



Illinois Chronic Wasting Disease: 2015-2016 Surveillance and Management Report

(Project Period: July 1, 2015 - June 30, 2016)

Paul Shelton and Patrick McDonald
Forest Wildlife Program, Illinois Department of Natural Resources
July 25, 2016



Executive Summary

First CWD positive: A suspect adult female deer from northwest Boone County was diagnosed with CWD in November 2002.

Total samples through June 30, 2016: 97,992+

Total positives through June 30, 2016: 610

Number of counties affected through June 30, 2016: 16 (Boone, DeKalb, DuPage, Grundy, JoDaviess, Kane, Kankakee, Kendall, Lake, LaSalle, Livingston, McHenry, Ogle, Stephenson, Will, Winnebago).

Distribution through June 30, 2016: Total affected area (determined by a minimum convex polygon that includes all positives) remains about 8,000 mi². Disease is established in SE JoDaviess and SW Stephenson counties, and SE of the main CWD core area along the Illinois and Fox River watersheds (Figure 1). Recent 'spark' areas occur in the Vermilion, Mazon, and Kankakee River watersheds in Livingston, Grundy, Will & Kankakee counties.

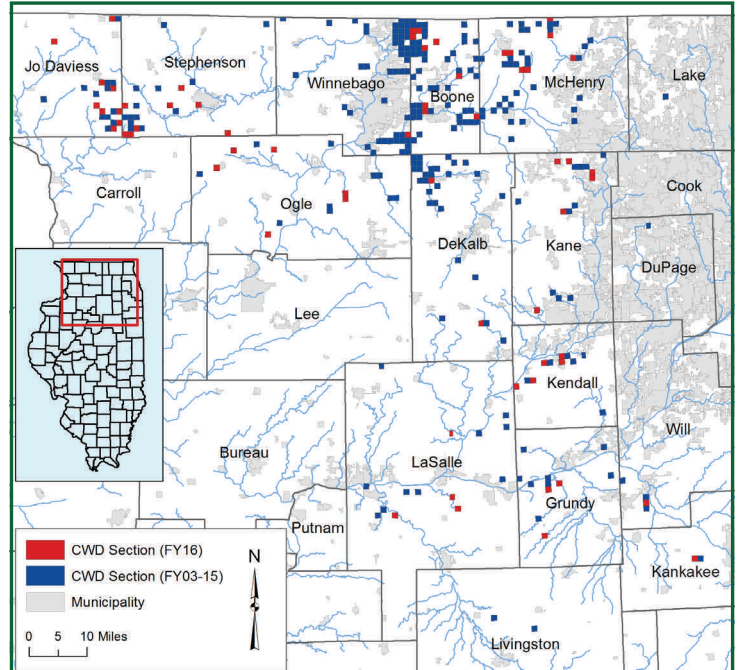


Figure 1. Distribution of all known CWD-infected deer identified in Illinois through June 30, 2016.

CWD Surveillance Protocols During FY2016 (July 1, 2015-June 30, 2016)

Testing: All CWD testing was conducted using immunohistochemistry (IHC) at Illinois Department of Agriculture's (IDOA) Animal Disease Laboratory in Galesburg, Illinois. Samples were initially screened using retropharyngeal lymph nodes (RPLN), followed by confirmatory testing of recut RPLN tissue and obex.

Sampling of hunter-harvested deer: Three sources were used to provide tissue samples from adult deer harvested by hunters: (1) mandatory firearm deer check stations in high-risk counties in northern Illinois; (2) designated voluntary drop-off testing locations in northern Illinois; and (3) cooperating meat lockers/taxidermists statewide who collected heads/sample tissues for IDNR.

Surveillance by other agencies/individuals authorized by special permits: Recipients of special permits from IDNR authorizing lethal deer removals were required to collect CWD samples when working in high-risk CWD areas or in areas needing additional surveillance. These permits included (1) Deer Population Control Permits (used by some agencies to control urban deer populations); (2) nuisance Deer Removal Permits (for crop depredation, etc.); and (3) Scientific Permits (various research projects).

Suspect ("target") deer surveillance: Upon receiving reports from the public about sick deer, IDNR staff collected samples for CWD testing from deer that exhibited signs/symptoms consistent with chronic wasting disease.

Surveillance from post-hunting season sharpshooting: Sharpshooting was conducted from mid-January through the end of March by trained IDNR staff. Sharpshooting was restricted to areas where CWD-infected deer had been identified (limited to lands within a 2-section buffer around known positive sections).

CWD Surveillance Results FY2016

Total number of CWD samples collected statewide: 8,544 (all white-tailed deer). Figure 2 depicts the geographic distribution of sampling effort; Figure 3 compares annual sample numbers; Figure 4 presents a comparison of the number of deer sampled and the number of positives identified by source; and Appendix A summarizes the samples collected/positives identified by county.

Number of usable samples collected: 8,489

Number of CWD-positive deer identified: 72. Table 1 presents a comparison of the number of positive deer found each year by county.

Number of counties with positive deer: 13 — Boone (11), DeKalb (3), Grundy (3), JoDaviess (9), Kane (8), Kankakee (1), Kendall (6), LaSalle (5), McHenry (8), Ogle (6), Stephenson (10), Will (1), Winnebago (1). For distribution of positive sections, see Figure 5.

Number of new CWD counties: None.

CWD prevalence information for the known CWD area (16 counties; adult deer from hunting sources only) —

Average CWD prevalence (all adult deer): 1.09% (39/3591)

Average CWD prevalence (adult males): 1.28% (24/1881)

Average CWD prevalence (adult females): 0.88% (15/1710)

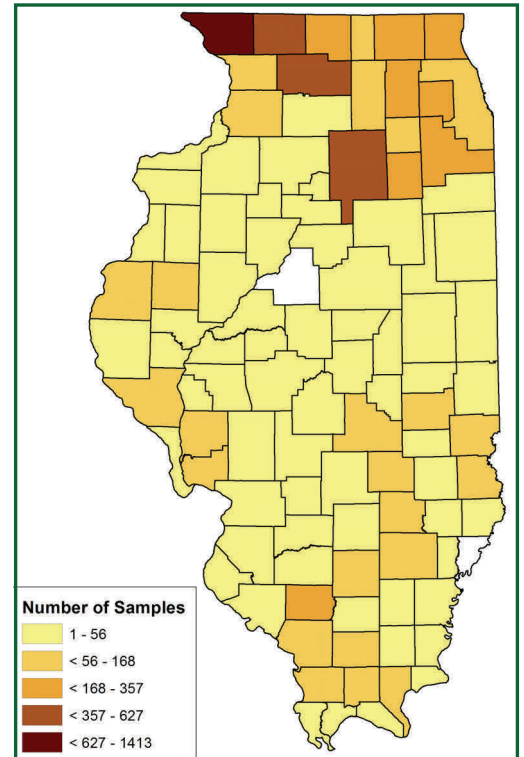


Figure 2. CWD sample distribution across Illinois during FY2016 (all sources).

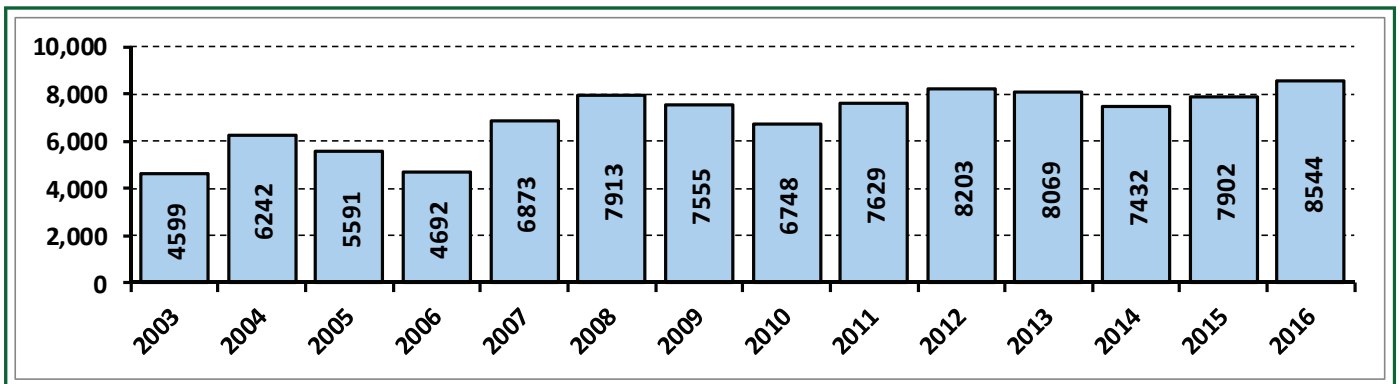


Figure 3. Number of CWD surveillance samples collected statewide each year during FY2003 through FY2016.

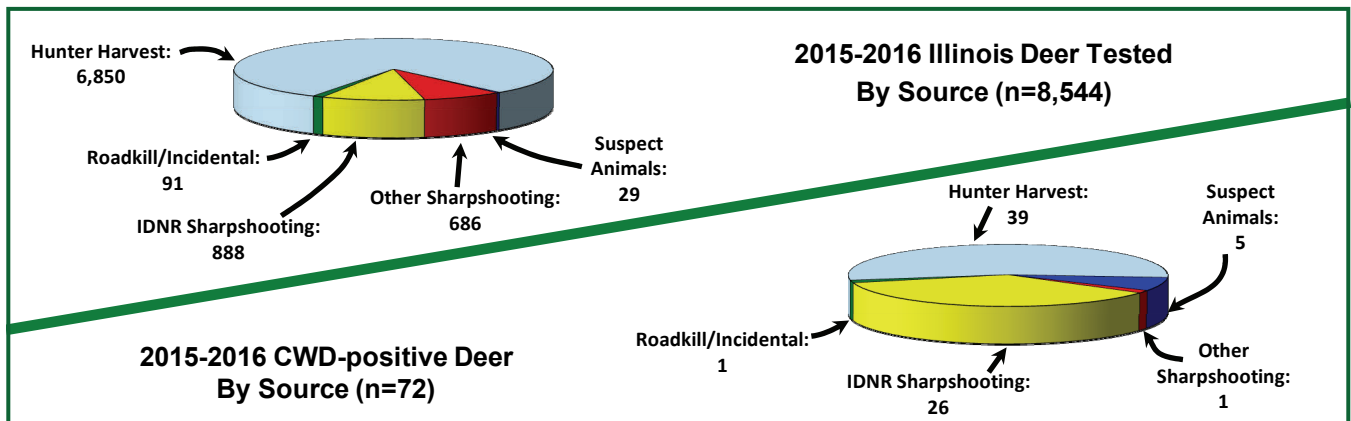


Figure 4. Number of CWD samples tested and number of positives identified by sampling source during FY2016.

Note: Number tested includes all samples submitted, regardless of whether a valid test result was obtained.

CWD Management During FY2016

Hunting Seasons for Herd/Disease Control

Length: Archery deer season (Oct. 1-Jan. 17; closed during firearm season) consisted of 109 days in DuPage and Lake counties (no firearm hunting), and 102 days in all other CWD counties. Gun seasons totaled 20 days, consisting of the regular firearm season (7 days), youth season (3 days), muzzleloader season (3 days), and special CWD season (7 days). Gun deer seasons were not open in DuPage and Lake counties, except for Chain O' Lakes State Park in Lake County.

Bag limits: Only two antlered deer could be taken per hunter during all seasons, except that during the special CWD season no antlered limit was in effect. There was no bag limit for antlerless deer.

Gun permit quotas: In counties with established CWD, permit quotas far exceeded demand, so that the number of permits was for all practical purposes unlimited. In counties with limited cases of CWD, permit quotas were more limited, so as not to significantly lower the entire county population. For the Special CWD season, hunters were allowed to purchase unlimited over-the-counter (OTC) permits, and could also use any unfilled deer tags from firearm, muzzleloader, or youth deer seasons.

Significant changes: Kankakee and Livingston counties were added to the Special CWD Season, after discovery of the disease in those counties last year.

Hunter harvest: Hunters harvested 16,309 deer from the 16 CWD counties during 2015-2016 (Table 2), compared to 15,603 deer during 2014-2015. The previous 5-year average harvest for the 16 counties was 17,220. In the 2001-2002 hunting season, the last season prior to the discovery of CWD in Illinois, hunter harvest totaled 16,301.

Table 2. Deer harvest in CWD counties during the 2015-2016 hunting seasons.

County	Youth	Muzzleloader	CWD	Firearm	Archery	All Seasons
Boone	3	2	36	127	147	315
DeKalb	2	4	34	127	149	316
DuPage	<i>Not open to firearm deer hunting</i>				37	37
Grundy	4	8	96	360	343	811
JoDaviess	48	46	522	2133	1083	3832
Kane	0	0	24	30	324	378
Kankakee	5	9	62	195	275	546
Kendall	4	4	31	85	194	318
Lake	<i>Not open to firearm deer hunting</i>			4 ¹	461	465
LaSalle	19	12	189	844	722	1786
Livingston	13	12	54	427	244	750
McHenry	2	11	106	321	599	1039
Ogle	28	19	237	937	740	1961
Stephenson	8	11	218	826	490	1553
Will	9	16	81	321	754	1181
Winnebago	9	10	135	382	485	1021
Totals	154	164	1825	7119	7047	16309

¹ Only Chain O Lakes SP is open to firearm deer hunting in Lake County.

IDNR Sharpshooting Protocols

Rationale: Management using sharpshooting to supplement hunter harvest allows the Department to conduct localized, focused deer reductions in small areas known to have CWD. Our goal is to reduce disease transmission rates by lowering densities in infected areas, to reduce environmental contamination from infected deer, and to remove sick deer from the population at a higher rate than deer are becoming newly-infected. Advantages of sharpshooting include: (1) reductions are limited to areas with disease, so healthy populations in the remainder of a county are not impacted as they would be if we relied solely on hunting for management; (2) sharpshooting can be conducted on properties that do not normally allow hunting (or allow only very limited hunting), so management can occur in areas that normally serve as refuges to hunting; (3) focused sharpshooting has been shown to remove sick animals at a higher rate than hunting programs; and (4) sharpshooting can target specific high-risk deer social groups known to have CWD. Sharpshooting also provides detailed, localized surveillance information about disease distribution and prevalence rates within infected areas.

Timing: Following the close of deer hunting seasons in January, teams of IDNR staff that were trained/certified for sharpshooting began culling deer wintering in or around known CWD locations. All IDNR sharpshooting activities were carried out between January 15 and March 31, 2016.

Aerial Surveys: Helicopter surveys are normally conducted during January-February when suitable snow cover provides conditions to facilitate counting deer. The winter of 2015-2016 was extremely mild, with only occasional light snows during January-February. Without suitable conditions, no aerial surveys were conducted.

Locations used for sharpshooting: Sharpshooting areas were generally limited to locations within a 2-section buffer zone around each known CWD-positive section (1 section = ~1 mile²). Sharpshooting was only conducted with the permission of the landowner.

Carcass handling/disposition: All animals (including fawns) from which suitable tissue samples could be collected were tested for CWD. Additional tissue samples were collected for genetic testing and evaluation of reproductive status at the University of Illinois Champaign/Illinois Natural History Survey, and for determining gene expression alterations resulting from CWD at Western Illinois University. All deer with negative CWD test results were processed and donated to the Northern Illinois Food Bank.

IDNR Sharpshooting Results

Management area: CWD management unit boundaries were established by buffering each CWD-positive section that occurred during the past five years (2011-2015) with a 2-section buffer (Figure 6). Total size of this CWD management area was 2,024 mi², which included 889 mi² of deer habitat.

Number of counties in which deer were taken: 13

Number of townships in which deer were taken: 58

Number of sections in which deer were taken: 117

Number of deer taken: 888 (mean # deer taken/section = 7.6; range = 1-32)

Number of CWD-positive deer taken: 26

More specific sharpshooting results for each county are presented in Table 3.

Sharpshooting Programs by Other Agencies/Entities in CWD counties

Deer Population Control Permits (DPCP): DPCPs were issued to six land-managing entities in six CWD counties (DuPage, JoDaviess, Lake, McHenry, Will and Winnebago) to remove deer. Permit recipients submitted tissue samples for CWD testing from 596 deer (584 usable samples) taken from about 44 sections in those counties. No CWD-positive deer were found.

Nuisance Deer Removal Permits (DRP): Ten samples were submitted from deer taken in 2 CWD counties using DRPs, resulting in 1 CWD-positive deer identified from Ogle County.

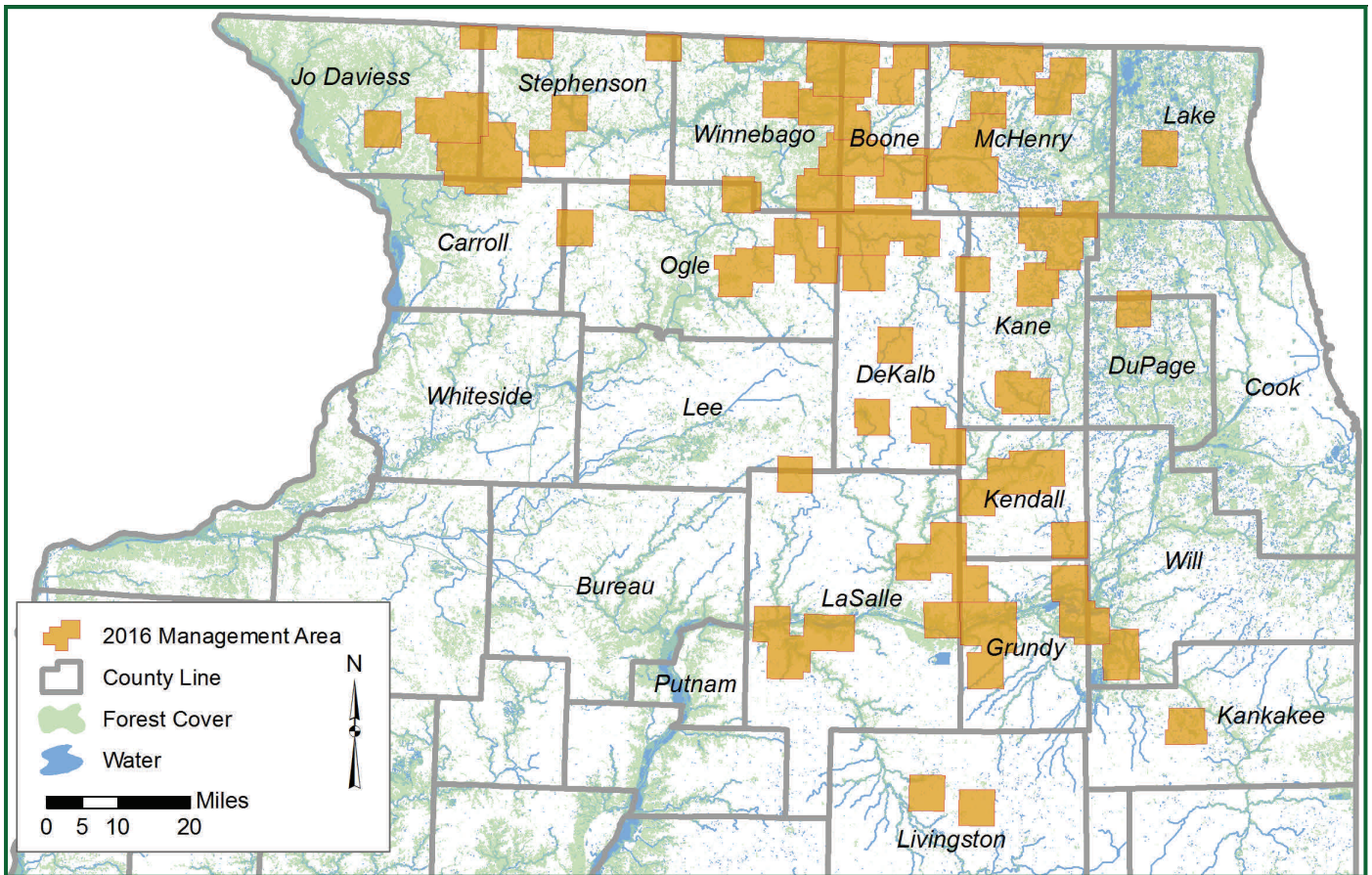


Figure 6. CWD management area boundaries for Winter 2016.

Table 3. Summary of IDNR sharpshooting effort and results by county during winter 2016.

County	# of Townships Where Removals Occurred	# of Sections Where Removals Occurred	Total Number of Deer Removed	Average Number of Deer Removed per Section	Number of Positive Deer Removed
Boone	2	5	50	10.0	5
Carroll	2	2	18	9.0	0
DeKalb	4	8	51	6.4	3
Grundy	5	10	93	9.3	0
JoDaviess	5	15	109	7.3	2
Kane	8	16	172	10.8	5
Kendall	4	7	37	5.3	5
LaSalle	6	11	86	7.8	1
McHenry	6	9	64	7.1	2
Ogle	5	8	21	2.6	1
Stephenson	7	17	131	7.7	2
Will	2	2	11	5.5	0
Winnebago	3	7	45	6.4	0
All Counties	58	117	888	7.6	26

Discussion: Illinois CWD in FY2016

Seventy-two CWD-positive deer were identified from 8,489 usable samples collected statewide. Across the 16-county CWD range, the disease prevalence rate for all adult deer taken by hunters was 1.09%. The prevalence rate for adult males (1.28%) was about 1.5 times higher than for adult females (0.88%). For comparison, deer taken by IDNR sharpshooters were significantly more likely to be CWD-positive, with an overall adult prevalence rate of 4.06%. Prevalence rate for adult males taken by sharpshooters was 5.60%; for adult females taken by sharpshooters the rate was 3.10%. While prevalence rates have remained very low and changed little over time since discovery of CWD in 2002, there does seem to be a very slowly increasing trend in recent years (Figure 7).

CWD distribution and prevalence is influenced by distribution of deer habitat, proximity to established disease areas, local deer population density, the length of time since local disease introduction, the amount of localized management, deer movements, and other factors. Illinois' original discovery of CWD was along the Winnebago-Boone county line, and this area has remained the most significant focus of disease for fourteen years with above-average prevalence rates throughout that period. Deer densities have been reduced during that time, and fewer positives are being found as a result, but disease rates have not declined measurably. Conversely, they have not increased. The county with the highest prevalence rate in 2016 was Boone County (10.0%; see Table 4), where CWD is distributed throughout available habitat. However, only eleven positives were identified from Boone County, compared to the peak number of 25 that were identified there in FY2004. Prevalence rates in other counties were considerably lower, but a number of localities within those counties remain a concern, particularly where heightened prevalence rates coincide with significant deer densities (Figure 8). These include:

- Southeastern JoDaviess and southwestern Stephenson counties (Fig. 8, Block 1,-4), which have consistently produced CWD-positive deer during the past 6 years. Deer densities are high, and access to property for management is limited.
- Northeastern Kane County (Fig. 8, Block 2,3), where deer hunting is limited to archery season only, and much of the deer habitat is within subdivisions or owned by local units of government.
- Western Kendall County along the Fox River and its tributaries (Fig. 8, Block 5,2). CWD was first found in Kendall County only recently (2012-2013), and deer habitat is limited, but prevalence rates have been very high in this block during the past few years (sample size has been small, so the confidence interval of the estimate is large).
- The Illinois River and its tributaries in LaSalle and Grundy counties (Fig. 5 & Fig. 8), where CWD-positive deer are now being consistently identified each year. High deer densities along the Illinois River make control effort difficult, and emigration of deer from this area to non-CWD areas to the south poses a significant risk for further CWD spread.

No significant range expansion in CWD was found this year, but the spread of CWD into new areas and the establishment of new disease foci in those areas continues to be Illinois' biggest management challenge. During the period 2002-2010, 80% of all CWD-positives identified in Illinois originated from either Boone or Winnebago County. During 2011-2016, only 26% of positives came from those counties, with 74% being found in the more peripheral CWD areas. In FY2016, 83% of CWD-positives came from peripheral counties.

Figure 7. Trends in CWD prevalence for hunter-harvested adult deer (\geq yearling) during 2003-2016 for the sixteen counties in which CWD has been identified. Error bars at each point depict the 95% confidence interval of the estimate. Mean prevalence rates in males have been 64% higher than in females during this 14-year period.

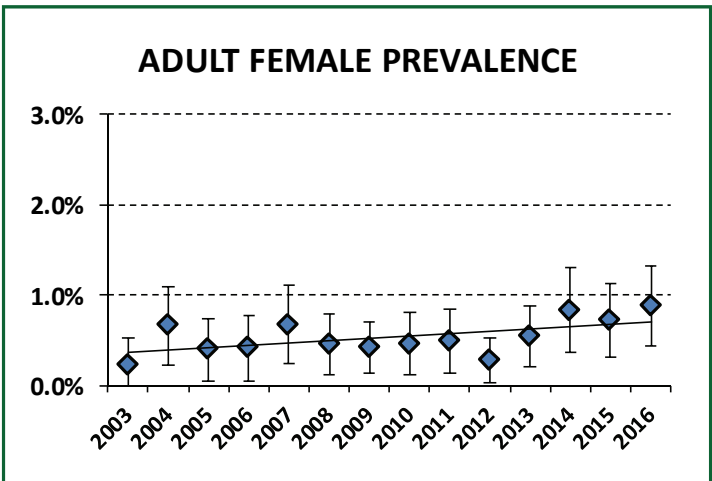
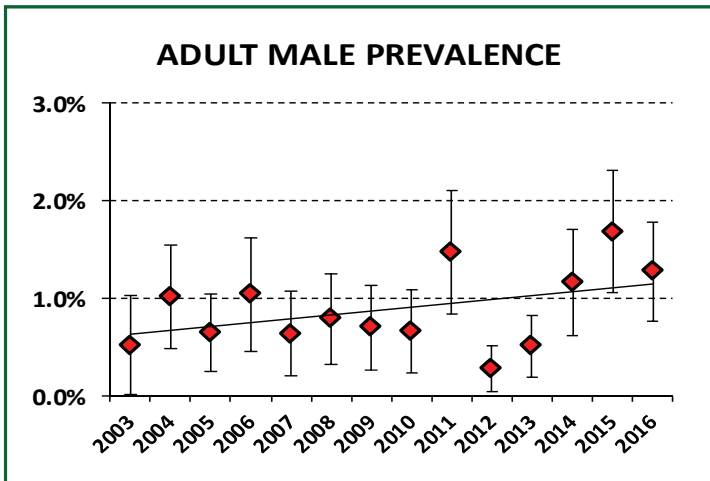
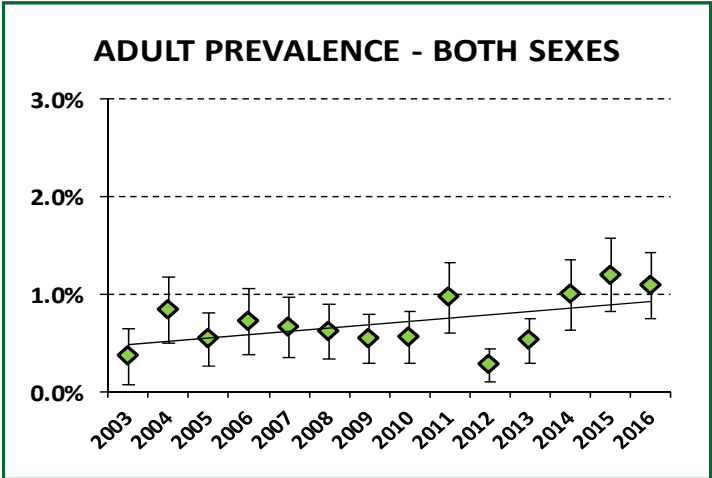


Table 4. County CWD prevalence estimates for adult deer during 1 July 2015 through 30 June 2016. Estimates are based only on samples collected from hunter-harvested deer.¹

County	# of Samples	# of Positives	Percent Positive	95% Confidence Interval (\pm)
Boone	60	6	10.00%	7.59%
DeKalb	67	0	0.00%	N/A
DuPage	7	0	0.00%	N/A
Grundy	209	3	1.44%	1.61%
JoDaviess	1205	7	0.58%	0.43%
Kane	103	3	2.91%	3.25%
Kankakee	11	0	0.00%	N/A
Kendall	34	1	2.94%	5.68%
Lake	40	0	0.00%	N/A
LaSalle	363	2	0.55%	0.76%
Livingston	47	0	0.00%	N/A
McHenry	226	5	2.21%	1.92%
Ogle	447	4	0.89%	0.87%
Stephenson	476	6	1.26%	1.00%
Will	141	1	0.71%	1.39%
Winnebago	155	1	0.65%	1.26%
All CWD Counties	3591	39	1.09%	0.34%

¹ Estimates derived from hunter-harvested deer represent hunted populations throughout the entire county.

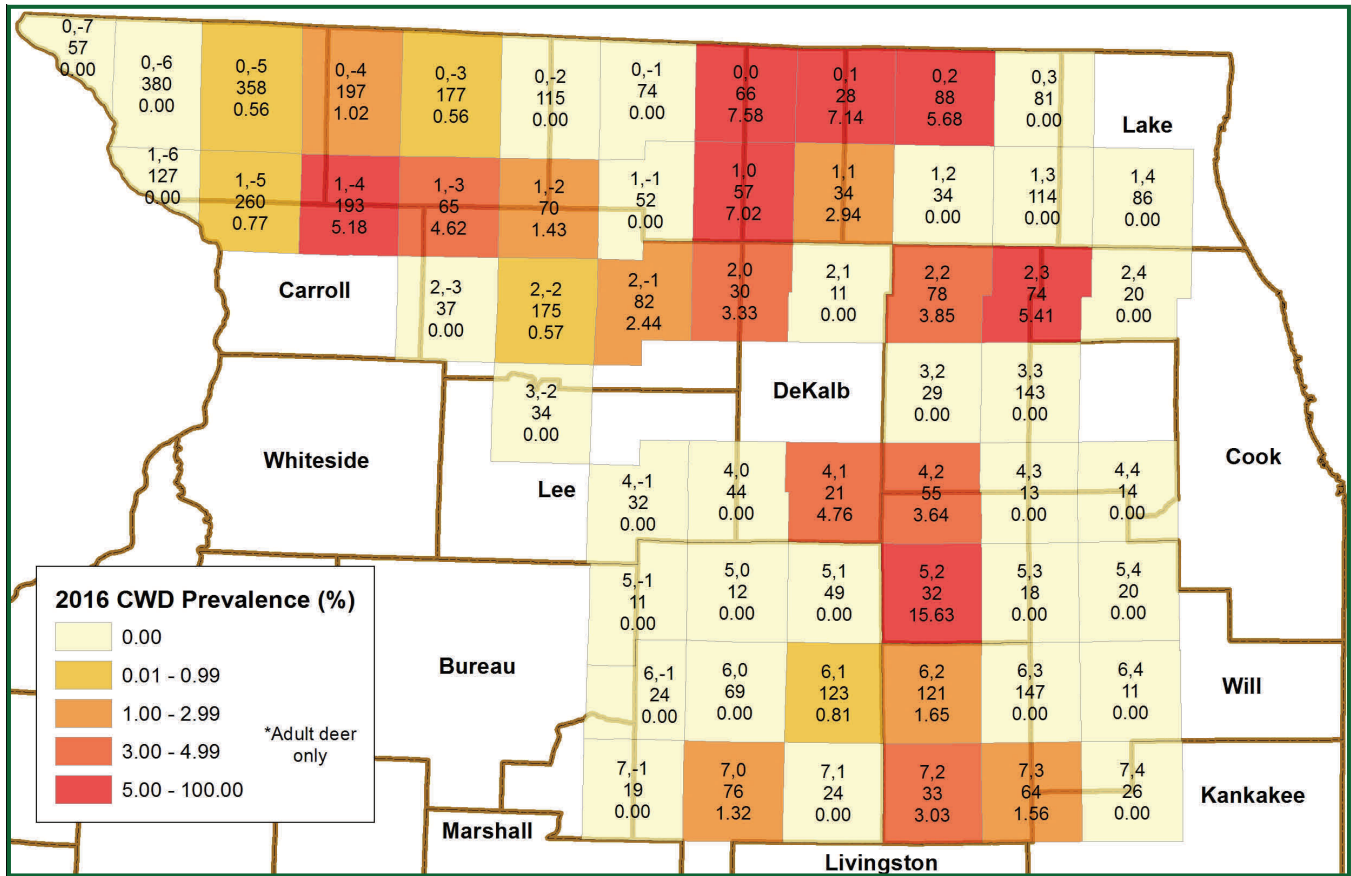


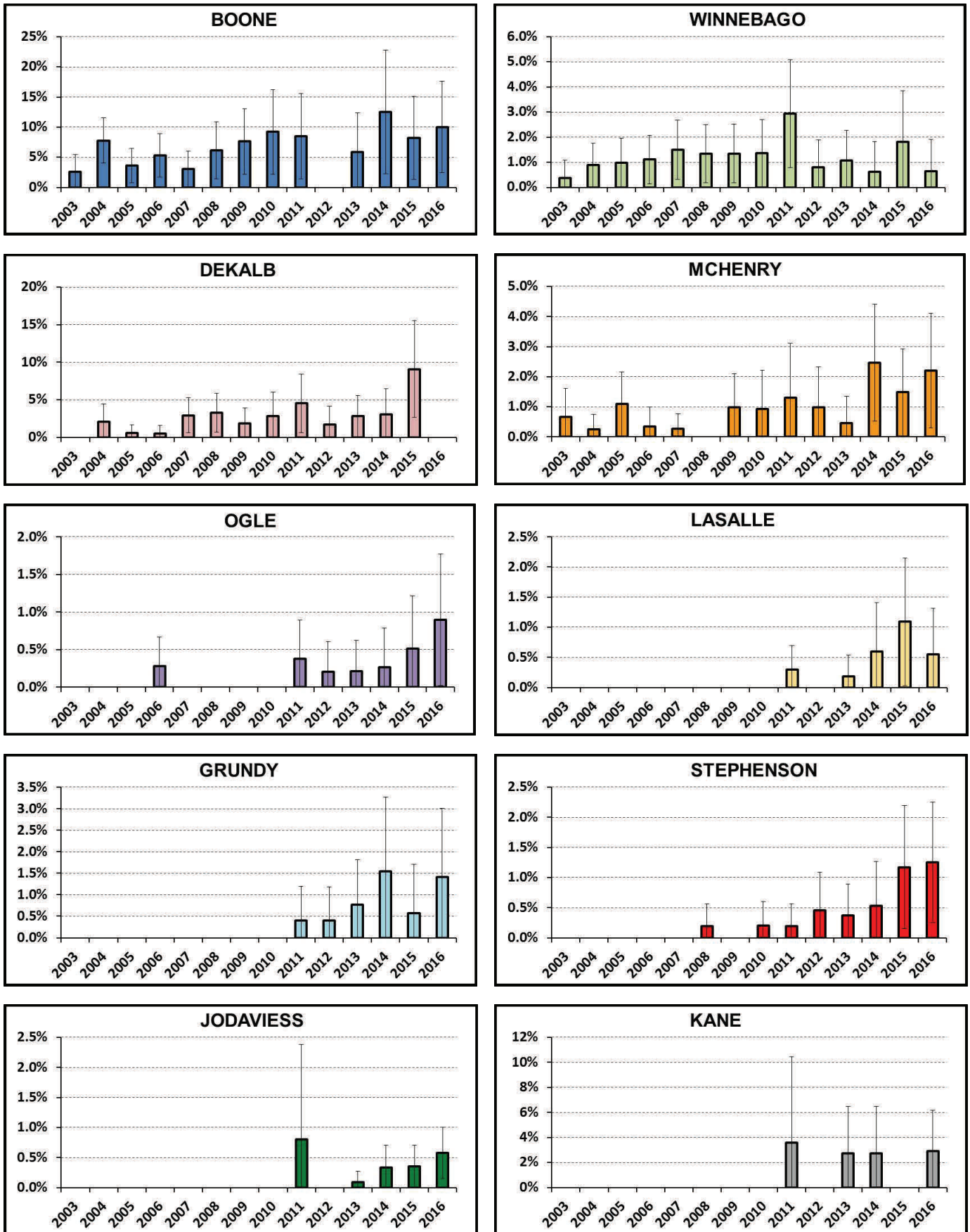
Figure 8. Estimated prevalence rates in adult deer during FY16 per 4-township block. For each block the upper number is the grid coordinate; the middle number is the sample size; and the lower number is the estimated adult prevalence rate (%). Includes all sources except suspect deer. Blocks from Kankakee and Livingston counties are not included because location data were not available.

This shift in CWD distribution has posed significant challenges for management, because management must now be directed over a far larger area, spreading resources very thin.

CWD prevalence rates have been controlled and maintained at low levels in Illinois by management, but the disease is not going away. IDNR must continue its management program to minimize prevalence rates and to slow spread to the remainder of the state, being mindful that managers need more tools with which to fight this disease. Research is progressing in the study of vaccines, and our hope is that this avenue will provide those tools in the not-too-distant future.

In the meantime, IDNR staff must work to educate Illinoisans about CWD and its potential to negatively impact our white-tailed deer herd. Illinois' CWD outbreak seldom engenders news headlines, and many Illinoisans seem to have become complacent about the threat that it poses. Our success in controlling prevalence rates has probably factored into this complacency, creating the illusion that CWD is not problematic. Only through an educated public can the Department continue to receive support for CWD management, even though our program is viewed as a model for disease management by many other states.

Figure 9. Patterns in estimated CWD prevalence rates in counties with multiple years of data. County prevalence rates were calculated using only hunter-harvested adult deer (both sexes).



Appendix A. Useable CWD samples taken by county in Illinois during the 2015-2016 sampling season. Numbers in parentheses reflect the number of CWD-positive deer identified.

County	Check Stations	Drop-off Stations/ Meat Processors	Agency Culling	Special Permits ¹	Roadkill/ Incidental	Suspect	Total
ADAMS		5					5
ALEXANDER		20					20
BOND		5					5
BOONE	48 (3)	12 (3)	50 (5)		1	1	112 (11)
BROWN		5					5
BUREAU		20				1	21
CALHOUN		56					56
CARROLL	1	96	18		4		119
CASS		8					8
CHAMPAIGN		8			1		9
CHRISTIAN		12					12
CLARK		67					67
CLAY		119					119
CLINTON		2					2
COLES		94					94
COOK		9		79			88
CRAWFORD		168					168
CUMBERLAND		33					33
DEKALB	42	25	51 (3)		4	1	123 (3)
DEWITT		28				1	29
DOUGLAS		5					5
DUPAGE		7		176			183
EDGAR		34			1		35
EDWARDS		3					3
EFFINGHAM		69					69
FAYETTE		33					33
FORD		2					2
FRANKLIN		40					40
FULTON		12					12
GALLATIN		2					2
GREENE		79					79
GRUNDY	190 (3)	22	93		4	1	310 (3)
HAMILTON		13					13
HANCOCK		96					96
HARDIN		8					8
HENDERSON		14					14
HENRY		9					9
IROQUOIS		7					7
JACKSON		101				1	102
JASPER		37					37
JEFFERSON		124					124
JERSEY		59			1		60
JODAVIESS	971 (4)	239 (3)	109 (2)	48	16	4	1387 (9)
JOHNSON		121					121
KANE	15 (1)	88 (2)	172 (5)		5		280 (8)
KANKAKEE	7	5				1 (1)	13 (1)
KENDALL	29 (1)	5	37 (5)		1		72 (6)
KNOX		25					25
LAKE		40		177	2		219
LASALLE	329	34 (2)	86 (1)		5	2 (2)	456 (5)
LAWRENCE		25					25

Appendix A cont'd.

County	Check Stations	Drop-off Stations/ Meat Processors	Agency Culling	Special Permits ¹	Roadkill/ Incidental	Suspect	Total
LEE		54					54
LIVINGSTON		47				1	48
LOGAN		8					8
MACON		49				1	50
MACOUPIN		33					33
MADISON		35			2	1	38
MARION		42				1	43
MARSHALL		9					9
MASON		5					5
MASSAC		37					37
MCDONOUGH		77					77
MCHENRY	121 (2)	106 (3)	64 (2)	56	9	1 (1)	357 (8)
MCLEAN		20				1	21
MENARD		2					2
MERCER		4					4
MONROE		5					5
MONTGOMERY		5					5
MORGAN		8					8
MOULTRIE		36			3		39
OGLE	415 (4)	32	21 (1)	2 (1)	7		477 (6)
PEORIA		3					3
PERRY		179			1		180
PIATT		18					18
PIKE		67					67
POPE		67					67
PULASKI		22					22
PUTNAM		15				1	16
RANDOLPH		31			1	1	33
RICHLAND		13					13
ROCK ISLAND		3			1		4
SALINE		10					10
SANGAMON		4			1		5
SCHUYLER		10					10
SCOTT		12					12
SHELBY		64				1	65
ST CLAIR		30			1		31
STARK		1					1
STEPHENSON	344 (4)	134 (2)	131 (2)		11 (1)	4 (1)	624 (10)
UNION		142					142
VERMILION		3					3
WARREN		5				1	6
WASHINGTON		39					39
WAYNE		77					77
WHITE		5					5
WHITESIDE		133			4		137
WILL	122 (1)	20	11	102	2		257 (1)
WILLIAMSON		145					145
WINNEBAGO	139	16 (1)	45	33	3	2	238 (1)
WOODFORD		3					3
TOTALS	2773 (23)	4035 (16)	888 (26)	673 (1)	91 (1)	29 (5)	8489 (72)

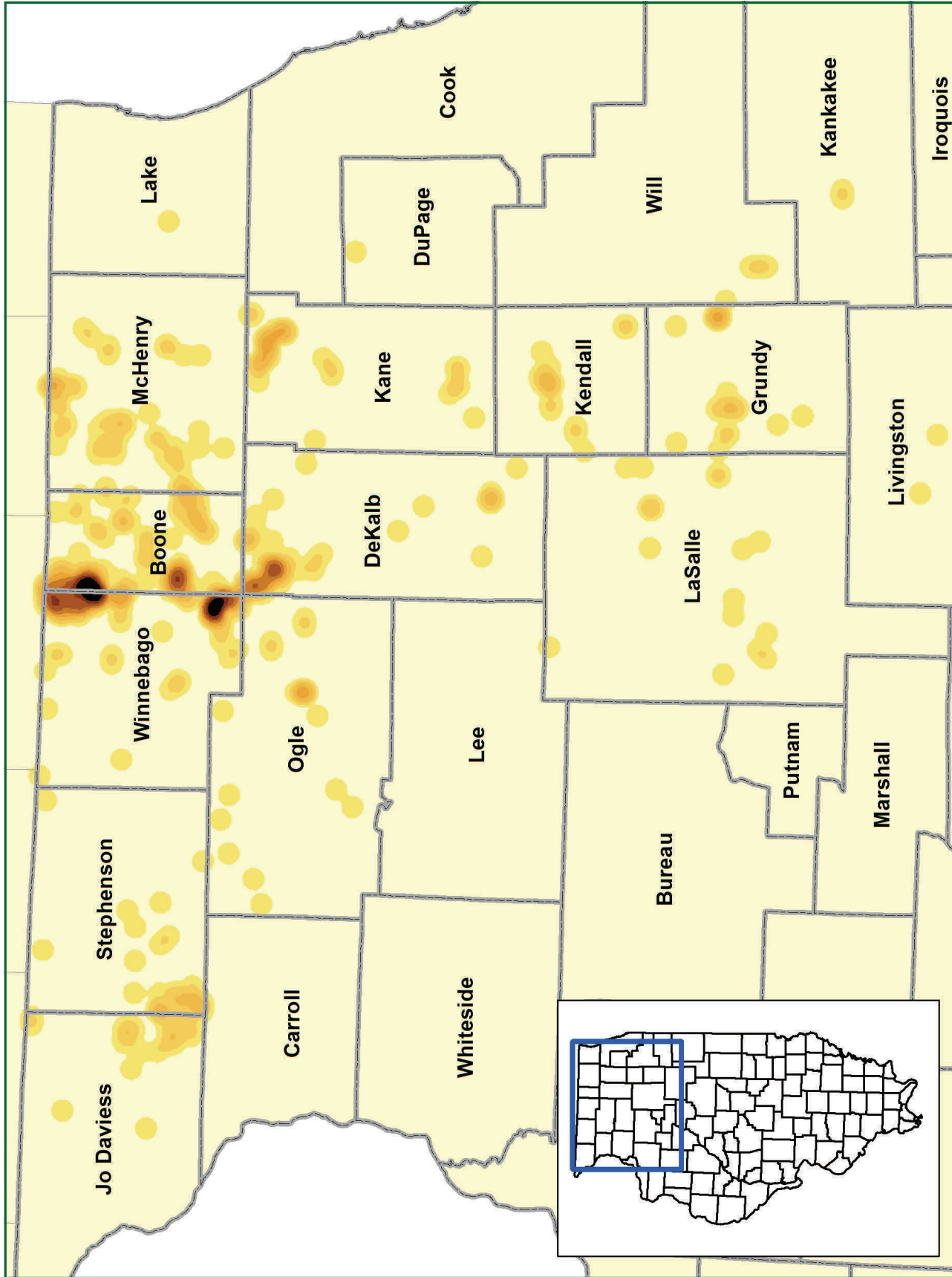
¹ Special permits include urban Deer Population Control Permits, nuisance Deer Removal Permits, and Scientific Permits.

Appendix B. Summary of CWD-positive Illinois deer collected during FY2015.

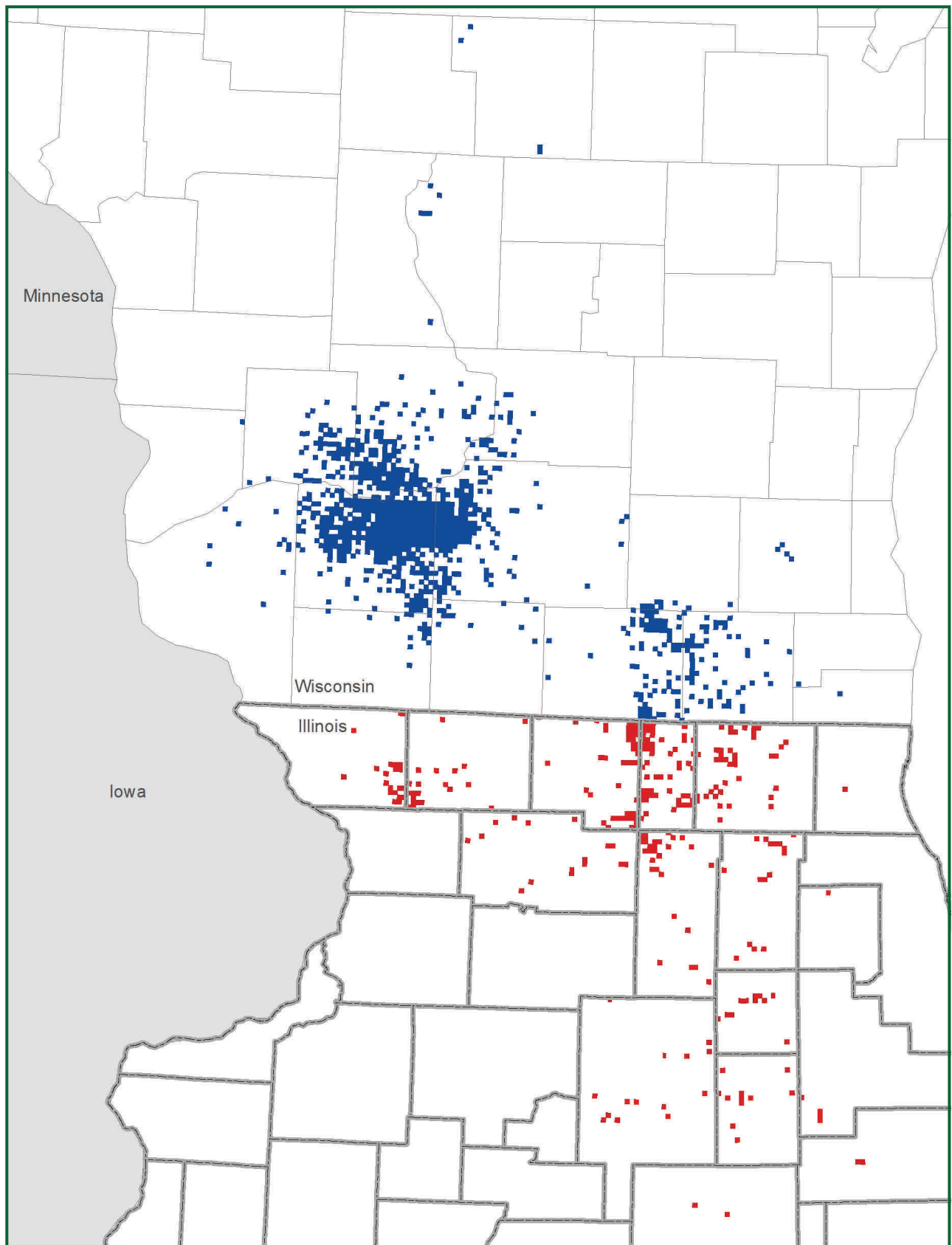
Date Collected	County	Township, Range, Section	Sex	Age	Collection Method
7/8/15	OGLE	341N 1E 6	F	3	SHARPSHOOTING
10/2/15	MCHENRY	346N 7E19	M	3	HUNTING
10/4/15	MCHENRY	345N 6E21	F	2	HUNTING
10/8/15	LASALLE	332N 4E 8	F	1	SUSPECT
10/16/15	BOONE	346N 3E26	F	2	HUNTING
11/7/15	JODAVIESS	426N 5E 9	M	2	HUNTING
11/9/15	KANE	342N 8E20	M	2	HUNTING
11/14/15	JODAVIESS	426N 5E21	M	4	HUNTING
11/14/15	JODAVIESS	427N 4E13	M	3	HUNTING
11/20/15	STEPHENSON	426N 5E25	M	1	HUNTING
11/20/15	GRUNDY	333N 7E20	F	5	HUNTING
11/20/15	KENDALL	337N 7E33	M	2	HUNTING
11/20/15	JODAVIESS	429N 5E20	F	4	HUNTING
11/20/15	GRUNDY	331N 6E 2	F	3	HUNTING
11/20/15	BOONE	345N 4E28	F	2	HUNTING
11/20/15	STEPHENSON	427N 7E20	M	2	HUNTING
11/20/15	MCHENRY	345N 6E20	M	4	HUNTING
11/20/15	MCHENRY	345N 5E 1	M	1	HUNTING
11/20/15	OGLE	425N 8E32	M	1	HUNTING
11/20/15	BOONE	346N 3E17	F	2	HUNTING
11/21/15	KANE	342N 7E 8	M	1	HUNTING
11/21/15	JODAVIESS	428N 3E10	F	1	HUNTING
11/21/15	WILL	332N 9E11	F	2	HUNTING
11/21/15	OGLE	423N 9E26	F	2	HUNTING
11/22/15	LASALLE	No Location Provided	M	2	HUNTING
11/22/15	STEPHENSON	426N 5E 3	M	3	HUNTING
11/23/15	BOONE	344N 4E36	M	2	HUNTING
11/23/15	LASALLE	332N 2E16	M	3	HUNTING
11/27/15	MCHENRY	345N 7E11	M	1	HUNTING
12/3/15	GRUNDY	333N 6E25	F	1	HUNTING
12/3/15	OGLE	425N 8E14	M	1	HUNTING
12/4/15	STEPHENSON	426N 8E34	M	1	HUNTING
12/5/15	BOONE	346N 3E33	M	1	HUNTING
12/5/15	OGLE	425N 9E13	M	2	HUNTING
12/6/15	JODAVIESS	426N 4E12	F	3	HUNTING
12/6/15	JODAVIESS	426N 5E29	M	2	HUNTING
12/6/15	WINNEBAGO	343N 2E13	M	A	HUNTING
12/6/15	STEPHENSON	426N 5E34	M	4	HUNTING
12/10/15	BOONE	344N 3E21	F	4	HUNTING
12/26/15	STEPHENSON	426N 5E35	F	2	HUNTING
1/3/16	MCHENRY	345N 5E 2	M	2	SUSPECT
1/5/16	LASALLE	333N 4E31	M	3	SUSPECT
1/9/16	KANE	338N 6E23	F	2	HUNTING
1/25/16	KANE	341N 7E27	M	2	SHARPSHOOTING

Appendix B cont'd.

Date Collected	County	Township, Range, Section	Sex	Age	Collection Method
1/25/16	KANE	342N 8E29	F	1	SHARPSHOOTING
1/25/16	MCHENRY	346N 7E 6	M	F	SHARPSHOOTING
1/26/16	DEKALB	338N 5E31	F	1	SHARPSHOOTING
1/26/16	LASALLE	334N 4E 6	M	1	SHARPSHOOTING
1/27/16	DEKALB	342N 3E27	M	4	SHARPSHOOTING
1/27/16	JODAVIESS	426N 4E 2	M	1	SHARPSHOOTING
1/28/16	JODAVIESS	427N 5E20	M	3	SHARPSHOOTING
2/2/16	BOONE	344N 3E28	F	1	SHARPSHOOTING
2/3/16	KENDALL	336N 7E 4	M	4	SHARPSHOOTING
2/3/16	BOONE	346N 3E19	M	F	SHARPSHOOTING
2/4/16	BOONE	344N 3E28	M	1	SHARPSHOOTING
2/11/16	KANKAKEE	331N11E31	F	3	SUSPECT
2/11/16	BOONE	346N 3E19	M	2	SHARPSHOOTING
2/15/16	BOONE	346N 3E18	M	1	SHARPSHOOTING
2/17/16	STEPHENSON	426N 5E 3	F	5	SHARPSHOOTING
2/22/16	STEPHENSON	426N 6E 1	M	1	ROADKILL
2/24/16	KENDALL	336N 6E 1	F	3	SHARPSHOOTING
3/1/16	KENDALL	336N 6E22	M	2	SHARPSHOOTING
3/1/16	KENDALL	336N 7E 4	F	3	SHARPSHOOTING
3/1/16	KANE	342N 8E29	M	3	SHARPSHOOTING
3/2/16	MCHENRY	346N 7E 6	F	3	SHARPSHOOTING
3/3/16	KANE	342N 7E10	M	2	SHARPSHOOTING
3/9/16	OGLE	341N 1E 7	F	2	SHARPSHOOTING
3/10/16	KANE	342N 8E29	F	1	SHARPSHOOTING
3/24/16	STEPHENSON	426N 5E 3	F	2	SHARPSHOOTING
3/24/16	DEKALB	342N 3E27	F	F	SHARPSHOOTING
3/30/16	KENDALL	336N 6E30	F	2	SHARPSHOOTING
5/12/16	STEPHENSON	426N 7E 2	F	5	SUSPECT



Appendix C. Cumulative distribution and relative intensity of chronic wasting disease in northern Illinois. Darker areas represent larger numbers of positive deer identified.



Appendix D. Historical distribution of CWD in southern Wisconsin and northern Illinois as of June 30, 2016. Squares represent sections in which CWD has been detected.