



Michigan Deer Harvest Survey Report 2022 Seasons

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ABSTRACT

A survey of deer hunters was conducted following the 2022 hunting seasons to estimate hunter participation, harvest, and hunting effort in Michigan. In 2022, an estimated 516,336 hunters spent 6.5 million days afield. Statewide, the number of people hunting deer decreased significantly by about 4% between 2021 and 2022. Hunters harvested about 339,189 deer, which was significantly lower by 14% from 2021 (total excluded deer harvested with DMA permits). The number of antlered deer taken in 2022 declined significantly by 9%, and the number of antlerless deer taken decreased significantly by 21%. Statewide, nearly 50% of hunters harvested a deer in 2022. About 21% of hunters took an antlerless deer and 37% took an antlered buck. Approximately 16% of deer hunters harvested two or more deer of any type. About 6% of hunters statewide harvested two antlered bucks. Statewide levels of satisfaction with the number of deer seen increased significantly from 44% in 2021 to 47% in 2022. Statewide, 54% of hunters were satisfied with their overall hunting experience in 2022, which was the same as reported in 2021. Nearly 75% of archers used a crossbow during the archery season (203,007 hunters). These archers harvested approximately 73,606 deer with the crossbow. Beginning in 2022, all successful deer hunters were required to report deer that they harvested via the internet within 72 hours. Hunters submitted harvest reports for 297,132 deer in 2022. The estimated harvest for all seasons combined was 14% greater than the number of harvest reports submitted (339,189 versus 297,132). Deer hunters were asked how easy or hard was it to use the website or phone application for reporting their harvested deer. About 66% of successful hunters reported that the harvest reporting systems were easy to use, while 17% of successful hunters reported that the systems were hard to use.



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INTRODUCTION

The Natural Resources Commission (NRC) and the Michigan Department of Natural Resources (DNR) have the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Harvest surveys are one of the management tools used to accomplish this statutory responsibility. Estimating hunter participation, harvest, and hunting effort (hereafter referred to as estimates) are the primary objectives of these surveys. Estimates derived from harvest surveys and information from deer (*Odocoileus virginianus*) harvest check stations, trends in deer-vehicle collisions, population modeling, and input received from the public are used to monitor deer populations and establish harvest regulations.

Deer were grouped into either antlered or antlerless deer when developing hunting regulations. Antlered deer included deer with at least one antler three inches or longer, and antlerless deer included deer without antlers and deer with antlers less than 3 inches in length. The type of deer that could be harvested by hunters depended upon the area hunted, hunting season, and license purchased (Tables 1 and 2). In 2022, deer could be harvested primarily during eight hunting seasons: Liberty, archery, regular firearm, muzzleloader, early antlerless, late antlerless, Independence, and urban archery.

To harvest a deer, hunters had to possess a hunting license (deer, combination, antlerless, or mentored youth license) (Table 2). A harvest tag was issued as part of the hunting license. Deer, mentored youth, and antlerless licenses included one harvest tag, while combination licenses had two harvest tags.

Hunters could purchase a maximum of two harvest tags for taking antlered deer. Hunters wanting to harvest only one antlered deer could purchase a single deer license (one harvest tag), while hunters wanting to take two antlered deer could purchase a combination license (two harvest tags). Hunters who purchased a single deer license could not purchase a second deer license or a combination license.

If a hunter took two antlered deer, one deer needed to have at least one antler with four or more points (qualifying points must be at least one inch), except in Barry, Calhoun, Clinton, Eaton, Gratiot, Hillsdale, Ingham, Ionia, Isabella, Jackson, Kent, Lenawee, Mecosta, Midland, Montcalm, Muskegon, Newaygo, Ottawa, and Shiawassee counties in the LP and portions of Delta, Dickinson, and Menominee counties in the UP. Also, youth hunters (16 years of age and younger) and apprentice hunters (a person who does not have a hunter safety certificate and was 10 years of age or older) were exempted from APRs during all deer seasons.

The mentored youth hunting (MYH) license allowed youth hunters 9 years of age and younger to hunt with an experienced mentor who is at least 21 years of age. A youth with a MYH license could take any deer in most seasons (except the Independence season) and deer management unit, except they were required to take an antlerless deer in the early and late antlerless seasons. Antler-point restrictions did not apply to hunters with a MYH license.

Universal antlerless deer licenses could be used to take an antlerless deer on public or private land in any deer management unit (DMU) open to antlerless deer hunting in the LP or parts of the UP. Universal antlerless licenses were available over the counter (maximum purchase limit=10). In some parts of the Upper Peninsula (DMUs 351 and 352), antlerless deer harvest was set by a quota. To hunt in these two DMUs, hunters needed an antlerless deer hunting access permit and a universal antlerless deer license. The access permits were distributed via a drawing. Hunters buying a combination license could also use the two harvest tags to take antlerless deer in the entire Lower Peninsula during the firearm and muzzleloader seasons.

The Pure Michigan Hunt (PMH) was a unique multi-species hunting opportunity offered for the first time in 2010. Individuals could purchase an unlimited number of applications for the PMH. Three individuals were randomly chosen from all applications, and winners received elk, bear, spring turkey, fall turkey, base hunting, and antlerless deer hunting licenses and could participate in a reserved waterfowl hunt on a managed waterfowl area. The antlerless deer hunting license was valid for all areas open for hunting antlerless deer and during all deer hunting seasons in which they were eligible to participate.

Deer Management Assistance (DMA) permits were special antlerless permits issued to landowners where the number of antlerless licenses was insufficient to meet the objective of specific landowners (e.g., controlling crop damage). These permits allowed hunters to take one antlerless deer per permit during any deer season on the land where issued or adjacent private lands with the landowner's permission. To use these permits, the hunter also must have purchased a valid deer hunting license for the season in which they were hunting and abide by all other hunting regulations.

Managed Deer Hunt permits were permits that could be used during special seasons on some public lands (i.e., Sharonville State Game Area, DMU 273 Shiawassee River State Game Area, DMU 273 Shiawassee National Wildlife Refuge, and Detroit River International Wildlife Refuge). These permits were issued by special random drawings. To use these permits, the hunter also must have purchased a valid deer hunting license and abide by all other hunting regulations.

The Liberty season was held during September 10-11 on public and private lands statewide. Youth (less than 17 years old) and hunters with certain disabilities could take no more than one deer during the season. Hunters with disabilities that were eligible to participate in this season included hunters issued a permit to use a laser-sighting device or permit to hunt from a standing vehicle, veterans with 100% disability, or rated unemployable as defined by the United States Department of Veterans Affairs, people who were legally blind, and people that deaf. Hunters could take one deer of either sex using a deer or combination license, and antler point restrictions did not apply to taking antlered deer. Only an antlerless deer could be taken with an antlerless license or DMA permit.

The archery season occurred statewide on public and private lands. This season was divided into early and late segments (October 1 through November 14 and December 1, 2022, through January 1, 2023). In addition, a January urban archery hunt also was held during

January 2-31, 2023, in Macomb, Oakland, and Wayne counties. Deer licenses, antlerless deer licenses, combination licenses, mentored youth licenses, and DMA permits could be used to take deer during the archery seasons using archery equipment.

Deer could also be taken in the Independence Hunt during October 13-16, 2022. Hunters could take one deer of either sex on private lands or public lands requiring an access permit. Hunters could use a deer or combination license, and antler point restrictions did not apply to taking antlered deer. Only an antlerless deer could be taken with an antlerless license or DMA permit. Only hunters that were issued a permit to use a laser-sighting device or to hunt from a standing vehicle; veterans with 100% disability or rated unemployable as defined by the United States Department of Veterans Affairs; people who were legally blind; or people that were deaf were eligible to participate in the Independence Hunt.

The statewide regular firearm season occurred November 15-30, and the statewide muzzleloader season was held December 2-11. Hunters could take deer on both public and private lands with mentored youth, deer, and deer combination hunting licenses during the regular firearm and muzzleloader seasons. Antlerless licenses (including DMA permits) also could be used during the firearm seasons. Hunters with a combination license could also use the two harvest tags to take antlerless deer in the Lower Peninsula during firearm and muzzleloader season.

The early antlerless firearm season occurred on private lands from September 17-18. All license types (i.e., deer, combination, antlerless, mentored youth licenses, and DMA permits) could be used to take an antlerless deer. The area open to hunting during the early antlerless season included the entire LP, except for the island DMUs 115, 145, 149, and 245. All the Upper Peninsula was closed to the early antlerless firearm season.

The late antlerless firearm season occurred on private lands from December 12, 2022, through January 1, 2023. All license types could be used to take an antlerless deer. All areas open during the early antlerless firearm season were also open for the late antlerless firearm season.

Crossbows were legal to use during all archery and firearm seasons statewide, except in the UP where crossbow use was prohibited after November 30 except in the core CWD surveillance area in the UP (portions of Delta, Dickinson, and Menominee counties) or unless the hunter was disabled.

The DNR has relied on mail surveys to estimate the deer harvest since the 1950s. However, the proportion of hunters returning surveys has declined significantly from an average of more than 70% in the early 2000s to 33% in 2021, resulting in potentially inaccurate estimates. To overcome this, the DNR adopted mandatory harvest reporting for deer beginning in 2022. All successful deer hunters with a state-issued deer license, including those with Deer Management Assistance Permits, were required to report their deer harvest within 72 hours of recovery and prior to transferring possession of the animal. The reporting system was accessible through the internet or mobile application. Successful hunters reported the unique kill tag license number, their date of birth, the exact harvest location, the

type of deer harvested, the number of antler points (if a buck), and the date of kill. The new reporting system allowed the DNR to obtain near real-time estimates of deer harvest, which the mail survey method could not provide.

METHODS

Estimating hunter participation, harvest, and hunting effort (hereafter referred to as estimates) were the primary objectives of the harvest survey. This survey also provided an opportunity to collect information about management issues. Hunters were also asked to report whether they used trail cameras to hunt deer and report whether they had photographed selected carnivores (bear, bobcat, coyote, fisher, fox, marten, and wolf), deer, and wild pig with their trail camera. Hunters were also asked whether they had used a crossbow during the archery season, and whether they had used a commercial processor to butcher their deer. Questions were added to investigate hunter satisfaction with the 2022 hunting season and deer numbers.

Hunters were also asked how easy or hard it was to use the website or phone application for reporting their harvested deer. Responses may vary by sex, age, and residence. Thus, estimates were calculated separately for ten different age classes (1-9, 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+ years old) and for each gender. In addition, estimates were calculated separately for rural and urban areas. The U.S. Census Bureau (2010) classified counties as completely rural, mostly rural, and mostly urban. Completely rural counties included counties where 100% of the population in the county lived in areas that have less than 1,000 people per square mile (Antrim, Arenac, Baraga, Benzie, Keweenaw, Lake, Missaukee, Montmorency, Ogemaw, Ontonagon, Osceola, and Oscoda). Mostly rural counties included counties where 50.1% to 99.9% of the population lived in areas with less than 1,000 people per square mile (Alcona, Alger, Allegan, Alpena, Barry, Branch, Cass, Charlevoix, Cheboygan, Clare, Clinton, Crawford, Emmet, Gladwin, Gogebic, Gratiot, Hillsdale, Huron, Ionia, Iosco, Iron, Kalkaska, Lapeer, Leelanau, Lenawee, Luce, Mackinac, Manistee, Mason, Mecosta, Menominee, Montcalm, Newaygo, Oceana, Otsego, Presque Isle, Roscommon, St. Joseph, Sanilac, Schoolcraft, Shiawassee, Tuscola, Van Buren, and Wexford). Mostly urban counties included counties with greater than 50,000 people and greater than 50% of the residents living in areas with more than 1,000 people per square mile (Bay, Berrien, Calhoun, Chippewa, Delta, Dickinson, Eaton, Genesee, Grand Traverse, Houghton, Ingham, Isabella, Jackson, Kalamazoo, Kent, Livingston, Macomb, Marquette, Midland, Monroe, Muskegon, Oakland, Ottawa, Saginaw, St. Clair, Washtenaw, and Wayne).

In early December after the regular firearm season had ended, a random sample of 62,988 license buyers was selected to receive a mail version of the harvest questionnaire. In addition to the mail version of the survey, an online version of the survey was also available for hunters to complete. Hunters were instructed not to report hunting effort and harvest associated with DMA permits because landowners obtaining these permits already were required to report the number of deer harvested to the DNR.

License buyers were assigned to one of three groups (strata) based on their age and type of license they purchased. The first stratum consisted of youth license buyers (less than

17 years old) that were eligible to hunt during the Liberty season (N = 28,477). The second stratum consisted of 9,829 people that were eligible to participate in the special disabled hunts. The third stratum consisted of the remaining license buyers (N = 548,017). The random sample consisted of 10,197 people from the first stratum; 9,741 from the second stratum; and 43,050 from the third stratum. The stratified sampling design accounted for the varying probabilities of being selected from the population so estimates could be reliably extrapolated from the sample to all license buyers.

Estimates were based on information collected from random samples of hunting license buyers. Thus, these estimates were subject to sampling errors (Cochran 1977). Estimates were calculated using a stratified random sampling design (Cochran 1977) and were presented along with their 95% confidence limit (CL). This CL can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies the true value would be within this interval 95 times out of 100. Unfortunately, there are several other possible sources of error in surveys that are probably more serious than theoretical calculations of sampling error. They include the failure of participants to provide answers (nonresponse bias), question-wording, and question order. It is very difficult to measure these biases.

Estimates were calculated separately by the area where the hunt occurred. For consistency with previous surveys, the state was divided into eight areas that closely matched the DNR's previous wildlife management administrative units (Figure 1). The state was also divided into three ecological regions (UP, Northern LP, and Southern LP). These regions generally matched major ecoregions (Albert 1995), except in the UP where two ecoregions were combined. Ecoregions are regions having similar soils, vegetation, climate, geology, and physiography. Estimates were also calculated for each DMU (Figure 2, Appendix B). Deer harvested from unknown locations were allocated among areas in proportion to the known harvest.

Statistical tests are used routinely to determine the likelihood that the differences among estimates are larger than expected by chance alone. The overlap of 95% confidence intervals was used to determine whether estimates differed significantly. Non-overlapping 95% confidence intervals were equivalent to stating that the difference between the means was larger than would be expected 95 out of 100 times if the study had been repeated (Payton et al. 2003).

Questionnaires were initially mailed in mid-January 2023, and one follow-up questionnaire was mailed to nonrespondents in late February. Although 62,988 people were selected to receive a questionnaire, 1,524 surveys were undeliverable resulting in an adjusted sample size of 60,669. Questionnaires were returned by 19,776 people (33% adjusted response rate).

Estimates of harvest, hunting effort, and hunter participation are affected by the willingness of people to complete and return their questionnaires. This problem can confound comparisons of estimates made between years if response rates vary greatly. To reduce bias caused by this lower response rate, an adjustment was made on the 2022 estimates to make them

comparable to the adjusted 2021 estimates (adjusted to a 74% response rate). Estimates of harvest, hunting effort, and hunter numbers were reduced by 11.4%, 8.4%, and 3.6%, respectively, to make estimates comparable to 2021. These reductions reflected the average decline noted between estimates calculated when 33% and 74% of the responses were used in 2000 and 2001 surveys.

RESULTS AND DISCUSSION

In 2022, 586,323 people purchased a license to hunt deer in Michigan. The number of people buying a license in 2022 decreased by 1.2% from 2021 (593,171 people purchased a license in 2021). Most of the people buying a license in 2022 were males (90%), and the average age of license buyers was 45 years (Figure 3). About 10% (59,218) of the license buyers were younger than 18 years old, and about 3% (19,327) of the license buyers were younger than 12 years old.

In 2022, 881,373 hunting licenses and permits were issued (Table 3), which was a decrease of 1.2% from 2021 (891,763 licenses and permits issued in 2021). The number of deer (-5.0%), antlerless (-1.4%), and mentored youth (-1.7%) hunting licenses declined in 2022, while combination licenses increased slightly (0.3%).

Beginning in 2020, hunters buying a combination license could use the two harvest tags to take antlerless deer in the entire Lower Peninsula during the firearm and muzzleloader seasons. Consequently, hunters purchased fewer antlerless and deer hunting licenses, while they increased purchases of combination licenses (Figure 4). It appears that many hunters perceived that the combination license had gained in value because it could be used to take either sex of deer. In addition, allowing hunters to take antlerless deer with the two harvest tags sold with the combination license greatly increased the overall number of harvest tags that could be used to take antlerless deer (Table 3).

The number of people buying a license in 2022 was about 16% less than the number of people who purchased a license ten years ago in 2012 (701,001 people purchased a license in 2012). There were fewer license buyers for all age classes less than 58 years of age in 2022, compared to 2012 (Figure 5). However, there were increased hunter numbers among the oldest age classes in 2022. The increased hunter numbers in the oldest age classes likely represented the rising share of older people in the population as the baby-boom generation aged. Also, the legalization of crossbow use during the archery season probably increased participation among hunters in the oldest age classes.

The number of youth deer hunters (less than 20 years old) was relatively stable between 1995 and 2005 (Figure 6). In 2006, the minimum age for hunting deer was lowered from 14 to 12, and the number of youth hunters increased by 19%. In 2012, the minimum age limit was removed, and the number of youth hunters increased by 20%. Since 2013, the number of youth hunters has declined 37%. In 2020, youth participation increased by 7.6%. This increase coincided with the start of the Coronavirus disease (COVID-19) pandemic; however, the trend has reverted to pre-pandemic conditions in 2022.

The number of 2022 deer harvest tags sold for all license types combined decreased by nearly 1% from 2021 (Table 3). License buyers purchased an average of 2.2 harvest tags. About 92% of the license buyers obtained three or fewer harvest tags, and about 99% had five or fewer harvest tags (Figure 7). Hunters most frequently obtained antlerless and combination harvest tags (Figure 8). About 34% of the license buyers purchased at least one antlerless license (197,081 people), and greater than 98% of license buyers purchased three or fewer antlerless licenses (Figure 9).

In the Upper Peninsula, antlerless deer harvest was restricted to DMUs 351 and 352. To hunt in these two DMUs, hunters needed an antlerless deer hunting access permit and a universal antlerless deer license. The access permits were distributed via a drawing and any left-over licenses were sold on a first-come, first-serve basis. In 2022, 1,000 permits were available for each of the two UP DMUs. For the DMUs combined, 1,287 hunters obtained access permits. For DMU 351, 676 hunters obtained permits, and 611 hunters obtained permits for DMU 352.

About $88.1 \pm 0.4\%$ (516,336) of the people buying a license in 2022 spent time hunting deer (Table 4). Statewide, the number of people hunting deer during all seasons combined decreased significantly by nearly 4% from 2021. Most hunters (445,151) pursued deer during the regular firearm season (Figure 10).

Significantly fewer people hunted during all seasons except the urban archery and Independence seasons (Table 4 and Figure 11). Participation decreased in the early antlerless (-27%), late antlerless (-20%), muzzleloader (-11%), archery (-9%), Liberty (-8%), and regular firearm (-4%) seasons.

About 50% of the days that hunters spent pursuing deer throughout the state occurred in the archery season (Figure 12). About 39% of the hunting effort occurred during the regular firearm season. Nearly 11% of the hunting effort occurred in the muzzleloader and late antlerless seasons combined. Statewide, hunters devoted an average of 14.0 days afield hunting deer during all seasons combined (Table 5). Archers had the greatest number of days available to hunt deer (77 days) and devoted the greatest number of days afield (\bar{x} = 12.8 days/hunter) (Figure 13, Table 5). Statewide, the total number of days hunting deer during all seasons combined decreased significantly by about 15% from 2021 (Table 4). Significantly fewer days were spent hunting during all seasons except the urban archery and Independence seasons. Hunting effort decreased significantly in the early antlerless (-30%), late antlerless (-28%), muzzleloader (-18%), archery (-15%), regular firearm (-12%), and Liberty (-11%) seasons (Table 4).

About 345,766 deer were harvested statewide in all seasons combined during 2022 (total included deer harvested with DMA permits), which was significantly fewer deer than taken in 2021 by nearly 14% (Figures 14-15, Tables 6-7). The number of deer harvested in 2022 declined significantly from 2021 during the late antlerless (-32%), muzzleloader (-19%), archery (-18%), and regular firearm (-8%) seasons. Statewide harvests of antlerless deer for all the seasons combined in 2022 decreased significantly by 21% from 2021, while harvest of antlered deer decreased significantly by 9% (Table 6). The counties with the greatest harvest densities for antlered and antlerless deer were generally in the central and south-central parts

of the state (Figure 16). The decrease in harvest of deer generally paralleled declines in hunter numbers and hunting effort.

About 54% of the deer harvested (sexes combined) in 2022 were taken during the regular firearm season (Figure 17). Nearly 46% of the antlerless deer and 58% of the antlered bucks were harvested in the regular firearm season. Hunters took 31% of the harvested deer (sexes combined) during the archery season. These archers took 25% of the antlerless deer and 35% of the antlered bucks harvested. Few antlered bucks (4%) were taken in the muzzleloader season. The early and late antlerless and muzzleloader seasons combined accounted for about 20% of the antlerless deer harvested.

About 88% of the deer harvested (sexes combined) in 2022 were taken on private lands (Table 8). Statewide, most of the antlerless deer (87%) and antlered bucks (89%) were harvested on private lands.

Statewide, 50% of deer hunters harvested at least one deer (all deer seasons and sexes combined) in 2022 (Figure 18, Table 9), compared to 53% success in 2021. About 21% of hunters took an antlerless deer, and 37% took an antlered buck in 2022. About 16% of deer hunters harvested two or more deer (sexes combined).

Hunters were most successful in taking a deer during the regular firearm (37%), Liberty (34%), and archery (33%) seasons (Figure 19, Table 10). Hunter success was lowest in the muzzleloader (17%) and urban archery (9%) seasons. Nearly 27% of hunters took an antlered buck and 13% harvested an antlerless deer during the regular firearm season (Table 10).

Deer hunters were asked to report how satisfied they were with (1) number of deer seen, (2) number of antlered deer [bucks] seen, (3) size of antlers seen, (4) number of deer taken, and (5) their overall hunting experience. Less than 50% of hunters indicated that they were satisfied with most of these items (Tables 11-15, Figure 20). Statewide levels of satisfaction increased significantly between 2021 and 2022 for the number of deer seen but were unchanged for the other items. Although satisfaction levels were generally similar to last year's levels, the levels are still near the highest reported. People hunting deer only on private lands were generally more satisfied than people hunting exclusively on public lands (Tables 16-20).

Most archers (73%) used a crossbow during the archery season (203,007 hunters), and about 33% of these archers took at least one deer with a crossbow (Tables 21-22). They harvested about 73,606 deer with the crossbow (Table 23). The number of archers using a crossbow in 2022 declined significantly by 9% from 2021 (223,547 archers in 2021). Harvest of deer by archers using a crossbow in 2022 also declined significantly (18% decline) from last year (89,344 deer taken in 2021). About 33% of these archers using a crossbow in 2022 harvested a deer with a crossbow in the archery season, versus 36% success in 2021.

An estimated $140,047 \pm 3,823$ hunters took $164,276 \pm 5,204$ deer to a commercial meat processor in 2022. Thus, about 48% of the deer harvested in all seasons (164,276 of 339,189

deer) were handled by a commercial processor. This proportion is slightly greater than reported in 2021 (Frawley 2022).

In 2022, $25 \pm 1\%$ of active hunters indicated that they found it difficult to locate a processor to butcher their deer. This level was similar to the level reported in 2021 ($27 \pm 1\%$), but still greater than $8 \pm 1\%$ of hunters in 2020 that indicated that they found it difficult to locate a processor because of COVID-19 (Frawley 2022). It appears that it was difficult to locate a commercial processor in 2022 because there were fewer processors accepting deer and processors found it more difficult to hire workers (Bestul 2022).

About 42% of the deer hunters statewide used a trail camera to monitor deer activity in their hunt area (Table 24). The proportions of hunters statewide that used a camera declined significantly from 46% in 2021 to 42% in 2022. Hunters in the UP more frequently used trail cameras than hunters in the LP. Although UP hunters more frequently used trail cameras, the mean number of days that they used cameras was less than LP hunters (Table 25). These differences probably reflected geographic differences in hunting success (Table 10) and the mean number of days of hunting effort (Table 5). Of note, hunters in the UP had lower hunting success than LP hunters, and it is possible that UP hunters were more likely to use trail cameras to improve their hunting success. Although a lower proportion of hunters in the LP used cameras, the hunters in the LP that used trail cameras had more opportunities to use cameras than hunters in the UP because they had more hunting seasons and longer seasons (Table 1).

Deer were the most observed species by the hunters using a trail camera -- 97% captured an image of a deer (Table 26). Hunters in the UP were more likely to see bears, fishers, martens, and wolves than hunters in the LP. In contrast, hunters in the LP were more likely to see coyotes and foxes than hunters in the UP. Furthermore, bobcats were more frequently seen by hunters in the NLP than either the UP or SLP. The proportions of hunters statewide that captured a photograph of the selected species (bear, bobcat, coyote, deer, fisher, fox, marten, wild pig, and wolf) in 2022 were not significantly different for any of the species in 2021 (Figure 21).

Starting in 2022, all successful deer hunters with a state-issued deer license were required to report their deer harvest within 72 hours of recovery. Hunters submitted harvest reports for 297,132 deer in 2022 (Table 27). The estimated harvest for all seasons combined was 14% greater than the number of harvest reports submitted (339,189 versus 297,132). The difference between the estimate and the number of deer harvest reports received in Michigan was smaller than reported in other states (Table 28). In many states, it was common that the harvest estimates were 50% or greater than the number of harvest reports submitted. The large differences reported in other states probably partly reflected an over estimation of harvest because of low survey response rates. When the response rate is low, the sample may not be representative of the target population. This can lead to biased estimates of harvest. The Michigan estimates may also suffer from low response rates; however, we have attempted to reduce the effects of low response rates by applying a correction factor to estimates (see Methods). Applying the correction factor reduced the differences between estimates and reported harvest in Michigan.

Successful hunters were asked how easy or hard it was to use the website or phone application for reporting their harvested deer. About 66% of hunters statewide reported that the harvest reporting systems were easy to use, while 17% of hunters reported that the systems were hard to use (Table 29, Figure 22). However, only $5 \pm 0.5\%$ of the hunters reported that the system was very hard to use. Ease of use was slightly lower among UP hunters, although 60% of UP hunters still reported the system was easy to use. Ease of use also varied significantly by the hunter's age (Table 30). Hunters younger than 60 years of age reported the systems were easier to use than older hunters. Ease of use was similar among the hunter groups defined by their sex (males versus females), residence type (rural versus urban), or license buying history (new versus repeat buyers).

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Figure 1. Areas used to summarize deer harvest in Michigan for the 2022 hunting seasons.

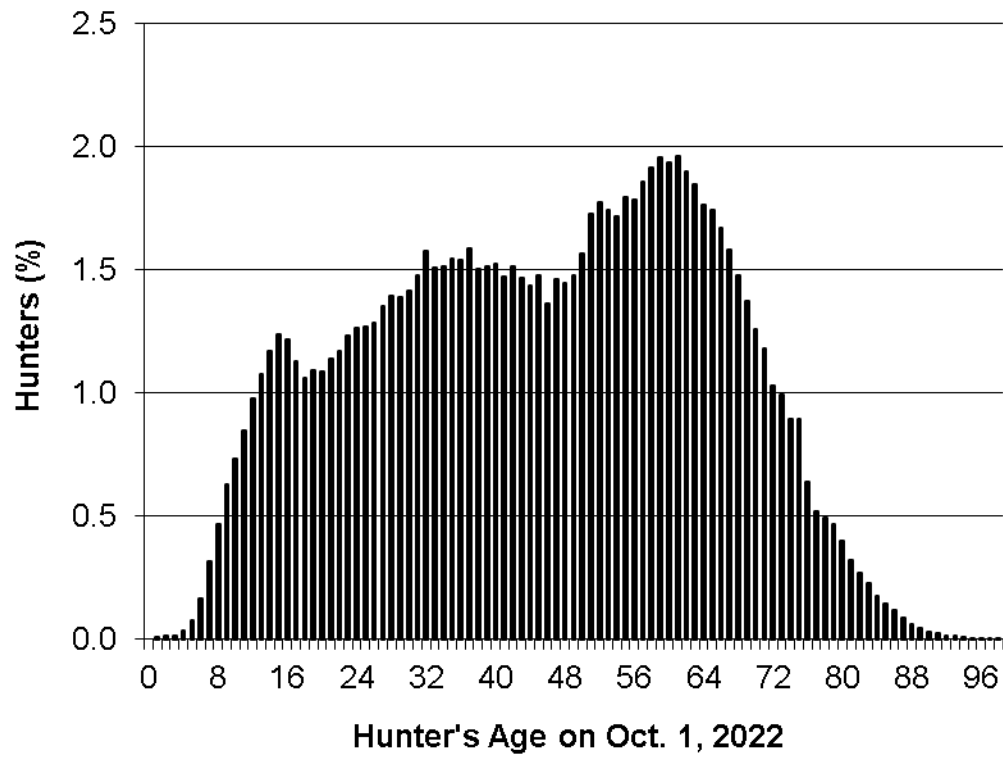


Figure 3. The age of people that purchased a deer hunting license in Michigan for the 2022 hunting seasons (mean = 45 years).

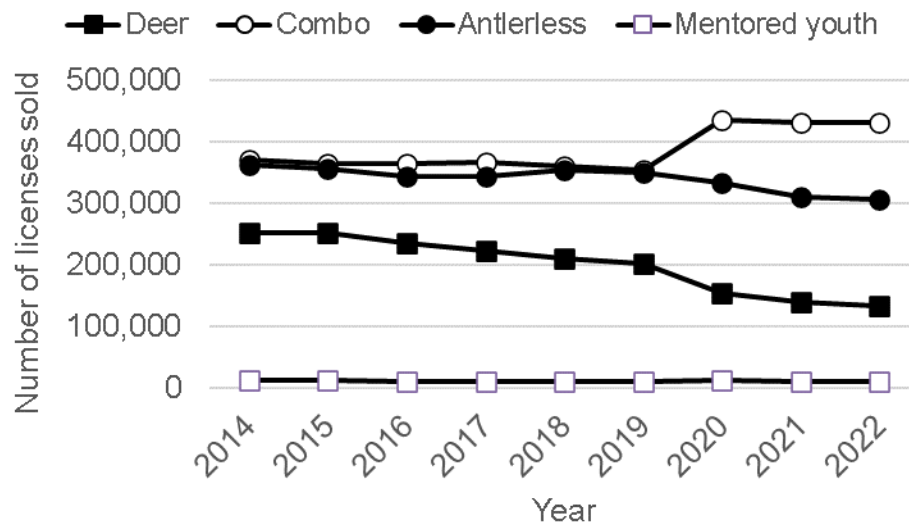


Figure 4. The number of deer hunting licenses sold in Michigan summarized by license types (deer, combination, antlerless, and mentored youth) during 2014-2022. Beginning in 2020, hunters buying a combination license could use the two harvest tags to take antlerless deer in the entire Lower Peninsula during the firearm and muzzleloader seasons.

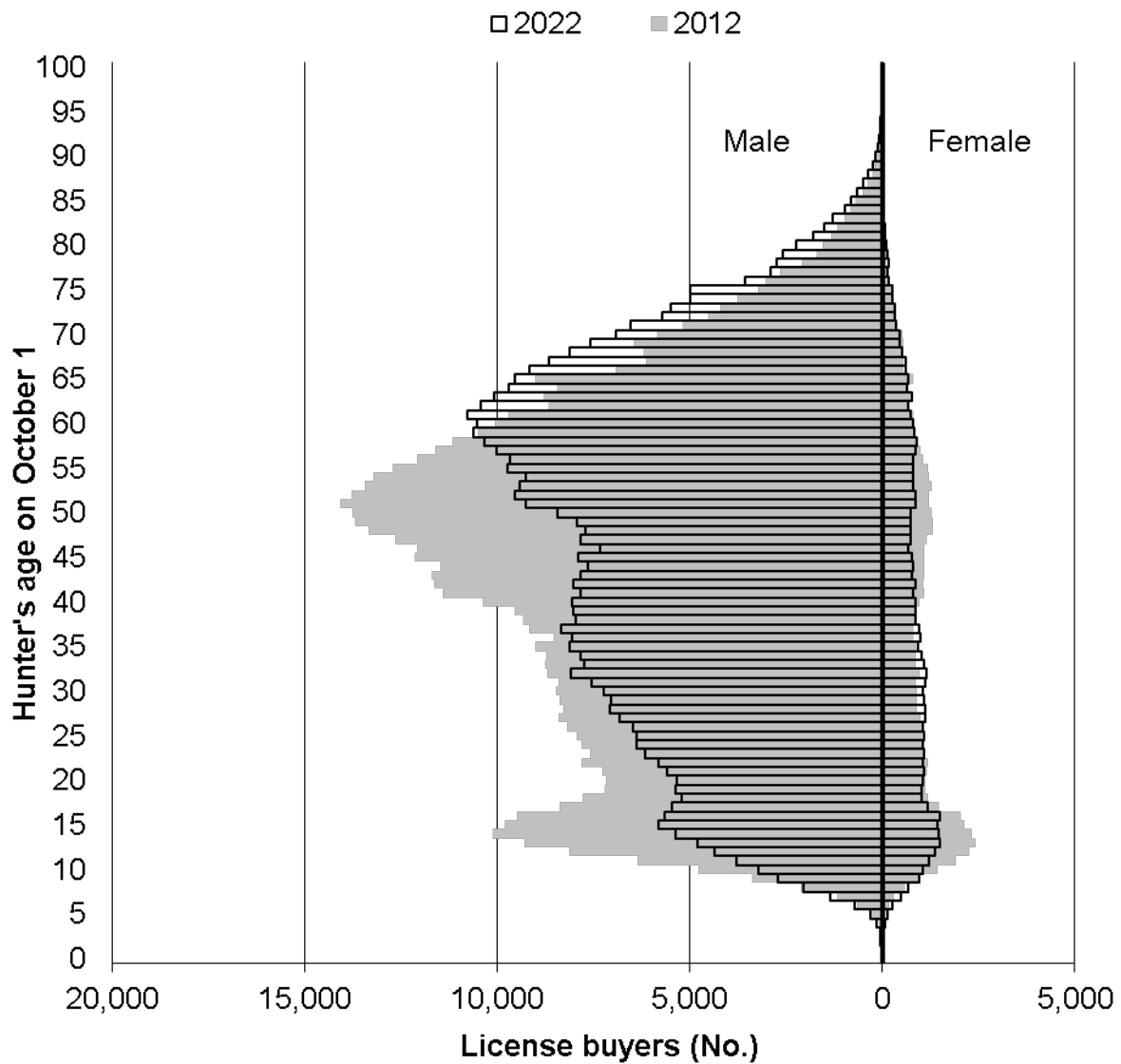


Figure 5. The number of deer hunting license buyers in Michigan by age and sex during the 2012 and 2022 hunting seasons. Deer hunting licenses were purchased by 701,001 people in 2012 and 586,323 people in 2022.

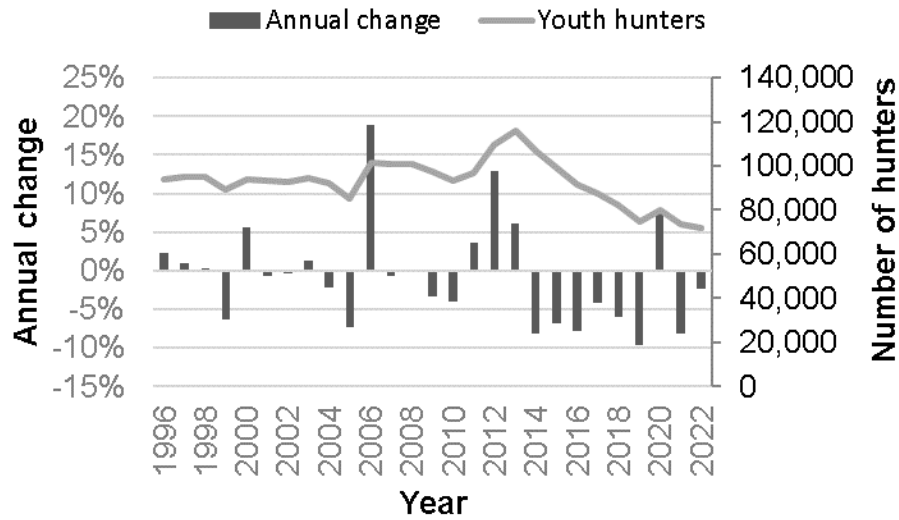


Figure 6. The number of Michigan youth deer hunters (less than 20 years old) and the annual change in participation during 1996-2022. The minimum age for hunting deer was lowered from 14 to 12 in 2006, and the minimum age limit was removed in 2012. In 2020, the increase in youth participation coincided with the start of the COVID-19 pandemic.

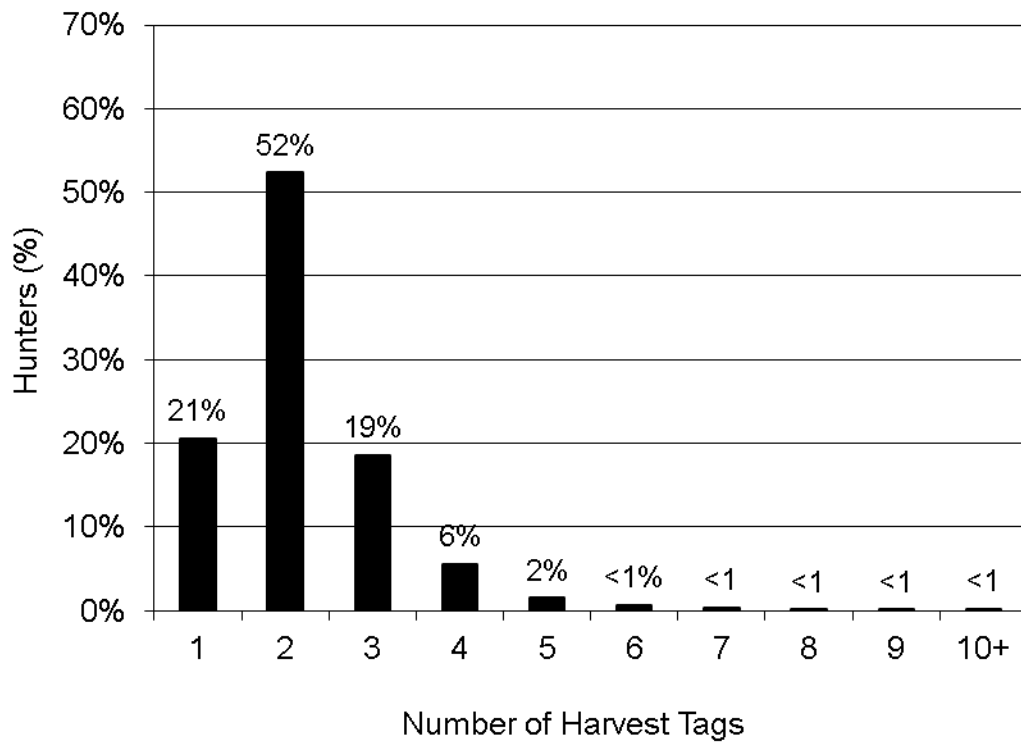


Figure 7. The number of harvest tags (all license and tag types) issued per person for hunting deer in Michigan during the 2022 hunting seasons (mean = 2.2 tags). Licenses were purchased by 586,323 people.

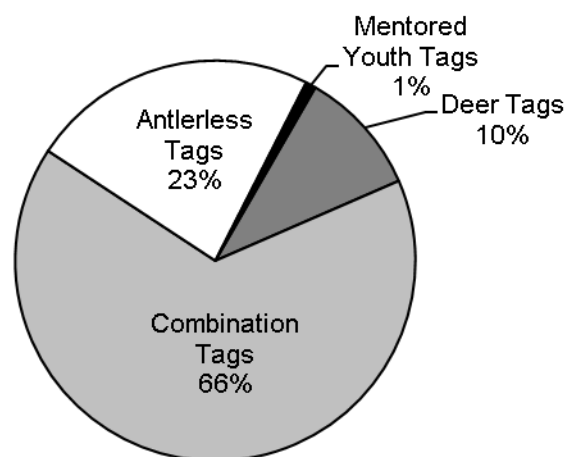


Figure 8. The types of harvest tags issued for deer hunting in Michigan during the 2022 hunting seasons.

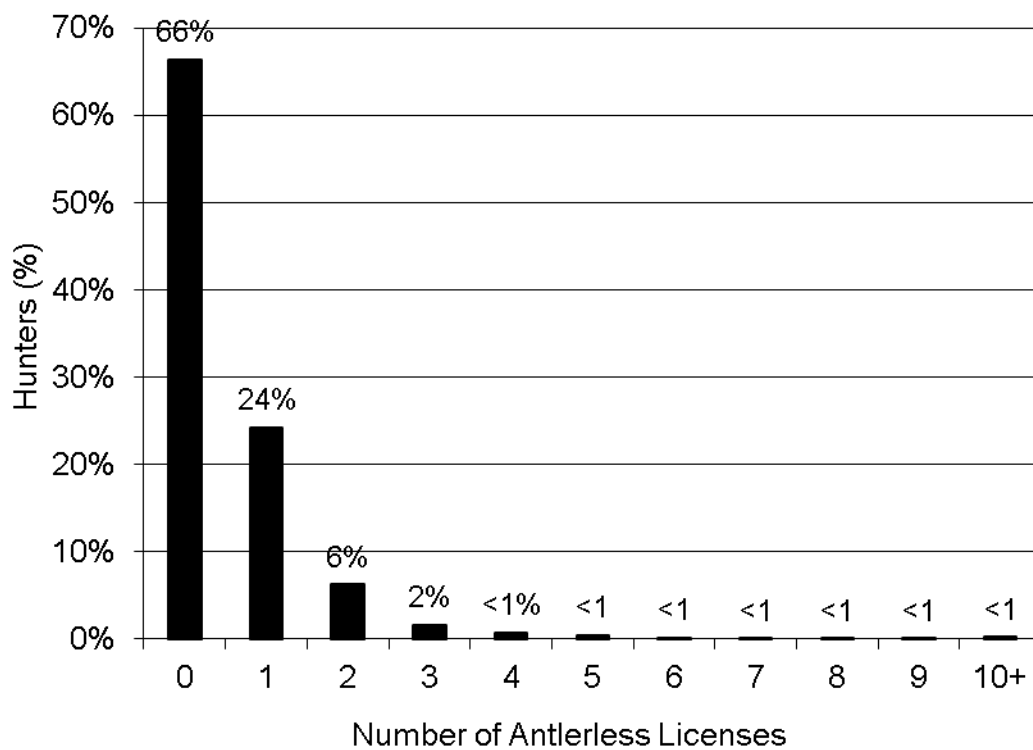


Figure 9. The percentage of deer hunting license buyers (all license types) purchasing an antlerless license in Michigan, 2022 (excluded mentored youth hunting license). Antlerless licenses were purchased by 197,081 of 586,323 people (34%) buying deer hunting license.

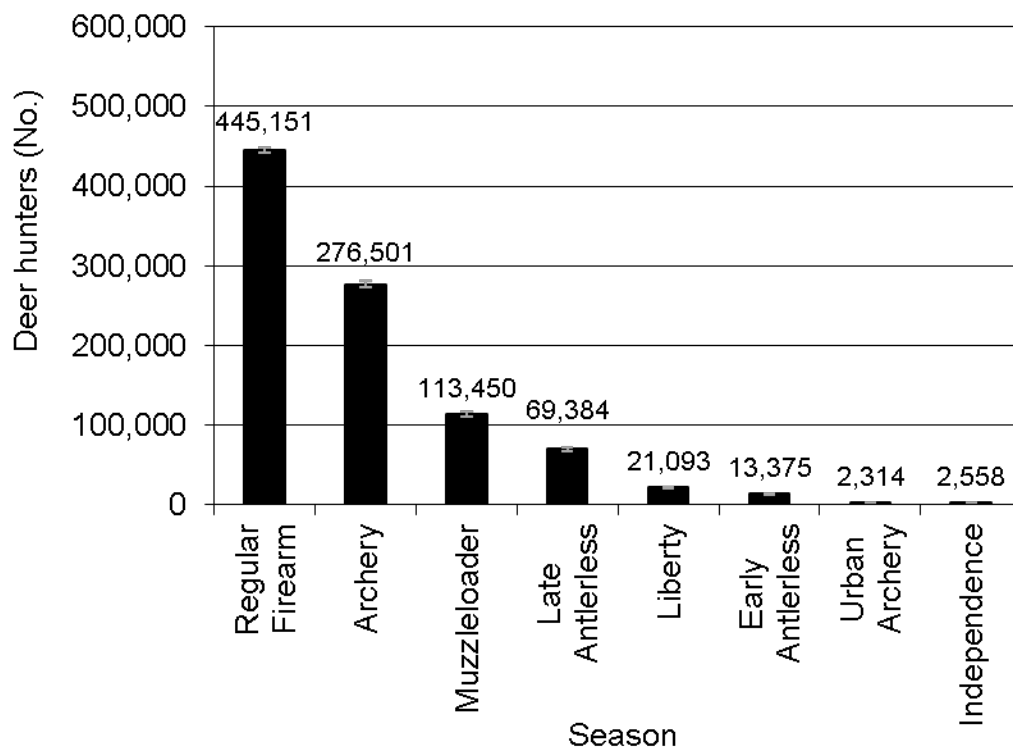


Figure 10. The number of people hunting deer in Michigan during the 2022 hunting seasons. Error bars represent the 95% CLs.

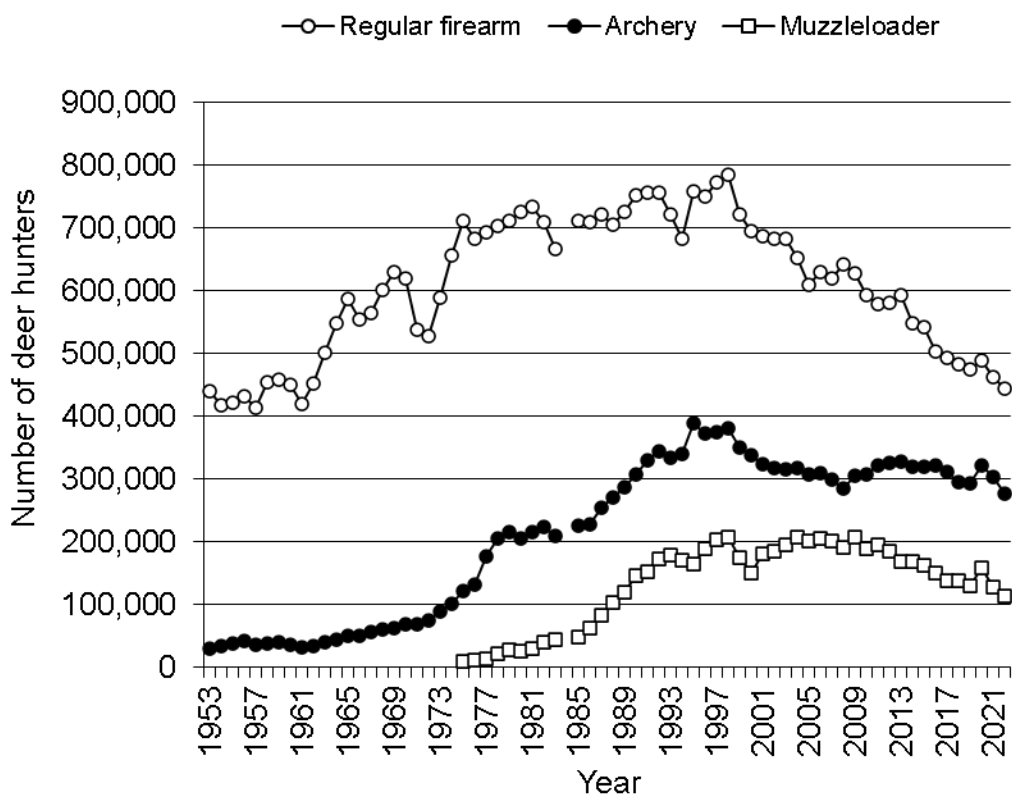


Figure 11. The number of people hunting deer in Michigan during the regular firearm, archery, and muzzleloader seasons, 1953-2022.

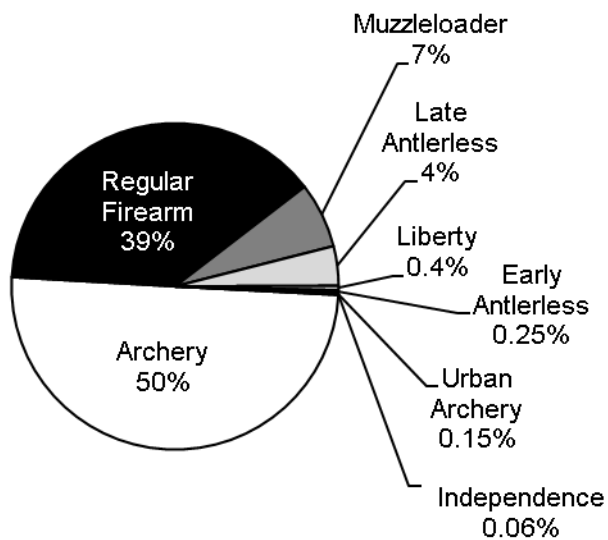


Figure 12. The distribution of hunting effort among deer hunting seasons in Michigan, 2022.

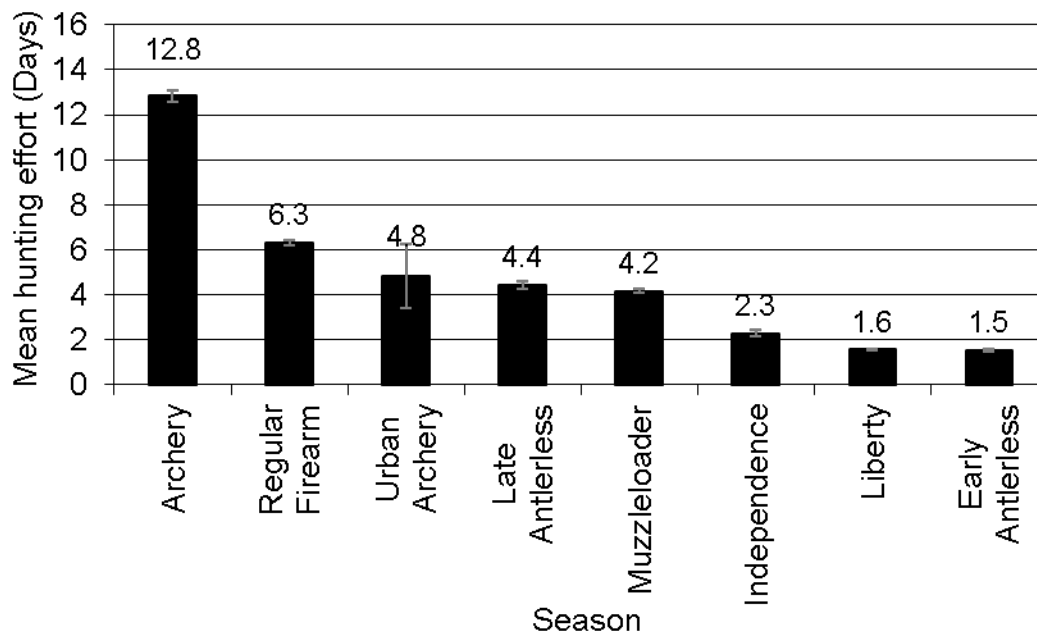


Figure 13. The mean number of days spent hunting deer in Michigan during the 2022 hunting seasons. Error bars represent the 95% CLs.

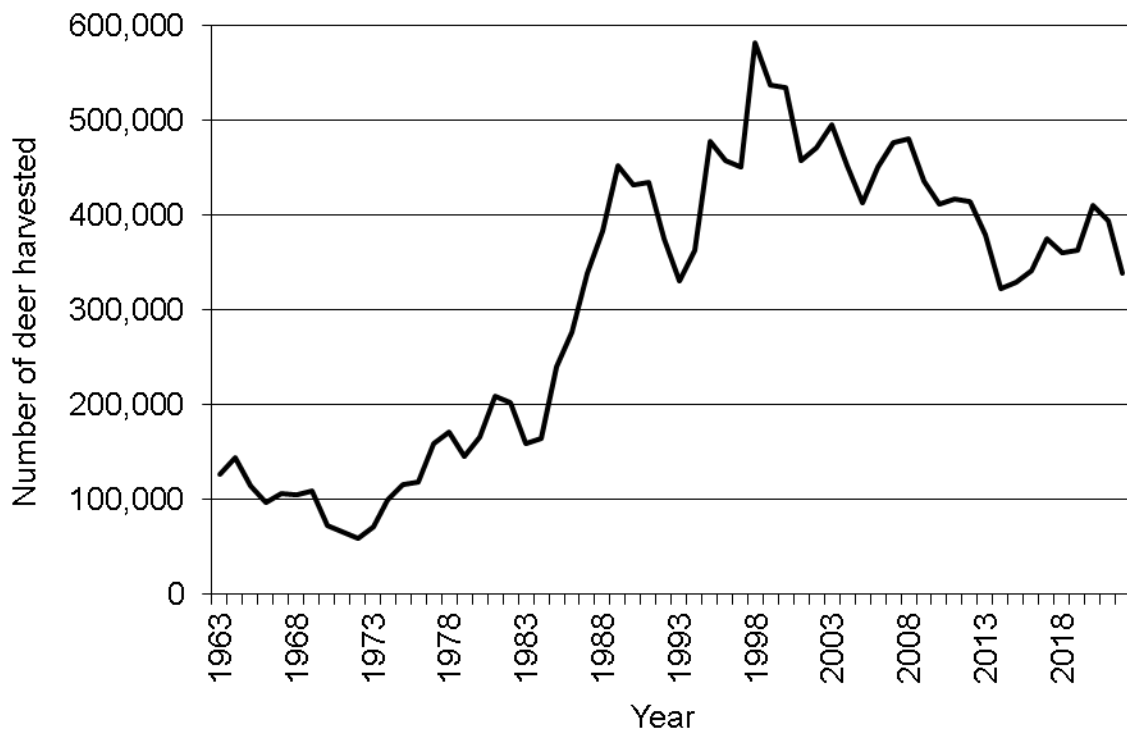


Figure 14. The number of deer harvested in Michigan's hunting seasons, 1963-2022. Harvest from all seasons and for all deer sexes was combined.

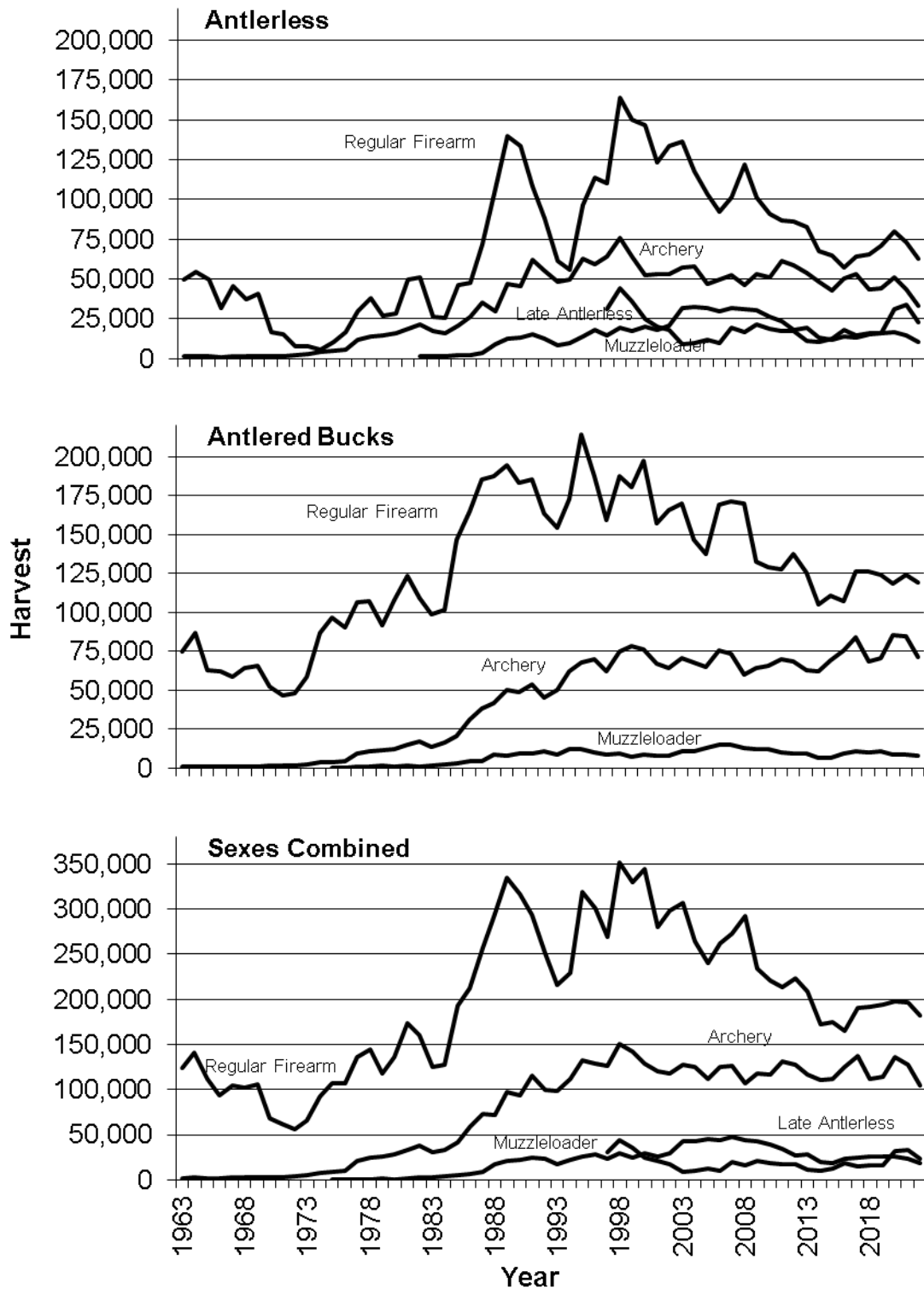


Figure 15. The number of deer harvested in Michigan's hunting seasons, 1963-2022. Harvests for early antlerless, youth, and hunters-with-disabilities seasons were not shown.

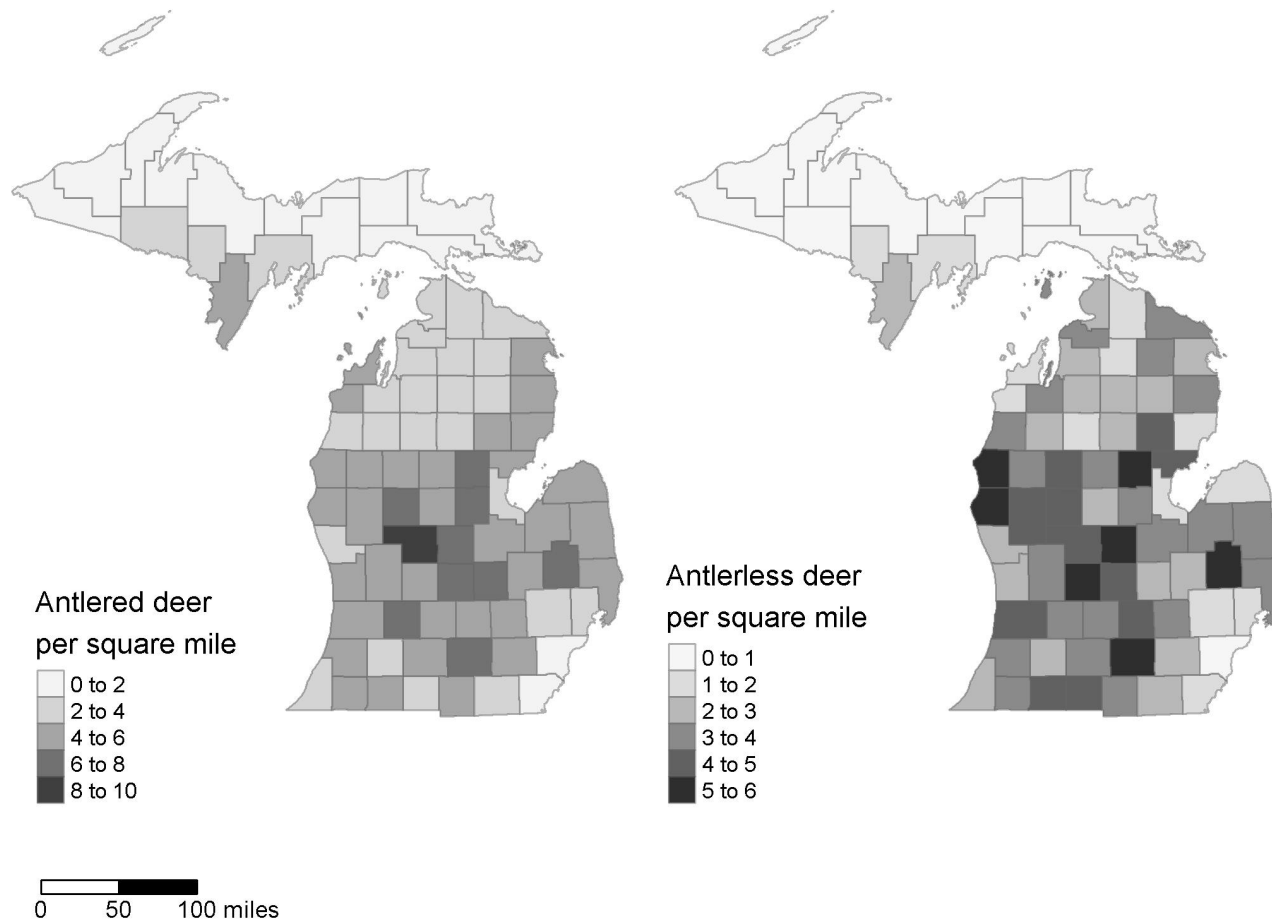


Figure 16. The harvest density of antlered (left) and antlerless (right) deer during all 2022 hunting seasons combined in Michigan.

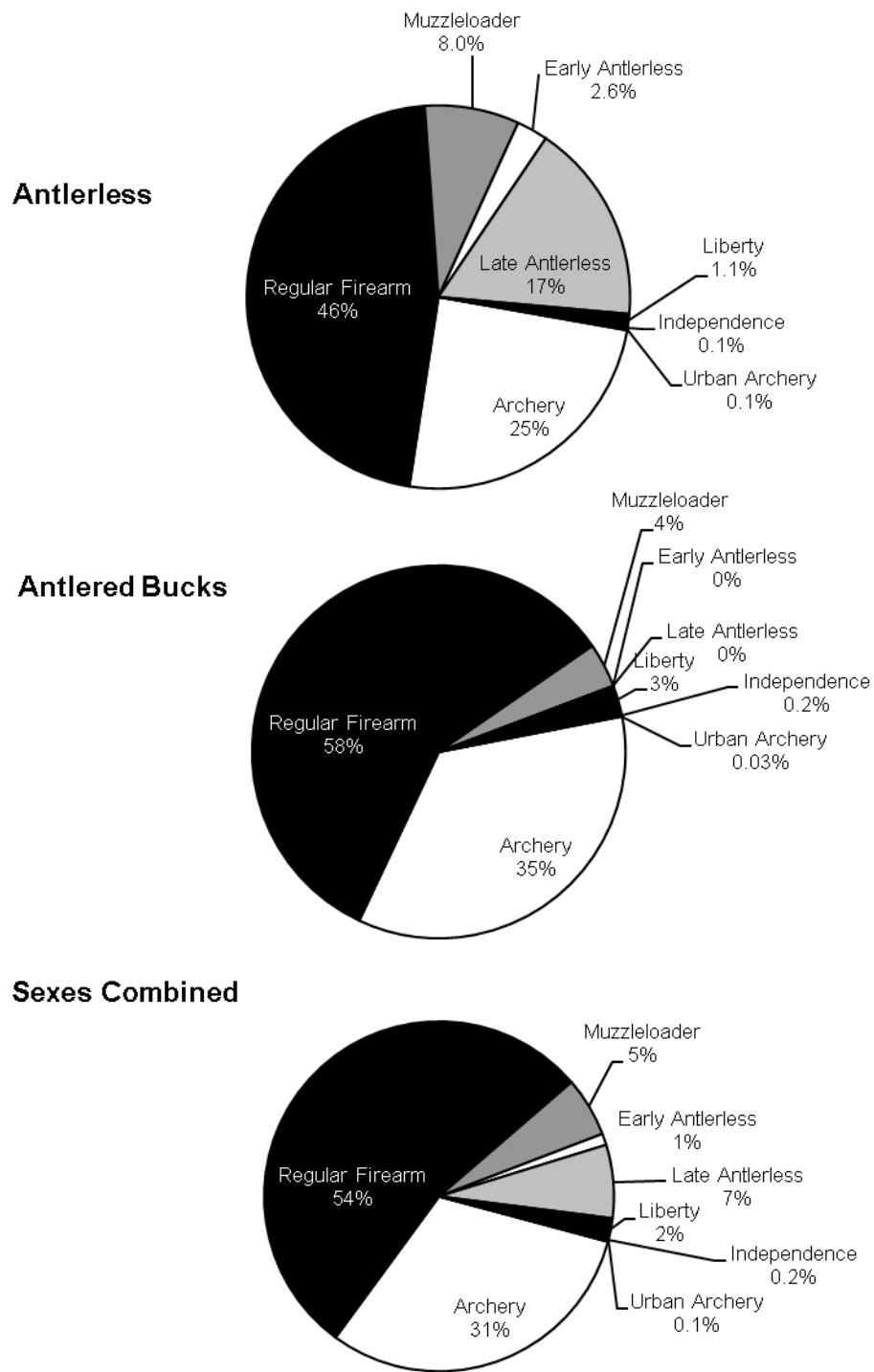


Figure 17. The distribution of harvest among deer hunting seasons in Michigan, 2022. Antlered deer had antlers at least 3 inches in length; antlerless deer included deer without antlers and deer with antlers less than 3 inches in length.

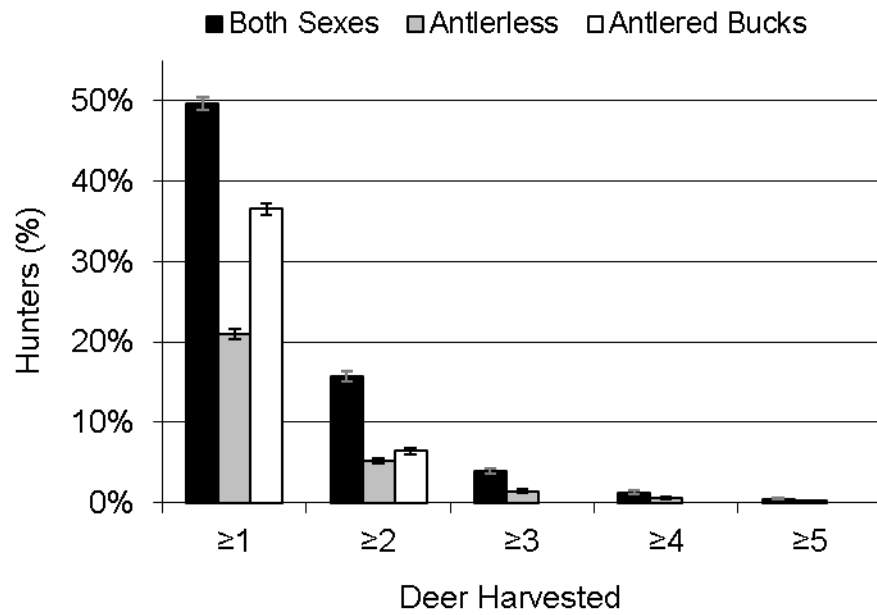


Figure 18. The percentage of hunters harvesting a deer in Michigan, 2022. Error bars represent the 95% CLs.

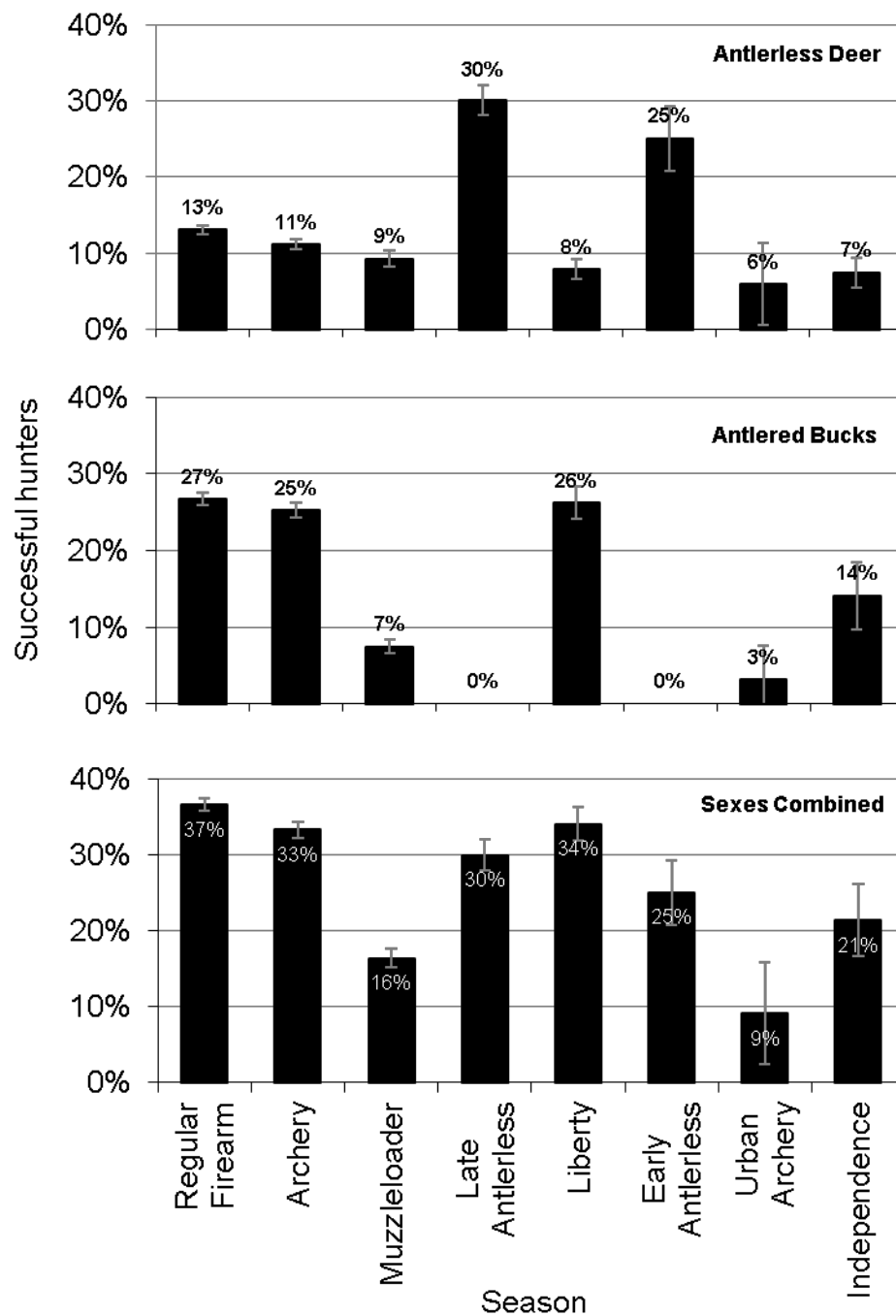


Figure 19. Percentage of hunters harvesting a deer in Michigan's deer hunting seasons, 2022. Error bars represent the 95% CLs. Antlered deer had at least one antler at least 3 inches in length; antlerless deer included deer without antlers and deer with antlers less than 3 inches.

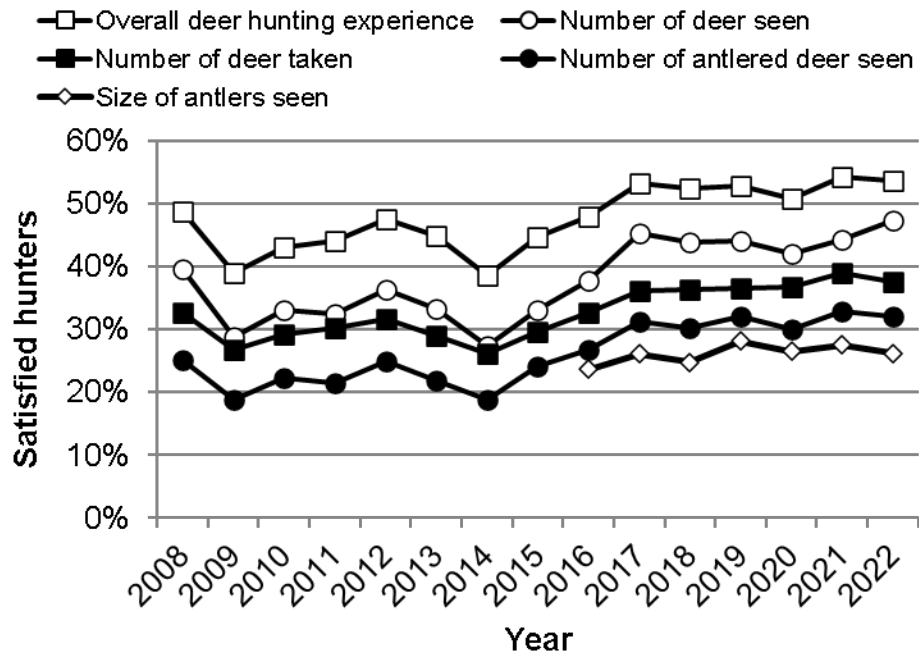


Figure 20. Proportion of hunters that were satisfied with (1) number of deer seen, (2) number of antlered deer [bucks] seen, (3) size of antlers seen, (4) number of deer taken, and (5) their overall hunting experience during 2008-2022. The “satisfied” category combined respondents that reported that they “very satisfied” or “somewhat satisfied.”

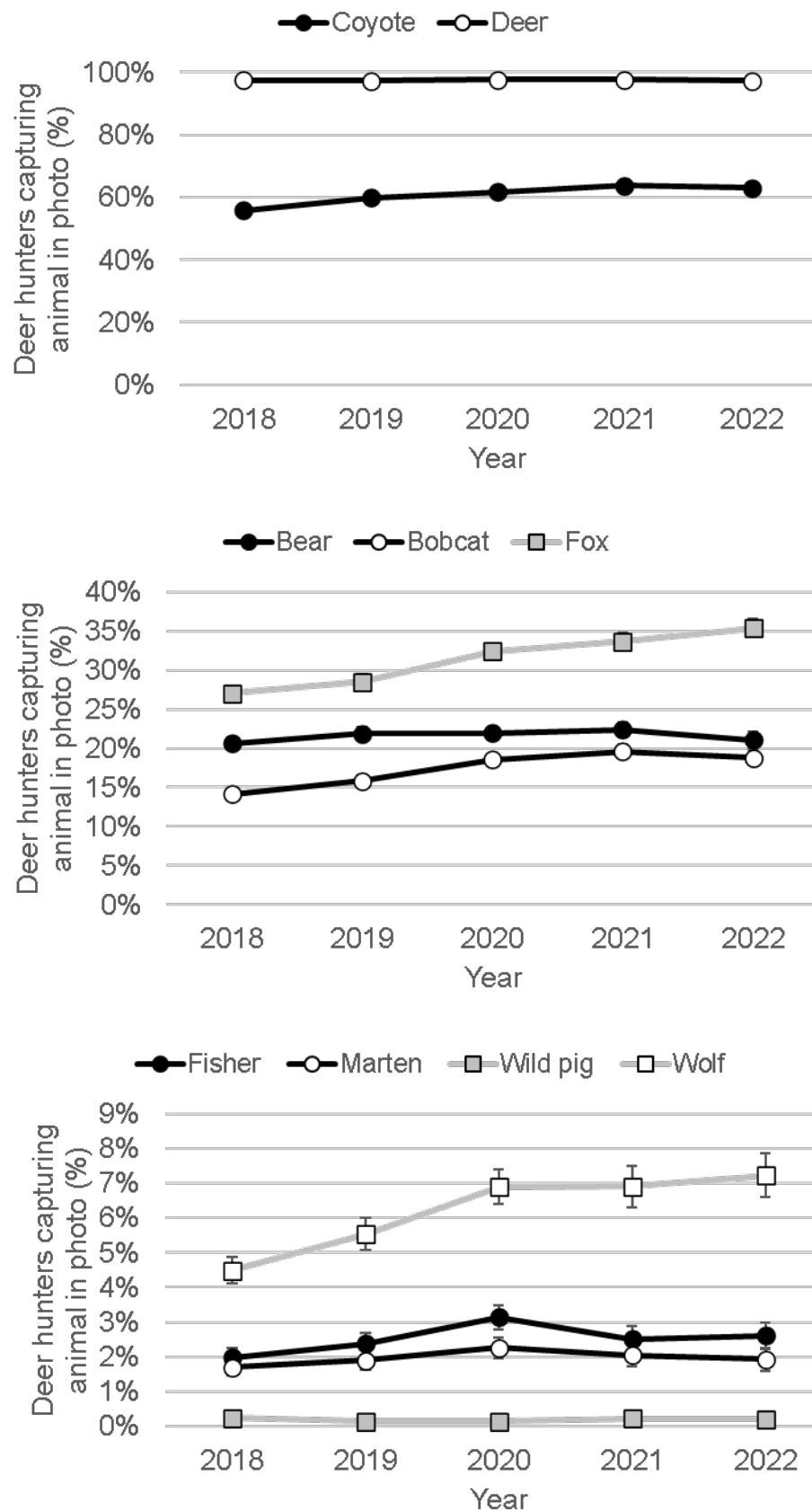


Figure 21. The proportion of deer hunters that used a trail camera and photographed selected carnivores, deer, and wild pigs with their camera in 2018-2022.

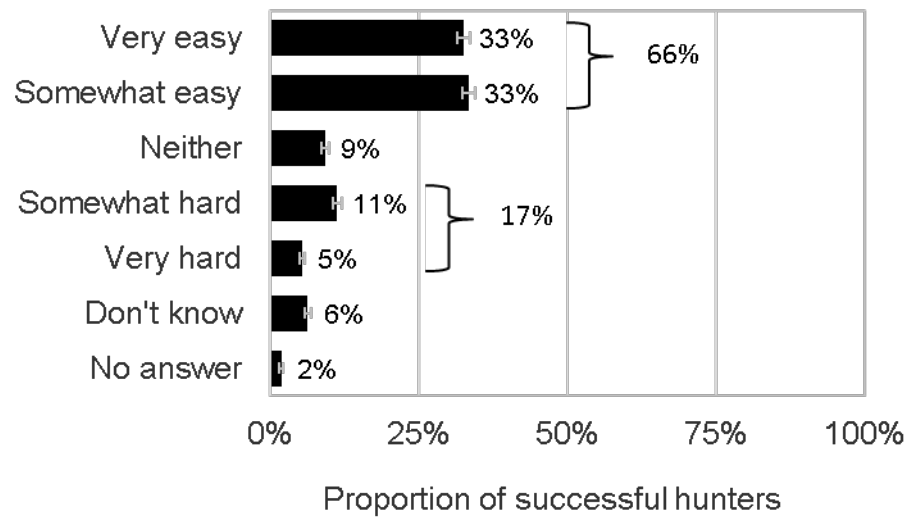


Figure 22. The proportion of successful deer hunters that reported that the website or phone app for reporting their harvested deer easy or hard was it to use.

Table 1. Deer hunting seasons in Michigan, 2022-2023.

Season	Bag limit	Area	Dates
Liberty/Youth Hunt	1	Statewide	September 10-11
Early Antlerless Firearm	1 per kill tag	Lower Peninsula ^a	September 17-18
Independence Hunt	1	Statewide	October 13-16
Archery	1 per kill tag	Statewide	October 1 – November 14 and December 1 – January 1
Regular Firearm	1 per kill tag	Statewide	November 15-30
Muzzleloader	1 per kill tag	Statewide	December 2-11
Late Antlerless Firearm	1 per kill tag	Lower Peninsula ^a	December 12-January 1
Late Urban Archery	1 per kill tag	Macomb, Oakland, and Wayne counties	January 2-31

^aThe area open to hunting during the early and late antlerless firearm seasons included the entire LP, except for the island DMUs 145, 245, 115, and 149.

Table 2. The types of deer that could be taken during the 2022 Michigan deer hunting seasons for each combination of season and hunting license.

Type of license (harvest tag) or permit	Season	Area	Type of deer that could be harvested ^a and area
Deer license or deer combination regular license	Archery seasons	Upper Peninsula (Zone 1)	Antlered deer (deer with at least 1 antler with 3 or more antler points each 1 or more inches) or antlerless deer. Antlerless deer could not be taken in DMUs 007, 031, 042, 048, 066, 127, and 131. Antler point restrictions did not apply in the Core CWD surveillance area. ^b
Deer license or deer combination regular license	Archery seasons	Lower Peninsula (zones 2 and 3)	Antlerless or antlered deer ^c
Deer license or deer combination regular license	Firearm or Muzzleloader seasons	Upper Peninsula (Zone 1)	Antlered deer. ^c Antler point restrictions did not apply in the core CWD surveillance area. ^b
Deer license or deer combination regular license	Firearm or Muzzleloader seasons	Lower Peninsula (zones 2 and 3)	Antlerless or antlered deer ^c
Deer license or deer combination regular license	Liberty and Independence seasons	statewide	Antlerless or antlered deer ^c
Combination License ^d (Restricted harvest tag)	Archery seasons	Upper Peninsula (Zone 1)	An antlerless deer or a deer that has at least 1 antler with 4 or more antler points, 1 or more inches in length. Antlerless deer could not be taken in DMUs 007, 031, 042, 048, 066, 127, and 131. Antler point restrictions did not apply in the core CWD surveillance area. ^b
Combination License ^d (Restricted harvest tag)	Archery seasons	Lower Peninsula (zones 2 and 3)	An antlerless deer or a deer that has at least 1 antler with 4 or more antler points, 1 or more inches in length. Antler point restrictions did not apply in the CWD management zone. ^e

^aAntlered deer had antlers at least 3 inches in length; antlerless deer included deer without antlers and deer with antlers less than 3 inches in length. Hunters could harvest a maximum of 2 antlered deer per year (all seasons combined).

^bThe Core CWD Surveillance Area included portions of Delta, Dickinson, and Menominee counties in the UP, and the Core CWD Area included Ionia, Kent, Mecosta, Montcalm, and Newaygo counties in the LP.

^cIf a person took 2 antlered deer during all seasons combined (except youth and apprentice hunters), one of the antlered deer must have had at least 1 antler with 4 or more antler points, each point being 1 or more inches in length.

^dCombination licenses included two harvest tags (i.e., regular and restricted harvest tags).

^eCWD management zone included Barry, Calhoun, Clinton, Eaton, Gratiot, Hillsdale, Ingham, Ionia, Isabella, Jackson, Kent, Lenawee, Mecosta, Midland, Montcalm, Muskegon, Newaygo, Ottawa, and Shiawassee counties.

^fHunters could harvest only 1 deer in the Liberty and Independence seasons.

^gPermits for special hunts on designated public lands (e.g., some state parks, game areas, and federal property). These permits valid only during specific dates, which varied among areas. Permits issued to applicants using a lottery (i.e., random selection). To use these permits, the hunter must also have purchased a valid deer hunting license.

Table 2 (continued). The types of deer that could be taken during the 2022 Michigan deer hunting seasons for each combination of season and hunting license.

Type of license (harvest tag) or permit	Season	Area	Type of deer that could be harvested ^a
Combination License ^d (Restricted harvest tag)	Firearm or Muzzleloader seasons	Upper Peninsula (Zone 1)	A deer that has at least 1 antler with 4 or more antler points (1 or more inches in length); Antler point restrictions do not apply in the core CWD surveillance area. ^b
Combination License ^d (Restricted harvest tag)	Firearm or Muzzleloader seasons	Lower Peninsula (zones 2 and 3)	An antlerless deer or a deer that has at least 1 antler with 4 or more antler points 1 or more inches in length. Antler point restrictions do not apply in the CWD management zone. ^e
Combination License ^d (Restricted harvest tag)	Liberty and Independence seasons	Statewide	Antlerless or antlered deer ^c
Mentored youth deer license	Archery, Regular Firearm, Muzzleloader, or Liberty seasons	Statewide	Antlerless or antlered deer. Antler point restrictions do not apply.
Universal antlerless deer license, a mentored youth hunting license, a deer license, or a deer combination license	Antlerless seasons	Statewide	Antlerless deer only
Universal antlerless License ^e	All seasons	Any area open to antlerless deer hunting	Antlerless deer only
Deer Management Assistance (DMA) permit ^f	All seasons	Statewide	Antlerless deer only
Managed Deer Hunt permit ^g	Specified season	Limited areas	Specified antlerless or antlered deer ^c

^aAntlered deer had antlers at least 3 inches in length; antlerless deer included deer without antlers and deer with antlers less than 3 inches in length.

Hunters could harvest a maximum of 2 antlered deer per year (all seasons combined).

^bCore CWD area included Ionia, Kent, Mecosta, Montcalm, and Newaygo counties in the LP and portions of Delta, Dickinson, and Menominee counties in the UP.

^cIf a person took 2 antlered deer during all seasons combined (except youth and apprentice hunters), one of the antlered deer must have had at least 1 antler with 4 or more antler points, each point being 1 or more inches in length.

^dCombination licenses included two harvest tags (i.e., regular and restricted harvest tags).

^eCWD management zone included Barry, Calhoun, Clinton, Eaton, Gratiot, Hillsdale, Ingham, Ionia, Isabella, Jackson, Kent, Lenawee, Mecosta, Midland, Montcalm, Muskegon, Newaygo, Ottawa, and Shiawassee counties.

^fHunters could harvest only 1 deer in the Liberty and Independence seasons.

^gPermits for special hunts on designated public lands (e.g., some state parks, game areas, and federal property). These permits valid only during specific dates, which varied among areas. Permits issued to applicants using a lottery (i.e., random selection). To use these permits, the hunter must also have purchased a valid deer hunting license.

Table 3. The number of Michigan deer licenses purchased, and harvest tags issued, 2020-2022.

Licenses or Harvest Tags	Number Purchased or Issued in 2020	Number Purchased or Issued in 2021	Number Purchased or Issued in 2022	Change Between 2021 and 2022 (%)
Resident Deer License	89,915	78,753	73,383	-6.8%
Non-resident Deer License	11,864	12,648	12,792	1.1%
Junior Deer License	19,949	17,010	16,253	-4.5%
Senior Deer License	31,272	30,913	29,930	-3.2%
Lifetime Deer License	556	532	530	-0.4%
Active Military Deer License	244	267	235	-12.0%
Disabled Veteran Deer License	2	1	1	0.0%
Subtotal Deer Licenses	153,802	140,124	133,124	-5.0%
Resident Combination License	333,601	323,747	321,274	-0.8%
Non-resident Combination License	5,149	5,430	5,646	4.0%
Junior Combination License	25,810	25,289	24,885	-1.6%
Senior Combination License	66,391	70,838	74,637	5.4%
Lifetime Combination License	1,206	1,216	1,210	-0.5%
Active Military Combination License	4,242	4,261	4,285	0.6%
Disabled Veteran Combination Lic.	4	9	8	-11.1%
Subtotal Combination Licenses ^a	436,403	430,790	431,945	0.3%
Resident Antlerless License	246,586	223,607	219,243	-2.0%
Non-resident Antlerless License	6,312	8,748	9,541	9.1%
Junior Antlerless License	13,639	11,774	11,109	-5.6%
Senior Antlerless License	47,548	46,650	46,518	-0.3%
Lifetime Antlerless License	747	643	608	-5.4%
Active Military Antlerless	4,230	6,172	6,704	8.6%
Pure Michigan Hunt License	3	3	3	0.0%
Disabled Veteran Antlerless Lic.	15	35	20	-42.9%
Deer Management Assistance	13,637	12,203	11,734	-3.8%
Subtotal Antlerless Licenses	332,717	309,835	305,480	-1.4%
Mentored Youth Licenses	12,020	11,014	10,824	-1.7%
Total Licenses Sold	934,942	891,763	881,373	-1.2%

^aCombination licenses included two harvest tags. Other license types had one harvest tag.

Table 3 (continued). The number of Michigan deer licenses purchased, and harvest tags issued, 2020-2022.

Licenses or Harvest Tags	Number Purchased or Issued in 2020	Number Purchased or Issued in 2021	Number Purchased or Issued in 2022	Change Between 2021 and 2022 (%)
Deer Tags ^a	153,802	140,124	133,124	-5.0%
Combination Tags ^b	872,806	861,580	863,890	0.3%
Antlerless Tags	332,717	309,835	305,480	-1.4%
Mentored Youth Tags ^b	12,020	11,014	10,824	-1.7%
Total Harvest Tags	1,371,345	1,322,553	1,313,318	-0.7%

^aCombination licenses included two harvest tags. Other license types had one harvest tag.

Table 4. Number of deer hunters and hunting effort in Michigan by hunting season, 2021-2022.

Season and Area	2021 number of hunters ^a	2022 number of hunters ^a	2022 hunter 95% CL ^b	Change from 2021 to 2022 (%)	2021 hunting effort (days)	2022 hunting effort (days)	2022 effort 95% CL ^b	Change from 2021 to 2022 (%)
Archery – W UP	22,027	18,949	1,570	-14.0	267,859	198,717	20,789	-25.8*
Archery – E UP	5,334	5,111	824	-4.2	50,062	55,594	13,869	11.0
Archery - NE LP	46,764	40,772	2,262	-12.8*	470,185	377,531	29,041	-19.7*
Archery - NW LP	60,814	53,108	2,539	-12.7*	730,557	576,342	41,973	-21.1*
Archery - Sag. Bay	53,714	44,604	2,339	-17.0*	591,477	488,121	35,068	-17.5*
Archery - SW LP	50,110	48,184	2,421	-3.8	622,214	561,510	39,048	-9.8
Archery - SC LP	58,276	56,150	2,599	-3.6	709,387	668,092	43,192	-5.8
Archery - SE LP	30,460	27,589	1,873	-9.4	360,867	315,611	28,824	-12.5
Archery - UP	27,283	23,905	2,802	-12.4	317,921	254,311	24,991	-20.0*
Archery - NLP	121,669	105,906	4,042	-13.0*	1,370,337	1,102,364	54,891	-19.6*
Archery - SLP	170,801	157,638	4,176	-7.7*	2,114,349	1,884,844	71,014	-10.9*
Archery - Statewide ^c	304,278	276,501	4,319	-9.1	3,802,608	3,241,518	94,230	-14.8*
Reg Firearm - WUP	54,571	51,480	2,511	-5.7	378,013	330,259	19,650	-12.6*
Reg Firearm - EUP	14,997	14,574	1,389	-2.8	98,744	89,930	9,853	-8.9
Reg Firearm - NELP	84,050	78,532	3,019	-6.6	487,400	419,800	20,603	-13.9*
Reg Firearm - NWLP	89,532	81,998	3,060	-8.4*	512,776	419,650	20,195	-18.2*
Reg Firearm - Sag. Bay	72,801	66,504	2,796	-8.6*	400,188	344,666	18,529	-13.9*
Reg Firearm - SWLP	62,404	61,659	2,700	-1.2	372,006	339,215	18,843	-8.8
Reg Firearm - SCLP	75,809	74,766	2,941	-1.4	419,526	397,460	20,443	-5.3
Reg Firearm - SELP	31,470	29,831	1,943	-5.2	176,669	159,143	13,184	-9.9
Reg Firearm - UP	69,327	65,957	1,754	-4.9	476,757	420,189	21,982	-11.9*
Reg Firearm - NLP	193,189	179,828	3,395	-6.9*	1,119,399	943,241	30,530	-15.7*
Reg Firearm - SLP	215,519	208,222	3,886	-3.4	1,249,165	1,136,693	34,501	-9.0*
Reg Firearm - Statewide ^c	463,178	445,151	3,454	-3.9*	2,845,322	2,500,123	51,488	-12.1*

^aExcluded people that did not hunt during the season.^b95 confidence limit for the 2022 estimate. *P<0.05.^cNumber of hunters does not add up to statewide total because hunters can hunt in more than one area.

Table 4 (continued). Number of deer hunters and hunting effort in Michigan by hunting season, 2021-2022.

Season and Area	2021 number of hunters ^a	2022 number of hunters ^a	2022 hunter 95% CL ^b	Change from 2021 to 2022 (%)	2021 hunting effort (days)	2022 hunting effort (days)	2022 effort 95% CL ^b	Change from 2021 to 2022 (%)
Muzzleloader – W UP	9,723	9,347	1,114	-3.9	44,534	43,468	5,989	-2.4
Muzzleloader – E UP	2,912	2,683	599	-7.9	14,976	12,721	3,210	-15.1
Muzzleloader - NE LP	14,117	12,482	1,286	-11.6	56,440	47,068	5,636	-16.6
Muzzleloader - NW LP	17,950	15,502	1,421	-13.6	68,723	55,726	5,963	-18.9*
Muzzleloader – Sag Bay	21,942	15,562	1,422	-29.1*	81,759	55,468	5,869	-32.2*
Muzzleloader - SW LP	23,802	22,561	1,703	-5.2	98,737	80,216	7,105	-18.8*
Muzzleloader - SC LP	25,978	24,756	1,782	-4.7	100,442	88,915	7,508	-11.5
Muzzleloader - SE LP	11,017	10,139	1,162	-8.0	42,689	35,851	4,835	-16.0
Muzzleloader - UP	12,486	11,988	1,258	-4.0	59,510	56,189	6,795	-5.6
Muzzleloader - NLP	36,892	30,510	1,970	-17.3*	142,685	112,432	8,556	-21.2*
Muzzleloader - SLP	76,482	68,977	2,847	-9.8*	306,105	250,812	12,601	-18.1*
Muzzleloader - Statewide ^c	126,993	113,450	3,483	-10.7*	508,300	419,432	16,980	-17.5*
Early Antlerless - WUP	0	0	0		0	0	0	
Early Antlerless - EUP	0	0	0		0	0	0	
Early Antlerless - NELP	2,078	1,711	462	-17.6	3,122	2,354	686	-24.6
Early Antlerless - NWLP	3,260	2,210	511	-32.2	4,394	2,999	764	-31.8
Early Antlerless - Sag. Bay	4,099	2,480	546	-39.5*	5,835	3,080	740	-47.2*
Early Antlerless - SWLP	2,440	1,905	471	-21.9	3,235	2,235	619	-30.9
Early Antlerless - SCLP	2,893	2,360	535	-18.4	3,585	3,032	759	-15.4
Early Antlerless - SELP	2,063	1,623	455	-21.3	2,736	2,334	692	-14.7
Early Antlerless - UP	0	0	0		0	0	0	
Early Antlerless - NLP	6,478	4,485	731	-30.8*	9,120	6,053	1,078	-33.6*
Early Antlerless - SLP	10,341	7,727	965	-25.3*	13,785	9,979	1,370	-27.6*
Early Antlerless - Statewide ^c	18,358	13,375	731	-27.1*	22,906	16,033	1,771	-30.0*

^aExcluded people that did not hunt during the season.^b95 confidence limit for the 2022 estimate. *P<0.05.^cNumber of hunters does not add up to statewide total because hunters can hunt in more than one area.

Table 4 (continued). The number of deer hunters and hunting efforts in Michigan by hunting season, 2021-2022.

Season and Area	2021 number of hunters ^a	2022 number of hunters ^a	2022 hunter 95% CL ^b	Change from 2021 to 2022 (%)	2021 hunting effort (days)	2022 hunting effort (days)	2022 effort 95% CL ^b	Change from 2021 to 2022 (%)
Late Antlerless – W UP	0	0	0		0	0	0	
Late Antlerless – E UP	0	0	0		0	0	0	
Late Antlerless - NE LP	8,549	6,423	922	-24.9*	35,126	23,315	4,501	-33.6*
Late Antlerless - NW LP	13,317	10,611	1,168	-20.3*	55,898	38,729	5,980	-30.7*
Late Antlerless – Sag Bay	15,833	11,399	1,212	-28.0*	60,268	43,573	5,990	-27.7*
Late Antlerless - SW LP	17,962	15,464	1,413	-13.9	77,908	57,586	6,578	-26.1*
Late Antlerless - SC LP	21,253	17,620	1,506	-17.1*	83,324	63,518	7,290	-23.8*
Late Antlerless - SE LP	8,617	6,735	947	-21.8	36,227	26,010	4,747	-28.2
Late Antlerless - UP	0	0	0		0	0	0	
Late Antlerless - NLP	25,122	19,041	1,555	-24.2*	103,246	70,130	7,890	-32.1*
Late Antlerless - SLP	59,492	48,487	2,427	-18.5*	245,504	182,600	12,190	-25.6*
Late Antlerless - Statewide ^c	86,702	69,384	2,840	-20.0*	348,750	252,731	14,922	-27.5*
Liberty/Youth - WUP	1,576	1,025	213	-35.0*	2,419	1,473	338	-39.1*
Liberty/Youth - EUP	241	280	119	16.1	380	414	165	9.2
Liberty/Youth - NELP	2,558	2,053	327	-19.7	3,787	2,973	484	-21.5
Liberty/Youth - NWLP	4,758	4,226	446	-11.2	7,193	5,824	651	-19.0
Liberty/Youth - Sag. Bay	4,533	3,781	425	-16.6	6,691	5,277	636	-21.1*
Liberty/Youth - SWLP	3,164	3,401	404	7.5	4,467	4,682	599	4.8
Liberty/Youth - SCLP	3,836	3,982	437	3.8	5,112	5,658	668	10.7
Liberty/Youth - SELP	1,701	1,713	311	0.7	2,374	2,482	493	4.6
Liberty/Youth - UP	1,817	1,305	242	-28.2	2,798	1,887	376	-32.6*
Liberty/Youth - NLP	8,511	7,255	579	-14.8	12,809	10,108	883	-21.1*
Liberty/Youth - SLP	11,962	11,804	686	-1.3	16,815	16,788	1,155	-0.2
Liberty/Youth - Statewide ^c	22,984	21,093	848	-8.2*	32,422	28,783	1,517	-11.2*

^aExcluded people that did not hunt during the season.^b95 confidence limit for the 2022 estimate. *P<0.05.^cNumber of hunters does not add up to the statewide total because hunters can hunt in more than one area.^dEstimates included results of both youth and disabled hunters.

Table 4 (continued). The number of deer hunters and hunting efforts in Michigan by hunting season, 2021-2022.

Season and Area	2021 number of hunters ^a	2022 number of hunters ^a	2022 hunter 95% CL ^b	Change from 2021 to 2022 (%)	2021 hunting effort (days)	2022 hunting effort (days)	2022 effort 95% CL ^b	Change from 2021 to 2022 (%)
Independence – W UP	195	133	36	-31.7	405	270	71	-33.5
Independence – E UP	63	27	13	-57.2*	146	78	41	-46.2
Independence - NE LP	280	288	108	2.9	663	591	226	-10.9
Independence - NW LP	472	459	120	-2.9	1,028	922	308	-10.3
Independence – Sag Bay	489	364	117	-25.5	882	725	193	-17.9
Independence - SW LP	235	256	97	8.7	415	422	222	1.9
Independence - SC LP	371	434	158	16.9	783	682	201	-12.9
Independence - SE LP	175	206	91	17.5	282	322	113	14.0
Independence - UP	258	160	38	-37.9	551	348	82	-36.8
Independence - NLP	866	833	163	-3.7	1,921	1,727	387	-10.1
Independence - SLP	1,149	1,170	235	1.9	2,132	1,937	369	-9.1
Independence - Statewide ^c	2,565	2,558	360	-0.3	4,604	4,012	542	-12.9
Urban Archery - WUP	0	0	0		0	0	0	
Urban Archery - EUP	0	0	0		0	0	0	
Urban Archery - NELP	0	0	0		0	0	0	
Urban Archery - NWLP	0	0	0		0	0	0	
Urban Archery - Sag. Bay	0	0	0		0	0	0	
Urban Archery - SWLP	0	0	0		0	0	0	
Urban Archery - SCLP	0	0	0		0	0	0	
Urban Archery - SELP	2,609	2,314	555	-19.4	11,949	9,578	3,423	-19.8
Urban Archery - UP	0	0	0		0	0	0	
Urban Archery - NLP	0	0	0		0	0	0	
Urban Archery - SLP	2,609	2,314	555	-19.4	11,949	9,578	3,423	-19.8
Urban Archery - Statewide ^c	2,609	2,314	555	-19.4	11,949	9,578	3,423	-19.8

^aExcluded people that did not hunt during the season.^b95 confidence limit for the 2022 estimate. *P<0.05.^cNumber of hunters does not add up to the statewide total because hunters can hunt in more than one area.

Table 4 (continued). The number of deer hunters and hunting efforts in Michigan by hunting season, 2021-2022.

Season and Area	2021 number of hunters ^a	2022 number of hunters ^a	2022 hunter 95% CL ^b	Change from 2021 to 2022 (%)	2021 hunting effort (days)	2022 hunting effort (days)	2022 effort 95% CL ^b	Change from 2021 to 2022 (%)
All Seasons – W UP	61,500	57,579	2,634	-6.4	693,595	574,534	37,220	-17.2*
All Seasons – E UP	16,725	16,409	1,465	-1.9	164,310	158,825	21,762	-3.3
All Seasons - NE LP	97,898	91,580	3,207	-6.5	1,056,888	873,925	47,288	-17.3*
All Seasons - NW LP	108,403	99,896	3,299	-7.8*	1,381,000	1,100,439	59,693	-20.3*
All Seasons – Sag Bay	90,648	81,928	3,039	-9.6*	1,146,861	940,813	53,109	-18.0*
All Seasons - SW LP	79,229	79,591	2,999	0.5	1,178,479	1,045,378	57,931	-11.3*
All Seasons - SC LP	96,146	94,529	3,223	-1.7	1,321,801	1,226,924	63,618	-7.2
All Seasons - SE LP	45,965	43,024	2,291	-6.4	633,928	551,373	43,122	-13.0
All Seasons - UP	77,779	73,548	2,929	-5.4	857,906	733,359	43,114	-14.5*
All Seasons - NLP	228,499	212,387	4,192	-7.1*	2,760,192	2,246,737	81,448	-18.6*
All Seasons - SLP	273,632	264,014	4,309	-3.5*	3,958,764	3,492,115	106,061	-11.8*
All Seasons - Statewide ^c	537,014	516,336	2,387	-3.9*	7,576,862	6,472,210	141,947	-14.6*

^aExcluded people that did not hunt during the season.

^b95 confidence limit for the 2022 estimate. *P<0.05.

^cNumber of hunters does not add up to the statewide total because hunters can hunt in more than one area.

Table 5. The mean number of days hunters spent hunting deer (\bar{x} hunting effort) in Michigan by hunting season, 2022.^a

Area	Archery \bar{x} days	95% CL ^b	Regular Firearm \bar{x} days	95% CL ^b	Muzzle- loader \bar{x} days	95% CL ^b	Early Antlerless \bar{x} days	95% CL ^b
West UP	11.1	0.7	7.0	0.2	4.9	0.4	0.0	0.0
East UP	11.6	2.2	6.5	0.4	5.1	0.6	0.0	0.0
NE LP	9.9	0.5	5.8	0.2	4.1	0.3	1.7	0.1
NW LP	11.6	0.7	5.6	0.2	3.9	0.2	1.6	0.1
Sag. Bay	11.7	0.6	5.7	0.2	3.9	0.2	1.4	0.1
SW LP	12.7	0.6	6.1	0.2	3.9	0.2	1.4	0.1
SC LP	12.8	0.6	5.9	0.2	3.9	0.2	1.5	0.1
SE LP	12.3	0.7	5.9	0.3	3.8	0.3	1.6	0.1
UP	11.3	0.7	6.9	0.2	5.0	0.3	0.0	0.0
NLP	11.1	0.4	5.7	0.1	4.0	0.2	1.6	0.1
SLP	12.9	0.3	6.0	0.1	4.0	0.1	1.5	0.1
Statewide	12.8	0.3	6.3	0.1	4.2	0.1	1.5	0.1

^aExcluded people that did not hunt during the season.

^b95 confidence limit.

Table 5 (continued). The mean number of days hunters spent hunting deer (\bar{x} hunting effort) in Michigan by hunting season, 2022.^a

Area	Late Antlerless \bar{x} days	95% CL ^b	Liberty (Youth) \bar{x} days	95% CL ^b	Indepen- dence \bar{x} days	95% CL ^b	Urban Archery \bar{x} days	95% CL ^b
West UP	0.0	0.0	1.5	0.1	2.3	0.3	0.0	0.0
East UP	0.0	0.0	1.5	0.2	3.0	0.5	0.0	0.0
NE LP	4.3	0.5	1.6	0.1	2.7	0.2	0.0	0.0
NW LP	4.2	0.5	1.5	0.1	2.6	0.3	0.0	0.0
Sag. Bay	4.3	0.4	1.5	0.1	2.2	0.3	0.0	0.0
SW LP	4.2	0.3	1.5	0.1	2.0	0.4	0.0	0.0
SC LP	4.3	0.3	1.5	0.1	2.0	0.3	0.0	0.0
SE LP	4.3	0.5	1.6	0.1	1.8	0.4	4.8	1.4
UP	0.0	0.0	1.5	0.1	2.4	0.3	0.0	0.0
NLP	4.3	0.3	1.6	0.0	2.6	0.2	0.0	0.0
SLP	4.4	0.2	1.6	0.0	2.0	0.2	4.8	1.4
Statewide	4.4	0.2	1.6	0.0	2.3	0.1	4.8	1.4

^aExcluded people that did not hunt during the season.

^b95 confidence limit.

Table 5 (continued). The mean number of days hunters spent hunting deer (\bar{x} hunting effort) in Michigan by hunting season, 2022.^a

Area	All Seasons	
	\bar{x} days	95% CL ^b
West UP	10.8	0.5
East UP	10.2	1.1
NE LP	10.3	0.4
NW LP	11.9	0.5
Sag. Bay	12.4	0.5
SW LP	14.4	0.6
SC LP	14.2	0.5
SE LP	13.9	0.8
UP	10.7	0.5
NLP	11.4	0.3
SLP	14.4	0.3
Statewide	14.0	0.2

^aExcluded people that did not hunt during the season.

^b95 confidence limit.

Table 6. The number of deer harvested in Michigan, 2020-2022.

Season (or permit) and type of deer	2020	2021	2022	Change from 2021 to 2022 (%)
Archery - Antlerless	51,408	43,395	33,399	-23.0%*
Archery - Antlered bucks	85,091	84,599	71,453	-15.5%*
Archery - Sexes combined	136,498	127,994	104,852	-18.1%*
Regular firearm - Antlerless	79,827	72,779	62,866	-13.6%*
Regular firearm - Antlered bucks	118,472	124,032	118,906	-4.1%
Regular firearm - Sexes combined	198,299	196,811	181,772	-7.6%*
Muzzleloader - Antlerless	16,726	14,390	10,810	-24.9%*
Muzzleloader - Antlered bucks	8,534	8,715	7,891	-9.5%
Muzzleloader - Sexes combined	25,261	23,105	18,702	-19.1%*
Early antlerless - Antlerless	8,382	4,801	3,576	-25.5%
Late antlerless - Antlerless	31,253	33,620	22,953	-31.7%*
Liberty/Youth ^{a,b} - Antlerless	3,244	1,982	1,537	-22.5%
Liberty/Youth - Antlered bucks	6,682	5,559	5,094	-8.4%
Liberty/Youth - Sexes combined	9,926	7,541	6,631	-12.1%
Independence ^b - Antlerless	211	190	178	-6.2%
Independence - Antlered bucks	370	397	332	-16.6%
Independence - Sexes combined	581	587	509	-13.2%
Urban Archery - Antlerless	201	427	126	-70.5%
Urban Archery - Antlered bucks	114	172	68	-60.3%
Urban Archery - Sexes combined	314	600	195	-67.5%
Special permits ^c - Antlerless	9,557	8,636	6,577	-23.8%
Grand Total - Antlerless	200,809	180,219	142,022	-21.2%*
Grand Total - Antlered bucks	219,262	223,476	203,744	-8.8%*
Grand Total - Sexes combined	420,071	403,695	345,766	-14.3%*

^aEstimates for the Liberty hunt included results of both youth and hunters with disabilities.

^bHunters with disabilities could hunt in both the Liberty and Independence seasons.

^cl. These permits could be used during any deer hunting season.

*P<0.05.

Table 7. The number of deer harvested in Michigan by hunting season, 2021-2022.^a

Season and Area	2021 Antler- less Harvest	2022 Antler- less Harvest	2022 95% CL ^b	Change from 2021 to 2022 (%)	2021 Antlered Buck Harvest	2022 Antlered Buck Harvest	2022 95% CL ^b	Change from 2021 to 2022	2021 Sexes Com- bined Harvest	2022 Sexes Com- bined Harvest	2022 95% CL ^b	Change from 2021 to 2022
Archery - WUP	2,227	1,928	540	-13.4	4,213	3,616	686	-14.2	6,440	5,543	922	-13.9
Archery - EUP	442	294	187	-33.5	384	750	313	95.1	826	1,044	377	26.5
Archery - NELP	5,602	5,509	996	-1.7	9,035	5,629	867	-37.7	14,632	11,130	1,407	-23.9*
Archery - NWLP	7,935	5,784	982	-27.1	14,838	10,899	1,276	-26.6*	22,772	16,681	1,710	-26.7*
Archery - Sag. Bay	7,063	4,810	833	-31.9*	15,136	11,852	1,289	-21.7*	22,201	16,664	1,632	-24.9*
Archery - SWLP	7,259	5,955	1,005	-18.0	15,137	13,795	1,424	-8.9	22,399	19,751	1,947	-11.8
Archery - SCLP	9,440	6,439	1,097	-31.8*	18,492	17,999	1,647	-2.7	27,933	24,443	2,178	-12.5
Archery - SELP	3,427	2,679	693	-21.8	7,364	6,914	985	-6.1	10,793	9,595	1,248	-11.1
Archery - UP	2,669	2,222	572	-16.8	4,597	4,366	754	-5.0	7,265	6,588	996	-9.3
Archery - NLP	15,630	12,752	1,476	-18.4	27,687	19,747	1,689	-28.7*	43,311	32,489	2,378	-25.0*
Archery - SLP	25,096	18,424	1,779	-26.6	52,315	47,341	2,627	-9.5	77,418	65,775	3,465	-15.0*
Archery - Statewide	43,395	33,399	2,406	-23.0*	84,599	71,453	3,236	-15.5*	127,994	104,852	4,355	-18.1*
Reg Firearm -WUP	4,361	2,921	616	-33.0*	17,143	15,332	1,440	-10.6	21,499	18,252	1,636	-15.1
Reg Firearm -EUP	156	240	165	53.9	2,818	2,887	628	2.4	2,973	3,126	656	5.2
Reg Firearm -NELP	10,916	10,061	1,278	-7.8	18,297	18,332	1,604	0.2	29,213	28,393	2,164	-2.8
Reg Firearm -NWLP	13,389	13,435	1,485	0.3	20,335	17,250	1,562	-15.2	33,725	30,687	2,309	-9.0
Reg Firearm -Sag. Bay	13,238	9,269	1,225	-30.0*	20,278	19,052	1,609	-6.0	33,517	28,320	2,160	-15.5*
Reg Firearm -SW LP	12,119	10,656	1,299	-12.1	17,693	16,411	1,546	-7.2	29,813	27,068	2,147	-9.2
Reg Firearm -SC LP	14,615	12,507	1,419	-14.4	20,548	22,965	1,813	11.8	35,166	35,472	2,482	0.9
Reg Firearm -SE LP	3,986	3,776	829	-5.3	6,920	6,676	961	-3.5	10,905	10,453	1,349	-4.2
Reg Firearm -UP	4,516	3,161	637	-30.0	19,962	18,219	1,571	-8.7	24,472	21,378	1,763	-12.6
Reg Firearm -NLP	28,176	26,736	2,093	-5.1	43,767	40,948	2,393	-6.4	71,945	67,685	3,377	-5.9
Reg Firearm -SLP	40,087	32,969	2,312	-17.8*	60,304	59,739	2,911	-0.9	100,394	92,708	3,982	-7.7
Reg Firearm - Statewide	72,779	62,866	3,204	-13.6*	124,032	118,906	4,110	-4.1	196,811	181,772	5,549	-7.6*

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.^b95 confidence limit for the 2022 estimate. *P<0.05.

Table 7 (continued). The number of deer harvested in Michigan by hunting season, 2021-2022.^a

Season and Area	2021 Antler- less Harvest	2022 Antler- less Harvest	2022 95% CL ^b	Change from 2021 to 2022 (%)	2021 Antlered Buck Harvest	2022 Antlered Buck Harvest	2022 95% CL ^b	Change from 2021 to 2022	2021 Sexes Com- bined Harvest	2022 Sexes Com- bined Harvest	2022 95 % CL ^b	Change from 2021 to 2022
Muzzleloader - WUP	703	940	374	33.7	670	778	304	16.1	1,373	1,718	500	25.1
Muzzleloader - EUP	39	156	134	304.7	284	259	175	-8.8	323	416	221	28.6
Muzzleloader - NELP	1,185	1,047	399	-11.7	611	620	268	1.5	1,796	1,667	480	-7.2
Muzzleloader - NWLP	2,375	1,082	365	-54.5*	859	871	333	1.4	3,233	1,953	503	-39.6*
Muzzleloader - Sag. Bay	2,527	1,633	484	-35.4	1,633	1,265	410	-22.5	4,160	2,898	634	-30.3
Muzzleloader - SWLP	2,696	2,137	552	-20.7	1,905	1,741	449	-8.6	4,601	3,878	718	-15.7
Muzzleloader - SCLP	3,335	3,008	665	-9.8	2,230	1,798	458	-19.4	5,565	4,805	829	-13.7
Muzzleloader - SELP	1,530	807	319	-47.2	524	560	258	6.8	2,053	1,367	410	-33.4
Muzzleloader - UP	742	1,096	398	47.8	954	1,037	351	8.6	1,697	2,133	547	25.7
Muzzleloader - NLP	3,886	2,203	549	-43.3*	1,836	1,816	471	-1.1	5,721	4,020	730	-29.7*
Muzzleloader - SLP	9,763	7,511	1,037	-23.1	5,925	5,038	779	-15.0	15,687	12,549	1,314	-20.0*
Muzzleloader - Statewide	14,390	10,810	1,264	-24.9*	8,715	7,891	994	-9.5	23,105	18,702	1,635	-19.1*
Early Antlerless -WUP	0	0	0		0	0	0	0	0	0	0	
Early Antlerless -EUP	0	0	0		0	0	0	0	0	0	0	
Early Antlerless -NELP	689	483	274	-29.9	0	0	0	0	689	483	274	-29.9
Early Antlerless -NWLP	825	535	261	-35.2	0	0	0	0	825	535	261	-35.2
Early Antlerless -Sag. Bay	1,284	826	383	-35.7	0	0	0	0	1,284	826	383	-35.7
Early Antlerless -SW LP	844	636	300	-24.6					844	636	300	-24.6
Early Antlerless -SC LP	754	706	332	-6.3	0	0	0	0	754	706	332	-6.3
Early Antlerless -SE LP	405	389	239	-4.0	0	0	0	0	405	389	239	-4.0
Early Antlerless -UP	0	0	0		0	0	0	0	0	0	0	
Early Antlerless -NLP	1,834	1,271	453	-30.7	0	0	0	0	1,834	1,271	453	-30.7
Early Antlerless -SLP	2,966	2,305	585	-22.3	0	0	0	0	2,966	2,305	585	-22.3
Early Antlerless -Statewide	4,801	3,576	749	-25.5	0	0	0	0	4,801	3,576	749	-25.5

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.^b95 confidence limit for the 2022 estimate. *P<0.05.

Table 7 (continued). The number of deer harvested in Michigan by hunting season, 2021-2022.^a

Season and Area	2021 Antler- less Harvest	2022 Antler- less Harvest	2022 95% CL ^b	Change from 2021 to 2022 (%)	2021 Antlered Buck Harvest	2022 Antlered Buck Harvest	2022 95% CL ^b	Change from 2021 to 2022	2021 Sexes Com- bined Harvest	2022 Sexes Com- bined Harvest	2022 95% CL ^b	Change from 2021 to 2022
Late Antlerless - WUP	0	0	0		0	0	0		0	0	0	
Late Antlerless - EUP	0	0	0		0	0	0		0	0	0	
Late Antlerless - NELP	3,558	2,466	647	-30.7	0	0	0		3,558	2,466	647	-30.7
Late Antlerless - NWLP	4,940	3,381	763	-31.6	0	0	0		4,940	3,381	763	-31.6
Late Antlerless - Sag. Bay	6,713	4,131	797	-38.5*	0	0	0		6,713	4,131	797	-38.5*
Late Antlerless - SWLP	6,539	4,582	801	-29.9*	0	0	0		6,539	4,582	801	-29.9*
Late Antlerless - SCLP	9,516	6,189	1,062	-35.0*	0	0	0		9,516	6,189	1,062	-35.0*
Late Antlerless - SELP	2,354	2,204	568	-6.4	0	0	0		2,354	2,204	568	-6.4
Late Antlerless - UP	0	0	0		0	0	0		0	0	0	
Late Antlerless - NLP	9,976	6,697	1,065	-32.9*	0	0	0		9,976	6,697	1,065	-32.9*
Late Antlerless - SLP	23,643	16,256	1,610	-31.2*	0	0	0		23,643	16,256	1,610	-31.2*
Late Antlerless - Statewide	33,620	22,953	1,966	-31.7*	0	0	0		33,620	22,953	1,966	-31.7*
Liberty (Youth) ^c -WUP	184	145	90	-21.3	391	237	93	-39.4	575	382	129	-33.6
Liberty (Youth) ^c -EUP	14	11	20	-24.9	74	71	49	-3.6	88	82	53	-7.1
Liberty (Youth) ^c -NELP	235	119	63	-49.3	508	558	152	9.8	742	677	164	-8.8
Liberty (Youth) ^c -NWLP	537	392	129	-27.1	1,131	996	195	-11.9	1,667	1,388	234	-16.8
Liberty (Youth) ^c -Sag. Bay	368	300	119	-18.5	1,387	1,032	193	-25.6	1,756	1,332	226	-24.1
Liberty (Youth) ^c -SW LP	284	223	91	-21.3	655	724	171	10.5	939	947	194	0.9
Liberty (Youth) ^c -SC LP	259	265	113	2.3	1,025	1,077	212	5.0	1,285	1,342	240	4.4
Liberty (Youth) ^c -SE LP	100	82	53	-18.1	389	399	132	2.6	489	481	142	-1.7
Liberty (Youth) ^c -UP	199	156	92	-21.6	465	309	105	-33.7	664	464	140	-30.0
Liberty (Youth) ^c -NLP	979	659	162	-32.7	1,933	1,790	264	-7.4	2,910	2,450	309	-15.8
Liberty (Youth) ^c -SLP	804	722	180	-10.2	3,161	2,995	347	-5.3	3,967	3,716	391	-6.3
Liberty (Youth) ^c -Statewide	1,982	1,537	259	-22.5	5,559	5,094	449	-8.4	7,541	6,631	519	-12.1

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.^b95 confidence limit for the 2022 estimate. *P<0.05.^cEstimates included results of both youth and hunters with disabilities.

Table 7 (continued). The number of deer harvested in Michigan by hunting season, 2021-2022.^a

Season and Area	2021 Antler- less Harvest	2022 Antler- less Harvest	2022 95% CL ^b	Change from 2021 to 2022 (%)	2021 Antlered Buck Harvest	2022 Antlered Buck Harvest	2022 95% CL ^b	Change from 2021 to 2022	2021 Sexes Com- bined Harvest	2022 Sexes Com- bined Harvest	2022 95% CL ^b	Change from 2021 to 2022
Independence - WUP	22	21	21	-5.5	28	26	12	-7.3	50	47	25	-6.6
Independence - EUP	7	3	4	-65.7	10	3	4	-74.5	18	5	6	-70.8
Independence - NELP	33	31	14	-7.7	44	31	14	-29.7	77	62	19	-20.3
Independence - NWLP	47	51	17	8.5	75	55	26	-27.3	122	106	31	-13.5
Independence - Sag. Bay	30	18	10	-39.9	78	54	18	-30.9	108	72	21	-33.4
Independence - SWLP	17	29	22	65.7	53	53	67	0.8	70	82	71	17.0
Independence - SCLP	20	18	10	-9.8	90	90	71	-0.3	110	108	72	-1.9
Independence - SELP	12	8	9	-38.2	20	21	21	5.2	33	29	23	-11.4
Independence - UP	30	24	22	-20.5	38	28	13	-25.2	68	52	25	-23.2
Independence - NLP	88	92	23	4.8	144	93	30	-35.4	232	185	38	-20.2
Independence - SLP	72	62	27	-13.8	216	210	101	-2.5	287	272	105	-5.3
Independence - Statewide	190	178	42	-6.2	397	332	107	-16.6	587	509	115	-13.2
Urban Archery -WUP	0	0	0		0	0	0		0	0	0	
Urban Archery -EUP	0	0	0		0	0	0		0	0	0	
Urban Archery -NELP	0	0	0		0	0	0		0	0	0	
Urban Archery -NWLP	0	0	0		0	0	0		0	0	0	
Urban Archery -Sag. Bay	0	0	0		0	0	0		0	0	0	
Urban Archery -SW LP	0	0	0		0	0	0		0	0	0	
Urban Archery -SC LP	0	0	0		0	0	0		0	0	0	
Urban Archery -SE LP	427	126	118	-70.5	172	68	94	-60.3	600	195	151	-67.5
Urban Archery -UP	0	0	0		0	0	0		0	0	0	
Urban Archery -NLP	0	0	0		0	0	0		0	0	0	
Urban Archery -SLP	427	126	118	-70.5	172	68	94	-60.3	600	195	151	-67.5
Urban Archery -Statewide	427	126	118	-70.5	172	68	94	-60.3	600	195	151	-67.5

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.^b95 confidence limit for the 2022 estimate. *P<0.05.

Table 7 (continued). The number of deer harvested in Michigan by hunting season, 2021-2022.^a

Season and Area	2021 Antler- less Harvest	2022 Antler- less Harvest	2022 95% CL ^b	Change from 2021 to 2022 (%)	2021 Antlered Buck Harvest	2022 Antlered Buck Harvest	2022 95% CL ^b	Change from 2021 to 2022	2021 Sexes Com- bined Harvest	2022 Sexes Com- bined Harvest	202295 % CL ^b	Change from 2021 to 2022
All Seasons - WUP	7,516	5,965	957	-20.6	22,430	19,988	1,681	-10.9	29,972	25,978	2,062	-13.3
All Seasons - EUP	659	703	284	6.6	3,567	3,968	742	11.2	4,231	4,677	816	10.5
All Seasons - NELP	22,232	19,745	2,056	-11.2	28,490	25,178	1,902	-11.6	50,721	44,913	3,029	-11.5
All Seasons - NWLP	30,057	24,704	2,198	-17.8*	37,244	30,079	2,146	-19.2*	67,298	54,767	3,374	-18.6*
All Seasons - Sag. Bay	31,209	20,973	1,997	-32.8*	38,512	33,256	2,230	-13.6*	69,717	54,234	3,296	-22.2*
All Seasons - SWLP	29,752	24,203	2,243	-18.7*	35,444	32,711	2,281	-7.7	65,190	56,906	3,602	-12.7*
All Seasons - SCLP	37,931	29,093	2,476	-23.3*	42,390	43,924	2,644	3.6	80,306	73,017	4,103	-9.1
All Seasons - SELP	12,227	10,059	1,488	-17.7	15,398	14,639	1,455	-4.9	27,623	24,697	2,267	-10.6
All Seasons - UP	8,175	6,668	998	-18.4	25,997	23,956	1,838	-7.9	34,203	30,655	2,218	-10.4
All Seasons - NLP	60,595	50,497	3,216	-16.7*	75,371	64,411	3,101	-14.5*	135,959	114,881	4,861	-15.5*
All Seasons - SLP	102,813	78,280	4,010	-23.9*	122,108	115,377	4,230	-5.5	224,897	193,652	6,537	-13.9*
All Seasons - Statewide	171,583	135,445	5,301	-21.1*	223,476	203,744	5,597	-8.8*	395,059	339,189	8,531	-14.1*

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.^b95 confidence limit for the 2022 estimate. *P<0.05.

Table 8. The number of deer harvested on public and private lands during all seasons combined in Michigan by management region, 2021-2022.^a

Land Type and Area	2021 Antler-less Harvest	2022 Antler-less Harvest	2022 95% CL ^b	Change from 2021 to 2022 (%)	2021 Antlered Buck Harvest	2022 Antlered Buck Harvest	2022 95% CL ^b	Change from 2021 to 2022	2021 Sexes Combined Harvest	2022 Sexes Combined Harvest	2022 95% CL ^b	Change from 2021 to 2022
Public - WUP	1,401	1,741	574	24.3	5,811	5,229	859	-10.0	7,213	6,947	1,119	-3.7
Public - EUP	155	215	162	38.5	908	961	352	5.8	1,064	1,170	399	10.0
Public - NELP	4,512	4,717	897	4.6	6,748	4,896	810	-27.4*	11,260	9,623	1,326	-14.5
Public - NWLP	4,414	4,176	826	-5.4	6,061	4,545	816	-25.0	10,475	8,727	1,239	-16.7
Public - Sag. Bay	2,641	2,504	714	-5.2	2,567	2,849	658	11.0	5,207	5,356	1,057	2.9
Public - SW LP	2,336	1,748	559	-25.2	1,737	1,603	456	-7.7	4,072	3,356	785	-17.6
Public - SCLP	2,218	2,263	732	2.1	2,086	1,969	529	-5.6	4,303	4,239	982	-1.5
Public - SELP	608	822	369	35.1	1,139	1,224	427	7.5	1,747	2,044	610	17.0
Public – UP	1,556	1,956	596	25.7	6,719	6,190	929	-7.9	8,277	8,117	1,188	-1.9
Public - NLP	10,297	9,691	1,273	-5.9	13,874	10,638	1,218	-23.3*	24,171	20,343	1,903	-15.8
Public - SLP	6,431	6,540	1,167	1.7	6,463	6,448	971	-0.2	12,893	13,003	1,656	0.8
Public – Statewide	18,284	18,187	1,834	-0.5	27,057	23,276	1,838	-14.0	45,341	41,463	2,809	-8.6
Private - WUP	6,112	4,210	760	-31.1*	16,619	14,795	1,437	-11.0	22,751	19,035	1,714	-16.3*
Private - EUP	504	486	233	-3.4	2,658	3,013	654	13.4	3,166	3,508	713	10.8
Private - NELP	17,711	14,997	1,817	-15.3	21,741	20,307	1,722	-6.6	39,450	35,294	2,691	-10.5
Private - NWLP	25,638	20,516	2,026	-20.0*	31,183	25,548	1,976	-18.1*	56,817	46,042	3,103	-19.0*
Private - Sag. Bay	28,572	18,474	1,846	-35.3*	35,946	30,396	2,130	-15.4*	64,516	48,876	3,097	-24.2*
Private - SW LP	27,420	22,477	2,152	-18.0*	33,708	31,082	2,220	-7.8	61,125	53,546	3,471	-12.4*
Private - SCLP	35,721	26,853	2,365	-24.8*	40,304	41,918	2,590	4.0	76,013	68,773	3,969	-9.5
Private - SELP	11,621	9,244	1,439	-20.5	14,259	13,410	1,382	-6.0	25,879	22,652	2,154	-12.5
Private - UP	6,616	4,696	795	-29.0*	19,277	17,808	1,579	-7.6	25,918	22,543	1,857	-13.0
Private - NLP	50,281	40,763	2,926	-18.9*	61,496	53,814	2,847	-12.5*	111,770	94,545	4,428	-15.4*
Private - SLP	96,403	71,798	3,814	-25.5*	115,646	108,846	4,104	-5.9	212,030	180,638	6,269	-14.8*
Private - Statewide	153,299	117,258	4,939	-23.5*	196,419	180,468	5,271	-8.1*	349,718	297,726	7,980	-14.9*

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.^b95 confidence limit for the 2022 estimate. *P<0.05.

Table 9. The percentage of deer hunters harvesting deer in Michigan during all seasons, 2022.^a

Sex and Area	≥1 deer	95% CL ^b	≥2 deer	95% CL ^b	≥3 deer	95% CL ^b	≥4 deer	95% CL ^b	≥5 deer	95% CL ^b
Antlerless - WUP	9.4	1.4	1.3	0.5	0.2	0.2	0.0	0.0	0.0	0.0
Antlerless - EUP	4.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Antlerless - NELP	17.4	1.4	3.6	0.7	1.0	0.4	0.5	0.3	0.3	0.2
Antlerless - NWLP	20.2	1.5	4.4	0.7	1.0	0.4	0.4	0.2	0.2	0.1
Antlerless - Sag. Bay	21.0	1.6	4.5	0.8	1.1	0.4	0.3	0.2	0.2	0.2
Antlerless - SWLP	23.4	1.7	6.1	1.0	1.9	0.5	0.6	0.3	0.1	0.1
Antlerless - SCLP	23.8	1.6	6.3	0.9	1.7	0.5	0.6	0.3	0.2	0.2
Antlerless - SELP	18.6	2.2	4.4	1.2	0.8	0.5	0.4	0.3	0.2	0.2
Antlerless - UP	8.4	1.2	1.0	0.4	0.2	0.2	0.0	0.0	0.0	0.0
Antlerless - NLP	19.2	1.0	4.1	0.5	1.1	0.3	0.5	0.2	0.3	0.1
Antlerless - SLP	23.1	0.9	6.0	0.5	1.6	0.3	0.6	0.2	0.2	0.1
Antlerless - Statewide ^d	21.0	0.7	5.2	0.4	1.4	0.2	0.5	0.1	0.2	0.1
Antlered - WUP	33.9	2.3	3.3	0.9	0	0	0	0	0	0
Antlered - EUP	24.0	3.9	1.8	1.2	0	0	0	0	0	0
Antlered - NELP	26.6	1.7	2.8	0.6	0	0	0	0	0	0
Antlered - NWLP	27.4	1.6	4.9	0.8	0	0	0	0	0	0
Antlered - Sag. Bay	37.6	1.9	5.9	0.9	0	0	0	0	0	0
Antlered - SWLP	36.4	2.0	7.6	1.1	0	0	0	0	0	0
Antlered - SCLP	41.1	1.8	8.6	1.1	0	0	0	0	0	0
Antlered - SELP	32.3	2.6	4.1	1.1	0	0	0	0	0	0
Antlered - UP	31.9	2.0	3.0	0.7	0	0	0	0	0	0
Antlered - NLP	28.2	1.1	4.2	0.5	0	0	0	0	0	0
Antlered - SLP	39.3	1.1	7.5	0.6	0	0	0	0	0	0
Antlered - Statewide ^d	36.5	0.8	6.4	0.4	0	0	0	0	0	0

^aExcluded people that did not hunt during the season and deer taken with DMA permits.

^b95 confidence limit.

^cThe season bag limit for antlered deer was two.

^dThe statewide estimate was derived from all hunters, including hunters that had failed to report where they hunted. In contrast, regional estimates were derived from only hunters that had reported hunting in the area.

Table 9 (continued). The percentage of deer hunters harvesting deer in Michigan during all seasons, 2022.^a

Sex and Area	≥1 deer	95% CL ^b	≥2 deer	95% CL ^b	≥3 deer	95% CL ^b	≥4 deer	95% CL ^b	≥5 deer	95% CL ^b
Both sexes - WUP	40.3	2.4	6.6	1.2	1.0	0.5	0.2	0.2	0.0	0.0
Both sexes - EUP	27.6	4.0	2.8	1.5	0.0	0.0	0.0	0.0	0.2	0.2
Both sexes - NELP	39.7	1.9	9.2	1.1	2.0	0.5	0.6	0.3	0.2	0.2
Both sexes - NWLP	42.0	1.8	12.3	1.2	2.9	0.6	0.8	0.3	0.2	0.2
Both sexes - Sag. Bay	51.2	2.0	15.0	1.4	3.1	0.7	0.9	0.4	0.2	0.2
Both sexes - SWLP	50.9	2.0	17.9	1.6	5.0	0.9	1.9	0.6	0.3	0.3
Both sexes - SCLP	54.6	1.9	20.0	1.5	5.0	0.8	1.7	0.5	0.2	0.2
Both sexes - SELP	45.0	2.8	12.2	1.8	2.7	0.9	0.8	0.5	0.4	0.4
Both sexes - UP	37.7	2.1	5.9	1.0	0.8	0.4	0.1	0.1	0.1	0.1
Both sexes - NLP	42.2	1.2	11.4	0.8	2.6	0.4	0.8	0.2	0.2	0.2
Both sexes - SLP	53.0	1.1	18.2	0.9	4.7	0.5	1.6	0.3	0.4	0.4
Both sexes - Statewide ^d	49.7	0.8	15.7	0.6	3.9	0.3	1.3	0.2	0.5	0.1

^aExcluded people that did not hunt during the season and deer taken with DMA permits.

^b95 confidence limit.

^cThe season bag limit for antlered deer was two.

^dThe statewide estimate was derived from all hunters, including hunters that had failed to report where they hunted. In contrast, regional estimates were derived from only hunters that had reported hunting in the area.

Table 10. The percentage of deer hunters harvesting at least one deer in Michigan by hunting season, 2022.^a

Sex and Area	Archery Success	95% CL ^b	Regular Firearm Success	95% CL ^b	Muzzle- loader Success	95% CL ^b	Early Antlerless Success	95% CL ^b	Late Antlerless Success	95% CL ^b	Liberty (Youth) Success	95% CL ^b
Antlerless - WUP	9.7	2.5	5.8	1.2	8.9	3.4	0.0	0.0	0.0	0.0	15.3	8.5
Antlerless - EUP	6.1	3.9	1.7	1.2	6.1	5.3	0.0	0.0	0.0	0.0	4.1	7.6
Antlerless - NELP	12.2	1.9	11.9	1.3	7.9	2.8	25.2	12.0	34.4	6.9	6.3	3.3
Antlerless - NWLP	10.1	1.5	14.8	1.4	7.0	2.3	23.5	10.0	27.6	4.9	10.0	3.2
Antlerless - Sag. Bay	10.3	1.7	12.7	1.5	9.7	2.7	27.4	10.0	32.5	5.0	8.6	3.3
Antlerless - SWLP	11.1	1.6	15.6	1.7	8.9	2.2	31.2	11.7	27.4	4.1	7.1	2.8
Antlerless - SCLP	10.2	1.5	15.2	1.5	11.2	2.3	26.8	10.3	29.1	3.9	7.2	3.0
Antlerless - SELP	8.6	1.9	11.7	2.2	7.8	3.1	22.9	12.2	30.3	6.5	5.2	3.3
Antlerless - UP	9.0	2.1	4.9	1.0	8.3	2.9	0.0	0.0	0.0	0.0	12.9	7.0
Antlerless - NLP	11.0	1.1	13.6	0.9	7.0	1.7	24.6	7.2	30.7	3.8	9.8	2.3
Antlerless - SLP	10.5	0.9	14.3	0.9	10.1	1.3	27.5	5.7	29.6	2.4	6.6	1.6
Antlerless - Statewide	11.2	0.7	13.1	0.6	9.3	1.0	25.1	4.2	30.1	2.0	7.9	1.3
Antlered – WUP	19.8	3.4	30.1	2.3	8.7	3.4	0.0	0.0	0.0	0.0	25.0	8.7
Antlered – EUP	14.9	5.7	20.2	3.9	10.1	6.7	0.0	0.0	0.0	0.0	27.5	17.3
Antlered – NELP	14.1	2.0	23.3	1.8	5.2	2.3	0.0	0.0	0.0	0.0	29.3	7.0
Antlered – NWLP	19.4	2.0	20.6	1.6	5.6	2.1	0.0	0.0	0.0	0.0	25.4	4.5
Antlered - Sag. Bay	26.2	2.4	28.8	2.0	8.0	2.5	0.0	0.0	0.0	0.0	29.5	4.9
Antlered – SWLP	27.4	2.3	25.8	2.0	8.1	2.1	0.0	0.0	0.0	0.0	23.0	4.9
Antlered – SCLP	30.1	2.2	29.9	1.9	7.6	1.9	0.0	0.0	0.0	0.0	29.2	5.0
Antlered – SELP	24.8	3.0	22.3	2.8	5.8	2.7	0.0	0.0	0.0	0.0	25.1	7.5
Antlered – UP	18.9	2.9	28.0	2.0	9.1	3.0	0.0	0.0	0.0	0.0	25.5	7.8
Antlered – NLP	18.1	1.4	22.6	1.1	6.1	1.6	0.0	0.0	0.0	0.0	26.6	3.5
Antlered – SLP	28.8	1.3	28.1	1.1	7.5	1.2	0.0	0.0	0.0	0.0	27.4	2.8
Antlered – Statewide	25.3	1.0	26.7	0.8	7.5	0.9	0.0	0.0	0.0	0.0	26.3	2.1

^aExcluded people that did not hunt during the season and deer taken with DMA permits.

^b95 confidence limit.

Table 10 (continued). The percentage of deer hunters harvesting at least one deer in Michigan by hunting season, 2022.^a

Sex and Area	Archery Success	95% CL ^b	Regular Firearm Success	95% CL ^b	Muzzle- loader Success	95% CL ^b	Early Antlerless Success	95% CL ^b	Late Antlerless Success	95% CL ^b	Liberty (Youth) Success	95% CL ^b
Both sexes - WUP	27.8	3.8	34.3	2.4	17.2	4.5	0.0	0.0	0.0	0.0	40.3	10.4
Both sexes - EUP	20.3	6.5	21.7	4.0	16.2	8.2	0.0	0.0	0.0	0.0	31.6	18.3
Both sexes - NELP	24.7	2.5	33.2	2.0	13.1	3.5	25.2	12.0	34.4	6.9	35.6	7.4
Both sexes - NWLP	27.8	2.3	32.5	1.9	12.4	3.0	23.5	10.0	27.6	4.9	35.5	5.1
Both sexes - Sag. Bay	34.0	2.6	38.2	2.2	17.8	3.5	27.4	10.0	32.5	5.0	38.1	5.5
Both sexes - SWLP	34.2	2.5	37.9	2.3	16.6	2.9	31.2	11.7	27.4	4.1	30.1	5.4
Both sexes - SCLP	36.2	2.3	41.2	2.1	18.3	2.8	26.8	10.3	29.1	3.9	36.4	5.4
Both sexes - SELP	31.9	3.2	31.2	3.1	13.5	3.9	22.9	12.2	30.3	6.5	30.3	8.0
Both sexes - UP	26.4	3.3	31.5	2.1	17.0	4.0	0.0	0.0	0.0	0.0	38.4	9.2
Both sexes - NLP	27.3	1.6	33.5	1.3	13.0	2.2	24.6	7.2	30.7	3.8	36.5	3.9
Both sexes - SLP	35.7	1.4	38.8	1.2	17.4	1.7	27.5	5.7	29.6	2.4	34.0	3.0
Both sexes - Statewide	33.4	1.0	36.7	0.8	16.5	1.3	25.1	4.2	30.1	2.0	34.2	2.3

^aExcluded people that did not hunt during the season and deer taken with DMA permits.

^b95 confidence limit.

Table 10 (continued). The percentage of deer hunters harvesting at least one deer in Michigan by hunting season, 2022.^a

Sex and Area	Indepen- dence Success	95% CL ^b	Urban Archery Success	95% CL ^b	All Seasons Success	95% CL ^b
Antlerless - WUP	16.8	14.9	0.0	0.0	9.4	1.4
Antlerless - EUP	10.0	14.9	0.0	0.0	4.5	1.8
Antlerless - NELP	11.3	6.2	0.0	0.0	17.4	1.4
Antlerless - NWLP	11.8	4.8	0.0	0.0	20.2	1.5
Antlerless - Sag. Bay	5.2	3.4	0.0	0.0	21.0	1.6
Antlerless - SWLP	11.9	9.5	0.0	0.0	23.4	1.7
Antlerless - SCLP	4.4	2.9	0.0	0.0	23.8	1.6
Antlerless - SELP	2.6	3.1	6.0	5.5	18.6	2.2
Antlerless - UP	15.6	12.8	0.0	0.0	8.4	1.2
Antlerless - NLP	11.7	3.5	0.0	0.0	19.2	1.0
Antlerless - SLP	5.4	2.5	6.0	5.5	23.1	0.9
Antlerless - Statewide	7.5	1.9	5.9	5.4	21.0	0.7
Antlered - WUP	20.3	9.5	0.0	0.0	33.9	2.3
Antlered - EUP	10.0	14.9	0.0	0.0	24.0	3.9
Antlered - NELP	11.3	6.2	0.0	0.0	26.6	1.7
Antlered - NWLP	12.5	6.2	0.0	0.0	27.4	1.6
Antlered - Sag. Bay	15.6	6.7	0.0	0.0	37.6	1.9
Antlered - SWLP	22.0	22.9	0.0	0.0	36.4	2.0
Antlered - SCLP	21.8	15.5	0.0	0.0	41.1	1.8
Antlered - SELP	10.9	11.1	3.3	4.4	32.3	2.6
Antlered - UP	18.6	8.3	0.0	0.0	31.9	2.0
Antlered - NLP	11.8	4.1	0.0	0.0	28.2	1.1
Antlered - SLP	19.0	8.3	3.3	4.4	39.3	1.1
Antlered - Statewide	14.1	4.3	3.2	4.3	36.5	0.8

^aExcluded people that did not hunt during the season and deer taken with DMA permits.

^b95 confidence limit.

Table 10 (continued). The percentage of deer hunters harvesting at least one deer in Michigan by hunting season, 2022.^a

Sex and Area	Indepen- dence Success	95% CL ^b	Urban Archery Success	95% CL ^b	All Seasons Success	95% CL ^b
Both sexes - WUP	37.1	14.3	0.0	0.0	40.3	2.4
Both sexes - EUP	20.0	19.9	0.0	0.0	27.6	4.0
Both sexes - NELP	22.5	10.0	0.0	0.0	39.7	1.9
Both sexes - NWLP	23.7	8.2	0.0	0.0	42.0	1.8
Both sexes - Sag. Bay	20.8	8.2	0.0	0.0	51.2	2.0
Both sexes - SWLP	33.9	21.3	0.0	0.0	50.9	2.0
Both sexes - SCLP	26.2	15.6	0.0	0.0	54.6	1.9
Both sexes - SELP	13.5	11.6	9.3	6.9	45.0	2.8
Both sexes – UP	34.2	12.6	0.0	0.0	37.7	2.1
Both sexes – NLP	23.1	5.8	0.0	0.0	42.2	1.2
Both sexes – SLP	24.3	8.5	9.3	6.9	53.0	1.1
Both sexes – Statewide	21.4	4.8	9.1	6.8	49.7	0.8

^aExcluded people that did not hunt during the season and deer taken with DMA permits.

^b95 confidence limit.

Table 11. Level of satisfaction and dissatisfaction with the number of deer seen among Michigan deer hunters, 2021-2022.

Area	2021 Satisfied hunters (%) ^a	2022 Satisfied hunters (%) ^a	95% CL ^c	Difference from 2021 to 2022 (%)	2021 Dissatisfied hunters (%) ^b	2022 Dissatisfied hunters (%) ^b	95% CL ^c	Difference from 2021 to 2022 (%)
West UP	37	38	2	1	47	48	2	1
East UP	27	35	5	8	60	53	5	-7
NE LP	33	38	2	5*	53	45	2	-8*
NW LP	36	38	2	3	49	44	2	-5*
Sag. Bay	51	53	2	2	33	30	2	-3
SW LP	53	57	2	5*	31	25	2	-6*
SC LP	59	61	2	2	27	23	2	-4*
SE LP	49	49	3	0	32	32	3	0
UP	35	37	2	2	49	49	2	0
NLP	35	39	1	4*	50	43	1	-6*
SLP	55	57	1	2	29	26	1	-3*
Statewide	44	47	1	3*	40	36	1	-4*

^aIncluded hunters who were "very satisfied" or "somewhat satisfied."^bIncluded hunters who were "somewhat dissatisfied" or "strongly dissatisfied."^c95 confidence limit for the 2022 estimate.

*P<0.05.

Table 12. Level of satisfaction and dissatisfaction with the number of antlered deer (bucks) seen among Michigan deer hunters, 2021-2022.

Area	2021 Satisfied hunters (%) ^a	2022 Satisfied hunters (%) ^a	95% CL ^c	Difference from 2021 to 2022 (%)	2021 Dissatisfied hunters (%) ^b	2022 Dissatisfied hunters (%) ^b	95% CL ^c	Difference from 2021 to 2022 (%)
West UP	25	23	2	-2	59	62	2	3
East UP	17	22	4	5	70	64	5	-6
NE LP	23	22	2	-1	61	58	2	-3
NW LP	28	26	2	-2	55	54	2	-1
Sag. Bay	37	36	2	-1	45	43	2	-2
SW LP	40	40	2	-1	42	40	2	-2
SC LP	45	46	2	1	37	34	2	-3
SE LP	34	34	3	-1	44	46	3	1
UP	24	23	2	-1	61	62	2	1
NLP	26	25	1	-1	57	55	1	-2
SLP	41	41	1	0	40	39	1	-2
Statewide	33	32	1	-1	50	48	1	-2*

^aIncluded hunters who were "very satisfied" or "somewhat satisfied."^bIncluded hunters who were "somewhat dissatisfied" or "strongly dissatisfied."^c95 confidence limit for the 2022 estimate.

*P<0.05.

Table 13. Level of satisfaction and dissatisfaction with the size of the antlers on antlered deer (bucks) among Michigan deer hunters, 2021-2022.

Area	2021 Satisfied hunters (%) ^a	2022 Satisfied hunters (%) ^a	95% CL ^c	Difference from 2021 to 2022 (%)	2021 Dissatisfied hunters (%) ^b	2022 Dissatisfied hunters (%) ^b	95% CL ^c	Difference from 2021 to 2022 (%)
West UP	20	17	2	-3	55	59	2	4
East UP	14	17	4	3	62	57	5	-5
NE LP	21	19	2	-2	49	49	2	0
NW LP	27	24	2	-4*	45	46	2	1
Sag. Bay	28	29	2	1	45	44	2	-1
SW LP	33	32	2	-2	40	39	2	-1
SC LP	37	36	2	0	39	35	2	-3
SE LP	27	28	3	1	43	43	3	0
UP	19	17	2	-2	57	59	2	2
NLP	24	22	1	-2*	47	47	1	0
SLP	33	33	1	0	41	39	1	-1
Statewide	28	26	1	-1	45	45	1	0

^aIncluded hunters who were "very satisfied" or "somewhat satisfied."

^bIncluded hunters who were "somewhat dissatisfied" or "strongly dissatisfied."

^c95 confidence limit for the 2022 estimate.

*P<0.05.

Table 14. Level of satisfaction and dissatisfaction with overall deer hunting experience among Michigan deer hunters, 2021-2022.

Area	2021 Satisfied hunters (%) ^a	2022 Satisfied hunters (%) ^a	95% CL ^c	Difference from 2021 to 2022 (%)	2021 Dissatisfied hunters (%) ^b	2022 Dissatisfied hunters (%) ^b	95% CL ^c	Difference from 2021 to 2022 (%)
West UP	48	46	2	-2	31	31	2	0
East UP	42	41	5	-1	36	38	5	2
NE LP	48	47	2	-1	31	29	2	-2
NW LP	48	49	2	1	30	27	2	-3
Sag. Bay	58	57	2	-1	22	21	2	-2
SW LP	62	60	2	-2	20	18	2	-2
SC LP	62	63	2	1	19	16	1	-4*
SE LP	57	56	3	-1	20	21	3	2
UP	47	45	2	-2	32	32	2	1
NLP	49	49	1	1	31	27	1	-3*
SLP	61	60	1	-1	20	18	1	-1
Statewide	54	54	1	-1	26	24	1	-2*

^aIncluded hunters who were "very satisfied" or "somewhat satisfied."

^bIncluded hunters who were "somewhat dissatisfied" or "strongly dissatisfied."

^c95 confidence limit for the 2022 estimate.

*P<0.05.

Table 15. Level of satisfaction and dissatisfaction with the number of deer harvested among Michigan deer hunters, 2021-2022.

Area	2021 Satisfied hunters (%) ^a	2022 Satisfied hunters (%) ^a	95% CL ^c	Difference from 2021 to 2022 (%)	2021 Dissatisfied hunters (%) ^b	2022 Dissatisfied hunters (%) ^b	95% CL ^c	Difference from 2021 to 2022 (%)
West UP	36	33	2	-2	29	28	2	-1
East UP	24	24	4	1	34	35	5	1
NE LP	33	31	2	-2	32	31	2	-1
NW LP	37	33	2	-4*	32	29	2	-3
Sag. Bay	41	41	2	0	25	22	2	-3
SW LP	45	43	2	-2	24	22	2	-2
SC LP	45	45	2	0	23	19	2	-4*
SE LP	39	39	3	1	26	24	3	-2
UP	33	32	2	-2	30	29	2	-1
NLP	35	33	1	-2	32	29	1	-3*
SLP	44	43	1	-1	24	21	1	-3*
Statewide	39	37	1	-1	28	25	1	-2*

^aIncluded hunters who were "very satisfied" or "somewhat satisfied."

^bIncluded hunters who were "somewhat dissatisfied" or "strongly dissatisfied."

^c95 confidence limit for the 2022 estimate.

*P<0.05.

Table 16. Level of satisfaction and dissatisfaction with the number of deer seen among Michigan deer hunters in 2022. Estimates are provided separately for hunters hunting on private land only and public land only within the hunter's preferred hunt area.

Preferred hunt area	2021 Satisfied private land hunters (%) ^a		2021 Satisfied public land hunters (%) ^a		Difference between land types (%)	2021 Dissatisfied private land hunters (%) ^b		2021 Dissatisfied public land hunters (%) ^b		Difference between land types (%)
	95% CL		95% CL			95% CL		95% CL		
West UP	43	3	33	5	-11*	41	3	57	6	16*
East UP	42	6	31	10	-11	46	6	58	11	12
NE LP	44	3	26	4	-18*	40	3	58	4	19*
NW LP	46	2	21	4	-25*	36	2	63	4	27*
Sag. Bay	57	2	32	6	-25*	27	2	45	7	17*
SW LP	60	2	29	8	-32*	23	2	46	9	23*
SC LP	63	2	38	7	-25*	21	2	43	8	22*
SE LP	52	3	19	8	-33*	28	3	70	10	43*
UP	43	3	32	5	-11*	42	3	57	5	15*
NLP	45	2	24	3	-21*	37	2	59	3	22*
SLP	60	1	31	4	-29*	23	1	48	4	25*
Statewide	53	1	27	2	-26*	30	1	56	2	26*

Table 17. Level of satisfaction and dissatisfaction with the number of antlered deer (bucks) seen among Michigan deer hunters in 2022. Estimates are provided separately for hunters hunting on private land only and public land only within the hunter's preferred hunt area.

Preferred hunt area	2021 Satisfied private land hunters (%) ^a		2021 Satisfied public land hunters (%) ^a		Difference between land types (%)	2021 Dissatisfied private land hunters (%) ^b		2021 Dissatisfied public land hunters (%) ^b		Difference between land types (%)
	95% CL		95% CL			95% CL		95% CL		
West UP	27	3	21	5	-6	56	3	64	6	8
East UP	24	6	26	10	2	62	6	63	11	1
NE LP	26	2	13	3	-13*	54	3	67	4	14*
NW LP	31	2	15	3	-16*	48	2	68	4	20*
Sag. Bay	38	2	24	6	-14*	41	2	49	7	8
SW LP	42	2	21	7	-22*	38	2	51	9	13*
SC LP	48	2	24	7	-23*	32	2	49	8	17*
SE LP	35	3	17	8	-19*	44	3	64	10	21*
UP	27	3	22	4	-5	57	3	64	5	7
NLP	29	1	15	2	-15*	50	2	66	3	16*
SLP	43	1	22	4	-21*	37	1	51	4	14*
Statewide	36	1	18	2	-19*	44	1	62	2	19*

Table 18. Level of satisfaction and dissatisfaction with the size of the antlers seen on antlered deer (bucks) by Michigan deer hunters in 2022. Estimates are provided separately for hunters hunting on private land only and public land only within the hunter's preferred hunt area.

Preferred hunt area	2021 Satisfied private land hunters (%) ^a		2021 Satisfied public land hunters (%) ^a		Difference between land types (%)	2021 Dissatisfied private land hunters (%) ^b		2021 Dissatisfied public land hunters (%) ^b		Difference between land types (%)
	95% CL		95% CL			95% CL		95% CL		
West UP	19	3	16	4	-4	58	3	55	6	-2
East UP	21	5	17	9	-4	56	6	55	11	0
NE LP	22	2	13	3	-9*	46	3	54	4	8*
NW LP	27	2	16	3	-11*	44	2	51	5	7
Sag. Bay	31	2	17	5	-14*	45	2	39	7	-5
SW LP	33	2	20	7	-13*	38	2	37	9	-1
SC LP	38	2	24	7	-13*	35	2	34	7	-1
SE LP	30	3	18	8	-12*	43	3	40	10	-2
UP	20	2	16	4	-4	57	3	55	5	-2
NLP	25	1	15	2	-10*	45	2	51	3	6*
SLP	34	1	21	4	-14*	39	1	37	4	-2
Statewide	29	1	16	2	-13*	43	1	49	2	6*

Table 19. Level of satisfaction and dissatisfaction with overall deer hunting experience among Michigan deer hunters in 2022. Estimates are provided separately for hunters hunting on private land only and public land only within the hunter's preferred hunt area.

Preferred hunt area	2021 Satisfied private land hunters (%) ^a		2021 Satisfied public land hunters (%) ^a		Difference between land types (%)	2021 Dissatisfied private land hunters (%) ^b		2021 Dissatisfied public land hunters (%) ^b		Difference between land types (%)
	95% CL		95% CL			95% CL		95% CL		
West UP	51	3	43	6	-8	27	3	33	5	6
East UP	43	6	39	11	-4	37	6	43	11	6
NE LP	51	3	41	4	-10*	26	2	37	4	11*
NW LP	54	2	39	4	-15*	22	2	40	5	18*
Sag. Bay	58	2	49	7	-9*	19	2	26	6	7
SW LP	62	2	43	9	-19*	17	2	32	8	15*
SC LP	65	2	49	8	-16*	14	1	28	7	14*
SE LP	58	3	40	10	-18*	19	3	41	10	22*
UP	49	3	42	5	-7	29	3	35	5	6
NLP	53	2	42	3	-12*	23	1	37	3	14*
SLP	62	1	45	4	-17*	17	1	31	4	15*
Statewide	57	1	42	2	-15*	20	1	36	2	15*

Table 20. Level of satisfaction and dissatisfaction with the number of deer harvested by Michigan deer hunters in 2022. Estimates are provided separately for hunters hunting on private land only and public land only within the hunter's preferred hunt area.

Preferred hunt area	2021 Satisfied private land hunters (%) ^a		2021 Satisfied public land hunters (%) ^a		Difference between land types (%)	2021 Dissatisfied private land hunters (%) ^b		2021 Dissatisfied public land hunters (%) ^b		Difference between land types (%)
	95% CL		95% CL			95% CL		95% CL		
West UP	38	3	29	5	-9*	27	3	26	5	-1
East UP	29	6	24	10	-5	35	6	39	11	4
NE LP	37	3	20	3	-17*	27	2	38	4	11*
NW LP	37	2	20	4	-17*	25	2	40	5	15*
Sag. Bay	44	2	27	6	-17*	21	2	27	6	6
SW LP	45	2	24	8	-21*	20	2	35	9	14*
SC LP	48	2	27	7	-20*	18	2	31	7	13*
SE LP	41	3	19	9	-22*	23	3	41	11	18*
UP	36	3	28	5	-8*	28	3	29	5	1
NLP	38	2	21	2	-17*	25	1	38	3	13*
SLP	45	1	25	4	-20*	20	1	33	4	13*
Statewide	42	1	23	2	-19*	23	1	35	2	12*

^aIncluded hunters who were "very satisfied" or "somewhat satisfied."

^bIncluded hunters who were "somewhat dissatisfied" or "strongly dissatisfied."

*P<0.05.

Table 21. The estimated proportion and number of archers that used a crossbow during 2022 archery season in Michigan, summarized by region.

Region	Archers using a crossbow (%)	95% CL	Archers using a crossbow (No.)	95% CL
UP	74.5	3.4	16,110	1,449
NLP	77.5	1.6	70,236	2,870
SLP	71.4	1.4	100,907	3,314
Unknown ^a	68.8	3.5	15,753	1,432
Statewide	73.4	1.0	203,007	4,154

^aRegion could not be determined when hunters did not report where they hunted or when hunters reported hunting in more than one region.

Table 22. The estimated hunter success of archers hunting with a crossbow during 2022 archery season in Michigan, summarized by type of deer and region.

Region	Antlerless		Antlered Bucks		Sexes Combined	
	(%) ^a	95% CL	(%) ^a	95% CL	(%) ^a	95% CL
UP	7.3	2.4	21.2	3.7	27.8	4.1
NLP	11.2	1.4	19.4	1.7	28.6	2.0
SLP	10.3	1.1	29.1	1.6	36.6	1.7
Unknown ^b	15.6	3.4	18.7	3.6	30.0	4.2
Statewide	10.8	0.8	24.3	1.1	32.6	1.2

^aPercentage of crossbow hunters harvesting at least one deer.

^bRegion could not be determined when hunters did not report where they hunted or when hunters reported hunting in more than one region.

Table 23. The estimated number of deer harvested by archers with a crossbow during 2022 archery season in Michigan, summarized by type of deer and region.

Region	Antlerless		Antlered Bucks		Sexes Combined	
	(No.)	95% CL	(No.)	95% CL	(No.)	95% CL
UP	1,253	441	3,279	663	4,533	816
NLP	8,211	1,168	13,915	1,422	22,126	1,947
SLP	11,099	1,378	30,000	2,056	41,099	2,631
Unknown ^a	2,723	697	3,125	703	5,848	1,094
Statewide	23,287	1,965	50,318	2,615	73,606	3,437

^aRegion could not be determined when hunters did not report where they hunted or when hunters reported hunting in more than one region.

Table 24. The estimated proportion and number of deer hunters that used a trail camera to hunt deer in Michigan, summarized by area. ^a

Area	Deer hunters using a trail camera (%)	95% CL	Deer hunters using a trail camera (No.)	95% CL
West UP	56	2	32,011	2,051
East UP	52	5	7,610	1,019
NE LP	39	2	32,318	2,056
NW LP	42	2	38,722	2,219
Sag. Bay	41	2	31,235	2,001
SW LP	42	2	30,947	1,983
SC LP	38	2	34,025	2,080
SE LP	44	3	15,803	1,445
UP	56	2	39,621	2,264
NLP	41	1	80,882	3,094
SLP	40	1	102,167	3,374
Statewide	42	1	226,457	4,359

^aExcluded license buyers that did not hunt.

Table 25. The estimated number of trail cameras used by deer hunters and the number of days these cameras were operated in Michigan during 2022, summarized by area.

Area	Mean trail cameras used	95% CL	Total trail cameras used	95% CL	Mean days trail cameras operated	95% CL	Total days trail cameras operated	95% CL
West UP	2.4	0.2	76,937	6,915	53.5	4.4	1,642,217	171,529
East UP	2.3	0.2	17,516	2,982	47.2	7.5	340,740	71,719
NE LP	2.7	0.1	86,605	7,254	71.6	5.7	2,147,563	222,610
NW LP	2.9	0.1	108,092	8,161	79.8	5.3	2,837,949	252,144
Sag. Bay	2.8	0.2	85,765	7,619	82.6	5.9	2,351,770	229,490
SW LP	3.0	0.2	91,076	8,573	84.5	5.6	2,357,210	222,990
SC LP	3.1	0.2	101,340	8,009	95.2	6.1	2,899,382	263,690
SE LP	2.5	0.2	38,278	4,545	84.1	8.5	1,187,202	166,815
UP	2.4	0.1	94,454	7,487	52.3	3.8	1,982,957	185,205
NLP	2.8	0.1	222,905	11,470	76.3	3.6	5,709,552	355,661
SLP	2.9	0.1	288,250	13,579	88.0	3.3	8,071,525	414,369
Statewide	2.8	0.1	614,793	17,988	76.8	2.1	15,937,953	547,771

^aExcluded license buyers that did not hunt and hunters that failed to report the number of cameras used and days of observation.

Table 26. The proportion of deer hunters using a trail camera that photographed the following selected carnivores, deer, and wild pig with their trail camera in 2022, summarized by area.^a

Area	Bear %	95% CL	Bobcat %	95% CL	Coyote %	95% CL	Deer %	95% CL	Fisher %	95% CL
West UP	49	3	18	3	46	3	97	1	14	2
East UP	36	7	19	5	44	7	95	3	8	4
NE LP	38	3	31	3	62	3	97	1	1	0.5
NW LP	33	3	37	3	64	3	98	1	0.3	0.3
Sag. Bay	9	2	18	3	66	3	98	1	1	1
SW LP	1	1	6	1	72	3	98	1	0.3	0.3
SC LP	1	1	9	2	69	3	98	1	0.5	0.4
SE LP	1	1	1	1	72	4	97	2	0.3	0.5
UP	47	3	18	2	45	3	96	1	13	2
NLP	34	2	34	2	64	2	98	1	1	0.3
SLP	1	0.4	7	1	69	2	98	1	0.4	0.2
Statewide	21	1	19	1	63	1	97	0.4	3	0.4

^aExcluded hunters that did not use a trail camera.

Table 26 (continued). The proportion of deer hunters using a trail camera that photographed the following selected carnivores, deer, and wild pig with their trail camera in 2022, summarized by area.^a

Preferred hunt area	Fox %	95% CL	Marten %	95% CL	Wild pig %	95% CL	Wolf %	95% CL
West UP	21	3	9	2	0.1	0.2	38	3
East UP	22	6	8	4	1	1	40	7
NE LP	29	3	1	1	0.2	0.2	1	1
NW LP	33	3	0.4	0.4	0.1	0.2	1	0.5
Sag. Bay	43	3	0.3	0.3	0.2	0.3	0.4	0.4
SW LP	42	3	0.4	0.4	0.1	0.1	0.5	0.4
SC LP	43	3	0.5	0.4	0.4	0.4	0.0	0.0
SE LP	46	5	0.4	1	0.2	0.5	0.1	0.1
UP	21	2	9	2	0.2	0.3	38	3
NLP	32	2	1	0.3	0.1	0.1	1	0.4
SLP	44	2	0.4	0.2	0.2	0.2	0.2	0.2
Statewide	35	1	2	0.3	0.2	0.1	7	1

^aExcluded hunters that did not use a trail camera.

Table 27. Comparison of estimated harvest and number of deer harvest reports submitted in 2022, summarized by season.^a

Season	Reports submitted	Estimated harvest	How much estimates differed from reports (%)
Archery	94,163	104,852	11
Early Antlerless Firearm	3,375	3,576	6
Independence Hunt	427	509	19
Late Antlerless Firearm	21,009	22,953	9
Late Urban Archery	212	195	-8
Liberty/Youth Hunt	6,310	6,631	5
Muzzleloader	19,301	18,702	-3
Regular Firearm	152,335	181,772	19
Total	297,132	339,189	14

^aHarvest estimates and counts did not include deer taken with DMA permits.

Table 28. Comparison of the differences between estimated deer harvest and mandatory harvest reporting by states that have conducted both surveys and mandatory harvest reporting concurrently.^a

State	Period	Number of years in the comparison	How much estimates differed from reports (%)
Alabama	2020-2021	2	51
Florida	2019-2020	2	72
Illinois	2001-2011	11	22
Indiana	2010	1	16
Louisiana	2008-2011	4	48
Louisiana	2012-2021	10	132
North Carolina	2010-2021	12	27
Oklahoma	2001-2014	14	46

^aInformation summarized from unpublished reports located on various state agency websites.

Table 29. The proportion of successful deer hunters that reported that the website or phone app for reporting their harvested deer easy or hard was it to use in 2022.^a

Preferred hunt area	Easy to use %	Easy to use 95% CL	Neither %	Neither 95% CL	Hard to use %	Hard to use 95% CL	Not sure %	Not sure 95% CL	No answer %	No answer 95% CL
West UP	61	4	9	2	20	3	8	2	2	1
East UP	53	8	10	5	21	7	12	5	5	4
NE LP	65	3	8	2	18	2	7	2	2	1
NW LP	68	3	9	2	15	2	6	1	2	1
Sag. Bay	63	3	11	2	18	2	6	1	2	1
SW LP	69	3	7	1	16	2	6	1	2	1
SC LP	70	2	9	1	14	2	5	1	2	1
SE LP	65	4	11	3	17	3	7	2	1	1
UP	60	3	9	2	20	3	9	2	3	1
NLP	66	2	9	1	16	1	7	1	2	1
SLP	68	1	9	1	16	1	6	1	2	0
Statewide	66	1	9	1	17	1	6	1	2	0

^aThe “easy to use” category combined respondents that reported the system was very easy to use or somewhat easy to use. The “hard to use” category included respondents that reported that the system was somewhat hard to use or very hard to use.

Table 30. The proportion of successful deer hunters that reported that the website or phone app for reporting their harvested deer easy or hard was it to use in 2022.^a

Group	Easy to use %	Easy to use 95% CL	Neither %	Neither 95% CL	Hard to use %	Hard to use 95% CL	Not sure %	Not sure 95% CL	No answer %	No answer 95% CL
All success hunters	66	1	9	1	17	1	6	1	2	0
Male hunters	65	1	9	1	17	1	6	1	2	0
Female hunters	70	3	9	2	14	3	5	2	1	1
Completely rural hunters	60	5	11	3	19	4	9	3	1	1
Mostly rural hunters	64	2	9	1	17	1	7	1	2	1
Mostly urban hunters	67	1	9	1	16	1	6	1	2	0
New hunters ^b	66	4	9	3	14	3	10	3	2	1
Repeat hunters	66	1	9	1	17	1	6	1	2	0
Ages 1-9	75	6	8	3	14	5	2	2	1	1
Ages 10-19	67	3	10	2	15	2	7	2	1	1
Ages 20-29	74	4	8	3	11	3	5	2	1	1
Ages 30-39	77	3	7	2	10	2	5	2	1	1
Ages 40-49	74	3	8	2	13	2	4	1	1	1
Ages 50-59	69	2	10	2	14	2	6	1	2	1
Ages 60-69	62	2	10	1	19	2	7	1	2	1
Ages 70-79	54	3	9	2	25	3	9	2	3	1
Ages 80+	39	6	8	3	31	6	14	4	8	4

^aThe “easy to use” category combined respondents that reported the system was very easy to use or somewhat east to use. The “hard to use” category included respondents that reported that the system was somewhat hard to use or very hard to use.

^bNew license buyers were defined as people that had not purchased a license during the previous 11 years (2011-2021).

Appendix A. The questionnaire that was used to collect data for the 2022 Michigan deer harvest survey.

Michigan Department of Natural Resources – Wildlife Division
PO Box 30030 Lansing MI 48909-7530

2022 MICHIGAN DEER HARVEST STUDY

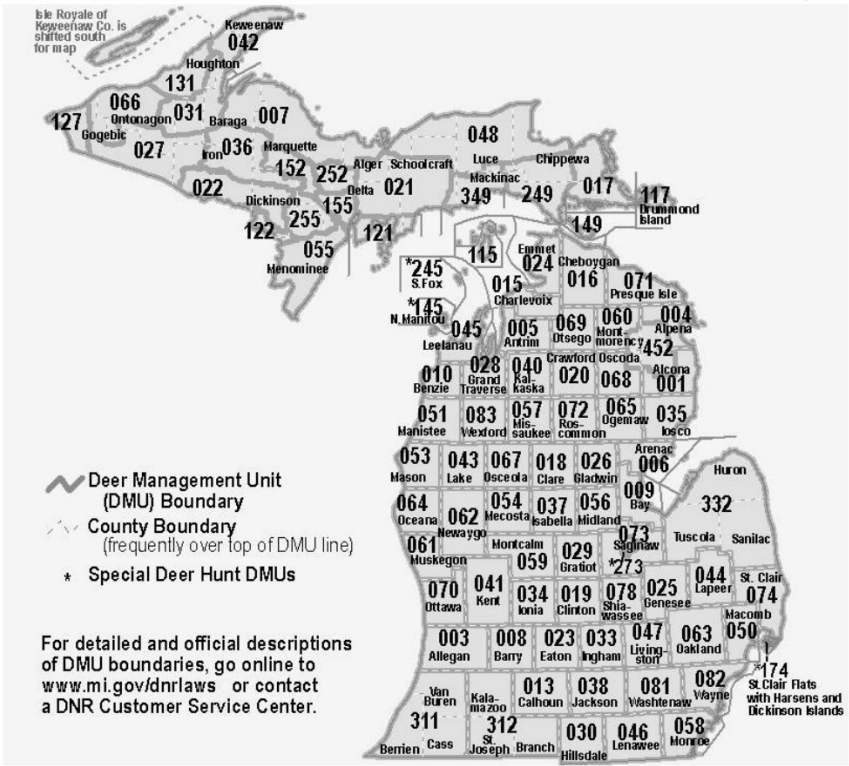
This information is requested under the authority of Part 435, 1994 PA 451, M.C.L. 324.43539.



It is important that you return this questionnaire even if you did not hunt or harvest a deer. Please report only your hunting activities, and only report taking a deer if your kill tag was attached to it.

1. Did you hunt deer in Michigan during the 2022 seasons?

1 ☐ Yes. 2 ☐ No. Skip to Question #12.



Appendix A (continued). The questionnaire that was used to collect data for the 2022 Michigan deer harvest survey.

2. In the following table, please report only **your** hunting activities and the deer tagged with **your** deer license. Report harvest and days hunted in different counties on separate rows. For each deer harvested, indicate the type of deer tagged (antlered buck or antlerless), and whether it was taken on public or private land. Antlered bucks have antlers at least 3 inches in length; antlerless deer include deer without antlers and deer with antlers less than 3 inches in length. Do not report hunting effort and harvest taken with Deer Management Assistance Permits.

SEASON HUNTED (Check box if you hunted during the season.)	LOCATION HUNTED (For each season hunted, list the management unit and county hunted on separate lines. See map on first page.)		NUMBER OF DAYS HUNTED	NUMBER OF DEER HARVESTED (Record by type of deer and land ownership type where each deer was taken.)			
	Deer Management Unit	County		Antlered Bucks		Antlerless	
				Public Land	Private Land	Public Land	Private Land
<input checked="" type="checkbox"/> Example	1 041	Kent	12	0	1	0	0
<input type="checkbox"/> Archery Oct 1-Nov 14 and Dec 1-Jan 1 (Statewide)	1						
	2						
	3						
<input type="checkbox"/> Regular Firearm Nov 15-30 (Statewide)	1						
	2						
	3						
<input type="checkbox"/> Muzzleloader Dec 2-11 (Statewide)	1						
	2						
	3						
<input type="checkbox"/> Early Firearm Sept 17-18 (Lower Peninsula)	1			Only antlerless deer could be taken on private land during the early firearm season			
	2						
	3						
<input type="checkbox"/> Late Firearm Dec 12-Jan 1 (Lower Peninsula)	1			Only antlerless deer could be taken on private land during the late firearm season			
	2						
	3						
<input type="checkbox"/> Liberty/Youth Hunt Sept 10-11 (Statewide)	1						
	2						
	3						
<input type="checkbox"/> Independence Hunt Oct 13-16 (Statewide)	1						
	2						
	3						
<input type="checkbox"/> Late Urban Archery Hunt Jan 2-31 (Macomb, Oakland, & Wayne counties only)	1						
	2						
	3						

Appendix A (continued). The questionnaire that was used to collect data for the 2022 Michigan deer harvest survey.

3. Did you use a crossbow to hunt deer during the archery season (Oct. 1- Nov. 14 and Dec. 1 - Jan. 1)?
- ¹ ☐ Yes ² ☐ No. Skip to Question #5.
4. If you used a crossbow to hunt deer during the archery season, how many deer did you take using the crossbow in 2022?
- _____ Report the number of antlerless deer you took with a crossbow.
- _____ Report the number of antlered deer (bucks) you took with a crossbow.
5. If you harvested a deer in 2022, how many of your deer were taken to a commercial meat processor for processing?
- _____ Report the number of deer taken to a commercial meat processor.
- 5a. To what extent do you agree or disagree that it more difficult than usual to locate a meat processor to butcher a deer in 2022?
- ¹ ☐ Strongly Agree ² ☐ Agree ³ ☐ Neither ⁴ ☐ Disagree ⁵ ☐ Strongly disagree ⁶ ☐ Not sure
6. What is your preferred county to hunt deer in Michigan? Please select one county from the counties you reported hunting during the 2022 seasons in Question #2.
-
- Please write county name
7. On what type of land did you hunt deer in your preferred county in 2022?
- ¹ ☐ Public ² ☐ Private ³ ☐ Both private and public lands
8. Please indicate how satisfied or dissatisfied you were with the following for the 2022 deer hunting seasons in your preferred county:
(Select one choice per item.)
- | | Very Satisfied | Somewhat Satisfied | Neutral | Somewhat Dissatisfied | Very Dissatisfied | Not Applicable |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| a. Number of deer you saw. | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> | 6 <input type="checkbox"/> |
| b. Number of antlered deer (bucks) you saw. | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> | 6 <input type="checkbox"/> |
| c. The size of the antlers on the bucks you saw. | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> | 6 <input type="checkbox"/> |
| d. Your overall deer hunting experience. | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> | 6 <input type="checkbox"/> |
| e. Number of deer you harvested. | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> | 6 <input type="checkbox"/> |
9. Did you use a trail camera to monitor deer activity in the county where you preferred to deer hunt in 2022?
- ¹ ☐ Yes ² ☐ No (If no, please skip to question 12.)
10. If you used a trail camera in 2022, how many cameras did you use and how many days did you use a camera to monitor deer activity in your preferred county?
- _____ Report the number of trail cameras you used in your preferred county.
- _____ Report the average number of days you used each trail camera in your preferred county.

Appendix A (continued). The questionnaire that was used to collect data for the 2022 Michigan deer harvest survey.

11. If you used a trail camera, which of the following animals did you photograph in the county where you preferred to deer hunt in 2022? (Select all that apply.)

- | | | | | |
|--|--|--|--|--|
| ⁰ <input type="checkbox"/> None | ¹ <input type="checkbox"/> Bear | ² <input type="checkbox"/> Bobcat | ³ <input type="checkbox"/> Coyote | ⁴ <input type="checkbox"/> Deer |
| ⁵ <input type="checkbox"/> Fisher | ⁶ <input type="checkbox"/> Fox | ⁷ <input type="checkbox"/> Marten | ⁸ <input type="checkbox"/> Wild pig | ⁹ <input type="checkbox"/> Wolf |

The next question is about the new mandatory deer harvest reporting process started in 2022. Since the 1950s, the DNR has relied on mail surveys that were sent to randomly selected hunters to estimate harvest. Estimates were accurate if most hunters returned their survey. Unfortunately, the proportion of hunters returning surveys has declined from an average of more than 70% in the early 2000s to 33% in 2021. Low response rates can lead to inaccurate estimates. To overcome these low response rates, all successful deer hunters were required to report all deer that they harvested beginning in 2022. Because harvest reporting was new this year, we want to evaluate how well the process worked.

12. If you reported taking a deer in 2022, how easy or hard was it to use the website or phone app for reporting your harvested deer? (Select one choice.)

- | | | | | | |
|---|---|---|---|---|--|
| ¹ <input type="checkbox"/> Very easy | ² <input type="checkbox"/> Somewhat easy | ³ <input type="checkbox"/> Neither | ⁴ <input type="checkbox"/> Somewhat hard | ⁵ <input type="checkbox"/> Very hard | ⁶ <input type="checkbox"/> Don't know |
|---|---|---|---|---|--|

Please return the questionnaire in the enclosed postage-paid envelope. Thanks for your help!

Appendix B. The estimated number of deer hunters, hunting effort, and deer harvested in Michigan during 2022, summarized by Deer Management Unit. ^a

DMU ^d	Hunters ^{b,c}	95% CL ^e	Hunting effort (days) ^b	95% CL	Antlerless deer taken	95% CL	Antlered bucks taken	95% CL	All deer taken	95% CL
001	5,428	853	51,071	11,186	1,130	526	1,449	436	2,579	767
003	11,193	1,198	131,636	19,591	3,677	934	4,135	823	7,812	1,404
004	4,036	738	34,589	8,063	586	262	1,230	430	1,816	562
005	4,587	780	40,115	9,711	1,071	445	1,655	493	2,726	685
006	5,632	855	63,469	15,697	1,496	594	2,030	538	3,526	856
007	5,558	856	53,051	11,314	126	118	2,000	514	2,126	544
008	9,195	1,096	112,518	19,022	2,133	622	3,800	771	5,933	1,095
009	3,896	711	46,279	11,840	876	366	1,305	430	2,181	647
010	3,523	684	41,504	12,273	455	249	1,370	474	1,825	598
013	8,573	1,063	94,178	17,230	2,619	729	3,508	752	6,127	1,185
015	3,888	721	35,459	9,559	1,412	770	1,186	417	2,598	943
016	5,364	844	53,486	13,060	1,069	543	1,543	459	2,612	758
017	3,614	695	40,568	12,235	264	176	1,089	387	1,353	435
018	9,992	1,139	103,944	16,870	1,987	554	3,211	697	5,198	967
019	8,803	1,063	96,956	16,398	2,538	664	3,708	755	6,246	1,140
020	6,214	909	50,714	11,238	1,145	435	1,124	388	2,269	633
021	5,309	841	56,601	12,262	275	177	1,259	398	1,534	465
022	5,850	885	54,761	11,092	712	333	2,088	551	2,800	683
023	7,419	989	101,600	19,157	2,211	704	3,427	723	5,638	1,080
024	3,764	707	37,813	10,730	1,047	534	1,088	401	2,135	731
025	7,688	1,000	95,851	17,192	1,587	507	2,802	623	4,389	881
026	11,113	1,209	106,232	17,418	2,584	790	3,989	786	6,573	1,188
027	2,599	593	21,064	6,003	283	187	916	359	1,199	405
028	5,694	868	66,722	14,209	1,768	608	1,423	452	3,191	834
029	7,471	987	78,062	14,211	3,005	845	3,692	765	6,697	1,346
030	7,468	986	87,689	15,575	1,984	610	3,504	730	5,488	1,055
031	2,988	632	27,085	7,703	3	4	1,063	394	1,066	394
033	6,962	956	95,358	18,443	2,401	816	2,976	677	5,377	1,215
034	8,052	1,012	96,449	17,928	3,031	870	3,305	719	6,336	1,363
035	6,457	924	66,425	14,707	851	354	2,359	579	3,210	730
036	4,177	750	34,134	8,206	213	162	1,151	419	1,364	468
037	8,313	1,040	92,320	16,228	1,710	536	3,145	689	4,855	950
038	12,119	1,255	152,054	22,441	3,568	886	5,298	926	8,866	1,447

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.

^bColumn totals for hunting effort and harvest may not equal regional and statewide totals because of rounding errors.

^cThe number of hunters does not add up to the statewide total because hunters can hunt in more than one DMU.

^dSee Figure 2 for the locations of DMUs.

^e95 confidence limit.

Appendix B (continued). The estimated number of deer hunters, hunting effort, and deer harvested in Michigan during 2022, summarized by Deer Management Unit.

DMU ^d	Hunters ^{b,c}	95% CL ^e	Hunting effort (days) ^b	95% CL	Antlerless deer taken	95% CL	Antlered bucks taken	95% CL	All deer taken	95% CL
040	5,974	892	53,617	12,828	1,171	413	1,459	479	2,630	698
041	10,785	1,171	126,805	19,786	2,624	748	4,072	795	6,696	1,216
042	1,947	510	19,506	6,572	0	0	535	256	535	256
043	12,275	1,268	130,683	20,067	2,047	552	2,337	637	4,384	921
044	10,711	1,172	143,538	23,070	3,270	785	4,010	762	7,280	1,234
045	3,459	681	43,821	13,423	693	327	1,465	491	2,158	647
046	6,244	906	90,770	18,430	1,925	563	2,529	644	4,454	952
047	7,988	1,021	111,860	21,278	2,095	649	2,465	602	4,560	1,013
048	3,019	639	23,743	6,436	11	20	578	297	589	297
050	3,356	661	29,125	7,768	838	455	988	374	1,826	625
051	8,126	1,033	72,844	13,554	2,024	789	2,118	603	4,142	1,033
053	8,488	1,048	94,155	17,664	2,636	700	2,614	634	5,250	1,043
054	10,799	1,182	114,279	18,310	2,697	689	4,234	793	6,931	1,155
055	11,199	1,217	116,675	17,030	2,340	629	4,506	791	6,846	1,120
056	8,076	1,030	100,184	17,734	1,712	582	3,230	700	4,942	970
057	7,135	967	66,690	14,607	1,112	410	1,992	537	3,104	743
058	4,079	731	55,117	13,522	706	333	996	367	1,702	546
059	11,830	1,228	136,457	20,183	3,098	747	5,895	971	8,993	1,355
060	7,535	1,004	49,820	9,165	1,267	445	1,198	414	2,465	663
061	5,421	833	68,942	16,101	1,052	388	1,602	525	2,654	729
062	15,495	1,409	157,994	22,751	3,424	793	4,233	779	7,657	1,238
063	7,260	979	83,236	16,919	897	377	2,199	548	3,096	703
064	8,928	1,075	91,001	15,634	2,885	792	2,694	620	5,579	1,140
065	9,547	1,121	97,447	15,646	2,265	716	2,898	631	5,163	1,020
066	3,291	664	28,478	8,294	9	7	780	319	789	319
067	9,870	1,125	99,286	21,011	2,471	718	2,971	672	5,442	1,070
068	5,898	886	48,760	9,758	1,079	404	1,229	415	2,308	594
069	4,975	812	45,051	10,596	999	370	1,093	376	2,092	575
070	7,746	991	93,390	18,037	1,370	435	2,531	609	3,901	802
071	8,320	1,052	77,545	14,075	2,081	711	2,252	572	4,333	1,008
072	8,698	1,073	82,289	15,900	1,253	413	1,724	492	2,977	707
073	7,552	980	89,858	16,136	2,337	652	3,170	659	5,507	1,059
074	9,563	1,116	120,872	20,174	2,450	907	3,160	690	5,610	1,206
078	7,041	957	86,157	16,959	1,477	491	3,652	777	5,129	1,037
081	9,168	1,097	99,235	17,730	1,889	605	3,815	789	5,704	1,082
082	1,239	409	18,943	8,058	245	199	255	176	500	281
083	7,372	984	71,823	14,645	1,400	538	1,345	407	2,745	743

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.

^bColumn totals for hunting effort and harvest may not equal regional and statewide totals because of rounding errors.

^cThe number of hunters does not add up to the statewide total because hunters can hunt in more than one DMU.

^dSee Figure 2 for the locations of DMUs.

^e95 confidence limit.

Appendix B (continued). The estimated number of deer hunters, hunting effort, and deer harvested in Michigan during 2022, summarized by Deer Management Unit.

DMU ^d	Hunters ^b ^c	95% CL ^e	Hunting effort (days) ^b	95% CL	Antlerless deer taken	95% CL	Antlered bucks taken	95% CL	All deer taken	95% CL
115	375	227	2,753	2,081	0	0	105	115	105	115
117	1,238	408	10,038	4,935	35	66	221	163	256	200
121	2,209	534	20,655	6,409	171	134	935	354	1,106	412
122	1,501	446	16,281	6,793	435	297	596	312	1,031	514
127	1,201	397	9,749	4,110	14	20	343	201	357	202
131	2,090	515	22,530	7,844	13	20	500	275	513	276
145	37	72	181	342	0	0	0	0	0	0
149	686	305	4,130	2,173	3	4	183	148	186	148
152	2,550	585	25,052	7,590	54	70	1,147	408	1,201	414
155	4,426	773	53,960	17,341	652	305	1,290	408	1,942	566
174	197	162	2,985	2,994	105	148	175	175	280	296
245	40	72	41	69	0	0	0	0	0	0
249	1,600	466	14,018	7,460	70	94	289	229	359	248
252	1,497	450	10,158	4,012	43	67	329	220	372	230
255	3,285	664	33,814	9,194	559	319	852	345	1,411	479
273	1,761	481	16,714	7,380	496	310	535	250	1,031	440
311	16,272	1,453	234,319	28,601	5,199	1,025	7,093	1,072	12,292	1,674
312	16,644	1,463	198,605	23,970	6,228	1,255	6,586	992	12,814	1,851
332	28,901	1,899	328,179	31,085	7,870	1,192	12,895	1,391	20,765	2,062
349	2,697	603	27,079	9,473	156	134	549	258	705	305
452	8,312	1,053	81,213	14,128	1,687	596	2,476	610	4,163	916

^aHarvest estimates do not include deer taken with DMA permits. An additional 6,577 deer were taken with these permits.

^bColumn totals for hunting effort and harvest may not equal regional and statewide totals because of rounding errors.

^cThe number of hunters does not add up to the statewide total because hunters can hunt in more than one DMU.

^dSee Figure 2 for the locations of DMUs.

^e95 confidence limit.