

2022 VERMONT BLACK BEAR HARVEST REPORT





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Most of the programs described in this report are funded through the Federal Aid in Wildlife **Restoration Program**. This program was initiated in 1937 as the Federal Aid in Wildlife Act and created a system whereby taxes are paid on firearms, ammunition, and archery equipment by the public who hunts. Today this excise tax generates more than one hundred million dollars each year that are dedicated to state wildlife restoration and management projects across the United States. The State of Vermont uses these monies for acquiring land, and for restoring and managing wildlife. These excise tax dollars, coupled with state hunting license fees, have been the predominant source of money funding the successful restoration and management of Vermont's wildlife resources.

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Vermont Fish & Wildlife Department

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2022 Black Bear Harvest Report

2022 Harvest Overview

Hunters harvested 840 black bears in Vermont during the combined 2022 seasons resulting in an estimated 252,000 meals of local wild game meat. The harvest represents a decrease of 1 bear from the 2021 harvest of 841 bears and was 126 bears above the 10-year average harvest (714 bears, **Figure 1**). Of those harvested, 435 were males, 405 were females, yielding a harvest sex ratio of 1.07 males per female (**Table 1**). A total of 783 bears were harvested during the early bear hunting season and 57 during the late season that overlaps with the regular November deer season (**Table 2**). The 2022 bear harvest by county, town, and the sex of the bear is shown in **Appendix A**.

Table 1. 2022 Bear Harvest by Sex and WMU

Hunters WMU	Total Harvested	Percent of Harvest	Female	Male
В	20	2.38%	11	9
С	42	5.00%	10	32
D1	85	10.12%	46	39
D2	61	7.26%	32	29
E1	11	1.31%	4	7
E2	44	5.24%	29	15
F1	4	0.48%	1	3
F2	30	3.57%	11	19
G	31	3.69%	17	14
Н	52	6.19%	28	24
I	43	5.12%	26	17
J1	75	8.93%	33	42
J2	93	11.07%	40	53
K	36	4.29%	17	19
L	34	4.05%	17	17
M	32	3.81%	16	16
N	35	4.17%	11	24
0	57	6.79%	25	32
Р	29	3.45%	15	14
Q	26	3.10%	16	10
TOTAL	840	100%	405	435

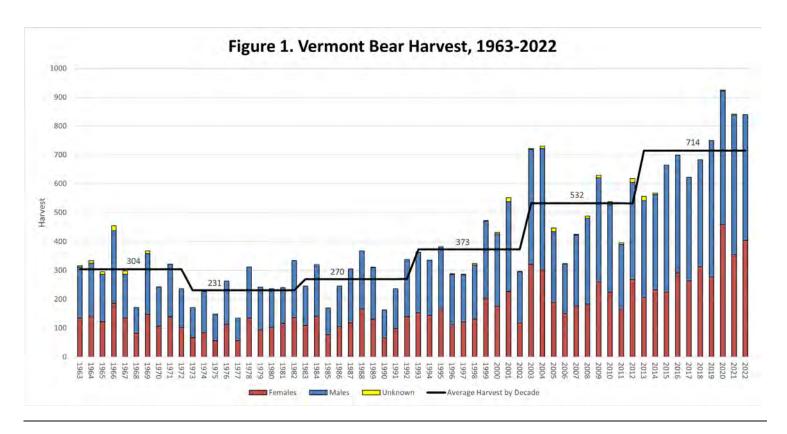


Table 2. Timing of Harvest

Season	Month	Bear Harvest	Percent of Harvest
Early Season Bear	September	421	50.1
(Sept. 1 - Nov.	October	346	41.2
11)	November 1- 11	16	1.9
	Total	783	93.2
Late Bear Season (Nov. 12-20)	November 12-20	57	6.8

Wild fall foods were limited in 2022. Anecdotal assessments of wild apples were variable throughout the state with reports ranging from poor to abundant. Hard mast surveys for acorns and beechnuts showed these important fall foods were scarce throughout the state. Acorn production was the lowest it has been since 2013 with only an average of 1.26 acorns found per survey plot. For comparison, 2021 surveys found an average of 24.63 acorns. Beechnut surveys in 2022 were the poorest on record with an average of 0.00 nuts per plot and only 1 viable nut recorded in all the 13 sites surveyed. The abundance of these wild fall foods significantly influences black bear movements during Vermont's bear hunting seasons. When these foods are abundant, black bears will spend time in abandoned apple orchards and oak forests during September. In October they move into beech-dominated forests where they will forage on beechnuts until nuts are depleted or covered by winter snow. When these foods are scarce, bears will seek out alternate foods, such as corn crops, and will enter winter dens earlier, typically from late October through early November.



Total Bear Harvest for Hunting Seasons 1963-2022

Total bear harvest is the combined harvest by still- and hound-hunters. The number of bears taken can fluctuate widely from year to year as illustrated in Figure 1. The current trend, however, is that the annual bear harvest has increased during recent decades. Periodic fluctuations in harvest generally occur due to differences in food availability (especially beechnuts) and weather conditions. The highest bear harvests in the past 50 years have been achieved in the last two decades, with the 2020 harvest being the highest to date. Although the 2022 harvest was down from both the 2020 and 2021 harvests, it was still 126 bears higher than the past 10-year average. The consistent high harvests and increase from previous decades, combined with a concurrent increase in the estimated population, reflect a strong bear population that is larger than previous decades and represents a general increase in occupied bear range in the state. The 2022 harvest was also in part due to a larger number of hunters specifically hunting for bear. Early season license sales averaged 11,414 from 2013-2019. Sales of bear licenses jumped to nearly 14,000 in 2020 and remained above 13,000 in 2021 (13,028) and 2022 (13,153). This increase in early season bear license sales may indicate an overall increased interest in bear hunting.

The department will communicate relevant social science research results related to this increase and will continue to track early season license sales in the coming years to determine the trend in Vermont bear hunter numbers in conjunction with monitoring bear population estimate trends to ensure bear management objectives are effectively addressed.

Harvest Distribution

Bears were harvested in all WMUs except for WMU A (Figure 2). Relatively few bears were also taken in the Champlain valley towns comprising WMU F1. The largest numbers of bears were taken in WMUs J2 (93), D1 (85), J1 (75), D1 (61), and O (57) (**Table 1**). During 2022, bears were harvested in 202 towns compared to 215 towns the previous year. Towns with the highest harvests were Lunenburg (20), Bethel (17), Pownal (15), Charleston (13), Sutton (12), and Craftsbury (12). Counties reporting the highest harvests were Rutland (94), Orleans (91), Caledonia (83), and Windsor and Orange (tied with 81). Bears were harvested statewide except for portions of the Champlain Valley including no bears taken in Grand Isle County (Figure 2).

Timing of Harvest

During the early season 783 (93%) bears were taken, while 57 (7%) were harvested during the late season, nine-day overlap with the regular November deer season (**Table 2**). This is in sharp contrast to the late season in 2021 when 31% of the harvest occurred. In 2021 hard mast was plentiful and delayed when most bears entered winter dens.

Historically, the bear harvest during the late bear season is significantly influenced by the abundance of hard mast production in combination with snow levels. In years with limited hard mast production and/or early deep snow, many bears will enter winter dens before the late bear season begins. While years of abundant hard mast and limited snow encourages bears to delay entering dens, making them more harvestable to opportunistic deer hunters. Poor beechnut and acorn production in

2022 helps to explain why only 7% of the bear harvest occurred during the late season.

Harvest by Hunting Opportunity

Bears in Vermont can be harvested with the aid of dogs, by hunters using firearms, and by archers. Snaring, trapping, and hunting with the use of bait is prohibited. A late season bear tag is provided with every general hunting license sold making all licensed hunters potential bear hunters during the late bear season. A recent survey revealed that only 24% of our hunters have hunted for bears in the past five years. Early season license sales indicate that 13,153 hunters potentially hunted for bears during the early bear season.

During the 2022 season, 674 (80.3%) bears were taken by hunters specifically targeting bears while 146 (17.4%) were taken by opportunistic deer hunters (Table 3). This was an increase from 2021 when 67% of bears were taken by hunters specifically targeting bears but was inline with the 2020 harvest when 80% of harvested bears came from hunters targeting bears instead of deer. In recent years it has become common to see an increase in hunters targeting bears during years of poor beechnut production, with most taken during the early season. Of the 674 bears taken by hunters targeting bears, 119 were taken with the aid of dogs while 555 were taken without dogs (Table 3). A total of 124 bear dog permits were issued in 2022 (5 fewer than 2021), with 11 of the permits going to non-residents. An overall average of 0.96 bears were taken per bear dog permit. In addition, archers took 143 bears with crossbows being used to harvest 90 of those.

Figure 2. 2022 Bear Harvest by Town and WMU

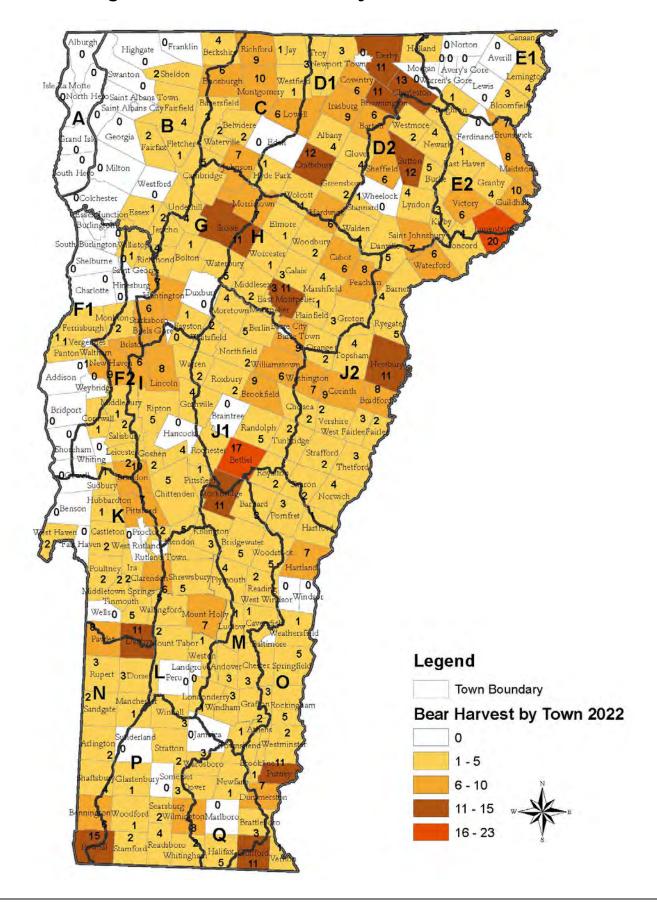


Table 3. 2022 Bear Harvest by Hunting Opportunity

Principal Species Hunter was Seeking	Number Harvested	Percent of Harvest
Bear		
 Harvest with dog 	119	14.2
 Harvest with no dog 	555	66.1
Deer		
During Early Season	106	12.6
During Late Season	40	4.8
Other/Unknown	20	2.3

Biological Information Collected

Each fall department biologists collect information from hunters on harvested bears in cooperation with big game reporting stations throughout the state. These data are important for monitoring the status of Vermont's bear population and evaluating the effects of bear management strategies.

Sex of Bears

Since 1963, the department has tracked the sex composition of the harvest as a component of monitoring the size and structure of Vermont's bear population. During the 2022 season, 435 (52%) male bears and 405 (48%) females were harvested, yielding a harvest sex ratio of 1.07 males per female (**Table 1**). This is below Vermont's overall average harvest sex ratio of 1.37 (1963 to 2022) and below the 2021 harvest (1.36). Male bears are consistently harvested at higher rates than female bears, typically accounting for 58% of the harvest. This can vary from year to year, most notably in 2015 when males were 66% of the harvest and in 2020 when males dropped to 50%.

Ages of Bears

Since 1968, the department has collected premolar teeth from harvested bears for the purpose of evaluating age composition of the harvest and for estimating the size of the population. The teeth are sent to a laboratory in Montana for aging by cementum analysis. Beginning in 2017, it became mandatory for successful bear hunters to collect and submit a tooth from each harvested bear. The following spring the list of ages is posted on the department's website so that hunters can learn the age of the bear they harvested. The average age of bears submitted for aging in 2021 was 4.00 up slightly from an average of 3.78 years in 2020 and an overall decade average of 3.85 (2012-2021). The oldest bear harvested in 2021 were three females, all 20 years old. The oldest bear on record is a 39-year old male taken in the town of Maidstone in 1985. Ages for bears harvested in 2022 will be available to the public by the end of May 2023.

During 2022, bear management activities continued to generate the information required to ensure the population is managed at a sustainable level consistent with public desires. The current management program is based primarily on biological data collected from the mandatory bear harvest registration, through population and habitat indexes, as well as from occasional surveys of public desires derived through a detailed public input process undertaken every ten years.



Heaviest Bears

The average weight for all bears in the 2022 harvest was 141 pounds – 11 pounds lighter than in 2021. A total of 18 bears weighing 300 pounds or more (scaled/dressed weight) were taken during the 2022 season (**Table 4**). The heaviest field-dressed bear weighed 436 pounds and was taken in the town of Belvidere in WMU C. The heaviest bear on record was harvested

from Mendon in 2021 and weighed 527 pounds. The largest bears harvested in Vermont are males and typically range in ages from 8-16 years of age.

For more information on large bears harvested in Vermont, visit the Vermont Big Game Trophy Club website at

https://vermontbiggametrophyclub.godaddysites.com/



Table 4. Heaviest Bears Harvested in Vermont

Weight	Town	WMU	County	Date of Kill	Sex	Target Species	Using Dogs
436	Belvidere	С	Lamoille	9/23/2022	М	Bear	Yes
397	Brunswick	E2	Essex	9/24/2022	М	Bear	Yes
379	Sheffield	D2	Caledonia	10/14/2022	M	Deer	No
372	Plainfield	Н	Washington	9/3/2022	M	Bear	Yes
367	Stowe	G	Lamoille	9/4/2022	M	Bear	No
356	Charleston	D1	Orleans	10/21/2022	М	Bear	No
344	Winhall	L	Bennington	11/14/2022	M	Deer	No
339	Washington	J1	Orange	10/23/2022	M	Deer	No
330	Killington	L	Rutland	9/24/2022	M	Bear	No
327	Peacham	Н	Caledonia	9/15/2022	М	Bear	Yes
320	Wardsboro	Р	Windham	10/28/2022	М	Bear	No
315	Lowell	D1	Orleans	9/24/2022	М	Bear	No
310	Sudbury	K	Rutland	9/19/2022	М	Bear	Yes
302	Guilford	0	Windham	11/12/2022	М	Deer	No
302	Brownington	D2	Orleans	9/30/2022	М	Bear	No
300	Stockbridge	J1	Windsor	9/2/2022	М	Bear	No
300	Westfield	С	Orleans	9/25/2022	М	Bear	Yes
300	Stowe	Н	Lamoille	11/13/2022	М	Deer	No

County	Town	Males	Females	Total Harvested
ADDISON	ADDISON	0	0	0
	BRIDPORT	0	0	0
	BRISTOL	2	4	6
	CORNWALL	1	0	1
	FERRISBURGH	1	0	1
	GOSHEN	1	1	2
	GRANVILLE	1	3	4
	HANCOCK	0	0	0
	LEICESTER	0	2	2
	LINCOLN	1	7	8
	MIDDLEBURY	0	1	1
	MONKTON	1	1	2
	NEW HAVEN	8	1	9
	ORWELL	0	0	0
	PANTON	1	0	1
	RIPTON	3	2	5
	SALISBURY	1	1	2
	SHOREHAM	0	0	0
	STARKSBORO	3	3	6
	VERGENNES	0	0	0
	WALTHAM	1	0	1
	WEYBRIDGE	0	0	0
	WHITING	0	0	0
	TOTAL	25	26	51
BENNINGTON	ARLINGTON	2	0	2
	BENNINGTON	5	1	6
	DORSET	1	2	3
	GLASTENBURY	1	0	1
	LANDGROVE	0	0	0
	MANCHESTER	1	0	1
	PERU	0	0	0
	POWNAL	10	5	15
	READSBORO	3	1	4
	RUPERT	2	1	3
	SANDGATE	2	0	2
	SEARSBURG	1	1	2
	SHAFTSBURY	1	3	4
	STAMFORD	1	1	2
	SUNDERLAND	0	0	0
	WINHALL	1	2	3
	WOODFORD	0	1	1
	TOTAL	31	18	49
CALEDONIA	BARNET	2	2	4
2,122 31111	BURKE	3	2	5
	DANVILLE	2	3	<u>5</u>
	GROTON	2	1	3
	HARDWICK	4	2	6
	KIRBY	0	3	3
	AllADI	U		3

County	Town	Males	Females	Total Harvested
CALEDONIA (cont.)	LYNDON	1	3	4
	NEWARK	2	2	4
	PEACHAM	6	2	8
	RYEGATE	3	2	5
	ST. JOHNSBURY	5	2	7
	SHEFFIELD	2	4	6
	STANNARD	0	1	1
	SUTTON	9	3	12
	WALDEN	3	1	4
	WATERFORD	2	4	6
	WHEELOCK	0	0	0
	TOTAL	46	37	83
CHITTENDEN	BOLTON	0	1	1
	BUELS GORE	0	0	0
	BURLINGTON	0	0	0
	CHARLOTTE	0	0	0
	COLCHESTER	0	0	0
	ESSEX	0	1	1
	HINESBURG	0	0	0
	HUNTINGTON	3	4	7
	JERICHO	1	1	2
	MILTON	0	0	0
	RICHMOND	0	4	4
	SHELBURNE	0	0	0
	SOUTH BURLINGTON	0	0	0
	ST. GEORGE	0	0	0
	UNDERHILL	1	3	4
	WESTFORD	0	0	0
	WILLISTON	1	0	1
	WINOOSKI	0	0	0
	TOTAL	6	14	20
ESSEX	AVERILL	0	0	0
1001/1	AVERYS GORE	0	0	0
	BLOOMFIELD	2	1	3
	BRIGHTON	1	0	1
	BRUNSWICK	3	4	7
	CANAAN	2	2	4
	CONCORD	2	2	4
	EAST HAVEN	1	0	<u>.</u> 1
	FERDINAND	0	0	0
	GRANBY	2	2	4
	GUILDHALL	3	7	10
	LEMINGTON	3	1	4
	LEWIS	0	0	0
	LUNENBURG	8	12	20
	MAIDSTONE	3	5	8
	NORTON	0	0	0
	VICTORY	3	3	6
		-	-	

County	Town	Males	Females	Total Harvested
ESSEX (cont.)	WARRENS GORE	0	0	0
, ,	TOTAL	33	39	72
FRANKLIN	BAKERSFIELD	2	1	3
	BERKSHIRE	1	3	4
	ENOSBURG	6	0	6
	FAIRFAX	1	1	2
	FAIRFIELD	3	1	4
	FLETCHER	1	0	1
	FRANKLIN	0	0	0
	GEORGIA	0	0	0
	HIGHGATE	0	0	0
	MONTGOMERY	7	3	10
	RICHFORD	6	3	9
	SHELDON	2	0	2
	ST. ALBANS	0	0	0
	SWANTON	0	0	0
	TOTAL	29	12	41
GRAND ISLE	ALBURGH	0	0	0
	GRAND ISLE	0	0	0
	ISLE LA MOTTE	0	0	0
	NORTH HERO	0	0	0
	SOUTH HERO	0	0	0
	TOTAL	0	0	0
LAMOILLE	BELVIDERE	1	1	2
	CAMBRIDGE	2	3	 5
	EDEN	0	0	0
	ELMORE	0	1	1
	HYDE PARK	1	0	1
	JOHNSON	6	1	7
	MORRISTOWN	3	4	7
	STOWE	5	6	11
	WATERVILLE	1	1	2
	WOLCOTT	0	1	1
	TOTAL	19	18	37
ORANGE	BRADFORD	4	4	8
	BRAINTREE	2	2	4
	BROOKFIELD	7	2	9
	CHELSEA	1	1	2
	CORINTH	6	3	9
	FAIRLEE	1	1	2
	NEWBURY	6	5	 11
	ORANGE	2	0	2
	RANDOLPH	1	4	 5
	STRAFFORD	0	2	2
	THETFORD	3	0	3
	TOPSHAM	4	0	4
	TUNBRIDGE	1	1	2
	VERSHIRE	1	1	2
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County	Town	Males	Females	Total Harvested
ORANGE (cont.)	WASHINGTON	5	2	7
	WEST FAIRLEE	1	2	3
	WILLIAMSTOWN	5	1	6
	TOTAL	50	31	81
ORLEANS	ALBANY	1	3	4
	BARTON	3	3	6
	BROWNINGTON	6	5	11
	CHARLESTON	7	6	13
	COVENTRY	3	3	6
	CRAFTSBURY	5	7	12
	DERBY	3	3	6
	GLOVER	3	1	4
	GREENSBORO	0	2	2
	HOLLAND	0	2	2
	IRASBURG	2	7	9
	JAY	1	0	1
	LOWELL	3	3	6
	MORGAN	0	0	0
	NEWPORT	2	1	3
	TROY	0	3	3
	WESTFIELD	1	0	1
	WESTMORE	0	2	2
	TOTAL	40	51	91
RUTLAND	BENSON	0	0	0
	BRANDON	7	3	10
	CASTLETON	0	2	2
	CHITTENDEN	1	4	5
	CLARENDON	3	3	6
	DANBY	5	6	11
	FAIR HAVEN	0	0	0
	HUBBARDTON	1	0	1
	IRA	2	0	2
	KILLINGTON	2	1	3
	MENDON	3	2	5
	MIDDLETOWN SPRINGS	1	1	2
	MOUNT HOLLY	4	3	7
	MOUNT TABOR	1	1	2
	PAWLET	6	2	8
	PITTSFIELD	0	1	1
	PITTSFORD	6	1	7
	POULTNEY	0	2	2
	PROCTOR	0	0	0
	RUTLAND	2	0	2
	SHREWSBURY	2	3	5
	SUDBURY	1	0	1
	TINMOUTH	3	2	5
	11/4111110=0=0	_	_	_
	WALLINGFORD WELLS	3	2 0	5 0

County	Town	Males	Females	Total Harvested
RUTLAND (cont.)	WEST HAVEN	0	2	2
, ,	WEST RUTLAND	0	0	0
	TOTAL	53	41	94
WASHINGTON	BARRE	6	3	9
	BERLIN	4	1	5
	CABOT	1	5	6
	CALAIS	2	1	3
	DUXBURY	0	0	0
	EAST MONTPELIER	4	7	11
	FAYSTON	0	1	1
	MARSHFIELD	1	3	4
	MIDDLESEX	0	2	2
	MONTPELIER	2	1	3
	MORETOWN	2	2	4
	NORTHFIELD	1	1	2
	PLAINFIELD	1	0	1
	ROXBURY	1	1	2
	WAITSFIELD	2	0	2
	WARREN	0	2	2
	WATERBURY	3	2	5
	WOODBURY	0	2	2
	WORCESTER	0	1	1
	TOTAL	30	35	65
WINDHAM	ATHENS	2	0	2
	BRATTLEBORO	1	2	3
	BROOKLINE	1	0	1
	DOVER	1	2	3
	DUMMERSTON	6	1	7
	GRAFTON	1	2	3
	GUILFORD	4	7	11
	HALIFAX	4	1	5
	JAMAICA	0	0	0
	LONDONDERRY	0	1	1
	MARLBORO	0	0	0
	NEWFANE	0	1	1
	PUTNEY	4	7	11
	ROCKINGHAM	2	3	5
	SOMERSET	0	0	0
	STRATTON	0	2	2
	TOWNSHEND	0	1	1
	VERNON	1	0	1
	WARDSBORO	2	1	3
	WESTMINSTER	1	1	2
	WHITINGHAM	0	2	2
	WILMINGTON	3	5	8
	WINDHAM	1	2	3
	TOTAL	34	41	75

Appendix A. 2022 Vermont Black Bear Harvest by Town and County of Kill

County	Town	Males	Females	Total Harvested
WINDSOR	ANDOVER	2	1	3
	BALTIMORE	0	0	0
	BARNARD	1	2	3
	BETHEL	8	5	13
	BRIDGEWATER	2	3	5
	CAVENDISH	0	1	1
	CHESTER	2	1	3
	HARTFORD	0	1	1
	HARTLAND	5	2	7
	LUDLOW	0	1	1
	NORWICH	0	4	4
	PLYMOUTH	2	2	4
	POMFRET	0	3	3
	READING	2	0	2
	ROCHESTER	2	2	4
	ROYALTON	0	2	2
	SHARON	1	1	2
	SPRINGFIELD	3	2	5
	STOCKBRIDGE	5	6	11
	WEATHERSFIELD	1	0	1
	WEST WINDSOR	0	0	0
	WESTON	0	1	1
	WINDSOR	0	0	0
	WOODSTOCK	3	2	5
	TOTAL	39	42	81
STATE	TOTAL	435	405	840

