

2019 Connecticut Deer Program Summary



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Table of Contents

Introduction.....	4
Hunter Notes.....	4
Regulated Deer Harvest.....	5
Permit Allocation.....	5
Hunter Success.....	7
Archery Statistics.....	8
Connecticut Deer Management Zones.....	8
Insight into Deer Hunter Success Rates by Zone.....	10
Fall Acorn Crop.....	12
Private Land Deer Harvest.....	13
Harvest Effort, Observations, and Fawn Recruitment.....	14
Deer Harvest Sex Ratios.....	15
Antler Points and Yearling Fraction.....	16
Replacement Tags.....	16
Deer Hunter Expenditures, Effort, Venison Calculations, and Opinions.....	17
Subscription Rates for State Land Lottery Permits.....	18
Moose Sightings.....	18
Controlled Deer Hunts.....	19
Crop Damage Permits.....	20
Non-hunting Deer Mortality.....	20
Conclusion.....	21
Appendix 1. Total reported deer harvest and roadkills by town, 2019.....	23
Appendix 2. Deer harvest on state hunting areas, including Deer Lottery Hunting Areas (DLHA), 2019.....	27
Appendix 3. Sex ratios (male:female) of deer harvested during Connecticut's regulated hunting seasons, 2017-2019.....	30
Appendix 4. Non-hunting deer mortality reported in Connecticut, 2006-2019.....	31
Appendix 5. Frequency of deer roadkills in each of Connecticut's Deer Management Zones, a 5-year comparison, 2015-2019.....	31
Appendix 6. Deer removed using crop damage permits in Connecticut's Deer Management Zones, 2007-2019.....	32

List of Tables

- Table 1. Deer harvested during Connecticut's regulated hunting seasons, 2018-2019.
- Table 2. Deer hunting permits issued in Connecticut for all regulated hunting seasons, 2016-2019.
- Table 3. Deer hunter success rates (%) in Connecticut, 2016-2019.
- Table 4. Zonal hunter numbers, harvest, and success rates for private land during the 2019 shotgun/rifle hunting season.
- Table 5. Zonal comparisons in private land shotgun/rifle harvest, hunter distributions, and success rates, 2017-2019.
- Table 6. Zonal comparisons of archery season success rates, 2019.
- Table 7. Private land deer harvest for all seasons (excluding landowner) in each of Connecticut's Deer Management Zones, 2009-2019.
- Table 8. Hunter observations and harvest ratios reported during the first month of the archery season in Connecticut, 2016-2019.
- Table 9. Observation rates (deer seen/hour; D/hr), number of fawns per doe (F:D), and number of deer harvested per hour (H/hr) collected at the time harvest was summarized for the first month of the archery season by Deer Management Zone (DMZ) in Connecticut, 2017-2019.
- Table 10. Sex ratios (male:female) and antlered to antlerless ratios of deer harvested in 2019.
- Table 11. Sex ratios (male:female) of deer harvested during Connecticut's regulated hunting seasons, 2017-2019.
- Table 12. Instant award deer lottery selection results by Deer Hunting Lottery Area, 2019.

List of Figures

- Figure 1. Total deer permit issuance and total deer harvest in Connecticut, 1975-2019.
- Figure 2. Connecticut's Deer Management Zones, 2019.
- Figure 3. Perception of zonal deer population trends (average rank) by Connecticut's deer hunters, 2017-2019.
- Figure 4. Private land shotgun/rifle deer harvest in Deer Management Zones 4A and 4B, 1996-2019.
- Figure 5. Perception of acorn crops (average rank) by Connecticut's deer hunters, 2016-2019.
- Figure 6. Relationship between private land shotgun/rifle hunter success rates and fall acorn productivity, 1993-2019.
- Figure 7. Number of antler points on bucks collected by the telecheck/online reporting system during the shotgun/rifle hunting season in Connecticut, 2016-2019.
- Figure 8. Comparisons of trends in roadkills and the antlered and antlerless deer harvests during the archery deer season in Deer Management Zone 11, 1995-2019.
- Figure 9. Changes in the sex ratios of harvested deer from Deer Management Zone 11 after implementing various management strategies during the archery season, 1994-2019.
- Figure 10. Moose sightings reported on deer hunter surveys, 1996-2019.
- Figure 11. Crop damage deer removals by month, 2019.

Introduction

This booklet is the 38th in a series, since the passage of the White-tailed Deer Management Act of 1974, reporting on the status of the white-tailed deer resource in Connecticut. It summarizes white-tailed deer information for 2019, including changes in deer management regulations and reporting requirements, harvest statistics, research activities, and population dynamics of Connecticut's deer population. Connecticut's Deer Management Program goals are: 1) to maintain the population at levels compatible with available habitat and land uses, and 2) to allow for a sustained yield of deer for use by Connecticut hunters. The program has focused on stabilizing or reducing deer population growth for the best long-term interest of the deer resource, native plant and animal communities, and the public. Regulated deer hunting has proven to be an ecologically sound, socially beneficial, and fiscally responsible method of managing deer populations. Deer Program efforts have focused on increasing harvest of antlerless deer, coordinating controlled hunts for overabundant deer herds, assisting communities and large landowners with deer management issues, and research and management of urban deer populations.

Pursuant to the goal of reducing overabundant deer populations, aggressive management strategies have been implemented in areas with high deer densities. Strategies include the issuance of free replacement antlerless tags (1995), changes in state law to allow hunting over bait (2003), extending the archery season to include the month of January (2003), implementation of sharp-shooting programs (2003), development of an earn-a-buck program (EAB) (2005), increased bag limits in specific deer management zones (2009), allowing the use of crossbows during January (2010), allowing the use of crossbows statewide (2013), allowing the harvest of deer on Sundays during the archery season in specific zones (2015), and harvesting of deer on Sundays during the archery season in all zones (2018).

In 1995, the replacement antlerless tag program was initiated, allowing hunters in deer management zones (DMZs) 11 and 12 to harvest additional antlerless deer, with the goal of increasing the doe harvest. In 2003, hunting over bait was permitted in DMZs 11 and 12 during all seasons on private land. The use of bait in areas where hunter access to private land is limited increases hunter opportunity and success. Starting in 2005, hunters could earn a free either-sex tag for harvesting a buck after harvesting 3 antlerless deer during the same season (EAB). In 2009, hunters were issued 1 additional antlerless tag in DMZ 7 and an additional 2 antlerless tags in DMZ 11 and DMZ 12 with their shotgun/rifle and muzzleloader permits. In 2010, hunters were allowed to use crossbows in January in DMZs 11 and 12. In 2013, use of crossbows was expanded to allow use during the entire archery season on state and private land in all DMZs. In October 2015, archery hunters were allowed to hunt on Sundays on private land in DMZs where deer were considered overpopulated, which included all DMZs except 2, 3, and 4A. In 2018, archers were allowed to hunt on Sundays on private land in all DMZs. In developed areas where firearms hunting is not feasible, DEEP encourages the use of bowhunting as a management tool. Communities experiencing deer overpopulation problems may choose to initiate controlled hunts or, under special conditions, may be eligible to implement sharp-shooting programs.

In recent years, town governments have been taking a more active role in initiating local deer management programs. In 2004, representatives of 10 towns in Fairfield County formed a Regional Deer Management Working Group called the Fairfield County Municipal Deer Management Alliance (www.deeralliance.com). Currently, 18 of 23 Fairfield County towns have joined the Alliance. The Alliance assists towns in establishing deer committees, shares knowledge and experience about managing urban deer with other towns, provides input on urban deer problems so as to influence wildlife policy decision makers, increases public awareness, and provides input for developing long-term solutions to control deer overabundance in southwestern Connecticut.

In early September 2017, a concerned hunter reported finding several dead deer along a small body of water adjacent to the Connecticut River in Portland. Several fresh carcasses were submitted for testing with 3 deer testing positive for Epizootic Hemorrhagic Disease (EHD). EHD is one of the most important infectious diseases affecting white-tailed deer and spreads by a bite from an infected midge. No infected animals were reported in 2018 or 2019. Additional information about EHD can be found on the DEEP website at <https://portal.ct.gov/DEEP/Hunting>.

The Connecticut Department of Energy and Environmental Protection (DEEP) Wildlife Division expects to be collecting deer heads to test for chronic wasting disease (CWD) and possibly blood samples for EHD (from towns along the Connecticut River) during the 2020 hunting season. Anyone interested in donating deer heads or blood samples from harvested deer should contact Wildlife Division biologist Andrew LaBonte (andrew.labonte@ct.gov) at 860-418-5921 for more information.

Hunter Notes

Information on dates and locations of hunter education courses can be obtained by calling the DEEP Wildlife Division at 860-424-3011, or on the DEEP website (<https://portal.ct.gov/DEEP/Hunting>). Licenses and permits to fish, hunt, and trap in Connecticut can be purchased at licensing vendors or online by going to Connecticut's Online Sportsmen Licensing System at www.ct.gov/deep/SportsmenLicensing. Currently, due to COVID-19, DEEP offices are temporarily closed to the public.

In 2019, the DEEP collected 478 CWD samples from throughout the state, all of which tested negative. Since the beginning of collection efforts in 2003, over 7,000 samples have been collected, all of which have tested negative for CWD.

Regulations remain in place prohibiting hunters from transporting into Connecticut any deer or elk carcasses or part thereof from any state where chronic wasting disease (CWD) has been documented, unless de-boned. In 2020, the use of natural deer urine products will be prohibited, particularly for the purposes of taking or attempting to take or attract deer, or for the surveillance or scouting of deer. CWD can spread through exposure to infected deer urine. This new regulation safeguards Connecticut's native deer population against unnecessary risk of contracting CWD. Specific wording of the regulation and an updated list of states where CWD has been documented can be found on the DEEP website at <https://portal.ct.gov/DEEP/Hunting>.

Regulated Deer Harvest

Regulated hunting is an effective and cost-efficient method for maintaining deer populations at acceptable densities. With the implementation of a new system for reporting harvested deer in 2009, caution should be exercised when comparing harvest data collected before 2009 to harvest data collected thereafter. During the 2019 hunting season, 10,908 deer were legally harvested and reported (Table 1; Figure 1). This represents a 3.9% decrease from the 2018 harvest. Harvest by crossbow hunters during the January season has continued to increase over the last four years (41%, 54%, 63%, 63%, and 63%).

In 2019, 1,713 deer were harvested during the first 4 days of the shotgun/rifle season (includes junior hunting days), a 4% decrease from 2018 (1,783). Using the telephone and online reporting systems, the reported shotgun/rifle harvest was 3,550 deer in 2019, a 17% decrease from 2018 (4,298). In 2019, the landowner harvest was 1,018, a 0.9% increase from 2018 (1,009). Typically, unlike the 3-week shotgun/rifle season, the landowner season runs from November to December and is less affected by periods of inclement weather and snowfall. The decrease in shotgun rifle harvest is likely due to lower permit issuance and poorer weather conditions on typical peak harvest days.

The antlerless and EAB tag harvest was higher in 2019 (211) than in 2018 (174); however, confusion in harvest reporting (antlered buck vs. "Earn a Buck") likely has affected harvest reports using the EAB selection over the years. Of the 211 deer reported with EAB in 2019, only 30% were harvested in a zone in which EAB tags are actually available. Archery and shotgun/rifle seasons accounted for 52.6% and 32.5% of all deer taken in 2019, which is the sixth consecutive year the archery harvest has exceeded the shotgun/rifle harvest. Landowners and muzzleloader hunters accounted for 9.3% and 5.5% of all deer taken in 2019. Harvest varied considerably by season and town (Appendix 1). Harvest on state land varied considerably by area with 22 areas exceeding 10 deer harvested/mi² (Appendix 2). The overall decrease in the 2019 deer harvest was likely attributed to decreasing permit sales and poorer weather conditions during season.

A Junior Deer Hunter Training Day was established in 2003 for youth hunters. This training period was increased to two days in 2009, and then expanded to a full week in 2014. Youth hunters continue to take advantage of these special training days. The recent 3-year average harvest for Junior Deer Hunter Training Days is 41 deer (Table 1).

Permit Allocation

To reduce Connecticut's deer population growth rate, the Wildlife Division provides opportunities for hunters to purchase multiple deer permits. Permit issuance increased consistently from 1975 to 1992, and remained relatively stable from 1992 to 2009 (Figure 1). Since implementation of the online license system and an increase in fees, permit issuance declined 9% (2009-2011) from the previous 3-year average of 61,859 (2006-2008). Deer permit issuance in 2014 declined nearly 1,000 permits from 2013, and declined another 2,327 permits in 2015. Permit issuance in 2016 was similar to permit issuance levels in 1989, while issuance continues to decline every year (Figure 1). In 2019, issuance for private (6%) and state land (4.7%) muzzleloader permits had the greatest one-year decline (Table 2). Archery permit issuance increased to a record high of 17,029 in 2017, but declined slightly in 2018 and 2019 (Table 2). Overall, shotgun/rifle hunters purchased the largest percentage of permits (37.4%), followed by archery hunters (37.3%), muzzleloader hunters (17.1%), and landowners (8.1%). Sixty-six percent of firearms deer permits were issued for use on private land and the remaining 34% were issued for state-managed lands. During the tenth year of authorizing the use of revolvers for deer hunting, 858 hunters took advantage of this opportunity, similar to 2018 (857).

Table 1. Deer harvested during Connecticut's regulated hunting seasons, 2018-2019.

Season	Harvest 2018	Harvest 2019	3-year Average Harvest (2016-2018)	% of Total 2019	% Change from 2018 to 2019	% Change 3-year Average to 2019
Archery						
State Land	497	597	570	5.5%	20.1%	4.7%
Private Land	4,597	4,961	4,699	45.5%	7.9%	5.6%
Crossbow^{A, B}	2,814	3,161	2,612	29.0%	12.3%	21.0%
Replacement Antlerless ^{A, B}	115	130	153	1.2%	13.0%	-15.2%
Either-sex Tag ^{A, B}	102	142	104	1.3%	39.2%	37.0%
January ^E	238	180	240	1.7%	-24.4%	-25.0%
Replacement Antlerless ^A	27	13	20	0.1%	-51.9%	-36.1%
Either-sex Tag ^A	0	1	1	0.0%	100.0%	0.0%
Crossbow	151	110	146	1.0%	-27.2%	-24.5%
Subtotal	5,332	5,738	5,509	52.6%	7.6%	4.2%
Muzzleloader						
State Land	108	91	107	0.8%	-15.7%	-14.7%
Private Land	598	511	613	4.7%	-14.5%	-16.7%
Replacement Antlerless ^{A, C}	7	3	9	0.0%	-57.1%	-67.9%
Either-sex Tag ^{A, C}	7	4	7	0.0%	-42.9%	-42.9%
Subtotal	706	602	720	5.5%	-14.7%	-16.4%
Shotgun/Rifle						
State Land A	581	546	592	5.0%	-6.0%	-7.8%
State Land B	123	109	112	1.0%	-11.4%	-2.7%
Private Land	3,594	2,895	3,441	26.5%	-19.4%	-15.9%
Replacement Antlerless ^{A, D}	26	11	23	0.1%	-57.7%	-52.2%
Either-sex Tag ^{A, D}	65	64	59	0.6%	-1.5%	7.9%
Revolver ^D	9	6	8	0.1%	-33.3%	-21.7%
Muzzleloader ^D	26	29	22	0.3%	11.5%	31.8%
Subtotal	4,298	3,550	4,145	32.5%	-17.4%	-14.4%
Youth Hunting Days^D	25	54	41	0.5%	116.0%	32.8%
Landowner	1,009	1,018	988	9.3%	0.9%	3.1%
Total	11,345	10,908	11,362	100.0%	-3.9%	-4.0%

^A Replacement antlerless and either-sex tags were available in zones 11 and 12 only.

^B Included as part of private land archery total.

^C Included as part of private land muzzleloader total.

^D Included as part of private land shotgun/rifle total.

^E Refers to the January following harvest year listed.

Figure 1. Total deer permit issuance and total deer harvest in Connecticut, 1975-2019.

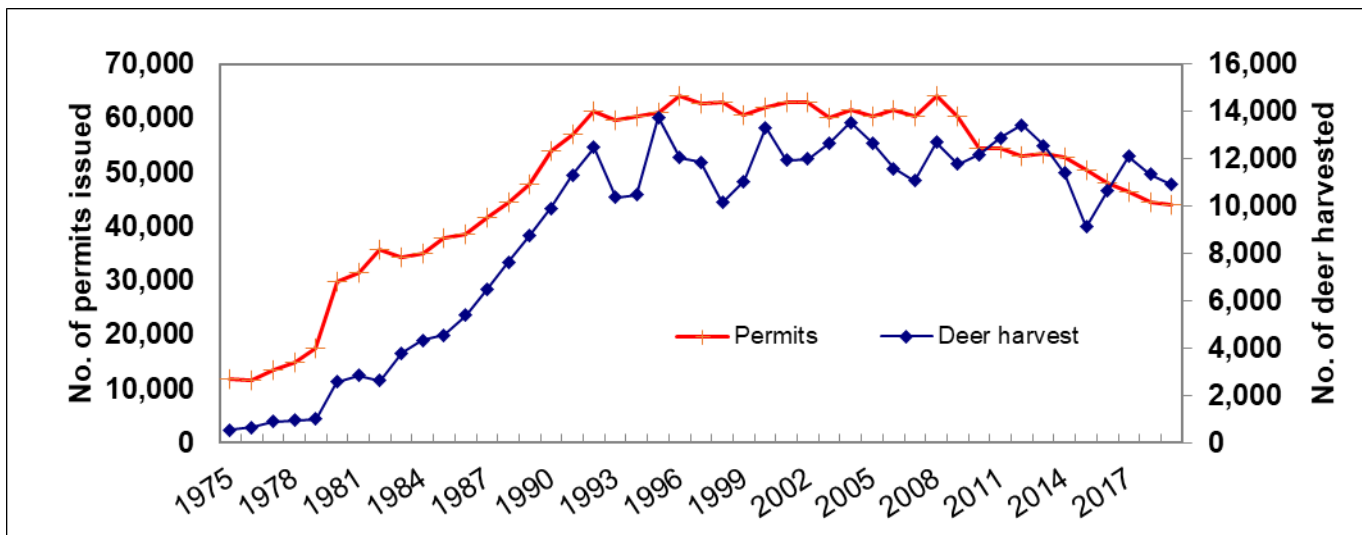


Table 2. Deer hunting permits issued in Connecticut for all regulated hunting seasons, 2016-2019.

Season	Permits 2016	Permits 2017	Permits 2018	Permits 2019	3-year Average Permits 2016-2018	% of Total 2019	% Change 2018 to 2019	% Change 3-year Avg. to 2019
Archery	16,864	17,029	16,451	16,428	16,781	37.3%	-0.1%	-2.1%
Muzzleloader								
State Land	2,864	2,892	2,693	2,566	2,816	5.8%	-4.7%	-8.9%
Private Land	6,262	5,478	5,280	4,964	5,673	11.3%	-6.0%	-12.5%
Subtotal	9,126	8,370	7,973	7,530	8,490	17.1%	-5.6%	-11.3%
Shotgun/Rifle								
State Land A*	4,534	4,277	4,024	4,046	4,278	9.2%	0.5%	-5.4%
State Land B*	1,615	1,583	1,528	1,485	1,575	3.4%	-2.8%	-5.7%
Private Land	12,052	11,629	10,974	10,946	11,552	24.9%	-0.3%	-5.2%
Subtotal	18,201	17,489	16,526	16,477	17,405	37.4%	-0.3%	-5.3%
Revolver^A	807	853	857	858	839	1.9%	0.1%	2.3%
Landowner	3,767	3,676	3,594	3,580	3,679	8.1%	-0.4%	-2.7%
Total	47,958	46,564	44,544	44,015	46,355	100.0%	-1.2%	-5.0%

* Includes controlled hunt permits.

^A Not included in total permits.

Hunter Success

Hunter success rate was estimated by dividing total deer harvest by total permit issuance and multiplying by 100 (Table 3). Success rates may fluctuate annually, depending on weather conditions, timing of rain and snow storms, fall acorn crops, and deer herd size. Bowhunter success rates fluctuated between 24.3% and 27.6% from 2004 to 2008. Bowhunter success exceeded 35% from 2010 through 2014 (35.2% in 2010; 38.0% in 2011; 37.7% in 2012; 38.3% in 2013; and 35.7% in 2014), but declined during the 2015 (26.9%) and 2016 (31.3%) hunting seasons. In 2017, archery success reached nearly 35% (34.7%), declined slightly in 2018 (31.3%), and increased again in 2019 (34.9%). Success rates in 2019 decreased for all hunting seasons (except archery and landowner) compared to 2018, and the same was true compared to the 3-year average for all seasons. In 2019, archery hunters had the highest annual success rate (34.9%), followed by landowners (28.4%) and private land shotgun/rifle hunters (26.4%). Success rate for the combined muzzleloader seasons was 8.0%. Lower success rates are expected because the muzzleloader season occurs after the shotgun/rifle deer hunting seasons.

Table 3. Deer hunter success rates (%) in Connecticut, 2016-2019.

Season	2016	2017	2018	2019	3-year Avg. Success Rate (2016-2018)	Difference from 2018	Difference from 3-year Avg.
Archery							
Combined ¹	31.3%	34.7%	31.3%	34.9%	32.5%	3.6%	2.5%
Muzzleloader							
State Land	2.6%	4.7%	3.7%	3.5%	3.7%	-0.2%	-0.2%
Private Land	9.1%	12.3%	10.9%	10.3%	10.8%	-0.6%	-0.5%
Combined	7.1%	9.7%	8.4%	8.0%	8.4%	-0.4%	-0.4%
Shotgun/Rifle							
State Land A	12.6%	14.6%	13.6%	13.5%	13.6%	-0.1%	-0.1%
State Land B	5.2%	8.1%	7.8%	7.3%	7.0%	-0.4%	0.3%
Private Land	26.6%	30.3%	30.9%	26.4%	29.3%	-4.5%	-2.8%
Combined	21.2%	24.5%	24.6%	21.5%	23.4%	-3.0%	-1.9%
Landowner	23.2%	29.4%	28.1%	28.4%	26.9%	0.4%	1.6%
Average²	22.2%	26.0%	24.4%	24.8%	24.2%	0.4%	0.6%

¹ Data available only for state and private land combined.

² Average is based on total number of deer harvested/total number of permits issued.

Archery Statistics

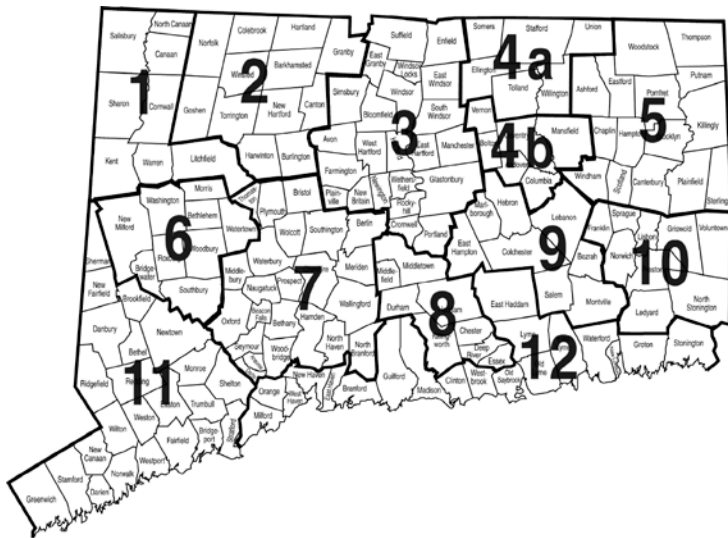
Excluding the landowner season, over half (58%) of the deer taken during the hunting seasons were harvested by bowhunters. Since 2010, record bow harvests have been recorded (5,211; 5,413; 6,046; 5,433; 4,566; 5,286; 5,910; 5,332; 5,738 respectively) and those harvests have exceeded the shotgun/rifle harvest. Seventy-four percent (4,242 total – 3,710 private, 532 state) of the total archery harvest was taken during the early archery season (September 15 to November 19); 15% (832 total – 793 private, 39 state) was taken during the 3-week shotgun/rifle season (open in all zones on private land and state land bowhunting-only areas); 8% (484 – 458 private, 26 state) was taken during the muzzleloader season (December 19 to December 31); and 3% (180) was taken during the January season open in DMZs 11 and 12 on private land only (January 1-31, 2019). State lands open to archery hunting are a valuable resource to Connecticut deer hunters (Appendix 2). During the 2018 and 2019 archery season, hunters were allowed to hunt on Sundays on private land. The Sunday harvest comprised 20% of the entire private land archery harvest and 10% during the January season. Comparing the percent of archery deer harvested on weekends from 2014 (29%; Saturday only) to 2015 (37%; Saturday and Sunday), 2016 (35%; Saturday and Sunday), 2017 (37%; Saturday and Sunday), 2018 (40%; Saturday and Sunday), and 2019 (44% Saturday and Sunday), there has been about a 10% increase in harvest on weekends during the regular season and about a 1% to 3% increase during the January season (2014 - 35%; 2015 - 38%; 2016 - 36%; 2017 - 38%; 2018 - 37%; 2019 – 26.6%) when archery hunting was opened up on Sundays in select zones (all DMZs except 2, 3, and 4A and in all zones in 2018).

In 2019, 9,770 deer hunters were sent an email and asked to complete an online hunter survey. A total of 2,701 hunters responded for a 28% response rate. Hunters were asked about weekend hunting. A little over a third of archery hunters (37%) indicated they hunted Saturday and Sunday, 23% hunted one or the other depending on personal time, 21% hunt Saturdays only, 10% hunt one or the other depending on the weather, 7% don't hunt weekends, and 2% hunt Sundays only. Based on the survey, the majority of archery hunters hunted 1-2 Sundays a month during the season. To obtain additional information beneficial to zonal deer management, archery hunters were asked how many hours they hunted and how many fawns, does, and bucks they observed on the day they harvested their deer. According to information reported by hunters in response to the questions, the average number of deer observed per hour (Sept.-Dec.) in 2019 was 1.1, which was lower than 2018 (1.3), and 2017 (1.6), but similar to 2016 (1.1), and 2015 (0.89). Number of fawns per doe (Sept.-Dec.) in 2019 (0.54) was higher than 2018 (0.48), lower than 2017 (0.92), but similar to 2016 (0.48), while number of bucks per doe in 2019 was higher (0.52) than the past three years (2018-0.40, 2017-0.30, 2016-0.48).

Connecticut Deer Management Zones

Data from hunter surveys, regulated deer harvests, and total deer mortality have been recorded and evaluated by Deer Management Zones (DMZs; Figure 2) in an effort to better manage the statewide deer population. Current population status and long-term trends are analyzed for each Deer Management Zone. This approach facilitates the assessment and management of regional deer populations.

Figure 2. Connecticut's Deer Management Zones, 2019.

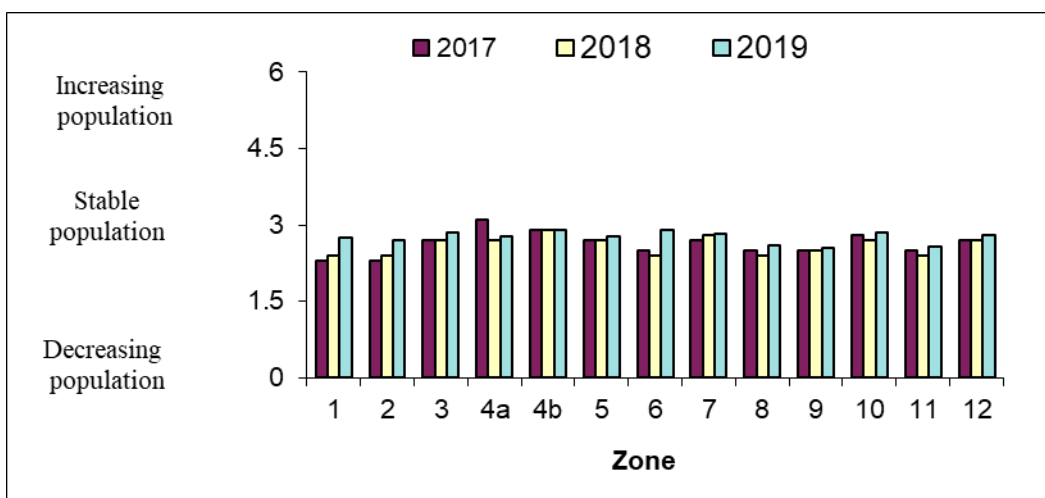


Hunter Perceptions of Population Trends

Similar to hunter surveys from previous years, the 2019 survey also included the question, "How would you describe the status of the deer population from last year to this year?" Hunter perceptions of deer population trends were ranked on a scale of 0 (decreasing population) to 6 (increasing population). Thirty-two percent of the hunters who responded to the survey believed that the population was declining, 50% believed it was stable, and 18% believed it was increasing. DMZs 4B and 6 had the highest average rank (2.9 and 2.8) (Figure 3). In general, hunters perceived that deer populations are relatively stable or have been decreasing slightly in most zones over the past 3 years.

Based on the survey, observations and distribution of predators were similar in 2018 and 2019. Hunters reported 2,154 bear sightings in 118 towns in 2019 at a rate of one bear sighting per 28 days spent afield (1,775 bear sightings in 116 towns in 2018, at a rate of one bear sighting per 27 days spent afield). Hunters reported 2,830 bobcat sightings in 151 towns in 2019 at a rate of one bobcat sighting per 21.5 days spent afield (2,664 bobcat sightings in 158 towns in 2018, at a rate of one bobcat sighting per 18.1 days spent afield).

Figure 3. Perception of zonal deer population trends (average rank) by Connecticut's deer hunters, 2017-2019.



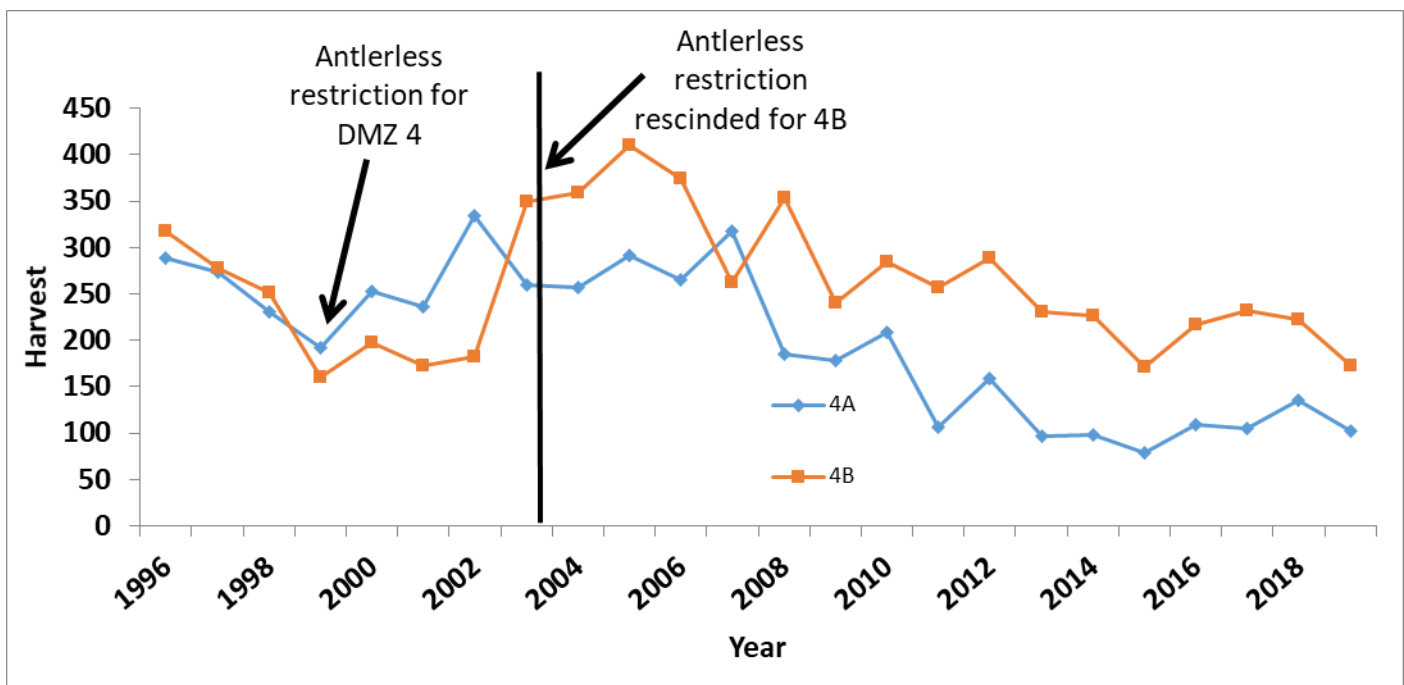
Zonal Deer Management

Deer Management Zones were established because deer populations vary across the state. Management strategies in each zone may vary depending on population status. In DMZ 4, a 4-year decreasing trend beginning in 1996 prompted harvest restrictions on female deer in this zone in 1999. During the shotgun/rifle and muzzleloader seasons, the antlerless-only tag on 2-tag permits was not valid in DMZ 4. This restriction resulted in a decrease in the number of does harvested, allowing the population to stabilize. In 2002, deer populations appeared to be stable in the southern portion, but not in the northern portion of DMZ 4. In 2003, DMZ 4 was split into two zones (4A and 4B), allowing each zone to maintain different management objectives. In DMZ 4A (northern portion), the restriction on the use of antlerless tags was retained, while the use of antlerless tags was again allowed in DMZ 4B (southern portion) (Figure 4).

In DMZ 2, persistently low densities prompted harvest restrictions on female deer in 2016. During shotgun/rifle and muzzleloader seasons, the antlerless-only tag on 2-tag permits is not valid.

Free replacement antlerless tags and either-sex tags (earn-a-buck) were available in DMZs 11 and 12 during the private land archery, shotgun/rifle, and muzzleloader seasons in 2019. Replacement tags were available in these zones because these regions of the state were experiencing more human-deer conflicts and, therefore, had different management objectives than other regions. These programs have resulted in a substantial increase in the harvest of antlerless deer (Figure 8).

Figure 4. Private land shotgun/rifle deer harvest in Deer Management Zones 4A and 4B, 1996-2019.



Insight into Deer Hunter Success Rates by Zone

Shotgun/Rifle Season Success

Annual deer harvest is one of many variables monitored by the Wildlife Division to assess changes in Connecticut's deer population over time for each DMZ. However, without information on hunter distribution and effort by zones, the potential usefulness of these data is limited. To gain insight into hunter distribution and success rates by zone, deer hunters were asked on the hunter survey, "In what zone do you do most of your shotgun/rifle hunting?" The percent of hunters in each DMZ was multiplied by total number of deer permits issued in 2019 to estimate total number of hunters by zone. Total number of hunters and total private land shotgun/rifle deer harvest for each zone were used to estimate deer hunter success rates for each zone (Table 4). In general, higher hunter success rates suggest higher deer density. Of the 13 management zones, most firearms hunting (42%) occurred in four zones (2, 5, 9, and 12). Highest private land deer harvests were reported for DMZs 1, 5, 9, and 12. DMZ 4B had the highest deer harvest per square mile (1.4) and the greatest density of hunters (4.0 per square mile). Hunter success rate was highest in DMZs 4B and 5 (36%), while success in zone 2 was the lowest (12%). The 3-year trend in hunter success rates by zone has varied over the past 3 years (Table 5). Although hunter success has been variable due to the abundance of acorns or weather, many DMZs have continued to produce relatively high hunter success rates over the past 3 years (Table 5).

Table 4. Zonal hunter numbers, harvest, and success rates for private land during the 2019 shotgun/rifle hunting season.

Zone	Zone Hunted Private Land ^A Shotgun/Rifle	% of Hunters Answered Question ^A	Estimated # of Private Land Shotgun/Rifle Hunters	Harvest	Area (sq. miles)	Deer Harvest/Sq. Mile	Hunters/Sq. Mile	% Success Rate
1	134	7.8%	854	256	344.59	0.7	2.5	30%
2	162	9.4%	1,033	119	410.69	0.3	2.5	12%
3	119	6.9%	759	178	273.33	0.7	2.8	23%
4A	82	4.8%	523	102	213.5	0.5	2.4	20%
4B	76	4.4%	485	173	120.66	1.4	4.0	36%
5	248	14.4%	1,581	569	445.94	1.3	3.5	36%
6	119	6.9%	759	208	260.03	0.8	2.9	27%
7	118	6.9%	752	219	373.08	0.6	2.0	29%
8	89	5.2%	567	154	169.11	0.9	3.4	27%
9	162	9.4%	1,033	264	279.39	0.9	3.7	26%
10	121	7.0%	771	237	244.36	1.0	3.2	31%
11	132	7.7%	842	152	291.53	0.5	2.9	18%
12	155	9.0%	988	264	358.39	0.7	2.8	27%
Total	1,717	100.0%	10,946	2,895	3,785	0.8	2.9	26%

^A Based on hunter survey question asking hunters which zone they primarily shotgun/rifle hunt in.

Table 5. Zonal comparisons in private land shotgun/rifle harvest, hunter distributions, and success rates, 2017-2019.

Zone	Area (sq. miles)	Deer Harvest/Sq. Mile			Hunters/Sq. Mile			Hunter Success Rate (%)		
		2017	2018	2019	2017	2018	2019	2017	2018	2019
1	344.6	0.9	1.0	0.7	2.8	2.9	2.5	31	33	30%
2	410.7	1.3	0.4	0.3	2.5	2.2	2.5	17	18	12%
3	273.3	0.9	0.8	0.7	2.5	2.8	2.8	37	27	23%
4A	213.5	0.8	0.6	0.5	2.6	2.6	2.4	19	24	20%
4B	120.7	0.8	1.8	1.4	5.1	4.1	4.0	37	44	36%
5	445.9	0.8	1.6	1.3	3.6	3.5	3.5	42	44	36%
6	260.0	1.0	0.9	0.8	2.9	2.9	2.9	30	32	27%
7	373.1	1.0	0.7	0.6	2.2	2.1	2.0	28	32	29%
8	169.1	0.9	0.9	0.9	3.6	2.8	3.4	28	34	27%
9	279.4	0.9	1.2	0.9	4.3	3.4	3.7	28	35	26%
10	244.4	1.0	1.3	1.0	3.3	3.5	3.2	39	36	31%
11	291.5	1.0	0.7	0.5	3.1	3.0	2.9	21	23	18%
12	358.4	0.8	0.9	0.7	3.0	2.6	2.8	30	36	27%
Total	3,785	0.9	0.9	0.8	3.1	2.9	2.9	30	33	26

Archery Season Success

Based on the number of deer harvested and reported by bowhunters, approximately 1 of 3 (33%) hunters harvested 2 or more deer during the regular archery season. Bowhunter success rates were highest in zones 4B, 5, 10, and 11 (Table 6). In zone 4A, the restriction on the use of antlerless tags during the firearms seasons allowed for the population to increase between 1999 and 2003. In 2003, the zone was split into 4A and 4B, and the antlerless restriction was rescinded in 4B, likely increasing the population and resulting in increased success rates thereafter. In zones 11 and 12, firearms hunting is more limited and the archery season framework is liberal (use of bait, unlimited tags, longer seasons). The archery deer harvest in zone 11 was nearly 2 times higher than the next closest zones, and far higher than all other zones (Table 6).

Table 6. Zonal comparisons of archery season success rates, 2019.

Zones	Zone Hunted Archery^A	% of Hunters Answered Question^A	Estimated # of Archery Hunters	Harvest	Hunter Success Rate %
1	114	4.7%	764	289	37.8
2	184	7.5%	1,234	208	16.9
3	195	8.0%	1,308	332	25.4
4A	120	4.9%	805	256	31.8
4B	99	4.0%	664	261	39.3
5	234	9.6%	1,569	605	38.6
6	139	5.7%	932	251	26.9
7	270	11.0%	1,810	691	38.2
8	118	4.8%	791	282	35.6
9	153	6.2%	1,026	348	33.9
10	112	4.6%	751	296	39.4
11	462	18.9%	3,098	1,049	33.9
12	250	10.2%	1,676	690	41.2
Total	2,450	100.0%	16,428	5,558	33.8

^A Based on hunter survey question asking hunters which zone they primarily archery hunt in.

Fall Acorn Crop

Acorns are a preferred food for white-tailed deer during fall and winter. Acorn availability influences deer movement patterns and herd health. To interpret changes in harvest rates, herd health, and herd productivity, the Deer Program has been collecting data since 1993 from hunter surveys on abundance of the fall acorn crop. Hunter perceptions of the fall acorn crop were ranked on a scale from 0 (scarce) to 6 (abundant acorns). In 2019, 43% of the hunters who responded to the survey ranked the fall acorn crop as moderate, 33% as scarce, and 24% as abundant. DMZs 1, 2, and 6 had the highest average rank (4.01-4.32), while DMZs 4, 5, 8, and 9 had the lowest average ranks (1.51-2.18) (Figure 5). On a scale of 0-6, the average rank statewide was 3.01. Two consecutive years of gypsy moth outbreaks (2017 and 2018) caused substantial oak damage, particularly in eastern Connecticut where the long-term implications on acorn production is still apparent.

The past 27 years of data on acorn abundance and deer harvest rates suggest that a correlation exists between hunter success and acorn abundance (Figure 6). In 1993, when acorns were abundant, hunter success was one of the lowest recorded, and in 2004, when acorns were scarce, the hunter success rate was the highest. During years with low acorn productivity, deer travel more to access other food sources, such as green fields, increasing their vulnerability to hunters. In 2013 and 2014, the acorn-success pattern was inconsistent and may have been influenced by warm weather during the hunting season. During the 2015 and 2016 seasons, the abundance of acorns and warm weather resulted in lower hunter success rates. During the past couple of years, the lack of acorns has led to increased success rates. On average, the acorn crop statewide has been moderate most years, scarce about every 5 to 6 years, and abundant every 4 years. In local areas, extensive gypsy moth damage has resulted in limited acorn productivity and severely impacted many white oak stands, resulting in large areas with dead trees. Depending on the severity of damage that occurs in the coming years, it could have a major impact on Connecticut's forested landscape for years to come.

Figure 5. Perception of acorn crops (average rank) by Connecticut's deer hunters, 2016-2019.

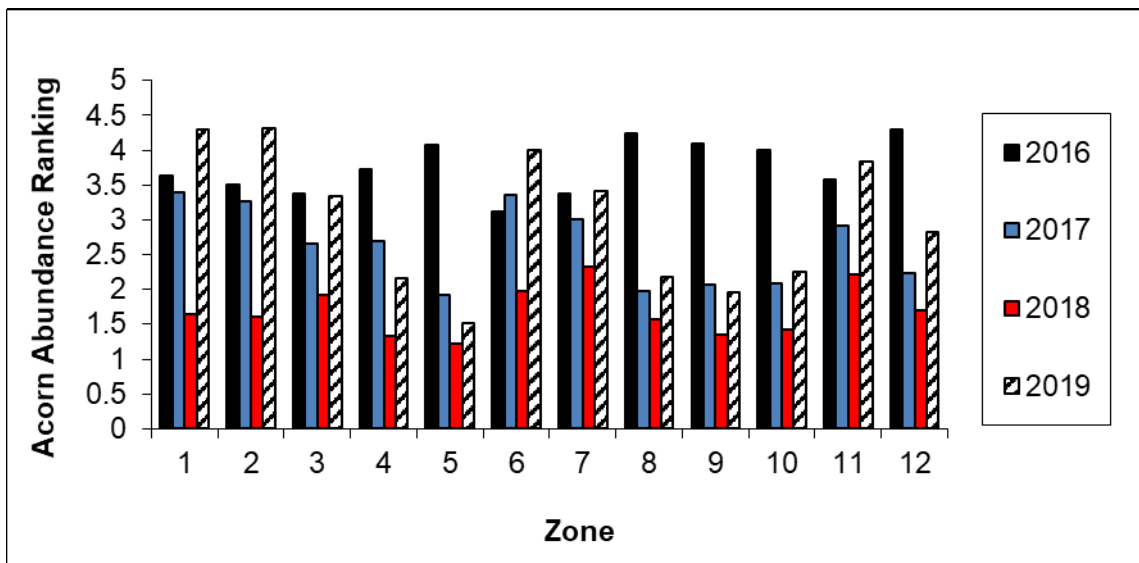
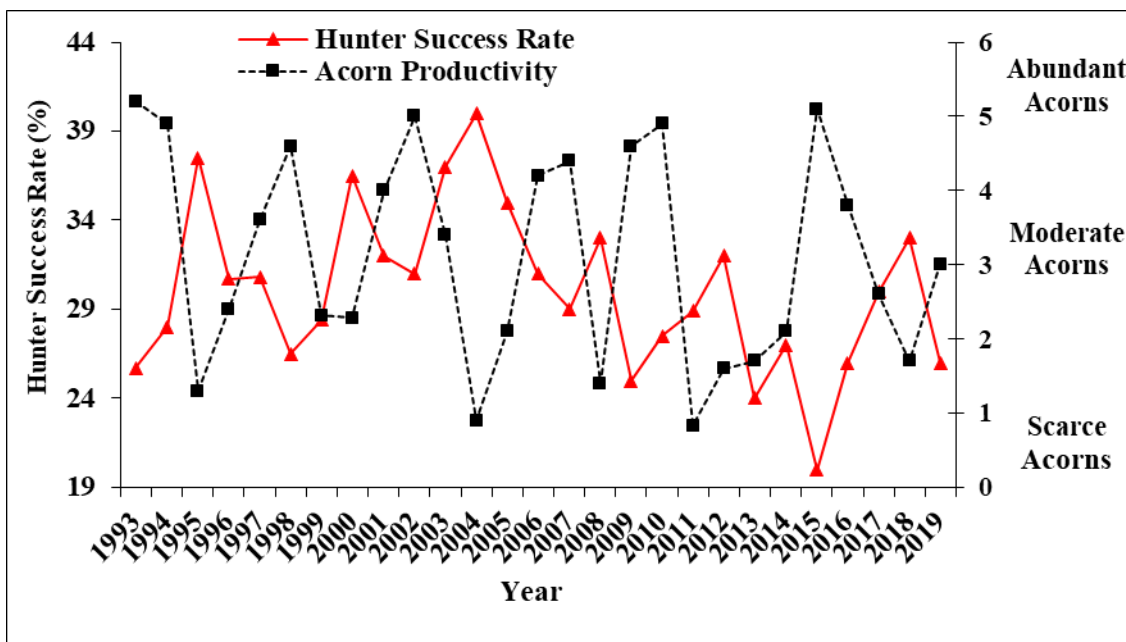


Figure 6. Relationship between private land shotgun/rifle hunter success rates and fall acorn productivity, 1993-2019.



Private Land Deer Harvest

The 2019 private land deer harvest was highest for DMZs 5, 11, and 12 (Table 7). Zonal harvest levels have fluctuated in most zones over the past 11 years and likely reflect differences in weather conditions, snow cover, acorn abundance, and deer densities (Table 7). Highest total deer harvest over the last 11 years has been reported in DMZ 11, likely a result of deer abundance, availability of replacement deer tags, use of bait, and increased access to land for hunting. Total private land deer harvest decreased 7.3% from 2018 to 2019.

Table 7. Private land deer harvest for all seasons (excluding landowner) in each of Connecticut's Deer Management Zones, 2009-2019.

Zone	Year										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	719	703	721	728	558	521	472	573	551	609	545
2	394	320	374	395	356	296	273	294	365	326	313
3	442	481	487	529	491	536	426	516	566	520	493
4A	267	293	276	348	320	275	228	295	330	319	335
4B	434	445	470	547	486	496	357	452	488	471	431
5	1,218	1,232	1,400	1,375	1,345	1,163	902	1,062	1,244	1,251	1,197
6	524	556	500	584	557	490	416	488	528	503	483
7	685	772	797	771	765	747	743	838	880	806	897
8	343	374	473	549	489	398	342	368	423	408	418
9	612	624	718	721	721	685	511	580	701	697	623
10	486	576	632	662	533	546	433	471	606	558	528
11	2,088	1,997	2,022	1,923	1,921	1,505	1,321	1,538	1,666	1,440	1,148
12	872	954	1,324	1,370	1,251	1,017	781	916	1,212	1,116	956
Total	9,084	9,327	10,194	10,502	10,748	8,675	7,205	8,391	9,560	9,024	8,367
% Change	-8.7%	2.7%	9.3%	3.0%	2.3%	-19.3%	-16.9%	16.5%	13.9%	-5.6%	-7.3%

Harvest Effort, Observations, and Fawn Recruitment

Hunter observations provide good trend indices into zonal population changes. Observation rates were measured based on number of deer observed per hour of hunting. Fawn recruitment (number of fawns added to fall population) also is an important variable used to understand changes in population growth and deer herd dynamics. Fawn recruitment was measured as number of fawns observed per doe. The most representative samples of fawn to doe ratios are those collected at the start of the hunting season, when fawns are easily identifiable and hunter harvest would have the least impact on observations. Another means of assessing zonal population changes is looking at the number of deer harvested per hour hunted. Observation rates of bucks, does, and fawns were different from previous years, as was the percent of each class harvested (Table 8). Fawns were harvested at a lower rate than they were observed, compared to bucks which were harvested at a greater rate than they were observed (Table 8). Number of deer observed per hour, number of fawns observed per doe, and number of deer harvested per hour varied across years and by zone (Table 9). Deer observed per hour decreased in most zones which could have been due to the warm weather or some other variable.

Table 8. Hunter observations and harvest ratios reported during the first month of the archery season in Connecticut, 2016-2019.

Age-sex	First Month of Archery (Sept. 15-Oct. 15)							
	Observation %				Harvest %			
	2016	2017 ^A	2018	2018	2016	2017	2018	2019
Bucks	19%	12%	19%	20%	33%	39%	39%	40%
Does	53%	45%	56%	51%	51%	47%	50%	48%
Fawns	28%	43%	25%	29%	16%	14%	11%	12%

^A Caution should be used when evaluating 2017 results and comparisons, as technical issues with the harvest reporting system may have eliminated some observational data.

Table 9. Observation rates (deer seen/hour; D/hr), number of fawns per doe (F:D), and number of deer harvested per hour (H/hr) collected at the time harvest was summarized for the first month of the archery season by Deer Management Zone (DMZ) in Connecticut, 2017-2019.

Deer Harvested and Observed/Hour															
Reported on Day of Harvest															
DMZ	First Month of Archery (Sept. 15-Oct. 15)														
	2017				2018				2019				Δ^3	Δ^3	Δ^3
	<i>n</i>	D/hr ^{1,4}	F:D ⁴	H/hr ²	<i>n</i>	D/hr ¹	F:D	H/hr ²	<i>n</i>	D/hr ¹	F:D	H/hr ²	D/hr ¹	F:D ⁴	H/hr
1	57	0.7	1.06	0.33	66	1.16	0.56	0.35	66	1.21	0.51	0.30	0.05	-0.05	-0.05
2	70	0.41	1.00	0.35	56	1.22	0.46	0.40	54	0.99	0.41	0.38	-0.23	-0.05	-0.02
3	96	0.75	0.85	0.33	92	1.06	0.39	0.36	91	0.89	0.54	0.35	-0.17	0.15	-0.01
4A	70	0.24	1.05	0.35	56	0.92	0.53	0.31	78	0.78	0.50	0.31	-0.14	-0.03	0.00
4B	98	0.65	0.78	0.36	71	1.13	0.64	0.32	79	0.99	0.43	0.39	-0.14	-0.21	0.07
5	201	0.55	0.95	0.33	218	1.02	0.44	0.33	207	1.01	0.52	0.37	-0.01	0.08	0.04
6	55	0.65	0.88	0.33	58	1.13	0.54	0.34	68	1.05	0.43	0.41	-0.08	0.11	0.07
7	187	0.57	1.02	0.36	155	1.01	0.51	0.36	198	1.00	0.63	0.37	-0.01	-0.12	0.01
8	87	0.50	0.77	0.3	83	1.10	0.30	0.42	70	0.98	0.61	0.39	-0.12	0.31	-0.03
9	85	0.49	0.86	0.37	94	1.05	0.45	0.32	101	1.04	0.52	0.39	-0.01	0.07	0.07
10	104	0.57	1.16	0.34	73	1.37	0.31	0.35	88	0.98	0.68	0.36	-0.39	0.37	0.01
11	338	0.77	0.89	0.31	251	1.07	0.42	0.33	284	1.20	0.59	0.38	0.13	0.17	0.05
12	262	0.71	1.17	0.38	201	1.21	0.52	0.34	181	1.08	0.60	0.41	-0.13	0.08	0.07

¹ Deer observed per hour hunted based on successful hunters.

² Deer harvested per hour hunted based on successful hunters.

³ Change from 2018 to 2019.

⁴ Caution should be used when evaluating 2017 results and comparisons, as technical issues with the harvest reporting system may have eliminated some observational data.

Deer Harvest Sex Ratios

Removal of female deer is the most efficient means of stabilizing deer population growth. To facilitate stabilization, the Wildlife Division developed permits that encourage the harvest of female deer. All 2-tag permits come with 1 antlerless-only and 1 either-sex deer tag. In 2009, this was increased to 1 either-sex and 2 antlerless deer for hunters in DMZ 7 and 1 either-sex and 3 antlerless deer for hunters in DMZs 11 and 12. Although button bucks are included in the antlerless harvest, this system promotes the removal of female deer (Table 10). In zone 4A, the antlerless-only tag was NOT valid, reducing the bag limit to 1 deer per hunter during the private land firearms season. Overall, deer harvest sex ratios have been similar over the past 3 years (Table 11). Based on observations reported online at the time of harvest, a bias (proportion observed vs. proportion harvested) towards harvest of bucks occurs as the season progresses (Table 8). Selectivity of passing on fawns remains similar (Table 8). In 2019, 48% (5,094) of the total regulated deer harvest (excluding crop damage harvest) was comprised of antlerless deer. A significant proportion of the harvest included adult females, which contributes to population control efforts (Appendix 3).

Table 10. Sex ratios (male:female) and antlered to antlerless ratios of deer harvested in 2019.

	Muzzleloader	Shotgun/Rifle	Archery	Landowner	Crop Damage	Total
Male:Female	1.71	1.77	1.36	2.08	0.97	1.53
Antlered:Antlerless	0.84	1.22	0.99	1.42	0.64	1.06

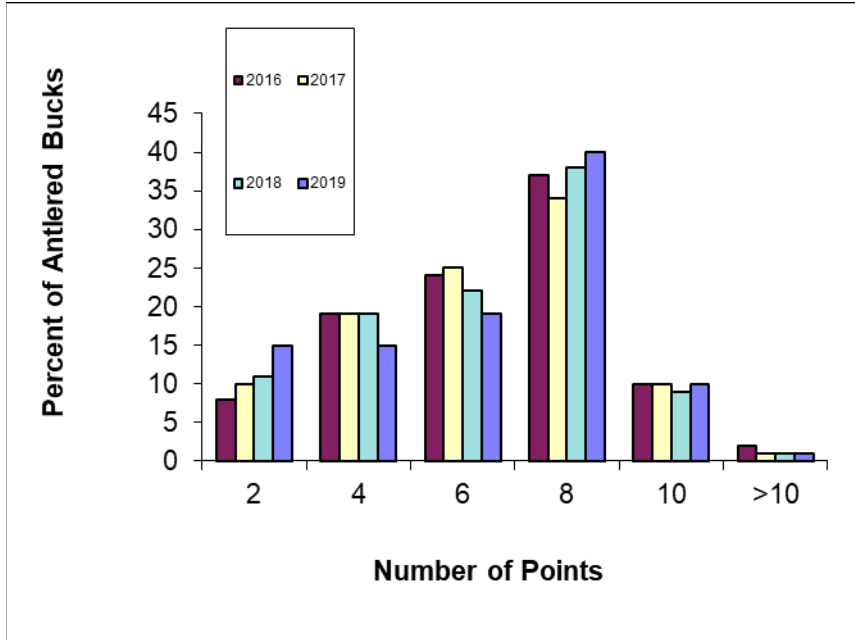
Table 11. Sex ratios (male:female) of deer harvested during Connecticut's regulated hunting seasons, 2017-2019.

2018		2019		Males per Female			3-year Average
Males	Females	Males	Females	2017	2018	2019	(2017-2019)
6,884	4,792	6,749	4,409	1.4:1	1.4:1	1.5:1	1.4:1

Antler Points and Yearling Fraction

Deer age, nutritional status, and genetics affect the number of antler points on bucks. The yearling fraction of the antlered buck harvest is a common measure of hunting pressure. Intensively hunted herds have yearling fractions of about 70%, while lightly hunted herds have fractions of about 30%. Few yearlings (less than 6%) have 7 or more points and few adults (less than 12%) have less than 5 points, based on the known aged samples in Connecticut. Using antlered bucks with less than 5 points (yearling) and those with 7 or more points (adults) is one way of estimating the yearling fraction of the antlered buck harvest. The statewide yearling/male fraction based on antler points during the shotgun/rifle season was 40% in 2012, 44% in 2013, 45% in 2014, 42% in 2015, 36% in 2016, 39% in 2017, 39% in 2018, and 36% in 2019. Of all antlered bucks harvested, 8-pointers were the most frequent point category (Figure 7). The number of points on antlered bucks has remained relatively consistent over the past 4 years (Figure 7).

Figure 7. Number of antler points on bucks collected by the telecheck/online reporting system during the shotgun/rifle hunting season in Connecticut, 2016-2019.



Replacement Tags

The replacement tag system was developed to increase the harvest of female deer. This system is currently in place in DMZs 11 and 12. Since 1998, when archery hunters first had access to replacement tags in DMZ 11, the buck harvest remained relatively stable, while the antlerless harvest in that zone increased nearly 5 times (from 200 to almost 1,000 deer annually and has now declined to just above 600). The buck harvest has steadily increased over the years with the addition of the earn-a-buck program in 2005. The number of roadkills in DMZ 11 has shown a steady decline since 1998 (Figure 8). The ratio of female deer harvested in DMZ 11 increased from 0.9 females per male (1994-1997) to 1.3 females per male (2001-2009), with the past three years averaging around 0.8:1 (Figure 9).

Figure 8. Comparison of trends in roadkills and the antlered and antlerless deer harvests during the archery deer season in Deer Management Zone 11, 1995-2019.

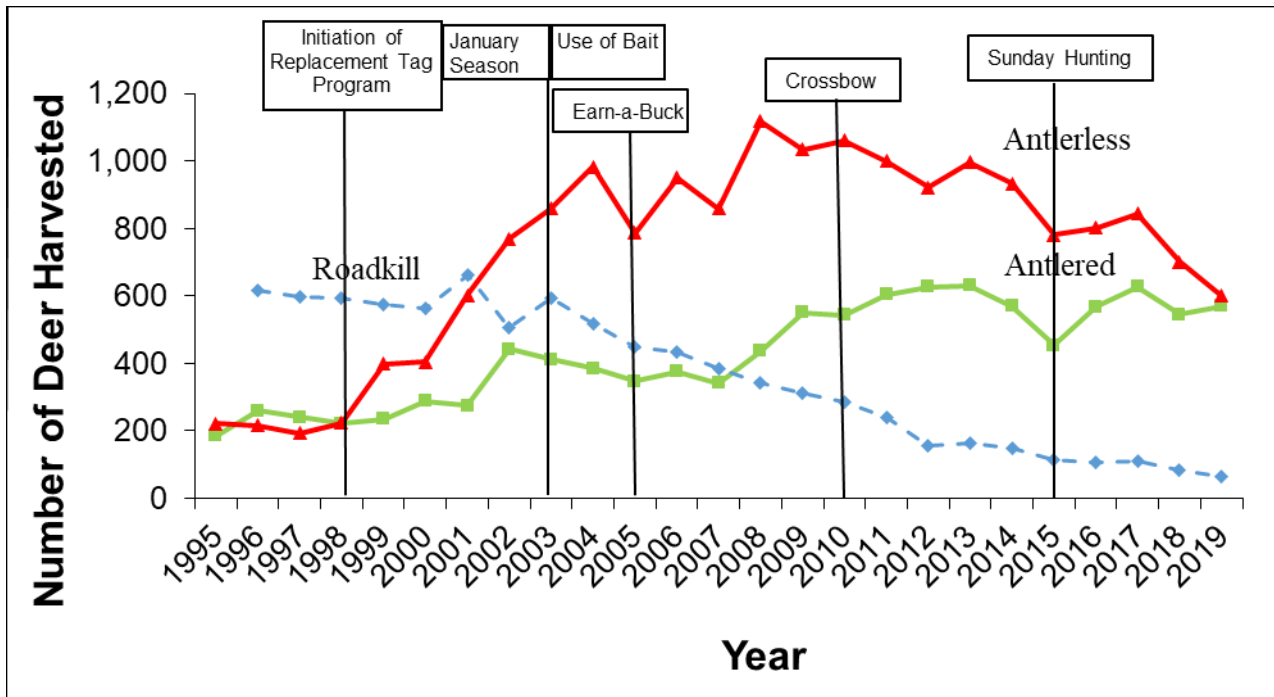
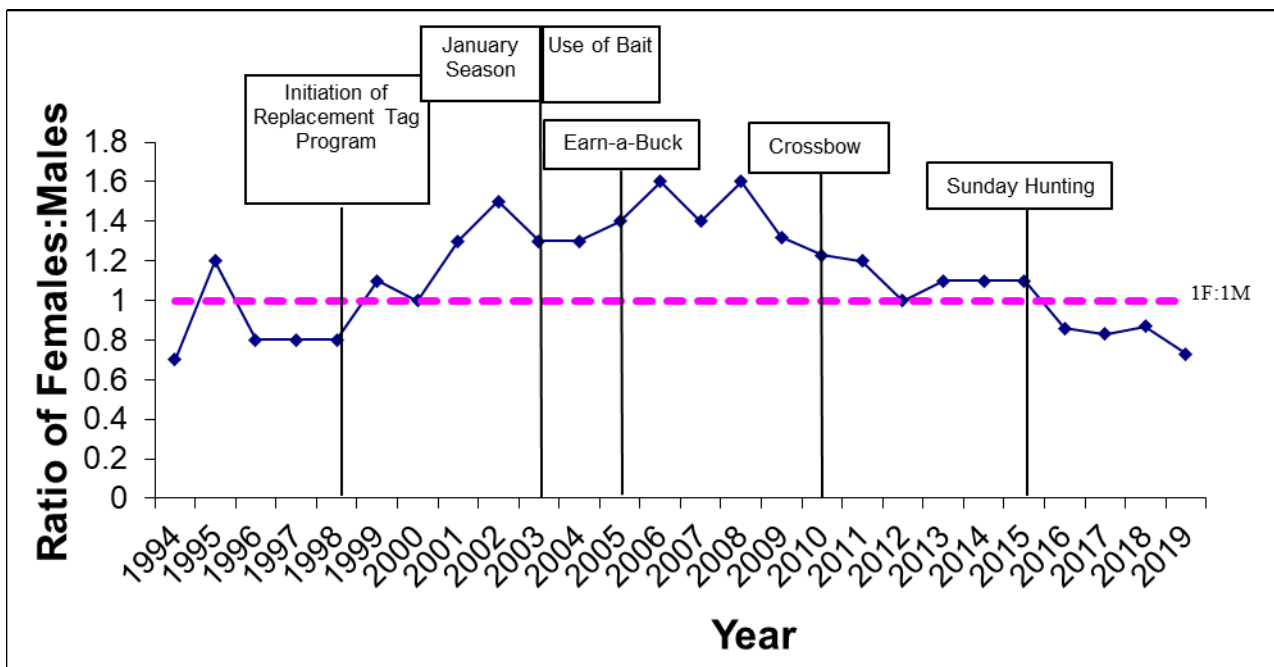


Figure 9. Changes in the sex ratios of harvested deer from Deer Management Zone 11 after implementing various management strategies during the archery season, 1994-2019.



Deer Hunter Expenditures, Effort, Venison Calculations, and Opinions

Deer hunting-related expenditures contribute significantly to Connecticut's economy. Deer permit sales generated \$1,601,187 in 2013, \$1,704,083 in 2014, \$1,687,962 in 2015, \$1,447,074 in 2016, \$1,430,519 in 2017, \$1,369,436 in 2018, and \$1,356,289 to the Connecticut General Fund. In addition, data collected from the annual deer hunter surveys indicated that Connecticut deer hunters spent an estimated \$6,726,783 on deer hunting-related goods and services in 2019, up from the \$6,141,345 spent in 2018.

In 2019, deer hunters spent a cumulative total of 366,477 days afield. Private and state land shotgun/rifle hunters used the greatest percentage of available hunting days during those seasons (32% and 34% respectively). Although bowhunters used a smaller percentage of available hunting days (13%), the archery season is much longer than the firearms season. Connecticut deer hunters collectively spent less time (34 days per deer taken) but more money (\$616 per deer taken) in 2019 compared to 2018 (36 days at \$541 per deer taken). In 2019, hunters harvested an estimated 545,400 pounds (average 50 lbs. of meat/hunter; 243 tons total) of venison at an estimated value of \$3,681,450 (\$6.75/lb.).

Hunters were asked how satisfied they were with their Connecticut deer hunting experience in 2019. Excluding hunters who had no opinion (about 9%), over a third of hunters were moderately satisfied with their hunting experience (36%), a third were very satisfied (33%), and the remainder were slightly satisfied (16%) or not at all satisfied (15%), similar to 2018.

Subscription Rates for State Land Lottery Permits

In 2018, 879 hunters were selected to hunt during the shotgun and controlled hunt seasons through the state-administered deer lottery program. Lottery permits were allocated at a maximum rate of 1 shotgun permit per 20 acres. In many areas, permit issuance was less than the permit quota established for a given area and many areas were re-designated as no-lottery areas. In 2018, the total number of lottery hunt areas was 15. Sixty-eight percent of all potential lottery permits were issued. Only area 66 reached 100% permit issuance (Table 12). Hunters also should look at harvest levels in the different state land areas when selecting an area to hunt (Appendix 2).

Table 12. Instant award deer lottery selection results by Deer Hunting Lottery Area, 2019.

Deer Hunting Lottery Area	% of Hunting Slots Filled
	2019
26	80
27	68 ^A
28	70
51 (Yale)	66 ^A
52 (Bristol Water Company)	91
53 (Maromas)	97 ^A
54 (Skiff Mt.)	57 ^A
56 (Centennial Watershed State Forest)	62
58 (MDC ^B Nepaug - Valentine)	57
60 (Tankerhoosen)	58
62 (Aldo Leopold)	60
63 (Mohawk-Ziegler)	33
64 (MDC ^B Barkhamsted East Block)	53 ^A
66 (MDC Nepaug Sweetheart Mt. Block)	100
67 (MDC ^B Barkhamsted West Block)	57 ^A

^A Lottery for A season only.

^B Metropolitan District Commission.

Moose Sightings

An increasing moose population in Massachusetts led to an increased number of moose wandering or dispersing into Connecticut in the early 1990s. In an effort to monitor trends in moose sightings in Connecticut, a question was added to the deer hunter survey in 1996 regarding hunter observations of moose during the fall hunting season. Deer hunters reported 71 moose sightings (106 individuals) in 25 towns in 2019 and 1,273 sightings over the past 23 years (Figure 10). During the 23-year period, moose sightings were reported in 105 different towns. Sightings were reported from 8 to 43 different towns each year. Moose were observed in Barkhamsted, Canaan, Canton, Colebrook, Goshen, Granby, Hartland, Kent, Norfolk, Stafford, and Union for 6 of the last 10 years. Most of the towns where hunters report moose sightings occur along the Connecticut-Massachusetts border. In 2019, an average of 1 moose was observed by hunters for every 564 hunter-days spent in the field, slightly more days than in 2018 when 1 moose was observed for every 507 hunter-days in the field. Currently, Connecticut has no open hunting season for moose.

MDC Barkhamsted Reservoir (Area 64A and 67A): In 2014, MDC (Metropolitan District Commission) contacted the Wildlife Division and expressed concern about impacts of deer on forest regeneration at Barkhamsted Reservoir. This resulted in the establishment of two controlled deer hunts, one in 2016 on the east side (Area 64A – 4,282 acres) and a second in 2017 on the west side (Area 67A – 3,700 acres). To document the impacts of deer on forest regeneration and health, deer exclosures were constructed at four different sites. The vegetation has been monitored annually since 2016. During the past four years, research has shown that oak seedlings within the fence are healthier and twice the height of the unfenced oaks, primarily due to protection from deer browsing. Although deer continue to impact forest regeneration, the reduction in deer number has improved the health of the MDC forests. During the 2019 controlled hunt, 37 deer were harvested.

Bluff Point Coastal Reserve: Controlled hunts and DEEP deer removals at Bluff Point Coastal Reserve in Groton have been implemented over the past 22 years to reduce and maintain the deer population at about 25 animals. Since the program started in 1996, over 500 deer have been removed from Bluff Point, resulting in improved deer herd health and ecosystem stability. In December 2019, the deer population was estimated to be 44 deer. In February 2020, 18 deer were removed by DEEP personnel. After the February 2020 removal, the population was estimated at 26 deer.

Crop Damage Permits

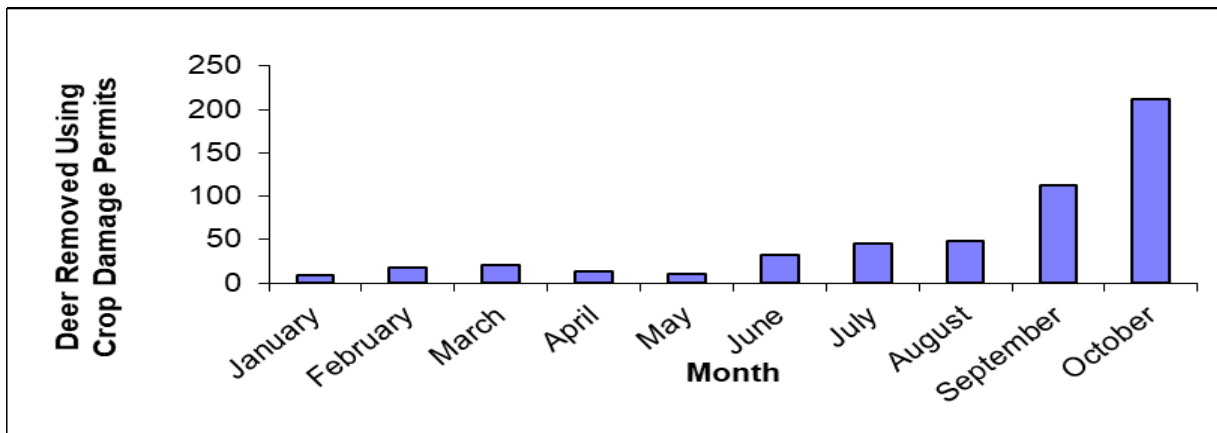
Deer damage is an important economic concern to some commercial agricultural operations. The Wildlife Division's crop damage program regulates the removal of deer on agricultural properties which meet specific criteria and are experiencing deer damage to specific plant commodities. The Division also encourages agriculturists to take advantage of the regulated deer hunting season to aid in the removal of problem deer and to use other methods, such as fencing, to reduce deer damage. In 2015, the crop damage application and deer registration process were streamlined. Crop damage applications can now be obtained from the Department's website (<https://portal.ct.gov/DEEP/Wildlife/Nuisance-Wildlife/Deer-Crop-Damage-Permit-Program>) and filled out electronically. Crop damage shooters are no longer required to mail in paper tags upon removing a deer, but are now required to report their removal online or by telephone. During the 2019 calendar year, 520 deer were taken with crop damage permits (Appendix 6). From 1993 to 2019, annual deer removal with crop damage permits fluctuated between 462 and 946 deer. Deer removals in DMZs 3 and 7 accounted for 23% of deer removed with crop damage permits in 2019. Crop damage removals increased steadily from May to October, with 63% of the annual removals occurring in September and October (Figure 11). Crop damage permits are not valid in November and December; however, harvest (n = 29) with special jacklight permits is available and was included in October's harvest.

Non-hunting Deer Mortality

Non-hunting deer mortality, particularly roadkills, represents a significant percentage of annual deer losses in Connecticut. Roadkill data provide important information relative to cultural carrying capacity, population modeling, and, to a lesser extent, deer density and herd sex ratios. In an urban-suburban state like Connecticut, measures of land-use conflicts, such as roadkills, are an important source of data for the formulation of management policies and recommendations.

In 2019, 1,015 non-hunting deer mortalities were reported (Appendix 4). Of those, 480 were killed in deer-vehicle collisions. This equates to an average of 1.3 deer being killed per day on Connecticut roads and highways. Deer-vehicle collisions accounted for 97% of all reported non-hunting mortality (excluding crop damage; 520) in 2019. Based on a 2-year study (2000-2001), for every 1 deer killed by a vehicle and reported to the Wildlife Division, 5 additional deer are killed by vehicles and not reported. Based on this correction factor, it is estimated that the actual number of roadkills in 2019 was 2,880. Nearly 12% (55) of all road-killed deer reported in Connecticut in 2019 occurred in DMZ 11 (Fairfield County, Figure 2), the rate of which has been declining over the past few years (Appendix 5). The number of roadkills in DMZ 11 has shown a steady decline since implementation of the replacement tag program, extension of the archery season, and legalization of baiting (Figure 8). Non-hunting mortality comprised 8.5% of the total reported deer mortality in Connecticut, including crop damage harvest (Appendix 4).

Figure 11. Crop damage deer removals by month, 2019.



Conclusion

Over the past several decades, deer population size, human land-use practices, and public attitudes toward wildlife have changed considerably. Today, hunters may legally take up to 14 deer (including the January archery season on private land in DMZs 11 and 12) per year if they participate in all hunting seasons, and unlimited deer may be taken in 2 of the 13 Deer Management Zones. Historically, deer permit issuance increased consistently from 11,710 in 1975 to 61,333 in 1992. Since 1992, permit issuance has remained relatively stable, fluctuating between 60,316 and 64,032. In 2008, permit issuance increased to its highest point in history. The cause for this increase is unknown, but may have been attributed to the poor economy or the green movement where harvesting one's own food may be a desirable means of obtaining quality protein. In 2009, permit issuance declined slightly, likely due to the switch to online license sales. Since 2010, permit issuance has continued to decline annually due to changes in the lottery system and the ability to purchase permits at any time rather than in advance of the hunting season, and a decline in hunter numbers. Permit issuance in recent years is now at the same level as it was in 1988. Over the last 10 years, harvest in most Deer Management Zones has remained relatively stable. However, with increased opportunities and incentives to harvest deer in urban Deer Management Zones 11 and 12, the harvest had more than doubled, but is now beginning to decline, while roadkills have been exhibiting a steady downward trend in those zones. Increased harvest opportunities appear to have stabilized deer populations in many areas of the state.

The Wildlife Division continues to conduct research and evaluate the effectiveness of methods to control deer populations, particularly in urban-suburban landscapes. The Division initiated several long-term urban deer studies in residential communities in past years. Reports summarizing findings from these studies are available to communities interested in managing deer in more developed areas of the state, such as Fairfield County. Copies of these reports can be obtained by contacting the Wildlife Division's Deer Program via email at Andrew.labonte@ct.gov or calling the Wildlife Division's Franklin office at 860-418-5921. The Wildlife Division will continue to provide technical assistance on deer control options to interested communities. Future management efforts will continue to focus on deer population stabilization. In areas with overabundant deer populations, landowners will be encouraged to use hunting, where possible, as a management tool. A booklet on *Managing Urban Deer in Connecticut* is available from Wildlife Division offices or online (https://portal.ct.gov/-/media/DEEP/wildlife/pdf_files/game/urbandeer07pdf.pdf) to assist communities in developing effective deer management programs. Another publication, *An Evaluation of Deer Management Options*, was made available in 2009 by the Northeast Deer Technical Committee and can be found on the DEEP website as well (https://portal.ct.gov/-/media/DEEP/wildlife/pdf_files/game/deeroptionspdf.pdf).

The DEEP has been holding a special event (Discover Outdoor Connecticut) in September for the past several years as a means of exposing a wider range of participants to hunting, fishing, trapping, and the great outdoors. The event was cancelled in 2020 due to concerns about COVID-19, but we hope to bring you another great event in the near future.

Mentor a New Hunter

Connecticut designates specific days when experienced adult hunters are encouraged to take a youth hunting, helping them learn safe and effective hunting practices, develop observational skills, and gain confidence and the comfort level they need to discover a passion for hunting and the outdoors.

Specific Youth training days for deer season and others can be found in the Connecticut Hunting and Trapping Guide or at <https://portal.ct.gov/DEEP-Junior-Hunting>.



Mentoring is also important for new adult hunters, so do not limit your efforts to just youths. The same skills taught to youth hunters are needed to help adults new to hunting learn the ropes. Whether it be a coworker, friend, or neighbor — either youth or adult — take the time to introduce a new hunter to a lifetime of appreciation for our Natural Resources through hunting.



Appendix 1. Total reported deer harvest and roadkills by town, 2019.

Town	Archery	Shotgun/Rifle	Landowner	Muzzleloader	Cropkill	Roadkill	Other	Total
Andover	36	20	13	4	0	0	0	73
Ansonia	13	4	0	0	0	1	0	18
Ashford	45	92	40	7	2	2	0	188
Avon	16	12	2	1	4	0	0	35
Barkhamsted	22	34	5	9	0	2	0	72
Beacon Falls	10	10	0	2	0	1	0	23
Berlin	49	23	4	7	4	0	0	87
Bethany	45	9	3	6	9	0	0	72
Bethel	47	8	0	1	0	1	0	57
Bethlehem	15	11	4	5	0	1	0	36
Bloomfield	25	12	1	1	0	2	0	41
Bolton	14	14	1	3	6	0	0	38
Bozrah	28	32	22	8	6	1	0	97
Branford	25	4	0	1	1	0	0	31
Bridgeport	2	0	0	0	0	0	0	2
Bridgewater	15	16	1	4	2	1	0	39
Bristol	7	8	2	0	0	5	0	22
Brookfield	40	4	0	1	0	1	0	46
Brooklyn	27	31	11	4	0	6	0	79
Burlington	22	33	2	5	0	0	0	62
Canaan	36	35	6	10	3	5	0	95
Canterbury	36	35	27	4	3	5	0	110
Canton	27	7	5	0	1	0	0	40
Chaplin	24	23	20	6	0	2	0	75
Cheshire	87	18	3	3	25	2	1	139
Chester	14	10	3	1	0	0	0	28
Clinton	19	5	1	2	3	0	0	30
Colchester	55	42	25	13	7	7	0	149
Colebrook	5	8	4	1	0	1	0	19
Columbia	25	25	11	0	16	0	0	77
Cornwall	24	34	8	5	0	3	1	75
Coventry	76	69	10	9	1	9	0	174
Cromwell	8	2	1	0	0	4	0	15
Danbury	65	13	1	1	0	4	0	84
Darien	31	0	1	0	0	8	3	43
Deep River	18	9	4	0	0	0	0	31
Derby	5	1	0	0	0	0	0	6
Durham	38	33	7	5	7	0	1	91
East Granby	12	7	0	5	1	2	0	27
East Haddam	79	83	26	13	8	4	0	213
East Hampton	32	30	10	5	0	3	0	80
East Hartford	9	5	0	1	6	4	0	25
East Haven	23	2	1	1	0	1	0	28
East Lyme	63	16	4	5	1	4	0	93
East Windsor	26	17	7	1	0	2	0	53
Eastford	27	48	6	10	0	1	0	92
Easton	65	32	1	2	2	0	0	102
Ellington	23	9	10	1	1	3	0	47

Town	Archery	Shotgun/Rifle	Landowner	Muzzleloader	Cropkill	Roadkill	Other	Total
Enfield	40	7	1	2	0	10	0	60
Essex	8	3	0	0	0	1	0	12
Fairfield	80	5	0	3	0	0	0	88
Farmington	8	2	0	0	9	8	1	28
Franklin	17	30	7	9	3	0	0	66
Glastonbury	45	37	4	2	34	13	0	135
Goshen	22	19	8	2	0	2	0	53
Granby	16	8	10	4	0	3	1	42
Greenwich	71	3	0	0	0	0	0	74
Griswold	49	60	18	8	25	1	1	162
Groton	60	5	0	1	1	1	0	68
Guilford	70	20	8	6	7	4	0	115
Haddam	44	50	24	5	0	1	0	124
Hamden	23	17	1	4	17	0	0	62
Hampton	25	31	21	12	8	0	0	97
Hartford	7	29	3	10	0	0	0	49
Hartland	13	26	4	4	7	0	0	54
Harwinton	35	35	13	7	0	0	0	90
Hebron	32	41	6	1	6	3	0	89
Kent	50	51	22	7	0	8	0	138
Killingly	58	41	7	2	0	1	1	110
Killingworth	73	97	32	11	20	0	0	233
Lebanon	49	25	14	3	1	22	0	114
Ledyard	20	20	11	5	0	3	0	59
Lisbon	38	50	13	6	3	0	0	110
Litchfield	54	34	14	4	1	0	0	107
Lyme	44	12	0	4	0	0	0	60
Madison	14	9	2	0	3	4	0	32
Manchester	87	48	25	9	12	14	0	195
Mansfield	28	18	10	6	0	0	0	62
Marlborough	30	12	2	1	0	3	0	48
Meriden	18	9	2	1	2	4	0	36
Middlebury	30	23	2	5	7	1	0	68
Middlefield	72	47	8	11	1	0	0	139
Middletown	25	3	0	1	2	0	0	31
Milford	54	4	0	0	0	0	0	58
Monroe	76	21	15	3	4	2	0	121
Montville	24	16	2	4	1	0	0	47
Morris	28	14	1	0	0	0	0	43
Naugatuck	1	0	0	0	0	0	0	1
New Britain	56	1	0	0	0	8	1	66
New Canaan	49	19	0	3	0	1	0	72
New Fairfield	29	13	3	5	2	8	0	60
New Hartford	7	0	0	0	0	0	0	7
New Haven	1	0	0	0	0	0	0	1
New London	65	42	9	2	0	2	0	120
New Milford	6	0	0	0	0	2	0	8
Newington	107	44	4	6	6	18	0	185
Newtown	40	7	1	2	0	10	0	60

Town	Archery	Shotgun/Rifle	Landowner	Muzzleloader	Cropkill	Roadkill	Other	Total
Norfolk	6	17	8	1	0	4	1	37
North Branford	48	4	0	1	0	3	0	56
North Canaan	12	12	2	1	0	4	0	31
North Haven	36	5	0	0	0	1	0	42
North Stonington	43	57	21	11	0	0	0	132
Norwalk	22	0	0	0	0	0	0	22
Norwich	28	12	4	6	0	1	1	52
Old Lyme	63	18	1	3	0	0	0	85
Old Saybrook	11	4	0	1	0	6	0	22
Orange	24	2	0	4	0	1	0	31
Oxford	31	22	6	6	6	3	0	74
Plainfield	56	42	25	6	0	3	0	132
Plainville	3	1	0	0	9	0	0	13
Plymouth	19	14	6	2	0	0	0	41
Pomfret	57	63	21	11	3	2	0	157
Portland	16	23	5	2	3	14	0	63
Preston	33	45	16	2	13	1	0	110
Prospect	38	5	0	4	0	5	0	52
Putnam	20	16	9	5	0	5	0	55
Redding	83	25	0	3	1	0	0	112
Ridgefield	94	15	0	3	0	6	0	118
Rocky Hill	10	11	0	4	14	2	0	41
Roxbury	19	14	2	5	5	0	0	45
Salem	21	31	7	5	2	1	0	67
Salisbury	84	59	4	6	6	8	0	167
Scotland	23	32	7	8	0	2	0	72
Seymour	30	4	1	0	0	6	1	42
Sharon	43	54	19	14	6	7	0	143
Shelton	48	4	0	0	19	0	0	71
Sherman	47	14	3	1	7	2	0	74
Simsbury	25	1	0	0	3	1	0	30
Somers	29	12	2	2	3	4	0	52
South Windsor	20	15	1	0	2	3	0	41
Southbury	29	15	2	2	3	16	1	68
Southington	41	12	0	2	2	1	0	58
Sprague	18	23	7	4	0	1	0	53
Stafford	74	55	28	6	1	2	0	166
Stamford	45	0	0	1	0	1	0	47
Sterling	42	20	15	5	6	2	0	90
Stonington	69	44	5	4	16	2	0	140
Stratford	10	1	0	1	0	1	0	13
Suffield	25	38	5	7	0	4	0	79
Thomaston	12	15	4	2	1	0	0	34
Thompson	80	59	20	20	13	6	0	198
Tolland	78	21	11	5	14	4	0	133
Torrington	21	19	10	6	0	4	0	60
Trumbull	19	0	0	0	0	0	0	19
Union	22	25	14	6	0	4	0	71
Vernon	24	5	0	2	0	2	1	34

Town	Archery	Shotgun/Rifle	Landowner	Muzzleloader	Cropkill	Roadkill	Other	Total
Voluntown	39	53	10	5	5	1	0	113
Wallingford	69	36	2	9	20	11	0	147
Warren	20	17	2	4	6	0	0	49
Washington	27	46	8	5	27	1	0	114
Waterbury	14	1	1	0	0	1	0	17
Waterford	85	30	8	6	0	0	0	129
Watertown	27	21	5	2	0	0	0	55
West Hartford	15	0	0	2	0	0	0	17
West Haven	1	0	0	0	0	1	0	2
Westbrook	6	9	2	1	0	0	0	18
Weston	42	20	0	0	0	0	0	62
Westport	0	0	0	0	0	0	0	0
Wethersfield	3	2	0	0	1	0	0	6
Willington	30	26	18	5	0	9	0	88
Wilton	87	9	0	2	0	0	0	98
Winchester	18	9	3	2	0	2	0	34
Windham	33	30	8	5	2	1	0	79
Windsor	19	4	1	0	0	8	0	32
Windsor Locks	0	1	0	0	0	0	0	1
Wolcott	5	4	0	0	0	5	0	14
Woodbridge	33	7	0	2	0	17	0	59
Woodbury	30	33	3	4	0	7	0	77
Woodstock	60	91	17	6	0	5	0	179
Total	5,727	3,550	1,018	602	520	460	16	11,893

Appendix 2. Deer harvest on State hunting areas, including Deer Lottery Hunting Areas (DLHA), 2019

Fall Archery	Muzzleloader	Lottery Area #	No-Lottery	Code	<ul style="list-style-type: none"> ● Hunting Permitted ▲ Designated Deer Bowhunting Only Area (▲ areas are open during shotgun and muzzleloader) ▲/● Some Sections open to Archery ONLY AB (No-Lottery A and B) B (No-Lottery B only) ○ Daily/Season Permit Required * Special Conditions ○ Harvest/mi² greater than 10 	Square miles	Fall Archery	Muzzleloader	Lottery	No Lottery	Total Harvest	Harvest/mi ²
▲		62		308	Aldo Leopold WMA	0.87	0	0	2	0	2	2.3
●	●		AB	201	Algonquin SF	1.04	15	0	2	15	32	30.8
●	●		AB	202	American Legion SF	1.62	2	0	0	0	2	1.2
●	●		AB	272	Assekonk Swamp WMA	1.07	4	0	0	4	8	7.5
●	●		AB	244	Babcock Pond WMA	2.36	2	2	0	4	8	3.4
▲				203	Barber Pond WMA	0.11	1	0	0	1	2	18.2
●	●		AB	273	Barn Island WMA	1.58	9	0	0	6	15	9.5
●	●		AB	274	Bartlett Brook WMA	1.10	4	0	0	7	11	10.0
▲				275	Bear Hill WMA	0.57	1	0	0	0	1	1.8
▲				276	Beaver Brook SP	0.56	3	0	0	0	3	5.4
▲				309	Bennett's Pond SP	0.72	5	0	0	0	5	6.9
▲				277	Bigelow Hollow SP	0.80	1	1	0	0	2	2.5
▲				245	Bishops Swamp WMA	1.18	8	0	0	1	9	7.6
▲				337	Black Pond WMA	0.11	0	0	0	0	0	0.0
▲				204	Black Rock Lake (state and federally owned)	0.62	0	0	0	0	0	0.0
▲				205	Bloomfield Flood Control Area (Site 1)	0.51	7	0	0	0	7	13.7
		52		329	Bristol Water Company	6.75	0	0	15	1	16	2.4
▲/●	●	27A	B	207	Camp Columbia SF	0.94	2	0	0	0	2	2.1
▲				208	Cedar Swamp WMA	0.43	4	0	0	1	5	11.6
		56		310	Centennial Watershed SF	6.77	41	0	42	0	83	12.3
●	●		AB	209	Centennial Watershed SF (Canaan Block)	0.23	3	0	0	4	7	30.4
▲				311	Centennial Watershed SF (formerly Bpt. Hydr.) -Shelton	0.16	2	0	0	1	3	18.8
▲				310	Centennial Watershed SF -Monroe Parcel (Hattertown)	0.05	0	0	0	0	0	0.0
▲/●	●		AB	246	Cockaponset SF	26.85	40	3	0	44	87	3.2
▲				313	Collis P. Huntington SP	1.61	5	0	0	0	5	3.1
▲				247	Cromwell Meadows WMA	0.79	1	0	0	1	2	2.5
▲				210	CT Light & Power (borders Newgate WMA)	0.32	1	0	0	1	2	6.3
▲				248	Durham Meadows WMA	0.80	0	0	0	0	0	0.0
▲				315	East Swamp WMA	0.10	4	0	0	0	4	40.0
▲				211	East Twin Lakes Water Access Area	0.15	7	0	0	0	7	46.7
●	●		AB	249	Eightmile River WMA	0.48	0	0	0	0	0	0.0
●	●		AB	250	Ellithorpe Flood Control Area	0.64	1	0	0	0	1	1.6
▲				332	Enders SF (Worthen Parcel ONLY)	0.55	0	0	0	0	0	0.0
●	●		AB	278	Franklin Swamp WMA	1.07	3	1	0	2	6	5.6
▲				316	George C. Waldo SP	0.23	2	0	0	0	2	8.7

Fall Archery	Muzzleloader	Lottery Area #	No-Lottery	Code	<ul style="list-style-type: none"> ● Hunting Permitted ▲ Designated Deer Bowhunting Only Area (▲ areas are open during shotgun and muzzleloader) ▲/● Some Sections open to Archery ONLY AB (No-Lottery A and B) B (No-Lottery B only) ○ Daily/Season Permit Required * Special Conditions ◻ Harvest/mi² greater than 10 	Square miles	Fall Archery	Muzzleloader	Lottery	No Lottery	Total Harvest	Harvest/mi ²
●	●		AB	213	Goshen WMA	1.51	1	0	0	4	5	3.3
▲				318	Great Swamp Flood Control Area	0.53	2	1	0	0	3	5.7
●			AB	214	Hancock Brook Lake (federally owned)	1.10	4	0	0	1	5	4.5
○				280	Harkness Memorial SP ▲ (Verkade Property)	0.44	8	0	0	0	8	18.2
▲				251	Higganum Meadows WMA (off Clarkhurst Road)	0.40	2	0	0	1	3	7.5
▲				252	Higganum Reservoir	0.23	1	0	0	1	2	8.7
▲				215	Housatonic River WMA	0.87	5	1	0	0	6	6.9
●	●		AB	216	Housatonic SF	17.63	4	3	0	17	24	1.4
▲				217	John Minetto SP	1.12	1	0	0	0	1	0.9
▲				281	Killingly Pond SP	0.27	0	0	0	0	0	0.0
●	●		AB	253	Kollar WMA	1.40	9	0	0	5	14	10.0
●	●		AB	254	Larson Lot WMA	0.38	3	0	0	2	5	13.2
▲				282	Lebanon Coop Mgmt. Area	0.33	0	0	0	0	0	0.0
▲				283	Little River Fish and Wildlife Area	0.08	0	0	0	0	0	0.0
▲				218	Mad River Dam Flood Control Area	0.70	1	0	0	1	2	2.9
▲				255	Mansfield Hollow Lake (excluding SP)	3.14	9	0	0	0	9	2.9
▲				256	Mansfield State-Leased Field Trial Area	0.37	0	0	0	0	0	0.0
●	●		AB	219	Mattatuck SF	7.02	9	3	1	9	22	3.1
●	●		AB	220	MDC – Colebrook Reservoir/Hogback Dam	6.50	1	3	0	2	6	0.9
▲				221	MDC – Greenwood Pond	0.31	3	0	0	0	3	9.7
▲		64A		343	MDC Barkhamsted Res. -Barkhamsted Block	6.69	0	0	23	0	13	1.9
		67A		346	MDC Barkhamsted Res-Barkhamsted West Block	5.78	0	2	14	0	16	2.8
		58B		330	MDC Nepaug Reservoir - Valentine/Pine Hill Block	2.32	0	0	20	0	20	8.6
▲		66		345	MDC Sweetheart Mnt. Block	0.78	8	0	0	0	8	10.3
●	●		AB	339	Meadow Brook WMA	0.42	0	0	0	1	1	2.4
▲				338	Menunketesuck Pond WMA (formerly Chapmans Pond)	0.26	1	0	0	0	1	3.8
●	●		AB	257	Meshomasic SF	14.22	22	2	0	29	53	3.7
▲				258	Messerschmidt WMA	0.72	1	0	0	2	3	4.2
●	●		AB	259	Millers Pond	0.41	0	0	0	0	0	0.0
▲				341	Mohawk SF - Clark Pond Tract	0.19	1	0	0	0	1	5.3
●	●	63		342	Mohawk SF - Ziegler/Johnson Tract	0.51	0	1	0	0	1	2.0
●	●		AB	285	Mohegan SF	1.50	1	2	0	3	6	4.0
▲				260	Mono Pond	0.45	2	0	0	0	2	4.4
▲				222	Mount Riga SP	0.47	4	0	0	0	4	8.5
●	●		AB	223	Nassahegon SF	1.30	3	0	0	2	5	3.8
▲/●	●		AB	286	Natchaug SF	7.93	20	11	0	45	76	9.6
●	●		AB	261	Nathan Hale SF Mgmt. Area	2.27	4	0	0	5	9	4.0
●	●		AB	319	Naugatuck SF	21.15	17	4	0	18	39	1.8
▲				320	Naugatuck SF (Great Hill Block)	0.37	5		1	2	8	21.6

Fall Archery	Muzzleloader	Lottery Area #	No-Lottery	Code	<ul style="list-style-type: none"> ● Hunting Permitted ▲ Designated Deer Bowhunting Only Area (▲ areas are open during shotgun and muzzleloader) ▲/● Some Sections open to Archery ONLY AB (No-Lottery A and B) B (No-Lottery B only) ○ Daily/Season Permit Required * Special Conditions ◻ Harvest/mi² greater than 10 	Square miles	Fall Archery	Muzzleloader	Lottery	No Lottery	Total Harvest	Harvest/mi ²
*	●	28		321	Naugatuck SF* (Quillinan Reservoir Block)	0.90	8	0	6	0	14	15.6
▲/●	●		AB	287	Nehantic SF	7.91	10	4	0	13	27	3.4
●	●		AB	224	Nepaug SF	2.10	4	0	0	0	4	1.9
▲				225	Newgate WMA	0.70	4	0	0	0	4	5.7
●	●		AB	288	Nipmuck SF	14.40	10	4	0	13	27	1.9
▲				227	Northfield Brook Lake (federally owned)	0.31	2	0	0	0	2	6.5
▲				289	Nott Island	0.13	1	0	0	0	1	7.7
●	●	53A	B	263	NU-Maromas Coop WMA	2.48	7	1	12	1	21	8.5
●	●	54A	B	228	NU-Skiff Mtn. Coop WMA	1.13	2	0	2	0	4	3.5
*	●		AB	264	Nye Holman SF	1.20	6	0	0	1	7	5.8
▲/●	●		AB	290	Pachaug SF	40.84	51	10	0	72	133	3.3
●	●		AB	229	Paugnut SF	2.70	0	2	0	4	6	2.2
▲/●	●		AB	322	Paugussett SF	3.04	8	0	0	6	14	4.6
●	●		AB	291	Pease Brook WMA	0.33	2	0	0	2	4	12.1
●	●		AB	230	Peoples SF	4.60	1	0	0	1	2	0.4
▲				292	Pomeroy SP	0.32	3	0	0	0	3	9.4
●	●		AB	324	Pootatuck SF	1.72	4	0	0	4	8	4.7
●	●		AB	293	Quaddick SF	0.90	6	2	0	0	8	8.9
●	●		AB	294	Quinebaug River WMA	0.88	2	1	0	1	4	4.5
▲				295	Quinebaug River WMA (Aspinook Pond)	0.03	0	0	0	0	0	0.0
▲				326	Quinnipiac River SP	0.53	16	0	0	1	17	32.1
●	●		AB	296	Red Cedar Lake (Camp Mooween)	0.93	1	0	0	0	1	1.1
●	●		AB	231	Robbins Swamp WMA	2.45	6	0	0	1	7	2.9
●	●	61		232	Roraback WMA	3.10	3	2	1	1	7	2.3
●	●		AB	297	Rose Hill WMA	1.08	9	0	0	9	18	16.7
▲				298	Ross Marsh WMA	0.45	0	0	0	0	0	0.0
▲				299	Ross Pond SP	0.58	3	0	0	0	3	5.2
▲				267	Salmon River Cove and Haddam Neck	0.19	1	0	0	0	1	5.3
●	●		AB	300	Salmon River SF (including Holbrook Pond)	10.90	8	3	0	18	29	2.7
▲				268	Scantic River SP	0.92	3	0	0	0	3	3.3
●	●			301	Selden Neck SP (Selden Island)	0.88	3	0	1	1	5	5.7
○				233	Sessions Woods WMA	1.20	0	1	0	0	1	0.8
●	●		AB	269	Shenipsit SF	11.85	12	3	0	15	30	2.5
●	●		AB	333	Silvio O. Conte NWR - Salmon River Div. (federal land)	0.41	1	0	0	1	2	4.9
▲				234	Simsbury WMA	0.57	3	0	0	0	3	5.3
●	●		AB	302	Spignesi WMA	0.82	1	0	0	2	3	3.7
▲				235	Sucker Brook Flood Control Area	0.24	8	0	0	1	9	37.5
▲				236	Suffield WMA	0.30	0	0	0	0	0	0.0
●	●		AB	303	Sugarbrook Field Trial Area	0.31	2	1	0	2	5	16.1

Fall Archery	Muzzleloader	Lottery Area #	No-Lottery	Code	<ul style="list-style-type: none"> ● Hunting Permitted ▲ Designated Deer Bowhunting Only Area (▲ areas are open during shotgun and muzzleloader) ▲/● Some Sections open to Archery ONLY AB (No-Lottery A and B) B (No-Lottery B only) ○ Daily/Season Permit Required * Special Conditions ◻ Harvest/mi² greater than 10 	Square miles	Fall Archery	Muzzleloader	Lottery	No Lottery	Total Harvest	Harvest/mi ²
▲				237	Sunnybrook SP (west of Newfield Rd.)	0.69	0	0	0	0	0	0.0
●	●		AB	304	Talbot WMA	0.79	2	1	0	4	7	8.9
●	●	60		334	Tankerhoosen WMA	0.78	8	1	3	0	12	15.4
▲				238	Thomaston Dam (federally owned)	1.33	2	0	0	0	2	1.5
●	●		AB	239	Topsmead SF (north and west of Rte. 118)	0.28	2	0	0	2	4	14.3
○	○	26		327	Trout Brook Valley SP	0.47	4	0	0	0	4	8.5
●	●		AB	240	Tunxis SF	15.88	9	6	0	17	32	2.0
●	●		AB	270	Wangunk Meadows (off Rte. 17a)	1.00	2	1	0	2	5	5.0
●	●		AB	305	West Thompson Dam (federal land)	1.71	6	1	0	3	10	5.8
▲				241	Whiting River Flood Control Area	0.29	3	0	0	0	3	10.3
▲				242	Wood Creek Flood Control Area	0.17	0	0	0	0	0	0.0
▲				328	Wooster Mountain SP	0.69	1	0	0	0	1	1.4
●	●		AB	271	Wopowog WMA	0.73	2	2	0	0	4	5.5
●	●		AB	243	Wyantenock SF	6.38	1	5	0	17	23	3.6
		51A		306	Yale Forest (owned by Yale University)	12.03	0	0	28	1	29	2.4
●	●		AB	307	Zemko Pond WMA	0.71	2	0	0	3	5	7.0

*Caution should be used when evaluating harvest on individual properties as errors can occur in the reporting process.

Appendix 3. Sex ratios (male:female) of deer harvested during Connecticut's regulated hunting seasons, 2017-2019.

Season	2017		2018		2019		3-year Average (2017-2019)		Males per Female			
	Males	Females	Males	Females	Males	Females	Males	Females	2017	2018	2019	
Archery												
State Land	294	305	287	210	313	277	298	264	0.96	1.37	1.13	
Private Land	2,782	2,000	2,567	2,030	2,844	2,038	2,731	2,023	1.39	1.26	1.40	
Subtotal	3,076	2,305	2,854	2,240	3,157	2,315	3,029	2,287	1.33	1.27	1.36	
Muzzleloader												
State Land	68	64	65	43	48	43	60	50	1.06	1.51	1.12	
Private Land	316	352	291	307	233	278	280	312	0.90	0.95	0.84	
Subtotal	384	416	356	350	281	321	340	362	0.92	1.02	0.88	
Shotgun/Rifle												
State Land	528	179	495	209	446	206	490	198	2.95	2.37	2.17	
Private Land	2,250	1,187	2,260	1,334	1,822	1,073	2,111	1,198	1.90	1.69	1.70	
Subtotal	2,778	1,366	2,755	1,543	2,268	1,279	2,600	1,396	2.03	1.79	1.77	
Landowner												
	685	389	631	378	688	330	668	366	1.76	1.67	2.08	
Total	6,923	4,476	6,596	4,511	6,394	4,245	6,638	4,411	1.55	1.46	1.51	

Appendix 4. Non-hunting deer mortality reported in Connecticut, 2006-2019.

Cause of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Road	2,029	1,967	2,190	1,902	1,456	1,683	1,177	1,211	1,081	749	619	687	608	480
Dog	3	4	3	1	1	0	2	0	5	0	0	2	2	1
Unknown	117	162	72	92	49	82	58	89	59	62	49	43	31	14
Illegal	3	1	9	3	10	4	6	4	2	2	0	2	1	0
Crop Damage	755	667	883	780	715	804	864	831	812	464	462	560	569	520
Total	2,907	2,801	3,157	2,778	2,231	2,573	2,108	2,135	1,959	1,277	1,130	1,294	1,211	1,015
Non-hunting: Harvest	1:3.4	1:3.9	1:4.0	1:4.2	1:5.5	1:5.0	1:6.7	1:5.9	1:6.8	1:7.4	1:9.4	1:9.3	1:9.3	1:10.7
% Mortality*	19.3	20.2	20.0	19.1	11.1	11.6	13.5	14.5	14.6	12.2	9.5	9.7	9.7	8.5
% of Harvest	29.2	25.3	24.9	23.6	12.4	14.0	14.7	17.0	16.1	14.0	10.6	10.7	10.7	9.3

* Crop damage harvest is included under non-hunting mortality.

Appendix 5. Frequency of deer roadkills in each of Connecticut's Deer Management Zones, a 5-year comparison, 2015-2019.

Zone						Five-year		Habitat	Roadkills/Sq. Mile		
	2015	2016	2017	2018	2019	Total	Zonal %	(sq. miles)	2017	2018	2019
1	18	26	41	47	31	163	5.2	344.1	0.12	0.14	0.09
2	44	46	57	51	28	226	7.2	409.85	0.14	0.12	0.07
3	112	89	107	81	85	474	15.1	272.1	0.39	0.30	0.31
4A	28	32	17	26	26	129	4.1	213.1	0.08	0.12	0.12
4B	30	37	21	29	26	143	4.6	120.0	0.18	0.24	0.22
5	49	37	66	41	50	243	7.7	444.9	0.15	0.09	0.11
6	36	33	50	53	29	201	6.4	259.1	0.19	0.20	0.11
7	119	74	100	79	71	443	14.1	370.9	0.27	0.21	0.19
8	15	11	11	6	6	49	1.6	167.6	0.07	0.04	0.04
9	29	15	3	10	14	71	2.3	277.8	0.01	0.04	0.05
10	61	35	50	51	32	229	7.3	243.6	0.21	0.21	0.13
11	116	105	109	85	55	470	15.0	290.76	0.37	0.29	0.19
12	92	79	55	49	23	298	9.5	356.4	0.15	0.14	0.06
Total	749	619	687	608	476	3,139	100.0	3,770.2	0.18*	0.16*	0.13*

* These numbers are averages, not totals.

Appendix 6. Deer removed using crop damage permits in Connecticut's Deer Management Zones, 2007-2019.

Zone	Year												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	58	59	55	45	37	67	44	39	32	37	38	46	30
2	17	17	12	19	17	25	15	16	15	20	18	14	10
3	49	76	101	70	99	70	97	99	30	58	85	71	80
4A	21	21	6	4	10	15	16	8	10	8	3	12	19
4B	33	51	33	39	28	41	56	55	24	13	23	41	35
5	68	119	95	57	93	87	88	77	55	37	45	66	46
6	54	90	58	78	56	74	62	89	49	41	49	47	38
7	89	114	93	88	123	127	118	110	72	60	77	74	86
8	33	42	33	32	28	36	40	41	11	11	23	28	15
9	30	69	79	55	56	56	77	65	35	40	18	31	39
10	51	82	76	75	104	90	83	90	53	53	82	55	47
11	116	111	106	118	93	113	91	79	45	57	55	53	35
12	48	32	33	35	60	63	44	43	30	27	44	31	40
Total	667	883	780	715	804	864	831	812	464	462	560	569	520