

Connecticut Deer Program Summary

2005



Connecticut Department of Environmental Protection
Bureau of Natural Resources - Wildlife Division



About this Document

This document is the PDF version of the original printed publication. Page numbers when viewing on screen do not necessarily correspond to the printed page numbers.

All pictures, illustrations, and graphics are copyright protected.

Connecticut Deer Program Summary

2005

Bureau of Natural Resources / Wildlife Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
860-424-3011
www.ct.gov/dep

Department of Environmental Protection
Gina McCarthy, *Commissioner*
Bureau of Natural Resources
Edward C. Parker, *Chief*
Wildlife Division
Dale W. May, *Director*

Prepared by
Andrew M. LaBonte, *Wildlife Technician*
Howard J. Kilpatrick, *Deer/Turkey Program Biologist*
Winnie Reid, *Administrative Professional*

Cover photo by
Paul J. Fusco



The Connecticut Department of Environmental Protection is an affirmative action/equal opportunity employer, providing programs and services in a fair and impartial manner. In conformance with the Americans with Disabilities Act, the DEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities needing auxiliary aids or services, or for more information by voice or TTY/TDD, call 860-424-3000.



This publication is 75 percent funded by Federal Aid in Wildlife Restoration, the Pittman-Robertson (P-R) Program, which provides funding through an excise tax on the sale of sporting firearms, ammunition and archery equipment. The remaining 25 percent of the funding is matched by the Connecticut Wildlife Division.

Table of Contents

Introduction	1
Hunter Notes	2
Regulated Deer Harvest	3
Permit Allocation	3
Hunter Success	3
Archery Statistics	6
Connecticut Deer Management Zones	6
Insight into Deer Hunter Success Rates by Zone	10
Archery Season	12
Fall Acorn Crop	12
Private Land Deer Harvest	14
Herd Health	14
Deer Weights	16
Antler Points	16
Deer Harvest Sex Ratios	17
Replacement Tags	18
Deer Hunter Expenditures	19
Hunter Days of Recreation	20
Hunter Effort and Expenditure per Deer Taken	21
Venison Statistics	21
2005 Subscription Rates for State Land Lottery Permits	21
Moose Sightings	23
Controlled Deer Hunts	23
Crop Damage Permits	25
Non-hunting Deer Mortality	26
Chronic Wasting Disease	26
Conclusion	27
Appendices	29

List of Tables

- Table 1. Deer harvested during Connecticut's regulated hunting seasons, 2004-2005.
- Table 2. Deer hunting permits issued in Connecticut for all regulated hunting seasons, 2003-2005.
- Table 3. Deer hunter success rates (%) in Connecticut, 2004-2005.
- Table 4. Zonal hunter numbers, harvest, and success rates for private land during the 2005 shotgun/rifle hunting season.
- Table 5. Zonal comparisons in private land shotgun/rifle harvest, hunter distributions, and success rates, 2003-2005.
- Table 6. Percentage of archery hunters harvesting 1 or more deer based on the number of kill report cards submitted during the 2005 archery deer hunting season.
- Table 7. Zonal comparisons of archery season success rates, 2005.
- Table 8. Private land deer harvest for seasons (excluding landowner) in each of Connecticut's deer management zones, 1995-2005.
- Table 9. Average antler beam diameter (mm) of yearling males in each of Connecticut's deer management zones, 1994-2005.
- Table 10. Average dressed weights (lbs.) of male deer harvested during the shotgun/rifle hunting season, 2003-2005.
- Table 11. Towns of bucks harvested weighing 200 lbs. or more (dressed weight) during the shotgun/rifle hunting season, 2005.
- Table 12. Sex ratios and antlered to antlerless ratios of deer harvested in 2005.
- Table 13. Sex ratios (male:female) of deer harvested during Connecticut's regulated hunting seasons, 2002-2005.
- Table 14. Issuance and use of replacement antlerless tags and either-sex tags during the archery, firearms, and muzzleloader deer hunting seasons in 2005.
- Table 15. Percent of available A and B season hunting slots filled through the annual, state-administered shotgun deer lottery, 2003-2005.

List of Figures

- Figure 1. Total deer permit issuance in Connecticut, 1975-2005.
- Figure 2. Connecticut's deer management zones, 2005.
- Figure 3. Perception of zonal deer population trends (average rank) by Connecticut's deer hunters, 2003-2005.
- Figure 4. Trends in Connecticut deer population growth in zones 1-6 from 1994-2005.
- Figure 5. Trends in Connecticut deer population growth in zones 7-12 from 1994-2005.
- Figure 6. Percent of antlered deer harvested in zone 4 from 2002 to 2004.
- Figure 7. Perception of acorn crops (average rank) by Connecticut's deer hunters, 2002-2005.
- Figure 8. Relationship between private land hunter success rates and fall acorn productivity, 1993-2005.
- Figure 9. Number of antler points on yearling males harvested during the 2005 shotgun/rifle season.
- Figure 10. Percent of all antlered bucks harvested by points category during the shotgun/rifle deer season, 2002-2005.
- Figure 11. Comparisons of antlered and antlerless deer harvests during the archery deer season in zone 11, 1995-2005.
- Figure 12. Sex ratios of harvested deer from zone 11 after the implementation of the antlerless replacement tag program, 1994-2005.
- Figure 13. Moose sightings reported on deer hunter surveys, 1996-2005.
- Figure 14. Crop damage harvest by month, 2005.

Introduction

This booklet is the 25th 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. This booklet summarizes white-tailed deer information for 2005, including changes in deer management regulations, 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 the stabilization of zonal deer populations at moderate densities 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 deer populations in overpopulated areas, aggressive management strategies are being implemented in areas with high deer densities, including the issuance of free replacement antlerless tags (1995), changes in state law to allow hunting over bait (2003), implementation of sharpshooting (2003), development of an earn-a-buck program (2005), and assisting landowners with controlled hunt programs. The replacement antlerless tag program was initiated in 1995 and allows hunters in deer management zones 11 and 12 to harvest additional antlerless deer, with the goal of increasing the harvest of does. In 2003, hunting over bait was permitted in these two zones during all seasons on private land. Use of bait in areas where hunter access to private land is limited will increase hunter opportunity and success. In 2004, Deer Program staff assessed how hunter willingness to use bait and effects of bait type, hunter activity and behavior, and property size affected deer harvest potential and success in a suburban landscape. The effects of automatic feeders on deer feeding patterns and hunter success also were evaluated by assessing the minimum time required to develop predictable deer feeding patterns centered around feeder dispensing times, changes in deer feeding patterns over time, influence of snowcover and feeder maintenance on deer activity, and effects of hunter disturbance on deer activity patterns. In 2005, hunters could earn a free either-sex tag after harvesting 3 antlerless deer during the same season. In areas where firearms hunting is not feasible, the DEP stresses the usefulness 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 a sharpshooting program.

Town governments are taking a more active role in managing local deer populations. 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, 16 of 23 Fairfield County towns have joined the Alliance (Bethel, Bridgeport,

Danbury, Darien, Easton, Fairfield, Newtown, Greenwich, New Canaan, Norwalk, Redding, Ridgefield, Stamford, Weston, Westport, and Wilton). This group formed to assist towns in establishing deer committees, share knowledge and experience about managing urban deer with other towns, provide input on urban deer problems to influence wildlife policy decision makers, increase public awareness, and provide input for developing long-term solutions to control deer overabundance in southwestern Connecticut.

The 2001 booklet entitled *Managing Urban Deer in Connecticut* was revised, updated, and should be available in early 2007. The booklet was designed to assist large landowners, neighborhoods, communities, and town-appointed deer committees with managing deer in urban-suburban areas. The booklet includes information on the history of deer in Connecticut, population dynamics, deer management options, case studies of successful urban deer management programs in Connecticut, and guidance on developing a deer management program. The booklet is available upon request by contacting the Wildlife Division's Franklin office (860-642-7239) or online at www.ct.gov/dep.

Hunter Notes

- Information on dates and locations of hunter education courses can be obtained by calling the Wildlife Division's Franklin office (860-642-7239) or the Sessions Woods office (860-675-8130) or by visiting the DEP's website at www.ct.gov/dep and clicking on the green education and outreach button.
- New regulations have expanded private land bowhunting opportunities in deer management zones 11 and 12. Starting in 2005, any person who checked a total of three antlerless deer at designated check stations was issued a replacement antlerless tag and a replacement either-sex deer tag (earn-a-buck) for use during that same season in zones 11 and 12. While hunting from an elevated tree stand more than 10 feet from the ground, archery hunters on private land in zones 11 and 12 were not required to wear fluorescent orange during the muzzleloader and shotgun/rifle seasons. Hunters harvesting a deer during the muzzleloader season were required to mail a kill report card within 24 hours of harvesting a deer rather than register their deer at a deer check station.
- Emergency regulations were enacted in October 2005 prohibiting hunters from transporting into Connecticut any deer or elk carcasses or part thereof from any state where Chronic Wasting Disease (CWD) had been documented.

Section 26-55-4: No person shall import or possess whole carcasses or parts thereof of any deer or elk from wild or captive herds from other states or Canadian Provinces where Chronic Wasting Disease has been confirmed, including but not limited to Colorado, Wyoming, Utah, New Mexico, Montana, South Dakota, Kansas, Minnesota, Wisconsin, Illinois, Nebraska, Oklahoma, New York, West Virginia, Alberta and Saskatchewan. Any additional states and provinces where Chronic Wasting Disease is confirmed will be published in the Department's annual Hunting and Trapping Guide and on the Department's website (www.ct.gov/dep). This provision shall not apply to meat that is deboned, cleaned skullcaps, hides, or taxidermy mounts.

- Applications for private land and state land no-lottery deer and turkey permits may be downloaded from the DEP's website, www.ct.gov/dep. The DEP is moving toward an automated license system to make the process of obtaining hunting licenses more convenient in the future.

Regulated Deer Harvest

Regulated hunting is the most effective and cost-efficient method for maintaining deer populations at acceptable densities. During the 2005 hunting season, 12,663 deer were legally harvested (Table 1). This represents a 6.5% decrease from the 2004 harvest, which was just below the record harvest of 13,740 in 1995. Total deer harvest was similar to the previous 3-year average. Hunters are becoming more aware and are taking advantage of the replacement antlerless tag program and the January season. However, warm and wet weather throughout the month of October and on opening day of the gun season, as well as limited snow and warm temperatures in January, likely contributed to the slight decline in harvest rates. The antlerless replacement tag harvest increased from 626 to 628 deer from 2004 to 2005. Shotgun/rifle and archery hunters took advantage of either-sex tags (bonus buck tags) and harvested 15 and 13 deer, respectively. Shotgun/rifle hunters accounted for 60.2% of all deer taken in 2005, while archery, landowner, and muzzleloader hunters accounted for 23.7%, 9.9%, and 6.2%, respectively. Harvest varied considerably by season and town (Appendix 1).

Permit Allocation

To reduce Connecticut's deer population growth rate, the Wildlife Division provides opportunities for hunters to purchase multiple deer permits. From 1975 to 1992, permit issuance increased consistently and has remained relatively stable since 1992 (Figure 1). Overall, permit issuance in 2005 (60,433) decreased 1.6% from 2004 (61,415) (Table 2). Permit issuance decreased slightly for both state and private land muzzleloaders (1.0% and 0.1%). Landowner permit issuance remained relatively stable in 2005 and has fluctuated between 4,898 (1999) and 6,133 (1992) for the past 10 years. Issuance of shotgun/rifle permits decreased 2.8% from 2004. Overall, shotgun/rifle hunters purchased the largest number of permits (47.5%), followed by muzzleloader hunters (23.7%), archers (19.7%), and landowners (9.1%). Archery permit issuance in 2003 decreased from 2002 due to the requirement that all bowhunters take the bowhunter safety course. From 2003 to 2004, permit issuance increased 2.8% then declined slightly (0.5%) from 2004 to 2005. Sixty-eight percent of firearms deer permits were issued for use on private land and the remaining 32% were issued for state-managed lands.

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 annu-

Table 1. Deer harvested during Connecticut's regulated hunting seasons, 2004-2005.

Season	Harvest 2004	Harvest 2005	3-year Average Harvest (2002-2004)	% of Total 2005	% Change from 2004 to 2005	% Change 3-year Average to 2005
Archery						
State Land	427	408	421	3.2%	-4.4%	-3.1%
Private Land	2,907	2,598	2,718	20.5%	-10.6%	-4.4%
Replacement Antlerless ^A	404	408	135	3.2%	1.0%	NA
Either-sex Tag ^A		13	0	0.1%	NA	NA
January ^B	208	159	140	1.3%	-23.6%	13.3%
Subtotal	3,334	3,006	3,160	23.7%	-9.8%	-4.9%
Muzzleloader						
State Land	237	186	237	1.5%	-21.5%	-21.6%
Private Land	877	595	756	4.7%	-32.2%	-21.3%
Replacement Antlerless ^A	33	16	11	0.1%	-51.5%	NA
Either-sex Tag ^A			0	0.0%	NA	NA
Subtotal	1,114	781	993	6.2%	-29.9%	-21.4%
Shotgun/Rifle						
State Land A ^C	905	817	812	6.5%	-9.7%	0.6%
State Land B ^C	191	334	197	2.6%	74.9%	69.5%
Private Land	6,720	6,474	6,339	51.1%	-3.7%	2.1%
Replacement Antlerless ^A	189	204	263	1.6%	7.9% ^E	-22.4%
Either-sex Tag ^A		15	0	0.1%	NA	NA
Subtotal	7,816	7,626	7,388	60.2%	-2.4%	3.2%
Landowner						
	1,271	1,251	1,188	9.9%	-1.6%	5.3%
Total	13,541^D	12,663	12,731	100.0%	-6.5%	-0.5%

^A Replacement antlerless tags were available in zones 11 and 12 only and are included in private land harvest total.

^B January season is included as part of private land archery total.

^C Includes controlled hunt areas.

^D Includes 6 harvested deer whose sex and location were missing.

Figure 1. Total deer permit issuance in Connecticut, 1975-2005.

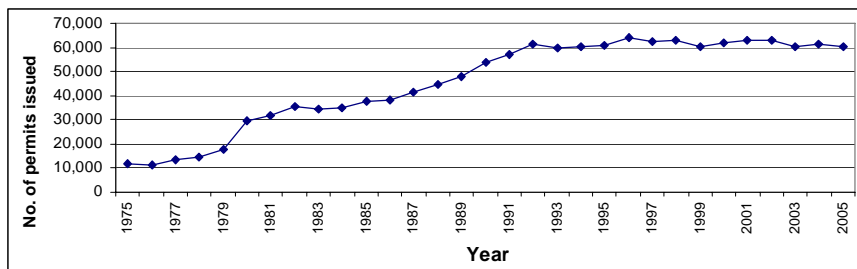


Table 2. Deer hunting permits issued in Connecticut for all regulated hunting seasons, 2003-2005.

Season	Permits 2003	Permits 2004	Permits 2005	3-year Avg. Permits 2002-2004	% of Total 2005	% Change 2004 to 2005	% Change 3-year avg. to 2005
Archery	11,733	12,063	12,008	11,935	19.7%	-0.5%	0.6%
Muzzleloader							
State Land	5,216	5,441	5,388	5,348	8.8%	-1.0%	0.7%
Private Land	8,783	9,148	9,143	9,025	14.9%	-0.1%	1.3%
Subtotal	13,999	14,589	14,531	14,373	23.7%	-0.4%	1.1%
Shotgun/Rifle							
State Land A*	6,248	6,158	5,981	6,129	10.1%	-2.9%	-2.4%
State Land B*	3,988	4,200	4,131	4,106	6.8%	-1.6%	0.6%
Private Land	18,797	18,797	18,237	18,610	30.7%	-3.0%	-2.0%
Subtotal	29,033	29,155	28,349	28,846	47.5%	-2.8%	-1.7%
Landowner	5,393	5,438	5,608	5,457	9.1%	3.1%	2.8%
Total	60,203	61,415	60,433	60,684	100.0%	-1.6%	-0.4%

* Includes controlled hunt permits.

Table 3. Deer hunter success rates (%) in Connecticut, 2004-2005.

Season	2004	2005	3-year Avg. Success Rate (2002-2004)	Difference from 2004	Difference from 3-year Avg.
Archery					
Combined ^A	27.6%	25.0%	26.1%	-2.6%	-1.1%
Muzzleloader					
State Land	4.4%	3.5%	4.4%	-0.9%	-1.0%
Private Land	9.6%	2.0%	8.4%	-7.6%	-6.4%
Combined	7.6%	4.1%	6.9%	-3.5%	-2.8%
Shotgun/Rifle					
State Land A	14.7%	13.7%	13.2%	-1.0%	0.5%
State Land B	4.5%	8.1%	4.5%	3.6%	3.6%
Private Land	35.8%	35.5%	33.4%	-0.3%	2.1%
Combined	26.8%	26.8%	25.9%	0.0%	0.9%
Landowner	22.7%	22.6%	21.7%	-0.1%	0.9%
Average^B	22.0%	20.7%	20.7%	-1.3%	0.0%

^A Data available only for state and private land combined.

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

ally, depending on weather conditions, timing of rain and snow storms, fall acorn crops, and deer herd size. Success rate for the archery season reached a record high of 27.8% in 2003, then dropped slightly in 2004 (27.6%) and 2005 (25.0%). Success rates for the remaining seasons varied from 2004 to 2005, with private land muzzleloader having the greatest decline and state land B season slightly increasing. Compared to the previous 3-year average, success rates decreased for the archery and muzzleloader seasons. In 2005, private land shotgun/rifle hunters had the highest annual success rate (35.5%), followed by archers (25.0%) and landowners (22.6%). Success rate for the combined muzzleloader seasons was 4.1%. Low success rates are expected because the muzzleloader season occurs after the shotgun/rifle deer hunting seasons.

Archery Statistics

About 1 in 4 deer taken during the hunting season was harvested by a bowhunter. Seventy-four percent (2,231; 1,885 private, 346 state) of the total archery harvest were taken during the early archery season (September 15 to November 16), 15% (284; 248 private, 36 state) were taken during the 3-week shotgun/rifle season, 5.0% (148; 145 private, 3 state) were taken during the muzzleloader season, 6.1% (184; 161 private, 23 state) were taken during the late archery season (December 24 to December 31), and 5.2% (159) were taken during the January season open in zones 11 and 12 (January 1-31, 2005).

Connecticut Deer Management Zones

Data from hunter surveys, regulated harvests, and total deer mortality have been recorded and evaluated by deer management zones (Figure 2) 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. In 2003, some zones were re-delineated and zone 4 was split into zones 4A and 4B.

Hunter Perceptions of Population Trends

Each year, 10-20% of all deer hunters complete and return their hunter survey card which includes 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). Half the hunters (50%) who responded to the survey believed that the population was stable, 25% believed it was increasing or slightly increasing, and 25% believed it was decreasing or slightly decreasing. Deer management zones 1 and 2 had the lowest average rank (2.6 and 2.7, Figure 3) and zone 4 had the highest average rank (3.4). Zones 4A and 4B had the highest relative frequency of hunters (33% and 40%) who believed the deer population was increasing. After 6 years of antlerless tag restrictions in Zone 4, hunters now are seeing a noticeable change in the deer population.

Population Trends

To assess the status of zonal deer populations in Connecticut, hunter perceptions

Figure 2. Connecticut's deer management zones, 2005.

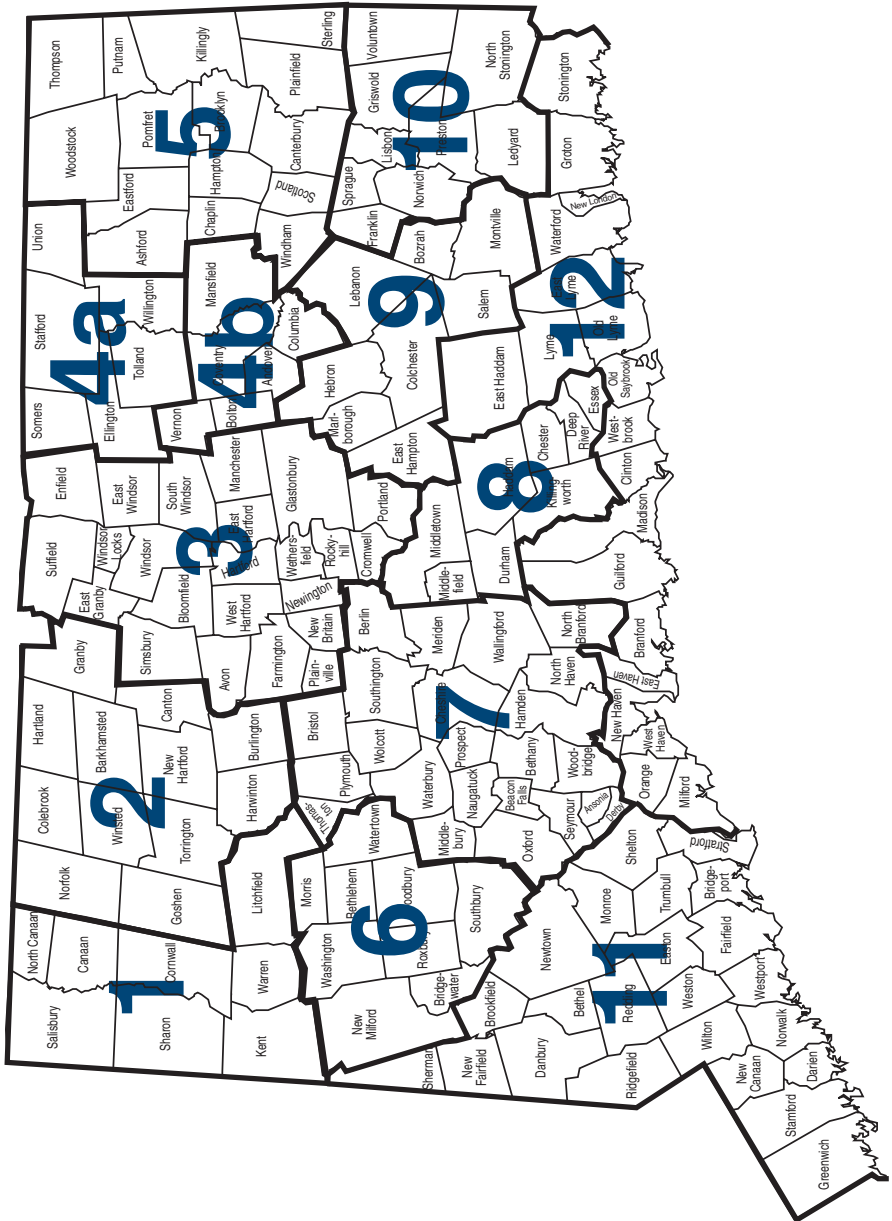
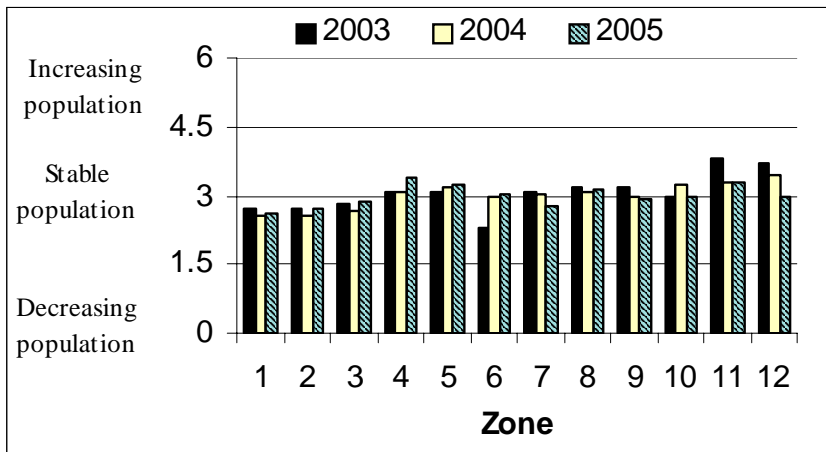


Figure 3. Perception of zonal deer population trends (average rank) by Connecticut's deer hunters, 2003-2005.



and changes in harvest data (buck harvest/square mile, hunter success, yearling antler beam diameters, total deer mortality/square mile, and roadkills/square mile) were analyzed. This analysis suggests that from 2004 to 2005, most zones (9 of 12) had stable populations and 3 zones (7, 8, 12) had a slightly decreasing population (Figures 4 and 5).

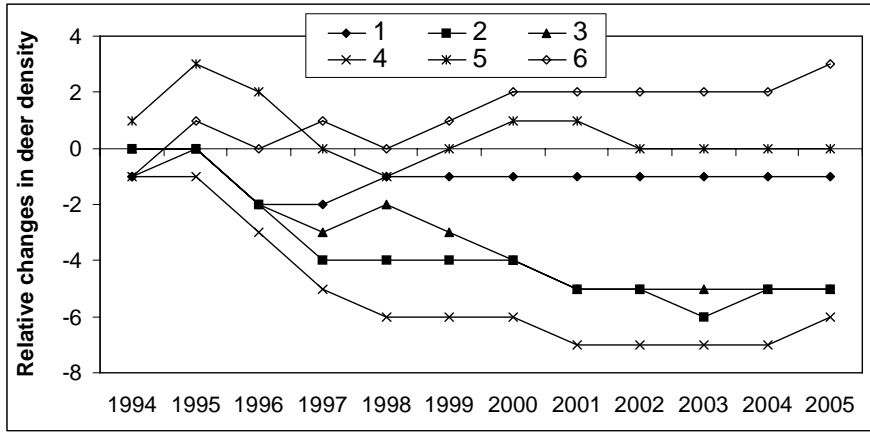
Zonal Deer Management

Because deer populations vary across the state, Connecticut developed 12 deer management zones. Management strategies may vary from zone to zone. In zone 4, a 4-year decreasing trend, beginning in 1996, prompted harvest restrictions on female deer in this zone in 1999. During shotgun/rifle and muzzleloader seasons, the antlerless-only tag on 2-tag permits was not valid in zone 4. This restriction decreased the number of does harvested, allowing the population to stabilize. In 2002, deer populations appeared to be stable in the southern portion of zone 4, but not in the northern portion. In 2003, zone 4 was split into two zones (4A and 4B), allowing each zone to maintain different management objectives. Zone 4A (northern portion) retained the restriction on the use of antlerless tags and zone 4B (southern portion) again allowed the use of antlerless tags. The town of Union was removed from zone 5 and added to zone 4A.

In 2005, the percentage of antlered deer harvested was larger for zone 4A (63%) than for zone 4B (43%) (Figure 6). This was expected due to the restricted use of antlerless tags in zone 4A.

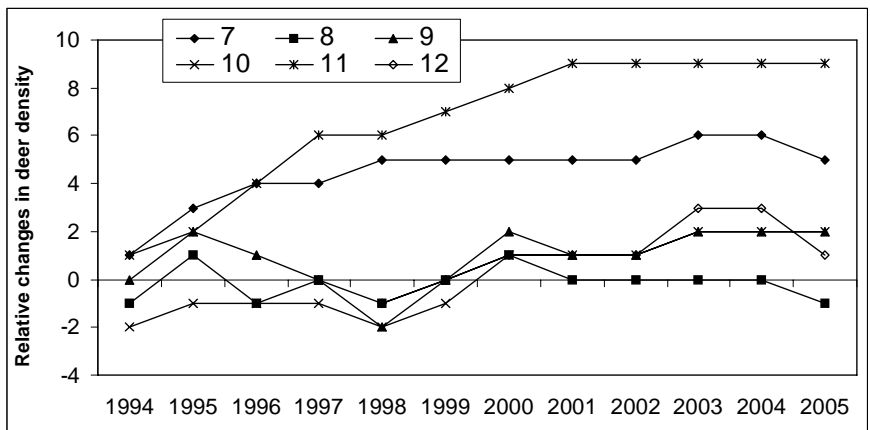
In zones 11 and 12, free replacement antlerless tags and either-sex tags (bonus buck tags) were available during the private land archery, shotgun/rifle, and muzzleloader seasons in 2005. Replacement tags were available in these zones

Figure 4. Trends in Connecticut deer population growth in zones 1-6 from 1994 to 2005.*



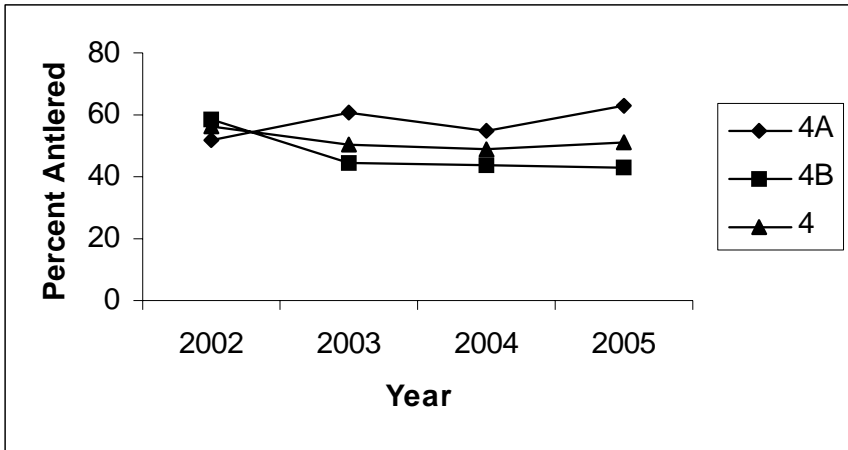
* Horizontal lines represent a stable population relative to the previous year. Lines that project upwards or downward represent increasing or decreasing populations when compared to the previous year.

Figure 5. Trends in Connecticut deer population growth in zones 7-12 from 1994-2005.*



* Horizontal lines represent a stable population relative to the previous year. Lines that project upwards or downward represent increasing or decreasing populations when compared to the previous year.

Figure 6. Percent of antlered deer harvested in zone 4 from 2002 to 2004.



because these regions of the state were experiencing more human-deer conflicts and therefore had different management objectives than other regions.

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 deer management zone. However, without information on hunter distribution and effort by zones, the potential usefulness of this data is limited. To gain insight into hunter distribution and success rates by zone, deer permit applications were modified to include the question, “In what zone do you do most of your deer hunting?” In 2005, 71% (12,976 of 18,237) of private land shotgun/rifle deer hunters answered this question on their application. The relative percent of hunters in each deer management zone was multiplied by the total number of deer permits issued in 2005 to estimate total number of hunters by zone. Total number of hunters and total private land 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 12 management zones, most hunting (45%) occurred in four zones (1, 5, 9, 11). Highest private land deer harvests were reported for zones 1, 5, 11, and 12. Zone 5 had the highest deer harvest per square mile (2.7) and zone 9 had the greatest density of hunters (7.1 per square mile), but zone 12 had the highest hunter success rate (42%). The 3-year trend in hunter success rates was increasing in 8 of 12 zones; however, hunter success rates in 2005 declined for all but zone 4 (Table 5). Hunter success rates were lowest in zone 2. In the past, zone 4 had a low success rate due to restrictions in the antlerless harvest. However, increased hunter success in zone 4 over time indicates the deer herd is recovering.

Table 4. Zonal hunter numbers, harvest, and success rates for private land during the 2005 shotgun/rifle hunting season.

Zone	2005 Answered Applications Private Land Shotgun/Rifle	% of Hunters Answered Question	2005 Estimated # of Private Land Shotgun/Rifle Hunters	2005 Harvest	Area (sq. miles)	Deer Harvest/Sq. Mile	2005 Hunters/Sq. Mile	2005 Success Rate
1	1,180	9.1	1,658	637	293.1	2.2	5.7	38%
2	985	7.6	1,384	287	359.2	0.8	3.9	21%
3	689	5.3	968	316	329.7	1.0	2.9	33%
4	1,032	8.0	1,450	568	333.1	1.7	4.4	39%
5	2,129	16.4	2,992	1241	454.2	2.7	6.6	41%
6	906	7.0	1,273	413	233.5	1.8	5.5	32%
7	745	5.7	1,047	300	318.1	0.9	3.3	29%
8	697	5.4	980	285	156.5	1.8	6.3	29%
9	1,242	9.6	1,746	634	244.9	2.6	7.1	36%
10	1,011	7.8	1,421	452	228.1	2.0	6.2	32%
11	1,251	9.6	1,758	659	349.7	1.9	5.0	37%
12	1109	8.5	1,559	662	340	1.9	4.6	42%
Total	12,976	100.0	18,237	6,454	3,640.10	1.8	5.0	35%

Table 5. Zonal comparisons in private land shotgun/rifle harvest, hunter distributions, and success rates, 2003-2005.

Zone	Area (sq. miles)	Deer Harvest/Sq. Mile			Hunters/Sq. Mile			Success Rate	Success Rate	Success Rate
		2003	2004	2005	2003	2004	2005	2003	2004	2005
1	293.1	2.2	2.4	0.9	6.2	6.0	5.7	35%	40%	38%
2	359.2	0.9	0.9	1.0	3.8	3.8	3.9	23%	24%	21%
3	329.7	1.1	1.1	1.0	2.9	3.0	2.9	38%	36%	33%
4	333.1	1.5	1.6	0.9	4.6	4.9	4.4	32%	32%	39%
4A	213.1	0.8	0.8	0.9	4.6 ^A	4.6 ^A	4.6 ^A	18%	16%	20%
4B	120.2	2.6	3.0	3.2	4.6 ^A	4.6 ^A	4.6 ^A	55%	61%	70%
5	454.2	2.2	2.8	1.0	6.6	6.4	6.6	33%	43%	41%
6	233.5	1.9	2.2	0.9	6.0	5.6	5.5	31%	39%	32%
7	318.1	1.2	1.3	0.8	3.3	3.4	3.3	36%	39%	29%
8	156.5	2.2	2.5	0.9	6.7	6.9	6.3	34%	37%	29%
9	244.9	3.1	3.1	0.9	7.5	7.6	7.1	41%	41%	36%
10	228.1	2.0	2.6	0.9	6.2	6.5	6.2	32%	40%	32%
11	349.7	2.4	2.3	1.0	5.3	5.0	5.0	45%	46%	36%
12	340.0	2.6	2.8	0.8	4.4	4.6	4.6	58%	60%	42%
Total	3,973.2	1.9	2.1	1.0	5.2	5.2	5.0	37%	40%	34%

^A Zone 4 was separated into zones 4A and 4B in 2003, but hunter survey data did not reflect this change.

Archery Season

Based on the number of kill report cards submitted by archers, 1 of 3 (36%) hunters harvested 2 or more deer during the archery season (Table 6).

Bowhunter success rates were highest in zones 11 and 12 where firearms hunting is more limited and the archery season framework is liberal (use of bait, unlimited tags, longer seasons) (Table 7). Based on hunter surveys, the actual harvest rate is higher than the reported harvest rate.

Hunting Over Bait

In 2003, use of bait was legalized in zones 11 and 12 to help reduce over-abundant deer populations. In areas where bait was legalized, the harvest increased nearly 17%, compared to only a 1.4% increase in areas where hunting over bait was not permitted. In 2004, an assessment of deer use of automatic feeders during the archery season found that deer use of bait sites peaked 2 to 3 weeks after deer encountered bait sites. The assessment also found that antlerless deer developed more predictable feeding patterns and used bait sites more often than antlered deer and deer use continued to increase from September through January when snow cover was present. Deer use of feeders may vary depending on snowcover or availability of mast crops in a given year. Hunter disturbance caused some deer to temporarily shift to night use, but then shifted back to day use within 3 days.

Based on a survey of bowhunters, more than half of hunters that were aware that baiting was legalized took advantage of bait during the hunting season and bait use is expected to increase 20% next season. Few hunters perceived bait as an unethical or unsporting method of hunting. Hunters using bait harvested 4 times more deer during the regular archery season (September – December) and nearly 8 times more deer during the January archery season than hunters using no bait. Hunters using bait on small properties (≤ 1 acre) observed similar numbers of deer within shooting range as hunters using bait on larger properties (≥ 12 acres).

Fall Acorn Crop

Acorns are a preferred food for white-tailed deer during fall and winter. Availability of acorns 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 on abundance of the fall acorn crop from hunter surveys since 1993. Hunter perceptions of the fall acorn crop were ranked on a scale from 0 (scarce) to 6 (abundant acorns). In 2005, 14% of the hunters who responded to the survey ranked the fall acorn crop as abundant, 40% as moderate, and 46% as scarce. Zone 11 had the highest average rank (3.2) and zone 2 had the lowest average rank (1.3, Figure 7). Average rank for the remaining zones ranged from 1.4 to 2.8. On a scale of 0-6, the average rank statewide was 2.1.

The past 12 years of data on acorn abundance and harvest suggest that a correlation exists between hunter success and acorn abundance (Figure 8). In

Table 6. Percentage of archery hunters harvesting 1 or more deer based on the number of kill report cards submitted during the 2005 archery deer hunting season.

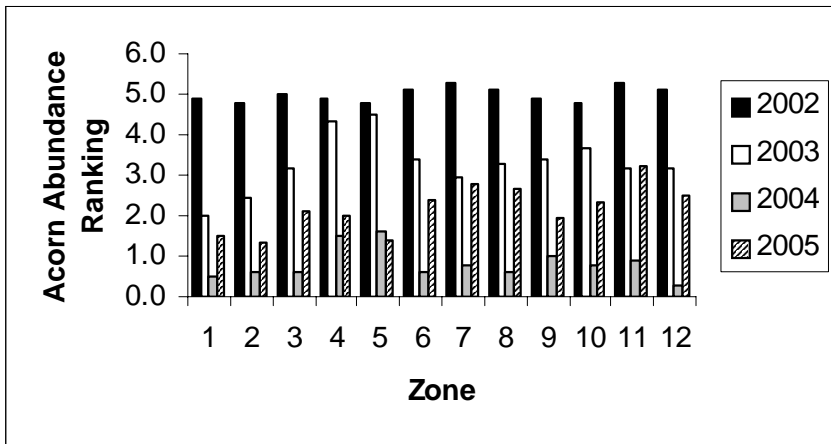
Archery 2005 (9/15-12/31) % Hunters (n=1,823)	January 2006 (1/1-1/31) % Hunters (n=130)	Number of Deer Harvested per Hunter
63.6%	64.4%	1
24.3%	28.7%	2
7.1%	3.0%	3
2.4%	1.0%	4
1.0%	0.0%	5
0.4%	0.0%	6
0.2%	2.0%	7
0.3%	0.0%	8
0.1%	1.0%	9
0.0%	0.0%	11
0.1%	0.0%	12
0.1%	0.0%	13
0.1%	0.0%	16
0.1%	0.0%	18
0.1%	0.0%	19
0.0%	0.0%	23
100%	100%	Total

Table 7. Zonal comparisons of archery season success rates, 2005.

Zones	2005 Answered Applications Archery	% of Hunters	2005 Estimated # of Archery Hunters	2005 Harvest	2005 Success Rate
1	695	7.2%	872	150	17.2
2	706	7.3%	886	88	9.9
3	445	4.6%	558	83	14.9
4*	647	6.7%	812	194	23.9
5	1,069	11.1%	1,342	315	23.5
6	527	5.5%	661	104	15.7
7	798	8.3%	1,001	169	16.9
8	518	5.4%	650	104	16.0
9	665	6.9%	835	154	18.5
10	511	5.3%	641	115	17.9
11	2,175	22.6%	2,730	1,134	41.5
12	856	8.9%	1,074	396	36.9
Total	9,612	100.0%	12,063	3,006	24.9

* Zone 4 was separated into zones 4A and 4B in 2003, but hunter survey data did not reflect this change.

Figure 7. Perception of acorn crops (average rank) by Connecticut's deer hunters, 2002-2005.



1993, when acorns were most abundant, hunter success was lowest, and in 2004, when acorns were least abundant, hunter success rate was highest. During years with low acorn productivity, deer travel more to access other food sources, such as green fields, increasing their vulnerability to hunters.

Private Land Deer Harvest

The 2005 private land deer harvest was highest for deer management zones 5, 9, 11, and 12 (Table 8). Zonal harvest levels have fluctuated in most zones over the past 9 years (Table 8). These fluctuations likely reflect the difference in weather conditions, snow cover, acorn abundance, and deer densities. Although there is much variability, a consistently decreasing harvest trend is most noticeable in zones 1 and 2 and an increasing harvest trend is most noticeable in zone 11 over the past 11 years. Zone 11 has reported the highest total harvest for the last 3 of 4 years, and the harvest in zone 12 has more than doubled since 2002, likely a result of the availability of replacement antlerless tags in these zones and from expanding the size of these zones (see note below Table 8). Total private land deer harvest decreased nearly 4% from 2004 to 2005.

Herd Health

Measuring antler beam diameters (1 inch above the base) of yearling males is one method of assessing deer herd health. Mean antler beam diameters on yearling males are correlated with female productivity, which is related to habitat quality. For example, yearling males with large antler beam diameters (20.0+ mm) indicate excellent herd health, while small beam diameters (12-15.4 mm) imply poor herd health. Beam diameters 15.5-17.9 mm and 18.0-19.9 mm imply the herd is in fair to good condition, respectively. Mean yearling antler

Figure 8. Relationship between private land hunter success rates and fall acorn productivity, 1993-2005.

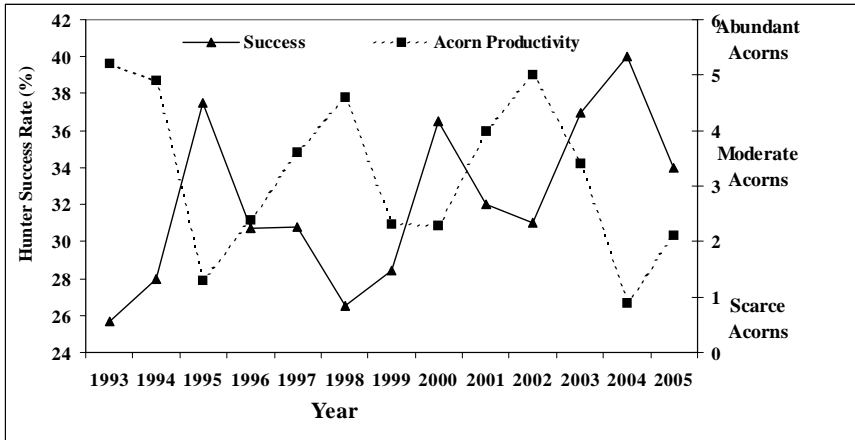


Table 8. Private land deer harvest for seasons (excluding landowner) in each of Connecticut's deer management zones, 1995-2005.

Zone	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	1,535	1,226	1,264	1,116	910	1,184	936	937	867	904	927
2	518	466	444	394	360	389	351	259	437	461	484
3	513	408	441	549	397	529	442	478	509	482	461
4 ^A	1,041	890	807	678	583	729	662	471			
4A									291 ^B	296	434
4B									465	504	554
5	2,159	1,952	1,763	1,382	1,612	2,061	1,651	1,293	1,483 ^C	1,812	2,014
6	957	905	908	627	808	909	854	746	633 ^C	674	611
7	563	551	482	518	529	624	524	489	602 ^B	671	540
8	738	562	437	389	486	523	433	378	463	514	467
9	1,681	1,614	1,249	894	1,208	1,593	1,408	1,197	1,011 ^C	1,025	976
10	871	708	607	468	597	746	713	519	624	804	734
11	1,079	1,108	1,088	1,020	1,237	1,400	1,562	1,839	2,127 ^B	2,171	1,896
12	ND	ND	593	627	679	720	646	636	1,332 ^B	1,443	1,209
Total	11,655	10,390	10,083	8,662	9,406	11,407	10,182	9,242	10,844	11,761	11,307
% change		-10.9%	-3.0%	-14.1%	8.6%	21.3%	-10.7%	-9.2%	17.3%	8%	-3.8%

ND = No data collected. Zone 12 delineated in 1997.

^A Zone 4 separated into Zones 4A and 4B in 2003.

^B In 2003 town/towns added to zone.

^C In 2003 town/towns removed from zone.

beam measurements in 2005 indicate that the deer herd in most zones was in fair to good condition. Mean beam measurements exceeded 18.0 in 3 of 12 zones (Table 9). Overall average antler beam measurements have decreased slightly since 2002 (18.0 mm). Mean antler beams have ranged between 17-18mm in 10 of the past 11 years. Minor variations in beam measurements from year to year probably are due to fluctuations in food availability, winter conditions, or other variables. Most zones have fluctuated within the fair to good range since 1994.

Deer Weights

Trends in deer weights are another indicator of overall herd health. Average dressed weights were similar from 2004 to 2005 for harvested young-of-year and yearling males (Table 10). Weights of young-of-year males harvested in zone 1 decreased by 8 pounds and increased by nearly 12 pounds in zone 8. During biological data collection (6 days) for the 2005 shotgun/rifle season, 12 bucks were checked in at 200 pounds or more (Table 11). The heaviest two were harvested in Litchfield (215 pounds) and Avon (213 pounds).

Antler Points

Deer age, nutritional status, and genetics affect the number of antler points on bucks. Number of antler points on yearling bucks aged at check stations ranged from 1 to 12 in 2005 (Figure 9). Most yearling bucks had 2 (43.1%) or 4

Table 9. Average antler beam diameter (mm) of yearling males in each of Connecticut's deer management zones, 1994-2005^a.

Zone	Year										
	1994	1995	1996	1997	1999	2000	2001	2002	2003	2004	2005
1	16.4	18.3	16.4	16.6	17.9	17.2	17.7	18.9	17.4	16.8	17.0
2	17.4	18.4	17.7	18.0	18.1	18.1	16.7	18.1	18.6	16.9	19.2
3	19.0	17.7	17.6	18.7	19.3	18.7	15.7	18.3	18.2	16.1	19.8
4 ^A	19.5	17.3	15.9	17.0	18.4	18.7	16.0	17.9			
4A ^A							15.0	17.5	18.7	16.2	15.8
4B ^A							15.7	18.2	18.0	18.0	17.8
5	18.2	18.9	16.6	16.8	18.3	18.2	17.0	17.8	16.4	18.1	15.8
6	17.8	18.5	17.2	18.0	18.1	18.1	16.3	18.4	18.0	16.9	15.7
7	ND	18.5	17.2	17.5	17.1	18.3	16.1	17.9	17.4	17.8	17.5
8	15.0	18.7	15.7	17.5	18.0	17.4	16.8	17.3	18.6	17.6	20.5
9	17.6	17.7	16.6	17.1	19.1	17.9	16.5	18.4	17.3	16.7	17.7
10	16.4	17.8	17.2	18.1	17.6	17.1	16.0	17.9	15.9	17.5	15.5
11	17.5	17.5	18.1	16.5	16.3	16.8	18.7	17.2	17.9	17.4	15.3
12	ND*	ND*	ND*	ND*	17.4	17.1	15.7	18.2	17.1	17.1	17.8
Avg.	17.5	18.0	16.9	17.3	17.8	17.4	16.9	18.0	17.6	17.2	17.3

*No data collected in 1998—no biological check stations.

ND = No data due to small sample sizes (N<5).

ND* = No data collected. Zone 12 was not delineated before 1997.

^A Zone 4 separated into zones 4A and 4B in 2003.

Table 10. Average dressed weights (lbs.) of male deer harvested during the shotgun/rifle hunting season, 2003-2005.

Zone	Young of Year			Yearling			Adult		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
1	61.6	69.2	60.9	109.4	105.7	110.0	148.4	146.0	146.0
2	64.8	68.6	77.8	113.0	111.6	110.4	152.0	139.4	149.9
3	69.6	66.7	71.9	111.7	111.5	112.0	152.4	145.3	153.3
4A	61.2	64.2	57.2	105.0	103.8	104.6	136.9	148.9	140.8
4B	58.2	64.6	64.2	108.0	106.1	110.3	136.8	145.4	141.9
5	63.6	63.9	64.3	106.5	106.8	106.1	141.0	141.7	146.6
6	66.1	62.1	67.3	111.3	106.8	108.9	145.3	151.1	143.9
7	63.3	61.3	68.0	111.6	107.5	107.1	144.6	144.1	140.1
8	60.7	63.3	75.0	107.5	102.2	105.1	144.6	143.4	145.8
9	65.1	62.8	64.8	108.4	105.1	104.4	132.8	137.0	136.9
10	70.1	59.1	60.4	114.4	107.8	108.8	137.9	136.5	143.4
11	60.1	63.7	60.1	102.0	100.3	101.8	141.3	134.3	134.3
12	56.6	68.3	62.9	99.3	101.8	96.2	134.8	134.7	128.8
Average	63.2	64.4	65.8	108.3	105.9	106.6	142.2	142.5	142.4

Table 11. Towns of bucks harvested weighing 200 lbs. or more (dressed weight) during the shotgun/rifle hunting season, 2005.

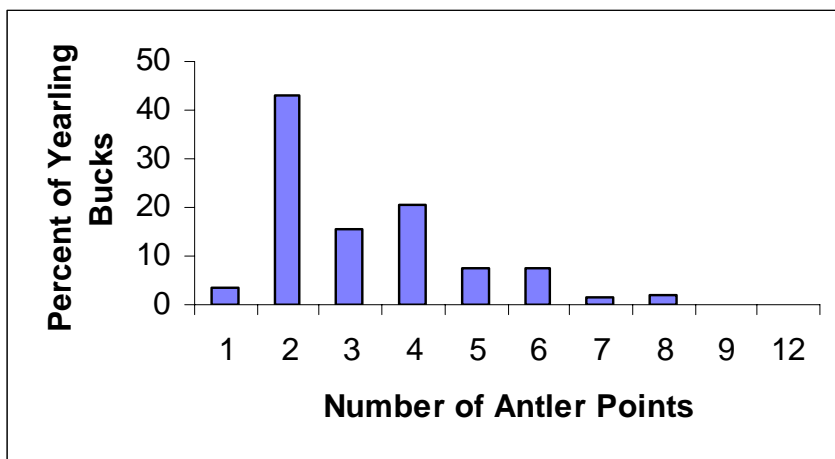
Town	Weight (lbs.)	Points
Litchfield	215	10
Avon	213	8
Canterbury	207	8
Canton	207	10
Ashford	206	8
Ashford	201	8
Coventry	201	9
Griswold	201	10
Canaan	200	8
Cornwall	200	9
Plainfield	200	8
Sterling	200	7

(20.7%) points and almost 11% had 6 or more points in 2005 (Figure 9), similar to 2004. Mean number of antler points on yearling males has fluctuated between 2 and 4 among most zones during the past 3 years (Appendix 6). Of all antlered bucks harvested, 8 pointers were the most frequent point category followed by 6, 4, and 2 pointers (Figure 10).

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

Figure 9. Number of antler points on yearling males harvested during the 2005 shotgun/rifle deer season.



that encourage the harvest of female deer. All 2-tag permits come with 1 antlerless-only and 1 either-sex deer tag. Hunters can take 1 or 2 antlerless deer with all 2-tag permits except in zone 4A where the antlerless-only tag is NOT valid. Although button bucks are included in the antlerless harvest, this system promotes the removal of female deer (Table 12). The overall deer harvest sex ratio in 2005 (1.3 males per female) was the same as the 2004 ratio (Table 13). In 2005, 54% (6,915) of the total regulated deer harvest (excludes crop damage harvest) was comprised of antlerless deer. Although harvest rates were slightly higher for males than females, a significant proportion of the harvest included adult females, which contributes to population control efforts (Appendix 5).

Replacement Tags

The replacement tag system was developed to increase the harvest of female deer. This system is currently in place in zones 11 and 12. Since 1998, when archery hunters had access to replacement tags in zone 11, the buck harvest has remained relatively stable while the antlerless harvest in that zone has increased nearly 5 times (from 200 to almost 1,000 deer annually) (Figure 11). The ratio of female deer harvested in zone 11 increased from 1 female per 1.4 males (1993-1994) to 1 female per 0.9 males (1995-2005) (Figure 12).

Check stations in zones 11 and 12 issued 1,123 replacement antlerless tags (505 shotgun/rifle, 595 archery, 23 muzzleloader) and 119 either-sex tags (35 shotgun/rifle, 81 archery, 3 muzzleloader) during the 2005 deer hunting seasons (Table 14). Of either-sex tags used during the archery and shotgun rifle season, most (92 and 82%) were used on antlered bucks.

Figure 10. Percent of all antlered bucks harvested by points category during the shotgun/rifle deer season, 2002-2005.

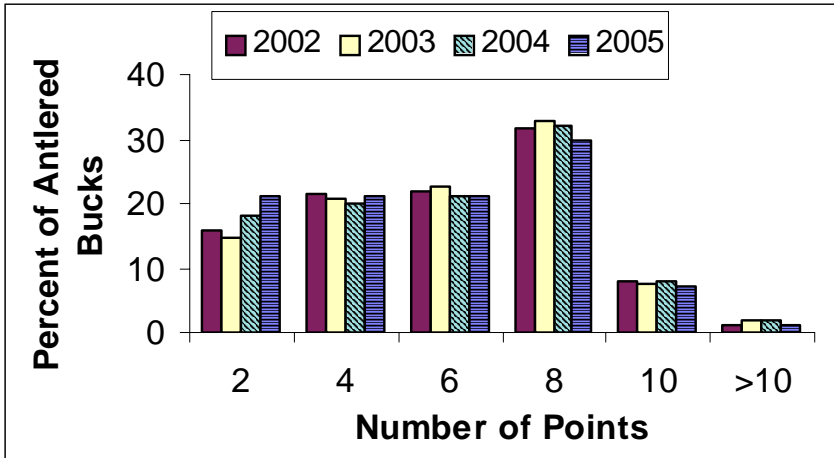


Table 12. Sex ratios and antlered to antlerless ratios of deer harvested in 2005.

	Muzzleloader	Shotgun/ Rifle	Archery	Landowner	Crop Damage	Total
Male:Female	0.81:1	1.54:1	0.92:1	1.3:1	0.71:1	1.24:1
Antlered:Antlerless	0.42:1	1.00:1	0.61:1	0.86:1	0.59:1	0.82:1

Table 13. Sex ratios (male:female) of deer harvested during Connecticut's regulated hunting seasons, 2002-2005.

2004		2005		Sex Ratio Males per Female				3-year Average
Males	Females	Males	Females	2002	2003	2004	2005	(2002-2004)
6,853	5,391	7,109	5,544	1.2:1	1.4:1	1.3:1	1.3:1	1.3:1

Deer Hunter Expenditures

Deer hunting-related expenditures contribute significantly to Connecticut's economy. Deer permit sales generated \$904,858 in 2004 and \$1,128,887 in 2005 to the Connecticut General Fund. In addition, data collected from annual deer hunter surveys indicated that Connecticut deer hunters spent an estimated \$9,225,888 on deer hunting-related goods and services in 2005.

Hunter Days of Recreation

In 2005, deer hunters spent a cumulative total of over 416,193 days afield. Private land muzzleloader and shotgun/rifle hunters used the greatest percentage of available hunting days during those seasons (35.5% and 32.3%). Bowhunters used a smaller percentage of available hunting days; however, the archery season is much longer than the firearms season.

Figure 11. Comparisons of antlered and antlerless deer harvests during the archery deer season in zone 11, 1995-2005.

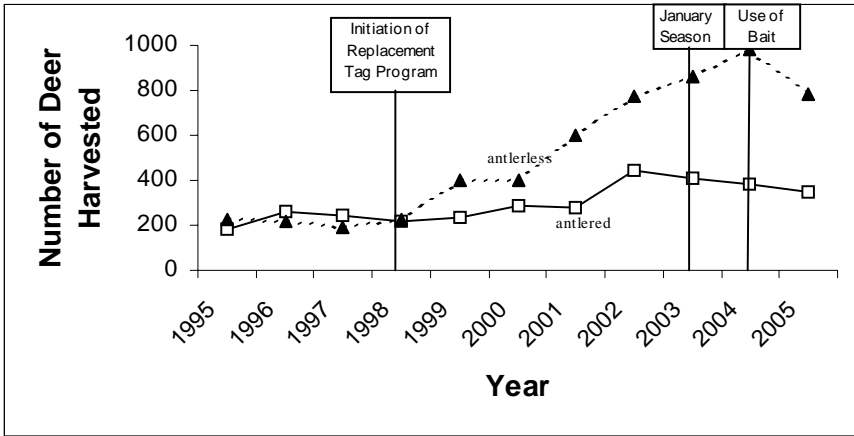


Figure 12. Sex ratios of harvested deer from zone 11 after the implementation of the antlerless replacement tag program, 1994-2005.

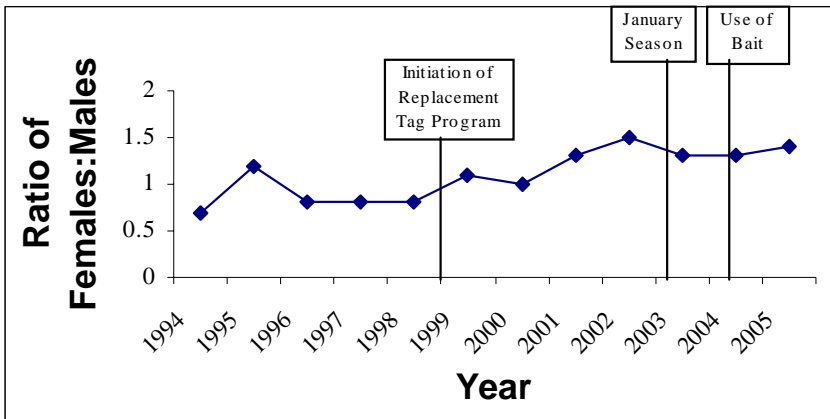


Table 14. Issuance and use of antlerless replacement tags and either-sex tags during the archery, firearms, and muzzleloader deer hunting seasons in 2005.

	Bow 9/15-1/31		5-week Gun 11/16-12/6	
	Antlerless	Either-sex	Antlerless	Either-sex
2005 Issued	595	81	505	35
2005 Used	268	13	204	15
Percentage Used	45.0%	16.0%	40.4%	42.9%

	Muzzleloader 12/7-12/20		Total	
	Antlerless	Either-sex	Antlerless	Either-sex
2005 Issued	23	3	1,123	119
2005 Used	10	0	482	28
Percentage Used	43.5%	0.0%	42.9%	23.5%

Hunter Effort and Expenditure per Deer Taken

Connecticut deer hunters collectively spent an average of \$730 per deer taken in 2005. In addition, 22.1 hunter days were expended for each deer harvested during the regulated fall seasons. In 2004, hunters spent an average of \$703 and expended 28.5 days per deer taken.

Venison Statistics

In 2001, the calculation for estimating pounds of edible venison was improved. A ratio was developed using pounds of edible venison from 135 deer taken from Bluff Point and donated to Hunters for the Hungry. This new equation indicated that about 47% of a deer's dressed weight was edible venison. Edible pounds of venison for 1999, 2000, and 2001 were recalculated using the new equation. In 2005, hunters in Connecticut harvested an estimated 656,708 pounds (328 tons) of venison at an estimated value of \$3,276,972 (\$4.99/lb.).

2005 Subscription Rates for State Land Lottery Permits

In 2005, 7,432 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. Fifty-five percent of all potential lottery permits were issued. Permit issuance reached 100% of both A and B seasons for 1 of 6 controlled hunt areas (Table 15). The following example explains how to interpret Table 15: In Deer Lottery Hunting Areas (DLHA) 15, 96% of A season permits and 62% of B season permits were issued. Consequently, DLHA 15 was undersubscribed

compared to DLHA 52, which was filled to capacity (100%) for both A and B seasons and thus experienced greater hunter density. For applicants, the odds of receiving an “A” season permit are greater in areas with low hunter subscription rates. Hunters also should look at harvest levels in the different state land areas when selecting an area to hunt (Appendix 2 and 3).

Table 15. Percent of available A and B season hunting slots filled through the annual, state-administered shotgun deer lottery, 2003-2005.

Deer Management Area	% of Hunting Slots Filled					
	2003A	2003B	2004A	2004B	2005A	2005B
1	86	0	77	0	69	0
2	87	0	90	0	78	0
3	53	NL	47	NL	32	NL
4	29	NL	30	NL	30	NL
5	92	NL	100	NL	90	NL
6	96	0	100	15	94	14
7	100	100	99	99	92	58
8	100	100	100	100	92	78
9	100	100	100	100	92	91
10	100	39	100	43	95	43
11	100	25	100	17	93	20
12	100	24	100	32	94	28
13	100	24	85	15	95	5
14	80	0	74	0	93	5
15	100	45	100	61	96	62
16	64	NL	65	NL	63	NL
17	41	NL	37	NL	30	NL
18	93	NL	88	NL	89	NL
19	21	NL	25	NL	30	NL
20	64	0	79	0	65	0
21	24	NL	25	NL	23	NL
22	70	0	72	0	72	0
23	37	NL	31	NL	34	NL
24	100	24	69	11	81	0
25	40	0	100	17	71	0
26	100	100	91	91	80	87
27	NA	NA	NA	NA	100	82
51(Yale)	100	45	100	32	97	41
52(Bristol)	100	100	50	64	100	100
53(Maromas)	100	100	100	100	93	100
54(Skiff Mt.)	100	94	100	68	97	60
56(BHC-Hemlock)	100	100	100	100	100	100
57(Colebrook)	44	0	43	0	29	0

NL = No Lottery

NA = Not added until 2005

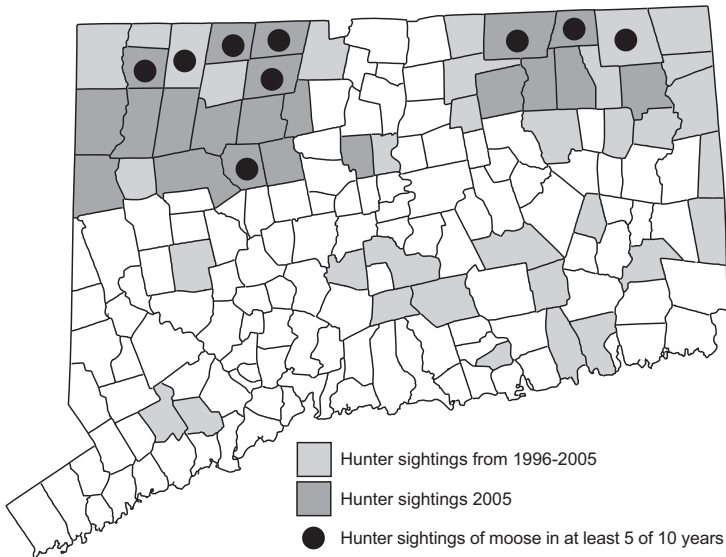
Moose Sightings

An increasing moose population in Massachusetts has led to an increased number of moose wandering or dispersing into Connecticut. In an effort to monitor trends in moose sightings in Connecticut, a question was added to the deer hunter survey card in 1996 regarding hunter observations of moose during the fall hunting season. Deer hunters reported 49 moose sightings in 21 towns in 2005 and 277 sightings over the past 10 years. Sightings have been reported from 9 to 22 different towns each year. During this 10-year period, moose sightings have been reported in 56 different towns (Figure 13). Moose have been reported in Union and Hartland for 9 of 10 years. Moose sightings have been reported in 9 towns in at least 5 of 10 years. Most towns where moose sightings are reported by hunters occur along the Connecticut-Massachusetts border. In 2005, an average of 1 moose was seen by hunters for every 855 hunter days spent in the field, a slight decrease from 2004, when a moose was seen for every 810 hunter days in the field. Currently, Connecticut has no open hunting season for moose.

Controlled Deer Hunts

Yale Forest (Area 51): Yale Forest is a 7,700-acre forest located in Eastford and Ashford, Connecticut. The forest is owned and managed by Yale University for research, education, and forest products. During the 2005 controlled hunt, 62 deer (36 males, 26 females) were harvested. Controlled deer hunts have been

Figure 13. Moose sightings reported on deer hunter surveys, 1996-2005.



implemented on the property since 1984 in an effort to reduce deer impacts on forest regeneration. On average, 72 deer have been removed annually from the forest over the past 6 years.

Bristol Water Company (BWC, Area 52): In 1994, BWC contacted the Wildlife Division and expressed interest in opening 4,500 acres for deer management. In 1995, the Division conducted a winter aerial deer survey on BWC lands. After completion and summary of survey results, BWC requested to re-enlist their property in the controlled hunt program for the 1996, 1997, and 1998 deer seasons to reduce the local deer population. After 3 years of successfully implementing a deer management program on BWC land, BWC requested to continue participating in the program. Twenty-seven deer were harvested (16 males, 11 females) during the 2005 season. Typically, annual deer harvest has fluctuated between 22 and 37 in this area.

Maromas Cooperative Management Area (Area 53): Maromas, a 1,400-acre parcel in Middletown owned by Northeast Utilities, was opened to shotgun and no-lottery muzzleloader hunting to maintain deer densities at levels compatible with available habitat. Hunters harvested 8 deer (7 males, 1 female) in 2005, much lower than the 7-year average of 17 deer (range 16 to 21).

Skiff Mountain (Area 54): Owned by Northeast Utilities, Skiff Mountain is a 710-acre property in Sharon, open to shotgun and no-lottery muzzleloader hunting. Seven deer (5 males, 2 females) were taken in 2005. Harvests have fluctuated between 4 and 16 deer over the past 8 years.

Centennial Watershed State Forest (formally known as Bridgeport Hydraulic Co.) (Area 56): The Hemlock Tract is a 1,709-acre parcel that has been open to hunting since 1996. In 2005, an additional 1,765 acres were opened to hunting. In 2005, 95 deer (55 males, 40 females) were harvested from 3,474 acres.

MDC Colebrook Reservoir/Hogback Dam (Area 57): This 4,159-acre parcel in Colebrook was opened to hunting in 1999 when 12 deer were harvested. In 2004, 3 deer (2 males, 1 female) were harvested and, in 2005, 6 deer (3 males, 3 females) were harvested.

Devil's Den: This 1,660-acre property in Weston and Redding is owned by The Nature Conservancy. In 2005, 34 deer were removed (20 males, 14 females). A total of 27 deer were harvested in 2004.

Bluff Point: Controlled hunts and DEP deer removals at Bluff Point Coastal Reserve in Groton were implemented over the past 10 years to reduce and maintain the deer population at about 25 animals. Since the program started in 1996, 471 deer have been removed from Bluff Point, resulting in improved deer herd health and ecosystem stability. In December 2005, the deer population was estimated to be 45 deer. In January and February of 2006, 20 deer were removed over 5 nights. After the 2006 removal, the population was estimated to be about 25 deer.

Greenwich: Greenwich Audubon is a 285-acre sanctuary located in northern Greenwich. Audubon is reducing the deer population to help restore the biological health of the sanctuary. In 2003, hunters from the Greenwich Sportsmen and

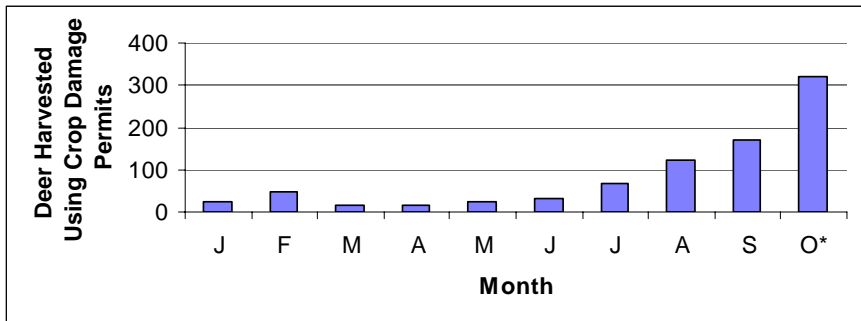
Landowner's Association (GSLA) harvested 30 deer. Of the 30 deer harvested, 28 were females and 2 were males (one male was antlerless). In 2004, Audubon opened up an additional 135 acres to hunting. Hunters from the GSLA harvested 25 deer (24 females, 1 male). In 2005, hunters from the GSLA harvested 19 deer (16 females, 3 males). All meat from deer harvested on the property was donated to the Food Bank of Lower Fairfield County.

The town of Greenwich implemented its first herd reduction program on 3 town-owned properties (623 acres) in March 2005. The herd reduction consisted of a 4-night sharpshooting program which resulted in the removal of 80 deer. A total of 2,400 pounds of venison from this removal program were donated to local food pantries. Total cost to the town to implement the sharpshooting program was \$646 per deer removed.

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 that meet specific criteria and are experiencing verifiable 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. During 2005, 842 deer were taken with crop damage permits (Appendix 7). From 1993–2004, annual deer harvest with crop damage permits fluctuated between 543 and 946 deer. Harvest in deer management zone 11 accounted for 12% of deer removed with crop damage permits in 2005. Crop damage harvest increased steadily from May to October, with 58% of the annual harvest occurring in September and October (Figure 14). Crop damage permits are not valid in November or December.

Figure 14. Crop damage harvest by month, 2005.



* Includes deer harvested in November and December using jacklight permit

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 2005, 2,855 non-hunting deer mortalities were reported (Appendix 8). Of those, 2,667 were killed in deer-vehicle collisions. This equates to an average of 7.3 deer being killed per day on Connecticut roads and highways. Roadkills accounted for 93% of all reported non-hunting mortality in 2005. Based on a 2-year study, for every 1 deer killed by a vehicle and reported to the Wildlife Division, 5 more deer are killed by a vehicle and not reported. Based on this correction factor, it is estimated that the actual number of roadkills in 2005 was 16,002. Almost 17% (448) of all reported roadkilled deer in Connecticut occurred in deer management zone 11 (Fairfield County, Figure 2) in 2005 (Appendix 9). Deer roadkills in zone 11 have been 2 to 10 times greater than all other deer management zones (Appendix 9). Non-hunting mortality comprised 22.6% of the total reported deer mortality in Connecticut, including crop damage harvest (Appendix 8).

Chronic Wasting Disease

Over the past 3 years, the Wildlife Division has focused much effort on conducting surveillance for Chronic Wasting Disease (CWD) in deer. CWD is one of a group of diseases called transmissible spongiform encephalopathies (TSE) or prion diseases that are inevitably fatal to members of the deer family. These diseases are believed to be the result of infectious, self-propagating “prion” proteins. Much of their biology is poorly understood. CWD is closely related to, but different than, other TSE’s in other species, such as scrapie in sheep.

CWD was first recognized as a disease in 1967 in captive mule deer at a wildlife research facility in Fort Collins, Colorado. The disease was first diagnosed in free-ranging elk, mule deer, and white-tailed deer in Colorado and Wyoming in 1981, 1985, and 1990, respectively. To date, CWD has been diagnosed in captive cervid facilities in Alberta, Colorado, Kansas, Montana, Minnesota, Nebraska, New York, Oklahoma, Saskatchewan, and South Dakota, and in free-ranging cervids in Colorado, Illinois, Nebraska, New Mexico, New York, South Dakota, Saskatchewan, Utah, West Virginia, Wisconsin, and Wyoming.

In 2002, concerns about CWD entering Connecticut prompted the enactment of emergency regulations restricting the movement of live animals into the state. In 2003, the DEP began its first intensive CWD surveillance program. A total of 233 deer were collected statewide and all tested negative for CWD. In 2004, 317 samples were collected from zone 11 and all tested negative for CWD. In 2005, 643 samples were collected and tested from deer harvested during the archery,

shotgun/rifle, or crop damage seasons and from vehicle-killed deer. Another 8 samples were submitted for testing that were collected from animals that had displayed symptoms similar to CWD. Samples were tested at the University of Connecticut's Department of Pathobiology and Veterinary Science in Storrs and all tested negative for CWD. The DEP will continue to monitor for CWD as long as funding is available.

Conclusion

Over the past 27 years, the deer population size, human land-use practices, and public attitudes toward wildlife have changed considerably. Today, hunters may legally take up to 14 deer per year if they participate in all hunting seasons and additional deer may be taken in 2 of the 12 deer management zones. Historically, permit issuance has 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. Over the last 10 years, harvest in most zones has remained relatively stable. However, with increased opportunities and incentives in certain urban-suburban zones, the state harvest in those areas has more than doubled. Even with increased harvest, deer populations in these areas have continued to increase while available habitat has continued to decrease, making the challenges of expanding deer populations in urban-suburban settings even greater.

Although hunting is the most effective and cost-efficient means of deer population control, opinions regarding use of different options for managing urban deer herds vary greatly. To better understand deer movement patterns and public opinions regarding deer populations in urban and suburban areas, the Wildlife Division initiated several long-term urban deer studies in residential communities. 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. 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 to assist communities in developing effective deer management programs.

Based on studies of deer use of bait, it is recommended that hunters in deer management zones 11 and 12 use automatic feeders (especially during January) to limit the amount of feed provided and pre-bait for a minimum of 2 to 3 weeks to increase harvest potential and develop predictable deer feeding patterns. Hunters should rake walking paths to tree stands, carefully position stands and bait sites to minimize human disturbance, and be positioned in stands 1 to 2 hours before feeders are set to go off.

Detailed copies of these reports are available by contacting the Deer Program at the Wildlife Division's Franklin office (860-642-7239).

Appendices

Appendix 1. Deer harvest on private land and reported roadkilled deer by town, 2005.

Town	Archery	Shotgun/ Rifle	Land- owner	Muzzle- loader	Crop Kill	Road Kill	Other	Total
Andover	11	45	11	5	0	16	0	88
Ansonia	1	7	0	0	0	0	0	8
Ashford	37	170	60	22	12	23	1	325
Avon	5	16	1	1	4	12	2	41
Barkhamsted	8	45	12	3	0	13	0	81
Beacon Falls	3	32	1	3	0	3	0	42
Berlin	14	33	2	3	5	3	1	61
Bethany	16	22	1	0	0	13	0	52
Bethel	26	35	0	1	11	31	3	107
Bethlehem	8	23	6	2	6	3	0	48
Bloomfield	8	20	2	3	0	1	1	35
Bolton	7	24	2	1	8	19	0	61
Bozrah	11	45	15	8	3	5	0	87
Branford	3	7	0	0	1	1	0	12
Bridgeport	0	0	0	0	0	0	0	0
Bridgewater	4	27	4	1	0	7	0	43
Bristol	1	6	1	2	0	10	2	22
Brookfield	21	5	0	1	0	26	2	55
Brooklyn	8	62	25	9	10	26	1	141
Burlington	9	36	3	6	0	17	0	71
Canaan	11	43	7	5	12	10	0	88
Canterbury	10	81	30	2	2	28	0	153
Canton	3	19	6	0	1	10	0	39
Chaplin	17	76	14	5	1	9	0	122
Cheshire	12	30	0	4	19	14	0	79
Chester	9	30	7	9	0	8	0	63
Clinton	13	9	1	1	1	2	0	27
Colchester	22	148	17	12	15	68	0	282
Colebrook	3	10	6	0	0	0	0	19
Columbia	4	69	15	1	9	30	0	128
Cornwall	8	90	5	8	9	14	0	134
Coventry	32	151	11	10	2	48	3	257
Cromwell	0	5	0	0	15	4	0	24
Danbury	32	23	0	2	0	11	0	68
Darien	49	1	0	0	0	9	4	63
Deep River	2	20	5	4	3	3	0	37
Derby	1	1	1	0	0	3	0	6
Durham	9	75	2	6	2	8	0	102
East Granby	2	16	4	0	1	6	0	29
East Haddam	50	191	48	10	0	38	0	337
East Hampton	22	100	10	8	8	17	1	166
East Hartford	3	1	0	1	2	8	2	17
East Haven	1	2	0	1	0	2	0	6
East Lyme	34	65	8	4	12	48	2	173
East Windsor	3	29	5	6	0	2	0	45
Eastford	18	135	13	12	4	8	0	190
Easton	70	104	1	6	12	31	4	228

Town	Archery	Shotgun/ Rifle	Land- owner	Muzzle- loader	Crop Kill	Road Kill	Other	Total
Ellington	5	24	6	1	0	5	0	41
Enfield	4	23	6	6	5	34	2	80
Essex	4	8	2	3	0	3	1	21
Fairfield	69	17	0	2	0	15	14	117
Farmington	3	14	0	1	20	10	0	48
Franklin	14	86	5	9	3	14	1	132
Glastonbury	15	82	5	4	34	51	5	196
Goshen	9	50	14	1	6	9	0	89
Granby	4	24	8	3	0	0	0	39
Greenwich	111	1	0	0	0	28	12	152
Griswold	9	83	19	10	20	7	0	148
Groton	12	12	2	2	5	16	1	50
Guilford	36	54	6	4	1	37	5	143
Haddam	27	99	18	18	0	10	1	173
Hamden	4	18	4	3	9	4	1	43
Hampton	12	89	21	9	3	13	0	147
Hartford	1	4	0	0	0	2	0	7
Hartland	0	25	1	7	1	6	0	40
Harwinton	23	43	8	1	2	13	1	91
Hebron	20	95	12	18	17	46	0	208
Kent	18	97	7	7	3	8	0	140
Killingly	17	80	29	6	6	66	0	204
Killingworth	15	49	2	7	0	7	0	80
Lebanon	42	190	29	21	8	34	6	330
Ledyard	8	63	11	2	5	29	0	118
Lisbon	2	44	25	2	0	4	0	77
Litchfield	19	83	21	8	6	27	0	164
Lyme	31	126	20	14	15	1	0	207
Madison	22	18	4	0	0	8	1	53
Manchester	10	6	0	0	0	21	1	38
Mansfield	26	108	20	14	18	64	0	250
Marlborough	9	66	8	4	0	29	3	119
Meriden	1	5	0	0	0	6	0	12
Middlebury	9	16	4	1	0	13	0	43
Middlefield	16	25	7	2	16	5	0	71
Middletown	22	73	6	11	14	10	0	136
Milford	6	3	0	0	5	8	3	25
Monroe	30	33	3	4	2	0	0	72
Montville	17	44	12	7	2	68	0	150
Morris	10	27	5	3	9	4	0	58
Naugatuck	12	23	0	2	1	7	0	45
New Britain	0	1	0	1	2	4	0	8
New Canaan	41	3	1	0	2	49	15	111
New Fairfield	9	27	4	6	0	10	0	56
New Hartford	8	38	12	1	5	16	0	80
New Haven	1	4	0	0	0	2	0	7
New London	5	1	0	0	0	0	0	6
New Milford	23	115	14	7	20	2	1	182
Newington	0	0	0	0	0	1	0	1
Newtown	117	125	11	18	16	17	0	304

Appendix 1. Deer harvest on private land and reported roadkilled deer by town, 2005 (continued).

Town	Archery	Shotgun/ Rifle	Land- owner	Muzzle- loader	Crop Kill	Road Kill	Other	Total
Norfolk	7	35	9	2	0	3	1	57
North Branford	4	9	1	2	1	8	1	26
North Canaan	2	48	0	2	0	12	0	64
North Haven	2	2	0	0	0	10	0	14
North Stonington	18	59	15	11	9	18	1	131
Norwalk	18	2	0	0	0		0	20
Norwich	13	43	1	0	0	27	1	85
Old Lyme	30	55	2	3	0	32	1	123
Old Saybrook	4	16	0	4	0	5	0	29
Orange	12	7	0	0	0	19	3	41
Oxford	9	53	9	1	11	17	0	100
Plainfield	31	82	17	8	2	10	0	150
Plainville	0	9	0	0	0	0	0	9
Plymouth	14	25	8	2	1	10	0	60
Pomfret	39	154	28	20	18	21	0	280
Portland	7	61	4	5	14	20	0	111
Preston	5	42	15	3	13	7	0	85
Prospect	5	20	0	0	0	24	2	51
Putnam	10	36	10	7	0	27	0	90
Redding	104	111	5	19	16	40	0	295
Ridgefield	213	35	0	3	0	84	28	363
Rocky Hill	0	12	0	0	1	5	0	18
Roxbury	10	59	4	8	13	8	0	102
Salem	11	67	12	15	0	15	0	120
Salisbury	53	157	21	8	36	25	0	300
Scotland	19	82	8	11	0	14	0	134
Seymour	12	13	1	1	0	4	0	31
Sharon	30	167	17	27	12	20	3	276
Shelton	14	15	0	0	37	4	1	71
Sherman	17	80	2	2	4	6	0	111
Simsbury	8	9	3	0	0	4	0	24
Somers	10	29	9	5	0	19	0	72
South Windsor	7	22	3	1	3	17	4	57
Southbury	18	37	7	4	20	43	0	129
Southington	9	25	4	2	12	17	0	69
Sprague	8	28	14	5	0	5	0	60
Stafford	27	73	47	11	9	19	1	187
Stamford	31	7	3	1	3	2	1	48
Sterling	15	56	14	12	13	3	1	114
Stonington	43	31	4	8	6	27	0	119
Stratford	10	2	0	0	0	10	0	22
Suffield	4	35	2	2	1	9	1	54
Thomaston	9	12	2	0	7	1	0	31
Thompson	36	117	25	15	26	24	0	243
Tolland	31	52	16	8	16	48	1	172
Torrington	7	18	3	1	3	10	1	43

Town	Archery	Shotgun/ Rifle	Land- owner	Muzzle- loader	Crop Kill	Road Kill	Other	Total
Trumbull	7	0	0	0	0	23	7	37
Union	18	68	13	1	0	0	0	100
Vernon	7	13	0	2	1	19	0	42
Voluntown	38	104	21	16	0	6	0	185
Wallingford	10	24	5	1	4	32	6	82
Warren	9	50	7	5	4	3	0	78
Washington	13	75	7	8	1	8	0	112
Waterbury	6	5	0	1	0	7	0	19
Waterford	83	99	6	9	2	35	2	236
Watertown	11	29	3	2	2	6	1	54
West Hartford	0	0	0	0	0	7	0	7
West Haven	7	0	0	0	0	0	0	7
Westbrook	3	15	1	3	0	11	0	33
Weston	49	48	0	5	0	2	1	105
Westport	10	1	0	0	0	3	0	14
Wethersfield	0	1	0	0	1	2	0	4
Willington	16	45	29	8	0	44	0	142
Wilton	86	78	2	13	4	47	4	234
Winchester	7	23	11	3	0	0	1	45
Windham	8	56	9	4	0	32	1	110
Windsor	3	11	1	0	2	9	0	26
Windsor Locks	0	3	0	0	0	1	0	4
Wolcott	7	4	0	4	0	14	1	30
Woodbridge	8	9	0	1	0	41	8	67
Woodbury	7	40	10	1	11	25	0	94
Woodstock	38	173	27	17	32	26	1	314
Totals	3,006	7,611	1,251	781	842	2,667	188	16,346

Appendix 2. Deer harvest on state Deer Lottery Hunting Areas (DLHAs), 2005.

DMA	Shotgun	Muzzleloader	Archery	Total
1	60	5	20	85
2	19	5	5	29
3	3	1	1	5
4	39	9	4	52
5	14	3	2	19
6	28	3	6	37
7	14	1	2	17
8	7	8	6	21
9	41	5	12	58
10	99	23	34	156
11	97	7	13	117
12	75	7	4	86
13	31	6	11	48
14	19	1	4	24
15	39	6	12	57
16	35	10	13	58
17	33	1	17	51
18	97	21	36	154
19	11	1	7	19
20	24	5	14	43
21	34	0	0	34
22	7	1	8	16
23	70	21	42	133
24	16	5	7	28
25	5	0	0	5
26	6	4	0	10
27	8	2	3	13
53	8	0	0	8
54	7	0	0	7
56	95	0	0	95
57	3	0	0	3
Total	1,044	161	283	1,488

Appendix 3. Archery harvest on state areas, 2005.

Shaded areas = areas open to bowhunting only

State Area	Male	Female	Total
Algonquin State Forest	1	1	0
Assekong Swamp WMA	1	0	1
Babcock Pond WMA	2	2	0
Barn Island WMA	4	1	3
Bartlett Brook WMA	1	0	1
Bear Hill WMA	3	1	2
Beaver Brook State Park	1	0	1
Bigelow Hollow State Park	1	0	1
Bishops Swamp WMA	4	1	3
Camp Columbia State Forest	3	1	2
Centennial Watershed SF	13	8	5
Clarkhurst	1	1	0
Cockaponset State Forest	34	15	19
East Swamp	1	0	1
Eight Mile River WMA	4	3	1
Franklin Swamp WMA	1	1	0
Great Swamp Flood Control Area	6	5	1
Hancock Brook Flood Control	2	2	0
Harkness/Verkades	3	3	0
Higganum Meadows WMA	5	3	2
Housatonic State Forest	15	10	5
Jim Spignesi WMA	2	1	1
Kollar WMA	7	3	4
Lebanon Coop	3	2	1
Mad River Dam Flood Control Area	1	0	1
Mansfield Hollow Lake	7	3	4
Mattatuck State Forest	4	3	1
Meshomasic State Forest	12	4	8
Mohegan State Forest	3	2	1
Mono Pond	2	1	1
Mount Riga State Park	1	1	0
Nassahegon State Forest	2	2	0
Natchaug State Forest	36	15	21
Nathan Hale State Forest Mgmt. Area	4	2	2
Naugatuck State Forest	12	5	7
Nehantic State Forest	7	3	4
Newgate WMA	3	2	1
Nipmuck State Forest	17	10	7
NU-Maromas Coop WMA	3	1	2
NU-Skiff Mtn. Coop WMA	1	0	1
Nye Holman State Forest	5	3	2
Pachaug State Forest	42	17	25
Paugnut State Forest	1	0	1
Paugussett State Forest	6	4	2
Pease Brook WMA	2	1	1
Peoples State Forest	3	0	3
Pomeroy State Park	2	1	1
Pootatuck State Forest	2	1	1
Quaddick State Forest	4	1	3

Appendix 3. Archery harvest on state areas, 2005 (continued).

State Area	Male	Female	Total
Quinebaug River WMA	4	2	2
Quinnipiac River State Park	5	3	2
Red Cedar Lake	2	0	2
Robbins Swamp WMA	5	3	2
Roraback WMA	14	9	5
Rose Hill WMA	3	0	3
Ross Marsh WMA	7	5	2
Ross Pond State Park	4	4	0
Salmon River Cove & Haddam Neck	15	5	10
Selden Island State Park	1	1	0
Sessions Woods WMA	1	0	1
Shenipsit State Forest	13	5	8
Sucker Brook Flood Control Area	1	0	1
Talbot WMA	5	3	2
Thomaston Dam	2	2	0
Twin Lake	4	1	3
Waldo C. George S.P.	1	0	1
Wangunk Meadows	1	0	1
West Thompson Dam	3	2	1
Wooster Mountain State Park	3	1	2
Wopowog WMA	4	2	2
Wyantnock State Forest	5	3	2
Zemko Pond WMA	5	1	4
Total	408	198	210

Appendix 4. Percent of yearling bucks harvested by antler point category, 1986-2005.

Year	Sample Size	Number of Antler Points on Yearling Bucks									
		1	2	3	4	5	6	7	8	9	10
1986	373	0.8	39.7	13.7	24.4	8.8	8.3	1.6	2.1	0.3	0.3
1987	463	0.2	45.4	14.9	19.7	7.6	8.4	1.5	2.2	0.2	0.0
1988	735	2.3	54.6	11.6	15.5	7.6	5.6	0.7	1.6	0.3	0.3
1989	607	0.8	55.4	14.2	14.8	6.3	4.9	1.3	2.0	0.3	0.0
1990	485	0.4	49.3	14.8	20.4	6.2	5.8	1.0	1.0	0.6	0.4
1991	579	0.0	46.8	14.3	22.1	6.4	7.6	1.0	1.6	0.2	0.0
1992	342	0.3	38.3	13.7	23.4	9.1	10.2	2.6	2.0	0.3	0.0
1993	370	0.3	62.7	14.3	11.9	3.5	4.3	1.6	1.1	0.3	0.0
1994	328	0.6	43.9	14.3	19.8	8.8	9.1	1.5	1.5	0.3	0.0
1995	428	0.7	28.5	13.6	26.2	13.3	11.4	3.5	2.3	0.2	0.2
1996	524	0.8	47.9	13.4	19.5	8.2	7.4	1.5	1.1	0.2	0.0
1997	506	0.4	47.6	11.9	20.4	8.9	7.1	2.6	1.2	0.0	0.0
1998*											
1999	564	0.4	31.2	13.8	28.2	10.5	10.1	2.8	3.0	0.0	0.0
2000	739	0.1	34.4	12.6	24.6	11.9	11.5	3.7	1.2	0.0	0.0
2001	573	0.9	55.0	11.3	18.7	6.5	5.9	0.9	0.9	0.0	0.0
2002	535	3.7	33.1	15.1	26.0	8.0	10.7	2.8	0.6	0.0	0.0
2003	499	0.2	32.0	17.0	25.0	11.6	9.2	3.0	1.4	0.2	0.0
2004	671	1.0	41.0	15.0	22.0	7.0	9.0	2.0	2.0	0.0	0.0
2005	603	3.4	43.1	15.3	20.7	7.6	7.3	1.1	1.9	0.2	0.2
Average	509	0.9	43.7	13.9	21.2	8.3	8.1	1.9	1.6	0.2	0.1

* No data collected in 1998

Appendix 5. Sex ratios (male:female) of deer harvested during Connecticut's regulated hunting seasons, 2003-2005.

Season	2004		2005		3-year Average (2002-2004)		Males per Female		
	Males	Females	Males	Females	Males	Females	2003	2004	2005
Archery									
State Land	237	190	210	198	237	199	1.2:1	1.2:1	1.1:1
Private Land	1,333	1,574	1,215	1,383	1,339	1,318	1.0:1	0.84:1	0.88:1
Subtotal	1,570	1,764	1,425	1,581	1,576	1,517	1.0:1	0.89:1	0.90:1
Muzzleloader									
State Land	110	127	77	109	117	114	1.0:1	0.87:1	0.71:1
Private Land	382	491	240	355	338	380	0.9:1	0.79:1	0.68:1
Subtotal	492	618	317	464	455	494	0.9:1	0.8:1	0.68:1
Shotgun/Rifle									
State Land A	625	302	580	267	552	377	2.2:1	2.1:1	2.2:1
State Land B	94	74	197	139	82	100	0.9:1	1.3:1	1.4:1
Private Land	4,067	2,634	3,830	2,579	3,744	3,060	1.5:1	1.5:1	1.5:1
Subtotal	4,786	3,010	4,607	2,985	4,234	3,458	1.6:1	1.6:1	1.5:1
Landowner	719	551	695	556	716	527	1.7:1	1.3:1	1.3:1
Total	7,567	5,943	7,044	5,586	6,981	5,996	1.4:1	1.3:1	1.3:1

Appendix 6. Mean number of antler points on yearling males by zone, 1999-2005.

Zone	1	2	3	4	4A	4B	5	6	7	8	9	10	11	12
1999	3.7	3.5	3.8	3.9			3.8	4.0	3.3	4.3	3.9	4.0	3.0	3.8
2000	3.7	3.7	3.6	3.5			4.1	4.2	3.6	2.9	3.6	3.1	3.2	3.2
2001	3.2	3.1	2.6	2.6			3.0	2.9	3.2	3.6	3.0	2.9	3.5	2.8
2002	4.0	4.5	3.0	4.0			5.0	3.5	3.8	3.0	3.5	4.0	4.0	4.0
2003	3.1	3.8	3.6		3.8	3.5	3.4	4.0	3.8	3.8	3.6	3.6	3.2	3.5
2004	3.2	3.1	3.6		3.6	3.3	3.6	3.2	3.1	3.5	3.4	3.7	3.3	3.0
2005	3.2	3.4	3.7		3.2	3.5	3.3	3.2	3.4	3.5	3.3	3.6	2.3	2.9

Appendix 7. Deer harvested using crop damage permits in Connecticut's deer management zones, 1995-2005.

Zone	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	117	213	133	126	160	159	121	103	106	98	82
2	20	4	13	9	20	16	7	10	16	24	18
3	50	42	32	76	52	60	59	44	61	109	105
4	40	72	45	52	34	43	41	40			
4A									17	9	25
4B									35	46	38
5	65	128	55	26	48	87	75	46	71	124	129
6	59	86	83	39	146	112	71	73	77	56	82
7	45	45	34	54	78	44	49	60	78	90	62
8	50	39	65	26	42	60	39	47	42	53	37
9	34	66	70	33	64	59	38	27	42	43	53
10	44	41	60	31	31	54	48	51	45	36	50
11	40	65	92	71	113	122	110	104	164	159	114
12	ND	ND	66*	49	50	52	31	28	72	99	46
Total	564	801	748	592	838	868	689	633	826	946	842

ND = No data collected. Zone 12 was not delineated between 1994 and 1996.

* Calculated after establishment of zone 12; includes deer from zones 7, 8, 9, 10.

Appendix 8. Non-hunting deer mortality reported in Connecticut, 1998-2005.

Cause of Death	Year							
	1998	1999	2000	2001	2002	2003	2004	2005
Road	2,263	2,674	3,101	3,038	2,434	2,778	2,620	2,667
Dog	2	6	9	12	6	11	2	3
Unknown	200	179	175	190	140	217	183	183
Illegal	5	10	14	21	13	5	6	2
Crop Damage	592	838	868	689	633	831	946	842
Total	3,062	3,707	4,167	3,950	3,226	3,842	3,757	3,697
Nonhunting:								
Harvest	1:3.3	1:3.0	1:3.2	1:3.0	1:3.7	1:3.0	1:3.6	1:3.4
% Mortality*	23.7	25.7	24.4	25.7	19.6	23.3	21.7	22.6
% of Harvest	30.2	33.6	31.3	33.1	26.9	30.3	27.7	29.2

* Crop damage harvest is included under nonhunting mortality.

Appendix 9. Frequency of deer roadkills in each of Connecticut's deer management zones, a five-year comparison, 2001-2005.

Zone	2001	2002	2003	2004	2005	5-year		Habitat % (sq. miles)	Road Kills/ Sq. Mile	
						Total	Zonal		2004	2005
1	127	109	136	91	119	463	3.4	293.1	0.31	0.41
2	61	59	62	75	97	257	1.9	359.2	0.21	0.27
3	262	239	297	238	230	1,036	7.7	329.7	0.72	0.70
4	265	205				470	3.5			
4A			78	110	135	188	1.4	213.1	0.52	0.63
4B			150	137	196	287	2.1	120.0	1.14	1.63
5	319	230	269	270	330	1,088	8.0	454.2	0.59	0.73
6	212	189	120	127	106	648	4.8	233.5	0.54	0.45
7	273	204	295	285	261	1,057	7.8	318.1	0.90	0.82
8	92	73	53	53	54	271	2.0	156.5	0.34	0.35
9	312	235	247	265	282	1,059	7.8	244.9	1.08	1.15
10	175	129	149	122	117	575	4.2	228.1	0.53	0.51
11	664	507	592	519	448	2,282	16.9	349.7	1.48	1.28
12	276	255	330	328	292	1,189	8.8	340.0	0.96	0.86
Total	3,038	2,434	2,778	2,620	2,667	13,537	100.0	3,640.1	0.72	0.73

Bureau of Natural Resources / Wildlife Division
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127