

2021 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. We use this in our turkey population model and 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!

2021 RESULTS:

We received 2,947 useable reports (3,863 in 2020) totaling 16,251 turkey sightings (17,573 in 2020), ranging from 63 sighted in WMU 5D to 1,509 in WMU 2C.

Reproductive Index: 3.1 poults per all hens observed, an increase from **2.7** in 2020.

Reproductive index varied considerably for the 23 Wildlife Management Units (WMU; Table 1).

Spring and summer rainfall & cold temperatures affect turkey reproductive success as well as habitat conditions, predation, insect abundance and hen condition. Weather across PA during late spring and summer 2021 were relatively warm and dry but varied by WMU as well as the other factors which affect reproduction, for example, WMUs that experienced the 17-year brood X cicada hatch tended to have excellent recruitment (WMU 4A, 4B, 5A, 5B). Cicadas are an excellent source of protein for turkeys and predators that normally would prey on turkey poults.

Reproductive index also varied among the northeastern States that had submitted their data by report preparation (Table 2).

Thanks to the popularity of this survey in Pennsylvania we have high confidence in our estimates. Let's maintain these results in 2022 and even increase participation!

Table 1. The ratio of turkey poults seen per all hens seen (poult recruitment) by Pennsylvania Wildlife Management Unit (WMU) and year. During 2016-2018 the survey was during August. Since 2019 the survey has been July and August.

WMU	2016	2017	2018	2019	2020	2021
1A	2.6	2.6	2.6	2.6	2.3	2.7
1B	2.6	2.4	2.6	2.3	2.8	3.1
2A	3.7	2.3	2.5	3.1	1.9	3.0
2B	2.6	2.4	2.0	2.8	2.2	2.5
2C	3.2	2.7	2.3	2.8	2.7	4.0
2D	2.7	2.8	2.1	4.0	2.7	2.7
2E	3.4	1.8	2.1	3.1	3.0	2.9
2F	3.3	3.1	3.2	2.8	2.3	2.8
2G	3.0	3.3	3.0	2.8	3.2	3.5
2H	3.4	3.7	3.5	2.8	2.9	4.4
3A	3.4	3.2	4.3	2.2	3.6	2.7
3B	2.9	3.6	2.5	2.4	3.2	2.5
3C	3.1	3.3	2.2	2.8	3.0	1.9
3D	2.5	2.4	2.3	2.8	2.3	2.9
4A	2.8	2.3	4.2	2.7	3.1	4.7
4B	3.4	4.8	3.5	2.8	3.0	3.7
4C	2.9	3.4	2.5	2.9	3.4	2.5
4D	3.2	2.5	2.8	3.0	3.1	3.3
4E	3.6	3.2	2.1	3.0	2.9	2.6
5A	2.7	2.7	2.4	2.5	3.1	4.2
5B	2.9	2.8	2.7	2.9	2.6	3.6
5C	2.5	2.7	2.9	1.4	1.4	3.2
5D	1.3	2.4	4.5	1.9	2.0	1.3
Unk	3.5	3.9			2.0	
State	2.9	2.8	2.6	2.8	2.7	3.1

Table 2. Turkey poult recruitment, 2021, in Pennsylvania and surrounding states that had submitted data by report preparation.

State	Observations	Poults per Hen
Maryland	1,202	2.94
New Jersey	55	3.83
New York	1,223	3.04
Pennsylvania	2,210	3.10
Virginia	531	2.68
West Virginia	258	2.70