

Sault Ste. Marie Tribe of Chippewa Indians

2021 Harvest and Effort Summary
Natural Resources Department - Wildlife Program



SAULT TRIBE NATURAL RESOURCES DEPARTMENT

In 2021, the Sault Ste. Marie Tribe of Chippewa Indians issued 59,013 individual permits for hunting, fishing, gathering, and trapping within the 1836 Ceded Territory to 4,412 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 1,407 harvest reports. Throughout this report, uncertainty in estimated harvest is quantified by bootstrap resampling of the observed (i.e., reported) data 5,000 times.

2021 INLAND WATERS FISH HARVEST

In 2021, the Sault Ste. Marie Tribe of Chippewa Indians issued 4,078 inland fishing licenses. STNRD has received and processed harvest reports from 34.5% (1,407) of those license holders. Of those harvest reports received, approximately 34.8% of license holders reported fishing effort in 2021. When developing harvest estimates, STNRD assumed the entire 34.5% 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 one of which was filled.

Table 1. 2021 Inland Fish Harvest

| | Reported Harvest | Mean Harvest | Estimated Harvest | 95% Confidence Interval |
|----------------------|------------------|--------------|-------------------|-------------------------|
| Brook Trout | 1988 | 4.07 | 6,233.87 | [3951.43, 9109.80] |
| Brown Trout | 190 | 0.39 | 595.79 | [308.52, 941.94] |
| Rainbow Trout | 512 | 1.05 | 1,605.50 | [1061.50, 2221.62] |
| Chinook | 147 | 0.30 | 460.96 | [241.47, 732.58] |
| Coho | 135 | 0.28 | 423.33 | [193.58, 714.56] |
| Pink | 18 | 0.04 | 56.44 | [0, 156.32] |
| Pike | 1867 | 3.82 | 5,854.44 | [4648.91, 7188.07] |
| Muskellunge | 105 | 0.21 | 329.25 | [64.28, 719.68] |
| Walleye | 4434 | 9.07 | 13,903.91 | [11043.95, 17134.26] |
| Perch | 16471 | 33.68 | 51,648.94 | [39537.74, 65874.69] |
| Bluegill | 9727 | 19.89 | 30,501.44 | [22906.09, 39308.79] |
| Smelt | 150 | 0.31 | 470.36 | [126.64, 988.98] |
| Sucker | 468 | 0.96 | 1,467.53 | [719.05, 2418.71] |
| Small Mouth | 735 | 1.50 | 2,304.78 | [1455.60, 3316.42] |
| Large Mouth | 938 | 1.92 | 2,941.33 | [1432.35, 5285.42] |

*Smelt is reported in gallons

2021 TURTLE HARVEST

In 2021, approximately 0.12% of license holders reported pursuing turtles. With 14 turtles reported, each license holder pursuing turtles harvested an average of 2.8 turtles. It is estimated that approximately 40.57 turtles were harvested during the 2021 license year (95% bootstrap confidence interval from 16.67 to 72).

2021 FROG HARVEST

In 2021, approximately 0.6% of license holders reported pursuing frogs. With 144 frogs reported, each license holder pursuing frogs harvested an average of 18 frogs. It is estimated that approximately 417 frogs were harvested during the 2021 license year (95% bootstrap confidence interval from 182.2 to 755.3 frogs).

2021 SMALL GAME HARVEST

In 2021, the Sault Ste. Marie Tribe of Chippewa Indians issued 4,078 small game licenses, Hunter participation rates varied widely between target species. Approximately 25% of license holders reported hunting ruffed grouse, 1.6% reported hunting sharp-tailed grouse, 0.7% reported hunting pheasant 0.2%, reported hunting quail 6.8%, reported hunting squirrel, 3.6% reported hunting cottontail rabbit, and 5.3% reported hunting snowshoe hare.

Table 2. 2021 Small game harvest

| | Reported Harvest | Mean Harvest | Estimated Harvest | 95% Confidence Interval |
|----------------------------|------------------|--------------|-------------------|-------------------------|
| Ruffed Grouse | 2016 | 5.76 | 5,843.10 | [4958.91, 6814.84] |
| Sharp-tailed Grouse | 25 | 1.09 | 72.46 | [37.08, 115.50] |
| Pheasant | 39 | 3.55 | 113.04 | [35.97, 214.62] |
| Quail | 1 | 0.33 | 2.90 | [0, 10.78] |
| Squirrel | 826 | 8.69 | 2,394.05 | [1889.95, 2945.49] |
| Cotontail Rabbit | 180 | 3.53 | 521.71 | [331.96, 755.04] |
| Snowshoe Hare | 330 | 4.40 | 956.46 | [661.71, 1311.69] |

2021 TURKEY HARVEST

In 2021, the Sault Ste. Marie Tribe of Chippewa Indians issued a total of 9,704 turkey licenses across the spring and fall seasons. 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.

Table 3. 2021 Spring and fall turkey harvest

| | Reported Harvest | Mean Harvest | Estimated Harvest | 95% Confidence Interval |
|---------------|------------------|--------------|-------------------|-------------------------|
| Spring | 82 | 0.06 | 237.67 | [179.79, 299.17] |
| Fall | 35 | 0.03 | 101.44 | [66.52, 141.96] |

2021 FURBEARER HARVEST

In 2021, Tribal license holders had relatively low participation (6.3%) in furbearer harvest compared to other areas such as small game or deer harvest. When developing these estimates, STNRD assumed that the 6.3% of members who reported trapping expended equal effort for all listed species.

Table 4. 2021 Sault Tribe non-registered furbearer harvest

| | Reported Harvest | Mean Harvest | Estimated Harvest | 95% Confidence Interval |
|-----------------|-------------------------|---------------------|--------------------------|--------------------------------|
| Beaver | 166 | 1.87 | 481.13 | [197.62, 919.04] |
| Muskrat | 245 | 2.75 | 710.10 | [234.14, 1417.34] |
| Mink | 42 | 0.47 | 121.73 | [5.17, 305.43] |
| Red Fox | 18 | 0.20 | 52.17 | [17.13, 96.54] |
| Grey Fox | 1 | 0.01 | 2.90 | [0, 9.97] |
| Coyote | 128 | 1.44 | 370.99 | [194.36, 589.97] |
| Skunk | 22 | 0.25 | 63.76 | [12.814, 151.30] |
| Raccoon | 93 | 1.04 | 269.55 | [149.22, 417.72] |

Table 5. 2021 Furbearer harvest sealed by the Sault Tribe Natural Resources Department and Law Enforcement

| Species | Number Sealed* |
|----------------|-----------------------|
| Bobcat | 18 |
| Fisher | 14 |
| Marten | 14 |
| Otter | 15 |

*These totals do not include harvest registered by the Michigan Department of Natural Resources. If that information is made available, the Wildlife Program will share it in future summaries.

2021 MIGRATORY BIRD HARVEST

In 2021, the Sault Ste. Marie Tribe of Chippewa Indians issued 4,078 migratory bird licenses with 4.1% percent of those license holders reporting. Hunter participation was low with rates varying between target species. While license holders did not report hunting Virginia rail, sora rail, or common gallinule, 13.4% reported hunting American woodcock, 0.21% reported hunting Wilson’s snipe, 0.35% reported hunting mourning dove, and 0.07% reported hunting American coot.

Table 6. 2021 Off-reservation migratory bird harvest

| | Reported Harvest | Mean Harvest | Estimated Harvest | 95% Confidence Interval |
|----------------------------|------------------|--------------|-------------------|-------------------------|
| Virginia Rail | - | - | - | - |
| Sora | - | - | - | - |
| Woodcock | 189.00 | 4.11 | 547.79 | [362.26, 763.69] |
| Snipe | 3.00 | 1.50 | 8.70 | [2,18.3] |
| Mourning Dove | 5.00 | 0.83 | 14.49 | [0,38.4] |
| Common Gallinule (Moorhen) | - | - | - | - |
| Coot | 1.00 | 0.50 | 2.90 | [0,9] |

2021 WATERFOWL HARVEST

Approximately 6.3% of hunters reported pursuing waterfowl during the 2021 season. When developing harvest estimates for waterfowl, STNRD assumed the entire 6.3% who reported effort had equal effort across species. Table 6 summarizes the reported and estimated harvest for major waterfowl species.

Table 7. 2021 Off-reservation waterfowl harvest

| | Reported Harvest | Mean Harvest | Estimated Harvest | 95% Confidence Interval |
|--------------|------------------|--------------|-------------------|-------------------------|
| Mallard | 451 | 5.07 | 1,307.16 | [907.19, 1756.86] |
| Black Duck | 23 | 0.26 | 66.66 | [19.11, 139.19] |
| Gadwall | 2 | 0.02 | 5.80 | [0, 19.53] |
| Blue Teal | 60 | 0.67 | 173.90 | [77.48, 290.92] |
| Green Teal | 71 | 0.80 | 205.78 | [108.56, 333.50] |
| Canvasback | 12 | 0.13 | 34.78 | [2.78, 77.27] |
| Redhead | 29 | 0.33 | 84.05 | [25.23, 165.65] |
| Wood Duck | 241 | 2.71 | 698.51 | [356.89, 1125.44] |
| Lesser Scaup | 12 | 0.13 | 34.78 | [0, 92.56] |
| Bufflehead | 69 | 0.78 | 199.99 | [80.91, 347.13] |
| Pintail | 7 | 0.08 | 20.29 | [0, 48.41] |
| Canada Goose | 521 | 5.85 | 1,510.05 | [886.80, 2289.96] |
| Snow Goose | 37 | 0.42 | 107.24 | [0, 352.29] |

2021 BIG GAME HARVEST

2021 ELK

In 2021, the Sault Ste. Marie Tribe of Chippewa Indians issued two 'either sex' elk tags and four antlerless elk tags. After re-issuing two of the 'either sex' elk tags for the late season hunt, all six tags were filled by members selected during the 2021 elk lottery.

Table 1. Elk licenses issued in 2021

| License Issued | Quantity |
|--------------------------|----------|
| 2021 ANY ELK | 2 |
| 2021 ANTLERLESS ONLY ELK | 4 |
| 2021 LATE SEASON ANY ELK | 2 |

2021 BEAR

In 2021, the Sault Ste. Marie Tribe of Chippewa Indians issued a total of 472 bear permits across the seven bear management units in the 1836 Ceded Territory. In total, 62 bears were harvested during the 2021 season.

Table 2. 2021 Bear permits and harvest by management unit

| BMU | Permits Issued | Bears Harvested |
|----------|----------------|-----------------|
| Baldwin | 52 | 10 |
| Baraga | 16 | 0 |
| Drummond | 1 | 0 |
| Gladwin | 5 | 0 |
| Gwinn | 65 | 9 |
| Newberry | 169 | 28 |
| Red Oak | 164 | 15 |

2021 WHITE-TAILED DEER

The Sault Ste. Marie Tribe of Chippewa Indians issued a total of 19,984 deer licenses to 4,078 Tribal harvesters in 2021. At the time that this report was developed, STNRD had received and processed 1,407 harvest reports. Approximately 65.2% (918) of those reporting actually hunted deer. The total estimated harvest for 2021 is 2,507 deer (95% confidence interval from 2,318.1 to 2,706.9 deer). In 2021, an estimated 49.1% of harvested deer were bucks.

This estimate is based on a mean harvest per hunter of 0.94 deer. Actual harvest per hunter varies from 0 to 5 deer. Approximately 34.7% of reporting license holders did not hunt deer in 2021. Many hunters (approximately 42.7% or 1,125 hunters) that pursued deer in 2021 were unsuccessful in their efforts (Figure 1). Based on our estimate, approximately 33.9% (904 hunters) of hunters harvested 1 deer, 15.4% (411 hunters) harvested 2 deer, and 5.1% (136 hunters) harvested 3 deer (Figure 1). While Tribal hunters can fill five harvest tags, very few members who hunted deer actually harvested four (1.8% or 49 hunters) or five deer (1.3% or 34 hunters). See Figure 1.

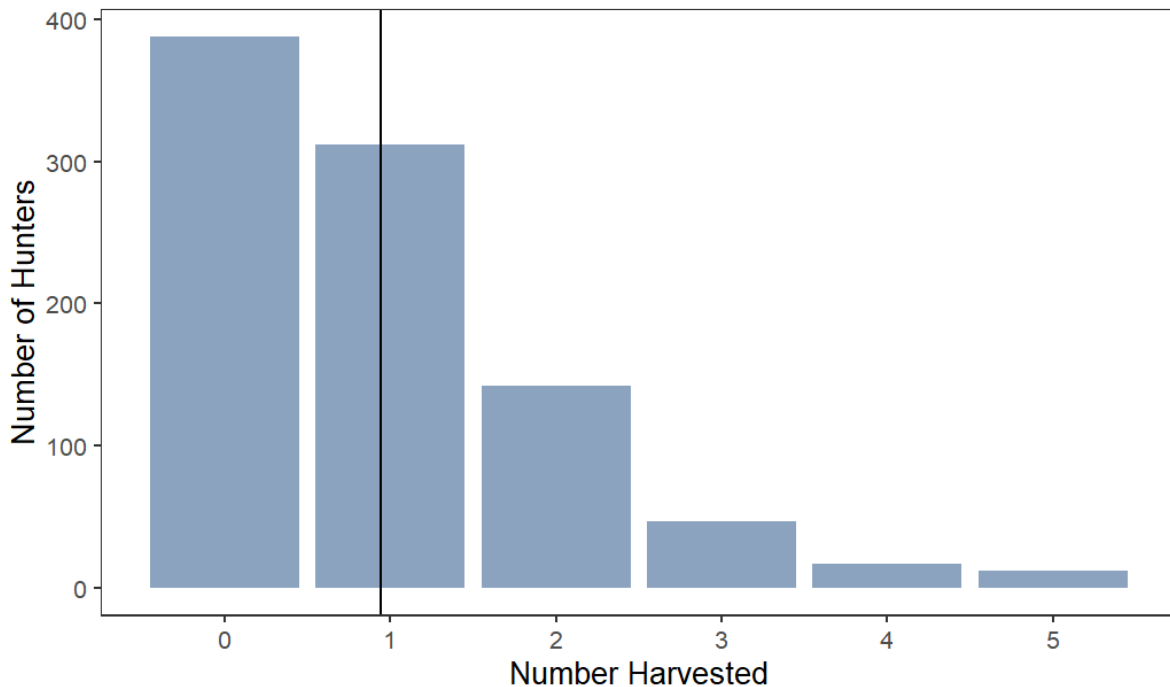


Figure 1. Reported number of hunters harvesting a given number of deer in 2021. Mean harvest per hunter (0.94) is plotted as a vertical line for reference.

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 25.4% of harvest in Mackinac County, 19.7% in Chippewa County, and 17.9% in Schoolcraft County.

Table 10. 2021 White-tailed deer harvest by county

| County | Reported Harvest | Percent of Harvest | Estimated Harvest | Estimated Buck Harvest | Estimated Doe Harvest | Harvest per mile |
|----------------|------------------|--------------------|-------------------|------------------------|-----------------------|------------------|
| Alger | 35 | 4.1 | 102.87 | 60.17 | 42.7 | 0.11 |
| Alpena | 1 | 0.12 | 2.94 | 2.94 | 0 | 0.01 |
| Antrim | 11 | 1.29 | 32.33 | 20.12 | 12.21 | 0.07 |
| Benzie | 6 | 0.7 | 17.63 | 3.78 | 13.86 | 0.06 |
| Charlevoix | 9 | 1.06 | 26.45 | 15.87 | 10.58 | 0.06 |
| Cheboygan | 80 | 9.38 | 235.13 | 112.64 | 122.49 | 0.33 |
| Chippewa | 107 | 12.54 | 314.49 | 162.95 | 151.54 | 0.2 |
| Clare | 0 | 0 | 0 | 0 | 0 | 0 |
| Crawford | 1 | 0.12 | 2.94 | 2.94 | 0 | 0.01 |
| Delta | 105 | 12.31 | 308.61 | 157.48 | 151.13 | 0.34 |
| Emmet | 29 | 3.4 | 85.24 | 46 | 39.24 | 0.18 |
| Grand Traverse | 4 | 0.47 | 11.76 | 7.84 | 3.92 | 0.03 |
| Ionia | 0 | 0 | 0 | 0 | 0 | 0 |
| Isabella | 2 | 0.23 | 5.88 | 2.94 | 2.94 | 0.03 |
| Kalkaska | 10 | 1.17 | 29.39 | 15.83 | 13.57 | 0.05 |
| Kent | 4 | 0.47 | 11.76 | 7.84 | 3.92 | 0.02 |
| Lake | 12 | 1.41 | 35.27 | 15.81 | 19.46 | 0.06 |
| Leelanau | 1 | 0.12 | 2.94 | 0 | 2.94 | 0.01 |
| Luce | 42 | 4.92 | 123.44 | 50.57 | 72.88 | 0.14 |
| Mackinac | 138 | 16.18 | 405.6 | 165.93 | 239.67 | 0.4 |
| Manistee | 19 | 2.23 | 55.84 | 35.27 | 20.57 | 0.1 |
| Marquette | 19 | 2.23 | 55.84 | 34.23 | 21.62 | 0.13 |
| Mason | 3 | 0.35 | 8.82 | 0 | 8.82 | 0.02 |
| Mecosta | 7 | 0.82 | 20.57 | 18.52 | 2.06 | 0.04 |
| Missaukee | 12 | 1.41 | 35.27 | 18.2 | 17.07 | 0.06 |
| Montcalm | 7 | 0.82 | 20.57 | 2.94 | 17.63 | 0.05 |
| Montmorency | 3 | 0.35 | 8.82 | 5.88 | 2.94 | 0.02 |
| Muskegon | 9 | 1.06 | 26.45 | 7.66 | 18.8 | 0.05 |
| Newaygo | 13 | 1.52 | 38.21 | 24.13 | 14.08 | 0.05 |
| Oceana | 12 | 1.41 | 35.27 | 20.48 | 14.79 | 0.07 |
| Osceola | 7 | 0.82 | 20.57 | 6.33 | 14.24 | 0.04 |
| Oscoda | 0 | 0 | 0 | 0 | 0 | 0 |
| Otsego | 10 | 1.17 | 29.39 | 14.06 | 15.33 | 0.06 |
| Ottawa | 0 | 0 | 0 | 0 | NA | 0 |
| Presque Isle | 32 | 3.75 | 94.05 | 44.34 | 49.71 | 0.14 |
| Roscommon | 1 | 0.12 | 2.94 | 0 | 2.94 | 0.01 |
| Schoolcraft | 97 | 11.37 | 285.1 | 143.32 | 141.78 | 0.24 |
| Wexford | 5 | 0.59 | 14.7 | 4.32 | 10.37 | 0.03 |

Approximately 47.9% of the 2021 deer harvest took place in the month of November. Leading up to November, 4% of harvest took place in September and 16.8% occurred in October. Harvest in December accounted for 25.2% of harvest, while January harvest amounted to 1.04% of total harvest. A large proportion of deer harvest took place in the first two weeks after the quiet period (43.8%, Figure 2).

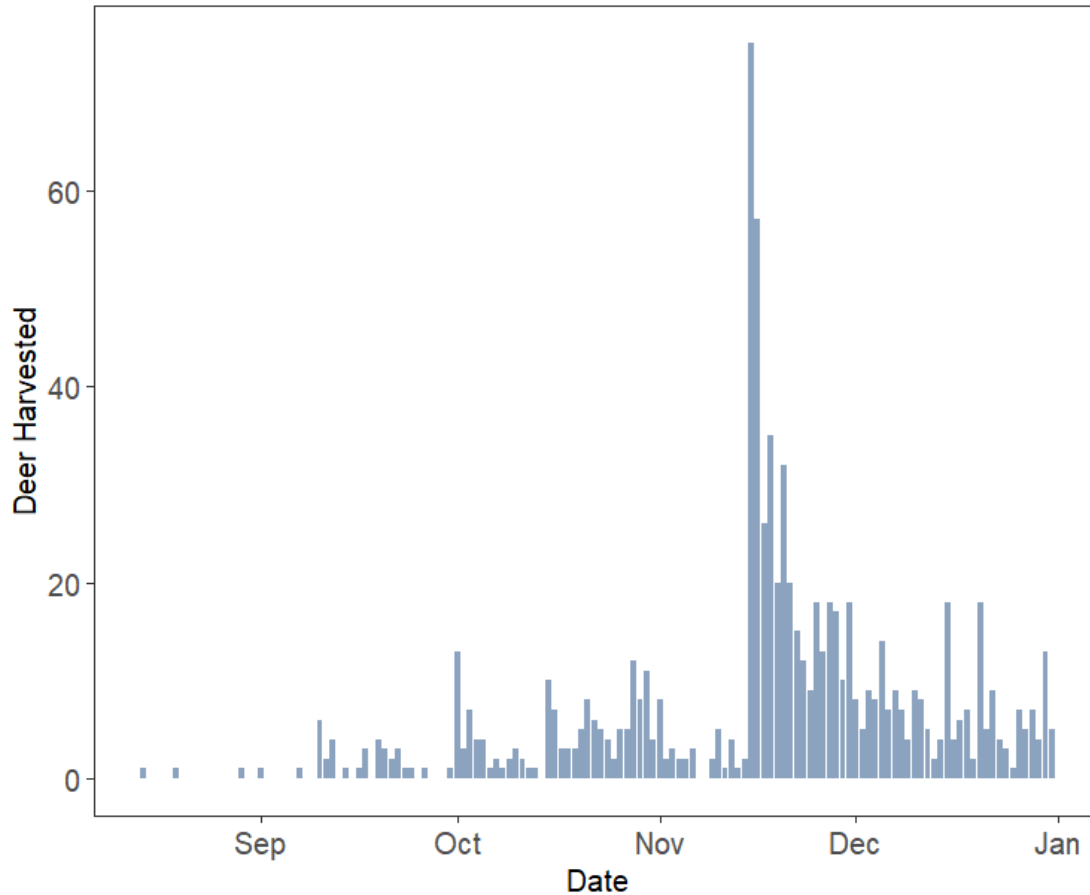


Figure 2. Number of deer harvested by date throughout the 2021 season

2021 GATHERING ACTIVITIES

In 2021, 73 license holders reported gathering activities in the 1836 Treaty Ceded Territory. On federal, state, and private land, members gathered blueberries, morel mushrooms, chaga, leeks, puffball mushrooms, milkweed, cedar, raspberries, lion's mane mushrooms, coral mushrooms, oyster mushrooms, balsam branches, sage, sweet grass, blackberries, honey mushrooms, bear berry, fiddle head ferns, choke cherry, golden oyster, wild strawberries, sweet fern, greens, Slippery Jack, chantal mushrooms, shaggy mane, acorns, peppery milkcap mushroom, choke cherry, Japanese knotweed Labrador tea (Mashkiigobag), hen of the woods and cattail pollen.

APPENDIX 1

| License Type | Quantity Issued |
|--|------------------------|
| Hunter Harvest License | 3,973 |
| Disabled Hunter Harvest License | 47 |
| Youth Mentor License | 17 |
| Non-hunter Harvest License | 331 |
| Deer | 19,984 |
| Turkey | 9,704 |
| Otter | 8,042 |
| Fisher | 6,033 |
| Bobcat | 4,028 |
| Marten | 6,033 |
| Bear | 471 |
| Elk | 8 |
| Conifer Bough | 15 |
| Sapling Permit | 1 |
| Black Lake Sturgeon | 2 |
| Birch Bark | 0 |
| Total | 58,689 |

Appendix Table 1. Licenses issued by the Sault Ste. Marie Tribe of Chippewa Indians for the 2021 harvest season.

APPENDIX II: AT-A-GLANCE DEER HARVEST BY PENNISULA

In the following table, LP refers to counties within the 1836 Ceded Territory in the Lower Peninsula. Similarly, UP statistics refer to counties within the 1836 Ceded Territory in the Upper Peninsula of Michigan.

| | |
|--|---------|
| Total Reported Harvest | 853 |
| Total Estimated Harvest | 2507.08 |
| | |
| LP Reported Harvest | 310 |
| LP Estimated Harvest | 911.13 |
| | |
| UP Reported Harvest | 543 |
| UP Estimated Harvest | 1595.95 |
| | |
| Total Buck Estimate | 1231.33 |
| Total Doe Estimate | 1275.8 |
| | |
| % Buck Estimate Total | 49.10% |
| % Doe Estimate Total | 50.90% |
| | |
| UP Buck Estimate | 774.65 |
| UP Doe Estimate | 821.32 |
| | |
| LP Buck Estimate | 456.68 |
| LP Doe Estimate | 454.48 |
| | |
| UP Proportion Bucks | 48.50% |
| LP Proportion Bucks | 50.10% |
| | |
| UP Proportion of Total Estimate | 63.7% |
| LP Proportion of Total Estimate | 36.3% |

