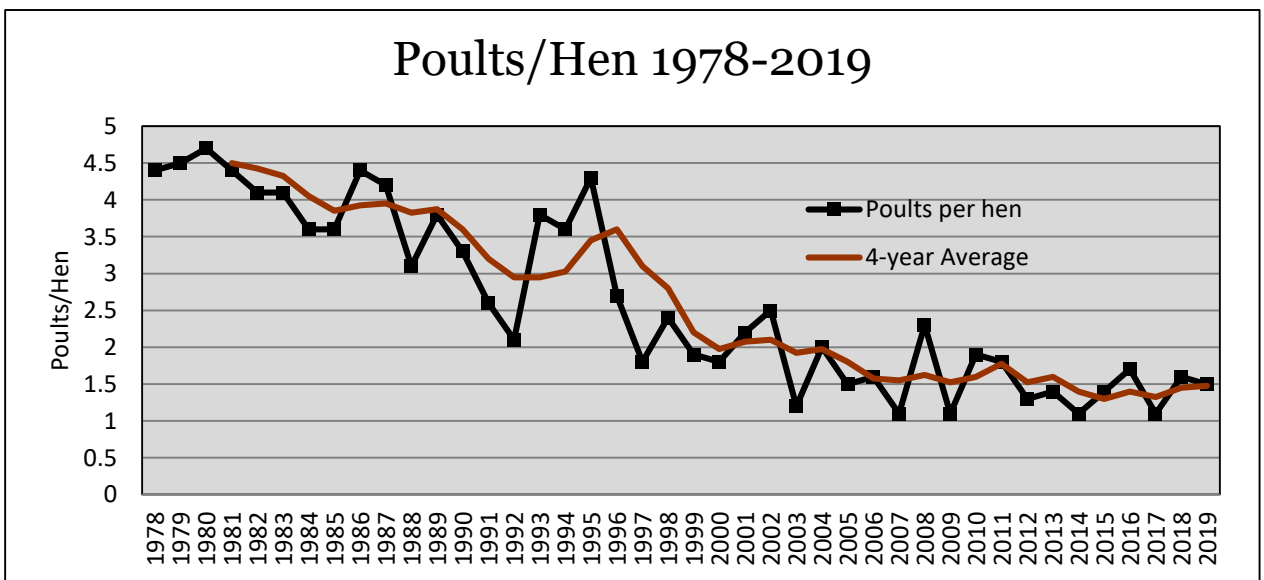
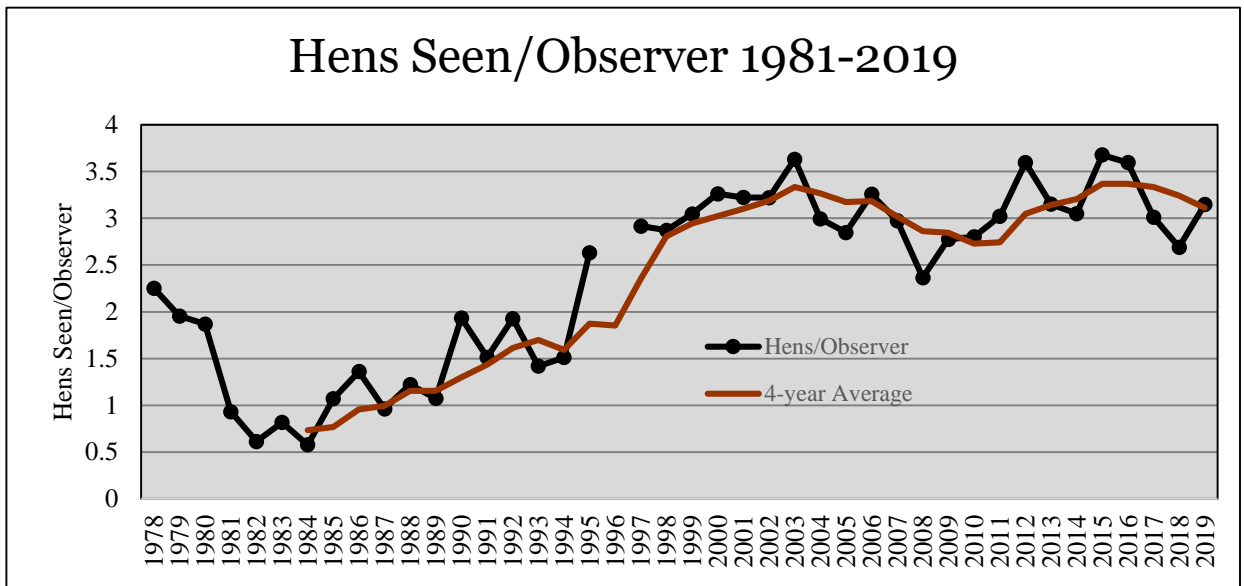


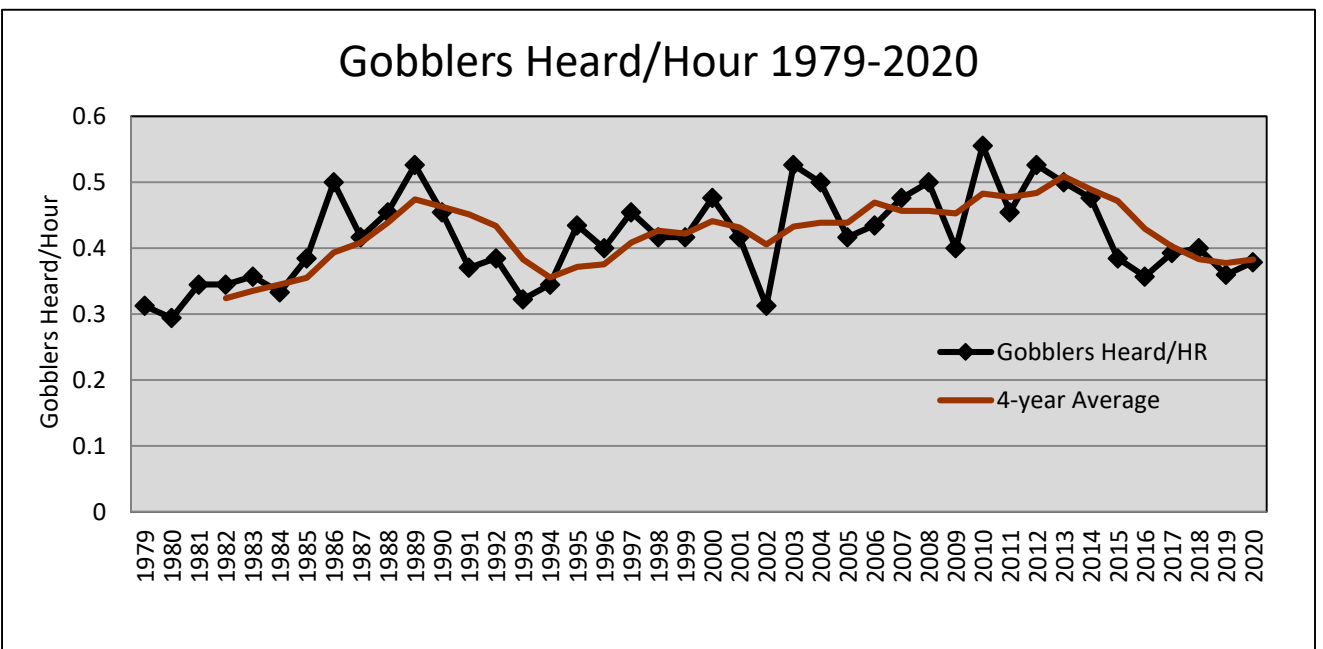
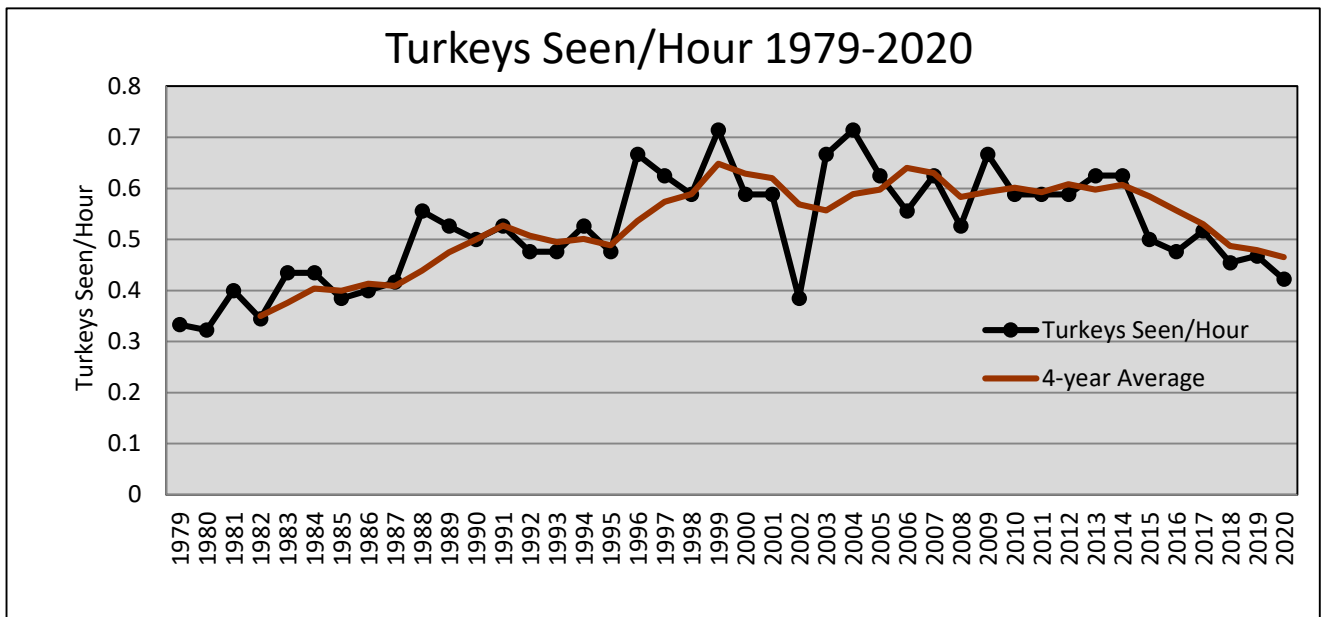
Turkey Production Index Survey

- 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 2019 was 3.1 which was on par with previous 4-year average (3.1), but a 15% increase over 2018 (2.7).
- Poults/hen values have fluctuated around 1.5 since 2003 after a precipitous decline over the preceding two decades. In 2019, 1.5 poults/hen were observed, slightly below the 1.6 poults/hen observed in 2018, but on par with the 4-year average of 1.5 poults/hen.



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 2020 was 0.42, which was 12% lower than the previous 4-year average of 0.47 as well as the 2019 value of 0.47. The gobblers heard/hour value for 2020 was 0.38, on par with the 4-year average of 0.38 and slightly above the 2019 value of 0.36.
- While the 4-year average of gobblers heard/hour has remained steady the past 4 years, the 4-year average of turkeys seen/hour is the lowest value that has been observed in over 30 years.



Turkey Hunting Population Index Prediction Model

- This model uses predictors from the 2019 Production Index Survey (poults/observer) and the 2019 Turkey Hunting Population Index survey (turkeys seen/hour) to predict the turkeys/hour seen for the 2020 hunting season.
- The 2020 turkeys seen/hour prediction is then compared with the 2020 observed reality, 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.

