WILDLIFE MANAGEMENT



AND RESEARCH NOTES

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2016	Title Spring Wild Turkey Harvest Results - 2016	3/23/2010

Abstract: Hunters harvested 12,081 wild turkeys in 88 of the 92 counties during the 2016 spring season. The 2016 spring harvest was a 2% increase over the 2015 spring harvest of 11,853. Spring harvests in 25 counties exceeded 200 birds with 49 counties showing increased harvests. The majority of the birds was harvested in the early part of the season and the early morning hours. A total of 1,430 birds (12% of total harvest) was taken during the youth-only weekend prior to the regular season. The proportion of juvenile turkeys in the spring harvest was 19% with 39% 2-yr-olds, and $42\% \ge 3$ yrs. The northern region, the largest region, supported 31% of the harvest, with 52% of the harvest occurring in the southern regions. The estimated number of hunters afield was 57,332 in 2016, with an estimated hunter success of 21%.

Project ID/Activity: 300FW1W36R03000/W36R511

Hunters harvested 12,081 wild turkeys in 89 of the 92 counties during the 47th spring wild turkey season as reported by hunters to the "Check-IN-Game" harvest reporting system (98% on-line and 2% tele-check). The 2016 harvest was a 2% increase over the 2015 harvest of 11,583. There were 25 counties with harvests ≥ 200 birds compared to 26 in 2015. Overall, 49 counties showed increased harvests, 3 counties showed no change, harvests decreased in 40 counties, and 4 counties recorded no turkeys harvested. The top 10 counties were Harrison (363 birds), Steuben (362), Dearborn (330), Jefferson (324), Orange (314), Switzerland (309), Greene (303), Crawford (285), Marshall (278), and Warrick (277) (**Table 1; Figure 1**).

Approximately 57% of the regular season harvest (10,644 birds; 88% of total harvest; 27 April to 15 May 2016; 19 days) occurred during the first 5 days, with 36% occurring on the 3 weekends. A total of 1,430 birds (12% of total harvest) was taken during the youth-only weekend (4/23 & 4/24). Approximately 65% of the harvest occurred by 10 am, 75% by noon, 11% from noon to 5 pm, with 14% occurring from 5 pm to sunset. Resident spring turkey licensees harvested 44% of the birds, followed by Lifetime (32%), Youth (15%), license exempt Landowners/Military (7%), and Non-Resident spring turkey licensees (3%). The harvest primarily occurred on private land (92%), followed by the harvests on State lands (5%), Federal lands (2.5%), and Military (0.4%).

Male gobblers made up 98.7% (11,925) of the harvest with 1.3% (156) bearded hens. The age structure of the male portion (**Table 2**) was 19% juvenile gobblers (1 yr-old birds; "jakes"); 2 yr-olds (42%); ≥3 yr-olds (39%) reflecting a shift toward older gobblers that began 10 years ago when summer brood production levels dropped off (Backs 2016). Regionally, harvests increased in the north (13%), east-central (29%), and west-central (6%), while harvests declined in the southwest (-9%), south-central (-5%), and southeast (-4%) regions (**Table 3**). The overall statewide harvest increased 2%. The proportion of juveniles in the statewide harvest declined from 21% in 2015 to 19% in 2016, possibly reflecting lower brood survival decline during the flood ridden 2015 summer (**Figure 2**).

Reasons for the 2% increase in 2016 were likely related to the continued growth of the relatively 'younger' turkey populations in the north and east-central regions (i.e., relative age in terms of years post restoration). Summer brood production indices have progressively declined in recent decades not only in Indiana (Backs *ibid*), but throughout the eastern US as wild turkey populations "matured" in the post-restoration era and subsequent harvests decline to levels below the peak years subsequent to the major restoration efforts across the country (Porter et al. 2011, Eriksen et al. 2016). The greatest declines in Indiana have occurred in the older populations in the southern part of the state while there is continued growth with higher levels of production in the north and east-central regions, where the restoration effort was



generally completed later. Eventually, a similar leveling off the northern and east-central populations is expected as those populations mature.

Annual statewide harvest levels have leveled off since the harvest peak in 2010 (13,742) with recent annual spring harvests in the range of 11,000 to 12,000 birds with the number of hunters in the field ranging from 55,000 to 60,000 (**Table 4; Figure 3**). The 2016 harvest was the 6th highest spring harvest. Hunter numbers have fluctuated slightly the last few years, possibly related to the decline in the estimated hunter success rate to around 20%, compared to the 24-28% experienced during the peak years. The estimated number of spring turkey hunters afield in 2016 was 57,332 and the estimated hunter success was 21%.

Special thanks go to Karl P. Eliason who facilitated the harvest data transfer from the Check-IN-Game harvest reporting system.

Literature Cited

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Porter, W. F., W. M. Healy, S. E. Backs, B. F. Wakeling, and D. E. Steffen. 2011. Managing wild turkeys in the face of uncertainty. 2011. Proceedings of the National Wild Turkey Symposium 10:1-9.



Table 1. Indiana wild turkey harvest by county, spring 2015 and 2016.

	2015	Percent	2016	Percent	Difference	Percent
County	Reported*	of	Reported*	of	from prior	Change
	Harvest	Harvest	Harvest	Harvest	year	
Adams	16	0.1%	19	0.2%	3	19%
Allen	70	0.4%	93	0.8%	23	33%
Bartholomew	103	1.2%	113	0.9%	10	10%
Benton	7	0.1%	6	0.0%	-1	-14%
Blackford	7	0.1%	12	0.1%	5	71%
Boone	8	0.0%	10	0.1%	2	25%
Brown	178	1.6%	145	1.2%	-33	-19%
Carroll	27	0.2%	37	0.3%	10	37%
Cass	73	0.5%	64	0.5%	-9	-12%
Clark	268	2.5%	248	2.1%	-20	-7%
Clay	125	0.9%	126	1.0%	1	1%
Clinton	0	0.0%	1	0.0%	1	
Crawford	250	2.1%	285	2.4%	35	14%
Daviess	97	0.9%	94	0.8%	-3	-3%
Dearborn	331	2.8%	330	2.7%	-1	0%
Decatur	50	0.5%	59	0.5%	9	18%
DeKalb	222	1.4%	268	2.2%	46	21%
Delaware	4	0.0%	0	0.0%	-4	-100%
Dubois	177	1.5%	165	1.4%	-12	-7%
Elkhart	166	1.3%	202	1.7%	36	22%
	55	0.6%	53	0.4%	-2	-4%
Fayette			94			
Floyd	105	0.9%		0.8%	-11	-10%
Fountain	103	1.0%	107	0.9%	4	4%
Franklin	269	2.4%	262	2.2%	-7 12	-3%
Fulton	144	1.2%	157	1.3%	13	9%
Gibson	134	1.4%	141	1.2%	7	5%
Grant	12	0.1%	8	0.1%	-4 	-33%
Greene	233	2.3%	303	2.5%	70	30%
Hamilton	0	0.0%	0	0.0%	0	0%
Hancock	4	0.0%	5	0.0%	1	25%
Harrison	380	3.6%	363	3.0%	-17	-4%
Hendricks	32	0.2%	40	0.3%	8	25%
Henry	2	0.0%	6	0.0%	4	200%
Howard	7	0.0%	6	0.0%	-1	-14%
Huntington	36	0.2%	53	0.4%	17	47%
Jackson	202	1.9%	217	1.8%	15	7%
Jasper	136	1.2%	140	1.2%	4	3%
Jay	37	0.1%	47	0.4%	10	27%
Jefferson	346	3.2%	324	2.7%	-22	-6%
Jennings	167	2.1%	180	1.5%	13	8%
Johnson	33	0.2%	29	0.2%	-4	-12%
Knox	105	0.9%	92	0.8%	-13	-12%
Kosciusko	217	1.4%	227	1.9%	10	5%
Lagrange	205	1.4%	259	2.1%	54	26%
Lake	21	0.2%	15	0.1%	-6	-29%
LaPorte	184	1.7%	197	1.6%	13	7%
Lawrence	221	2.0%	209	1.7%	-12	-5%

^{*} Harvest data collected from hunter reports to "Check-IN-Game" (web-based and telephone).

Table 1. Indiana wild turkey harvest by county, spring 2015 and 2016; continued.

	2015	Percent	2016	Percent	Difference	Percent
County	Reported*	of	Reported*	of	from prior	Change
	Harvest	Harvest	Harvest	Harvest	year	
Madison	1	0.0%	3	0.0%	2	200%
Marion	1	0.0%	0	0.0%	-1	-100%
Marshall	229	2.5%	278	2.3%	49	21%
Martin	203	1.4%	178	1.5%	-25	-12%
Miami	46	0.2%	66	0.5%	20	43%
Monroe	176	1.2%	165	1.4%	-11	-6%
Montgomery	75	0.6%	66	0.5%	-9	-12%
Morgan	113	0.8%	118	1.0%	5	4%
Newton	104	0.7%	95	0.8%	-9	-9%
Noble	187	1.2%	269	2.2%	82	44%
Ohio	116	1.0%	101	0.8%	-15	-13%
Orange	224	2.2%	314	2.6%	90	40%
Owen	214	1.9%	136	1.1%	-78	-36%
Parke	210	1.9%	226	1.9%	16	8%
Perry	308	2.4%	243	2.0%	-65	-21%
Pike	228	2.0%	191	1.6%	-37	-16%
Porter	63	0.3%	49	0.4%	-14	-22%
Posey	140	1.1%	127	1.1%	-13	-9%
Pulaski	156	1.1%	176	1.5%	20	13%
Putnam	147	1.5%	194	1.6%	47	32%
Randolph	14	0.0%	15	0.1%	1	7%
Ripley	237	1.9%	235	1.9%	-2	-1%
Rush	1	0.0%	4	0.0%	3	300%
St. Joseph	189	1.6%	185	1.5%	-4	-2%
Scott	145	1.5%	149	1.2%	4	3%
Shelby	8	0.1%	18	0.1%	10	125%
Spencer	191	1.8%	171	1.4%	-20	-10%
Starke	225	2.3%	247	2.0%	22	10%
Steuben	337	2.7%	362	3.0%	25	7%
Sullivan	226	1.9%	203	1.7%	-23	-10%
Switzerland	360	3.2%	309	2.6%	-51	-14%
Tippecanoe	55	0.3%	57	0.5%	2	4%
Tipton	0	0.0%	0	0.0%	0	0%
Union	69	0.5%	78	0.6%	9	13%
Vanderburg	81	0.4%	62	0.5%	-19	-23%
Vanderburg Vermillion	105	0.4%	81	0.7%	-24	-23%
Vigo	152	1.4%	140	1.2%	-12	-8%
vigo Wabash	88	0.5%	98	0.8%	10	11%
Warren	97					
		0.8%	113	0.9%	16 20	16%
Warrick Washington	297 216	2.6%	277	2.3%	-20 12	-7%
Washington	216	2.0%	204	1.7%	-12	-6%
Wayne	72	0.4%	62	0.5%	-10	-14%
Wells	13	0.1%	21	0.2%	8	62%
White	85	0.6%	101	0.8%	16	19%
Whitley	80	0.3%	83 12,081	0.7%	3	4% 2%

^{*} Harvest data collected from hunter reports to "Check-IN-Game" (web-based and telephone).

Figure 1. 2016 Spring Turkey Harvest

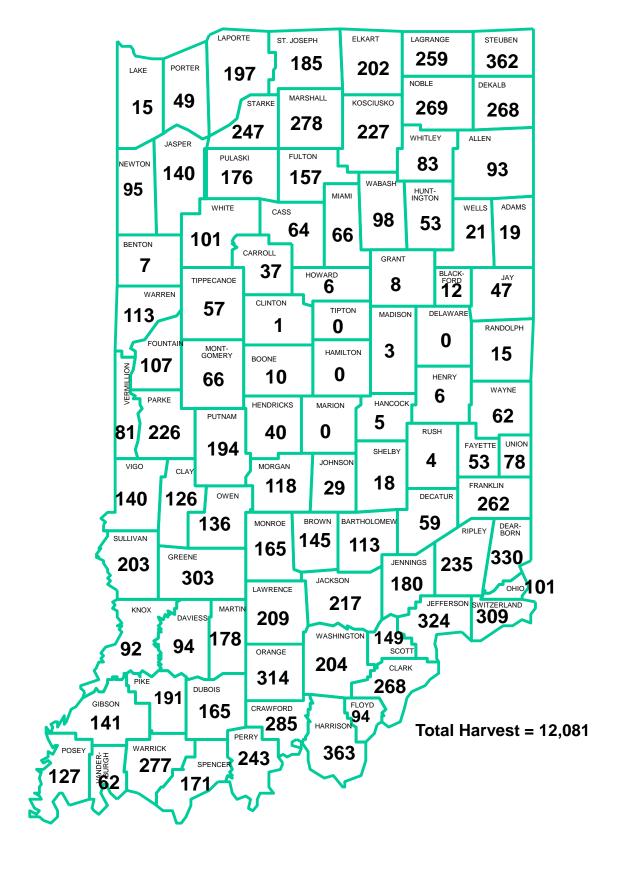


Table 2. Composition of Indiana's spring gobbler harvests, 1988-2016.

	Reported	Age	Class F	Percentages	and Mean	Weights	(lbs) *
Year	Harvest	1Yr	Wt.	2Yr	Wt	3+Yr	Wt
1988	905	45%	15.4	39%	20.7	16%	21.8
1989	1,359	20%	15.5	63%	20.7	17%	22.2
1990	1,505	31%	15.2	41%	21.0	28%	21.9
1991	2,318	25%	15.5	53%	21.1	22%	22.2
1992	2,531	38%	15.1	43%	20.8	19%	22.2
1993	3,500	18%	15.9	60%	20.9	22%	22.4
1994	3,741	41%	15.2	37%	21.2	22%	22.4
1995	4,706	28%	15.6	55%	20.6	18%	22.1
1996	4,859	24%	15.6	53%	21.6	23%	22.7
1997	5,790	21%	15.7	56%	21.5	24%	22.7
1998	6,384	22%	15.5	51%	21.1	28%	22.5
1999	6,548	25%	15.5	49%	21.1	26%	22.6
2000	7,822	27%	15.2	44%	20.7	28%	21.9
2001	9,975	26%	15.7	50%	20.1	24%	22.1
2002	10,575	27%	15.7	47%	21.3	27%	22.5
2003	10,366	24%	15.3	49%	21.3	28%	22.4
2004	10,765	24%	15.8	49%	21.4	27%	22.8
2005	11,159	33%	14.9	44%	20.9	23%	22.3
2006	13,193	14%	14.5	67%	20.7	19%	22.1
2007	11,163	22%	15.5	42%	21.5	26%	22.6
2008	12,204	22%	16.0	52%	21.7	26%	22.9
2009	12,993	19%	16.0	51%	21.7	30%	22.9
2010	13,742	18%	15.6	54%	21.4	28%	22.6
2011	11,669	21%	15.6	48%	21.3	31%	22.4
2012	12,655	14%	15.9	52%	21.1	34%	22.3
2013	11,374	24%	16.1	38%	21.8	38%	23.2
2014	10,872	17%	15.4	53%	21.7	30%	24.4
2014							23.4
	11,853	21%	16.6	46%	22.0	33%	
Previous 10 Year Means		19%	15.5	50%	21.4	30%	22.8
2016	12,081	19%		42%		39%	

^{*} Age based primarily on spur length and secondarily in 2016 on beard length class for verifications. Weights collected at check station, but no longer collected with full implementation of web/telephone based "Check-IN-Game" system.

Table 3. Regional spring turkey harvest and age structure in Indiana, 2004 to 2016.

_	Region						
	North	East-central	West-central	South-central	Southeast	Southwest	Statewide
2004							
Harvest	1,303	18	2,074	3,125	2,681	1,511	10,765
% of Total Harvest	12%	0.2%	19%	29%	25%	14%	
Juvenile %	37%	28%	24%	22%	23%	20%	24%
2005							
Harvest	1,346	21	2,076	3,277	2,945	1,480	11,159
% of Total Harvest	12%	0.2%	19%	29%	26%	13%	
Juvenile %	37%	48%	38%	33%	26%	30%	34%
2006 Harvest	1 522	22	2566	2.046	2.450	1.667	12 102
	1,533	23	2,566	3,946	3,458	1,667	13,193
% of Total Harvest	12%	0.2%	20%	30%	26%	13%	1.40/
Juvenile %	34%	9%	12%	10%	13%	13%	14%
<u>2007</u>							
Harvest	1,758	51	2,104	2,919	2,831	1,500	11,163
% of Total Harvest	16%	0.5%	19%	26%	25%	13%	
Juvenile %	32%	38%	23%	18%	18%	22%	22%
2008							
Harvest	2,166	60	2,233	3,172	3,057	1,516	12,204
% of Total Harvest	18%	0.5%	18%	26%	25%	12%	
Juvenile %	34%	25%	22%	19%	18%	18%	22%
2009							
Harvest	2,561		2,072	2.214	3,233	1.752	12.002
% of Total Harvest	2,561	61 0.5%	16%	3,314 26%	25%	1,752 14%	12,993
Juvenile %	20%	22%	16%	25%	25%	14%	19%
	2170	2270	10%	23%	2,376	1470	19%
<u>2010</u>							
Harvest	3,088	94	2,021	3,406	3,340	1,793	13,742
% of Total Harvest	23%	0.7%	15%	25%	24%	13%	
Juvenile %	25%	28%	20%	15%	14%	17%	18%
2011							
Harvest	2,589	77	1,739	2,902	2,800	1,562	11,669
% of Total Harvest	22%	0.7%	15%	25%	24%	13%	
Juvenile %	25%	27%	24%	20%	19%	16%	21%
2012							
Harvest	3,007	110	2,008	3,069	2,868	1.593	12,655
% of Total Harvest	24%	0.9%	16%	24%	23%	13%	12,055
Juvenile %	22%	20%	15%	11%	11%	12%	14%
	2270	2070	1370	1170	1170	1270	1170
<u>2013</u>							
Harvest	2,834	106	1,742	2,669	2,592	1,431	11,374
% of Total Harvest	25%	1%	15%	24%	23%	13%	
Juvenile %	25%	31%	29%	22%	22%	24%	24%
<u>2014</u>							
Harvest	2,733	142	1,658	2,510	2,517	1,312	10,872
% of Total Harvest	25%	1%	15%	23%	23%	12%	
Juvenile %	22%	28%	18%	14%	15%	15%	17%
<u>2015</u>							
Harvest	3,297	167	1,742	2,712	2,485	1,450	11,853
% of Total Harvest	28%	1%	15%	23%	21%	12%	
Juvenile %	28%	24%	24%	18%	18%	17%	21%
<u>2016</u>							
Harvest	3,727	215	1,855	2,574	2,390	1,320	12,081
% of Total Harvest	31%	2%	15%	21%	20%	11%	
Juvenile %	20%	22%	18%	18%	18%	19%	19%
2015 to 2016 Differences							
Change in Harvest	430	48	113	-138	-95	-130	228
· ·							
Percent change in Harvest	13%	29%	6%	-5%	-4%	-9%	2%

Figure 2. 2016 Spring wild turkey harvest and age structure by region.

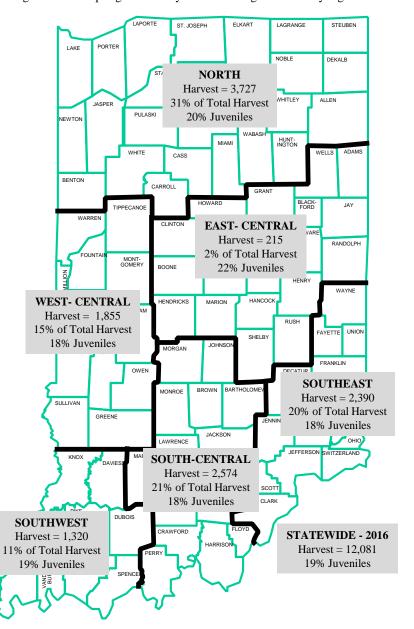


Table 4. Indiana's spring wild turkey hunting seasons, 1970 to 2016.

	Regular	Season		No. of	Est.		
	Season	Length	No. of	Permits	No. of	Reported	Hunter
Year	Dates	(Days)	Counties	Sold*	Hunters**	Harvest	Success
1970	5/2-5/5	4	3	75	62	6	9.7%
1971	5/1-5/5	5	9	298	224	11	4.9%
1972	4/26-4/30	5	9	585	422	12	2.8%
1973	4/25-4/29	5	11	625	503	27	5.4%
1974	4/24-4/28	5	11	665	496	26	5.2%
1975	4/29-5/5	7	11	722	501	15	3.0%
1976	4/29-5/5	7	13	666	500	32	6.4%
1977	4/28-5/5	8	16	668	520	46	8.8%
1978	4/26-5/7	12	18	852	619	33	5.3%
1979	4/25-5/6	12	19	932	860	48	5.6%
1980	4/23-5/4	12	17	706	670	54	8.1%
1981	4/22-5/3	12	18	922	814	90	11.1%
1982	4/21-5/2	12	18	1,125	696	73	10.5%
1983	4/20-5/1	12	18	1,218	984	93	9.5%
1984	4/25-5/6	12	18	1,320	1,205	104	8.6%
1985	4/24-5/5	12	25	1,882	1,302	255	19.6%
1986	4/23-5/4	12	25	2,523	1,648	293	17.8%
1987	4/22-5/6	15	33	3,348	2,619	741	28.3%
1988	4/27-5/11	15	33	10,894	4,677	905	19.4%
1989	4/26-5/10	15	39	11,442	6,068	1,359	22.4%
1990	4/25-5/9	15	39	14,379	7,860	1,505	19.1%
1991	4/24-5/8	15	43	16,387	9,643	2,318	24.0%
1992	4/22-5/6	15	43	18,735	13,110	2,531	19.3%
1993	4/28-5/16	19	48	21,078	15,673	3,500	22.3%
1994	4/27-5/15	19	48	23,357	18,622	3,741	20.1%
1995	4/26-5/14	19	52	28,858	20,861	4,706	22.6%
1996	4/24-5/12	19	52	28,733	21,442	4,859	22.6%
1997	4/23-5/11	19	74	32,703	23,085	5,790	25.1%
1998	4/22-5/10	19	74	32,889	22,876	6,384	27.9%
1999	4/21-5/9	19	74	38,730	27,285	6,548	24.0%
2000	4/26-5/14	19	74	40,801	28,615	7,822	27%
2001	4/25-5/13	19	74	43,815	36,103	9,975	28%
2002	4/24-5/12 [†]	19	90	44,333	37,919	10,575	28%
2003	4/23-5/11	19	90	48,857	40,110	10,366	26%
2004	4/21-5/9	19	90	50,839	41,996	10,765	26%
2005	4/27-5/15	19	88	50,839	49,684	11,159	22%
2006	4/26-5/14	19	88	67,290	50,880	13,193	26%
2007	4/25-5/13 ^{††}	19	91	69,861	53,402	11,163	21%
2008	4/23-5/11	19	91	71,052	55,022	12,204	22%
2009	4/22-5/10	19	92	75,161	59,000	12,993	22%
2010	4/21-5/9	19	92	73,089	56,891	13,742	24%
2011	4/27-5/15	19	92	72,323	56,220	11,669	21%
2012	4/25-5/13	19	92	71,836	57,631	12,655	22%
2013	4/24-5/12	19	92	74,966	60,889	11,374	19%
2014	4/23-5/11	19	92	73,279	59,237	10,872	18%
2015	4/22-5/10	19	92	69,192	55,531	11,853	21%
2016	4/27-5/15	19	92	70,484	57,332	12,081	21%
2017	4/26-5/14	19	92				

^{*} Includes all allowable license types (e.g., lifetime, youth licenses sold by May, non-residnets, and apprentice).

^{**} No. of hunters includes those permit holders who hunted ≥1 day and since 1986, the number of hunters incldes an estimate of license exempt landowners or military hunters on active leave participating in the spring season.

 $^{^{\}dagger}$ "All-day" turkey hunting initiated; 1/2 hr prior to sunrise to sunset.

 $^{^{\}dagger\dagger}$ Beginning with the spring 2007 season, a special 2-day youth-only season is held the weekend prior to the regular season opening.

Figure 3. Indiana Spring Turkey Seasons ■Harvest -Hunters Harvests x 1,000 Hunters x 1,000 Year