

# 2025 Spotlight Survey

## *Wildlife Diversity Program Note #25-1*

### METHODS

The spotlight survey was initiated in 1981, and has been conducted annually since that time. Observers drive slowly (10–15 mph) on public roads, using 100,000-candlepower spotlights to detect animals by seeing their entire bodies or light reflected from their eyes. Sampling begins an hour after sunset. Most routes are 25 miles in length.

Sampling is phased in from Illinois' southernmost counties (21 March to 4 April) to the northernmost (11–25 April) to account for differences in phenology. Ideally, routes are sampled when relative humidity is  $\geq 60\%$ , air temperature is  $>32^{\circ}\text{F}$ , and rain or heavy fog is absent (Rybarczyk 1978).

### RESULTS

During 2025, staff sampled a total of 45 routes (43 comparable routes in 2024), drove 1109 miles and observed 12,656 animals (Table 1). Animals observed in addition to target species included 171 house cats, 17 coyotes, 7 red fox, 4 muskrat, 3 bobcat, 1 beaver, 1 river otter and 1 mink. Staff also recorded 10 northern bobwhite, 5 owls (1 barn owl), and 2 armadillo; in some cases, species could not be determined.

The number of raccoons observed per mile on 43 routes sampled during both 2024 and 2025 increased 26.4% (Table 3). Indices varied from 0.52–5.28 raccoons per mile for

individual routes (Table 4). Long-term indices (1981–2025) could not be compared to harvest levels during the preceding season because harvest estimates were not available at the time of this report.

### DISCUSSION

Spotlight surveys are useful for monitoring relative abundance of the raccoon at large spatial and temporal scales (Bauder et al. 2021, Gehrt et al. 2002). In 2025, the statewide spotlight index was more than 3 times greater than when surveys started in 1981. The index for 2025 was 2.24. Results allow IDNR to adjust harvest regulations for large changes in abundance of raccoons. Since 1990-91, seasons for trapping raccoon increased four times, adding a total of 30 days in the northern zone and 32 in the south. Hunting seasons increased from 62 days (north) or 55 days (south) to 93 days. Such changes are not likely to affect harvest levels during periods of low pelt values (Hubert 1990). However, liberal seasons maximize recreational opportunities for core participants and make the most of upswings in volatile markets.

Raccoons are an important part of Illinois' fur harvest. They also cause property damage (Bluett 2003), harbor zoonoses (Page et al. 2016), and affect other wildlife populations through diseases, parasites, and predation (Schmidt 2002, Heske et al. 1999, Mitchell et al. 1999). Spring spotlight surveys provide reliable information for

management decisions, ecological research, and efforts to increase public support for wildlife conservation. Like Nielsen et al. (2009), we recommend sampling  $\geq 37$  routes per year.

#### LITERATURE CITED

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#### ACKNOWLEDGMENTS

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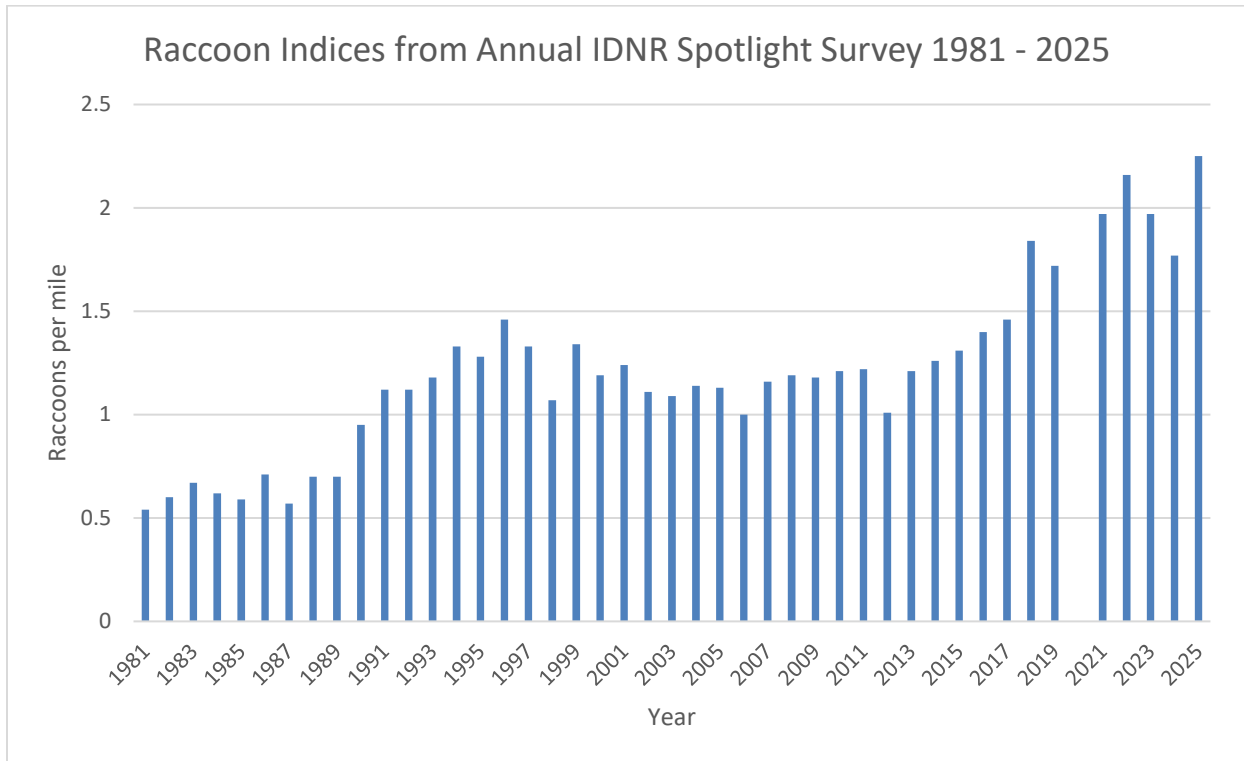
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**Table 1.** Numbers of animals observed per mile for spotlight survey routes in Illinois, 2025.

Species	No. observed	No. observed/mi	% change from 2024 <sup>a</sup>
Raccoon	2373	2.24	+26.4
White-tailed deer	8589	8.11	+7.8
Cottontail rabbit	760	.72	+34.8
Domestic cat	166	0.16	-7.0
Opossum	338	.32	+49.1
Striped skunk	74	.07	+50.6

<sup>a</sup> Comparable routes (43 routes in 2025) are those ran in both 2024 and 2025.

**Table 2.** Raccoon Indices from Annual Spotlight Surveys 1981 - 2025



**Table 3.** Annual trends in spring spotlight survey observations for raccoons in Illinois, 1981–2025.

Year	No. routes	No. miles sampled	No. raccoons observed	No. raccoons observed/mi	No. comparable routes	% change from previous year <sup>a</sup>
1981	34	834.0	454	0.54	--	--
1982	41	1007.0	600	0.60	34	+18.4
1983	41	1002.0	670	0.67	39	+10.1
1984	43	1066.0	666	0.62	40	-3.4
1985	45	1114.0	653	0.59	43	-3.7
1986	45	1119.0	797	0.71	42	+13.6
1987	46	1145.0	647	0.57	45	-19.8
1988	45	1099.0	768	0.70	44	+18.3
1989	44	1075.0	754	0.70	42	-1.0
1990	46	1125.0	1072	0.95	44	+38.6
1991	44	1075.0	1204	1.12	44	+24.4
1992	47	1148.0	1281	1.12	44	-5.0
1993	47	1142.5	1346	1.18	46	+2.9
1994	45	1098.7	1463	1.33	40	+11.5
1995	48	1100.0	1501	1.28	45	<1.0
1996	48	1174.0	1713	1.46	48	+12.5
1997	47	1142.0	1523	1.33	47	-9.7
1998	47	1149.0	1232	1.07	41	-20.2
1999	46	1129.0	1512	1.34	44	+25.8
2000	46	1124.0	1337	1.19	45	-11.3
2001	48	1179.0	1467	1.24	46	+2.5
2002	48	1175.0	1308	1.11	48	-10.5
2003	47	1155.0	1263	1.09	47	-0.7
2004	47	1153.0	1312	1.14	47	+4.2
2005	47	1155.0	1306	1.13	47	-0.8
2006	45	1105.0	1102	1.00	45	-12.8
2007	47	1155.0	1335	1.16	45	+17.9
2008	46	1119.0	1328	1.19	46	+0.9
2009	46	1129.0	1330	1.18	46	-0.7
2010	46	1130.0	1339	1.21	45	+2.6
2011	44	1080.0	1316	1.22	43	+5.1
2012	44	1067.0	1080	1.01	41	-22.5
2013	37	907.0	1096	1.21	34	+21.3
2014	39	949.2	1192	1.26	35	+8.9
2015	41	1002.2	1314	1.31	39	+6.5
2016	41	1004.4	1405	1.40	39	+5.9
2017	41	1005.4	1467	1.46	41	+4.3
2018	40	980.4	1808	1.84	40	+24.5
2019	40	957.1	1643	1.72	39	-6.5
2020*	0	-	-	-	-	-
2021	41	1002.1	1976	1.97	N/A	N/A
2022	41	1000	2149	2.15	40	+9.2
2023	42	1025	2005	1.96	41	-8.8
2024	43	1056	1872	1.77	39	-14.1
2025	45	1109	2493	2.25	43	+26.4

<sup>a</sup> Based on comparable routes.

**Table 4.** Spotlight survey observations for selected species in Illinois, 2025.

County	Miles	Raccoons	Deer	Rabbit	Cat	Opossum	Skunk
Adams	25	32	49	14	8	5	0
Cass	25	16	234	28	1	6	2
Clark	25	36	167	3	3	3	0
Clay	25	37	160	10	2	3	0
Clinton/Washington	25	42	113	12	2	16	4
Coles	25	50	215	33	4	7	0
Cook/Busse FPD	13	30	20	6	1	0	12
Douglas	25	13	189	22	4	18	3
DuPage	21	43	37	5	0	0	0
Fulton	25	58	339	3	0	3	2
Gallatin	25	62	181	8	5	9	0
Greene	25	32	94	12	0	3	0
Hamilton	25	103	788	69	11	14	3
Iroquois	25	132	276	11	3	8	1
Jackson	25	93	146	28	0	21	1
Jasper	25	50	232	1	3	6	1
Jefferson	25	57	278	18	9	11	7
Jo Daviess	25	57	30	8	7	1	2
Johnson	25	34	98	19	0	16	0
Kankakee	25	67	84	9	6	3	0
Kendall	25	43	72	4	3	3	1
Lake-McHenry	25	21	40	19	2	6	3
Lawrence	25	95	343	16	2	4	0
Lee	25	92	374	26	5	8	2
Macoupin	25	17	235	2	1	9	0
Marshall-Woodford	25	70	161	21	11	5	1
Mason	25	22	223	45	0	7	0
McLean	25	36	239	10	5	2	1
Menard-Logan	25	28	122	20	2	6	7
Mercer	25	92	218	4	5	3	0
Monroe-Randolph	25	105	133	26	1	23	2
Montgomery	25	51	192	8	4	15	0
Morgan	25	51	181	28	8	12	4
Ogle	25	49	188	14	4	5	5
Piatt	25	45	205	62	1	16	0
Pike	25	51	327	31	1	6	1
Sangamon	25	41	165	13	4	5	0
Stephenson	25	72	114	12	1	2	0
Tazewell	25	56	234	16	6	3	1
Union	25	98	439	28	11	26	5
Vermillion	25	56	150	4	5	8	1
Warren	25	77	242	6	1	2	0
Wayne	25	24	215	15	4	0	1
Whiteside	25	80	119	15	13	12	2
Will	25	77	99	8	2	2	0
Total	1109	2493	8760	772	171	343	75