

**NWTF Technical Committee Representatives' Report - PA Chapter NWTF
Board of Directors Meeting, January 9, 2011**

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Harvest & Population Management

The number of fall turkey season harvest report cards received is approximately 10% less than reported last year, but all reports have not yet been tallied.

The 2010 statewide summer turkey sighting index, conducted by Wildlife Conservation Officers (WCOs) during June, July and August, was 10% below the previous 5-year average.

Statewide poult:hen ratios have been determined from the June and July WCO surveys since 2008. August sighting data are not used for determining poult:hen ratios because by August it often is difficult to differentiate poults from adults from a distance. Wild turkey productivity, as determined by juveniles per hens seen with broods, was 4.14 in 2010, a decrease from the previous two years of 4.20 in 2009 and 4.96 in 2008.

Recruitment ratio, the number of poults entering the population per all hens in the population also decreased in 2010 to 2.16, down from 2.21 in 2009 and 2.56 in 2008. Last winter's weather was colder than average with persistent and often deep snow cover, but hard mast was average (in central and eastern PA) to above average (in the northern tier), which allowed turkeys to maintain good body condition throughout the long winter as evidenced by the over 300 winter trapped turkeys. Spring weather was variable during the peak hatch with warm, dry weather in some areas but cool, wet weather elsewhere. The below average recruitment in 2010 may be indicative of density dependence factors rather than weather related.

PRELIMINARY 2010 Turkey Hunting-Related Shooting Incidents (Reports attached)

Preliminary results for spring 2010 turkey HRSIs were 1 fatal and 10 non fatal incidents. The fatal incident occurred while both the victim and offender were turkey hunting and the victim was shot in mistake for game. This tragic event is the first fatal spring turkey HRSI since 2002, and before that there was one in 1994. Of the 10 non fatal HRSIs one was self-inflicted (unintentional discharge) but the others were inflicted by others; one of which the victim was in the line of fire, but for the other 8 the victims were shot in mistake for game. These 11 represent a 35% increase in incidents from the previous 10-year average of 7.4 incidents per year, but a 67% increase from the previous 3-year average of 6 incidents per year.

Preliminary results for fall 2010 turkey HRSIs are 1 fatal incident, in which two friends were hunting at dusk in Perry County and the victim was shot in mistake for game from a rifle shot. This is preliminary and it still is unclear whether the incident will be declared turkey hunting in the final report. This is the first fatal fall turkey HRSI since 1999. To date no other fall turkey HRSIs have been reported.

Tri-State Gobbler Harvest and Survival Rate Study

The Pennsylvania Cooperative Fish & Wildlife Research Unit final report to the National Wild Turkey Federation on the recently completed gobbler harvest and survival rate study is available as part of the PGC annual report for this project on our website. Additional data analyses are being conducted and will be included in a final PGC report in 2011, and as a Journal of Wildlife Management manuscript. Harvest rates of gobblers in Pennsylvania averaged 38% for adults and 25% for juveniles, while annual survival averaged 41% for adults and 65% for juveniles. The high adult harvest rate may be sustainable (and could maintain hunter satisfaction) because of greater recruitment of juveniles into the adult population the following year.

Hen Turkey Survival and Harvest Rate Study

The first year of the hen turkey harvest and survival rate study has concluded and preliminary harvest and survival rate data are being analyzed. Because we manage the turkey population via the fall

harvest, the main study objective is to determine how fall turkey hunting season length affects harvest rate and to use this information for guiding future season structure recommendations. Therefore, to derive the desired outcome from the study of knowing how the fall season structure impacts turkey populations, it is important from a study objective and statistical standpoint that fall seasons for the next 3 - 4 years model the structure PGC Board of Commissioners envisions for the long-term future, i.e., do we maintain the 2010 season structure, remove the Thanksgiving holiday segment and provide more days during the first segment, do we revert to the old season structure, etc? To assist with this decision making process, we will provide the BOC with the relevant data analyses (hen study preliminary results, reported harvest via the internet and report cards, and fall turkey hunter survey) as soon as data are available.

As of 21 December, we received reports of 11 leg-banded hens being harvested during the fall turkey seasons; 7 were harvested in Study Area 1 (WMUs with the shorter fall season) and 4 were harvested in Study Area 2 (WMUs with the longer fall season). With slightly higher harvest rates in the study area with a shorter fall season emphasizes the need for a cross-over study design to determine how and why harvest rates may differ between study areas. Eight hens were harvested during the first season segment (before Thanksgiving) and 3 were harvested during the second segment (Thanksgiving weekend). Interestingly, no birds were reported harvested on Thanksgiving Day. Harvest rate and survival data are being analyzed. One successful hunter reported harvesting a 12 lbs. hen in Clinton County with a hand-gun, at a distance of approximately 80 yards and the hen was not only banded but also was wearing a transmitter!

To help determine fall turkey hunter participation, recruitment and satisfaction with the new fall turkey hunting season structure, the BWM in conjunction with the BI&E recently mailed a fall turkey hunter survey to 10,000 hunters. Survey data will be analyzed and reported prior to the April Board of Commissioners meeting. The survey is being mailed to a random sample of hunters who purchased a hunting license in 2010 to determine if the new season structure recruited new turkey hunters as well as obtain participation and satisfaction levels from a cross-section of the hunting population.

I completed a 2-page handout summarizing the objectives of the hen turkey study to be provided to landowners who cooperate with the study, as well as for the general public, and submitted it to the webmaster for inclusion on the PGC website.

Wild Turkey Season Recommendations

Until final harvest figures and results of the fall turkey hunter survey are analyzed, the Bureau of Wildlife Management is recommending maintaining the same fall turkey hunting season structure as 2010.

As per Commission action in 2010, the spring 2011 season will close at noon for the first two weeks, then run all day for the second half of the season, as well as remain open until May 31. The Bureau of Wildlife Management does not have any additional spring season recommendations for 2012.

WMU 5A Wild Turkey Task Force

This task force, formed in 1995, is comprised of staff from PGC, DCNR-BOF, NWTF, PANWTF and Local NWTF Chapters NWTF to address turkey population declines in the Michaux State Forest and WMU 5A. During the Task Force annual meeting last October turkey hunting safety signs were distributed to be placed throughout SGLs and Michaux State Forest in anticipation of the re-opening of the fall turkey hunting season in WMU 5A. Also, local NWTF chapter members volunteered to assist the BOF with additional habitat improvement projects during 2011.

Northeast Wild Turkey Population Model

Wild Turkey biologist Mary Jo Casalena and biologist aide, Curtis Yoder, are working with the regional wild turkey population model that was developed for the eastern wild turkey to determine how it performs with our data (See attached figures as examples). The intent is to have a robust model to predict wild turkey populations into the future. We have been running simulations using historic data to determine

how changes to input variables affect the model outcome so that we can eventually create several models to show future harvest and population trends given different scenarios of hunting seasons, productivity and weather factors. Data from the gobbler study and ongoing hen study are important inputs into the model.

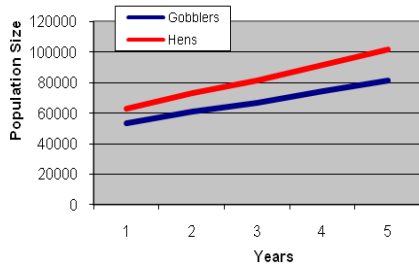
Update on Implementation Schedule of Turkey Management Plan for Pennsylvania, 2006-2015

We updated the plan's tables and figures with all current data from 2006-2009 and posted it on the turkey webpage (www.pgc.state.pa.us then select wildlife, wildlife, wild turkey, Turkey Management Plan Updated Figures and Tables).

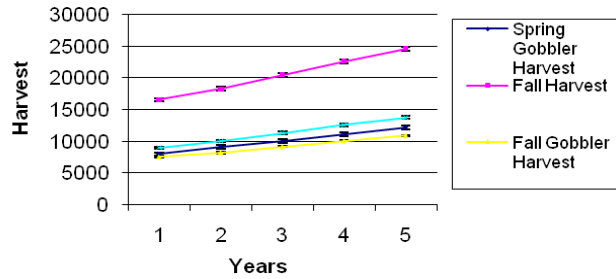
The fourth year's implementation of the 10-year wild turkey management plan is progressing successfully. Two strategies are completed (Appendix 1). Of the remaining 45, 28 strategies are on schedule (21 ongoing, 7 in progress), 4 are delayed until full implementation of the PALS, 3 are in progress behind schedule (beyond personnel time commitments), 4 are future strategies, 4 are low priorities and beyond personnel time commitments and 2 were postponed (one until biometrician is hired and one because of expanding other spring turkey hunter opportunities). Partnerships (monetary and personnel) have become vital to assist with accomplishing the plan on schedule and we appreciate the support from PANWTF and NWTf. The Plan is important for our programmatic budget approach.

Examples of population model simulations.

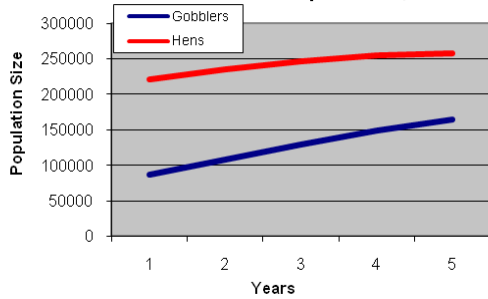
Predicted Gobbler and Hen Populations, 1981-85



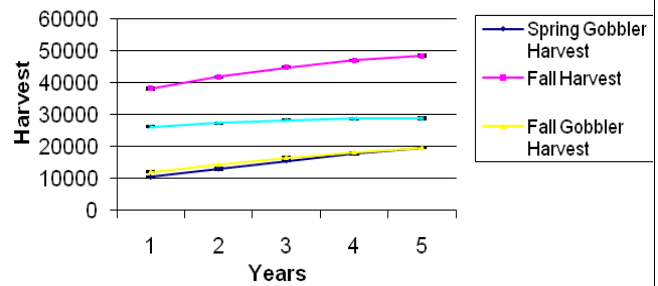
Season Harvest Predictions, 1981-85



Predicted Gobbler and Hen Populations, 1995-99



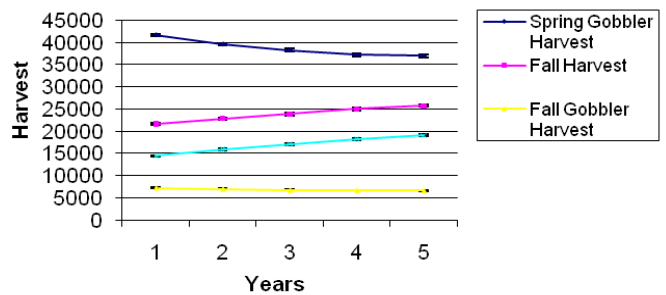
Season Harvest Predictions, 1995-99



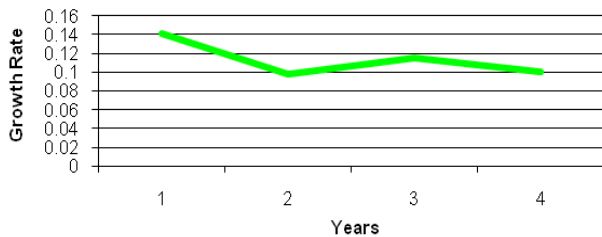
Predicted Gobbler and Hen Populations, 2004-09



Season Harvest Predictions, 2005-09



Median Population growth rate (r), 1981-85



Median Population growth rate (r), 2004-09

