

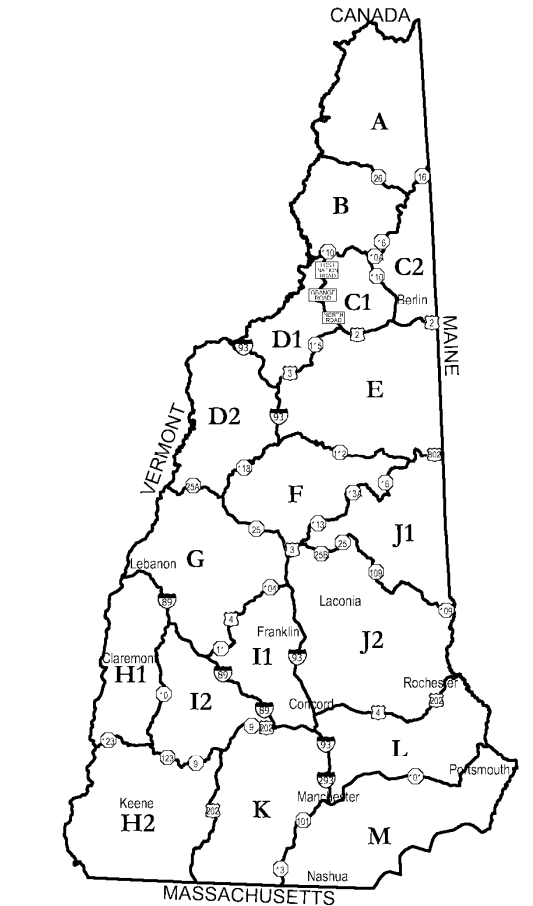
2012 N.H. Wild Turkey Winter Flock Survey

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In 2012, for the fourth consecutive year, the New Hampshire Fish and Game Department conducted a wild turkey winter flock survey in which the public reported their flock sightings online. The reporting period was January 1 through March 31, 2012. During that time, there were 1,180 flock reports, totaling 20,295 turkeys. In comparison, the winter 2011 flock survey recorded 1,497 flocks and 27,521 turkeys.

Data on habitat type, food usage and numbers per flock were compared among the 18 Wildlife Management Units (WMUs) into which the state is divided (see map at right).

Fewer turkey flocks were reported in the 2012 winter survey, as compared to 2011, primarily because it was one of the mildest winters in over 40 years. The lack of snow cover coupled with good fall production of acorns, beechnuts, apples, white ash seeds and various other seeds and fruits meant that turkeys stayed in the woods a lot, rather than coming to birdfeeders and farm sites where they are more visible. This also was why reported flock sizes were smaller. Large flocks of 100 or more were not common this year; most flocks were in the range of 20 to 30 turkeys.



Turkeys by the Numbers

As expected, southeastern New Hampshire produced the most flocks and total turkeys. Results from that region were as follows: Unit J2 (111 flocks and 2,204 turkeys), Unit K (276 flocks and 5,443 turkeys), Unit L (131 flocks and 2,263 turkeys), and Unit M (405 flocks and 5,701 turkeys).

Not surprisingly, the northern WMUs (A, B, C1, C2, E and F) in Coos County had only 3 to 7 flocks reported per unit. This is due primarily to a relatively small human population coupled with a low turkey population. The reports totaled 23 flocks of turkeys from 13 towns in Coos County, for a total of 331 turkeys, and an average of 14.4 turkeys per flock.

Two units in southwestern New Hampshire, where turkeys were first reintroduced in the state back in 1975, were as follows: Unit H1 (13 flocks and 307 turkeys), and Unit H2 (22 flocks and 456 turkeys). The southwestern units produce significantly fewer reports, perhaps because turkeys have been established there much longer (people are less interested in reporting) and also because the human population is much smaller than in more developed southeastern New Hampshire, where there are more people to report turkeys seen.

Top Turkey Towns

Southeastern New Hampshire also was the location of all 23 towns in the state with the most flocks of turkeys reported per town, and the most total turkeys per town, particularly towns from Rockingham and Hillsboro counties. Most of these towns had 11 to 30 flock reports per town. However, one must keep in mind that some flocks may have been reported more than once. The town of Bedford had a high of 155 reports, totaling 2,943 turkeys; followed by Portsmouth, with 67 reports totaling 471 turkeys. Other city areas with numerous reports were: Derry-31, Londonderry-31, Manchester-27, Goffstown-24, Hooksett-29, and Merrimack-22. (See Table 1.)

Table 1. **Towns with the most flocks reported and most total turkeys, winter 2012**

Town	Number of Turkey Flocks	Total Turkeys
Bedford	155	2,943
Candia	18	324
Concord	18	288
Derry	31	344
Dover	18	270
Epsom	11	283
Goffstown	24	229
Greenland	14	217
Hollis	12	173
Hooksett	29	525
Londonderry	31	552
Manchester	27	323
Merrimack	22	439
Milford	15	312
Nottingham	11	192
Pelham	19	326
Portsmouth	67	471
Rye	16	203
Salem	19	261
Strafford	19	382
Stratham	18	447
Windham	12	157

Smaller Flock Sizes

Of all the towns from which flocks were reported, only 50 towns recorded flocks of 40 or more turkeys per flock. Only three towns had flocks of 150, 100 and 100 turkeys. The majority of the 40+ turkeys per flock came from southeastern New Hampshire: 13 flocks in Hillsboro County, 8 flocks in Merrimack County, and 9 flocks in Rockingham/Strafford Counties. Again, one reason for more flocks being recorded from this region is because there are significantly more people here to report them. (See Table 2.)

Table 2. **Flocks of 40 or more turkeys reported by town and county during the winter of 2012.**

Belknap	Carroll	Cheshire	Coos	Sullivan
42 Belmont	73 Albany	79 Westmoreland	100 Whitefield	40 Plainfield
45 Gilmanton	40 Moultonborough			50 Sunapee
58 Sanbornton	45 Tamworth			
50 Tilton				

Grafton	Hillsboro	Merrimack	Rockingham/Strafford
92 Bath	51 Amherst	58 Bow	40 Candia
40 Grafton	54 Bedford	50 Bradford	70 Deerfield
70 Haverhill	45 Deering	42 Concord	43 Derry
50 Hebron	80 Greenville	40 Danbury	40 Dover
59 Lebanon	42 Hudson	40 Hopkinton	45 Greenland
47 Lisbon	45 Litchfield	100 Pembroke	52 Londonderry
55 Lyme	80 Mason	52 Pittsfield	40 New Durham
50 Piermont		70 Merrimack	62 Rye
		43 Milford	52 Strafford
		150 Mont Vernon	63 Stratham
		44 Northfield	
		50 Pelham	
		40 Weare	
		42 Webster	

Five wildlife management units had reports of as many as 150 turkeys in a flock. These were not very high figures per flock because New Hampshire's winter of 2012 was perhaps the mildest in 40 years, with little snow cover. As a result, turkeys did not congregate in large flocks. The average flock size varied from a low of 8 turkeys in Unit E, and 9 in Unit B, to 25 in Unit D2 and 24 in Unit H1. These latter two units comprise the best remaining farmland in the Connecticut River Valley. The average flock size statewide was 17 turkeys. (See Table 3.)

Table 3. **Numbers of turkeys per flock by WMU, winter 2012.**

Wildlife Mgt. unit	Flocks reported	Total turkeys	Maximum # in flock	Average # turkeys per flock
A	6	100	28	16.67
B	7	64	26	9.14
C1	7	111	14	15.86
C2	3	48	21	16.00
D1	25	476	100	19.83
D2	26	643	92	24.73
E	4	31	19	7.75
F	7	152	73	21.71
G	35	722	55	20.63
H1	13	307	59	23.62
H2	22	456	70	20.73
I1	57	955	125	16.75
I2	17	336	50	19.76
J1	33	583	45	17.67
J2	111	2,204	67	20.04
K	276	5,443	150	19.79
L	131	2,263	100	17.27
M	405	5,701	70	14.15
	1,180	20,595	150	avg. = 17.45/flock

Categories of Food Usage

Of 1,172 turkey flock observations that referenced turkey feeding or non-feeding, 704 (60.1%) were not feeding when observed. A total of 350 flocks (29.9%) were recorded as feeding, along with the type of food item being consumed. Another 118 flocks (10.1%) were observed feeding, but the food being used was unknown by the observer.

The majority of the 350 flocks being fed at backyard birdfeeders (See Table 4.) were in southeastern New Hampshire, as follows: Unit K (107 flocks), Unit M (134 flocks), Unit L (35 flocks), and Unit J2 (22 flocks). This is understandable, because these are the four wildlife management units with the most development and likely the most birdfeeders. Food usage was broken down into six categories: corn in ensilage or manure, apples or crabapples, acorns or beechnuts, birdseed at birdfeeders, grasses/greens and dried berries.

Table 4. **Turkey flocks at birdfeeders by WMU during the winter of 2012.**

Wildlife Mgt. Unit	Not fed (percent)	Unknown (percent)	Being fed (percent)
A	3 - 50.0%	2 - 33.3%	1 - 16.7%
B	5 - 83.3%	---	1 - 16.7%
C1	4 - 57.1%	---	3 - 42.9%
C2	3 - 100.0%	---	---
D1	19 - 76.0 %	2 - 8.0%	4 - 16.0%
D2	21 - 80.8%	---	5 - 19.2%
E	3 - 75.0%	1 - 25.0%	---
F	4 - 57.1%	1 - 14.3%	2 - 28.6%
G	27 - 77.1%	2 - 5.7%	6 - 17.1%
H1	7 - 53.9%	3 - 23.1%	3 - 23.1%
H2	15 - 68.2%	3 - 13.6%	4 - 18.2%
I1	31 - 54.4%	11 - 19.3%	15 - 26.3%
I2	14 - 82.4 %	1 - 5.9%	2 - 11.8%
J1	22 - 68.8%	4 - 12.5%	6 -18.8%
J2	80 - 73.4%	7 - 6.4%	22 - 20.2%
K	138 - 51.3%	24 - 8.9%	107 - 39.8%
L	81 - 62.3%	14 - 10.8%	35 - 26.9%
M	227 - 56.2%	43 - 10.6%	134 - 33.2 %
Statewide	704 - 60.1%	118 - 10.1%	350 - 29.9%

Of 1,172 flocks observed, 359 flocks (32.3%) were using birdfeeders, and most of these flocks were in four units in southeastern New Hampshire. The second highest category of observed food usage -- 240 flocks, or 21.6% -- was grasses/greens. This is understandable, because of the very mild winter with little snow cover. The third highest observed use was of acorns/beechnuts (51 flocks, or 4.6%), and the fourth highest use was apples/crabapples (44 flocks, or 4.0%). (See Table 5.)

Table 5. **Turkey flock food usage winter 2012, by WMUs (N=1,109 flocks)**

WMU	Ensilage Manure	Apples Crabapples	Acorns Beechnuts	Birdseed Corn	Grasses Greens	Dried Berries	Unknown Food	Not Feeding
A	1	1	--	1	--	--	--	3
B	--	2	--	2	--	--	--	2
C1	--	--	--	4	--	--	1	2
C2	1	--	--	--	1	--	--	1
D1	--	4	--	5	5	--	8	2
D2	6	1	--	5	--	--	1	7
E	--	--	--	1	--	--	2	--
F	--	--	--	3	--	--	2	2
G	3	3	3	8	6	--	3	9
H1	2	--	1	4	3	--	3	--
H2	--	--	1	4	3	--	6	8
I1	--	2	3	19	10	3	5	12
I2	--	--	4	4	3	--	--	5
J1	2	2	3	8	2	--	10	4
J2	8	1	9	18	21	2	19	27
K	3	19	10	99	48	4	48	29
L	4	1	4	37	30	2	27	17
M	10	8	13	137	102	5	52	43
	40	44	51	359	240	16	187	173
	3.51%	3.96%	4.59%	32.34%	21.62%	1.44%	16.85%	15.59%

Turkey Habitat

Survey responders were asked to record the type of setting in which they saw the turkeys. (See Table 6.) Flock observations were put into one of three general habitat categories as follows: 851 flocks rural (72.4%), 303 flocks suburban (25.8%), and 21 flocks urban (1.8%). Of the 303 flocks (25.8%) in a suburban setting, 277 of these flocks were from the wildlife management units in southeastern New Hampshire's Unit M (154 flocks), Unit K (76 flocks), Unit L (38 flocks), and Unit J2 (9 flocks). These four units also had virtually all of the 21 flocks in an urban setting.

Table 6. The distribution by habitat type, of flock observations reported by WMU during the winter of 2012.

Wildlife Mgmt unit	Rural (percent)	Suburban (percent)	Urban (percent)
A	6 (100%)	--	--
B	7 (100%)	--	--
C1	7 (100%)	--	--
C2	2 (66.7%)	1 (33.3%)	--
D1	23 (92.0%)	2 (8.0%)	--
D2	25 (96.2%)	1 (3.9%)	--
E	4 (100%)	--	--
F	7 (100%)	--	--
G	33 (97.1%)	1 (2.9%)	--
H1	11 (84.6%)	2 (15.4%)	--
H2	20 (90.9%)	2 (9.1%)	--
I1	46 (80.7%)	10 (17.5%)	1 (1.8%)
I2	12 (70.6%)	5 (29.4%)	--
J1	31 (93.9%)	2 (6.1%)	--
J2	100 (90.9%)	9 (8.2%)	1 (1.0%)
K	193 (70.2%)	76 (27.6%)	6 (2.2%)
L	92 (70.2%)	38 (29.0%)	1 (1.0%)
M	232 (58.3%)	154 (38.7%)	12 (3.0%)
Statewide	851 (72.4%)	303 (25.8%)	21 (1.8%)

Public Assistance Much Appreciated

Many thanks to all the "citizen scientists" throughout the state who took time to contribute their wild turkey flock observations during the winter of 2012 by filling out the online survey form. Thanks also to those who e-mailed or phoned Fish and Game with turkey sighting observations. All these reports contributed greatly to a more comprehensive knowledge of the yearly status of behavior, habitat use, food usage, number of turkeys and distribution of wild turkeys across New Hampshire.

Exploring Public Attitudes about Wild Turkeys

This year's winter flock survey included a new section, done in cooperation with the University of New Hampshire, intended to help assess public attitudes about wild turkeys in the state. Preliminary results were encouraging. About 15% of all survey participants completed the optional human dimensions survey. Nearly all respondents (about 98%) indicated they participated in the survey to help agency biologists manage the wild turkey population; they enjoyed observing turkeys; and they felt turkeys contribute to New Hampshire's quality of life.

Data from the 2012 Winter Turkey Flock and Summer Turkey Brood surveys human dimensions research will be compiled and analyzed as part of a Masters of Science project to assess public attitudes and interest in monitoring wild turkeys and to provide Fish and Game biologists with information that will enhance their ability to recruit and retain "citizen scientists." The combined use of biological and human dimensions surveys will aid both turkey management and promote public participation in wildlife management overall.