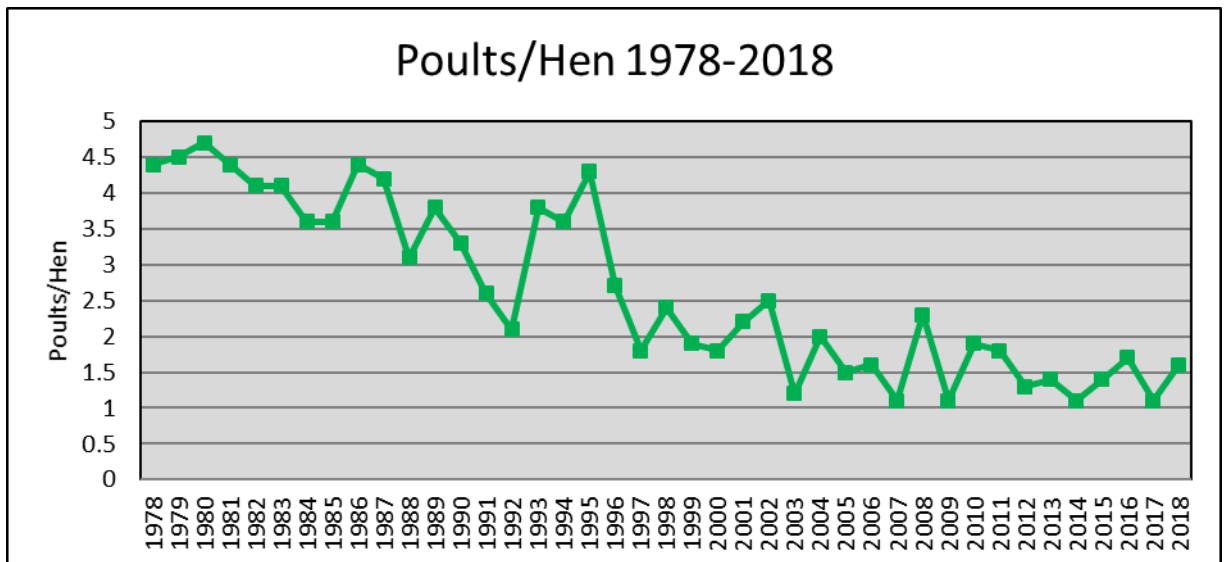
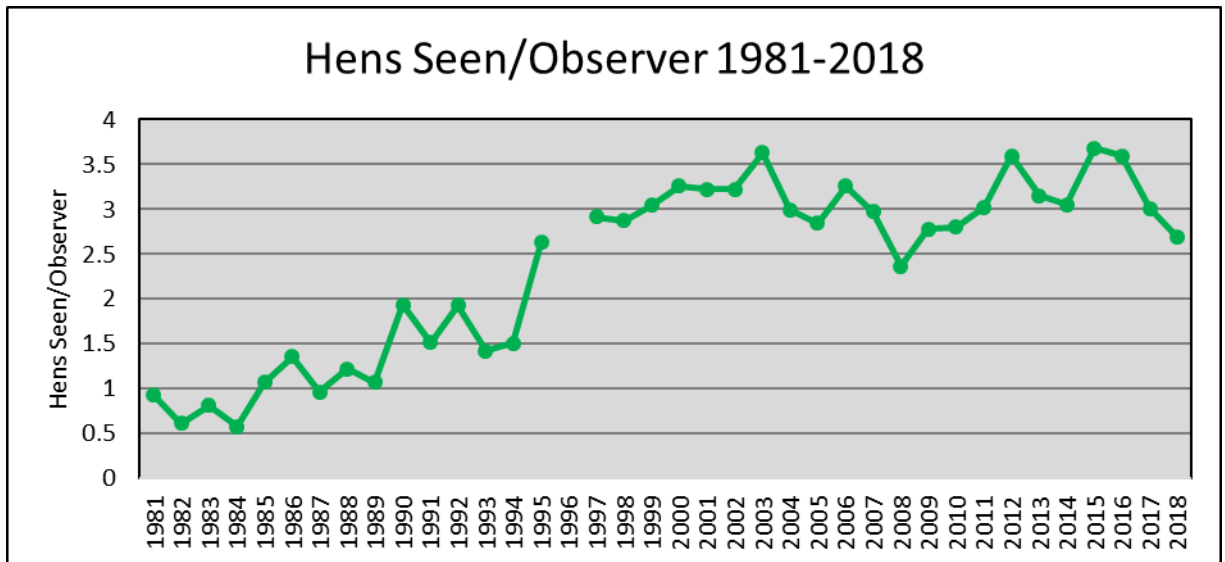


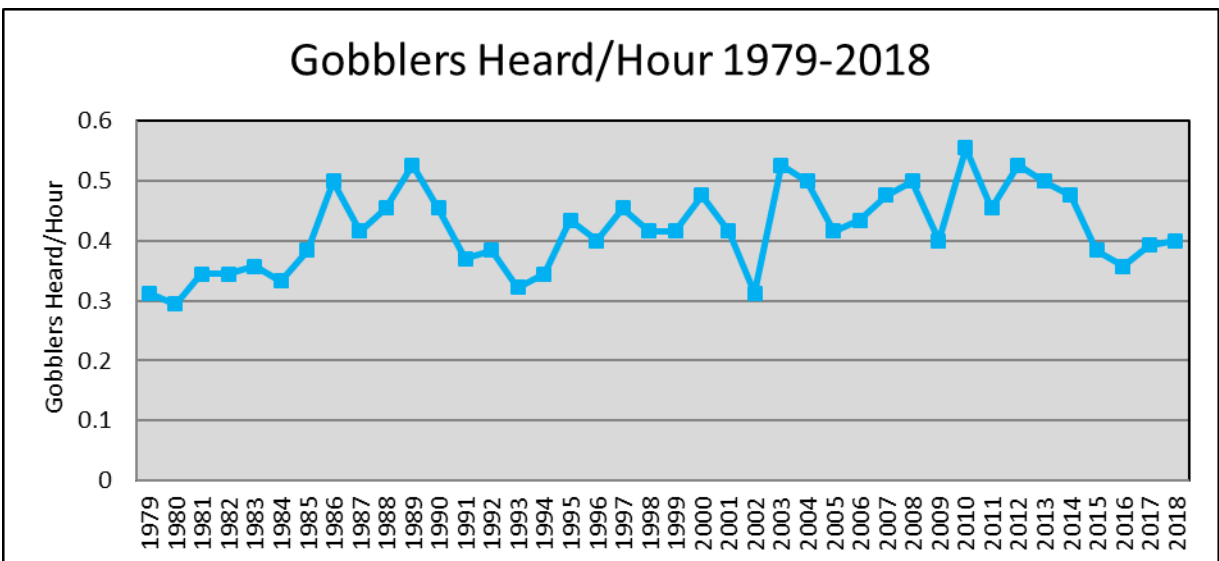
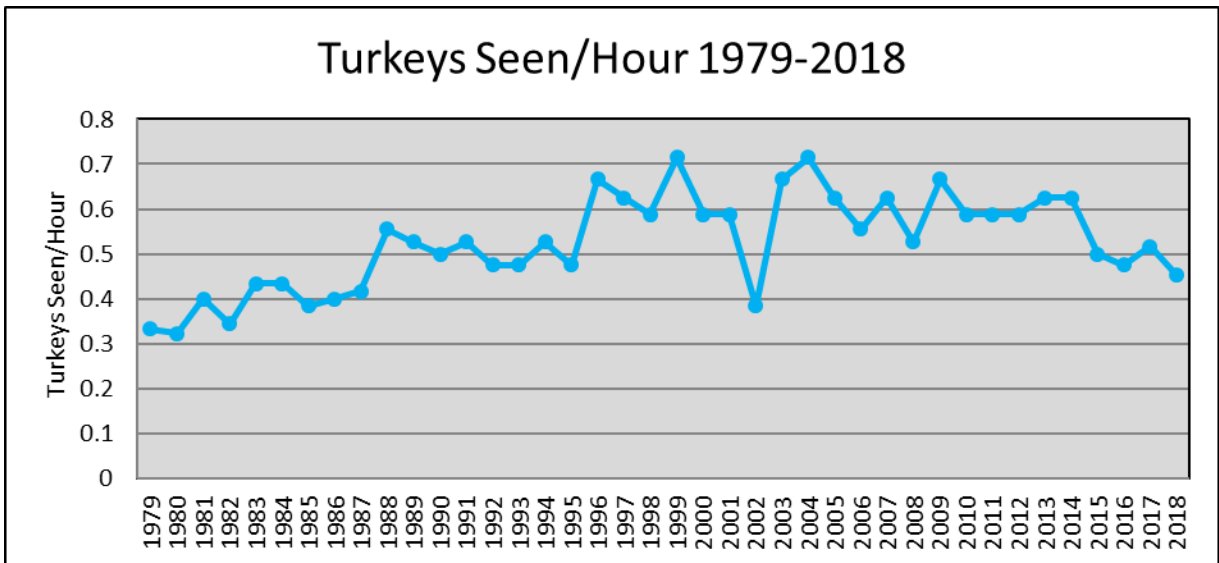
Turkey Production Index Survey

- 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 2018 was 2.7 which was 18% less than the previous 5-year average (3.3) and 11% less than 2017 (3.0).
- Poults/hen values have fluctuated around 1.5 since 2003. In 2018, 1.6 poults/hen were observed, representing a 45% increase over 2017 (1.1), and a 23% increase over the previous 5-year average of 1.3 poults per 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 2019 was 0.47, which was 4% lower than the previous 4-year average of 0.49 but 3% higher than 2018 (0.45). The gobblers heard/hour value for 2019 was 0.36, slightly lower than the previous 4-year average of 0.38 and 10% lower than 2018 (0.4).
- The past 4-year averages of turkeys seen/hour and gobblers heard/hour were the lowest observed since 1990 and 1996, respectively.



Turkey Hunting Population Index Prediction Model

- This model uses predictors from the 2018 Production Index Survey (poults/observer) and the 2018 Turkey Hunting Population Index survey (turkeys seen/hour) to predict the turkeys/hour seen for the 2019 hunting season.
- The 2019 turkeys seen/hour prediction is then compared with the 2019 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:

$$1/(\text{Constant} + (\text{Slope X 2018 Poults/Observer}) + (\text{Slope X 2018 Turkeys Seen/Hour}))$$

$$= 2019 \text{ Turkeys Seen/Hour}$$

Therefore:

$$1/(0.09937 + (0.01067*12.9) + (0.52529*0.4545))$$

$$= 0.48 \text{ Turkeys Seen/Hour in 2019}$$

- After the reproduction + population data from 2018 was entered in the model, the prediction for the 2019 harvest season was 0.48 turkey seen/hour hunted. In reality, hunters observed an average of 0.47 turkeys per hour which was 1.7% fewer than what was predicted. A relatively high correlation $r = 0.68$ 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.

