



**Open Water Harvest
In 1837 & 1842 Ceded Territories in
Wisconsin by
Ojibwe Indians During 2019**

by

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ABSTRACT

The year two-thousand eighteen (2019) marked the thirty-fifth consecutive spring that spear fishing was conducted by Ojibwe tribes in off-reservation waters of northern Wisconsin. A total of 550 tribal members participated in this traditional fishery. Spearing for walleye occurred on 168 lakes and walleye were harvested from all except 7 lakes. A total of 36,696 fish were taken with 97.8% of the catch (35,917 fish) being walleye. Numbers of other gamefish harvested were 210 muskellunge, 186 bass, 62 northern pike, and 1 lake sturgeon. Average lengths were 15.5 inches for walleye and 38.6 inches for muskellunge. The tribal walleye quota was exceeded on 5 lakes by a total of 17 fish. On the remaining lakes, harvest of walleye and muskellunge was maintained within the established limits by a nightly permit system and complete monitoring of the catch.

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INTRODUCTION

This report presents data for harvest and effort by Ojibwe spearers in ceded territory waters of northern Wisconsin (Figure 1) during the 2019 open water season. The majority of harvest was taken through spearing during spring. Since 1989 spearing, gill-netting, fyke-netting and dip-netting have occasionally occurred after spring in off-reservation waters.

REGULATIONS

Regulations governing the use of spears and nets for harvesting walleye and muskellunge were adopted by each of the six Wisconsin tribes and became permanent in 1989. A listing of the major differences between permanent regulations and negotiated interim rules that governed tribal harvest in 1988 can be found in Kmiecik and Shively (1990).

As part of the Stipulation Review Process, several changes to tribal regulations which had been agreed to annually as experiments were agreed to for a six (6) year period starting in 2011. In 2011 the bag and permit limits for walleye in designated river segments were replaced with a nightly quota of 60 for a maximum of two days. Also, an additional eight river segments were listed as available for spearing plus additional gill-net mesh sizes on lakes 1,000 acres and larger were agreed to.

Several other regulatory changes were made as part of this process. A stretch of the Yellow River was designated for walleye harvest under the Yellow Lake walleye quota, and a stretch of the Totogatic River was opened for harvest under the Minong Flowage quota. The safety factors for walleye for one and two year old population estimates were adjusted to 41% and 33%, respectively. A list of lakes was identified where on-site monitoring was not required, i.e. alternative monitoring lakes.

PERMIT SYSTEM AND MONITORING

The permit system has operated in the same manner since 1988. Permits (Figure 2) were issued at a tribal office during the day or at the designated boat landing at night. The number of permits that could be issued was determined daily by dividing the remaining tribal quota (TQ) for a lake by the nightly bag limit that the tribe selected for that lake. Lakes were closed to further spearing of walleye and to all netting once the walleye TQ was reached. However, spearing permits could be issued for harvest of other species.

All spearing was monitored by tribal creel clerks under the supervision of Great Lakes Indian Fish and Wildlife Commission (GLIFWC) wardens and biologists. Eighteen lakes on the alternate monitoring list were named, spearing occurred on ten of the lakes. A creel team was sent to monitor harvest on nine of the lakes, the remaining lakes' harvest was creeled at a different lake being monitored. A set of instructions for collecting biological data was provided to creel clerks at a training meeting prior to the spring season.

During spearing, teams of creel clerks and wardens were assigned to each lake in some areas and only to lakes where permits had been issued in other areas. These teams arrived at the designated boat landing before dark and completed a catch report form upon return of each boating party. For species other than walleye, all fish were identified, counted, sex determined, and measured. For walleye, all fish were counted. Also, the first 100 walleye plus all those in the last boat were measured and sex determined. In addition, permits were collected and a record was made of each person's tribal ID number, the time spearing started and the time it ended.

Harvest and effort for each lake were totaled and reported by 9 a.m. the following day to administrative staff at the GLIFWC office in Odanah. These data were then transmitted to tribal and Wisconsin Department of Natural Resources (WDNR) representatives by 10 a.m. and used to update walleye and muskellunge TQ's. During 2019 all catch report forms were faxed or emailed in daily. Tribal representatives typically notified GLIFWC before noon of the lakes and bag limits selected for spearing that night. In turn, these data were transmitted to the WDNR.

Figure 1. Map depicting the ceded territory in northern Wisconsin. Heavy line indicates approximate ceded territory boundary.



Figure 2. Off-Reservation Treaty Fishing Permit used during the 2019 open-water season.

28	29	30	31	Month _____	1	2	3	4	5
27	Off-Reservation Treaty Fishing Permit <input type="checkbox"/> Spearing <input type="checkbox"/> Fyke Netting No 0250 <input type="checkbox"/> Seining <input type="checkbox"/> Gill Netting								6
26									7
25	Tribal ID Number _____ of _____ Reservation								8
24	Signature of Permittee: _____								9
23	Issued by: _____ of _____ Reservation								10
22	Water: _____ County: _____								11
21	Bag Limit: Walleye _____ Muskellunge _____								12
Other Restrictions: _____									
21	20	19	18	17	16	15	14	13	12

FRONT

Start Time: _____ (am or pm)			Net Length: _____		
End Time: _____ (am or pm)			Mesh: _____		
Species	Count	Weight (lbs)	Species	Length (in.)	Sex
Walleye	_____	_____ . _____	_____	_____ . _____	_____
Northern Pike	_____	_____ . _____	_____	_____ . _____	_____
Yellow Perch	_____	_____ . _____	_____	_____ . _____	_____
_____	_____	_____ . _____	_____	_____ . _____	_____
_____	_____	_____ . _____	_____	_____ . _____	_____
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BACK

RESULTS AND DISCUSSION

Fishing Effort

Effort in the spring spear fishery was measured in three ways: by the number of spearers, the number of spearer-nights, and the number of boat-hours.

Number of Spearers. All tribal members spearing under permits issued by each tribe were counted as an individual spearer for that tribe regardless of whether the spearer was an enrolled member of the tribe issuing permits. A total of 550 tribal members participated in the 2019 spring spear fishery (Table 1, Figure 3). Compared to 2018, the total number of spearers increased by 49 persons or 10%.

Table 1. Number of spearers on lakes selected by six Wisconsin Ojibwe bands during spring spearing from 2003-2019¹.

YEAR	BRV	LCO	LDF	MLK	RCF	STC ^{2,3}	TOTAL:
2003	30	53	154	62	46	54	399
2004	25	56	158	65	53	48	405
2005	41	69	146	117	59	51	483
2006	35	82	165	58	58	67	465
2007	40	93	157	68	68	63	489
2008	36	72	142	76	54	47	427
2009	42	99	125	126	55	45	492
2010	36	89	91	150	49	55	470
2011	41	98	140	69	45	70	463
2012	46	107	185	60	49	60	507
2013	42	82	172	52	29	55	432
2014	71	106	167	71	56	55	526
2015	70	116	186	69	71	56	568
2016	44	101	218	71	50	47	531
2017	65	99	211	64	78	63	580
2018	65	80	192	58	50	56	501
2019	65	109	230	64	50	32	550
PERCENT CHANGE: 2018-2019	0%	+36%	+20%	+10%	0%	-43%	+10%

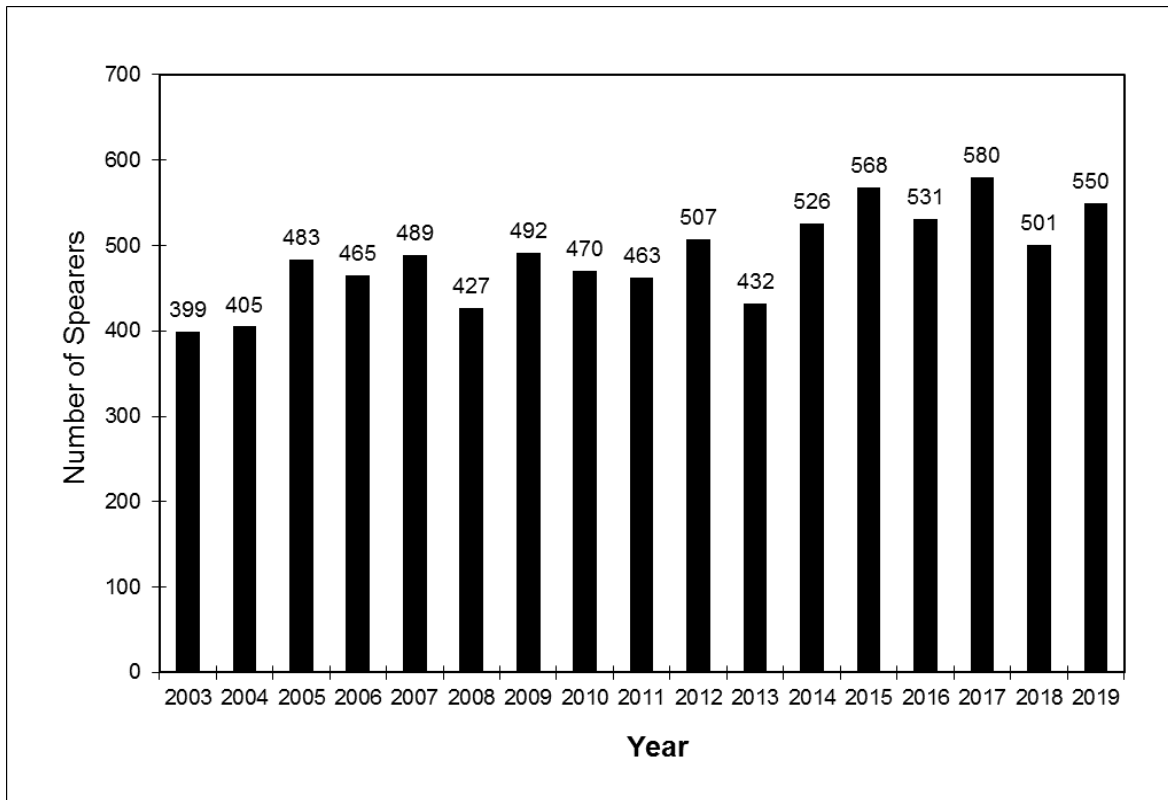
¹Abbreviations for the various bands are: BRV = Bad River, LCO = Lac Courtes Oreilles, LDF = Lac du Flambeau, MLK = Mole Lake, RCF = Red Cliff, and STC = St. Croix.

² Includes members from the Mille Lacs tribe for 1997-2004 and 2012.

³ Includes members from the Fond du Lac tribe for 2014

All persons spearing on lakes selected by Bad River, Lac du Flambeau and Red Cliff were members of that tribe. The number of members from other tribes that speared on lakes selected by Lac Courte Oreilles was 8, by Mole Lake was 2 and St. Croix was 2.

Figure 3. Number of spearkers during spring spearing seasons from 2003-2019.



Number of Spearer-nights or Permits Used. In a previous report (Kmiecik 1991), special clarification was given to the definition of "spearer-nights". It should be understood that the total number of "spearer-nights" is not simply the total number of nights that all tribal members speared, because some individuals speared under more than one permit on a single night. Additional permits have been issued at night at a boat landing on a "first come, first served" basis and only when enough fish remained in the tribal quota for a lake so that other permits could be issued. Persons receiving a second, third, or fourth permit may have speared on the same lake, a different lake, or both the same and a different lake. With this clarification in mind, this effort statistic will continue to be referred to as spearer-nights, but it can also be viewed as a count of the total number of permits used.

Table 2. Number of spearer-nights on lakes selected by six Wisconsin Ojibwe bands during spring spearing from 2003-2019.

YEAR	BRV	LCO ¹	LDF	MLK ²	RCF	STC ³	TOTAL:
2003	122	234	517	214	116	317	1,520
2004	127	157	594	259	149	346	1,632
2005	130	283	551	383	161	294	1,802
2006	129	266	697	265	195	286	1,838
2007	143	294	722	303	175	382	2,019
2008	93	229	531	276	157	275	1,561
2009	123	278	540	439	157	271	1,808
2010	136	325	366	606	178	375	1,986
2011	104	314	716	284	142	332	1,892
2012	147	389	1,100	329	155	309	2,429
2013	126	271	795	223	69	238	1,722
2014	193	332	746	315	126	228	1,940
2015	175	377	1,022	324	171	287	2,356
2016	166	371	1,142	313	181	235	2,408
2017	197	374	1,201	325	209	299	2,605
2018	146	229	720	242	100	197	1,634
2019	127	311	1,036	289	129	157	2,049
PERCENT CHANGE: 2018-2019	-13%	+36%	+43%	+19%	+29%	-18%	+25%

¹ Includes 16 spearer-nights for five BRV members and one RCF members.

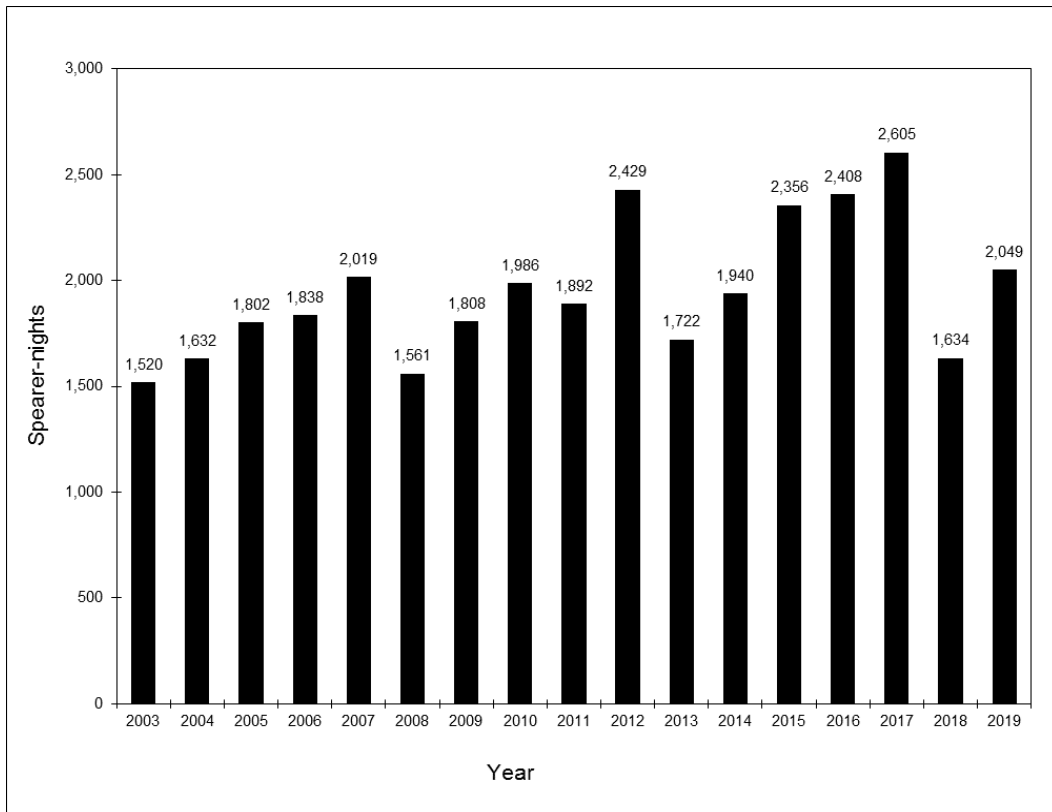
² Includes 4 spearer-nights for one RCF member, one LDF member and spearer-nights for Mille Lacs tribe for 1997-2004 and 2012 and FDL tribe for 2014.

³ Includes 5 spearer-nights for three BRV members and two LCO members.

Excluding permits issued for muskellunge only spearing, a total of 2,049 spearer-nights were recorded during spring 2019 (Table 2, Figure 4, Appendix B). More than one-half of this effort (1,036 spearer-nights) occurred on lakes selected by Lac du Flambeau. Spearer-nights on lakes selected by the other five tribes ranged from 127 at Bad River to 311 at Lac Courte Oreilles. Compared to 2018, effort increased by 418 spearer-nights or 25%.

On thirteen muskellunge harvest only waterbodies, an additional 55 spearer-nights occurred (Appendix E). Muskellunge only spearer-nights included permits issued for spearing on lakes with only a muskellunge quota (i.e. no walleye quota) and on lakes with both a walleye and muskellunge quota but after the walleye quota was taken and only the muskellunge quota remained.

Figure 4. Number of spearer-nights during spring spearing seasons from 2003-2019.



Number of Boat-Hours. Excluding muskellunge only effort, an estimated 2,065 boat-hours of effort occurred in 2019 (Table 3, Figure 5, Appendix B). Compared to 2018, the number of boat-hours increased by 22 % (359 boat-hours). Under one half of the effort (936 boat-hours) occurred on lakes selected by Lac du Flambeau. Boat-hours on lakes selected by the other five tribes ranged from 132 at Red Cliff to 415 at Lac Courte Oreilles.

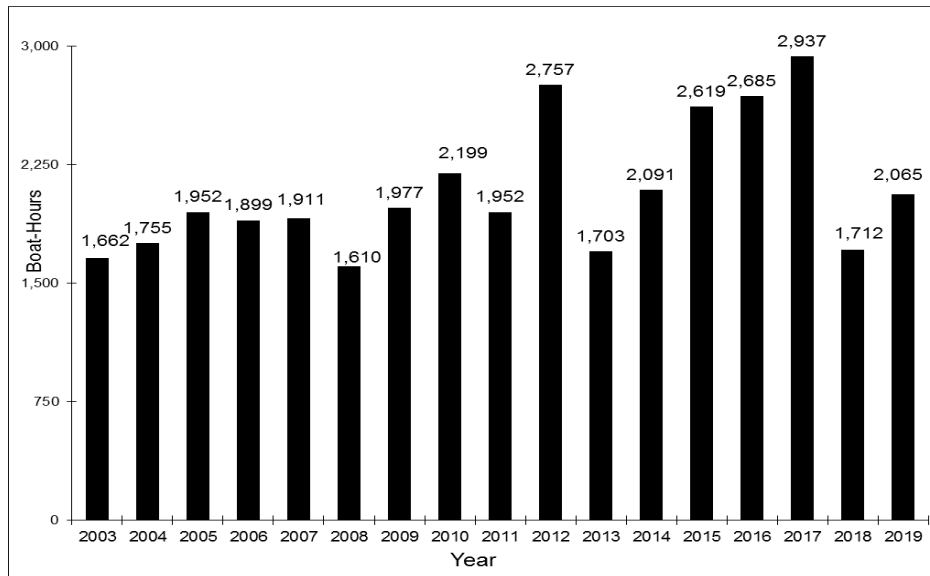
On muskellunge harvest only waters, an additional 47 boat-hours of effort occurred (Appendix E). This muskellunge only effort included spearing on two lakes with only a muskellunge quota (i.e. no walleye quota) and spearing on five lakes with both a walleye and muskellunge quota but after the walleye quota was taken and only the muskellunge quota remained.

Table 3. Number of spearer boat-hours on lakes selected by six Wisconsin Chippewa bands during spring spearing from 2003-2019.

Year	BRV	LCO	LDF	MLK	RCF	STC ¹	Total:
2003	152	245	523	268	142	331	1,662
2004	162	203	571	276	167	375	1,755
2005	148	411	518	401	161	313	1,952
2006	155	393	529	300	215	307	1,899
2007	171	322	566	311	182	359	1,911
2008	97	304	520	264	159	267	1,610
2009	128	413	489	430	195	322	1,977
2010	178	514	344	554	215	394	2,199
2011	125	398	681	267	141	340	1,952
2012	206	581	1,127	357	159	327	2,757
2013	180	350	674	189	81	230	1,703
2014	280	413	774	278	132	214	2,091
2015	284	510	955	330	190	350	2,619
2016	288	551	1,035	348	188	276	2,685
2017	325	529	1,096	312	245	430	2,937
2018	205	288	604	229	104	282	1,712
2019	161	415	936	250	132	171	2,065
PERCENT CHANGE: 2018-2019	-21%	+45%	+54%	+9%	+27%	-37%	+21%

¹Includes effort for Mille Lacs tribe from 1997-2004 and 2012, plus effort for Fond du Lacs tribe in 2014.

Figure 5. Number of boat-hours of effort during spring spearing seasons from 2003-2019.



For all tribes combined, a total of 842 interviews were conducted and effort (boat-hours) was determined for all (Table 4, Appendix B). Average length of a trip was 2.5 boat-hours. For muskellunge only lakes an additional 23 interviews were recorded (Appendix E).

Table 4. Number of interviews and average length of spearing trip (in boat-hours) during spring spearing from 2003-2019.

YEAR	AVERAGE LENGTH OF TRIP:						TOTAL
	BRV	LCO	LDF	MLK	RCF	STC ¹	
2003	2.6	2.4	2.6	2.7	2.7	2.3	2.5
2004	2.3	2.6	2.4	2.3	2.4	2.3	2.4
2005	2.3	2.9	2.2	2.4	2.3	2.4	2.4
2006	2.3	3.1	1.8	2.4	2.6	2.1	2.3
2007	2.0	2.3	1.8	2.2	2.6	2.0	2.0
2008	1.9	2.7	2.0	2.1	2.5	1.9	2.1
2009	2.4	3.3	2.0	2.3	2.8	2.5	2.5
2010	3.0	3.4	2.0	2.2	2.7	2.2	2.4
2011	2.7	2.8	2.2	2.5	2.5	2.1	2.4
2012	3.0	3.1	2.3	2.2	2.3	2.2	2.4
2013	3.3	2.7	1.9	1.9	2.3	2.1	2.2
2014	3.2	2.7	2.3	2.1	2.6	2.1	2.4
2015	3.7	3.1	2.2	2.2	2.5	2.0	2.4
2016	3.6	3.0	2.2	2.3	2.4	2.5	2.5
2017	3.4	3.0	2.2	2.1	2.7	2.7	2.5
2018	3.1	2.9	2.0	2.0	2.5	2.9	2.4
2019	2.6	3.0	2.4	2.4	2.2	2.2	2.5
2019 Boat-hours:	161	415	935	250	132	171	2,065
2019 interviews with effort:	62	141	397	104	59	79	842
2019 interviews without effort:	0	0	0	0	0	0	0

¹Includes effort for Mille Lacs and Fond du Lac tribes in some years.

Total Harvest

Thirteen taxa of fish were harvested during the 2019 spring spear fishery (Table 5). Of the 36,696 fish taken 97.88% were walleye. Percentages of the total catch for other game fish species were 0.59% for muskellunge, 0.49% for bass, 0.168% for northern pike, and 0.002% for sturgeon. Other species combined (panfish and rough fish) totaled 320 fish and made up the remaining .87% of the harvest.

Table 5. Number of various fish species harvested during spring spearing seasons from 2011-2019.

Species:	2011	2012	2013	2014	2015	2016	2017	2018	2019
Walleye	29,730	32,311	28,386	27,561	38,535	32,617	39,021	29,000	35,917
Muskellunge	201	343	274	248	183	234	238	216	215
Bass Species	8	35	35	6	13	15	35	24	17
Largemouth Bass	82	211	116	138	323	146	98	95	128
Smallmouth Bass	22	108	55	57	72	81	56	76	35
Northern Pike	30	71	39	50	78	62	75	65	62
Rock Bass	5	18	7	11	9	9	9	11	7
Crappie	151	212	137	63	274	150	539	170	102
Sunfish (Bluegill, Pumpkinseed)	31	261	54	33	30	64	61	41	26
Yellow Perch	7	3	8	15	7	14	1	15	15
Sucker	42	52	84	52	62	67	53	63	42
Cisco	0	0	2	2	0	0	1	0	0
Carp	1	0	0	0	0	0	0	0	0
Bowfin	3	13	0	2	2	4	10	6	2
Burbot	0	11	0	0	0	2	2	0	3
Bullhead	1	5	3	3	1	0	2	0	0
Sturgeon	2	4	1	1	2	2	3	3	1
Trout	0	0	0	0	0	0	0	0	0
Whitefish	1	16	0	0	5	75	40	40	67
TOTAL:	30,317	33,674	29,201	28,242	39,596	33,542	40,251	29,825	36,696

Walleye Harvest

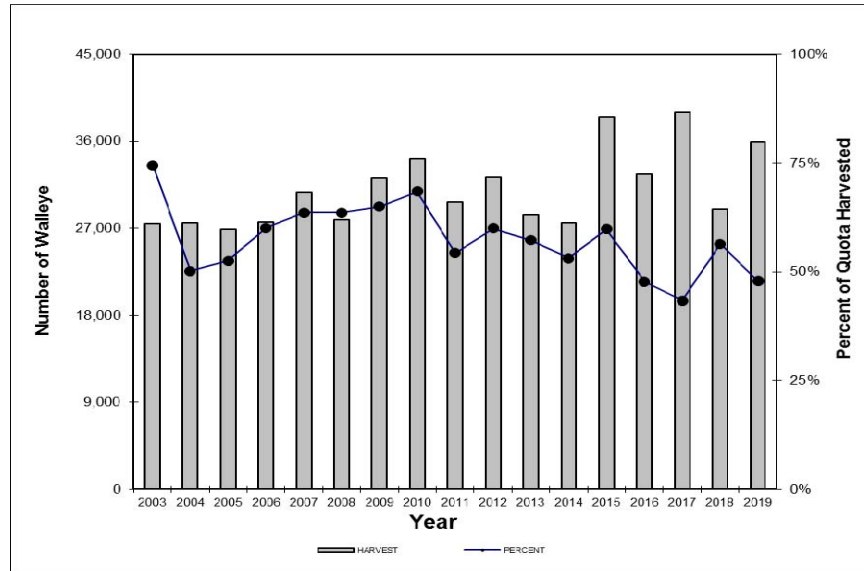
Tribal quotas (TQ) for walleye were selected for 506 lakes and river segments that totaled 83,619 walleye (Table 6). The percent of the "safe harvest" selected as tribal quotas for lakes in 2019 ranged from 0.0% (Mid Lake, Minocqua Lake, Kawaugesaga Lake, Tomahawk L Chain in Oneida County and Escanaba Lake, Vilas County) to 95% (Twin Lake Chain, Vilas County). Two tribes selected the same lake in 9 instances and agreed on various inter-tribal allocation formulas to keep the TQ within the selected percentage. Three lakes were selected by more than two Wisconsin tribes.

Tribal spearers harvested a total of 35,917 walleye from 168 lakes (Table 6, Figure 6, Appendix B). Spearfishing occurred in seven other lakes with a walleye quota (Bear, Upper Turtle Lake in Barron County, Twin Bear in Bayfield County, Devils Lake in Burnett County, Mole Lake in Forest County, Solberg Lake in Price County and Hayward Lake in Sawyer County), but no walleye were harvested. The percent of the total tribal walleye quota harvested was 43%.

Table 6. Number of lakes with a tribal walleye quota, spearfishing effort, and harvest plus percent of overall quota harvested during spring from 2003-2019.

Year	Tribal Walleye Quota	Number of Lakes with Quotas	Number of Walleye Harvested	Number of Lakes with Effort	Number of Lakes with Harvest	Percent of Quota Harvested
2003	45,776	281	27,502	166	163	60%
2004	43,315	288	27,546	179	176	64%
2005	43,692	293	26,877	173	172	62%
2006	42,513	285	27,627	177	174	65%
2007	44,813	282	30,700	192	191	69%
2008	51,354	415	27,881	175	172	54%
2009	53,706	420	32,201	181	179	60%
2010	59,659	532	34,156	153	150	57%
2011	55,952	578	29,730	174	168	53%
2012	54,057	539	32,311	195	185	60%
2013	59,441	540	28,386	176	163	48%
2014	63,570	540	27,561	177	160	43%
2015	68,263	542	38,535	187	177	56%
2016	68,226	433	32,617	185	178	48%
2017	61,273	433	39,021	189	179	63%
2018	76,312	497	29,000	165	159	38%
2019	83,619	506	35,917	175	168	43%

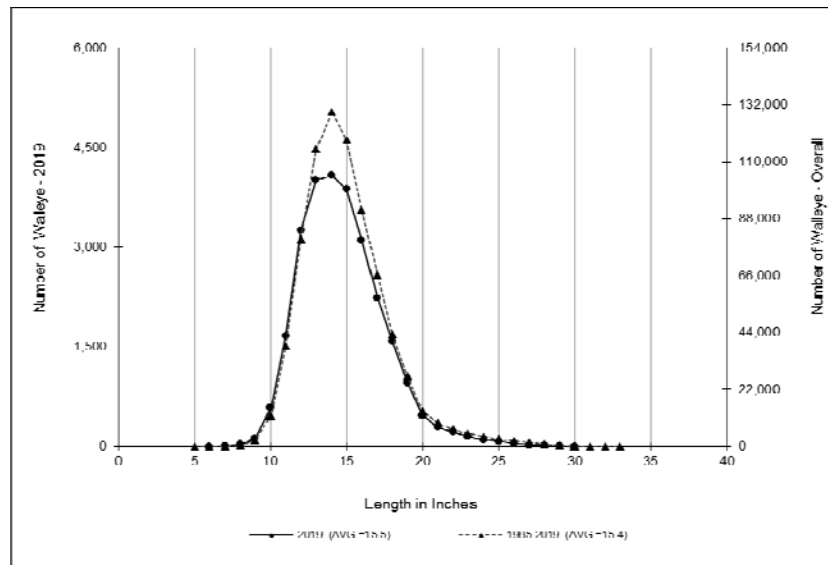
Figure 6. Number of walleye and percent of quota harvested during spring spearing seasons from 2003-2019.



Mean Length. A total of 26,908 walleye (75% of the catch) were measured in 2019 (Appendices C and D). The mean length was 15.5 inches, which is within the average length range from 1985-2019 (range: 15.0-16.3 inches). Size restrictions were identical during each of these thirty-five years; all walleye were to be less than 20 inches except that each permit authorized the harvest of one walleye of 20-24 inches and one of any size.

For the 35 spring spearing seasons combined, 82% of the walleye harvest has been measured (770,596 of 935,193 fish) (Figure 7; Appendix D). Average length for this 35-year sample was 15.4 inches. Also, 6.0% of the walleye (46,160 fish) were 20 inches or larger and 1.1% (8,343 fish) were 25 inches or larger.

Figure 7. Length frequency of walleye speared during 2019 and during the thirty-five year period from 1985-2019.



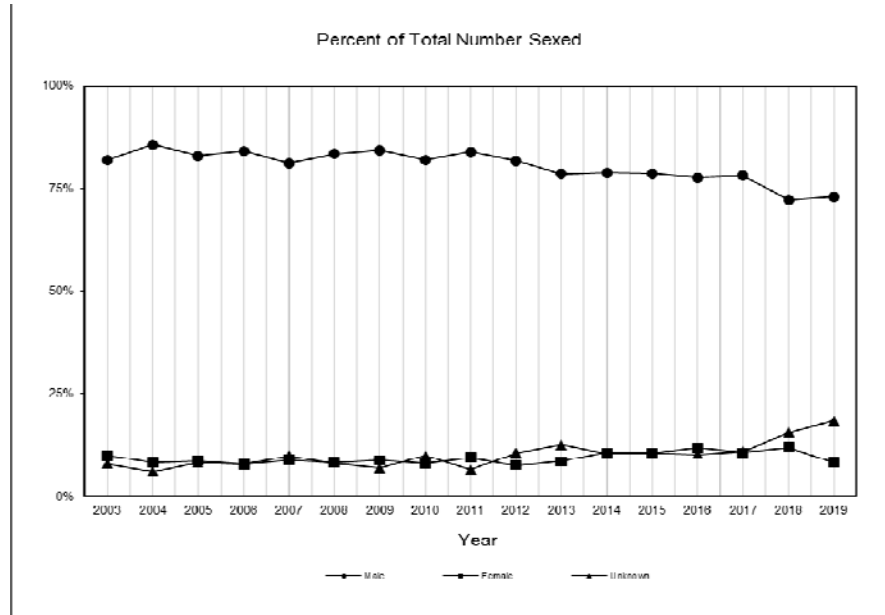
Sex Composition of Catch. The majority of walleye sexed in 2019 were male: 19,668 of 26,889 fish or 73% (Table 7, Appendix C). Females (2,252 fish) comprised 8% of the sexed harvest and those whose sex could not be determined (4,969 fish) made up 18%. Males made up 73% of sexable fish.

For the past 17 spring spearing seasons combined a total of 429,795 walleye have been sexed (Table 7, Figure 8). Of these, 81% were male, 9% were female, and 10% were of undetermined or unknown sex. Factors which influence the number of males and females speared were described by Kmiecik and Shively (1990). Some of the factors include bag limit and size restrictions, differences in behavior between the sexes during spawning season, and spearer preference.

Table 7. Number and percent of male, female, and unknown walleye that were sexed during spring spearing seasons from 2003-2019.

Year	Total Harvest	Male		Female		Unknown		Total Sexed:	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
2003	27,502	20,371	82%	2,474	10%	2,006	8%	24,851	90%
2004	27,546	21,226	86%	2,060	8%	1,495	6%	24,781	90%
2005	26,877	20,255	83%	2,143	9%	2,011	8%	24,409	91%
2006	27,627	20,667	84%	1,958	8%	1,944	8%	24,569	89%
2007	30,700	21,722	81%	2,390	9%	2,640	10%	26,752	87%
2008	27,881	20,324	83%	2,045	8%	1,987	8%	24,356	87%
2009	32,201	22,569	84%	2,371	9%	1,846	7%	26,786	83%
2010	34,156	24,604	82%	2,413	8%	2,988	10%	30,005	88%
2011	29,730	19,231	84%	2,182	10%	1,506	6%	22,919	77%
2012	32,311	21,888	81.8%	2,022	7.6%	2,847	10.6%	26,757	83%
2013	28,386	17,398	78.7%	1,905	8.6%	2,819	12.7%	22,122	78%
2014	27,561	16,877	78.9%	2,310	10.8%	2,212	10.3%	21,399	78%
2015	38,535	22,822	78.7%	3,104	10.7%	3,086	10.6%	29,012	75%
2016	32,617	19,873	78%	3,061	12%	2,642	10%	25,576	78%
2017	39,021	21,160	78%	2,909	10.8%	2,991	11.1%	27,060	69%
2018	29,000	15,595	72%	2,588	12%	3,373	16%	21,556	74%
2019	35,917	19,668	73%	2,252	8%	4,969	19%	26,889	75%
Total:	527,568	346,250	81%	40,187	9%	43,362	10%	429,795	81%

Figure 8. Sex composition of the walleye harvest during spring spearing seasons from 2003-2019.



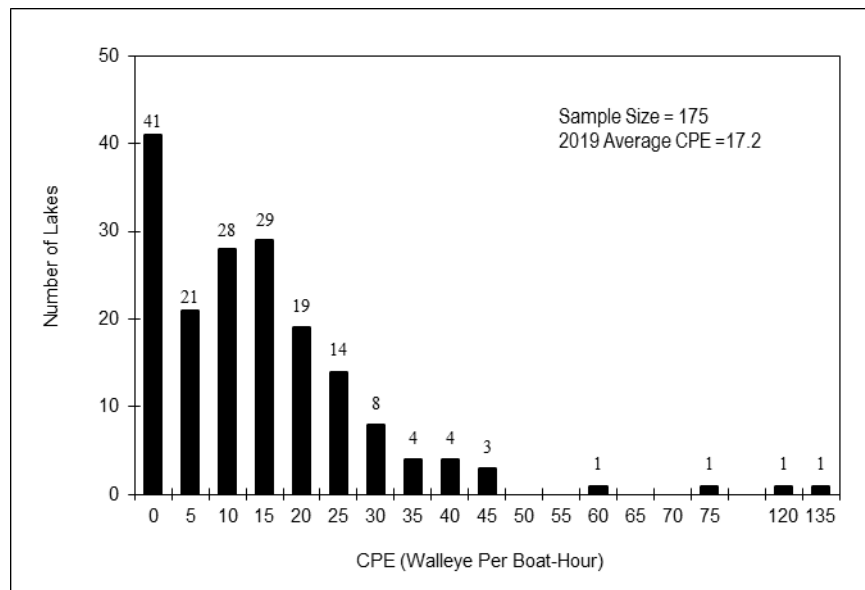
Catch per effort (CPE). In 2019, a total of 2,070 boat-hours of spearing were recorded in which 35,917 walleye were caught. Overall catch per effort (total harvest/total boat-hours) was 17.4 walleye per boat-hour (Appendix B).

Catch rates for the 175 lakes with a walleye quota that were speared in 2019 ranged from 0.0 to 138.0. Catch per effort averaged over individual lakes was 17.2 walleye per boat-hour (Appendix B, Table 8, Figure 9). Boat-hour effort was completely recorded for all lakes in spring 2019.

Table 8. Range and average catch rates in lakes speared during spring spearing seasons from 2003-2019.

Year	Number of Lakes	Range: CPE	Average: CPE
2003	166	0.0 - 77.5	18.5
2004	169	0.0 - 57.1	16.9
2005	173	0.0 - 70.0	15.0
2006	177	0.0 - 57.3	16.7
2007	192	0.0 - 60.9	16.8
2008	175	0.0 - 81.4	17.8
2009	181	0.0 - 62.5	17.2
2010	153	0.0 - 50.6	16.2
2011	174	0.0 - 73.3	16.3
2012	195	0.0 - 55.4	13.3
2013	176	0.0 - 94.3	17.9
2014	177	0.0 - 65.0	12.2
2015	187	0.0 - 60.0	15.0
2016	180	0.0 - 71.2	12.8
2017	189	0.0 - 80.0	13.2
2018	167	0.0 - 73.9	16.6
2019	175	0.0 - 138.0	17.2

Figure 9. Walleye CPE (number per boat-hour) by lake during the 2019 spring spearing season.



Muskellunge Harvest

A total of 210 muskellunge were taken from 16 lakes during spring 2019 (Table 9, Figure 10, Appendix E). Overall 6.8% of the combined tribal muskellunge quota of 3,075 fish selected for 311 lakes and river segments was harvested.

Table 9. Number of lakes with tribal muskellunge quota, harvest, and percent of overall quota harvested from 2003-2019.

Year	Tribal Muskellunge Quota	Number of Lakes with Quota	Number of Lakes with Harvest	Number Harvested	Percent of Quota Harvested
2003	1,522	203	65	222	14.6%
2004	1,509	206	69	207	13.7%
2005	1,733	209	65	230	13.3%
2006	1,655	203	69	284	17.2%
2007	1,703	201	73	303	17.8%
2008	2,080	249	62	270	13.0%
2009	2,051	249	60	238	11.6%
2010	2,323	335	77	335	14.4%
2011	2,325	369	56	201	8.6%
2012	2,180	350	90	343	15.7%
2013	1,834	343	78	274	14.7%
2014	1,799	349	73	248	13.8%
2015	1,944	355	67	183	9.4%
2016	1,658	275	72	234	14.1%
2017	1,577	276	81	238	15.1%
2018	3,057	307	71	216	7.1%
2019	3,075	311	66	210	6.8%

For the 66 lakes/ river segments with a muskellunge quota and with harvest the number of muskellunge harvested ranged from 1 to 18 fish (Appendix E). From ten to 18 muskellunge were taken from 6 lakes, between six to nine muskellunge were taken from 3 lakes, and 1-5 fish were speared in 57 lakes. No muskellunge were speared from the other 245 lakes/river segments.

Lengths of the 210 measured muskellunge averaged 38.6 inches and ranged from 24.3 to 50.3 inches (Appendix F, Figure 11). During the past thirty-five spring seasons combined 8,157 of 8,207 speared muskellunge have been measured. Average length for this sample of fish was 38.1 inches (range of annual averages: 35.4-39.9 inches).

Of the measured catch in 2019, 10.7% (29 of 210 muskellunge) were 32 inches and smaller, while 14.3% (30 fish) were 45 inches and larger. For the 8,157 muskellunge measured from 1985-2019, 1,114 fish or 13.7% of the sample were less than or equal to 32 inches; 839 fish or 10.3% were 45 inches and larger (Appendix F).

The number of muskellunge per spearer averaged 0.38 for all tribes combined (Appendix A, Appendix E). In other words, 38 muskellunge were taken for every 100 spears.

Figure 10. Number of muskellunge harvested during spring spearing seasons from 2003-2019.

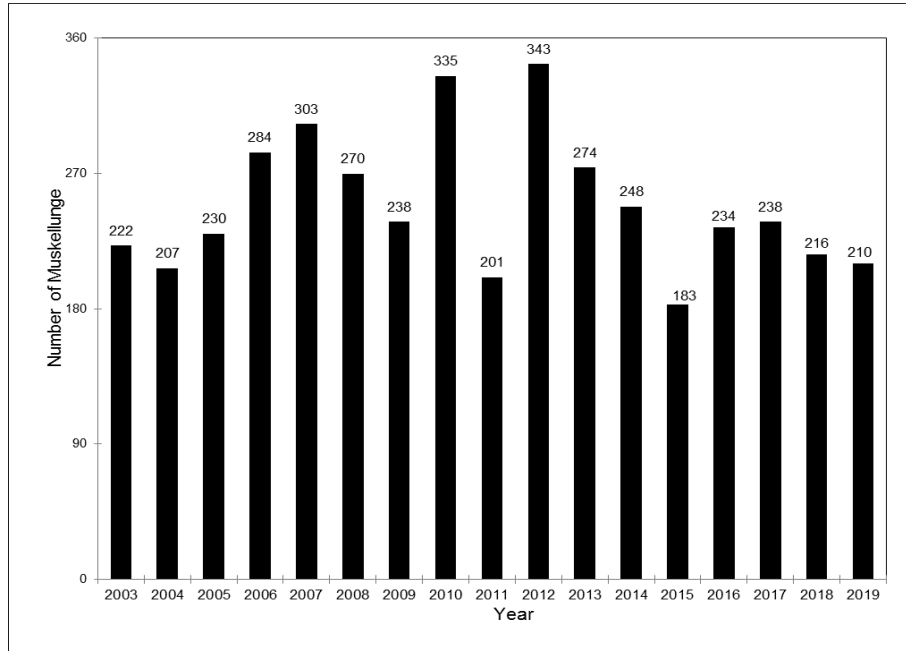
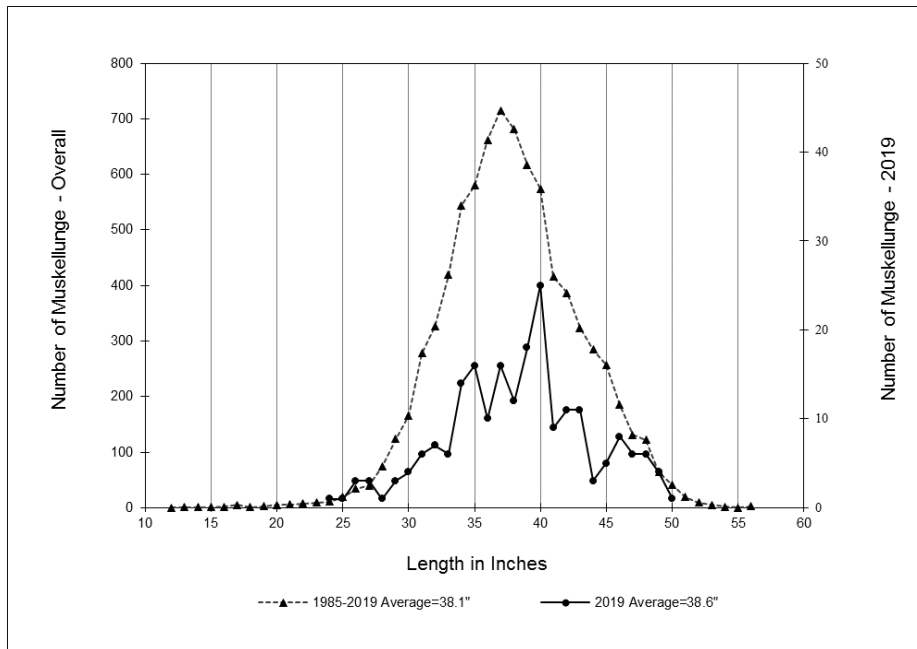


Figure 11. Length-frequency of muskellunge speared during spring 2019 and during the thirty-fifth year period 1985-2019.



Bass Harvest

A total of 186 bass were harvested from 48 lakes in 11 counties (Appendix G, Figure 12). Species was recorded for 169 harvested bass. A total of 128 largemouth bass were taken from 32 lakes in 12 counties and averaged 15.5 inches. More than 5 largemouth were speared from 5 lakes, and 5 or less were taken from 27 lakes. The number harvested per surface acre of water averaged 0.0041 largemouth bass (range: 0.0003-0.0570).

A total of 41 smallmouth bass were speared from 19 lakes in 10 counties. Average length was 16.7 inches. More than five fish were harvested on two lakes and 5 or less fish were taken from 17 lakes. The number harvested per surface acre averaged 0.0037 smallmouth bass (range: 0.0001-0.0455).

A total of 17 unidentified bass were speared from 9 lakes in 5 counties. Average length was 13.5 inches. The number harvested per surface acre averaged 0.0095 bass (range: 0.0003-0.0370).

Lengths of the 161 measured bass ranged from 8.3-22 inches and averaged 15.6 inches (Figure 13, Appendix H). Of the 6,834 bass speared during the thirty-five spearing seasons combined, 6,514 have been measured. Average length for this sample was 15.6 inches (range of annual averages: 15.0-16.4 inches). For all tribes combined the number of bass per spearer (CPE) was 0.34.

Figure 12. Number of bass harvested during spring spearing seasons from 2003-2019.

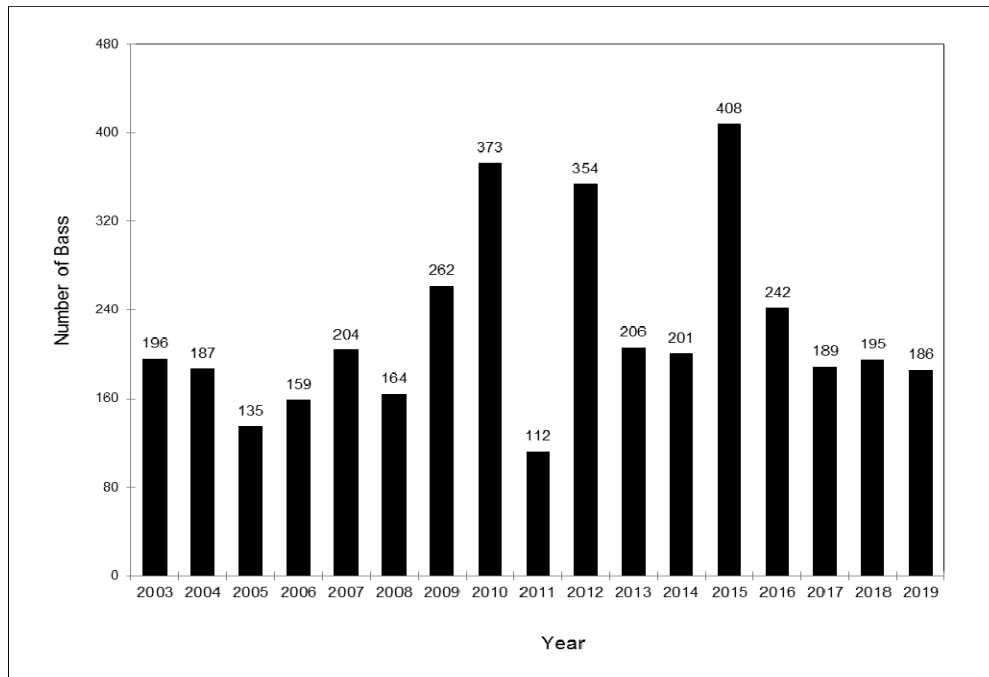
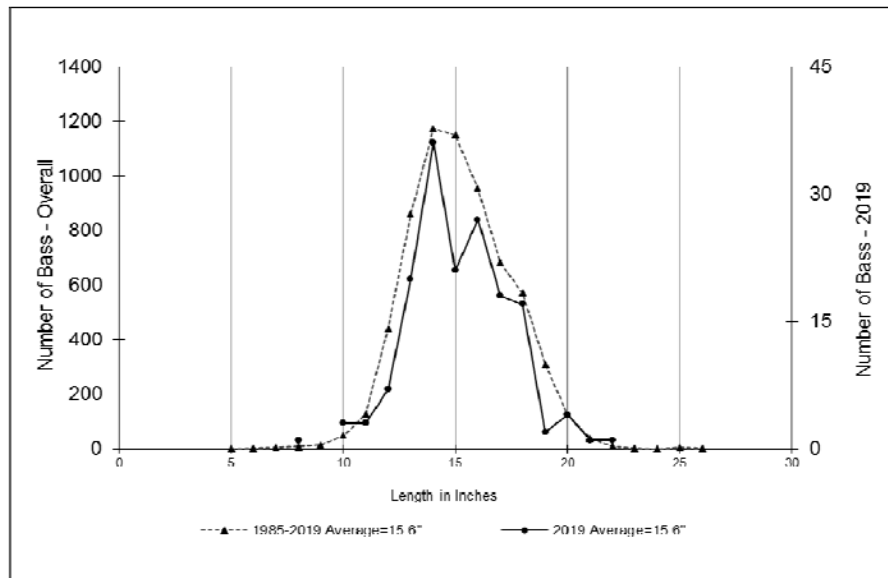


Figure 13. Length-frequency for bass taken during 2019 and during the thirty-five year period 1985-2019.



Northern Pike Harvest

A total of 62 northern pike were harvested from 25 lakes in 11 counties (Appendix G, Figure 14). Six or more fish were taken from 3 lakes, 5 or less fish were taken from 22 lakes. Catch per surface acre of water averaged 0.0038 (range: 0.0002-0.0160).

Lengths of the 64 measured northern pike ranged from 14 to 41.7 inches and averaged 27 inches (Appendix I, Figure 15). During the thirty-five spring seasons combined a total of 1,394 northern pike have been speared (Appendix I). Of these, 1,288 were measured and length averaged 27.2 inches. Harvest of northern pike continues to be incidental and an insignificant component of the fishery.

Figure 14. Number of northern pike harvested during spring spearing seasons from 2003-2019.

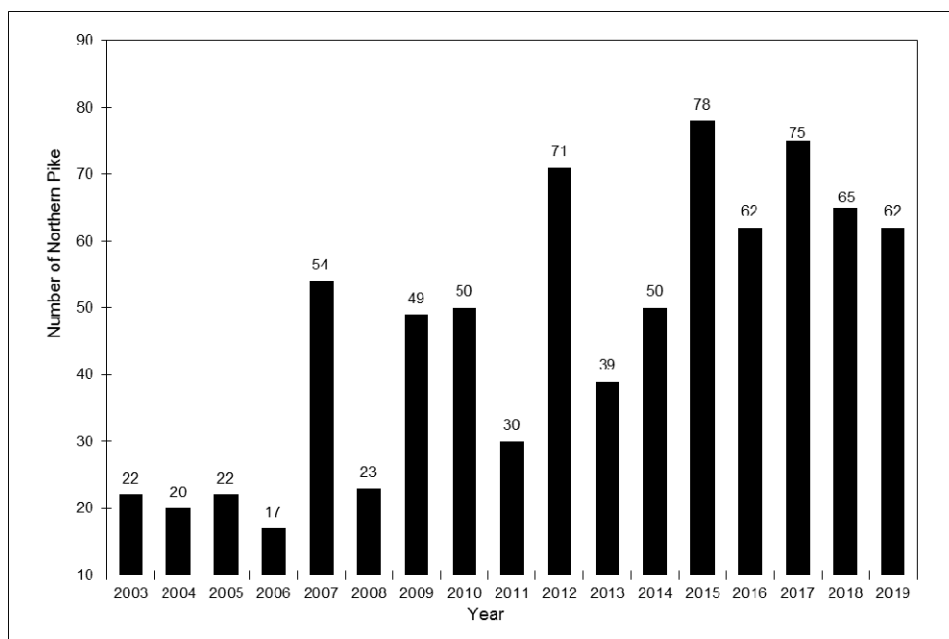
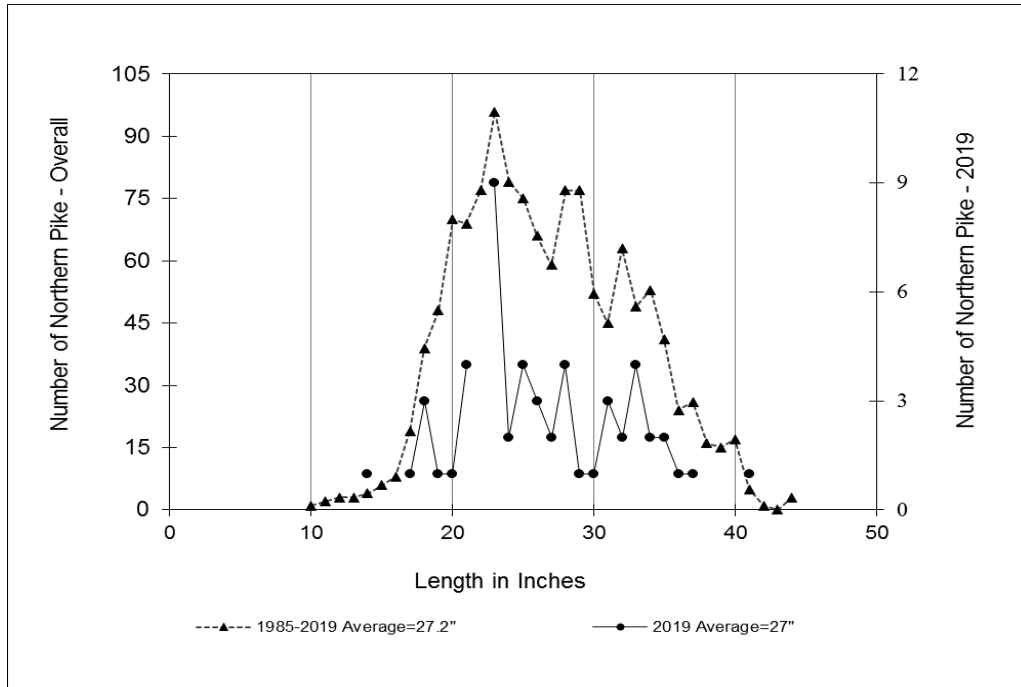


Figure 15. Length frequency of northern pike speared during 2019 and during the thirty-five year period from 1985-2019.



Sturgeon Harvest

One sturgeon was speared from Yellow Lake (Burnett County); on April 27, 2019 by a STC member. Length for the female sexed sturgeon was 63.5 inches.

Dip Netting

During winter 2019, dip netting occurred in two waterbodies and a total of 32 fish were harvested. One dip net fished for one night on October 25 on Shell Lake (Washburn County). A total of 19 walleye were harvested. One ceremonial net was set on January 31, 2020 in Pelican Lake (Oneida County). Three muskellunge were harvested.

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The efforts of the following GLIFWC wardens in setting up nightly clerk/warden teams and in kindly agreeing to supervise creel clerks is appreciated: Christina Dzwonkowski and Jim Stone (BRV), Lauren Tuori, Mike Popovich and Pat Retzlaff (LCO), Jonas Moermond and Riley Brooks (LDF), Roger McGeshick (MLK), Michael Soulier (RCF), Brad Kacizak and Holly Berkstresser (STC).

The patience and humor of tribal members during the nightly counting and measuring of fish continues to be recognized and appreciated. I would like to thank Adam Ray, Stephen Ante and Adam McGeshick for their efforts helping manage the spring spearing and netting fisheries.

LIST OF APPENDICES

APPENDIX

- A Number of walleye harvested nightly on lakes speared by six Wisconsin Ojibwe bands during spring 2019. Also, balance of quota, number of boat-hours and catch per effort (CPE = walleye per boat-hour) per lake
- B Total number of walleye measured by per inch group and sexed during spring spearing 2019. Data arranged alphabetically by tribe, county, and lake
- C Number of walleye per inch group taken during spring spearing seasons from 1985-2019
- D Number of muskellunge harvested nightly on lakes speared by six Wisconsin Ojibwe bands during spring 2019. Also average length per lake
- E Number of muskellunge per inch group taken during spring spearing seasons from 1985-2019
- F Number, average length, and harvest per acre of bass (largemouth and smallmouth), and northern pike from various lakes during spring spearing in 2019
- G Number of bass (largemouth and smallmouth combined) taken during spring spearing seasons from 1985-2019
- H Number of northern pike per inch group taken during spring spearing seasons from 1985-2019

Appendix A. Number of walleye harvested nightly, boat hours, number of permits & catch per effort (CPE - walleye per boat-hour) on lakes selected by six Wisconsin Ojibwe bands during spring 2019.

BAD RIVER	4/20/19	4/21/19	4/25/19	4/26/19	4/27/19	4/28/19	4/30/19	5/2/19	5/3/19	5/4/19	5/5/19	5/6/19	5/10/19	5/12/19	5/15/19	Total WAE Harvest	Total Boat Hours	Total Number of Permits
ASHLAND, MINERAL L (WBIC: 2916900)						16										16	2.0	2
BAYFIELD, L OWEN (WBIC: 2900200)											34					34	4.0	2
BAYFIELD, NAMEKAGON L (WBIC: 2732600)				317					14	37						368	19.5	35
CHIPPEWA, L WISSOTA (WBIC: 2152800)	0															0	6.5	5
CHIPPEWA, LONG L (WBIC: 2351400)	77	72	127		47											323	35.0	19
DOUGLAS, WHITEFISH L (WBIC: 2694000)							22									22	4.0	3
IRON, TRUDE L (WBIC: 2295200)								100		100						200	12.5	8
IRON, TURTLE-FLAMBEAU FL Incl Adj. S.S. -- QQ (WBIC: 2294900)					137	113										250	14.5	11
PRICE, SOLBERG L (WBIC: 2242500)													0			0	0.8	2
SAWYER, CONNORS L (WBIC: 2275100)					75			50		75						200	11.3	9
SAWYER, NELSON L (WBIC: 2704200)				50												50	4.9	1
SAWYER, TEAL L (WBIC: 2417000)			9	50	57											116	11.2	5
VILAS, CRAB L (WBIC: 2953500)															7	7	2.0	1
VILAS, FOREST L (WBIC: 2762200)										124						124	2.5	6
VILAS, HARRIS L (WBIC: 2958500)								248								248	14.0	5
VILAS, MAMIE L (WBIC: 2964100)														25		25	2.8	2
VILAS, N TURTLE L (WBIC: 2310400)					100											100	5.6	1
VILAS, PRESQUE ISLE L CHAIN (WBIC: 2956501)										125						125	8.0	10
	77	72	136	417	416	129	22	398	263	212	34	75	0	90	7	2,348	161	127

Appendix A. Number of walleye harvested nightly, boat hours, number of permits & catch per effort (CPE - walleye per boat-hour) on lakes selected by six Wisconsin Ojibwe bands during spring 2019.

LAC COURTE ORELLES	4/16/19	4/23/19	4/24/19	4/25/19	4/26/19	4/27/19	4/28/19	4/29/19	4/30/19	5/1/19	5/2/19	5/3/19	5/4/19	5/6/19	5/7/19	5/9/19	5/10/19	Total WAE Harvest	Total Boat Hours	Total Number of Permits
RUSK, PULASKI L (WBIC: 1875900)								11										11	2.9	2
SAWYER, BARBER L (WBIC: 2382300)			48															48	4.5	4
SAWYER, DURPHEE L (WBIC: 2396800)								29										29	2.5	3
SAWYER, EVERGREEN L (WBIC: 2277600)							5			2								7	3.5	4
SAWYER, GRINDSTONE L (WBIC: 2391200)											207							207	8.8	15
SAWYER, HAYWARD L (WBIC: 2725500)	0	0																0	5.6	6
SAWYER, L CHETAC (WBIC: 2113300)				69	184	264												517	25.3	19
SAWYER, L CHIPPEWA Incl Adj. S.S. -- MM & TT (WBIC: 2399700)				173	209	804	478	264	189	186	248	167	481	131	30	1	17	3,378	195.8	131
SAWYER, LAC COURTE ORELLES (WBIC: 2390800)										381	230							611	50.0	36
SAWYER, LITTLE ROUND L (WBIC: 2395500)												2						2	1.1	2
SAWYER, LOST LAND L (WBIC: 2418600)						114												114	7.1	6
SAWYER, MASON L (WBIC: 2277200)							41			2								43	4.2	4
SAWYER, ROUND L (WBIC: 2395600)												458						458	37.8	20
SAWYER, SAND L (WBIC: 2393200)				97	69													166	15.2	13
SAWYER, SISSABAGAMA L (WBIC: 2393500)				40														40	3.3	2
SAWYER, SPIDER L (WBIC: 2435700)				187	137													324	20.1	20
SAWYER, TIGER CAT FL (WBIC: 2435000)							5											5	3.3	2
SAWYER, WHITEFISH L (WBIC: 2392000)						69												69	6.7	4
SAWYER, WINDFALL L (WBIC: 2046500)			36															36	2.0	2
SAWYER, WINDIGO L (WBIC: 2046600)					50		9											59	5.3	4
WASHBURN, BIRCH L (WBIC: 2113000)							5											5	2.0	4
WASHBURN, LONG L (WBIC: 2106800)							149											149	5.8	4
WASHBURN, STONE L (WBIC: 1884100)							46		12									58	2.9	4
	0	0	84	566	649	1251	738	304	201	571	685	627	481	131	30	1	17	6,336	415	311

Appendix A. Number of walleye harvested nightly, boat hours, number of permits & catch per effort (CPE - walleye per boat-hour) on lakes selected by six Wisconsin Ojibwe bands during spring 2019.

MOLE LAKE	4/8/19	4/20/19	4/22/19	4/23/19	4/24/19	4/25/19	4/26/19	4/27/19	4/28/19	4/29/19	4/30/19	5/1/19	5/2/19	5/3/19	5/4/19	5/5/19	5/6/19	5/7/19	5/10/19	5/11/19	5/12/19	5/13/19	Total WAE Harvest	Total Boat Hours	Total Number of Permits
FLORENCE, HALSEY L (WBIC: 679300)																	7						7	0.3	2
FLORENCE, PATTEN L (WBIC: 653700)																					36		36	3.0	2
FOREST, ARBUTUS L (WBIC: 181400)						14																	14	1.5	2
FOREST, BUTTERNUT L (WBIC: 692400)														192	74								266	16.8	12
FOREST, FRANKLIN L (WBIC: 692900)														58									58	2.5	2
FOREST, L LUCERNE (WBIC: 396500)																	3	10		45			58	5.8	6
FOREST, L METONGA (WBIC: 394400)																337	100	90					527	24.8	24
FOREST, LILY L (WBIC: 376900)							76																76	1.0	3
FOREST, MOLE L (WBIC: 390600)					0																		0	1.5	1
FOREST, SILVER L (WBIC: 555700)							9																9	0.5	1
FOREST, STEVENS L (WBIC: 683000)																					12		12	1.3	2
FOREST, TRUMP L (WBIC: 479300)							21																21	0.5	1
LANGLADE, ENTERPRISE L (WBIC: 1579700)								120															120	6.8	4
LANGLADE, OTTER L (WBIC: 387200)											5												5	1.5	1
LANGLADE, ROSE L (WBIC: 494200)														34									34	1.5	2
LANGLADE, WOLF RIVER (WBIC: riverseg23)	0	0	8	18	14	19	16																75	17.0	26
OCONTO, ARCHIBALD L (WBIC: 417400)							21																21	4.5	2
OCONTO, BOOT L (WBIC: 418700)								1															1	1.5	2
OCONTO, WHEELER L (WBIC: 439800)							22																22	2.0	2
ONEIDA, BIG FORK L (WBIC: 1610700)										80	90								30				200	10.8	12
ONEIDA, BIG L (WBIC: 1613000)									142														142	3.3	5
ONEIDA, CRESCENT L (WBIC: 1564200)									210														210	6.5	7
ONEIDA, L JULIA (RHINELANDER) (WBIC: 995000)																	30						30	0.3	1
ONEIDA, PELICAN L (WBIC: 1579900)										307	380	347	270										1,304	58.0	55
ONEIDA, PLANTING GROUND L (WBIC: 1609100)										97													97	3.0	4
ONEIDA, SEVENMILE L (WBIC: 1605800)															69								69	0.5	3
VILAS, BIG SAND L (WBIC: 1602600)																60	88						148	5.8	5
VILAS, CATFISH L (WBIC: 1603700)														411									411	14.5	15
VILAS, CRANBERRY L (WBIC: 1603800)												359	150	36									545	11.5	19
VILAS, KENTUCK L (WBIC: 716800)															212				0				212	14.5	16
VILAS, LONG L (WBIC: 1602300)															347		104						451	13.0	20
VILAS, TWIN L CHAIN (WBIC: 1623801)																885							885	14.0	30
	0	0	8	18	14	33	165	121	352	404	465	796	420	731	702	1,282	332	130	0	45	36	12	6,066	250	289

Appendix A. Number of walleye harvested nightly, boat hours, number of permits & catch per effort (CPE - walleye per boat-hour) on lakes selected by six Wisconsin Ojibwe bands during spring 2019.

RED CLIFF	4/24/19	4/25/19	4/26/19	4/27/19	4/28/19	4/29/19	5/1/19	5/2/19	5/3/19	5/5/19	5/6/19	5/9/19	5/10/19	Total WAE Harvest	Total Boat Hours	Total Number of Permits
BAYFIELD, DIAMOND L (WBIC: 2897100)				3						8	15		2	28	12.3	13
BAYFIELD, L OWEN (WBIC: 2900200)				74		19					11			104	12.6	8
BAYFIELD, LONG L (WBIC: 2767100)								1						1	2.8	2
BAYFIELD, MIDDLE EAU CLAIRE L (WBIC: 2742100)	152	7	52	32			45							288	30.8	28
BAYFIELD, NAMEKAGON L (WBIC: 2732600)					235	80			25			20		360	24.6	26
BAYFIELD, PIKE L CHAIN (WBIC: 2902700)			130											130	9.0	7
BAYFIELD, TWIN BEAR L (WBIC: 2903100)			0											0	4.0	2
BAYFIELD, UPPER EAU CLAIRE L (WBIC: 2742700)	52													52	2.4	4
DOUGLAS, L NEBAGAMON (WBIC: 2865000)				59			100							159	10.3	13
DOUGLAS, LOWER EAU CLAIRE L (WBIC: 2741600)		83	23					26						132	15.0	14
DOUGLAS, UPPER ST CROIX L (WBIC: 2747300)						151								151	4.2	8
SAWYER, NELSON L (WBIC: 2704200)	65													65	4.5	4
	269	90	205	168	235	250	145	27	25	8	26	20	2	1,470	132	129

Appendix A. Number of walleye harvested nightly, boat hours, number of permits & catch per effort (CPE - walleye per boat-hour) on lakes selected by six Wisconsin Ojibwe bands during spring 2019.

ST. CROIX	4/19/19	4/20/19	4/21/19	4/22/19	4/23/19	4/24/19	4/25/19	4/26/19	4/27/19	4/28/19	4/30/19	5/1/19	5/2/19	5/3/19	5/7/19	Total WAE Harvest	Total Boat Hours	Total Number of Permits
BARRON, BEAR L (WBIC: 2105100)							0									0	1.8	2
BARRON, RED CEDAR L (WBIC: 2109600)							60	212	95							367	39.6	27
BARRON, SILVER L (WBIC: 1881100)										63						63	3.1	4
BARRON, UPPER TURTLE L (WBIC: 2079800)													0			0	1.5	1
BURNETT, BIG MCKENZIE L (WBIC: 2706800)					67	37							4			108	11.5	12
BURNETT, DEVILS L (WBIC: 2461100)									0							0	4.5	1
BURNETT, ROONEY L (WBIC: 2493100)					14		1									15	4.2	3
BURNETT, YELLOW L Incl. Adj. S.S.-- AA (WBIC: 2675200)					5				2			8		4	1	20	16.1	11
POLK, BALSAM L (WBIC: 2620600)								103								103	4.4	9
POLK, BIG BUTTERNUT L (WBIC: 2641000)								56		79						135	6.0	11
POLK, BIG ROUND L (WBIC: 2627400)													3			3	4.0	2
POLK, WAPOGASSET L (WBIC: 2618000)					165											165	6.2	9
SAWYER, SISSABAGAMA L (WBIC: 2393500)							36									36	2.3	2
ST CROIX, CEDAR L (WBIC: 2615100)	193	120	64	43												420	29.2	22
WASHBURN, BALSAM L (WBIC: 2112800)									95							95	3.0	6
WASHBURN, BASS-PATTERSON L (WBIC: 2451900)								62								62	1.3	2
WASHBURN, L NANCY (WBIC: 2691500)					40											40	6.7	4
WASHBURN, LONG L (WBIC: 2106800)											78	70				148	8.6	8
WASHBURN, MIDDLE MCKENZIE L (WBIC: 2706500)							23	64								87	7.8	12
WASHBURN, SHELL L (WBIC: 2496300)												11	81			92	9.6	9
	193	120	64	43	291	258	120	355	192	63	78	89	88	4	1	1,959	171	157

Appendix B. Total number of walleye harvested and measured per inch group and sexed during spring in 2019. Data arranged alphabetically by tribe, county, and lake.

TRIBE	County	Lake																													Total Measured	Total Harvested	Total Inches	Mean Length	Male	Female	Unknown	Total Sexed
			6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30											
STC	BARRON	RED CEDAR L								18	59	167	272	188	107	28	9	2	1	1						1				853	853	13,389	14.9	779	72	2	853	
STC	BARRON	SILVER L								1	1	1			2	3	2	2							1				14	14	252	11.9	11	3	0	14		
STC	BARRON	UPPER TURTLE L													3	11	5	5											32	32	619	21.8	24	8	0	32		
STC	BURNETT	BIG MCKENZIE L								1	2				5	13	12	7	10	2	6	4	1					65	65	1,201	17.6	30	31	4	65			
STC	BURNETT	ROONEY L													1	1	2	5	10	1	1							23	23	452	16.9	12	11	0	23			
STC	BURNETT	SAND L													4	1			2	1	2	3						15	15	269	15.9	9	6	0	15			
STC	BURNETT	YELLOW L								2	2	14	22	27	14	15	6	3	2	1	2							112	112	1,788	16.9	59	8	45	112			
STC	CHIPPEWA	L WISSOTA								2	1	4	21	28	20	14	7	1	1	1								101	101	1,413	17.7	82	16	3	101			
STC	POLK	BALSAM L													1	4	4	2	3	24	22	17	3	3				87	87	1,592	18.3	82	4	1	87			
STC	POLK	BIG BUTTERNUT L																										43	43	646	18.7	6	12	25	43			
STC	POLK	BIG ROUND L																										1	1	29	16.7	0	1	0	1			
STC	POLK	WAPOGASSET L																										104	104	1,587	18.6	102	2	0	104			
STC	ST CROIX	CEDAR L													4	15	36	65	52	37	14	5	6	1	1	2	2	240	240	4,142	15.4	217	22	1	240			
STC	WASHBURN	BALSAM L																										38	38	592	17.2	30	6	2	38			
STC	WASHBURN	BASS-PATTERSON L																										62	62	1,089	18.0	46	15	1	62			
STC	WASHBURN	L NANCY																										59	59	1,002	17.8	34	21	4	59			
STC	WASHBURN	LONG L																										363	363	6,101	16.9	340	16	7	363			
STC	WASHBURN	MIDDLE MCKENZIE L																										39	39	673	16.8	31	6	2	39			
STC	WASHBURN	SHELL L																										205	205	3,404	15.9	121	52	32	205			
Sub-total:			1	5	30	87	366	1,007	2,066	2,859	3,472	3,621	2,590	2,062	1,409	855	414	255	183	142	94	66	41	26	9	6	5	21,671	29,000	335,384.8	11.6	15,595	2,588	3,373	21,556			

Appendix B. Total number of walleye harvested and measured per inch group and sexed during spring in 2019. Data arranged alphabetically by tribe, county, and lake.

Bad River																														
County	Lake	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	28	Total Measured	Total Harvested	Total Inches	Mean Length	Male	Female	Unknown	Total Sexed	
BAYFIELD	L OWEN							1	1			1								1			4	4	74	19.1	1	0	3	4
BAYFIELD	NAMEKAGON L		1	4	33	48	38	55	55	42	25	14	4	4	1	1						325	325	4,758	15.6	276	33	16	325	
CHIPPEWA	L WISSOTA		2	1	9	12	22	17	17	13	1	4				1	1					100	100	1,441	18.4	86	12	2	100	
CHIPPEWA	LONG L				3	12	25	30	37	34	20	18	5	2	2							188	382	2,945	15.3	137	25	26	188	
DOUGLAS	WHITEFISH L					6	16	8	6	13	20	14	9	1		1						94	94	1,534	17.6	72	11	11	94	
IRON	TRUDE L			2	10	38	17	12	11	7	2	3		1					1			104	104	1,433	12.7	78	16	10	104	
IRON	TURTLE-FLAMBEAU FL	2	10	14	31	33	15	14	9	8	3	1										140	140	1,768	15.3	91	12	37	140	
PRICE	SOLBERG L				7	16	12	13	21	5			1									75	75	1,051	13.1	62	2	11	75	
RUSK	CHAIN L				11	11	8	3	2	3	4	3	3	2	1		1					53	53	788	14.9	28	9	16	53	
RUSK	ISLAND L				3	16	8	7	5	6	5	3				2						55	55	802	15.7	38	11	6	55	
SAWYER	CONNORS L			2		2	8	12	5	14	4	9	6	4	1	3	1			2		74	74	1,256	15.6	23	15	36	74	
SAWYER	NELSON L					1		2	2	7		3	1	2	1							19	19	316	15.4	5	5	9	19	
SAWYER	TEAL L			5	25	11	10	3	3	4	2		2	1		1			1	1		69	69	930	15.2	42	15	12	69	
VILAS	CRAB L			5	29	16	20	23	20	18	10	3	1	2	1	1	2	1		2		154	154	2,249	17.0	101	18	35	154	
VILAS	FOREST L					3	1	5	13	20	56	35	15	2								150	150	2,611	13.9	130	18	2	150	
VILAS	HARRIS L				3	18	22	53	21	16	5	6	5	2	1							152	152	2,251	15.2	124	16	12	152	
VILAS	PRESQUE ISLE L CHAIN			6	49	85	102	104	48	37	26	17	12	15	7	3	3	3	4	1	2	524	524	7,739	13.9	416	60	48	524	
	Sub-total:	2	13	39	213	328	324	362	276	247	183	134	64	38	15	13	8	6	8	3	2	2,280	2,474	33,945	14.9	1,710	278	292	2,280	

Appendix B. Total number of walleye harvested and measured per inch group and sexed during spring in 2019. Data arranged alphabetically by tribe, county, and lake.

Lac Courte Oreilles		INCH GROUP																							Total Measured	Total Harvested	Total Inches	Mean Length	Male	Female	Unknown	Total Sexed
County	Lake	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	29											
RUSK	PULASKI L								3	4	2	1												10	10	176	14.5	10	0	0	10	
SAWYER	BARBER L	1	2	2	5	8	3		2	2	2	2	1	1					1	1				33	33	501	14.3	3	5	25	33	
SAWYER	DURPHEE L							5	4	12	7	3	3	2						1				37	37	670	17.6	27	8	2	37	
SAWYER	EVERGREEN L			1	1	2	1	3	4	6	9	6	2		1				1					37	37	653	22.5	10	1	26	37	
SAWYER	GRINDSTONE L			1	6	19	29	69	34	64	41	26	11	6	1	3								310	310	5,199	17.1	272	34	4	310	
SAWYER	L CHETAC		4	2	2	42	115	107	39	28	12	17	7	5	1	1			1	1				384	384	6,009	18.4	255	20	109	384	
SAWYER	L CHIPPEWA	2	14	44	199	388	343	301	128	124	76	42	19	18	15	10	4	6	2	2	1		1,738	1738	26,178	17.2	1344	171	223	1,738		
SAWYER	LAC COURTE OREILLES				2	12	23	31	58	61	53	31	23	14	8	3	5		2					326	326	5,787	16.6	214	88	24	326	
SAWYER	LITTLE ROUND L																			1		1		2	2	52	14.7	0	0	2	2	
SAWYER	LOST LAND L			7	10	6	3	5	5	6	8	3				2	3							58	58	913	15.4	22	11	25	58	
SAWYER	MASON L		1		4	7	4	10	6	3	1	2		2					1					41	41	644	17.1	26	3	12	41	
SAWYER	ROUND L		1		6	21	54	75	53	41	22	18	12	6	7	1			1					318	318	5,231	16.1	216	69	33	318	
SAWYER	SAND L			2	16	20	29	30	20	7	2	3		1										130	130	1,941	20.0	112	11	7	130	
SAWYER	SISSABAGAMA L				4	15	11	6	3	2		1												42	42	606	15.8	36	1	5	42	
SAWYER	SPIDER L		1	1	15	19	32	33	32	31	22	7	9		1	1	1							205	205	3,285	14.8	173	6	26	205	
SAWYER	WHITEFISH L					6	13	12	31	18	14	9	3	2	2	1								111	111	1,988	15.9	73	18	20	111	
SAWYER	WINDFALL L		1		4	3	5	5	5	2	3													28	28	423	16.5	26	2	0	28	
SAWYER	WINDIGO L				2	3	3	4	27	43	15	6	2	1										106	106	1,928	20.1	87	18	1	106	
WASHBURN	BIRCH L			1		3	2	8	8	9	4	4	3	1		1								44	44	751	17.2	30	4	10	44	
WASHBURN	LONG L			1	5	11	26	63	72	83	58	33	12	5	2	1								372	372	6,340	15.0	345	16	11	372	
WASHBURN	STONE L				2	2	2	6	6	5	5	5	1		2							1		37	37	642	17.9	29	5	3	37	
	Sub-total:	3	24	62	281	580	691	773	498	548	388	233	118	66	43	26	11	12	7	4	1		4,369	4,369	69,917.2	16.0	3,310	491	568	4,369		

Appendix B. Total number of walleye harvested and measured per inch group and sexed during spring in 2019. Data arranged alphabetically by tribe, county, and lake.

Lac du Flambeau		INCH GROUP																													Total Measured	Total Harvested	Total Inches	Mean Length	Male	Female	Unknown	Total Sexed
County	Lake	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30												
VILAS	LITTLE TROUT L						1	4	5	12	15	5	3	1	2					1									49	49	749	16.4	26	4	19	49		
VILAS	LYNX L						1	5	5	1	6	7	3	2					1	1								32	32	498	15.4	17	0	15	32			
VILAS	MANITOWISH L					3	5	13	12	7	7	5	1			1			1									55	55	762	22.4	31	3	21	55			
VILAS	OTTER L			1	1	1	1	5			1	2	1		1		1											15	15	208	20.7	4	0	10	14			
VILAS	OXBOW L			1	1	22	21	22	12	9	3	4	3	2	1	1	1											104	104	1,346	15.0	41	0	63	104			
VILAS	PALMER L						3	2				1		1			2											10	10	162	14.1	0	1	9	10			
VILAS	PAPOOSE L						6	13	7	14	10	10	9	4	1	2	1	2	1	2	1	2						82	82	1,270	24.5	52	11	19	82			
VILAS	PLUM L						1	6	6	22	25	22	29	9	9	2	1	3	3	1			1					140	290	2,338	14.9	98	32	10	140			
VILAS	RAZORBACK L							5	15	44	34	9	4	1														112	135	1,661	15.0	101	2	9	112			
VILAS	REST L				2	11	7	5	14	25	25	16	8	2	1	3						1						120	120	1,749	15.2	38	5	77	120			
VILAS	SNIPE L			2	4	13	7	1	2	3	6	4	6	1	2	1												52	52	689	16.9	3	0	49	52			
VILAS	SPARKLING L									1	8	6	1	4	2	1												25	25	440	16.2	7	6	12	25			
VILAS	SQUAW L					14	59	48	24	13	8	4	2	2							1							176	176	2,231	27.8	145	19	12	176			
VILAS	STAR L						5	11	38	84	72	45	10	14	11	4	2	3	3			1						303	303	4,695	14.4	245	49	9	303			
VILAS	TROUT L							4	45	46	27	23	30	24	8	10	5	3	5	8	3	5	2			2	250	424	4,248	15.4	180	14	56	250				
VILAS	UPPER BUCKATABON L																1				1	1	1		1			5	5	125	16.4	2	0	3	5			
VILAS	UPPER GRESHAM L						1	4	12	3	2	2		2		1	1	1	2									31	31	479	13.5	0	0	31	31			
VILAS	W BAY L						7	5	8	12	3	3																38	38	520	25.8	32	1	5	38			
VILAS	WHITE SAND L						1			2	12	21	12	9	2	1	1	1	1	2	1	3			1	1		71	71	1,282	15.0	3	16	52	71			
VILAS	WILD RICE L									1	1		1	1		1	1		2									8	8	154	16.4	5	2	1	8			
VILAS	WILDCAT L						3	5	8	9	6	4	3	3	2	1	1	2										49	49	775	14.4	4	0	45	49			
VILAS	YELLOW BIRCH L				2	5	3	2			1	1	2	2	5	2		2										27	27	417	14.0	8	0	19	27			
	Sub-total:	1	3	21	50	222	537	1,078	1,338	1,382	1,312	843	563	386	221	152	87	67	54	48	23	26	10	4	4	4	8,436	12,918	126,561	15.0	5,364	1,047	1,968	8,379				

Appendix B. Total number of walleye harvested and measured per inch group and sexed during spring in 2019. Data arranged alphabetically by tribe, county, and lake.

Sokaogon (Mole Lake)		INCH GROUP																												Total Measured	Total Harvested	Total Inches	Mean Length	Male	Female	Unknown	Total Sexed		
County	Lake	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	27	28	29																
FLORENCE	PATTEN L							3	8	14	11	5	8	3	2	1																55	55	909	14.2	42	1	12	55
FOREST	BUTTERNUT L						3	36	41	32	22	31	46	38	11	4	2	4	1													271	271	4,567	17.7	238	26	7	271
FOREST	L LUCERNE									1	4	7	7	4				1			1										25	25	460	14.0	24	1	0	25	
FOREST	L METONGA					1	4	10	21	50	90	79	46	24	12	8	9	3	3										1	361	631	6,238	13.3	284	51	26	361		
FOREST	LILY L					3	18	23	38	25	14	15	6	3		3	1	1												151	151	2,301	14.2	133	8	10	151		
FOREST	PINE L					1				8	2	1	4	3	3	1	1													24	24	421	17.6	21	1	2	24		
FOREST	ROBERTS L							3	1	1	16	27	20	15	1															85	85	1,504	23.9	79	2	4	85		
FOREST	TRUMP L				1		1	1		2	4	4																		13	13	203	16.2	11	0	2	13		
LANGLADE	ENTERPRISE L					1	6	15	25	17	6	4	3			1														78	78	1,152	13.9	66	6	6	78		
LANGLADE	SAWYER L						1						1	4	2		1			2	1									12	12	236	16.9	1	1	10	12		
LANGLADE	WOLF RIVER									1	9	10	12	11	1	3	1	2	2	1	1									54	54	1,029	15.6	4	50	0	54		
OCONTO	ARCHIBALD L					4	5	2	3	11	10	9	10	5	2		2													64	64	1,002	15.1	24	4	36	64		
OCONTO	MAIDEN L									5	3	5	15	7	3	1														39	39	666	18.4	32	3	4	39		
ONEIDA	BIG L	1	1	6	16	32	33	34	12	13	5	4			2	1														162	162	2,114	16.2	146	15	1	162		
ONEIDA	CRESCENT L					1	10	37	60	98	65	26	10	5	3		2	1	1	2	1									322	322	4,721	17.0	269	27	25	321		
ONEIDA	L JULIA (RHINELANDER)						1		1	3	2	3	2	1																13	13	200	17.6	8	1	4	13		
ONEIDA	LONG L						7	14	9	5	2																			38	38	497	17.0	33	2	3	38		
ONEIDA	PELICAN L				1		1	10	25	64	89	60	25	27	17	6	5	4	3											337	1097	5,427	14.3	239	42	56	337		
ONEIDA	PLANTING GROUND L					3	4	23	44	47	38	22	11	2	2	3														209	209	2,748	17.9	160	32	17	209		
VILAS	BIG SAND L						1			2	3	1		1	1															9	9	141	15.2	4	0	5	9		
VILAS	CATFISH L					3	11	19	18	13	21	35	23	5	1	1														150	150	2,098	14.7	124	2	24	150		
VILAS	CRANBERRY L	1				2	14	28	29	31	29	29	21	7	5	1														199	257	2,764	17.9	164	9	26	199		
VILAS	LONG L							3	36	90	52	4	19	12	8	11	4	5	2											247	353	3,894	16.4	176	34	37	247		
VILAS	TWIN L CHAIN						6	21	28	76	70	35	12	4	3	2	1	1	4	2	3									268	1727	4,102	12.5	237	23	8	268		
	Sub-total:	2	4	17	70	159	247	369	572	535	372	295	228	144	53	37	25	30	14	8	3	1								3,186	5,839	49,392	15.5	2,519	341	325	3,185		

Appendix B. Total number of walleye harvested and measured per inch group and sexed during spring in 2019. Data arranged alphabetically by tribe, county, and lake.

Red Cliff																													
County	Lake	8	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total Measured	Total Harvested	Total Inches	Mean Length	Male	Female	Unknown	Total Sexed
BAYFIELD	ATKINS L								2		8	7		3		1						21	21	404	13.8	16	5	0	21
BAYFIELD	DIAMOND L							6	3	1		3		3	6	8	4	2	1	1	1	39	39	834	14.2	8	17	14	39
BAYFIELD	LOWEN				3	12	12	12	11	9	12	21	4	4	1	3	1					105	105	1,811	13.5	73	11	21	105
BAYFIELD	LONG L				1					1	3	4		3	1							13	13	252	15.2	9	3	1	13
BAYFIELD	MIDDLE EAU CLAIRE L					1	3	6	14	20	7	1	2	1	1							56	56	959	15.0	53	2	1	56
BAYFIELD	NAMEKAGON L	1	3	24	52	32	42	53	47	30	19	9	4	5	1			2	1			325	325	4,920	12.7	275	42	8	325
BAYFIELD	PIKE L CHAIN				4	11	4	5	7	14	14	12	1		1		1	1				75	75	1,277	12.6	51	12	12	75
BAYFIELD	UPPER EAU CLAIRE L				2	13	36	24	6	5	3	5	2	1	1	2	3			1		104	104	1,662	16.9	83	10	11	104
DOUGLAS	L NEBAGAMON	1			6	5	12	14	19	15	7	4	1			1						85	85	1,366	13.2	68	8	9	85
DOUGLAS	LOWER EAU CLAIRE L								2	1												3	3	50	15.1	0	0	3	3
DOUGLAS	UPPER ST CROIX L				8	24	16	23	12	6	3	1						1				94	94	1,417	17.1	29	6	2	37
	Sub-total:	2	3	24	76	98	125	143	123	102	76	67	14	20	12	15	9	6	2	2	1	920	920	14,949	16.2	665	116	82	863

Appendix B. Total number of walleye harvested and measured per inch group and sexed during spring in 2019. Data arranged alphabetically by tribe, county, and lake.

St. Croix																																Total Measured	Total Harvested	Total Inches	Mean Length	Male	Female	Unknown	Total Sexed
County	Lake	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30													
BARRON	BEAR L							1	1	1	1			1			1										6	6	98	15.3	5	1	0	6					
BARRON	DUCK L							1			1	1															3	3	44	14.5	3	0	0	3					
BARRON	LOWER TURTLE L			1	2	1	1	1			2	1	1		1	1	1				1						15	15	241	17.4	4	2	9	15					
BARRON	RED CEDAR L							18	59	167	272	188	107	28	9	2	1	1			1						853	853	13,389	14.9	779	72	2	853					
BARRON	SILVER L							1	1	1			2	3	2	2					1						14	14	252	11.9	11	3	0	14					
BARRON	UPPER TURTLE L										3	11	5	5				4	2			2					32	32	619	21.8	24	8	0	32					
BURNETT	BIG MCKENZIE L					1	2				5	13	12	7	10	2	6	4	1					1		1	65	65	1,201	17.6	30	31	4	65					
BURNETT	ROONEY L										1	1	2	5	10	1	1										23	23	452	16.9	12	11	0	23					
BURNETT	SAND L								4	1			2	1	2	3		1			1						15	15	269	15.9	9	6	0	15					
BURNETT	YELLOW L					2	2	14	22	27	14	15	6	3	2	1	2				2						112	112	1,788	16.9	59	8	45	112					
CHIPPEWA	L WISSOTA				2	1	4	21	28	20	14	7	1	1	1												101	101	1,413	17.7	82	16	3	101					
POLK	BALSAM L							1	4	4	2	3	24	22	17	3	3		1	1							87	87	1,592	18.3	82	4	1	87					
POLK	BIG BUTTERNUT L					2		2	11	13	5	4	1	1		3		1									43	43	646	18.7	6	12	25	43					
POLK	BIG ROUND L																																						
POLK	WAPOGASSET L								5	35	52	6	3	2	1													104	104	1,587	18.6	102	2	0	104				
ST CROIX	CEDAR L								4	15	36	65	52	37	14	5	6	1	1	2	2							240	240	4,142	15.4	217	22	1	240				
WASHBURN	BALSAM L							2	7	1	10	13	2	3														38	38	592	17.2	30	6	2	38				
WASHBURN	BASS-PATTERSON L								1	2	8	21	11	8	4	1	4			1								62	62	1,089	18.0	46	15	1	62				
WASHBURN	L NANCY					1	2	1		2	13	15	8	4	6	3	2	1		1								59	59	1,002	17.8	34	21	4	59				
WASHBURN	LONG L					1	1	1	10	40	86	83	48	40	30	12	3	5	2					1				363	363	6,101	16.9	340	16	7	363				
WASHBURN	MIDDLE MCKENZIE L									2	3	11	16	2	3	2												39	39	673	16.8	31	6	2	39				
WASHBURN	SHELL L					2	1	2	1	14	45	55	52	23	7		2	1										205	205	3,404	15.9	121	52	32	205				
	Sub-total:	0	0	1	4	8	12	56	150	340	582	507	371	197	126	39	30	23	9	6	9	3	5	1	0	1	2,480	2,480	40,622	16.4	2,027	315	138	2,480					
TOTAL: ALL TRIBES		1	5	30	87	366	1,007	2,066	2,859	3,472	3,621	2,590	2,062	1,409	855	414	255	183	142	94	66	41	26	9	6	5	21,671	29,000	335,385	11.6	15,595	2,588	3,373	21,556					

Appendix C. Number of walleye per inch group taken during spring spearing seasons from 1985 - 2019.

Inch Group	Number of walleye in:															
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
5									1				1	2		
6		1							3				2			
7							1	1	1	2			2	2		
8				3	1	4	4	3	4	12	2	6	16	25	5	2
9	2	3	17	10	4	14	36	34	45	63	32	39	79	104	20	33
10	5	49	123	121	60	183	229	243	245	386	219	233	372	505	162	169
11	31	358	558	678	306	649	957	957	905	1,186	1,311	1,026	1,230	1,817	989	961
12	140	680	1,282	1,688	925	1,513	1,979	2,444	2,101	2,170	2,955	2,532	2,262	3,258	2,861	2,541
13	265	928	1,892	2,755	1,684	2,370	2,582	3,507	3,636	3,110	4,113	3,879	3,242	3,951	4,598	4,213
14	286	1,068	2,133	3,289	2,222	2,917	2,777	3,252	4,032	3,666	4,360	4,305	3,570	3,890	4,548	5,190
15	293	985	1,895	2,951	2,154	2,856	2,543	2,375	3,111	3,368	3,768	3,867	3,390	3,281	3,364	4,759
16	247	939	1,666	2,311	1,919	2,295	2,031	1,696	1,993	2,517	2,703	2,605	2,548	2,443	2,286	3,235
17	172	801	1,374	1,658	1,390	1,862	1,687	1,207	1,323	1,796	1,756	1,664	1,580	1,819	1,643	2,294
18	145	458	1,113	1,297	1,010	1,288	1,216	878	812	1,120	1,159	970	1,129	1,094	1,003	1,402
19	118	255	811	932	634	932	811	562	589	850	729	617	639	706	599	831
20	33	149	513	596	328	556	590	261	308	383	440	358	378	338	307	376
21	25	72	259	316	210	307	303	199	218	267	238	240	237	260	258	275
22	18	50	148	214	109	202	249	171	148	205	195	156	186	183	193	208
23	18	23	116	134	76	160	151	129	120	189	164	120	142	134	165	154
24	11	9	86	124	67	100	111	85	101	145	158	111	105	90	93	119
25	7	10	76	89	48	107	102	66	80	98	109	97	98	81	87	82
26	9		57	75	45	71	86	65	54	91	80	64	85	91	78	61
27	10	3	42	56	31	63	46	42	33	55	57	51	56	53	58	38
28	5	1	28	32	18	30	39	25	27	30	36	37	32	49	27	24
29	8		25	30	8	15	15	17	12	12	16	15	13	22	16	8
30	11		8	9	3	5	6	6	1	5	3	6	4	5	9	8
31	6		2		2	1		1				1	1	1	1	
32	2										1				1	1
33	1															
Total No. Measured:	1,868	6,842	14,224	19,368	13,254	18,500	18,551	18,226	19,903	21,726	24,605	22,999	21,399	24,204	23,371	26,984
Total Length:	30,382	106,051	226,789	306,926	211,645	295,047	291,543	275,331	301,713	335,322	375,476	348,750	327,444	363,297	354,052	415,478
Average Length:	16.3	15.5	15.9	15.8	16.0	15.9	15.7	15.1	15.2	15.4	15.3	15.2	15.3	15.0	15.1	15.4
Total No. Speared:	2,761	6,940	21,321	25,969	16,054	25,348	23,018	21,188	24,532	25,922	30,249	28,327	24,002	27,218	26,105	30,367
Percent Measured:	68%	99%	67%	75%	83%	73%	81%	86%	81%	84%	81%	81%	89%	89%	90%	89%
≥20 inches	164	317	1,360	1,675	945	1,617	1,698	1,067	1,102	1,480	1,498	1,256	1,337	1,307	1,293	1,354
% of total	8.78%	4.63%	9.56%	8.65%	7.13%	8.74%	9.15%	5.85%	5.54%	6.81%	6.09%	5.46%	6.25%	5.40%	5.53%	5.02%
≥25 inches	59	14	238	291	155	292	294	222	207	291	303	271	289	302	277	222
% of total	3.16%	0.20%	1.67%	1.50%	1.17%	1.58%	1.58%	1.22%	1.04%	1.34%	1.23%	1.18%	1.35%	1.25%	1.19%	0.82%

Appendix C. Number of walleye per inch group taken during spring spearing seasons from 1985 - 2019.

Inch Group	Number of walleye in:																		35 Year Total	Percent of Total	Cumulative Percent	
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018				2019
5																				4	0.0%	0.0%
6	2					1	1				2	1		1	1	1	1	1	1	18	0.0%	0.0%
7	16					2	1	1	3	7	6	6		4	8	4	5	7	7	80	0.0%	0.0%
8	117	2	5	5	2	5	10	8	8	17	5	19	10	6	16	13	13	30	28	406	0.1%	0.1%
9	738	14	37	62	61	35	70	81	76	59	20	88	53	46	137	91	77	87	120	2,487	0.3%	0.4%
10	1,930	177	177	424	413	295	325	441	563	526	197	302	395	209	516	393	259	366	586	11,798	1.5%	1.9%
11	3,109	973	836	1,299	1,483	1,207	1,091	1,350	1,526	1,749	997	831	1,133	924	1,371	1,147	1,005	1,007	1,665	38,622	5.0%	6.9%
12	3,440	2,360	2,317	2,504	2,767	2,924	2,723	2,532	2,926	3,213	2,336	2,105	2,059	1,929	2,743	2,376	2,174	2,066	3,254	80,079	10.4%	17.3%
13	3,560	3,371	3,716	3,431	3,350	3,713	4,057	3,568	4,076	4,630	3,454	3,439	2,798	2,950	4,014	3,362	3,843	2,859	4,011	114,927	14.9%	32.2%
14	2,794	3,997	4,323	4,158	3,764	3,979	4,634	4,245	4,460	5,486	4,118	4,405	3,227	3,391	4,457	3,789	4,955	3,472	4,077	129,236	16.8%	49.0%
15	1,970	3,727	4,142	3,888	3,729	3,839	4,320	3,709	4,088	4,611	3,867	4,847	3,378	3,395	4,455	3,656	4,284	3,621	3,873	118,359	15.4%	64.4%
16	1,175	2,928	3,299	3,317	2,748	2,837	3,222	3,038	2,917	3,335	2,860	3,961	3,273	2,925	3,749	3,318	3,377	2,590	3,108	91,411	11.9%	76.2%
17	753	2,108	2,367	2,280	2,132	1,880	2,218	2,136	2,258	2,324	1,892	2,700	2,442	2,184	2,960	2,839	2,587	2,062	2,235	66,383	8.6%	84.8%
18	288	1,258	1,399	1,364	1,454	1,290	1,488	1,386	1,449	1,568	1,317	1,846	1,478	1,389	1,705	1,881	1,715	1,409	1,588	43,366	5.6%	90.5%
19	220	787	859	889	926	885	924	861	895	942	806	1,154	859	805	999	1,018	998	855	963	27,260	3.5%	94.0%
20	152	326	397	371	444	389	468	327	390	369	310	408	353	400	572	486	521	414	463	13,474	1.7%	95.8%
21	108	255	303	241	338	255	351	260	291	308	238	302	211	273	407	376	388	255	287	9,131	1.2%	96.9%
22	85	176	198	165	242	222	238	182	205	223	174	207	138	202	278	281	254	183	220	6,508	0.8%	97.8%
23	63	126	150	138	177	176	206	116	170	190	115	177	96	140	197	208	110	142	150	4,942	0.6%	98.4%
24	57	105	128	104	121	135	127	111	129	133	82	134	79	134	170	168	134	94	102	3,762	0.5%	98.9%
25	37	90	74	72	88	91	124	96	127	115	87	133	47	105	109	102	104	66	79	2,983	0.4%	99.3%
26	15	61	84	74	79	73	89	63	52	106	49	74	36	76	75	73	70	41	43	2,245	0.3%	99.6%
27	7	48	54	41	57	73	41	43	88	54	33	67	29	48	58	46	47	26	22	1,576	0.2%	99.8%
28	3	22	31	26	27	25	28	16	24	29	30	35	34	25	24	25	32	9	19	904	0.1%	99.9%
29		17	20	9	16	21	17	7	12	16	4	16	11	9	9	9	7	6	6	444	0.1%	100.0%
30		3	6	3	7	3	5	1	5	4	6	5	2	6	1	1	1	5	1	154	0.0%	100.0%
31			1		2	1			1		2	2		4						30	0.0%	100.0%
32			1																	6	0.0%	100.0%
33																				1	0.0%	100.0%
Total No. Measured:	20,639	22,931	24,924	24,865	24,427	24,356	26,778	24,578	26,739	30,014	23,000	27,265	22,148	21,575	29,027	25,667	27,060	21,671	26,908	770,596	100%	100%
Total Length:	320,102	354,158	387,747	382,060	376,457	373,918	413,916	375,756	408,035	456,851	353,811	428,869	343,260	337,926	450,447	402,535	422,555	335,385	408,237	11,897,269		
Average Length:	15.5	15.4	15.6	15.4	15.4	15.4	15.5	15.3	15.3	15.2	15.4	15.7	15.5	15.7	15.5	15.7	15.6	15.5	15.2	15.4		
Total No. Speared:	22,743	25,543	27,502	27,546	26,877	27,627	30,700	27,881	32,201	34,156	29,730	32,311	28,386	27,561	38,535	32,617	39,021	29,000	35,935	935,193		
Percent Measured:	91%	90%	91%	90%	91%	88%	87%	88%	83%	88%	77%	84%	78%	78%	75%	79%	69%	75%	75%	82%		
≥20 inches	527	1,229	1,447	1,244	1,598	1,464	1,694	1,222	1,494	1,547	1,130	1,560	1,036	1,422	1,900	1,775	1,768	1,241	1,392	46,160		
% of total	2.55%	5.36%	5.81%	5.00%	6.54%	6.01%	6.33%	4.97%	5.59%	5.15%	4.91%	5.72%	4.68%	6.59%	6.55%	6.92%	6.53%	5.73%	5.17%	6.0%		
≥25 inches	62	241	271	225	276	287	304	226	309	324	211	332	159	273	276	256	261	153	170	8,343		
% of total	0.30%	1.05%	1.09%	0.90%	1.13%	1.18%	1.14%	0.92%	1.16%	1.08%	0.92%	1.22%	0.72%	1.27%	0.95%	1.00%	0.96%	0.71%	0.63%	1.1%		

Appendix F. Number, average length (inches), and harvest per acre of bass (BAS) largemouth (LMB) and smallmouth (SMB) bass and northern pike (NOP) for various lakes during spring spearing 2019. Data sorted by tribe, county, and lake.

Tribe	County	Lake	Area	Species	Number Harvested	Number Measured	Total Inches	Average Length	Number Per Acre
BRV	DOUGLAS	WHITEFISH L	832	BAS	1	1	8.3	8.3	0.0012
LDF	ONEIDA	CARROL L	352	BAS	1	1	16.3	16.3	0.0028
LDF	VILAS	ARROWHEAD L	99	BAS	5	5	68.2	13.6	0.0505
LDF	VILAS	BIG L (BOULDER JCT)	835	BAS	1	0	-	-	0.0012
LDF	VILAS	LITTLE JOHN L	166	BAS	3	3	45.5	15.2	0.0181
LDF	VILAS	LITTLE ST GERMAIN L	980	BAS	2	2	26.7	13.4	0.0020
LDF	VILAS	RAZORBACK L	362	BAS	2	2	21.4	10.7	0.0055
MLK	FOREST	STEVENS L	297	BAS	1	1	16.3	16.3	0.0034
STC	BURNETT	YELLOW L	2,287	BAS	1	1	13.5	13.5	0.0004
		Total:			17	16	216.2	13.5	0.0095
LCO	SAWYER	L CHIPPEWA	15,300	LMB	2	1	17.6	8.8	0.0001
LCO	SAWYER	SPIDER L	1,454	LMB	1	1	13.8	13.8	0.0007
LDF	LINCOLN	RICE R FL CHAIN	3,764	LMB	2	2	33	16.5	0.0005
LDF	ONEIDA	CLEAR L	846	LMB	13	13	184.8	14.2	0.0154
LDF	VILAS	ALDER L	274	LMB	1	1	18.2	18.2	0.0036
LDF	VILAS	BIG ARBOR VITAE L	1,090	LMB	23	23	377.3	16.4	0.0211
LDF	VILAS	CLEAR L	555	LMB	2	2	32	16.0	0.0036
LDF	VILAS	JOHNSON L	78	LMB	1	1	15.7	15.7	0.0128
LDF	VILAS	LITTLE ARBOR VITAE L	534	LMB	3	3	53.7	17.9	0.0056
LDF	VILAS	LITTLE JOHN L	166	LMB	5	5	84.8	17.0	0.0301
LDF	VILAS	LITTLE ST GERMAIN L	980	LMB	1	1	14.8	14.8	0.0010
LDF	VILAS	PLUM L	1,033	LMB	3	3	56.4	18.8	0.0029
LDF	VILAS	SPIDER L	272	LMB	1	1	16.7	16.7	0.0037
MLK	FLORENCE	PATTEN L	255	LMB	3	0	-	-	-
MLK	FOREST	TRUMP L	172	LMB	5	0	-	-	-
MLK	VILAS	BIG SAND L	1,418	LMB	1	0	-	-	-
MLK	VILAS	KENTUCK L	957	LMB	1	0	-	-	-
RCF	BAYFIELD	DIAMOND L	341	LMB	2	2	31.8	15.9	0.0059
RCF	BAYFIELD	LONG L	263	LMB	1	1	16	16.0	0.0038
RCF	BAYFIELD	PIKE L CHAIN	714	LMB	3	3	44.2	14.7	-
STC	BARRON	RED CEDAR L	1,841	LMB	1	0	-	-	-
STC	BURNETT	BIG MCKENZIE L	1,185	LMB	2	2	30.8	15.4	0.0017
STC	BURNETT	DEVILS L	1,001	LMB	14	14	197	14.1	0.0140
STC	BURNETT	ROONEY L	322	LMB	1	1	14.9	14.9	0.0031
STC	BURNETT	YELLOW L	2,287	LMB	16	16	254.7	15.9	0.0070
STC	POLK	BALSAM L	2,054	LMB	1	1	14.2	14.2	0.0005
STC	POLK	BIG BUTTERNUT L	378	LMB	2	2	23.4	11.7	0.0053
STC	POLK	BIG ROUND L	1,015	LMB	12	12	181.3	15.1	0.0118
STC	POLK	WAPOGASSET L	1,186	LMB	2	2	30.4	15.2	0.0017
STC	ST CROIX	CEDAR L	1,100	LMB	1	1	13.8	13.8	0.0009
STC	WASHBURN	MIDDLE MCKENZIE L	530	LMB	1	1	14	14.0	0.0019
STC	WASHBURN	SHELL L	2,580	LMB	1	1	17.7	17.7	0.0004
		Total:			128	116	1,803.0	15.5	0.0041
BRV	VILAS	MAMIE L	400	SMB	1	1	18	18.0	0.0025
LCO	SAWYER	L CHIPPEWA	15,300	SMB	1	1	14.3	14.3	0.0001
LDF	LINCOLN	RICE R FL CHAIN	4,684	SMB	2	2	28.6	14.3	0.0004
LDF	ONEIDA	CLEAR L	846	SMB	2	2	29.3	14.7	0.0024
LDF	ONEIDA	SQUIRREL L	1,317	SMB	4	4	74.3	18.6	0.0030
LDF	VILAS	BIG MUSKELLUNGE L	930	SMB	6	6	125.5	20.9	0.0065
LDF	VILAS	LOWER BUCKATABON L	352	SMB	1	1	13.6	13.6	0.0028
LDF	VILAS	STAR L	1,206	SMB	1	1	16.7	16.7	0.0008
MLK	FLORENCE	PATTEN L	255	SMB	2	0	0	-	-
MLK	FOREST	ARBUTUS L	158	SMB	2	1	13.9	7.0	0.0127

Appendix F. Number, average length (inches), and harvest per acre of bass (BAS) largemouth (LMB) and smallmouth (SMB) bass and northern pike (NOP) for various lakes during spring spearing 2019. Data sorted by tribe, county, and lake.

Tribe	County	Lake	Area	Species	Number Harvested	Number Measured	Total Inches	Average Length	Number Per Acre
MLK	FOREST	L METONGA	1,991	SMB	7	1	18.4	2.6	0.0035
MLK	LANGLADE	WOLF RIVER	157	SMB	3	1	10.8	3.6	0.0191
MLK	VILAS	LONG L	872	SMB	1	0	-	-	-
RCF	BAYFIELD	DIAMOND L	341	SMB	1	1	14.5	14.5	0.0029
RCF	BAYFIELD	MIDDLE EAU CLAIRE L	902	SMB	1	1	18	18.0	0.0011
RCF	BAYFIELD	PIKE L CHAIN	714	SMB	1	1	13.4	13.4	0.0014
STC	BURNETT	DEVILS L	1,001	SMB	2	2	28.3	14.2	0.0020
STC	BURNETT	YELLOW L	2,287	SMB	2	2	33.7	16.9	0.0009
STC	POLK	BIG ROUND L	1,015	SMB	1	1	14.4	14.4	0.0010
		Total:			41	29	485.7	16.7	0.0037
LCO	SAWYER	L CHIPPEWA	15,300	NOP	2	2	48.2	24.1	0.0001
LCO	SAWYER	ROUND L	3,054	NOP	2	2	72	36.0	0.0007
LCO	SAWYER	WINDIGO L	522	NOP	1	1	24.5	24.5	0.0019
LDF	IRON	TURTLE-FLAMBEAU FL	13,545	NOP	1	1	23.6	23.6	0.0001
LDF	LINCOLN	RICE R FL CHAIN	3,764	NOP	8	7	173.4	21.7	0.0021
LDF	ONEIDA	MINOCQUA L	1,360	NOP	2	2	70.5	35.3	0.0015
LDF	VILAS	ALLEQUASH L	426	NOP	1	1	21.5	21.5	0.0023
LDF	VILAS	BIG ARBOR VITAE L	1,090	NOP	3	3	96.5	32.2	0.0028
LDF	VILAS	BIG MUSKELLUNGE L	930	NOP	4	4	98.5	24.6	0.0043
LDF	VILAS	BIG ST GERMAIN L	1,617	NOP	1	1	33.2	33.2	0.0006
LDF	VILAS	LITTLE ARBOR VITAE L	534	NOP	2	2	57.2	28.6	0.0037
LDF	VILAS	LITTLE ST GERMAIN L	980	NOP	1	1	27.1	27.1	0.0010
LDF	VILAS	PLUM L	1,033	NOP	2	2	60.7	30.4	0.0019
LDF	VILAS	UPPER BUCKATABON L	494	NOP	1	1	18.1	18.1	0.0020
MLK	FOREST	FRANKLIN L	892	NOP	1	1	41.7	41.7	0.0011
MLK	FOREST	L LUCERNE	1,026	NOP	1	0	-	-	-
MLK	LANGLADE	WOLF RIVER	157	NOP	7	3	56	8.0	0.0446
MLK	ONEIDA	PELICAN L	3,585	NOP	3	0	-	-	-
RCF	BAYFIELD	DIAMOND L	341	NOP	1	1	23.3	23.3	0.0029
RCF	BAYFIELD	L OWEN	1,323	NOP	9	9	219.7	24.4	0.0068
RCF	BAYFIELD	MIDDLE EAU CLAIRE L	902	NOP	2	2	49.1	24.6	0.0022
RCF	BAYFIELD	PIKE L CHAIN	714	NOP	1	1	25.8	25.8	0.0014
STC	BURNETT	DEVILS L	1,001	NOP	3	3	101.3	33.8	0.0030
STC	POLK	BONE L	1,781	NOP	1	1	32.4	32.4	0.0006
STC	WASHBURN	SHELL L	2,580	NOP	2	2	55.5	27.8	0.0008
		Total:			62	53	1,429.8	27.0	0.0038

Appendix G. Number of bass per inch group (largemouth and smallmouth) taken during spring spearing seasons from 1985 - 2019.

Inch Group	Number of bass in:																													35 Year Total	Percent of Total							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2014	2015	2016	2017	2018	2019	
5																																			0	0.0%		
6																																				2	0.0%	
7					1																															4	0.1%	
8			1																																	7	0.1%	
9	1	1	2																																	13	0.2%	
10			2	4	1	1	2	1	2	1							1																			49	0.8%	
11	1	1	8	7	3	1	5	1	5	2	2	8	5	1	5	2	2	2	1																	125	1.9%	
12	2	2	16	7	10	30	11	11	7	32	13	5	10	16	2	8	9	6	14	5	3	7	12	11	19	29	3	30	15	7	44	19	7	11	7	440	6.8%	
13	3	6	43	21	14	35	36	16	18	41	27	30	22	28	11	26	29	15	26	10	7	13	16	16	32	41	14	72	20	17	59	43	16	16	20	859	13.2%	
14		2	33	27	17	47	34	20	42	37	36	35	23	74	29	29	34	41	38	28	16	26	30	36	56	71	22	46	28	27	68	31	27	27	36	1173	18.0%	
15	7	8	25	21	17	26	21	21	40	38	34	38	20	51	34	41	41	31	38	48	26	27	26	27	38	78	20	33	42	45	70	24	44	28	21	1149	17.6%	
16		12	30	19	19	25	11	13	29	35	27	17	20	32	18	49	24	23	39	35	29	22	28	30	34	39	21	48	26	36	46	38	18	34	27	953	14.6%	
17		3	20	15	11	19	9	5	16	22	18	5	15	33	16	23	10	19	30	21	22	29	18	22	43	8	44	26	15	30	26	28	32	18	681	10.5%		
18	1	2	15	9	4	16	9	11	13	17	18	10	16	19	10	21	20	12	9	17	13	21	30	13	18	36	17	42	17	15	29	17	14	24	17	572	8.8%	
19	1		7	11	8	9	6	6	15	11	7	6	6	18	3	13	12	6	6	11	13	13	8	13	20	4	22	13	6	12	5	4	7	2	310	4.8%		
20		1	5	7	1	2	2	3	12	9	2		3	5	1	5	3				1	2	3	9	1	3	7	1	6	9	5	2	4	2	1	4	124	1.9%
21	1	1	2	1		1			2	4	1	1	1	1	1	1	1							2													37	0.6%
22																																					9	0.1%
23																																					2	0.0%
24																																					0	0.0%
25				1																																	4	0.1%
26																																					1	0.0%
Total No. Measured:	17	39	210	144	111	215	144	112	198	256	185	152	145	283	126	221	186	150	193	185	129	159	202	164	246	372	110	354	198	180	392	224	165	186	161	6,514	100.0%	
Total Length:	255	602	3,199	2,275	1,694	3,246	2,165	1,708	3,002	3,931	2,881	2,315	2,245	4,440	1,982	3,524	2,913	2,320	2,964	2,986	2,117	2,555	3,274	2,575	3,765	5,817	1,746	5,542	3,168	2,842	5,860	3,434	2,583	2,960	2,505	101,390		
Average Length:	15.0	15.4	15.2	15.8	15.3	15.1	15.0	15.3	15.2	15.4	15.6	15.2	15.5	15.7	15.7	15.9	15.7	15.5	15.4	16.1	16.4	16.1	16.2	15.7	15.3	15.6	15.8	15.9	16.1	15.8	15.0	15.3	15.7	15.9	15.6	15.6		
Total No. Speared:	21	39	275	167	113	219	147	136	201	261	187	160	145	290	126	221	200	153	196	187	135	159	204	164	262	373	112	354	206	201	408	242	189	195	186	6,834		
Percent Measured:	81.0%	100.0%	76.4%	86.2%	98.2%	98.2%	98.0%	82.4%	98.5%	98.1%	98.9%	95.0%	100.0%	97.6%	100.0%	100.0%	93.0%	98.0%	98.5%	98.9%	95.6%	100.0%	99.0%	100.0%	93.9%	99.7%	99.6%	100.0%	96.1%	89.6%	96.1%	92.6%	87.3%	95.4%	86.6%	95.3%		

Appendix H. Number of northern pike per inch group taken during spring spearing seasons from 1985 - 2019.

Inch Group	Number of northern pike in:																												35 Year Total	Percent of Total									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			2013	2014	2015	2016	2017	2018	2019		
10																																			1	1	0.0%		
11																																				2	2	0.1%	
12			1																																		3	3	0.4%
13																																					3	3	0.3%
14																																					4	4	0.3%
15																																					6	6	0.4%
16																																					8	8	0.5%
17			1																																		19	19	1.6%
18			1																																		39	39	3.0%
19																																					48	48	3.0%
20			2																																		70	70	5.1%
21																																					69	69	5.0%
22			2																																		77	77	7.0%
23			1																																		96	96	6.1%
24			1																																		79	79	6.8%
25																																					75	75	5.6%
26																																					66	66	6.0%
27																																					59	59	4.7%
28																																					77	77	6.0%
29																																					77	77	6.1%
30																																					52	52	4.1%
31																																					45	45	3.4%
32																																					63	63	4.5%
33																																					49	49	3.7%
34																																					53	53	4.1%
35																																					41	41	3.0%
36																																					24	24	2.2%
37																																					26	26	2.3%
38																																					16	16	1.4%
39																																					15	15	1.2%
40																																					17	17	1.6%
41																																					5	5	0.3%
42																																					1	1	0.0%
43																																					0	0	0.0%
44																																					3	3	0.4%
Total No. Measured:	0	12	28	45	14	32	40	18	19	29	28	26	35	61	23	54	32	39	21	20	20	16	54	23	49	50	28	71	39	42	78	59	66	64	53	1,288	100.0%		
Total Length:	-	312	724	1,152	334	776	986	453	527	792	744	693	987	1,660	583	1,457	979	1,189	639	573	567	465	1,542	621	1,400	1,373	810	1,898	1,054	1,155	2,163	1,559	1,738	1,650	1,430	34,981			
Average Length:	NA	26.0	25.9	25.6	23.9	24.2	24.6	25.2	27.7	27.3	26.6	26.7	28.2	27.2	25.3	27.0	30.6	30.5	30.4	28.6	28.3	29.1	28.6	27.0	28.6	27.5	28.9	26.7	27.0	27.5	28.0	26.4	26.3	25.8	27.0	27.2			
Total No. Speared:	2	13	41	59	14	34	41	30	19	30	32	30	37	68	29	54	32	40	22	20	22	17	54	23	49	50	30	71	39	50	78	62	75	65	62	1,394			
Percent Measured:	0.0%	92.3%	68.3%	76.3%	100.0%	94.1%	97.6%	60.0%	100.0%	96.7%	87.5%	86.7%	94.6%	89.7%	79.3%	100.0%	100.0%	97.5%	95.5%	100.0%	90.9%	94.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	84.0%	100.0%	95.2%	88.0%	98.5%	85.5%	92.4%				