



Wild Turkey Summer Brood Survey Results

September 24, 2021

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The 2021 annual Department of Wildlife Resources (DWR) turkey brood survey suggests that reproduction for wild turkey rebounded from the low of 2020 (1.9 poults/hen) to 2.7 poults/hen, just above our long term average (2.5 P/H). Unfortunately, the overall number of turkeys staff have observed in the summer has declined steadily since 2015 (the 2020 survey had a low sample size and was not statistically higher). In 2021 total turkeys observed fell below the long-term average (19/1k miles) to 14 birds per 1,000 miles.

Wild turkey success in hatching and raising broods plays an important role in wild turkey populations and fall harvests. To monitor reproduction, the Department annually asks staff and volunteers to report all turkeys they see during July and August. Further, the ratio of young birds (poults) to the number of females (hens) is a critical index to reproduction (P/H). The Department would like to thank the many volunteers of the Virginia National Wild Turkey Federation chapters and the Virginia Master Naturalists for their survey participation in 2021!

In 2021, the Department received 244 reports by observers driving nearly 293,000 miles during July and August. Seventy-three percent of observers reported seeing at least one turkey. On a statewide basis, the number of turkeys seen per 1,000 miles driven in 2021 was 14.3 turkeys per 1,000 miles. This ratio peaked recently in 2014 and 2015 and has been declining since (Fig. 1). Low reproduction is believed to be the primary cause of the decline. The Tidewater Region had the highest ratio (24/1,000 mi.) and likely has the highest turkey population of any region in the state. Following close behind was the Southwest region with 21 birds per 1,000 miles. The North Piedmont (11), South Piedmont (10) and North Mountains (9) were all fairly stable and below the long-term average of 19 birds per 1,000 miles.

The Poults/Hen ratio is our best measure of reproduction as it considers the number of poults produced by all hens. Complete brood loss is not uncommon and those situations need to be incorporated when evaluating reproduction. Statewide, the 2021 P/H ratio (2.7) was above the long-term survey average (2.5). This is a significant rebound over 2018 (1.6) and 2020 (1.9, Fig. 1). However, it will take several years of good reproduction to halt any potential population declines or rebound populations, particularly in the North Mountains and other areas with long-term low poult per hen averages.

The region with the best P/H ratio (Figure. 2) was the North Piedmont, where 3.2 poults per hen were reported. This number is encouraging since this region has had fluctuations in turkey populations and currently seems to show increasing populations in many counties. Good reproduction was also seen in the Southwest (3.0), South Piedmont (2.7), and North Mountain (2.6) regions where P/H ratios nearly met or exceeded the 2021 state average (2.7). Slightly below average recruitment was observed in the Tidewater Region where 2.3 poults per hen were observed.



This information is intended to monitor turkey population trends and densities but does not infer high hunter success or satisfaction while hunting. Summary results for each region are found in Table 1.

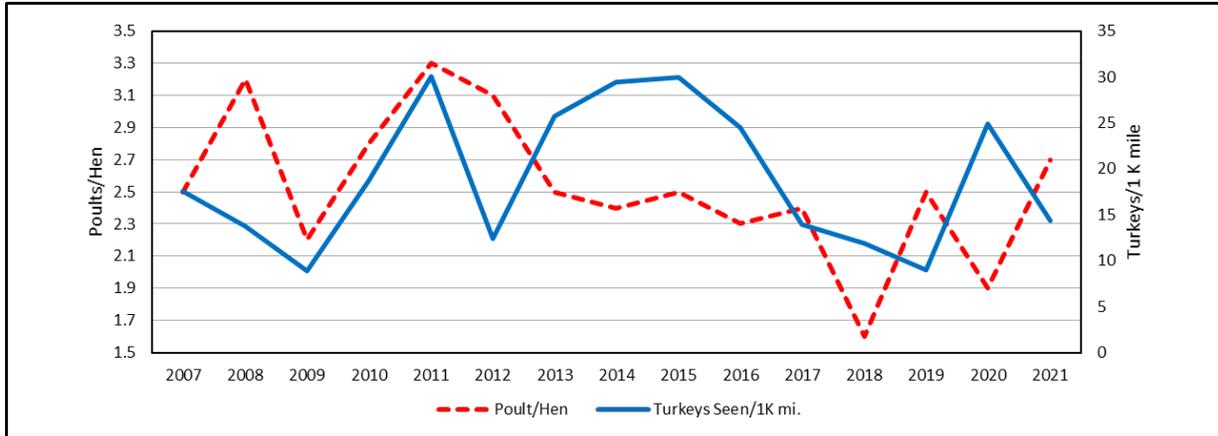


Figure 1. Wild turkeys seen by survey staff per 1,000 miles and Poults/Hen ratios during July and August in Virginia since 2007.

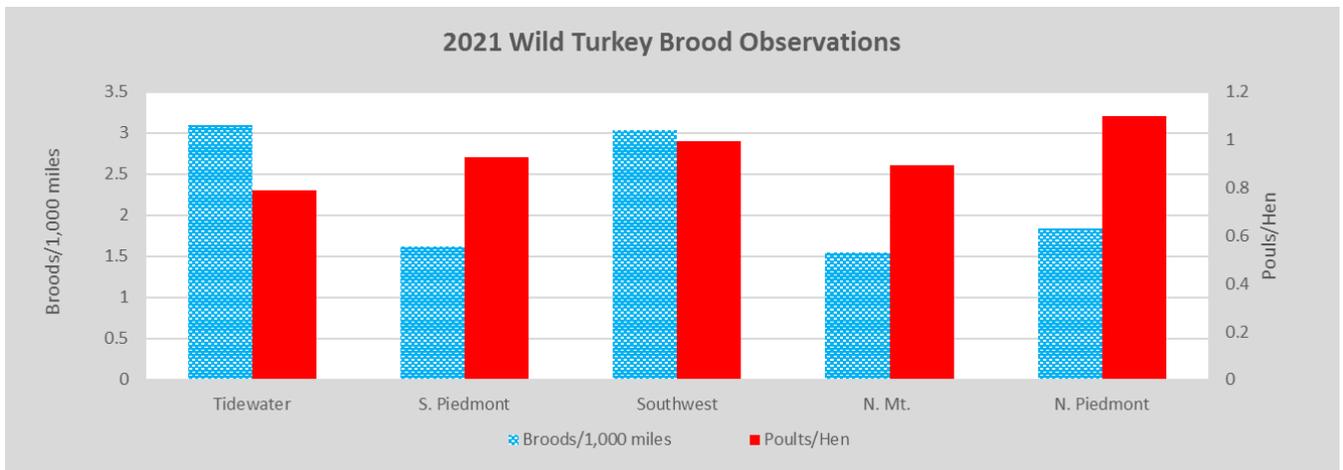


Figure 2: Wild turkey brood observations by region, 2021.

Table 1: Turkey brood data by region, July and August 2021.

Region	Mileage	Total Turkeys	Turkey Ratio	Broods	Brood Ratio	Poults	Total Hens	Poults/Hen
Tidewater	44713	1342	24.3	154	3.1	575	316	2.3
S. Piedmont	85796	773	10.0	123	1.6	428	186	2.7
Southwest	58282	900	20.8	126	3.0	529	173	2.9
N. Mt.	41137	570	8.7	113	1.6	293	157	2.6
N. Piedmont	62956	461	11.2	57	1.8	280	84	3.2
	292884	4046	15.0	573	2.2	2105	916	2.7