

2021
ONLINE SUMMMER BROOD SURVEY
SUMMARY REPORT

Prepared By:
Allison Keating
NH Fish and Game
Turkey Project Leader



Wild turkey management and research is made possible by the federal Wildlife Restoration Program, which is funded by an excise tax on the sale of firearms, ammunition, and archery equipment.



Introduction

Many thanks to all the people throughout New Hampshire who submitted sightings of wild turkey broods in 2021. The results of the survey summarized here will help the NH Fish and Game Department keep track of the status and reproductive success of the wild turkey population around the state. This was the 11th year of the internet-based turkey brood survey which covers observations made statewide between June 1 and August 31.

Number of Broods Reported

There were 1,264 brood observation reports from this year's 2021 Summer Brood Survey (Table 1). As in previous years the most brood sighting reports (686 or 54% of the total) were from the Southeast Region, primarily because this region has the highest turkey density and also the highest human density to report turkey broods. The North Region and the White Mountain Region had a combined of only 42 broods observed or 3% of the statewide total of brood observation reports. This is understandable because these two regions have the least amount of suitable turkey habitat, fewer turkeys and fewer people to report them.

Of the states 18 wildlife management units, those with the most brood sighting reports were from: unit M at 27.53%, unit J2 at 15.35% and unit L at 14.16% (Table 2).

Table 1. Number and Percent of Brood Observations by Region (Summer 2021)

Region	# of Brood Reports	% of Total	WMUs Included
North	11	0.87%	A,B,C1,C2
White Mountain	31	2.45%	E, F
CT River	105	8.31%	D1,D2,G
E. Central	231	18.28%	J1, J2
Southwest	200	15.82%	H1,H2,I1,I2
Southeast	686	54.27%	K, L, M
Statewide	1264		All

Table 2. Number and Percent of Brood Observations by WMU's (Summer 2021)

WMU	# of Brood Observations	% of Total		WMU	# of Brood Observations	% of Total
A	5	0.40%		H1	38	3.01%
B	0	0%		H2	74	5.85%
C1	2	0.16%		I1	51	4.03%
C2	4	0.32%		I2	37	2.93%
D1	21	1.66%		J1	37	2.93%
D2	36	2.85%		J2	194	15.35%
E	10	0.79%		K	159	12.58%
F	21	1.66%		L	179	14.16%
G	48	3.80%		M	348	27.53%

Number of Poults Per Hen

The six regions of the state were compared for the month of August because at this time the poults are larger and more readily seen and counted, and most attrition of young turkeys has already occurred. The North Region had the highest poults per hen average of 4.08, although the sample size was quite small with only 5 broods reported during the month of August. The White Mountain region had the lowest poults per hen average of 1.84 this year (Table 3).

For the state as a whole, the average was 2.95 poults per hen which is up compared to last year when only 2.13 poults per hen were reported. The highest average on record was 4.38 poults per hen reported during 2011 which was the first year of the survey (Table 4).

Table 3. Regional and Statewide Poults per Hen Average (August 2021)

Region	# of Hens	# of Poults	Poults per Hen Average	# of Reports
North	12	49	4.08	5
White Mountain	50	92	1.84	11
CT River	138	318	2.30	48
E. Central	168	596	3.55	71
Southwest	202	533	2.64	65
Southeast	501	1571	3.14	165
Statewide	1071	3159	2.95	365

Table 4. Statewide Poults per Hen Average by Year

Year	Poults per Hen Average
2011	4.38
2012	3.90
2013	3.33
2014	3.40
2015	3.90
2016	2.97
2017	3.32
2018	4.15
2019	3.23
2020	2.13
2021	2.95

Estimated Hatching Periods

Statewide, over half (56.46%) of all hatching occurred within one month period from May 26th through June 22nd. The most hatching occurred during the following 2-week periods: May 26 - June 8 (28.27%), June 9 - 22 (28.19%) and June 26 - July 6 (17.47%). Hatching continued throughout July and August which is likely due to hens reneesting (Table 5).

Regionally the average hatching varied from June 12 to June 22. The average hatching date statewide was June 15 which is a week earlier than the previous two years (2020 statewide average hatch date was June 23 and 2019 was June 22).

Table 5. Estimated Percentage of Poults Hatched by 2-Week Periods (Summer 2021)

Time Period	Total Number of Poults	% of Total
May 1 – May 11	57	0.63%
May 12 – May 25	1013	11.25%
May 26 – June 8	2547	28.27%
June 9 – June 22	2539	28.19%
June 23 – July 6	1574	17.47%
July 7 – July 20	869	9.69%
July 21 – August 3	305	3.39%
August 4 – August 17	89	0.99%
August 18 – August 31	15	0.17%

Table 6. Regional and Statewide Average Hatching Dates

Region	North	White Mtn	CT River	E. Central	Southwest	Southeast	Statewide
2011	June 13	June 17	June 15	June 10	June 7	June 7	June 8
2012	June 11	June 14	June 23	June 12	June 12	June 15	June 15
2013	July 7	June 28	June 27	June 23	June 30	June 24	June 25
2014	June 23	June 20	June 22	June 18	June 15	June 20	June 19
2015	June 19	June 16	June 17	June 19	June 20	June 19	June 19
2016	June 29	June 19	June 19	June 19	June 18	June 19	June 19
2017	June 30	June 25	June 26	June 25	June 25	June 19	June 21
2018	June 16	June 19	July 5	June 15	June 23	June 18	June 20
2019	June 27	June 28	June 26	June 24	June 24	June 20	June 22
2020	July 1	June 29	June 19	June 19	June 26	June 23	June 23
2021	June 22	June 18	June 22	June 12	June 18	June 15	June 15

Towns with the Most Brood Observations

A total of 8 towns reported 20 or more broods during summer 2021. The top three towns were: Merrimack (31), Londonderry (25) and Alton, Bedford, Dover and Epping which all had 22 reports (Table 7).

There were 10 towns that recorded 200 or more total turkeys (hens and poults combined). The following towns recorded the highest number of turkeys observed: Plaistow (357), Dover (294), Merrimack (286), East Kingston (277) and Epping (274) (Table 8).

Table 7. Towns with 20 or More Brood Observations (Summer 2021)

Town	Total # of Reports
Merrimack	31
Londonderry	25
Alton	22
Bedford	22
Dover	22
Epping	22
Barnstead	21
East Kingston	20

Table 8. Towns with 200 or More Total Turkeys (Hens and Poults) Observed per Town (Summer 2021).

Town	Total # of turkeys Reported
Atkinson	206
Auburn	204
Barnstead	258
Dover	294
East Kingston	277
Epping	274
Londonderry	264
Merrimack	286
Plaistow	357
Somersworth	241

Public Attitudes Towards Wild Turkeys

Only 1 of 1,264 respondents strongly disliked turkeys. The majority of respondents (92.41%) continue to feel favorably towards wild turkeys with 1,168 indicating the either like or strongly like seeing wild turkeys in New Hampshire.

Symptoms of Avian Pox and LPDV Virus

Reports of turkeys displaying symptoms of Avian Pox or Lymphoproliferative Disease Virus (LPDV) remained low this year. Only 3 symptomatic turkeys were reported for summer 2021. Reports from past years have been: 2014 (5), 2015 (11), 2016 (6), 2017 (4), 2018 (0), 2019 (2), and 2020 (2).

Conclusions

- There were 1,264 brood observation reports in summer 2021 with the majority of the reports being from the southeastern part of the state where both the turkey and human populations are highest.
- The statewide annual productivity for summer 2021 was 2.95 poults per hen which is up slightly compared to last year (2.13).
- Over half of all hatching occurred over a one month period between May 26 - June 22. The average statewide hatch date was June 15 this year which was about a week earlier than the previous two years.
- Ten towns reported totals exceeding 200 turkeys (hens and poults combined) this year. The most turkeys were from the towns of: Plaistow (357), Dover (294) and Merrimack (286).
- Public attitudes towards turkeys remain high - 65.67% of respondents strongly like seeing turkeys on the landscape; and incidents of turkey viruses remained low with only three reports of symptomatic turkeys this year.