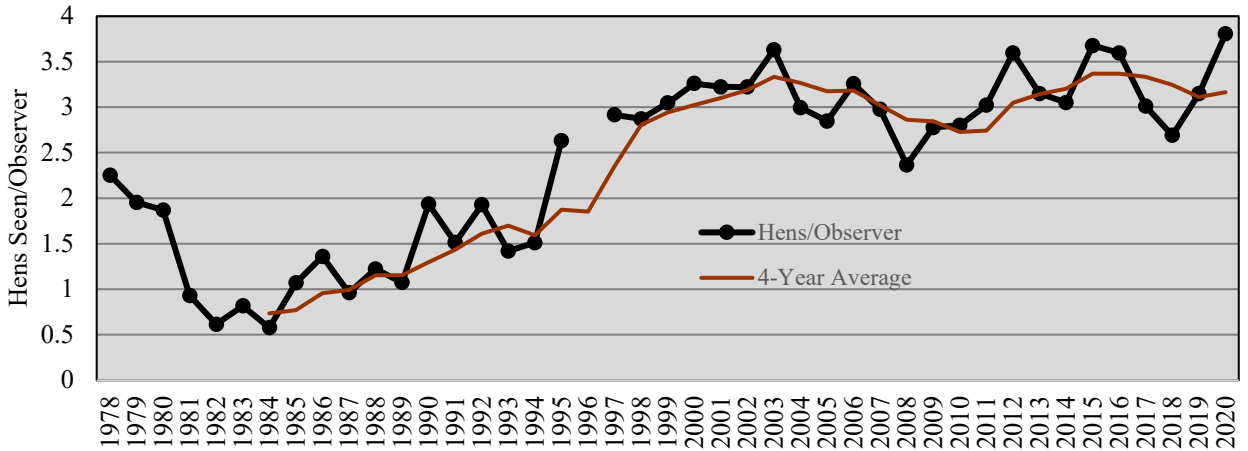


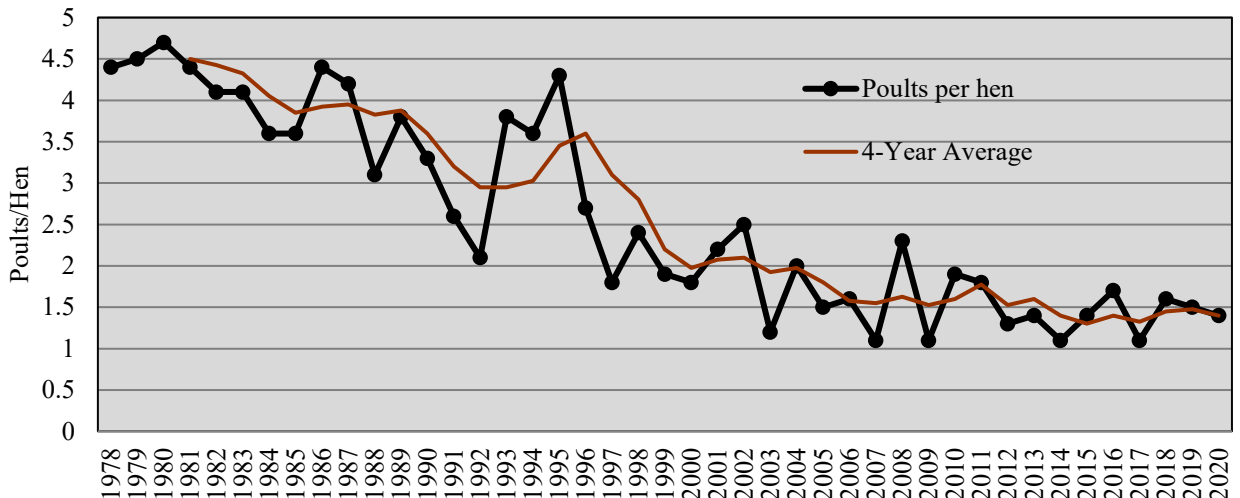
Turkey Production Index Survey

- DNR personnel recorded observations while performing field duties during June, July and August. Hens/observer is an index that tracks the female segment of the population, while poult/hen is used as a measure of relative quality of the reproductive season and is tracked long-term.
- Hens/observer values have fluctuated around 3.1 since 1999. The hens/observer value for 2020 increased to 3.8, but the 4-year average remained 3.2.
- Poults/hen values have fluctuated around 1.5 since 2003 after a precipitous decline over the preceding two decades. In 2020, 1.4 poults/hen were observed, which was equal to the 4-year average but slightly below the 1.5 poults/hen observed in 2019.

Hens Seen/Observer 1981-2020



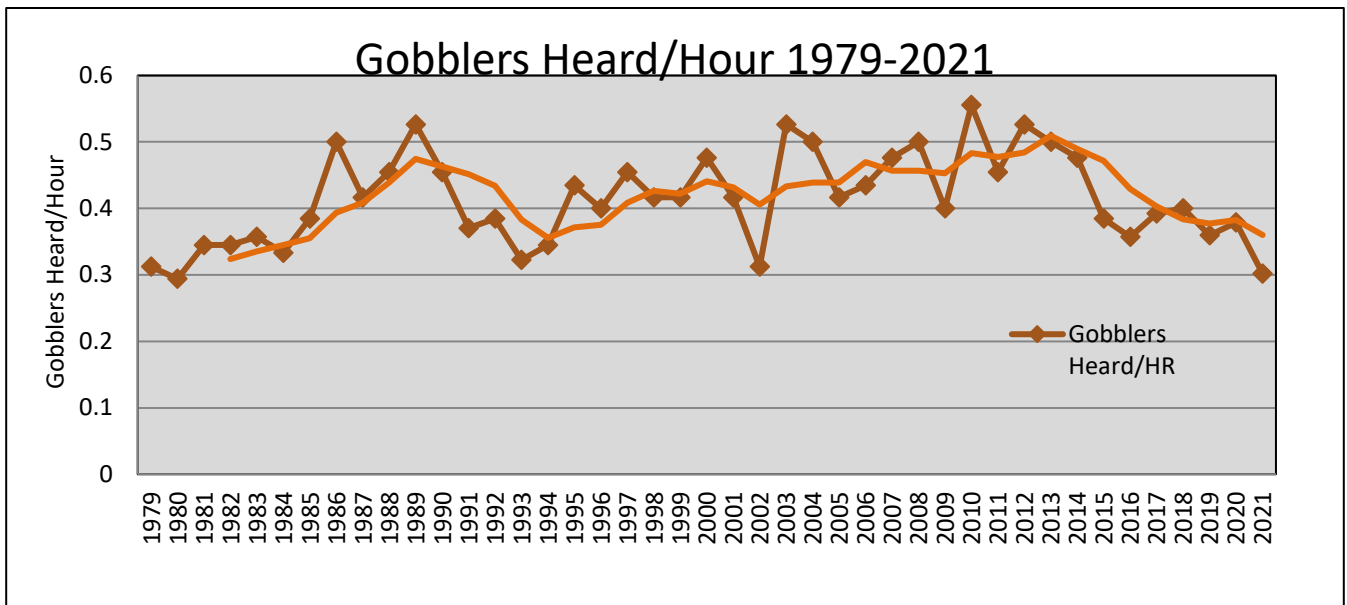
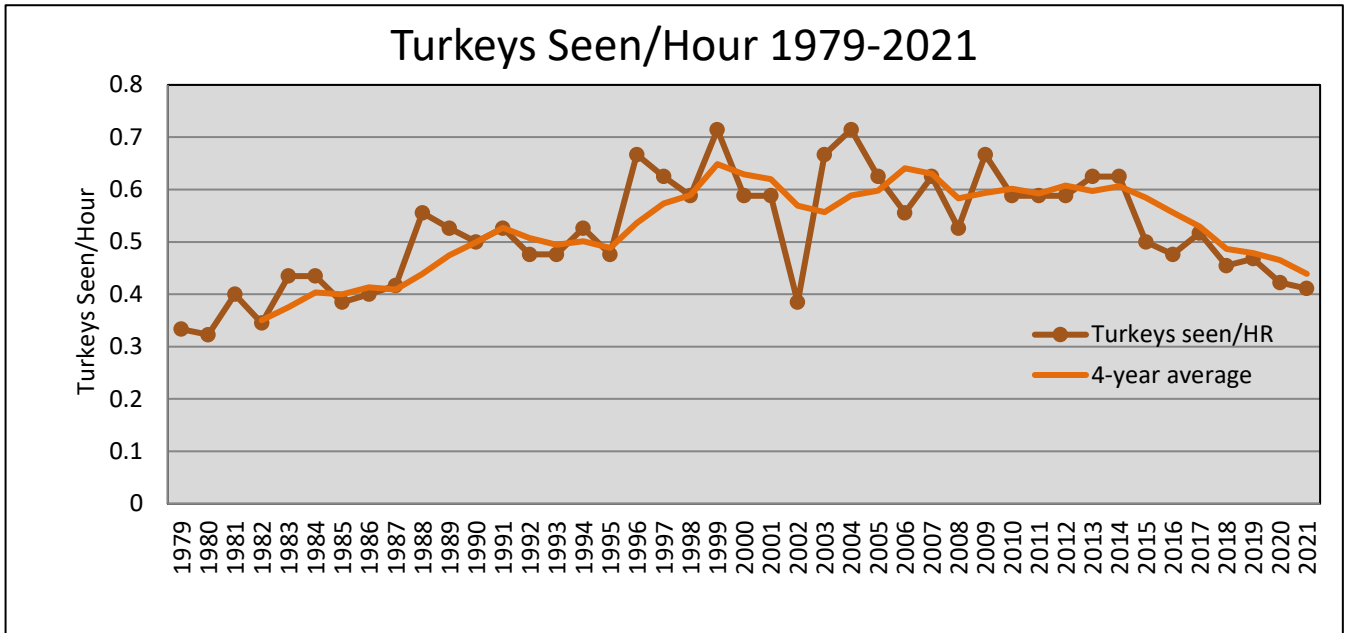
Poults/Hen 1978-2020



**Wild Turkey Program
FY2021
Population Monitoring**

Turkey Hunting Population Index Survey

- The turkey hunting population is indexed through cooperators reporting their daily hunting statistics throughout the turkey hunting season. Turkeys seen/hour is a statewide hunting population index and gobblers heard/hour is an index that tracks the male segment of the population.
- The turkeys seen/hour value for 2021 was 0.41, which was 13% lower than the previous 4-year average of 0.47 as well as the 2020 value of 0.47. The gobblers heard/hour value for 2021 was 0.30, 20% below the 4-year average of 0.38 and 17% below 2020 value of 0.36.
- Both the turkeys seen/hour and the gobblers heard/hour metrics have steadily declined since the early 2010s.



Turkey Hunting Population Index Prediction Model

- This model uses predictors from the 2020 Production Index Survey (poults/observer) and the 2020 Turkey Hunting Population Index survey (turkeys seen/hour) to predict the turkeys/hour seen for the 2021 hunting season.
- The 2021 turkeys seen/hour prediction is then compared with what was observed in 2021, and correlation is measured. A high correlation indicates that data from these surveys are an accurate predictor of the following year’s hunting season quality, via the index of turkeys seen/hour.
- The predictor model (1980-2018) is:

$$1/(\text{Constant} + (\text{Slope X 2019 Poults/Observer}) + (\text{Slope X 2019 Turkeys Seen/Hour})) = 2020 \text{ Turkeys Seen/Hour}$$

Therefore:

$$1/(0.09937 + (0.01067*8.7) + (0.52529*0.4677)) = 0.44 \text{ Turkeys Seen/Hour in 2020}$$

- After the reproduction + population data from 2019 was entered in the model, the prediction for the 2020 harvest season was 0.44 turkey seen/hour hunted. In reality, hunters observed an average of 0.42 turkeys per hour which was 4.5% fewer than what was predicted. A relatively high correlation $r = 0.69$ was obtained from this analysis indicating this model was a good predictor of the following years turkey season based on data obtained from the surveys.

