

# Sault Ste. Marie Tribe of Chippewa Indians

2018 Harvest and Effort Summary  
Natural Resources Department - Wildlife Program



## SAULT TRIBE NATURAL RESOURCES DEPARTMENT

In 2018, the Sault Ste. Marie Tribe of Chippewa Indians issued 57,327 individual permits for hunting, fishing, gathering, and trapping within the 1836 Ceded Territory to 4,514 tribal members (see Appendix Table 1). The Sault Ste. Marie Tribe of Chippewa Indians maintains mandatory harvest reporting requirements for all members who exercise the Tribe's treaty rights. At the time when this report was developed, the Sault Tribe Natural Resources Department (STNRD) had received and processed 2,787 harvest reports. Throughout this report, uncertainty in estimated harvest is quantified by bootstrap resampling of the observed data 5,000 times.

## 2018 INLAND WATERS FISH HARVEST

In 2018, the Sault Ste. Marie Tribe of Chippewa Indians issued 4,514 inland fishing licenses. STNRD has received harvest reports from 61.7% (2,787) of those license holders. Of those harvest reports received, approximately 36.2% of those reported fishing effort in 2018. When developing harvest estimates, STNRD assumed the entire 36.2% who reported effort had equal effort for each individual species. It is also likely that some of the reported harvest was actually Great Lakes harvest. Although smelt is reported here in gallons, given high variation in reported harvest (wide confidence interval) it is possible that some reports listed the raw number of smelt caught. STNRD issued two permits for Black Lake sturgeon, of which one was filled.

Table 1. 2018 Inland Fish Harvest

Species	Reported Harvest	Mean Harvest	Estimated Harvest	95% Confidence Interval
Brook Trout	4,231	4.19	6,852.8	[4,915.4, 9,550.8]
Brown Trout	372	0.37	602.5	[372.0, 901]
Rainbow Trout	941	0.93	1524.1	[1,144.2, 1,940.6]
Chinook Salmon	449	0.44	727.2	[488.3, 1,019.4]
Coho Salmon	455	0.45	736.9	[409.9, 1,144.3]
Pink Salmon	123	0.12	199.2	[84.5, 370.3]
Northern Pike	4,099	4.06	6,639.0	[5,569.8, 7,803.5]
Muskellunge	93	0.09	150.6	[16.4, 398.3]
Walleye	8,259	8.18	13,376.8	[11,499, 15,429.9]
Perch	27,332	27.06	44,268.6	[35,791.0, 54,370.8]
Bluegill	20,577	20.37	33,327.8	[25,530.7, 43,027.1]
Sucker	687	0.68	1,112.7	[614.4, 1,736.4]
Smallmouth Bass	1,674	1.66	2,711.3	[1,996.4, 3,491.0]
Largemouth Bass	1,486	1.47	2,406.8	[1,768.9, 3,116.8]
Smelt*	202	0.20	327.2	[115.8, 706]

\*Smelt is reported in gallons

## 2018 TURTLE HARVEST

In 2018, approximately 0.4% of license holders reported pursuing turtles. With 26 turtles reported, each license holder pursuing turtles harvested an average of 2.4 turtles. It is estimated that approximately 39 turtles were harvested during 2018 the license year (95% bootstrap confidence interval from 14.6 to 73.5).

## 2018 FROG HARVEST

In 2018, approximately 0.3% of license holders reported pursuing frogs. With 74 frogs reported, each license holder pursuing frogs harvested an average of 10.6 frogs. It is estimated that approximately 111 frogs were harvested during the 2018 license year (95% bootstrap confidence interval from 0 to 331.7 frogs).

## 2018 SMALL GAME HARVEST

In 2018, the Sault Ste. Marie Tribe of Chippewa Indians issued 4,183 small game licenses, with 66.6% percent of those license holders reporting. Hunter participation rates varied widely between target species. Approximately 28.1% of license holders reported hunting ruffed grouse, 8.8% reported hunting squirrel, 7.7% reported hunting snowshoe hare, 5.2% reported hunting cottontail rabbit, 2.2% reported hunting sharp-tailed grouse, 1.0% reported hunting pheasant, and 0.6% reported hunting quail.

Table 2. 2018 Small game harvest

Species	Reported Harvest	Mean Harvest	Estimated Harvest	95% Confidence Interval
Ruffed Grouse	2,640	3.38	3,962.4	[3,528.5, 4,420.4]
Sharp-tailed Grouse	53	0.84	79.6	[42.9, 124.8]
Pheasant	91	3.37	136.6	[38.3, 285.6]
Quail	11	0.69	16.5	[1.2, 45.3]
Squirrel	1,677	6.84	2,517	[2,106.1, 2,973.1]
Cottontail Rabbit	440	3.01	660.4	[466.1, 891.0]
Snowshoe Hare	644	3.01	966.6	[739.0, 1,232.2]

## 2018 TURKEY HARVEST

In 2018, the Sault Ste. Marie Tribe of Chippewa Indians issued 3,564 spring turkey and 5,841 fall turkey licenses. Hunters in the spring season had a limit of two bearded-only birds, and hunters in the fall season had a limit of two either-sex birds. Approximately 13.4% of those reporting hunted spring turkey and 11.3% hunted fall turkey.

Table 3. 2018 Spring and fall turkey harvest

Season	Reported Harvest	Mean Harvest	Estimated Harvest	95% Confidence Interval
Spring	161	0.43	241.6	[203.1, 283]
Fall	113	0.36	169.6	[134, 207]

## 2018 FURBEARER HARVEST

In 2018, Tribal license holders had relatively low participation (6.2%) in furbearer harvest compared to other areas such as small game or deer harvest. When developing these estimates, STNRD assumed that the 6.2% of members who reported trapping expended equal effort for all listed species.

Table 4. 2018 Sault Tribe non-registered furbearer harvest

Species	Reported Harvest	Mean Harvest	Estimated Harvest	95% Confidence Interval
Beaver	276	1.59	414.3	[270.7, 582.5]
Muskrat	871	5.01	1,307.3	[719.3, 2,019.1]
Mink	68	0.39	102.1	[31.5, 215.5]
Red Fox	56	0.32	84.1	[29.7, 158.7]
Gray Fox	6	0.03	9.0	[0, 24.9]
Coyote	427	2.45	640.9	[347.9, 975.3]
Skunk	61	0.35	91.6	[27.4, 182.3]
Raccoon	283	1.63	424.8	[169.7, 806.9]

Table 5. 2018 Furbearer harvest sealed by the Sault Tribe Natural Resources Department and Law Enforcement

Species	Number Sealed*
Bobcat	15
Fisher	8
Marten	27
Otter	8

\*These totals do not include harvest registered by the Michigan Department of Natural Resources.

## 2018 MIGRATORY BIRD HARVEST

In 2018, the Sault Ste. Marie Tribe of Chippewa Indians issued 4,183 migratory bird licenses with 66.6% percent of those license holders reporting. Hunter participation was low with rates varying between target species. Approximately 0.1% of license holders reported hunting Virginia rail and sora rail, 3.8% reported hunting American woodcock, 0.2% reported hunting Wilson’s snipe, 0.4% reported hunting mourning dove, 0.1% reported hunting common gallinule (moorhen), and 0.3% reported hunting American coot.

Table 6. 2018 Off-reservation migratory bird harvest

Species	Reported Harvest	Mean Harvest	Estimated Harvest	95% Confidence Interval
Virginia Rail	0	-	-	-
Sora	0	-	-	-
American Woodcock	257	2.42	385.7	[267.8, 529.4]
Wilson’s Snipe	2	0.33	3.0	[0.0, 12.0]
Mourning Dove	32	2.67	48.0	[12.4, 105.1]
Common Gallinule (Moorhen)	0	-	-	-
American Coot	9	1.00	13.5	[2.5, 28.9]

## 2018 WATERFOWL HARVEST

Approximately 6.1% of hunters reported pursuing waterfowl during the 2018 season. When developing harvest estimates for waterfowl, STNRD assumed the entire 6.1% who reported effort had equal effort across species. Table 7 summarizes the reported and estimated harvest for major waterfowl species.

Table 7. 2018 Off-reservation waterfowl harvest

Species	Reported Harvest	Mean Harvest	Estimated Harvest	95% Confidence Interval
Mallard	763	4.51	1145.2	[867.6, 1,482.2]
Black Duck	54	0.32	81.1	[37.6, 136.6]
Gadwall	21	0.12	31.5	[6.9, 69.7]
Blue-winged Teal	109	0.64	163.6	[99.1, 245.9]
Green-winged Teal	96	0.57	144.1	[78.6, 224.5]
Canvasback	12	0.07	18.0	[0.0, 42.5]
Redhead	92	0.54	138.1	[74.7, 215.2]
Wood Duck	214	1.27	321.2	[219.3, 438.2]
Lesser Scaup	24	0.14	36.0	[12.4, 65.3]
Bufflehead	128	0.76	192.1	[106.5, 289.2]
Pintail	7	0.04	10.5	[1.6, 23.1]
Canada Goose	805	4.76	1,208.2	[862.1, 1,603.0]
Snow Goose	13	0.08	19.5	[5.2, 38.8]

## 2018 BIG GAME HARVEST

### 2018 ELK

In 2018, the Sault Ste. Marie Tribe of Chippewa Indians issued one 'either sex' elk tag and three antlerless elk tags. After re-issuing one of the antlerless elk tags for the late season hunt, all four tags were filled by members selected during the 2018 elk lottery.

Table 8. Elk licenses issued in 2018

License Issued	Quantity
2018 ANY ELK	1
2018 ANTLERLESS ONLY ELK	3
2018 LATE SEASON ANTLERLESS ONLY ELK	1

### 2018 BEAR

In 2018, the Sault Ste. Marie Tribe of Chippewa Indians a total of 309 bear permits across 7 bear management units. In total, 56 bear were harvested during the 2018 season.

Table 9. 2018 Bear permits and harvest by management unit

BMU	Permits Issued	Total Harvest
Baraga	12	2
Drummond	1	1
Gwinn	58	18
Newberry	149	21
Baldwin	8	3
Gladwin	3	-
Red Oak	78	11

## 2018 WHITE-TAILED DEER

The Sault Ste. Marie Tribe of Chippewa Indians issued deer licenses to 4,154 Tribal members in 2018. At the time that this report was developed, STNRD had received 2,787 harvest reports (approximately 67.1%). Approximately 70.9% (1,976) of those reporting actually hunted deer. The total estimated harvest for 2018 is 2,873 deer (95% confidence interval from 2,723.8 to 3,027.7 deer). In 2018, an estimated 57.2% of harvested deer were bucks (95% confidence interval from 54.9% to 59.5 %).

This estimate is based on a mean harvest per hunter of 0.98 deer. Actual harvest per hunter varies from 0 to 5 deer. Approximately 29.1% of our reporting hunters did not hunt deer in 2018. Many hunters (approximately 40.3% or 1,187.9 hunters) that pursued deer in 2018 were unsuccessful in their efforts (Figure 1). Based on our estimate, approximately 34.5% (1,015 hunters) of hunters harvested 1 deer, 17.1% (503.8 hunters) harvested 2 deer, and 5.1% (149 hunters) harvested 3 deer (Figure 1). While Tribal hunters can receive five harvest tags, very few members who hunted deer actually harvested four (1.5% or 43.2 hunters) or five deer (1.6% or 46.2 hunters) See Figure 1.

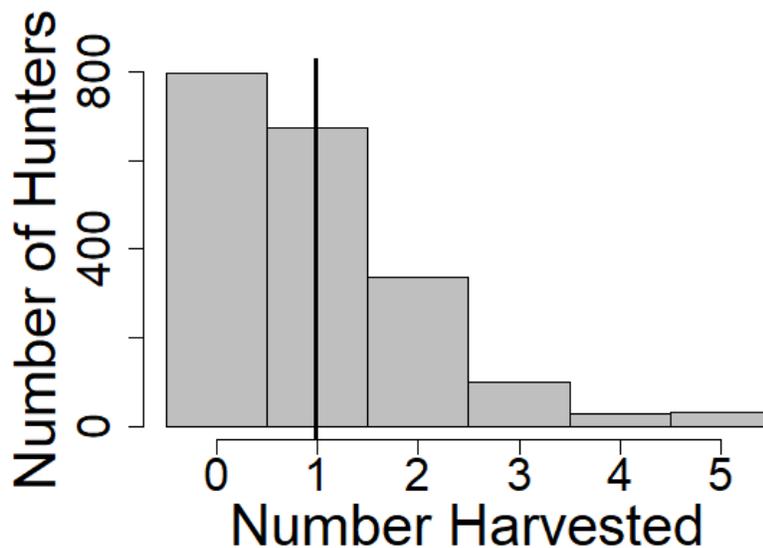


Figure 1. Reported number of hunters harvesting a given number of deer in 2018. Mean harvest per hunter (0.98) is plotted as a vertical line for reference.

The geographic distribution of white-tailed deer harvest by Sault Tribe members is detailed in Table 10. Most deer were harvested in the eastern Upper Peninsula, with 19.84% of harvest in Mackinac County, 16.82% in Chippewa County, and 11.56% in Schoolcraft County.

Table 10. 2018 White-tailed deer harvest by county

County	Reported Harvest	Percent of Harvest	Estimated Harvest	Estimated buck harvest	Estimated doe harvest	Harvest per mile <sup>2</sup>
Alger	95	4.95	142.19	92.80	49.39	0.15
Alpena	3	0.16	4.49	1.50	2.99	0.01
Antrim	18	0.94	26.94	17.96	8.98	0.06
Benzie	18	0.94	26.94	17.96	8.98	0.08
Charlevoix	15	0.78	22.45	11.97	10.48	0.05
Cheboygan	185	9.64	276.89	142.19	134.70	0.39
Chippewa	323	16.82	483.43	292.76	190.67	0.31
Clare	6	0.31	8.98	7.48	1.50	0.02
Crawford	1	0.05	1.50	-	-	0.00
Delta	195	10.16	291.86	173.62	118.24	0.25
Emmet	66	3.44	98.78	54.71	44.07	0.21
Grand Traverse	11	0.57	16.46	5.99	10.48	0.04
Ionia	0	0.00	0.00	-	-	0.00
Isabella	1	0.05	1.50	0.00	1.50	0.00
Kalkaska	21	1.09	31.43	17.96	13.47	0.06
Kent	11	0.57	16.46	7.48	8.98	0.02
Lake	14	0.73	20.95	10.48	10.48	0.04
Leelanau	6	0.31	8.98	4.49	4.49	0.03
Luce	80	4.17	119.74	65.85	53.88	0.13
Mackinac	381	19.84	570.24	338.25	231.99	0.56
Manistee	18	0.94	26.94	11.97	14.97	0.05
Marquette	35	1.82	52.38	29.93	22.45	0.03
Mason	25	1.30	37.42	13.47	23.95	0.08
Mecosta	7	0.36	10.48	5.24	5.24	0.02
Missaukee	18	0.94	26.94	17.96	8.98	0.05
Montcalm	16	0.83	23.95	11.97	11.97	0.03
Montmorency	5	0.26	7.48	5.99	1.50	0.01
Muskegon	14	0.73	20.95	10.48	10.48	0.04
Newaygo	33	1.72	49.39	20.95	28.44	0.06
Oceana	16	0.83	23.95	10.48	13.47	0.04
Osceola	7	0.36	10.48	7.48	2.99	0.02
Oscoda	2	0.10	2.99	1.50	1.50	0.01
Otsego	13	0.68	19.46	5.99	13.47	0.04
Ottawa	4	0.21	5.99	2.99	2.99	0.01
Presque Isle	22	1.15	32.93	19.46	13.47	0.05
Roscommon	4	0.21	5.99	5.99	0.00	0.01
Schoolcraft	222	11.56	332.27	196.07	136.20	0.28
Wexford	9	0.47	13.47	4.49	8.98	0.02

Approximately 58.7% of the 2018 deer harvest took place in the month of November. Leading up to November, 3.3% of harvest took place in September and 14.5% occurred in October. Harvest in December accounted for 22% of harvest, while January harvest amounted to 1.5% of total harvest. Most of the deer harvest took place in the first two weeks after the quiet period (55.1%, Figure 2).

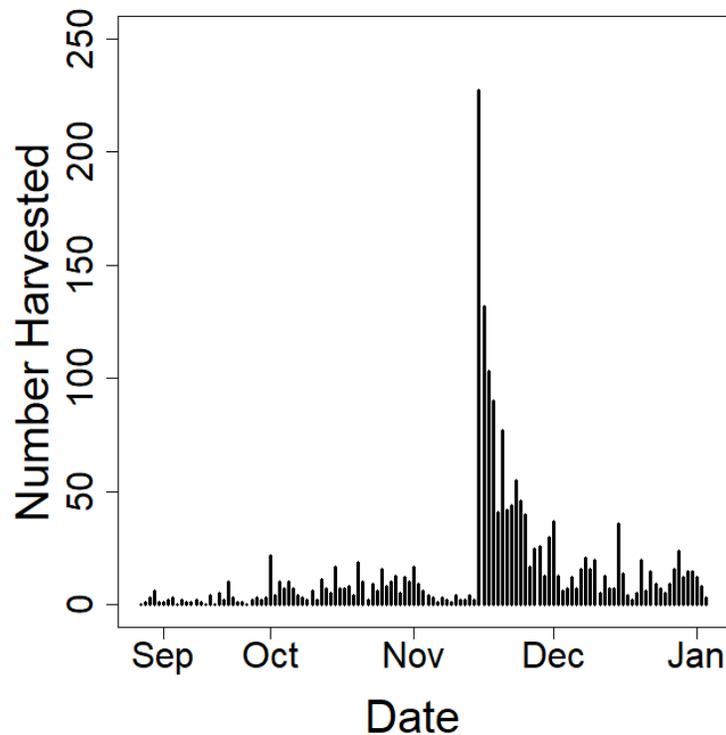


Figure 2. Number of deer harvested by date throughout the 2018 season

## 2018 GATHERING ACTIVITIES

In 2018, 177 license holders reported gathering activities in the 1836 Treaty Ceded Territory. On federal, state, or private land members gathered acorns, apples, asparagus, balsam, balsam fir, bearberry, berries (miinan), birch bark (wiigwaas), blackberries, black morels, blueberries (miinan), cattails, cedar, chaga, conifer boughs, cranberries, dandelions, deadfall, eastern hemlock, fiddlehead ferns, firewood, goldthread, greens, hardwood, horsetail, Jack Pine roots, Joe Pye weed, Labrador tea (swamp tea), wild leeks/ramps, Lion's mane mushroom, maple wood, maple sap, mashkodewashk (sage), mint, miskwamin, morel mushrooms, mullein, mushrooms, oak firewood, oatmeal plant, oyster mushrooms, peppermint, pheasant back mushroom, pine cones, pine needles, poplar, raspberries (miskomin), red cedar, red willow, sage, shaggy mane mushrooms, Spruce root, St. Johns Wort, strawberries, stumper mushrooms, sweet fern, sweetgrass (wiingashk), spores (mushrooms), white cedar, white willow, wiikeh, wild garlic, wild sarsaparilla, wintergreen, wood, yarrow, and Zesegaandago-bigiw (black spruce

APPENDIX

License Type	Quantity
Deer	20,768
Turkey	9,405
Otter	8,130
Fisher	6,061
Hunter Harvest Card (incl. inland fishing, small game, waterfowl, migratory birds, furbearer, and gathering)	4,183
Bobcat	4,056
Marten	4,052
Bear	309
Non-hunter Harvest Card (incl. gathering and inland fishing)	331
Elk	5
Conifer Bough	24
Maple Sapling Permit	0
Black Lake Sturgeon	2
Birch Bark	1
<b>Total</b>	<b>57,327</b>

Appendix Table 1. Licenses issued by the Sault Ste. Marie Tribe of Chippewa Indians for the 2018 harvest season.