

Federal Aid in Wildlife Restoration Project: W-15-R
Title of Job: 2016 Fall Wild Turkey Harvest

Job: E2



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The fall 2016 turkey hunter survey is conducted each year at the end of the fall season. The season closes on 31 January 2017. The objective of the survey is to obtain information on the fall turkey harvest and success. Information on age and sex composition of the harvest is also obtained and is reported elsewhere. This year's survey was available to hunters between 20 March and 3 April 2017, inclusive. A complete summary of hunter responses is provided in a separate *Fall 2016 Turkey Hunter Survey Report*.

Caveats. The fall Wild Turkey Hunter Survey samples mostly fall turkey hunters who provided valid email addresses at the time of purchase of their permit(s). As such, the sample frame may be biased and not strictly generalizable to the population of all fall turkey hunters. However, efforts were made to make the survey available to hunters without email addresses on file. For the fall 2016 season, 65.4% of unique permit buyers had provided email addresses.

Interpretations. Permit sales continued their decline, as the popularity of the fall season wanes. For the fall 2016 season, permit sales were 12% lower than for fall 2015. However, some hunters purchased 2 permits for the fall season. After accounting for these additional permits, there were 8,188 individual turkey hunters in the fall 2016. For the fall 2015 season, there were 9,230 individual turkey hunters, resulting in a 11.3% decline in actual fall turkey hunters between 2015 and 2016. The percentage of hunters who purchased multiple permits declined slightly from 5.3% in 2015 to 4.9% in 2016. Permit sales were down 31% compared to 2012 sales. Harvest was also lower for the fall 2016 season compared to the fall 2015 season, with 4,868 turkeys harvested. Overall harvest was 23.2% lower than in 2015, falling from 6,336 turkeys harvested in 2015. Non-resident hunters apparently had higher success rates (64.9% youth success and 89.0% regular permit success) compared to residents (59.2% youth success and 51.6% regular permit success). This could be indicative of a response bias among non-resident hunters (i.e., successful non-resident hunters were more likely to respond to the survey than non-successful non-residents).

Take-home Message. The popularity of the fall turkey season continues to decrease. Harvest and success rates showed large decreases compared to fall 2015. For the first time since 2006, the fall success rate fell below the Focus on the Future goal of 60%.

Methods. This year's survey was composed and administered in-house using Snap survey software and Snap WebHost service. An initial invitation to participate was sent to 5,356 (65.4%) of unique permit buyers on 20 March 2017, of which 5,105 were deliverable. A follow-up reminder was sent on 27 March 2017 to hunters who received the first invitation, but failed to respond. In addition to the email invitations, the survey was also available to hunters via the NGPC website, and promotional posts to agency social media were made on the date the initial invitations were sent, on the date the follow-up reminder was sent. The survey was closed to all participants on 3 April 2017, at which time 1,091 responses had been received, for a raw response rate of 21.4%. The responding hunters represented 1,291 individual permits, for a permit response rate of 25.3%. Each survey respondent represented 6.65 fall 2016 fall permit buyers.

Results. Permit sales ($n = 8,589$) were 12% lower than for the fall 2015 turkey season ($n = 9,744$, Figure 1). Of permits sold for the fall 2016 season, 17.9% were youth permits ($n = 1,541$) and 82.1% were regular or landowner permits ($n = 7,048$). Estimated total fall 2016 harvest was 4,868 turkeys (Table 1, Figure 2), with youth harvesting 925 turkeys and regular/landowner permit holders harvesting 3,943 turkeys. Overall, harvest was 23.2% lower for the fall 2016 compared to fall 2015. Overall success rates for regular/landowner permit holders was 58.4%, and 60.1% for youth permit holders, giving an overall success rate of 58.7% (Figure 3). Table 2 summarizes the 2016 season harvest results.

TABLE 1. Fall turkey season harvest and success, 2008-2016.

| Type | | Year | | | | | | | |
|---------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|
| | | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Shotgun | Permits | 12,738 | 12,241 | 11,482 | 12,449 | 10,836 | 10,175 | 9,744 | 8,589 |
| | Harvest | 10,853 | 10,356 | 8,405 | 8,362 | 6,748 | 7,003 | 6,336 | 4,868 |
| | % Success | 85.2 | 84.6 | 73.2 | 68.4 | 63.6 | 67.7 | 64.6 | 58.7 |

FIGURE 1. Fall turkey permit sales, 1962-2016

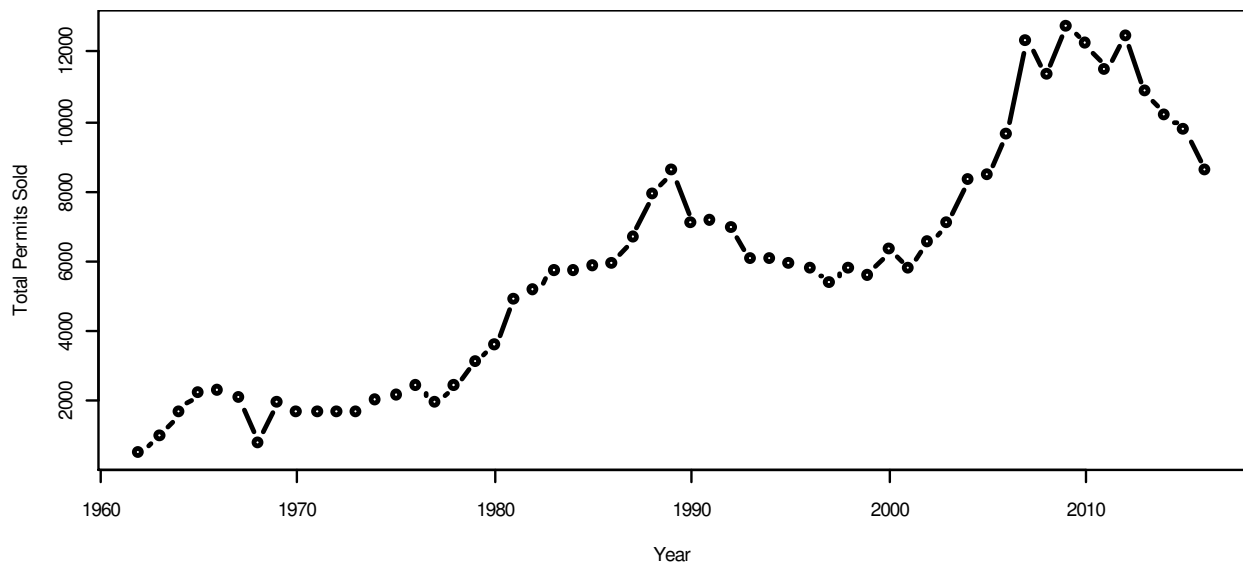


FIGURE 2. Fall turkey season harvest estimates, 1962-2016.

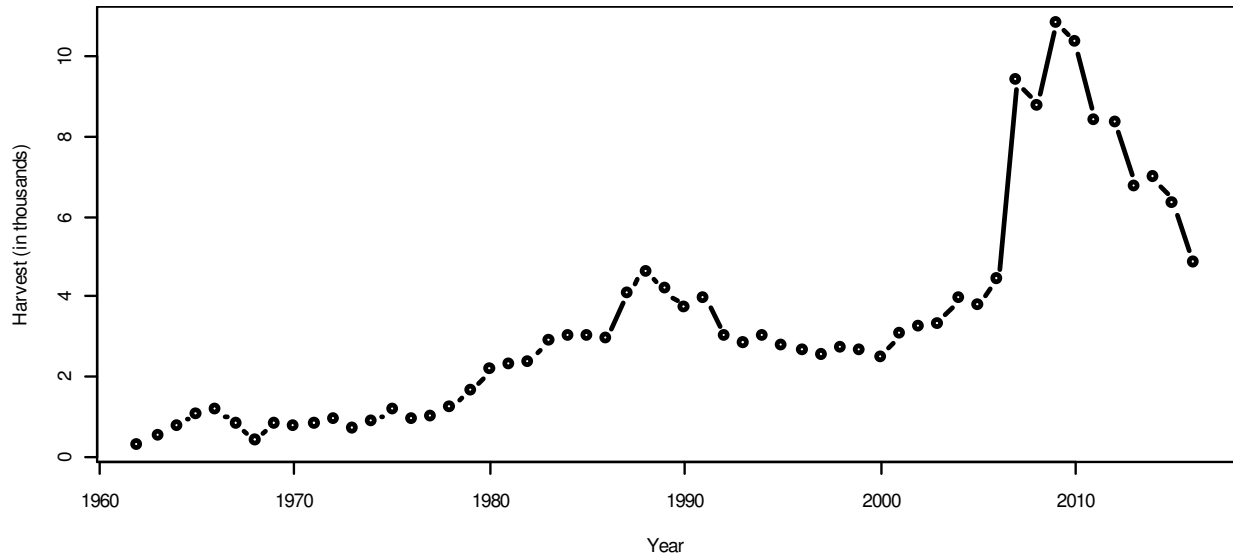


TABLE 2. Summary of fall 2016 turkey hunter survey responses and estimated harvest.

| Residency | Permit Type | Permits Sold | Surveyed Permits | Reported Harvest | Success Rate | Estimated Harvest |
|--------------|-------------|--------------|------------------|------------------|--------------|-------------------|
| Resident | Youth | 1,313 | 201 | 119 | 59.2% | 777 |
| | Regular | 6,230 | 862 | 445 | 51.6% | 3,215 |
| | Sub-total | 7,543 | 1,063 | 564 | 53.1% | 3,992 |
| Non-Resident | Youth | 228 | 37 | 24 | 64.9% | 148 |
| | Regular | 818 | 191 | 170 | 89% | 728 |
| | Sub-total | 1,046 | 228 | 194 | 85.1% | 876 |
| Total | | 8,589 | 1,291 | 782 | 58.7% | 4,868 |

FIGURE 3. Fall turkey hunter success rate, 1962-2016. Horizontal line represents the success rate goal established in the Focus on the Future strategic plan. Note that starting in 2007 permits included a bonus tag, allowing the harvest of a second turkey.

