



ARCHER SURVEY 2013 REPORT



During the past 22 years, Illinois bowhunters have helped the Department of Natural Resources by reporting types and numbers of animals observed while hunting. This information is used to detect major changes in wildlife populations over time based on a “sighting index” (number of sightings per 1,000 hours of field time).

During 2013, 886 volunteers reported 45,557 hours of wildlife observations. Changes in sighting indices from 2012 to 2013 were nominal except for coyote and white-tailed deer, which showed statistically significant declines. Long-term (1992-2013) increases in sighting indices occurred for bobcat, coyote, white-tailed deer, squirrel, and wild turkey (Table 1). Long-term decreases occurred for red fox and gray fox.

Table1. Trends in statewide Archery Deer Hunter Survey sighting index in Illinois, 1992-2013, using hunter-location method of analysis.

Year	Species							
	Bobcat	Coyote	Deer	Gray fox	Raccoon	Red fox	Squirrel	Turkey
1992 (1,239) ^a	0.53	27.09	655.29	2.50	30.14	9.25	972.66	93.41
1993 (2,877)	0.65	29.68	611.17	1.90	49.35	8.06	1017.30	123.85
1994 (1,814)	0.40	28.44	586.54	1.68	46.74	5.67	1089.03	146.25
1995 (2,278)	0.81	30.57	696.88	1.61	52.53	6.64	995.29	138.17
1996 (1,458)	0.80	27.50	662.87	1.18	45.73	4.68	938.52	144.45
1997 (1,411)	1.34	26.48	661.98	0.64	47.16	5.45	981.15	139.24
1998 (2,052)	1.10	30.82	736.18	0.80	49.18	6.02	928.99	201.51
1999 (1,931)	1.37	32.26	729.16	1.39	63.02	3.51	988.98	241.48
2000 (1,854)	1.10	30.56	853.55	0.68	65.90	4.11	1087.00	272.55
2001 (1,366)	1.57	32.35	918.72	0.76	66.64	4.42	1266.34	311.16
2002 (1,780)	2.00	34.47	995.25	0.60	55.07	3.74	1081.09	348.07
2003 (1,569)	2.10	29.75	1033.49	0.81	65.72	3.53	1177.41	308.02
2004 (1,216)	1.31	35.93	1143.40	0.57	64.12	3.53	1219.52	344.96
2005 (1,544)	3.69	32.01	1145.71	0.62	53.14	3.62	1045.07	280.14
2006 (791)	3.07	35.46	1104.14	0.47	70.32	3.86	1255.03	342.55
2007 (1,075)	2.89	47.58	1104.24	0.82	60.69	3.96	1076.21	332.91
2008 (649)	3.36	32.09	930.51	0.33	60.43	2.70	1007.79	267.49
2009 (1,067)	2.80	27.41	815.75	0.36	52.25	4.05	1098.01	287.15
2010 (700)	3.84	40.95	915.54	1.04	91.86	3.20	1223.82	279.73
2011 (936)	4.11	32.54	856.17	1.26	- ^b	3.80	1225.71	273.90
2012 (896)	5.89	43.60	940.70	0.71	- ^b	4.12	1173.81	279.12
2013 (886)	5.88	31.23	764.46	0.36	- ^b	2.29	1135.46	225.29

^a Number of observers in parentheses following year.

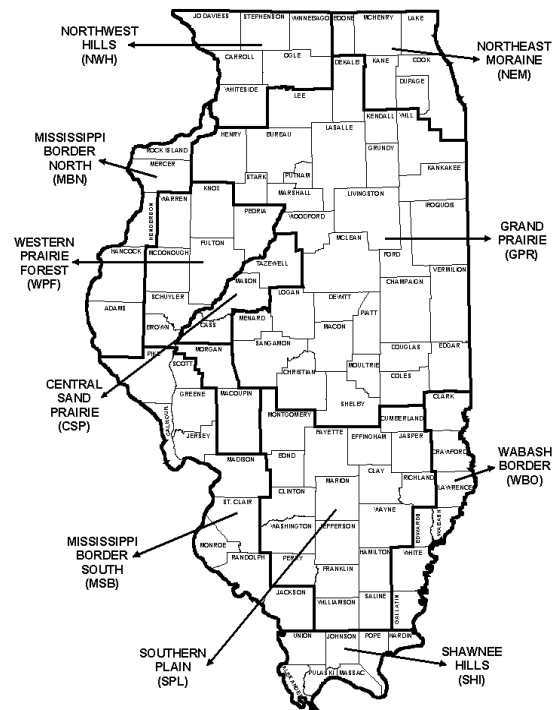
^b Raccoon dropped from survey in 2011.

Statewide, the number of deer observed per 1,000 hours decreased 18.7% from 2012 to 2013. Archers harvested 57,364 deer during 2013-14, down slightly from 2012-2013 (59,805 deer). The harvest for all seasons combined (firearm and archery) was also lower in 2013-14 (148,614) than 2012-13 (180,811).

Table 2. Numbers of hunter locations and deer seen per 1,000 hours for the 2013 Archery Deer Hunter Survey using hunter-location method of analysis.

Sample area	Number of hunter locations	Deer seen per 1,000 hours
Central sand prairie	41	639
Grand prairie	382	704
Mississippi border (N)	57	916
Mississippi border (S)	104	714
Northeast moraine	53	470
Northwest hills	107	754
Shawnee hills	48	858
Southern plain	266	826
Wabash border	44	983
Western prairie forest	157	835
Statewide	1,283	764

Figure 1. Locations and names of Illinois wildlife management units.



Hunters’ wildlife observations are influenced by habitat characteristics. For example, hunters in heavily forested areas of the Shawnee Hills might not detect deer as easily as hunters in agricultural areas of the Grand Prairie. Other factors that affect sighting indices include weather, timing of the crop harvest, food supplies and the number of hunters participating in the survey.

Differences in sighting rates among wildlife management units (Table 2) must be interpreted cautiously, especially for a particular year or a particular area. Variations in weather, food supplies and other factors tend to cancel each other out over time, providing a reliable indicator of long-term population trends. This is the best and most important use of data from the survey.

We thank all bowhunters who participated in 2013 and ask that they consider continuing their participation in 2014. If you haven’t had an opportunity to help collect data for the Archer Survey, we ask that you strongly consider doing so. Information provided by the Archer Survey becomes more reliable as the number of observers increases. Thanks again, and good hunting!

For more information about past deer seasons and harvest levels, visit:
<http://www.dnr.illinois.gov/hunting/deer/Pages/AnnualDeerHarvestReports.aspx>