Connecticut Wild Turkey Program Report

2018 Spring and Fall Seasons

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Introduction

The wild turkey is an important piece of our state's wildlife diversity. The goal of the Connecticut Wild Turkey Management Program is to manage the wild turkey population at a level compatible with available habitat and various land uses and allow for a sustained yield of turkeys for use by the people of Connecticut. Wild turkeys continue to be fairly abundant throughout the state, providing the public with hunting and wildlife viewing opportunities.

Based upon the past several years of hunter harvest statistics (Figure 4), hunter population perceptions (Figure 5), and brood survey data (Table 9), the Connecticut wild turkey population appears to be fairly stable; albeit at a lower level than the highs of the mid-2000s. One of the key factors that impact harvest and annual productivity is spring weather conditions. In general, the highest harvest days during the spring wild turkey hunting season occur on the first four days of the season. If hunters encounter cold and rainy weather during these days, then harvest may be impacted because of hunters' reluctance to participate during adverse weather conditions. Rain and cool temperatures also affect survival of nesting hens and poults. May is the month when the majority of wild turkey hens are sitting on nests, incubating their eggs. This process continues for 28 days after the last egg is laid. During incubation, if hens encounter multiple days of wet and cool conditions and are unable to dry their feathers, they will emit a stronger odor which allows predators to locate, and possibly prey on, the nesting hens. When the poults hatch during the first two weeks of June, their feathers are fine and downy and offer limited protection from inclement weather. Therefore, if the poults' downy feathers get wet and temperatures are cool, the young turkeys will succumb to exposure. The loss of nesting hens and exposed poults is a key factor in the annual fluctuation of wild turkey productivity.

This report summarizes the 2018 spring and fall turkey hunting seasons, spring turkey hunter survey, and brood survey. For the majority of turkey hunters, spring is the most popular season, and for this reason, the 2018 spring season highlights are presented first, followed by the spring turkey hunter survey information, fall firearms highlights, fall archery information, and brood survey data.

2018 Spring Gobbler Season

Overall Results

The 37th annual statewide spring turkey season was open from April 25 – May 26, 2018. A total of 7,300 Resident Game Bird Conservation Stamps were issued and 1,504 birds were harvested. The harvest decreased by 5.1% from 2017 (Table 1).

In an effort to provide a quality turkey hunting experience for Connecticut's junior hunters (ages 12 to 15), the 14th annual Youth Wild Turkey Junior Hunter Days took place from Saturday, April 14 to Saturday, April 21, 2018 (excluding Sunday, April 15). Participants harvested 40 wild turkeys, 10 birds fewer than the previous year. Junior Wild Turkey Hunter Training Days have been well received by all participants, both youth hunters and mentors.

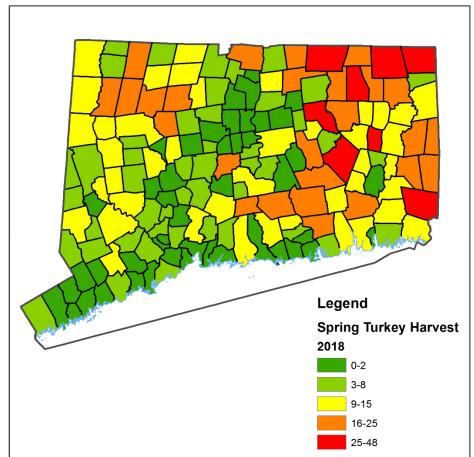
Harvest by Town

At least one bird was taken from 143 of Connecticut's 169 towns (Figure 1, Appendix A). Twenty or more birds were taken from 16 towns, and 30 or more birds were taken from 5 towns. The towns of Woodstock (48), Ashford (34), and Thompson (33) had the highest reported turkey harvest.

		Total Harvest	
Land Type	2017	2018	% Change
Private Land	1,276	1,193	-6.5%
State Land	308	311	+1.0%
Overall Total	1,584	1,504	+5.1%

 Table 1. Connecticut's spring turkey harvest on private and state lands, 2017 and 2018.

Figure 1. Distribution of the 2018 spring turkey harvest in Connecticut.



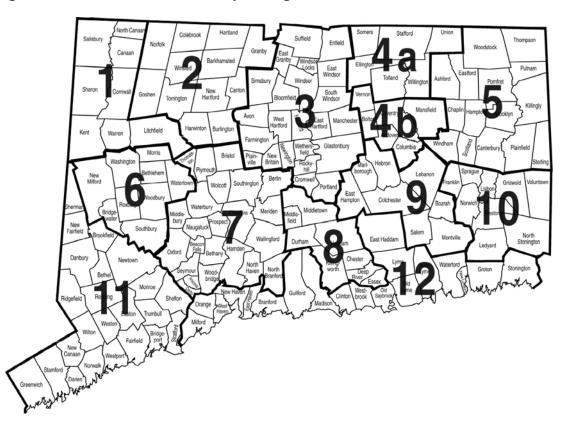
Zonal Harvest

Similar to 2017, the northeastern corner of the state (Turkey Management Zone 5) reported the highest harvest among Connecticut's 13 Turkey Management Zones (TMZs) during 2018 (Table 2, Figure 2). Prior to 2004, northwest Connecticut (Zone 1) had typically held this distinction. Zones 8 and 4B recorded the lowest harvest. Zones 4A and 4B showed the largest increase in harvest from 2017 to 2018. Although harvest was variable among zones, locally abundant turkey populations existed in all zones and harvest is a function of hunter access and turkey numbers.

	Harvest	Harvest	Percent
Zone	2017	2018	Change
1	125	93	-25.6%
2	172	148	-14.0%
3	130	95	-26.9%
4A	78	112	43.6%
4B	59	75	27.1%
5	317	301	-5.0%
6	96	80	-16.7%
7	98	104	6.1%
8	80	74	-7.5%
9	102	112	9.8%
10	99	117	18.2%
11	85	86	1.2%
12	143	107	-25.2%
Total	1,584	1,504	-5.1%

Table 2. Gobblers harvested during the spring 2017 and 2018 seasons by Turkey
Management Zone.

Figure 2. Connecticut's 13 Turkey Management Zones.



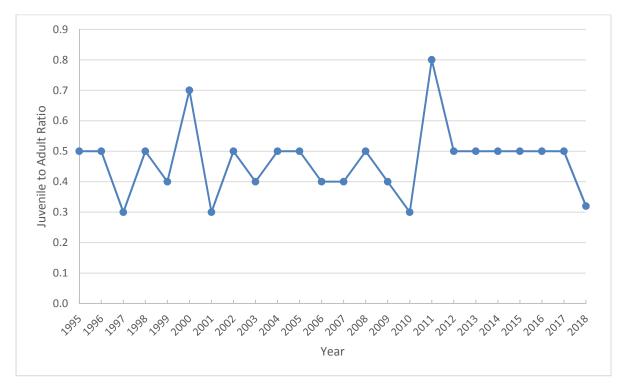
Private and State Land Hunting

Private land accounted for the majority of the harvest (79%). Private land encompasses the largest amount of land, includes the best turkey habitat, and may have more experienced hunters with lower hunter densities than state land. Of the state-managed properties, Pachaug State Forest (32), Natchaug State Forest (27), and Cockaponset State Forest (22) yielded the most turkeys in 2018. The most productive state land turkey hunting areas (\geq 5 birds harvested/mi² and a minimum harvest of 4 birds) were Bear Hill Wildlife Management Area (WMA) and Bishops Swamp WMA (Appendix B).

Population Dynamics

The 2018 spring harvest consisted of 361 juvenile and 1,137 adult male birds and 6 bearded hens. During the last 10 years, juvenile to adult ratios, spring season harvest, and hunter perception population growth index indicated that Connecticut's wild turkey population has been variable; 2010 and 2018 showed lower productivity whereas 2000 and 2011 indicated higher productivity (Figures 3, 4, and 5). This also correlates well with brood survey indices. In 2009, the brood index was the lowest reported value (1.7), which was reflected in the 2010 spring harvest as a reduction in juvenile take. Whereas the 2010 brood index (3.6) was the highest reported brood index and the 2011 spring harvest had a high proportion of juvenile birds. The 2018 ratio of juvenile to adult gobbler harvest of 3.2 is lower than the past several years. This also correlated to the lower brood index of 2.4 and lower population growth index of 2.8. Turkey abundance is expected to vary annually, depending on conditions during the nesting and brood rearing seasons.





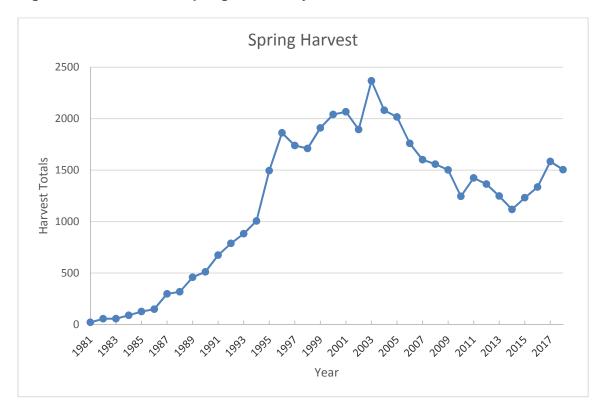
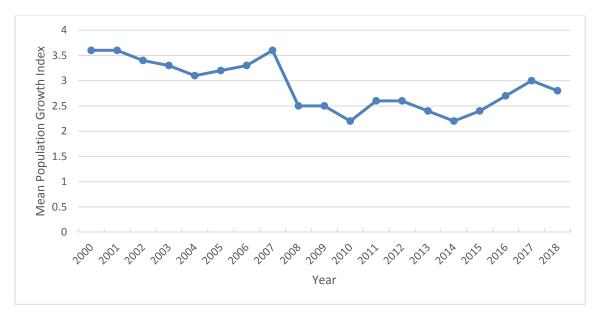


Figure 4. Connecticut's spring wild turkey season harvest, 1981 – 2018.

Figure 5. Perception of hunters regarding wild turkey population growth from 2000 – 2018.



Spring Turkey Hunter Survey Results

The spring Wild Turkey Hunter Survey is used to obtain a variety of information to better manage Connecticut's wild turkey resource. The survey provides valuable insight into population growth trends, economic expenditures, and recreational benefits. It also provides turkey hunters a forum to weigh in on proposed regulation changes and overall satisfaction with the Wildlife Division's management of Connecticut's wild turkey population. Prior to 2010, each spring turkey hunter received a mail-in survey attached to their permit. Since then, in an effort to streamline the survey process, all individuals who purchased a Resident Game Bird Conservation Stamp (RGBCS) and provided an email address receives a survey.

In 2018, a total of 4,211 surveys were emailed to spring turkey hunters and 30% of those hunters responded. Twenty-four percent of the respondents had obtained a RGBCS, but did not participate in the 2018 spring turkey hunting season. Of those that did hunt (5,548), most of their hunting activity occurred in Turkey Management Zones 5 and 2 (Figure 2; Table 3). These hunters also reported that they spent an average of \$221.06 on hunting-related items, which equates to about \$1,613,738 being added to Connecticut's economy by spring turkey hunters. Sales of RGBCS as of June 1, 2018, also generated an additional \$204,400 (Table 4).

Fifty-one percent of spring turkey hunters responding to the survey believed the turkey population was stable. Of the remainder, 20% believed it was increasing and 29% believed it was decreasing. The 2018 mean statewide rank of Connecticut's turkey population growth index was 2.8, based on hunter opinions (a rank of 3.0 suggests the population is stable). Based on the spring turkey hunter survey, hunters indicated that in most zones, populations were declining. The turkey population growth index dropped in 2008, then has remained relatively stable over the past 8 years (Figure 2).

To collect data on ruffed grouse distribution in Connecticut, an additional question was added to the turkey hunter survey in 2005. Hunters are asked to report whether they observed ruffed grouse or heard grouse drumming, and, if so, to provide the town in which the encounter occurred. During 2018, hunters reported 82 encounters with ruffed grouse in 44 towns. The town with the highest number of grouse encounters was Hartland (8) (Appendix C). A grouse population index was derived by dividing total grouse observations into the total number of surveys returned and then multiplying by 100. This represents the average number of grouse encountered by 100 spring turkey hunters. The 2018 index was 6.2 (Figure 6). Data trends since 2005 suggest that Connecticut's grouse numbers continue to decline.

The survey also is used to assess hunter preferences and activities. The majority of hunters who purchased a RGBCS intended to pursue wild turkeys (95%), 55% indicated they would hunt only wild turkeys, 40% wild turkeys and other gamebirds, 2% pheasants and other gamebirds, 3% only pheasants, and one individual purchased the RGBCS to only hunt ruffed grouse. Ninety-four percent of the hunters identified themselves as spring turkey hunters, 34% as fall archery turkey hunters, and 37% as fall firearms turkey hunters. Approximately three-quarters (76%) of the respondents participated during the 2018 spring turkey hunting season. Of these spring hunters, 50% hunted turkeys on private land only, 25% on both private and state lands, and 25%

on state land only. On average, 2018 spring turkey hunters spent approximately 5.1 days pursuing turkeys on private land and 4.5 days on state land.

Wild turkey hunters were queried regarding their opinions on current regulations and hunter satisfaction. The majority of these hunters (65%) felt that the current spring turkey season bag limit of 3 bearded birds on private land and 2 bearded birds on state land is the correct amount; 20% indicated that the bag limit was too high; 5% felt it was too low; and 10% had no opinion. Regarding combining these bag limits into a single limit of 5 bearded birds on private and/or state land had mixed opinions: Strongly Oppose – 26%, Mildly Opposed – 24%, Strongly Support – 24%, Mildly Support – 22%, and No Opinion – 14%.

The 2018 spring turkey hunters encountered over three times more interference on state land (22%) versus private land (7%). When 2018 spring hunter interference was compared to 2017, state land hunters indicated that 27% encountered more interference, 14% less, and 58% the same amount; whereas 12% of the private land hunters reported more interference, 12% less, and 76% the same amount. The survey also clearly shows that spring turkey hunters agree that not being disturbed during outings is important. The majority of hunters indicated that not being disturbed was extremely important (53%), followed by 28% very important, 14% somewhat, 3% not important, and 2% no opinion. Overall, it appears that most 2018 spring hunters were satisfied with the quality of their Connecticut hunt: excellent – 22%, very good – 6%, good – 39%, fair – 22%, poor – 10%, and no opinion – 1%.

Table 3.	Number of survey respondents hunting in each Turkey Management Zone in
	Connecticut, 2018.

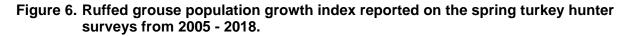
Zone	Hunters	%
1	70	7.8
2	90	10.1
3	88	9.8
4 A	43	4.8
4B	38	4.3
5	113	12.7
6	62	7.0
7	76	8.5
8	48	5.4
9	81	9.1
10	57	6.4
11	65	7.3
12	61	6.8
Total	892	100

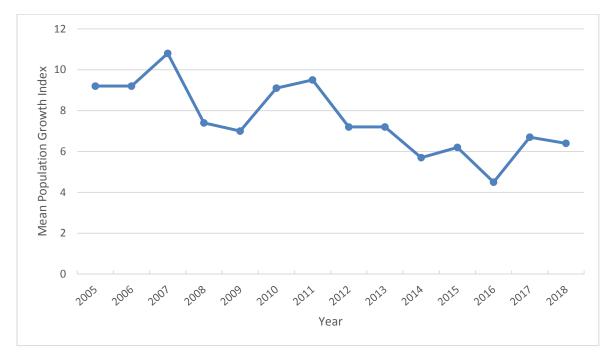
Table 4. Economic and recreational benefits provided by the 2018 Connecticut spring turkey hunting season.

Permit	Total Permits		Hunting Expenses*		
Туре	No.	Revenue	Average*	Total	
	Issued				
Resident Game Bird	7,300	\$204,400**	\$221.06	\$1,613,738	
Conservation Stamp					

* Values derived from hunter surveys.

** Excludes landowner permits issued free-of-charge.





2018 Fall Firearms Turkey Season

The fall firearms season was open statewide in 2018 for the 23rd year in Connecticut. Hunters who purchased a Resident Game Bird Conservation Stamp were able to hunt on any state land open to turkey hunting and all private lands where hunters obtained a signed landowner consent form. A total of 66 birds were harvested during the 23-day (October 6-31) 2018 fall firearms season. Hunters harvested 58 birds on private land and 8 birds on state land. The harvest included 24 adult males, 15 adult females, 18 juvenile males, and 9 juvenile females. The harvest consisted of 59% adults, 41% juveniles, 50% males, and 50% females. Overall from 2017 to 2018, the fall firearms harvest increased by 18%.

Fall firearms hunters reported taking at least 1 bird from 38 of Connecticut's 169 towns. The 3 towns reporting the highest harvest were Woodstock (7), Lebanon (4), and Thomaston (4) (Table 5). In addition, Turkey Management Zone 5 (14 birds) reported the highest zonal harvest (Table 6).

Town of Harvest			Town of Harvest	Number of Birds	
Hai vest	2017	2018		2017	2018
Ashford	3	1	Middletown	0	2
Barkhamsted	0	1	Montville	2	0
Bozrah	1	0	North Stonington	0	1
Canterbury	0	1	Old Lyme	2	1
Chester	1	0	Oxford	0	2
Colchester	3	0	Plainfield	1	0
Colebrook	0	2	Pomfret	1	1
Columbia	0	2	Rocky Hill	0	1
Coventry	2	2	Scotland	0	2
Durham	1	1	Sharon	0	1
Eastford	5	1	Shelton	0	2
Enfield	0	2	Somers	1	0
East Windsor	1	0	Southbury	0	1
Fairfield	1	0	Stafford	2	3
Franklin	0	2	Stonington	3	0
Granby	0	1	Suffield	0	2
Griswold	0	1	Thomaston	0	4
Haddam	2	0	Thompson	1	1
Hampton	2	0	Torrington	2	2
Hartland	0	1	Union	2	1
Hebron	0	2	Voluntown	3	1
Killingly	4	0	Wallingford	0	2
Killingworth	0	1	Waterford	2	0
Lebanon	2	4	Willington	1	1
Lyme	2	0	Winchester	0	1
Middlefield	2	2	Woodstock	1	7
			Total	56	66

 Table 5. Wild turkey harvest by town during the 2017 and 2018 fall firearms seasons.

Harvest by Year				Harvest by Year		
Zone	2017	2018	Zone	2017	2018	
1	0	1	7	0	8	
2	2	8	8	6	6	
3	1	5	9	8	6	
4 A	2	5	10	3	5	
4B	6	4	11	1	2	
5	18	14	12	9	1	
6	0	1	Total	56	66	

Table 6. Wild turkeys harvested during the 2017 and 2018 fall firearms seasons byTurkey Management Zone.

2018 Fall Archery Turkey Season

Connecticut's 36th fall archery turkey season was open statewide and ran concurrently with the 2018 archery deer season. The purchase of a Resident Game Bird Conservation Stamp allowed archers to participate in the 2018 season. These hunters could harvest turkeys on any state land open to fall archery turkey hunting or any private land where written landowner consent was obtained. Archers reported a harvest of 115 birds from 65 towns during the fall 2018 season. The towns reporting the highest harvests were East Haddam (6), Granby (4), Scotland (4), and Thompson (4) (Table 7). Turkey Management Zones 12 (18), 5 (16), and 9 (16) reported the highest zonal harvest (Table 8). The highest zone and town harvest numbers may be attributed to the longer season length or more lands open to hunting. Because the fall archery wild turkey season runs concurrently with the archery deer season, hunters in Zones 11 and 12 have the additional month of January to harvest wild turkeys; all other zones close at the end of December. Seventy-three of the 115 birds harvested by archers were males (45 adults, 28 juveniles) and 42 were females (29 adults, 13 juveniles). The fall archery turkey harvest decreased by 5% from 2017 to 2018.

Town of Harvest	Numbe	r of Birds	Town of Harvest	Number	of Birds
	2017	2018		2017	2018
Andover	1	1	Middletown	1	3
Ashford	4	1	Montville	2	3
Barkhamsted	0	2	Newtown	5	1
Bethel	0	1	North Branford	1	0
Bloomfield	0	1	North Haven	2	0
Berlin	1	0	Norwalk	1	0
Bolton	1	0	Old Lyme	0	3
Branford	1	0	Old Saybrook	1	1
Bristol	2	0	Orange	1	0
Brookfield	1	0	Oxford	1	2
Brooklyn	1	2	Plainfield	1	0
Burlington	1	0	Plainville	1	0

Table 7. Wild turkeys harvested by town during the 2017 and 2018 fall archery seasons.

Madison	1	3	Total	121	115
Lyme	2	2	Woodstock	0	2
Litchfield	2	0	Wolcott	0	1
Ledyard	3	0	Windham	1	1
Lebanon	2	1	Winchester	0	1
Killingworth	1	0	Wilton	1	0
Kent	0	3	Willington	2	1
Hebron	2	3	Weston	0	1
Harwinton	1	0	Watertown	0	1
Hamden	1	0	Waterford	2	1
Haddam	1	0	Wallingford	0	1
Hampton	0	1	Voluntown	1	2
Guilford	1	2	Vernon	0	1
Groton	1	0	Torrington	0	1
Griswold	2	1	Tolland	3	0
Granby	0	4	Thompson	0	4
Glastonbury	1	2	Thomaston	0	1
Franklin	2	0	Stratford	1	1
Farmington	3	1	Stonington	7	0
Ellington	0	1	Stamford	2	0
Enfield	1	0	Stafford	1	1
Easton	4	3	Southington	1	0
Eastford	2	0	Southbury	2	3
East Windsor	0	2	South Windsor	2	2
East Lyme	2	0	Somers	1	0
East Haddam	2	6	Simsbury	1	0
East Granby	0	2	Sherman	1	0
Durham	1	1	Shelton	0	1
Deep River	0	1	Sharon	0	2
Coventry	2	0	Seymour	0	1
Cornwall	1	0	Scotland	0	4
Columbia	1	0	Salisbury	2	0
Colebrook	0	2	Salem	2	3
Colchester	5	3	Roxbury	0	1
Clinton	3	0	Preston	0	1
Cheshire	2	1	Portland	1	1
Canton	3	1	Pomfret	1	0
Canterbury	0	1	Plymouth	1	1

	Harves		Harvest by Year		
Zone	2017	2018	Zone	2017	2018
1	5	5	7	12	8
2	5	11	8	4	6
3	10	11	9	13	16
4 A	7	3	10	8	4
4B	5	4	11	16	8
5	10	16	12	24	18
6	2	5	Total	121	115

Table 8. Wild turkeys harvested during the 2017 and 2018 fall archery seasons by Turkey
Management Zone.

Wild Turkey Brood Survey

Since 2007, turkey brood surveys have been conducted annually from June 1 through August 31 to assess annual fluctuations in statewide wild turkey populations. Volunteers and DEEP staff are requested to report turkey sightings, categorized by total hens, total poults, and total number of hens with poults. These observations are analyzed to obtain an annual productivity index and evaluate fall recruitment. The productivity index, or ratio of young per adult hen, is derived by dividing the total number of poults by the total number of hens. By evaluating recruitment over time, biologists can quantify changes and trends in Connecticut's statewide wild turkey populations.

The 2018 brood index was 2.4 young per adult for all hens observed and 3.5 young per adult for hens observed with at least one poult (Table 9). A total of 183 cooperators reported 644 wild turkey observations, including 1,233 hens – 845 with broods and 378 without broods. The brood index was found to be variable throughout the summer months (Table 10). During 2017, the brood index was 2.6 young per adult for all hens observed and 3.9 young per adult for hens observed with at least one poult. Participants reported 424 observations, which included 877 hens and 2,955 poults. The brood survey information indicates that wild turkeys had fair productivity in Connecticut during 2018. The 2018 spring weather was warm and relatively dry throughout Connecticut, creating good conditions during both the nesting (May 1 – May 31) and brooding (June 1 – June 30) periods. For the past six years, the brood survey information has indicated a stable to slightly declining turkey population.

Year	Total Hens	Total Young	Total Hens and Young	Hens without Young	Young per Hen	Young per Hen with Young	No. of Reports
2007	731	1,900	2,631	270	2.6	4.1	405
2008	448	988	1,436	330	2.2	4.3	224
2009	611	1,049	1,660	177	1.7	2.4	323
2010	472	1,686	2,158	105	3.6	4.6	278
2011	685	1,919	2,604	118	2.8	3.4	375
2012	435	1,089	1,524	293	2.5	3.7	244
2013	337	843	1,180	115	2.5	3.7	200
2014	579	1,561	2,140	194	2.7	4.1	313
2015	530	1,560	2,091	152	2.9	4.1	266
2016	401	1,120	1,521	123	2.8	4.0	202
2017	877	2,289	3,164	287	2.6	3.9	424
2018	1,223	2,955	4,178	378	2.4	3.5	644
Tot./Ave.	7,329	18,959	26,287	2,132	2.6	3.8	3,898

Table 9. Wild turkey brood survey data for Connecticut, 2007 – 2018.

Table 10. Wild turkey brood survey data by month for Connecticut, 2018.

Month	Total Adults	Total Young	Young per Adult	Number of Reports
June	364	873	2.4	234
July	500	1,266	2.5	257
August	359	816	2.3	153
Total	1,223	2,955	2.4	644

Outlook

The overall outlook for Connecticut's wild turkey population is one of uncertainty. During the 1970s and 1980s, wild turkeys in Connecticut began to flourish. Resources that had limited exploitation by other species were readily available for wild turkeys. Therefore, turkeys initially thrived in this unoccupied niche. By the early 1990s, source populations of wild turkeys had been established throughout the entire state. During the mid- to late 1990s, turkey populations grew and expanded to fill in the gaps between the various release sites. As the population grew, the birds colonized all available, historically suitable habitat, plus habitat that many of the early wild turkey biologists never thought birds were capable of inhabiting. By the mid-2000s, according to a variety of harvest statistics and bird surveys, Connecticut's wild turkey appear to be fluctuating around a mean population size that is lower than what was achieved during the mid-2000s.

The perceived decline in our state's wild turkey population creates many questions, most notably an explanation for this decline. One line of thought is that wild turkeys have declined simply because the birds exceeded the food and habitat available to them, then dropped to a level more compatible with the resources Connecticut has to offer. Although this argument may have some merit, it could be that the dynamics of Connecticut's wild turkey population are much more complex. To fully understand wild turkey population dynamics, several factors must be considered, such as how annual weather events affect productivity, how microhabitat availability (e.g., brooding, nesting, roosting, foraging, etc.) influences bird health, impacts of disease, and the role human impacts (habitat loss, hunting) play. Although wild turkeys have been researched extensively, there still is much that biologists do not fully understand, creating uncertainty in the wise management of the state's largest game bird.

Appendices

Town	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Andover	4	4	10	14	7	10	7	7	4	14	12
Ansonia	0	0	3	3	1	1	0	1	0	0	0
Ashford	10	25	16	25	28	21	13	20	31	35	34
Avon	11	6	9	3	1	3	3	3	3	1	4
Barkhamsted	6	11	8	12	5	8	6	12	4	12	10
Beacon Falls	7	7	8	5	9	5	9	9	6	6	8
Berlin	9	9	5	10	9	4	10	7	6	8	18
Bethany	6	7	9	5	5	4	4	5	1	9	1
Bethel	5	3	2	5	1	3	3	0	5	3	6
Bethlehem	7	2	8	4	6	3	1	7	4	6	8
Bloomfield	3	4	6	1	5	5	3	1	3	0	2
Bolton	6	9	1	3	4	8	3	2	4	5	4
Bozrah	11	5	6	12	11	3	2	4	5	8	13
Branford	1	0	1	5	1	2	2	0	2	0	0
Bridgewater	8	6	4	5	4	4	4	6	8	2	9
Bristol	0	0	0	2	0	1	2	1	3	2	1
Brookfield	6	7	3	5	3	2	1	2	0	1	1
Brooklyn	13	15	16	8	10	10	2	3	12	11	12
Burlington	12	11	12	8	11	8	5	7	6	11	4
Canaan	28	16	18	14	20	11	14	8	11	19	8
Canterbury	7	18	10	18	12	13	7	9	5	14	15
Canton	4	4	6	9	8	8	7	7	14	7	11
Chaplin	7	8	12	25	8	10	9	8	8	11	11
Cheshire	10	9	9	4	10	6	4	4	1	7	6
Chester	10	6	5	4	4	5	5	4	3	4	9
Clinton	0	3	4	0	0	0	1	0	2	1	1
Colchester	14	21	16	12	11	15	9	13	26	7	17
Colebrook	14	11	8	8	15	10	12	9	4	11	5
Columbia	6	9	2	8	4	7	3	3	4	10	8
Cornwall	37	31	20	28	19	15	24	10	16	16	16
Coventry	14	15	16	21	24	19	18	20	18	27	32
Cromwell	3	10	0	4	2	3	5	5	5	6	5
Danbury	1	6	3	4	1	2	3	3	2	2	10
Darien	0	0	1	1	0	0	2	0	0	0	0
Deep River	3	2	8	3	0	4	7	0	2	3	3
Derby	3	0	1	0	0	0	0	0	0	0	0
Durham	9	9	4	12	11	12	10	9	14	11	17

Appendix A. Connecticut spring turkey harvest by town, 2008 – 2018.

East Granby	2	2	4	6	8	5	3	2	8	4	4
East Haddam	14	27	25	17	15	26	15	22	16	25	25
East Hampton	6	12	9	5	7	5	9	4	7	11	2
East Hartford	0	1	0	1	0	0	1	1	1	4	0
East Haven	3	2	3	0	3	0	1	0	1	1	0
East Lyme	18	16	13	10	14	8	12	15	13	14	15
East Windsor	10	13	13	11	15	11	10	20	1	11	15
Eastford	15	14	13	11	5	10	11	13	22	27	19
Easton	18	8	2	8	6	3	0	3	3	11	13
Ellington	17	14	16	9	5	15	10	15	9	11	18
Enfield	9	16	7	6	9	5	4	5	6	17	8
Essex	7	4	4	6	3	3	6	2	4	0	0
Fairfield	8	4	0	3	0	0	2	1	4	1	3
Farmington	3	5	4	3	4	0	0	0	0	0	2
Franklin	18	10	13	15	11	10	14	10	16	16	10
Glastonbury	7	11	7	8	7	13	18	12	13	11	11
Goshen	17	20	10	12	18	9	13	14	13	18	17
Granby	12	7	15	8	21	5	13	13	15	15	8
Greenwich	4	2	2	2	0	0	0	1	0	3	4
Griswold	4	6	5	11	16	12	20	14	19	10	17
Groton	2	3	2	1	6	4	1	5	4	2	4
Guilford	15	11	17	13	13	6	7	8	10	8	12
Haddam	19	14	16	19	20	17	10	23	31	27	21
Hamden	9	7	8	7	7	7	5	5	4	5	10
Hampton	21	9	17	19	8	12	10	8	8	18	12
Hartford	0	0	0	0	1	0	0	0	0	0	0
Hartland	10	7	15	11	16	18	9	10	13	17	15
Harwinton	14	10	14	9	11	16	12	16	25	22	16
Hebron	16	15	12	14	4	8	12	5	8	10	21
Kent	9	23	18	15	15	15	9	14	12	16	11
Killingly	13	9	2	4	14	9	2	5	9	10	10
Killingworth	17	7	7	12	5	4	4	13	13	8	9
Lebanon	33	37	39	44	36	30	27	31	24	27	31
Ledyard	18	9	8	11	5	8	6	7	12	7	14
Lisbon	11	4	3	5	5	5	2	2	4	10	10
Litchfield	29	14	23	24	19	22	13	14	12	20	15
Lyme	28	24	16	23	13	18	19	11	20	29	18
Madison	0	6	1	3	1	0	0	3	0	7	1
Manchester	3	2	0	2	5	3	1	1	0	0	0
Mansfield	13	14	6	16	13	11	11	18	15	16	17
Marlborough	2	7	3	10	3	3	11	6	7	13	2

Meriden	3	6	3	1	2	0	2	0	3	0	1
Middlebury	2	2	2	2	1	3	3	1	3	7	0
Middlefield	8	12	10	7	13	10	6	12	12	15	3
Middletown	20	18	18	15	12	11	13	21	18	12	12
Milford	0	0	2	0	3	1	5	3	3	4	3
Monroe	2	5	1	3	2	4	0	2	5	4	5
Montville	20	8	8	9	15	10	8	12	9	15	16
Morris	12	15	3	4	6	6	3	7	3	7	5
Naugatuck	8	6	11	7	6	7	3	5	6	3	2
New Canaan	2	0	3	0	0	0	0	1	1	3	1
New Fairfield	7	1	6	7	6	2	4	3	5	2	7
New Hartford	14	22	14	11	16	22	20	14	15	23	18
New London	1	0	1	0	0	0	0	0	0	0	0
New Milford	27	13	16	20	16	16	8	24	18	15	8
Newtown	22	14	12	22	13	16	10	9	17	18	12
Norfolk	15	13	9	14	14	11	19	12	13	9	17
North Branford	7	5	5	5	4	3	8	6	5	7	3
North Canaan	4	8	1	2	5	7	4	4	3	3	6
North Haven	4	11	3	12	8	5	4	5	5	8	6
N. Stonington	26	23	13	13	16	12	16	15	18	26	27
Norwalk	0	1	0	1	0	0	0	0	0	1	1
Norwich	5	7	8	0	5	0	0	5	3	4	0
Old Lyme	12	15	7	9	6	7	6	7	9	9	7
Old Saybrook	0	0	2	1	1	0	2	2	1	1	1
Orange	5	1	4	1	3	4	5	12	7	7	1
Oxford	8	10	17	14	17	10	5	7	10	7	7
Plainfield	25	15	9	12	9	18	14	12	20	18	17
Plainville	0	2	1	2	4	1	3	1	1	5	5
Plymouth	7	13	8	12	7	9	7	8	5	7	10
Pomfret	24	31	35	30	15	21	15	18	20	19	22
Portland	7	16	4	9	8	5	9	4	11	11	5
Preston	17	15	5	11	10	9	6	16	9	8	13
Prospect	1	5	1	4	3	2	3	2	4	1	3
Putnam	4	6	3	7	11	9	6	5	6	7	7
Redding	23	16	21	28	17	23	12	12	5	10	8
Ridgefield	2	2	3	2	1	2	2	2	6	4	5
Rocky Hill	3	6	7	4	9	7	2	1	3	4	4
Roxbury	3	4	4	4	10	6	4	10	3	12	9
Salem	6	7	14	13	15	12	7	8	7	11	10
Salisbury	20	19	16	8	18	22	11	11	14	19	11
Scotland	29	19	13	17	25	19	17	18	14	26	28

Seymour	2	1	1	0	3	8	4	4	6	5	3
Sharon	31	23	28	22	25	17	13	19	18	17	11
Shelton	6	8	4	3	3	0	2	0	5	9	3
Sherman	6	4	6	5	5	5	3	3	3	5	3
Simsbury	3	2	0	0	4	2	6	1	1	6	4
Somers	9	8	8	18	10	12	8	8	13	11	21
Southbury	13	13	11	9	9	5	11	10	10	18	10
Southington	9	7	3	8	3	4	3	3	6	1	7
South Windsor	7	10	4	3	5	8	7	9	6	14	5
Sprague	6	8	1	9	6	6	1	3	7	2	6
Stafford	15	17	8	18	20	20	21	16	33	21	29
Stamford	3	0	1	4	1	5	6	5	4	2	2
Sterling	14	19	7	10	15	8	9	15	10	14	19
Stonington	10	11	6	5	11	11	12	19	12	15	9
Stratford	2	3	0	1	2	0	0	2	0	3	1
Suffield	10	17	12	22	32	17	28	9	25	28	20
Thomaston	1	3	4	5	4	5	2	1	3	1	0
Thompson	22	16	15	12	17	25	12	15	22	26	33
Tolland	13	10	3	7	9	6	3	5	4	5	6
Torrington	17	11	13	12	15	15	13	7	16	13	17
Trumbull	1	0	0	0	0	0	0	3	0	1	0
Union	8	11	7	21	12	7	14	9	12	15	18
Vernon	1	0	0	0	0	2	1	2	4	3	2
Voluntown	7	10	5	11	14	10	9	14	19	16	20
Wallingford	4	9	6	9	8	6	8	8	5	11	12
Warren	17	18	12	16	14	10	7	7	8	15	15
Washington	18	19	11	10	7	10	9	18	13	18	13
Waterbury	1	0	0	0	0	0	0	1	0	0	0
Waterford	11	10	13	8	9	6	8	15	10	16	10
Watertown	9	5	10	4	14	2	2	4	2	6	10
Westbrook	1	1	1	2	2	2	3	1	0	3	0
West Haven	1	0	1	0	0	0	0	0	0	1	0
West Hartford	0	0	0	0	0	0	0	1	0	0	0
Weston	0	1	1	0	0	0	1	0	1	0	0
Westport	2	2	0	0	0	0	0	0	1	1	0
Wethersfield	1	0	0	0	0	0	0	0	0	0	1
Willington	14	12	13	21	16	18	12	20	10	15	20
Wilton	1	4	2	2	0	0	1	0	2	1	1
Winchester	15	13	8	7	15	7	9	7	8	14	10
Windham	5	4	6	15	10	13	10	12	5	19	14
Windsor	5	2	0	4	1	1	0	1	2	8	0

Windsor Locks	0	0	0	0	0	0	0	0	1	0	0
Wolcott	4	2	2	3	3	3	4	4	0	3	3
Woodbridge	0	3	0	0	1	0	0	4	0	0	3
Woodbury	17	8	4	7	1	6	7	7	5	12	8
Woodstock	38	47	32	44	30	33	19	42	49	46	48
Town Not Reported	0	0	0	0	0	0	5	0	0	0	0
Total	1,558	1,502	1,245	1,424	1,364	1,248	1,118	1,232	1,335	1,584	1,504

	No. Birds Harvested		Sq. Miles	Harv./mi ²	
State Land	2017	2018		2017	2018
Aldo Leopold WMA	5	1	0.87	5.7	1.1
Algonquin SF	5	3	1.04	4.8	2.9
American Legion	2	1	1.62	1.2	0.6
Assekonk Swamp WMA	0	2	1.07	0.0	1.9
Barber Pond WMA	1	0	0.11	9.1	0.0
Barn Island WMA	1	1	1.58	0.6	0.6
Bartlett Brook WMA	2	3	1.10	1.8	2.7
Bear Hill WMA	0	4	0.56	0.0	7.1
Bishops Swamp WMA	7	7	1.18	5.9	5.9
Bloomfield FCA	1	1	0.51	2.0	2.0
Camp Columbia SF	1	2	0.94	1.1	2.1
Cedar Swamp WMA	1	0	0.43	2.3	0
Cent. Water. SF (Canaan Block)	0	1	0.23	0.0	4.3
Cockaponset SF	17	22	26.85	0.6	0.8
Colebrook Reservoir-MDC	5	3	6.50	0.8	0.5
Cromwell Meadows WMA	1	0	0.79	1.3	0
Durham Meadows WMA	1	1	0.80	1.3	1.3
East Swamp WMA	0	0	0.10	2	0
Eightmile River WMA	4	0	0.48	8.3	0
Ellithorpe FCA	1	0	0.64	1.6	0
Enders SF	3	4	0.55	5.5	7.3
Franklin Swamp WMA	4	2	1.07	3.7	1.9
Goshen WMA	1	5	1.51	0.7	3.3
Great Swamp FCA	1	2	0.53	139	3.8
Hancock Brook Lake	5	5	1.10	4.5	4.5
Higganum Meadows WMA	2	1	0.40	5.0	2.5
Higganum Reservoir	2	0	0.23	8.7	0
Housatonic River WMA	5	2	0.87	537	2.2
Housatonic SF	12	9	17.63	0.7	0.5
John Minetto SP	2	1	1.12	1.8	0.9
Kollar WMA	1	2	1.40	0.7	1.4
Larson Lot WMA	0	3	0.38	0	7.9
Mad River Dam FCA	0	0	0.70	1	0
Mansfield Hollow Lake	5	5	3.14	1.6	1.6
Menuketesuck WMA	0	3.8	0.26	1	0

Appendix B. Spring turkey harvest from state-owned and managed lands, 2017 and 2018.

	No. Birds Harvested		Sq. Miles	Harv./mi ²	
State Land	2017	2018		2017	2018
Meshomasic SF	13	4	14.22	0.9	0.3
Messerschmidt WMA	1	0	0.72	1.4	0
Mohawk SF Ziegler/Johnson Tract	0	3	0.51	0.0	5.9
Mohegan SF	1	2	1.50	0.7	1.3
Nassahegon SF	0.6	0	1.3	1	0
Natchaug SF	26	27	7.93	3.3	3.4
Nathan Hale SF	1	3	2.27	0.4	1.3
Naugatuck SF	8	11	21.15	0.4	0.5
Naugatuck SF (Great Hill Block)	2	1	0.37	5.4	2.7
Naugatuck SF (Quillinan Reservoir)	1.1	0	.9	1	0
Nehantic SF	5	7	7.91	0.6	0.9
Newgate WMA	2	1	0.70	2.9	1.4
Nepaug SF	6	2	2.10	2.9	1.0
Nipmuck SF	8	9	14.40	0.6	0.6
Nott Island	1	0	0.13	7.7	0
NU-Maromas Coop WMA	2	4	2.48	0.8	1.6
NU-Skiff Mtn. Coop WMA	2	0	1.13	1.8	0
Nye Holman SF	0.8	0	1.2	1	0
Pachaug SF	23	32	40.84	0.6	0.8
Paugussett SF	3	3	3.04	1.0	3.0
Paugnut SF	0.37	0	2.7	1	0
Peasebrook WMA	1	0	0.33	3.0	0
Peoples SF	10	6	4.60	2.2	1.3
Pootatuck SF	0	2	1.72	0.0	1.2
Quaddick SF	1	1	0.90	1.1	1.1
Quinnipac River SP	4	3	0.53	7.5	5.7
Quinnipac River WMA	3	2	0.88	3.4	2.3
Robbins Swamp WMA	1	1	2.45	0.4	0.4
Roraback WMA	2	5	3.10	0.6	1.6
Rose Hill WMA	1	4	1.08	0.9	3.7
Salmon River SF	3	11	10.90	0.3	1.0
Sessions Woods WMA	4	0	1.20	3.3	0
Shenipsit SF	5	6	11.85	0.4	0.5
Simsbury WMA	5	3	0.57	8.8	5.3
Spignesi WMA	6	3	0.82	7.3	3.7
Suffield WMA	4	1	0.30	13.3	3.3
Sugar Brook Field Trail Area	3	2	0.31	9.7	6.5
Sunnybrook SP	1	0	0.69	1.4	0
Talbot WMA	4	0	0.79	5.1	0.0

	No. Birds Harvested		Sq. Miles	Harv./mi ²	
State Land	2017	2018		2017	2018
Tankerhoosen WMA	3	2	0.78	3.8	2.6
Topsmead SF	1	1	0.28	3.6	3.6
Trout Brook Valley SP	1	1	0.47	2.1	2.1
Tunxis SF	15	11	15.88	0.9	0.7
Wangunk Meadows	2	1	1.00	2.0	1.0
West Thompson Dam	7	1	1.71	4.1	0.6
Whiting River FCA	3.4	0	0.29	1	0
Wooster MT SP	1	0	0.69	1.4	0
Wyantenock SF	3	7	6.38	0.5	1.1
Yale Forest	5	8	12.03	0.4	0.7
Zemko Pond WMA	1	2	0.71	1.4	2.8

Town	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Andover	0	0	0	0	0	1	0	0	0	0
Ansonia	0	0	0	0	0	0	1	0	0	0
Ashford	6	2	1	0	2	2	0	3	2	2
Barkhamsted	5	1	2	1	1	0	1	1	1	4
Beacon Falls	1	0	0	0	0	0	0	0	0	1
Berlin	0	0	0	1	0	0	0	0	0	0
Bethany	0	0	0	0	0	0	0	0	1	0
Bethlehem	0	0	0	1	0	0	0	0	0	0
Bloomfield	0	0	0	0	1	1	0	0	0	1
Bristol	0	0	0	0	0	1	0	0	0	0
Burlington	1	0	0	0	0	0	1	0	1	0
Canaan	7	0	0	4	4	2	3	3	2	2
Canterbury	0	0	0	0	0	0	0	1	1	0
Canton	0	0	1	0	0	0	1	0	0	0
Chaplin	2	0	1	0	1	0	0	0	1	1
Cheshire	1	0	0	0	0	0	0	1	0	0
Chester	1	0	0	0	0	0	0	0	1	0
Clinton	0	0	0	0	0	0	0	1	0	0
Colchester	0	0	0	1	0	0	2	0	0	0
Colebrook	1	3	1	2	3	2	3	1	3	1
Columbia	1	0	0	1	1	0	0	0	0	0
Cornwall	1	3	1	3	4	3	4	2	3	3
Coventry	0	0	0	0	0	1	0	1	1	0
Danbury	0	0	0	0	0	0	0	1	0	0
Durham	2	0	0	0	0	0	1	0	0	0
East Granby	2	2	2	1	2	0	0	1	2	3
East Haddam	0	1	0	0	0	1	1	0	0	0
East Hampton	0	0	0	0	0	1	0	0	0	0
East Haven	0	0	0	0	0	0	0	1	0	0
East Lyme	1	1	0	0	0	0	0	0	1	2
East Windsor	0	0	0	0	0	0	0	0	1	0
Eastford	0	1	0	2	1	0	1	0	4	2
Ellington	0	2	0	0	0	0	0	0	4	2
Enfield	1	0	0	0	0	1	0	0	0	0
Glastonbury	1	0	0	2	1	0	0	1	0	0
Goshen	9	4	2	3	3	6	5	5	3	5
Granby	2	1	0	1	0	0	0	2	2	2

Appendix C. Ruffed grouse observations (seen or heard) from turkey hunter surveys, 2008 – 2018.

Greenwich	1	1	0	1	0	0	0	0	0	0
Guilford	0	0	0	0	0	1	0	0	0	0
Haddam	2	0	1	0	0	0	0	1	0	0
Hamden	0	0	0	0	0	1	0	0	0	0
Hampton	0	0	0	0	0	0	0	1	0	0
Hartland	7	4	4	1	4	2	6	1	5	8
Harwinton	1	0	0	3	0	3	0	2	2	1
Hebron	2	0	0	0	0	1	0	0	0	0
Kent	4	3	0	1	2	0	2	0	1	0
Killingly	0	0	0	0	0	0	1	0	1	2
Killingworth	1	0	0	0	0	0	1	0	0	0
Lebanon	0	1	0	3	2	0	1	0	1	2
Ledyard	1	0	1	0	1	0	1	0	0	1
Litchfield	2	1	0	2	1	1	2	2	1	1
Lyme	1	1	0	1	1	0	2	0	0	0
Madison	0	0	0	0	0	0	1	0	1	0
Mansfield	0	0	0	0	0	1	1	3	1	0
Middlefield	3	0	0	0	0	0	1	0	1	0
Middletown	0	0	0	0	0	0	0	0	0	1
Monroe	1	0	0	0	0	0	1	0	1	0
Morris	2	0	0	0	3	1	0	0	0	0
Naugatuck	1	2	0	1	1	1	0	0	1	0
New Fairfield	1	0	0	1	0	1	1	0	1	0
New Hartford	6	0	1	1	1	0	1	0	1	0
New Milford	1	0	0	0	0	0	2	0	3	0
Newtown	1	0	0	0	1	0	0	0	0	1
Norfolk	6	1	3	3	3	1	2	2	1	2
North Branford	0	0	0	0	0	0	0	1	0	0
North Canaan	0	0	0	0	0	1	0	0	0	2
North Haven	0	0	0	0	1	0	1	1	0	1
N Stonington	0	0	1	2	1	0	0	0	0	0
Old Lyme	0	0	0	1	0	0	0	0	1	1
Oxford	0	0	0	1	0	0	0	0	2	1
Plainfield	0	0	1	0	0	0	0	0	1	5
Plymouth	0	2	0	0	2	1	0	0	1	2
Pomfret	2	0	0	2	0	0	1	0	1	4
Portland	0	1	0	0	2	0	0	0	0	0
Preston	0	0	0	0	0	0	0	1	0	0
Putnam	1	0	0	0	0	0	0	0	0	0

Redding	0	0	0	0	1	0	0	0	0	0
Salisbury	3	3	1	1	3	0	1	1	2	0
Salem	1	0	0	0	1	0	1	0	0	1
Scotland	0	0	0	0	0	0	0	1	0	0
Seymour	0	0	0	1	0	0	0	0	0	0
Sharon	6	6	2	4	6	4	5	3	3	0
Sherman	1	0	0	0	1	0	0	0	0	0
Simsbury	1	0	0	0	0	0	0	0	0	0
Somers	1	0	0	0	1	0	0	0	1	0
Southbury	1	1	0	1	0	1	0	0	1	2
Southington	0	0	0	0	0	0	0	0	1	0
Sprague	0	0	0	0	0	0	0	0	1	1
Stafford	1	3	2	1	3	3	1	1	2	1
Stamford	0	0	0	0	0	0	0	1	0	0
Sterling	0	0	0	0	1	0	0	0	0	0
Suffield	0	0	0	1	1	0	0	1	0	1
Thompson	1	1	0	0	0	0	0	0	0	0
Tolland	2	3	0	0	1	1	1	0	1	0
Torrington	7	3	2	0	1	0	2	1	0	0
Union	1	0	0	2	0	0	1	1	0	1
Voluntown	2	1	0	0	1	0	1	0	0	1
Warren	2	1	1	1	5	4	4	3	2	0
Washington	2	1	1	0	1	0	0	0	1	1
Waterbury	0	0	0	0	0	0	0	0	0	1
Waterford	0	1	0	0	0	0	0	0	0	1
Watertown	1	0	0	0	0	0	0	6	0	0
Westbrook	0	0	0	0	0	1	0	1	1	0
Weston	0	0	0	0	0	1	0	0	0	0
Westport	0	0	0	0	0	0	1	0	0	0
Willington	1	2	0	1	0	1	0	0	1	1
Wilton	0	0	0	0	2	2	0	0	0	0
Winchester	3	2	0	0	1	1	1	1	1	0
Windham	0	0	0	0	1	0	0	0	1	1
Windsor	1	0	0	0	0	0	0	0	0	0
Wolcott	0	0	0	0	0	0	0	0	0	1
Woodbridge	0	0	0	1	0	0	0	0	0	0
Woodbury	1	1	0	0	0	1	1	0	0	0
Woodstock	6	1	1	0	0	0	2	0	1	2
Total	138	68	31	66	81	57	74	56	82	82