Illinois Chronic Wasting Disease: 2005-2006 Surveillance/Management Summary



Paul Shelton and Andrew Hulin Forest Wildlife Program Illinois Department of Natural Resources

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Background:

Illinois' first case of chronic wasting disease (CWD) in wild deer (*Odocoileus virginianus*) was found in fall 2002 northeast of Rockford along the Winnebago-Boone county line. Prior to the 2005-2006 CWD-sampling season (state fiscal year beginning July 1, 2005, hereafter referred to as FY05-06), 96 CWD-positive deer in four northern Illinois counties had been identified from about 16,500 surveillance samples tested statewide. The primary focus of infection (54 positive animals) was northeast of Rockford, with a smaller focus of infection in southeastern Winnebago County at the confluence of the North Fork and South Fork of the Kishwaukee River. Most other positives were found farther up those two watersheds (to the east and south), although three isolated positives were found either in the city of Rockford or to the northwest within Winnebago County (Figure 1). Additional positives associated with this outbreak have been found to the north and northeast in Wisconsin.

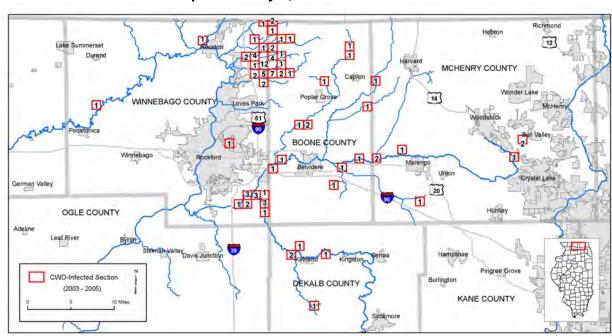


Figure 1. Locations and number per section of CWD-infected deer identified in northern Illinois prior to July 1, 2005.

CWD Surveillance Activities During FY2004-2005:

All CWD testing was conducted at Illinois Department of Agriculture's Animal Disease Laboratories located at Galesburg and Centralia, Illinois, both of which are certified for CWD testing by USDA. Immunohistochemistry (IHC) was the testing method used. Sampling was accomplished by collecting tissues from (1) hunter-harvested deer during the firearm and archery deer seasons; (2) suspect animals reported to IDNR staff; (3) road-killed deer in known CWD-infected areas; (4) deer taken under authority of urban Deer Population Control Permits and nuisance Deer Removal Permits; and (5) deer taken by IDNR sharpshooters in CWD areas.

Firearm Deer Season Surveillance. Tissue samples (obex and retropharyngeal lymph nodes) were taken by IDNR staff from hunter-harvested deer at check stations and stored in individually-labeled jars of formalin. The seven highest-risk counties were surveyed (Figure 2), including Stephenson, Winnebago, Boone, McHenry, Ogle, DeKalb, and Kane (west of Highway 47). Samples were taken from all willing hunters throughout the entire 7-day season (November 18-20 and December 1-4, 2005), with a target goal of at least 500 samples per county. A sample size of 500 allows 99% confidence of detecting a 1% disease prevalence rate. For the first time, samples were collected from fawns as well as adult deer. Harvest location was recorded to the nearest square mile according to the government land survey (Township, Range, and

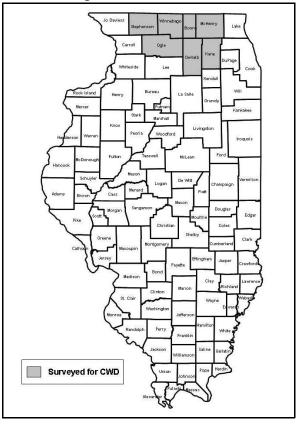
Section). A total of 2,606 usable samples were collected during the firearm deer season, with 13 CW D-positive individuals identified from five counties (Boone [5], DeKalb [1], McHenry [1], Ogle [2], and Winnebago [4]).

Surveillance at mandatory check stations was also conducted during the special CWD Deer Hunting Season (January 13-15, 2006) in Boone, DeKalb, McHenry, and Winnebago counties. Protocols were as identified for the regular firearm deer season. An additional 193 usable samples were collected, with 3 CWD-positive deer identified from 2 counties (Boone [2], and Winnebago [1]). A single sample was collected from the muzzleloading rifle season when a hunter left the sample for testing at an archery sample drop-off location. It tested negative.

Appendix A provides a tabulation of the number of usable samples actually taken in each county via all collection methods.

Archery Deer Season Surveillance. Refrigerated sample collection stations were established in select counties in northern Illinois to allow archery deer hunters to donate samples for CWD surveillance. The stations were "self-serve" – hunters filled out a card to identify themselves and the location from which they harvested the deer, and left the deer head and the completed card in a plastic bag in the provided refrigerator. The sampling stations were advertised to

Fig. 2. Illinois counties sampled for CWD during the 2005 firearm deer season.



the hunting public in Cook, Lake, Kane, DuPage, McHenry, Boone, Winnebago, and DeKalb counties. IDNR staff checked the stations at least twice a week, removed the tissue samples from the heads, and forwarded the samples to the Galesburg Animal Disease Laboratory for testing. In addition, certain cooperating meat processors in the CWD counties were paid to collect samples from archery-harvested deer.

One hundred thirty-nine (139) usable samples were taken in this fashion (Appendix A), yielding 1 CWD-positive deer from Boone County. An additional 175 samples were taken in conjunction with a special archery hunt in Piatt County, all of which tested negative.

Surveillance Using Agency-issued Permits for Lethal Deer Removal. Agencies/municipalities using Deer Population Control Permits (sharpshooting) issued by IDNR to control urban deer populations were asked to collect obex/retropharyngeal lymph node samples from a specified number of adult deer. IDNR supplied the necessary training and materials, and arranged for transfer of the samples to the testing laboratories. This provided samples of deer from northeastern Illinois counties not open to firearm deer hunting (Cook, Lake, DuPage), as well as from properties in Winnebago, JoDaviess, and Piatt counties. A total of 760 usable samples were taken from five counties (Appendix A). Nine CWD-positive deer were identified from forest preserve district properties in southeast Winnebago County.

Landowners who were issued Deer Removal Permits to help control nuisance deer (i.e., for crop depredation) in CWD counties were required to submit heads to IDNR biologists for testing. Twenty-four deer from three counties were tested, with no positives found.

<u>Suspect ("Target") Deer Surveillance.</u> Upon receiving reports from the public about sick deer, IDNR staff collected samples for CWD testing from deer that exhibited signs/symptoms that could be attributed to chronic wasting disease. Samples were taken from 11 deer in 6 counties (Appendix A). Three positive deer were found, all from Winnebago County.

Surveillance from Post-Hunting Season Sharpshooting. Sharpshooting was conducted during the period January 16, 2006 - March 31, 2006 by IDNR Wildlife Biologists, IDNR Conservation Police Officers, and USDA Wildlife Services personnel. Generally, sharpshooting locations were confined to those parts of Boone, DeKalb, McHenry, Ogle, and Winnebago counties from which CWD-infected deer had been identified. More specific details of goals, procedures, and results of the experimental sharpshooting program are discussed in the management section of this report.

Sharpshooters collected 748 usable samples from the five affected counties (Appendix A). Twenty positive deer were found in Boone (6), DeKalb (4), McHenry (3), and Winnebago (7) counties.

<u>Discussion of Surveillance Results to Date.</u> A total of 4,667 usable samples were collected statewide during FY05-06, resulting in the identification of 51 CW D-positive deer from five counties: Boone (15), DeKalb (5), McHenry (4), Ogle (2), and Winnebago (25). This was markedly higher than the number of positives identified during FY04-05 (31), but comparable to the previous year (51). The two positive Ogle County deer marked the first findings of CWD in this county. It appears that the disease most likely spread from the disease focus in southeast Winnebago County (near the confluence of the north and south forks of the Kishwaukee River) downstream along the Rock River. However, past and present surveillance in Ogle County have been intense (1,993 deer tested during the past 3 years), so we remain optimistic that these deer represent isolated cases rather than established disease foci. Continued sampling in these areas during the next few years will shed additional light on their status.

Three discrete geographic areas continue to consistently produce CWD-positive animals: (1) northeast of Rockford along North and South Kinnikinnick creeks; (2) southeast of Rockford near the confluence of the North Fork and the South Fork of the Kishwaukee River; and (3) northwest DeKalb County on the South Fork of the Kishwaukee River at Kirkland. The latter site in DeKalb County is less of a concern than the other two, because of diminishing deer numbers and because there is limited habitat upstream along that watershed for the disease to spread into.

While we continued to consistently find CWD-positive deer in the focus areas identified above, FY05-06 was a year in which we found significantly more diseased deer in fragmented habitats in the watershed of the North Fork of the Kishwaukee River in Boone and western McHenry Counties. It is imperative that we continue experimental sharpshooting programs in the established CWD areas and in these spark areas in an effort to lower deer numbers in source areas and to combat disease establishment in the newly-discovered spark areas. Locations of all positive deer found during FY05-06 are shown in Figure 3.

Disease prevalence rates were calculated for the five affected counties from random surveillance data collected during the deer hunting seasons (Table 1). Since CWD is not distributed randomly within counties, surveillance data collected via sharpshooting was also used to calculate prevalence rates in the vicinity of known CWD positives (both past and present). Because sharpshooting was generally limited to areas within an approximate 2-mile buffer around positive sections, estimates derived from these data more realistically represent prevalence rates within the CWD-affected portions of counties. Both surveillance methods targeted fawns as well as adults, except that fawns were underrepresented in the Ogle County hunting season surveillance (fawns were only targeted for sampling in counties known to have CWD prior to the hunting season). Countywide adult prevalence rates calculated from hunting season data ranged from 5.3% (+ 3.6, 95% confidence interval) in Boone County to 0.3% in McHenry County (+ 0.7, 95% confidence interval) and Ogle County (+ 0.4, 95% confidence interval). Interestingly, adult prevalence rates calculated for CWDaffected portions of counties from late-winter sharpshooting varied from 8.0% (+ 10.6, 95% confidence interval) in DeKalb County to 0.0% in Ogle County, where follow-up sharpshooting identified no further diseased animals in the newly-discovered CWD areas. CWD prevalence rates in Boone County derived from sharpshooting samples (CWD areas only) were not higher than rates from random hunter surveillance (3.8% + 3.6 vs. 5.3% + 3.6), probably because known CWD locations in Boone County are distributed throughout virtually all deer habitat within the county. No CWD-positive fawns were identified by sampling during the hunting season, but infected fawns were found via late-winter sharpshooting in Boone (2.2% +3.0 prevalence), DeKalb (7.1% +9.5), and Winnebago (1.0% +1.3).

Table 1. County CWD prevalence estimates in northern Illinois for the period 1 July 2005 through 30 June 2006.

County	Source of Samples ¹	Deer Age	# of Samples ²	# of Positives ²	Percent Positive	95% Confidence Interval (+/-)
Boone	All hunting	Adults only	151	8	5.3%	3.6%
	All hunting	Fawns only	77	0	0.0%	-
	All hunting	All deer	228	8	3.5%	2.4%
	Sharpshooting	Adults only	106	4	3.8%	3.6%
	Sharpshooting	Fawns only	92	2	2.2%	3.0%
	Sharpshooting	All deer	199	6	3.0%	2.4%
DeKalb	All hunting	Adults only	187	1	0.5%	1.0%
	All hunting	Fawns only	91	0	0.0%	-
	All hunting	All deer	278	1	0.4%	0.7%
	Sharpshooting	Adults only	25	2	8.0%	10.6%
	Sharpshooting	Fawns only	28	2	7.1%	9.5%
	Sharpshooting	All deer	53	4	7.5%	7.1%
McHenry	All hunting	Adults only	296	1	0.3%	0.7%
ļ	All hunting	Fawns only	128	0	0.0%	-
	All hunting	All deer	428	1	0.2%	0.5%
	Sharpshooting	Adults only	106	3	2.8%	3.2%
	Sharpshooting	Fawns only	60	0	0.0%	-
	Sharpshooting	All deer	166	3	1.8%	2.0%
Ogle	All hunting	Adults only	710	2	0.3%	0.4%
	All hunting	Fawns only	16	0	0.0%	-
	All hunting	All deer	729	2	0.3%	0.4%
	Sharpshooting	Adults only	62	0	0.0%	-
	Sharpshooting	Fawns only	34	0	0.0%	-
	Sharpshooting	All deer	96	0	0.0%	-
Winnebago	All hunting	Adults only	449	5	1.1%	1.0%
	All hunting	Fawns only	167	0	0.0%	-
	All hunting	All deer	622	5	0.8%	0.7%
	Sharpshooting	Adults only	250	13	5.2%	2.8%
	Sharpshooting	Fawns only	205	2	1.0%	1.3%
	Sharpshooting	All deer	457	16	3.5%	1.7%

Estimates from hunting represent the entire county; estimates from sharpshooting represent the CWD-affected portion of the county.

Summing the figures for adults and fawns may not equal the numbers presented for "All deer" because of individuals for which no age was identified.

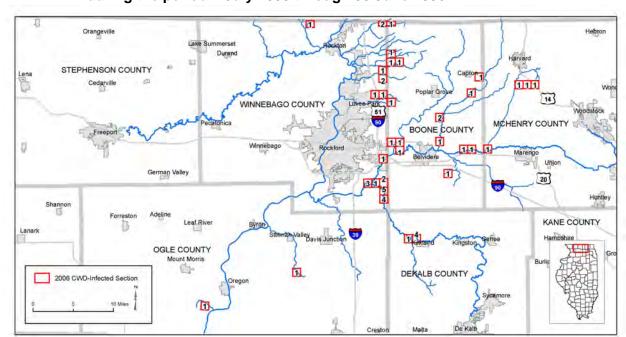


Figure 3. Locations and number per section of CWD-infected deer found in Illinois during the period 1 July 2005 through 30 June 2006.

Disease prevalence rates were also calculated for discrete locales within the known CWD zone by limiting data analyses to those random samples (all methods except suspect animal surveillance) falling within a two-mile buffer around each CWD-positive section identified during FY05-06. Seven areas were identified using the buffering approach (Figure 4). Calculated prevalence rates (with 95% confidence intervals) for these areas are presented in Table 2. Caution should be used in interpreting the results, as small sample sizes preclude a high degree of precision for prevalence estimates in many of the zones.

Zones A, B, and C each consist of a single positive deer identified during the firearm deer season, and low sample sizes in B and C preclude accurate assessment of prevalence rates. Zones A and B each represent a completely new geographic area in which CWD was identified for the first time this year, while the positive found in Zone C is less than 5 miles from a diseased deer taken in November 2003. Zone A is located within a heavily-wooded riparian corridor along the Rock River, and includes portions of Castle Rock State Park and Lowden-Miller State Forest. Deer populations are relatively high, but CWD surveillance on the DNR-owned property has been intensive during the past few years, and is facilitated by sampling during the controlled hunts which are held there. Habitat in Zone B is much more limited, with most of the significant timber held by a single landowner. Deer populations are locally high where suitable habitat exists, but access to property for the purpose of management has been difficult. Zone C consists of scattered woodlots plus the riparian corridor along Raccoon Creek, and includes some of the best deer habitat in Winnebago County. Positives identified in these zones may be "sparks" (isolated cases of CWD resulting from recent emigration of an infected individual from an established CWD area), but only future sampling efforts will clarify whether disease has become established or not.

Zone D corresponds to the original primary focus of CWD in northern Illinois, and is located northeast of Rockford along the Boone-Winnebago county line. This zone has an estimated CWD prevalence rate in adult deer of 5.8% (\pm 3.5), compared to estimated prevalence rates of 4.5% (\pm 3.0), 8.6% (\pm 3.4) and 6.0% (\pm 4.0) for zones with similar boundaries during the previous three years. Ten positive deer were identified in this zone.

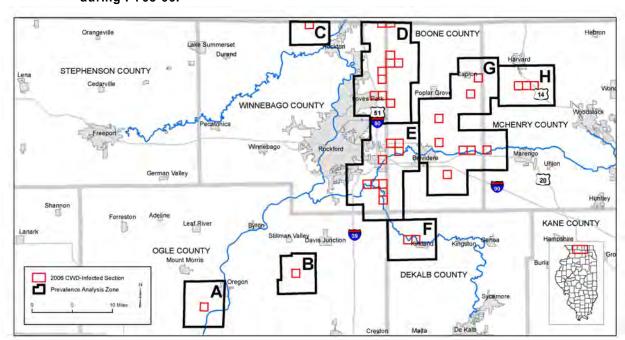


Figure 4. Zones in northern Illinois for which localized CWD prevalence estimates were made during FY05-06.

Zone E includes several forest preserves in southeastern Winnebago County at the confluence of the North Fork and the South Fork of the Kishwaukee River, as well as the North Fork of the Kishwaukee River in western Boone County. This zone was estimated to have an adult prevalence rate of 6.0% (+ 2.9), compared to estimates of 2.6% (± 1.8) and 2.5% (± 1.8) during the previous two years for a similarly-delineated area. Although Winnebago County Forest Preserve District staff have removed more than 800 deer during the past three winters from their properties, deer populations remain significant in this area. Our concern that diseased deer in this zone posed a threat (via emigration) to deer populations in habitats along the Rock River in Ogle County appears to have materialized, and continued intensive deer removals in this zone will be necessary to eliminate this risk.

Zone F consists of habitat along the South Fork of the Kishwaukee River in northwest DeKalb County. Very little forest exists except along the riparian corridor. Deer population size appears to have declined during the past two years, and last year no positives were found in this area. However, this year 3 of 50 adult deer (6.0%) and 2 of 58 fawns (3.4) tested positive from this zone.

Zone G is comprised of the riparian corridor along the North Fork of the Kishwaukee River in eastern Boone and western McHenry counties, as well as the fragmented habitat associated with the drainages to the north. While only limited forested habitat is available away from the river, CWD is found throughout a wide area. Adult prevalence rates were estimated at 5.4% (\pm 3.9), compared to combined estimates of 3.9% (\pm 3.4) and 7.1 (\pm 6.0) during the previous two years for combinations of smaller, disjunct zones that occupied this geographic area. Based on the increased number of positives found, this corridor remains an important dispersal route for this disease outbreak.

Zone H represents the first finding of CWD (3 positives) along the Marengo Ridge area of McHenry County, which produces a significant portion of the county firearm deer harvest. Disease prevalence in adult deer was estimated to be 3.6% (+4.0).

Table 2. Results of random CWD surveillance in known CWD areas for the period 1 July 2005 through 30 June 2006. Samples taken from suspect animals are excluded. Sampling units are those areas defined in Figure 4.

Sampling Unit	Area (sq.mi.)	Age Class	Number of Samples ¹	Number of Positives	Percent Positive	95% Confidence Interval (+/-)
Α	28	Fawn	20	0	0.0%	-
		Adult	122	1	0.8%	1.6%
		Total	142	1	0.7%	1.4%
В	22	Fawn	9	0	0.0%	-
		Adult	32	1	3.1%	6.0%
		Total	42	1	2.4%	4.6%
С	14	Fawn	28	0	0.0%	-
		Adult	44	1	2.3%	4.4%
		Total	72	1	1.4%	2.7%
D	84	Fawn	104	0	0.0%	-
		Adult	172	10	5.8%	3.5%
		Total	277	10	3.6%	2.2%
E	80	Fawn	197	2	1.0%	1.4%
		Adult	250	15	6.0%	2.9%
	·	Total	452	18	4.0%	1.8%
F	30	Fawn	58	2	3.4%	4.7%
		Adult	50	3	6.0%	6.6%
		Total	108	5	4.6%	4.0%
G	124	Fawn	84	2	2.4%	3.3%
		Adult	129	7	5.4%	3.9%
		Total	213	9	4.2%	2.7%
н	35	Fawn	55	0	0.0%	-
	,	Adult	84	3	3.6%	4.0%
		Total	139	3	2.2%	2.4%
All Units C	All Units Combined:					
	417	Fawn	555	6	1.1%	0.9%
		Adult	883	41	4.6%	1.4%
		Total	1445	48	3.3%	0.9%

Summing the figures for adults and fawns may not equal the numbers presented for "Total" because of individuals for which no age was identified.

Experimental CWD Management Activities During FY2005-2006:

<u>Use of regulated hunting for herd control in CWD-affected areas.</u> Permit quotas in known CWD counties during firearm and muzzleloading deer seasons have been increased to the point where supply far exceeds demand (hunters may purchase permits essentially without limit), and no limit is in effect for archery hunters. In addition, a special late-winter CWD season was implemented in January 2006 for Winnebago, Boone, McHenry, and the northern portion of DeKalb counties to allow for additional deer removals via hunting. During this season, hunters could use unfilled permits for any of the previous seasons, or they could purchase a \$5 permit. Successful hunters who checked in their deer and allowed biologists to take a sample were given a free permit to allow them to continue hunting. Permit quotas and seasons in Ogle County were relatively unchanged, since CWD was not discovered there until after the firearm deer season.

In spite of these changes, total deer harvest (all seasons combined) in the 4-county area (Boone, DeKalb, McHenry, and Winnebago) has changed little. Harvest increased slightly during FY05-06 due to the new CWD season added in January. By increasing publicity about the season and making permits available over-the-counter at license vendors, we hope to increase the effectiveness of this hunt next year. Hunter harvest during FY05-06 was 3,767, compared to 3,473; 3,561; and 3,247 in the preceding three years. Lower deer densities resulting from the combined effects of hunting and sharpshooting are likely reducing hunter success, counteracting the effects of liberalized regulations during this period.

Sharpshooting in CWD "hotspots". Following the close of deer hunting seasons in January, teams of sharpshooters (IDNR staff assisted by USDA Wildlife Services) began culling deer that were wintering in or around known CWD locations. The CWD locations included those discovered during FY05-06, in addition to those identified in past years. An Urban Deer Population Control Permit (DPCP) was issued to the Winnebago County Forest Preserve District to allow their staff to conduct a sharpshooting program on forest preserves in known CWD areas in southeastern Winnebago County. In a few instances, nuisance Deer Removal Permits were issued to private landowners in CWD areas that allowed them to shoot deer to help reduce crop depredation. All sharpshooting activities were carried out between January 16 and March 31, 2006.

Objectives of the sharpshooting were: (1) to provide detailed localized surveillance information about disease distribution and prevalence rates within infected areas; and (2) to examine the feasibility/effectiveness of controlling CWD in free-roaming deer populations by [a] removing as many sick deer as possible from known CWD areas; [b] removing/sampling deer that are inaccessible to hunters because of urbanization; and by [c] reducing densities in known CWD locales to lower transmission rates.

All animals (including fawns) removed during the sharpshooting program, except those taken with head shots from which no testable tissue could be found, were tested for CWD to determine disease prevalence in affected areas. Obex and retropharyngeal lymph nodes were removed at DNR processing facilities in the sampling zones, and transferred to IDOA Disease Laboratories for testing. Additional tissues (tongues, tonsils, fetuses) were collected and archived for further research/testing at the University of Illinois Champaign/Illinois Natural History Survey.

During past years, aerial deer surveys (via helicopter) have been conducted during periods of suitable snow cover to census deer wintering in known CWD areas. Surveys served to identity wintering habitat that contained concentrations of deer, and to provide estimates of deer numbers throughout the affected area. Our goal was to focus sharpshooting activities on deer in winter concentration areas that included or were nearby CWD-infected properties, thus maximizing our effectiveness. Winter 05-06 was uncharacteristically warm, with little snow occurring in northern Illinois. As a result, conditions were unsuitable for conducting aerial counts of deer (i.e., no sustained, continuous snow cover). Our only opportunity to conduct aerial surveys was March 7, 2006, after a wet snow fell in the area northeast of Rockford. Unfortunately, temperatures were warm enough that the snow did not persist, and only 40.5 mi² were surveyed before snow melted to the point that surveys were discontinued (see Figure 5). The survey area that was flown was known to contain three deer refuges to which IDNR sharpshooters have not had access, and we wanted to gauge the effects of these refuges on our success. In order to compare deer numbers in the delineated area to those of previous years, we used the survey number of deer on the date flown to estimate the number of deer as of January 16, 2006 (the day after close of hunting season, and prior to onset of sharpshooting) by adding

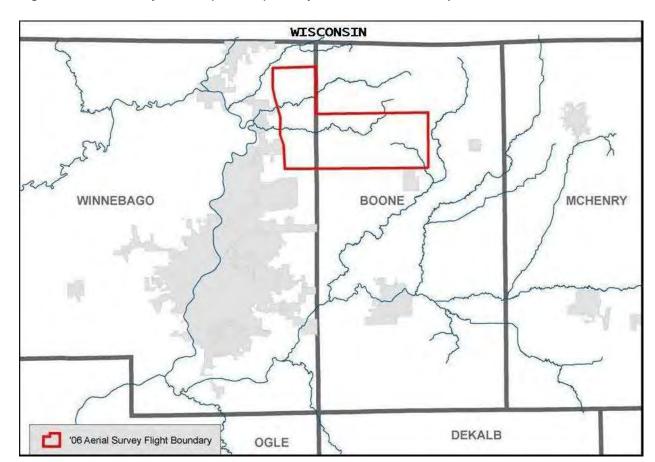


Figure 5. Boundary of area (40.5 mi²) surveyed for deer via helicopter on March 7, 2006.

the number of deer taken by sharpshooters within that area between January 16 and the date of the aerial survey. This procedure was also applied to all previous years to standardize counts (Table 3). During the 4-year survey period, deer populations declined by more than 50%. While deer densities in this area remain higher than those documented during winter 04-05 for the entire CWD area (3.2 deer/mi² within a 561 mi² survey area), the impacts of experimental CWD management activities are clearly having an impact despite the presence of the refuge areas. Although we were unable to survey the majority of the CWD area, we are confident that the declining trends observed in past years' surveys are continuing. Similar to our results, aerial surveys conducted by Winnebago County Forest Preserve District (WCFPD) staff showed a 53% reduction in deer numbers between winter 03-04 and winter 05-06 on their properties in southeast Winnebago County.

Table 3. Summary of aerial deer counts and deer removals in the 2006 deer survey area during the period 2003-2006.

Year	Adjusted Number of Deer	Deer Density (#/mi²)	# Deer Removed by Sharpshooting	Percent Removed
2006	370	9.1	109	29.5%
2005	454	11.2	127	28.0%
2004	573	14.1	191	33.3%
2003	840	20.7	116	13.8%

Sharpshooting activities in the CWD zones in the five affected counties resulted in the removal of 1,002 deer, of which 897 were taken from the four counties (Winnebago, Boone, DeKalb, and McHenry) known to have CWD prior to the 05-06 hunting season. For comparison, sharpshooters removed 1,002 and 1,050 from those four counties during the previous two winters. Only seven of the deer collected by sharpshooting during winter 2006 were unsuitable for testing. The total consisted of 435 fawns, 563 adults, and 4 for which age was not identified. Sex ratios were 1 male to 1.4 females (420 males: 582 females). County totals were as follows: Boone (207), DeKalb (54), McHenry (168), Ogle (105) and Winnebago (468). Twenty-nine CWD-positive deer were removed by these activities, compared to 12 the previous year. This represents 57% of the total number of CWD-positives identified by all surveillance methods during FY05-06. Figure 6 depicts the number and general distribution of deer removed by sharpshooters in known CWD areas of northern Illinois.

Summary

During FY05-06, 3,304 deer from the 5-county northern Illinois CWD area were tested for chronic wasting disease, with 51 positives identified. This compares to 31 positives in 04-05 from 2,676 samples, and 51 positives in 03-04 from 2,860 samples. New locations of CWD infection were discovered in Ogle County along the Rock River and its tributaries (2); in north-central Winnebago County in the Raccoon Creek watershed (1); and in western McHenry County along Marengo Ridge (3). However, continued surveillance of several previously-identified CWD foci (the westernmost Winnebago County focus, the easternmost and southernmost McHenry County foci, and the southernmost focus in DeKalb County) turned up no further positives this year. This is heartening, as those locations constituted the most widely dispersed instances of CWD in Illinois away from the established core of the outbreak. Early identification of these "spark" areas is critical to allow experimental management intervention prior to establishment of the disease.

Although complete aerial survey information for winter 05-06 is lacking, declines in deer population size observed during the past two years appear to be continuing as a result of the combined effects of hunting and sharpshooting removals. Partial surveys carried out by both IDNR and WCFPD support this. However, declines in deer populations have not corresponded with measurable declines in disease prevalence to date.

During the coming year, we plan to continue surveillance and sharpshooting in the CWD area as we have for the past few years. In addition, we are implementing a system of surveillance for other counties throughout the state using agreements with cooperating meat processors who will be paid to collect samples from hunters and record data for us.

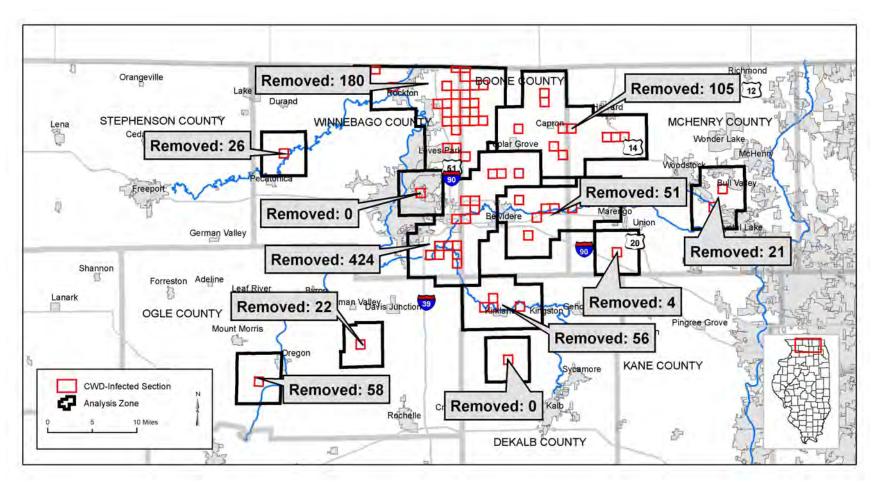


Figure 6. Number of deer taken by sharpshooters in CWD-infected areas of northern Illinois during winter 2005-2006.

Appendix A. Usable CWD samples taken by county in Illinois during the 2005-2006 sampling season. Numbers in parentheses reflect the number of CWD-positive deer identified.

County	All Firearm Seasons	Archery	DPCPs/ DRPs ¹	Roadkill	Agency Sharpshooting	Suspect	Total
BOONE	214 (7)	14 (1)	7	8 (1)	199 (6)		442 (15)
CARROLL	1					1	2
соок		1	131				132
DEKALB	275 (1)	3			53 (4)		331 (5)
DUPAGE			120				120
JO DAVIESS	1	1	25				27
KANE	58	3					61
KANKAKEE		1					1
KNOX						1	1
LAKE		11	161				172
LASALLE						1	1
LIVINGSTON						1	1
MCHENRY	398 (1)	30			166 (3)	1	595 (4)
OGLE	713 (2)	16	9	2	96		836 (2)
PIATT ²	62	175	100				337
SHELBY		1					1
STEPHENSON	507						507
WINNEBAGO	564 (5)	58	231 (9)	7 (1)	234 (7)	6 (3)	1100 (25)
TOTALS	2793 (16)	314 (1)	784 (9)	17 (2)	748 (20)	11 (3)	4667 (51)

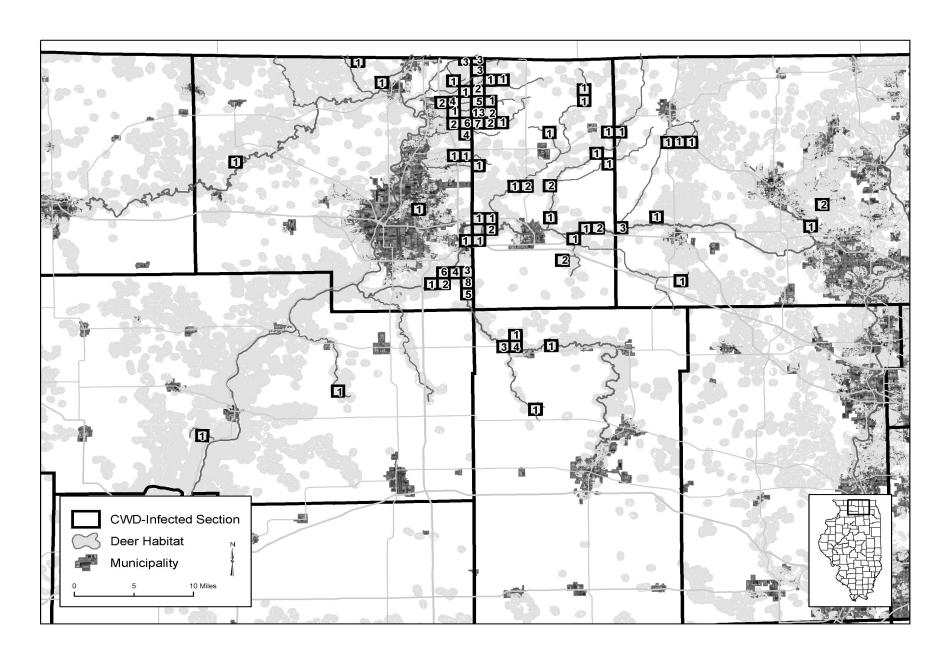
DPCP = Deer Population Control Permit; DRP = nuisance Deer Removal Permit
All samples from Piatt County were taken from Allerton Park (west of Monticello) as part of herd reduction efforts on that site.

Appendix B. Summary of CWD-positive deer collected during FY05-06.

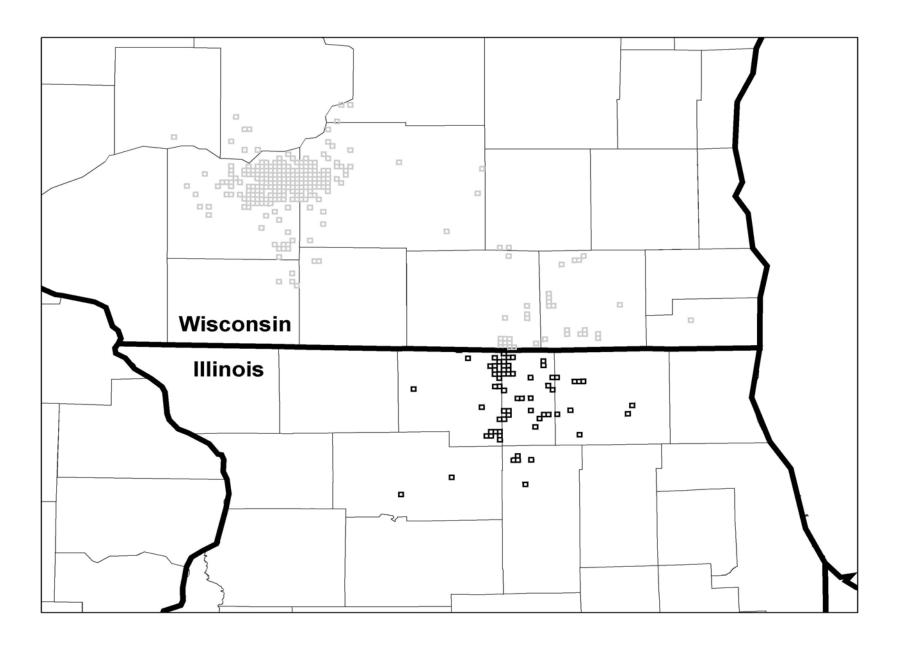
Date Collected	County	Township, Range, Section	Sex	Age	Surveillance Method
10/13/05	Boone	344N 3E S19	Male	1	Hunter
11/10/05	Winnebago	344N 2E S36	Male	2	Suspect
11/18/05	Boone	345N 3E S30	Male	1	Hunter
11/18/05	DeKalb	342N 2E S21	Male	2	Hunter
11/18/05	Boone	346N 3E S6	Male	2	Hunter
11/18/05	Winnebago	343N 2E S25	Male	3	Hunter
11/19/05	Boone	345N 4E S12	Male	2	Hunter
11/19/05	Ogle	341N 1E S7	Male	2	Hunter
11/19/05	Winnebago	343N 2E S25	Male	2	Hunter
11/19/05	Winnebago	346N 1E S4	Male	2	Hunter
11/19/05	Winnebago	343N 2E S25	Male	3	Hunter
11/20/05	Ogle	423N 10E S18	Female	1	Hunter
11/20/05	Boone	344N 4E S27	Male	3	Hunter
12/2/05	McHenry	345N 5E S14	Male	1	Hunter
12/3/05	Boone	343N 4E S8	Female	2	Hunter
12/21/05	Winnebago	345N 2E S1	Female	4	Suspect
1/10/06	Winnebago	343N 2E S24	Male	1	Sharpshooting
1/10/06	Winnebago	343N 2E S14	Female	2	Sharpshooting
1/10/06	Winnebago	343N 2E S24	Male	2	Sharpshooting
1/10/06	Winnebago	343N 2E S24	Male	3	Sharpshooting
1/11/06	Winnebago	345N 2E S12	Female	4	Hunter
1/13/06	Boone	346N 3E S32	Female	3	Hunter
1/14/06	Boone	344N 4E S26	Female	2	Hunter
1/17/06	Winnebago	343N 2E S15	Female	?	Sharpshooting
1/17/06	Boone	345N 4E S23	Female	2	Sharpshooting
1/23/06	Winnebago	343N 2E S24	Male	Fawn	Sharpshooting
1/24/06	Winnebago	343N 2E S15	Male	Fawn	Sharpshooting
1/26/06	Winnebago	346N 2E S1	Male	3	Sharpshooting
1/30/06	Winnebago	345N 2E S24	Male	3	Sharpshooting
1/31/06	Winnebago	343N 2E S25	Female	2	Sharpshooting
1/31/06	Boone	344N 3E S29	Female	3	Sharpshooting
2/1/06	Boone	344N 4E S19	Male	Fawn	Sharpshooting

Appendix B continued.

Date	County	Township, Range, Section	Sex Age		Surveillance Method
2/1/06	Boone	346N 3E S31	Female	1	Sharpshooting
2/6/06	Winnebago	343N 2E S13	Female	2	Sharpshooting
2/6/06	Winnebago	346N 2E S1	Male	2	Sharpshooting
2/7/06	DeKalb	342N 3E S22	Male	2	Sharpshooting
2/7/06	Winnebago	343N 2E S15	Female	2	Sharpshooting
2/13/06	Winnebago	343N 2E S24	Female	1	Sharpshooting
2/15/06	Boone	346N 3E S30	Female	1	Roadkill
2/20/06	Winnebago	345N 2E S12	Female	2	Suspect
2/23/06	DeKalb	342N 3E S22	Male	Fawn	Sharpshooting
2/27/06	DeKalb	342N 3E S22	Female	2	Sharpshooting
3/1/06	McHenry	345N 6E S18	Male	1	Sharpshooting
3/2/06	McHenry	344N 5E S30	Female	2	Sharpshooting
3/6/06	Winnebago	345N 2E S23	Female	5	Roadkill
3/7/06	Winnebago	343N 2E S13	Female	3	Sharpshooting
3/14/06	DeKalb	342N 3E S22	Female	Fawn	Sharpshooting
3/16/06	Winnebago	344N 3E S20	Female	1	Sharpshooting
3/27/06	McHenry	345N 5E S13	Female	2	Sharpshooting
3/29/06	Boone	344N 4E S6	Female	2	Sharpshooting
3/29/06	Boone	344N 4E S6	Female	Fawn	Sharpshooting



Appendix C. Locations and number per section of all CWD-positive deer identified through the end of FY05-06 (June 30, 2006). Includes deer identified in previous years.



Appendix D. Distribution of chronic wasting disease in southern Wisconsin and northern Illinois as of June 30, 2006. Squares represent sections in which CWD has been detected.