

SUMMER WILD TURKEY SIGHTING SURVEY 2021



Department of
Environmental
Conservation

DEC conducts the Summer Wild Turkey Sighting Survey annually during the month of August to estimate the average number of wild turkey poults (young of the year) per hen statewide and among major geographic regions of the State. This index allows us to gauge reproductive success each year and allows us to predict fall harvest potential. Weather, predation, and habitat conditions during the breeding and brood-rearing seasons can all significantly impact nest success, hen survival, and poult survival.

In 2021, we received 1,226 reports of turkey flocks during the August survey, including reports of 1,090 hen-flocks. The average number of poults per hen was 2.5 (Figures 1-3). This is a decrease from last year (2.8 poults/hen), similar to the five-year average (2.6 poults/hen), and below the ten-year average (2.8 poults/hen).

Reproductive success (as measured by this survey) gradually improved from the low observed in 2009 through 2016 but was below average three of the past five years (2017, 2019, and 2021; Figure 1). It is also important to note that reproductive success is lower over the past 10 years (2012-21) than during the previous 10 years of the survey (2001-11; Figure 1).

The estimated number of poults/hen in 2017, 2019, and 2021 were among the lowest observed since 2009. As a result, current turkey numbers may be lower than previous years. Evidence for below-average production in 2021 is supported by the percent of hen-flocks observed with poults. About 77% of hen-flocks had poults in 2021 (Figure 3), similar to other poor production years like 2017 and 2019.

Except for DEC Region 9 in western New York, the estimated poults per hen in most regions of the state were similar to or slightly below the 2021 statewide average (Figure 2). In much of eastern New York, reproductive success declined from 2020 to 2021, but in central and western New York it was similar to or slightly improved from last year (Figure 4).

Data from the National Agricultural Statistics Service indicate that rainfall was slightly below average in May and June in most of the state (Figure 5). Below-average rainfall in May and June is usually associated with good nest and poult success, but this pattern was not evident on a statewide scale in 2021. While overall rainfall amounts may have been close to normal, this does not account for geographic variability (Figure 5), which could cause variation in nest or poult survival in different parts of the state (Figure 6).

Based on the decline in reproductive success from 2020 to 2021 we expect the fall 2021 harvest to be lower than fall 2020. In areas with good hard and soft mast production, birds will be less vulnerable to harvest as they do not have to roam far in search of food, so hunters should scout the area they plan to hunt to identify sites where birds may be foraging.

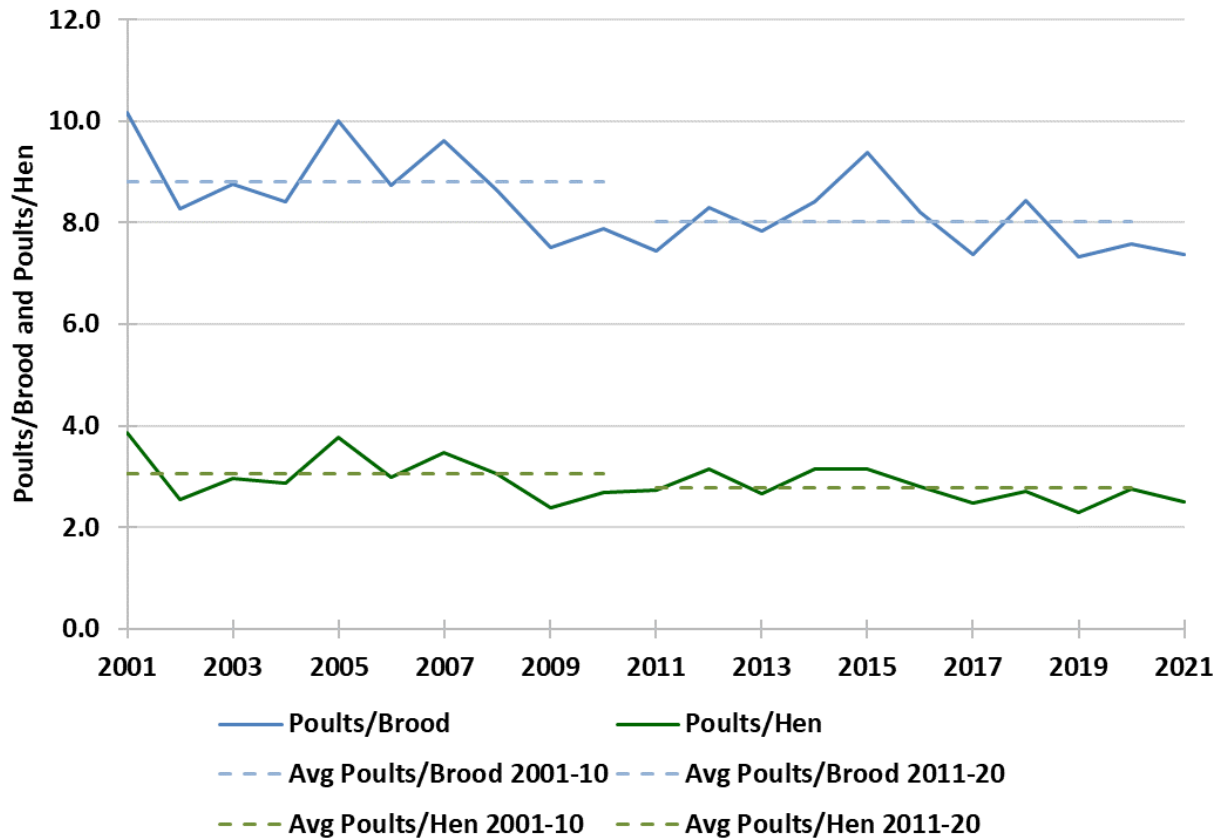


Figure 1. Estimated poults/brood and poults/hen from the summer sighting survey, 2001-2021. Dashed lines are the ten-year averages (2001-10 and 2011-20).

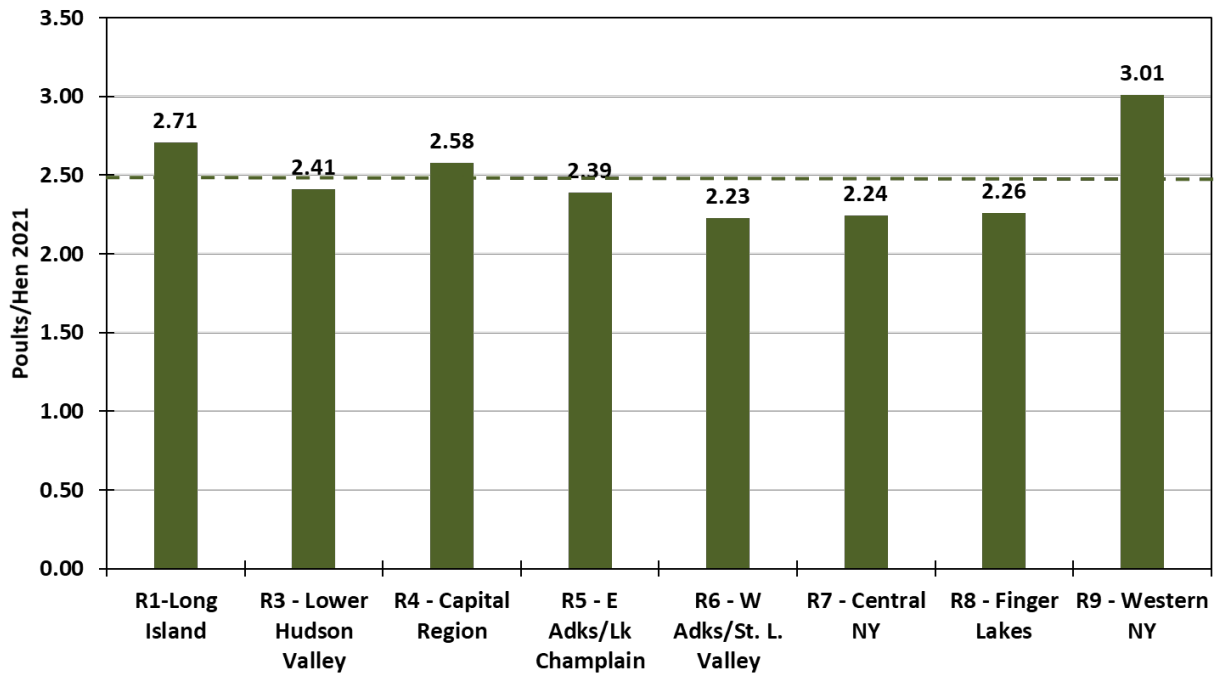


Figure 2. Poults/hen estimates by DEC region, summer 2021. The 2021 statewide average was 2.5 poults/hen (dashed line).

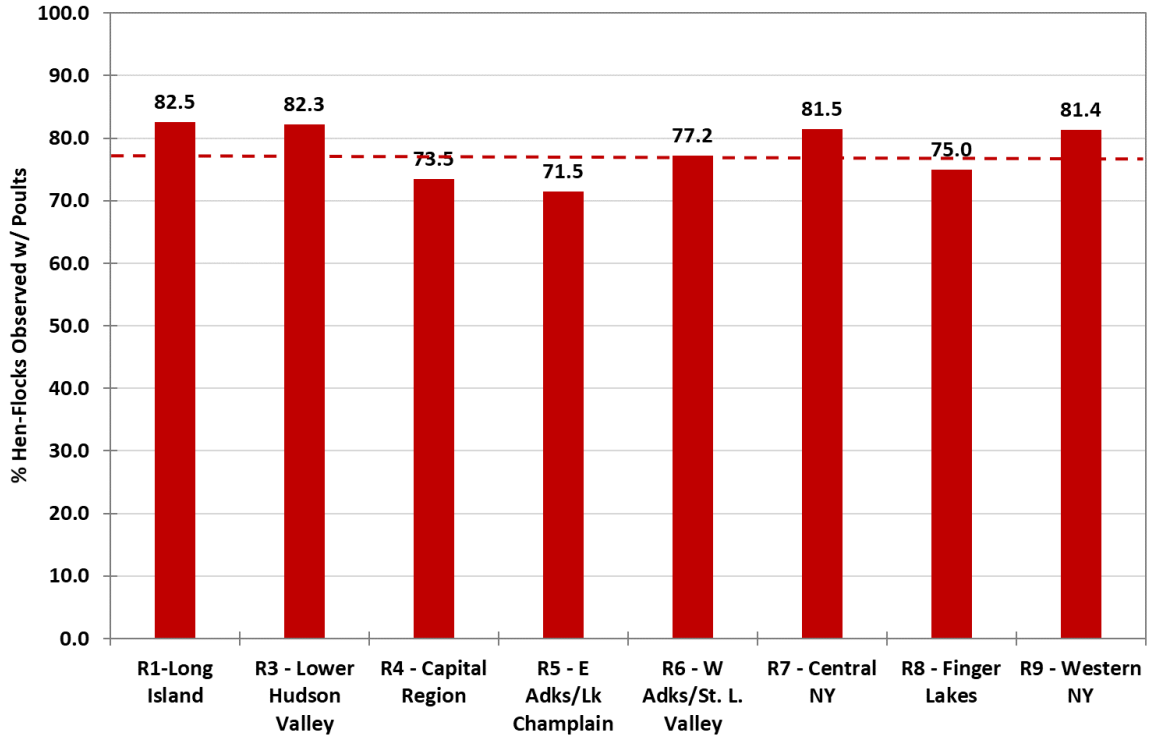


Figure 3. Percent of hen-flocks observed with poults by DEC region, summer 2021. Statewide, 77% of hen-flocks observed had poults (dashed line).

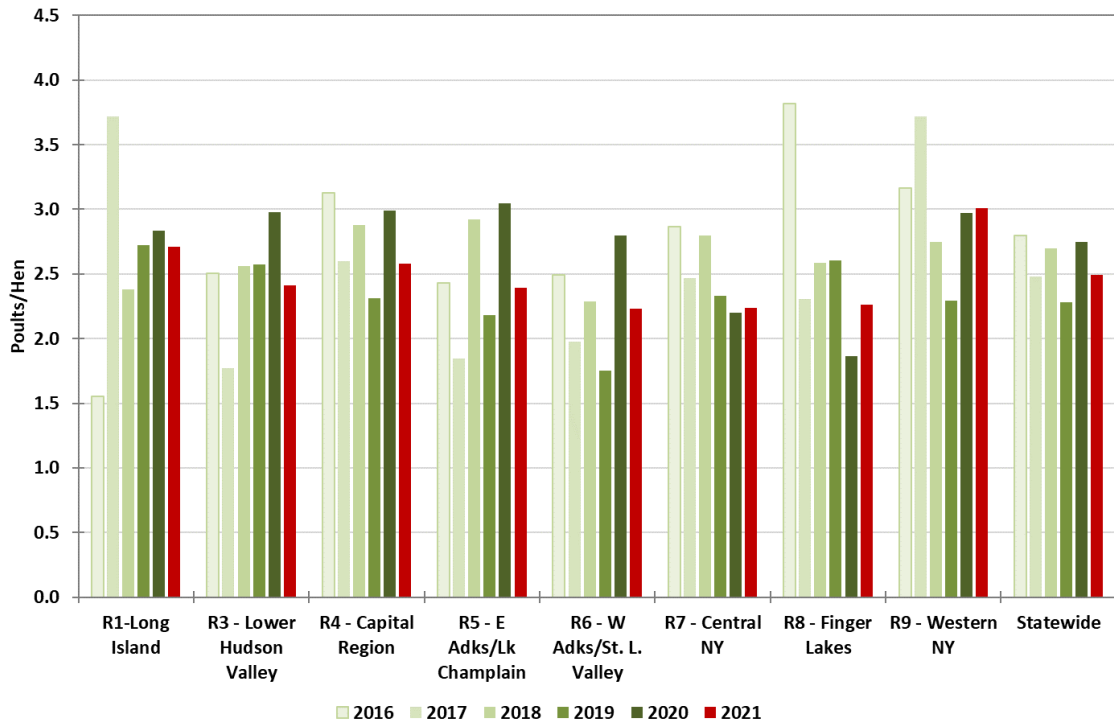


Figure 4. Poults/hen by DEC Region, 2016-21. The statewide average for 2016-20 was 2.6 poults/hen.

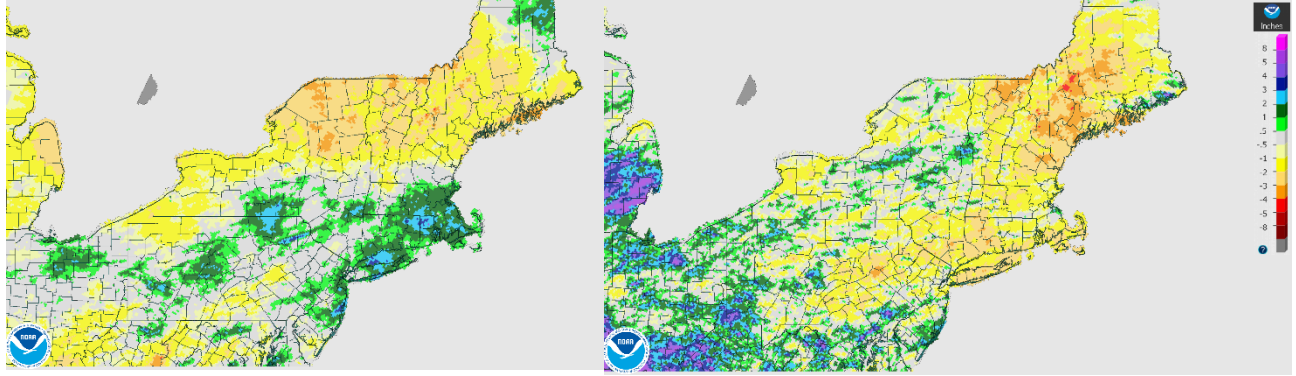
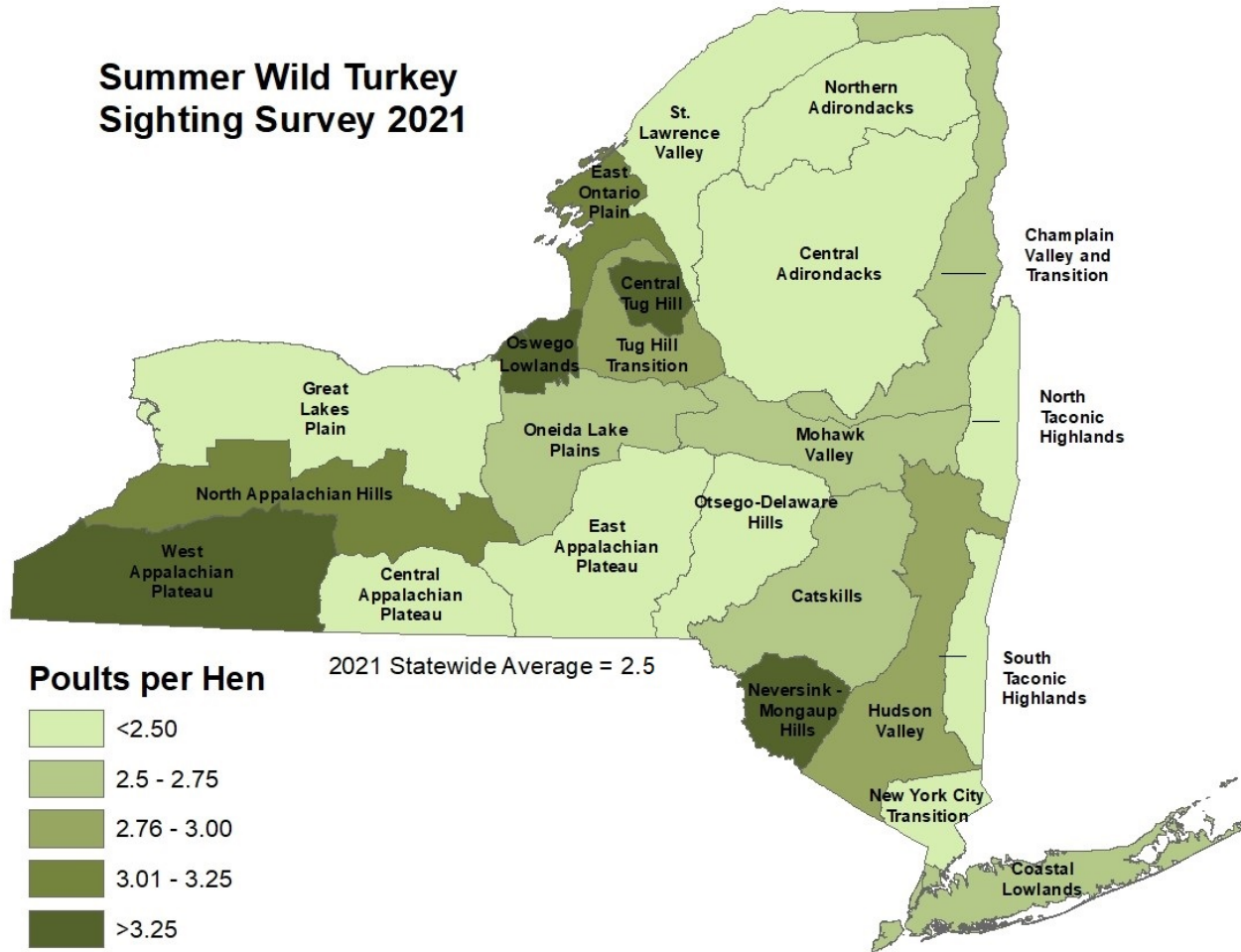


Figure 5. Departure from normal rainfall in May (left) and June (right), 2021. Images courtesy of the National Oceanic and Atmospheric Administration (NOAA).

Summer Wild Turkey Sighting Survey 2021



WMU Aggregate	Poults/Hen	# Hen-Flocks
Central Adirondacks	1.98	89
Central Appalachian Plateau	1.81	16
Catskills	2.46	82
Champlain Valley & Transition	2.75	53
Coastal Lowlands	2.71	63
East Appalachian Plateau	1.77	62
East Ontario Plain	3.12	19
Great Lakes Plain	2.17	103
Hudson Valley	2.80	150
Mohawk Valley	2.49	75
Northern Adirondacks	1.70	18
North Appalachian Hills	3.20	31
Neversink-Mongaup Hills	3.29	10
North Taconic Highlands	2.10	22
New York City Transition	2.21	12
Oneida Lake Plains	2.51	36
Oswego Lowlands	3.87	15
Otsego-Delaware Hills	2.34	49
St. Lawrence Valley	1.88	25
South Taconic Highlands	2.00	25
Tug Hill Transition	2.92	25
Tug Hill	3.50	2
West Appalachian Plateau	3.31	108

Figure 6. Poults/Hen in Wildlife Management Unit (WMU) aggregates of New York State from the Summer Sighting Survey, 2021. The number of hen-flocks in the table at right indicates the sample size used to calculate poults/hen for each aggregate. Regional weighted average was 2.5 poults/hen (n=1,090).



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