

SUMMER WILD TURKEY SIGHTING SURVEY 2016



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 in a given 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 2016, there were 737 records of hen-flocks, the largest number reported since 2002. The large number of hen-flocks reported is partially due to a larger number of birds on the landscape after good production last year followed by a mild winter, but is more likely a function of increased awareness of the summer survey and the ease with which people can report observations on-line through the DEC website.

Reproductive success from the 2016 survey was about 2.8 poults/hen. This is a decrease from last summer and below the 10-year average (about 3 poults/hen; Figure 1). Reproductive success (as measured by this survey) has gradually improved from the low observed in 2009, but reproductive success is lower over the past decade than during the first ten years of the survey (1997-2006; Figure 1). About 20% of the hen-flocks observed in 2016 did not have poults. This similar to last year and close to the ten-year average (19.8%).

In 2016, production in most DEC Regions was close to or below the five-year statewide average with the exception of Region 8 (Finger Lakes; Table 1). From 2015 to 2016, production declined or was similar between years for all DEC regions. At the Wildlife Management Unit aggregate level, production was above-average in the east-central and west-central portions of the state (Figure 4).

May rainfall was below average in most regions, despite cold, wet weather in many areas during the first week of the month (Figure 1). Similarly, rainfall was below average in most regions in June, with the exception of portions of the St. Lawrence Valley in northern New York (Figure 2). Below average rainfall in May and June can positively impact nest and brood success, but this may have been offset by the cold, wet start to the month of May. It is important to note that turkeys in areas with favorable weather may still experience low nest and brood success due to poor habitat quantity and quality on a local or landscape scale (e.g., lack of brood-rearing habitat and/or a poor mix of habitat types).

Based on the decline in reproductive success from 2015 to 2016, we expect the fall harvest to be similar to or slightly lower than fall 2015 (Figure 3). Declines in harvest may be offset by improved turkey populations in some regions due to good production in summer 2015 and mild winter conditions in 2016. In areas with good hard and soft mast production, birds will be less vulnerable to harvest.

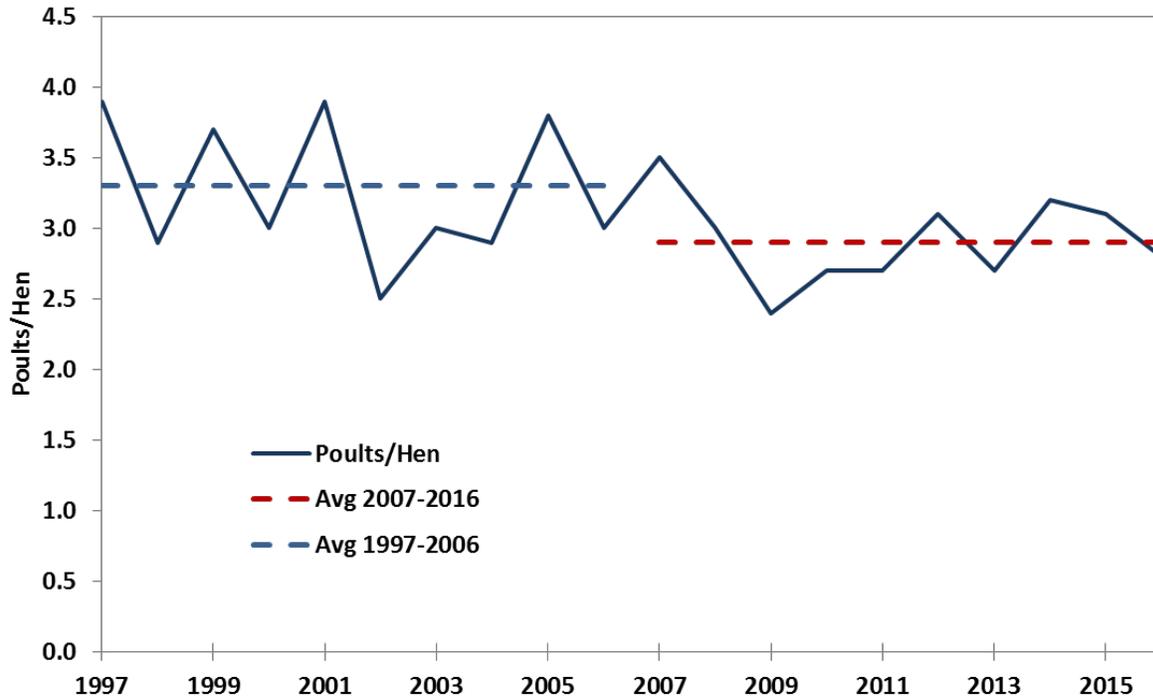


Figure 1. An index of wild turkey productivity (poults/hen) in New York State from the Summer Sighting Survey, 1997-2016. Dashed lines represent the 10-year averages.

Table 1. Wild turkey poult:hen ratios from the Summer Sighting Survey by DEC Region, 2011-16.

DEC Region	Poult:Hen Ratio						5-yr Average (2011-15)
	2011	2012	2013	2014	2015	2016	
Reg 1 – Long Island	1.1	0.8	2.8	3.5	1.4	1.6	1.9
Reg 3 – Lower Hudson Valley	2.2	2.2	2.7	2.7	2.7	2.5	2.5
Reg 4 – Capital Region	3.0	3.6	3.2	3.6	3.5	3.1	3.4
Reg 5 – E Adks/Lk Champlain	3.1	2.8	2.6	3.4	3.3	2.4	3.1
Reg 6 – W Adks/St. Law. V.	2.7	2.9	2.2	3.2	3.0	2.5	2.8
Reg 7 – Central NY	2.6	2.0	2.6	2.5	2.7	2.9	2.5
Reg 8 - Finger Lakes	2.8	4.2	3.2	2.8	3.7	3.8	3.3
Reg 9 – Western NY	3.2	3.8	2.8	3.4	3.3	3.2	3.3
Weighted Regional Average	2.7	3.1	2.7	3.2	3.1	2.8	3.0

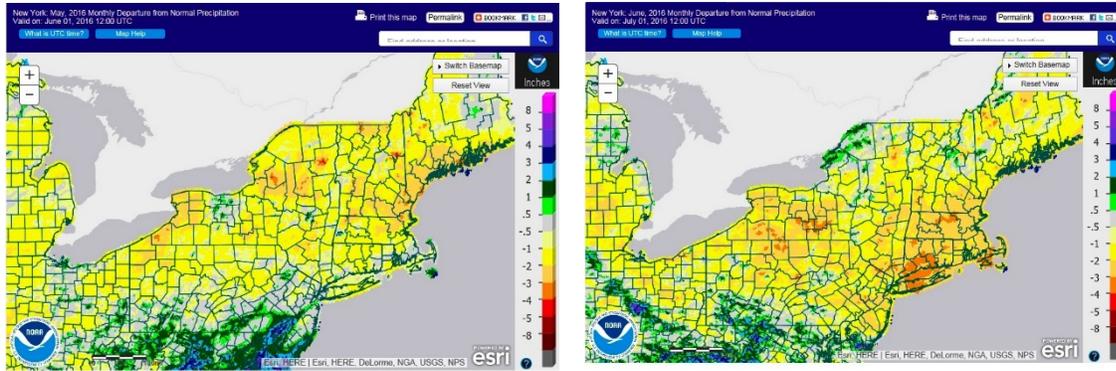


Figure 2. Departure from normal rainfall in New York State in May (left) and June (right), 2016. Darker colors (green to purple) represent higher than normal rainfall and lighter colors (yellow to red) represent below average rainfall. Images courtesy of the National Oceanic and Atmospheric Administration.

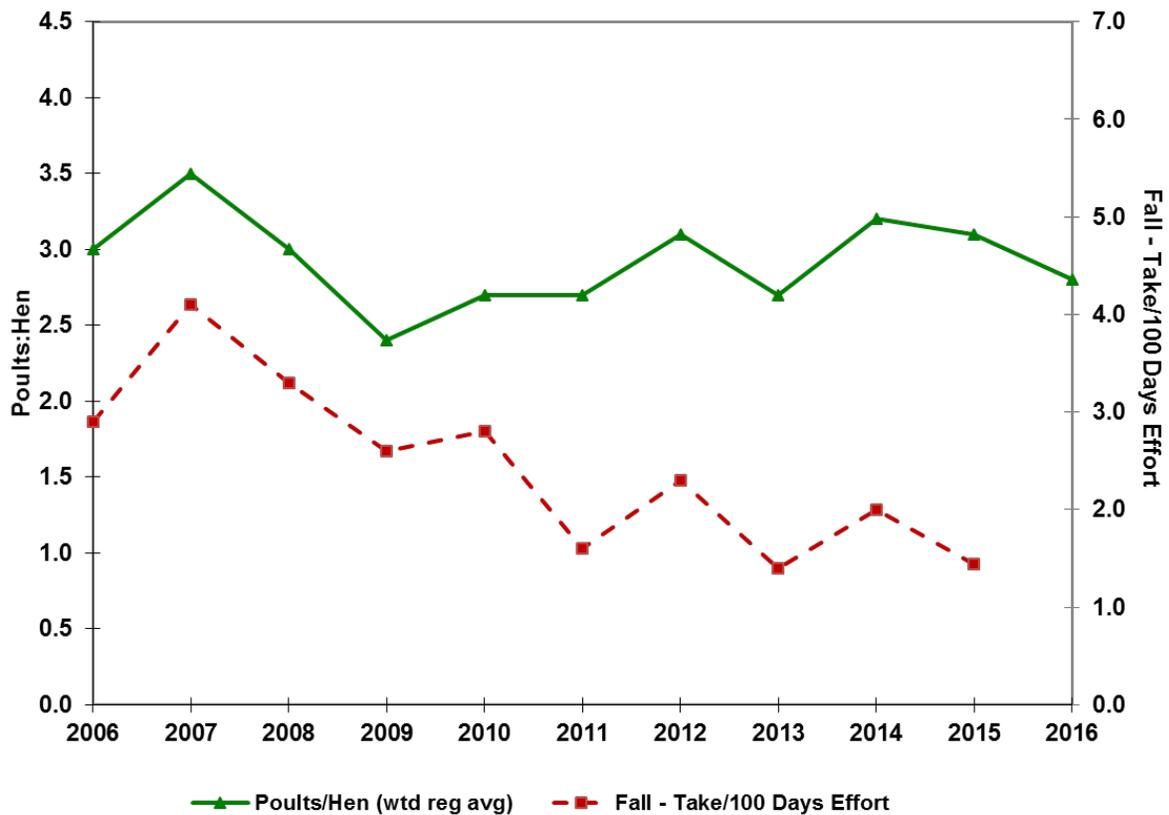
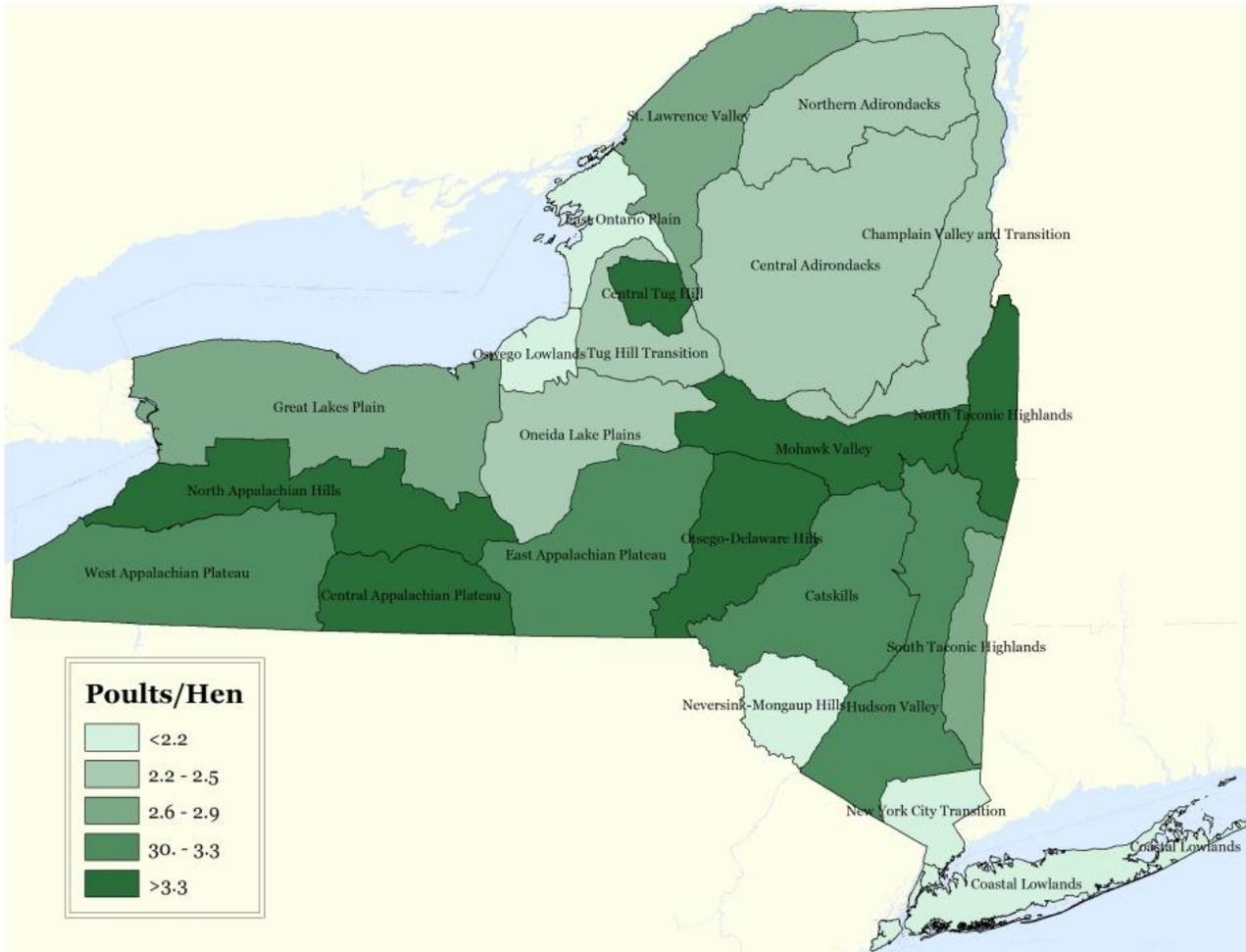


Figure 3. Estimates of poults/hen and fall harvest/100 days effort from 2006-2016. There is a strong correlation between reproductive success (as estimated by the poult survey) and fall harvest (as estimated by take/unit effort from the annual post-season hunter survey).



WMU Aggregate Sample Sizes (# Hen-Flocks Reported)	Poults/ Hen
Central Adirondacks (n=67)	2.3
Central Appalachian Plateau (n=10)	4.1
Catskills (n=51)	3.3
Champlain Valley & Transition (n=35)	2.4
Coastal Lowlands (n=30)	1.6
East Appalachian Plateau (n=43)	3.1
East Ontario Plain (n=28)	1.7
Great Lakes Plain (n=43)	2.6
Hudson Valley (n=97)	3.0
Mohawk Valley (n=32)	3.8
Northern Adirondacks (n=10)	2.5
North Appalachian Hills (n=39)	3.6
Neversink-Mongaup Hills (n=30)	1.6
North Taconic Highlands (n=14)	3.4
New York City Transition (n=11)	2.0
Oneida Lake Plains (n=24)	2.3
Oswego Lowlands (n=7)	2.0
Otsego-Delaware Hills (n=11)	4.0
St. Lawrence Valley (n=22)	2.8
South Taconic Highlands (n=26)	2.8
Tug Hill Transition (n=16)	2.3
Tug Hill (n=2)	6.0
West Appalachian Plateau (n=89)	3.3

Figure 4. Poults/Hen in WMU aggregates of New York State from the Summer Sighting Survey, 2016. Sample size in the table at right indicates the number of hen-flocks used to calculate poults/hen for each aggregate. Statewide regional weighted average poults/hen was 2.8 (n=737).



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