

Illinois Chronic Wasting Disease: 2021-2022 Surveillance and Management Report

(Project Period: 1 July 2021 - 30 June 2022)

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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 2022: 150,970

Total positives through 30 June 2022: 1,383

Number of counties affected through 30 June 2022: 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 2022: Total affected area (determined by a minimum convex polygon that includes all positives) is now 9,796 mi². The number of CWD-positive (CWD+) deer detected increased ~34% in FY2022 (Table 1) and was likely attributable to higher numbers of deer sampled ($n=9,896$) than during FY2021 ($n=8,377$). Prevalence among adult female deer increased during FY2022, though overall prevalence across all age and sex classes of adult deer (4.5%) remained relatively unchanged from the previous year (4.4%; Figure 7). Increasing trends in prevalence were noted in 10 of 19 counties; decreasing prevalence was noted in 5 counties and sampling intensity in 4 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). Prior to 2019, annual prevalence rates in CWD counties remained low and increased minimally (0.08% per year since 2003). However, a 2-3-fold increase in prevalence from 1.6% in 2019 to 3.1% and 4.4% in 2020 and 2021, respectively, are notable departures from the long-term rates of increase in disease infection across northern Illinois. Prevalence of infection during 2022 was 4.5%. It remains uncertain whether recent increases in prevalence reflect changes in disease dynamics and shifting temporal or spatial patterns of CWD across northern Illinois, though increasing prevalence in recent years remains a cause for concern.

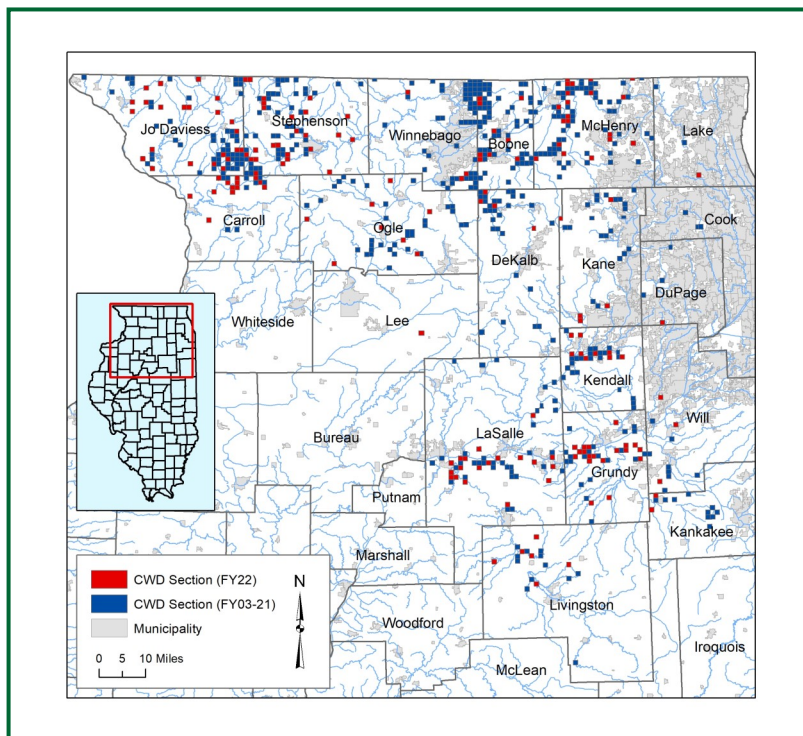


Figure 1. Distribution of all known CWD-infected deer identified in Illinois through 30 June 2022.

CWD Surveillance Protocols During FY2022 (1 July 2021 - 30 June 2022)

Testing: The majority (>99%) of CWD testing was conducted by the Wisconsin Veterinary Diagnostic Laboratory, University of Wisconsin-Madison. Polymerase chain reaction (PCR) 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.

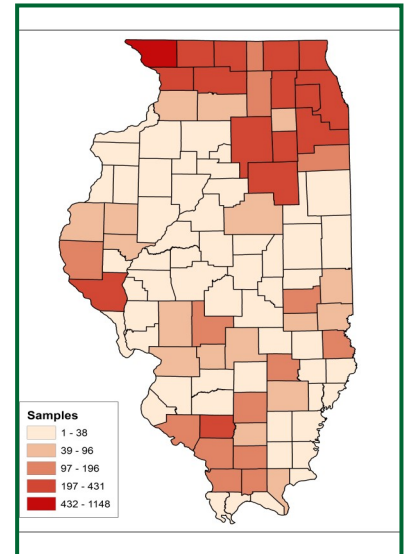


Figure 2. CWD sample distribution across Illinois during FY2022 (all sources).

CWD Surveillance Results FY2022

Total number of CWD samples collected statewide: During FY2022, a total of 9,896 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 7,549 (SE=316), though ranges from 4,599 to 9,896 (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: 9,886

Number of CWD-positive deer identified: 218. The number of CWD-positive deer collected by county and year ranges from 14 in 2003 to 218 in 2022; # of positive cases has increased progressively since 2003 (Table 1).

Number of counties with positive deer: 18 — Boone (11), Carroll (15), DeKalb (6), DuPage (1), Grundy (25), Jo Daviess (27), Kane (6), Kankakee (2), Kendall (13), Lake (1), LaSalle (28), Lee (1), Livingston (6), McHenry (27), Ogle (9), Stephenson (34), Will (3), Winnebago (3).

Number of new CWD counties: 0

CWD prevalence information for the known CWD area (18 counties; adult deer from hunting sources only) —

- Average CWD prevalence (all adult deer): 4.5% (156/3466)
- Average CWD prevalence (adult males): 5.4% (102/1902)
- Average CWD prevalence (adult females): 3.5% (54/1564)

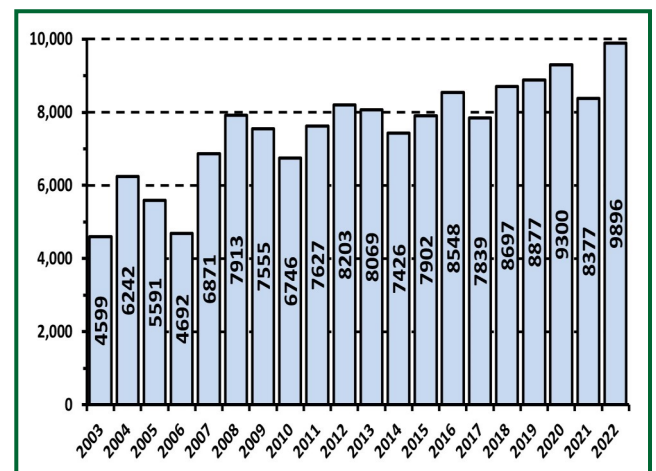


Figure 3. Number of CWD surveillance samples collected statewide each year during FY2003 through FY2022.

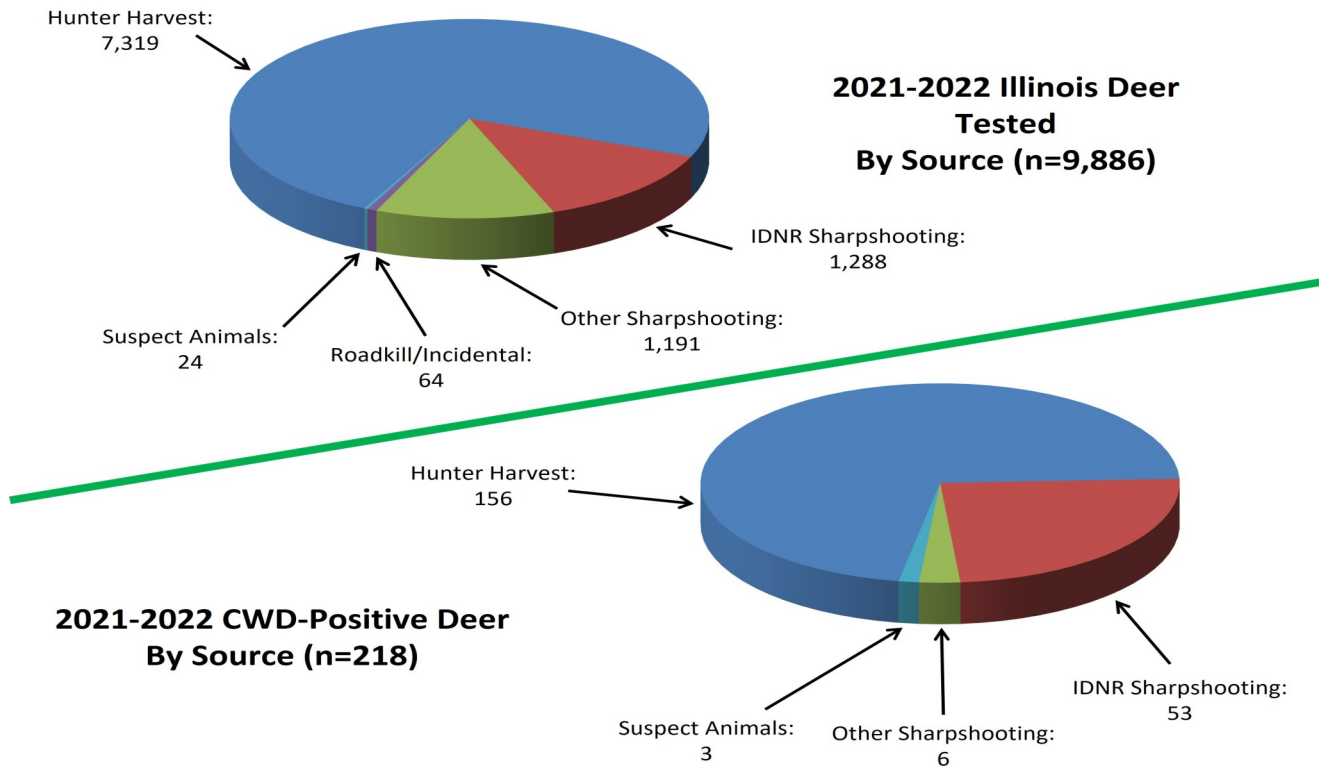


Figure 4. Number of CWD samples tested and number of positives identified by sampling source during FY2022.
Note: Number tested includes all samples submitted for wild deer, regardless of whether a valid test result was obtained.

Table 1. Number of CWD-positive deer collected by county and fiscal year across northern Illinois, November 2003 through June 2022.

| County | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Boone | 9 | 25 | 13 | 15 | 13 | 11 | 9 | 14 | 7 | 5 | 4 | 5 | 6 | 11 | 7 | 3 | 6 | 10 | 14 | 11 | 198 |
| Carroll | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 1 | 4 | 9 | 15 | 33 |
| Cook | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 2 | - | 3 |
| DeKalb | - | 4 | 1 | 5 | 6 | 8 | 4 | 3 | 7 | 5 | 7 | 8 | 8 | 3 | 3 | 1 | 3 | 1 | 5 | 6 | 88 |
| DuPage | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 | 1 | 1 | 4 |
| Grundy | - | - | - | - | - | - | - | - | 2 | 5 | 3 | 3 | 5 | 3 | 7 | 2 | 10 | 17 | 15 | 25 | 97 |
| Jo Daviess | - | - | - | - | - | - | - | - | 1 | - | 1 | 4 | 7 | 9 | 10 | 8 | 12 | 25 | 18 | 27 | 122 |
| Kane | - | - | - | - | - | - | - | - | 4 | 7 | 4 | 5 | 7 | 8 | 5 | 2 | 3 | 2 | 6 | 6 | 59 |
| Kankakee | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 2 | - | 2 | 3 | 3 | 2 | 14 |
| Kendall | - | - | - | - | - | - | - | - | - | - | 1 | 4 | 6 | 6 | 6 | 1 | 5 | 11 | 9 | 13 | 62 |
| Lake | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 | 1 | 3 |
| LaSalle | - | - | - | - | 1 | - | - | - | 3 | - | 1 | 2 | 6 | 5 | 4 | 5 | 6 | 20 | 19 | 28 | 100 |
| Lee | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 1 | 3 |
| Livingston | - | - | - | - | - | - | - | - | - | - | - | - | 2 | - | 2 | - | 1 | 7 | 1 | 6 | 19 |
| McHenry | 2 | 2 | 4 | 4 | 4 | - | 4 | 3 | 3 | 3 | 3 | 7 | 6 | 8 | 8 | 8 | 14 | 30 | 31 | 27 | 171 |
| Ogle | - | - | - | 2 | - | - | 1 | - | 4 | 2 | 3 | 1 | 2 | 6 | 2 | 3 | 10 | 7 | 2 | 9 | 54 |
| Stephenson | - | - | - | - | - | 1 | - | 1 | 1 | 2 | 3 | 4 | 6 | 10 | 11 | 12 | 8 | 26 | 8 | 34 | 127 |
| Will | - | - | - | - | - | - | - | - | - | - | - | 2 | 1 | 1 | - | - | - | 4 | 3 | 3 | 14 |
| Winnebago | 3 | 20 | 13 | 25 | 18 | 18 | 12 | 16 | 10 | 7 | 5 | 13 | 8 | 1 | 6 | 4 | 9 | 7 | 14 | 3 | 212 |
| Total | 14 | 51 | 31 | 51 | 42 | 38 | 30 | 37 | 42 | 36 | 36 | 59 | 71 | 72 | 75 | 51 | 90 | 176 | 163 | 218 | 1383 |

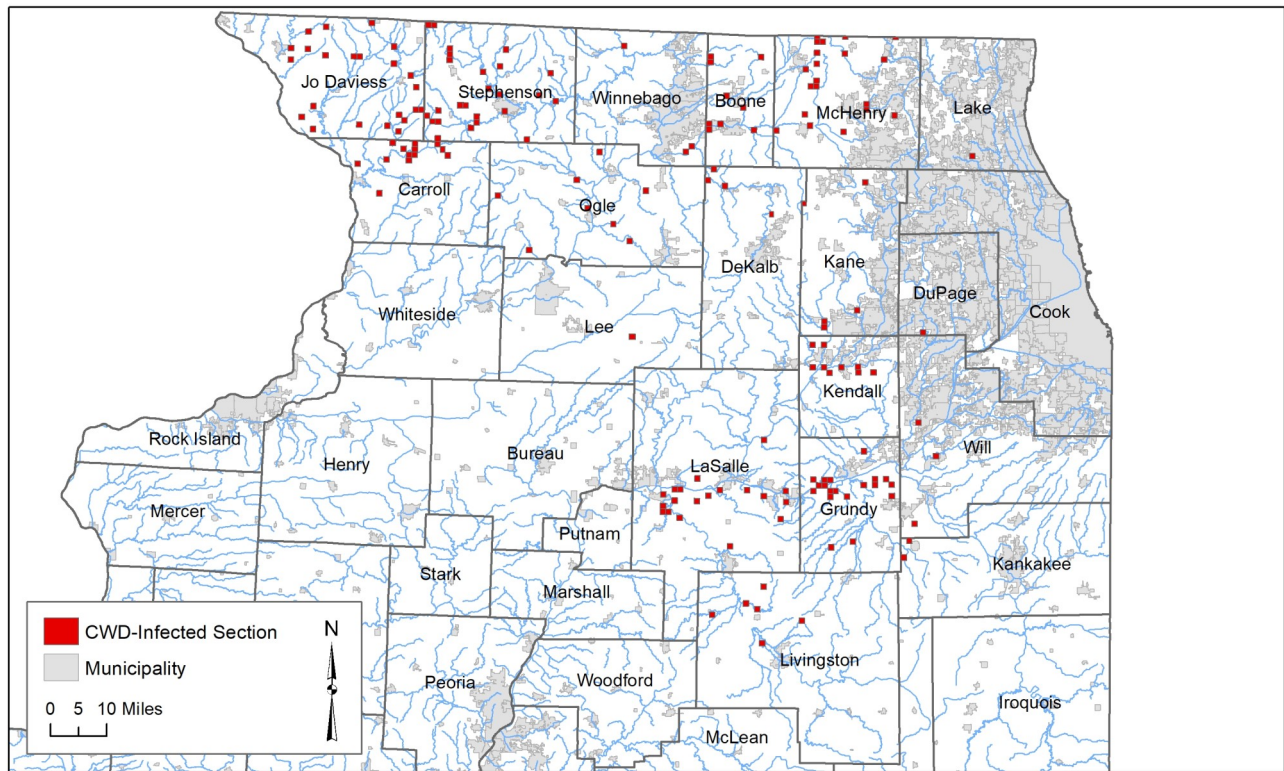


Figure 5. Distribution of CWD-positive deer identified across northern Illinois during FY2022 (1 July 2021 through 30 June 2022).

CWD Management During FY2022

Hunting Seasons for Herd/Disease Control

Length: Archery deer season (Oct. 1-Jan. 16; 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 tags from firearm, muzzleloader, or youth deer seasons.

Significant changes: None.

Hunter harvest: Hunters harvested 14,914 deer from the 19 CWD counties during 2021-2022 (Table 2), compared to 17,758 deer during 2020-2021. The previous 5-year average harvest for the 19 counties was 16,344. 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 2021 through 16 January 2022.

| County | Youth | Muzzleloader | CWD | Firearm | Archery | All Seasons |
|-------------------|---|--------------|--------------|--------------|--------------|---------------|
| Boone | 0 | 4 | 27 | 105 | 176 | 312 |
| Carroll | 5 | 19 | 81 | 440 | 511 | 1,056 |
| Cook | <i>Not open to firearm deer hunting</i> | | | | 133 | 133 |
| DeKalb | 2 | 3 | 39 | 107 | 212 | 363 |
| DuPage | <i>Not open to firearm deer hunting</i> | | | | 37 | 37 |
| Grundyl | 5 | 6 | 88 | 235 | 319 | 653 |
| JoDavie | 28 | 52 | 292 | 1,235 | 982 | 2,589 |
| Kane | 0 | 2 | 10 | 31 | 335 | 378 |
| Kankakee | 4 | 9 | 51 | 186 | 277 | 527 |
| Kendall | 0 | 6 | 26 | 71 | 194 | 297 |
| Lake ¹ | <i>Not open to firearm deer hunting</i> | | | 3 | 254 | 257 |
| LaSalle | 12 | 19 | 163 | 563 | 712 | 1,469 |
| Lee | 13 | 22 | 114 | 444 | 467 | 1,060 |
| Livingston | 10 | 7 | 51 | 381 | 231 | 680 |
| McHenry | 1 | 8 | 66 | 243 | 644 | 962 |
| Ogle | 18 | 17 | 195 | 546 | 541 | 1,317 |
| Stephenson | 9 | 13 | 121 | 480 | 407 | 1,030 |
| Will | 4 | 7 | 73 | 167 | 730 | 981 |
| Winnebago | 3 | 14 | 80 | 248 | 468 | 813 |
| Totals | 114 | 208 | 1,477 | 5,485 | 7,630 | 14,914 |

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 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 17 January 2022 and 24 March 2022.

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 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

CWD management unit boundaries were established by buffering each CWD-positive section that occurred during the past five years (2017-2021) with a 2-section buffer (Figure 6). Total area

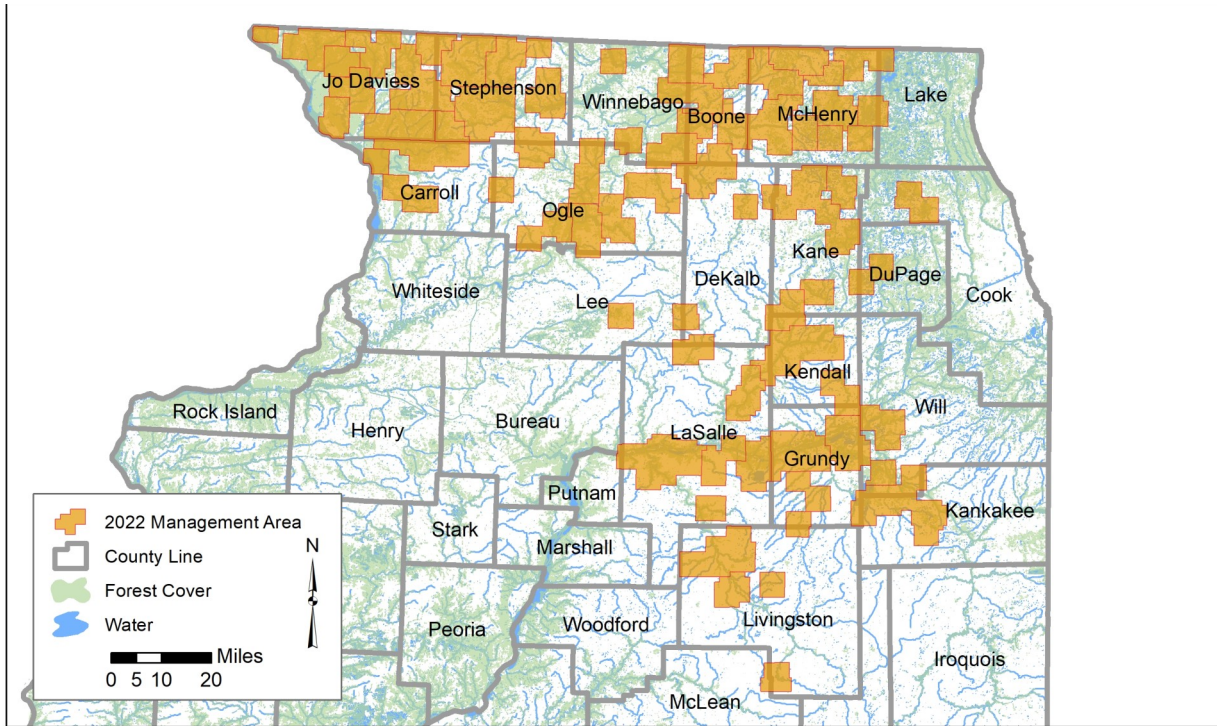


Figure 6. CWD management area boundaries across northern Illinois, winter 2022.

Table 3. Aerial deer survey estimates by county within CWD management units across northern Illinois, winter 2022.

| County | Management Unit Total Area (mi ²) | Area of Deer Habitat in Management Unit (mi ²) | Total Deer Habitat Surveyed (mi ²) | Total Number of Deer Counted | Deer per mi ² of Deer Habitat Surveyed |
|--------------|---|--|--|------------------------------|---|
| Carroll | 168.52 | 118.87 | 17.61 | 804 | 45.65 |
| DeKalb | 119.65 | 34.62 | 8.17 | 248 | 30.35 |
| Grundy | 244.65 | 98.61 | 12.14 | 492 | 40.54 |
| Jo Daviess | 478.26 | 351.68 | 0.37 | 35 | 93.97 |
| Kane | 249.82 | 115.65 | 48.83 | 1,093 | 22.39 |
| Kankakee | 105.27 | 39.95 | 31.79 | 918 | 28.88 |
| Kendall | 174.10 | 67.10 | 8.52 | 220 | 25.83 |
| LaSalle | 382.31 | 172.44 | 38.13 | 1,579 | 41.41 |
| Lee | 47.57 | 13.78 | 7.18 | 500 | 69.64 |
| Livingston | 210.40 | 54.65 | 38.51 | 1,894 | 49.18 |
| Stephenson | 432.95 | 153.13 | 70.33 | 2,491 | 35.42 |
| Will | 136.42 | 78.62 | 40.69 | 1,353 | 33.25 |
| Total | 2,749.91 | 1,299.12 | 322.28 | 11,627 | 36.08 |

encompassed by all CWD management areas was ~2,750 square miles. Aerial deer surveys were conducted over ~25% of deer habitat present (322 mi² of 1299 mi²) within current CWD management areas. Highest deer densities were observed throughout northwest Illinois (Carroll, Jo Daviess, Lee counties) and counties along the Illinois River (Grundy, LaSalle, Livingston counties; 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 (2017-2021) with a 2-section buffer (Figure 6). These units comprised 1,299 mi² of total area, including 322 mi² of deer habitat.

Number of counties in which deer were removed: 18

Number of townships in which deer were removed: 81

Number of sections in which deer were removed: 154 - Distribution of CWD-positive deer occurred primarily throughout the northern border counties of Boone, Jo Daviess, McHenry, Stephenson, and Winnebago counties and in counties (i.e., Kendall, Grundy, LaSalle, Livingston) along the Illinois River (Table 4, Figure 5).

Number of deer removed: 1,288 (mean # deer removed/section = 8.3; range = 1-36)

Number of CWD-positive deer removed: 53, of which 68% (n=36) occurred in 5 counties (Boone, Jo Daviess, LaSalle, McHenry, Stephenson; Table 4).

Carcass Disposition: 1,114 - donated to Northern Illinois Food Bank; 21 - donated to food banks in Randolph County, 83 - returned to landowners, 6 of which were CWD positive; 24 - deemed unsafe for human consumption and landfilled, 2 of which were CWD positive; 46 - CWD positive and venison cremated, 1 of which confirmatory IHC testing revealed as a CWD false positive deer.

Sharpshooting Programs by Other Agencies/Entities in CWD counties

Deer Population Control Permits (DPCP): Eleven land-managing entities with DPCPs collected CWD

Table 4. IDNR sharpshooting effort and number of deer removed by county across northern Illinois, winter 2022.

| County | # of Townships Where Removals Occurred | # of Sections Where Removals Occurred | Total # Deer Removed | Average # of Deer Removed per Section | # of Positive Deer Removed |
|---------------------|--|---------------------------------------|----------------------|---------------------------------------|----------------------------|
| Boone | 3 | 5 | 61 | 12.2 | 5 |
| Carroll | 5 | 9 | 84 | 9.3 | 2 |
| DeKalb | 1 | 2 | 25 | 12.5 | 3 |
| Grundy | 4 | 7 | 120 | 17.1 | 3 |
| Jo Daviess | 8 | 18 | 197 | 10.9 | 5 |
| Kane | 9 | 22 | 156 | 7.1 | 3 |
| Kankakee | 4 | 6 | 63 | 10.5 | 0 |
| Kendall | 2 | 4 | 28 | 7.0 | 2 |
| Lake | 2 | 3 | 16 | 5.3 | 0 |
| LaSalle | 8 | 13 | 126 | 9.7 | 13 |
| Lee | 2 | 2 | 4 | 2.0 | 0 |
| Livingston | 3 | 3 | 16 | 5.3 | 1 |
| McHenry | 10 | 18 | 88 | 4.9 | 7 |
| Ogle | 4 | 11 | 74 | 6.7 | 2 |
| Randolph | 2 | 4 | 21 | 5.3 | 0 |
| Stephenson | 5 | 12 | 104 | 8.7 | 6 |
| Will | 4 | 7 | 44 | 6.3 | 0 |
| Winnebago | 4 | 7 | 61 | 8.7 | 1 |
| All Counties | 80 | 153 | 1,288 | 8.3 | 53 |

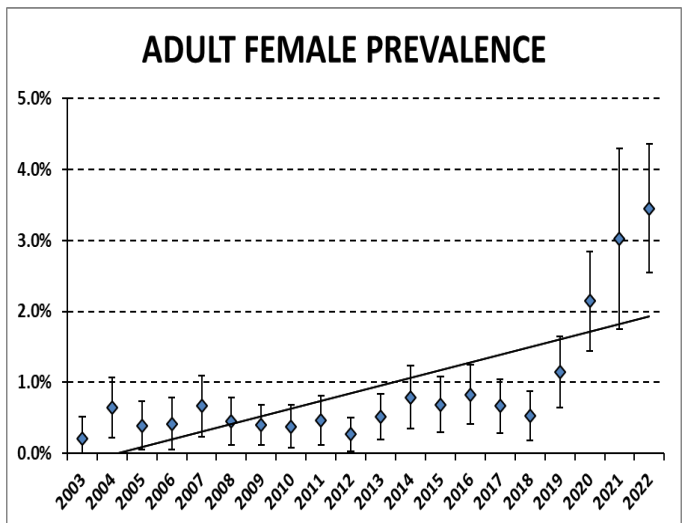
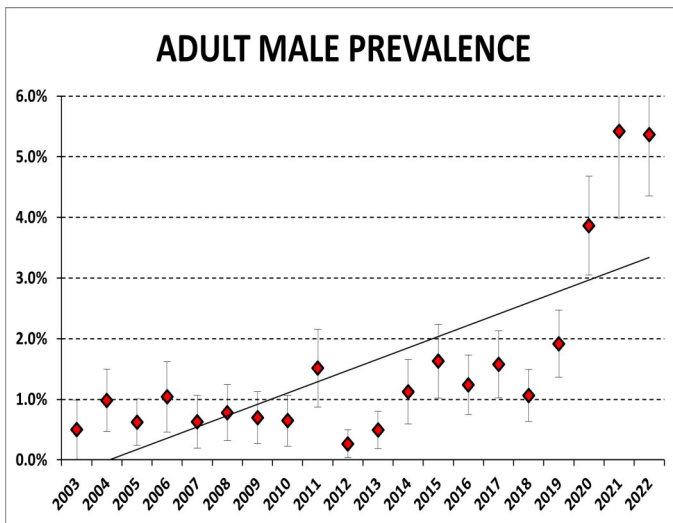
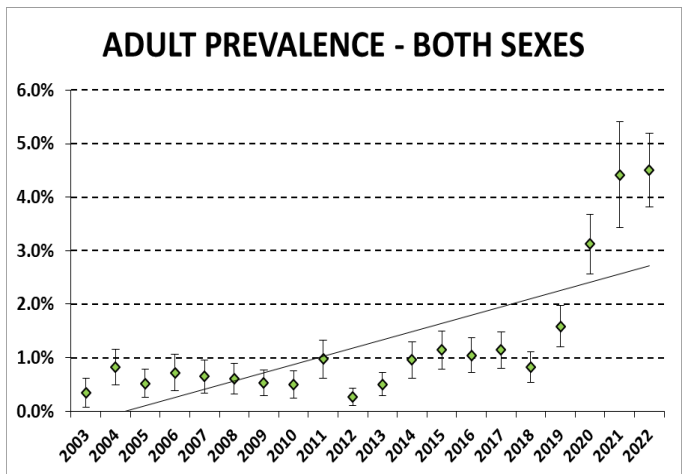
samples as a condition of their permit. Sampling occurred in 5 CWD counties (Jo Daviess, Kane, Lake, Will and Winnebago) as well as Cook and DuPage counties, which are bordered by 5 CWD counties. Permit recipients submitted tissue samples for CWD testing from 1,157 deer (1,155 usable samples) taken from at least 104 sections in those counties. Six CWD-positive deer were removed, including 2 from Winnebago County, 2 from Jo Daviess County, and 1 each from new locations in Lake and DuPage counties.

Nuisance Deer Removal Permits (DRP): Twenty-six samples were submitted from deer taken in 5 counties (including 2 CWD counties) using DRPs, all of which tested negative for CWD.

Discussion: Illinois CWD in FY2022

Two hundred eighteen (218) CWD-positive deer were identified from 9,886 usable deer samples collected statewide. Across the 19-county CWD range, the disease prevalence rate for all adult deer taken by hunters was 4.5%, which was 1.8% higher than in Y2021 and 41% higher than in FY2020. Prevalence

Figure 7. Trends in CWD prevalence for hunter-harvested adult deer (≥ yearling) during 2003-2019 for the seventeen 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 75% higher than in females during this 16-year period.



recorded during FY2022 now constitutes the highest observed infection rate in the history of the program. Predictably, prevalence for hunter-harvested adult males (5.4%) continues to be notably (~35%) higher than that of adult females (3.5%; Figure 7). Further, prevalence of infection in adult deer removed by IDNR sharpshooting and hunter harvest were 4.1% and 2.1%, respectively. Thus, targeted removal of infected deer by sharpshooting continues to be an effective method for managing CWD across northern Illinois. Nevertheless, a two- to three-fold increase in prevalence during the past two years is markedly higher than

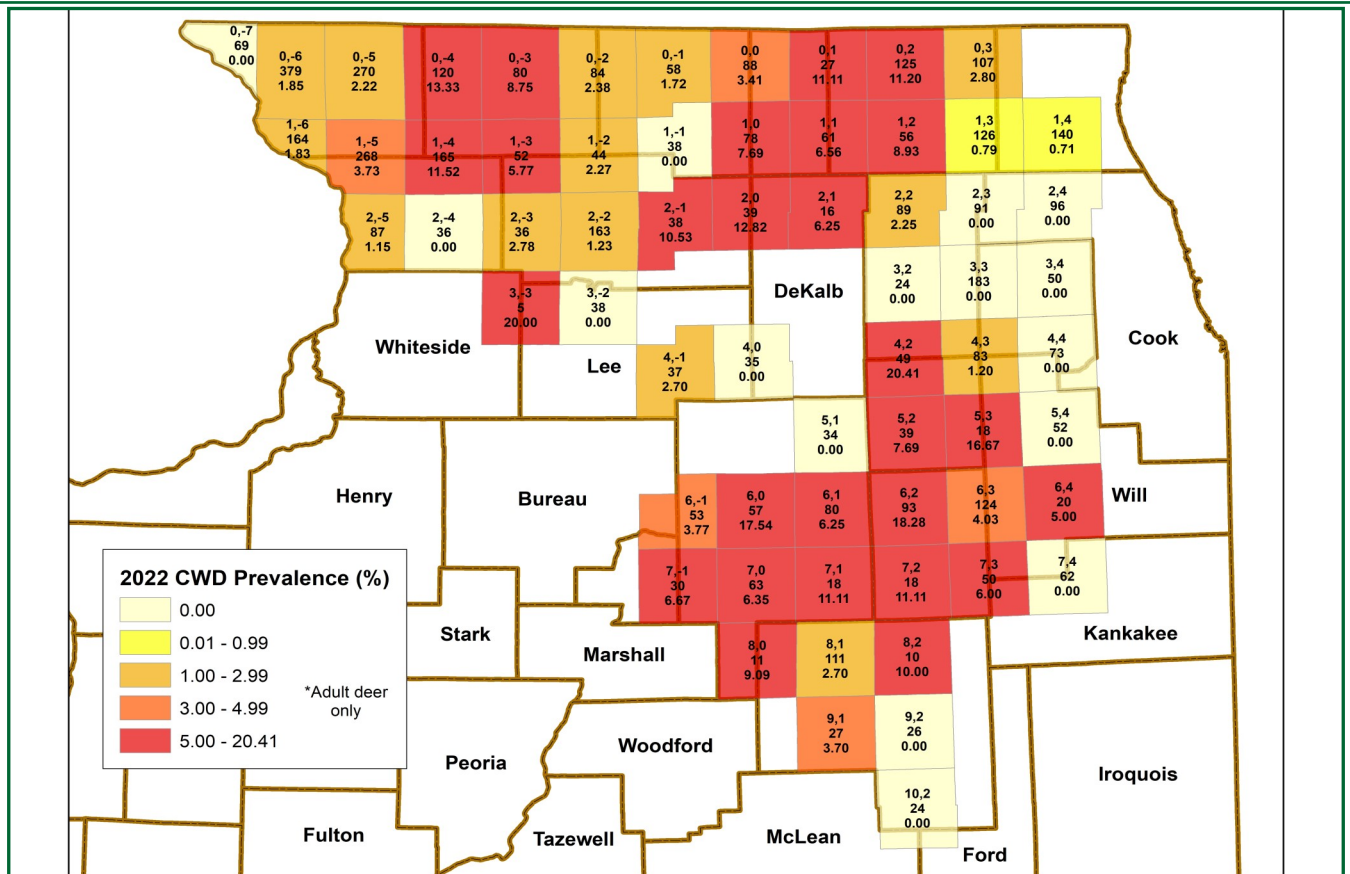


Figure 8. Estimated prevalence rates in adult (≥ 1.5 yr old) deer during FY2022 per 4-township block. For each block, the upper number is the grid coordinate; the middle number is the sample size; and the lower number is the estimated adult prevalence rate (%) calculated using all data sources except suspect deer.

Table 5. Prevalence of infection for CWD-positive hunter harvested adult (≥ 1.5 yrs old) deer tested during FY2022 (1 July 2021 through 30 June 2022).

| County | # of Samples | # of Positives | % Positive | 95% CI (\pm) |
|------------------|--------------|----------------|------------|------------------|
| Boone | 67 | 5 | 7.46 | 6.29 |
| Carroll | 311 | 13 | 4.18 | 2.22 |
| Cook | 6 | 0 | 0.00 | 0.00 |
| DeKalb | 80 | 3 | 3.75 | 4.16 |
| DuPage | 9 | 0 | 0.00 | 0.00 |
| Grundy | 137 | 22 | 16.06 | 6.15 |
| JoDaviess | 846 | 20 | 2.36 | 1.02 |
| Kane | 150 | 3 | 2.00 | 2.24 |
| Kankakee | 73 | 2 | 2.74 | 3.74 |
| Kendall | 60 | 11 | 18.33 | 9.79 |
| Lake | 31 | 0 | 0.00 | 0.00 |
| LaSalle | 278 | 14 | 5.04 | 2.57 |
| Lee | 68 | 1 | 1.47 | 2.86 |
| Livingston | 234 | 5 | 2.14 | 1.85 |
| McHenry | 329 | 20 | 6.08 | 2.58 |
| Ogle | 286 | 7 | 2.45 | 1.79 |
| Stephenson | 268 | 27 | 10.07 | 3.60 |
| Will | 112 | 3 | 2.68 | 2.99 |
| Winnebago | 121 | 0 | 0.00 | 0.00 |
| All CWD Counties | 3,466 | 156 | 4.50 | 0.69 |

infection rates reported prior to 2019, and suggests that additional disease management strategies to augment targeted sharpshooting may be needed to successfully mitigate potential impacts of CWD on deer populations throughout Illinois in future years.

Surveillance data indicate that prevalence rates were lower in nearly half (8 of 19) the counties throughout the CWD infection area, though as in past years, spatial patterns of infection were not consistent during FY2022 (Table 5, Figures 8, 9):

- The highest number of hunter-harvested CWD-positive deer (CWD+) occurred in Stephenson County ($n=27$), followed by 3 counties (Grundy, Jo Daviess, McHenry) where ≥ 20 CWD+ deer were harvested; ≥ 5 CWD+ deer were harvested from Ogle, Livingston, and Boone counties in FY2022 (Table 5).
- As in past years, spatial patterns in disease prevalence revealed the highest reported infection rates along the northern Whiteside/Lee county line (block 3,-3), central/southeast LaSalle County (blocks 6,0; 7,1) northern/southeastern Kendall County (blocks 4,2; 5,3), and northwest Stephenson County (block 0,-4). High prevalence also occurred in northern McHenry County (block 0,2), eastern Ogle County (blocks 2,-1; 2,0), northern Carroll County (block 1,-4), and northern Livingston County (blocks 8,0; 8,2). Elsewhere, infection rates remained relatively low ($<5\%$) throughout Lake, DuPage, and Cook counties (Figure 8).
- Increasing prevalence occurred in 9 of 19 (47%) CWD+ counties this year as compared to 15 of 19 (79%) CWD+ counties during FY2021. Prevalence rates appeared to decline in 8 counties (Boone, Carroll, Jo Daviess, Kankakee, LaSalle, Lee, Winnebago) during FY2022. Despite limited sampling intensity (≤ 9 deer tested), CWD was not detected in Cook or DuPage counties during FY2022.
- Spatial patterns of infection during the past 5-10 years indicate 1) declining trends in prevalence in Kane County, 2) higher trends of infection in Jo Daviess, Grundy, McHenry, Ogle, LaSalle, and Stephenson counties, and 3) relatively stable prevalence rates in Dekalb, Livingston, and Winnebago 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 highest historical levels of infection, prevalence during FY2022 (6.9%) remained relatively high. However, infection rates were 24% lower than in FY2021 and 46% lower than historic levels (12.7% in FY2014).
- The northeastern area of Illinois that includes Grundy, Kane, Kendall, LaSalle, and Will counties is a region of increasing CWD prevalence, and thus priority management concern due to its spatial proximity to the Illinois and Fox rivers; waterways and riparian habitat may facilitate increased seasonal movements and dispersal of deer and thus spread of CWD. The number of positive deer removed in FY2022 is the highest yet recorded and reflects a continuing trend of increasing prevalence ongoing for the past 7 years. With a combined prevalence in FY2022 of 5.4% (75 CWD+ from 1,393 samples; Appendix A), infection rates increased 17% from FY2021 (52 CWD+, 1134 samples, 4.6% prevalence), 54% from FY2020 (54 CWD+, 1,535 samples, 3.5% prevalence), 218% from FY2019 (24 CWD+, 1,447 samples, 1.7% prevalence), and 671% from FY2018 (10 CWD+, 1,398 samples, 0.7% prevalence; Figure 9). Areas of highest prevalence of infection include blocks 4,2; 5,3; 6,2; 7,1; and 7,2 in portions of Grundy, Kane, Kendall, and LaSalle counties (Figure 8).
- The northwestern Illinois area that includes Jo Daviess, Stephenson, and northern Carroll counties is an area of ongoing concern given its geographic proximity to the CWD-endemic region of southwestern Wisconsin, high deer densities, and increasing disease prevalence. Prevalence for Jo Daviess and

Figure 9. Patterns in estimated CWD prevalence rates in counties with ≥ 5 years of data. County prevalence rates were calculated using only hunter-harvested adult male and female deer.

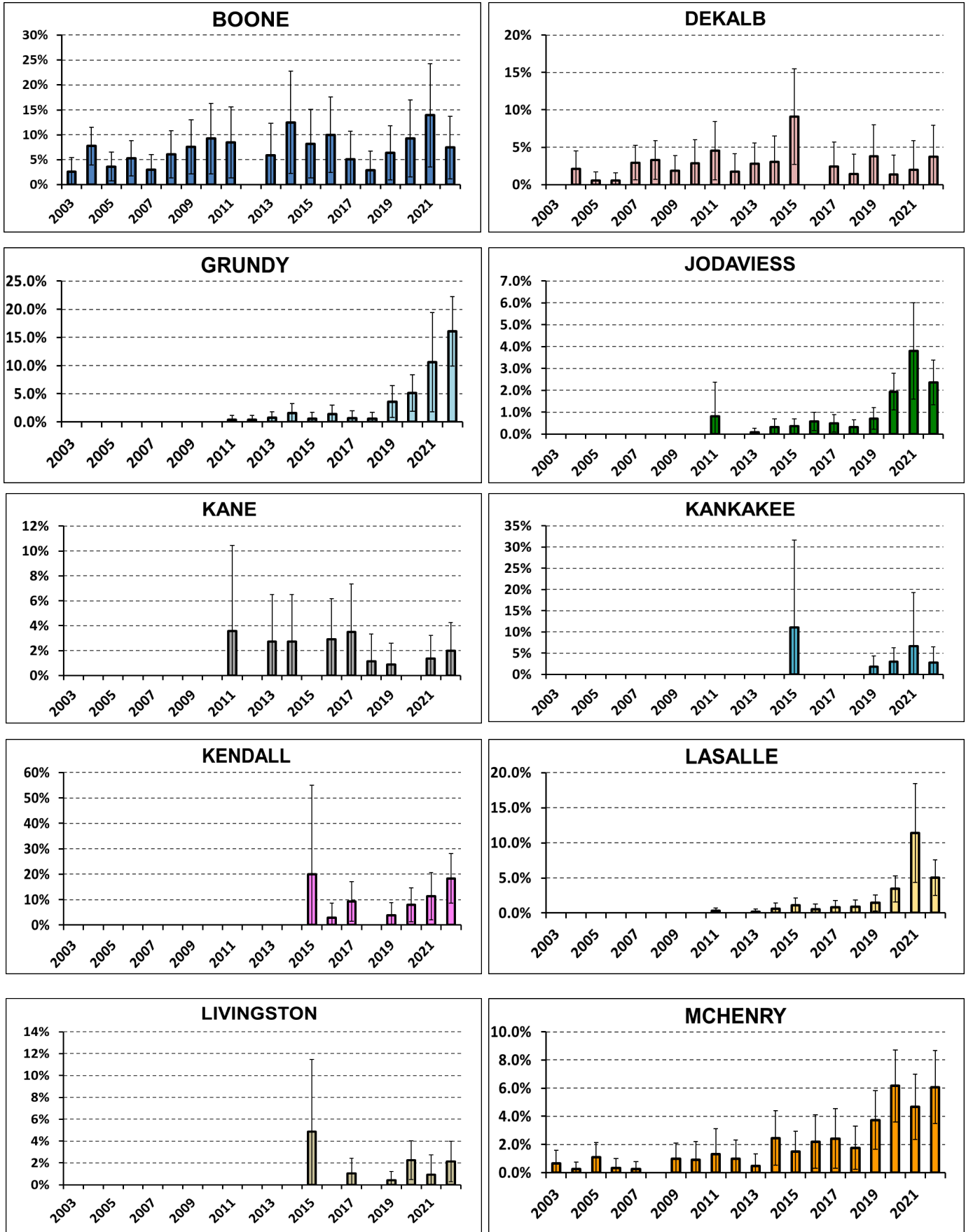
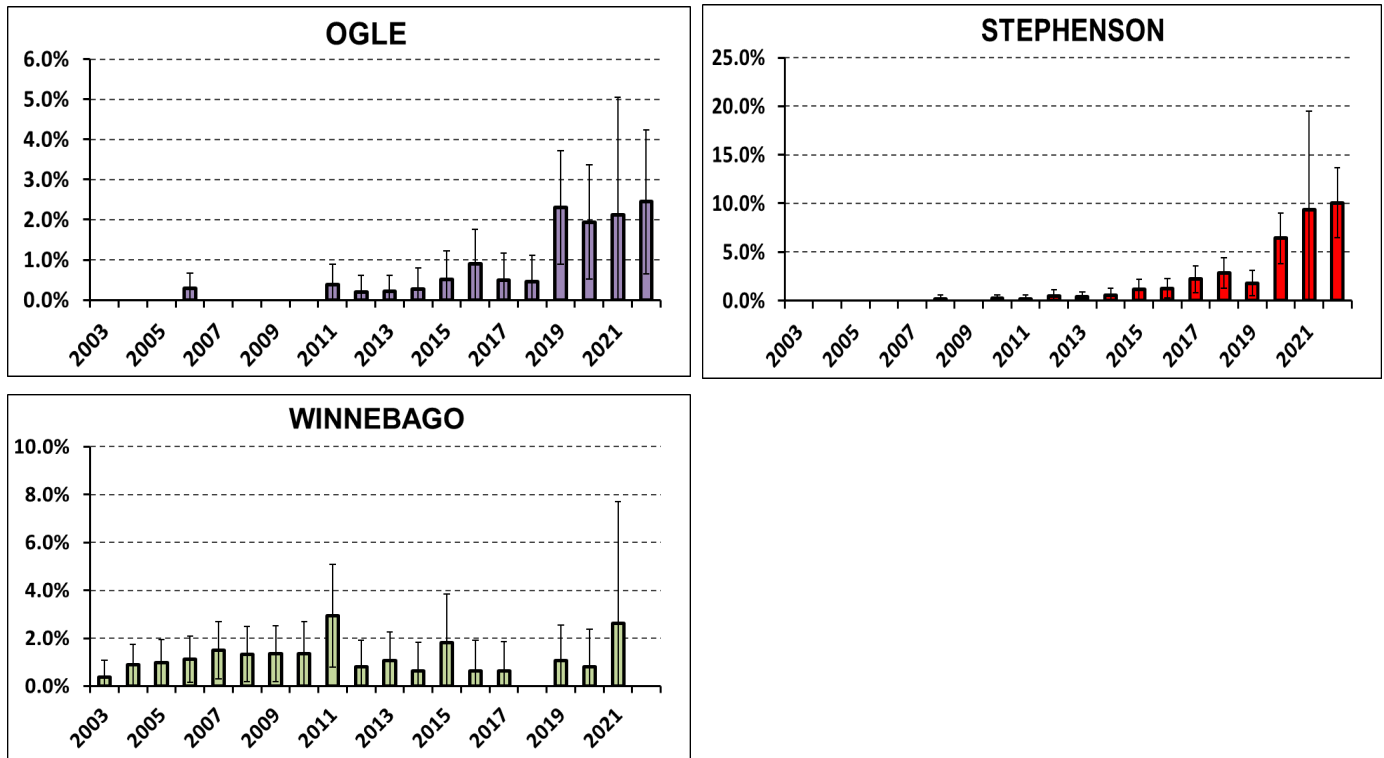


Figure 9. Continued.



Stephenson counties was 4.2% in FY2022 (47 CWD+, 1,114 samples), and similar to the combined prevalence in FY2021 despite reduced sampling intensity (14 CWD+, 321 samples, 4.4% prevalence). Infection rates during the past 2 years are higher than the combined prevalence in FY2020 (3.0%), which appear to reflect increasing infection rates rather than uncertainty attributable to interannual variability in samples submitted for testing. Blocks 1,-4 and 1,-5 had a combined prevalence of 6.7% (29 CWD+, 433 samples) in FY2022, which was higher than FY2021 (15 CWD+, 288 samples, 5.2% combined prevalence) and FY2020 (25 CWD+, 421 samples, 5.9% combined prevalence), and more than doubled the combined infection rates in FY2019 (2.9%) and 2018 (2.9%). Prevalence in northern Stephenson County (Blocks 0,-4 and 0,-3) remains high with increasingly higher infection rates in FY2022 (23 CWD+, 200 samples, 11.5% combined prevalence; Figure 8), despite lower infection rates (1.7%- 5.1% combined prevalence) between FY2018 and FY2021.

- In FY2022, prevalence rates in McHenry County (20 CWD+, 329 samples, 6.1% prevalence; Table 5, Figure 9) were higher than in FY2021 (4.7% prevalence) and similar to historical high infection rates documented during FY2020 (6.2% prevalence). Prevalence rates across northern McHenry County (blocks 0,1 and 0,2) were 11.1% in FY2022, which were comparable to infection rates during FY2021 (13%) and FY2020 (13%) and 1.5 to 2 times higher than prevalence estimates documented in FY2019 (5.3%) and FY2018 (7%; Figures 8,9).

The geographic expansion of CWD and establishment of new disease foci into new areas of the state remains the single-most challenging issue regarding future disease management in Illinois. During 2002-2010, 80% of all CWD-positives identified in Illinois were confined to a 2-county area (Boone, Winnebago) of northern Illinois, yet distribution of CWD+ deer across these counties was limited to 11% by FY2019. The apparent shift in spatial distribution of CWD across the endemic area is of significant concern to wildlife managers, particularly given that resources available for future disease management are being distributed larger, thus rendering them less effective with establishment of new disease foci across Illinois.

In addition to the expansion of disease from the initial outbreak area in northern Illinois, an outbreak was detected during FY2019 in southeastern Missouri. This area is separated from Randolph County, Illinois by the Mississippi River and has created a new area of disease concern in southern Illinois. During FY2022, IDNR worked in cooperation with the Missouri Department of Conservation to conduct disease management on Kaskaskia Island, a portion of Randolph County that is situated on the western side of the Mississippi River and nearby the Missouri infection area. Ongoing disease management will aid in minimizing potential movement of CWD across the Mississippi River. Nevertheless, expansion of the disease into Randolph County remains a priority concern for IDNR.

Past and ongoing CWD management strategies have been successful in maintaining relatively low prevalence rates across the current endemic region of northern Illinois. However, the number of deer removed by sharpshooters is increasingly insufficient to maintain low infection rates across many management units. It remains unclear how or to what extent potential causative factors (e.g., declining resources, reduced staff, limited access to private properties, reduced harvest, evolving disease dynamics) may impact future disease management goals. However, the CWD management program continues to be the best option currently available to slow increases in prevalence rates and geographic expansion of the disease to the remainder of the state. Nevertheless, development and integration of novel tools (e.g., live trapping/euthanizing coupled with ongoing sharpshooting) and continuation of applied research (to assess deer population demographics in northern Illinois in close proximity to CWD endemic regions in southern Wisconsin) are needed to achieve future management goals and slow the spread of CWD to the remainder of the state.

IDNR staff must continue to work to educate Illinoisans about CWD and its potential to negatively impact our white-tailed deer herd. 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 professionals in many other states.

Appendix A. Useable CWD samples from white-tailed deer by county in Illinois collected during the 2021-2022 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 | | 107 | | | | | 107 |
| ALEXANDER | | 6 | | | | | 6 |
| BOND | | 76 | | | | | 76 |
| BOONE | 20 (1) | 54 (4) | 61 (5) | | 2 | 2 (1) | 139 (11) |
| BROWN | | 30 | | | | | 30 |
| BUREAU | | 18 | | | | | 18 |
| CALHOUN | | 24 | | | | | 24 |
| CARROLL | 234 (8) | 77 (5) | 84 (2) | | 5 | 2 | 402 (15) |
| CASS | | 11 | | | | | 11 |
| CHAMPAIGN | | 7 | | | | | 7 |
| CHRISTIAN | | 6 | | | | | 6 |
| CLARK | | 51 | | | | | 51 |
| CLAY | | 143 | | | | | 143 |
| CLINTON | | 10 | | | | | 10 |
| COLES | | 183 | | | 1 | | 184 |
| COOK | | 6 | | 291 | 3 | 1 | 301 |
| CRAWFORD | | 160 | | | | | 160 |
| CUMBERLAND | | 48 | | | | | 48 |
| DEKALB | 37 (2) | 44 (1) | 25 (3) | | 2 | | 108 (6) |
| DEWITT | | 3 | | | | | 3 |
| DOUGLAS | | 18 | | | | | 18 |
| DUPAGE | | 9 | | 367 (1) | 2 | | 378 (1) |
| EDGAR | | 48 | | | | | 48 |
| EDWARDS | | 3 | | | | | 3 |
| EFFINGHAM | | 37 | | | | | 37 |
| FAYETTE | | 69 | | | | | 69 |
| FORD | | 8 | | | | | 8 |
| FRANKLIN | | 56 | | | | | 56 |
| FULTON | | 28 | | | | | 28 |
| GALLATIN | | 2 | | | | | 2 |
| GREENE | | 21 | | | | | 21 |
| GRUNDY | 92 (13) | 45 (9) | 120 (3) | | 5 | | 262 (25) |
| HAMILTON | | 29 | | | | | 29 |
| HANCOCK | | 86 | | | | | 86 |
| HARDIN | | 16 | | | | | 16 |
| HENDERSON | | 35 | | | | | 35 |
| HENRY | | 3 | | | | | 3 |
| IROQUOIS | | 10 | | | | | 10 |
| JACKSON | | 104 | | 6 | | | 110 |
| JASPER | | 33 | | | | | 33 |
| JEFFERSON | | 178 | | | | | 178 |
| JERSEY | | 23 | | | | | 23 |
| JODAVIESS | 656 (18) | 194 (2) | 197 (5) | 88 (2) | 7 | 1 | 1143 (27) |
| JOHNSON | | 130 | | | | | 130 |
| KANE | 8 | 146 (3) | 156 (3) | 27 | 5 | | 342 (6) |

Appendix A. Continued.

| County | Check Stations | Drop-off Stations/ Meat Processors | Agency Culling | Special Permits¹ | Roadkill/ Incidental | Suspect | Total |
|---------------|-----------------------|---|-----------------------|------------------------------------|---------------------------------|----------------|-----------------|
| KANKAKEE | 57 (1) | 17 (1) | 63 | | | 1 | 138 (2) |
| KENDALL | 27 (3) | 33 (8) | 28 (2) | | 2 | 1 | 91 (13) |
| KNOX | | 14 | | | | | 14 |
| LAKE | 2 | 30 | 16 | 206 (1) | 1 | | 255 (1) |
| LASALLE | 230 (8) | 48 (6) | 126 (13) | | | 1 (1) | 405 (28) |
| LAWRENCE | | 13 | | | | | 13 |
| LEE | 9 | 59 (1) | 4 | | 1 | | 73 (1) |
| LIVINGSTON | 192 (5) | 42 | 16 (1) | | 3 | 1 | 254 (6) |
| LOGAN | | 3 | | | | | 3 |
| MACON | | | | 2 | | | 2 |
| MACOUPIN | | 55 | | | | | 55 |
| MADISON | | 74 | | | | | 74 |
| MARION | | 38 | | | | | 38 |
| MARSHALL | | 18 | | | | | 18 |
| MASON | | 7 | | | | | 7 |
| MASSAC | | 15 | | | | | 15 |
| MCDONOUGH | | 71 | | | | | 71 |
| MCHENRY | 102 (6) | 232 (14) | 88 (7) | 3 | 4 | 2 | 431 (27) |
| MCLEAN | | 42 | | | | 1 | 43 |
| MENARD | | 5 | | | | | 5 |
| MERCER | | 2 | | | 1 | | 3 |
| MONROE | | 15 | | | | | 15 |
| MONTGOMERY | | 167 | | | | | 167 |
| MORGAN | | 1 | | | | | 1 |
| MOULTRIE | | 29 | | | 1 | | 30 |
| OGLE | 247 (6) | 44 (1) | 74 (2) | | | | 365 (9) |
| PEORIA | | 9 | | | | 1 | 10 |
| PERRY | | 261 | | | | | 261 |
| PIATT | | 2 | | | | | 2 |
| PIKE | | 278 | | | | | 278 |
| POPE | | 56 | | | | | 56 |
| PULASKI | | 9 | | | | | 9 |
| PUTNAM | | 18 | | | | | 18 |
| RANDOLPH | | 175 | 21 | | | | 196 |
| RICHLAND | | 12 | | | | | 12 |
| ROCKISLAND | | 3 | | | | 1 | 4 |
| SALINE | | 19 | | | | | 19 |
| SANGAMON | | 9 | | | | | 9 |
| SCHUYLER | | 53 | | | | | 53 |
| SCOTT | | 7 | | | | | 7 |
| SHELBY | | 27 | | | | | 27 |
| STARK | | 1 | | | | | 1 |
| STCLAIR | | 9 | | | | | 9 |
| STEPHENSON | 240 (22) | 29 (5) | 104 (6) | | 3 | 3 (1) | 379 (34) |
| TAZEWELL | | 12 | | | | | 12 |

Appendix A. Continued.

| County | Check Stations | Drop-off Stations/ Meat Processors | Agency Culling | Special Permits¹ | Roadkill/ Incidental | Suspect | Total |
|---------------|-----------------------|---|---------------------------|--|---------------------------------|----------------|-------------------|
| UNION | | 117 | | | 2 | | 119 |
| VERMILION | | 4 | | | 1 | | 5 |
| WABASH | | 1 | | | | | 1 |
| WARREN | | 7 | | | | | 7 |
| WASHINGTON | | 3 | | | | | 3 |
| WAYNE | | 78 | | | | | 78 |
| WHITE | | 2 | | | | | 2 |
| WHITESIDE | | 96 | | | | | 96 |
| WILL | 51 (2) | 61 (1) | 44 | 128 | 7 | 2 | 293 (3) |
| WILLIAMSON | | 146 | | 2 | 3 | 1 | 152 |
| WINNEBAGO | 96 | 25 | 61 (1) | 71 (2) | 3 | 3 | 259 (3) |
| WOODFORD | | 21 | | | | | 21 |
| TOTALS | 2300 (95) | 5019 (61) | 1288 (53) | 1191 (6) | 64 | 24 (3) | 9886 (218) |

Appendix B. Summary of CWD-positive deer collected throughout northern Illinois during FY2022 (1 July 2021 through 30 June 2022).

| Date Collected | County | Township, Range, Section | Sex | Age (yrs) | Collection Method |
|----------------|------------|--------------------------|-----|-----------|-------------------|
| 3-Oct-21 | STEPHENSON | 429N 5E23 | M | 3 | HUNTING |
| 13-Oct-21 | STEPHENSON | 428N 6E17 | M | 2 | HUNTING |
| 16-Oct-21 | LASALLE | 331N 3E12 | M | 3 | HUNTING |
| 17-Oct-21 | MCHENRY | 344N 5E13 | M | 1 | HUNTING |
| 21-Oct-21 | BOONE | 344N 4E33 | M | 2 | HUNTING |
| 23-Oct-21 | LASALLE | 333N 4E21 | M | 2 | HUNTING |
| 26-Oct-21 | BOONE | 344N 4E 7 | M | 3 | HUNTING |
| 27-Oct-21 | MCHENRY | 344N 7E31 | M | 2 | HUNTING |
| 28-Oct-21 | MCHENRY | 344N 7E11 | M | 2 | HUNTING |
| 28-Oct-21 | JODAVIESS | 426N 2E 5 | M | 5 | HUNTING |
| 30-Oct-21 | MCHENRY | 346N 6E 5 | F | A | HUNTING |
| 31-Oct-21 | MCHENRY | 346N 6E 9 | M | 2 | HUNTING |
| 2-Nov-21 | KENDALL | 336N 6E 1 | M | 4 | HUNTING |
| 3-Nov-21 | KANE | 342N 7E14 | M | 2 | HUNTING |
| 5-Nov-21 | GRUNDY | 331N 6E12 | M | 4 | HUNTING |
| 5-Nov-21 | STEPHENSON | 428N 6E17 | M | 2 | HUNTING |
| 5-Nov-21 | CARROLL | 425N 6E 7 | F | 2 | HUNTING |
| 6-Nov-21 | WILL | 335N 9E22 | M | 2 | HUNTING |
| 7-Nov-21 | OGLE | 424N10E 6 | M | 2 | HUNTING |
| 7-Nov-21 | BOONE | 344N 3E31 | F | 3 | HUNTING |
| 7-Nov-21 | GRUNDY | 333N 6E21 | F | 2 | HUNTING |
| 8-Nov-21 | KENDALL | 337N 7E35 | M | 2 | HUNTING |
| 8-Nov-21 | GRUNDY | 333N 6E21 | F | 3 | HUNTING |
| 9-Nov-21 | DEKALB | 341N 5E18 | M | 2 | HUNTING |
| 9-Nov-21 | CARROLL | 425N 5E 1 | F | 2 | HUNTING |
| 9-Nov-21 | MCHENRY | 346N 7E19 | M | 1 | HUNTING |
| 11-Nov-21 | KENDALL | NOT PROVIDED | M | 2 | HUNTING |
| 13-Nov-21 | GRUNDY | 333N 6E 9 | M | 3 | HUNTING |
| 14-Nov-21 | KENDALL | 336N 8E 5 | M | 1 | HUNTING |
| 14-Nov-21 | MCHENRY | 344N 7E31 | M | 1 | HUNTING |
| 15-Nov-21 | GRUNDY | 331N 7E 3 | M | 1 | HUNTING |
| 16-Nov-21 | CARROLL | 425N 5E 1 | F | 1 | HUNTING |
| 18-Nov-21 | MCHENRY | 344N 7E 2 | M | 2 | HUNTING |
| 19-Nov-21 | GRUNDY | 333N 7E13 | F | 4 | HUNTING |
| 19-Nov-21 | JODAVIESS | 428N 4E10 | M | 1 | HUNTING |
| 19-Nov-21 | STEPHENSON | 428N 7E26 | M | 3 | HUNTING |
| 19-Nov-21 | CARROLL | 425N 5E 5 | M | 4 | HUNTING |
| 19-Nov-21 | CARROLL | 425N 5E18 | M | 2 | HUNTING |
| 19-Nov-21 | JODAVIESS | 429N 2E27 | M | 2 | HUNTING |
| 19-Nov-21 | STEPHENSON | 426N 7E 7 | F | 2 | HUNTING |
| 19-Nov-21 | STEPHENSON | 426N 5E14 | F | 3 | HUNTING |
| 19-Nov-21 | JODAVIESS | 428N 2E22 | M | 2 | HUNTING |
| 19-Nov-21 | STEPHENSON | 427N 8E24 | M | 1 | HUNTING |
| 19-Nov-21 | OGLE | 424N 7E23 | F | 2 | HUNTING |

Appendix B. Continued.

| Date Collected | County | Township, Range, Section | Sex | Age (yrs) | Collection Method |
|-----------------------|---------------|-------------------------------------|------------|------------------|--------------------------|
| 19-Nov-21 | GRUNDY | 333N 6E11 | M | 2 | HUNTING |
| 19-Nov-21 | STEPHENSON | 428N 7E12 | M | 1 | HUNTING |
| 19-Nov-21 | LASALLE | 333N 4E25 | F | 2 | HUNTING |
| 19-Nov-21 | LASALLE | 333N 2E36 | F | 4 | HUNTING |
| 19-Nov-21 | LASALLE | 333N 2E36 | M | 4 | HUNTING |
| 19-Nov-21 | LIVINGSTON | 330N 4E13 | F | 2 | HUNTING |
| 19-Nov-21 | DEKALB | 342N 3E 5 | F | 1 | HUNTING |
| 19-Nov-21 | GRUNDY | 333N 6E14 | M | 3 | HUNTING |
| 19-Nov-21 | STEPHENSON | 426N 5E10 | M | 2 | HUNTING |
| 19-Nov-21 | GRUNDY | 333N 6E14 | F | 3 | HUNTING |
| 19-Nov-21 | GRUNDY | 333N 7E19 | F | 1 | HUNTING |
| 19-Nov-21 | JODAVIESS | 427N 5E17 | F | 2 | HUNTING |
| 19-Nov-21 | MCHENRY | 345N 5E 1 | M | 1 | HUNTING |
| 20-Nov-21 | STEPHENSON | 426N 5E 1 | M | 2 | HUNTING |
| 20-Nov-21 | STEPHENSON | 426N 6E24 | M | 3 | HUNTING |
| 20-Nov-21 | STEPHENSON | 427N 6E34 | M | 3 | HUNTING |
| 20-Nov-21 | STEPHENSON | 427N 7E16 | M | 3 | HUNTING |
| 20-Nov-21 | JODAVIESS | 426N 4E11 | M | 3 | HUNTING |
| 20-Nov-21 | STEPHENSON | 426N 5E13 | M | 1 | HUNTING |
| 20-Nov-21 | OGLE | 342N 1E29 | M | 2 | HUNTING |
| 20-Nov-21 | JODAVIESS | 426N 3E22 | M | 3 | HUNTING |
| 20-Nov-21 | STEPHENSON | 428N 6E20 | M | 2 | HUNTING |
| 20-Nov-21 | JODAVIESS | 428N 4E27 | M | 2 | HUNTING |
| 20-Nov-21 | OGLE | 423N11E26 | M | 2 | HUNTING |
| 20-Nov-21 | LASALLE | 333N 5E34 | M | 3 | HUNTING |
| 20-Nov-21 | CARROLL | 425N 4E 3 | F | 2 | HUNTING |
| 20-Nov-21 | GRUNDY | 333N 8E17 | M | 3 | HUNTING |
| 20-Nov-21 | LIVINGSTON | 329N 4E 2 | F | 2 | HUNTING |
| 20-Nov-21 | GRUNDY | 333N 8E14 | F | 4 | HUNTING |
| 20-Nov-21 | MCHENRY | 345N 5E 1 | M | 1 | HUNTING |
| 20-Nov-21 | OGLE | 425N10E11 | M | 2 | HUNTING |
| 20-Nov-21 | LASALLE | 333N 3E29 | M | 4 | HUNTING |
| 20-Nov-21 | CARROLL | 425N 5E 8 | F | 2 | HUNTING |
| 20-Nov-21 | LASALLE | 332N 2E16 | M | 2 | HUNTING |
| 20-Nov-21 | JODAVIESS | 428N 3E21 | M | 3 | HUNTING |
| 20-Nov-21 | KENDALL | 337N 6E11 | F | 4 | HUNTING |
| 20-Nov-21 | LASALLE | 333N 2E32 | F | 1 | HUNTING |
| 20-Nov-21 | JODAVIESS | 428N 3E21 | F | 2 | HUNTING |
| 20-Nov-21 | JODAVIESS | 426N 4E21 | M | 3 | HUNTING |
| 21-Nov-21 | GRUNDY | 334N 7E13 | M | 1 | HUNTING |
| 21-Nov-21 | LIVINGSTON | 329N 3E 9 | M | 2 | HUNTING |
| 21-Nov-21 | JODAVIESS | 426N 4E13 | F | 2 | HUNTING |
| 21-Nov-21 | MCHENRY | 346N 6E20 | M | 1 | HUNTING |
| 21-Nov-21 | CARROLL | 425N 4E12 | M | 2 | HUNTING |
| 21-Nov-21 | STEPHENSON | 428N 6E 8 | M | 3 | HUNTING |
| 21-Nov-21 | GRUNDY | 333N 8E10 | M | 2 | HUNTING |

Appendix B. Continued.

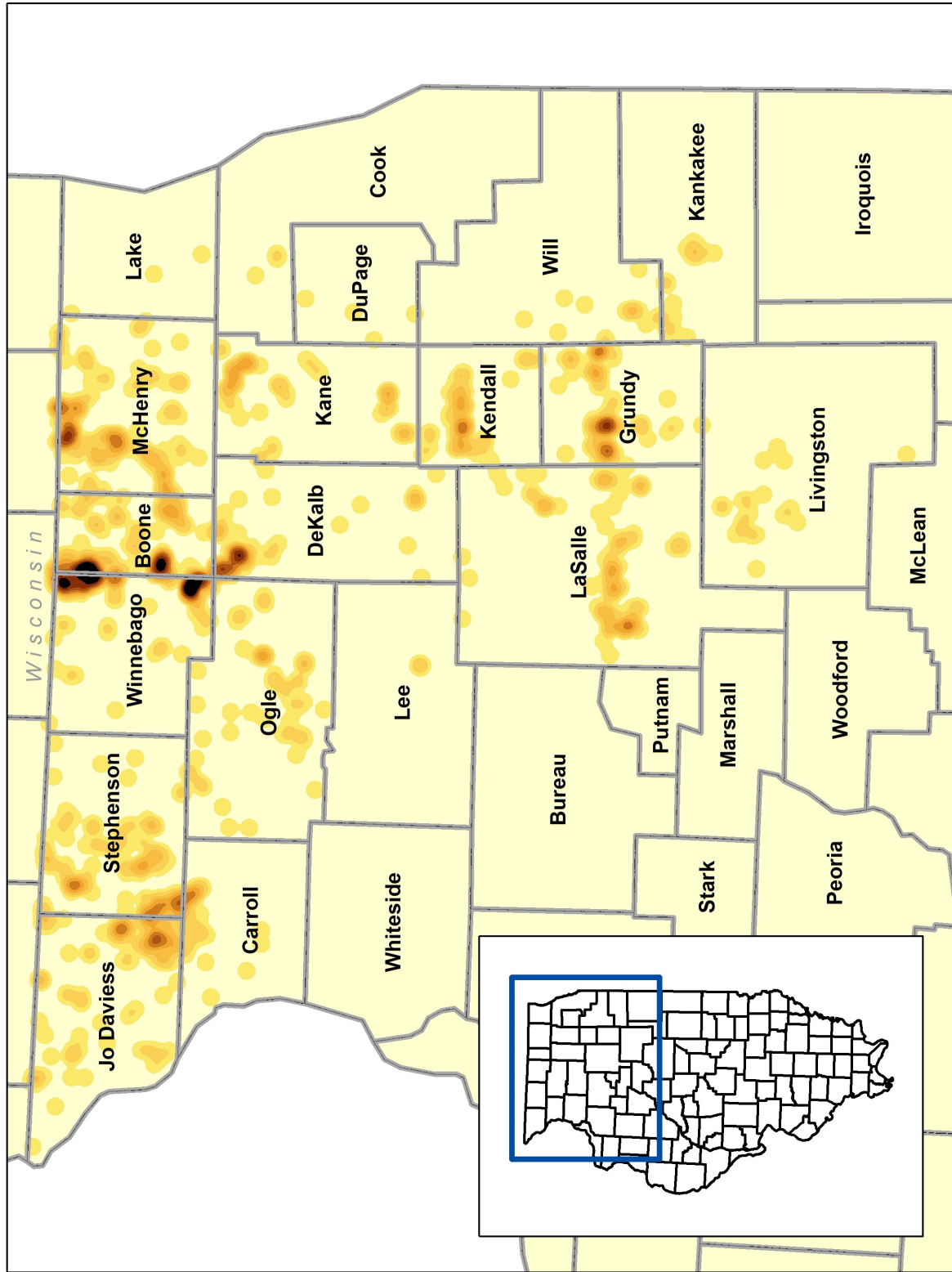
| Date Collected | County | Township, Range, Section | Sex | Age (yrs) | Collection Method |
|-----------------------|---------------|---------------------------------|------------|------------------|--------------------------|
| 21-Nov-21 | KANE | 338N 6E26 | M | 5 | HUNTING |
| 21-Nov-21 | STEPHENSON | 428N 7E32 | M | 3 | HUNTING |
| 21-Nov-21 | STEPHENSON | 426N 7E18 | F | 5 | HUNTING |
| 21-Nov-21 | STEPHENSON | 427N 9E28 | M | 1 | HUNTING |
| 21-Nov-21 | GRUNDY | 333N 6E25 | M | 2 | HUNTING |
| 21-Nov-21 | WILL | 332N 9E21 | M | 3 | HUNTING |
| 22-Nov-21 | BOONE | 346N 4E27 | M | 1 | HUNTING |
| 23-Nov-21 | GRUNDY | NOT PROVIDED | M | 2 | HUNTING |
| 23-Nov-21 | GRUNDY | 333N 6E15 | M | 5 | HUNTING |
| 25-Nov-21 | KENDALL | 336N 7E 2 | F | 1 | HUNTING |
| 29-Nov-21 | STEPHENSON | 428N 6E17 | M | 3 | HUNTING |
| 29-Nov-21 | LASALLE | NOT PROVIDED | M | 3 | HUNTING |
| 1-Dec-21 | GRUNDY | 333N 7E28 | M | 3 | HUNTING |
| 2-Dec-21 | LIVINGSTON | 330N 4E33 | M | 2 | HUNTING |
| 2-Dec-21 | GRUNDY | 333N 8E26 | M | 1 | HUNTING |
| 2-Dec-21 | STEPHENSON | 427N 7E23 | F | 3 | HUNTING |
| 2-Dec-21 | MCHENRY | 345N 6E20 | F | 1 | HUNTING |
| 3-Dec-21 | JODAVIESS | 427N 5E 6 | F | 5 | HUNTING |
| 3-Dec-21 | STEPHENSON | 426N 5E10 | M | 3 | HUNTING |
| 3-Dec-21 | STEPHENSON | 428N 7E32 | M | 1 | HUNTING |
| 3-Dec-21 | LIVINGSTON | 328N 4E 1 | M | 2 | HUNTING |
| 3-Dec-21 | JODAVIESS | 426N 5E 4 | M | 2 | HUNTING |
| 3-Dec-21 | GRUNDY | 333N 6E21 | M | 2 | HUNTING |
| 3-Dec-21 | KENDALL | 337N 6E 9 | M | 1 | HUNTING |
| 3-Dec-21 | JODAVIESS | 428N 1E15 | F | 1 | HUNTING |
| 4-Dec-21 | LASALLE | 334N 4E 1 | M | 1 | HUNTING |
| 4-Dec-21 | WILL | 334N10E19 | F | 2 | HUNTING |
| 4-Dec-21 | STEPHENSON | 426N 5E36 | M | 1 | HUNTING |
| 4-Dec-21 | STEPHENSON | 428N 9E32 | F | 2 | HUNTING |
| 4-Dec-21 | STEPHENSON | 429N 5E22 | F | 2 | HUNTING |
| 4-Dec-21 | OGLE | 422N 8E 2 | F | 1 | HUNTING |
| 4-Dec-21 | MCHENRY | 344N 8E15 | F | 5 | HUNTING |
| 4-Dec-21 | CARROLL | 425N 3E27 | M | 1 | HUNTING |
| 4-Dec-21 | JODAVIESS | 428N 1E27 | M | 1 | HUNTING |
| 4-Dec-21 | DEKALB | 342N 3E18 | M | 1 | HUNTING |
| 4-Dec-21 | JODAVIESS | 426N 5E 5 | F | 5 | HUNTING |
| 4-Dec-21 | CARROLL | 425N 5E19 | M | 4 | HUNTING |
| 4-Dec-21 | GRUNDY | 333N 6E 9 | M | 3 | HUNTING |
| 4-Dec-21 | MCHENRY | 345N 6E20 | M | 3 | HUNTING |
| 4-Dec-21 | JODAVIESS | 429N 3E24 | F | 5 | HUNTING |
| 4-Dec-21 | JODAVIESS | NOT PROVIDED | F | 2 | HUNTING |
| 4-Dec-21 | CARROLL | 424N 4E20 | F | 3 | HUNTING |
| 4-Dec-21 | KANKAKEE | 331N 9E19 | F | 2 | HUNTING |
| 4-Dec-21 | KENDALL | 337N 6E33 | F | 2 | HUNTING |
| 5-Dec-21 | STEPHENSON | 426N 8E34 | M | 1 | HUNTING |
| 5-Dec-21 | JODAVIESS | 429N 2E31 | M | 1 | HUNTING |

Appendix B. Continued.

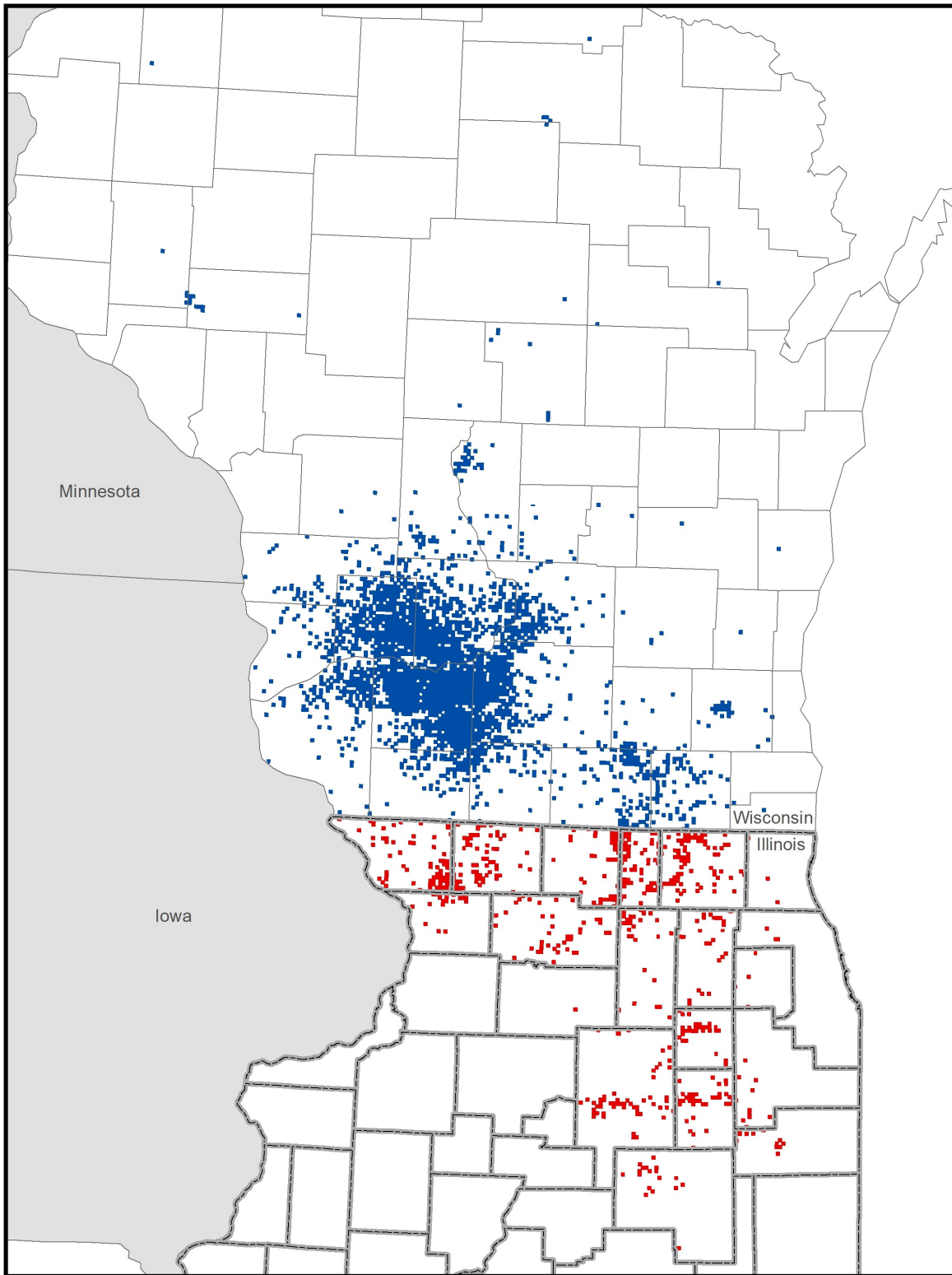
| Date Collected | County | Township, Range, Section | Sex | Age (yrs) | Collection Method |
|-----------------------|---------------|---------------------------------|------------|------------------|--------------------------|
| 5-Dec-21 | OGLE | 424N10E33 | M | 2 | HUNTING |
| 5-Dec-21 | LASALLE | 333N 2E12 | M | 3 | HUNTING |
| 6-Dec-21 | LASALLE | 333N 3E29 | M | 4 | HUNTING |
| 7-Dec-21 | KENDALL | 337N 7E32 | M | 1 | HUNTING |
| 8-Dec-21 | KANE | 338N 6E23 | F | 1 | HUNTING |
| 10-Dec-21 | LASALLE | NOT PROVIDED | M | 4 | HUNTING |
| 15-Dec-21 | CARROLL | 425N 6E 7 | F | 2 | HUNTING |
| 16-Dec-21 | LAKE | 343N10E24 | M | 2 | SHARPSHOOTING |
| 31-Dec-21 | MCHENRY | 344N 6E30 | F | 2 | HUNTING |
| 1-Jan-22 | MCHENRY | 345N 6E17 | F | 3 | HUNTING |
| 3-Jan-22 | MCHENRY | 344N 5E31 | F | 3 | HUNTING |
| 4-Jan-22 | KENDALL | NOT PROVIDED | F | 1 | HUNTING |
| 10-Jan-22 | CARROLL | 425N 5E17 | F | 3 | HUNTING |
| 12-Jan-22 | MCHENRY | 345N 6E19 | F | 5 | HUNTING |
| 12-Jan-22 | BOONE | 344N 3E28 | M | 1 | HUNTING |
| 12-Jan-22 | MCHENRY | 345N 6E19 | F | 2 | HUNTING |
| 15-Jan-22 | KENDALL | 336N 8E 5 | M | 5 | HUNTING |
| 15-Jan-22 | KANKAKEE | 331N 9E 5 | F | 2 | HUNTING |
| 17-Jan-22 | LEE | 420N11E24 | F | 4 | HUNTING |
| 17-Jan-22 | GRUNDY | 333N 8E 8 | M | 2 | HUNTING |
| 18-Jan-22 | DEKALB | 342N 3E22 | F | 2 | SHARPSHOOTING |
| 18-Jan-22 | GRUNDY | 333N 6E24 | M | 2 | SHARPSHOOTING |
| 19-Jan-22 | JODAVIESS | 426N 4E26 | M | 3 | SHARPSHOOTING |
| 19-Jan-22 | LASALLE | 332N 1E12 | M | 2 | SHARPSHOOTING |
| 20-Jan-22 | KANE | 338N 7E11 | M | 2 | SHARPSHOOTING |
| 24-Jan-22 | STEPHENSON | 426N 7E 1 | F | 2 | SUSPECT |
| 24-Jan-22 | LASALLE | 332N 5E16 | F | 2 | SHARPSHOOTING |
| 24-Jan-22 | BOONE | 346N 3E30 | F | 2 | SHARPSHOOTING |
| 25-Jan-22 | STEPHENSON | 428N 6E 8 | M | 2 | SHARPSHOOTING |
| 25-Jan-22 | JODAVIESS | 428N 2E18 | M | 2 | SHARPSHOOTING |
| 25-Jan-22 | STEPHENSON | 428N 6E 8 | F | 2 | SHARPSHOOTING |
| 26-Jan-22 | LASALLE | 333N 2E20 | M | 2 | SHARPSHOOTING |
| 26-Jan-22 | DEKALB | 342N 3E22 | M | 3 | SHARPSHOOTING |
| 26-Jan-22 | WINNEBAGO | 343N 2E21 | M | 3 | SHARPSHOOTING |
| 27-Jan-22 | BOONE | 346N 3E31 | M | 2 | SHARPSHOOTING |
| 27-Jan-22 | OGLE | 423N11E 8 | M | 2 | SHARPSHOOTING |
| 27-Jan-22 | STEPHENSON | 427N 6E35 | M | 4 | SHARPSHOOTING |
| 27-Jan-22 | BOONE | 344N 3E30 | M | 4 | SHARPSHOOTING |
| 1-Feb-22 | KANE | 338N 7E11 | F | 1 | SHARPSHOOTING |
| 2-Feb-22 | JODAVIESS | 428N 2E18 | M | 1 | SHARPSHOOTING |
| 3-Feb-22 | MCHENRY | 346N 8E 3 | F | 3 | SHARPSHOOTING |
| 7-Feb-22 | LASALLE | 333N 5E22 | M | 3 | SHARPSHOOTING |
| 7-Feb-22 | LASALLE | 332N 5E16 | F | 3 | SHARPSHOOTING |
| 7-Feb-22 | WINNEBAGO | 343N 2E15 | M | 4 | SHARPSHOOTING |
| 8-Feb-22 | JODAVIESS | 428N 3E22 | M | 2 | SHARPSHOOTING |
| 9-Feb-22 | LASALLE | 333N 2E31 | M | 1 | SHARPSHOOTING |

Appendix B. Continued.

| Date Collected | County | Township, Range, Section | Sex | Age (yrs) | Collection Method |
|-----------------------|---------------|---------------------------------|------------|------------------|--------------------------|
| 9-Feb-22 | MCHENRY | 346N 6E32 | M | 1 | SHARPSHOOTING |
| 9-Feb-22 | MCHENRY | 346N 6E32 | M | 2 | SHARPSHOOTING |
| 9-Feb-22 | JODAVIESS | 426N 1E13 | F | 1 | SHARPSHOOTING |
| 9-Feb-22 | WINNEBAGO | 428N11E 4 | F | 2 | SHARPSHOOTING |
| 9-Feb-22 | LASALLE | 333N 2E20 | F | 2 | SHARPSHOOTING |
| 9-Feb-22 | LASALLE | 332N 1E 1 | F | 1 | SHARPSHOOTING |
| 9-Feb-22 | LIVINGSTON | 329N 6E18 | F | 1 | SHARPSHOOTING |
| 10-Feb-22 | MCHENRY | 346N 7E 6 | F | 4 | SHARPSHOOTING |
| 10-Feb-22 | MCHENRY | 346N 7E 6 | F | 1 | SHARPSHOOTING |
| 14-Feb-22 | DUPAGE | 338N 9E35 | F | 1 | SHARPSHOOTING |
| 16-Feb-22 | MCHENRY | 346N 8E 3 | F | 5 | SHARPSHOOTING |
| 21-Feb-22 | KANE | 341N 6E 6 | F | 3 | SHARPSHOOTING |
| 21-Feb-22 | JODAVIESS | 426N 4E26 | F | 2 | SHARPSHOOTING |
| 22-Feb-22 | STEPHENSON | 427N 6E35 | M | 2 | SHARPSHOOTING |
| 22-Feb-22 | OGLE | 423N11E 8 | M | 2 | SHARPSHOOTING |
| 23-Feb-22 | BOONE | 344N 3E28 | M | 1 | SHARPSHOOTING |
| 23-Feb-22 | LASALLE | 332N 2E 7 | F | 2 | SHARPSHOOTING |
| 28-Feb-22 | JODAVIESS | 426N 2E29 | F | 2 | SHARPSHOOTING |
| 28-Feb-22 | LASALLE | 333N 3E22 | F | 2 | SUSPECT |
| 28-Feb-22 | CARROLL | 425N 4E 1 | M | 2 | SHARPSHOOTING |
| 28-Feb-22 | CARROLL | 425N 6E17 | M | 2 | SHARPSHOOTING |
| 1-Mar-22 | KENDALL | 337N 6E35 | M | 5 | SHARPSHOOTING |
| 2-Mar-22 | LASALLE | 333N 1E25 | F | 1 | SHARPSHOOTING |
| 2-Mar-22 | STEPHENSON | 427N 6E35 | M | 4 | SHARPSHOOTING |
| 2-Mar-22 | LASALLE | 333N 1E25 | F | 1 | SHARPSHOOTING |
| 3-Mar-22 | BOONE | 346N 3E30 | M | 3 | SHARPSHOOTING |
| 3-Mar-22 | STEPHENSON | 428N 6E 8 | F | 3 | SHARPSHOOTING |
| 7-Mar-22 | DEKALB | 342N 3E22 | M | 1 | SHARPSHOOTING |
| 8-Mar-22 | GRUNDY | 333N 6E12 | M | 3 | SHARPSHOOTING |
| 15-Mar-22 | GRUNDY | 333N 6E24 | F | 2 | SHARPSHOOTING |
| 15-Mar-22 | KENDALL | 336N 6E 1 | M | 2 | SHARPSHOOTING |
| 16-Mar-22 | LASALLE | 332N 2E 7 | M | 2 | SHARPSHOOTING |
| 17-Mar-22 | MCHENRY | 346N 6E 8 | F | 2 | SHARPSHOOTING |
| 23-Mar-22 | LASALLE | 333N 2E20 | M | 3 | SHARPSHOOTING |
| 27-Apr-22 | BOONE | 345N 3E34 | M | 4 | 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 30 June 2022. Squares represent sections in which CWD has been detected.