Federal Aid in Wildlife Resortation Project: W-15-R   **Job:** E2
Title of Job: 2023 Fall Wild Turkey Harvest

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The fall turkey hunter survey is conducted each year at the end of the fall season. The season closed on 30 November 2023. 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 15 and 29 December 2023, inclusive.

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. For the fall 2023 season, 88.9% of unique permit buyers had provided usable email addresses. NOTE: Regulation changes instituted for the fall 2023 season removed the bonus tag, limited the number of permits a hunter could have per season to 1, and reduced the number of days in the season to 61. Each of these changes likely contributed to the changes in harvest and success noted below and in this report.

Interpretations. Permit sales decreased for the fall 2023 season compared to 2022 (-29.9%; 3,127 permits sold vs. 4,462). No permit buyers for the fall 2023 season purchased a second permit, because hunters were limited to one permit. Estimated total turkey harvest for the 2023 fall season was 821 turkeys, down 55.4% compared to fall 2022, when 1,839 turkeys were harvested. Resident harvest was higher than non-resident (697 turkeys vs. 124, respectively), but non-residents were more successful (36% vs. 24%, respectively). Interest in youth permits continues to be strong, comprising 17.0% of total permit sales for the fall 2023 season.

Take-home Message. Fall harvest and participation were much reduced for the fall 2023 season, partially due to changes in season regulations meant to arrest declines in turkey populations observed over the past several years. These regulation changes seem to have had the desired effect.

Methods. The fall turkey hunter survey was composed and administered in-house using Snap survey software and Snap Online service. An initial invitation to participate was sent to 2,781 (89.1%) of unique permit buyers on 15 December 2023, of which 2,706 were deliverable. A follow-up reminder was sent on 22 December 2023 to hunters who received the first invitation but failed to respond. The survey was closed to all participants on 29 December 2023, at which time 533 responses had been received, for a raw response rate of 19.7%. Each survey respondent represented 5.82 fall 2023 permit buyers.

Results. Permit sales (n =3,127) for fall 2023 were 29.9% lower than for the fall 2022 turkey season (n = 4,462, Figure 1). Of permits sold for the fall 2023 season, 17.0% were youth permits

(*n* = 532) and 83.0% were regular or landowner permits (*n* = 2,595). Comparison of demographic information (residency, sex, age) between permit buyers, survey sample, and survey respondents indicated that the permits sampled were representative of all permit buyers. However, respondent demographics differed from all permit buyers and the permits sampled (Table 1). Non-residents among respondents were much older than the sample and all buyers (Table 1). Estimated total fall 2023 harvest was 821 turkeys (Table 2, Figure 2), with youth harvesting 120 turkeys and regular/landowner permit holders harvesting 701 turkeys. Overall, harvest was 55.4% lower for the fall 2023 compared to fall 2022. Overall success rate was 27.0% for permit holders (Table 2, Figure 3). Reported success rates for residents was 26.3% and for non-residents was 75.4% (Table 3). Table 3 summarizes the 2023 season harvest results.

TABLE 1. Comparison of demographic factors among all permit buyers, permit holders sampled, and survey respondents for the fall 2023 turkey hunter survey.

Demographic Factor		Permit Buyers	Permits Sampled	Respondents
	Sample Size	3,127	2,781	533
Residency	Resident	89.2%	88.9%	84.6%
	Non-resident	10.8%	11.1%	15.4%
Sex	Male	91.8%	92.6%	93.8%
	Female	8.2%	7.4%	6.2%
Age	Median	40	41	55
	Mean	40.9	41.9	50.6
	% Youth Permits	17.0%	12.2%	12.2%

TABLE 2. Fall turkey season harvest and success, 2016-2023.

		Year							
Type	Year	2016	2017	2018	2019	2020	2021	2022	2023
Shotgun	Permits	8,589	6,863	5,977	5,445	6,570	5,512	4,462	3,127
	Harvest	4,868	3,520	3,255	2,853	3,302	2,529	1,839	821
	% Success	56.7	51.3	54.5	52.4	50.3	45.9	41.2	26.3

TABLE 3. Summary of fall 2023 turkey hunter survey responses and estimated harvest.

Residency	Permit Type	Permits Sold	Surveyed Permits	Reported Harvest	Reported Success Rate	Estimated Harvest
Resident	Youth	463	60	12	20%	93
	Regular	2,324	397	102	26%	604
	Sub-total	2,787	457	114	24%	697
Non-Resident	Youth	68	5	2	40%	27
	Regular	269	75	27	36%	97
	Sub-total	337	80	29	36%	124
	Total	3,127	533	143	27%	821

FIGURE 1. Fall turkey permit sales, 1962-2023.

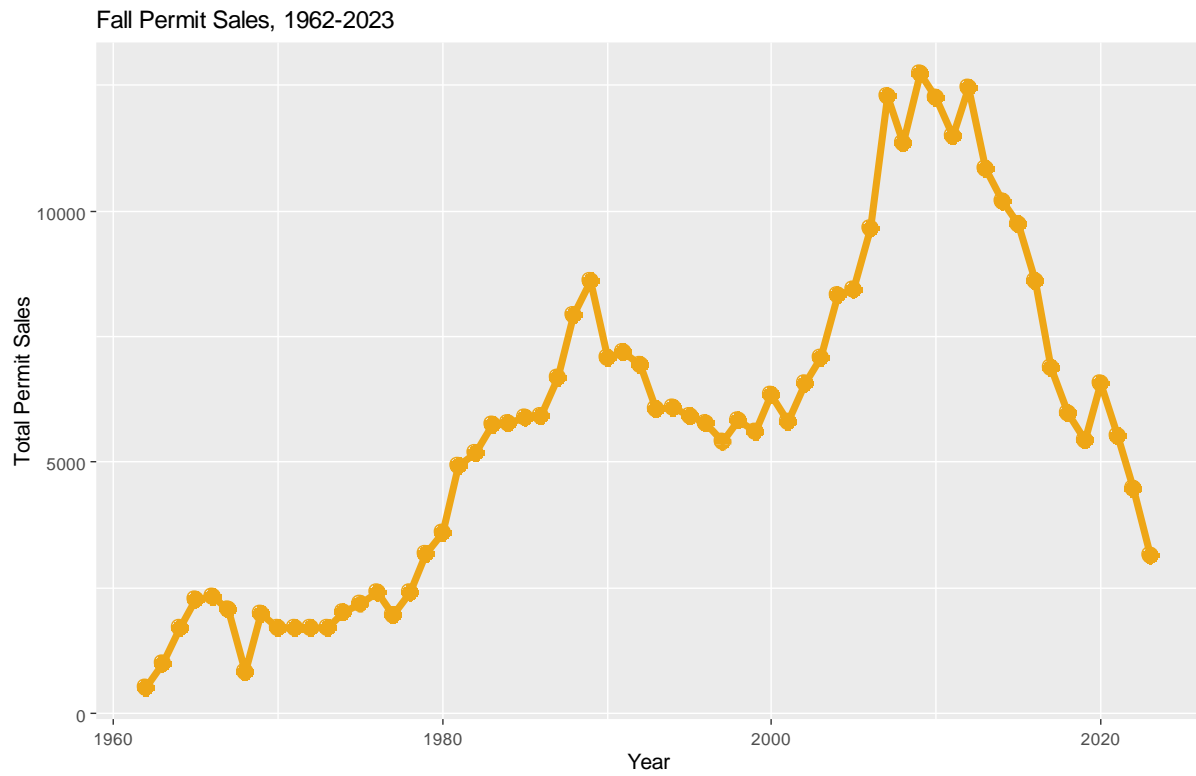Fall Permit Sales, 1962-2023

FIGURE 2. Fall turkey season harvest estimates, 1962-2023.

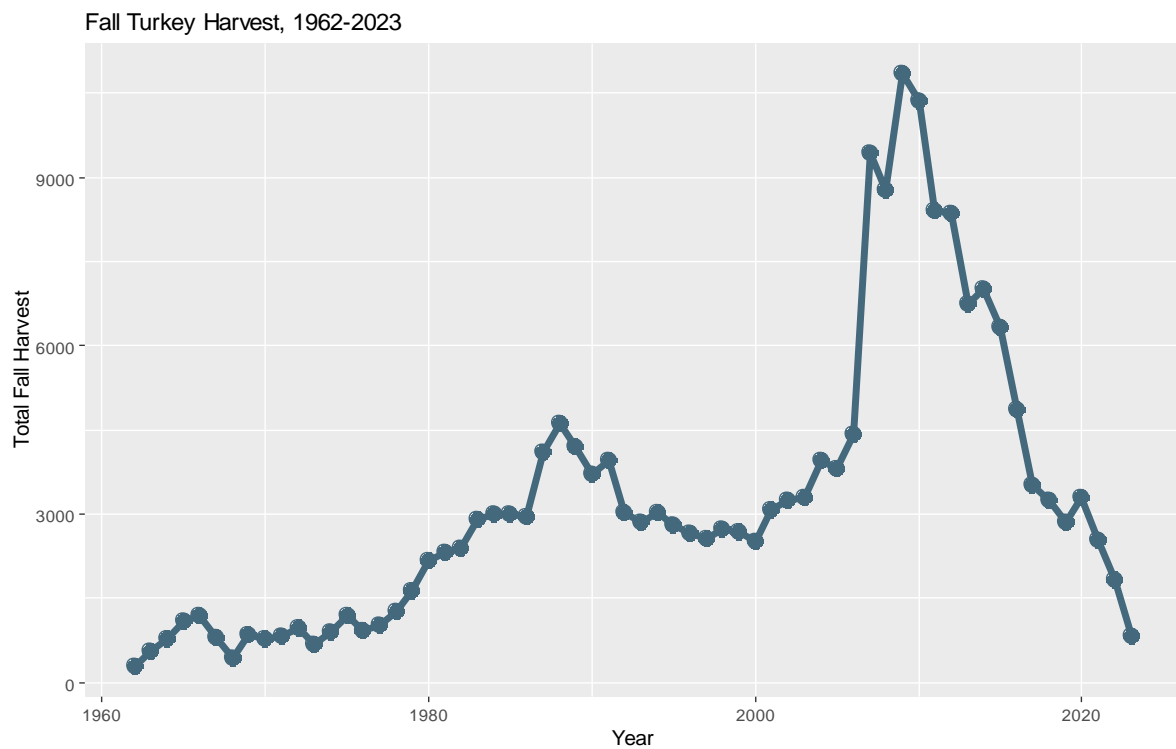Fall Turkey Harvest, 1962-2023

FIGURE 3. Fall turkey hunter success rate, 1962-2023. Horizontal line represents the success rate goal established in the 2011-2016 Focus on the Future strategic plan.

Permit Buyer Success Rates, 1962-2023