

# WILDLIFE MANAGEMENT AND RESEARCH NOTES

No. 2066	AUTHOR: Steven E. Backs, Wildlife Research Biologist	Date 5/15/2020
	Title: Spring Wild Turkey Gobbling Counts, 2020	

**Abstract:** *The number of male wild turkeys heard gobbling along 14 roadside routes from 30 March to 17 April 2020 was 0.81 gobblers per stop (GI). This is a 19% increase from the 0.68 heard in 2019. The 5-year moving average showed a general increase from 1987 to 2006, followed by a general decrease since the peak in 2006. The 2020 statewide gobbling index of 0.81 was within the confidence interval (CI = 0.55-0.83;  $P < 0.05$ ) of the 5-year mean GI of 0.70.*

*Project/Activity: W36R5/W36R510*

Gobbler counts are conducted annually in Indiana from late March to April to determine relative abundance of wild turkey populations in the areas surveyed. In 2012, 14 roadside routes were surveyed in portions of 19 counties; these surveys were also conducted in conjunction with roadside counts of drumming male ruffed grouse. Each route has 15 predetermined stops along 10-20 miles of rural roadways. Routes are driven at least twice, in opposite directions, and the highest gobbler count heard per stop is used to determine the Gobbling Index (GI). The average number of gobblers heard per stop on 14 routes in 2020 ranged from 0.33 to 2.33 (Table 1). The statewide GI of 0.81 gobblers heard per stop represents a 19% increase from the 0.68 GI in 2019.

Although roadside gobbling counts are not accurate indicators of annual trends in wild turkey populations, they do provide long-term (*i.e.*,  $\geq 5$  years) trends and information to compare among areas (Table 2). Local weather conditions during the survey period can contribute to the annual variability of results. Annual variations may also reflect the proportion of the more vocal 2-year-old gobblers in the population, rather than actual population trends in the immediate area. The substantial increase in the 2006 gobbling index is a prime example in which the record high summer brood production index (PI) in 2004 (Backs 2019) became evident with a large cohort of vocal 2-yr-old gobblers (Figure 1). The GI often mirrors the PI from two years prior because it is related to the proportion of 2-yr-old gobblers in the male age structure. The long-term trend, based on a 5-year moving average, shows a general increase from 1987 to 2006, followed by a general decrease, likely reflecting a similar general long-term downswing in the summer brood production. The 2020 gobbling index of 0.81 was within the confidence interval ( $CI = 0.55-0.83$ ;  $P < 0.05$ ) of the 5-year mean GI of 0.70.

## Literature Cited

Backs, S. E. 2019. Wild turkey brood production – Summer, 2019. Wildlife Management and Research Note No. 2061. Indiana Division of Fish & Wildlife, Indianapolis. 7pp.

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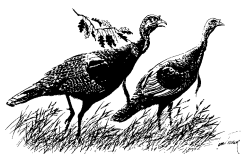


Table 1. Wild turkey males heard gobbling on roadside counts in Indiana, 30 March 30 - 18 April 2020.

County;Area	No. of Routes/ Stops	No. of Repititions (for/rev)	Total Turkeys Heard	Total Seen	Highest Number Heard/Rt.	Turkeys Heard <sup>1/</sup> Per Stop	
						2020	2019
Jackson, Brown, Monroe; Hickory Fidge, HNF	1/15	4	25	0	8	0.53	1.07
Owen-Putnam State Forest Area	1/15	2	6	11	5	0.33	0.40
Perry; Oriole-St.Croix-HNF	1/15	2	17	0	9	0.60	0.47
Washington; Jackson-Washington SF area	1/15	2	18	1	14	0.93	0.53
Lawrence & Orange; Lost River-East, HNF	1/15	3	15	3	7	0.47	0.33
Martin & Orange; Lost River-West	1/15	2	19	0	11	0.73	0.67
Morgan; Morgan-Monroe State Forest	1/15	2	10	6	7	0.47	0.60
Greene; eastern half.	1/15	2	13	0	8	0.53	0.47
Orange; Lick Fork, HNF	1/15	2	35	1	19	1.27	1.93
Jefferson	1/15	2	18	0	10	0.67	0.67
Marshall-Starke	1/15	2	38	14	20	1.33	0.53
Parke	1/15	2	17	14	9	0.60	0.20
Lagrange/Steuben; primarily Pigeon River FWA	1/15	2	55	3	35	2.33	1.27
Brown; Yellowwood SF	1/15	2	14	0	8	0.53	0.40
Average						0.81	0.68

<sup>1/</sup> Gobbling Index (gobblers heard per stop) calculated using route with highest count.

Table 2. Wild turkey roadside gobbling counts during late March-April in Indiana, 1987-2020.

Year	Gobblers Heard Per Stop *															
	HICKORY	OWPUT	PERRY	WASH	LR-EAST	LR-WEST	MORGAN	GREENE	LICKFK	JEFFERSON	MARSTRK	PARKE	LAGSTEU	BROWN	ROW MEAN	SE
1987	1.10	0.07	0.00	0.20	0.53	NR	0.27	0.00	0.00	1.00	-	-	-	-	0.35	0.144
1988	0.73	0.13	0.13	0.00	0.47	NR	0.20	0.07	0.00	1.13	-	-	-	-	0.32	0.129
1989	1.13	0.00	0.21	0.00	0.87	NR	0.20	0.00	0.47	0.73	-	-	-	-	0.40	0.141
1990	0.80	0.13	0.20	0.00	1.00	1.27	0.27	0.07	0.73	0.53	-	-	-	-	0.50	0.137
1991	0.33	0.20	0.40	0.00	0.87	0.53	0.33	0.07	0.87	1.07	-	-	-	-	0.47	0.115
1992	0.73	0.07	0.20	0.00	0.80	1.87	0.00	0.07	0.67	0.53	-	-	-	-	0.49	0.183
1993	0.47	0.00	0.47	0.00	0.27	0.53	0.07	0.20	0.47	1.20	-	-	-	-	0.37	0.113
1994	0.53	0.13	0.47	0.00	0.73	0.27	0.13	0.27	0.80	0.80	-	-	-	-	0.41	0.094
1995	0.67	0.00	0.80	0.00	0.93	0.73	0.00	0.13	0.80	1.53	-	-	-	-	0.56	0.162
1996	1.13	0.33	0.80	0.07	0.60	1.47	0.27	0.13	0.53	0.80	-	-	-	-	0.61	0.142
1997	0.67	0.20	0.87	0.07	0.73	0.47	0.47	0.00	0.60	0.93	-	-	-	-	0.50	0.102
1998	1.40	0.27	0.47	0.40	0.60	0.53	0.33	0.67	0.27	0.80	-	-	-	-	0.57	0.107
1999	0.80	0.60	0.47	0.27	1.27	0.53	0.67	0.40	0.87	1.20	-	-	-	-	0.71	0.104
2000	0.60	0.20	0.53	0.67	1.27	0.47	0.27	0.67	1.20	1.33	-	-	-	-	0.72	0.129
2001	0.73	0.53	0.60	0.60	0.67	0.73	0.33	0.33	0.93	1.73	-	-	-	-	0.72	0.126
2002	0.33	0.60	0.53	0.80	1.27	0.93	0.53	0.20	1.13	1.33	-	-	-	-	0.77	0.124
2003	0.53	0.20	0.60	1.47	1.07	0.67	0.80	0.60	1.00	2.13	-	-	-	-	0.91	0.175
2004	0.80	0.20	1.07	1.33	0.87	0.73	1.33	0.60	1.00	1.87	-	-	-	-	0.98	0.145
2005	0.93	0.27	0.87	1.20	1.07	1.47	0.33	0.60	0.80	1.47	-	-	-	-	0.90	0.133
2006	2.67	0.60	0.93	0.73	1.60	2.27	0.53	1.53	1.47	2.20	-	-	-	-	1.45	0.238
2007	1.07	0.20	1.00	0.80	0.60	1.07	0.73	0.27	0.73	1.53	-	-	-	-	0.80	0.125
2008	2.33	0.33	0.67	0.40	0.53	0.67	0.67	0.07	0.67	1.20	-	-	-	-	0.75	0.199
2009	2.13	0.33	0.60	0.27	0.53	1.20	0.80	0.20	1.20	0.60	-	-	-	-	0.79	0.186
2010	0.80	0.67	0.53	0.47	0.40	0.93	0.73	0.20	1.27	1.07	-	-	-	-	0.71	0.125
2011	1.20	0.33	0.53	0.67	0.53	1.33	0.80	0.07	0.87	1.07	-	-	-	-	0.74	0.125
2012	1.60	0.47	0.60	0.60	0.93	0.67	0.93	0.60	0.87	1.33	0.73	1.27	1.40	0.60	0.90	0.093
2013	0.40	0.47	0.73	0.53	0.47	1.00	0.53	0.60	0.67	1.47	0.67	1.13	0.93	0.67	0.73	0.077
2014	0.47	0.53	0.67	0.87	0.53	1.07	0.73	0.27	0.40	1.33	1.53	1.07	0.73	0.47	0.76	0.095
2015	0.27	0.27	0.4	0.67	0.53	1.00	0.40	0.60	0.80	1.00	1.07	0.53	1.00	0.73	0.66	0.072
2016	0.20	0.47	0.47	0.40	0.40	1.00	0.47	0.60	0.87	0.40	0.67	0.53	0.80	0.27	0.54	0.058
2017	1.73	0.87	0.67	1.07	0.67	1.27	0.87	0.73	0.80	1.07	0.87	0.53	0.60	0.33	0.86	0.089
2018	0.80	0.53	0.33	1.00	0.20	1.20	0.60	0.47	0.67	0.93	0.80	0.53	2.13	0.20	0.74	0.128
2019	0.53	0.33	0.60	0.93	0.47	0.73	0.47	0.53	1.27	0.67	1.33	0.60	2.33	0.53	0.81	0.136
<b>Previous 5 Yr Mean</b>	<b>0.71</b>	<b>0.50</b>	<b>0.49</b>	<b>0.81</b>	<b>0.45</b>	<b>1.04</b>	<b>0.56</b>	<b>0.59</b>	<b>0.88</b>	<b>0.81</b>	<b>0.95</b>	<b>0.54</b>	<b>1.37</b>	<b>0.41</b>	<b>0.72</b>	<b>0.070</b>
<b>2020</b>	<b>0.69</b>	<b>0.53</b>	<b>0.51</b>	<b>0.80</b>	<b>0.47</b>	<b>1.11</b>	<b>0.61</b>	<b>0.53</b>	<b>0.71</b>	<b>0.95</b>	<b>0.99</b>	<b>0.64</b>	<b>1.05</b>	<b>0.40</b>	<b>0.71</b>	<b>0.059</b>

\* = Gobbling Index (mean gobblers heard per stop) calculated using route with highest count.

HICKORY	Hickory Ridge, Hoosier National Forest (HNF) Jackson, Lawrence, & Monroe counties.	LICKFK	Orange county, Lick Fork Creek Area, HNF.
OWPUT	Owen-Putnam counties, general area of Owen-Putnam St. Forest	JEFFERSON	Jefferson County
PERRY	Perry County (Oriole-St.Croix area of HNF)	LR-WEST	Lost River Unit - West, HNF, Orange and Martin Counties.
WASH	Washington County, general area of Jackson-Washington SF.	MARSTRK	Marshall-Starke counties.
LR-EAST	Lost River Unit - East, HNF, Lawrence and Orange Counties.	PARKE	Parke County.
MORGMON	Morgan and Monroe counties, general area of Morgan-Monore St. Forest.	LAGSTEU	Lagrange-Steuben counties (primarily Pigeon River Fish & Wildlife Area).
GREENE	Greene County, eastern half.	BROWN	Brown County, general area of Yellowood State Forest.

**Figure 1. Roadside Gobbling Indices**

