

Pennsylvania 2018 August Public Turkey Sighting Survey Results

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The August Public Turkey Sighting Survey provides an estimate of the average number of wild turkey poults (young of the year) produced per hen (hens with poults + hens that did not raise a brood) across the state. This ratio tracks total summer turkey reproduction to compare to other Northeastern states for a regional view of wild turkey reproductive trends and helps predict fall harvest potential. The public reports data either via a mobile application or online at <https://pgcdatacollection.pa.gov/TurkeyBroodSurvey>.

In 2018 there were 8,874 useable turkey sightings, down from 19,617 in 2017 and 30,184 in 2016, which was the survey's first year. Statewide reproductive success was 2.4 poults per hen; slightly higher than 2017 (2.3) and the same as 2016. Reproductive success varied by WMU from 1.6 poults per hen (WMU 4E) to 4.6 (WMU 3A). The average for other northeastern states was 2.5, and was slightly lower than 2017 (2.6) and 2016 (2.7). Reproduction fluctuates annually due to factors including spring weather, habitat, winter food abundance, predation, and fall harvest the previous year. Thus, poult survival has a large effect on population trends.

Data from the Northeast Region Climate Center show rainfall in June 2018 was above average in the northwest, southwest and south-central regions, which likely negatively impacted poult survival in portions of those regions but was average in the southeast and below average in the northcentral and northeast regions, which may have benefited poult survival in certain portions of those WMUs. Fortunately, monthly temperatures averaged 3-7 degrees warmer than average in May and mainly average in June, which tend to benefit poult survival. Recruitment also is impacted by poor habitat, such as lack of brood-rearing habitat, and/or a poor mix of habitats, which makes turkeys more susceptible to cold, wet weather, and predation. These factors lead to great variability in overall recruitment even within WMUs.

See data table on next page.

2018 August turkey sightings reported by the public by Wildlife Management Unit (WMU), by age and sex, and the reproductive index (poults per all hens seen). Previous 2 years reproductive index provided for comparison.

| WMU | Poults | Hens with Poults | Hens without Poults | Males | Unknown Age/Sex | Total Turkeys | Reproductive Index (Poults/All Hens) each year | | |
|-------------|--------|------------------|---------------------|-------|-----------------|---------------|--|------|------|
| | | | | | | | 2018 | 2017 | 2016 |
| 1A | 187 | 67 | 27 | 56 | 94 | 431 | 2.0 | 1.9 | 1.9 |
| 1B | 209 | 66 | 9 | 57 | 13 | 354 | 2.8 | 2.1 | 1.9 |
| 2A | 419 | 128 | 59 | 143 | 65 | 814 | 2.2 | 1.2 | 3.1 |
| 2B | 498 | 151 | 142 | 147 | 146 | 1084 | 1.7 | 1.6 | 2.6 |
| 2C | 277 | 76 | 44 | 29 | 27 | 453 | 2.3 | 2.5 | 2.5 |
| 2D | 185 | 52 | 59 | 28 | 63 | 387 | 1.7 | 2.2 | 2.0 |
| 2E | 154 | 44 | 24 | 16 | 53 | 291 | 2.3 | 2.9 | 2.7 |
| 2F | 220 | 49 | 26 | 20 | 39 | 354 | 2.9 | 2.6 | 2.9 |
| 2G | 335 | 97 | 13 | 36 | 9 | 490 | 3.0 | 3.4 | 2.7 |
| 2H | 150 | 40 | 10 | 30 | 22 | 252 | 3.0 | 3.0 | 2.1 |
| 3A | 170 | 31 | 6 | 27 | 2 | 236 | 4.6 | 3.8 | 3.4 |
| 3B | 345 | 97 | 65 | 73 | 65 | 645 | 2.1 | 3.3 | 2.4 |
| 3C | 331 | 99 | 42 | 96 | 37 | 605 | 2.3 | 2.7 | 2.5 |
| 3D | 388 | 112 | 53 | 83 | 99 | 735 | 2.4 | 1.6 | 2.1 |
| 4A | 170 | 35 | 4 | 6 | 14 | 229 | 4.4 | 4.6 | 2.3 |
| 4B | 177 | 37 | 5 | 10 | 9 | 238 | 4.2 | 2.8 | 2.5 |
| 4C | 224 | 63 | 20 | 35 | 76 | 418 | 2.7 | 2.1 | 2.0 |
| 4D | 218 | 62 | 28 | 68 | 69 | 445 | 2.4 | 2.5 | 2.4 |
| 4E | 81 | 28 | 24 | 19 | 43 | 195 | 1.6 | 2.6 | 2.8 |
| 5A | 81 | 22 | 9 | 10 | 33 | 155 | 2.6 | 2.9 | 1.7 |
| 5B | 490 | 147 | 87 | 68 | 112 | 904 | 2.1 | 2.1 | 2.2 |
| 5C | 104 | 30 | 14 | 13 | 38 | 199 | 2.4 | 1.7 | 2.1 |
| 5D | 47 | 11 | 2 | 0 | 0 | 60 | 3.6 | 3.1 | 1.4 |
| State Total | 5,460 | 1,544 | 772 | 1,070 | 1,128 | 9,974 | 2.4 | 2.3 | 2.4 |

^a WMU 5D, low sample size, not reliable.