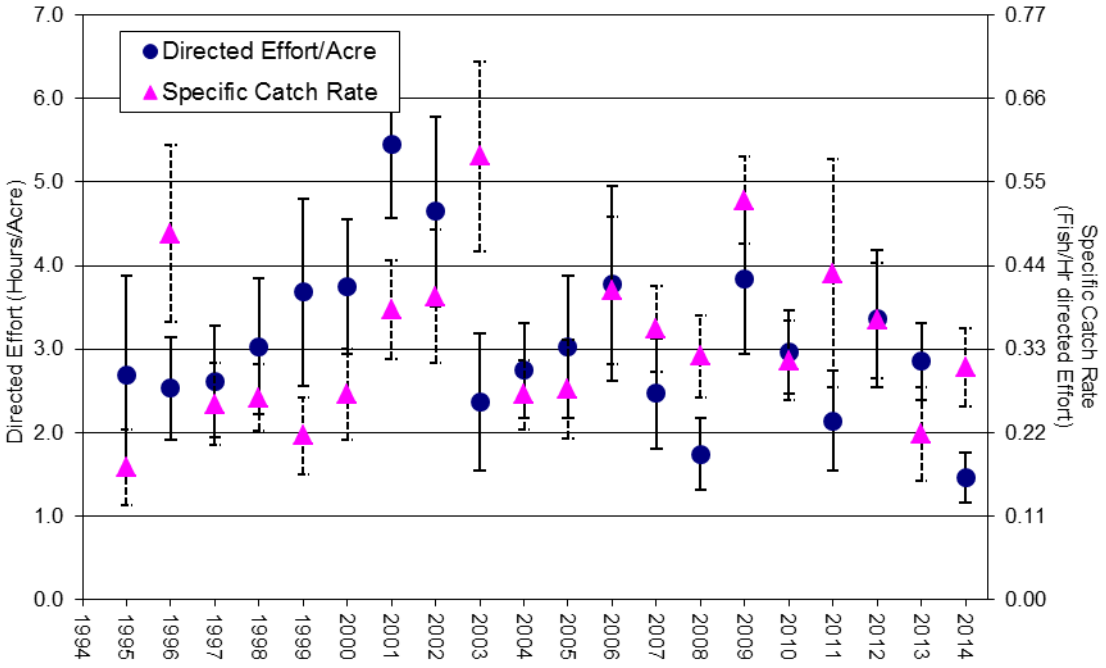

Figure 21. Directed angler effort per lake surface acre and specific catch rate (±SE) for smallmouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2014.

Safe Harvest

Safe harvest calculated for the 2014 harvest season was 88,172 walleye and 4,057 musky across the Wisconsin Ceded Territory (Table 10). Safe harvest of both species 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 (20,755 walleye, 1,131 musky), Oneida (15,552 walleye, 812 musky), Sawyer (10,504 walleye, 497 musky) and Iron (7,247 walleye, 297 musky) counties. Safe harvest from these four counties accounted for 61 percent of total walleye and 67 percent of total musky safe harvest for the Wisconsin Ceded Territory during 2014. Lake specific safe harvest numbers are listed in Appendix H.

Table 10. Walleye and musky safe harvest levels and ranks by county for the 2014 harvest season.

County	Lake Acreage*	Total Calculated Safe Harvest		Ranks (1 = Greatest #)	
		Walleye	Musky	Walleye	Musky
Ashland	2,862	366	80	23	11
Barron	13,684	1,686	33	13	17
Bayfield	12,585	2,879	120	8	8
Burnett	11,184	1,381	98	15	10
Chippewa	14,466	4,557	130	5	7
Clark	320	21	4	26	24
Douglas	6,211	1,764	39	12	16
Dunn	1,752	611		19	
Eau Claire	2,571	872	27	17	19
Florence	1,858	317		24	
Forest	10,811	3,390	45	7	14
Iron	24,651	7,247	297	**4**	**4**
Langlade	4,828	520	32	21	18
Lincoln	16,379	4,318	161	6	6
Marathon	9,583	1,922	45	11	14
Marinette	3,361	702	16	18	23
Oconto	3,005	386	20	22	20
Oneida	59,990	15,552	812	**2**	**2**
Polk	11,480	1,095	65	16	12
Portage	74	5		27	
Price	9,343	2,323	201	10	5
Rusk	5,633	1,460	107	14	9
Sawyer	48,018	10,504	497	**3**	**3**
St. Croix	1,100	541	17	20	22
Taylor	4,132	269	20	25	20
Vilas	71,429	20,755	1,131	**1**	**1**
Washburn	14,758	2,729	60	9	13
Grand Total	**366,068**	**88,172**	**4,057**	**---**	**---**

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

Walleye Young-of-Year Surveys

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

During 2014 WDNR completed 185 fall surveys on 165 different lakes in the Wisconsin Ceded Territory (Appendix F). Eighty surveys were in lakes with walleye populations classified as sustained by naturally reproduction (recruitment codes NR, C-NR, or C-), 73 as sustained by stocking (ST or C-ST), and 24 as remnant or newly established populations (REM, O-ST, NR-2; Appendix C). Three surveys were completed in lakes classified as having no known walleye population (NONE/0). Water temperatures during 2014 YOY walleye surveys ranged from 40 - 72° F; mean and median water temperatures during YOY surveys were 58.6° and 59°F, respectively. Young-of-year walleye lengths ranged from 3.2 to 8.8 inches across all lakes and dates surveyed in 2014 (Appendix F).

Differences in mean YOY walleye density between natural and stocked recruitment categories was significant during 2014 (t-test-unequal variance, $t = 4.28$, $df = 76$, $P < 0.01$). Consistent with all previous years since 1990, lakes sustained primarily by natural reproduction had higher mean walleye YOY density (mean = 14.2/mile of shoreline shocked, range = 0.0–139.3) than lakes sustained by stocking (mean = 0.7/mile, range = 0.0–14.52) during 2014 (Figure 22). The mean YOY walleye density observed in natural recruitment lakes during 2014 (14.2/mile) was statistically dissimilar (t-test unequal variance, $P<0.01$) to the average across the previous 24 years studied (30.3/mile from 1990-2013). The mean YOY walleye density observed in stocked lakes during 2014 (0.7/mile) was also statistically dissimilar to that observed over the previous 24 years studied (5.5/mile from 1990-2013; t-test unequal variance, $P<0.01$; Figure 22).

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

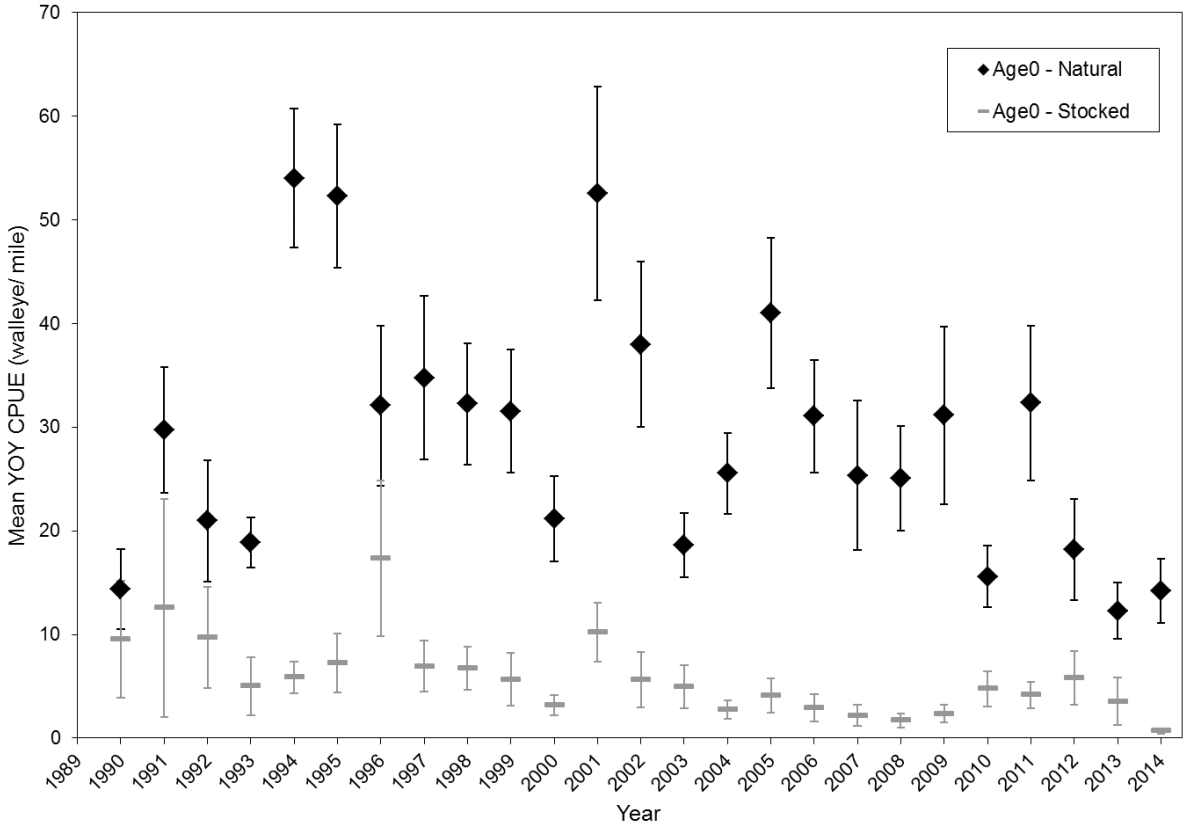

Figure 22. Comparison of mean YOY walleye density (± SE) observed in fall electrofishing surveys since 1990 in lakes dominated by natural recruitment or stocking.

A general linear model used to assess the impact of year and/or recruitment model on YOY walleye density was significant (p<0.0 01; Table 11). The significance of the model was driven by differences in YOY density between recruitment models (natural or stocked; p<0.0001), years (p<0.001), and the interaction of year*recruitment model (p=0.0009). Based on the significance of the year*recruitment model interaction term, regressions were done to evaluate trends independently for natural and stocked model lakes. YOY walleye densities have declined significantly over time in both natural (slope=-0.77, p<0.001) and stocked (slope=-0.32, p<0.001) model lakes since 1990 (Figure 22).

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

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	49	516278	10536	8.72	<0.0001
Error	2,167	2617092	1207		
		Type III SS	**Mean Square**	**F Value**	**Pr > F**
Year	24	138459	5769	4.78	<0.0001
Recruitment Model[a]	1	315063	315063	260.88	<0.0001
Year x Recruitment Model	24	62756	2615	2.17	0.0009

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 2014, 13/76 natural model lakes[6] (17%) had YOY indices > 25 per mile, and 3 NR lakes (4%) had YOY walleye indices > 100 per mile (Appendix F). Overall, the proportion of lakes with YOY catch rates greater than 25 or 100 fish per mile in 2014 was less than the mean proportion of lakes observed with the same catch rates between 1990-2013 (mean percentage > 25 YOY/mi = 34%; 100 >100/mi = 8%). These finding suggest a below average naturally produced walleye year class across the ceded territory in 2014 despite localized conditions that allowed for large year classes to be found in a limited number of waters.

[6] The previously mentioned 80 surveys were conducted in 76 different natural model lakes.

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 (9.05 YOY/ mile) with fry or small or large fingerlings was not significantly different (t-test unequal variance, t = -3.21, df = 2.0, P = 0.08) from those that were not stocked (0.3 YOY/ mile) in 2014 (Table 12). Despite the non-significant finding, the mean number of YOY/mile observed in stocked waters was notably higher than that in un-stocked waters. Such differences are commonly observed and most often statistically significant; In 2013 (Cichosz 2015) and 2014, the lack of statistical significance was unusual and largely driven by low sample size in stocked waters and the inequality of variances between stocked and non-stocked waters.

Table 12. Young-of-the-year indices in lakes categorized as being sustained primarily by stocking (ST or C-ST), separated by whether or not the lake was stocked in 2014.

	Stocked in 2014	**Not Stocked in 2014**
No. Lakes	3	61
Mean YOY walleye/ mile	9.06	0.28
Q1/Median/Q3	6.3 / 6.4/ 14.5	0.0 / 0.0 / 0.0
Lakes with 0 YOY/ mile	0 (0%)	50 (82%)
Lakes with ≤5 YOY/ mile	0 (0%)	61 (100%)
Lakes with ≤10 YOY/ mile	2 (67%)	61 (100%)

The Hansen et al (2004) index of lake-wide YOY walleye density (fish/acre) for natural-model lakes ranged from 0.0–66.4 with a mean of 6.1 during 2014. In stocked-model lakes, the same index ranged from 0.0–2.27 YOY walleye/acre with a mean of 0.15. Within stocked-model lakes, those stocked prior to fall surveys logically had a greater average index value than lakes that were not stocked (1.4 Vs. <0.1, respectively). This generally indicates greater levels of recruitment in natural model lakes relative to stocked model lakes, and within the stocked model lakes greater recruitment in stocked versus un-stocked waters.

Fall surveys were conducted on two lakes that were previously stocked with oxytetracycline (OTC) marked walleyes in 2014, with 33 fish sampled from each lake (Minocqua and Kawaguesaga; Table 13). Both lakes sampled are within the Minocqua Chain of Lakes which has been experiencing recent recruitment issues, which is validated via the OTC sampling results. Despite being previously driven by natural reproduction, OTC marked (stocked) YOY walleye made up 97-100% of the sampled

fish during 2014. Results of OTC sampling are not considered for recruitment code designation unless a minimum of 30 individual fish are sampled from the water body in question, and are not the sole factor used to define recruitment codes.

Table 13. Lakes stocked with oxytetracycline (OTC) marked fish sampled in 2014, number of sampled fish where OTC marks were noted on the otolith, and percent contribution of stocked fish to the total sample.

County	Lake	Recruit Code*	WBIC	With OTC	Without OTC	Total	% Contrib.
Oneida	Minocqua L	NR	1542400	33	0	33	100
Oneida	Kawaguesaga L	NR	1542300	32	1	33	97

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

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APPENDICES

Appendix A. WDNR Lake Sampling Rotation 2011-2014.

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

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

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

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

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

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

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

Appendix D. 2014-2015 Creel Survey Summaries.

Angler Effort Summary

County	Lake	MWBIC	Acres	Walleye recruit code	Musky recruit code	Total angler effort	Total angler effort/ acre	Directed Effort Walleye	Walleye Effort/ Acre	Directed Effort Musky	Musky Effort/ Acre	Directed Effort Pike	Pike Effort/ Acre	Directed Effort LMB	LMB Effort/ Acre	Directed Effort SMB	SMB Effort/ Acre
Barron	Bear	2105100	1,358	C-ST	O	24,995	18.41	6,209	4.57	--	--	6,716	4.95	6,334	4.66	498	0.37
Chippewa	Otter	2157000	661	ST	NONE	105,881	160.18	5,522	8.35	--	--	7,389	11.18	23,427	35.44	--	--
Douglas	Whitefish(Bardon)	2694000	832	NR	O	7,742	9.31	5,433	6.53	--	--	409	0.49	808	0.97	1,921	2.31
Iron	Pine	2949200	312	NR	NR	4,484	14.37	2,425	7.77	1,219	3.91	--	--	--	--	587	1.88
Oneida	Big	1613000	845	NR	C-ST	12,480	14.77	6,033	7.14	2,858	3.38	431	0.51	109	0.13	989	1.17
Oneida	Big Fork	1610700	663	NR	C-ST	6,524	9.84	3,239	4.89	2,549	3.84	358	0.54	245	0.37	838	1.26
Oneida	Big Stone	1612200	607	NR	C-ST	6,776	11.16	3,092	5.09	2,200	3.62	581	0.96	144	0.24	349	0.57
Oneida	Fourmile	1610800	210	NR	C-ST	5,153	24.54	1,946	9.27	1,080	5.14	821	3.91	829	3.95	743	3.54
Oneida	Island	1610500	305	NR	C-ST	2,132	6.99	675	2.21	1,030	3.38	66	0.22	64	0.21	88	0.29
Oneida	Laurel	1611800	249	NR	C-ST	6,887	27.66	2,751	11.05	1,204	4.84	1,138	4.57	1,061	4.26	848	3.41
Oneida	Little Fork	1610600	336	NR	C-ST	5,385	16.03	2,519	7.50	2,168	6.45	338	1.01	66	0.20	177	0.53
Oneida	Long	1609000	604	NR	C-ST	11,178	18.51	4,061	6.72	3,648	6.04	718	1.19	931	1.54	837	1.39
Oneida	Medicine	1611700	396	NR	C-ST	6,412	16.19	2,873	7.26	2,882	7.28	594	1.50	379	0.96	535	1.35
Oneida	Planting Ground	1609100	1,010	NR	C-ST	12,550	12.43	4,248	4.21	5,233	5.18	1,297	1.28	519	0.51	571	0.57
Oneida	Round	1610400	151	NR	C-ST	2,574	17.05	1,398	9.26	389	2.58	176	1.17	45	0.30	45	0.30
Oneida	Squirrel	1536300	1,317	NR	C-	36,339	27.59	16,252	12.34	6,429	4.88	10,665	8.10	5,641	4.28	5,715	4.34
Oneida	Two Sisters	1588200	719	C-NR	C-	8,318	11.57	3,340	4.65	1,683	2.34	859	1.19	1,938	2.70	2,663	3.70
Polk	Balsam	2620600	2,054	C-ST	O	88,791	43.23	5,151	2.51	--	--	8,782	4.28	39,760	19.36	1,358	0.66
Sawyer	Hayward	2725500	247	C-ST	C-ST	8,430	34.13	802	3.25	1,491	6.04	2,664	10.79	2,144	8.68	185	0.75
Vilas	Big Arbor Vitae	1545600	1,090	NR	C-	44,008	40.37	11,145	10.22	10,546	9.68	130	0.12	8,162	7.49	3,922	3.60
Washburn	Horseshoe	2470000	194	ST	O	3,767	19.42	89	0.46	--	--	1453	7.49	2,302	11.87	6	0.03
Washburn	Matthews	2710800	263	C-ST	ST	4,974	18.91	254	0.97	495	1.88	1291	4.91	2,000	7.60	10	0.04

Walleye

County	Lake	MWBIC	Acres	WAE Recruit Code	Initial WAE Bag	Final WAE Bag	WAE Size Reg.	Adult PE	APEAc	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Barron	Bear	2105100	1,358	C-ST	2	2	18	911	0.67	943	0.69	220	0.16	0.14	0.03	41	19.0	0.04	0.01
Chippewa	Otter	2157000	661	ST	5	5	15	1,692	2.56	2,196	3.32	459	0.69	0.14	0.07	31	19.3	0.02	0.01
Douglas	Whitefish(Bardon)	2694000	832	NR	2	3	15	2,512	3.02	3,449	4.15	1,059	1.27	0.63	0.19	223	17.2	0.47	0.14
Iron	Pine	2949200	312	NR	2	5	1>14	2,064	6.62	1,357	4.35	664	2.13	0.56	0.27	145	12.7	0.33	0.16
Oneida	Big	1613000	845	NR	2	2	1>14	2,213	2.62	2,980	3.53	598	0.71	0.46	0.09	76	13.4	0.24	0.05
Oneida	Big Fork	1610700	663	NR	2	3	1>14	3,037	4.58	5,480	8.27	1,374	2.07	1.69	0.42	65	13.0	0.88	0.22
Oneida	Big Stone	1612200	607	NR	2	3	1>14	1,084	1.79	3,328	5.48	815	1.34	0.97	0.24	60	11.0	0.49	0.12
Oneida	Fourmile	1610800	210	NR	2	3	1>14	962	4.5809524	994	4.73	318	1.51	0.43	0.15	20	12.3	0.20	0.06
Oneida	Island	1610500	305	NR	2	3	1>14	67	0.22	761	2.50	89	0.29	1.09	0.11	22	12.4	0.53	0.06
Oneida	Laurel	1611800	249	NR	2	3	1>14	700	2.811245	1,556	6.25	201	0.81	0.53	0.07	22	12.5	0.25	0.03
Oneida	Little Fork	1610600	336	NR	2	3	1>14	2,574	7.66	3,525	10.49	1,028	3.06	1.37	0.41	50	11.8	0.66	0.19
Oneida	Long	1609000	604	NR	2	3	1>14	2,071	3.43	3,193	5.29	711	1.18	0.77	0.17	113	12.6	0.30	0.07
Oneida	Medicine	1611700	396	NR	1	3	1>14	1,122	2.83	3,081	7.78	383	0.97	1.01	0.13	40	12.1	0.48	0.06
Oneida	Planting Ground	1609100	1,010	NR	2	3	1>14	2,553	2.53	2,898	2.87	866	0.86	0.68	0.20	117	13.2	0.24	0.07
Oneida	Round	1610400	151	NR	2	5	1>14	44	0.29	655	4.34	179	1.19	0.47	0.13	32	13.3	0.31	0.08
Oneida	Squirrel	1536300	1,317	NR	2	2	1>14	4,920	3.74	3,020	2.29	1,313	1.00	0.18	0.08	182	14.4	0.08	0.04
Oneida	Two Sisters	1588200	719	C-NR	2	2	15	1,989	2.77	256	0.36	204	0.28	0.07	0.06	36	18.8	0.03	0.02
Polk	Balsam	2620600	2,054	C-ST	2	3	15	713	0.3471276	289	0.14	44	0.02	0.01	0.00	6	25.7	0.00	0.00
Sawyer	Hayward	2725500	247	C-ST	5	5	15	9	0.0364372	67	0.27	9	0.04	0.06	0.01	2	16.7	0.01	0.01
Vilas	Big Arbor Vitae	1545600	1,090	NR	1	2	1>14	8,253	7.57	1,389	1.27	964	0.88	0.12	0.08	167	17.4	0.03	0.02
Washburn	Horseshoe	2470000	194	ST	5	5	15	27	0.1391753	0	0.00	0	0.00	0.00	0.00	0	--	0.00	0.00
Washburn	Matthews	2710800	263	C-ST	5	5	15	31	0.12	18	0.07	0	0.00	0.01	0.00	0	--	0.01	0.00

Musky

County	Lake	MWBIC	Acres	MRC	Musky Class	Musky size limit	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Barron	Bear	2105100	1358	O		40		0.00		0.00	--	--	--	--	--	--
Chippewa	Otter	2157000	661	NONE		40		0.00		0.00	--	--	--	--	--	--
Douglas	Whitefish(Bardon)	2694000	832	O	A2	40		0.00		0.00	--	--	--	--	--	--
Iron	Pine	2949200	312	NR		40	174	0.56	0	0.00	0.1146	0.0000	0	--	0.0500	0.0000
Oneida	Big	1613000	845	C-ST	B	40	194	0.23	0	0.00	0.0609	0.0000	0	--	0.0200	0.0000
Oneida	Big Fork	1610700	663	C-ST		40	130	0.20	0	0.00	0.0509	0.0000	0	--	0.0200	0.0000
Oneida	Big Stone	1612200	607	C-ST	A2	40	71	0.12	0	0.00	0.0324	0.0000	0	--	0.0100	0.0000
Oneida	Fourmile	1610800	210	C-ST		40	144	0.69	0	0.00	0.0523	0.0000	0	--	0.0400	0.0000
Oneida	Island	1610500	305	C-ST	A2	40	68	0.22	0	0.00	0.0561	0.0000	0	--	0.0400	0.0000
Oneida	Laurel	1611800	249	C-ST	A2	40	66	0.27	4	0.02	0.0375	0.0030	1	42.1	0.0100	0.0000
Oneida	Little Fork	1610600	336	C-ST	A2	40	127	0.38	0	0.00	0.0557	0.0000	0	--	0.0300	0.0000
Oneida	Long	1609000	604	C-ST	A2	40	144	0.24	0	0.00	0.0344	0.0000	0	--	0.0100	0.0000
Oneida	Medicine	1611700	396	C-ST	A2	40	156	0.39	0	0.00	0.0438	0.0000	0	--	0.0300	0.0000
Oneida	Planting Ground	1609100	1010	C-ST	A2	40	206	0.20	0	0.00	0.0393	0.0000	0	--	0.0200	0.0000
Oneida	Round	1610400	151	C-ST	A2	40	86	0.57	0	0.00	0.0297	0.0000	0	--	0.0500	0.0000
Oneida	Squirrel	1536300	1317	C-	A2	40	77	0.06	0	0.00	0.0092	0.0000	0	--	0.0000	0.0000
Oneida	Two Sisters	1588200	719	C-	A2	40	67	0.09	0	0.00	0.0230	0.0000	0	--	0.0100	0.0000
Polk	Balsam	2620600	2054	O	A2	40		0.00		0.00	--	--	--	--	--	--
Sawyer	Hayward	2725500	247	C-ST	A2	40	29	0.12	0	0.00	0.0164	0.0000	0	--	0.0000	0.0000
Vilas	Big Arbor Vitae	1545600	1090	C-	A2	40	179	0.16	0	0.00	0.0163	0.0000	0	--	0.0100	0.0000
Washburn	Horseshoe	2470000	194	O	A2	40		0.00		0.00	--	--	--	--	--	--
Washburn	Matthews	2710800	263	ST	B	40	13	0.05	0	0.00	0.0124	0.0000	0	--	0.0000	0.0000

Northern Pike

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Barron	Bear	2105100	1,358	5,981	4.40	1,142	0.84	0.51	0.17	229	22.5	0.24	0.05
Chippewa	Otter	2157000	661	632	0.96	200	0.30	0.03	0.02	17	19.3	0.01	0.00
Douglas	Whitefish(Bardon)	2694000	832	57	0.07	11	0.01	0.02	0.01	6	30.0	0.01	0.00
Iron	Pine	2949200	312	0	0.00	0	0.00	--	--	--	--	--	--
Oneida	Big	1613000	845	320	0.38	16	0.02	0.01	0.01	13	22.9	0.03	0.00
Oneida	Big Fork	1610700	663	133	0.20	0	0.00	0.00	0.00	0		0.02	0.00
Oneida	Big Stone	1612200	607	118	0.19	22	0.04	0.04	0.00	1	24.6	0.02	0.00
Oneida	Fourmile	1610800	210	743	3.54	9	0.04	0.45	0.00	1	21.5	0.21	0.00
Oneida	Island	1610500	305	108	0.35	9	0.03	0.15	0.10	2	22.0	0.09	0.01
Oneida	Laurel	1611800	249	569	2.29	17	0.07	0.02	0.00	2	22.9	0.10	0.00
Oneida	Little Fork	1610600	336	79	0.24	19	0.06	0.00	0.00	3	17.3	0.02	0.01
Oneida	Long	1609000	604	684	1.13	65	0.11	0.26	0.04	6	22.17	0.07	0.01
Oneida	Medicine	1611700	396	248	0.63	30	0.08	0.16	0.05	2	21.9	0.05	0.01
Oneida	Planting Ground	1609100	1,010	622	0.62	153	0.15	0.26	0.10	19	23.4	0.05	0.01
Oneida	Round	1610400	151	83	0.55	12	0.08	0.07	0.07	9	24.2	0.06	0.01
Oneida	Squirrel	1536300	1,317	4,727	3.59	1,079	0.82	0.31	0.10	176	21.9	0.13	0.03
Oneida	Two Sisters	1588200	719	304	0.42	140	0.19	0.17	0.12	24	24.9	0.04	0.02
Polk	Balsam	2620600	2,054	9,049	4.41	121	0.06	0.39	0.01	8	27.7	0.11	0.00
Sawyer	Hayward	2725500	247	1,730	7.00	92	0.37	0.45	0.03	43	24.5	0.21	0.01
Vilas	Big Arbor Vitae	1545600	1,090	32	0.03	0	0.00	0.00	0.00	0		0.00	0.00
Washburn	Horseshoe	2470000	194	1,215	6.26	60	0.31	0.62	0.04	14	21.9	0.33	0.02
Washburn	Matthews	2710800	263	2,174	8.27	48	0.18	0.95	0.02	15	20.0	0.44	0.01

Smallmouth Bass

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Barron	Bear	2105100	1,358	87	0.06	0	0.00	0.11	0.00	0	--	0.01	0.00
Chippewa	Otter	2157000	661	48	0.07	0	0.00	--	--	0	--	0.01	0.00
Douglas	Whitefish(Bardon)	2694000	832	1,142	1.37	165	0.20	0.47	0.07	33	17.09	0.17	0.02
Iron	Pine	2949200	312	357	1.14	0	0.00	0.40	0.00	0	--	0.11	0.00
Oneida	Big	1613000	845	706	0.84	0	0.00	0.48	0.00	0	--	0.09	0.00
Oneida	Big Fork	1610700	663	772	1.16	20	0.03	0.51	0.00	1	18.30	0.15	0.00
Oneida	Big Stone	1612200	607	480	0.79	22	0.04	0.40	0.00	1	17.80	0.09	0.00
Oneida	Fourmile	1610800	210	136	0.65	21	0.10	0.07	0.03	1	13.60	0.05	0.01
Oneida	Island	1610500	305	30	0.10	0	0.00	0.08	0.00	0	--	0.02	0.00
Oneida	Laurel	1611800	249	203	0.82	0	0.00	0.14	0.00	0	--	0.04	0.00
Oneida	Little Fork	1610600	336	261	0.78	0	0.00	0.74	0.00	0	--	0.08	0.00
Oneida	Long	1609000	604	268	0.44	14	0.02	0.15	0.02	3	14.77	0.04	0.00
Oneida	Medicine	1611700	396	261	0.66	0	0.00	0.11	0.00	0	--	0.04	0.00
Oneida	Planting Ground	1609100	1,010	380	0.38	0	0.00	0.18	0.00	0	--	0.03	0.00
Oneida	Round	1610400	151	28	0.19	0	0.00	0.00	0.00	0	--	0.03	0.00
Oneida	Squirrel	1536300	1,317	3,148	2.39	137	0.10	0.48	0.02	11	15.54	0.11	0.00
Oneida	Two Sisters	1588200	719	2,436	3.39	220	0.31	0.72	0.08	37	16.46	0.34	0.03
Polk	Balsam	2620600	2,054	1,242	0.60	83	0.04	0.70	0.02	4	13.43	0.03	0.00
Sawyer	Hayward	2725500	247	21	0.09	0	0.00	0.00	0.00	0	--	0.01	0.00
Vilas	Big Arbor Vitae	1545600	1,090	2,106	1.93	37	0.03	0.29	0.00	4	15.88	0.06	0.00
Washburn	Horseshoe	2470000	194	2	0.01	0	0.00	0.39	0.00	0	--	0.02	0.00
Washburn	Matthews	2710800	263	0	0.00	0	0.00	0.00	0.00	0	--	0.00	0.00

Largemouth Bass

County	Lake	MWBIC	Acres	Angler catch	Angler catch/ acre	Angler harvest	Angler harvest/ acre	Specific catch rate	Specific harvest rate	No. fish measured	Mean length	General catch rate	General harvest rate
Barron	Bear	2105100	1,358	8,208	6.04	1,381	1.02	0.91	0.20	261	14.70	0.35	0.06
Chippewa	Otter	2157000	661	31,430	47.55	992	1.50	0.94	0.03	77	15.64	0.30	0.01
Douglas	Whitefish(Bardon)	2694000	832	155	0.19	13	0.02	0.14	0.02	1	18.30	0.02	0.00
Iron	Pine	2949200	312	0	0.00	0	0.00	--	--	--	--	--	--
Oneida	Big	1613000	845	66	0.08	0	0.00	0.00	0.00	0		0.01	0.00
Oneida	Big Fork	1610700	663	10	0.02	0	0.00	0.04	0.00	0		0.00	0.00
Oneida	Big Stone	1612200	607	74	0.12	0	0.00	0.24	0.00	0		0.03	0.00
Oneida	Fourmile	1610800	210	17	0.08	0	0.00	0.00	0.00	0		0.01	0.00
Oneida	Island	1610500	305	15	0.05	0	0.00	0.14	0.00	0		0.02	0.00
Oneida	Laurel	1611800	249	627	2.52	0	0.00	0.16	0.00	0		0.10	0.00
Oneida	Little Fork	1610600	336	0	0.00	0	0.00	0.00	0.00	0		0.00	0.00
Oneida	Long	1609000	604	25	0.04	0	0.00	0.01	0.00	0		0.00	0.00
Oneida	Medicine	1611700	396	32	0.08	0	0.00	0.03	0.00	0		0.01	0.00
Oneida	Planting Ground	1609100	1,010	77	0.08	0	0.00	0.05	0.00	0		0.01	0.00
Oneida	Round	1610400	151	47	0.31	0	0.00	0.00	0.00	0		0.06	0.00
Oneida	Squirrel	1536300	1,317	4,677	3.55	137	0.10	0.65	0.02	12	15.38	0.15	0.00
Oneida	Two Sisters	1588200	719	1,712	2.38	138	0.19	0.62	0.07	24	16.42	0.23	0.02
Polk	Balsam	2620600	2,054	104,604	50.93	11,661	5.68	2.05	0.18	434	13.47	1.20	0.13
Sawyer	Hayward	2725500	247	620	2.51	30	0.12	0.18	0.01	6	15.47	0.08	0.00
Vilas	Big Arbor Vitae	1545600	1,090	7,712	7.08	705	0.65	0.74	0.06	111	15.23	0.18	0.02
Washburn	Horseshoe	2470000	194	2,615	13.48	333	1.72	1.01	0.13	71	13.88	0.72	0.09
Washburn	Matthews	2710800	263	3,913	14.88	586	2.23	1.41	0.24	106	11.86	0.82	0.12

Appendix E. WDNR Walleye Population Estimates Accepted For Use by the Treaty TWG in 2014.

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+”
2105100	Barron	Bear	1358	18	O-ST	911	0.223	512	0.67	1	12	705	193
2495100	Burnett	Sand (North)	962	15	O-ST	308	0.138	225	0.32	2	3	225	78
2675200	Burnett	Yellow	2,287	15	C-NR	6,987	0.088	5,783	3.06	3	2,159	4,519	306
2865000	Douglas	Lake Nebagamon	914	18	C-NR	1,212	0.26	595	1.33	1	33	943	236
2694000	Douglas	Whitefish	832	15	NR	2,512	0.22	1,429	3.02	18	795	1,506	192
692400	Forest	Butternut	1,293	Slot14-18	C-NR	3,509	0.094	2,861	2.71	1	291	3,102	115
184200	Forest	Crystal	74	15	0	287	0.193	178	3.87	1	2	230	54
692900	Forest	Franklin	892	Slot14-18	C-NR	692	0.411	135	0.78	2	102	168	420
478200	Forest	Range Line	82	15	C-ST	376	0.179	244	4.58	1	54	225	96
683000	Forest	Stevens	297	15	C-ST	564	0.193	351	1.90	1	2	147	414
2949200	Iron	Pine	312	1>14	NR	2,064	0.123	1,565	6.62	1,383	531	144	6
1613000	Oneida	Big Lake	845	1>14	NR	2,213	0.098	1,788	2.62	561	1,258	384	9
1612200	Oneida	Big Stone	607	1>14	NR	1,084	0.197	665	1.79	533	435	102	14
1610800	Oneida	Big Fk./Fourmile	873	1>14	NR	3,999	0.155	2,783	4.58	2,010	1,116	832	40
1611800	Oneida	Medicine/Laurel	604	1>14	NR	1,822	0.118	1,401	2.82	1,048	1,116	266	28
1610600	Oneida	Little Fork	336	1>14	NR	2,574	0.141	1,862	7.66	1,405	992	162	16
1609000	Oneida	Long Lake	604	1>14	NR	2,071	0.067	1,800	3.43	692	1,055	309	15
1609100	Oneida	Planting Ground	1,010	1>14	NR	2,553	0.115	1,977	2.53	654	1,526	282	92
1588200	Oneida	Two Sisters	719	15	C-NR	1,989	0.138	1,450	2.77	1	238	1,265	486
2620600	Polk	Balsam	2,054	15	C-ST	713	0.113	556	0.35	2	1	79	631
2704200	Sawyer	Nelson	2,503	18	C-ST	3,390	0.283	1,511	1.35	12	253	2,189	936
1545600	Vilas	Big Arbor Vitae	1,090	1>14	NR	8,253	0.117	6,363	7.57	12	1,452	6,257	532
2339900	Vilas	Escanaba	293	28	NR	2,903	0.159	1,999	9.91	1	378	2,394	130
1619700	Vilas	Pickerel	293	15	ST	216	0.196	133	0.74	2	20	114	80
1013800	Vilas	Razorback	362	15	C-NR	3,082	0.092	2,528	8.51	171	1,759	1,149	3
2470000	Vilas	Horseshoe	194	15	ST	27	0.314	10	0.14	1	1	1	24
2710800	Vilas	Matthews	263	15	C-ST	31	0.217	18	0.12	1	1	2	27

Appendix E. Continued.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	PE - Males	CV Male PE	PE - Females	CV Female PE	M:F Ratio
2105100	Barron	Bear	1358	18	O-ST	79	0.19	842	0.44	0.09
2495100	Burnett	Sand (North)	962	15	O-ST	241	0.16	53	0.13	4.55
2675200	Burnett	Yellow	2,287	15	C-NR	6,083	0.09	930	0.37	6.54
2865000	Douglas	Lake Nebagamon	914	18	C-NR	570	0.31	401	0.33	1.42
2694000	Douglas	Whitefish	832	15	NR	1,913	0.21	116	0.38	16.49
692400	Forest	Butternut	1,293	Slot14-18	C-NR	2,758	0.10	627	0.27	4.40
184200	Forest	Crystal	74	15	0	200	0.20	57	0.00	3.51
692900	Forest	Franklin	892	Slot14-18	C-NR	267	0.13	182	0.59	1.47
478200	Forest	Range Line	82	15	C-ST	239	0.27	190	0.36	1.26
683000	Forest	Stevens	297	15	C-ST	214	0.15	1,022	0.69	0.21
2949200	Iron	Pine	312	1>14	NR	1,870	0.13	131	0.43	14.27
1613000	Oneida	Big Lake	845	1>14	NR	1,828	0.11	353	0.28	5.18
1612200	Oneida	Big Stone	607	1>14	NR	906	0.21	109	0.33	8.31
1610800	Oneida	Big Fk./Fourmile	210	1>14	NR	3,127	0.08	446	0.54	7.01
1611800	Oneida	Medicine/Laurel	232	1>14	NR	1,474	0.10	373	0.49	3.95
1610600	Oneida	Little Fork	336	1>14	NR	2,274	0.14	203	0.42	11.20
1609000	Oneida	Long Lake	604	1>14	NR	1,757	0.07	963	0.54	1.82
1609100	Oneida	Planting Ground	1,010	1>14	NR	2,083	0.12	406	0.28	5.13
1588200	Oneida	Two Sisters	719	15	C-NR	1,075	0.14	648	0.22	1.66
2620600	Polk	Balsam	2,054	15	C-ST	65	0.33	631	0.12	0.10
2704200	Sawyer	Nelson	2,503	18	C-ST	992	0.27	1,880	0.49	0.53
1545600	Vilas	Big Arbor Vitae	1,090	1>14	NR	5,409	0.12	2,364	0.51	2.29
2339900	Vilas	Escanaba	293	28	NR	966	0.14	2,386	0.35	0.40
1619700	Vilas	Pickerel	293	15	ST	97	0.07	143	0.35	0.68
1013800	Vilas	Razorback	362	15	C-NR	2,896	0.09	169	0.60	17.14
2470000	Vilas	Horseshoe	194	15	ST	12	0.19	21	0.50	0.57
2710800	Vilas	Matthews	263	15	C-ST	14	0.00	18	0.21	0.78

Appendix F. YOY Walleye Survey Summaries.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Total Shore	ShockMi	%Shock	Age0	Age0 Min Length	Age0 Max Length	Age0 Modal Length	Age0Mi	Serns	Hansen	Age1	Age1 Min Length	Age1 Max Length	Age1 Modal Length	Age1Mi	WEStock
DAY	ASHLAND	2430300	625	O	none	09/30/2014	61	10.6	2.6	25	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
LAKE GALILEE	ASHLAND	2935500	213	O-ST	remnant	09/09/2014	70	2.9	2.9	100	19	4.1	5.3	4.1,4.5	6.55	1.53	0.65	7	7.4	8.4	None	5.83	A
MEDER	ASHLAND	2935300	135	C-ST	stocked	09/17/2014	59	2.2	2.2	100	14	3.7	5.6	5.4	6.36	1.49	0.62	4	6.1	6.9	None	5.00	B
MOQUAH	ASHLAND	2918200	50	REM	remnant	10/06/2014	49	2.7	1.6	59	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
POTTER	ASHLAND	2917200	29	ST	stocked	10/08/2014	48	0.9	1.1	100	0	-	-	-	0.00	0.00	0.00	2	9	9.9	None	5.00	N
SPIDER	ASHLAND	2918600	103	REM	remnant	10/06/2014	52	2.7	2.4	89	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
SPILLERBERG	ASHLAND	2936200	75	NR	natural	10/08/2014	49	1.5	1.6	100	7	5.6	6.6	None	4.38	1.02	0.35	25	8.1	10.4	8.7,8.8	35.71	N
UPPER CLAM	ASHLAND	2429600	166	C-ST	stocked	09/15/2014	54	3.2	3.2	100	0	-	-	-	0.00	0.00	0.00	3	8.8	10.7	None	3.00	A
BEAR	BARRON	2105100	1358	O-ST	remnant	09/22/2014	60-65	14.9	12	81	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	A
HORSESHOE	BARRON	2469800	115	ST	stocked	09/15/2014	58	2.5	2.5	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
LOWER TURTLE	BARRON	2079700	276	C-ST	stocked	09/16/2014	63	3.8	3.8	100	0	-	-	-	0.00	NA	NA	1	10.9	10.9	None	0.63	A
UPPER TURTLE	BARRON	2079800	438	C-ST	stocked	09/17/2014	64	4.8	4.8	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
BONY	BAYFIELD	2742500	191	C-NR	natural	09/18/2014	59-60	2.7	2.7	100	2	5.5	5.9	None	0.74	0.17	0.02	1	10.6	10.6	None	1.00	N
CHIPPEWA	BAYFIELD	2431300	274	O	none	09/29/2014	62	4.3	1.4	33	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
CRYSTAL	BAYFIELD	2897300	111	C-NR	natural	09/29/2014	62	2.5	2.8	100	4	5.5	6.9	6.0-6.4	1.43	0.33	0.06	0	-	-	-	0.00	A
DIAMOND	BAYFIELD	2897100	341	C-ST	stocked	09/11/2014	60	5	5	100	0	-	-	-	0.00	0.00	0.00	4	8.3	10	None	2.67	N
MIDDLE EAU C	BAYFIELD	2742100	902	C-NR	natural	09/15/2014	58-62	11	7.7	70	96	3.6	6.6	4.6	12.47	NA	NA	20	7	10	None	8.00	N
UPSETT	BURNETT	2678100	393	O-ST	remnant	09/10/2014	57-62	3.5	3.5	100	0	-	-	-	0.00	0.00	0.00	1	11.7	11.7	None	0.91	B
YELLOW	BURNETT	2675200	2287	C-NR	natural	09/29/2014	63-68	7.9	7.9	100	33	5.3	8	6.5,6.7	4.18	NA	NA	9	10.1	11.5	None	2.57	N
LAKE WISSOTA	CHIPPEWA	2152800	6300	NR	natural	09/29/2014	56-64	56.3	10.6	19	860	4.8	7.7	6.2	81.13	NA	NA	249	7.8	10.4	9	42.93	N
LONG	CHIPPEWA	2351400	1052	NR	natural	10/15/2014	53	14	14	100	105	4.7	7.9	5.8,6.2,6.5	7.50	1.76	0.81	3	8.3	9.7	None	0.45	N
OTTER	CHIPPEWA	2157000	661	ST	stocked	09/22/2014	64	20	10.1	51	0	-	-	-	0.00	NA	NA	80	8.5	10.9	9.7	14.29	N
MEAD	CLARK	2143900	320	C-ST	stocked	09/08/2014	60-64	8.2	5.9	72	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
LAKE MINNESU	DOUGLAS	2866200	432	C-NR	natural	09/15/2014	59-60	6.9	6.9	100	0	-	-	-	0.00	0.00	0.00	10	7.4	9.3	None	4.00	N
LAKE NEBAGAM	DOUGLAS	2865000	914	C-NR	natural	09/11/2014	62-63.4	10.8	10.8	100	29	4.9	6.6	5.9	2.69	NA	NA	81	7.1	9.8	8.3	18.41	N
LOWER EAU CL	DOUGLAS	2741600	802	NR	natural	09/22/2014	62-64	7.8	7.8	100	106	4.5	6.7	5.5	13.59	3.18	2.04	8	9	10	None	2.50	N
WHITEFISH	DOUGLAS	2694000	832	NR	natural	09/17/2014	61-62	6.9	6.9	100	17	4.8	6.9	6.2,6.5	2.46	NA	NA	4	8.7	9	None	1.54	N
ALTOONA	EAU CLAIRE	2128100	840	NR	natural	09/24/2014	61-62	9.4	4	43	557	4	7.8	6	139.25	NA	NA	42	8.2	10.8	9.8,10.3	15.56	N
LAKE EAU CLAI	EAU CLAIRE	2133200	860	NR	natural	09/23/2014	63	24.3	4.3	18	50	5.3	7.2	6.2	11.63	NA	NA	0	-	-	-	0.00	N
BEARSKULL	IRON	2265100	75	C-ST	stocked	09/22/2014	60	2.2	2.2	100	0	-	-	-	0.00	0.00	0.00	4	7.2	8.3	None	4.44	N
CEDAR	IRON	2309700	193	C-ST	stocked	09/10/2014	60	4.4	2.9	66	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
ECHO	IRON	2301800	220	C-NR	natural	09/11/2014	59	4.9	3.9	80	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
ISLAND	IRON	2945500	352	C-NR	natural	09/25/2014	59	7.4	6.8	92	3	5.6	6.8	None	0.44	NA	NA	2	9.5	9.6	None	0.77	N
LAKE OF THE F	IRON	2298300	338	ST	stocked	09/16/2014	53	6.7	4.2	63	3	6	6.5	None	0.71	NA	NA	0	-	-	-	0.00	A
LONG	IRON	2303500	396	ST	stocked	09/29/2014	57	12.5	6	48	21	6.2	7.7	6.7	3.50	NA	NA	8	8.2	9.5	None	3.20	N
PINE	IRON	2949200	312	NR	natural	09/18/2014	54-57	6	6	100	42	4.7	6.7	6.3	7.00	1.64	0.72	101	6.9	10	8.5,8.9	40.40	N
SPIDER	IRON	2306300	352	NR	natural	09/24/2014	58	7.3	7.3	100	1	6.9	6.9	None	0.14	0.03	0.00	7	8	8.6	None	2.50	N
TURTLE FLAMB	IRON	2294900	13122	NR	natural	10/15/2014	44-47	206.3	11.9	6	-	-	-	-	-	NA	NA	-	-	-	-	-	N
BALSAM	POLK	2620600	2054	C-ST	stocked	10/01/2014	58-61	22.7	22.7	100	0	-	-	-	0.00	NA	NA	3	10.4	11.4	None	0.38	A
BIG BUTTERNU	POLK	2641000	378	C-ST	stocked	09/24/2014	62	3.4	3.4	100	0	-	-	-	0.00	0.00	0.00	35	7.6	11.2	9.7	26.92	N
BIG ROUND	POLK	2627400	1015	ST	stocked	09/22/2014	62	5.7	5.7	100	0	-	-	-	0.00	0.00	0.00	10	7.3	10	None	4.55	N
HALF MOON	POLK	2621100	579	O-ST	remnant	09/23/2014	62	7.1	5.6	79	0	-	-	-	0.00	0.00	0.00	18	7.8	10.3	None	9.00	N
NORTH PIPE	POLK	2485700	58	NR	natural	09/25/2014	64	1.6	1.6	100	0	-	-	-	0.00	NA	NA	2	8.8	9.3	None	3.33	N
PIPE	POLK	2490500	284	C-ST	stocked	09/25/2014	64	5	4.1	82	2	6	6.3	None	0.49	NA	NA	16	8.5	11.1	None	8.00	N
WARD	POLK	2599400	91	ST	stocked	09/18/2014	63	2.3	2.3	100	0	-	-	-	0.00	0.00	0.00	1	9.7	9.7	None	1.00	A
BIG DARDIS	PRICE	2244200	144	ST	stocked	09/18/2014	58	2.8	2.8	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
MUSSER	PRICE	2245100	563	ST	stocked	09/25/2014	61-63	12.1	4	33	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
PATTERSON	PRICE	1872500	70	O-ST	remnant	10/01/2014	59	1.8	1.8	100	0	-	-	-	0.00	NA	NA	*	-	-	-	-	N
PIKE	PRICE	2268300	806	NR	natural	09/23/2014	60-62	10.9	4.3	39	6	5.3	5.8	None	1.40	NA	NA	44	7.6	10.4	9.5	29.33	N
ROUND	PRICE	2267800	726	NR	natural	09/23/2014	62	5.1	6.4	100	72	4.6	6.3	5.6	11.25	NA	NA	*	-	-	-	-	N
SOLBERG	PRICE	2242500	859	NR	natural	09/24/2014	60	12.4	4	32	1	5.4	5.4	None	0.25	NA	NA	5	7.9	9.1	None	2.94	N
TURNER	PRICE	2268500	149	NR	natural	10/07/2014	50	2.6	2.6	100	2	6.1	6.2	None	0.77	NA	NA	1	8.2	8.2	None	1.00	N
WHITCOMB	PRICE	2266100	44	ST	stocked	10/01/2014	57	1.7	1.9	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
WORCESTER	PRICE	2210900	100	NR	natural	09/16/2014	59	2	2	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
CHAIN	RUSK	2350500	468	C-ST	stocked	09/24/2014	62	7.9	6.6	84	0	-	-	-	0.00	NA	NA	12	7.7	9.7	None	5.45	N
ISLAND	RUSK	2350200	526	ST	stocked	09/24/2014	60	5.8	5.8	100	0	-	-	-	0.00	0.00	0.00	7	7.6	9.1	None	3.89	N
POTATO	RUSK	2355300	534	ST	stocked	10/14/2014	52	9.2	4	43	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
PULASKI	RUSK	1875900	126	C-NR	natural	09/24/2014	62	2.5	2.6	100	1	5.5	5.5	None	0.38	NA	NA	1	9.4	9.4	None	1.11	A
SAND	RUSK	2353600	262	C-NR	natural	09/30/2014	61	4.8	4.3	90	0	-	-	-	0.00	0.00	0.00	78	7.1	9.9	8.5	33.91	N
BARBER	SAWYER	2382300	238	C-ST	stocked	09/24/2014	62	4.8	2.6	54	0	-	-	-	0.00	NA	NA	5	9.2	9.7	None	4.17	A
BLACK DAN	SAWYER	2381900	128	O-ST	remnant	09/24/2014	62	3	3	100	0	-	-	-	0.00	0.00	0.00	10	9.3	9.9	9.7	6.67	A
BLAISDELL	SAWYER	2402200	356	NR-2	remnant	09/17/2014	57	7.6	7.6	100	3	5	5.2	None	0.39	0.09	0.01	4	8.8	9.1	None	1.82	A
BLUEBERRY	SAWYER	1835700	280	ST	stocked	09/16/2014	63	4.2	4.2	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	A
CONNORS	SAWYER	2275100	429	NR	natural	09/17/2014	61	5	3	60	5	6.6	7.5	None	1.67	NA	NA	27	8.1	9.6	None	20.77	N
DURPHEE	SAWYER	2396800	193	C-NR	natural	09/07/2014	69	2.7	2.7	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
GHOST	SAWYER	2423000	372	C-ST	stocked	10/09/2014	48	7.3	3.1	42	0	-	-	-	0.00	NA	NA	28	8.2	9.8	9	23.33	N
GRINDSTONE	SAWYER	2391200	3111	C-NR	natural	09/17/2014	58-64	10.5	10.5	100	429	3.5	6.9	5.6	40.86	NA	NA	15	7	8.8	None	3.49	N
HAYWARD	SAWYER	2725500	247	C-ST	stocked	09/11/2014	55	8.6	4.6	53	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
LAKE CHIPPEW	SAWYER	2399700	15300	C-NR	natural	09/08/2014	63-67	232.9	8.3	4	269	4.8	7.1	6	32.41	NA	NA	95	8.4	10.8	10.2	13.97	N
OSPREY	SAWYER	2395100	208	C-ST	stocked	09/14/2014	61	6	2.2	37	2	5.2	5.8	None	0.91	NA	NA	0	-	-	-	0.00	A
SMITH	SAWYER	2726100	323	O-ST	remnant	09/25/2014	63	4.5	2.8	62	0	-	-	-	0.00	NA	NA	5	8.5	9.8	None	3.85	N
SPIDER	SAWYER	2435700	1454	ST	stocked	10/01/2014	58	20.8	5	24	1	6.1	6.1	None	0.20	NA	NA	12	7	8.7	None	5.45	N
TIGER CAT FLO	SAWYER	2435000	819	ST	stocked	10/06/2014	54	19.9	6	30	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
WHITEFISH	SAWYER	2392000	786	C-ST	stocked	09/18/2014	61	8.1	8.1	100	3	6.2	7.6	None	0.37	0.09	0.01	14	8	9.9	8.5	5.60	A
CEDAR	ST. CROIX	2615100	1100	NR	natural	09/16/2014	62	6.3	4.3	68	95	5.3	7.7	6.2	22.09	NA	NA	4	9.2	11	None	1.67	N
HORSESHOE	WASHBURN	2470000	194	ST	stocked	09/09/2014	68	3.8	3.8	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
LAKE NANCY	WASHBURN	2691500	772	C-ST	stocked	09/18/2014	61-62	10.9	8.1	74	0	-	-	-	0.00	NA	NA	3	10	10.6	None	1.00	A
LONG	WASHBURN	2106800	3290	C-NR	natural	09/22/2014	57	38	12.1	32	13	4.2	6.8	None	1.07	NA	NA	1	12	12.4	None	0.19	A
MATTHEWS	WASHBURN	2710800	263	C-ST	stocked	09/09/2014	67	2.6	2.6	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	N
MIDDLE MCKE	WASHBURN	2706500	530	C-ST	stocked	09/16/2014	61	4.1	4.1	100	1	6.6	6.6	None	0.24	0.06	0.00	0	-	-	-	0.00	A
STONE	WASHBURN	1884100	523	C-ST	stocked	09/15/2014	62	4	4	100	18	5.3	7	5.9	4.50	1.05	0.36	9	8.9	11	10.3	5.00	A

Appendix F. Continued.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Total Shore	ShockMi	%Shock	Age0	Age0 Min Length	Age0 Max Length	Age0 Modal Length	Age0Mi	Serns	Hansen	Age1	Age1 Min Length	Age1 Max Length	Age1 Modal Length	Age1Mi	WEStock
HALSEY	FLORENCE	679300	517	O-ST	remnant	9/11/2014	53	4.1	1.6	39	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
KEYES	FLORENCE	672900	210	C-ST	stocked	9/22/2014	60	3.3	3.7	100	0	-	-	-	0.00	0.00	0.00	7	9.1	10.4	9.8	4.12	N
LONG	FLORENCE	702500	80	NONE	none	10/14/2014	50	2	1	50	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
PATTEN	FLORENCE	653700	255	NR	natural	10/1/2014	56	3.9	4.1	100	3	5.9	6.8	6.3	0.73	NA	NA	13	8.9	11.7	10.7	7.65	N
SEIDEL	FLORENCE	672000	55	NONE	none	9/25/2014	59	1.4	0.5	36	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
BUTTERNUT	FOREST	692400	1292.5	C-NR	natural	9/30/2014	58	7.8	9	100	208	3.5	6.8	5.3	23.11	5.41	4.69	50	7.4	10.3	8.9	13.51	N
CRYSTAL	FOREST	184200	74	NONE	none	9/17/2014	62	1.8	1.8	100	14	4.4	7.5	6.2	7.78	NA	NA	0	-	-	-	0.00	N
FRANKLIN	FOREST	692900	892	C-NR	natural	9/17/2014	55	6.6	7.6	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	A
RANGE LINE	FOREST	478200	82	C-ST	stocked	9/24/2014	62	1.3	1.8	100	3	7.4	7.5	7.5	1.67	0.39	0.08	4	8.5	8.9	8.6	4.44	A
ROBINSON	FOREST	591300	37	NONE	none	9/18/2014	59	1.1	1.3	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	N
STEVENS	FOREST	683000	297	C-ST	stocked	9/11/2014	56	3.3	3.7	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
SAWYER	LANGLADE	198100	149	NR	natural	9/3/2014	70	5.2	3	58	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
SUMMIT	LANGLADE	1445600	282	O-ST	remnant	9/24/2014	60	3.3	3.3	100	0	-	-	-	0.00	NA	NA	14	7.8	9.1	8.3	8.75	N
UPPER POST	LANGLADE	399200	757	C-ST	stocked	9/23/2014	59	7.6	4.7	62	0	-	-	-	0.00	NA	NA	22	8.2	10.6	9.1	10.00	N
PESABIC	LINCOLN	1481600	146	ST	stocked	9/11/2014	70	2.3	2.3	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
PINE	LINCOLN	1012100	134	ST	stocked	9/2/2014	69	2.7	2.7	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
SEVEN ISLAND	LINCOLN	1490300	132	C-ST	stocked	9/22/2014	60	4	4	100	0	-	-	-	0.00	NA	NA	37	7.4	10.1	8.8	13.70	N
SILVER	LINCOLN	1017400	95	NR	natural	9/18/2014	60	2.3	2.1	91	10	5.7	7.2	6.6	4.76	NA	NA	2	10.2	10.8	10.5	2.00	N
SOMO	LINCOLN	1547700	472	C-ST	stocked	9/8/2014	65	14.2	4	28	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
SPIRIT RESERV	LINCOLN	1506800	1663.5	NR	natural	9/16/2014	55	50.301	4.3	9	218	3.9	7	4.9	50.70	NA	NA	14	8	10.4	8.7	5.60	N
SQUAW	LINCOLN	1564400	79	ST	stocked	9/10/2014	63	2.3	2.6	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	A
TUG	LINCOLN	1482400	151	NR	natural	9/15/2014	59	2.7	2.3	85	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
PIKE	MARATHON	1403600	205	ST	stocked	9/17/2014	63	2.6	2.3	88	0	-	-	-	0.00	NA	NA	2	7.9	7.9	7.9	1.82	N
HIGH FALLS FL	MARINETTE	540600	1498	C-NR	natural	9/30/2014	57	30.2	10	33	0	-	-	-	0.00	NA	NA	32	6.5	9.5	7.5	6.04	N
SANDSTONE FL	MARINETTE	531300	153	C-NR	natural	9/29/2014	59	6.4	4	63	1	5.9	5.9	5.9	0.25	NA	NA	3	7.4	10.2	9.1	1.50	N
ARCHIBALD	OCONTO	417400	393	C-ST	stocked	9/16/2014	60	8.8	6	68	0	-	-	-	0.00	NA	NA	6	7.7	8.7	8.4	3.16	A
BASS	OCONTO	417900	142	C-NR	natural	9/23/2014	62	2.7	2.5	93	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
BOOT	OCONTO	418700	235	C-NR	natural	9/23/2014	62	3.8	3.8	100	0	-	-	-	0.00	NA	NA	3	9.2	9.7	9.4	1.58	N
MAIDEN	OCONTO	487500	269	NR-2	remnant	9/10/2014	67	5.6	4	71	5	3.9	5	4.7	1.25	NA	NA	0	-	-	-	0.00	A
SURPRISE	OCONTO	428100	66	REM	remnant	9/24/2014	63	2	2	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
TOWNSEND FL	OCONTO	465000	476	O-ST	remnant	9/8/2014	NA	11.6	5.5	47	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
WAUBEE	OCONTO	439500	124	O-ST	remnant	9/25/2014	66	3.3	3.8	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	A
WHEELER	OCONTO	439800	293	NR-2	remnant	9/24/2014	61	4.6	4.3	93	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	B
WHEELER	OCONTO	439800	293	NR-2	remnant	10/7/2014	55	4.6	4.3	93	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	B
BIG FORK	ONEIDA	1610700	663	NR	natural	10/1/2014	59	5.4	5.3	98	87	3.7	5.7	4.7	16.42	NA	NA	112	5.9	8.4	7	50.91	N
BIG LAKE	ONEIDA	1613000	845	NR	natural	9/11/2014	60	6.6	6.8	100	10	4.2	5.6	4.7	1.47	0.34	0.06	43	6.1	8.5	7.3	13.44	N
BIG STONE	ONEIDA	1612200	607	NR	natural	9/16/2014	58	4.8	2.4	50	4	4.4	5	4.7	1.67	NA	NA	19	6.1	8.9	6.8	17.27	N
DEER	ONEIDA	1612300	188	NR	natural	9/15/2014	58	4	2.9	73	6	4.4	6.3	4.9	2.07	NA	NA	24	6.9	8.9	8.1	18.46	N
DOG	ONEIDA	1612900	202	NR	natural	9/15/2014	58	3.6	3.4	94	7	3.7	6.3	4.7	2.06	NA	NA	36	6.4	8.7	7.6	24.00	N
EAST HORSEHE	ONEIDA	1523000	184	NR	natural	8/28/2014	70	3.7	3.2	86	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
FOURMILE	ONEIDA	1610800	210	NR	natural	10/8/2014	50	3.7	3	81	2	4.2	4.9	4.6	0.67	NA	NA	5	6	8.1	7.2	3.85	N
GILMORE	ONEIDA	1589300	320	ST	stocked	10/15/2014	49	4.4	4.4	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
GILMORE	ONEIDA	1589300	320	ST	stocked	10/21/2014	48	4.4	4.3	98	-	-	-	-	-	-	-	-	-	-	-	-	N
GILMORE	ONEIDA	1589300	320	ST	stocked	10/22/2014	48	4.4	4.3	98	-	-	-	-	-	-	-	-	-	-	-	-	N
HORSEHEAD	ONEIDA	1588000	367	O	none	8/27/2014	71	5	5	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
ISLAND	ONEIDA	1610500	305	NR	natural	10/7/2014	52	4.4	4.8	100	90	4.2	5.7	4.9	18.75	NA	NA	45	6	7.9	7.1	22.50	N
KAWAGUESAG	ONEIDA	1542300	670	NR	natural	9/16/2014	59	11.1	11.6	100	0	-	-	-	0.00	NA	NA	47	8.4	11.2	9.7	9.22	N
LAUREL	ONEIDA	1611800	249	NR	natural	9/29/2014	61	5.4	5.5	100	11	4.3	5.4	4.9	2.00	NA	NA	19	6.3	7.6	7.1	8.64	N
LITTLE FORK	ONEIDA	1610600	336	NR	natural	9/9/2014	68	5.2	4	77	29	4	6.3	5.2	7.25	NA	NA	44	6.3	8.4	7	24.44	N
LONG	ONEIDA	1001300	113	C-NR	natural	9/9/2014	69	1.5	2.6	100	6	5.4	6.7	6	2.31	NA	NA	3	9.4	10.8	10.3	2.31	A
LONG LAKE	ONEIDA	1609000	604	NR	natural	9/30/2014	60	7.5	7.5	100	73	4.4	6.1	5.1	9.73	NA	NA	76	6.5	8.4	7.6	21.71	N
MEDICINE	ONEIDA	1611700	396	NR	natural	9/29/2014	60	3.4	4.3	100	11	3.9	4.8	4.4	2.56	NA	NA	33	5.7	7.5	6.9	17.37	N
MUSKELLUNGE	ONEIDA	1595600	284	NR	natural	9/5/2014	66	4	4.1	100	0	-	-	-	0.00	NA	NA	1	10.1	10.1	10.1	0.50	A
PELICAN	ONEIDA	1579900	3585	NR	natural	9/23/2014	62	16.7	16.7	100	97	3.8	6.2	5.1	5.81	NA	NA	321	6.4	9.7	7.9	38.21	N
PICKEREL	ONEIDA	1590400	736	ST	stocked	10/16/2014	49	7.7	8.3	100	0	-	-	-	0.00	NA	NA	1	11.3	11.3	11.3	0.24	N
PICKEREL	ONEIDA	1590400	736	ST	stocked	10/20/2014	44	7.7	8.3	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
PICKEREL	ONEIDA	1590400	736	ST	stocked	11/4/2014	40	7.7	8.4	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
PLANTING GRC	ONEIDA	1609100	1010	NR	natural	10/6/2014	52	10.5	9.2	88	147	3.7	5.7	4.6	15.98	NA	NA	86	5.8	8.2	6.7	22.63	N
ROUND	ONEIDA	1610400	151	NR	natural	10/7/2014	52	2.2	2	91	17	4.1	5.6	5	8.50	NA	NA	6	6.4	7.5	6.9	7.50	N
SEVENMILE	ONEIDA	1605800	503	C-ST	stocked	9/11/2014	60	6.1	3.5	57	22	3.2	7.5	5.2	6.29	NA	NA	1	9.2	9.2	9.2	0.56	B
SQUASH	ONEIDA	1019500	396	NR	natural	9/2/2014	68	7.4	7.5	100	6	4.8	5.9	5.5	0.80	0.19	0.02	0	-	-	-	0.00	A
STELLA	ONEIDA	1575700	405	O-ST	remnant	10/29/2014	46	4.4	4.2	95	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
SWAMSAUGER	ONEIDA	1528700	141	C-NR	natural	9/15/2014	56	3.4	3.2	94	2	5.6	5.9	5.5	0.63	NA	NA	8	8.2	9.3	8.5	4.71	N
SWEENY	ONEIDA	1589600	187	C-NR	natural	10/15/2014	50	3.3	3.1	94	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	EB
SWEENY	ONEIDA	1589600	187	C-NR	natural	10/20/2014	48	3.3	3.3	100	-	-	-	-	-	-	-	-	-	-	-	-	EB
SWEENY	ONEIDA	1589600	187	C-NR	natural	10/23/2014	46	3.3	3.3	100	-	-	-	-	-	-	-	-	-	-	-	-	EB
SWEENY	ONEIDA	1589600	187	C-NR	natural	10/30/2014	46	3.3	3.2	97	-	-	-	-	-	-	-	-	-	-	-	-	EB
THOMPSON	ONEIDA	1569900	382.4	C-ST	stocked	9/8/2014	67	6.9	7.8	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
TWO SISTERS	ONEIDA	1588200	719	C-NR	natural	9/26/2014	62	9.3	9.2	99	3	7.2	7.7	7.4	0.33	0.08	0.01	2	10.7	10.8	10.8	0.53	N

Appendix F. Continued.

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
C-ST	stocked	10/6/2014	50	5.8	3.7	64	-	-	-	-	-	-	-	-	-	-	-	-	N
C-ST	stocked	10/8/2014	50	5.8	3.7	64	-	-	-	-	-	-	-	-	-	-	-	-	N
C-ST	stocked	10/10/2014	49	5.8	3.7	64	-	-	-	-	-	-	-	-	-	-	-	-	N
C-ST	stocked	8/25/2014	72	2	2.2	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	A
NR	natural	9/24/2014	60-63	7.8	8.2	100	44	5.6	7.1	6.5	5.37	NA	NA	63	8.4	12.4	10.8	17.03	N
C-ST	stocked	9/17/2014	56	7.6	8.4	100	122	3.7	7.3	5.5	14.52	3.40	2.27	2	10.1	10.3	10.2	0.59	B
NR-2	remnant	10/15/2014	50	2.1	1.9	90	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
NR-2	remnant	10/20/2014	49	2.1	1.9	90	-	-	-	-	-	-	-	-	-	-	-	-	EB
NR-2	remnant	10/23/2014	48	2.1	1.9	90	4	6.5	7.3	6.9	2.11	NA	NA	0	-	-	-	0.00	EB
C-ST	stocked	9/2/2014	69	3.84	3.4	89	1	5	5	5	0.29	0.07	0.01	12	7.9	9.7	9.2	8.00	A
NR	natural	9/8/2014	65	5.2	5.2	100	116	5	6.8	5.8	22.31	5.22	4.43	17	7.9	10.4	9	6.30	N
NR	natural	9/11/2014	57	5.2	5.2	100	272	5	6.4	5.9	52.31	12.24	16.81	37	8	10.3	9	13.70	N
NR	natural	9/15/2014	56	5.2	5.2	100	307	-	-	-	59.04	13.82	20.32	37	-	-	-	14.23	N
NR	natural	9/22/2014	60	5.2	5.2	100	136	-	-	-	26.15	6.12	5.69	32	-	-	-	12.31	N
NR	natural	9/29/2014	59	5.2	2.9	56	88	-	-	-	30.34	NA	NA	19	-	-	-	12.67	N
NR	natural	10/7/2014	49	5.6	5.6	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	B
NR	natural	9/23/2014	61	6	6.6	100	250	6	8.8	7.2	37.88	NA	NA	0	-	-	-	0.00	B
NR	natural	9/25/2014	63	7.1	5.3	75	545	5.2	8.4	6.9	102.83	NA	NA	0	-	-	-	0.00	B
C-ST	stocked	10/9/2014	50	4.6	4.4	96	0	-	-	-	0.00	NA	NA	45	7.2	9.9	8.4	26.47	N
C-ST	stocked	10/21/2014	47	4.6	4.5	98	-	-	-	-	-	-	-	-	-	-	-	-	N
C-ST	stocked	10/27/2014	48	4.6	4.4	96	-	-	-	-	-	-	-	-	-	-	-	-	N
ST	stocked	10/16/2014	48-49	12.9	16.7	100	0	-	-	-	0.00	0.00	0.00	90	6.6	10.8	9	13.85	N
ST	stocked	10/20/2014	47-48	12.9	15.7	100	-	-	-	-	-	-	-	-	-	-	-	-	N
ST	stocked	11/03/2014	43-46	12.9	15.4	100	-	-	-	-	-	-	-	-	-	-	-	-	N
C-	natural	9/8/2014	64	5.4	5	93	10	4.8	6.8	5.7	2.00	NA	NA	16	7.3	8.8	8.1	7.27	BA
C-ST	stocked	9/30/2014	58	8.2	7.6	93	0	-	-	-	0.00	0.00	0.00	60	7.8	10.4	8.6	18.75	N
O-ST	remnant	8/27/2014	72	4.9	1.9	39	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	N
ST	stocked	9/15/2014	56	3.6	3.5	97	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
O-ST	remnant	9/5/2014	65	3.7	4.3	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	A
NR	natural	9/22/2014	58-60	14.5	14.9	100	544	3.6	7.1	5.1	36.51	NA	NA	48	7.3	10.2	9	7.27	N
NR	natural	9/18/2014	58	3.5	3.9	100	491	4	7	5.5	125.90	29.46	66.41	4	8.5	10	9.6	2.11	N
C-ST	stocked	9/21/2014	57	2.3	2.4	100	0	-	-	-	0.00	0.00	0.00	24	7.5	9.7	8.6	21.82	N
C-ST	stocked	9/30/2014	59	17.9	17.9	100	74	4.1	6.7	5.2	4.13	0.97	0.32	36	7.7	10.2	9.1	3.67	N
ST	stocked	9/11/2014	59	5.8	6.1	100	0	-	-	-	0.00	NA	NA	0	-	-	-	0.00	A
NONE	none	8/28/2014	71	1.6	2.2	100	0	-	-	-	0.00	0.00	0.00	0	-	-	-	0.00	N

Appendix G. Walleye Exploitation Rates.

G-1. Information on fin clipped fish in population (prior to creel) and those observed in angler creels used to estimate angler harvest and exploitation rates during the 2014-2015 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"
2014	2105100	Barron	Bear	1358	C-ST	18	LV	256	251	91	4	24	4	24	2	12
2014	2694000	Douglas	Whitefish(Bard	832	NR	15	LP	490	367	36	16	70	16	70	1	4
2014	2949200	Iron	Pine	312	NR	1>14	LV	726	95	5	27	122	5	23	0	0
2014	1613000	Oneida	Big	845	NR	1>14	LV	986	343	8	10	105	3	32	0	0
2014	1610X00	Oneida	Big Fork/Fourm	873	NR	1>14	LP	1,346	152	12	14	197	1	14	0	0
2014	1612200	Oneida	Big Stone	607	NR	1>14	Red Floy	442	77	13	7	90	0	0	0	0
2014	1611X00	Oneida	Laurel/Medicine	645	NR	1>14	RV	664	88	9	6	63	1	11	0	0
2014	1610600	Oneida	Little Fork	336	NR	1>14	RP	661	67	8	7	112	0	0	0	0
2014	1609000	Oneida	Long	604	NR	1>14	Blue Floy	1,015	260	8	12	79	2	13	0	0
2014	1609100	Oneida	Planting Groun	1010	NR	1>14	Yellow Floy	794	195	25	10	93	3	28	0	0
2014	1536300	Oneida	Squirrel	1317	NR	1>14	FT/LV	2,130	624	19	33	255	14	108	2	15
2014	1588200	Oneida	Two Sisters	719	C-NR	15	LV	747	713	171	10	54	10	54	6	32
2014	2620600	Polk	Balsam	2054	C-ST	15	LV	357	356	329	4	35	4	35	4	35
2014	1545600	Vilas	Big Arbor Vitae	1090	NR	1>14	LP	1,597	1,519	156	32	172	31	167	7	38
2014	2470000	Washburn	Horseshoe	194	ST	15	RV	14	14	14	0	0	0	0	0	0
2014	2710800	Washburn	Matthews	263	C-ST	15	RV	21	21	20	0	0	0	0	0	0

G-2. Estimated angler and tribal harvest and associated walleye exploitation rates for lakes surveyed during the 2014-2015 fishing season.

County	Lake	Acres	Adult PE	Angler Harvest	Tribal Harvest	Total Harvest	Angler Exploitation	Angler Exploitation ≥14”	Angler Exploitation ≥20”	Tribal Exploitation	Total Exploitation
Barron	Bear	1358	911	220	0	220	0.0938	0.0956	0.1319	0.0000	0.0938
Douglas	Whitefish(Barc	832	2512	1059	51	1110	0.1429	0.1907	0.1215	0.0203	0.1632
Iron	Pine	312	2064	664	0	664	0.1680	0.2378	0.0000	0.0000	0.1680
Oneida	Big	845	2213	598	263	861	0.1065	0.0918	0.0000	0.1188	0.2253
Oneida	Big Fork/Fourr	873	3999	1692	0	1692	0.1464	0.0926	0.0000	0.0000	0.1464
Oneida	Big Stone	607	1084	815	0	815	0.2036	0.0000	0.0000	0.0000	0.2036
Oneida	Laurel/Medicin	645	1822	584	0	584	0.0949	0.1250	0.0000	0.0000	0.0949
Oneida	Little Fork	336	2574	1028	0	1028	0.1694	0.0000	0.0000	0.0000	0.1694
Oneida	Long	604	2071	711	0	711	0.0778	0.0506	0.0000	0.0000	0.0778
Oneida	Planting Grour	1010	2553	866	7	873	0.1171	0.1431	0.0000	0.0027	0.1199
Oneida	Squirrel	1317	4920	1313	293	1606	0.1197	0.1734	0.8134	0.0596	0.1793
Oneida	Two Sisters	719	1989	204	154	358	0.0723	0.0757	0.1895	0.0774	0.1497
Polk	Balsam	2054	713	44	32	76	0.0980	0.0983	0.1064	0.0449	0.1429
Vilas	Big Arbor Vitae	1090	8253	964	367	1331	0.1077	0.1097	0.2412	0.0445	0.1522
Washburn	Horseshoe	194	27	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000
Washburn	Matthews	263	31	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000

Appendix H. Safe harvest of walleye and musky calculated for individual lakes within the Wisconsin Ceded Territory during 2014.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Ashland	Augustine L	2410400	166			Other	5
Ashland	Bear L	2403200	204	Other	77	Other	6
Ashland	Beaver Dam L	2916700	118			Other	4
Ashland	Beaver L	2935400	25			Other	2
Ashland	Cub L	1842600	31			Other	2
Ashland	Day L	2430300	641			Other	12
Ashland	E Twin L	2429000	110			Other	4
Ashland	English L	2914800	244	Other	32	Other	7
Ashland	Eureka L	2935600	39			Other	2
Ashland	Gordon L	2406500	142	1-2 Year Pe	43	Other	5
Ashland	L Galilee	2935500	213	Other	10	Other	6
Ashland	Meder L	2935300	135	Other	19		
Ashland	Mineral L	2916900	225	Other	84	Other	6
Ashland	Moquah L	2918200	50			Other	3
Ashland	Pelican L	2404800	46	Other	18	Other	2
Ashland	Potter L	2917200	29	Other	4		
Ashland	Spider L	2918600	103			Other	4
Ashland	Spillerberg L	2936200	75	Other	29	Other	3
Ashland	Tea L	2922700	50	Other	20		
Ashland	Torrey L	2406700	29			Other	2
Ashland	Upper Clam L	2429600	166	Other	22	Other	5
Ashland	Zielke L	2406900	21	Other	8		
Barron	Bass L	1832800	118	Other	7		
Barron	Bear L	2105100	1358	Other	28		
Barron	Beaver Dam L	2081200	1112	1-2 Year Pe	60		
Barron	Big Dummy L	1835100	111	Other	16		
Barron	Big Moon L	2079000	191	Other	26	Other	6
Barron	Butternut L	2105800	141	Other	7		
Barron	Duck L	2100300	100	1-2 Year Pe	57		
Barron	Echo L	2630200	161	Other	8		
Barron	Granite L	2100800	154	Other	58		
Barron	Hemlock L	2109800	357	Other	13		
Barron	Horseshoe L	2469800	115	1-2 Year Pe	20		
Barron	Horseshoe L	2630100	377	Other	14		
Barron	L Chetek	2094000	770	Other	92		
Barron	L Montanis	2103200	200	Other	27		
Barron	Little Sand L	2661600	101			Other	4
Barron	Loon L	2478600	94	Other	13		
Barron	Lower Devils L	1864000	162	Other	61		
Barron	Lower Turtle L	2079700	276	Other	36		
Barron	Lower Vermillion	2098200	208	Other	28		
Barron	Minnow L	1866600	26	Other	2		
Barron	Mud L	2094600	577	1-2 Year Pe	31		
Barron	Pokegama L	2094300	506	1-2 Year Pe	26		
Barron	Poskin L	2098000	150	Other	20		
Barron	Prairie L	2094100	1534	1-2 Year Pe	89		
Barron	Red Cedar L	2109600	1841	Other	641		
Barron	Rice L	2103900	939			Other	15
Barron	Sand L	2661100	322	1-2 Year Pe	6	Other	8
Barron	Scott L	2630700	81	Other	5		
Barron	Silver L	1881100	337	Other	125		
Barron	Spring L	1882800	60	Other	23		
Barron	Staples L	2631200	305	Other	39		
Barron	Tenmile L	2089500	376	Other	48		
Barron	Upper Devils L	2043500	86	Other	5		
Barron	Upper Turtle L	2079800	438	Other	55		
Bayfield	Armstrong L	2754600	48	Other	19		
Bayfield	Atkins L	2734000	176	Other	67		
Bayfield	Bellevue L	2755800	65	Other	4		
Bayfield	Bladder L	2756200	81	Other	31		
Bayfield	Bony L	2742500	191	1-2 Year Pe	60	Other	6
Bayfield	Buffalo L	1837700	179			Other	6

Bayfield	Buskey Bay	2903800	100	Other	0	Other	4
Bayfield	Camp One L	2965700	37	Other	15		
Bayfield	Chippewa L	2431300	274			Other	7
Bayfield	Cisco L	2899200	95	Other	13		
Bayfield	Cranberry L	2732800	58	Other	4		
Bayfield	Crystal L	2874700	94	Other	6		
Bayfield	Crystal L	2897300	111	1-2 Year Pe	7		
Bayfield	Deep L	2760100	125	Other	7		
Bayfield	Diamond L	2897100	341	1-2 Year Pe	18		
Bayfield	Drummond L	2899400	99	Other	14		
Bayfield	Eagle L	2902900	170			Other	5
Bayfield	Everett L	2761600	34	Other	3		
Bayfield	Finger L	2965500	76	Other	5		
Bayfield	Flynn L	2902800	29			Other	2
Bayfield	Ghost L	2423900	142			Other	5
Bayfield	Hammil L	2467900	83	Other	12		
Bayfield	Hart L	2903200	259	Other	0	Other	7
Bayfield	Hildur L	2902600	67			Other	3
Bayfield	Iron L	2877000	248	Other	11		
Bayfield	Jackson L	2734200	142	Other	7		
Bayfield	Kelly L	2472000	56	Other	4		
Bayfield	Kern L	2900500	91	Other	35		
Bayfield	L Millicent	2903700	183	Other	0	Other	6
Bayfield	L Owen	2900200	1323	1-2 Year Pe	164		
Bayfield	L Ruth	2765900	66	Other	5		
Bayfield	L Tahkodah	2473500	152	Other	8		
Bayfield	Little Siskiwit L	2882200	37	Other	15		
Bayfield	Long L	2767100	263	Other	34		
Bayfield	Marengo L	2921100	99	Other	38		
Bayfield	Mccarry L	2903400	32			Other	2
Bayfield	Middle Eau Claire	2742100	902	1-2 Year Pe	311	Other	15
Bayfield	Mill Pond L	2899700	62	Other	24		
Bayfield	Mullenhoff L	2876500	69	Other	5		
Bayfield	Muskellunge L	2903600	45	Other	4		
Bayfield	Namekagon L	2732600	3227	Other	1097	Other	31
Bayfield	Perch L	2770800	25	Other	10		
Bayfield	Pike L Treaty Cha	2902700	714	Other	258		
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	34		
Bayfield	Trapper L	2734500	84	Other	32		
Bayfield	Twin Bear L	2903100	172	Other	0	Other	5
Bayfield	Upper Eau Claire	2742700	996	Other	355	Other	16
Burnett	Benoit L	2678300	279			Other	7
Burnett	Big Mckenzie L	2706800	1185	1-2 Year Pe	70	Other	17
Burnett	Big Sand L	2676800	1400	Other	28		
Burnett	Big Trade L	2638700	304			Other	8
Burnett	Clam R Fl	2654500	359	Other	133		
Burnett	Danbury Fl	2674500	256			Other	7
Burnett	Des Moines L	2674200	229			Other	6
Burnett	Devils L	2461100	1001	1-2 Year Pe	50		
Burnett	Dunham L	2651800	243	Other	32		
Burnett	Elbow L	2463100	233	Other	10		
Burnett	Fish L	2464500	356	Other	13		
Burnett	Lipsett L	2678100	393	1-2 Year Pe	14		
Burnett	Little Mcgraw L	2477000	55	Other	8		
Burnett	Little Trade L	2639300	130			Other	5
Burnett	Little Yellow L	2674800	348	Other	129	Other	8
Burnett	Poquettes L	2491100	97	Other	14		
Burnett	Rice L	2677900	311			Other	8
Burnett	Rooney L	2493100	322	Other	41		
Burnett	Round L	2640100	204	Other	27		
Burnett	Sand L	2495100	962	Other	23		
Burnett	Twenty-Six L	2672500	230			Other	6

Burnett	Yellow L	2675200	2287	Other	789	Other	26
Chippewa	Axhandle L	2092500	84	Other	5		
Chippewa	Chippewa Falls Fl	2152600	282	Other	105		
Chippewa	Cornell Fl	2181400	577	Other	210	Other	11
Chippewa	Cornell L	2171000	194	Other	9		
Chippewa	Holcombe Fl	2184900	3890	Other	1311	Other	35
Chippewa	L Wissota	2152800	6300	Other	2078	Other	46
Chippewa	Long L	2351400	1052	1-2 Year Pe	350	Other	16
Chippewa	Old Abe L	2174700	1072	Other	381	Other	16
Chippewa	Otter L	2157000	661	Other	80		
Chippewa	Popple L	2173900	90	Other	13		
Chippewa	Round L	2169200	216	1-2 Year Pe	11	Other	6
Chippewa	Town Line L	2172600	48	Other	4		
Clark	Mead L	2143900	320	Other	21	Other	4
Douglas	Amnicon L	2858100	426	Other	157	Other	9
Douglas	Bass L	2451700	126	Other	48		
Douglas	Bear L	2857700	49	Other	19	Other	2
Douglas	Beauregard L	2452400	93	Other	36		
Douglas	Bond L	2693700	293	Other	109		
Douglas	Clear L	2457700	36	Other	14		
Douglas	Dowling L	2858300	154	Other	58	Other	5
Douglas	Hoodoo L	2763900	32	Other	3		
Douglas	L Minnesuing	2866200	432	Other	159		
Douglas	L Nebagamon	2865000	914	Other	327		
Douglas	Leader L	2693800	165	Other	63		
Douglas	Lower Eau Claire	2741600	802	Other	288	Other	14
Douglas	Lund L	2480300	75	Other	5		
Douglas	Lyman L	2856400	403	Other	51	Other	9
Douglas	Person L	2488600	172	Other	8		
Douglas	Peterson L	2488700	33	Other	3		
Douglas	Red L	2492100	258	Other	11		
Douglas	Round L	2493900	34	Other	3		
Douglas	Upper St Croix L	2747300	855	Other	101		
Douglas	Whitefish L	2694000	832	Other	299		
Douglas	Wilson L	2600800	27	Other	2		
Dunn	Tainter L	2068000	1752	Other	611		
Eau Claire	Altoona L	2128100	840	1-2 Year Pe	175	Other	7
Eau Claire	Dells Pond	2149900	739	Other	266	Other	13
Eau Claire	Halfmoon L	2125400	132	Other	18		
Eau Claire	L Eau Claire	2133200	860	1-2 Year Pe	413	Other	7
Florence	Bass L	652500	50	Other	4		
Florence	Emily L	651600	191	1-2 Year Pe	17		
Florence	Fay L	677100	282	1-2 Year Pe	31		
Florence	Fisher L	704200	54	Other	4		
Florence	Halsey L	679300	512	1-2 Year Pe	99		
Florence	Keyes L	672900	210	1-2 Year Pe	11		
Florence	Patten L	653700	255	Other	95		
Florence	Pine R Fl	651300	127	Other	48		
Florence	Sand L	591600	52	Other	4		
Florence	Sea Lion L	672300	125	1-2 Year Pe	4		
Forest	Arbutus L	181400	158	Other	21		
Forest	Birch L	555500	468	Other	171		
Forest	Butternut L	692400	1292	1-2 Year Pe	642		
Forest	Crane L	388500	337	Other	43		
Forest	Franklin L	692900	892	1-2 Year Pe	36		
Forest	Ground Hemlock L	395900	88	Other	12		
Forest	Howell L	691800	177	Other	67		
Forest	Jungle L	377900	177	1-2 Year Pe	89		
Forest	King L	501700	33	Other	13		
Forest	L Lucerne	396500	1026	Other	365		
Forest	L Metonga	394400	1991	1-2 Year Pe	1411		
Forest	Lily L	376900	213	1-2 Year Pe	179	Other	6
Forest	Pine L	406900	1670	Other	185		
Forest	Quartz L	591000	47			Other	2
Forest	Range Line L	478200	82	Other	12		
Forest	Riley L	557100	213			Other	6

Forest	Roberts L	378400	414	Other	52	Other	9
Forest	Silver L	555700	334	Other	13	Other	8
Forest	Stevens L	683000	297	Other	38		
Forest	Trump L	479300	172	Other	23		
Forest	Van Zile L	608400	81	1-2 Year Pe	18		
Forest	Wabikon L	556900	594			Other	11
Forest	Windfall L	373500	55			Other	3
Iron	Bearskull L	2265100	75	Other	11		
Iron	Big Pine L	2270700	632	Other	229	Other	12
Iron	Boot L	2297800	180	Other	9	Other	6
Iron	Catherine L	2309100	118	Other	7		
Iron	Cedar L	2309700	193	1-2 Year Pe	52	Other	6
Iron	Charnley L	1840400	71	Other	5		
Iron	Clear L	2303700	67	Other	5	Other	3
Iron	Echo L	2301800	220	Other	83	Other	6
Iron	Fisher L	2307300	410	Other	52	Other	9
Iron	French L	1849600	92	Other	13	Other	4
Iron	Gile Fl	2942300	3384	Other	1148	Other	32
Iron	Grand Portage L	2314100	144	Other	20	Other	5
Iron	Grant L	2312500	107	Other	6	Other	4
Iron	Hewitt L	2763300	78			Other	3
Iron	Island L	2945500	352	Other	130	Other	8
Iron	L Of The Falls	2298300	338	Other	43	Other	8
Iron	L Tahoe	2314000	37	Other	3	Other	2
Iron	Little Martha L	2314700	35	Other	3	Other	2
Iron	Long L	2303500	396	Other	50	Other	9
Iron	Lower Springstead	2267000	95	Other	37	Other	4
Iron	Martha L	2314300	146	Other	56		
Iron	Mcdermott L	2296500	84	1-2 Year Pe	13		
Iron	Mercer L	2313600	184	Other	25	Other	6
Iron	Moose L	2299300	269			1-2 Year Pe	13
Iron	Mud L	2316400	56	Other	22		
Iron	Muskie L	2266800	81	Other	31	Other	3
Iron	N Bass L	1868900	180	Other	9	Other	6
Iron	Owl L	2307600	129	Other	18	Other	5
Iron	Oxbow L	2302300	80	Other	31	Other	3
Iron	Pardee L	2308000	206	Other	78	Other	6
Iron	Pike L	2299900	165	Other	63	Other	5
Iron	Pine L	2949200	312	Other	116	Other	8
Iron	Plunkett L	2325200	48	Other	4		
Iron	Randall L	2318500	115	1-2 Year Pe	37	Other	4
Iron	Rice L	2300600	125	Other	48	Other	4
Iron	Sandy Beach L	2316100	111	Other	16		
Iron	Saxon Falls Fl	2941100	41	Other	16	Other	2
Iron	Second Black L	2298600	60	Other	23		
Iron	Spider L	2306300	352	1-2 Year Pe	68	Other	8
Iron	Stone L	2267200	82	Other	5	Other	3
Iron	Third Black L	2298800	68	Other	26		
Iron	Trude L	2295200	781	Other	281	Other	14
Iron	Turtle-Flambeau F	2294900	13545	Other	4307	Other	71
Iron	Upper Springstead	2267100	126	Other	48	Other	4
Iron	Virgin L	2304500	119			Other	4
Iron	Wilson L	2297000	162			Other	5
Langlade	Big Twin L	182200	60	Other	4		
Langlade	Deep Wood L	1445100	72			Other	3
Langlade	Duck L	981500	123	Other	7		
Langlade	Enterprise L	1579700	505	Other	185	Other	10
Langlade	Goto L	348700	28	Other	3		
Langlade	Greater Bass L	1445500	258			Other	7
Langlade	Jessie L	188700	35	Other	3		
Langlade	Lawrence L	997300	50	Other	4		
Langlade	Moccasin L	1005600	110	Other	15	Other	4
Langlade	Mueller L	194000	88	Other	12		
Langlade	Otter L	387200	83	Other	32		
Langlade	Pickerel L	388100	1256	Other	27		
Langlade	Rolling Stone L	389300	672	Other	19		

Langlade	Rose L	494200	112	Other	43		
Langlade	Sawyer L	198100	149	Other	57		
Langlade	Summit L	1445600	282	Other	11	Other	7
Langlade	Upper Post L	399200	757	Other	90		
Langlade	Water Power L	1445400	22			Other	1
Langlade	White L	365500	166	Other	8		
Lincoln	Alexander L	1494600	677	Other	245	Other	12
Lincoln	Bass L	969600	100	Other	6		
Lincoln	Clear L	1555400	272	Other	11		
Lincoln	Crystal L	979100	109	Other	6		
Lincoln	Deer L	1519600	156	Other	59	Other	5
Lincoln	Grandfather Fl	1502400	350	1-2 Year Pe	238		
Lincoln	Grandmother Fl	1503000	562	1-2 Year Pe	293		
Lincoln	Jersey City Fl	1516000	404	Other	149	Other	9
Lincoln	L Alice	1555900	1369	Other	482	Other	19
Lincoln	L Mohawksin	1515400	1910	Other	664	Other	23
Lincoln	L Nokomis	1516500	2433	Other	0	Other	27
Lincoln	Long L	1001000	132	Other	18		
Lincoln	Merrill Fl	1481100	164	Other	62		
Lincoln	Muskellunge L	1555500	167	Other	8		
Lincoln	Pesabic L	1481600	146	Other	20		
Lincoln	Pine L	1012100	134	Other	7	Other	5
Lincoln	Rice R Fl	1516400	920	Other	0	Other	15
Lincoln	Rice R Fl. Treaty	1516401	3764	1-2 Year Pe	1303		
Lincoln	Seven Island L	1490300	132	Other	18	Other	5
Lincoln	Silver L	1017400	82	Other	32		
Lincoln	Somo L	1547700	472	Other	59	Other	10
Lincoln	Spirit R Fl	1506800	1664	Other	581	Other	21
Lincoln	Squaw L	1564400	79			Other	3
Lincoln	Thompson L	1022200	30			Other	2
Lincoln	Tug L	1482400	151	Other	57	Other	5
Marathon	Big Eau Pleine Re	1427400	6830	Other	1796	Other	39
Marathon	L Wausau	1437500	1918	Other	67	Other	2
Marathon	Lost L	1407000	42	Other	3		
Marathon	Mayflower L	310500	98	Other	14		
Marathon	Mission L	1005400	107			Other	4
Marathon	Norrie L	310100	99	Other	6		
Marathon	Pike L	1406300	205	Other	27		
Marathon	Wausau Dam L	1469700	284	Other	9		
Marinette	Big Newton L	498800	68	Other	26		
Marinette	Caldron Falls Res	545400	1018	Other	24	Other	16
Marinette	Eagle L	500200	56	Other	4		
Marinette	High Falls Reserv	540600	1498	Other	526		
Marinette	Hilbert L	501200	247	Other	32		
Marinette	Johnson Falls Fl	533300	68	Other	26		
Marinette	Little Newton L	502300	60	Other	23		
Marinette	Oneonta L	503300	66	Other	5		
Marinette	Sandstone Fl	531300	153	Other	29		
Marinette	Thunder L	533600	127	Other	7		
Oconto	Archibald L	417400	393	Other	50	Other	9
Oconto	Bass L	417900	142	Other	54		
Oconto	Bear L	471200	78	Other	5		
Oconto	Boot L	418700	235	Other	88	Other	7
Oconto	Chain L	464700	81	Other	5		
Oconto	Crooked L	462000	143	Other	7		
Oconto	Horn L	467100	132	Other	7		
Oconto	John L	470600	104	Other	6		
Oconto	Maiden L	487500	290	Other	12		
Oconto	Munger L	470900	97	Other	6	Other	4
Oconto	Reservoir Pond	466700	417	Other	14		
Oconto	Townsend Fl	465000	476	Other	16		
Oconto	Waubee L	439500	124	Other	7		
Oconto	Wheeler L	439800	293	Other	109		
Oneida	Aldridge L	967400	134	Other	51		
Oneida	Alva L	968100	201	Other	76		
Oneida	Baker L	1546000	42	Other	17		

Oneida	Bass L	970000	74	Other	5		
Oneida	Bass L	1580300	124	Other	47	Other	4
Oneida	Bear L	1527800	312	Other	40		
Oneida	Bearskin L	1523600	400	1-2 Year Pe	456	Other	9
Oneida	Big Carr L	971600	213	Other	28	Other	6
Oneida	Big Fork L	1610700	690	Other	249	Other	13
Oneida	Big L	1613000	865	Other	310	Other	14
Oneida	Big Stone L	1612200	548	Other	200	Other	11
Oneida	Birch L	1523800	180	Other	68		
Oneida	Bird L	972000	99	Other	38		
Oneida	Blue L	1538600	456	Other	167		
Oneida	Bolger L	973000	119	Other	17		
Oneida	Boom L	1580200	437	Other	15	Other	10
Oneida	Booth L	1537800	207	Other	28	Other	6
Oneida	Bridge L	1516800	411	Other	0	Other	9
Oneida	Brown L	973700	98	Other	6		
Oneida	Buckskin L	2272600	634	Other	161	Other	8
Oneida	Buffalo L	974200	104	Other	40		
Oneida	Burrows L	975000	156	Other	8	Other	5
Oneida	Carrol L	1544800	352	Other	45	Other	8
Oneida	Chain L	1598000	219	Other	82	Other	6
Oneida	Clear L	977100	36	Other	3		
Oneida	Clear L	977200	30	Other	12	Other	2
Oneida	Clear L	977400	62	Other	24	Other	3
Oneida	Clear L	977500	846	1-2 Year Pe	219	Other	14
Oneida	Clear L	2272555	212	Other	78	Other	6
Oneida	Clearwater L	1616400	351	Other	130	Other	8
Oneida	Columbus L	1616900	670	Other	242		
Oneida	Crescent L	1564200	612	Other	222	Other	12
Oneida	Crooked L	1613300	176	Other	9		
Oneida	Cunard L	1590000	43	Other	17		
Oneida	Currie L	979300	96	Other	37		
Oneida	Dam L	1596900	744	1-2 Year Pe	178	Other	13
Oneida	Deer L	1612300	177	Other	67	Other	5
Oneida	Diamond L	1537100	124	Other	47	Other	4
Oneida	Dog L	1590200	37	Other	3		
Oneida	Dog L	1612900	216	Other	81	Other	6
Oneida	E Horsehead L	1523000	184	Other	69	Other	6
Oneida	Echo L	1597800	107	Other	41	Other	4
Oneida	Fifth L	1571100	240	Other	90	Other	7
Oneida	Fish L	1570600	70	Other	27	Other	3
Oneida	Fourmile L	1610800	218	Other	82	Other	6
Oneida	Fourth L	1572000	258	Other	96	Other	7
Oneida	Franklin L	986000	161	Other	22	Other	5
Oneida	Fuller L	2272000	101	Other	6		
Oneida	Garth L	986600	114	Other	44		
Oneida	George L	1569600	435	Other	160	Other	10
Oneida	Gilmore L	1589300	320	Other	41	Other	8
Oneida	Hancock L	1517900	259	Other	11	Other	7
Oneida	Hasbrook L	1589100	302	Other	112	Other	8
Oneida	Hat Rapids Fl	1567325	650	Other	235		
Oneida	Hemlock L	989200	39	Other	15		
Oneida	Hill L	990200	30	Other	3		
Oneida	Hixon L	1568900	50	Other	4		
Oneida	Hodstradt L	990700	126	Other	7		
Oneida	Indian L	1598900	397	Other	146		
Oneida	Island L	1610500	295	Other	110	Other	8
Oneida	Jennie Webber L	1574300	226	Other	30		
Oneida	Julia L (Three La	1614300	401	Other	148	Other	9
Oneida	Kate Pier L	1586300	34	Other	13		
Oneida	Kathan L	1598300	189	Other	71		
Oneida	Katherine L	1543300	590	Other	214	Other	11
Oneida	Kawaguesaga L	1542300	670	Other	242	Other	12
Oneida	Killarney L	1520900	421	Other	14		
Oneida	L Creek	1580500	172	Other	65	Other	5
Oneida	L Julia (Rhinelan	995000	238	1-2 Year Pe	50	Other	7

Oneida	L Seventeen	996100	172	Other	23		
Oneida	L Thompson	1569900	382	Other	48	Other	9
Oneida	Laurel L	1611800	232	Other	87	Other	6
Oneida	Little Bearskin L	1523500	164	Other	8		
Oneida	Little Carr L	998800	52	Other	4		
Oneida	Little Fork L	1610600	354	Other	131	Other	8
Oneida	Little Tomahawk L	1543900	160	Other	0	Other	5
Oneida	Lone Stone L	1605600	172	Other	8	Other	5
Oneida	Long L	1001300	113	Other	43	Other	4
Oneida	Long L	1609000	620	Other	225	Other	12
Oneida	Long L	1618300	56	Other	22	Other	3
Oneida	Lost L	1575100	155	Other	59		
Oneida	Lower Kaubashine	1534800	187	Other	25	Other	6
Oneida	Lumen L	1002800	49	Other	19		
Oneida	Madeline L	1544700	159			Other	5
Oneida	Manson L	1517200	236	Other	88	Other	7
Oneida	Maple L	1609900	144	Other	8		
Oneida	Margaret L	1615900	88	Other	34		
Oneida	Mars L	1577100	41	Other	16		
Oneida	Mccormick L	1526600	118	Other	16		
Oneida	Medicine L	1611700	372	Other	137	Other	9
Oneida	Mercer L	1538900	257	Other	96	Other	7
Oneida	Mid L	1542600	215	Other	10	Other	6
Oneida	Mildred L	1004600	191	Other	9		
Oneida	Minocqua L	1542400	1360	Other	479	Other	19
Oneida	Moccasin L	1612100	95	Other	37	Other	4
Oneida	Moen L	1573800	460	Other	57	Other	10
Oneida	Mud L	1544000	41	Other	16		
Oneida	Mud L	1612500	124	Other	7	Other	4
Oneida	Muskellunge L	1595600	284	Other	106	Other	7
Oneida	Muskie L	1524300	43	Other	3		
Oneida	N Nokomis L	1595800	476	Other	59	Other	10
Oneida	N Two L	1007500	146	Other	56		
Oneida	Nose L	1008200	40	Other	3		
Oneida	Oatmeal L	1597300	97	Other	6		
Oneida	Oneida L	1518200	255	Other	95	Other	7
Oneida	Paradise L	1009400	89	Other	13		
Oneida	Pelican L	1579900	3585	Other	1213	Other	33
Oneida	Pickerel L	1590400	736	Other	20	Other	13
Oneida	Pier L	1529700	257	Other	34		
Oneida	Pine L	1012200	203	Other	76		
Oneida	Pine L	1581700	240	Other	90	Other	7
Oneida	Planting Ground L	1609100	1012	Other	361	Other	16
Oneida	Prairie L	1013000	58	Other	23		
Oneida	Rainbow Fl	1595300	2035	1-2 Year Pe	782	Other	24
Oneida	Range Line L	1610300	123	Other	47	Other	4
Oneida	Rhinelander Fl	1580100	1326	Other	468	Other	19
Oneida	Rocky Run Fl	1525500	96	Other	37		
Oneida	Round L	1610400	150	Other	57	Other	5
Oneida	S Blue L	1015100	80	Other	5		
Oneida	S Pine L	1580700	77	Other	30		
Oneida	S Two L	1015500	214	Other	80		
Oneida	Sand L	1597000	540	1-2 Year Pe	84	Other	11
Oneida	Second L	1572300	111	Other	43	Other	4
Oneida	Sevenmile L	1605800	503	Other	62	Other	10
Oneida	Shepard L	1576100	179	Other	9	Other	6
Oneida	Shishebogama L	1539600	716	Other	43	Other	6
Oneida	Skunk L	1533200	130	Other	50		
Oneida	Soo L	1018900	135	Other	51	Other	5
Oneida	Spider L	1586600	118	1-2 Year Pe	70	Other	4
Oneida	Spirit L	1612000	368	Other	136	Other	9
Oneida	Squash L	1019500	396	Other	146		
Oneida	Squirrel L	1536300	1317	1-2 Year Pe	489	Other	18
Oneida	Stella L	1575700	405	Other	14	Other	9
Oneida	Stone L	1597600	188			Other	6
Oneida	Stone L	2272700	248	Other	93		

Oneida	Sunday L	1020600	88	Other	5		
Oneida	Sunset L	1572500	33	Other	13	Other	2
Oneida	Swamp L	1522400	296	Other	12		
Oneida	Swamsauger L	1528700	141	Other	54		
Oneida	Sweeney L	1589600	187	Other	71	Other	6
Oneida	Tamarack L	1582200	99	Other	38		
Oneida	Third L	1572200	103	Other	40	Other	4
Oneida	Thunder L	1580400	172	Other	65	Other	5
Oneida	Thunder L	1618100	1768	Other	195		
Oneida	Tim Lynn L	1597400	84	Other	32		
Oneida	Tom Doyle L	1586800	102	Other	14	Other	4
Oneida	Tomahawk L	1542700	3392	Other	0	Other	32
Oneida	Townline L	1609600	152	Other	58	Other	5
Oneida	Turtle L	1587400	53	Other	4		
Oneida	Two Sisters L	1588200	719	Other	259	Other	13
Oneida	Tomahawk Treaty C	1542701	3552	Other	366		
Oneida	Upper Kaubashine	1535000	190	Other	72	Other	6
Oneida	Venus L	1577000	65	Other	25		
Oneida	Virgin L	1614100	276	Other	103	Other	7
Oneida	W Horsehead L	1522900	145	Other	8	Other	5
Oneida	Walters L	1582800	61	Other	24		
Oneida	Whitefish L	1613500	205	Other	9	Other	6
Oneida	Wildwood L	1178600	28	Other	4		
Oneida	Willow Fl	1528300	5135	Other	1710	Other	41
Oneida	Willow L	1529500	395	Other	14	Other	9
Polk	Antler L	2449400	101	Other	6		
Polk	Apple R Fl	2624200	639			Other	12
Polk	Balsam L	2620600	2054	Other	224		
Polk	Bear L	2452200	155	Other	59		
Polk	Bear Trap L	2618100	241	Other	10		
Polk	Big Butternut L	2641000	378	Other	48		
Polk	Big L	2615900	259	Other	11		
Polk	Big Round L	2627400	1015	1-2 Year Pe	126		
Polk	Bone L	2628100	1781			Other	22
Polk	Church Pine L	2616100	107	Other	6		
Polk	Clear L	2623500	30	Other	3		
Polk	Deer L	2619400	807			Other	14
Polk	Half Moon L	2621100	579	1-2 Year Pe	31		
Polk	Indianhead Fl	2634400	776	Other	279		
Polk	Little Butternut	2640700	189	Other	25		
Polk	Magnor L	2624600	231	Other	31		
Polk	N Pipe L	2485700	58	Other	23		
Polk	N Twin L	2623900	135	Other	7		
Polk	Pike L	2624000	159	Other	8		
Polk	Pipe L	2490500	284	Other	37		
Polk	Sand L	2495000	187	Other	9		
Polk	Wapogasset L	2618000	1186	Other	136	Other	17
Polk	Ward L	2599400	91	Other	13		
Polk	Wind L	2616000	38	Other	3		
Portage	Tree L	289400	74	Other	5		
Price	Amik L	2268600	224			Other	6
Price	Bass L	2279800	84	Other	5		
Price	Bass L	2282200	58	Other	23	Other	3
Price	Big Dardis L	2244200	144	Other	20	Other	5
Price	Butternut L	2283300	1006	Other	359	Other	16
Price	Cochram L	2264000	111	Other	6		
Price	Crane + Chase L	2237500	86	Other	33	Other	4
Price	Crowley Fl	2287200	422	Other	14	Other	9
Price	Deer L	2239100	145			Other	5
Price	Duroy L	2240100	379	Other	140	Other	9
Price	Elk L	2240000	88	Other	34	Other	4
Price	Grassy L	2238100	81	Other	31	Other	3
Price	Island L	2260900	29	Other	3		
Price	Lac Sault Dore	2236800	561	Other	204	Other	11
Price	Long L	2239300	418	Other	154	Other	9
Price	Long L	2282000	241	Other	90	Other	7

Price	Lower Park Falls	2290100	71	Other	28	Other	3
Price	Miles L	2271100	32			Other	2
Price	Musser L	2245100	563	Other	69	Other	11
Price	N Spirit L	1515200	213	Other	28	Other	6
Price	Patterson L	1872500	70	Other	5		
Price	Pike L	2268300	806	1-2 Year Pe	146	Other	14
Price	Pixley Fl	2288900	334	Other	124	Other	8
Price	Round L	2267800	726	1-2 Year Pe	189	Other	13
Price	Schnur L	2284000	158	Other	60	Other	5
Price	Solberg L	2242500	859	Other	308	Other	14
Price	Spirit L	1513000	126	Other	7	Other	4
Price	Stone L	1513800	79	Other	5		
Price	Thompson L	2265900	111	Other	6	Other	4
Price	Turner L	2268500	149	Other	57	Other	5
Price	Upper Park Falls	2290500	431			Other	9
Price	Upper Price L	2235300	43			Other	2
Price	Whitcomb L	2266100	44	Other	7	Other	2
Price	Wilson L	2239400	351	Other	130	Other	8
Price	Worcester L	2210900	100	Other	38		
Rusk	Amacoy L	2359700	278	Other	36	Other	7
Rusk	Audie L	2368700	128			Other	5
Rusk	Bass L	2090900	88	Other	5		
Rusk	Big Falls Fl	2230100	369	Other	136	Other	9
Rusk	Chain L	2350500	468	1-2 Year Pe	40	Other	10
Rusk	Clear L	2350600	95	Other	13	Other	4
Rusk	Dairyland Reservo	2229200	1745	Other	609	Other	22
Rusk	Fireside Lakes	2349500	302	Other	112		
Rusk	Island L	2350200	526	Other	65	Other	11
Rusk	Ladysmith Fl	2228700	288	Other	107	Other	7
Rusk	Mccann L	2350400	133	Other	18	Other	5
Rusk	Perch L	2368500	23			Other	2
Rusk	Potato L	2355300	534	Other	66	Other	11
Rusk	Pulaski L	1875900	126	1-2 Year Pe	55		
Rusk	Sand L	2353600	262	Other	98	Other	7
Rusk	Thornapple Fl	2227500	268	Other	100	Other	7
St. Croix	Cedar L	2615100	1100	1-2 Year Pe	541	Other	17
Sawyer	Barber L	2382300	238	Other	31	Other	7
Sawyer	Barker L	2400000	238	Other	89	Other	7
Sawyer	Bennett L	1834800	37	Other	3		
Sawyer	Beverly L	2387200	9			Other	1
Sawyer	Black Dan L	2381900	128	Other	7	Other	5
Sawyer	Black L	2401300	129	Other	7	Other	5
Sawyer	Blaisdell L	2402200	356	Other	13	Other	8
Sawyer	Boos L	2425000	37	Other	15	Other	2
Sawyer	Burns L	2436400	37	Other	3	Other	2
Sawyer	Callahan L	2434700	106			Other	4
Sawyer	Clear L	1841300	77			Other	3
Sawyer	Connors L	2275100	429	1-2 Year Pe	156	Other	9
Sawyer	Durphee L	2396800	193	1-2 Year Pe	29		
Sawyer	Evergreen L	2277600	200	Other	75	Other	6
Sawyer	Fawn L	2435900	23	Other	2	1-2 Year Pe	1
Sawyer	Fishtrap L	2401100	216			Other	6
Sawyer	Ghost L	2423000	372	Other	47	Other	9
Sawyer	Grimh Fl	2385100	86			Other	4
Sawyer	Grindstone L	2391200	3111	1-2 Year Pe	251	Other	15
Sawyer	Ham L	1852300	100	Other	38		
Sawyer	Hayward L	2725500	247	Other	32	Other	7
Sawyer	Holmes L	2419600	62			Other	3
Sawyer	Hunter L	2400600	126	Other	48	Other	4
Sawyer	Island L	2381800	67	Other	5	Other	3
Sawyer	L Chetac	2113300	1920	Other	667		
Sawyer	L Chippewa	2399700	15300	Other	3215	Other	51
Sawyer	L Of The Pines	2275300	273	Other	102	Other	7
Sawyer	L Placid	2436500	160	Other	22	Other	5
Sawyer	L Winter	2381100	676	Other	19	Other	12
Sawyer	Lac Courte Oreill	2390800	5039	Other	1097	Other	26

Sawyer	Lewis L	1860200	52	Other	4		
Sawyer	Little Round L	2395500	229	Other	8		
Sawyer	Little Sissabagam	2394100	299			Other	8
Sawyer	Loretta L	2382700	126			Other	4
Sawyer	Lost Land L	2418600	1304	Other	148	Other	18
Sawyer	Lovejoy L	2395900	76	Other	29		
Sawyer	Lower Clam L	2429300	203	1-2 Year Pe	20	Other	6
Sawyer	Mason L	2277200	190	Other	72	Other	6
Sawyer	Meadow L	2424800	39	Other	15	Other	2
Sawyer	Mirror L	1866900	38	Other	3		
Sawyer	Moose L	2420600	1670	Other	583	Other	21
Sawyer	Mud L	2434800	480	Other	16	Other	10
Sawyer	Nelson L	2704200	2503	Other	267		
Sawyer	North L	2436000	129	Other	7	Other	5
Sawyer	Partridge Crop L	2424600	45	Other	18	Other	2
Sawyer	Perch L	1873600	129	Other	18	Other	5
Sawyer	Radisson Fl	2397400	255	Other	95	Other	7
Sawyer	Round L	2395600	3054	Other	1040	Other	30
Sawyer	Sand L	2393200	928	1-2 Year Pe	907	Other	15
Sawyer	Sissabagama L	2393500	719	Other	259	Other	13
Sawyer	Smith L	2726100	323	Other	12		
Sawyer	Spider L	2435700	1454	Other	164	1-2 Year Pe	86
Sawyer	Spring L	2724900	220	Other	9		
Sawyer	Squaw L	2395100	208	Other	14		
Sawyer	Teal L	2417000	1049	Other	373	Other	16
Sawyer	Teal R Fl	2416900	75	Other	29	Other	3
Sawyer	Tiger Cat Fl	2435000	819	Other	97	Other	14
Sawyer	Whitefish L	2392000	786	Other	94	Other	14
Sawyer	Windfall L	2046500	102	Other	39		
Sawyer	Windigo L	2046600	522	Other	191		
Taylor	Anderson L	2165700	43	Other	3		
Taylor	Chelsea L	2200400	59	Other	4		
Taylor	Chequamegon Water	2160700	2714	Other	40		
Taylor	Diamond L	1757200	49	Other	19		
Taylor	Esadore L	1764000	46	Other	4		
Taylor	Hulls L	1762700	67	Other	5		
Taylor	James L	1468900	50	Other	4		
Taylor	Kathryn L	2166100	62	1-2 Year Pe	7		
Taylor	Mondeaux Fl	2193300	416	Other	14	Other	9
Taylor	N Harper L	2204000	54	Other	21	Other	3
Taylor	Rib L	1469100	320	Other	119	Other	8
Taylor	Richter L	1760000	45	Other	4		
Taylor	S Harper L	2204100	80	Other	11		
Taylor	Sackett L	1764500	63	Other	9		
Taylor	Shearer L	2197600	21	Other	2		
Taylor	Wellington L	1467800	43	Other	3		
Vilas	Alder L	2329600	274	Other	102	Other	7
Vilas	Allequash L	2332400	426	Other	54	Other	9
Vilas	Alma L	967900	55	Other	8	Other	3
Vilas	Annabelle L	2953800	213	1-2 Year Pe	183	Other	6
Vilas	Anvil L	968800	398	Other	147		
Vilas	Apeekwa L	2269400	188	Other	71	Other	6
Vilas	Armour L	2953200	320	Other	119	Other	8
Vilas	Arrowhead L	1541500	99	Other	14	Other	4
Vilas	Averill L	2956700	71	Other	0	Other	3
Vilas	Ballard L	2340700	505	Other	185	Other	10
Vilas	Bass L	1604200	266	Other	11	Other	7
Vilas	Bear L	2335400	76	Other	5	Other	3
Vilas	Beaver L	2960600	68	Other	5		
Vilas	Belle L	2955700	53	Other	21	Other	3
Vilas	Benson L	2327100	28	Other	11	Other	2
Vilas	Big Arbor Vitae L	1545600	1090	Other	387	Other	17
Vilas	Big Crooked L	2338800	682	Other	247	Other	12
Vilas	Big Donahue L	971700	92	Other	6		
Vilas	Big Gibson L	1835200	116	Other	44	Other	4

Vilas	Big Hurst L	2756000	48	Other	4		
Vilas	Big Kitten L	2336700	55	Other	4	Other	3
Vilas	Big L (Boulder Jc	2334700	835	1-2 Year Pe	420	Other	14
Vilas	Big L (Mi Border)	2963800	771	Other	220	Other	11
Vilas	Big Muskellunge L	1835300	930	1-2 Year Pe	774	Other	15
Vilas	Big Portage L	1629500	638	1-2 Year Pe	272		
Vilas	Big Sand L	1602600	1418	1-2 Year Pe	110	1-2 Year Pe	16
Vilas	Big St Germain L	1591100	1617	Other	566	Other	21
Vilas	Bills L	1835500	37			Other	0
Vilas	Birch L	2311100	528	Other	193	Other	11
Vilas	Black Oak L	1630100	584	Other	71		
Vilas	Boot L	1619100	284	Other	11	Other	7
Vilas	Boot L	2756400	29	Other	3	Other	2
Vilas	Boulder L	2338300	524	1-2 Year Pe	291	Other	11
Vilas	Brandy L	1541300	110	Other	6	Other	4
Vilas	Carpenter L	976100	333	Other	13		
Vilas	Catfish L	1603700	1012	1-2 Year Pe	729	Other	16
Vilas	Circle Lily L	2326700	223	Other	30	Other	6
Vilas	Clear L	2329000	555	Other	202	Other	11
Vilas	Cleveland L	2758600	32	Other	3		
Vilas	Cochran L	2963500	126	Other	7	Other	4
Vilas	Crab L	2953500	949	1-2 Year Pe	203	Other	15
Vilas	Crampton L	2759000	59	Other	4		
Vilas	Cranberry L	1603800	956	1-2 Year Pe	842	Other	15
Vilas	Crystal L	1842400	88	Other	5		
Vilas	Dead Pike L	2316600	297	Other	38	Other	8
Vilas	Deer L	980600	65	Other	4		
Vilas	Deer L	2311500	37	Other	3		
Vilas	Deerskin L	1601300	309	Other	40	Other	8
Vilas	Diamond L	1844700	122	Other	7	Other	4
Vilas	Dorothy Dunn L	1845600	70	Other	5	Other	3
Vilas	Duck L	1599900	108	Other	41	Other	4
Vilas	E Ellerson L	2331300	136	Other	52	Other	5
Vilas	E Witches L	982500	34	Other	3		
Vilas	Eagle L	1600200	572	1-2 Year Pe	304	Other	11
Vilas	Eleanore L	1631500	28	Other	11	Other	2
Vilas	Erickson L	983600	106	Other	15		
Vilas	Escanaba L	2339900	293	1-2 Year Pe	339	Other	7
Vilas	Fawn L	1591000	22	Other	9	Other	1
Vilas	Fawn L	2328900	74	Other	29	Other	3
Vilas	Finger L	984700	90	Other	6		
Vilas	Fishtrap L	2343200	329	Other	122	Other	8
Vilas	Forest L	2762200	466	1-2 Year Pe	217		
Vilas	Found L	1593800	326	Other	42	Other	8
Vilas	Frank L	985900	141	Other	7		
Vilas	Harmony L	988300	88	Other	5		
Vilas	Harris L	2958500	507	1-2 Year Pe	870	Other	10
Vilas	Helen L	2964400	111	Other	43	Other	4
Vilas	Hiawatha L	2328400	36	Other	3		
Vilas	High L	2344000	734	Other	265	Other	13
Vilas	Horsehead L	2953100	234	Other	88	Other	7
Vilas	Hunter L	991700	184	Other	25		
Vilas	Imogene L	586800	66	Other	5		
Vilas	Indian L	2764400	68			Other	3
Vilas	Irving L	2340900	403	Other	14	Other	9
Vilas	Island L	2334400	1023	Other	364	Other	16
Vilas	Jag L	1855900	158	Other	60	Other	5
Vilas	Jenny L	1856400	59	Other	23		
Vilas	Johnson L	1541100	78	Other	5	Other	3
Vilas	Jute L	1857400	194			Other	6
Vilas	Katinka L	2957000	172	Other	65		
Vilas	Kentuck L	716800	957	1-2 Year Pe	182	Other	15
Vilas	Kenu L	1629800	73	Other	5		
Vilas	Kildare L	1631700	54	Other	4	Other	3
Vilas	L Content	1592000	244	Other	91	Other	7
Vilas	L Laura	995200	599	Other	218	Other	12

Vilas	Lac Des Fleurs	1630900	49	Other	4		
Vilas	Lac Vieux Desert	1631900	4300	1-2 Year Pe	371	Other	24
Vilas	Little Arbor Vita	1545300	534	1-2 Year Pe	108	Other	11
Vilas	Little Crooked L	2335500	153	Other	8	Other	5
Vilas	Little Horsehead	2953000	52	Other	20		
Vilas	Little John L	2332300	166	Other	63	Other	5
Vilas	Little Papoose L	2328200	46	Other	4	Other	2
Vilas	Little Portage L	1629200	170	Other	64	Other	5
Vilas	Little Presque Is	2959700	85			Other	3
Vilas	Little Rice L	2338900	59	Other	4	Other	3
Vilas	Little Spider L	1540400	235	Other	31	Other	7
Vilas	Little St Germain	1596300	980	Other	114	Other	15
Vilas	Little Star L	2334300	244	Other	91	Other	7
Vilas	Little Trout L	2321600	978	Other	105	Other	5
Vilas	Lone Pine L	2961600	142	Other	7	Other	5
Vilas	Long L	1602300	872	1-2 Year Pe	748	Other	14
Vilas	Loon L	1001600	31	Other	3		
Vilas	Lost Canoe L	2339800	249	Other	93		
Vilas	Lost L	1593400	544	Other	67	Other	11
Vilas	Lower Aimer L	2955000	34	Other	3		
Vilas	Lower Buckatabon	1621000	352	Other	13	Other	8
Vilas	Lower Gresham L	2330300	149			Other	5
Vilas	Lynx L	1600000	22	1-2 Year Pe	12	Other	1
Vilas	Lynx L	2954500	339	Other	126	Other	8
Vilas	Mamie L	2964100	400	Other	142	Other	9
Vilas	Manitowish L	2329400	506	Other	185	Other	10
Vilas	Mann L	2332000	261	Other	11		
Vilas	Marshall L	1626600	87	Other	5	Other	4
Vilas	Mccullough L	2960400	216	Other	10	Other	6
Vilas	Mermaid L	2768100	60	Other	4		
Vilas	Meta L	1004400	175	Other	9		
Vilas	Middle Ellerson L	1866100	60			Other	1
Vilas	Middle Gresham L	2330700	53	Other	4	Other	3
Vilas	Moccasin L	1005700	83	Other	5	Other	3
Vilas	Moon L	1005800	131	Other	18	Other	5
Vilas	Morton L	2960300	163	Other	8	Other	5
Vilas	Murphy L	2769700	81	Other	5	Other	3
Vilas	Muskellunge L	1596600	272	Other	35	Other	7
Vilas	N Crab L	2953400	56	Other	22	Other	3
Vilas	N Turtle L	2310400	369	Other	136	Other	9
Vilas	N Twin L	1623800	2788	Other	0	Other	29
Vilas	Nelson L	1007600	104	Other	6	Other	4
Vilas	Nelson L	1869900	27			Other	2
Vilas	Nixon L	2341200	110	Other	6	Other	4
Vilas	No Mans L	2312100	225	Other	84	Other	6
Vilas	Norwood L	1008100	125	Other	12		
Vilas	Oswego L	1871800	66			Other	3
Vilas	Otter L	1600100	196	1-2 Year Pe	112	Other	6
Vilas	Oxbow L	2954800	511	Other	187	Other	10
Vilas	Pallette L	1872100	173			Other	5
Vilas	Palmer L	2962900	635	Other	77	Other	12
Vilas	Papoose L	2328700	428	1-2 Year Pe	119	1-2 Year Pe	12
Vilas	Partridge L	2341500	228	Other	10	Other	6
Vilas	Pickerel L	1619700	293	Other	38	Other	7
Vilas	Pine Island L	1011900	79	Other	5	Other	3
Vilas	Pioneer L	1623400	427	Other	54	Other	9
Vilas	Plum L	1592400	1033	1-2 Year Pe	367	1-2 Year Pe	4
Vilas	Plum L	2963200	225	1-2 Year Pe	14		
Vilas	Presque Isle L	2956500	1280	Other	0	1-2 Year Pe	15
Vilas	Presque Is. Treat	2956501	1571	1-2 Year Pe	240		
Vilas	Rainbow L	2310800	146	Other	56	Other	5
Vilas	Razorback L	1013800	362	Other	134	Other	9
Vilas	Rest L	2327500	608	Other	221	Other	12
Vilas	Rice L	1618600	71	Other	28	Other	3
Vilas	Roach L	1014000	51	Other	20	Other	3
Vilas	Roach L	2772500	125	Other	2		

Vilas	Rock L	2311700	122	Other	47	Other	4
Vilas	Rosalind L	1877900	43			Other	2
Vilas	Round L	2334900	116	Other	7	Other	4
Vilas	Rudolph L	2954300	79			Other	3
Vilas	Rush L	2343600	44	Other	17	Other	2
Vilas	S Turtle L	2310200	454	Other	167	Other	10
Vilas	S Twin L	1623700	642	Other	0	Other	12
Vilas	Sanford L	2335300	88	Other	34	Other	4
Vilas	Scattering Rice L	1600300	267	Other	100	Other	7
Vilas	Sherman L	1880700	123	1-2 Year Pe	91	Other	4
Vilas	Smoky L	1018300	610			Other	0
Vilas	Snipe L	1018500	239	1-2 Year Pe	115	Other	7
Vilas	Sparkling L	1881900	154	1-2 Year Pe	33	Other	5
Vilas	Spectacle L	717400	171	Other	8		
Vilas	Spider L	2329300	272	Other	101	Other	7
Vilas	Spring L	2964800	205	Other	77		
Vilas	Squaw L	2271600	785	1-2 Year Pe	344	Other	14
Vilas	Star L	1593100	1206	Other	427	Other	18
Vilas	Stateline L	2952100	199	Other	3		
Vilas	Stewart L	1020000	39	Other	15		
Vilas	Stone L	2328800	139	Other	53	Other	5
Vilas	Sturgeon L	2327200	32	Other	13	Other	2
Vilas	Sumach L	1020500	60	Other	4	Other	3
Vilas	Sunset L	1020900	185	Other	9	Other	6
Vilas	Tenderfoot L	2962400	437	Other	141	Other	8
Vilas	Towanda L	1022900	146	Other	20	Other	5
Vilas	Trout L	2331600	3816	1-2 Year Pe	1437	Other	34
Vilas	Twin Island L	2959300	205			Other	6
Vilas	Twin L Treaty Cha	1623801	3430	1-2 Year Pe	1929		
Vilas	Upper Aimer L	2955100	33	Other	3		
Vilas	Upper Buckatabon	1621800	494	Other	16	Other	10
Vilas	Upper Gresham L	2330800	366	Other	47	Other	9
Vilas	Van Vliet L	2956800	220	Other	0	1-2 Year Pe	20
Vilas	Vance L	2327300	30	Other	12	Other	2
Vilas	Verna L	1540300	77			Other	3
Vilas	Voyageur L	1603400	130	Other	50	Other	5
Vilas	W Bay L	2964000	368	Other	64	Other	4
Vilas	W Plum L	1592500	75	Other	29	Other	3
Vilas	W Witches L	1177500	30	Other	3		
Vilas	Watersmeet L	1599400	100	Other	38	Other	4
Vilas	White Birch L	2340500	112	Other	43	Other	4
Vilas	White Sand L	2339100	734	Other	88	Other	13
Vilas	Wild Rice L	2329800	379	Other	112	Other	7
Vilas	Wildcat L	2336800	305	Other	39	Other	8
Vilas	Wolf L	2336100	393	Other	145	Other	9
Vilas	Yellow Birch L	1599600	202	1-2 Year Pe	192	Other	6
Washburn	Balsam L	2112800	295	Other	110		
Washburn	Bass L	1833300	130	Other	50		
Washburn	Bass L	2451300	144	Other	20		
Washburn	Bass L	2451900	188	1-2 Year Pe	182	Other	6
Washburn	Bean L	2718500	100	Other	6		
Washburn	Beartrack North L	2452399	33	Other	13		
Washburn	Beartrack South L	2452300	65	Other	25		
Washburn	Big Bass L	2453300	203	Other	27		
Washburn	Birch L	2113000	368	Other	47		
Washburn	Cable L	2456100	185	Other	25		
Washburn	Chippanazie L	2722800	58	Other	23		
Washburn	Colton Fl	2702100	58	Other	23		
Washburn	Deep L	1844000	43	Other	17		
Washburn	Dunn L	2709800	193	Other	73		
Washburn	Gilmore L	2695800	389	Other	14		
Washburn	Horseshoe L	2470000	194	Other	26		
Washburn	Island L	2470600	276	Other	36		
Washburn	L Nancy	2691500	772	Other	92	Other	13
Washburn	Leach L	2474400	30	Other	12		
Washburn	Leisure L	2475000	75			Other	3

Washburn	Little Long L	2664500	112	Other	6		
Washburn	Little Mud L	2107100	71	Other	28		
Washburn	Little Sand L	2477700	74	Other	11		
Washburn	Little Stone L	1862400	27	Other	2		
Washburn	Long L	2106800	3290	1-2 Year Pe	667		
Washburn	Matthews L	2710800	263	Other	34	Other	7
Washburn	Mclain L	2481600	150	Other	20		
Washburn	Middle Mckenzie L	2706500	530	Other	65	Other	11
Washburn	Minong Fl	2692900	1564	Other	548		
Washburn	Mud L	2107700	103	Other	6		
Washburn	Pavlas L	2488100	44	Other	3		
Washburn	Rice L	2696000	132	Other	50		
Washburn	Ripley L	2492600	190	Other	25		
Washburn	S Twin L	2494500	115	Other	16		
Washburn	Shell L	2496300	2580	1-2 Year Pe	214	1-2 Year Pe	10
Washburn	Silver L	2496900	188	Other	25		
Washburn	Slim L	2109300	224	Other	30		
Washburn	Spring L	1882900	42	Other	3		
Washburn	Spring L	2498600	211	Other	28		
Washburn	Stone L	1884000	39	Other	3		
Washburn	Stone L	1884100	523	Other	65		
Washburn	Tozer L	2502000	36	Other	3		
Washburn	Trego L	2712000	451	Other	56	Other	10