

Illinois Chronic Wasting Disease: 2022-2023 Surveillance and Management Report

(Project Period: 1 July 2022 - 30 June 2023)

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Executive Summary

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

Total samples through 30 June 2023: 162,099

Total positives through 30 June 2023: 1,752

Number of counties affected through 30 June 2023: 19 (Boone, Carroll, Cook, DeKalb, DuPage, Grundy, Jo Daviess, Kane, Kankakee, Kendall, Lake, LaSalle, Lee, Livingston, McHenry, Ogle, Stephenson, Will, Winnebago).

General distribution through 30 June 2023:

Total affected area (determined by a minimum convex polygon that includes all positives) is now 9,806 mi². The number of CWD-positive (CWD+) deer detected increased ~69% in FY2023 (Table 1), which may reflect, in part, higher numbers of deer sampled ($n=11,101$) than during FY2022 ($n=9,896$). More likely this increase is indicative of geographic expansion and increasing CWD prevalence within the endemic area of northern Illinois. Prevalence among adult male deer (7.5%), adult female deer (4.5%), and across all sex and age classes of adult deer (6.2%) during FY2023 were 28-50% higher than the previous 2 years (Figure 7). Increasing trends in prevalence were noted in 10 of 19 counties; prevalence remained unchanged in 2 counties and sampling intensity in 7 counties was insufficient for estimating annual prevalence. In counties where long-term surveillance (5+ years) has occurred, 6 counties (i.e., Boone, Grundy, Kendall, LaSalle, McHenry, Stephenson) continue to maintain the highest annual prevalence rates on record (Figure 9). Annual prevalence rates in CWD counties remained low and rates of annual increase were minimal (0.08% per year since 2003) prior to 2019. However, CWD prevalence rates have increased 1.5 to 4.5-fold from 1.6% in 2019 to 3.1%, 4.4%, and 6.2% in 2020, 2021, and 2022, respectively. Increasing prevalence in recent years reflect notable departures from the long-term rates of increase in disease infection across northern Illinois, and in turn suggest a fundamental change in disease dynamics and shifting temporal or spatial patterns of CWD infection across northern Illinois. Consequently, increasing spatial and temporal patterns of infection in recent years remains a growing cause for concern. A comprehensive evaluation of ongoing CWD management and implementation of novel approaches are needed to minimize future occurrence and geographic expansion of CWD across northern Illinois, and elsewhere across the state where the disease is not currently known to occur.

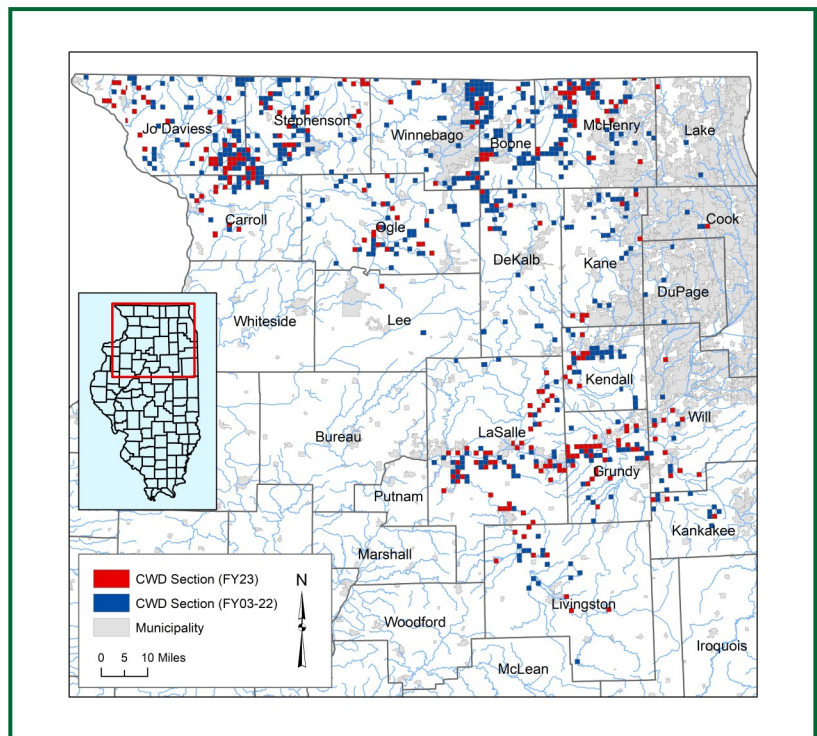


Figure 1. Distribution of all known CWD-infected deer identified in Illinois through 30 June 2023.

CWD Surveillance Protocols During FY2022 (1 July 2022 - 30 June 2023)

Testing: The majority (>99%) of CWD testing was conducted by the Wisconsin Veterinary Diagnostic Laboratory, University of Wisconsin-Madison. Enzyme-linked immunosorbent assay (ELISA) was used for initial screening and immunohistochemistry (IHC) was used to confirm results of CWD tissues. Remaining samples collected from vehicle-killed and suspect deer were tested directly with IHC at the Veterinary Medical Diagnostic Laboratory,

University of Missouri-Columbia. Samples were initially screened using tissue from retropharyngeal lymph nodes (RPLN), followed by confirmatory testing of recut RPLN tissue.

Sampling of hunter-harvested deer: Three sources were used to provide tissue samples from adult (≥ 1.5 yr old) 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 Randolph County; 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 appearing deer, IDNR staff collected samples from deer that exhibited signs/symptoms consistent with chronic wasting disease infection.

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). In response to CWD infection identified in southeastern Missouri, Missouri Department of Conservation, in cooperation with IDNR also culled deer from the portion of Randolph County situated on the Missouri side of the Mississippi River navigation channel.

CWD Surveillance Results FY2023

Total number of CWD samples collected statewide: During FY2023, a total of 11,139 white-tailed deer were collected and sampled for CWD across Illinois; sampling efforts occurred primarily across the northern, west-central, and southern regions of the state (Figure 2). Mean number of deer sampled annually is 7,719 (SE=337), though ranges from 4,599 to 11,139 (Figure 3); CWD-positive deer were obtained primarily from hunter-harvest, IDNR sharpshooting, vehicle collisions/suspect animals (Figure 4) and summarized by county in relation to number of samples collected (Appendices A, B).

Number of usable samples collected: 11,101

Number of CWD-positive deer identified: 369. The total number of CWD-positive deer collected by county and year ranges from 14 in 2003 to 369 in 2023; # of positive cases has increased progressively since 2013 (Table 1).

Number of counties with positive deer: 18 — Boone (11), Carroll (19), Cook (1), DeKalb (6), Grundy (46), Jo Daviess (54), Kane (7), Kankakee (3), Kendall (13), Lake (1), LaSalle (59), Lee (1), Livingston (10), McHenry (50), Ogle (21), Stephenson (38), Will (13), Winnebago (16).

Number of new CWD counties: 0

CWD prevalence information for the known CWD area (19 counties; adult deer from hunting sources only) —

Average CWD prevalence (all adult deer): 6.2% (253/4088)
Average CWD prevalence (adult males): 7.5% (172/2299)
Average CWD prevalence (adult females): 4.5% (81/1789)

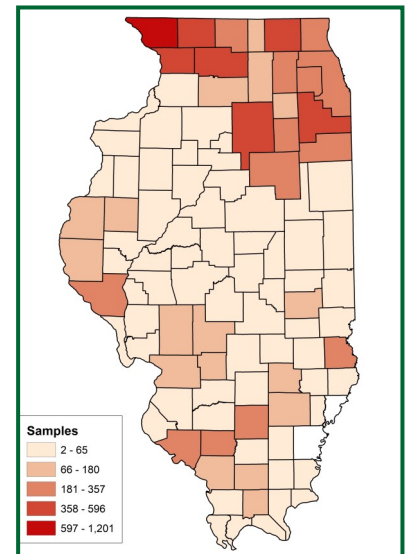


Figure 2. CWD sample distribution across Illinois during FY2023 (all sources).

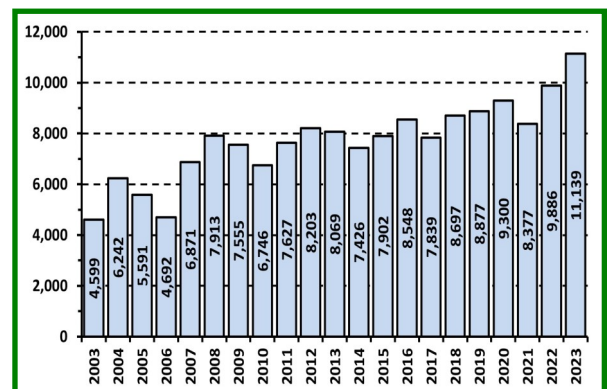
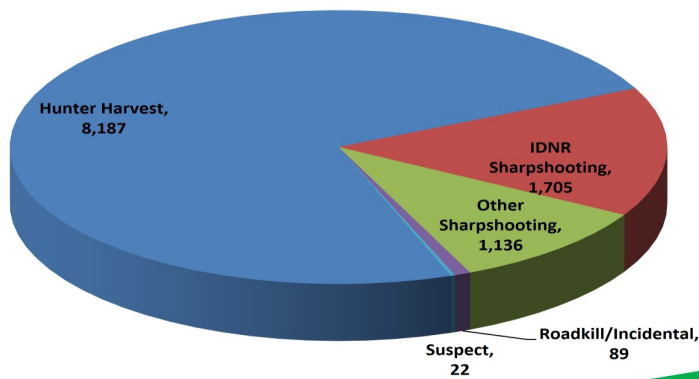


Figure 3. Number of CWD surveillance samples collected statewide each year during FY2003 through FY2023.



2022-2023 Illinois Deer Tested By Source (n=11,139)

2022-2023 CWD-Positive Deer By Source (n=369)

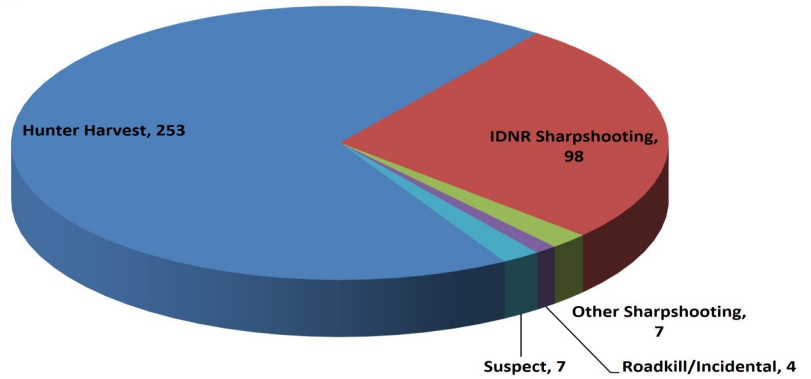


Figure 4. Number of CWD samples tested and number of positives identified by sampling source during FY2023 (1 July 2022 through 30 June 2023). *Note: Number tested includes all samples submitted for wild deer, regardless of whether a valid test result was obtained.*

Table 1. Number of CWD-positive deer collected by county and fiscal year across northern Illinois, November 2003 through June 2023.

County	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Boone	9	25	13	15	13	11	9	14	7	5	4	5	6	11	7	3	6	10	14	11	11	209
Carroll	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	4	9	15	19	52
Cook	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	1	4
DeKalb	-	4	1	5	6	8	4	3	7	5	7	8	8	3	3	1	3	1	5	6	6	94
DuPage	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	1	-	4
Grundy	-	-	-	-	-	-	-	-	2	5	3	3	5	3	7	2	10	17	15	25	46	143
Jo Daviess	-	-	-	-	-	-	-	-	1	-	1	4	7	9	10	8	12	25	18	27	54	176
Kane	-	-	-	-	-	-	-	-	4	7	4	5	7	8	5	2	3	2	6	6	7	66
Kankakee	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	2	3	3	2	3	17
Kendall	-	-	-	-	-	-	-	-	-	-	1	4	6	6	6	1	5	11	9	13	13	75
Lake	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	1	4
LaSalle	-	-	-	-	1	-	-	-	3	-	1	2	6	5	4	5	6	20	19	28	59	159
Lee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	4
Livingston	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	1	7	1	6	10	29
McHenry	2	2	4	4	4	-	4	3	3	3	3	7	6	8	8	8	14	30	31	27	50	221
Ogle	-	-	-	2	-	-	1	-	4	2	3	1	2	6	2	3	10	7	2	9	21	75
Stephenson	-	-	-	-	-	1	-	1	1	2	3	4	6	10	11	12	8	26	8	34	38	165
Will	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	-	-	4	3	3	13	27
Winnebago	3	20	13	25	18	18	12	16	10	7	5	13	8	1	6	4	9	7	14	3	16	228
Total	14	51	31	51	42	38	30	37	42	36	36	59	71	72	75	51	90	176	163	218	369	1752

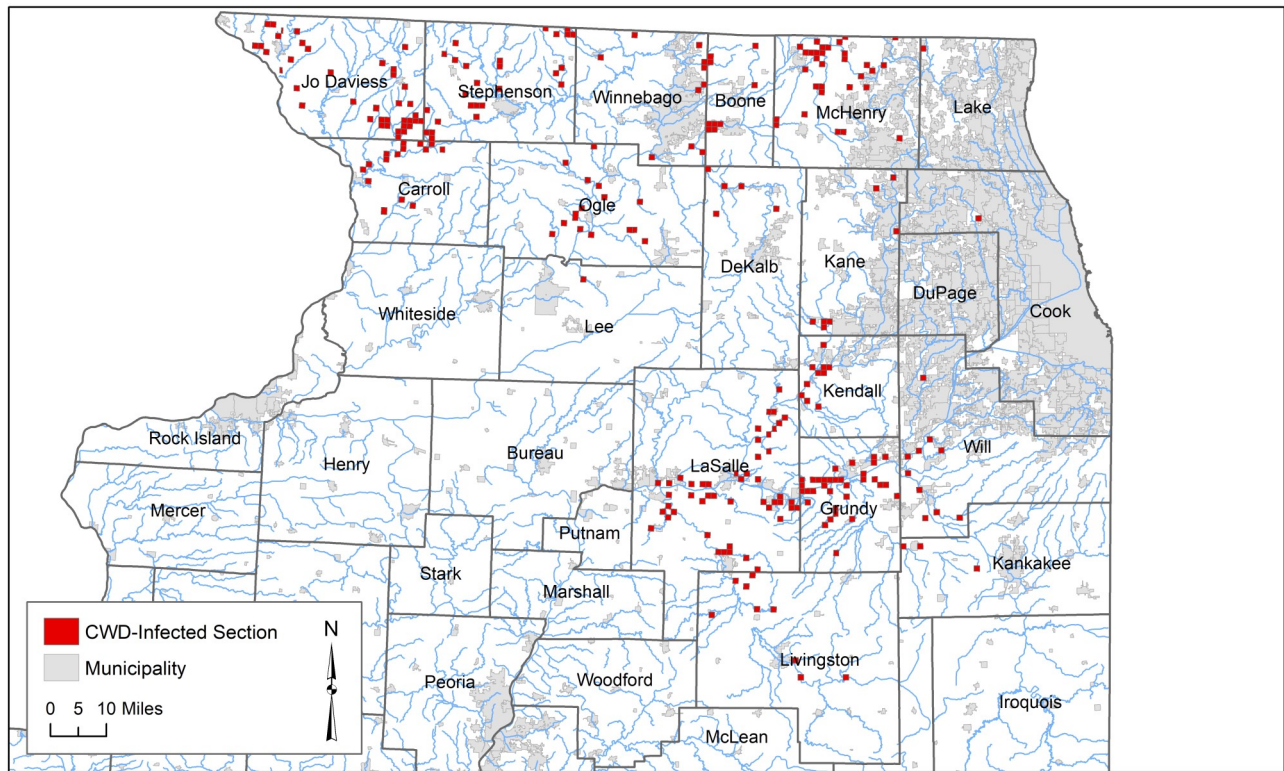


Figure 5. Distribution of CWD-positive deer identified across northern Illinois during FY2023 (1 July 2022 through 30 June 2023).

CWD Management During FY2023

Hunting Seasons for Herd/Disease Control

Length: Archery deer season (Oct. 1-Jan. 15; closed during firearm season) consisted of 108 days in DuPage and Lake counties (no firearm hunting), and 101 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 (firearm season only) 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 permits from firearm, muzzleloader, or youth deer seasons.

Significant changes: None.

Hunter harvest: Hunters harvested 15,415 deer from 19 CWD counties during 2022-2023 (Table 2), compared to 14,877 deer during 2021-2022. The previous 5-year average harvest for the 19 counties was 16,637. In the 2001-2002 hunting season, the last season prior to the discovery of CWD in Illinois, hunter harvest totaled 17,642.

Table 2. Total deer harvested in CWD counties across northern Illinois, 1 October 2022 through 15 January 2023.

County	Youth	Muzzleloader	CWD	Firearm	Archery	All Seasons
Boone	5	7	28	106	177	323
Carroll	12	24	120	492	512	1,160
Cook	<i>Not open to firearm deer hunting</i>				156	156
DeKalb	2	0	32	113	186	333
DuPage	<i>Not open to firearm deer hunting</i>				34	34
Grundyl	4	11	80	270	371	736
Jo Daviess	45	31	358	1,262	953	2,649
Kane	0	0	5	27	308	340
Kankakee	11	6	46	179	311	553
Kendall	0	3	17	64	169	253
Lake	<i>Not open to firearm deer hunting¹</i>			3	286	289
LaSalle	16	22	186	643	770	1,637
Lee	29	22	118	493	466	1,128
Livingston	19	9	52	363	241	684
McHenry	2	18	60	204	669	953
Ogle	26	15	148	532	645	1,366
Stephenson	6	9	86	517	413	1,031
Will	14	9	89	204	702	1,018
Winnebago	6	10	95	225	436	772
Totals	197	196	1,520	5,697	7,805	15,415

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 areas known to have CWD. Our goals are to 1) reduce disease transmission rates by lowering densities in infected areas, 2) reduce environmental contamination from infected deer, and 3) 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 uninfected areas are not impacted as would be the case if hunting was the only management tool; (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 conducted between 23 January 2023 and 31 March 2023.

Aerial Surveys: Deer were counted via helicopter survey during periods of suitable snow cover to determine distribution and population size within known CWD areas, enabling staff to focus sharpshooting activities on deer in winter concentration areas that included or were near CWD-infected properties.

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) providing suitable tissue samples were tested

for CWD. Additional tissue samples were collected for genetic testing and evaluation of reproductive status at the University of Illinois Urbana-Champaign/Illinois Natural History Survey. Deer may be returned to the landowner at their request and results provided as soon as available. Remaining deer, in which CWD was not detected, were processed and donated to the Northern Illinois Food Bank.

Results of Helicopter Deer Counts

Chronic wasting disease management unit boundaries were established by buffering each CWD-positive section that occurred during the past five years (2018-2022) with a 2-section buffer (Figure 6). Total area encompassed by all CWD management areas was ~4,517 square miles. Aerial deer surveys were

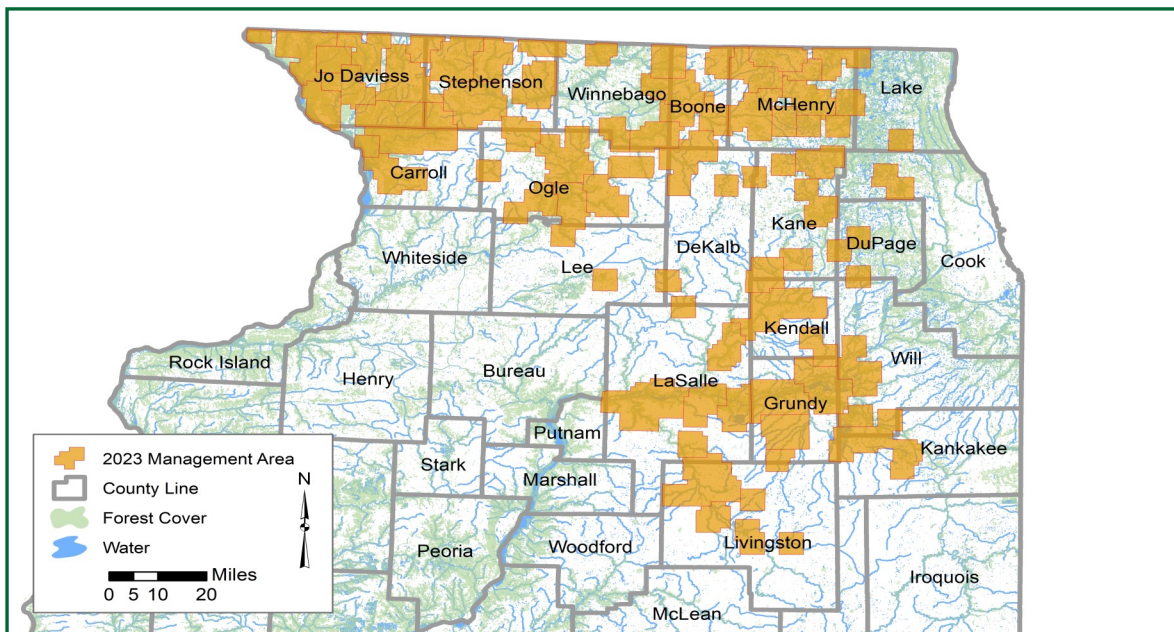


Figure 6. Chronic wasting disease management area boundaries across northern Illinois, winter 2023.

Table 3. Aerial deer survey estimates by county within CWD management units across northern Illinois, winter 2023.

County	Management Unit Total Area (mi ²)	Area of Deer Habitat in Management Unit (mi ²)	Total Deer Habitat Surveyed (mi ²)	Total # of Deer Counted	Deer per mi ² of Deer Habitat Surveyed
Boone	208.53	83.30	37.44	535	14.29
Carroll	205.04	144.95	24.07	573	23.80
Cook	51.05	12.79	— ^A	—	—
DeKalb	137.30	36.81	— ^A	—	—
DuPage	52.20	20.28	— ^A	—	—
Grundy	296.17	107.84	— ^A	—	—
Jo Daviess	542.91	402.61	— ^A	—	—
Kane	233.71	116.95	— ^A	—	—
Kankakee	102.20	39.43	— ^A	—	—
Kendall	176.05	66.31	— ^A	—	—
Lake	49.70	27.01	5.73	94	16.40
LaSalle	401.60	175.60	— ^A	—	—
Lee	67.38	21.97	— ^A	—	—
Livingston	271.94	62.97	— ^A	—	—
McHenry	468.87	242.67	93.82	1,481	15.78
Ogle	419.63	208.58	— ^A	—	—
Stephenson	457.55	198.33	— ^A	—	—
Will	185.72	99.56	— ^A	—	—
Winnebago	189.55	116.56	23.12	252	10.90
Total	4,517.10	2,184.54	184.19	2,935	15.93

^A — denotes that no flights were conducted during winter 2023

conducted over ~8.4% of deer habitat present within current CWD management areas; unfavorable winter conditions precluded surveys across most of northern Illinois. Highest deer densities were observed throughout northwest Illinois (Carroll County) with lower deer densities (10-16 deer/mi²) noted in the northcentral (Winnebago, Boone counties) and northeastern (McHenry, Lake counties) regions of the state (Table 3).

IDNR Sharpshooting Results

Management area: Sharpshooting was conducted within CWD management units created by buffering each CWD-positive section detected during the past five years (2018-2022) with a 2-section buffer (Figure 6). These units comprised 2,185 mi² of suitable deer habitat, of which 184 mi² was surveyed during winter 2023.

Number of counties in which deer were removed: 18

Number of townships in which deer were removed: 88

Number of sections in which deer were removed: 167 - Distribution of CWD-positive deer occurred primarily throughout the northern border counties of Jo Daviess, McHenry, Stephenson, and Winnebago, and in counties (e.g., Grundy, LaSalle) along the Illinois River (Table 4, Figure 5).

Number of deer removed: 1,705 (mean # deer removed/section = 10.3; range = 1-43)

Number of CWD-positive deer removed: 98, of which 68% (n=67) occurred in 5 counties (Grundy, Jo Daviess, LaSalle, McHenry, Stephenson; Table 4).

Carcass Disposition: 1,485 - donated to Northern Illinois Food Bank; 93 - returned to landowners; 29 - deemed unsafe for human consumption and landfilled; 98 - CWD-positive and venison cremated.

Sharpshooting Programs by Other Agencies/Entities in CWD counties

Deer Population Control Permits (DPCP): Eleven land-managing entities with DPCPs collected CWD samples as a condition of their permit. Sampling occurred in 5 CWD counties (Jo Daviess, Kane, Lake, Will and Winnebago) as well as Cook and DuPage counties, which are bordered by 5 CWD counties.

Table 4. IDNR sharpshooting effort and number of deer removed by county across northern Illinois, winter 2023.

	# of Townships Where Removals Occurred	# of Sections Where Removals Occurred	Total # of Deer Removed	Average # of Deer Removed per Section	# of Positive Deer Removed
Boone	2	4	58	14.5	3
Carroll	5	13	174	13.4	2
DeKalb	1	3	24	8.0	1
Grundy	4	8	171	21.4	15
Jo Daviess	9	19	220	11.6	13
Kane	10	22	161	7.3	1
Kankakee	4	4	70	17.5	0
Kendall	3	5	51	10.2	5
Lake	2	3	13	4.3	0
LaSalle	8	13	156	12.0	10
Lee	3	4	14	3.5	0
Livingston	3	3	24	8.0	0
McHenry	11	20	120	6.0	16
Ogle	8	15	112	7.5	7
Randolph	2	2	8	4.0	0
Stephenson	6	14	166	11.9	13
Will	4	9	96	10.7	5
Winnebago	3	6	67	11.2	7
All Counties	88	167	1,705	10.2	98

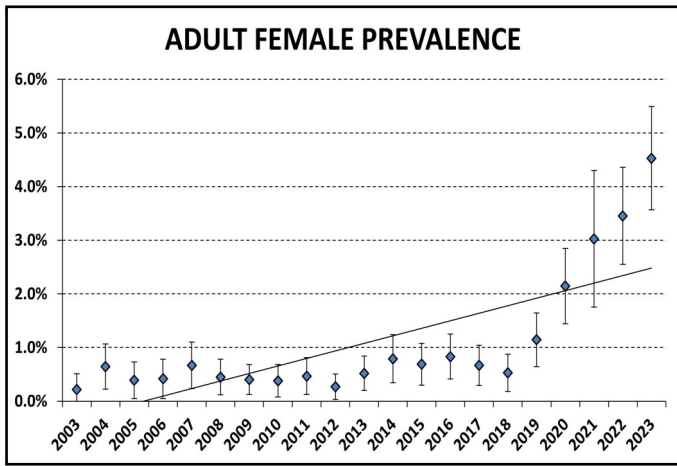
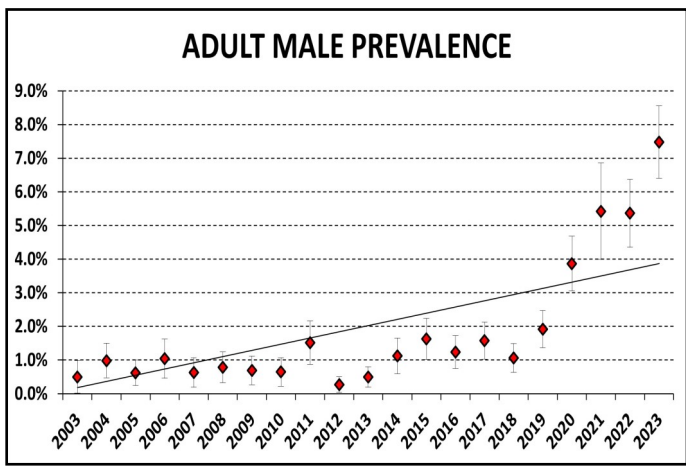
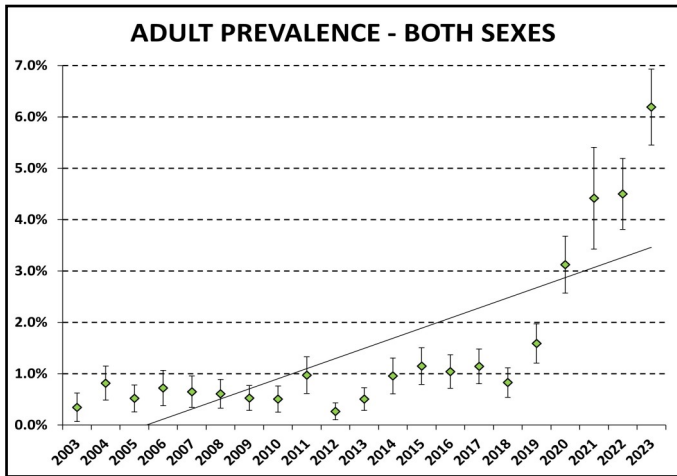
Permit recipients submitted tissue samples for CWD testing from 1,039 deer (1,030 usable samples) taken from at least 108 sections in those counties. Seven CWD-positive deer were removed from counties where the disease has previously been detected: 3 samples from Winnebago County, 1 from Jo Daviess County, 1 from Cook County, and 2 from Will County.

Nuisance Deer Removal Permits (DRP): Sixty-one samples were submitted from deer taken in 6 counties (including 2 CWD counties) using DRPs, all of which tested negative for CWD.

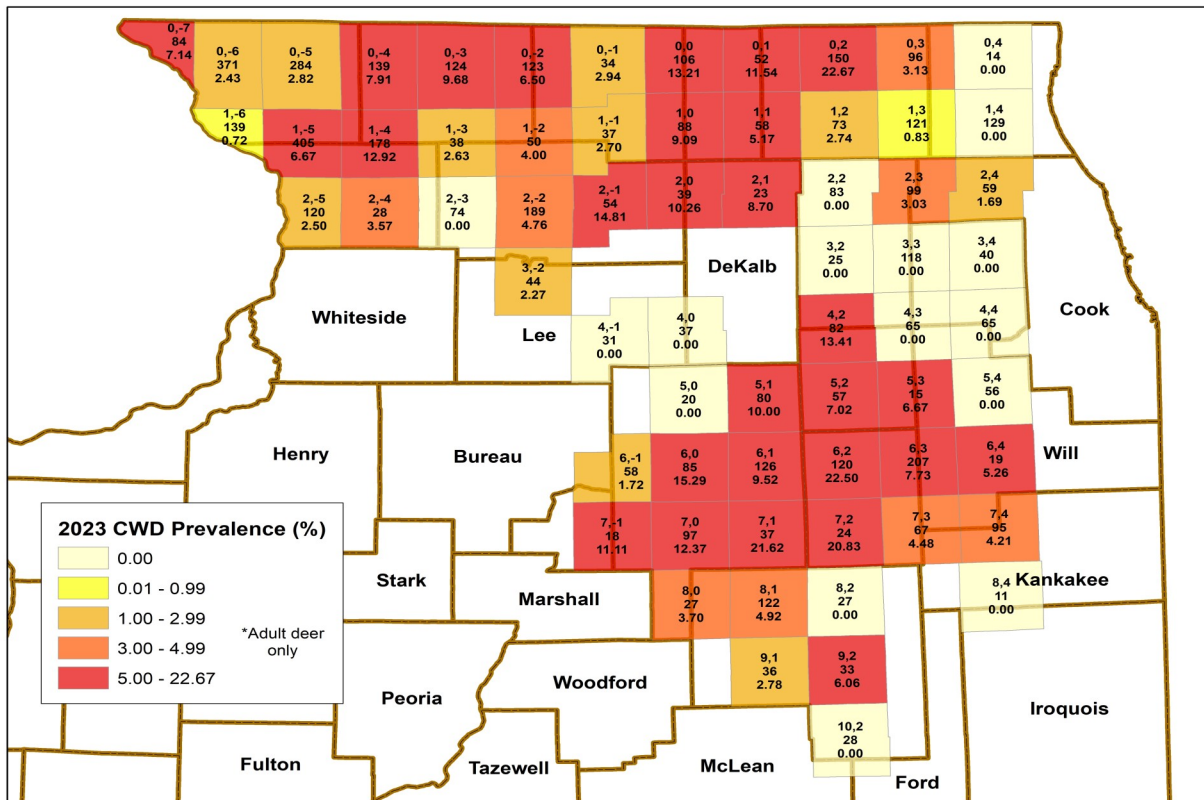
Discussion: Illinois CWD in FY2023

Three hundred sixty-nine (369) CWD-positive deer were identified from 11,101 usable deer samples collected statewide. Across the 19-county CWD range, the disease prevalence rate for all adult deer taken by hunters was 6.2%, which was 38% higher than in FY2022 and 41% higher than in FY2021. Prevalence recorded during FY2023 once again constitutes the highest observed infection rate in the history of the program. Predictably, CWD prevalence of infection reported for adult males (7.5%) continues to be

Figure 7. Trends in CWD prevalence (i.e., percentage of deer infected; Y-axis) for hunter-harvested adult deer (\geq yearling) by year (X-axis) during 2003-2023 for the 19 counties where CWD has been detected. Error bars at each point depict the 95% confidence interval of annual point estimates. Mean prevalence rates in males remain ~75% higher than in females during this 20-year period.



notably (~40%) higher than that of adult females (4.5%; Figure 7). Additionally, rates of CWD infection in adult deer removed by IDNR sharpshooting and hunter harvest were 5.7% and 3.1%, respectively, thereby suggesting that targeted and localized removal of infected deer by sharpshooting currently remains the most effective method for managing CWD across northern Illinois. However, rates of CWD infection during the past 3 years have tripled, and are substantially higher than annual infection rates (~2%) reported during the first 17 years (2003-2019) of CWD management. Increasing prevalence since 2019 is indicative of the need for additional disease management tools and revised management strategies concurrent with



*Blocks only shown with a minimum of 10 useable samples.

Figure 8. Estimated prevalence rates in adult (≥ 1.5 yr old) deer during FY2023 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 (%) calculated using all data sources except suspect deer.

Table 5. Prevalence of infection for CWD-positive hunter harvested adult (>1.5 yrs old) deer tested during FY2023 (1 July 2022 through 30 June 2023).

County	# of Samples	# of Positives	% Positive	95% CI (\pm)
Boone	86	8	9.30%	6.14
Carroll	404	17	4.21%	1.96
Cook	20	0	0.00%	0.00
DeKalb	90	5	5.56%	4.73
DuPage	5	0	0.00%	0.00
Grundy	168	29	17.26%	5.71
JoDaviess	886	40	4.51%	1.37
Kane	152	5	3.29%	2.84
Kankakee	104	2	1.92%	2.64
Kendall	69	6	8.70%	6.65
Lake	43	1	2.33%	4.50
LaSalle	429	47	10.96%	2.96
Lee	67	1	1.49%	2.90
Livingston	295	10	3.39%	2.07
McHenry	359	33	9.19%	2.99
Ogle	327	13	3.98%	2.12
Stephenson	280	24	8.57%	3.28
Will	173	6	3.47%	2.73
Winnebago	131	6	4.58%	3.58
All CWD Counties	4,088	253	6.19%	0.74

targeted sharpshooting to successfully mitigate potential impacts of CWD on deer populations throughout Illinois in future years.

Surveillance data indicate that prevalence rates were higher in the majority (12 of 18) counties throughout the CWD infection area, though spatial patterns of infection were inconsistent across the endemic area during FY2023 (Table 5, Figures 8, 9):

- More CWD-positive hunter-harvested deer were removed from LaSalle County ($n=47$) than any other county, followed by 4 counties (Grundy, Jo Daviess, McHenry, Stephenson) where ≥ 20 CWD+ deer were harvested; ≥ 5 CWD+ deer were harvested from 8 of 19 counties (Boone, DeKalb, Kane, Kendall, Livingston, Ogle, Will, Winnebago) in FY2023 (Table 5).
- As in past years, spatial patterns in disease prevalence revealed the highest reported infection rates in northern McHenry County (block 0,2), central/southern LaSalle County (blocks 6,0; 6,1; 7,-1; 7,0; 7,1), northwestern/southwestern Grundy County (blocks 6,2; 6,3; 7,2), and southeastern Ogle/DeKalb County line (blocks 2,-1; 2,0). High prevalence also occurred in northern Stephenson and Carroll counties (blocks 0,-4; 0,-3; 0,-2; 1,-4). Elsewhere, infection rates remained relatively low ($<5\%$) throughout Cook, DuPage, Kane, Kankakee, Kendall, Lake, Lee, and Livingston counties (Figure 8).
- Increasing prevalence occurred in 12 of 19 (63%) CWD+ counties during FY2023 as compared to 9 of 19 (47%) and 15 of 19 (79%) CWD+ counties during FY2022 and FY2021, respectively. Prevalence rates appeared to decline in 3 counties (Kankakee, Kendall, Stephenson) during FY2023, and remain relatively unchanged from FY2022 in Carroll and Lee counties. Despite limited sampling intensity (≤ 25 deer tested), CWD remained undetected in Cook and DuPage counties during FY2023.
- Spatial patterns of infection during the past 5 years are indicative of 1) higher trends of infection in Grundy, Jo Daviess, Kane, Kendall, LaSalle, Livingston, McHenry, Ogle, Stephenson and Winnebago counties, and 2) relatively stable prevalence rates in Boone, Dekalb, and Kankakee counties (Figure 9).
- Along the Winnebago-Boone county line (blocks 0,0; 1,0; 2,0 collectively), which constitutes the area of initial infection and high rates of disease infection, prevalence during FY2023 (11.2%) remained relatively high. Infection rates were 62% higher than in FY2022 (6.9%), and comparable to historic levels documented in FY2014 (12.7%).
- Northeastern Illinois (i.e., Grundy, Kendall, LaSalle, and McHenry counties) remains an area of increasing CWD prevalence, and thus an ongoing concern to wildlife managers due to its spatial proximity to deer habitat features (i.e., primary waterways and riparian habitat) and travel corridors known to facilitate increased movements of deer between seasonal ranges, and in turn the geographic spread of CWD throughout (and potentially beyond) the current endemic region. Since 2019, prevalence of infection with CWD has tripled throughout this region, and not surprisingly, so has the number of CWD-positive deer removed from this region. Combined prevalence of infection during FY2023 (10.7%; 168 CWD+ from 1568 samples; Appendix A), infection rates increased 37% from FY2022 (93 CWD+, 1189 samples, 7.8% prevalence), 43% from FY2021 (74 CWD+, 989 samples, 7.5% prevalence), 98% from FY2020 (78 CWD+, 1432 samples, 5.4% prevalence), and 311% from FY2019 (35 CWD+, 1366 samples, 2.6% prevalence). Areas of highest prevalence of infection ($\geq 12.4\%$) include blocks 0,2; 4,2; 6,0; 6,2; 7,0; 7,1; and 7,2 in portions of Grundy, Kendall, LaSalle, and McHenry counties (Figure 8).

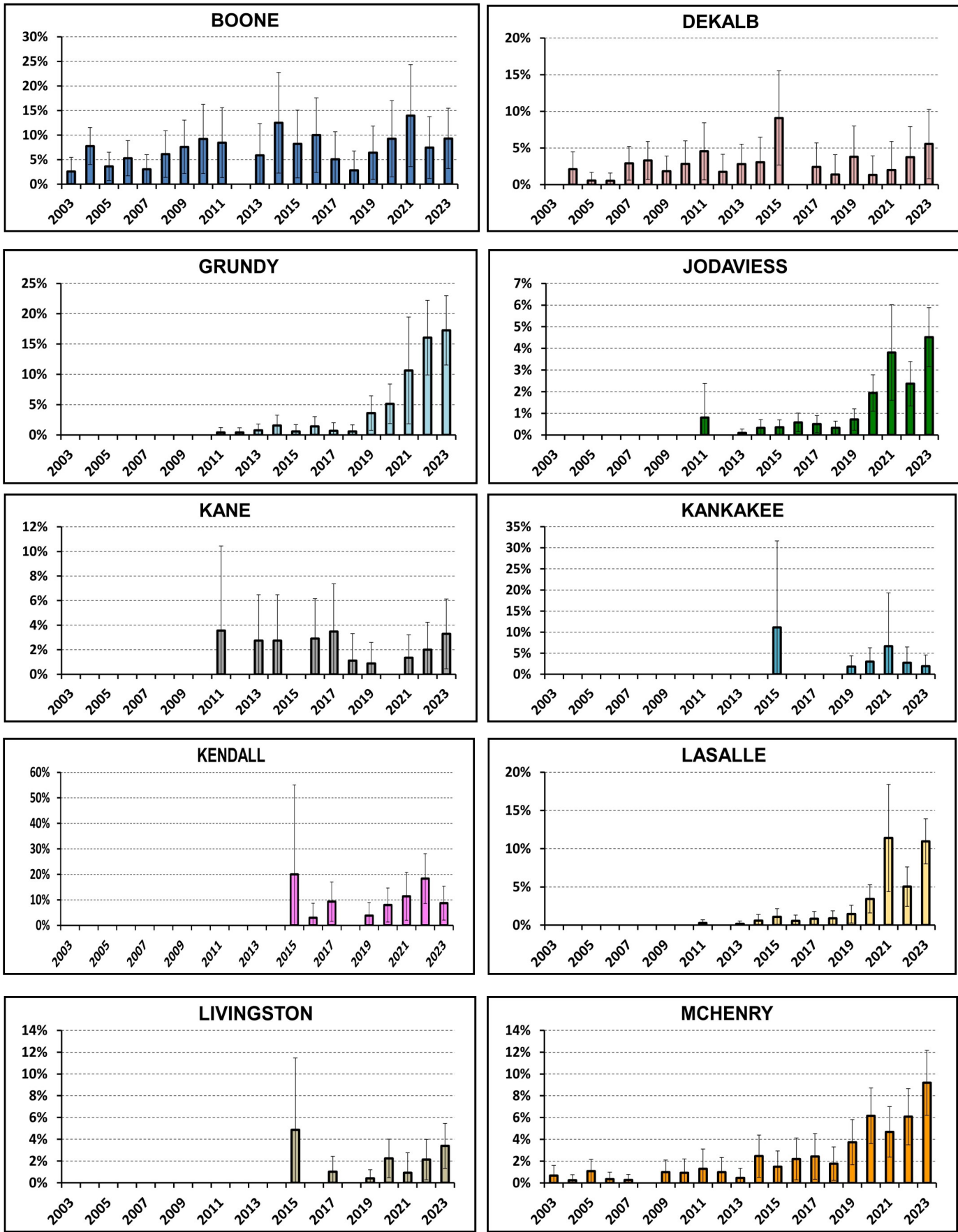


Figure 9. Patterns in estimated CWD prevalence rates (i.e., percentage of infected individuals; Y-axis) by year (X-axis) in counties with ≥ 5 years of data. County prevalence rates were calculated using only hunter-harvested adult male and female deer.

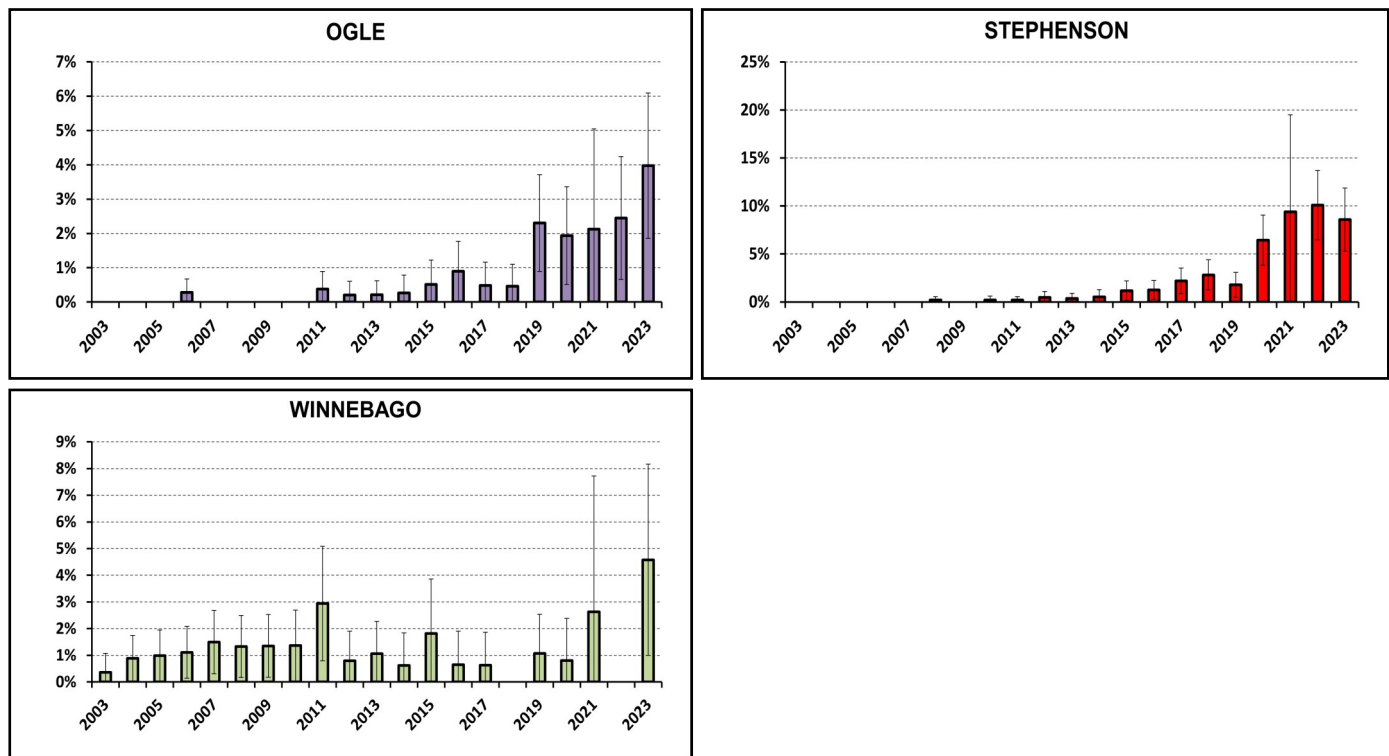


Figure 9. Continued.

- The area of northwestern Illinois (i.e., Jo Daviess, Stephenson, and northern Carroll counties) remains a significant management concern given increasing disease prevalence, high deer densities, and spatial proximity to the CWD-endemic region of southwestern Wisconsin (i.e., an ongoing and continual source of CWD infection) and increasing infection rates in local deer populations. Disease prevalence for Jo Daviess and Stephenson counties was 5.6% in FY2023 (92 CWD+, 1654 samples), and ~33% and 27% higher than the combined prevalence in FY2022 (47 CWD+, 1114 samples, 4.2% prevalence) and FY2021 (14 CWD+, 321 samples, 4.4% prevalence), respectively. Infection rates during the past 2 years (5.6% in FY2023, 4.0% in FY2022) are 33-93% higher than the combined prevalence in FY2021 (3.0%) or FY2020 (2.9%), which may be attributable to changing disease dynamics and increasing infection rates rather than uncertainty due to low sampling intensity and associated variability in samples submitted between years. Blocks 1,-4 and 1,-5 had a combined prevalence of 8.6% (50 CWD+, 583 samples) in FY2023, which was nearly 28% higher than FY2022 (29 CWD+, 433 samples, 6.7% combined prevalence), 65% higher than FY2021 (15 CWD+, 288 samples, 5.2% combined prevalence), 46% higher than FY2020 (25 CWD+, 421 samples, 5.9% combined prevalence), and nearly tripled the combined infection rates in FY2019 (2.9%) and 2018 (2.9%). Throughout northern Stephenson County (Blocks 0,-4 and 0,-3), disease prevalence remained high during FY2023 (23 CWD+, 263 samples, 8.7% combined prevalence), though declined 24% from FY2022 (23 CWD+, 200 samples, 11.5% combined prevalence; ; Figure 8, Appendix A). Patterns of disease infection during the past 2 years are notably higher than infection rates (1.7%- 5.1% combined prevalence) between FY2018 and FY2021.
- In FY2023, prevalence rates in McHenry County (33 CWD+, 359 samples, 9.2% prevalence; Table 5, Figure 9) were notably higher than in FY2022 (20 CWD+, 329 samples, 6.1% prevalence; Table 5, Figure 9), FY2021 (4.7% prevalence), as well as historical high infection rates (6.2%) documented during FY2020. Alarming, prevalence rates across northern McHenry County (blocks 0,1 and 0,2) were 19.8% in FY2023, which were markedly higher than infection rates during the previous 3 years (11-13%), and 2.8 to 3.7

times higher than prevalence estimates documented in FY2019 (5.3%) and FY2018 (7%; Figures 8, 9). Of particular concern are prevalence rates (22.7%) reported from block 0,2, which represents the highest historical prevalence documented since the initiation of the CWD program, and indicative that nearly 1 in 4 deer are currently infected with CWD. Higher rates of infection in recent years along the northern border counties likely reflect increasing disease prevalence across the southern Wisconsin endemic areas. Nevertheless, ongoing sharpshooting efforts has maintained relatively low disease prevalence throughout northern IL.

While past (2003-2018) CWD management strategies have been successful at maintaining relatively low ($\leq 1.6\%$) prevalence rates across the current endemic region of northern Illinois, the number of infected deer removed by sharpshooters in recent years (since 2019; 4% combined prevalence) appears increasingly insufficient to maintain low infection rates across many active management units. Importantly, it is increasingly unlikely that future disease management goals will be met, or CWD confined to northern Illinois, if targeted sharpshooting remains the only management tool used by IDNR. Concurrent with ongoing sharpshooting, development and integration of novel tools to manage deer populations and continuation of applied research (e.g., genetic profiling and predisposition of deer to CWD infection throughout the endemic region, role of indirect transmission in WTD-CWD (i.e., white-tailed deer-chronic wasting disease) infection systems, assessments of deer demographics in relation to intra- or interstate CWD endemic regions, development of quantitative tools for deer population estimation) are needed to achieve current/future management goals and to minimize geographic spread of CWD to regions of the state where the disease is not currently known to occur. As such, the apparent shift in spatial distribution of infected deer across the endemic area and inevitable southward expansion of CWD beyond the current endemic area are high priority management concerns for IDNR. Thus, collaborative partnerships with wildlife researchers and managers in Illinois and elsewhere throughout the U.S. are ongoing and will continue to evaluate and investigate novel/innovative approaches to manage CWD, particularly given empirical evidence of increasing rates of infection in recent years.

Appendix A. Useable CWD samples from white-tailed deer by county in Illinois taken during the 2022-2023 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		106					106
ALEXANDER		11					11
BOND		80			1		81
BOONE	45 (3)	43 (5)	58 (3)		1		147 (11)
BROWN	1	30					31
BUREAU	2	32			1		35
CALHOUN		47					47
CARROLL	332 (13)	74 (4)	174 (2)		2	2	584 (19)
CASS		13			1		14
CHAMPAIGN		2			2		4
CHRISTIAN		6					6
CLARK		45					45
CLAY		124					124
CLINTON		13					13
COLES		159					159
COOK		20		248 (1)	1	1	270 (1)
CRAWFORD		222					222
CUMBERLAND		38					38
DEKALB	53 (3)	38 (2)	24 (1)		2		117 (6)
DEWITT		10			1		11
DOUGLAS		22					22
DUPAGE		5		302	1		308
EDGAR		48					48
EDWARDS		3					3
EFFINGHAM		22					22
FAYETTE		62					62
FORD		4					4
FRANKLIN		57					57
FULTON		34					34
GALLATIN		3					3
GREENE		65					65
GRUNDY	142 (25)	27 (4)	170 (15)		10 (2)		349 (46)
HAMILTON		37					37
HANCOCK		101					101
HARDIN		21					21
HENDERSON		48					48
HENRY		4				1	5
IROQUOIS		11					11
JACKSON		100					100
JASPER		45					45
JEFFERSON		180					180
JERSEY		54					54
JODAVIESS	702 (30)	187 (10)	220 (13)	85 (1)	4	2	1200 (54)
JOHNSON		97					97

Appendix A. Continued.

County	Check Stations	Drop-off Stations/ Meat Processors	Agency Culling	Special Permits¹	Roadkill/ Incidental	Suspect	Total
KANE	13	140 (5)	161 (1)	16	2 (1)	1	333 (7)
KANKAKEE	96	8 (2)	70		5	1 (1)	180 (3)
KENDALL	37 (4)	33 (2)	51 (5)		3	2 (2)	126 (13)
KNOX	1	44				1	46
LAKE	2	42 (1)	13	182	1		240 (1)
LASALLE	359 (41)	70 (6)	156 (10)		8 (1)	1 (1)	594 (59)
LAWRENCE		8					8
LEE	6	61 (1)	14		1	2	84 (1)
LIVINGSTON	241 (10)	54	24		4		323 (10)
LOGAN		2					2
MACON		1				1	2
MACOUPIN		74					74
MADISON		101			1		102
MARION		30					30
MARSHALL		15					15
MASON		4					4
MASSAC		19					19
MCDONOUGH		99					99
MCHENRY	114 (7)	256 (26)	120 (16)	2	6	1 (1)	499 (50)
MCLEAN		42					42
MENARD		6					6
MERCER		4			1	1	6
MONROE		11		6	1		18
MONTGOMERY		156					156
MORGAN		4			1		5
MOULTRIE		27					27
OGLE	289 (13)	39	112 (7)		2	3 (1)	445 (21)
PEORIA		13					13
PERRY		251					251
PIATT		4					4
PIKE		357					357
POPE		50					50
PULASKI		4					4
PUTNAM		18					18
RANDOLPH		192	8	24	2		226
RICHLAND		9					9
ROCKISLAND		5					5
SALINE		22					22
SANGAMON		6			1		7
SCHUYLER		62					62
SCOTT		10					10
SHELBY		48					48
STARK		6					6
STCLAIR		14		1	1		16
STEPHENSON	264 (23)	17 (1)	166 (13)		5	2 (1)	454 (38)
TAZEWELL		11					11

Appendix A. Continued.

County	Check Stations	Drop-off Stations/ Meat Processors	Agency Culling	Special Permits¹	Roadkill/ Incidental	Suspect	Total
UNION		30		24	1		55
VERMILION		22					22
WABASH	—	—	—	—	—	—	—
WARREN		17					17
WASHINGTON		9					9
WAYNE		77					77
WHITE	—	—	—	—	—	—	—
WHITESIDE		35					35
WILL	108 (4)	65 (2)	96 (5)	166 (2)	6		441 (13)
WILLIAMSON	1	135			2		138
WINNEBAGO	111 (5)	20 (1)	66 (7)	70 (3)	4		271 (16)
WOODFORD		36			1		37
TOTALS	2,919 (181)	5,245 (72)	1,703 (98)	1,126 (7)	86 (4)	22 (7)	11,101 (369)

Appendix B. Summary of CWD-positive deer collected throughout northern Illinois during FY2022 (1 July 2022 through 30 June 2023).

Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
2-Oct-22	LEE	422N10E33	F	2	HUNTING
2-Oct-22	KANE	342N 8E19	M	1	HUNTING
3-Oct-22	MCHENRY	346N 7E19	F	2	HUNTING
3-Oct-22	STEPHENSON	428N 9E33	F	4	SUSPECT
5-Oct-22	GRUNDY	334N 7E31	M	2	HUNTING
5-Oct-22	WILL	336N 9E11	M	3	HUNTING
8-Oct-22	CARROLL	425N 6E 7	F	4	HUNTING
11-Oct-22	KENDALL	336N 6E 3	M	2	SUSPECT
14-Oct-22	MCHENRY	346N 6E15	F	2	HUNTING
15-Oct-22	MCHENRY	343N 8E 2	M	1	HUNTING
15-Oct-22	DEKALB	342N 3E 6	M	2	HUNTING
16-Oct-22	GRUNDY	333N 8E16	F	1	ROADKILL
17-Oct-22	KENDALL	337N 6E36	M	1	HUNTING
17-Oct-22	JODAVIESS	426N 4E13	M	1	HUNTING
21-Oct-22	OGLE	340N 1E 8	F	2	SUSPECT
22-Oct-22	BOONE	344N 3E32	F	3	HUNTING
22-Oct-22	MCHENRY	345N 6E28	M	3	HUNTING
23-Oct-22	JODAVIESS	427N 2E 2	M	3	HUNTING
30-Oct-22	MCHENRY	345N 5E 1	M	1	HUNTING
31-Oct-22	JODAVIESS	426N 4E21	F	2	HUNTING
31-Oct-22	LAKE	346N 9E16	M	1	HUNTING
31-Oct-22	MCHENRY	346N 7E19	M	2	HUNTING
1-Nov-22	MCHENRY	346N 6E15	M	1	HUNTING
4-Nov-22	KANE	338N 6E23	F	1	HUNTING
5-Nov-22	JODAVIESS	428N 4E34	M	3	HUNTING
7-Nov-22	MCHENRY	346N 6E 8	M	3	HUNTING
7-Nov-22	BOONE	344N 3E29	M	5	HUNTING
8-Nov-22	WILL	332N10E14	M	2	HUNTING
9-Nov-22	KANE	338N 6E21	M	2	HUNTING
9-Nov-22	JODAVIESS	428N 1E27	M	3	HUNTING
10-Nov-22	WINNEBAGO	345N 2E26	M	1	HUNTING
10-Nov-22	KANE	342N 8E10	M	2	HUNTING
10-Nov-22	STEPHENSON	429N 9E28	M	3	HUNTING
11-Nov-22	KANKAKEE	331N 9E 7	M	2	HUNTING
11-Nov-22	GRUNDY	333N 6E19	M	2	HUNTING
11-Nov-22	MCHENRY	346N 7E19	M	2	HUNTING
12-Nov-22	LASALLE	333N 2E14	M	3	HUNTING
12-Nov-22	BOONE	346N 3E31	M	4	HUNTING
14-Nov-22	CARROLL	425N 5E 2	F	2	HUNTING
14-Nov-22	KANE	338N 6E26	M	2	HUNTING
15-Nov-22	MCHENRY	344N 6E36	M	4	HUNTING
18-Nov-22	CARROLL	425N 3E35	F	2	HUNTING
18-Nov-22	CARROLL	425N 5E 2	M	2	HUNTING
18-Nov-22	CARROLL	424N 3E12	M	2	HUNTING
18-Nov-22	GRUNDY	333N 7E 7	M	1	HUNTING

Appendix B. Continued.

Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
18-Nov-22	LASALLE	332N 5E 6	M	3	HUNTING
18-Nov-22	LASALLE	333N 5E32	F	3	HUNTING
18-Nov-22	LASALLE	333N 4E11	M	3	HUNTING
18-Nov-22	GRUNDY	333N 6E14	M	3	HUNTING
18-Nov-22	GRUNDY	332N 7E15	M	3	HUNTING
18-Nov-22	GRUNDY	332N 6E23	F	2	HUNTING
18-Nov-22	GRUNDY	333N 7E 8	F	3	HUNTING
18-Nov-22	GRUNDY	333N 6E24	M	2	HUNTING
18-Nov-22	GRUNDY	333N 6E10	F	3	HUNTING
18-Nov-22	JODAVIESS	427N 4E13	F	1	HUNTING
18-Nov-22	JODAVIESS	429N 1E32	F	1	HUNTING
18-Nov-22	JODAVIESS	426N 4E35	M	1	HUNTING
18-Nov-22	JODAVIESS	426N 4E20	M	2	HUNTING
18-Nov-22	JODAVIESS	426N 4E 6	M	1	HUNTING
18-Nov-22	JODAVIESS	427N 4E35	F	2	HUNTING
18-Nov-22	JODAVIESS	426N 3E13	M	4	HUNTING
18-Nov-22	JODAVIESS	427N 3E33	F	2	HUNTING
18-Nov-22	JODAVIESS	426N 5E16	F	3	HUNTING
18-Nov-22	LASALLE	331N 3E14	F	3	HUNTING
18-Nov-22	LASALLE	333N 1E14	M	3	HUNTING
18-Nov-22	LASALLE	333N 5E28	M	2	HUNTING
18-Nov-22	LASALLE	333N 2E18	M	4	HUNTING
18-Nov-22	LASALLE	333N 3E17	M	4	HUNTING
18-Nov-22	LASALLE	332N 2E 8	M	2	HUNTING
18-Nov-22	LASALLE	332N 3E32	M	2	HUNTING
18-Nov-22	LASALLE	335N 5E21	M	1	HUNTING
18-Nov-22	LIVINGSTON	329N 5E 5	M	3	HUNTING
18-Nov-22	LIVINGSTON	330N 4E 7	F	2	HUNTING
18-Nov-22	LIVINGSTON	327N 6E 6	M	4	HUNTING
18-Nov-22	MCHENRY	346N 8E32	M	4	HUNTING
18-Nov-22	MCHENRY	346N 6E29	M	3	HUNTING
18-Nov-22	OGLE	423N11E13	M	2	HUNTING
18-Nov-22	OGLE	424N10E32	M	1	HUNTING
18-Nov-22	OGLE	423N 9E11	M	1	HUNTING
18-Nov-22	STEPHENSON	427N 9E10	M	2	HUNTING
18-Nov-22	STEPHENSON	428N 6E 4	M	3	HUNTING
18-Nov-22	STEPHENSON	428N 6E18	F	2	HUNTING
18-Nov-22	STEPHENSON	426N 7E 7	M	1	HUNTING
18-Nov-22	JODAVIESS	426N 5E17	M	3	HUNTING
18-Nov-22	STEPHENSON	427N 6E23	F	3	HUNTING
18-Nov-22	STEPHENSON	427N 7E 7	M	3	HUNTING
18-Nov-22	STEPHENSON	426N 5E27	M	2	HUNTING
18-Nov-22	STEPHENSON	427N 7E 7	F	1	HUNTING
18-Nov-22	STEPHENSON	426N 5E35	F	2	HUNTING
18-Nov-22	WILL	333N 9E 5	M	2	HUNTING
18-Nov-22	WILL	334N 9E15	M	2	HUNTING

Appendix B. Continued.

Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
18-Nov-22	WILL	334N10E17	M	1	HUNTING
18-Nov-22	WINNEBAGO	345N 2E 1	M	1	HUNTING
18-Nov-22	WINNEBAGO	343N 1E28	M	3	HUNTING
19-Nov-22	BOONE	344N 3E31	M	3	HUNTING
19-Nov-22	DEKALB	341N 3E16	M	1	HUNTING
19-Nov-22	CARROLL	425N 5E10	M	2	HUNTING
19-Nov-22	CARROLL	423N 4E 4	M	4	HUNTING
19-Nov-22	GRUNDY	333N 7E28	F	4	HUNTING
19-Nov-22	LASALLE	332N 5E 2	M	4	HUNTING
19-Nov-22	GRUNDY	333N 8E15	F	1	HUNTING
19-Nov-22	GRUNDY	331N 7E18	F	3	HUNTING
19-Nov-22	JODAVIESS	427N 1E23	M	3	HUNTING
19-Nov-22	JODAVIESS	426N 5E18	M	3	HUNTING
19-Nov-22	JODAVIESS	426N 5E19	M	2	HUNTING
19-Nov-22	LASALLE	333N 3E36	M	3	HUNTING
19-Nov-22	LASALLE	332N 1E12	F	4	HUNTING
19-Nov-22	LASALLE	333N 2E30	M	2	HUNTING
19-Nov-22	LASALLE	333N 4E 6	M	3	HUNTING
19-Nov-22	LASALLE	332N 2E18	M	2	HUNTING
19-Nov-22	LASALLE	333N 3E28	M	2	HUNTING
19-Nov-22	LASALLE	333N 5E35	F	3	HUNTING
19-Nov-22	LASALLE	331N 4E21	F	4	HUNTING
19-Nov-22	LIVINGSTON	330N 4E 3	F	3	HUNTING
19-Nov-22	LIVINGSTON	329N 4E 2	M	1	HUNTING
19-Nov-22	LIVINGSTON	329N 4E 2	F	1	HUNTING
19-Nov-22	MCHENRY	345N 7E20	M	1	HUNTING
19-Nov-22	MCHENRY	346N 5E14	M	1	HUNTING
19-Nov-22	OGLE	423N 9E21	M	5	HUNTING
19-Nov-22	OGLE	424N10E24	M	2	HUNTING
19-Nov-22	OGLE	423N10E 6	M	3	HUNTING
19-Nov-22	STEPHENSON	428N 7E26	M	2	HUNTING
19-Nov-22	STEPHENSON	428N 6E21	F	2	HUNTING
19-Nov-22	STEPHENSON	429N 9E25	M	1	HUNTING
19-Nov-22	STEPHENSON	428N 7E26	M	3	HUNTING
19-Nov-22	STEPHENSON	426N 5E27	M	1	HUNTING
19-Nov-22	STEPHENSON	428N 7E23	M	2	HUNTING
19-Nov-22	STEPHENSON	426N 5E26	M	2	HUNTING
20-Nov-22	DEKALB	342N 3E 6	F	2	HUNTING
20-Nov-22	GRUNDY	333N 6E19	M	3	HUNTING
20-Nov-22	GRUNDY	333N 8E 8	M	2	HUNTING
20-Nov-22	GRUNDY	334N 8E29	M	1	HUNTING
20-Nov-22	GRUNDY	333N 6E11	M	5	HUNTING
20-Nov-22	GRUNDY	333N 6E20	M	2	HUNTING
20-Nov-22	GRUNDY	333N 7E 1	M	4	HUNTING
20-Nov-22	JODAVIESS	429N 1W26	M	2	HUNTING

Appendix B. Continued.

Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
20-Nov-22	JODAVIESS	429N 1E35	M	1	HUNTING
20-Nov-22	JODAVIESS	426N 4E17	F	3	HUNTING
20-Nov-22	JODAVIESS	427N 1E 5	F	5	HUNTING
20-Nov-22	JODAVIESS	426N 5E 8	M	2	HUNTING
20-Nov-22	JODAVIESS	429N 1W27	M	2	HUNTING
20-Nov-22	JODAVIESS	426N 5E 8	F	2	HUNTING
20-Nov-22	JODAVIESS	426N 5E 8	M	2	HUNTING
20-Nov-22	JODAVIESS	428N 4E12	F	2	HUNTING
20-Nov-22	KANKAKEE	331N11E32	F	3	SUSPECT
20-Nov-22	LASALLE	331N 3E15	M	2	HUNTING
20-Nov-22	LASALLE	335N 5E31	M	3	HUNTING
20-Nov-22	LASALLE	331N 4E35	F	3	HUNTING
20-Nov-22	LASALLE	333N 3E18	F	1	HUNTING
20-Nov-22	LASALLE	333N 4E 4	M	2	HUNTING
20-Nov-22	LASALLE	333N 4E36	F	4	HUNTING
20-Nov-22	LIVINGSTON	330N 4E16	M	2	HUNTING
20-Nov-22	LIVINGSTON	327N 7E 4	F	3	HUNTING
20-Nov-22	LIVINGSTON	328N 5E24	M	5	HUNTING
20-Nov-22	MCHENRY	346N 6E33	M	1	HUNTING
20-Nov-22	OGLE	423N11E13	M	3	HUNTING
20-Nov-22	OGLE	424N10E11	M	3	HUNTING
20-Nov-22	OGLE	425N 9E23	M	2	HUNTING
20-Nov-22	STEPHENSON	428N 6E18	M	2	HUNTING
20-Nov-22	WINNEBAGO	346N 2E36	M	3	HUNTING
20-Nov-22	STEPHENSON	429N 9E19	M	1	HUNTING
20-Nov-22	WINNEBAGO	429N11E26	M	4	HUNTING
20-Nov-22	MCHENRY	346N 6E19	F	1	HUNTING
21-Nov-22	JODAVIESS	427N 2E 2	M	2	HUNTING
23-Nov-22	MCHENRY	346N 6E20	M	2	HUNTING
26-Nov-22	KANE	341N 8E36	M	2	ROADKILL
27-Nov-22	MCHENRY	346N 7E19	M	2	HUNTING
27-Nov-22	MCHENRY	346N 7E19	M	3	HUNTING
28-Nov-22	MCHENRY	345N 7E10	M	1	HUNTING
28-Nov-22	LASALLE	332N 1E27	M	3	HUNTING
29-Nov-22	CARROLL	425N 6E 7	F	2	HUNTING
1-Dec-22	BOONE	346N 4E16	F	2	HUNTING
1-Dec-22	CARROLL	425N 3E25	M	3	HUNTING
1-Dec-22	STEPHENSON	426N 5E 3	F	3	HUNTING
1-Dec-22	KENDALL	337N 6E33	F	1	HUNTING
1-Dec-22	LASALLE	333N 2E18	F	3	HUNTING
1-Dec-22	OGLE	424N10E11	F	2	HUNTING
1-Dec-22	OGLE	341N 1E 6	F	2	HUNTING
1-Dec-22	STEPHENSON	428N 9E27	M	1	HUNTING
1-Dec-22	GRUNDY	333N 8E25	M	2	HUNTING
2-Dec-22	MCHENRY	346N 5E24	F	2	HUNTING

Appendix B. Continued.

Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
2-Dec-22	CARROLL	425N 4E14	F	2	HUNTING
2-Dec-22	CARROLL	425N 4E21	M	2	HUNTING
2-Dec-22	GRUNDY	333N 6E21	M	3	HUNTING
2-Dec-22	KENDALL	335N 6E 3	M	1	HUNTING
2-Dec-22	LASALLE	334N 5E18	M	3	HUNTING
2-Dec-22	LASALLE	335N 5E29	F	3	HUNTING
2-Dec-22	LASALLE	331N 3E13	M	1	HUNTING
2-Dec-22	MCHENRY	345N 7E 1	M	3	HUNTING
2-Dec-22	JODAVIESS	428N 4E29	M	3	HUNTING
2-Dec-22	STEPHENSON	426N 5E13	F	1	HUNTING
2-Dec-22	LASALLE	333N 4E 8	M	2	HUNTING
3-Dec-22	DEKALB	342N 4E19	M	1	HUNTING
3-Dec-22	CARROLL	425N 4E12	M	2	HUNTING
3-Dec-22	CARROLL	425N 4E16	M	3	HUNTING
3-Dec-22	GRUNDY	333N 6E18	M	3	HUNTING
3-Dec-22	GRUNDY	332N 7E 6	M	2	HUNTING
3-Dec-22	GRUNDY	333N 6E10	F	3	HUNTING
3-Dec-22	GRUNDY	333N 6E 7	F	2	HUNTING
3-Dec-22	JODAVIESS	428N 1E12	M	2	HUNTING
3-Dec-22	JODAVIESS	427N 4E 3	M	2	HUNTING
3-Dec-22	JODAVIESS	426N 4E25	F	4	HUNTING
3-Dec-22	LASALLE	336N 5E21	F	2	HUNTING
3-Dec-22	LASALLE	335N 5E15	F	1	HUNTING
3-Dec-22	KENDALL	336N 6E32	F	5	HUNTING
3-Dec-22	LASALLE	335N 5E 7	M	3	HUNTING
3-Dec-22	LASALLE	331N 3E12	M	2	HUNTING
3-Dec-22	LASALLE	335N 4E26	F	2	HUNTING
3-Dec-22	LASALLE	333N 5E33	M	2	HUNTING
3-Dec-22	LASALLE	332N 2E18	M	1	HUNTING
3-Dec-22	OGLE	424N10E 4	M	4	HUNTING
3-Dec-22	CARROLL	425N 5E 4	M	3	HUNTING
3-Dec-22	WILL	334N 9E 1	M	2	HUNTING
4-Dec-22	BOONE	344N 3E30	M	1	HUNTING
4-Dec-22	CARROLL	424N 4E25	F	3	HUNTING
4-Dec-22	CARROLL	425N 5E 2	F	3	HUNTING
4-Dec-22	GRUNDY	333N 6E 9	M	4	HUNTING
4-Dec-22	GRUNDY	332N 7E 7	M	1	HUNTING
4-Dec-22	GRUNDY	333N 6E24	F	2	HUNTING
4-Dec-22	JODAVIESS	428N 1W 1	F	2	HUNTING
4-Dec-22	JODAVIESS	428N 4E34	M	2	HUNTING
4-Dec-22	JODAVIESS	428N 1W16	M	2	HUNTING
4-Dec-22	JODAVIESS	428N 1W17	M	1	HUNTING
4-Dec-22	KENDALL	337N 6E11	M	4	HUNTING
4-Dec-22	LASALLE	335N 5E 8	M	2	HUNTING
4-Dec-22	LASALLE	332N 2E18	M	2	HUNTING

Appendix B. Continued.

Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
4-Dec-22	LASALLE	333N 2E 9	M	2	HUNTING
4-Dec-22	LASALLE	334N 4E23	F	3	HUNTING
4-Dec-22	LIVINGSTON	329N 3E 9	M	3	HUNTING
4-Dec-22	OGLE	425N10E 3	M	3	HUNTING
4-Dec-22	STEPHENSON	428N 6E26	F	3	HUNTING
4-Dec-22	STEPHENSON	429N 9E26	M	3	HUNTING
4-Dec-22	WINNEBAGO	428N10E14	M	1	HUNTING
5-Dec-22	LASALLE	NOT PROVIDED	M	2	HUNTING
5-Dec-22	COOK	341N11E21	M	1	SHARPSHOOTING
5-Dec-22	JODAVIESS	426N 1E 1	M	3	HUNTING
9-Dec-22	CARROLL	425N 6E 7	F	3	HUNTING
10-Dec-22	KANKAKEE	331N 9E10	M	4	HUNTING
10-Dec-22	LASALLE	333N 3E31	M	3	HUNTING
19-Dec-22	WILL	334N 9E20	M	A	SHARPSHOOTING
19-Dec-22	MCHENRY	346N 7E19	M	A	HUNTING
19-Dec-22	MCHENRY	344N 5E30	F	A	HUNTING
21-Dec-22	MCHENRY	346N 5E24	F	3	HUNTING
29-Dec-22	KENDALL	337N 6E36	F	5	HUNTING
29-Dec-22	GRUNDY	333N 7E16	M	4	HUNTING
29-Dec-22	MCHENRY	344N 5E19	F	2	HUNTING
30-Dec-22	MCHENRY	345N 6E20	M	3	HUNTING
2-Jan-23	JODAVIESS	426N 5E19	F	3	HUNTING
5-Jan-23	JODAVIESS	426N 4E21	F	2	HUNTING
6-Jan-23	BOONE	345N 4E21	F	3	HUNTING
10-Jan-23	JODAVIESS	428N 1W22	M	1	HUNTING
11-Jan-23	MCHENRY	346N 6E12	M	2	HUNTING
11-Jan-23	JODAVIESS	428N 2E18	F	2	SHARPSHOOTING
15-Jan-23	GRUNDY	334N 7E27	M	3	HUNTING
15-Jan-23	LASALLE	333N 3E29	M	4	HUNTING
16-Jan-23	BOONE	346N 3E31	M	2	HUNTING
16-Jan-23	DEKALB	341N 5E 8	F	1	HUNTING
16-Jan-23	MCHENRY	345N 6E21	F	2	HUNTING
16-Jan-23	MCHENRY	345N 6E21	F	2	HUNTING
16-Jan-23	MCHENRY	344N 5E13	F	1	HUNTING
16-Jan-23	MCHENRY	344N 7E31	F	5	HUNTING
23-Jan-23	WINNEBAGO	343N 2E15	M	1	SHARPSHOOTING
23-Jan-23	WINNEBAGO	345N 2E24	M	1	SHARPSHOOTING
23-Jan-23	WINNEBAGO	345N 2E24	M	1	SHARPSHOOTING
23-Jan-23	BOONE	346N 3E30	F	1	SHARPSHOOTING
23-Jan-23	BOONE	346N 3E30	F	1	SHARPSHOOTING
23-Jan-23	GRUNDY	333N 6E24	M	F	SHARPSHOOTING
23-Jan-23	GRUNDY	333N 6E24	F	4	SHARPSHOOTING
23-Jan-23	LASALLE	332N 5E16	M	2	SHARPSHOOTING
23-Jan-23	MCHENRY	346N 7E30	F	2	HUNTING
23-Jan-23	STEPHENSON	427N 7E32	F	5	SHARPSHOOTING

Appendix B. Continued.

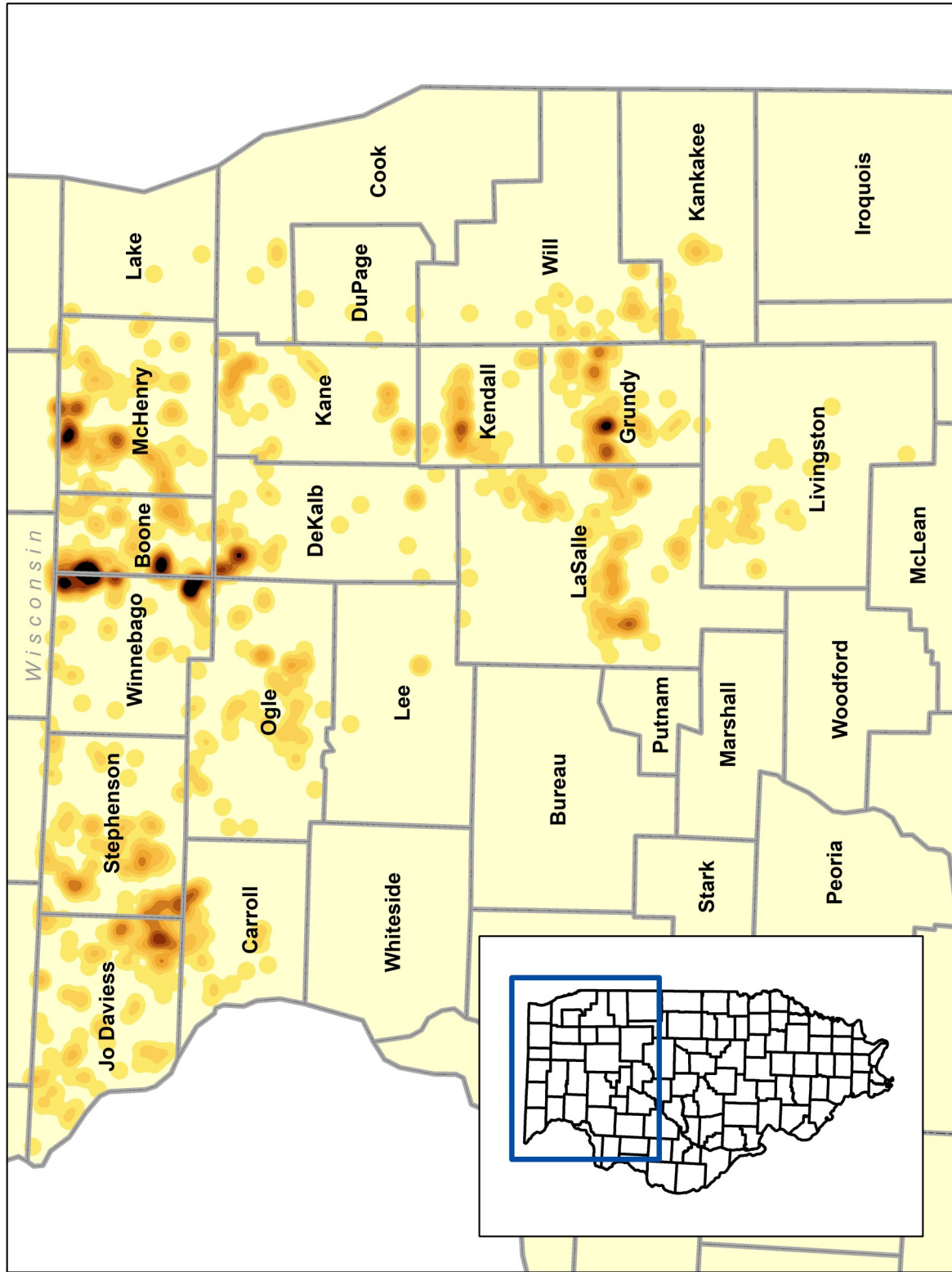
Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
23-Jan-23	JODAVIESS	426N 4E26	M	1	SHARPSHOOTING
24-Jan-23	GRUNDY	332N 6E13	F	F	SHARPSHOOTING
24-Jan-23	KENDALL	336N 6E30	M	1	SHARPSHOOTING
24-Jan-23	LASALLE	334N 4E 2	M	F	SHARPSHOOTING
24-Jan-23	KENDALL	337N 6E35	M	2	SHARPSHOOTING
24-Jan-23	WILL	332N 9E14	F	A	SHARPSHOOTING
25-Jan-23	CARROLL	424N 5E32	M	1	SHARPSHOOTING
25-Jan-23	STEPHENSON	428N 6E 4	F	3	SHARPSHOOTING
25-Jan-23	OGLE	423N11E13	F	5	SHARPSHOOTING
25-Jan-23	OGLE	423N11E14	F	3	SHARPSHOOTING
25-Jan-23	OGLE	423N11E14	M	2	SHARPSHOOTING
25-Jan-23	OGLE	423N11E14	F	3	SHARPSHOOTING
25-Jan-23	LASALLE	332N 2E 6	M	1	SHARPSHOOTING
26-Jan-23	STEPHENSON	427N 7E31	M	2	SHARPSHOOTING
26-Jan-23	WILL	333N 9E 5	M	1	SHARPSHOOTING
26-Jan-23	WILL	332N10E 7	M	1	SHARPSHOOTING
26-Jan-23	WILL	332N10E 7	M	2	SHARPSHOOTING
30-Jan-23	GRUNDY	334N 8E22	M	3	SHARPSHOOTING
30-Jan-23	GRUNDY	333N 8E 8	F	1	SHARPSHOOTING
30-Jan-23	MCHENRY	346N 6E15	M	2	SHARPSHOOTING
31-Jan-23	KENDALL	337N 6E35	F	5	SHARPSHOOTING
1-Feb-23	KENDALL	336N 6E 2	M	2	SUSPECT
1-Feb-23	MCHENRY	346N 8E 3	M	2	SHARPSHOOTING
2-Feb-23	JODAVIESS	426N 4E24	M	2	SHARPSHOOTING
2-Feb-23	MCHENRY	346N 6E16	M	2	SHARPSHOOTING
2-Feb-23	MCHENRY	346N 6E16	F	2	SHARPSHOOTING
2-Feb-23	MCHENRY	346N 6E16	M	F	SHARPSHOOTING
2-Feb-23	MCHENRY	346N 6E16	M	2	SHARPSHOOTING
2-Feb-23	MCHENRY	346N 6E21	M	2	SHARPSHOOTING
6-Feb-23	MCHENRY	346N 6E12	F	3	SUSPECT
6-Feb-23	MCHENRY	346N 6E15	M	3	SHARPSHOOTING
6-Feb-23	MCHENRY	345N 7E23	M	1	SHARPSHOOTING
6-Feb-23	CARROLL	425N 4E 1	F	5	SHARPSHOOTING
6-Feb-23	JODAVIESS	426N 4E26	M	2	SHARPSHOOTING
7-Feb-23	MCHENRY	346N 7E 6	F	F	SHARPSHOOTING
7-Feb-23	MCHENRY	346N 6E 8	F	F	SHARPSHOOTING
7-Feb-23	JODAVIESS	426N 4E16	F	2	SHARPSHOOTING
7-Feb-23	OGLE	423N11E14	M	2	SHARPSHOOTING
7-Feb-23	WINNEBAGO	343N 2E24	M	2	SHARPSHOOTING
8-Feb-23	MCHENRY	346N 6E16	F	1	SHARPSHOOTING
8-Feb-23	STEPHENSON	427N 7E31	M	3	SHARPSHOOTING
13-Feb-23	WINNEBAGO	345N 2E24	M	2	SHARPSHOOTING
13-Feb-23	WINNEBAGO	343N 2E15	M	1	SHARPSHOOTING
14-Feb-23	GRUNDY	333N 6E12	M	2	SHARPSHOOTING
15-Feb-23	OGLE	423N10E17	M	2	SHARPSHOOTING

Appendix B. Continued.

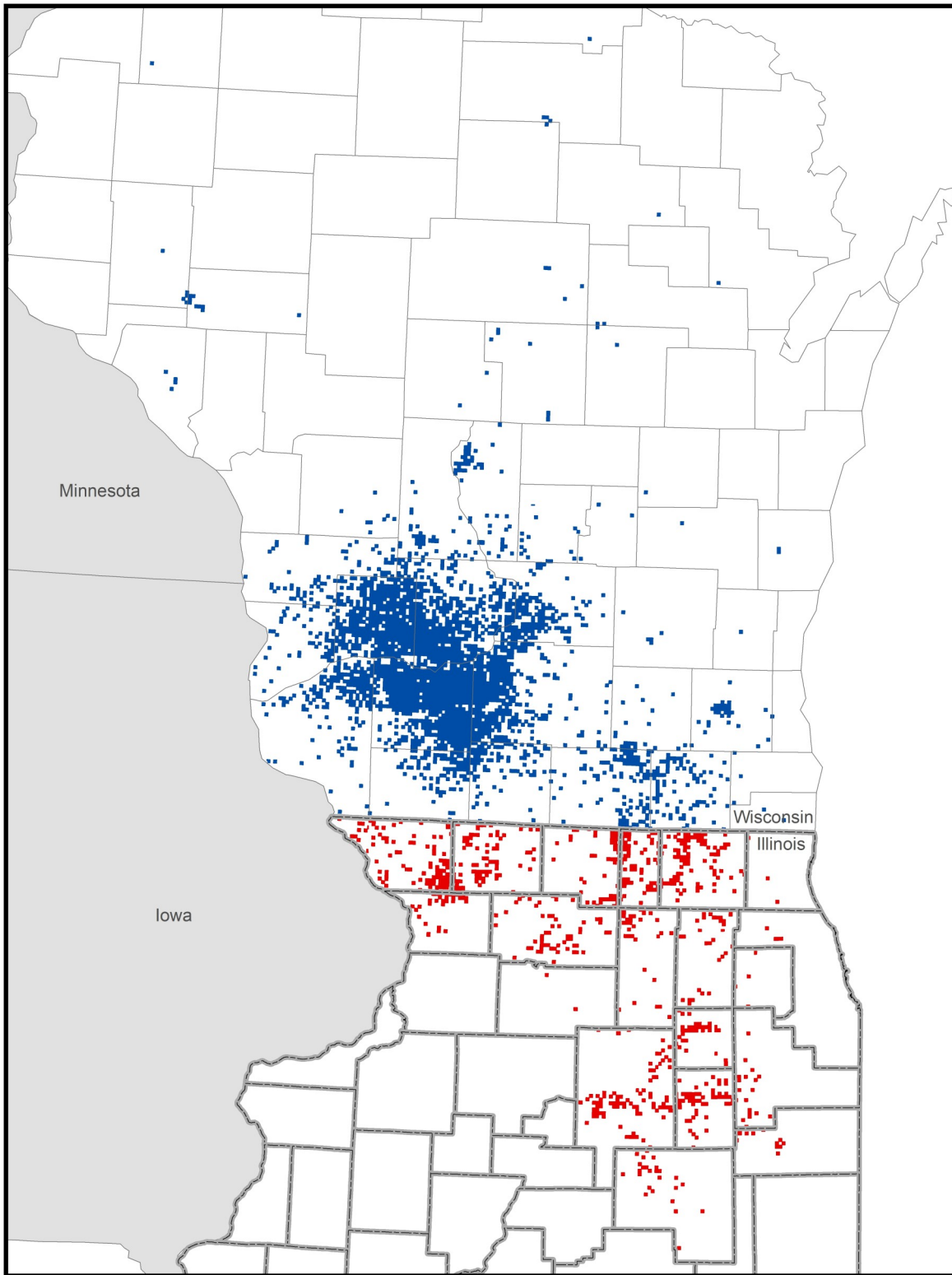
Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
16-Feb-23	JODAVIESS	426N 4E16	F	5	SHARPSHOOTING
16-Feb-23	JODAVIESS	426N 4E16	M	F	SHARPSHOOTING
20-Feb-23	GRUNDY	334N 8E22	M	1	SHARPSHOOTING
21-Feb-23	STEPHENSON	427N 7E31	M	3	SHARPSHOOTING
21-Feb-23	STEPHENSON	429N 9E23	F	3	SHARPSHOOTING
21-Feb-23	WINNEBAGO	345N 2E24	F	5	SHARPSHOOTING
21-Feb-23	GRUNDY	333N 6E32	F	5	SHARPSHOOTING
21-Feb-23	GRUNDY	333N 6E24	F	3	SHARPSHOOTING
21-Feb-23	LASALLE	334N 4E 2	M	2	SHARPSHOOTING
23-Feb-23	STEPHENSON	427N 6E36	M	1	SHARPSHOOTING
27-Feb-23	LASALLE	332N 5E16	F	1	SHARPSHOOTING
27-Feb-23	GRUNDY	334N 8E20	F	3	SHARPSHOOTING
27-Feb-23	LASALLE	332N 5E 6	M	3	SUSPECT
28-Feb-23	KENDALL	336N 6E17	M	4	SHARPSHOOTING
28-Feb-23	KENDALL	337N 6E35	M	2	SHARPSHOOTING
28-Feb-23	GRUNDY	333N 7E12	F	1	ROADKILL
1-Mar-23	WILL	333N 9E22	F	1	SHARPSHOOTING
2-Mar-23	JODAVIESS	426N 4E13	M	2	SHARPSHOOTING
2-Mar-23	JODAVIESS	426N 4E13	M	2	SHARPSHOOTING
2-Mar-23	STEPHENSON	427N 6E36	M	3	SHARPSHOOTING
2-Mar-23	WILL	332N10E14	F	5	SHARPSHOOTING
6-Mar-23	GRUNDY	333N 8E 8	F	F	SHARPSHOOTING
6-Mar-23	GRUNDY	333N 8E 8	F	F	SHARPSHOOTING
6-Mar-23	GRUNDY	333N 8E 8	F	2	SHARPSHOOTING
6-Mar-23	LASALLE	332N 5E16	M	2	SHARPSHOOTING
6-Mar-23	LASALLE	332N 5E 1	F	2	ROADKILL
7-Mar-23	JODAVIESS	426N 4E26	M	2	SHARPSHOOTING
7-Mar-23	GRUNDY	333N 6E24	M	2	SHARPSHOOTING
8-Mar-23	MCHENRY	346N 6E 8	M	2	SHARPSHOOTING
8-Mar-23	LASALLE	333N 2E26	M	2	SHARPSHOOTING
8-Mar-23	LASALLE	332N 2E 6	M	2	SHARPSHOOTING
9-Mar-23	WINNEBAGO	345N 2E24	F	3	SHARPSHOOTING
13-Mar-23	JODAVIESS	427N 5E31	M	1	SHARPSHOOTING
13-Mar-23	BOONE	344N 3E28	F	4	SHARPSHOOTING
13-Mar-23	WINNEBAGO	346N 2E14	F	2	SHARPSHOOTING
14-Mar-23	STEPHENSON	427N 7E14	F	3	SHARPSHOOTING
14-Mar-23	DEKALB	342N 3E22	M	2	SHARPSHOOTING
15-Mar-23	JODAVIESS	426N 4E24	M	3	SHARPSHOOTING
16-Mar-23	MCHENRY	346N 6E 8	F	2	SHARPSHOOTING
16-Mar-23	JODAVIESS	426N 4E13	M	1	SHARPSHOOTING
16-Mar-23	OGLE	423N10E22	M	F	SHARPSHOOTING
21-Mar-23	MCHENRY	346N 7E35	F	2	SHARPSHOOTING
21-Mar-23	MCHENRY	346N 7E35	F	1	SHARPSHOOTING
21-Mar-23	STEPHENSON	426N 5E13	M	3	SHARPSHOOTING
22-Mar-23	STEPHENSON	427N 6E36	F	2	SHARPSHOOTING

Appendix B. Continued.

Date Collected	County	Township, Range, Section	Sex	Age (yrs)	Collection Method
22-Mar-23	LASALLE	333N 2E26	F	1	SHARPSHOOTING
23-Mar-23	WINNEBAGO	345N 2E24	F	3	SHARPSHOOTING
27-Mar-23	STEPHENSON	427N 7E14	M	1	SHARPSHOOTING
28-Mar-23	STEPHENSON	427N 7E31	M	5	SHARPSHOOTING
28-Mar-23	JODAVIESS	426N 4E24	F	5	SHARPSHOOTING
28-Mar-23	GRUNDY	333N 6E24	M	1	SHARPSHOOTING
29-Mar-23	KANE	338N 6E24	M	3	SHARPSHOOTING
29-Mar-23	LASALLE	332N 2E 6	F	4	SHARPSHOOTING



Appendix C. Cumulative distribution and relative intensity of chronic wasting disease in northern Illinois, 2003-2023. Darker areas represent larger numbers of positive deer identified.



Appendix D. Historical distribution of CWD in southern Wisconsin and northern Illinois as of 30 June 2023. Squares represent sections in which CWD has been detected.