

# NWTF Technical Committee Representatives' Report - PA

## Chapter NWTF

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### Wild Turkey Hen Harvest Rates and Annual Survival Rates Study

Knowledge of fall harvest rates and annual survival rates will help us develop a more systematic and transparent process for determining fall turkey hunting season recommendations, which will allow for more explicit incorporation of uncertainty (spring weather, reproduction) into decision making and help us address the competing objectives of optimizing hunting recreation and turkey abundance. During fall 2011 and winter 2012, 392 female and 62 male turkeys were leg-banded, including 61 hens also marked with satellite transmitters. Total marked turkeys to date are 1,117 females (181 of these also received satellite transmitters) and 248 males. There are currently 34 transmitters active as of 3 August (17 in SA1, 17 in SA2). Study Area 1 is comprised of WMUs 2C, 2E, 4A, 4B and 4D; Study Area 2 is comprised of WMUs 2F and 2G. During this reporting cycle we recovered 6 transmitters; 5 from Study Area 1, one from Study Area 2. The Study Area 2 (SA2) recovery was from Centre County (illegally killed). The recoveries from Study Area 1 (SA 1) were from Cambria (mammalian predation), Centre (1 avian and 1 mammalian predation), Cumberland (transmitter fell off the hen due to equipment failure so the hen may still be alive) and Somerset Counties (killed by train). We continue coordinating with PGC Regions and the PFWRC regarding transmitter recoveries and locations of transmitted hens.

Two wild turkey leg bands (male turkeys) were reported found in the woods since the end of the spring hunting season. One was banded during winter of 2007 as a juvenile male in Greene County; the other was banded during this past winter as a juvenile male in Somerset County.

We are preparing for the late summer trapping season (mid-August to early October) to leg band an additional 150 hens (75 per Study Area), focusing on brood flocks to obtain a sample of leg banded juvenile hens to estimate fall harvest rates by age. Transmitters recovered from mortalities will be re-deployed. Males incidentally trapped will receive non-reward leg bands.

A turkey hunter survey was mailed to 10,000 hunters (4,571 usable returns received) after the fall 2011 season to determine hunter attitudes, satisfaction and daily participation with the new season structure. Results indicated that a significantly higher proportion of respondents hunted the 2011 fall turkey season (37%) than the 2010 or 2009 seasons (32% and 30%, respectively). Satisfaction with and participation in the new season segment during the Thanksgiving holiday were both relatively high, and a higher percentage of hunters hunted both fall turkey seasons than in 2010, 42% versus 34%. Hunter satisfaction in 2011 (46%) decreased from 2010 (57%) even though many WMUs were returned to the traditional season structure and the Thanksgiving season was maintained. Similar to trends observed nationally, available time, higher turkey populations and places to hunt are more important factors influencing fall turkey hunting participation than season structure.

### Harvest Management

Total reported leg-banded hen turkeys during the spring season are: 3 bearded hens harvested (2 in SA1, 1 in SA2), 2 road killed and 1 found killed by a predator while incubating a nest.

Legband reports of male turkeys harvested are 41 (non-reward bands); 9 leg-banded between 2006–2009 during the gobbler harvest rate study and 32 leg-banded between 2010-2011 during the hen harvest rate study. Ages of males banded during the gobbler study were: one 6-year old (banded as a juvenile in 2006 and harvested in Centre Co); 3 at least 5- years old; and 5 4-year olds. All hunters queried used shotguns except one Fayette County hunter harvested a one-year old male with a crossbow. During the all-day season, all harvests were before noon.

The final 2011 Game-Take spring harvest was  $34,972 \pm 3,279$ , and includes the youth season and second harvests. This was 3% higher than the total 2010 harvest (33,849) but 12% below the previous 5-year average (39,665), which includes the full time frame (since 2006) hunters have been

permitted to harvest two birds in the spring with purchase of a special license. We believe the harvest decreases in 2010 and 2011 compared to the other four years partially are a reflection of changes in Game Take Survey methodology and analyses and may be a more accurate harvest estimate than previous results. Additional years of data are necessary to verify. Now that the survey is mailed in February, prior to the next spring turkey season, accuracy of reporting the correct year of harvest has increased. From a biological standpoint, we expected the 2011 and 2010 spring harvests to decrease somewhat due to below average poult recruitment during the summers of 2008 and 2009. Spring harvests typically reflect recruitment 2 years earlier because 2-year old gobblers are most susceptible to spring harvest. With the below average summer sightings in 2010 and 2011, spring harvests in 2012 and 2013 are also predicted to be below average. The 2011 ½ day youth hunt on the Saturday prior to the regular season accounted for 6% of the total statewide harvest, demonstrating the importance of this youth opportunity.

The final fall 2011 turkey harvest was 14,300 birds, 10% below the final 2010 harvest (15,884), and 36% below the previous 5-year average (22,191). Even though the below average mast crop should have concentrated flocks around available food sources allowing turkeys to be more prone to harvest, the below average recruitment negated this benefit accounting for the lower harvest and hunter success.

### **2012 Annual Spring Turkey Hunter Survey**

A mixed-mode (Internet and mail) spring turkey hunter survey, to be conducted annually in lieu of collecting spring harvest and hunter effort data on the Game Take Survey, was initiated in spring 2012. This new survey is expected to improve accuracy, precision, and timeliness of spring gobbler season data analyses. Response rate using the online option was very good, about 22% of 10,600 hunters contacted. After 3 weeks we mailed approximately 8,300 hard copies of the survey to those license holders who did not use the web-based response option offered in the first mailing. We have received approximately 4,300 completed hard copies. The third, and final, reminder mailing was mailed last week.

### **Wild Turkey Management Plan, 2006 - 2015**

As FY11 closed we completed the 6<sup>th</sup> successful year of the 10-year (2006 – 2015) wild turkey management plan. Four strategies have been completed (spring season fluorescent orange requirements were changed in 2008; in 2009 the two-bird spring bag limit was determined to have no effect on the turkey age structure; in 2010 the 4-year tri-state gobbler study was completed with results published in the refereed scientific Journal of Wildlife Management; and in 2011 a Successful Turkey Hunting course was created). Of the remaining 43 strategies, 33 strategies are in progress (23 ongoing and on schedule, 5 in progress and on schedule, 5 in progress but behind schedule). Of the 10 strategies that are not in progress, 2 are postponed until full implementation of the PALS system, 3 are to begin in the future, 1 was postponed until we can evaluate the effects of the all-day season, and 4 are postponed due to personnel time commitments and low priorities. Partnerships (monetary and personnel) become more important each year to assist with accomplishing the plan on schedule, particularly via support from the Pennsylvania Chapter of the National Wild Turkey Federation (PANWTF), the National Wild Turkey Federation (NWTF) and Pittman-Robertson funding.

### **Annual Cooperative PGC/NWTF/PANWTF Meeting**

This 28<sup>th</sup> annual meeting, held June 4 at the PGC headquarters, emphasizes the partnership between the PGC and NWTF/PANWTF and demonstrates the health and importance of this partnership. The PGC Executive Office and all pertinent PGC Bureaus participate. Thirteen topics were discussed and 8 action items were identified for completion during the year.

### **Information and Education**

MJ Casalena wrote an article on wild turkey management and research featured in the Wildlife Annual in the 2012-13 hunting regulations digest, and an article on wild turkey behavior in the spring for *PA Forests* magazine. She also conducted two presentations regarding wild turkey harvest and

population management and general turkey biology; one for an annual NRA sponsored Turkey Hunting Clinic in Johnstown, and one for the Stony Valley Chapter National Wild Turkey Federation. All PGC biologists attended a 2-day wildlife disease training workshop which included a session on diseases of turkeys. The newly detected viral disease in wild turkeys, Lymphoproliferative Disease (LPDV), was discussed; it was identified in a Pennsylvania (Clearfield County) male turkey submitted to the by Southeastern Cooperative Wildlife Disease Study (SCWDS). Symptoms of LPDV sometimes are similar to avian pox, but often with lesions on the legs, not just head/neck/throat. Future turkeys that appear to have avian pox will be submitted for testing to maintain a record of LPDV occurrence in Pennsylvania.