

2024 Pennsylvania Wild Turkey Sighting Survey Results

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This annual summer survey allows us to estimate the number of turkey poults (young of the year) seen per hen throughout the state during July and August; an index of reproductive success over time. We use this in our turkey population model and to assess trends in populations, and is used to establish fall turkey seasons. This national standardized survey allows direct comparison of reproductive success across states and regions.

Thanks to all volunteers and PGC staff for contributing to this survey!

2024 RESULTS:

During July and August, 30,286 total turkeys (hens, poults, males and unknown) were reported statewide from staff and the public, ranging from 190 sighted in WMU 5D to 2,769 in WMU 3D. This compares with 15,431 turkeys sighted in 2023. In 2024, 3,334 observations of hens and poults were used to calculate turkey recruitment compared to 1,847 in 2023 (Table 1).

Reproductive Index: 3.2 poults per all hens observed, (2.9 in 2023 and 3.1 in 2022 and 2021).

The 2024 index was slightly higher than the previous 5-year average of 2.9. Notably, all WMUs reported indices above the general threshold of 2.0 poults per hen, which is considered adequate for replacing adult mortality. This is the first year since the national standardized survey began in 2019 that all WMU-level indices were above 2.0; from 2.4 poults per hen in WMU 5D to 4.0 in WMU 2E (Table 1).

Reproductive success varies annually due to many factors particularly spring and summer rainfall, temperature, habitat conditions, predation, insect abundance and hen condition.

In neighboring states, the reproductive index averaged 2.6 poults per hen, with West Virginia at the lower end with 2.0 and New York at the higher end with 3.4 (Table 2).

Pennsylvania's survey includes input from both Game Commission personnel and the public. Since public participation began in 2016, the number of reported turkey sightings has doubled, enhancing the survey's accuracy and coverage.

Thanks to the large sample size from all corners of the Commonwealth, we have high confidence in the results. Every summer turkey-sightings reported to the Game Commission help to improve wild turkey conservation in the Keystone State. Public participation enhances our agency's internal survey by increasing the sample size and providing broader coverage of turkey reproductive success across all WMUs.

Table 1. Wild turkey summer productivity (proportion of poults per all hens seen, PPH) from July-August staff and public turkey sighting surveys combined (2019-24), and standard deviation (SD), by Wildlife Management Unit (WMU) in Pennsylvania, the state average and year. In 2023 WMU 2H was merged back into the original WMU 2G as from 2003 - 2012.

WMU	2019	SD	2020	SD	2021	SD	2022	SD	2023	SD	2024	SD
1A	2.65	0.21	2.23	0.24	2.72	0.30	2.39	0.22	3.26	0.26	2.7	0.21
1B	2.29	0.24	2.78	0.28	3.10	0.28	2.65	0.29	2.91	0.34	3.27	0.22
2A	3.05	0.34	1.76	0.26	3.01	0.32	3.09	0.27	3.11	0.40	2.67	0.29
2B	2.70	0.21	2.24	0.19	2.47	0.27	2.64	0.16	2.63	0.20	2.52	0.18
2C	2.91	0.30	2.72	0.21	3.95	0.28	3.44	0.24	2.93	0.25	3.76	0.2
2D	3.96	0.27	2.68	0.24	2.71	0.28	2.82	0.24	2.32	0.33	3.01	0.24
2E	3.06	0.44	3.00	0.35	2.95	0.26	3.98	0.33	4.51	0.62	4.01	0.37
2F	2.78	0.30	2.12	0.24	2.56	0.23	3.51	0.23	2.91	0.32	3.23	0.2
2G	2.74	0.23	3.19	0.22	3.48	0.30	4.11	0.21	3.58	0.23	3.8	0.17
2H	2.71	0.35	2.89	0.28	4.42	0.59	4.25	0.41	NA	NA	NA	NA
3A	2.18	0.30	3.54	0.33	2.71	0.49	3.72	0.28	3.31	0.38	3.8	0.27
3B	2.34	0.26	3.21	0.27	2.48	0.31	3.34	0.23	2.95	0.42	3.32	0.26
3C	2.79	0.29	2.97	0.22	1.91	0.25	3.22	0.24	3.16	0.29	3.28	0.22
3D	2.72	0.33	2.23	0.19	2.86	0.28	2.56	0.20	2.13	0.19	3.05	0.16
4A	2.63	0.37	2.95	0.43	4.68	0.30	2.95	0.40	3.32	0.35	3.26	0.27
4B	2.76	0.45	3.00	0.37	3.69	0.40	2.84	0.32	2.98	0.41	3.25	0.27
4C	2.83	0.35	3.42	0.38	2.50	0.42	2.61	0.30	2.15	0.29	3.28	0.22
4D	3.01	0.29	3.06	0.34	3.24	0.33	4.32	0.25	3.64	0.27	3.37	0.23
4E	2.90	0.48	2.85	0.33	2.59	0.35	3.32	0.41	3.05	0.47	3.09	0.23
5A	2.09	0.60	3.06	0.31	4.20	0.56	2.11	0.28	2.25	0.31	2.89	0.28
5B	2.85	0.29	2.54	0.27	3.57	0.39	2.70	0.23	2.65	0.26	2.72	0.19
5C	1.44	0.29	1.36	0.39	3.18	0.50	1.70	0.26	2.59	0.39	2.61	0.27
5D	2.18	0.93	2.00	0.82	1.30	0.40	2.76	0.70	1.39	0.54	2.43	0.42
Statewide	2.81	0.07	2.73	0.06	3.07	0.07	3.12	0.06	2.90	0.07	3.16	0.05

Table 2. Turkey poult recruitment, 2024, in Pennsylvania and surrounding states. New Jersey and Virginia data not yet available.

State	Observations	Total Turkeys Observed	Poults per Hen
Maryland	1,119	7,903	2.60
New Jersey			
New York	2,023	16,950	3.35
Pennsylvania	3,774	30,286	3.17
Virginia			
West Virginia	276	1,453	1.98