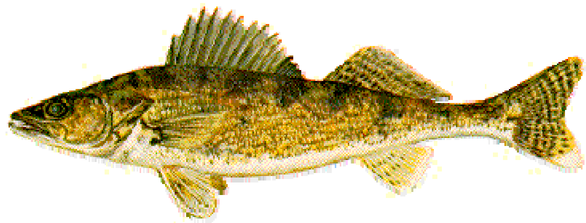
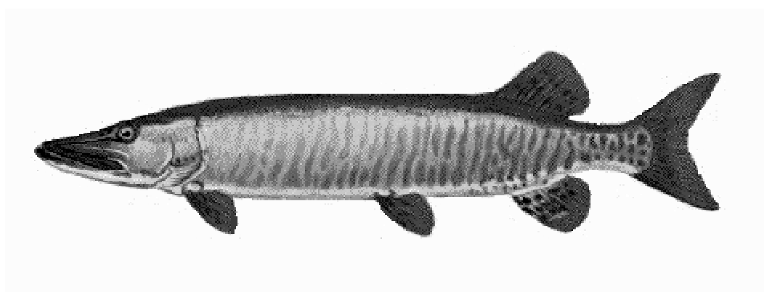


Wisconsin Department of Natural Resources 2005-2006 Ceded Territory Fishery Assessment Report



Thomas A. Cichosz

Administrative Report # 63

Treaty Fisheries Assessment Unit
Bureau of Fisheries Management
Madison, Wisconsin

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Walleye illustration Virgil Beck

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INTRODUCTION

The northern portion of Wisconsin, encompassing 22,400 square miles and including all or parts of 30 counties, was ceded by the Lake Superior Chippewa Tribes to the United States in the Treaties of 1837 and 1842 (Figure 1). Although the lands were ceded to the United States, the Chippewa Tribes retained hunting, fishing, and gathering rights throughout this area (USDI 1991). The Wisconsin Ceded Territory contains 77% of Wisconsin's lakes accounting for 53% of the total inland lake surface acreage in Wisconsin (Staggs et al. 1990). Of lakes within the Ceded Territory, over 900 contain walleye and more than 600 contain musky, 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 *Sander vitreus* and muskellunge *Esox masquinongy* and to monitor the shared fisheries throughout the Ceded Territory. The majority of tribal harvest occurs during spring while walleye and muskellunge are congregated in shallow water to spawn and are readily taken by spear. A smaller number are harvested throughout the remainder of the year with a variety of capture methods including spearing, gill netting, fyke netting, set-lining, and angling. Netting and spearing are highly efficient methods and, unlike low efficiency methods such as angling, are not self-regulating (Beard et al. 1997, Hansen et al. 2000). Based on the inclusion of high efficiency tribal harvest in these fisheries, over-exploitation is a strong possibility in the absence of intensive management and could result in long-lasting and potentially irreversible damage.

Wisconsin DNR gathers data from a representative sample of lakes throughout the Ceded Territory each year in order to assess abundance and stability of walleye populations. Walleye populations are evaluated by WDNR using three primary methods: spring adult and total population estimates, fall age-0 (young-of-year) relative abundance estimates, and creel surveys of angler catch and harvest. When combined, these methods provide information on the current harvestable population, an indication of the future harvestable population, and the degree of exploitation in the walleye fishery. Wisconsin DNR also conducts muskellunge and black bass *Micropterus* spp. population estimates each year and estimates harvest of these species via creel surveys; WDNR does not quantify recruitment of these species via young-of-year (YOY) surveys.

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

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

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

This annual report summarizes WDNR efforts related to management of the shared Ceded Territory fishery from early 2005 through early 2006. 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 2005-06 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 2005 were Balsam (Polk Co.), Pine (Iron Co.), Big Arbor Vitae (Vilas Co.) and Two Sisters (Oneida Co.) lakes. In addition, at least one large lake or lake chain is chosen to be surveyed each year; in 2005 no lake chains were sampled but numerous large (e.g. >1,000 acres) lakes were surveyed.

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 nets shortly after ice out. Each fish was measured (total length; inches and tenths) and marked with one

[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.

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 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. If spearing occurred after the start of the marking period, the number of marked walleyes speared was subtracted from the number of marked fish at large during the recapture period. These fish were added back to the estimated number of fish present at the time of marking for the populations of interest (e.g. adult or total populations).

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 database and only data that were entered and proofed are reported here. Proportional stock density (PSD) is calculated as:

$$PSD = \frac{\text{number of fish} \geq \text{minimum quality length}}{\text{number of fish} \geq \text{minimum stock length}} X\ 100$$

Relative stock density (RSD) is calculated as:

$$RSD = \frac{\text{number of fish} \geq \text{specified length}}{\text{number of fish} \geq \text{minimum stock length}} X\ 100$$

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 fish larger than the smallest sexable fish observed) were made by sex (male, female, unknown) and for the total population using Chapman-Petersen estimates:

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

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 2 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).

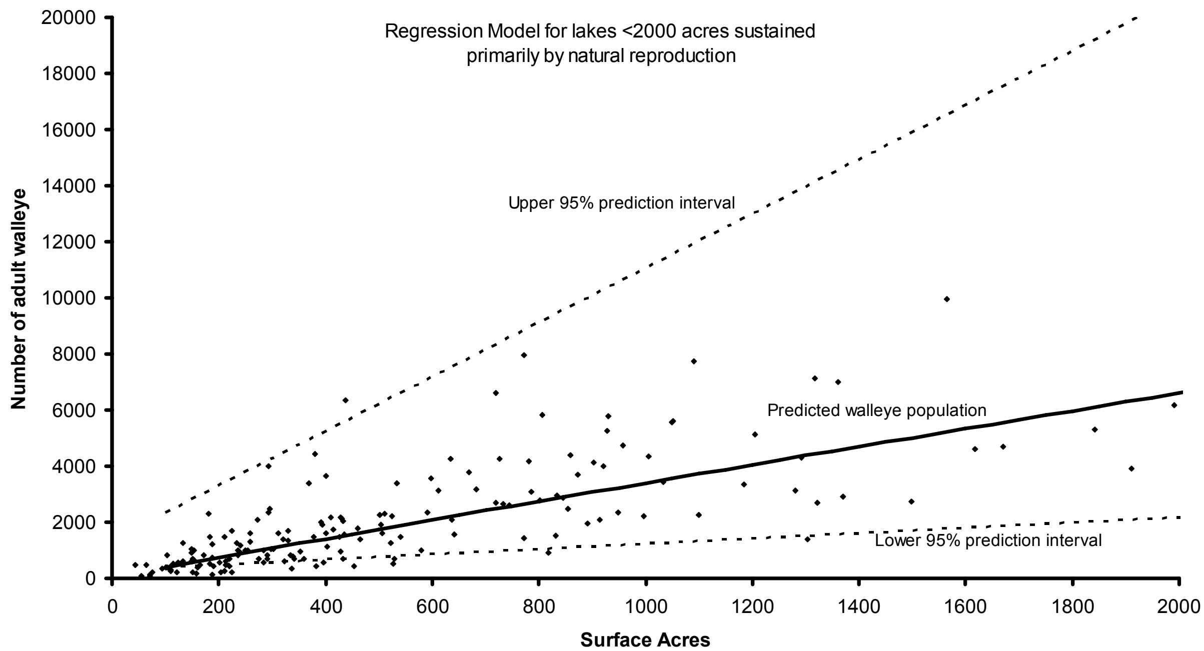

Figure 2. Regression model used to set 2005 safe harvest levels for lakes sustained primarily by natural reproduction (lakes <2000 acres).

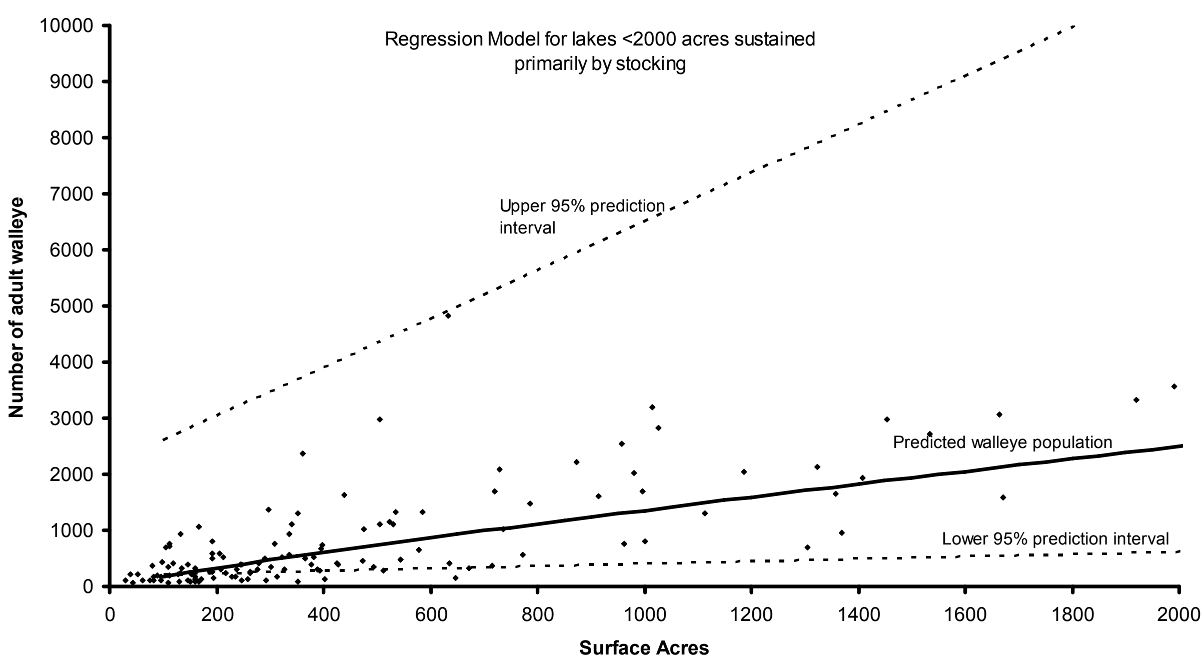

Figure 3. Regression model used to set 2005 safe harvest levels for lakes <2000 acres sustained primarily by stocking.

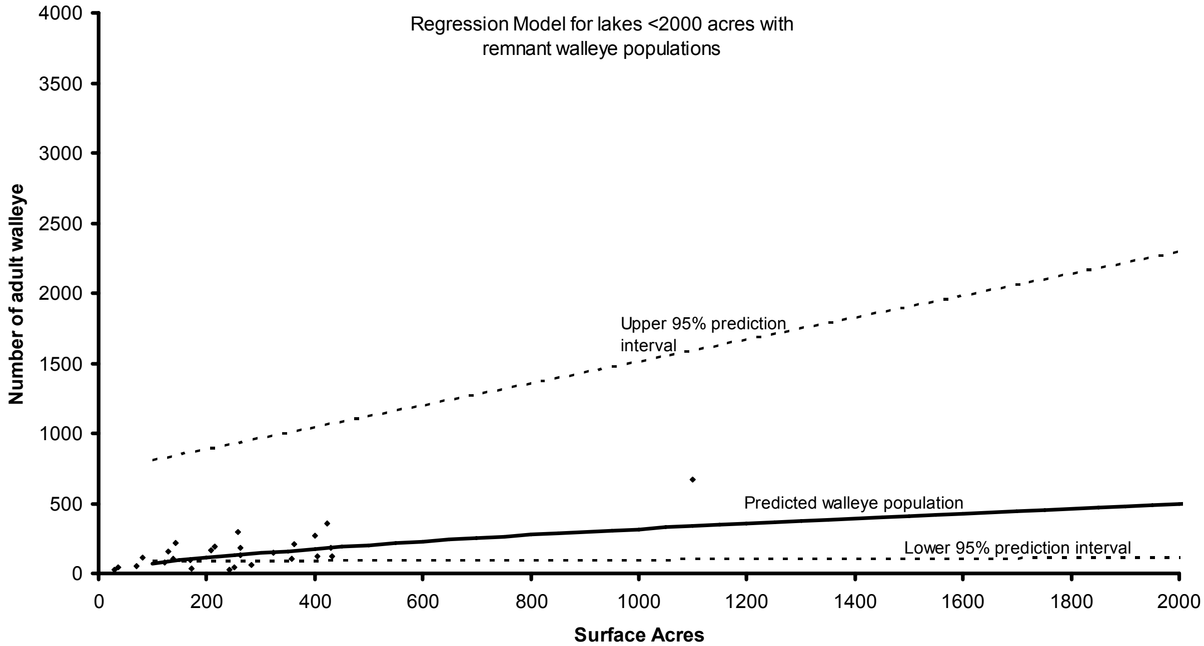

Figure 4. Regression model used to set 2005 safe harvest levels for lakes <2000 acres with remnant walleye populations.

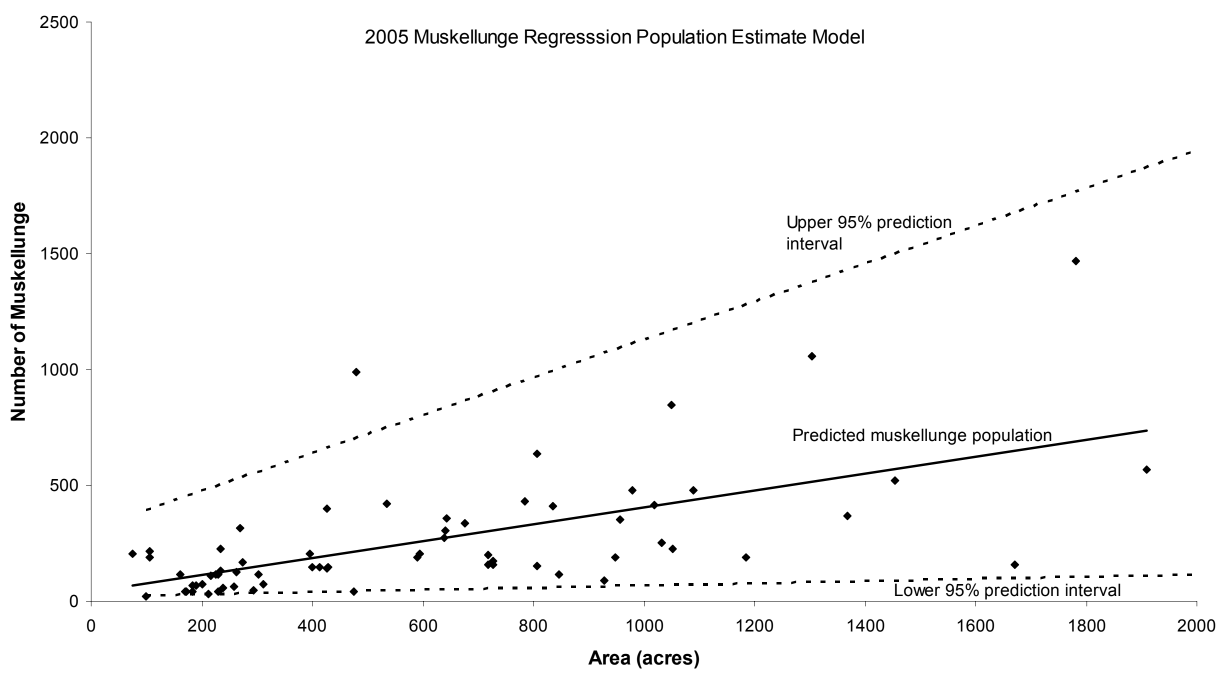

Figure 5. Regression model used to set 2005 safe harvest levels for muskellunge populations in lakes <2000 acres; Only a sub-sample of data points are shown for illustrative clarity.

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[4] (Appendix D). In cases where lakes were connected

[4] Lake size classes are small (<500 ac.) or large (≥500 ac.); Population recruitment source is either natural, stocked, or remnant; 2005 state regulations for surveyed lakes included a 15” minimum size limit, one fish larger than 14”, one fish larger than 28”, a 14-18” no-harvest slot with one fish larger than 18” allowed, and no size restriction.

(as either defined or undefined chains), creel clerks were not necessarily present at each individual lake on a given day; however, during the interview clerks collected information specific to lakes within the chain thereby enabling creel related estimates to be determined for individual lakes.

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

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

Young-of-Year Walleye Surveys

Electrofishing for YOY walleyes was done after sunset in early autumn, beginning when water temperatures had fallen below 70° F. In most cases, the entire shoreline of a lake was electrofished and all sub-adult walleyes were examined and measured. A general linear model was used to test the assumption that mean YOY walleye/mile in 2005 was the same as the 1990-2004 mean ($\alpha = 0.05$) for each recruitment model. The general linear model accounted for year group (2005 or 1990-2004 mean), recruitment model (natural, stocked or remnant) and the interaction of year group with recruitment model. The interaction term was evaluated for significance that might indicate relevant differences in YOY walleye density between year groups for some recruitment models; if significance was noted in the interaction term, post-hoc paired T-tests were used to define relevant differences.

Serns (1982) established a relationship between the number of YOY walleyes collected per mile of shoreline electrofished and their lake-wide density (#/acre) where:

Density = 0.234 * *Catch per mile*

Subsequently, gross estimated survival to fall for stocked YOY was calculated as:

*Survival = (Sern's index * lake acreage)/ No. fish stocked*

Survival was calculated only for stocked and remnant lakes where little or no contribution is assumed to come from natural reproduction.

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 2005, spawning walleye populations were estimated in 37 lakes, ranging in size from 75 to 2,054 acres and representing a range of walleye recruitment categorizations and angler regulations (Table 1). In addition Otter Lake, Chippewa Co. was surveyed although sampling constraints precluded an spawning walleye population estimate; conditions in this same lake did however allow for calculation of a total walleye population estimate.

Due to sample size restrictions, separate analyses were conducted to evaluate differences in spawner or total population size across (1) primary recruitment source (natural, stocked, or remnant; refer to Appendix C) and (2) restrictive angling regulations in 2005. No statistical comparisons were made of either spawner or total walleye abundance across recruitment models or angling restrictions; such statistical comparisons were made for spawner and total walleye density (fish/acre) which provides a better comparative measure across lakes of varying size.

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

Table 1. Lakes surveyed by WDNR sampling crews in spring 2005 with corresponding information on adult and total walleye populations abundance and density.

WBIC[1]	County	Lake	Acres	Size Limit (in)[2]	Recruitment code	Recruitment Model	Adult Pop. Estimate	Adult Density (#/Acre)	Total Pop. Estimate	Total Pop. (#/Acre)
2100800	Barron	Granite	154	15	C-ST	Stocked	605	3.9	1,418	9.2
2109800	Barron	Hemlock	357	15	REM	Remnant	162	0.5	----	----
2109600	Barron	Red Cedar	1,841	15	C-NR	Natural	3,733	2.0	5,534	3.0
2157000	Chippewa	Otter	661	15	C-ST	Stocked	----	----	415	0.6
2865000	Douglas	Nebagamon	914	15	C-NR	Natural	1,149	1.3	2,714	3.0
2694000	Douglas	Whitefish	832	15	NR	Natural	880	1.1	3,245	3.9
585100	Florence	Cosgrove	75	15	NONE	None	74	1.0	----	----
672300	Florence	Sea Lion	125	15	REM	Remnant	54	0.4	----	----
2949200	Iron	Pine	312	no min., 1>14	NR	Natural	1,738	5.6	----	----
1579700	Langlade	Enterprise	505	no min., 1>14	NR	Natural	426	0.8	----	----
1005600	Langlade	Moccasin	110	15	C-ST	Stocked	55	0.8	86	0.8
387200	Langlade	Otter	83	15	NR-2	Remnant	516	6.2	768	9.2
1506800	Lincoln	Spirit Reservoir	1,664	15	C-NR	Natural	4,751	2.9	----	----
1544800	Oneida	Carrol	352	15	ST	Stocked	282	0.8	----	----
977500	Oneida	Clear	846	15	NR	Natural	2,096	2.5	----	----
1544700	Oneida	Madeline	159	15	REM	Remnant	44	0.3	----	----
1004600	Oneida	Mildred	191	15	NR	Natural	154	0.8	----	----
1569900	Oneida	Thompson	382	15	C-ST	Stocked	435	1.1	----	----
1588200	Oneida	Two Sisters	719	15	C-NR	Natural	2,004	2.8	2,662	3.7
2620600	Polk	Balsam	2,054	15	C-ST	Stocked	1,738	0.9	1,823	0.9
2268600	Price	Amik	224	none	REM	Remnant	207	0.9	----	----
2268300	Price	Pike	806	none	C-	Natural	2,321	2.9	11,458	14.2
2267800	Price	Round	726	none	C-	Natural	3,522	4.9	12,969	17.9
2268500	Price	Turner	149	none	C-	Natural	254	1.7	1,158	7.8
2423000	Sawyer	Ghost	372	15	C-ST	Stocked	451	1.2	719	1.9
2725500	Sawyer	Hayward	247	15	C-NR	Natural	93	0.4	1,959	7.9
2381100	Sawyer	Winter	676	14-18 slot, 1>18	0-ST	Remnant	727	1.1	----	----

Table 1 Continued.

WBIC[1]	County	Lake	Acres	Size Limit (in) [2]	Recruitment code	Recruitment Model	Adult Pop. Estimate	Adult Density (#/Acre)	Total Pop. Estimate	Total Pop. (#/Acre)
1545600	Vilas	Big Arbor Vitae	1,090	no min., 1>14	C-NR	Natural	6,860	6.3	----	----
2338800	Vilas	Big Crooked	682	none	NR	Natural	701	1.0	----	----
2316600	Vilas	Dead Pike	297	no min., 1>14	ST	Stocked	374	1.3	----	----
2339900	Vilas	Escanaba	293	28	NR	Natural	1,756	6.0	----	----
2339800	Vilas	Lost Canoe	249	14-18 slot, 1>18	NR	Natural	725	2.9	----	----
1593100	Vilas	Star	1,206	no min., 1>14	C-NR	Natural	4,295	3.6	----	----
2339100	Vilas	White Sand	734	14-18 slot, 1>18	C-ST	Stocked	1,030	1.4	2,997	4.1
2336100	Vilas	Wolf	393	15	NR	Natural	1,531	3.9	----	----
2112800	Washburn	Balsam	295	15	C-NR	Natural	1,003	3.4	----	----
2695800	Washburn	Gilmore	389	15	C-ST	Stocked	144	0.4	----	----
2692900	Washburn	Minong Flg.	1,564	15	NR	Natural	10,954	7.0	----	----

1 - WBIC is a Water Body Identification Code unique to each lake.
2 - Size limits reflect 2005-2006 minimum and slot length harvest regulations for each lake.

Spawning Adult Walleye Abundance

Spawning adult walleye abundance was estimable in 36 of the 37 Ceded Territory lakes in which walleye population estimates were attempted during 2005 (Table 1). Adult spawning walleye abundance estimates averaged 1,564 walleye (2.3/acre) across all lakes surveyed during 2005. Average abundance estimates for natural-model lakes (Avg. 2,426, range 93-10,954) were greater than in stocked- (Avg. 571, range 84-1,738) or remnant-model (Avg. 285, range 44-727) lakes during 2005 (Appendix E). Spawning walleye abundance was lowest (44 adult walleye) in Madeline Lake, Oneida County, and highest in the Minong Flowage, Washburn County (10,954 adult walleye; Table 1).

Spawning walleye density (walleye/acre) estimates averaged 2.3 adults/acre across all lakes surveyed during 2005. Average density estimates for natural-model lakes (Avg. 3.04, range 0.4-7.0) were greater than in stocked- (Avg. 1.30, range 0.4-3.9) or remnant-model (Avg. 1.57, range 0.3-6.2) lakes during 2005. Adult walleye density was lowest (0.3/acre) in Madeline Lake, Oneida County, and highest in the Minong Flowage, Washburn County (7.0/acre; Table 1).

As in most previous years, differences observed during 2005 in walleye spawner density between lakes in different recruitment classes (natural, stocked, or remnant) were significant (General Linear Model, P=0.009). Consistent with historical observations (Hewett and Simonson 1998), spawner densities observed in 2005 were greater in lakes dominated by natural recruitment than either those in either the stocked or remnant-models; Table 4; Figure 8). Natural-model lakes had a significantly higher population densities than either stocked or remnant-model lakes (Tukey-Kramer LS Means, P=0.048 and 0.024, respectively). Remnant-model lakes had average spawning adult walleye densities comparable to but slightly higher than stocked-model lakes in 2005 (Table 4, Figure 8) although this difference was not significant (P=0.84).

Lakes with “exempt” regulation classifications had higher spawning walleye densities than those with a 15-inch minimum size limit or a 14-18” no-harvest slot limit however the density differences between regulation types were not significant (GLM, P=0.344; Table 4). In 2005 a 28-inch minimum size regulation for walleye was excluded from comparative analysis of regulation types since only a single lake with that regulation type was sampled.

There have been no statistically significant trends in walleye spawner density in natural- (Linear regression, P=0.086) or stocked-model (P=0.321) walleye waters in the Ceded Territory since 1995[5] (Figure 6 and Figure 7). The trend in natural-model lakes, although not statistically significant, is suggestive of a downward trend (slope -0.08) in walleye spawner populations across the Ceded Territory since 1995; this apparent trend is similar to a significant (P<0.05) downward trend observed in total walleye densities which is discussed in detail later in this report.

Excluding the three WDNR research lakes (Escanaba, Big Crooked, and Wolf, Vilas Co.), 23 lakes sampled in 2005 had at least one historic WDNR adult walleye population estimate (Table 2). Of the 16 lakes or chains for 2005 with historic population estimates in the natural recruitment model, five had increased in populations whereas 10 had decreased populations. Spirit Reservoir (Lincoln Co.) showed the most marked population increase of 346 percent since 1999; Two Sisters Lake (Oneida Co.) showed the most marked population decrease of 26 percent since 2002. All six lakes sustained primarily by stocking suffered a reduction in population levels since their previous population estimate. Although classified as sustained by stocking during 2005, Dead Pike Lake (Vilas Co.) had been considered naturally reproducing at the time of the prior estimate (1990). Two remnant populations surveyed during 2005 each showed increased population size since their previous surveys, with Hemlock Lake (Barron Co.) increasing 56% relative to a 1992 survey and Amik Lake (Price Co.) increasing by 138% relative to a 1998 survey.

Information in Table 2 is intended to present current walleye population levels concurrently with past observations, but is not suitable (nor intended) for defining or illustrating trends in walleye populations. Fish populations in general and walleye populations in particular are extremely variable and can change dramatically from year to year making interpretation of values in Table 2 difficult at best. This inherent variability in walleye populations is readily evident in Table 2 where most of the lakes with more than two estimates show both positive and negative changes in population levels over time; Pike, Round, Amik, Two Sisters and White Sand lakes each show increases and decreases through time.

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

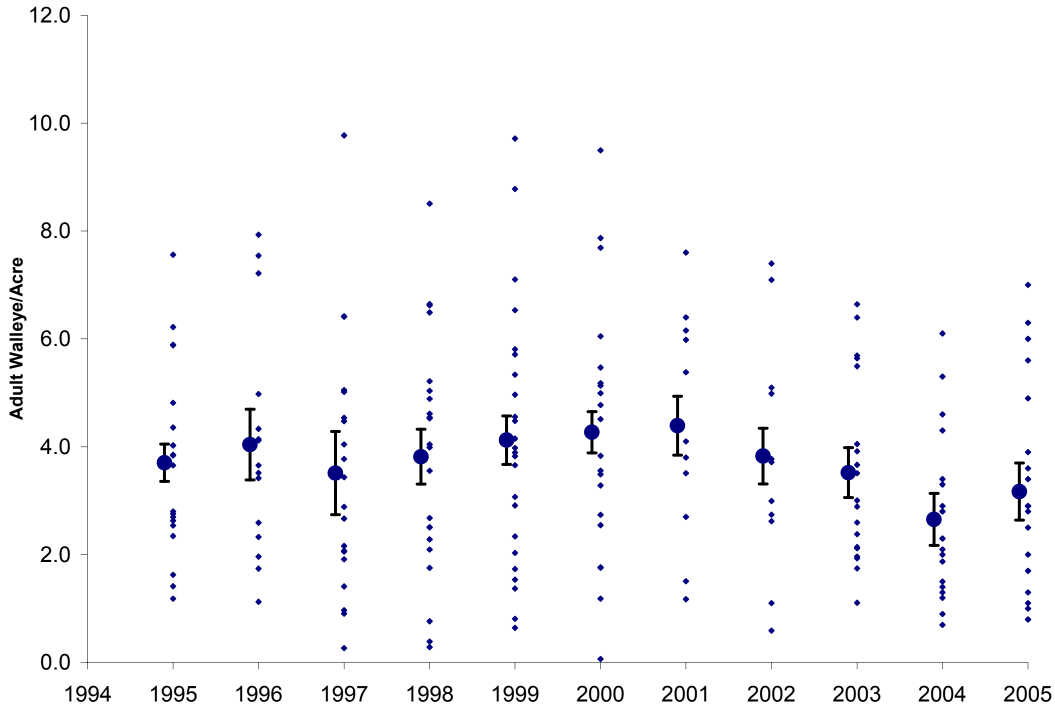

Figure 6. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by natural reproduction, 1990 – 2005. Small circles represent individual lakes; Large circles represent yearly means (±SE).

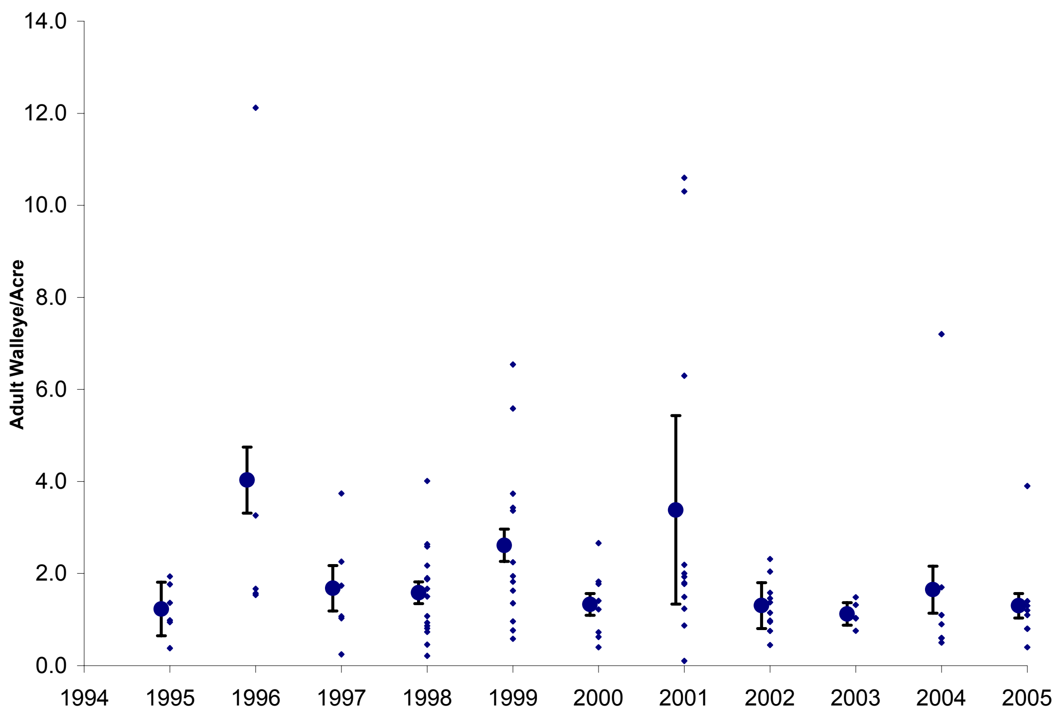

Figure 7. Adult walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by stocking, 1995 – 2005. Small circles represent individual lakes; Large circles represent yearly means (±SE).

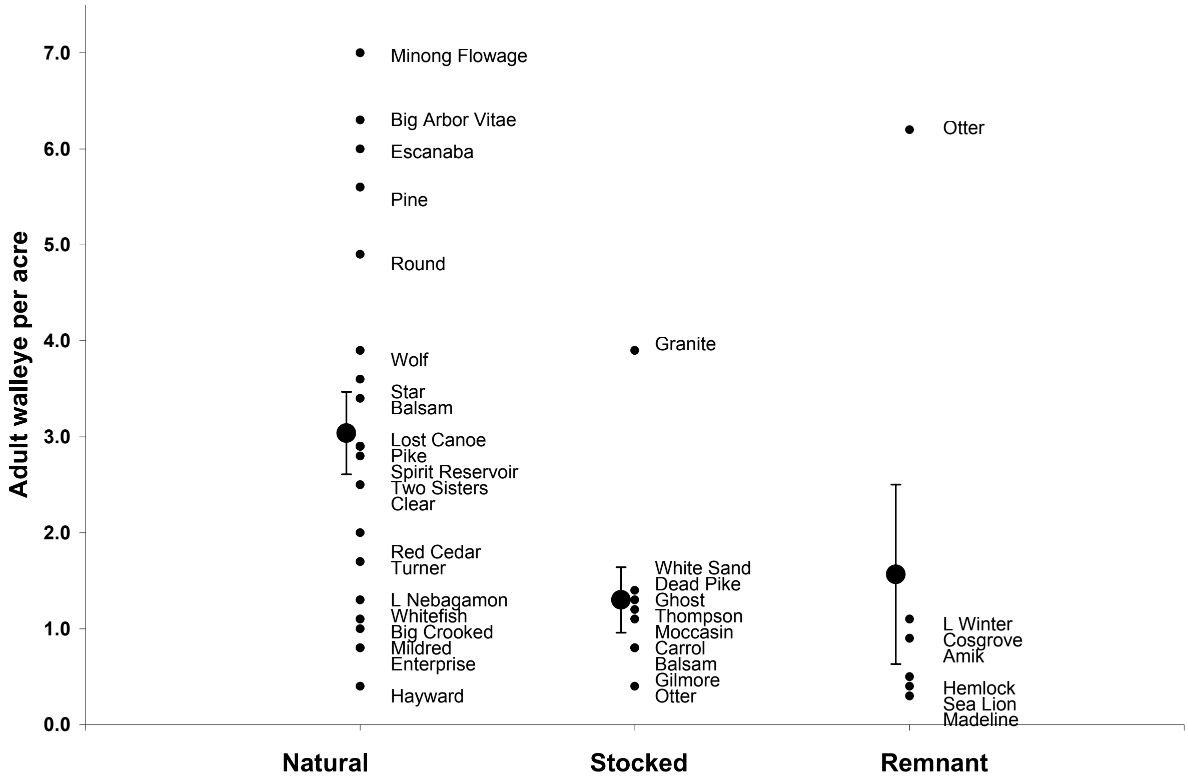

Figure 8. Adult walleye density estimates for lakes sampled by WDNR in spring 2005 based on primary population recruitment source.

Table 2. Comparison of current and historic walleye population estimates and percent change by recruitment model for lakes surveyed during 2005.

County	Lake	Acres	Year	Recruit. Code	Adult PE	Density (#/acre)	Percent Change
Natural Recruitment Lakes							
Barron	Red Cedar	1,841	2005	C-NR	3,733	2	-13
			1992	NR	4,304	2.3	
Douglas	Nebagamon	914	2005	C-NR	1,149	1.3	-25
			1998	C-NR	1,525	1.7	
Douglas	Whitefish	832	2005	NR	880	1.1	-55
			1991	C-NR	1,968	2.4	
Iron	Pine	312	2005	NR	1,738	5.6	12
			2002	NR	1,555	5	10
			1998	NR	1,412	4.5	-36
			1992	NR	2,196	7	
Langlade	Enterprise	505	2005	NR	426	0.8	-83
			1991	NR	2,518	5	
Lincoln	Spirit Reservoir	1,664	2005	C-NR	4,751	2.9	346
			1999	C-NR	1,066	0.6	
Oneida	Clear	846	2005	NR	2,096	2.5	-35
			2000	NR	3,241	3.8	5
			1996	NR	3,093	3.7	
Oneida	Two Sisters	719	2005	C-NR	2,004	2.8	-26
			2002	C-NR	2,714	3.8	99
			1998	C-NR	1,367	1.9	-39
			1992	C-NR	2,245	3.1	
Price	Pike	806	2005	C-	2,321	2.9	22
			1998	C-NR	1,908	2.3	-39
			1991	C-	3,132	3.9	
Price	Round	726	2005	C-	3,522	4.9	-4
			1998	C-NR	3,658	5	19
			1991	C-	3,070	4.2	
Price	Turner	149	2005	C-	254	1.7	-32
			1998	C-	374	2.5	-78
			1991	NR	1,680	11.3	
Vilas	Big Arbor Vitae	1,090	2005	C-NR	6,860	6.3	29
			1998	C-NR	5,329	4.9	
Vilas	Star	1,206	2005	C-NR	4,295	3.6	-22
			1997	C-NR	5,474	4.5	
Washburn	Balsam	295	2005	C-NR	1,003	3.4	-70
			1992	NR	3,352	11.4	
Washburn	Minong Flg.	1,564	2005	NR	10,954	7	54
			1989	UNK	7,107	4.5	

Table 2, Continued.

County	Lake	Acres	Year	Recruit. Code	Adult PE	Density (#/acre)	Percent Change
Stocked Recruitment Lakes							
Oneida	Carrol	352	2005	ST	282	0.8	-68
			2000	C-ST	892	2.7	
Oneida	Thompson	382	2005	C-ST	435	1.1	-16
			1999	C-ST	517	1.4	
Polk	Balsam	2,054	2005	C-ST	1,738	0.9	-42
			2002	C-ST	3,000	1.5	-3
			1998	C-ST	3,081	1.5	
Vilas	Dead Pike	297	2005	ST	374	1.3	-64
			1990	C-	1,052	3.5	
Vilas	White Sand	734	2005	C-ST	1,030	1.4	-57
			1992	C-ST	2,409	3.3	37
			1989	UNK	1,755	2.4	
Washburn	Gilmore	389	2005	C-ST	144	0.4	-54
			1992	C-ST	312	0.8	
Remnant Population Lakes							
Barron	Hemlock	357	2005	REM	162	0.5	56
			1992	NR-2	104	0.3	
Price	Amik	224	2005	REM	207	0.9	138
			1998	C-NR	87	0.4	-74
			1991	NR	339	1.5	

Spawning Adult walleye size structure

Spawning adult walleye populations were estimated for each lake by length class in both natural (Figure 9) and stocked (Figure 10) production model lakes. Natural model lakes generally had higher walleye spawner densities than stocked model lakes, although the size structure sampled in stocked lakes tended to be larger relative to that in natural model lakes.

In natural model lakes spawning walleye abundance and size structures were highly variable (Figure 9). The majority of natural model lakes sampled had overall densities between 1 and 4 fish/acre. Five sampled lakes had walleye densities exceeding 4 fish/acre; of those 5 lakes, 4 have specialized harvest regulations in place (Escanaba Lake=28" minimum; Pine, Round, and Big Arbor Vitae=no minimum and only 1 fish>14"). Walleye spawning in the 7-11.9 inch category were very limited in relative abundance in most natural production lakes sampled. Lakes that had substantial proportions of the overall walleye population made up of smaller fish tended to be those with specialized regulations although it is unclear if this is directly related to the harvest regulations or other factors (e.g. sporadic recruitment).

In stocked model lakes spawning walleye abundance and size structures were less variable than that observed in natural model lakes (Figure 10). With the exception of Granite Lake (Barron Co.) where the walleye spawner density approached 4 fish/acre, walleye densities observed in stocked model lakes were less than 1.5 fish/acre. Despite lower fish densities than those observed in natural model lakes, stocked model lakes generally had a high percentage (e.g. >50%) of the spawning population made up of relatively large fish (>15") available for angler harvest under general statewide regulations.

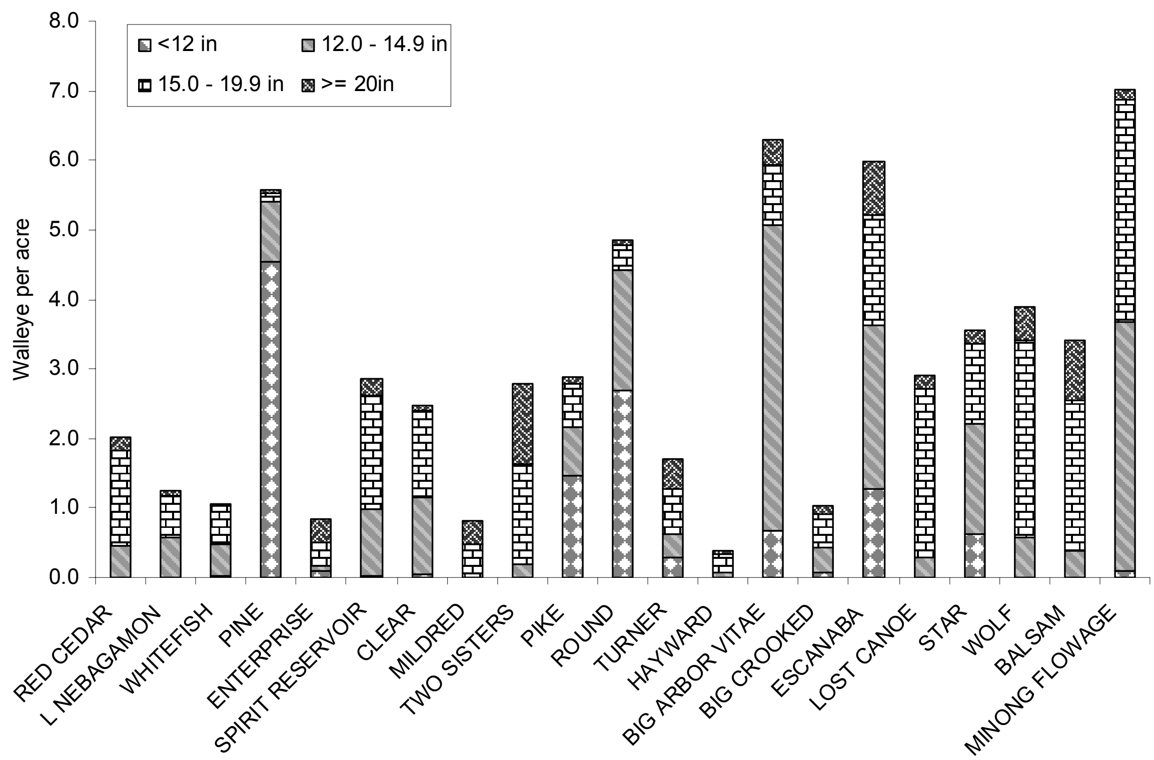

Figure 9. Size distribution of spawning walleye sampled in natural production model lakes during 2005.

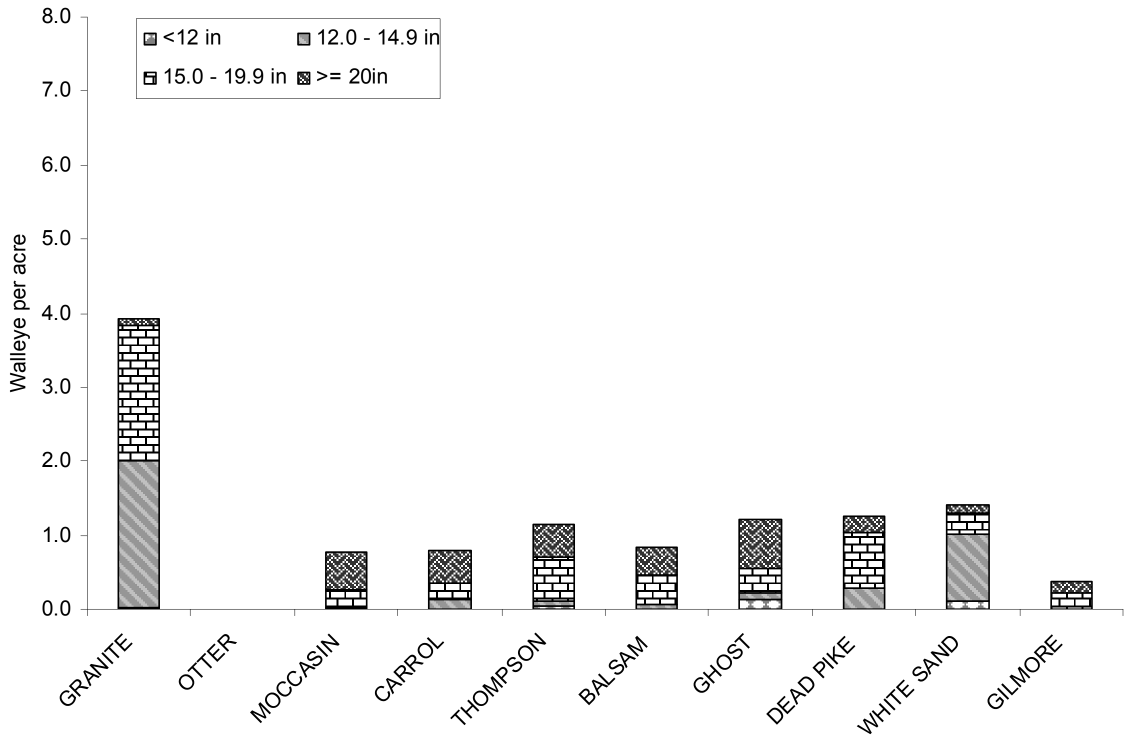

Figure 10. Size distribution of spawning walleye sampled in stocked production model lakes during 2005.

Data were available for calculation of PSD and RSD-18 for 18 natural, eight stocked, and five remnant model lakes sampled in 2005 (Table 3). Given that the majority of walleye regulations in the Ceded Territory lakes 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 93 percent and RSD-18s ranging from 1 to 72 percent. In both stocked and remnant model lakes observed PSD values showed less variability than was noted in natural model lakes although RSDs in these lakes were more variable than PSDs. PSDs in stocked model lakes typically exceeded 79 percent with a single exception (28 in White Sand Lake, Vilas Co.). PSDs in remnant model lakes exceeded 83 percent in four of five surveyed lakes; in Amik Lake, Vilas Co., the observed PSD was 69 percent. RSD-18s in stocked and remnant model lakes ranged from 3-93 and 42-92 percent, respectively.

Table 3. Walleye Proportional and Relative Stock Density values for lakes surveyed in spring, 2005.

County	Lake	Acres	Recruitment Code	Walleye Regulation	PSD	RSD-18
Natural Recruitment Lakes						
Barron	Granite	154	C-NR	15	28	6
Barron	Red Cedar	1,841	C-NR	15	73	20
Douglas	Minong Fl.	1,564	NR	15	68	19
Douglas	Nebagamon	914	C-NR	15	48	17
Douglas	Whitefish	832	NR	15	57	21
Iron	Pine	312	NR	No Min.; 1>14	11	1
Langlade	Enterprise	505	NR	No Min.; 1>14	93	72
Langlade	Otter	83	NR	15	75	21
Lincoln	Spirit River Fl.	1,664	C-NR	15	59	23
Oneida	Clear	846	NR	15	54	9
Oneida	Two Sisters	719	C-NR	15	84	35
Price	Pike	806	C-NR	None	35	13
Price	Round	726	C-NR	None	16	5
Price	Turner	149	C-	None	56	32
Vilas	Big Arbor Vitae	1,090	NR	No Min.; 1>14	22	8
Vilas	Lost Canoe	249	NR	14-18 slot; 1>18	84	19
Vilas	Star	1,206	NR	No Min.; 1>14	39	7
Washburn	Balsam	295	C-NR	15	78	29
Stocked Recruitment Lakes						
Langlade	Moccasin	110	ST	15	99	93
Oneida	Carrol	352	ST	15	90	73
Oneida	Thompson	382	C-ST	15	88	69
Polk	Balsam	2,054	C-ST	15	88	52
Sawyer	Ghost	372	C-ST	15	80	70
Vilas	Dead Pike	297	C-ST	No Min.; 1>14	79	29
Vilas	White Sand	734	C-ST	14-18 slot; 1>18	28	3
Washburn	Gilmore	389	C-ST	15	98	64
Remnant Population Lakes						
Barron	Hemlock	357	REM	15	83	42
Oneida	Madeline	159	REM	15	100	92
Oneida	Midred	191	NR-2	15	100	73
Sawyer	Winter	676	0-ST	14-18 slot; 1>18	96	84
Vilas	Amik	224	REM	None	69	48

In 2005, average size structure was generally similar for stocked and remnant model lakes, both of which had larger size structures than natural model lakes (Figure 11). Mean PSDs for stocked, remnant and natural model lakes were 81, 90 and 54, respectively. Mean RSD-18s for stocked, remnant and natural model lakes were 57, 68 and 20, respectively. Differences in PSD and RSD-18 values across lakes in various recruitment models could be caused by an increase in the relative abundance of quality

(PSD, ≥15") or preferred (RSD, ≥18") sized fish, a decrease in the relative abundance of stock sized fish (≥ 12"), or some combination of these two factors.

Mean annual PSD values have increased over time in both natural and stocked recruitment model lakes[6] (Figure 12). Observed PSD and RSD-18 values were found to be highly correlated over time for both natural (r^2=0.88) and stocked (r^2=0.77) lakes, so only PSD values are discussed here. The observed trend in PSD in natural recruitment lakes is statistically significant and indicates an average annual increase of approximately 3 percent/year (Linear Regression, slope 3.16, P<0.01). In stocked recruitment lakes the PSD trend shows suggestive significance (P=0.09) with a lesser increase of approximately 1 percent/year (Slope 1.34). These trends illustrate increases in the overall walleye population size structure since 1995 that could be caused by an increase in the relative abundance of quality sized fish (≥15"), a decrease in the relative abundance of stock sized fish (≥ 12"), or some combination of these two factors.

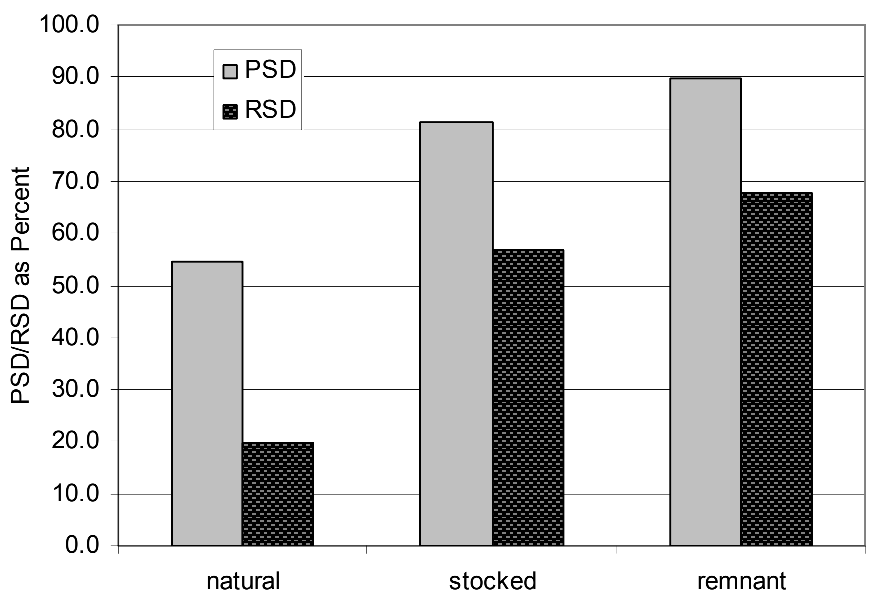

Figure 11. Comparison of mean PSD and RSD-18 values across lakes in various walleye recruitment models.

[6] Only data points with a minimum of three associated lake observations were included in this analysis. This precluded inclusion of earlier (pre-1995) data and that from remnant model lakes.

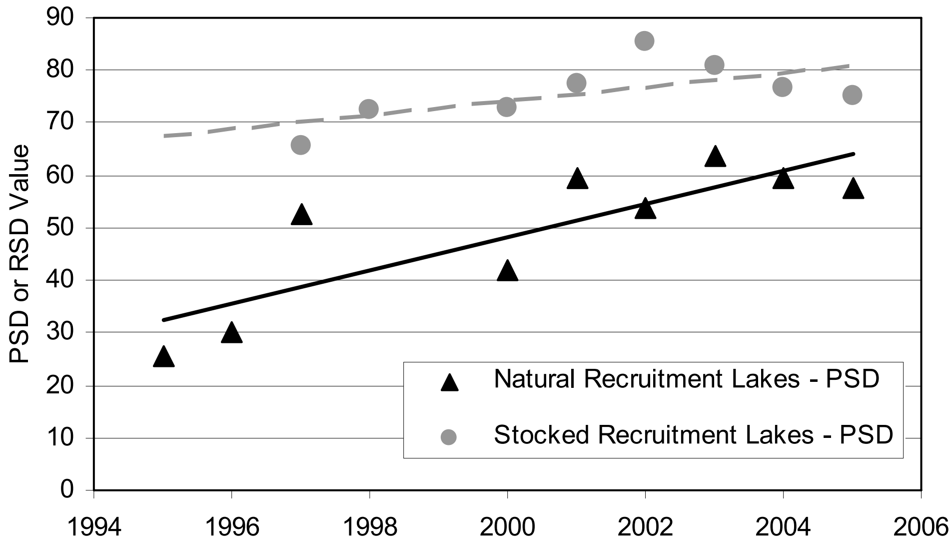

Figure 12. Trends in PSD values observed for walleye in Ceded Territory lakes since 1995.

Total Walleye Abundance

Total walleye abundance was estimable in 16 of the 37 Ceded Territory lakes in which walleye population estimates were made during 2005 (Table 1). Estimates of both total walleye abundance and density varied widely in 2005 although population density provides a better descriptor by which lake populations can be compared.

Estimates of total walleye abundance averaged 3,328 walleye across all lakes surveyed during 2005 and ranged from a low of 86 walleye in Moccasin Lake, Langlade County, to a high of 12,969 walleye in Round Lake, Price County (Table 1). Respectively, total walleye abundance in natural and stocked populations averaged 5,212 and 1,243 walleye during 2005. A single 2005 estimate from a remnant population was 768 total walleye in Otter Lake, Langlade County.

Total walleye density averaged 5.8 walleye/acre across all lakes surveyed during 2005 and ranged from a low of 0.6 walleye/acre in Otter Lake, Chippewa County, to a high of 17.9 walleye/acre in Round Lake, Price County (Table 1). Respectively, total walleye density in natural and stocked populations, averaged 7.7 and 2.9 walleye/acre during 2005 (Table 4); this difference was statistically significant (t-test-unequal variances, t= 2.48, df = 8.17, P = 0.038). A single 2005 estimate from a remnant population was 9.2 total walleye/acre in Otter Lake, Langlade County (Table 4).

Since total population estimates could not be completed for all lakes sampled in 2005, sample sizes were limited in all but one angling regulation category (15” minimum = 11 lakes, no minimum length and 1>14” =3 lakes, 28” minimum=0 lakes, and slot=1 lake). Based on the low sample sizes, no analysis of relationships between restrictive angling regulations and total population estimates were performed.

Across Ceded Territory lakes dominated by natural production, there has been a statistically significant declining trend in total walleye density since 1995 (General Linear Model; P < 0.0001; Figure 13). The slope of this trend is -1.42 walleye/acre/year over the entire period analyzed. The timeframe considered in this analysis excludes the years 1990-1994 since sampling designs used to select lakes for assessment differed from current protocols in those years (Hewett No Date). However, if all monitoring years (1990-2005) are incorporated into the same analysis, the observed trend is also statistically significant (GLM; P=0.0398) and declining (slope = -0.50 walleye/acre/year) although at a lesser rate than more the 1995-2005 trend.

Table 4. Summary of mean (±1 SE), minimum, and maximum walleye density estimates for lakes sampled in 2005.

			Adult Density[1]						Total Density[2]		
Model[3]	**Regulation[4]**	**N**	**Mean**	**Min**	**Max**			**N**	**Mean**	**Min**	**Max**
Natural		21	3.0 (0.43)	0.4	7.0			8	7.7 (1.99)	3.0	17.9
Stocked		9	1.3 (0.34)	0.4	3.9			6	2.9 (1.36)	0.6	9.2
Remnant		6	1.6 (0.94)	0.3	6.2			1	9.2		
None		1	1.0								
Natural	15 in min.	11	2.6 (0.77)	0.4	7.0			5	4.3 (0.92)	3.0	7.9
	exempt	8	3.4 (1.18)	0.8	6.3			3	13.3 (2.95)	7.8	17.9
	slot	1	2.9								
	28 in min.	1	6.0								

1 - Adult PE include all fish ≥15” and all fish for which sex could be determined (regardless of length).
2 - Total PE include all sampled walleyes.
3 - "Model" refers to the primary recruitment source in each lake.
4 - Lakes with no minimum size limit or a 1 fish >14 in were classified as “exempt”. “Slot” lakes are those with a 14-18” slot size limit.

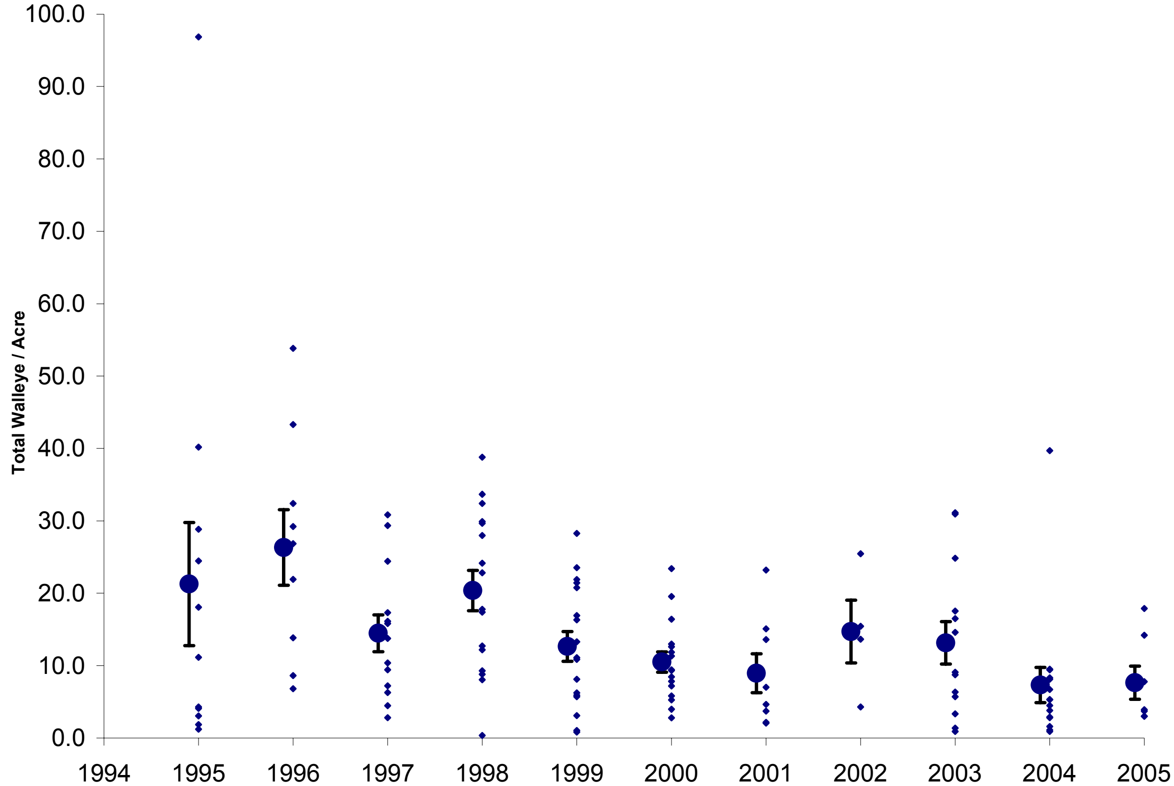

Figure 13. Total walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by natural reproduction, 1995-2005. Small circles represent individual lakes; Large circles represent yearly means (±SE).

Total walleye density in stocked-model lakes monitored over time show trend patterns very dissimilar to natural-model lakes. Across all stocked-model lakes, there has been no statistically detectable trend in total walleye density since either 1990 ($P = 0.6596$) or 1995 ($P = 0.6394$; Figure 14).

This is the first year in which a statistically significant declining trend has been observed in relation to walleye density in the Wisconsin Ceded Territory. The trend is observable and significant in total walleye density; a corresponding trend in adult walleye density is evident with suggestive statistical significance ($p = 0.086$; refer to previous section on Adult Walleye Abundance). Analysis also showed a corresponding trend of increasing size structure since 1995 (e.g. PSD, see discussion earlier in this report). The inverse relationship between fish density and relative size has been well documented, and the fact that both trends have been observed in walleye population data from Ceded Territory lakes supports the concept that the declining trend observed in walleye density is likely real.

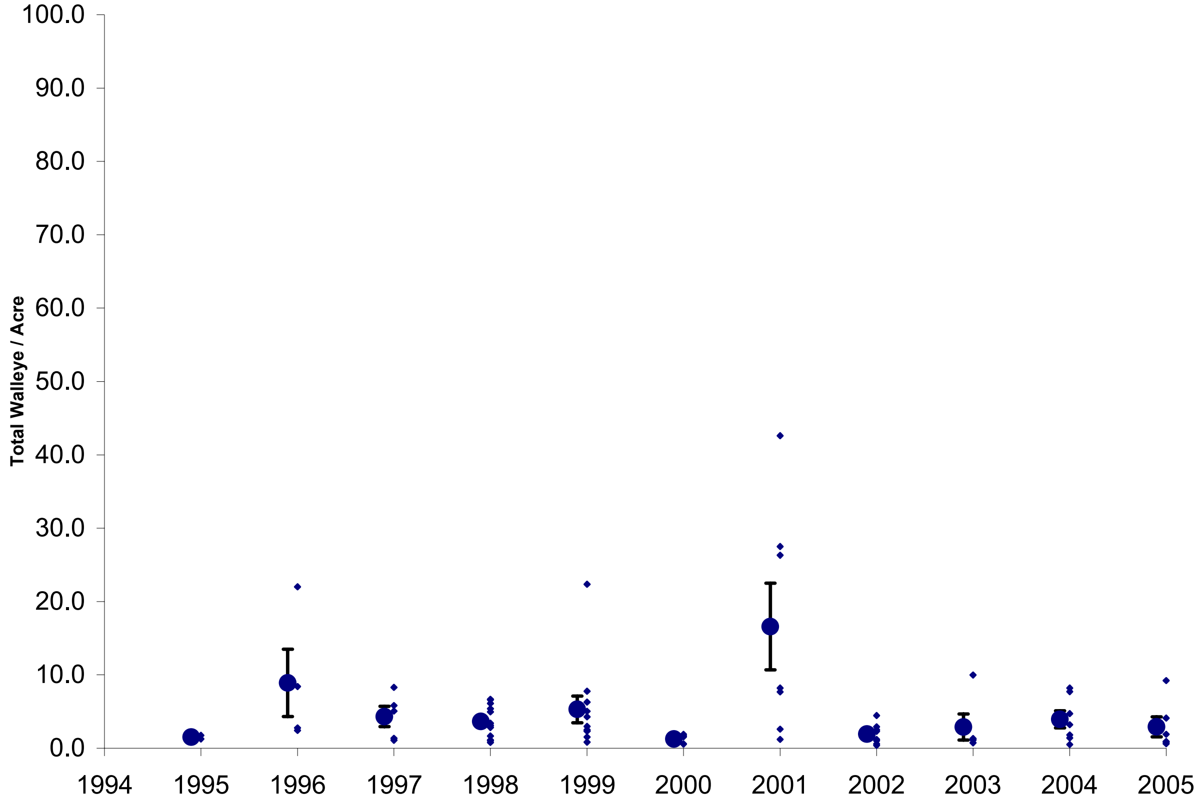

Figure 14. Total walleye population density estimates recorded in Wisconsin Ceded Territory Lakes with populations sustained primarily by stocking, 1990-2005. Note log-scale on y-axis. Small circles represent individual lakes; Large circles represent yearly means (±SE).

The cause of the apparent decline in total walleye density in natural production lakes is not clear and may be related to any number or a combination of factors. Fish populations in general and walleye populations in particular are extremely variable and can change dramatically from year to year; if patterns in annual recruitment or survival develop from natural variability, longer term population cycles may become evident. Trends in population levels may also be induced by natural or unnatural events such as shifts in fish community structure over time (e.g. altered predator/prey balance), overharvest, changes in water quality or quantity, changes in fish regulations or stocking strategies[7], or other factors.

[7] The downward trend being discussed relates to lakes dominated by natural walleye recruitment although not all lakes involved in this assessment rely solely on natural recruitment to sustain populations. Although not the primary recruitment source for walleye populations, stocking does take place in some lakes included in this assessment.

Investigations into potential causes of the decline in walleye abundance in natural-model lakes will be complex and are beyond the scope of this annual project report. Preliminary assessments were conducted to evaluate the importance of spatial variations and the potential impact of stocking strategies on the observed trend. Evaluation of spatial variations show that there is no discernable difference in total walleye population trends in natural-model lakes between the eastern and western regions of the Ceded Territory (GLM evaluating year, region and year*region interaction; interaction term P=0.58). Similarly, preliminary evaluation of stocking shows no obvious impact on the observed trend in total walleye density when un-stocked lakes (recruit code NR) are compared to stocked lakes contained in the natural recruitment model (recruit codes C- and C-NR); there is no significant difference in the trends observed for stocked vs. un-stocked lakes during the 1995-2005 period (GLM evaluating year, stocking and year*stocking interaction; interaction term P=0.77).

Muskellunge Abundance

Adult muskellunge population and density estimates were completed in ten Ceded Territory lakes or lake groups, and for the Manitowish Chain of Lakes as a whole during spring 2005 (Table 5, Appendix F). Within the Manitowish Chain of Lakes, individual estimates were made for four lakes or lake groups within the chain; individual estimates were not however made for all lakes contained in the Manitowish Chain of Lakes. Population estimates completed in 2005 reflect 2004 population numbers because of the two-year mark-recapture time span used to derive estimates. Muskellunge densities ranged between 0.09 and 0.39 adult fish/ acre and did not appear to be related to lake size or angler regulations (Table 5).

Table 5. Adult muskellunge population estimates completed in 2005 in the Wisconsin Ceded Territory. Regulations presented are for 2005.

County	Lake	Angler Regulation (inches)	Acres	Minimum length in PE (inches)		Total PE	CV(%)	Total per acre
				Male	Female			
Bayfield	Upper Eau Claire	40	996	27.0	30.0	151	0.15	0.23
Sawyer	Teal	34	1,049	22.5	30.0	349	0.33	0.37
Sawyer	Lost Land	34	1,304	22.0	25.0	397	0.30	0.39
Oneida	Booth	34	207	22.5	28.0	155	0.75	0.23
Vilas	Trout	45	3,816	24.0	29.0	181	0.05	0.16
Vilas	Papoose	40	428	22.5	23.0	131	0.31	0.09
Vilas	Manitowish Chain[1]	34	4,074	23.0	22.5	1,024	0.25	0.11
	Clear		555	26.5	31.5	161	0.29	0.20
	Little Star/Manitowish		750	26.5	30.5	178	0.24	0.22
	Rest		608	23.5	22.5	181	0.30	0.24
	Spider/Stone/Fawn		485	23.0	31.0	364	0.75	0.28

1 – Manitowish Chain includes but is not limited to the four lakes or lake groups listed below it in this table. The listed angler regulation applies to all lakes in the Manitowish Chain.

Bass Abundance

Population estimates were attempted for smallmouth bass in ten lakes and largemouth bass in twelve lakes in 2005 (Table 6). Due to lack of recaptures during fish surveys in some lakes, no population estimates could be derived for smallmouth bass in Pine and Balsam lakes (Iron and Polk Counties, respectively) or for largemouth bass in Lake Nebagamon (Douglas County).

In lakes where estimates could be made, smallmouth bass densities ranged from 0.3–8.2 fish per acre and were greatest in Clear and Mildred lakes in Oneida County (5.9 and 8.2 fish/acre, respectively). Density estimates of smallmouth bass in all other lakes were less than 2.6 fish/acre (Table 6).

Where calculable, largemouth bass density ranged from 0.2–12.3 fish per acre with the greatest densities observed in Balsam (12.3), Cosgrove (9.3), Carrol (7.5) and Moccasin (6.3) lakes. Largemouth bass densities in other lakes surveyed were all less than 5 fish/acre (Table 6).

The size structure of both largemouth and smallmouth bass was dominated by 8.0-14" fish in nearly all lakes sampled (Figure 15 and Figure 16). Larger fish (>14") however did make up substantial portions of the largemouth bass populations in Otter, Sea Lion, Cosgrove and Balsam lakes, and the smallmouth bass populations in Cosgrove Lake.

Table 6. Bass population estimates for lakes sampled in the Wisconsin Ceded Territory in spring 2005.

County	Lake	Acres	Angler Regulation	Total PE	CV	Recaptures	Total /acre	8.0-13.9" /acre	14.0-17.9" /acre	18.0"+ /acre
Smallmouth Bass										
Barron	Red Cedar	1,841	14" Min.	4,586	0.18	28	2.5	2.1	0.4	0.0
Douglas	Lake Nebagamon	914	14" Min.	682	0.14	34	0.8	0.5	0.2	0.1
Douglas	Whitefish	832	14" Min.	217	0.26	8	0.3	0.1	0.1	0.0
Iron	Pine	312	14" Min.	Unknown[1]	---	0	---	---	---	---
Polk	Balsam	2,054	No min., 1<14"	Unknown	---	0	---	---	---	---
Florence	Cosgrove	75	14" Min.	87	0.35	4	1.2	0.5	0.6	0.0
Langlade	Enterprise	505	14" Min.	350	0.37	6	0.7	0.5	0.1	0.0
Oneida	Clear	846	14" Min.	4,987	0.14	44	5.9	5.3	0.6	0.0
Oneida	Mildred	191	14" Min.	1,569	0.27	12	8.2	7.8	0.5	0.0
Oneida	Two Sisters	719	14" Min.	701	0.19	18	1.0	0.9	0.1	0.0
Largemouth Bass										
Barron	Granite	154	14" Min.	213	0.33	4	1.4	1.0	0.4	0.0
Barron	Red Cedar	1,841	14" Min.	3,075	0.22	19	1.7	1.3	0.4	0.0
Douglas	Lake Nebagamon	914	14" Min.	Unknown	---	0	---	---	---	---
Douglas	Whitefish	832	14" Min.	168	0.26	23	0.2	0.0	0.2	0.0
Polk	Balsam	2,054	No min., 1<14"	25,198	0.13	57	12.3	10.7	1.5	0.1
Florence	Cosgrove	75	14" Min.	698	0.17	19	9.3	7.2	2.1	0.0
Florence	Sea Lion	125	14" Min.	219	0.26	4	1.8	0.9	0.6	0.3
Langlade	Moccasin	110	14" Min.	690	0.24	11	6.3	5.7	0.6	0.0
Langlade	Otter	83	14" Min.	333	0.14	32	4.0	1.0	3.0	0.0
Oneida	Carrol	352	14" Min.	2,654	0.2	20	7.5	7.1	0.4	0.0
Oneida	Clear	846	14" Min.	2,492	0.17	29	3.0	2.9	0.1	0.0
Oneida	Mildred	191	14" Min.	544	0.25	14	2.9	2.4	0.5	0.0

1 - PE is defined as "Unknown" if no recaptures were obtained during surveys.

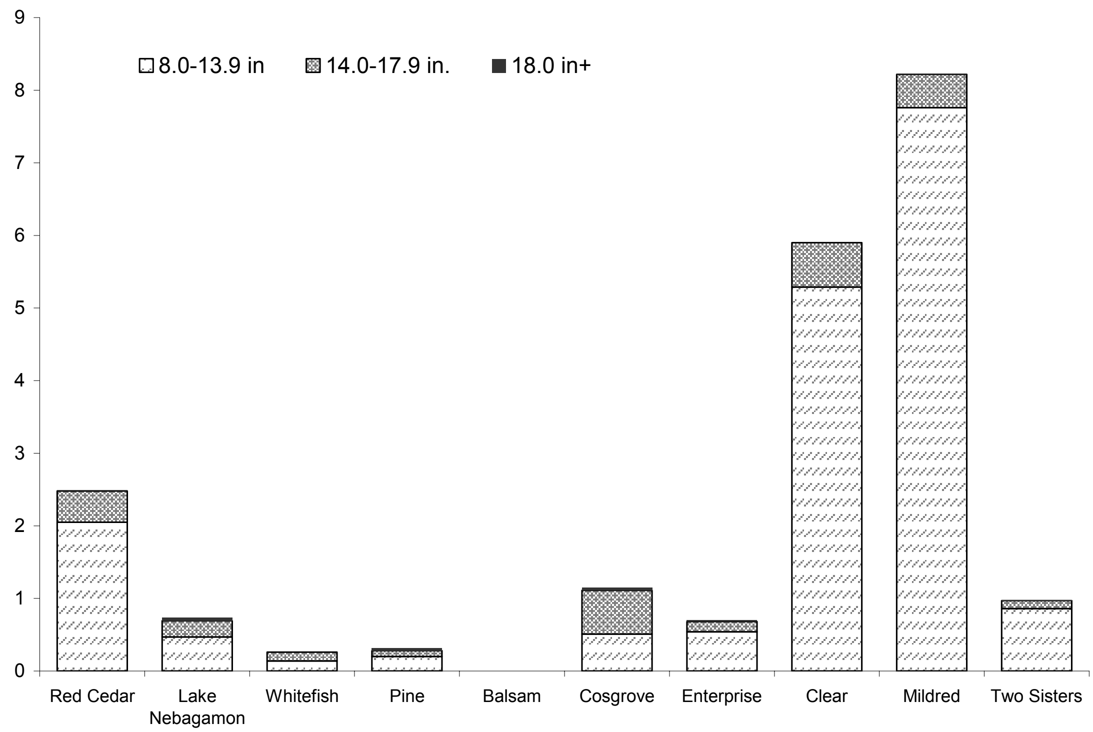

Figure 15. Smallmouth bass population densities (fish ≥ 8.0”) by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2005.

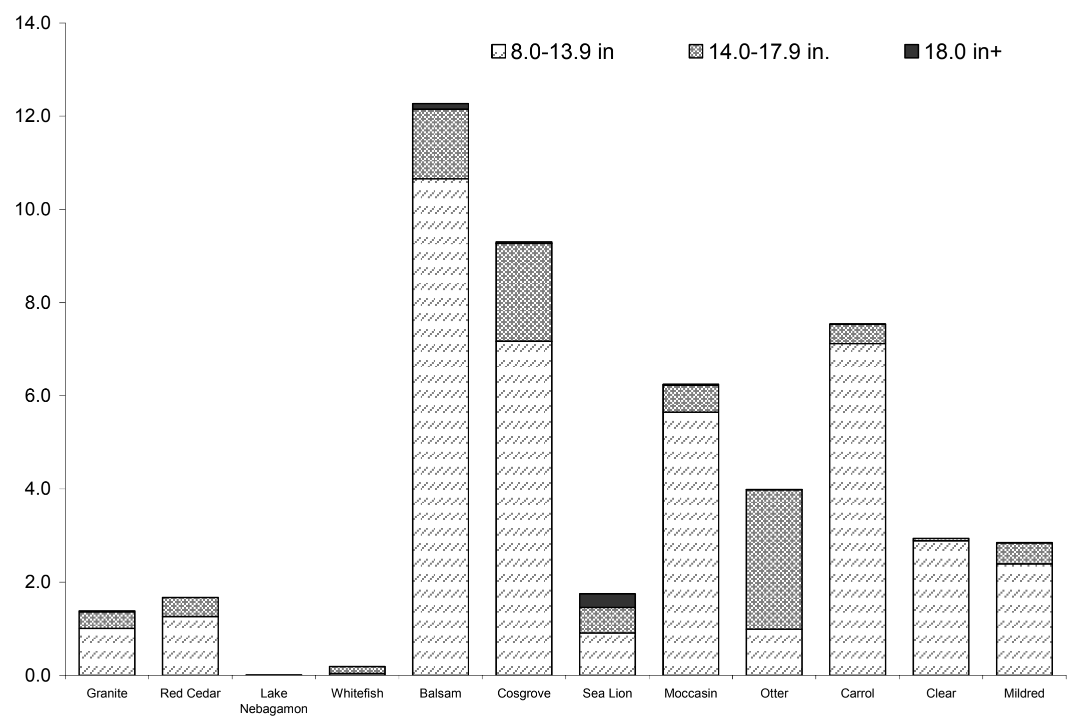

Figure 16. Largemouth bass population densities (fish ≥ 8.0”) by size range for lakes sampled in the Wisconsin Ceded Territory in spring 2005.

Creel Surveys

In 2005-2006 (May through March), creel surveys were conducted for 21 lakes in which walleye population estimates were made during spring 2005 (Appendix D). Creel surveyed lakes ranged in size from 90 to 2,054 acres (Otter Lake-Langlade Co. and Balsam Lake-Polk Co., respectively) and were located across 10 counties within the Ceded Territory.

Overall Angler Effort

The mean total angler effort per acre in lakes 500 acres and larger (29.0 hours/acre) did not statistically differ from the effort recorded on lakes smaller than 500 acres (41.0 hours/acre) in 2005-2006 (t-test (equal variances) $t = -1.06$, $df = 14$, $P = 0.305$). Since 1990, mean total angler effort has been significantly lower in large lakes (28.3 hours/ acre) than in small lakes (40.9 hours/ acre; t-test (unequal variances) $t = -4.63$, $df = 225$, $P < 0.01$). No trend in total angler effort has been observed since 1990 across all lakes [$F(1; 374) = 1.35$, $p = 0.25$]. This finding is consistent with other studies and evaluations on angling pressure in Ceded Territory lakes (Hansen 2008, Deroba et al. 2007, Hennessy 2005; Figure 17). It is also important to note that a process of random lake selection did not begin until 1995 and since that time there has been no statistically detectable trend in total angler effort [$F(1;220) = 0.63$, $P = 0.43$].

Walleye Effort, Catch and Exploitation

Directed effort for walleye averaged 9.5 hours per acre in surveyed lakes during the 2005-06 angling season; Directed effort is defined as hours reported by anglers fishing for a specific species. Directed walleye fishing pressure in surveyed lakes was highly variable, so although directed effort in lakes sustained by natural reproduction (11.4 hours/ acre) appeared to be higher than in those lakes sustained by stocking (5.4 hours/ acre), the observed difference was not statistically significant (t-test-equal variances, $t = 1.85$, $df = 14$, $P = 0.09$). Directed effort was also comparable in large (≥500 ac., 10.24 hours/ acre) and small lakes (<500 ac., 8.56 hours/ acre; t-test (equal variances) $t = 0.50$, $df = 14$, $P = 0.63$) surveyed during the 2005-06 angling season. Overall directed angler effort (hours/acre) for walleye has declined since 1995 [Slope = -0.36, $F(1;220) = 5.58$, $P = 0.02$; Figure 18) when a randomized lake selection process was adopted.

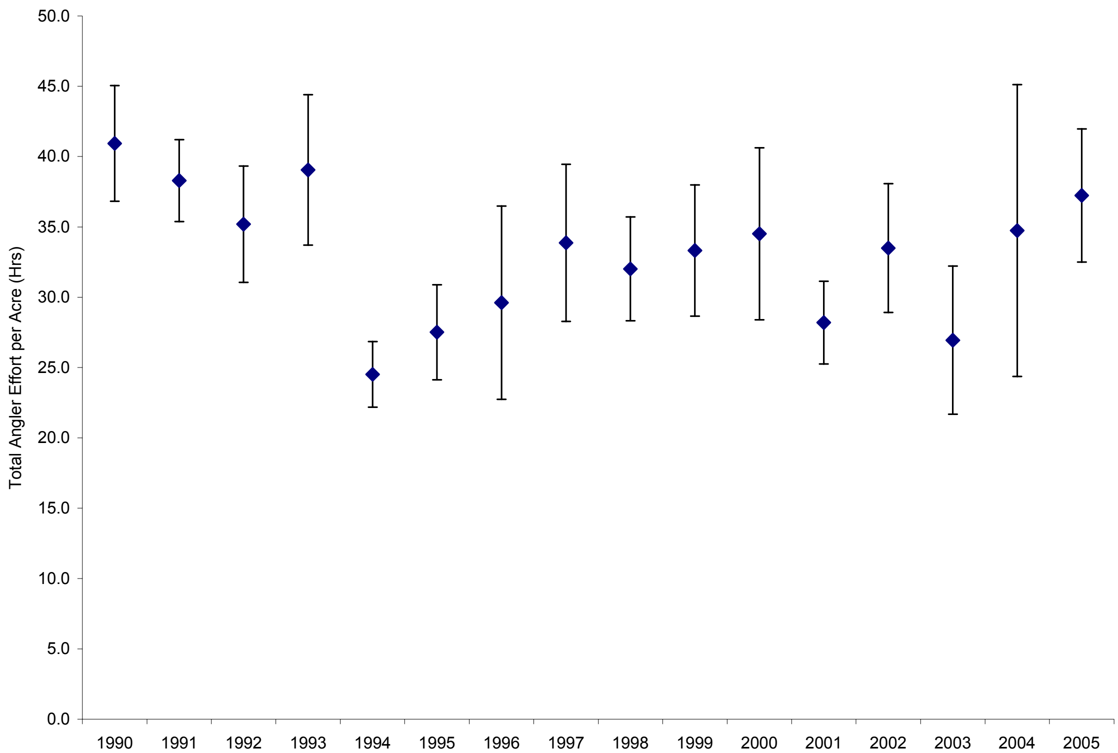

Figure 17. Average total angler effort per acre (±SE) in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1990-2005.

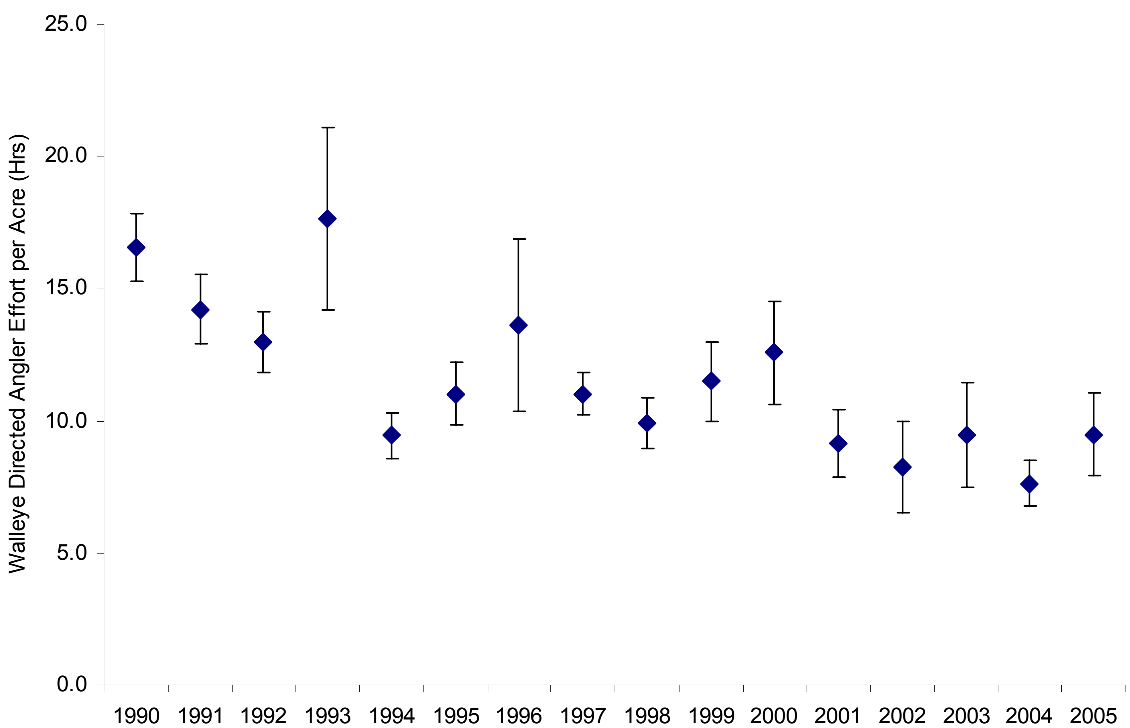

Figure 18. Directed angler effort per acre (±SE) for walleye in Wisconsin Ceded Territory lakes where WDNR conducted creel surveys, 1990-2005.

In 2005-06 the mean specific catch rates (SCR) was 0.16 walleye/hour of directed effort (1 fish per 6.3 hours). In lakes with naturally sustained or stocked populations, respectively, mean SCRs were 0.20 walleye per hour (5.0 hours fishing/ walleye caught) and 0.07 walleye/ hour (1 fish caught per 15.2 hours of directed effort). Specific harvest rates averaged 0.051walleye/hour of directed effort (19.6 hours/walleye harvested) and ranged between 0.000 and 0.173 walleye/hour for individual lakes surveyed (Appendix D). Based on creel survey results, anglers harvested approximately 43% of all walleye caught during the 2005-06 season; this is the highest percentage estimated for any season evaluated (in other years since 1990 this percentage has ranged from 12-36%). Between 1995 and 2005 a statistically relevant downward trend in SCR was observed [Figure 19; Slope = -0.013, $F(1, 222) = 15.86$, $P = 0.02$]; this was the first year in which this trend was observed and statistically relevant (Hansen 2008, Hennessy 2005, Hennessy 2002). No discernable trend was noted for specific harvest rate by year since 1995 [$F(1, 220) = 0.76$, $P = 0.40$] for walleye in the Wisconsin Ceded Territory (Figure 19).

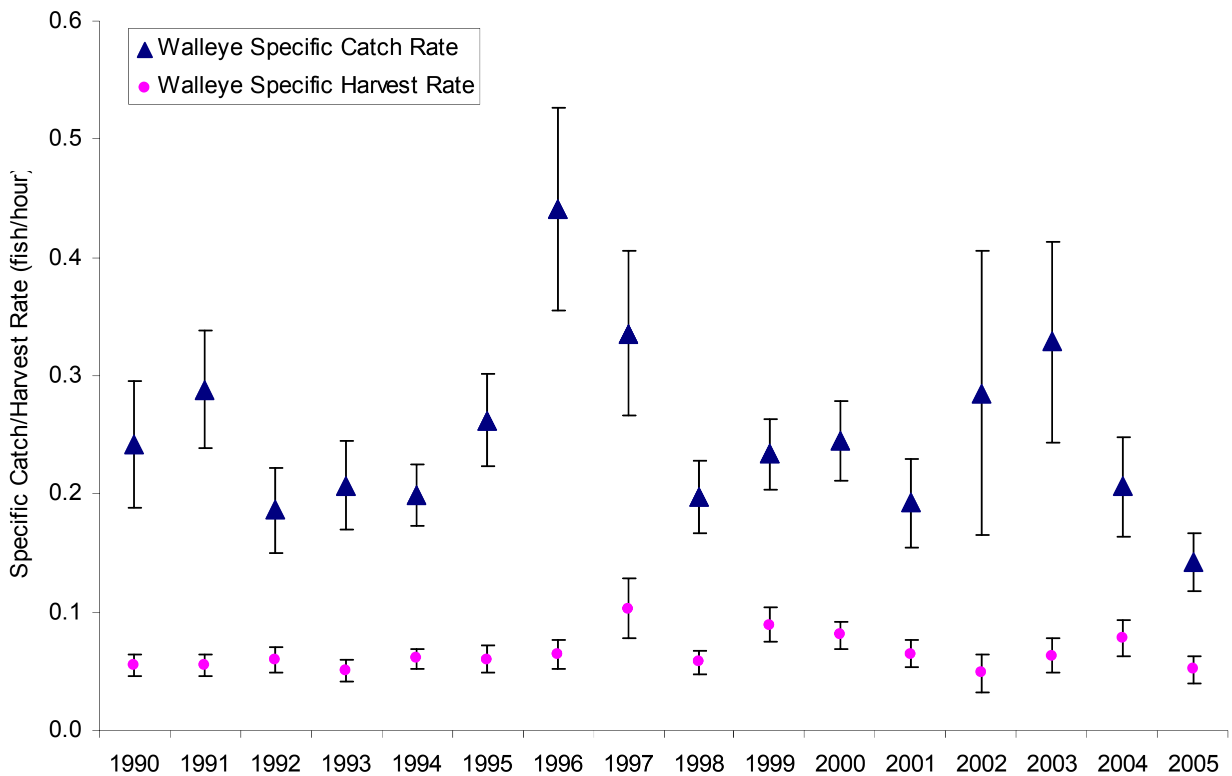

Figure 19. Specific catch and harvest rates (±SE) for walleye in surveyed lakes in the Wisconsin Ceded Territory, 1990-2005. Specific catch or harvest rate is number of walleye caught or harvested divided by time spent fishing specifically for walleye.

Walleye exploitation rates were estimated for 21 lakes during 2005-06 (Table 7; Appendix H). Estimated total (angler + tribal) exploitation of walleye ranged from 0% to 60.0%. Angler exploitation of walleyes in various size classes showed a similar range with exploitation of walleye 14" or longer ranging from 0% to 62.6% whereas that of walleyes 20" or longer ranged from 0.0% to 59.1%. Tribal exploitation of walleyes ranged from 0.0% to 10.1% across all lakes and exceeded the estimate of angler exploitation in only two lakes (Clear Lake, Oneida Co.; Balsam Lake, Polk Co.). Based on 2005-06 survey results angler exploitation of walleye populations was estimated as zero in three of 21 lakes surveyed; Nine of the 21 lakes surveyed incurred no tribal exploitation of walleye.

The total exploitation rates of walleye in Hemlock Lake, Barron Co. and Amik Lake, Price Co. exceeded 35% and were 57.3 and 60.0%, respectively. 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.

Table 7. Adult walleye exploitation rates by lake and harvest type for 2005, with comparison to 1995-2004 mean exploitation rates.

Lake	County	Acres	Angler exploitation	Angler expl. ≥14"	Angler expl. ≥20"	Tribal expl.[1]	Total adult exploitation
Hemlock	Barron	357	0.5732	0.6267	0.0000	0.0000	0.5732
Red Cedar	Barron	1,841	0.2277	0.2510	0.0000	0.1010	0.3287
Nebagamon	Douglas	914	0.1379	0.1708	0.3034	0.0070	0.1448
Pine	Iron	312	0.0472	0.0518	0.0000	0.0127	0.0598
Otter	Langlade	90	0.2628	0.2869	0.3456	0.0000	0.2628
Carrol	Oneida	335	0.0321	0.0328	0.0000	0.0177	0.0498
Clear	Oneida	846	0.0261	0.0360	0.0000	0.0854	0.1115
Madeline	Oneida	159	0.1053	0.1053	0.1667	0.0000	0.1053
Thompson	Oneida	382	0.0287	0.0317	0.0000	0.0000	0.0287
Two Sisters	Oneida	719	0.0913	0.0950	0.0890	0.0719	0.1632
Balsam	Polk	2,054	0.0000	0.0000	0.0000	0.0667	0.0667
Amik	Price	224	0.6000	0.4516	0.0000	0.0000	0.6000
Pike	Price	806	0.1705	0.2178	0.5913	0.0737	0.2442
Round	Price	726	0.0551	0.2808	0.4844	0.0429	0.0980
Turner	Price	149	0.0067	0.0098	0.0000	0.0000	0.0067
Winter	Sawyer	676	0.0472	0.0474	0.0400	0.0000	0.0472
Big Arbor Vitae	Vilas	1,090	0.2681	0.2229	0.0433	0.0332	0.3013
Deadpike	Vilas	297	0.0000	0.0000	0.0000	0.0000	0.0000
Star	Vilas	1,206	0.1062	0.0802	0.0000	0.0561	0.1623
Balsam	Washburn	295	0.2431	0.2650	0.0000	0.0429	0.2860
Gilmore	Washburn	389	0.0000	0.0000	0.0000	0.0000	0.0000
		2005 mean	**0.1442**	**0.1554**	**0.0983**	**0.0291**	**0.1733**
		1995-2004 mean	**0.0812**	**0.1039**	**0.1337**	**0.0458**	**0.0812**

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

Muskellunge Effort, Catch and Exploitation

Of the 21 lakes and chains surveyed in 2005, 14 are classified as musky waters. Creel clerks recorded at least one musky caught from 16 of the 21 lakes 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). Analysis of variance was used to evaluate differences in angler catch/acre, specific catch rate, and directed effort across action classifications and timelines (2005 versus prior 10 year averages; Table 8). Angler catch, catch rate, and directed effort were all similar in 2005 to the prior 10 year averages for each lake classification (Table 8). Based on analyses of variance, no significant differences were observed for angler catch [$F(4, 174) = 0.24$, $P = 0.62$], specific catch rate [$F(4, 170) = 0.07$, $P = 0.79$], and directed effort [$F(4, 170) = 0.01$, $P = 0.92$] between 2005 values and those averaged across the previous 10 years. There has been no observed trend in muskellunge directed effort [Linear regression; $F(1, 178) = 0.01$, $P = 0.94$] or catch rates [$F(1, 178) = 0.50$, $P = 0.48$] in the Ceded Territory since 1995 (Figure 20).

Table 8. Comparison of muskellunge catch and effort rates in 2005 and average values from 1990-2004, by musky lake classification.

Class	**Class Description**	**Lakes sampled**	**Angler catch/ acre**	**Specific catch rate (fish/ hour)**	**Directed effort (hours/ acre)**		**Mean density (PEs in sample)**
2005							
A1	Trophy waters	5	0.24	0.029	6.5		0.25 (4)
A2	Action waters	8	0.49	0.036	11.2		0.31 (3)
B	Intermediate action/ size	1	0.08	0.022	3.8		--
C	Low importance	0	--	--	--		--
Total		14	0.37	0.032	9.0		0.28 (7)
1995-2004 Averages (Prior 10 years)							
A1	Trophy waters	59	0.25	0.028	7.4		0.27 (15)
A2	Action waters	71	0.70	0.042	13.1		0.47 (13)
B	Intermediate action/ size	21	0.22	0.040	4.9		0.28 (4)
C	Low importance	10	0.03	0.007	1.5		--
Total		161	0.42	0.034	9.2		0.35 (32)

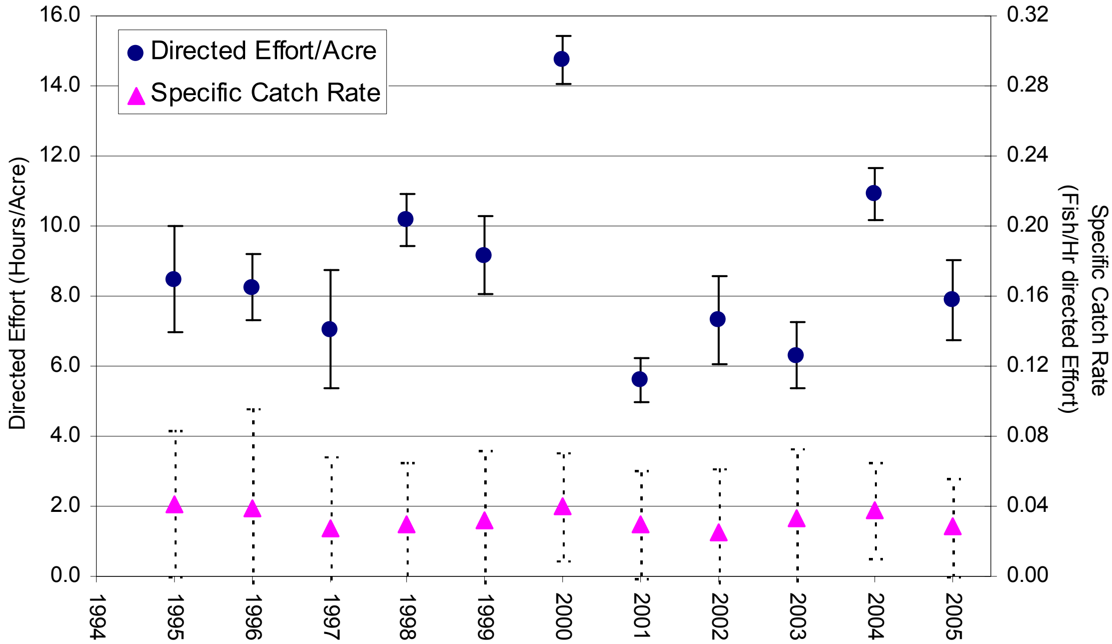

Figure 20. Directed angler effort per lake surface acre and specific catch rate (±SE) for muskellunge in surveyed lakes in the Wisconsin Ceded Territory, 1995-2005.

Northern Pike Effort and Catch

Catches of northern pike were recorded for 20 of the 21 lakes surveyed in 2005; no effort was directed at northern pike and none were caught from Pine Lake (Iron County). There was directed effort for northern pike on all 20 remaining lakes creeled (Appendix D). Of the 20 lakes with northern pike recorded, ten were smaller than 500 acres and ten were 500 acres or larger (Table 9). During the 2005-06 angling season directed angler effort (hours/acre) for pike in small lakes was significantly greater than that in large lakes (8.3 vs. 2.3 hours/acre; Table 9). Although differences in mean values appeared substantial for some variables, there were no significant differences between large and small lakes with regard to specific catch rate, angler catch per acre, or specific harvest rate of northern pike in 2005 (Table 9). For northern pike no significant differences were found between 2005 creel values and the corresponding prior 10 year averages (1995 -2004) for any of the variables evaluated in Table 9.

Table 9. Mean estimates calculated from 2005 and 1995-2004 northern pike creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2005							
	< 500 acres	10	3.2	0.58	0.191	0.041	8.3*
	> 500 acres	10	1.0	0.12	0.102	0.025	2.3*
	All lakes	20	2.1	0.33	0.147	0.033	5.3
1995-2004**							
	< 500 acres	85	2.5	0.41	0.195	0.048	5.2
	> 500 acres	103	2.1	0.32	0.197	0.045	3.6
	All lakes	188	2.3	0.36	0.196	0.046	4.3

* 2005 values for large and small lakes differ significantly (T-test, $p \leq 0.05$).

** No significant differences exist between 2005 values and corresponding 10 yr. averages (T-test, $p > 0.05$).

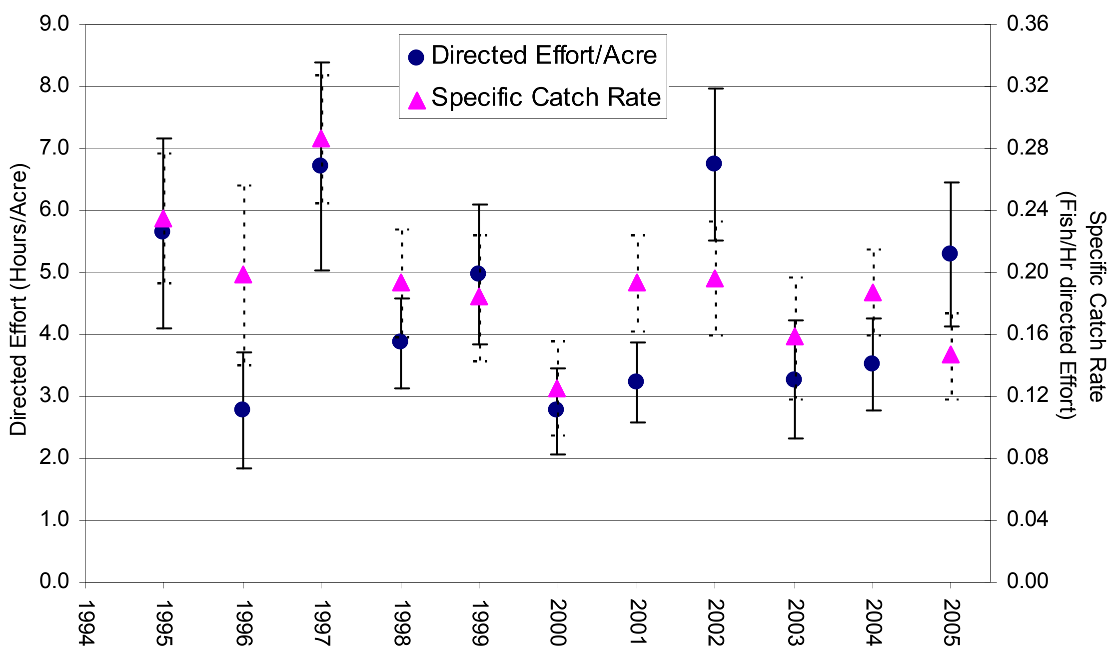

Figure 21. Directed angler effort per lake surface acre and specific catch rate (±SE) for northern pike in surveyed lakes in the Wisconsin Ceded Territory, 1995-2005.

Largemouth Bass Effort and Catch

Catches of largemouth bass were reported for 20 of the 21 lakes surveyed in 2005, all 20 of which had at least some level of directed effort for largemouth bass (Appendix D). Of surveyed lakes with largemouth bass catch, ten were smaller than 500 acres and ten were 500 acres or larger (Table 10). In 2005, there were no significant differences between large and small lakes with regard to directed (toward largemouth bass) angler effort, nor angler catch or harvest numbers or rates (T-tests, equal variance, $P > 0.05$). During the 2005-06 angling season directed effort for largemouth bass in Ceded Territory lakes was the second greatest level observed since 1995; the same was true for specific catch rate of largemouth bass (Figure 22). Since 1995 when a randomized lake selection process was instituted there has been a statistically detectable increase in specific catch rates [$F(1, 199) = 14.29$, $P < 0.01$] in largemouth bass fishing in Wisconsin Ceded Territory lakes; there has been no detectable trend in directed angler effort over the same time period [$F(1, 199) = 2.19$, $P = 0.14$; Figure 22].

Table 10. Mean estimates calculated from 2005 and 1995-2004 largemouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2005*							
Small	< 500 acres	10	8.13	0.26	0.54	0.01	8.89
Large	> 500 acres	10	3.88	0.17	0.40	0.02	3.67
	All lakes	20	6.01	0.21	0.47	0.02	6.28
1995-2004							
Small	< 500 acres	89	2.66	0.12	0.27	0.01	4.33**
Large	> 500 acres	100	3.07	0.17	0.26	0.02	3.31
	All lakes	189	2.88	0.14	0.26**	0.01	3.79**

* 2005 values for large and small lakes differ significantly (T-test, $p \leq 0.05$).
** 2005 values differ significantly (T-test, $p \leq 0.05$) from corresponding 10 yr. averages.

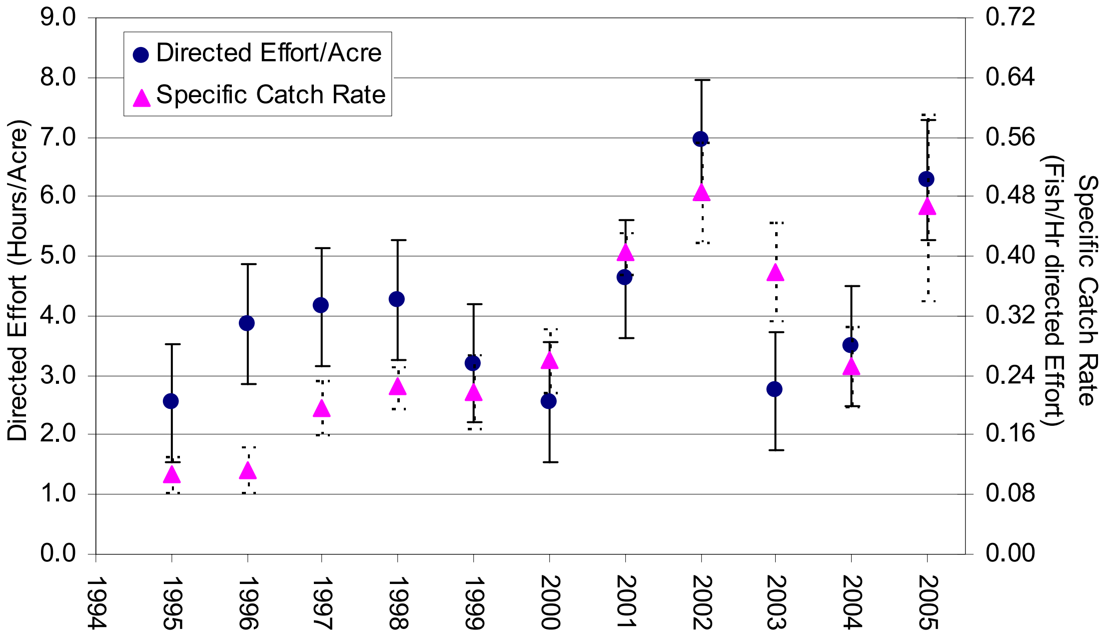

Figure 22. Directed angler effort per lake surface acre and specific catch rate (±SE) for largemouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2005.

Smallmouth Bass Effort and Catch

Catches of smallmouth bass were reported for 20 of the 21 lakes surveyed in 2005, all 20 of which had at least some level of directed effort for smallmouth bass (Appendix D). Of the 20 surveyed lakes with smallmouth bass catch in 2005, half were classified as 'small' (<500 ac.) and half as 'large' (≥500 ac.; Table 11). There were no significant differences in directed angler effort, catch/acre or harvest/acre (T-test, P>0.05) between large or small lakes in 2005 (Table 11). However, specific catch and harvest rates for smallmouth bass in 2005 were both significantly greater in large lakes than in small lakes (T-test, P<0.05; Table 11). Both directed effort and specific catch rates of smallmouth bass anglers in the Ceded Territory have been variable over time, and average directed effort and specific catch rates in surveyed lakes during 2005-06 were generally similar to values in most other years since 1995 (Figure 23). However, since 1995 when a randomized lake selection process was instituted there have been no statistically detectable trends in directed angler effort/acre [F(1, 197) = 0.43, P = 0.51] or specific catch rates [F(1, 197) = 1.31, P = 0.25] in smallmouth bass fishing in Wisconsin Ceded Territory lakes (Figure 23).

Table 11. Mean estimates calculated from 2005 and 1995-2004 smallmouth bass creel survey data.

Year	Lake Size	N	Catch/ Acre	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	Directed Effort/ Acre
2005							
Small	< 500 acres	10	1.73	0.01	0.14*	0.00*	3.28
Large	> 500 acres	10	3.10	0.15	0.41*	0.01*	2.76
	All lakes	20	2.41	0.09	0.28	0.00	3.02
1995-2004							
Small	< 500 acres	84	2.22	0.09**	0.30**	0.02**	4.00
Large	> 500 acres	101	1.62	0.07	0.33	0.03	2.81
	All lakes	185	1.89	0.08	0.31	0.02**	3.36

* 2005 values for large and small lakes differ significantly (T-test, $p \leq 0.05$).
** 2005 values differ significantly (T-test, $p \leq 0.05$) from corresponding 10 yr. averages.

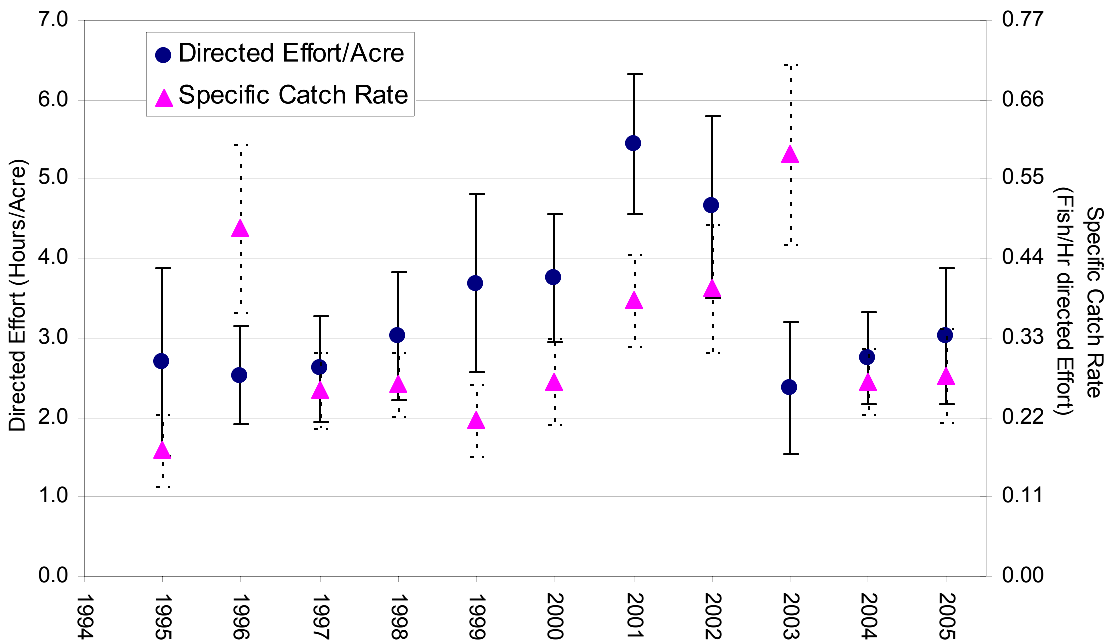

Figure 23. Directed angler effort per lake surface acre and specific catch rate (±SE) for smallmouth bass in surveyed lakes in the Wisconsin Ceded Territory, 1995-2005.

Safe Harvest

Safe harvest calculated for the 2005 harvest season was 93,467 walleye and 4,818 musky across the entire Wisconsin Ceded Territory (Table 12). Safe harvest of both walleye and musky is highly correlated to the surface acreage of water found in each county (Linear regression, r^2>0.9). For both walleye and musky the greatest total safe harvest numbers for individual counties were observed in Vilas (19,458 walleye, 1,354 musky), Oneida (19,286 walleye, 960 musky), Sawyer (10,045 walleye, 518 musky) and Iron (7,472 walleye, 355 musky) counties, respectively. When totaled, safe harvest from these four counties accounted for 60.2 percent of overall walleye and 66.1 percent of overall musky safe harvest for the Wisconsin Ceded Territory during 2005. Safe harvest numbers for individual lakes are listed in Appendix I.

Table 12. Calculated safe harvest levels and corresponding ranks for walleye and musky by county for the 2005 harvest season.

County	Lake Acreage	Total Calculated Safe Harvest		Ranks (1 = Greatest #)	
		Walleye	Musky	Walleye	Musky
Ashland	2,861	358	89	22	12
Barron	13,160	2,174	37	11	17
Bayfield	12,935	3,546	140	9	8
Burnett	11,674	1,139	108	16	10
Chippewa	14,771	4,995	169	5	7
Clark	320	21	5	26	24
Douglas	6,116	1,968	47	12	16
Dunn	1,752	654		19	---
Eau Claire	2,571	634	34	20	19
Florence	1,534	264		24	---
Forest	10,993	1,380	53	14	15
Iron	24,638	7,472	355	**4**	**4**
Langlade	4,820	674	36	18	18
Lincoln	15,564	4,912	241	6	5
Marathon	9,442	3,794	58	7	14
Marinette	3,178	743	19	17	23
Oconto	2,980	444	22	21	21
Oneida	60,805	19,286	960	**2**	**2**
Polk	11,586	1,151	84	15	13
Portage	49	4		27	---
Price	9,117	2,851	232	10	6
Rusk	5,633	1,500	122	13	9
Sawyer	47,787	10,045	518	**3**	**3**
St. Croix	1,100	277	20	23	22
Taylor	1,154	152	23	25	20
Vilas	70,637	19,458	1,354	**1**	**1**
Washburn	15,235	3,571	92	8	11
Grand Total	36,2412	**93,467**	**4,818**	**---**	**---**

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 2005 WDNR completed 160 fall surveys encompassing 150 different lakes in the Wisconsin Ceded Territory; some lakes had multiple fall surveys conducted (Appendix G). Of the lakes sampled, 58 had walleye populations classified as sustained by naturally reproduction (recruitment codes NR, C-NR, or C-), and 43 as sustained by stocking (ST or C-ST), 26 as remnant or newly established populations (REM, O-ST, NR-2; Appendix C). Thirty-two lakes were classified as having no known walleye population (NONE/0). Water temperatures during 2005 YOY walleye surveys ranged from 47 - 73° F; both the mean and median water temperatures during YOY surveys were 62° F. Young-of-year walleye lengths ranged from 3.0 to 9.3 inches across all lakes and dates surveyed in 2005 (Appendix G).

Differences in mean YOY walleye density between natural and stocked recruitment categories was highly significant during 2005 (t-test-unequal variance, $t = 4.96$, $df = 63$, $P < 0.0001$). Consistent with all previous years since 1990, lakes sustained primarily by natural reproduction had higher mean walleye YOY density (mean = 41.0/mile of shoreline shocked, range = 0.0–217.3) than lakes sustained by stocking (mean = 4.1/mile, range = 0.0–66.3) during 2005 (Figure 24). The mean YOY walleye density observed in natural recruitment lakes during 2005 (41.0/mile) was greater than all but 3 of the previous 15 years studied (1994-54.0/mile; 1995-52.3/mile; 2001-52.5/mile). In contrast, the mean YOY walleye density observed in stocked lakes during 2005 (4.1/mile) was less than all but 2 of the previous 15 years studied (2000-3.2/mile; 2004-2.8/mile).

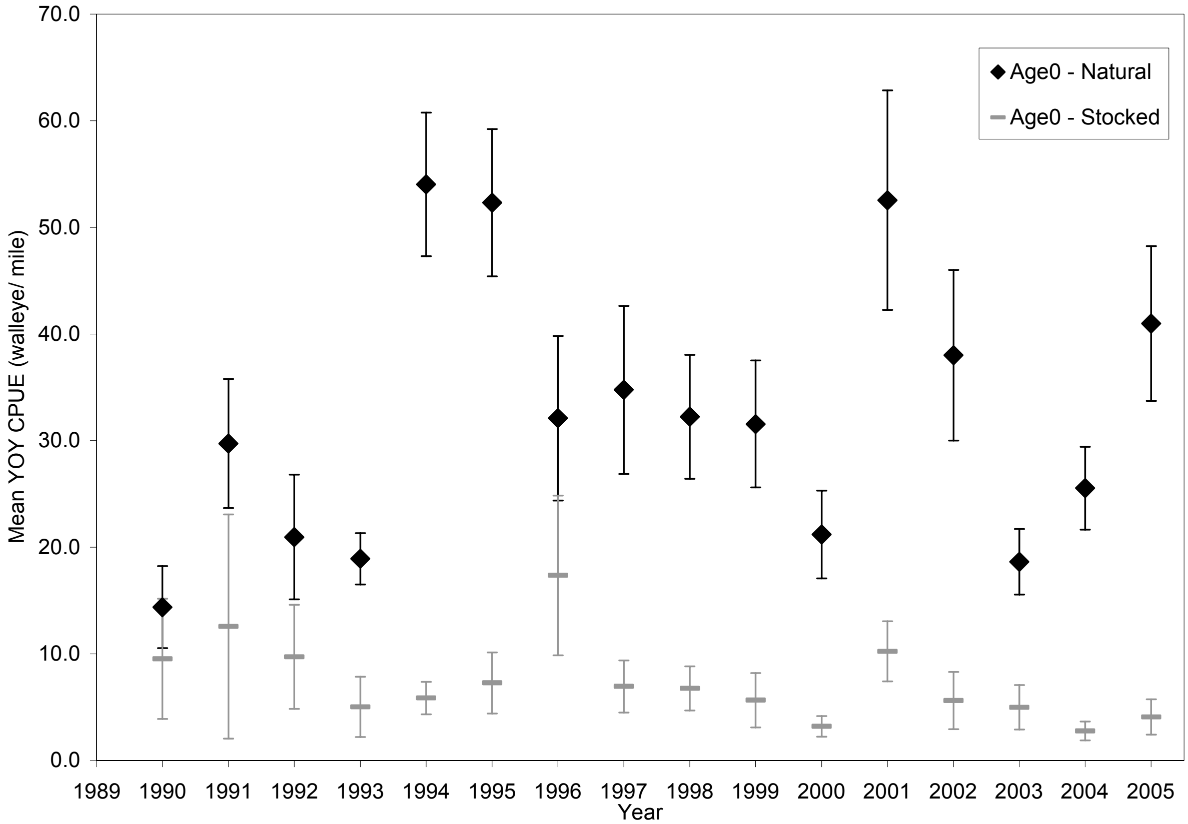

Figure 24. Comparison of mean YOY walleye density (± SE) observed in fall electrofishing surveys since 1990 in lakes dominated by natural recruitment or stocking.

YOY densities observed in 2005 were not significantly different than the prior 15-year mean in either natural (t-test-equal variance, t = 1.22, df = 834, P = 0.22) or stocked model lakes (t-test-unequal variance, t = -1.51, df = 65, P = 0.14). A general linear model used to assess the impact of year and/or recruitment model on YOY walleye density was significant (p<0.0001; Table 13). The significance of the model was driven by differences in YOY density between years (p=0.0024), recruitment models (natural or stocked; p<0.0001) and the interaction of year*recruitment model (p=0.0312). Based on the significance of the year*recruitment model interaction term, regressions were done to evaluate trends independently for natural and stocked model lakes. No significant trend was noted for YOY densities over time in natural model lakes (p=0.91; see Figure 24). YOY walleye densities have declined significantly over time in stocked model lakes since 1990 (slope=-0.45, p=0.0091; see Figure 24).

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 a fact that may reduce competition between year classes of walleye (Li et al. 1996).

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 24); In the absence of an annual regional effect one might expect annual percentages to be similar across years. Overall, mean YOY density observed for natural recruitment lakes in 2005 was above average (41.0 versus 33.5) whereas that in stocked lakes was below average (4.1 versus 6.6 YOY/mile); average YOY densities observed in both natural and stocked recruitment lakes were within the respective ranges observed since 1990 (Figure 24).

Table 13. 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	3	384855	11662	7.99	<0.0001
Error	1,435	2095550	1460		
		Type III SS	**Mean Square**	**F Value**	**Pr > F**
Year	16	53822	3364	2.30	<0.0001
Recruitment Model[a]	1	173280	173280	118.66	0.0024
Year x Recruitment Model	16	41152	2572	1.76	0.0312

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 2005, 28/58 natural model lakes (48%) had YOY indices > 25 per mile, and ten NR lakes (17%) had YOY walleye indices > 100 per mile (Appendix G). Overall, the proportion of lakes with YOY catch rates greater than 25 and 100 fish per mile in 2005 was greater than the mean proportion of lakes observed with the same catch rates between 1990-2004 (mean percentage > 25 YOY/mi = 37%; >100/mi = 7%) illustrating the presence of strong natural walleye year classes in the fall of 2005.

In lakes categorized as being sustained primarily by stocking, the mean number of YOY walleye captured per mile in lakes that were stocked (5.3 YOY/ mile) with fry or small fingerlings was significantly greater than in lakes that were not stocked (3.5 YOY/ mile) in 2005 (t-test $t = 2.47$, $df = 42$, $P = 0.02$; Table 14). The mean value for un-stocked lakes was artificially inflated by one abnormally high value (66.3 YOY/mi) in Sand Lake, Sawyer County. Including Sand Lake, only six of 28 un-stocked lakes had YOY recorded in fall surveys with three of those exceeding 10 YOY/mi; all of these lakes were in the C-ST recruitment class (which includes some known natural production). These findings illustrate that, amongst stocked-model lakes, those that were stocked during 2005 had stronger fall recruitment than those that were not stocked. In addition, the relatively high contribution of naturally produced walleye in some C-ST lakes supports the prior finding that, in general, a strong natural year class of walleye was produced in 2005 in many lakes with natural recruitment.

Table 14. 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 2005.

	Stocked in 2004	**Not Stocked in 2004**
No. Lakes	15	28
Mean YOY walleye/ mile	5.3	3.5
Q1/Median/Q3	0.3 / 2.8 / 8.2	0.0 / 0.0 / 0.0
Lakes with 0 YOY/ mile	1 (7%)	16 (57%)
Lakes with <5 YOY/ mile	3 (20%)	17 (61%)
Lakes with <10 YOY/ mile	12 (80%)	17 (61%)

Sern’s indices for natural-model lakes ranged from 0.0–50.8 YOY walleye/acre with a mean of 7.2. In stocked-model lakes, Sern’s indices ranged from 0.0–2.4 YOY walleye/acre with a mean of 0.50. Within stocked-model lakes, those stocked prior to fall surveys logically had a greater average Serns’ value than lakes that were not stocked (0.86 Vs. 0.22, respectively) although the range of Serns’ values observed did not differ between groups of stocked-model lakes (0-2.4 in both groups).

Fall surveys were conducted on 8 lakes that were previously stocked with oxytetracycline marked walleyes in 2005; findings from one lake (Long Lake, Washburn Co.) were deemed unsuitable for analysis due to subsequent stocking of unmarked fish (Table 15). Most stocking events took place in the month of June. In general, the percent of marked fish tends to align well with and support recruitment code designations for lakes monitored during 2005, with higher values in ST lakes, and lower values in C-ST lakes. It is important to note that since numbers of fish examined for OTC marks from any individual lake during any year is often limited, the percent contribution of marked fish observed does not always appear to align completely with a designated recruitment code. Therefore OTC sampling itself is not indicative of recruitment code designations, and is not considered in the designation process unless a minimum of 30 individual fish are sampled from the water body in question.

Table 15. Lakes stocked with oxytetracycline (OTC) marked fish sampled in 2005, number of sampled fish where OTC marks were noted on the otolith, and percent contribution of stocked fish to the total sample.

County	Lake	Recruit Code*	WBIC	With OTC	Without OTC	Total	% Contrib.
Barron	Granite L	C-ST	2100800	12	12	24	50.0
Barron	Lower Turtle L	ST	2079700	48	3	51	94.1
Oneida	Bolger L	ST	973000	19	4	23	82.6
Oneida	Jennie Webber L	ST	1574300	2	0	2	100.0
Polk	Balsam L	C-ST	2620600	16	1	17	94.1
Vilas	Found L	ST	1593800	96	0	96	100.0
Vilas	Hunter L	C-ST	991700	50	22	72	69.4
Washburn	Long L**	C-ST	2106800	0	69	69	N/A

* Recruitment codes C-ST, ST, & 0-ST are lakes in the stocked model. Recruitment code C-NR is in the natural model (Appendix C).

** Results are not considered usable due to additional stocking of unmarked fish and lack of clarity in collection date(s).

REFERENCES

Anderson, R.O. and R.M. Neumann. 1996. Length, weight, and structural indices. In Fisheries Techniques, Second Edition. Edited by B.R. Murphy and D.W. Willis. American Fisheries Society, Bethesda, Maryland, USA. pp. 447 – 482.

Beard, T. D., Jr., S. W. Hewett, Q. Yang, R. M. King, and S. J. Gilbert. 1997. Prediction of angler catch rates based on walleye population density. North American Journal of Fisheries Management 17 (4): 621-627.

Deroba, J.D., M.J. Hansen, N.A. Nate, and J.M. Hennessy. 2007. Temporal profiles of walleye angling effort, harvest rate, and harvest in northern Wisconsin lakes. North American Journal of Fisheries Management 27:717-727.

Hansen, M. J. 1989. A walleye population model for setting harvest quotas. Wisconsin Department of Natural Resources Bureau of Fisheries Management, Fish Management Report 143, Madison, Wisconsin.

Hansen, M. J., M.D. Staggs, and M. H. Hoff. 1991. Derivation of safety factors for setting harvest quotas on adult walleyes from past estimates of abundance. Transactions of the American Fisheries Society 120: 620-628.

Hansen, M. J., M.A. Bozek, J. R. Newby, S. P. Newman and M. D. Staggs. 1998. Factors affecting recruitment of walleyes in Escanaba Lake, Wisconsin, 1958-1996. North American Journal of Fisheries Management 18(4): 764-774.

Hansen, M. J., T. D. Beard Jr., S. W. Hewett. 2000. Catch rates and catchability of walleyes in angling and spearing fisheries in Northern Wisconsin lakes. North American Journal of Fisheries Management 20(1): 109-118.

Hansen, S.P. 2008. 2004-2005 Ceded Territory Fishery Assessment Report. Wisconsin Department of Natural Resources Bureau of Fisheries Management and Habitat Protection, Administrative Report 62, Madison, Wisconsin.

Hennessy, J.M. 2005. 2002-2003 Ceded Territory Fishery Assessment Report. Wisconsin Department of Natural Resources Bureau of Fisheries Management and Habitat Protection, Administrative Report 59, Madison, Wisconsin.

Hennessy, J.M. 2002. 2001-2002 Ceded Territory Fishery Assessment Report. Wisconsin Department of Natural Resources Bureau of Fisheries Management and Habitat Protection, Administrative Report 55, Madison, Wisconsin.

Hewett, S. W. No Date. Walleye Population Sampling Plan, Treaty Fisheries Program. Wisconsin Department of Natural Resources, internal document. Madison, WI.

Hewett, S. W. and T. D. Simonson. 1998. Wisconsin's walleye management plan: moving management into the 21st century. Wisconsin Department of Natural Resources, Administrative Report #43, Bureau of Fisheries Management and Habitat Protection, Madison, Wisconsin.

Krueger, J. 2006. Open water spearing in northern Wisconsin by Chippewa Indians during 2005. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 2006-02, Odanah, Wisconsin.

Krueger, J. 2005. Open water spearing in northern Wisconsin by Chippewa Indians during 2004. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 2005-02, Odanah, Wisconsin.

Krueger, J. 2004. Open water spearing in northern Wisconsin by Chippewa Indians during 2003. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 2004-01, Odanah, Wisconsin.

Krueger, J. 2003. Open water spearing in northern Wisconsin by Chippewa Indians during 2002. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 2003-03, Odanah, Wisconsin.

Krueger, J. 2002. Open water spearing in northern Wisconsin by Chippewa Indians during 2001. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 2002-01, Odanah, Wisconsin.

Krueger, J. 2001. Open water spearing in northern Wisconsin by Chippewa Indians during 2000. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 2001-01, Odanah, Wisconsin.

Krueger, J. 2000. Open water spearing in northern Wisconsin by Chippewa Indians during 1999. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 2000-05, Odanah, Wisconsin.

Krueger, J. 1999. Open water spearing in northern Wisconsin by Chippewa Indians during 1998. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 99-4, Odanah, Wisconsin.

Krueger, J. 1998. Open water spearing in northern Wisconsin by Chippewa Indians during 1997. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 98-01, Odanah, Wisconsin.

Krueger, J. 1997. Open water spearing in northern Wisconsin by Chippewa Indians during 1996. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 97-02, Odanah, Wisconsin.

Li, J., Y. Cohen, D. H. Schupp, and I. R. Adelman. 1996. Effects of walleye stocking on year-class strength. North American Journal of Fisheries Management 16(4): 840-850.

Margenau, T. L. and S. P. AveLallemant. 2000. Effects of a 40-inch minimum length limit on muskellunge in Wisconsin. North American Journal of Fisheries Management 20: 986-993.

Nate, N. A., M. A. Bozek, M. J. Hansen, and S. W. Hewett. 2000. Variation in walleye abundance with lake size and recruitment source. North American Journal of Fisheries Management. 20: 119-126.

Ngu, H. H. 1996. Open water spearing in northern Wisconsin by Chippewa Indians during 1995. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 96-01, Odanah, Wisconsin.

Ngu, H. H. 1995. Open water spearing in northern Wisconsin by Chippewa Indians during 1994. Great Lakes Indian Fish and Wildlife Commission, Administrative Report 95-03, Odanah, Wisconsin.

Rasmussen, P. W., M. D. Staggs, T. D. Beard, Jr., and S. P. Newman. 1998. Bias and confidence interval coverage of creel survey estimators evaluated by simulation. Transactions of the American Fisheries Society 127: 460-480.

Ricker, W. E. 1975. Computation and Interpretation of Biological Statistics of Fish Populations. Bulletin of the Fisheries Research Board of Canada 191. Department of the Environment, Fisheries, and Marine Science, Ottawa. 382 p.

Serns, S. L. 1982. Relationship of walleye fingerling density and electrofishing catch per effort in northern Wisconsin lakes. North American Journal of Fisheries Management 2 (1): 38-44.

Simonson, T.D. and S.W. Hewett. 1999. Trends in Wisconsin's Muskellunge Fishery. North American Journal of Fisheries Management 19:291-299.

Staggs, M.D., R.C. Moody, M.J. Hansen, M.H. Hoff. Spearing and sport angling for walleye in Wisconsin's Ceded Territory. Wisconsin Department of Natural Resources, Administrative Report #31, Bureau of Fisheries Management, Madison, Wisconsin.

United States Department of the Interior (USDI), Bureau of Indian Affairs. 1991. Casting Light Upon the Waters. Minneapolis.

Wisconsin Department of Natural Resources. 1996. Wisconsin Muskellunge Waters. Publication RS-919-96.

Wisconsin Technical Working Group. 1999. December meeting minutes.

APPENDICES

Appendix A. WDNR Lake Sampling Rotation 2005-2012.

YEAR	UNIT	MWBC	COUNTY	LAKE	AREA	MODEL	LAKES	ROTATION
2005	Spooner	2949200	IRON	PINE	312	N	1	TREND
2005	Spooner	2620600	POLK	BALSAM	2054	S	1	TREND
2005	Spooner		Barron	Red Cedar/Hemlock/Balsam	2,493	N	3	Spatial
2005	Spooner	2381100	Sawyer	L Winter	676	0-ST	1	Spatial
2005	Spooner	2865000	Douglas	L Nebagamon	914	N	1	Spatial
2005	Spooner		Price	Pike Chain	1,905	N	4	Spatial
2005	Spooner	2695800	Washburn	Gilmore	389	S	1	Spatial
TOTAL	***Spooner***				***8,743***		***12***	
2005	Woodruff	1588200	ONEIDA	TWO SISTERS	719	N	1	TREND
2005	Woodruff	1545600	VILAS	BIG ARBOR VITAE	1,090		1	TREND
2005	Woodruff	2316600	Vilas	Dead Pike	297	N	1	Spatial
2005	Woodruff	977500	Oneida	Clear	846	N	1	Spatial
2005	Woodruff	1569900	Oneida	L Thompson	382	S	1	Spatial
2005	Woodruff		Oneida	Carrol/Madeline Chain	494	S	2	Spatial
2005	Woodruff	1593100	Vilas	Star	1,206	N	1	Spatial
2005	Woodruff	387200	Langlade	Otter	90	S	1	Spatial
TOTAL	***Woodruff***				***5,124***		***9***	
2005	**TOTAL**				**13,867**		**21**	
2006	Spooner	2897100	BAYFIELD	DIAMOND	341	S	1	TREND
2006	Spooner	2391200	SAWYER	GRINDSTONE	3,111	N	1	TREND
2006	Spooner	2152800	Chippewa	L Wissota	6,300	N	1	Spatial
2006	Spooner	2495100	Burnett	Sand	962	S	1	Spatial
2006	Spooner	2081200	Barron	Beaver Dam	1,112	S	1	Spatial
2006	Spooner	2621100	Polk	Half Moon	579	S	1	Spatial
2006	Spooner	2858100	Douglas	Amnicon	426	N	1	Spatial
TOTAL	***Spooner***				***12831***		***7***	
2006	Woodruff	1018500	VILAS	SNIPE	239	N	1	TREND
2006	Woodruff	1592400	VILAS	PLUM	1,033	N	1	TREND
2006	Woodruff	1631900	Vilas	Lac Vieux Desert	4,300	N	1	Spatial
2006	Woodruff	1595800	Oneida	N Nokomis	476	S	1	Spatial
2006	Woodruff	1881900	Vilas	Sparkling	154	S	1	Spatial
2006	Woodruff	1517200	Oneida	Manson	236	N	1	Spatial
2006	Woodruff	1629500	Vilas	Big Portage	638	N	1	Spatial
2006	Woodruff	2272600	Oneida	Buckskin	634	N	1	Spatial
2006	Woodruff	396500	Forest	L Lucerne	1,026	S	1	Spatial
TOTAL	***Woodruff***				***8,736***		***9***	
2006	**TOTAL**				**21,567**		**16**	

YEAR	UNIT	MWBC	COUNTY	LAKE	AREA	MODEL	LAKES	ROTATION
2007	Spooner	2678100	BURNETT	LIPSETT	393	S	1	TREND
2007	Spooner	2742100	BAYFIELD	MIDDLE EAU CLAIRE	902	N	1	TREND
2007	Spooner	2900200	Bayfield	L Owen	1,323	S	1	Spatial
2007	Spooner		Douglas	Lower Eau Claire/Cranberry	860	N	2	Spatial
2007	Spooner	2393200	Sawyer	Sand	928	N	1	Spatial
2007	Spooner	2706800	Burnett	Big McKenzie	1,185	S	1	Spatial
2007	Spooner	2306300	Iron	Spider	352	N	1	Spatial
2007	Spooner	2624600	Polk	Magnor	224	S	1	Spatial
2007	Spooner	2618000	Polk	Wapogasset	1,186	S	1	Spatial
TOTAL	***Spooner***				***7,353***		***10***	
2007	Woodruff	394400	FOREST	L METONGA	1,991	S	1	TREND
2007	Woodruff	2331600	VILAS	TROUT	3,816	S	1	TREND
2007	Woodruff		Vilas	Twin L Chain	3,430	N	2	Spatial
2007	Woodruff	1482400	Lincoln	Tug	151	N	1	Spatial
2007	Woodruff	1545300	Vilas	Little Arbor Vitae	534	N	1	Spatial
2007	Woodruff		Oneida	Moen Chain	1,172	N	5	Spatial
2007	Woodruff	677100	Florence	Fay	247	S	1	Spatial
TOTAL	***Woodruff***				***11,341***		***12***	
2007	**TOTAL**				**18,694**		**22**	
2008	Spooner	2949200	IRON	PINE	312	N	1	TREND
2008	Spooner	2620600	POLK	BALSAM	2,054	S	1	TREND
2008	Spooner		Burnett	Yellow/Little Yellow	2,635	S	2	Spatial
2008	Spooner	2704200	Sawyer	Nelson	2,503	N	1	Spatial
2008	Spooner	2105100	Barron	Bear	1,358	S	1	Spatial
2008	Spooner	2882300	Bayfield	Siskiwit	330	N	1	Spatial
2008	Spooner	2693700	Douglas	Bond	292	N	1	Spatial
2008	Spooner	2435700	Sawyer	Spider	1,454	S	1	Spatial
TOTAL	***Spooner***				***10,938***		***9***	
2008	Woodruff	1588200	ONEIDA	TWO SISTERS	719	N	1	TREND
2008	Woodruff	1545600	VILAS	BIG ARBOR VITAE	1,090		1	TREND
2008	Woodruff	1595300	Oneida	Rainbow Fl	2,035	N	1	Spatial
2008	Woodruff	1605800	Oneida	Sevenmile	503	N	1	Spatial
2008	Woodruff	2954800	Vilas	Oxbow	511	N	1	Spatial
2008	Woodruff		Vilas	Cisco Chain	1,539	N	3	Spatial
2008	Woodruff	683000	Forest	Stevens	297	S	1	Spatial
2008	Woodruff	439800	Oconto	Wheeler	293	N	1	Spatial
TOTAL	***Woodruff***				***6,987***		***10***	
2008	**TOTAL**				**17,925**		**19**	
2009	Spooner	2897100	BAYFIELD	DIAMOND	341	S	1	TREND
2009	Spooner	2391200	SAWYER	GRINDSTONE	3,111	N	1	TREND
2009	Spooner	2294900	Iron	Turtle-Flambeau	13,545	N	1	Spatial
2009	Spooner	2295200	Iron	Trude	781	N	1	Spatial
2009	Spooner	2676800	Burnett	Big Sand	1,400	0-ST	1	Spatial
2009	Spooner	1881100	Barron	Silver	337	N	1	Spatial
2009	Spooner	2747300	Douglas	Upper St. Croix	855	N	1	Spatial
TOTAL	***Spooner***				***19,515***		***7.0***	
2009	Woodruff	1018500	VILAS	SNIPE	239	N	1	TREND
2009	Woodruff	1592400	VILAS	PLUM	1,033	N	1	TREND
2009	Woodruff		Oneida	Tomahawk/Minocqua Chain	3,552	S	5	Spatial
2009	Woodruff	1574300	Oneida	Jennie Webber	226	S	1	Spatial
2009	Woodruff		Vilas	Palmer/Tenderfoot	1,072	S	2	Spatial
2009	Woodruff	1515400	Lincoln	L Mohawksin	1,910	N	1	Spatial
TOTAL	***Woodruff***				***8,032***		***11***	
2009	**TOTAL**				**27,547**		**18**	

YEAR	UNIT	MWBC	COUNTY	LAKE	AREA	MODEL	LAKES	ROTATION
2010	Spooner	2678100	BURNETT	LIPSETT	393	S	1	TREND
2010	Spooner	2742100	BAYFIELD	MIDDLE EAU CLAIRE	902	N	1	TREND
2010	Spooner		Sawyer	Round/Little Round	3,283	N	2	Spatial
2010	Spooner	2492100	Douglas	Red	258	S	1	Spatial
2010	Spooner	2382300	Sawyer	Barber	238	S	1	Spatial
2010	Spooner	2393500	Sawyer	Sissabagama	719	N	1	Spatial
2010	Spooner	2046500	Sawyer	Windfall	102	N	1	Spatial
2010	Spooner		Rusk	Chain/Clear/Island/McCann	1,222	N	4	Spatial
2010	Spooner	1884100	Washburn	Stone	523	S	1	Spatial
TOTAL	***Spooner***				***7,640***		***13***	
2010	Woodruff	394400	FOREST	L METONGA	1,991	S	1	TREND
2010	Woodruff	2331600	VILAS	TROUT	3,816	S	1	TREND
2010	Woodruff	1528300	Oneida	Willow Fl	5,135	N	1	Spatial
2010	Woodruff	390600	Forest	Mole	73	0-ST	1	Spatial
2010	Woodruff		Vilas	Turtle Chain	945	N	2	Spatial
2010	Woodruff	1855900	Vilas	Jag	158	N	1	Spatial
2010	Woodruff	1569600	Oneida	George	435	N	1	Spatial
2010	Woodruff	1564200	Oneida	Crescent	612	N	1	Spatial
TOTAL	***Woodruff***				***147,838***		***128***	
2010	**TOTAL**				**155,478**		**141**	
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	1841300	Sawyer	Clear	77	0-ST	1	Spatial
2011	Spooner	2303500	Iron	Long	396	S	1	Spatial
2011	Spooner	2767100	Bayfield	Long	263	S	1	Spatial
2011	Spooner	2914800	Ashland	English	244	S	1	Spatial
TOTAL	***Spooner***				***18,646***		***7***	
2011	Woodruff	1588200	ONEIDA	TWO SISTERS	719	N	1	TREND
2011	Woodruff	1545600	VILAS	BIG ARBOR VITAE	1,090		1	TREND
2011	Woodruff	1579900	Oneida	Pelican	3,585	S	1	Spatial
2011	Woodruff	1591100	Vilas	Big St. Germain	1,617	N	1	Spatial
2011	Woodruff	1613500	Oneida	Whitefish	205	NR-2	1	Spatial
2011	Woodruff		Vilas	Ballard Chain	1,025	S	3	Spatial
2011	Woodruff	417400	Oconto	Archibald	430	0-ST	1	Spatial
2011	Woodruff	1595600	Oneida	Muskellunge	284	N	1	Spatial
2011	Woodruff	1630100	Vilas	Black Oak	584	S	1	Spatial
TOTAL	***Woodruff***				***9,539***		***11***	
2011	**TOTAL**				**28,185**		**18**	
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		Bayfield	Pike Lake Chain	714	N	4	Spatial
2012	Spooner	2627400	Polk	Big Round	1,015	S	1	Spatial
2012	Spooner	2691500	Washburn	L Nancy	772	N	1	Spatial
2012	Spooner	2351400	Chippewa	Long	1,052	N	1	Spatial
2012	Spooner	2856400	Douglas	Lyman	403	N	1	Spatial
2012	Spooner	2661100	Barron	Sand	322	S	1	Spatial
TOTAL	***Spooner***				***11,493***		***15***	
2012	Woodruff	1018500	VILAS	SNIPE	239	N	1	TREND
2012	Woodruff	1592400	VILAS	PLUM	1,033	N	1	TREND
2012	Woodruff		Lincoln/Oneida	Nokomis/Rice Chain	3,916	N	3	Spatial
2012	Woodruff	1623400	Vilas	Pioneer	427	0-ST	1	Spatial
2012	Woodruff		Vilas	Presque Isle Chain	1,571	N	3	Spatial
2012	Woodruff		Vilas	Upper/Lower Buckatabon	846	S	2	Spatial
2012	Woodruff	2328700	Vilas	Papoose	428	N	1	Spatial
TOTAL	***Woodruff***				***8,460***		***12***	
2012	**TOTAL**				**19,953**		**27**	

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

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

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

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

1 Recruitment Code = Designation of the *primary* recruitment source and done by a technical working group.

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

Appendix D. Creel Survey Summaries.

Walleye

County	Lake	MWBIC	Acres	WAE Recruit Code	Initial WEBag	Final WEBag	WESz	Adult PE	Adult PE/ Acre	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	# Fish Measured	Mean Length	General Catch Rate	General Harvest Rate
Langlade	Otter	387200	90	NR-2	2	5	15	516	5.73	515	5.72	186	2.07	0.2004	0.0700	64	16.8	0.1256	0.0454
Oneida	Carrol	1544800	335	ST	3	3	15	282	0.84	518	1.55	40	0.12	0.0685	0.0051	12	18.6	0.0182	0.0014
Oneida	Clear	977500	846	NR	3	3	15	2096	2.48	691	0.82	226	0.27	0.1109	0.0371	40	16.7	0.0356	0.0116
Oneida	Madeline	1544700	159	REM	5	5	15	44	0.28	0	0.00	0	0.00	0.0000	0.0000	0	0.0	0.0000	0.0000
Oneida	Thompson	1569900	382	C-ST	3	3	15	435	1.14	1245	3.26	42	0.11	0.1570	0.0052	7	18.2	0.0648	0.0022
Oneida	Two Sisters	1588200	719	C-NR	3	3	15	2004	2.79	432	0.60	290	0.40	0.0697	0.0464	49	20.0	0.0333	0.0224
Vilas	Big Arbor Vita	1545600	1090	C-NR	3	3	1>14	6860	6.29	7897	7.24	5342	4.90	0.2443	0.1656	726	13.8	0.1074	0.0727
Vilas	Deadpike	2316600	297	ST	5	5	1>14	374	1.26	13	0.04	8	0.03	0.0530	0.0310	3	18.5	0.0122	0.0071
Vilas	Star	1593100	1206	C-NR	3	3	1>14	4295	3.56	1844	1.53	1019	0.84	0.2142	0.1184	175	14.2	0.1238	0.0684
Barron	Hemlock	2109800	357	REM	5	5	15	162	0.45	7	0.02	0	0.00	0.0000	0.0000	0	0.0	0.0006	0.0000
Barron	Red Cedar	2109600	1841	C-NR	3	3	15	3733	2.03	6024	3.27	2532	1.38	0.2277	0.1004	103	17.0	0.1033	0.0434
Douglas	Nebagamon	2865000	914	C-NR	2	3	15	1149	1.26	1990	2.18	389	0.43	0.2695	0.0529	72	16.9	0.1271	0.0249
Iron	Pine	2949200	312	NR	2	3	1>14	1738	5.57	1046	3.35	471	1.51	0.3812	0.1733	108	12.2	0.1894	0.0853
Polk	Balsam	2620600	2054	C-ST	3	3	15	1738	0.85	605	0.29	82	0.04	0.0306	0.0051	6	16.6	0.0070	0.0009
Price	Amik	2268600	224	REM	5	5	none	207	0.92	234	1.04	80	0.36	0.1455	0.0554	4	15.7	0.0412	0.0140
Price	Pike	2268300	806	C-NR	3	3	none	2321	2.88	861	1.07	107	0.13	0.1220	0.0154	29	14.3	0.0498	0.0062
Price	Round	2267800	726	C-NR	3	3	none	3522	4.85	2323	3.20	642	0.88	0.3826	0.1058	67	12.7	0.1899	0.0525
Price	Turner	2268500	149	C-	3	3	none	254	1.70	317	2.13	82	0.55	0.1404	0.0364	2	16.2	0.0619	0.0161
Sawyer	Winter	2381100	676	O-ST	5	5	14-18 slot, 1>18	727	1.08	547	0.81	165	0.24	0.0926	0.0317	23	16.2	0.0267	0.0081
Washburn	Balsam	2112800	295	C-NR	3	3	15	1003	3.40	350	1.19	72	0.24	0.0543	0.0147	6	16.9	0.0258	0.0053
Washburn	Gilmore	2695800	389	C-ST	5	5	15	144	0.37	23	0.06	6	0.02	0.0206	0.0087	2	21.4	0.0033	0.0009

Musky

County	Lake	MWBIC	Acres	Musky Recruit Code	Size Limit	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	# Fish Measured	Mean Length	General Catch Rate	General Harvest Rate
Langlade	Otter	387200	90	NONE	34	0									
Oneida	Carrol	1544800	335	C-ST	34	66	0.20	1	0.0030	0.0152	0.0004	1	39.00	0.0030	0.0001
Oneida	Clear	977500	846	NR	50	35	0.04	0		0.0234	0.0000	0		0.0020	0.0000
Oneida	Madeline	1544700	159	C-	34	13	0.08	0		0.0000	0.0000	0		0.0034	0.0000
Oneida	Thompson	1569900	382	NR	34	87	0.23	0		0.0185	0.0000	0		0.0051	0.0000
Oneida	Two Sisters	1588200	719	C-	40	132	0.18	0		0.0231	0.0000	0		0.0131	0.0000
Vilas	Big Arbor Vitae	1545600	1090	C-	34	935	0.86	10	0.0092	0.0353	0.0005	1	40.50	0.0169	0.0002
Vilas	Deadpike	2316600	297	NR	34	25	0.08	0		0.0223	0.0000	0		0.0179	0.0000
Vilas	Star	1593100	1206	C-	34	67	0.06	2	0.0017	0.0122	0.0005	1	40.00	0.0069	0.0002
Barron	Hemlock	2109800	357	NONE	34	15	0.04	0		0.0000	0.0000	0		0.0039	0.0000
Barron	Red Cedar	2109600	1841	NONE	34	0						0			
Douglas	Nebagamon	2865000	914	NONE	34	0						0			
Iron	Pine	2949200	312	NR	40	128	0.41	0		0.0600	0.0000	0		0.0281	0.0000
Polk	Balsam	2620600	2054	NONE	34	34	0.02	0		0.0000	0.0000	0		0.0025	0.0000
Price	Amik	2268600	224	NR	34	229	1.02	0		0.0705	0.0000	0		0.0337	0.0000
Price	Pike	2268300	806	C-ST	34	349	0.43	0		0.0543	0.0000	0		0.0222	0.0000
Price	Round	2267800	726	C-ST	34	222	0.31	0		0.0450	0.0000	0		0.0180	0.0000
Price	Turner	2268500	149	C-ST	34	120	0.81	0		0.0475	0.0000	0		0.0190	0.0000
Sawyer	Winter	2381100	676	C-ST	40	330	0.49	3	0.0044	0.0257	0.0003	1	29.50	0.0178	0.0002
Washburn	Balsam	2112800	295	NONE	34	0						0			
Washburn	Gilmore	2695800	389	NONE	34	0						0			

Northern Pike

County	Lake	MWBIC	Acres	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	# Fish Measured	Mean Length	General Catch Rate	General Harvest Rate
Langlade	Otter	387200	90	147	1.63	25	0.28	0.0438	0.0078	8	23.6	0.0412	0.0069
Oneida	Carrol	1544800	335	957	2.86	329	0.98	0.1893	0.0801	78	21.4	0.0335	0.0115
Oneida	Clear	977500	846	146	0.17	22	0.03	0.0302	0.0080	4	22.4	0.0079	0.0012
Oneida	Madeline	1544700	159	62	0.39	26	0.16	0.0396	0.0224	6	22.3	0.0120	0.0050
Oneida	Thompson	1569900	382	310	0.81	43	0.11	0.0430	0.0083	9	26.3	0.0166	0.0023
Oneida	Two Sisters	1588200	719	750	1.04	26	0.04	0.1919	0.0229	6	26.1	0.0599	0.0021
Vilas	Big Arbor Vitae	1545600	1090	38	0.03	30	0.03	0.0050	0.0050	4	26.4	0.0008	0.0006
Vilas	Deadpike	2316600	297	44	0.15	0		0.0000	0.0000	0		0.0361	0.0000
Vilas	Star	1593100	1206	464	0.38	128	0.11	0.0702	0.0475	17	22.6	0.0331	0.0092
Barron	Hemlock	2109800	357	3767	10.55	430	1.20	0.2890	0.0592	39	22.1	0.1533	0.0175
Barron	Red Cedar	2109600	1841	4192	2.28	416	0.23	0.1883	0.0463	26	23.8	0.0764	0.0076
Douglas	Nebagamon	2865000	914	1361	1.49	275	0.30	0.1296	0.0482	62	22.0	0.0868	0.0175
Iron	Pine	2949200	312	0						0			
Polk	Balsam	2620600	2054	4499	2.19	238	0.12	0.1798	0.0255	19	27.8	0.0474	0.0025
Price	Amik	2268600	224	946	4.22	147	0.66	0.4265	0.0297	9	23.1	0.1293	0.0200
Price	Pike	2268300	806	764	0.95	22	0.03	0.0236	0.0118	14	23.1	0.0440	0.0013
Price	Round	2267800	726	334	0.46	12	0.02	0.1334	0.0000	1	25.0	0.0405	0.0014
Price	Turner	2268500	149	291	1.95	110	0.74	0.2015	0.0922	32	21.7	0.0626	0.0236
Sawyer	Winter	2381100	676	622	0.92	183	0.27	0.0655	0.0360	35	23.4	0.0304	0.0089
Washburn	Balsam	2112800	295	1892	6.41	251	0.85	0.3253	0.0512	42	21.6	0.1414	0.0188
Washburn	Gilmore	2695800	389	1084	2.79	90	0.23	0.3548	0.0595	15	22.4	0.1324	0.0109

Smallmouth Bass

County	Lake	MWBIC	Acres	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	# Fish Measured	Mean Length	General Catch Rate	General Harvest Rate
Langlade	Otter	387200	90	54	0.60	2	0.0222	0.0542	0.0047	1	18.50	0.0172	0.0006
Oneida	Carrol	1544800	335	171	0.51	2	0.0060	0.2177	0.0000	1	16.60	0.0078	0.0001
Oneida	Clear	977500	846	11838	13.99	181	0.2139	1.1918	0.0215	23	15.26	0.6409	0.0098
Oneida	Madeline	1544700	159	14	0.09	0		0.1111	0.0000	0		0.0175	0.0000
Oneida	Thompson	1569900	382	207	0.54	5	0.0131	0.0315	0.0000	0		0.0121	0.0003
Oneida	Two Sisters	1588200	719	2048	2.85	24	0.0334	0.6550	0.0163	4	18.05	0.1920	0.0022
Vilas	Big Arbor Vitae	1545600	1090	1133	1.04	0		0.2188	0.0000	0		0.0196	0.0000
Vilas	Deadpike	2316600	297	37	0.12	0		0.1934	0.0000	0		0.0361	0.0000
Vilas	Star	1593100	1206	516	0.43	22	0.0182	0.3827	0.0239	3	15.40	0.0447	0.0019
Barron	Hemlock	2109800	357	383	1.07	0		0.1273	0.0000	0		0.0265	0.0000
Barron	Red Cedar	2109600	1841	16681	9.06	676	0.3672	0.6353	0.0331	40	16.47	0.3061	0.0124
Douglas	Nebagamon	2865000	914	2218	2.43	118	0.1291	0.3858	0.0327	14	15.86	0.1785	0.0095
Iron	Pine	2949200	312	241	0.77	4	0.0128	0.1888	0.0045	1	15.60	0.0538	0.0009
Polk	Balsam	2620600	2054	586	0.29	0		0.1988	0.0000	0		0.0108	0.0000
Price	Amik	2268600	224	13	0.06	0		0.0000	0.0000	0		0.0122	0.0000
Price	Pike	2268300	806	262	0.33	0		0.1960	0.0000	0		0.0243	0.0000
Price	Round	2267800	726	419	0.58	0		0.2707	0.0000	0		0.0387	0.0000
Price	Turner	2268500	149	362	2.43	0		0.0000	0.0000	0		0.1363	0.0000
Sawyer	Winter	2381100	676	8	0.01	0		0.0000	0.0000	0		0.0005	0.0000
Washburn	Balsam	2112800	295	3265	11.07	0		0.4905	0.0000	0		0.2357	0.0000
Washburn	Gilmore	2695800	389	0						0			

Largemouth Bass

County	Lake	MWBIC	Acres	Angler Catch	Angler Catch/ Acre	Angler Harvest	Angler Harvest/ Acre	Specific Catch Rate	Specific Harvest Rate	# Fish Measured	Mean Length	General Catch Rate	General Harvest Rate
Langlade	Otter	387200	90	271	3.01	20	0.2222	0.2359	0.0223	5	15.94	0.0865	0.0064
Oneida	Carrol	1544800	335	4344	12.97	65	0.1940	0.6880	0.0139	9	14.72	0.1545	0.0023
Oneida	Clear	977500	846	3846	4.55	57	0.0674	0.8780	0.0114	12	14.32	0.2169	0.0032
Oneida	Madeline	1544700	159	1465	9.21	19	0.1195	0.5566	0.0091	3	15.50	0.2425	0.0032
Oneida	Thompson	1569900	382	568	1.49	33	0.0864	0.0648	0.0049	5	14.74	0.0314	0.0018
Oneida	Two Sisters	1588200	719	1321	1.84	12	0.0167	0.6392	0.0113	2	16.50	0.1238	0.0012
Vilas	Big Arbor Vitae	1545600	1090	1114	1.02	50	0.0459	0.1760	0.0112	4	14.15	0.0167	0.0007
Vilas	Deadpike	2316600	297	81	0.27	0		0.3985	0.0000	0		0.0876	0.0000
Vilas	Star	1593100	1206	11	0.01	0		0.0000	0.0000	0		0.0015	0.0000
Barron	Hemlock	2109800	357	15032	42.11	280	0.7843	1.8480	0.0317	31	15.24	0.6199	0.0115
Barron	Red Cedar	2109600	1841	5582	3.03	133	0.0722	0.4418	0.0130	1	14.00	0.1150	0.0027
Douglas	Nebagamon	2865000	914	41	0.04	8	0.0088	0.0251	0.0000	1	13.10	0.0048	0.0009
Iron	Pine	2949200	312	0						0			
Polk	Balsam	2620600	2054	54253	26.41	2146	1.0448	0.9860	0.0381	152	14.24	0.5784	0.0229
Price	Amik	2268600	224	210	0.94	0		0.2958	0.0000	0		0.0560	0.0000
Price	Pike	2268300	806	239	0.30	0		0.3825	0.0000	0		0.0304	0.0000
Price	Round	2267800	726	200	0.28	48	0.0661	0.2327	0.0671	3	16.07	0.0336	0.0081
Price	Turner	2268500	149	143	0.96	1	0.0067	0.4395	0.0000	2	16.45	0.0444	0.0005
Sawyer	Winter	2381100	676	915	1.35	14	0.0207	0.2145	0.0083	2	14.55	0.0492	0.0007
Washburn	Balsam	2112800	295	1977	6.70	97	0.3288	0.3882	0.0160	5	14.78	0.1343	0.0066
Washburn	Gilmore	2695800	389	1432	3.68	128	0.3290	0.4352	0.0446	17	16.88	0.1838	0.0165

Appendix E. Walleye Population Estimates.

MWBC	County	Lake	Acres	Angler Reg	Recruit Code	PE - Males	CV Male PE	PE - Females	CV Female PE	M:F Ratio	Adult PE
585100	Florence	Cosgrove	75	15	NONE	41	0.24	36	0.12	1.14	74
672300	Florence	Sea Lion	125	15	REM	29	0.19	19	0.00	1.53	54
1579700	Langlade	Enterprise	505	1>14	NR	141	0.27	294	0.13	0.48	426
1005600	Langlade	Moccasin	110	15	C-ST	33	0.11	53	0.18	0.62	84
387200	Langlade	Otter	83	15	NR-2	374	0.13	206	0.49	1.82	516
1506800	Lincoln	Spirit Reservoir	1664	15	C-NR	4185	0.23	1415	0.57	2.96	4751
1544800	Oneida	Carrol	352	15	ST	118	0.26	126	0.18	0.94	282
977500	Oneida	Clear	846	15	NR	1763	0.07	506	0.53	3.48	2096
1544700	Oneida	Madeline	159	15	REM	4	0.00	16	0.43	0.25	44
1004600	Oneida	Mildred	191	15	NR	101	0.16	52	0.22	1.94	154
1569900	Oneida	Thompson	382	15	C-ST	160	0.32	232	0.23	0.69	435
1588200	Oneida	Two Sisters	719	15	C-NR	1031	0.08	1133	0.34	0.91	2004
1545600	Vilas	Big Arbor Vitae	1090	1>14	C-NR	6227	0.04	731	0.39	8.52	6860
2338800	Vilas	Big Crooked	682	none	NR	456	0.09	250	0.21	1.82	701
2316600	Vilas	Dead Pike	297	1>14	ST	297	0.10	99	0.36	3.00	374
2339900	Vilas	Escanaba	293	28	NR	1162	0.11	621	0.26	1.87	1756
2339800	Vilas	Lost Canoe	249	14-18	NR	498	0.08	378	0.41	1.32	725
1593100	Vilas	Star	1206	1>14	C-NR	3762	0.04	845	0.42	4.45	4295
2339100	Vilas	White Sand	734	14-18	C-ST	857	0.13	108	0.31	7.94	1030
2336100	Vilas	Wolf	393	15	NR	710	0.11	907	0.21	0.78	1531
2100800	Barron	Granite	154	15	C-ST	479	0.13	115	0.55	4.17	605
2109800	Barron	Hemlock	357	15	REM	81	0.22	61	0.35	1.33	162
2109600	Barron	Red Cedar	1841	15	C-NR	2848	0.08	2196	0.50	1.30	3733
2865000	Douglas	L Nebagamon	914	15	C-NR	744	0.12	459	0.34	1.62	1149
2694000	Douglas	Whitefish	832	15	NR	778	0.15	74	0.35	10.51	880
2949200	Iron	Pine	312	1>14	NR	1681	0.08	59	0.29	28.49	1738
2620600	Polk	Balsam	2054	15	C-ST	967	0.06	1558	0.39	0.62	1738
2268600	Price	Amik	224	none	REM	30	0.28	80	0.47	0.38	207
2268300	Price	Pike	806	none	C-	1777	0.11	994	0.58	1.79	2321
2267800	Price	Round	726	none	C-	3090	0.05	462	0.24	6.69	3522
2268500	Price	Turner	149	none	C-	115	0.26	84	0.21	1.37	254
2725500	Sawyer	Hayward	247	15	C-NR	38	0.41	23	0.41	1.65	93
2423000	Sawyer	Ghost	372	15	C-ST	118	0.29	258	0.12	0.46	451
2381100	Sawyer	L Winter	676	14-18	0-ST	68	0.30	478	0.26	0.14	727
2112800	Washburn	Balsam	295	15	C-NR	551	0.20	236	0.45	2.33	1003
2695800	Washburn	Gilmore	389	15	C-ST	71	0.12	66	0.17	1.08	144
2692900	Washburn	Minong Flowage	1564	15	NR	8398	0.20	2259	0.14	3.72	10954

Appendix F. Muskellunge Population Estimates.

Muskellunge population estimates were conducted over two years and completed in spring 2005; They represent 2004 population sizes. In year one, all sexable fish plus unknowns ≥ 30” are counted. In year two, all sexable fish plus unknowns ≥ 32” are counted, except take the lesser of 30” or the smallest half-inch group observed for each sex in the first year; for the second year, do not count sexable fish less than this minimum length plus 2”, or plus a different growth correction derived from the data for the lake. No stratification by length or sex is used, and the Chapman correction of the Petersen estimator is used, (M+1)(C+1)/(R+1).

MWBC	County	Lake	Acres	Angler Regulation (Min Size)	Recruit Code	Adult PE	CV of PE	Density #/Acre
1537800	Oneida	Booth	207	34”	ST	155	0.23	0.8
2327500	Vilas	Rest	608	34”	C-	181	0.25	0.3
2328700	Vilas	Papoose	428	40”	C-	131	0.09	0.3
2328800	Vilas	Stone	139	34”	C-ST	104	0.28	0.8
2328900	Vilas	Fawn	74	34”	C-ST	56	0.28	0.8
2329000	Vilas	Clear	555	34”	C-	161	0.20	0.3
2329300	Vilas	Spider	272	34”	C-	204	0.28	0.8
2329400	Vilas	Manitowish	506	34”	C-	120	0.22	0.2
2329600	Vilas	Alder	274	34”	C-	69	0.11	0.3
2329800	Vilas	Wild Rice	379	34”	C-ST	95	0.11	0.3
2331600	Vilas	Trout	3816	45”	C-NR	181	0.16	0.1
2334300	Vilas	Little Sta	244	34”	C-	58	0.22	0.2
2334400	Vilas	Island	1023	34”	C-	257	0.11	0.3
2417000	Sawyer	Teal	1049	34”	C-ST	349	0.37	0.3
2418600	Sawyer	Lost Land	1304	34”	C-ST	397	0.39	0.3
2742700	Bayfield	Upper Eau Claire	996	40”	C-	151	0.23	0.2

Appendix G. YOY Walleye Survey Summaries.

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Totshore	ShockMi	PerShock	ShockHr	Age0	Age0MinL	Age0MaxL	Age0Mod	Age0Hr	Age0/Mi	Serns	Age1	Age1MinL	Age1MaxL	Age1Mod	Age1Hr	Age1/Mi	WEStock	Sml Fing. # Stocked	Stock Date	S Fingerling Survival
Mineral	Ashland	2916900	225	C-ST	stocked	10/10/2005	56	5.3	5.3	100.0	2	54	5.4	7.8	6.4	27.0	10.2	2.38	-->						N			
Moquah	Ashland	2918200	50	REM	remnant	09/28/2005	58	2.7	1.4	51.9	0.6	0				0.0	0.0	NA	0				0.0	0.0	N			
Potter	Ashland	2917200	29	ST	stocked	10/13/2005	54	0.9	0.9	100.0	0.5	0				0.0	0.0	0.00	0				0.0	0.0	N			
Spider	Ashland	2918600	103	0-ST	remnant	09/28/2005	60	2.7	2.7	100.0	1	0				0.0	0.0	NA	0				0.0	0.0	N			
Spillerberg	Ashland	2936200	75	C-NR	natural	10/13/2005	56	1.5	1.5	100.0	0.7	66	5.9	8.8	7.5	94.3	44.0	10.30	17	9.6	11.5	10.2	24.3	11.3	N			
Beaver Dam	Barron	2081200	1112	C-ST	stocked	10/20/2005	57	18.0	11.1	61.7	3.6	91	5.5	8.4	NONE	25.3	8.2	NA							B			
Hemlock	Barron	2109800	357	REM	remnant	09/27/2005	65-66	6.9	6.9	100.0	1.9	3	5.2	6.4	NONE	1.6	0.4	NA	1	10.5	10.5	NONE	0.5	0.1	N			
L Montanis	Barron	2103200	200	C-ST	stocked	10/12/2005	57	2.7	2.7	100.0	1.1	27	6	8.9	7.0-7.4	24.5	10.0	2.34	2	10	10.9	NONE	1.8	0.7	B	17075	June 16, July 3	0.02741
Lower Vermillion	Barron	2098200	208	C-ST	stocked	09/26/2005	62	3.0	3.0	100.0	1	1	8	8.4	NONE	1.0	0.3	0.08	0				0.0	0.0	B	10399	June 13	0.00156
Moon	Barron	1867600	84		#N/A	09/15/2005	68	1.9	1.9	100.0	0.6	0				0.0	0.0	NA	0				0.0	0.0	N			
Mud	Barron	2094600	578	C-ST	stocked	10/19/2005	55	8.3	4.0	48.2	1.5	11	6.5	8.4	7.5-7.9	7.3	2.8	NA	2	10	10.9	NONE	1.3	0.5	B	29465	June 21	
Poskin	Barron	2098000	150	ST	stocked	09/22/2005	66	4.1	3.0	73.2	1	0				0.0	0.0	NA	1	8.5	8.9	NONE	1.0	0.3	N			
Prairie	Barron	2094100	1534	C-ST	stocked	10/23/2005	54	25.4	8.0	31.5	3.3	19	6.5	8.9	7.5-7.9	5.8	2.4	NA	-->						B	176447	June 15-July 10	
Red Cedar	Barron	2109600	1841	C-NR	natural	10/06/2005	58-63	15.9	15.9	100.0	6.8	68	3.8	7.3	NONE	10.0	4.3	NA	234	7.5	11.2	8.4	34.4	14.7	N			
Red Cedar	Barron	2109600	1841	C-NR	natural	10/26/2005	55	15.9	7.1	44.7	3	549	3.5	7.4	4.5-4.9	183.0	77.3	NA	184	7.5	11.4	8.5-8.9	61.3	25.9	N			
Red Cedar	Barron	2109600	1841	C-NR	natural	10/31/2005	55	15.9	7.1	44.7	2.8	399	3.5	7.4	4.5-4.9	142.5	56.2	NA	56	7.5	8.9	8.5-8.9	NA	NA	N			
Silver	Barron	1881100	337	C-NR	natural	10/24/2005	55	4.4	4.4	100.0	2.1	8	5	7.4	5.0-5.4	3.8	1.8	NA	4	9	9.9	NONE	1.9	0.9	B	41155	June 13-July 10	
Drummond	Bayfield	2899400	99	C-ST	stocked	09/21/2005	NA	3.1	0.5	16.1	0.2	0				0.0	0.0	NA	0				0.0	0.0	N			
Hay	Bayfield	2901600	59		#N/A	09/12/2005	71	2.8	2.8	100.0	1.2	0				0.0	0.0	NA	0				0.0	0.0	N			
Star	Bayfield	2898400	235		#N/A	09/13/2005	70	5.7	4.0	70.2	2	0				0.0	0.0	NA	0				0.0	0.0	N			
Big Doctor	Burnett	2453400	212		#N/A	09/19/2005	69	2.4	2.4	100.0	0.9	0				0.0	0.0	NA	0				0.0	0.0	N			
Big Mckenzie	Burnett	2706800	1185	C-ST	stocked	10/19/2005	52-58	7.1	7.1	100.0	2.8	18	4.9	7.5	NONE	6.4	2.5	0.59	1	10.5	10.5	NONE	0.4	0.1	B	150635	June 25-Aug 29	0.00467
Lipsett	Burnett	2678100	393	ST	stocked	10/03/2005	66	3.5	3.0	85.7	0.8	0				0.0	0.0	NA	7	8.9	11.5	NONE	8.8	2.3	N			
Little Wood	Burnett	2650900	185		#N/A	09/26/2005	64	3.1	2.5	80.6	0.9	0				0.0	0.0	NA	0				0.0	0.0	N			
Twenty-Six	Burnett	2672500	230	NONE	none	10/12/2005	57	3.8	3.8	100.0	1.4	0				0.0	0.0	0.00	0				0.0	0.0	N			
Chippewa Falls Flowage	Chippewa	2152600	282	NR	natural	10/11/2005	60	7.3	4.0	54.8	2.5	410	4.3	8	5.8, 6.3	164.0	102.5	NA	-->						N			
Cornell Flowage	Chippewa	2181400	577	NR	natural	10/12/2005	56	22.4	6.0	26.8	3.6	255	4.1	7.7	5.8	70.8	42.5	NA	-->						N			
Glen Loch Flowage	Chippewa	2151000	45		#N/A	09/26/2005	62	1.9	1.9	100.0	1.8	0				0.0	0.0	NA	0				0.0	0.0	N			
L Wissota	Chippewa	2152800	6300	NR	natural	10/13,17,18/2005	58-60	56.3	10.0	17.8	7	1629	4.1	7.2	6.5	232.7	162.9	NA	-->						N			
Amnicon	Douglas	2858100	426	C-NR	natural	08/23/2005	72-74	6.0	6.0	100.0	1.8	0				0.0	0.0	NA	-->						B			
Amnicon	Douglas	2858100	426	C-NR	natural	09/06/2005	68-70	6.0	6.0	100.0	2.1	0				0.0	0.0	NA	-->						B			
Amnicon	Douglas	2858100	426	C-NR	natural	09/29/2005	59-60	6.0	6.0	100.0	2	0				0.0	0.0	0.00	-->						B			
Amnicon	Douglas	2858100	426	C-NR	natural	10/19/2005	52	6.0	6.0	100.0	1.9	1	6.4	6.4	NONE	0.5	0.2	0.04	-->						B			
Amnicon	Douglas	2858100	426	C-NR	natural	10/24/2005	47	6.0	6.0	100.0	1.8	2	6.9	7	NONE	1.1	0.3	0.08	-->						B			
L Nebagamon	Douglas	2865000	914	C-NR	natural	09/22/2005	66-68	10.8	10.8	100.0	4.2	295	5.1	8.2	NONE	70.2	27.3	NA	29	8.6	10.5	9	6.9	2.7	N			
Red	Douglas	2492100	258	0-ST	remnant	09/20/2005	67-69	3.5	3.5	100.0	1.4	0				0.0	0.0	NA	3	10.6	11.3	NONE	2.1	0.9	N			
Sand	Douglas	2495300	75		#N/A	09/14/2005	68	1.4	1.4	100.0	0.7	0				0.0	0.0	NA	0				0.0	0.0	N			
Echo	Iron	2301800	220	C-NR	natural	10/17/2005	51	4.9	2.7	55.1	1.1	36	6	8.4	7.0-7.4	32.7	13.3	NA	-->						N			
Evelyn	Iron	2303200	55		#N/A	09/22/2005	63	1.5	1.5	100.0	1	0				0.0	0.0	0.00	0				0.0	0.0	N			
Fisher	Iron	2307300	410	ST	stocked	10/06/2005	54-57	10.9	1.7	15.6	0.8	0				0.0	0.0	NA	0				0.0	0.0	N			
Grand Portage	Iron	2314100	144	ST	stocked	09/29/2005	57	3.1	3.1	100.0	1.2	7	7	8.4	NONE	5.8	2.3	0.53	-->						B	17270	June 15/23/27	0.00441
Long	Iron	2303500	396	C-ST	stocked	10/11/2005	54-56	12.5	2.4	19.2	1.3	0				0.0	0.0	NA	-->						N			
Pine	Iron	2949200	312	NR	natural	10/10/2005	54-58	6.0	6.0	100.0	2.3	216	4.2	7.1	5	93.9	36.0	8.42	-->						N			
Spider	Iron	2306300	352	NR	natural	09/28/2005	58	7.3	2.7	37.0	1.3	97	4.5	8.4	6.0-6.4	74.6	35.9	NA	-->						N			
Trude	Iron	2295200	792	NR	natural	09/26/2005	61	15.1	4.0	26.5	1.4	440	4	7.9	6.0-6.4	314.3	110.0	NA	49	8	10.9	NONE	35.0	12.3	N			
Antler	Polk	2449400	101	0-ST	remnant	10/25/2005	52	3.0	2.8	93.3	1	0				0.0	0.0	NA	0				0.0	0.0	B			
Balsam	Polk	2620600	2054	C-ST	stocked	10/11/2005	58-64	22.7	22.7	100.0	7.8	0				0.0	0.0	0.00	69	7.1	8.8	8	8.8	3.0	N			
Bear	Polk	2452200	155	NR	natural	09/19/2005	NA	2.3	2.3	100.0	NA	0				0.0	0.0	NA	0				0.0	0.0	N			
Bone	Polk	2628100	1781	REM	remnant	10/17/2005	57	12.5	4.6	36.8	1.5	0				0.0	0.0	NA	0				0.0	0.0	N			
Bridget	Polk	2619100	95		#N/A	09/14/2005	67	2.4	2.4	100.0	0.6	0				0.0	0.0	NA	0				0.0	0.0	N			
Coon	Polk	2642000	54	REM	remnant	09/13/2005	68	1.3	1.3	100.0	0.7	0				0.0	0.0	NA	0				0.0	0.0	N			
Lotus	Polk	2616900	246		#N/A	09/28/2005	59	3.3	3.3	100.0	0.7	0				0.0	0.0	0.00	0				0.0	0.0	N			
Straight	Polk	2627800	107		#N/A	09/27/2005	60	1.7	1.7	100.0	0.9	0				0.0	0.0	0.00	0				0.0	0.0	N			
Unnamed (T36N,R16W,S18-11)	Polk	NONE	9		#N/A	09/27/2005	60	0.7	0.7	100.0	0.3	0				0.0	0.0	NA	0				0.0	0.0	N			
Ward	Polk	2599400	91	ST	stocked	10/06/2005	62	2.3	2.0	87.0	1	0				0.0	0.0	NA	0				0.0	0.0	N			
Amik	Price	2268600	224	REM	remnant	10/05/2005	64	5.3	5.3	100.0	2.3	1	7.7	7.7	NONE	0.4	0.2	0.04	0				0.0	0.0	N			
Cranberry	Price	2217000	512	REM	remnant	09/26/2005	65	12.4	3.8	30.6	1.9	26	4.2	7.5	4.7	13.7	6.8	NA	-->						N			
Crowley Flowage	Price	2287200	422	NR-2	remnant	09/20/2005	68-69	16.2	4.0	24.7	1.8	6	4.6	6.6	NONE	3.3	1.5	NA	20	7.5	10.7	NONE	11.1	5.0	N			
Elk	Price	2240000	88	C-NR	natural	09/27/2005	63	2.8	2.8	100.0	1.1	129	5	7	5.7-5.8	117.3	46.1	10.78	24	8.4	10.2	NONE	21.8	8.6	N			
Pike	Price	2268300	806	C-	natural	10/05/2005	62-66	10.9	6.9	63.3	2.9	188	5	7.7	6.6	64.8	27.2	NA	80	7.9	10	8.8	27.6	11.6	N			

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Totshore	ShockMi	PerShock	ShockHr	Age0	Age0MinL	Age0MaxL	Age0Mod	Age0Hr	Age0/Mi	Serns	Age1	Age1MinL	Age1MaxL	Age1Mod	Age1Hr	Age1/Mi	WEStock	Sml Fing. # Stocked	Stock Date	S Fingerling Survival
Round	Price	2267800	726	C-	natural	08/24/2005	70-72	5.1	5.1	100.0	2.5	892	3.5	7.1	5.4	356.8	174.9	NA	128	7.2	9.8	7.7	51.2	25.1	N			
Round	Price	2267800	726	C-	natural	09/21/2005	68	5.1	1.5	29.4	0.6	171	4.3	7.3	5.2	285.0	114.0	NA	18	7.6	9.8	NONE	30.0	12.0	N			
Round	Price	2267800	726	C-	natural	10/06/2005	58-62	5.1	5.1	100.0	2.5	500	4.4	7.6	5.7, 6.5	200.0	98.0	NA	62	7.7	9.8	7.8	24.8	12.2	N			
Round	Price	2267800	726	C-	natural	10/20/2005	53	5.1	5.1	100.0	2.6	1108	4.4	7.8	6.3	426.2	217.3	50.84	57	7.9	9.9	8.5	21.9	11.2	N			
Round	Price	2267800	726	C-	natural	10/25/2005	47	5.1	5.1	100.0	2.4	704	4.2	7.8	5.8	293.3	138.0	32.30	41	7.9	9.9	8.8	17.1	8.0	N			
Turner	Price	2268500	149	C-	natural	10/05/2005	65	2.6	2.6	100.0	1.3	14	5.4	7.7	7.3	10.8	5.4	1.26	9	8.4	9.3	NONE	6.9	3.5	N			
Twin	Price	2264200	19		#N/A	10/03/2005	66	0.4	0.4	100.0	0.3	0				0.0	0.0	NA	0				0.0	0.0	N			
Upper Park Falls Flowage	Price	2290500	431	REM	remnant	09/19/2005	66-67	15.4	2.5	16.2	2.1	10	4.1	6.5	NONE	4.8	4.0	NA	5	7.7	8.2	NONE	2.4	2.0	N			
Whitcomb	Price	2266100	44	ST	stocked	10/03/2005	66	1.7	1.7	100.0	0.8	0				0.0	0.0	NA	9	8.3	9.6	NONE	11.3	5.3	N			
Boot	Rusk	1836700	87	NONE	none	09/29/2005	62	2.1	2.1	100.0	1	0				0.0	0.0	NA	0				0.0	0.0	N			
Sand	Rusk	2353600	262	C-ST	stocked	10/10/2005	62	4.8	4.0	83.3	3.2	55	5.6	7.9	7.2, 7.5	17.2	13.8	NA	0				0.0	0.0	N			
Black Dan	Sawyer	2381900	128	0-ST	remnant	09/21/2005	66	3.0	3.0	100.0	0.9	0				0.0	0.0	NA	-->						N			
Connors	Sawyer	2275100	429	NR	natural	09/20/2005	67	5.0	5.0	100.0	1.9	17	3.5	6.4	5.0-5.4	8.9	3.4	NA	5	7.5	9.4	NONE	2.6	1.0	N			
Ghost	Sawyer	2423000	372	C-ST	stocked	10/11/2005	54	7.3	3.0	41.1	1.5	13	5.9	7.8	6.5	8.7	4.3	NA	-->						B	31715	June 12/21	
Island	Sawyer	2381800	67	0-ST	remnant	09/21/2005	66	1.5	1.5	100.0	0.5	24	5	8.4	6.0-6.4	48.0	16.0	NA	0				0.0	0.0	N			
L Chippewa	Sawyer	2399700	15300	C-NR	natural	10/06/2005	59	232.9	2.2	0.9	NA	217	5	8.9	6.5-6.9	NA	98.6	NA	-->						N			
L Winter	Sawyer	2381100	676	0-ST	remnant	09/28/2005	59-61	11.0	11.0	100.0	3.1	0				0.0	0.0	0.00	0				0.0	0.0	N			
Lower Clam	Sawyer	2429300	203	C-ST	stocked	10/12/2005	57	4.2	4.0	95.2	1.7	25	6.3	8.3	7.7	14.7	6.3	NA	-->						B	12742	June 16	
Osprey	Sawyer	2395100	208	NR-2	remnant	09/19/2005	66-68	6.0	3.2	53.3	NA	1	7	7.4	NONE	NA	0.3	NA	0				NA	0.0	N			
Sand	Sawyer	2393200	928	C-ST	stocked	09/29/2005	61-62	5.1	5.1	100.0	2.5	338	4	7.9	6.0-6.4	135.2	66.3	NA	105	8	10.9	NONE	42.0	20.6	N			
Teal River Flowage	Sawyer	2416900	75	NR	natural	09/15/2005	65	4.0	3.3	82.5	2	1	5.5	5.9	NONE	0.5	0.3	NA	0				0.0	0.0	N			
Cedar	St. Croix	2615100	1100	NR	natural	10/10/2005	62	6.3	4.4	69.8	4.4	781	5.2	7.4	6.2	NA	177.5	NA	-->						N			
Mondeaux Flowage	Taylor	2193300	416	NONE	none	09/26/2005	65	11.2	3.3	29.5	1.6	0				0.0	0.0	NA	0				0.0	0.0	N			
Spruce	Taylor	2163800	20		#N/A	09/27/2005	65	0.8	0.8	100.0	0.4	0				0.0	0.0	0.00	0				0.0	0.0	N			
Balsam	Washburn	2112800	295	C-NR	natural	09/26/2005	66-67	7.4	5.3	71.6	2	31	3.8	7.1	5.5	15.5	5.8	NA	15	7.9	10.5	NONE	7.5	2.8	B	9226	July 6/19	
Colton Flowage	Washburn	2702100	58	NR	natural	09/27/2005	65	3.8	3.1	81.6	1	0				0.0	0.0	NA	0				0.0	0.0	N			
Gilmore	Washburn	2695800	389	C-ST	stocked	10/12/2005	59	7.6	5.7	75.0	2	1	7.7	7.7	NONE	0.5	0.2	0.04	0				0.0	0.0	N			
L Nancy	Washburn	2691500	772	C-NR	natural	10/05/2005	58-61	10.9	7.5	68.8	2.7	1	7.1	7.1	NONE	0.4	0.1	NA	0				0.0	0.0	B	93339	June 29-Aug 9	
Little Devil	Washburn	2107600	56	NONE	none	09/22/2005	67	2.2	2.2	100.0	0.5	0				0.0	0.0	NA	0				0.0	0.0	N			
Lower Kimball	Washburn	2691800	129	NONE	none	09/20/2005	69	2.5	2.4	96.0	0.9	0				0.0	0.0	NA	0				0.0	0.0	N			
Middle Kimball	Washburn	2691900	98	NONE	none	09/20/2005	69	1.5	1.5	100.0	0.6	0				0.0	0.0	NA	0				0.0	0.0	N			
Scovils	Washburn	2495900	66	REM	remnant	09/13/2005	70	1.5	1.5	100.0	0.6	0				0.0	0.0	NA	0				0.0	0.0	N			
Slim	Washburn	2109300	224	C-ST	stocked	10/03/2005	66	2.6	2.1	80.8	0.7	49	7.4	9.3	NONE	70.0	23.3	NA	0				0.0	0.0	B	19884	June14/July 3	
Spring	Washburn	2498600	211	ST	stocked	09/14/2005	70	2.5	2.5	100.0	0.9	0				0.0	0.0	NA	0				0.0	0.0	N			
Stone	Washburn	1884100	523	C-NR	natural	10/10/2005	59	4.0	4.0	100.0	1.5	8	4.1	7.9	NONE	5.3	2.0	NA	1	10.3	10.3	NONE	0.7	0.3	N			
Lake Of Dreams	Florence	679900	63	NONE	none	09/19/05	65	1.3	1.2	91.5	0.417														N			
Fisher Lake	Florence	704200	54	NONE	none	09/19/05	65	1.4	1.4	100.0	0.716														N			
Halsey Lake	Florence	679300	517	0-ST	remnant	09/29/05	58	4.1	2.0	48.8	0.8	0				0.00	0.00	NA	0				0.00	0.00	N			
Camp Six Lake	Forest	499200	52	NONE	none	10/06/05	57	1.1	1.1	100.0	0.584														N			
Franklin Lake	Forest	692900	892	NR	natural	10/10/05	56	6.6	6.3	95.5	2.87	158	3.3	5.4	3.8	55.05	25.08	5.87	55	5.5	7.7	5.8, 6.8	19.16	8.73	B (OTC)			
Jungle Lake	Forest	377900	177	NR	natural	09/20/05	67	2.2	2.1	94.6	0.934	35	6.3	8.0	7.4	37.47	16.67	3.90	4	10.0	11.3		4.28	1.90	N			
Little Rice Flowage	Forest	406400	1219	0	#N/A	09/12/05	73	14.1	5.8	41.1	1.867														N			
Richardson Lake	Forest	479700	47	0	#N/A	09/21/05	70	1.4	1.4	100.0	0.7														N			
Silver Lake	Forest	555700	334	0-ST	remnant	09/26/05	62	3.8	3.8	100.0	1.554	1	6.0	6.4		0.64	0.26	0.06	0				0.00	0.00	B, A	2450	July 2	0.00839
Trump Lake	Forest	479300	172	ST	stocked	09/15/05	69	2.8	2.6	92.9	0.917	0				0.00	0.00	0.00	0				0.00	0.00	B, A	2200	July 2	0.00000
Van Zile Lake	Forest	608400	81	NONE	none	09/22/05	62	1.8	1.7	94.4	0.8							NA							N			
Enterprise Lake	Langlade	1579700	505	NR	natural	09/21/05	67	6.0	5.9	98.3	2.7	150	4.0	6.6	4.8	55.56	25.42	5.95	11	7.0	9.1	8.7	4.07	1.86	N			
Mary Lake	Langlade	496300	156	0	#N/A	09/22/05	67	2.0	2.0	100.0	0.9														N			
Mcgee Lake	Langlade	353200	23	NONE	none	09/28/05	61	1.0	0.9	94.7	0.7														N			
Mcgee Lake	Langlade	353200	23	NONE	none	09/28/05	61	1.0	0.9	94.7	0.6														N			
Moccasin Lake	Langlade	1005600	110	C-ST	stocked	10/06/05	60	3.0	3.0	100.0	1.4	0				0.00	0.00	0.00	0				0.00	0.00	N			
Otter Lake	Langlade	387200	83	NR-2	remnant	09/22/05	67	2.4	2.3	95.8	1.4	6	4.0	4.9		4.29	2.61	0.61	19	6.1	8.2	7	13.57	8.26	N			
Rolling Stone Lake	Langlade	389300	672	ST	stocked	09/14/05	68	4.6	4.6	100.0	2.1	0				0.00	0.00	0.00	0				0.00	0.00	N			
Summit Lake	Langlade	1445600	282	0-ST	remnant	10/06/05	60	3.3	3.3	100.0	1.6	0				0.00	0.00	0.00	3	7.9	9.2		1.88	0.91	B (OTC)	23970	June 8-16	0.00000
Upper Post Lake	Langlade	399200	757	C-ST	stocked	09/20/05	68	7.6	7.6	100.0	2.9	1	5.0	5.4		0.34	0.13	0.03	0				0.00	0.00	A (OTC)			
White Lake	Langlade	365500	166	0-ST	remnant	09/14/05	72	3.1	2.4	77.4	1.2	0				0.00	0.00	0.00	0				0.00	0.00	A			
Halfmoon Lake	Lincoln	988000	100	0	#N/A	09/27/05	64	2.3	2.3	100.0	1.2														N			
Pesabic Lake	Lincoln	1481600	146	ST	stocked	09/29/05	58	2.3	2.3	100.0	1.2	0				0.00	0.00	0.00	0				0.00	0.00	N			
Seven Island Lake	Lincoln	1490300	132	C-ST	stocked	09/26/05	64	4.0	2.5	62.5	1.5	0				0.00	0.00	NA	0				0.00	0.00	A			
Somo Lake	Lincoln	1547700	472	C-ST	stocked	09/27/05	64	14.2	6.9	48.6	2.4	0				0.00	0.00	NA	0				0.00	0.00	A			
Spirit Reservoir	Lincoln	1506800	1664	C-NR	natural	09/26/05	64	50.3	2.1	4.2	1.3	53	4.5	7.1	5.8	40.77	25.24	NA	6	7.7	10.2		4.62	2.86	N			
Tug Lake	Lincoln	1482400	151	C-	natural	09/29/05	60	2.7	2.7	100.0	1.9	0				0.00	0.00	0.00	10	6.2	9.8		5.26	3.70	N			

Lake	County	WBIC	Acres	Walleye Recruit Code	Model	Date	Temp	Totshore	ShockMi	PerShock	ShockHr	Age0	Age0MinL	Age0MaxL	Age0Mod	Age0Hr	Age0/Mi	Serns	Age1	Age1MinL	Age1MaxL	Age1Mod	Age1Hr	Age1/Mi	WEStock	Sml Fing. # Stocked	Stock Date	S Fingerling Survival
Big Lake	Oneida	1613000	865	C-NR	natural	09/15/05	67	6.6	4.0	60.6	2.267	562	3.5	7.9	4.2	247.90	140.50	NA	28	8.0	9.4	8.2	12.35	7.00	N			
Bird Lake	Oneida	972000	99	C-NR	natural	09/26/05	67	2.8	2.8	100.0	1.616	0				0.00	0.00	0.00	0				0.00	0.00	A			
Boom Lake	Oneida	1580200	437	NR	natural	10/18/05	56	9.6	4.2	43.5	2.234	4	6.1	6.8		1.79	0.96	NA	12	8.0	9.7	8.9	5.37	2.87	N			
Carrol Lake	Oneida	1544800	352	ST	stocked	10/12/05	58	6.1	4.9	80.3	2.551	1	7.0	7.4		0.39	0.20	NA	0				0.00	0.00	B (OTC)			
Clear Lake	Oneida	977500	846	NR	natural	10/06/05	61	13.8	13.8	100.0	6.497	108	4.6	7.5	5.7	16.62	7.83	1.83	13	7.6	8.9		2.00	0.94	N			
Madeline Lake	Oneida	1544700	159	REM	remnant	10/12/05	56	3.1	3.1	100.0	1.417	0				0.00	0.00	0.00	0				0.00	0.00	N			
Mildred Lake	Oneida	1004600	191	NR	natural	09/20/05	69	5.1	5.1	100.0	2.966	0				0.00	0.00	0.00	0				0.00	0.00	N			
Oscar Jenny Lake	Oneida	1009100	104	NONE	none	08/30/05	70	2.3	2.3	100.0	1.316														N			
Pelican Lake	Oneida	1579900	3585	C-NR	natural	09/27/05	64	16.7	16.7	100.0	7.372	108	5.6	7.6	6.8	14.65	6.47	1.51	278	7.7	10.5	9	37.71	16.65	N			
Rhinelander Flowage	Oneida	1580100	1326	NR	natural	10/17-18/05	54	26.2	8.0	30.6	4.134	21	4.7	7.2	6.2	5.08	2.62	NA	11	7.8	9.6		2.66	1.37	N			
Spider Lake	Oneida	1586600	118	NR	natural	10/13/05	57	2.6	2.6	100.0	1.551	0				0.00	0.00	0.00	0				0.00	0.00	N			
Squash Lake	Oneida	1019500	396	NR-2	remnant	09/14/05	70	7.4	4.0	54.1	2.066	7	5.4	6.7		3.39	1.75	NA	0				0.00	0.00	N			
Lake Thompson	Oneida	1569900	382	C-ST	stocked	09/21-22/05	69	6.9	6.9	100.0	3.351	0				0.00	0.00	0.00	25	7.7	10.2	9.7	7.46	3.62	B (OTC)			
Thunder Lake	Oneida	1618100	1768	C-ST	stocked	09/19/05	65	10.6	10.6	100.0	4.85	0				0.00	0.00	0.00	7	8.5	10.9		1.44	0.66	A			
Thunder Lake	Oneida	1580400	172	NR	natural	10/17/05	54	6.6	4.0	60.6	2.066	0				0.00	0.00	NA	1	9.0	9.4		0.48	0.25	N			
Townline Lake	Oneida	1023100	62	NONE	none	08/31/05	70	1.7	1.7	100.0	0.867														N			
Turtle Lake	Oneida	1587400	53	NR-2	remnant	08/31/05	72	1.3	1.3	100.0	0.617	0				0.00	0.00	0.00	0				0.00	0.00	N			
Two Sisters Lake	Oneida	1588200	719	C-NR	natural	10/11/05	60	9.3	9.3	100.0	4.384	67	6.0	8.4	7.2	15.28	7.20	1.69	0				0.00	0.00	B (OTC)	47339	Jun 16-Jul 9	0.02560
Whitefish Lake	Oneida	1613500	205	NR-2	remnant	10/10/05	59	3.1	3.1	100.0	1.967	39	3.5	7.9	5.2	19.83	12.58	2.94	14	8.0	10.4	8.2, 10.2	7.12	4.52	N			
Apeekwa Lake	Vilas	2269400	188	NR	natural	09/20/05	69	2.8	2.8	100.0	1.1	0				0.00	0.00	0.00	0				0.00	0.00	N			
Ballard Lake	Vilas	2340700	505	C-ST	stocked	10/13/05	56	5.5	5.3	96.4	2.213	55	5.5	7.9	6.2	24.85	10.38	2.43	5	9.5	10.4		2.26	0.94	B (OTC)	87223	Jun 9-17	0.01406
Big Arbor Vitae Lake	Vilas	1545600	1090	C-NR	natural	10/03/05	65	7.8	7.8	100.0	3.732	226	5.6	8.3	6.8	60.56	28.97	6.78	112	8.5	10.5	9.5	30.01	14.36	N			
Big St Germain Lake	Vilas	1591100	1617	C-ST	stocked	10/12/05	57	7.9	7.9	100.0	3.288	49	5.9	8.0	7.0	14.90	6.18	1.45	30	8.5	10.9	9.5	9.12	3.78	B/A	101838	June 16-July 3	0.02296
Content Lake	Vilas	1592000	244	NR	natural	10/12/05	56	2.9	2.9	100.0	1.2	0				0.00	0.00	0.00	0				0.00	0.00	N			
Dead Pike Lake	Vilas	2316600	297	ST	stocked	09/27/05	65	3.8	3.6	93.8	1.716	0				0.00	0.00	0.00	7	9.0	10.9		4.08	1.94	N			
Found Lake	Vilas	1593800	326	ST	stocked	09/26/05	64	3.7	4.1	109.9	1.95	0				0.00	0.00	0.00	7	9.0	10.4		3.59	1.71	N			
Lac Vieux Desert	Vilas	1631900	2780	C-NR	natural	10/11/05	56	16.5	6.5	39.4	2.75	237	5.1	7.6	6.7	86.18	36.46	NA	68	7.7	9.2	8.2	24.73	10.46	N			
Laura Lake	Vilas	995200	599	C-NR	natural	10/10/05	59	5.1	4.7	92.2	2.35	489	4.0	7.9	5.7	208.09	104.04	24.35	167	8.0	10.9	9.7	71.06	35.53	N			
Little Bass Lake	Vilas	998400	27	NONE	none	09/26/05	65	1.3	1.1	84.6	0.5														N			
Little St Germain Lake	Vilas	1596300	980	ST	stocked	10/19/05	56	14.7	4.0	27.2	1.934	22	6.2	8.4	8.2	11.38	5.50	NA	3	8.5	8.9		1.55	0.75	B (OTC)	49000	June 15	
Long Lake	Vilas	1602300	872	C-ST	stocked	10/03/05	65	8.2	8.0	97.6	2.77	2	7.0	8.4		0.72	0.25	0.06	0				0.00	0.00	B (OTC)	43778	June 17	0.00117
Lost Lake	Vilas	1593400	544	C-ST	stocked	09/27/05	63	4.6	4.7	102.2	2.116	0				0.00	0.00	0.00	2	10.0	10.4		0.95	0.43	N			
Partridge Lake	Vilas	2341500	234	NR-2	remnant	09/20/05	68	2.9	2.7	93.1	1.25	0				0.00	0.00	0.00	0				0.00	0.00	N			
Razorback Lake	Vilas	1013800	362	C-NR	natural	09/29/05	58	7.3	6.3	86.3	2.737	52	5.2	7.9	5.8	19.00	8.25	1.93	41	8.2	10.3	9.2	14.98	6.51	N			
Sparkling Lake	Vilas	1881900	154	C-ST	stocked	09/19/05	66	2.3	2.4	104.3	0.967	0				0.00	0.00	0.00	5	8.5	9.6		5.17	2.08	A (OTC)	930000	May 10	0.00000
Star Lake	Vilas	1593100	1206	C-NR	natural	09/29/05	60	11.7	11.7	100.0	5.766	739	3.0	7.8	4.7	128.17	63.16	14.78	31	8.0	10.4	9.2	5.38	2.65	N			
Towanda Lake	Vilas	1022900	146	ST	stocked	09/19/05	68	3.3	2.8	84.8	1.27	0				0.00	0.00	0.00	2	10.0	10.2		1.57	0.71	A (OTC)			
Wolf Lake	Vilas	2336100	393	NR	natural	10/10/05	57	4.4	4.4	100.0	2.17	238	6.4	8.1	7.6	109.68	54.09	12.66	17	9.8	11.0	10.5	7.83	3.86	N			

Appendix H. Walleye Exploitation Rates.

H-1. Information on fin clipped fish in population (prior to creel) and those observed in angler creels used to estimate angler harvest and exploitation rates.

							Clips Given Prior to Creel				Clips Observed in Creel					
Year	WBIC	County	Lake	Acres	Recruit. Code	Size Limit	Clip Given	# Clips Given	#Clips ≥14”	#Clips ≥20”	# Clips Observed	# Clips Projected	# Clips Obs. ≥14”	# Clips Proj. ≥14”	# Clips Obs. ≥20”	# Clips Proj. ≥20”
2005	2109800	Barron	Hemlock	357	REM	15	RV, TC	82	75	19	1[a]	47	1	47	0	0
2005	2109600	Barron	Red Cedar	1841	C-NR	15	RP, TC	1,335	1,211	122	12	304	12	304	0	0
2005	2865000	Douglas	Nebagamon	914	C-NR	15	LV,TC	515	381	39	12	71	11	65	2	12
2005	2949200	Iron	Pine	312	NR	1>14	RV,TC	869	72	10	11	41	1	4	0	0
2005	387200	Langlade	Otter	90	NR-2	15	LV, TC	274	251	25	25	72	25	72	3	9
2005	1544800	Oneida	Carrol	335	ST	15	RV, TC	187	183	116	2[b]	6	2	6	0	0
2005	977500	Oneida	Clear	846	NR	15	LV, TC	1,227	889	45	7	32	7	32	0	0
2005	1544700	Oneida	Madeline	159	REM	15	LV, TC	19	19	12	1[c]	2	1	2	1	2
2005	1569900	Oneida	Thompson	382	C-ST	15	RP, TC	209	189	84	1	6	1	6	0	0
2005	1588200	Oneida	Two Sisters	719	C-NR	15	RV, TC	931	895	341	14	85	14	85	5	30
2005	2620600	Polk	Balsam	2054	C-ST	15	LV,TC	915	860	302	0					
2005	2268600	Price	Amik	224	REM	none	RP(SD),TC	70	62	22	3[d]	42	2	28		0
2005	2268300	Price	Pike	806	C-NR	none	LP(SD),TC	874	228	42	12[d]	149	4	50	2	25
2005	2267800	Price	Round	726	C-NR	none	LV(SD),TC	1,688	207	24	8[d]	93	5	58	1	12
2005	2268500	Price	Turner	149	C-	none	RV(SD),LV(SD),TC	149	102	35	1[d]	1	1	1		0
2005	2381100	Sawyer	Winter	676	0-ST	14-18 slot	LP,LV,TC	254	253	200	3	12	3	12	2	8
2005	1545600	Vilas	Big Arbor Vitae	1090	C-NR	1>14	RV, TC	3,223	1,088	175	114	864	32	243	1	8
2005	2316600	Vilas	Deadpike	297	ST	1>14	RV, TC	254	245	59	0					
2005	1593100	Vilas	Star	1206	C-NR	1>14	LV, TC	2,279	1,006	63	39	242	13	81	0	0
2005	2112800	Washburn	Balsam	295	C-NR	15	LP, TC	255	234	32	4[#]	62	4	62	0	0
2005	2695800	Washburn	Gilmore	389	C-ST	15	RV,TC	105	105	41	0					

a - Clips include fish marked fish recovered in Red Cedar Lake, Barron Co.
b - One LV clipped fish recorded in creel - used in Madeline Lake calculations
c - LV clipped fish recorded from Carrol - lakes connected so used in these calculations
d - Clips observed may include marked fish recovered in other lakes in Pike Chain

H-2. Estimated angler and tribal harvest and associated walleye exploitation rates for lakes surveyed during the 2005/2006 fishing season.

County	Lake	Acres	Adult PE	Total PE	Angler Harvest	Tribal Harvest	Total Harvest	Angler Exploitation	Angler Exploitation ≥14”	Angler Exploitation ≥20”	Tribal Exploitation	Total Exploitation
Barron	Hemlock	357	162		0	0	0	0.5732	0.6267	0.0000	0.0000	0.5732
Barron	Red Cedar	1841	3,733	5,534	2,532	377	2909	0.2277	0.2510	0.0000	0.1010	0.3287
Douglas	Nebagamon	914	1,149	2,714	389	8	397	0.1379	0.1708	0.3034	0.0070	0.1448
Iron	Pine	312	1,738		471	22	493	0.0472	0.0518	0.0000	0.0127	0.0598
Langlade	Otter	90	516	768	186	0	186	0.2628	0.2869	0.3456	0.0000	0.2628
Oneida	Carrol	335	282		40	5	45	0.0321	0.0328	0.0000	0.0177	0.0498
Oneida	Clear	846	2,096		226	179	405	0.0261	0.0360	0.0000	0.0854	0.1115
Oneida	Madeline	159	44		0	0	0	0.1053	0.1053	0.1667	0.0000	0.1053
Oneida	Thompson	382	435		42	0	42	0.0287	0.0317	0.0000	0.0000	0.0287
Oneida	Two Sisters	719	2,004	2,662	290	144	434	0.0913	0.0950	0.0890	0.0719	0.1632
Polk	Balsam	2054	1,738	1,823	72	116	188	0.0000	0.0000	0.0000	0.0667	0.0667
Price	Amik	224	207		80	0	80	0.6000	0.4516	0.0000	0.0000	0.6000
Price	Pike	806	2,321	11,458	107	171	278	0.1705	0.2178	0.5913	0.0737	0.2442
Price	Round	726	3,522	12,969	642	151	793	0.0551	0.2808	0.4844	0.0429	0.0980
Price	Turner	149	254	1,158	82	0	82	0.0067	0.0098	0.0000	0.0000	0.0067
Sawyer	Winter	676	727		165	0	165	0.0472	0.0474	0.0400	0.0000	0.0472
Vilas	Big Arbor Vitae	1090	6,860		5,342	228	5570	0.2681	0.2229	0.0433	0.0332	0.3013
Vilas	Deadpike	297	374		8	0	8	0.0000	0.0000	0.0000	0.0000	0.0000
Vilas	Star	1206	4,295		1,019	241	1260	0.1062	0.0802	0.0000	0.0561	0.1623
Washburn	Balsam	295	1,003		72	43	115	0.2431	0.2650	0.0000	0.0429	0.2860
Washburn	Gilmore	389	144		6	0	6	0.0000	0.0000	0.0000	0.0000	0.0000

Appendix I. Safe harvest of walleye and musky calculated for individual lakes within the Wisconsin Ceded Territory during 2005.

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Ashland	Augustine L	2410400	166			Regression	6
Ashland	Bear L	2403200	204	Regression	83	Regression	7
Ashland	Beaver Dam L	2916700	118			Regression	5
Ashland	Beaver L	2935400	25			Regression	2
Ashland	Cub L	1842600	31			Regression	2
Ashland	Day L	2430300	641			Regression	14
Ashland	E Twin L	2429000	110			Regression	4
Ashland	English L	2914800	244	Regression	33	Regression	8
Ashland	Eureka L	2935600	39			Regression	2
Ashland	Gordon L	2406500	142	Regression	59	Regression	5
Ashland	L Galilee	2935500	213	Regression	11	Regression	7
Ashland	Meder L	2935300	135	Regression	19		
Ashland	Mineral L	2916900	225	Regression	30	Regression	7
Ashland	Moquah L	2918200	50			Regression	3
Ashland	Pelican L	2404800	46	Regression	20	Regression	2
Ashland	Potter L	2917200	29	1-2 Year PE	11		
Ashland	Spider L	2918600	103	Regression	7	Regression	4
Ashland	Spillerberg L	2936200	75	Regression	32	Regression	3
Ashland	Tea L	2922700	50	Regression	21		
Ashland	Torrey L	2406700	29			Regression	2
Ashland	Upper Clam L	2429600	165	Regression	23	Regression	6
Ashland	Zielke L	2406900	21	Regression	9		
Barron	Bass L	1832800	118	Regression	7		
Barron	Bear L	2105100	1358	Regression	148		
Barron	Beaver Dam L	2081200	1112	Regression	124		
Barron	Big Dummy L	1835100	111	Regression	16		
Barron	Big Moon L	2079000	191	Regression	26	Regression	6
Barron	Duck L	2100300	100	Regression	42		
Barron	Echo L	2630200	161	Regression	9		
Barron	Granite L	2100800	154	Regression	22		
Barron	Horseshoe L	2469800	115	Regression	48		
Barron	Horseshoe L	2630100	377	Regression	16		
Barron	L Chetek	2094000	770	Regression	90		
Barron	L Montanis	2103200	200	Regression	27		
Barron	Little Sand L	2661600	101			Regression	4
Barron	Loon L	2478600	94	Regression	14		
Barron	Lower Devils L	1864000	162	Regression	67		
Barron	Lower Turtle L	2079700	276	1-2 Year PE	37		
Barron	Lower Vermillion L	2098200	208	Regression	28		
Barron	Mud L	2094600	577	Regression	70		
Barron	Pokegama L	2094300	506	Regression	62		
Barron	Poskin L	2098000	150	Regression	21		
Barron	Prairie L	2094100	1534	Regression	164		
Barron	Red Cedar L	2109600	1841	Regression	686		
Barron	Rice L	2103900	939			Regression	18
Barron	Sand L	2661100	322	Regression	42	Regression	9
Barron	Scott L	2630700	81	Regression	12		
Barron	Silver L	1881100	337	Regression	135		
Barron	Spring L	1882800	60	Regression	25		
Barron	Staples L	2631200	305	Regression	40		
Barron	Tenmile L	2089500	376	Regression	16		
Barron	Upper Devils L	2043500	86	Regression	6		
Barron	Upper Turtle L	2079800	438	Regression	174		
Bayfield	Armstrong L	2754600	48	Regression	20		
Bayfield	Atkins L	2734000	176	Regression	72		
Bayfield	Bellevue L	2755800	65	Regression	5		
Bayfield	Bladder L	2756200	81	Regression	34		
Bayfield	Bony L	2742500	191	1-2 Year PE	53	Regression	6
Bayfield	Buffalo L	1837700	190	Regression	10	Regression	6
Bayfield	Buskey Bay	2903800	100	Regression	42	Regression	4
Bayfield	Camp One L	2965700	37	Regression	16		
Bayfield	Chippewa L	2431300	319			Regression	9

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Bayfield	Cisco L	2899200	95	Regression	14		
Bayfield	Cranberry L	2732800	58	Regression	4		
Bayfield	Crystal L	2874700	94	Regression	6		
Bayfield	Crystal L	2897300	111	1-2 Year PE	28		
Bayfield	Deep L	2760100	125	Regression	8		
Bayfield	Diamond L	2897100	341	1-2 Year PE	62		
Bayfield	Drummond L	2899400	130	Regression	19		
Bayfield	Eagle L	2902900	170	Regression	9	Regression	6
Bayfield	Everett L	2761600	34	Regression	3		
Bayfield	Finger L	2965500	76	Regression	5		
Bayfield	Flynn L	2902800	29	Regression	3	Regression	2
Bayfield	Ghost L	2423900	142			Regression	5
Bayfield	Hammil L	2467900	83	Regression	6		
Bayfield	Hart L	2903200	259	Regression	105	Regression	8
Bayfield	Hildur L	2902600	67			Regression	3
Bayfield	Iron L	2877000	248	Regression	12		
Bayfield	Jackson L	2734200	142	Regression	8		
Bayfield	Kelly L	2472000	56	Regression	4		
Bayfield	Kern L	2900500	91	Regression	38		
Bayfield	L Millicent	2903700	183	Regression	75	Regression	6
Bayfield	L Owen	2900200	1323	1-2 Year PE	161		
Bayfield	L Ruth	2765900	66	Regression	5		
Bayfield	L Tahkodah	2473500	152	Regression	9		
Bayfield	Little Siskiwit L	2882200	37	Regression	16		
Bayfield	Long L	2767100	263	Regression	106		
Bayfield	Marengo L	2921100	99	Regression	41		
Bayfield	Mccarry L	2903400	32			Regression	2
Bayfield	Middle Eau Claire L	2742100	902	1-2 Year PE	506	Regression	18
Bayfield	Mill Pond L	2899700	62	Regression	26		
Bayfield	Mullenhoff L	2876500	69	Regression	5		
Bayfield	Muskellunge L	2903600	45	Regression	4		
Bayfield	Namekagon L	2732600	3227	Regression	1170	Regression	40
Bayfield	Perch L	2770800	25	Regression	11		
Bayfield	Perry L	2730800	50	Regression	4		
Bayfield	Pigeon L	2489400	213	Regression	11		
Bayfield	Pike L Chain	2902701	714	Regression	293		
Bayfield	Samoset L	2494800	46	Regression	4		
Bayfield	Siskiwit L	2882300	330	1-2 Year PE	110		
Bayfield	Spider L	2774200	75	Regression	5		
Bayfield	Spider L	2876200	124	Regression	8		
Bayfield	Swett L	2743700	88	Regression	37		
Bayfield	Trapper L	2734500	84	Regression	35		
Bayfield	Twin Bear L	2903100	172	Regression	71	Regression	6
Bayfield	Upper Eau Claire L	2742700	996	1-2 Year PE	247	Regression	19
Burnett	Big Bear L	2705700	189	Regression	10		
Burnett	Big Mckenzie L	2706800	1185	Regression	131	Regression	21
Burnett	Big Sand L	2676800	1400	Regression	32		
Burnett	Big Trade L	2638700	304			Regression	9
Burnett	Clam R Fl	2654500	359	Regression	143		
Burnett	Clear L	2457600	115	Regression	7		
Burnett	Danbury Fl	2674500	256			Regression	8
Burnett	Des Moines L	2674200	229	Regression	11	Regression	7
Burnett	Devils L	2461100	1001	Regression	113		
Burnett	Dunham L	2651800	243	Regression	33		
Burnett	Elbow L	2463100	233	Regression	12		
Burnett	Lipsett L	2678100	393	1-2 Year PE	30		
Burnett	Little Mcgraw L	2477000	55	Regression	9		
Burnett	Little Trade L	2639300	130			Regression	5
Burnett	Little Yellow L	2674800	348	Regression	139	Regression	10
Burnett	Long L	2478300	49	Regression	4		
Burnett	Long L	2674100	251	Regression	12		
Burnett	Lower Twin L	2480000	123	Regression	8		
Burnett	Mallard L	2480800	113	Regression	7		
Burnett	Poquettes L	2491100	97	Regression	14		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Burnett	Rice L	2677900	311			Regression	9
Burnett	Rooney L	2493100	322	Regression	42		
Burnett	Round L	2640100	204	Regression	28		
Burnett	Sand L	2495100	962	Regression	109		
Burnett	Twenty-Six L	2672500	230			Regression	7
Burnett	Viola L	2598600	285	Regression	13		
Burnett	Yellow L	2675200	2287	Regression	232	Regression	32
Chippewa	Axhandle L	2092500	84	Regression	6		
Chippewa	Chippewa Falls Fl	2152600	282	Regression	114		
Chippewa	Cornell Fl	2181400	836	Regression	323	Regression	17
Chippewa	Cornell L	2171000	194	Regression	10		
Chippewa	Holcombe Fl	2184900	3890	Regression	1397	Regression	45
Chippewa	L Wissota	2152800	6300	Regression	2207	Regression	60
Chippewa	Long L	2351400	1052	Regression	402	Regression	20
Chippewa	Old Abe L	2174700	1072	Regression	409	Regression	20
Chippewa	Otter L	2157000	661	Regression	79		
Chippewa	Popple L	2173900	90	Regression	13		
Chippewa	Rock L	2171600	94	Regression	6		
Chippewa	Round L	2169200	216	Regression	29	Regression	7
Clark	Mead L	2143900	320	Regression	21	Regression	5
Douglas	Amnicon L	2858100	426	Regression	169	Regression	11
Douglas	Bass L	2451700	126	Regression	52		
Douglas	Bear L	2857700	49	Regression	21	Regression	2
Douglas	Beauregard L	2452400	93	Regression	39		
Douglas	Bond L	2693700	292	Regression	13		
Douglas	Clear L	2457700	36	Regression	15		
Douglas	Dowling L	2858300	154	Regression	63	Regression	6
Douglas	Hoodoo L	2763900	32	Regression	3		
Douglas	L Minnesuing	2866200	432	Regression	171		
Douglas	L Nebagamon	2865000	914	Regression	351		
Douglas	Leader L	2693800	165	Regression	68		
Douglas	Lower Eau Claire L	2741600	802	Regression	310	Regression	17
Douglas	Lund L	2480300	75	Regression	5		
Douglas	Lyman L	2856400	403	Regression	16	Regression	11
Douglas	Person L	2488600	172	Regression	9		
Douglas	Red L	2492100	258	Regression	12		
Douglas	Upper St Croix L	2747300	855	Regression	330		
Douglas	Whitefish L	2694000	832	Regression	321		
Dunn	Tainter L	2068000	1752	Regression	654		
Eau Claire	Altoona L	2128100	840	Regression	162	Regression	9
Eau Claire	Dells Pond	2149900	739	Regression	287	Regression	16
Eau Claire	Halfmoon L	2125400	132	Regression	19		
Eau Claire	L Eau Claire	2133200	860	Regression	166	Regression	9
Florence	Emily L	651600	191	Regression	26		
Florence	Fay L	677100	247	Regression	12		
Florence	Halsey L	679300	512	Regression	19		
Florence	Keyes L	672900	202	Regression	82		
Florence	Patten L	653700	255	1-2 Year PE	72		
Florence	Pine R Fl	651300	127	Regression	53		
Forest	Arbutus L	181400	161	Regression	23		
Forest	Birch L	555500	468	Regression	185		
Forest	Butternut L	692400	1292	1-2 Year PE	209		
Forest	Crane L	388500	337	Regression	44		
Forest	Franklin L	692900	892	1-2 Year PE	53		
Forest	Ground Hemlock L	395900	88	Regression	13		
Forest	Howell L	691800	177	Regression	10		
Forest	Jungle L	377900	182	1-2 Year PE	0		
Forest	King L	501700	33	Regression	14		
Forest	L Lucerne	396500	1026	Regression	116		
Forest	L Metonga	394400	1991	1-2 Year PE	147		
Forest	Lily L	376900	211	Regression	86	Regression	7
Forest	Little Long L	190500	102	Regression	7		
Forest	Mole L	390600	73	Regression	5		
Forest	Pine L	406900	1670	1-2 Year PE	132		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Forest	Quartz L	591000	47			Regression	2
Forest	Range Line L	478200	82	Regression	12		
Forest	Riley L	557100	213			Regression	7
Forest	Roberts L	378400	414	Regression	164	Regression	11
Forest	Silver L	555700	320	Regression	14	Regression	9
Forest	St Johns L	388700	96	Regression	6		
Forest	Stevens L	683000	297	1-2 Year PE	116		
Forest	Trump L	479300	172	Regression	24		
Forest	Wabikon L	556900	594			Regression	14
Forest	Windfall L	373500	55			Regression	3
Iron	Bearskull L	2265100	75	Regression	11		
Iron	Big Pine L	2270700	632	Regression	247	Regression	14
Iron	Boot L	2297800	180	Regression	25	Regression	6
Iron	Catherine L	2309100	118	Regression	17		
Iron	Cedar L	2309700	193	Regression	27	Regression	6
Iron	Charnley L	1840400	71	Regression	5		
Iron	Clear L	2303700	67	Regression	5	Regression	3
Iron	Echo L	2301800	220	Regression	89	Regression	7
Iron	Fisher L	2307300	452	Regression	56	Regression	11
Iron	French L	1849600	92	Regression	6	Regression	4
Iron	Gile Fl	2942300	3384	1-2 Year PE	923	Regression	41
Iron	Grand Portage L	2314100	144	Regression	20	Regression	5
Iron	Grant L	2312500	107	Regression	7	Regression	4
Iron	Hewitt L	2763300	78			Regression	3
Iron	Island L	2945500	352	Regression	45	Regression	10
Iron	L Of The Falls	2298300	338	Regression	135	Regression	9
Iron	L Tahoe	2314000	37	Regression	3	Regression	2
Iron	Little Martha L	2314700	35	Regression	3	Regression	2
Iron	Long L	2303500	396	Regression	50	Regression	10
Iron	Lower Springstead L	2267000	95	Regression	40	Regression	4
Iron	Martha L	2314300	146	Regression	60		
Iron	Mercer L	2313600	184	Regression	25	Regression	6
Iron	Moose L	2299300	269			Regression	8
Iron	Mud L	2316400	56	Regression	24		
Iron	Muskie L	2266800	81	Regression	34	Regression	4
Iron	N Bass L	1868900	180			Regression	6
Iron	Owl L	2307600	129	Regression	19	Regression	5
Iron	Oxbow L	2302300	80	Regression	34	Regression	4
Iron	Pardee L	2308000	206	Regression	84	Regression	7
Iron	Pike L	2299900	194	Regression	79	Regression	6
Iron	Pine L	2949200	312	Regression	125	Regression	9
Iron	Plunkett L	2325200	48	Regression	4		
Iron	Randall L	2318500	115	Regression	48	Regression	5
Iron	Rice L	2300600	125	Regression	52	Regression	5
Iron	Sandy Beach L	2316100	111	Regression	46		
Iron	Saxon Falls Fl	2941100	41	Regression	18	Regression	2
Iron	Second Black L	2298600	60	Regression	25		
Iron	Spider L	2306300	352	Regression	141	Regression	10
Iron	Stone L	2267200	82	Regression	6	Regression	4
Iron	Third Black L	2298800	68	Regression	29		
Iron	Trude L	2295200	781	Regression	302	Regression	16
Iron	Turtle-Flambeau Fl	2294900	13545	Regression	4551	Regression	95
Iron	Upper Springstead L	2267100	126	Regression	52	Regression	5
Iron	Virgin L	2304500	119			Regression	5
Iron	Wilson L	2297000	162			1-2 Year PE	12
Langlade	Big Twin L	182200	60	Regression	5		
Langlade	Deep Wood L	1445100	72			Regression	3
Langlade	Duck L	981500	123	Regression	8		
Langlade	Enterprise L	1579700	502	Regression	198	Regression	12
Langlade	Goto L	348700	28	Regression	3		
Langlade	Greater Bass L	1445500	246			Regression	8
Langlade	Jessie L	188700	35	Regression	3		
Langlade	Lawrence L	997300	50	Regression	8		
Langlade	Moccasin L	1005600	110	Regression	16	Regression	4

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Langlade	Mueller L	194000	88	Regression	13		
Langlade	Otter L	387200	90	Regression	6		
Langlade	Pickerel L	388100	1256	Regression	30		
Langlade	Rolling Stone L	389300	672	Regression	80		
Langlade	Rose L	494200	112	1-2 Year PE	98		
Langlade	Sawyer L	198100	149	1-2 Year PE	95		
Langlade	Summit L	1445600	282	Regression	13	Regression	8
Langlade	Upper Post L	399200	757	Regression	89		
Langlade	Water Power L	1445400	22			Regression	1
Langlade	White L	365500	166	Regression	9		
Lincoln	Alexander L	1494600	677	Regression	22	Regression	15
Lincoln	Bass L	969600	100	Regression	15		
Lincoln	Crystal L	979100	109	1-2 Year PE	8		
Lincoln	Deer L	1519600	152	Regression	63	Regression	5
Lincoln	Grandfather Fl	1502400	223	Regression	11		
Lincoln	Grandmother Fl	1503000	119	Regression	7		
Lincoln	Jersey City Fl	1516000	433	Regression	172	Regression	11
Lincoln	L Alice	1555900	1369	1-2 Year PE	305	1-2 Year PE	39
Lincoln	L Mohawksin	1515400	1910	Regression	710	1-2 Year PE	60
Lincoln	L Nokomis	1516500	2433	Regression	894	Regression	34
Lincoln	Long L	1001000	132	Regression	19		
Lincoln	Merrill Fl	1481100	164	Regression	67		
Lincoln	Muskellunge L	1555500	167	1-2 Year PE	11		
Lincoln	Pesabic L	1481600	146	1-2 Year PE	16		
Lincoln	Pine L	1012100	134	Regression	19	Regression	5
Lincoln	Rice R Fl	1516400	920	Regression	354	Regression	18
Lincoln	Rice R Fl Chain	1516401	3764	Regression	1412		
Lincoln	Seven Island L	1490300	132	Regression	19	Regression	5
Lincoln	Silver L	1017400	82	Regression	34		
Lincoln	Somo L	1547700	472	Regression	59	Regression	12
Lincoln	Spirit R Fl	1506800	1663	Regression	622	Regression	26
Lincoln	Squaw L	1564400	82	1-2 Year PE	11	Regression	4
Lincoln	Thompson L	1022200	30			Regression	2
Lincoln	Tug L	1482400	151	Regression	62	Regression	5
Marathon	Big Eau Pleine Reserv	1427400	6830	1-2 Year PE	3670	Regression	51
Marathon	L Wausau	1437500	1918	Regression	71	Regression	3
Marathon	Mayflower L	310500	98	Regression	15		
Marathon	Mission L	1005400	107			Regression	4
Marathon	Pike L	1406300	205	Regression	28		
Marathon	Wausau Dam L	1469700	284	Regression	10		
Marinette	Big Newton L	498800	68	Regression	29		
Marinette	Caldron Falls Reservo	545400	1018	Regression	27	Regression	19
Marinette	High Falls Reservoir	540600	1498	Regression	563		
Marinette	Hilbert L	501200	247	Regression	33		
Marinette	Johnson Falls Fl	533300	68	Regression	29		
Marinette	Little Newton L	502300	60	Regression	25		
Marinette	Oneonta L	503300	66	Regression	5		
Marinette	Sandstone Fl	531300	153	Regression	32		
Oconto	Archibald L	417400	430	Regression	54	Regression	11
Oconto	Bass L	417900	149	Regression	61		
Oconto	Bear L	471200	78	Regression	5		
Oconto	Boot L	418700	235	Regression	95	Regression	7
Oconto	Boulder L	491800	362	Regression	15		
Oconto	Boundary L	499000	37	Regression	3		
Oconto	Crooked L	462000	143	Regression	8		
Oconto	Horn L	467100	132	Regression	8		
Oconto	Maiden L	487500	290	Regression	38		
Oconto	Munger L	470900	97	Regression	6	Regression	4
Oconto	Paya L	425600	121	Regression	7		
Oconto	Townsend Fl	465000	476	Regression	18		
Oconto	Waubee L	439500	137	Regression	8		
Oconto	Wheeler L	439800	293	Regression	118		
Oneida	Aldridge L	967400	134	Regression	55		
Oneida	Alva L	968100	201	Regression	82		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Baker L	1546000	42	Regression	18		
Oneida	Bass L	1580300	124	Regression	51	Regression	5
Oneida	Bear L	1527800	312	Regression	41		
Oneida	Bearskin L	1523600	400	1-2 Year PE	915	1-2 Year PE	19
Oneida	Big Carr L	971600	213	Regression	87	1-2 Year PE	2
Oneida	Big Fork L	1610700	690	Regression	268	Regression	15
Oneida	Big L	1613000	865	Regression	333	Regression	17
Oneida	Big Stone L	1612200	548	Regression	215	Regression	13
Oneida	Birch L	1523800	180	Regression	74		
Oneida	Bird L	972000	99	Regression	41		
Oneida	Blue L	1538600	456	Regression	180		
Oneida	Bolger L	973000	119	1-2 Year PE	44		
Oneida	Boom L	1580200	437	Regression	173	Regression	11
Oneida	Booth L	1537800	207	1-2 Year PE	24	Regression	7
Oneida	Bridge L	1516800	411	Regression	163	Regression	11
Oneida	Brown L	973700	98	Regression	6		
Oneida	Buckskin L	2272600	634	Regression	173	Regression	10
Oneida	Buffalo L	974200	104	Regression	43		
Oneida	Burrows L	975000	156	Regression	9	Regression	6
Oneida	Carrol L	1544800	335	Regression	43	Regression	9
Oneida	Chain L	1598000	219	Regression	89	Regression	7
Oneida	Clear L	977100	36	Regression	3		
Oneida	Clear L	977200	30	Regression	13	Regression	2
Oneida	Clear L	977400	62	Regression	26	Regression	3
Oneida	Clear L	977500	846	Regression	326	Regression	17
Oneida	Clear L	2272555	212	Regression	85	Regression	7
Oneida	Clearwater L	1616400	351	Regression	140	Regression	10
Oneida	Columbus L	1616900	670	Regression	261		
Oneida	Crescent L	1564200	612	Regression	239	Regression	14
Oneida	Crooked L	1613300	176	Regression	10		
Oneida	Cunard L	1590000	43	Regression	18		
Oneida	Currie L	979300	96	Regression	40		
Oneida	Dam L	1596900	744	Regression	289	Regression	16
Oneida	Deer L	1612300	177	Regression	73	Regression	6
Oneida	Diamond L	1537100	124	Regression	51	Regression	5
Oneida	Dog L	1590200	37	Regression	3		
Oneida	Dog L	1612900	216	Regression	88	Regression	7
Oneida	E Horsehead L	1523000	184	Regression	75	Regression	6
Oneida	E Twin L	982400	47	Regression	4		
Oneida	Echo L	1597800	107	Regression	45	Regression	4
Oneida	Emma L	983500	223	Regression	30		
Oneida	Fifth L	1571100	240	Regression	97	Regression	7
Oneida	Fish L	1570600	70	Regression	30	Regression	3
Oneida	Fourmile L	1610800	218	Regression	89	Regression	7
Oneida	Fourth L	1572000	258	Regression	104	Regression	8
Oneida	Franklin L	986000	161	Regression	9	Regression	6
Oneida	Garth L	986600	114	Regression	47		
Oneida	George L	1569600	435	Regression	172	Regression	11
Oneida	Gilmore L	1589300	301	Regression	39	Regression	9
Oneida	Hancock L	1517900	259	Regression	12	Regression	8
Oneida	Hasbrook L	1589100	302	Regression	121	Regression	9
Oneida	Hat Rapids Fl	1567325	650	Regression	254		
Oneida	Hemlock L	989200	39	Regression	17		
Oneida	Hill L	990200	30	Regression	3		
Oneida	Hixon L	1568900	50	Regression	4		
Oneida	Hodstradt L	990700	126	Regression	18		
Oneida	Indian L	1598900	397	1-2 Year PE	69		
Oneida	Island L	1610500	295	Regression	119	Regression	9
Oneida	Jennie Webber L	1574300	226	Regression	31		
Oneida	Julia L (Three Lakes)	1614300	401	Regression	51	Regression	11
Oneida	Kate Pier L	1586300	34	Regression	15		
Oneida	Kathan L	1598300	189	Regression	77		
Oneida	Katherine L	1543300	590	Regression	231	Regression	14
Oneida	Kawaguesaga L	1542300	670	Regression	261	Regression	15

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Killarney L	1520900	421	Regression	17		
Oneida	L Creek	1580500	172	Regression	71	Regression	6
Oneida	L Julia (Rhinelander)	995000	238	Regression	97	Regression	7
Oneida	L Seventeen	996100	172	Regression	9		
Oneida	L Thompson	1569900	382	Regression	49	Regression	10
Oneida	Laurel L	1611800	232	Regression	94	Regression	7
Oneida	Little Bearskin L	1523500	164	Regression	23		
Oneida	Little Carr L	998800	52	Regression	4		
Oneida	Little Fork L	1610600	354	Regression	141	Regression	10
Oneida	Little Tomahawk L	1543900	160	1-2 Year PE	43	Regression	6
Oneida	Lone Stone L	1605600	172	Regression	9	Regression	6
Oneida	Long L	1001300	175	Regression	72	Regression	6
Oneida	Long L	1609000	620	Regression	242	Regression	14
Oneida	Long L	1618300	56	Regression	24	Regression	3
Oneida	Lost L	1575100	155	Regression	64		
Oneida	Lower Kaubashine L	1534800	187	Regression	26	Regression	6
Oneida	Lower Ninemile L	1605200	646	Regression	21		
Oneida	Lumen L	1002800	49	Regression	21		
Oneida	Madeline L	1544700	159			Regression	6
Oneida	Manson L	1517200	236	Regression	96	Regression	7
Oneida	Maple L	1609900	144	Regression	8		
Oneida	Margaret L	1615900	88	Regression	37		
Oneida	Marion L	1003100	62	Regression	5		
Oneida	Mars L	1577100	41	Regression	18		
Oneida	Mccormick L	1526600	118	Regression	7		
Oneida	Medicine L	1611700	372	Regression	148	Regression	10
Oneida	Mercer L	1538900	257	Regression	104	Regression	8
Oneida	Mid L	1542600	215	Regression	11	Regression	7
Oneida	Mildred L	1004600	191	Regression	78		
Oneida	Minocqua L	1542400	1360	Regression	514	Regression	23
Oneida	Moccasin L	1612100	95	Regression	40	Regression	4
Oneida	Moen L	1573800	460	Regression	17	Regression	12
Oneida	Mud L	1544000	41	Regression	18		
Oneida	Mud L	1612500	124	Regression	8	Regression	5
Oneida	Muskellunge L	1595600	284	Regression	114	Regression	8
Oneida	Muskie L	1524300	43	Regression	4		
Oneida	N Nokomis L	1595800	476	Regression	59	Regression	12
Oneida	N Two L	1007500	146	Regression	60		
Oneida	Oatmeal L	1597300	97	Regression	6		
Oneida	Oneida L	1518200	255	Regression	103	Regression	8
Oneida	Paradise L	1009400	89	Regression	6		
Oneida	Pelican L	1579900	3585	Regression	1293	Regression	43
Oneida	Pickerel L	1583000	49	Regression	4		
Oneida	Pickerel L	1590400	736	Regression	87	Regression	16
Oneida	Pier L	1529700	257	Regression	34		
Oneida	Pine L	1012200	203	Regression	83		
Oneida	Pine L	1581700	240	Regression	97	Regression	7
Oneida	Planting Ground L	1609100	1012	Regression	387	Regression	19
Oneida	Prairie L	1013000	58	Regression	25		
Oneida	Rainbow Fl	1595300	2035	Regression	755	Regression	30
Oneida	Range Line L	1610300	123	Regression	51	Regression	5
Oneida	Rhinelander Fl	1580100	1326	Regression	501	Regression	23
Oneida	Rocky Run Fl	1525500	96	Regression	40		
Oneida	Round L	1610400	150	Regression	62	Regression	5
Oneida	S Pine L	1580700	77	Regression	32		
Oneida	S Two L	1015500	214	Regression	87		
Oneida	Sand L	1597000	540	Regression	212	Regression	13
Oneida	Scotchman L	1016200	33	Regression	3		
Oneida	Second L	1572300	111	Regression	46	Regression	4
Oneida	Sevenmile L	1605800	503	Regression	198	Regression	12
Oneida	Shepard L	1576100	179	Regression	10	Regression	6
Oneida	Shishebogama L	1539600	716	Regression	42	Regression	8
Oneida	Skunk L	1533200	130	Regression	54		
Oneida	Soo L	1018900	135	Regression	56	Regression	5

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Oneida	Spider L	1586600	118	Regression	49	Regression	5
Oneida	Spirit L	1612000	368	Regression	147	Regression	10
Oneida	Squash L	1019500	392	Regression	16		
Oneida	Squirrel L	1536300	1317	1-2 Year PE	585	Regression	23
Oneida	Stella L	1575700	405	Regression	16	Regression	11
Oneida	Stone L	1597600	188			Regression	6
Oneida	Stone L	2272700	248	Regression	100		
Oneida	Sunday L	1020600	88	Regression	6		
Oneida	Sunset L	1572500	33	Regression	14	Regression	2
Oneida	Swamp L	1522400	296	Regression	39		
Oneida	Swamsauger L	1528700	141	Regression	58		
Oneida	Sweeney L	1589600	187	Regression	76	Regression	6
Oneida	Tamarack L	1582200	99	Regression	41		
Oneida	Third L	1572200	103	Regression	43	Regression	4
Oneida	Thunder L	1580400	172	Regression	71	Regression	6
Oneida	Thunder L	1618100	1768	Regression	185		
Oneida	Tim Lynn L	1597400	84	Regression	35		
Oneida	Tom Doyle L	1586800	102	Regression	15	Regression	4
Oneida	Tomahawk L	1542700	3392	1-2 Year PE	918	Regression	41
Oneida	Tomahawk L Chain	1542701	3552	Regression	961		
Oneida	Townline L	1609600	152	Regression	63	Regression	5
Oneida	Turtle L	1587400	53	Regression	4		
Oneida	Two Sisters L	1588200	719	Regression	279	Regression	15
Oneida	Upper Kaubashine L	1535000	190	Regression	78	Regression	6
Oneida	Venus L	1577000	65	Regression	27		
Oneida	Virgin L	1614100	276	Regression	111	Regression	8
Oneida	W Horsehead L	1522900	145	Regression	8	Regression	5
Oneida	W Twin L	1177400	28	Regression	3		
Oneida	Walters L	1582800	61	Regression	26		
Oneida	Whitefish L	1613500	205	Regression	11	Regression	7
Oneida	Wildwood L	1178600	28	Regression	3		
Oneida	Willow Fl	1528300	5135	Regression	1819	Regression	53
Oneida	Willow L	1529500	395	Regression	16	Regression	10
Polk	Antler L	2449400	101	Regression	7		
Polk	Apple R Fl	2624200	639			Regression	14
Polk	Balsam L	2620600	2054	Regression	211		
Polk	Bear L	2452200	155	Regression	64		
Polk	Bear Trap L	2618100	241	Regression	12		
Polk	Big Blake L	2627000	217	Regression	11		
Polk	Big Butternut L	2641000	378	1-2 Year PE	41		
Polk	Big Round L	2627400	1015	Regression	115		
Polk	Bone L	2628100	1781			Regression	28
Polk	Clear L	2623500	30	Regression	3		
Polk	Deer L	2619400	807			1-2 Year PE	42
Polk	Half Moon L	2621100	579	Regression	70		
Polk	Indianhead Fl	2634400	776	Regression	300		
Polk	Little Butternut L	2640700	189	Regression	26		
Polk	Little Mirror L	2477100	33	Regression	3		
Polk	Magnor L	2624600	224	Regression	30		
Polk	Mckeith L	2481500	72	Regression	5		
Polk	N Pipe L	2485700	58	1-2 Year PE	9		
Polk	N Twin L	2623900	135	Regression	8		
Polk	Pike L	2624000	159	Regression	9		
Polk	Pipe L	2490500	284	1-2 Year PE	43		
Polk	Poplar L	2491000	125	Regression	8		
Polk	Sand L	2495000	187	Regression	26		
Polk	Vincent L	2598500	70	Regression	5		
Polk	Wapogasset L	2618000	1186	Regression	131		
Polk	Ward L	2599400	91	Regression	14		
Portage	Collins L	270200	49	Regression	4		
Price	Amik L	2268600	224			Regression	7
Price	Bass L	2282200	58	Regression	25	Regression	3
Price	Big Dardis L	2244200	144	Regression	59	Regression	5
Price	Butternut L	2283300	1006	1-2 Year PE	428	Regression	19

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Price	Crane + Chase L	2237500	86	Regression	36	Regression	4
Price	Crowley Fl	2287200	422	Regression	17	Regression	11
Price	Deer L	2239100	145			Regression	5
Price	Duroy L	2240100	379	Regression	151	Regression	10
Price	Elk L	2240000	88	Regression	37	Regression	4
Price	Grassy L	2238100	81	Regression	34	Regression	4
Price	Island L	2260900	29	Regression	3		
Price	Lac Sault Dore	2236800	561	Regression	220	Regression	13
Price	Long L	2239300	418	Regression	166	Regression	11
Price	Long L	2282000	241	Regression	98	Regression	7
Price	Lower Park Falls Fl	2290100	71	Regression	30	Regression	3
Price	Miles L	2271100	32			Regression	2
Price	Musser L	2245100	563	Regression	68	Regression	13
Price	N Spirit L	1515200	213	1-2 Year PE	65	Regression	7
Price	Pike L	2268300	806	Regression	312	Regression	17
Price	Pixley Fl	2288900	334	Regression	134	Regression	9
Price	Round L	2267800	726	Regression	282	Regression	16
Price	Schnur L	2284000	158	Regression	65	Regression	6
Price	Solberg L	2242500	859	1-2 Year PE	353	Regression	17
Price	Spirit L	1513000	126			Regression	5
Price	Thompson L	2265900	111	Regression	7	Regression	4
Price	Tucker L	2269000	118	Regression	7		
Price	Turner L	2268500	149	Regression	61	Regression	5
Price	Upper Park Falls Fl	2290500	431			Regression	11
Price	Upper Price L	2235300	43	Regression	4	Regression	2
Price	Whitcomb L	2266100	44	Regression	7	Regression	2
Price	Wilson L	2239400	351	Regression	140	Regression	10
Price	Worcester L	2210900	100	Regression	42		
Rusk	Amacoy L	2359700	278	1-2 Year PE	43	Regression	8
Rusk	Audie L	2368700	128			Regression	5
Rusk	Bass L	2090900	88	Regression	6		
Rusk	Big Falls Fl	2230100	369	Regression	147	Regression	10
Rusk	Chain L	2350500	468	Regression	58	Regression	12
Rusk	Clear L	2350600	95	Regression	14	Regression	4
Rusk	Dairyland Reservoir	2229200	1745	Regression	652	Regression	27
Rusk	Fireside Lakes	2349500	302	Regression	121		
Rusk	Island L	2350200	526	Regression	64	Regression	13
Rusk	Ladysmith Fl	2228700	288	Regression	116	Regression	8
Rusk	Mccann L	2350400	133	Regression	19	Regression	5
Rusk	Perch L	2368500	23			Regression	1
Rusk	Potato L	2355300	534	Regression	65	Regression	13
Rusk	Pulaski L	1875900	126	Regression	52		
Rusk	Sand L	2353600	262	Regression	35	Regression	8
Rusk	Thornapple Fl	2227500	268	Regression	108	Regression	8
Sawyer	Barber L	2382300	238	Regression	32	Regression	7
Sawyer	Barker L	2400000	238	Regression	97	Regression	7
Sawyer	Beverly L	2387200	9			Regression	1
Sawyer	Black Dan L	2381900	128	Regression	8	Regression	5
Sawyer	Black L	2401300	129	Regression	8	Regression	5
Sawyer	Blaisdell L	2402200	356	Regression	15	Regression	10
Sawyer	Boos L	2425000	37	Regression	16	Regression	2
Sawyer	Burns L	2436400	37	1-2 Year PE	5	Regression	2
Sawyer	Callahan L	2434700	106			Regression	4
Sawyer	Clear L	1841300	77	Regression	5	Regression	3
Sawyer	Connors L	2275100	429	Regression	170	Regression	11
Sawyer	Durphee L	2396800	193	Regression	79		
Sawyer	Evergreen L	2277600	200	Regression	82	Regression	7
Sawyer	Fawn L	2435900	23	Regression	2		
Sawyer	Fishtrap L	2401100	216			Regression	7
Sawyer	Ghost L	2423000	372	Regression	48	Regression	10
Sawyer	Grimh Fl	2385100	86	Regression	6	Regression	4
Sawyer	Grindstone L	2391200	3111	1-2 Year PE	342	Regression	19
Sawyer	Ham L	1852300	100	Regression	42		
Sawyer	Hayward L	2725500	247	Regression	100	Regression	8

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Sawyer	Holmes L	2419600	62			Regression	3
Sawyer	Hunter L	2400600	126	Regression	52	Regression	5
Sawyer	Island L	2381800	67	Regression	5	Regression	3
Sawyer	L Chetac	2113300	1920	Regression	714		
Sawyer	L Chippewa	2399700	15300	Regression	3395	Regression	69
Sawyer	L Of The Pines	2275300	273	Regression	110	Regression	8
Sawyer	L Placid	2436500	160	1-2 Year PE	22	Regression	6
Sawyer	L Winter	2381100	676	Regression	22	Regression	15
Sawyer	Lac Courte Oreilles	2390800	5039	Regression	1166	Regression	34
Sawyer	Lewis L	1860200	52	Regression	4		
Sawyer	Little Round L	2395500	229	Regression	74		
Sawyer	Little Sissabagama L	2394100	299			Regression	9
Sawyer	Loretta L	2382700	126			Regression	5
Sawyer	Lost Land L	2418600	1304	1-2 Year PE	86	Regression	23
Sawyer	Lovejoy L	2395900	76	Regression	32		
Sawyer	Lower Clam L	2429300	229	Regression	31	Regression	7
Sawyer	Mason L	2277200	190	Regression	78	Regression	6
Sawyer	Meadow L	2424800	39	Regression	17	Regression	2
Sawyer	Mirror L	1866900	38	Regression	3		
Sawyer	Moose L	2420600	1670	Regression	625	Regression	27
Sawyer	Mud L	2434800	480	Regression	18	Regression	12
Sawyer	Nelson L	2704200	2503	Regression	250		
Sawyer	North L	2436000	129	Regression	8	Regression	5
Sawyer	Partridge Crop L	2424600	45	Regression	19	Regression	2
Sawyer	Perch L	1873600	129	Regression	8	Regression	5
Sawyer	Radisson Fl	2397400	255	Regression	103	Regression	8
Sawyer	Round L	2395600	3054	1-2 Year PE	424	Regression	39
Sawyer	Sand L	2393200	928	Regression	106	Regression	18
Sawyer	Sissabagama L	2393500	719	Regression	279	Regression	15
Sawyer	Smith L	2726100	323	Regression	14		
Sawyer	Spider L	2435700	1454	Regression	157	Regression	24
Sawyer	Squaw L	2395100	208	Regression	5		
Sawyer	Teal L	2417000	1049	1-2 Year PE	676	Regression	20
Sawyer	Teal R Fl	2416900	75	Regression	32	Regression	3
Sawyer	Tiger Cat Fl	2435000	819	1-2 Year PE	113	Regression	17
Sawyer	Whitefish L	2392000	786	Regression	92	Regression	16
Sawyer	Windfall L	2046500	102	Regression	43		
Sawyer	Windigo L	2046600	522	Regression	205		
St. Croix	Cedar L	2615100	1100	1-2 Year PE	277	Regression	20
Taylor	Anderson L	2165700	43	Regression	4		
Taylor	Diamond L	1757200	49	Regression	21		
Taylor	Esadore L	1764000	46	Regression	4		
Taylor	Kathryn L	2166100	62	Regression	10		
Taylor	Mondeaux Fl	2193300	416			Regression	11
Taylor	N Harper L	2204000	54	Regression	23	Regression	3
Taylor	Rib L	1469100	320	1-2 Year PE	66	Regression	9
Taylor	S Harper L	2204100	80	Regression	12		
Taylor	Sackett L	1764500	63	Regression	10		
Taylor	Shearer L	2197600	21	Regression	2		
Vilas	Alder L	2329600	274	1-2 Year PE	204	Regression	8
Vilas	Allequash L	2332400	426	Regression	54	Regression	11
Vilas	Alma L	967900	55	Regression	9	Regression	3
Vilas	Annabelle L	2953800	213	1-2 Year PE	32	Regression	7
Vilas	Anvil L	968800	380	Regression	151		
Vilas	Apeekwa L	2269400	188	Regression	77	Regression	6
Vilas	Armour L	2953200	320	Regression	128	Regression	9
Vilas	Arrowhead L	1541500	99	Regression	15	Regression	4
Vilas	Averill L	2956700	71	Regression	30	Regression	3
Vilas	Ballard L	2340700	505	Regression	62	Regression	12
Vilas	Bass L	1604200	266	Regression	13	Regression	8
Vilas	Bear L	2335400	76	Regression	12	Regression	3
Vilas	Beaver L	2960600	68	Regression	5		
Vilas	Belle L	2955700	53	Regression	23	Regression	3
Vilas	Benson L	2327100	28	Regression	12	Regression	2

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Big Arbor Vitae L	1545600	1090	Regression	416	Regression	20
Vilas	Big Crooked L	2338800	682	1-2 Year PE	156	Regression	15
Vilas	Big Donahue L	971700	92	Regression	6		
Vilas	Big Gibson L	1835200	116	Regression	48	Regression	5
Vilas	Big Hurst L	2756000	48	Regression	4		
Vilas	Big Kitten L	2336700	55	Regression	4	Regression	3
Vilas	Big L (Boulder Jct)	2334700	835	Regression	322	Regression	17
Vilas	Big L (Mi Border)	2963800	771	Regression	237	Regression	13
Vilas	Big Muskellunge L	1835300	930	Regression	357	Regression	18
Vilas	Big Portage L	1629500	638	Regression	249		
Vilas	Big Sand L	1602600	1408	Regression	152	Regression	24
Vilas	Big St Germain L	1591100	1617	Regression	172	Regression	26
Vilas	Bills L	1835500	37			Regression	0
Vilas	Birch L	2311100	528	Regression	208	Regression	13
Vilas	Black Oak L	1630100	584	Regression	71		
Vilas	Boot L	1619100	284	Regression	37	Regression	8
Vilas	Boot L	2756400	29	Regression	3	Regression	2
Vilas	Boulder L	2338300	524	Regression	206	Regression	13
Vilas	Brandy L	1541300	110	Regression	16	Regression	4
Vilas	Carpenter L	976100	333	Regression	14		
Vilas	Catfish L	1603700	1012	Regression	387	Regression	19
Vilas	Circle Lily L	2326700	223	Regression	30	Regression	7
Vilas	Clear L	2329000	555	1-2 Year PE	193	Regression	13
Vilas	Cleveland L	2758600	32	Regression	3		
Vilas	Cochran L	2963500	126	Regression	8	Regression	5
Vilas	Crab L	2953500	949	Regression	364	Regression	18
Vilas	Crampton L	2759000	59	Regression	4		
Vilas	Cranberry L	1603800	956	Regression	367	Regression	19
Vilas	Dead Pike L	2316600	297	Regression	39	Regression	9
Vilas	Deer L	980600	65	Regression	5		
Vilas	Deer L	2311500	37	Regression	3		
Vilas	Deerskin L	1601300	309	Regression	40	Regression	9
Vilas	Diamond L	1844700	122	Regression	8	Regression	5
Vilas	Dorothy Dunn L	1845600	70	Regression	11	Regression	3
Vilas	Duck L	1599900	108	Regression	45	Regression	4
Vilas	E Ellerson L	2331300	136	Regression	56	Regression	5
Vilas	E Witches L	982500	34	Regression	3		
Vilas	Eagle L	1600200	572	Regression	224	Regression	13
Vilas	Eleanore L	1631500	28	Regression	12	Regression	2
Vilas	Erickson L	983600	106	Regression	16		
Vilas	Escanaba L	2339900	293	1-2 Year PE	102	Regression	9
Vilas	Fawn L	1591000	22	Regression	10	Regression	1
Vilas	Fawn L	2328900	74	1-2 Year PE	13	Regression	3
Vilas	Finger L	984700	90	Regression	6		
Vilas	Fishtrap L	2343200	329	Regression	132	Regression	9
Vilas	Forest L	2762200	466	1-2 Year PE	173		
Vilas	Found L	1593800	326	Regression	42	Regression	9
Vilas	Frank L	985900	141	Regression	8		
Vilas	Harmony L	988300	88	Regression	6		
Vilas	Harris L	2958500	507	Regression	200	Regression	12
Vilas	Helen L	2964400	111	Regression	46	Regression	4
Vilas	Hiawatha L	2328400	36	Regression	6		
Vilas	High L	2344000	734	Regression	23	Regression	16
Vilas	Horsehead L	2953100	234	Regression	95	Regression	7
Vilas	Hunter L	991700	184	Regression	25		
Vilas	Imogene L	586800	66	Regression	5		
Vilas	Indian L	2764400	68			Regression	3
Vilas	Irving L	2340900	403			Regression	11
Vilas	Island L	2334400	1023	1-2 Year PE	429	Regression	19
Vilas	Jag L	1855900	158	Regression	65	Regression	6
Vilas	Jenny L	1856400	59	Regression	25		
Vilas	Johnson L	1541100	78	Regression	12	Regression	3
Vilas	Jute L	1857400	194			Regression	6
Vilas	Katinka L	2957000	172	Regression	71		

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Vilas	Kentuck L	716800	957	1-2 Year PE	1580	Regression	19
Vilas	Kenu L	1629800	73	Regression	5		
Vilas	Kildare L	1631700	54	Regression	4	Regression	3
Vilas	L Content	1592000	244	Regression	99	Regression	8
Vilas	L Laura	995200	599	Regression	234	Regression	14
Vilas	Lac Des Fleurs	1630900	49	Regression	4		
Vilas	Lac Vieux Desert	1631900	4300	Regression	0	Regression	31
Vilas	Little Arbor Vitae L	1545300	534	Regression	210	Regression	13
Vilas	Little Crooked L	2335500	153	Regression	22	Regression	5
Vilas	Little Horsehead L	2953000	52	Regression	22		
Vilas	Little John L	2332300	166	Regression	68	Regression	6
Vilas	Little Papoose L	2328200	46	Regression	4	Regression	2
Vilas	Little Portage L	1629200	170	Regression	70	Regression	6
Vilas	Little Presque Isle L	2959700	85			Regression	3
Vilas	Little Rice L	2338900	59	Regression	4	Regression	3
Vilas	Little Spider L	1540400	235	Regression	32	Regression	7
Vilas	Little St Germain L	1596300	980	Regression	111	Regression	19
Vilas	Little Star L	2334300	244	1-2 Year PE	28	Regression	8
Vilas	Little Trout L	2321600	978	Regression	112	Regression	6
Vilas	Lone Pine L	2961600	142	Regression	20	Regression	5
Vilas	Long L	1602300	872	1-2 Year PE	272	Regression	17
Vilas	Loon L	1001600	31	Regression	3		
Vilas	Lost Canoe L	2339800	249	Regression	101		
Vilas	Lost L	1593400	544	Regression	66	Regression	13
Vilas	Lower Aimer L	2955000	34	Regression	3		
Vilas	Lower Buckatabon L	1621000	352	Regression	45	Regression	10
Vilas	Lower Gresham L	2330300	149			Regression	5
Vilas	Lynx L	1600000	22	Regression	10	Regression	1
Vilas	Lynx L	2954500	339	Regression	136	Regression	9
Vilas	Mamie L	2964100	400	Regression	153	Regression	10
Vilas	Manitowish L	2329400	506	1-2 Year PE	59	Regression	12
Vilas	Mann L	2332000	261	Regression	12		
Vilas	Marshall L	1626600	87	Regression	6	Regression	4
Vilas	Mccullough L	2960400	216	Regression	11	Regression	7
Vilas	Mermaid L	2768100	60	Regression	5		
Vilas	Meta L	1004400	175	Regression	10		
Vilas	Middle Ellerson L	1866100	60			Regression	1
Vilas	Middle Gresham L	2330700	53	Regression	4	Regression	3
Vilas	Moccasin L	1005700	83	Regression	6	Regression	4
Vilas	Moon L	1005800	124	Regression	18	Regression	5
Vilas	Morton L	2960300	163	Regression	9	Regression	6
Vilas	Murphy L	2769700	81	Regression	6	Regression	4
Vilas	Muskellunge L	1596600	272	Regression	36	Regression	8
Vilas	N Crab L	2953400	56	Regression	24	Regression	3
Vilas	N Turtle L	2310400	369	Regression	147	Regression	10
Vilas	N Twin L	1623800	2788	Regression	1018	Regression	37
Vilas	Nelson L	1007600	104	Regression	7	Regression	4
Vilas	Nelson L	1869900	27			Regression	2
Vilas	Nixon L	2341200	110	Regression	7	Regression	4
Vilas	No Mans L	2312100	225	Regression	91	Regression	7
Vilas	Norwood L	1008100	125	Regression	13		
Vilas	Oswego L	1871800	66			Regression	3
Vilas	Otter L	1600100	196	Regression	80	Regression	7
Vilas	Oxbow L	2954800	511	Regression	201	Regression	12
Vilas	Pallette L	1872100	173			Regression	6
Vilas	Palmer L	2962900	635	Regression	76	Regression	14
Vilas	Papoose L	2328700	428	1-2 Year PE	145	Regression	11
Vilas	Partridge L	2341500	228	Regression	11	Regression	7
Vilas	Pickerel L	1619700	293	Regression	13	Regression	9
Vilas	Pine Island L	1011900	79	Regression	6	Regression	3
Vilas	Pioneer L	1623400	427	1-2 Year PE	41	Regression	11
Vilas	Plum L	1592400	1033	1-2 Year PE	596	1-2 Year PE	27
Vilas	Plum L	2963200	100	Regression	10		
Vilas	Presque Isle L	2956500	1280	Regression	485	Regression	22

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Vilas	Presque Isle L C	2956501	1571	Regression	604		
Vilas	Rainbow L	2310800	146	Regression	60	Regression	5
Vilas	Razorback L	1013800	362	Regression	145	Regression	10
Vilas	Rest L	2327500	608	1-2 Year PE	244	Regression	14
Vilas	Rice L	1618600	71	Regression	30	Regression	3
Vilas	Roach L	1014000	51	Regression	22	Regression	3
Vilas	Roach L	2772500	125	Regression	2		
Vilas	Rock L	2311700	122	Regression	51	Regression	5
Vilas	Rosalind L	1877900	43			Regression	2
Vilas	Round L	2334900	116	Regression	7	Regression	5
Vilas	Rudolph L	2954300	79			Regression	3
Vilas	Rush L	2343600	44	Regression	19	Regression	2
Vilas	S Turtle L	2310200	454	Regression	180	Regression	11
Vilas	S Twin L	1623700	642	Regression	251	Regression	14
Vilas	Sanford L	2335300	88	Regression	37	Regression	4
Vilas	Scattering Rice L	1600300	267	Regression	108	Regression	8
Vilas	Sherman L	1880700	123	1-2 Year PE	61	Regression	5
Vilas	Snipe L	1018500	239	1-2 Year PE	142	Regression	7
Vilas	Sparkling L	1881900	154	Regression	22	Regression	6
Vilas	Spectacle L	717400	171	Regression	9		
Vilas	Spider L	2329300	272	1-2 Year PE	49	Regression	8
Vilas	Spring L	2964800	205	Regression	84		
Vilas	Squaw L	2271600	785	1-2 Year PE	294	1-2 Year PE	45
Vilas	Star L	1593100	1206	Regression	458	Regression	22
Vilas	Starrett L	1019800	66	Regression	5		
Vilas	Stateline L	2952100	199	Regression	3		
Vilas	Stewart L	1020000	39	Regression	17		
Vilas	Stone L	2328800	139	1-2 Year PE	25	Regression	5
Vilas	Sturgeon L	2327200	32	Regression	14	Regression	2
Vilas	Sumach L	1020500	60	Regression	5	Regression	3
Vilas	Sunset L	1020900	185	Regression	10	Regression	6
Vilas	Tenderfoot L	2962400	437	Regression	152	Regression	10
Vilas	Towanda L	1022900	146	Regression	21	Regression	5
Vilas	Trout L	2331600	3816	1-2 Year PE	799	Regression	44
Vilas	Twin Island L	2959300	205			Regression	7
Vilas	Twin L Chain	1623801	3430	Regression	1269		
Vilas	Upper Aimer L	2955100	33	Regression	3		
Vilas	Upper Buckatabon L	1621800	494	Regression	61	Regression	12
Vilas	Upper Gresham L	2330800	366	Regression	47	Regression	10
Vilas	Van Vliet L	2956800	220	Regression	89	Regression	7
Vilas	Vance L	2327300	30	Regression	13	Regression	2
Vilas	Verna L	1540300	77			Regression	3
Vilas	Voyageur L	1603400	130	Regression	54	Regression	5
Vilas	W Bay L	2964000	368	Regression	69	Regression	5
Vilas	W Plum L	1592500	75	Regression	32	Regression	3
Vilas	W Witches L	1177500	30	Regression	3		
Vilas	Watersmeet L	1599400	100	Regression	42	Regression	4
Vilas	White Birch L	2340500	112	Regression	16	Regression	4
Vilas	White Sand L	2339100	734	Regression	86	Regression	16
Vilas	Wild Rice L	2329800	379	1-2 Year PE	26	Regression	8
Vilas	Wildcat L	2336800	305	Regression	40	Regression	9
Vilas	Wolf L	2336100	393	1-2 Year PE	208	Regression	10
Vilas	Yellow Birch L	1599600	202	Regression	82	Regression	7
Washburn	Balsam L	2112800	295	Regression	119		
Washburn	Bass L	1833300	130	Regression	54		
Washburn	Bass L	2451300	144	Regression	20		
Washburn	Bass L	2451900	188	1-2 Year PE	135	Regression	6
Washburn	Beartrack North Lake	2452399	33	Regression	14		
Washburn	Beartrack South Lake	2452300	65	Regression	27		
Washburn	Big Bass L	2453300	203	Regression	28		
Washburn	Birch L	2113000	368	Regression	47		
Washburn	Cable L	2456100	185	Regression	26		
Washburn	Chippanazie L	2722800	58	Regression	25		
Washburn	Colton Fl	2702100	58	Regression	25		

County	Lake Name	WBIC Code	Area (acres)	Walleye Method	Walleye SH	Musky Method	Musky SH
Washburn	Cranberry Fl	2722400	201	Regression	10		
Washburn	Deep L	1844000	43	Regression	18		
Washburn	Derosier L	2460900	109	Regression	7		
Washburn	Dunn L	2709800	193	Regression	79		
Washburn	Gilmore L	2695800	389	Regression	49		
Washburn	Horseshoe L	2470000	194	Regression	27		
Washburn	Island L	2470600	276	Regression	37		
Washburn	L Nancy	2691500	772	Regression	299	Regression	16
Washburn	Leach L	2474400	30	Regression	13		
Washburn	Leisure L	2475000	75			Regression	3
Washburn	Little Long L	2664500	112	Regression	7		
Washburn	Little Mud L	2107100	71	Regression	30		
Washburn	Little Sand L	2477700	74	Regression	11		
Washburn	Little Stone L	1862400	27	Regression	2		
Washburn	Long L	2106800	3290	1-2 Year PE	326		
Washburn	Matthews L	2710800	263	Regression	35	Regression	8
Washburn	Mclain L	2481600	150	Regression	21		
Washburn	Middle Mckenzie L	2706500	530	1-2 Year PE	62	Regression	13
Washburn	Minong Fl	2692900	1564	Regression	587		
Washburn	Mud L	2107700	103	Regression	7		
Washburn	Pavlas L	2488100	44	Regression	4		
Washburn	Pear L	2488200	49	Regression	4		
Washburn	Rice L	2696000	132	Regression	55		
Washburn	Ripley L	2492600	190	Regression	26		
Washburn	S Twin L	2494500	115	Regression	17		
Washburn	Shell L	2496300	2580	Regression	946	Regression	35
Washburn	Silver L	2496900	188	Regression	26		
Washburn	Slim L	2109300	224	Regression	30		
Washburn	Spider L # 1	1882100	41	Regression	3		
Washburn	Spider L # 5	1882500	177	Regression	10		
Washburn	Spring L	1882900	42	Regression	3		
Washburn	Spring L	2498600	211	Regression	29		
Washburn	Stone L	1884000	39	Regression	3		
Washburn	Stone L	1884100	523	Regression	206		
Washburn	Tozer L	2502000	36	Regression	6		
Washburn	Trego L	2712000	451	Regression	56	Regression	11