2024 WHITE-TAILED DEER MANAGEMENT REPORT FOR THE MENOMINEE INDIAN TRIBE OF WISCONSIN

By

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Menominee White-tailed Deer Management Content

AKNOWLEDGEMENTS

Environmental Services Department, MITW wants to thank the following individuals for there time and hard work completing the 2023 White-tailed deer pellet group survey:

1.) **Joe Lyons, Environmental Services Department**
2.) **Kyle Lyons, Environmental Services Department**
3.) **Cierra Dickenson, Environmental Services Department**
4.) **Kenew LaTender, MTE Marking Crew**
5.) **Reynold Waukau, MTE Marking Crew**
6.) **Tom Notinokey, MTE Marking Crew**
7.) **Ron Waukau, Jr., MTE Marking Crew**

2024 WHITE-TAILED DEER PELLET GROUP SURVEY RESULTS

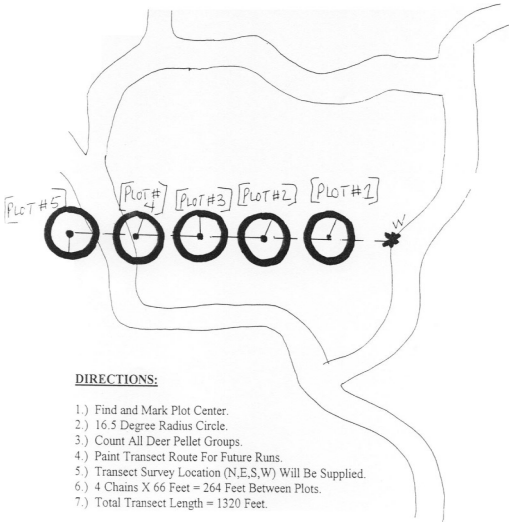
INTRODUCTION:

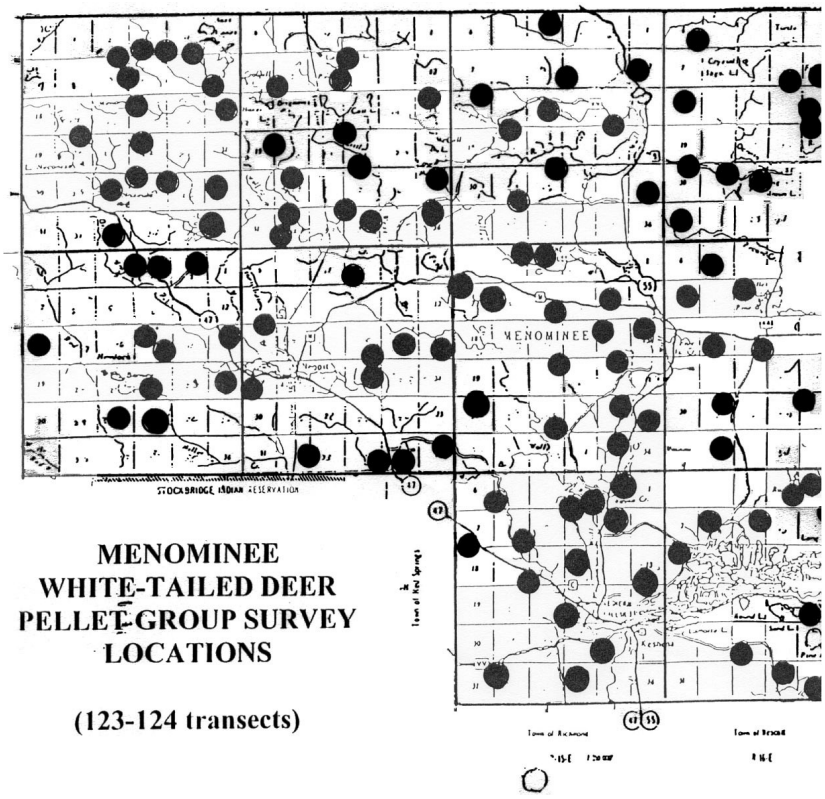
The White-tailed Deer (***Odocoileus virginianus***) is a native species of the Menominee Reservation, Wisconsin. Enrolled members and non-enrolled members enjoy the benefit to hunt this animal that is truly the master of its habitat. Big game management deals with primarily with wildlife populations and their habitat, and with people. The basic resource necessary for big game species and populations is habitat. People can be used as a tool. People manage wildlife populations through successful harvests and registration to achieve program goals and objectives.

Since 1985, in cooperation with the United States Fish and Wildlife Service (USFWS), the Menominee Conservation Fish and Wildlife Department have conducted annual spring white-tailed deer pellet group surveys. MTE Menominee Forestry Center Timber Marking Crew has assisted in gathering data. This is the thirty-ninth consecutive year for this type of survey since being discontinued in 1967 and represents a continuing effort to gain valuable information on the Reservation's deer herd.

Deer pellet group surveys (Eberhardt and Van Etten 1956, Olsen et al. 1955) formed a basic technique for white-tailed deer population inventory for the Wisconsin's northern forest range from 1955 to 1978. They also provided the initial background for the establishment of unit population goals in 1962 for Wisconsin. The procedure involves counting deer pellet groups on plots spaced along courses and any dead deer are noted. Course locations are distributed randomly throughout the Menominee Reservation so as to not bias the population estimate. Presently, one hundred and twenty (120) permanent random courses (transects) are intermixed within ten townships. The locations were established without prior knowledge of habitat present (habitat biases removed), and each course is run yearly to monitor 1.) forest habitat changes, 2.) white-tailed deer population changes and shifts. Trends are noted and provide us a better understanding of what types of habitat is needed to sustain a healthy viable deer population.

MENOMINEE INDIAN RESERVATION
DEER PELLET GROUP SURVEY EXAMPLE





MENOMINEE WHITE-TAILED DEER PELLET GROUP SURVEY LOCATIONS

(123-124 transects)

Each spring, deer pellet group courses are run after snow melt and must be completed by green-up. Leaf fall and leaf off dates are very important and are determined by the manager. Each fall watching for leaf off conditions can be extremely tough if you are watching in scrub oak forest. A general watch of the whole forest is completed and verified with Menominee Conservation Wardens out in the field. The conversion rate for deer pellet groups was completed in a study in Northern Minnesota that stated that deer defecate (go to the bathroom) on the average of 12.7 times per day. This is the conversion factor for the white-tailed deer population estimate.

The deer management goal for the Menominee Reservation falls within a range of twelve to thirteen deer per square mile (12-13). This figure was based upon identifying the different forest habitat types present within our forest.

2024 WHITE-TAILED DEER PELLET GROUP SURVEY RESULTS

WHITE-TAILED DEER HABITAT:
The Menominee forest is predominantly made up of four different habitat components. They are 1.) the northern hardwood which has a potential of eight (8) deer per square mile carrying capacity, 2.) the hemlock-hardwood forest which has the potential of nine (9) deer per square mile carrying capacity, 3.) the white pine forest which has a potential of eighteen and a half (18.5) deer per square mile carrying capacity, and 4.) the aspen pulpwood forest which has the potential of seventeen and a half to forty-four (17.5-44) deer per square mile carrying capacity.

The Menominee Forest has 235,000 acres, 220,000 acres are intensely forest managed by MTE. Currently, the forest has no pure timber stands that would help differentiate deer carrying capacities and the acreages of the forest stands provided. The Menominee Reservation goal was carefully deliberated by reviewing past deer densities and historical verbal records that state that deer damage began to occur at eighteen (18) deer per square mile. This was seen in the 1960's decade.

2024 White Tailed Deer Pellet Group Survey Results:

The 2024 White-tailed deer population estimate for the Menominee Reservation, Wisconsin is 9.8 plus or minus 1.8. What this means is that in any given area across the Menominee Indian Reservation there could be a possible deer population range of 9.0 to 11.6 deer per square mile. A total of 120 of 120 course were completed across the ten townships. The completion rate was one hundred percent (120/120 = 100%). The deer per square mile was pretty uniform per township from previous years. The mean deer pellet group number is by taking the overall total pellet group number (432) and dividing this by total transect number completed (120) which provides a number of 3.60. The mean deer pellet group number is 3.60. Another variable in the deer per square mile formula is deposition period. The deposition period is the period of time when all of the leaves have fallen off the tree. This date is the starting period of time that you can accurately count deer pellet groups. In 2024, this date was November 4, 2023. The deer pellet group survey was completed May 06, 2024. The deposition period was 185 days.

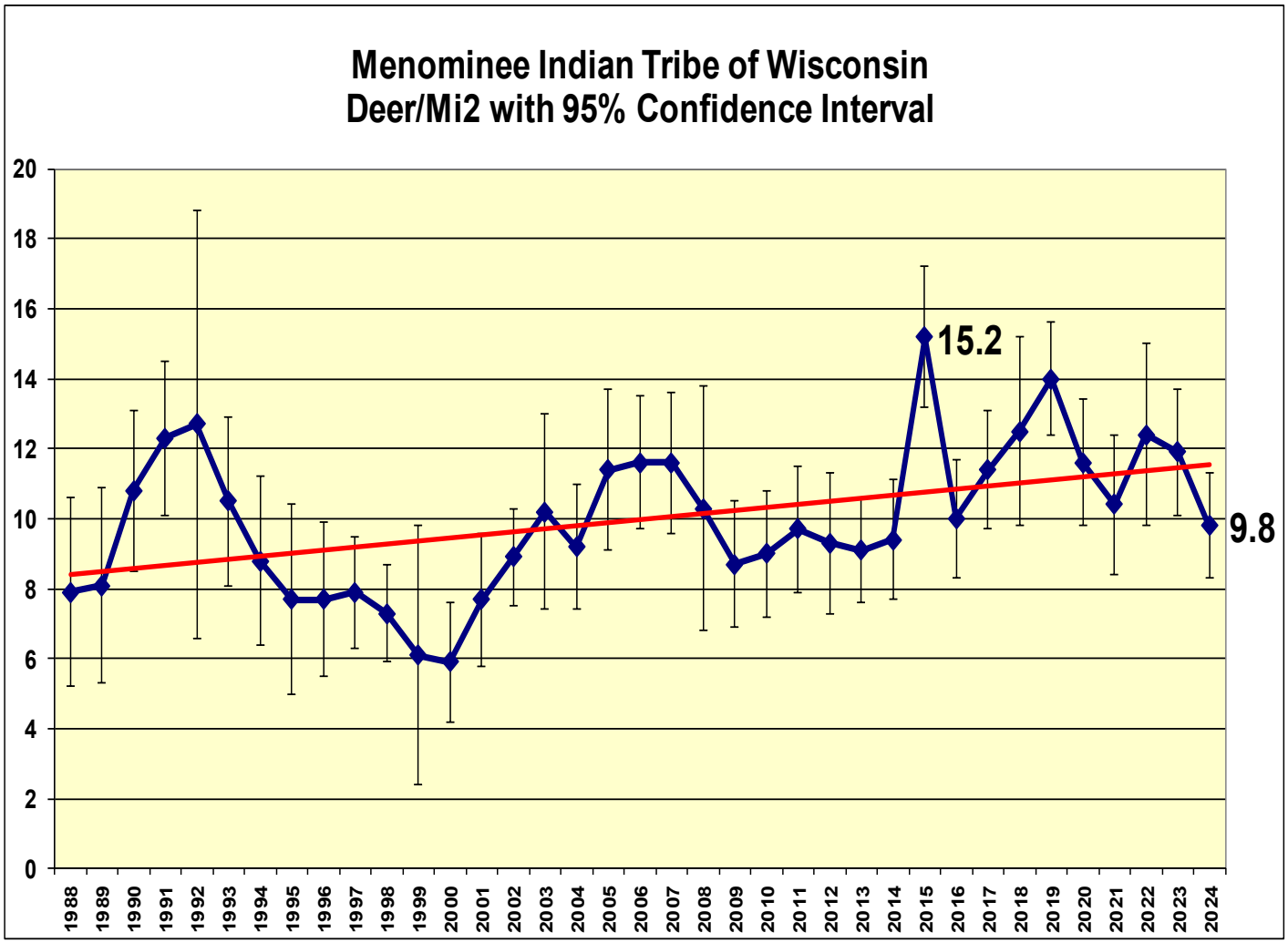
THE FORMULA:

$$\text{DEER/MILE} = \frac{\text{(Mean X Pellet) (1/0.1) (640 ac/mi)}}{\text{(Deposition Period) (12.7 groups/day)}} = \frac{\text{(3.60) (10) (640)}}{\text{(185) (12.7)}} = \text{9.8 deer/mi2}$$

2024 MENOMINEE RESERVATION
WHITE-TAILED DEER PELLET GROUP SURVEY RESULTS

TOWNSHIPS	TRANSECTS COMPLETED	TOTAL DEER PELLET #'S	2023	BY TOWNSHIP DEER/MI2
T30N,R13E	15	82	12.9	15.0
T30N,R14E	14	23	8.4	4.5
T30N,R15E	10	40	10.4	11.0
T30N,R16E	10	12	6.3	3.3
T29N,R13E	11	23	12.4	5.7
T29N,R14E	11	47	16.1	11.7
T29N,R15E	15	58	10.9	10.6
T29N,R16E	10	32	14.7	8.8
T28N,R15E	13	62	11.7	13.1
T28N,R16E	11	53	15.8	13.2
TOTALS:	**120**	**432**	**11.9**	**9.8**

2024 WHITE-TAILED DEER PELLET GROUP SURVEY RESULTS

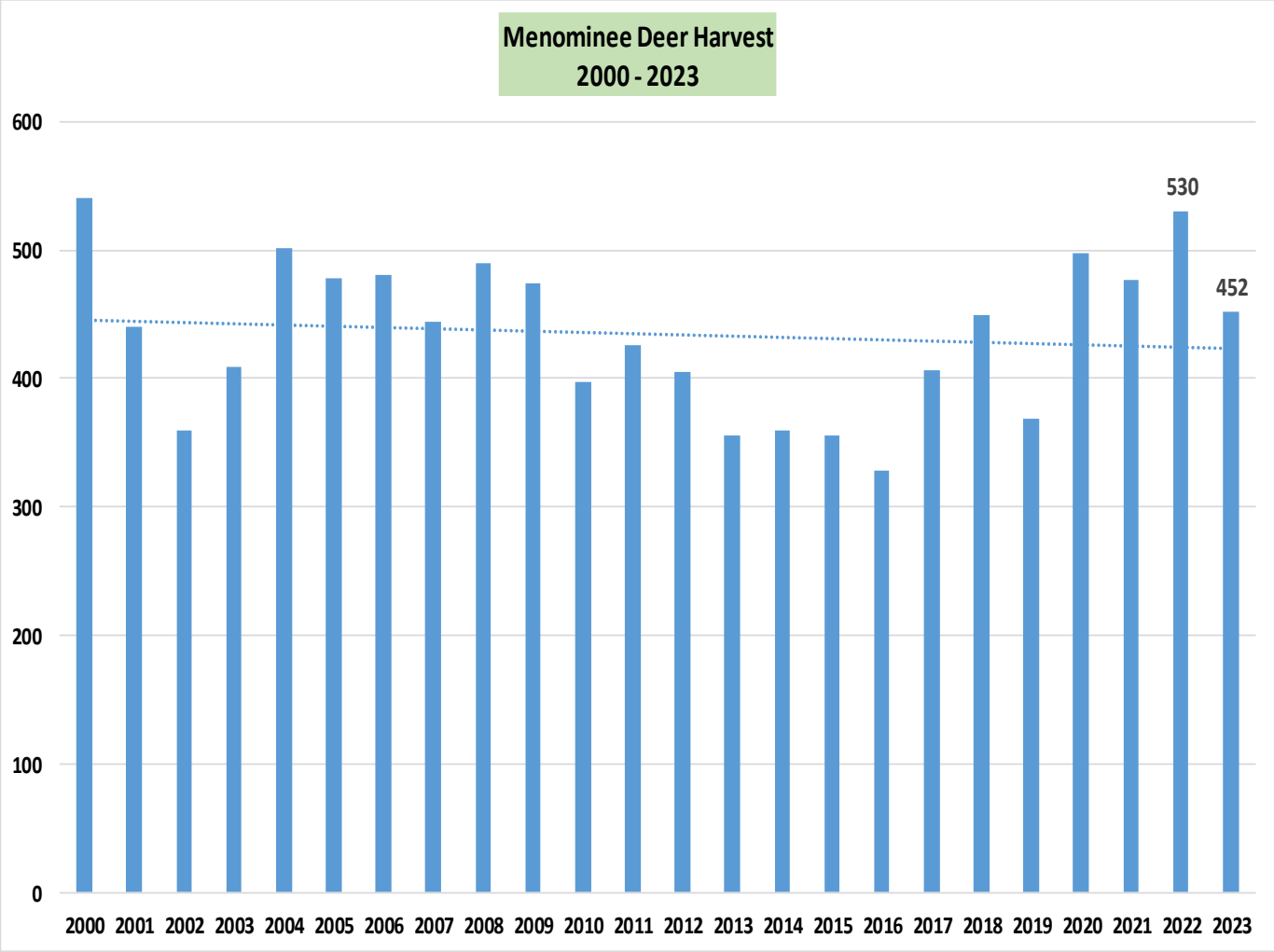


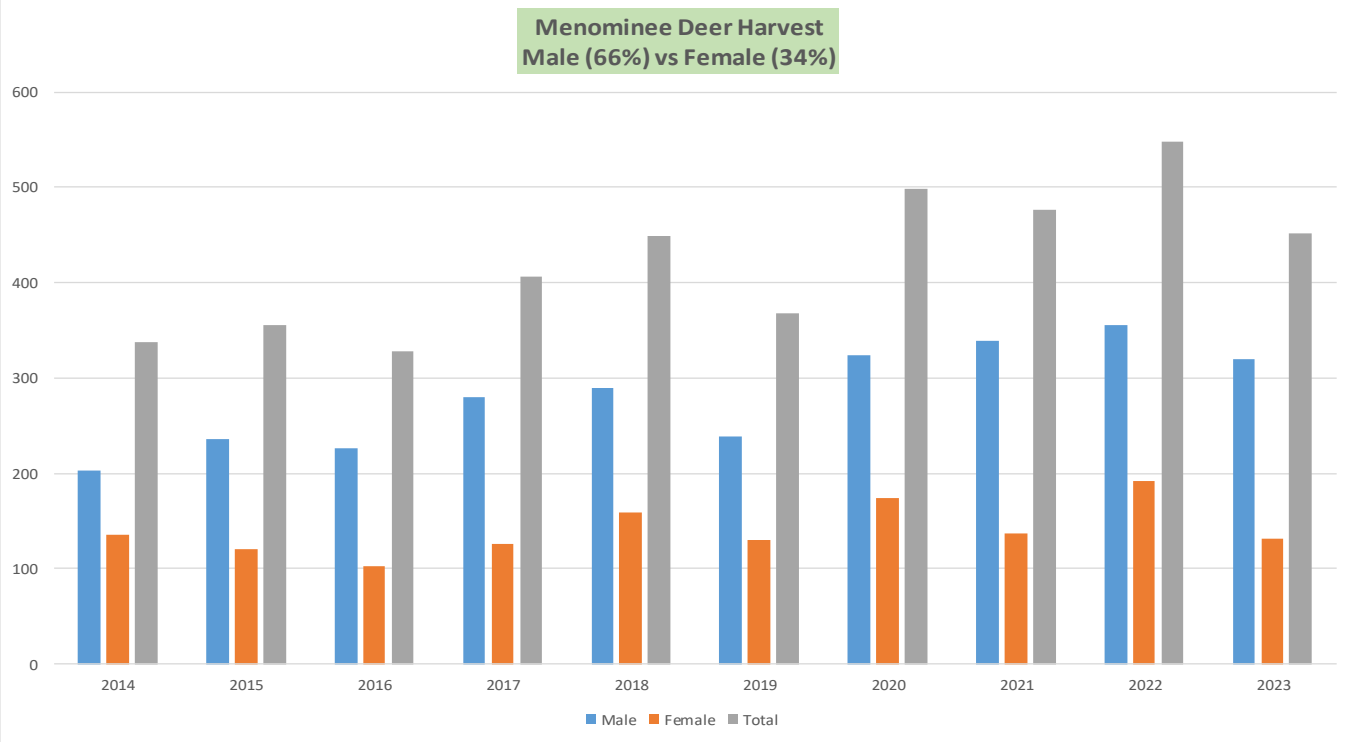
MENOMINEE WHITE-TAILED DEER MANAGEMENT GOAL:

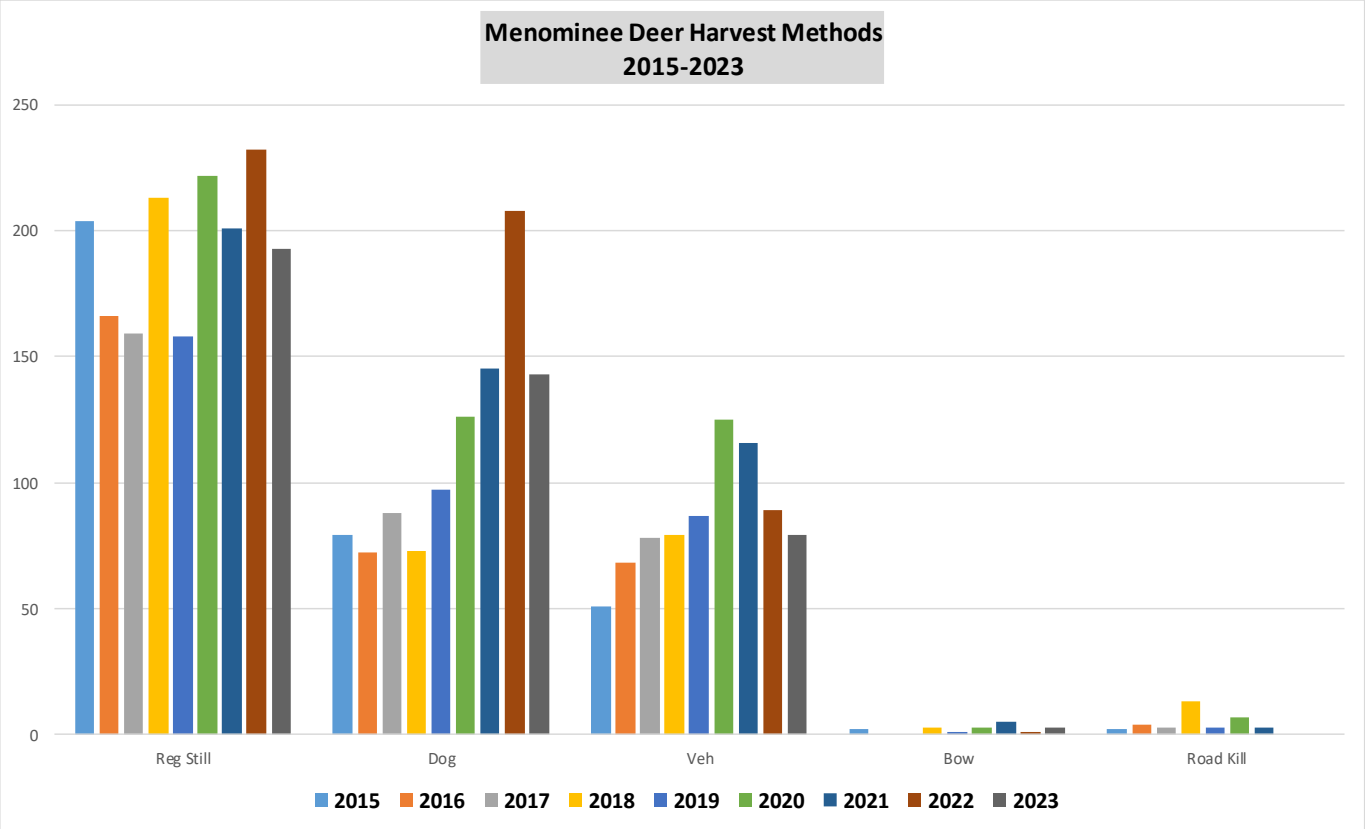
The white-tailed deer management goal for the Menominee Indian Tribe of Wisconsin is **12.0-13.0 deer per square mile.** This figure was based upon identifying the different forest habitat types available for the Reservation and examining the different deer carrying capacity for each of the habitats involved. Deer carrying capacity numbers were taken from a White-tailed Deer Study conducted in northern Wisconsin.

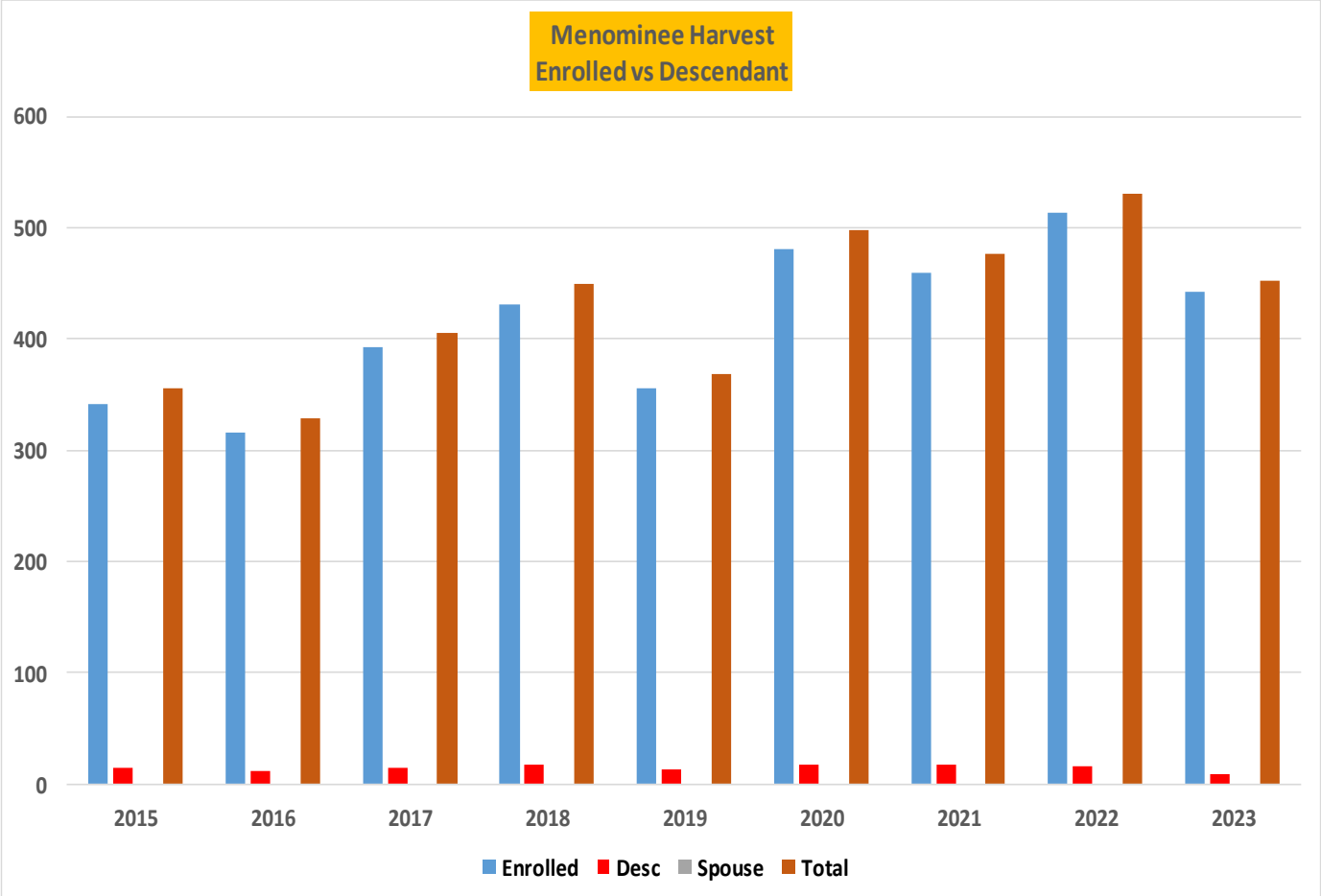
CARRYING CAPACITY is defined as the maximum number of animals that can live within a specific habitat and survive without causing damage to the habitat.

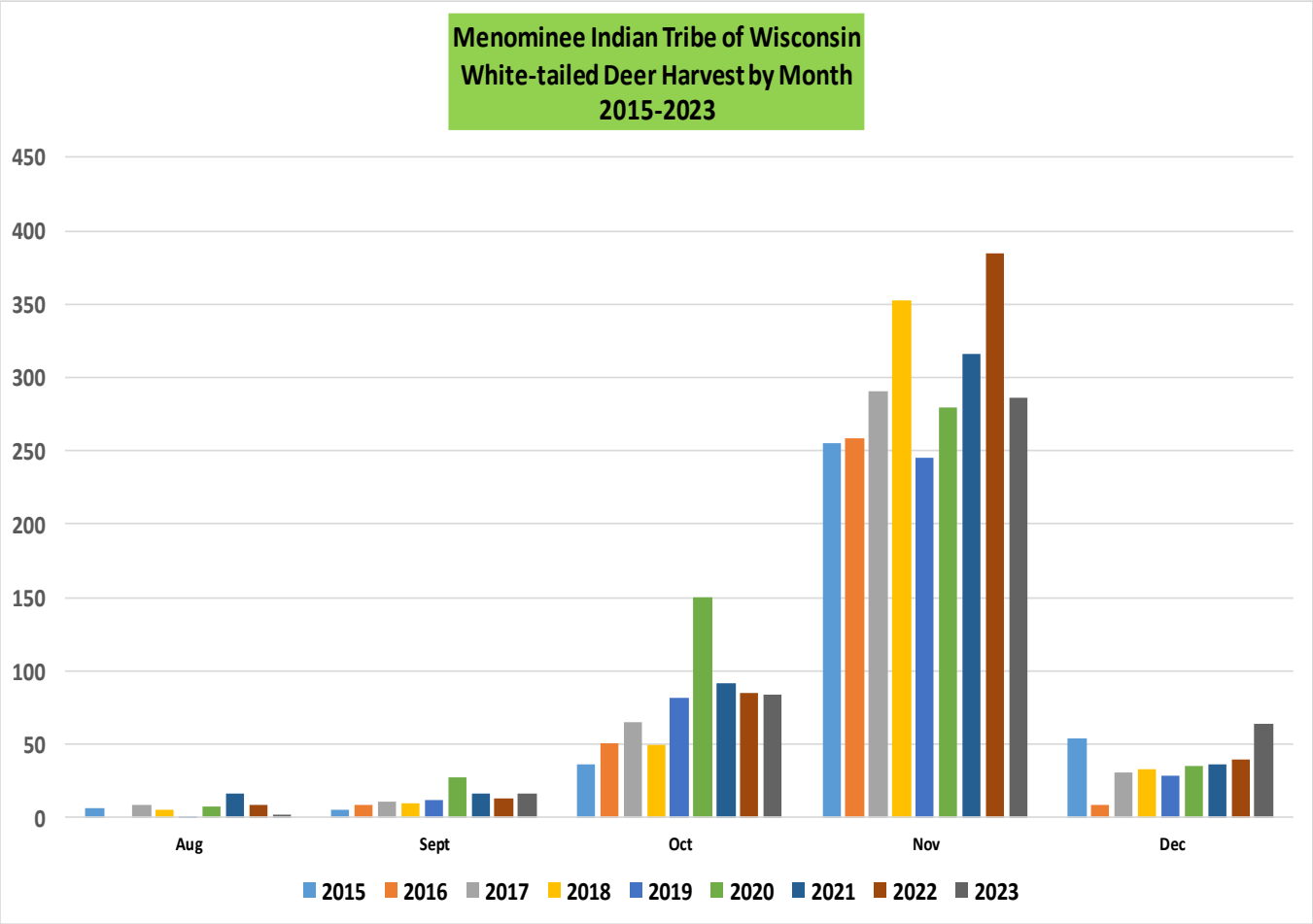
As with most species habitat is a critical issue for Whitetail Deer. Habitat is an extremely important key to the survival of wildlife species. The five main factors of habitat for a species are food, water, cover, space, and arrangement. Certain aspects of habitat, especially food supplies are the predominant constraint on the numbers of a specie. Responses to nutritional conditions have been documented or identified speculatively in many studies. In general, good nutrition is reflected in animals by (1) good physical condition and above-average body weights; (2) high reproductive rates; (3) high survival rates, especially for newborn; and (4) increasing populations. Poor nutrition would cause the opposite of these conditions. Cover, space, and arrangement are also critical to physical and behavioral well-being for most species of wildlife, more so in some than others.

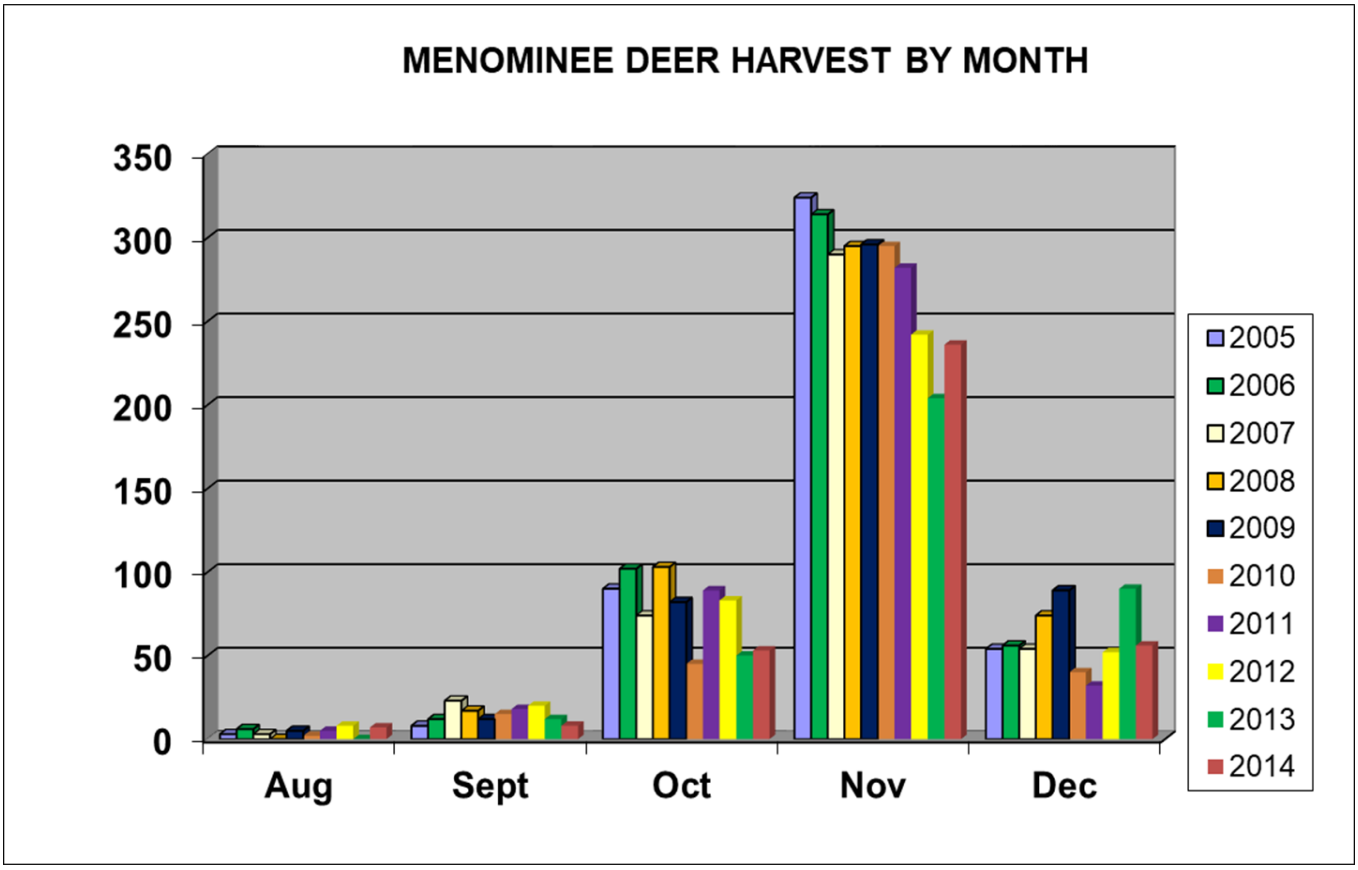

Menominee Deer Harvest
2000 - 2023
600
500
400
300
200
100
0
530
452
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023


Menominee Deer Harvest
Male (66%) vs Female (34%)
600
500
400
300
200
100
0
2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Male Female Total


Menominee Deer Harvest Methods
2015-2023
250
200
150
100
50
0
Reg Still
Dog
Veh
Bow
Road Kill
2015
2016
2017
2018
2019
2020
2021
2022
2023


Menominee Harvest
Enrolled vs Descendant
600
500
400
300
200
100
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Enrolled
Desc
Spouse
Total


Menominee Indian Tribe of Wisconsin
White-tailed Deer Harvest by Month
2015-2023
450
400
350
300
250
200
150
100
50
0
Aug
Sept
Oct
Nov
Dec
2015 2016 2017 2018 2019 2020 2021 2022 2023


MENOMINEE DEER HARVEST BY MONTH
350
300
250
200
150
100
50
0
Aug
Sept
Oct
Nov
Dec
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014

WINTER SEVERITY INDEX 2022-2023

This report details the Winter Severity Index (WSI) monitoring for the northern forest region of Wisconsin during the winter 2022-2023. Region-wide, As of April 2023 this winter will be rated as **Moderate** **Average WSI was 69.0.** The index uses a combination and accumulation of cold temperatures and deep snows that historically have proven to affect the health and population of deer. Biologists and other department staff add the number of days with daily low temperatures below zero degrees Fahrenheit (F) and the number of days with 18 inches or more of snow on the ground. Up to 50 combined points at the end of the winter is considered mild, from **Less than 50 is considered mild**, 81 and over is considered severe, and any totals over 100 points are considered very severe. The 2021 Menominee deer population should be in good shape. Last year's winter was considered moderate and we saw a spring green-up that provided sustenance for pregnant does, insuring a healthy fawn crop. **2023 fawn cohort should not be affected by the WSI. The 2023 WSI is listed as Moderate for the whole State. Menominee is listed with a WSI of 25 which is "Mild."**

Harvest plans in northern Wisconsin very from year to year, in part depending upon winter weather. Deer have both physiological and behavioral adaptations that allow them to endure Wisconsin winters-provided the deep snow and extremely cold temperatures do not persist too long. In very severe winters, losses of deer in northern Wisconsin can be dramatic. Even in mild winters, some animals do die. In southern Wisconsin, winter rarely impacts deer survival. To keep tabs on winter weather conditions, the Wisconsin Department of Natural Resources maintains a winter-severity index (WSI) at about 35 locations throughout northern Wisconsin. The closest locations that we use for our data points for Menominee are located at Oconto Forest, Menominee Forest, Langlade Forest, and Shawano Field Stations. These locations closely mimic our forested conditions.

WSI was developed in the early 1970's. It is calculated by adding the number of days with 18 inches or more of snow on the ground to the number of days when the minimum temperatures were 0 degrees Fahrenheit or below between December 1 and April 30. If you think of it as adding up points, a day when both conditions occurred would get two points. At the end of the winter all the points are added up, resulting in the WSI number for the whole winter. **A winter with an index of 50 or less is considered mild.** An index of 50-80 is considered moderate. An index of over 80 is considered severe. Menominee does not keep statistics for WSI, but will use comparable data from near research stations.

The following is an update and WSI numbers taken from locations near the Menominee Reservation:

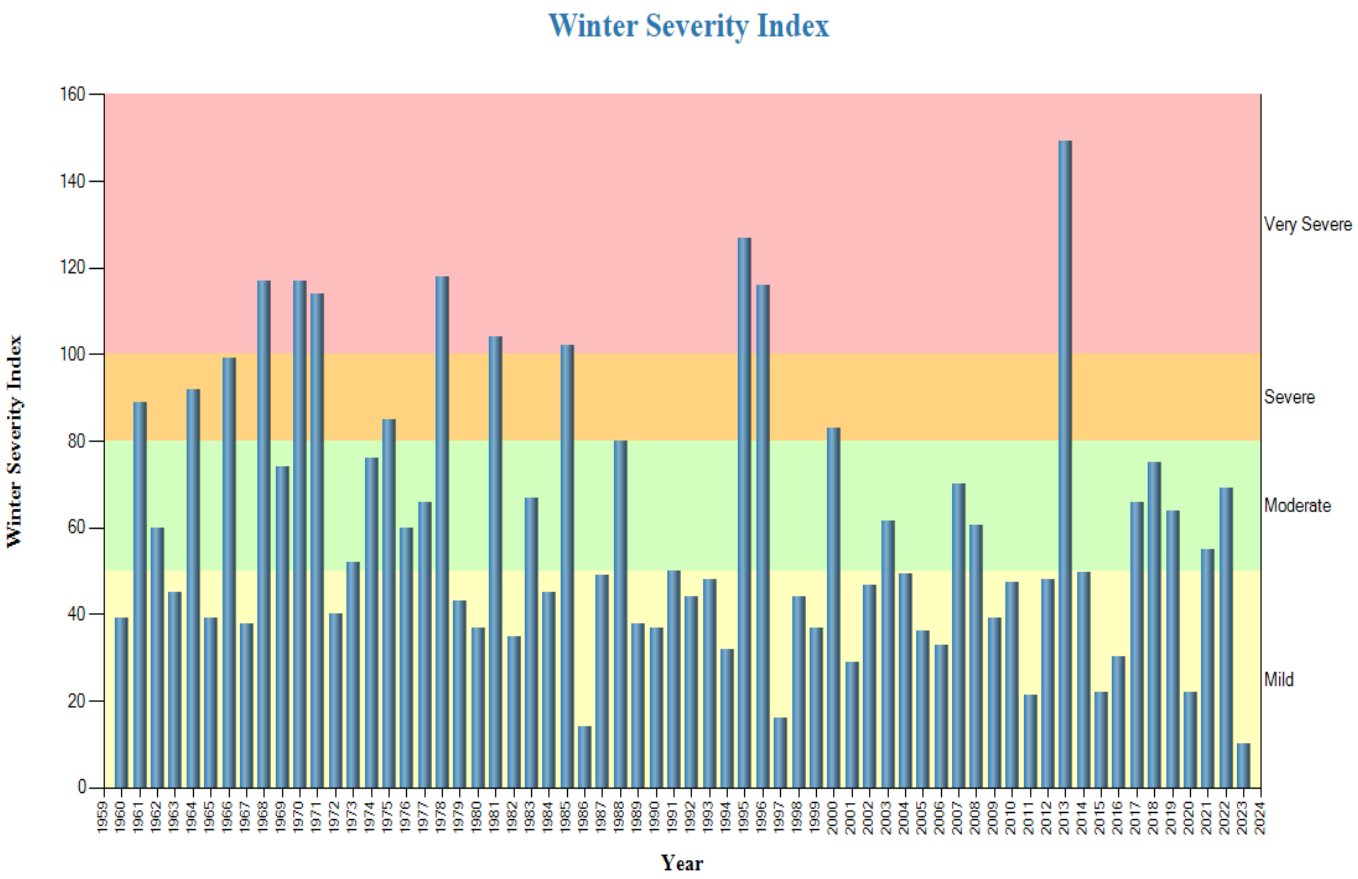
LOCATION:	TEMPERATURE	SNOW DEPTH	WSI INDEX
Oconto Forest	14	08	23 (Mild Winter)
Menominee Forest	14	11	25 (Mild Winter)
Langlade Forest	16	13	29 (Mild Winter)
Shawano	13	06	19 (Mild Winter)
WI State Averages:			**69.0 (Moderate Winter)**

The State of Wisconsin average as of April 15, 2023 is 69.0 in the northern forest. This means that the 2022-2023 winter severity index indicated that the winter is listed as being "**MODERATE WINTER**."

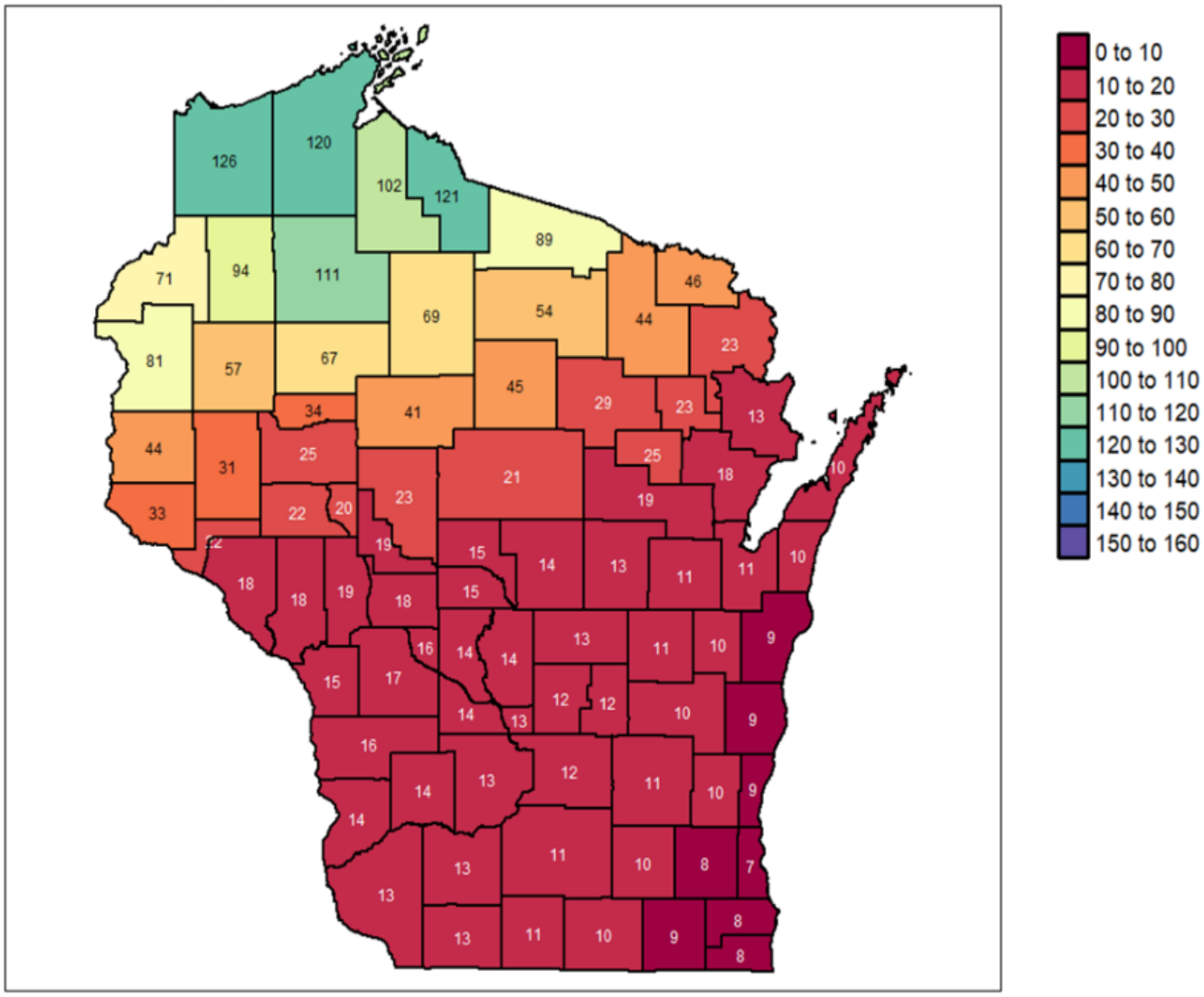
MODERATE WINTER, WINTER SEVERITYINDEX MEANS:
Wintering whitetails are remarkably adaptable animals, but our harsh northern climate claims some deer every year. Deer are well-equipped to survive even the harshest conditions during a 'typical' winter period. Their metabolism declines during the winter months, enabling them to conserve energy and rely heavily on fat stores during adverse periods or when the availability of food is limited. In a mild winter means more of an average winter. Deer survived the winter season in good shape. Less stress means the deer are going into spring in much better physical condition than normal. When does are healthy, they're more likely to have twins and triplets. Fawns can start their reproductive cycles earlier, too. The 2023 White-tailed deer pellet group survey will give a good indication of the numbers of deer that made it through this winter of 2022-2023. The deer herd should be in good health. The deer pellet group survey is scheduled for mid April to early May.

The Winter Severity Index, or "WSI," is a measurement used throughout the north to determine how brutal a winter has been for a given year. It tracks snowfall and temperatures from the beginning of December through the end of April and gives each a numeric value that is used to quantify the impact on deer.

WINTER SEVERITY INDEX 2022-2023



Winter Severity Index 2022-2023



This map depicts the Winter Severity Index (WSI) across Wisconsin. WSI is calculated by adding the number of days with a snow depth of at least 18 inches (snow points) to the number of days when the minimum temperatures were 0°F or below (temperature points). These points accumulate throughout the winter from December 1 – April 30. A WSI of 49 or less is considered mild, 50-79 is moderate, 80-99 is severe, and 100 or greater is very severe. Many WSI snow depth readings are taken by WDNR staff biologists and additional snow depth and temperature readings come from National Weather Service stations across the state. The WSI points displayed in each Deer Management Unit represent the mean of WSI values for that DMU. Questions can be directed to DanielJ.Storm@wisconsin.gov.

CHRONIC WASTING DISEASE SURVEILLANCE UPDATE FOR MENOMINEE

WHAT IS CHRONIC WASTING DISEASE (CWD)?

Chronic Wasting Disease (CWD) is a contagious neurological disease affecting deer, elk and moose. It causes a characteristic spongy degeneration of the brains of infected animals resulting in emaciation, abnormal behavior, loss of bodily functions and death.

CWD belongs to a group of diseases known as transmissible spongiform encephalopathies (TSEs). Within this family of diseases, there are several other variants that affect domestic animals: scrapie, which has been identified in domestic sheep and goats for more than 200 years, bovine spongiform encephalopathy (BSE) in cattle (also known as "mad cow disease"), and transmissible mink encephalopathy in farmed mink.

Several rare human diseases are also TSEs. Creutzfeldt-Jakob disease (CJD) occurs naturally in about one out of every one million people worldwide. Variant Creutzfeldt-Jakob disease (v-CJD) has been associated with the large-scale outbreak of BSE in cattle herds in Great Britain.

CAN HUMANS GET CWD?

Though many observers try to compare CWD with "mad cow disease", the diseases are distinctly different. Currently, there is no evidence that CWD poses a risk for humans; however, public health officials recommend that human exposure to the CWD infectious agent be avoided as they continue to evaluate any potential health risk.

Nonetheless, health and wildlife officials advise caution. Hunters are encouraged not to consume meat from animals known to be infected. In addition, hunters should take **common sense precautions** when field dressing and processing deer or elk taken in areas where CWD is found.

MENOMINEE CWD TESTING HISTORY

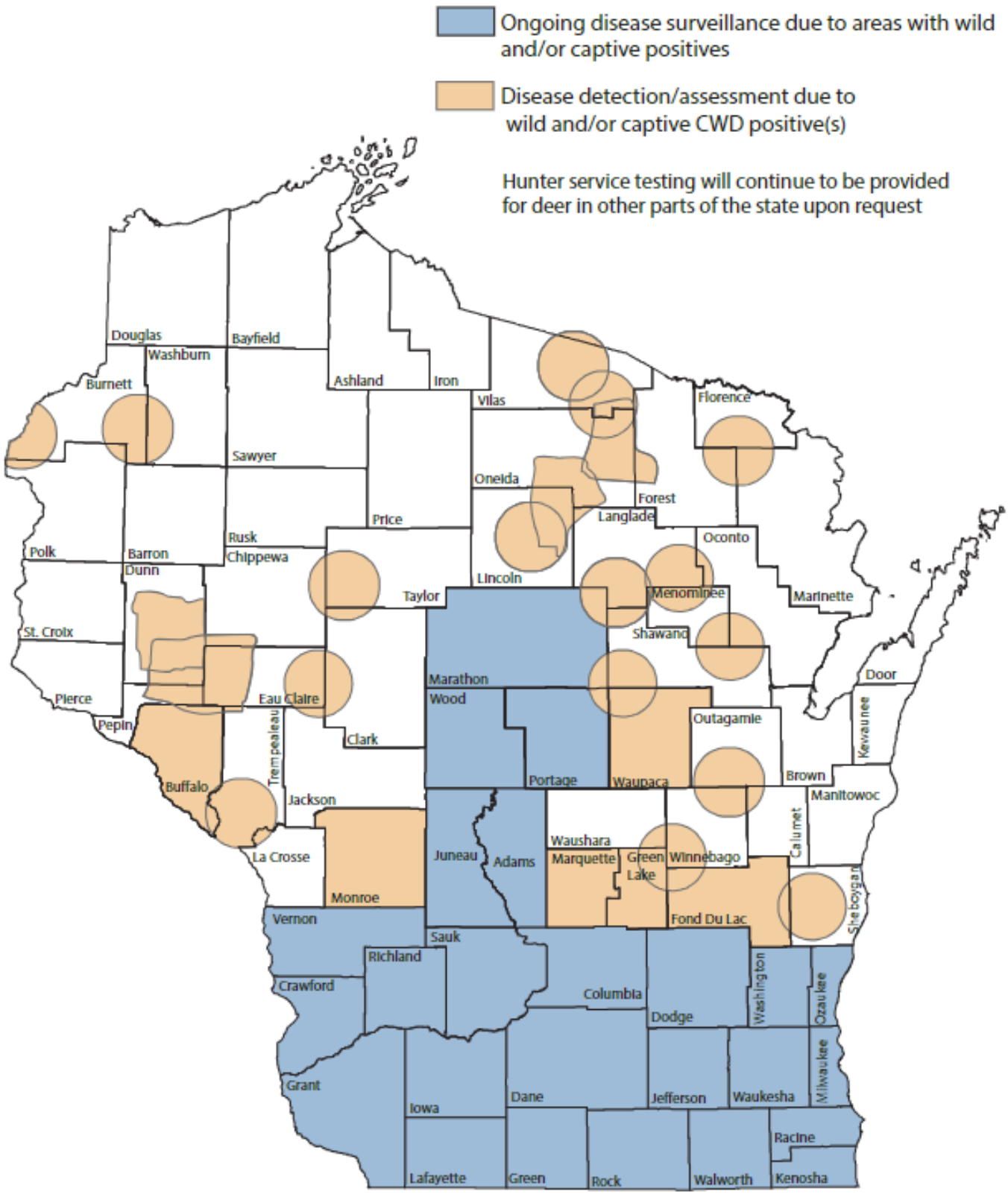
The primary method for sample collection is through hunter killed deer. The USDA Animal Plant & Health Inspection Service (APHIS) provided funding to the Menominee Conservation Fish and Wildlife Department, MITW to begin testing of White-tailed Deer in 2006. The Menominee Conservation Fish and Wildlife Department, MITW sampled 100 White-tailed Deer per year from Menominee Tribal Hunters until completion of the project in 2012. Nearly 776 deer have been tested and all results have come back negative for the CWD Virus. In 2012 the USDA APHIS Program discontinued funding for this program. From 2017-2022, the Menominee CWD Testing Program has started sampling in the T28N,R16E; T29N,R16E; T28N,R15E Townships. ESD will remove lymph nodes from deer harvested in the SE Corner of the Menominee Reservation, WI. Samples will be packaged and taken to Wisconsin DNR Shawano. WDNR will mail CWD Samples to the National Wildlife Lab in Madison, WI. For testing for the CWD Virus. Testing time has been up to two weeks to get results back.

APPLE CREEK WHITETAILS HAS CWD ON SITE

Apple Creek Whitetails is a 1363 acre hunting preserve in Oconto County, located approximately a hundred yards from the southeastern Menominee boundary on County Hwy VV. The shooting facility maintains well over 1000 white-tailed deer. On September 30, 2016, the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) announced that a single white-tailed deer doe, 1.5 years of age, was confirmed to have chronic wasting disease (CWD). In the press release DATCP indicated that the facility will be able to continue business, suggesting that the facility will not be depopulated. As of January 31, 2024, there have been **723 Total CWD Positive White-tailed Deer Samples** taken from Apple Creek Whitetails.

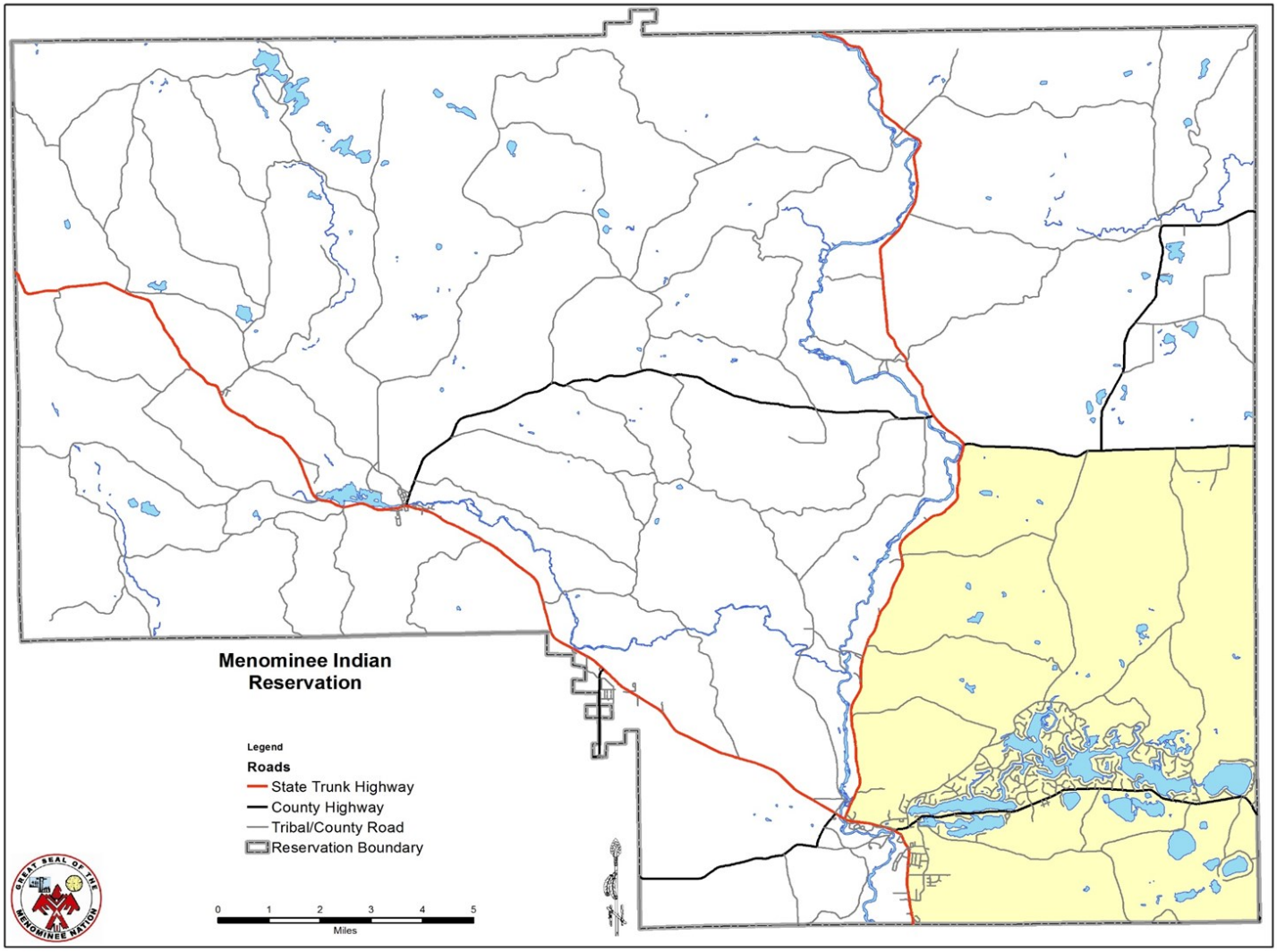
White-tailed deer are very important to the Menominee Indian Tribe, providing critical sustenance and cultural values for tribal members. To the best of our knowledge, CWD is not currently present in the Menominee deer herd, and the Tribe should make every possible effort to reduce the risk of introducing disease to our herd. CWD can be spread from deer to deer through close contact, almost certainly through a high fence. Additionally, escapes occur regularly at some game farms. If a CWD-positive deer were to escape from this facility, it would pose substantial risk to deer on Menominee tribal lands.

CWD Sampling Areas for 2023



Every wild or farm-raised deer CWD positive detection in a new area outside of the endemic area has a 10-mile surveillance area created per standard operating procedures. While the inital 10-mile radius is maintained, the outline may be adapted to road or county boundaries for planning purposes.

MENOMINEE CWD SAMPLING AREA



Test the deer you harvest

Chronic Wasting Disease (CWD) is spreading throughout Wisconsin and Meat Markets are going to ask if your deer is tested for CWD before they take your deer meat to process.

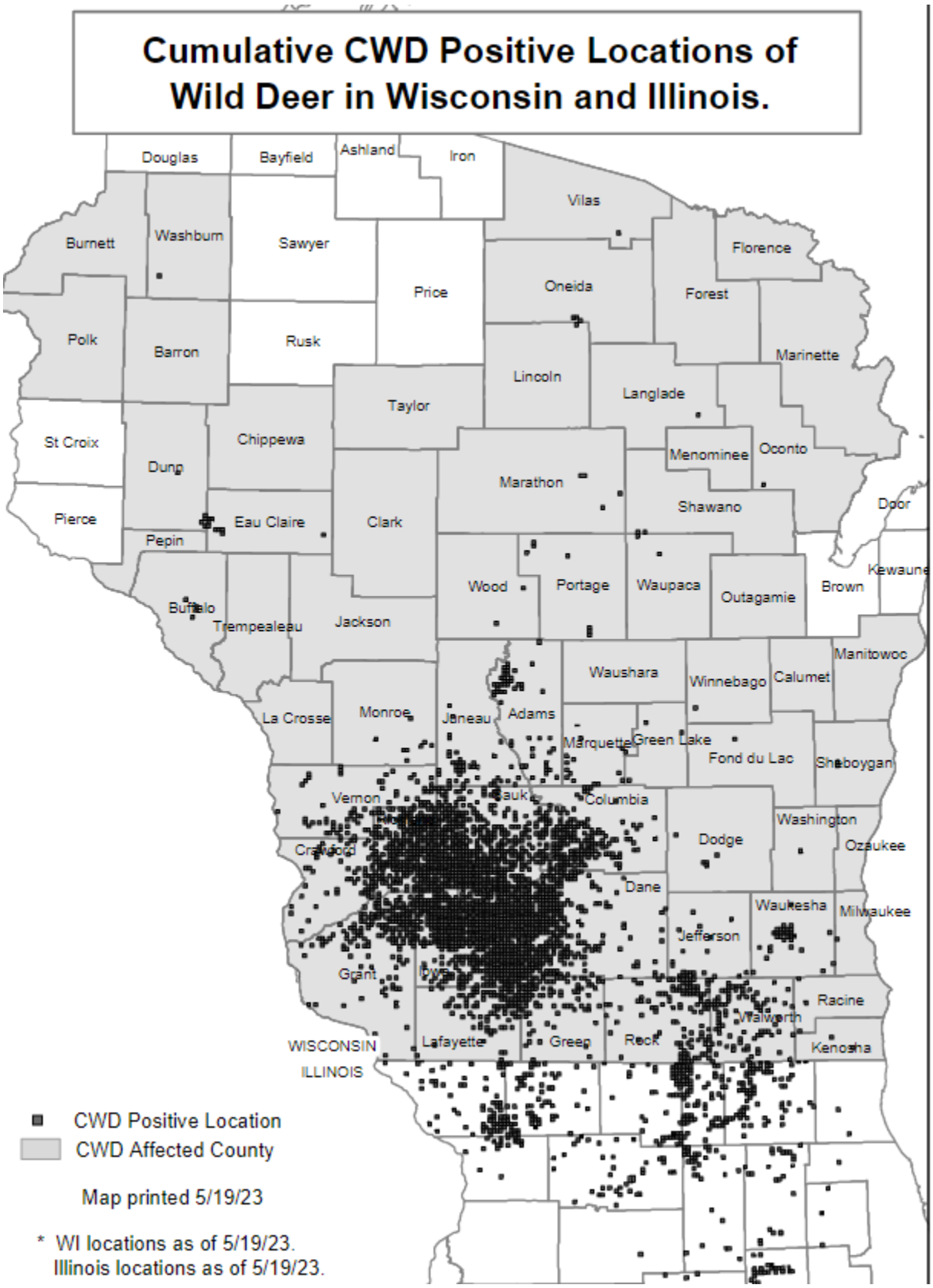
CWD testing is free, accurate and helpful for disease monitoring efforts.

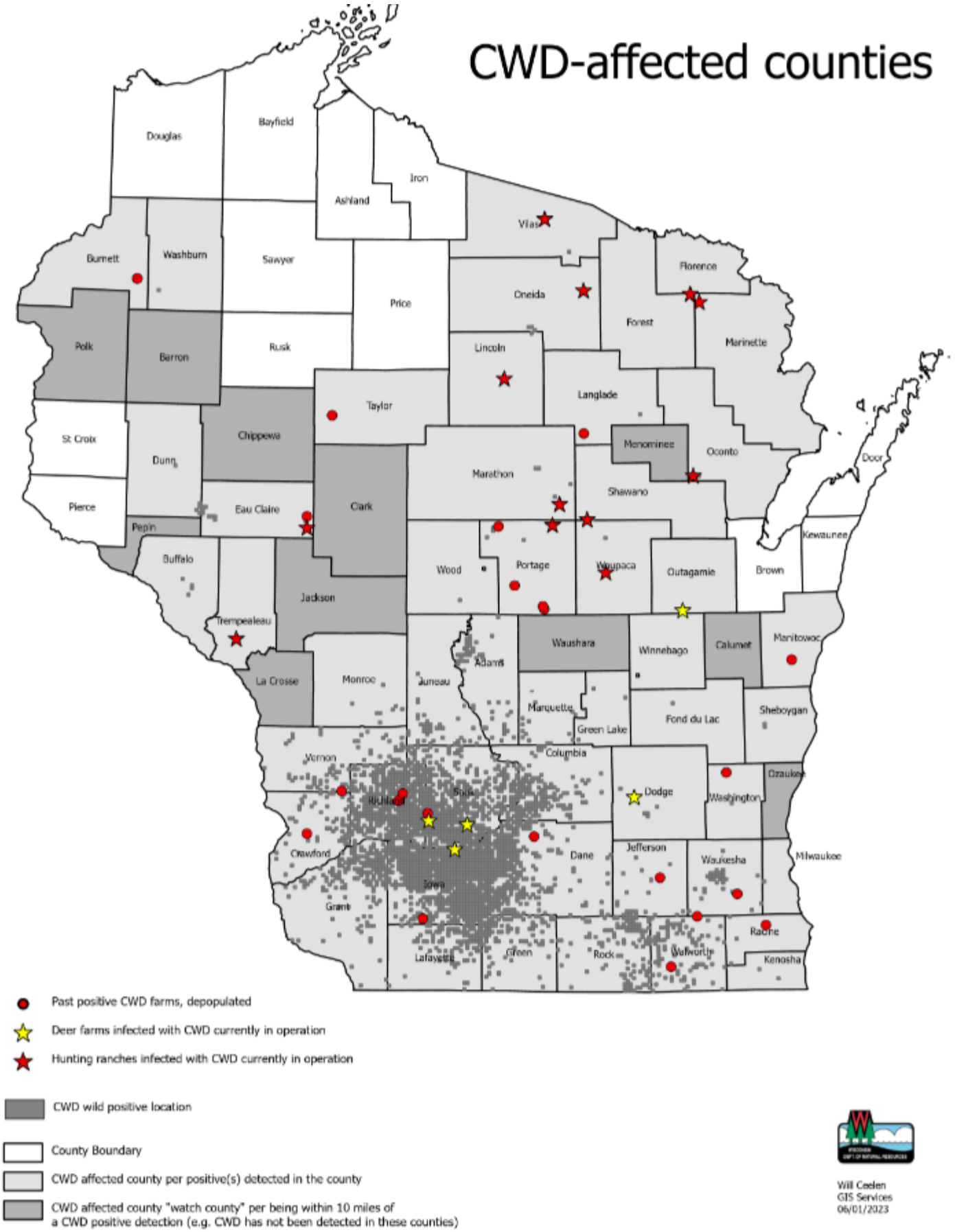
- After registering a deer, hunters can submit a sample
- the deer's head with three inches of neck attached
- for testing as soon as possible after harvest.

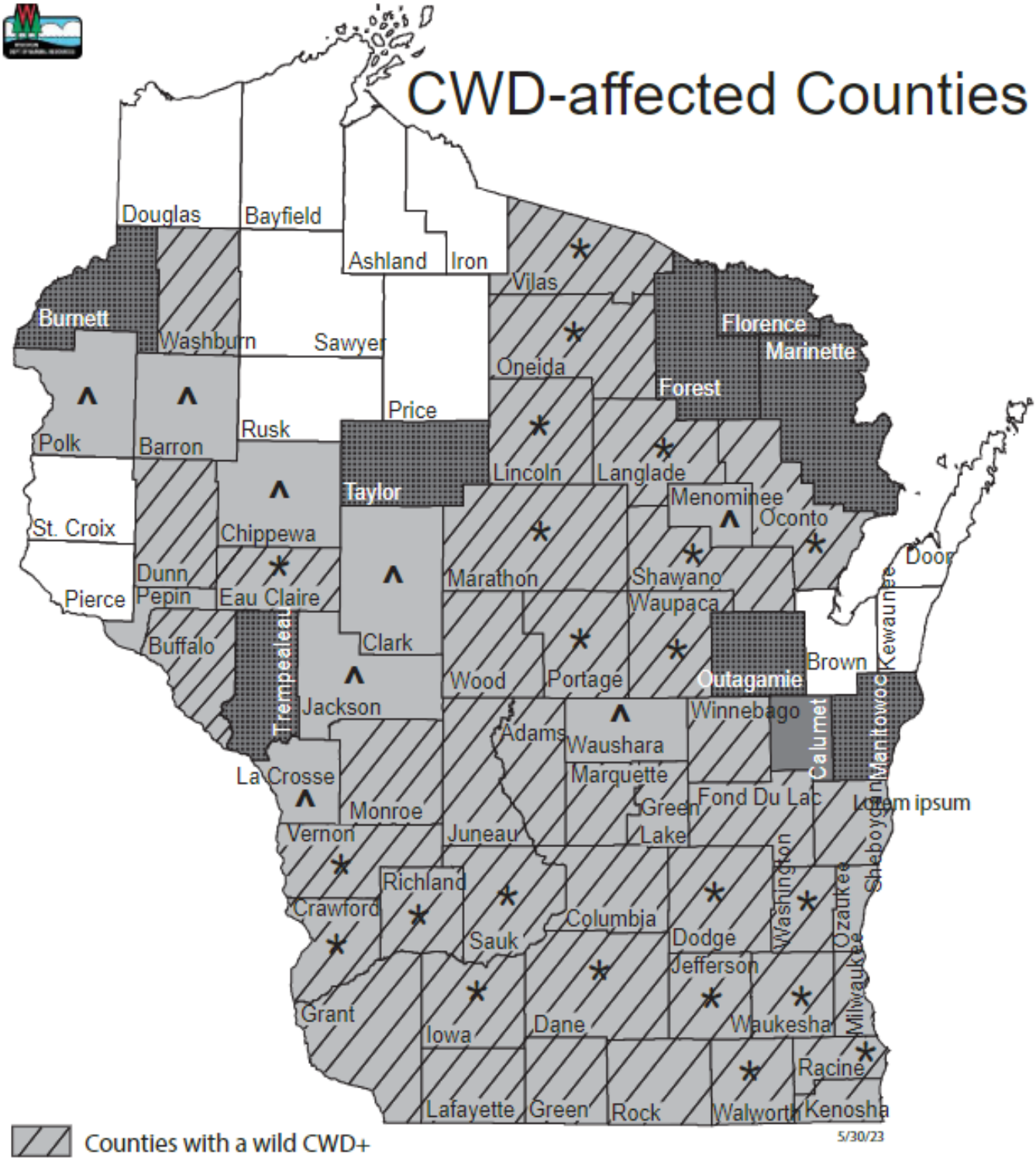
When submitting a sample, hunters should provide the following information:

» Deer harvest tag number
» Contact information for test results
» Location of harvest (county, township, range, section and quarter section)

Test results are typically available 10-14 days after the deer is brought to a sampling station. For more information and to find sampling locations, visit dnr.wi.gov and search "CWD sampling."

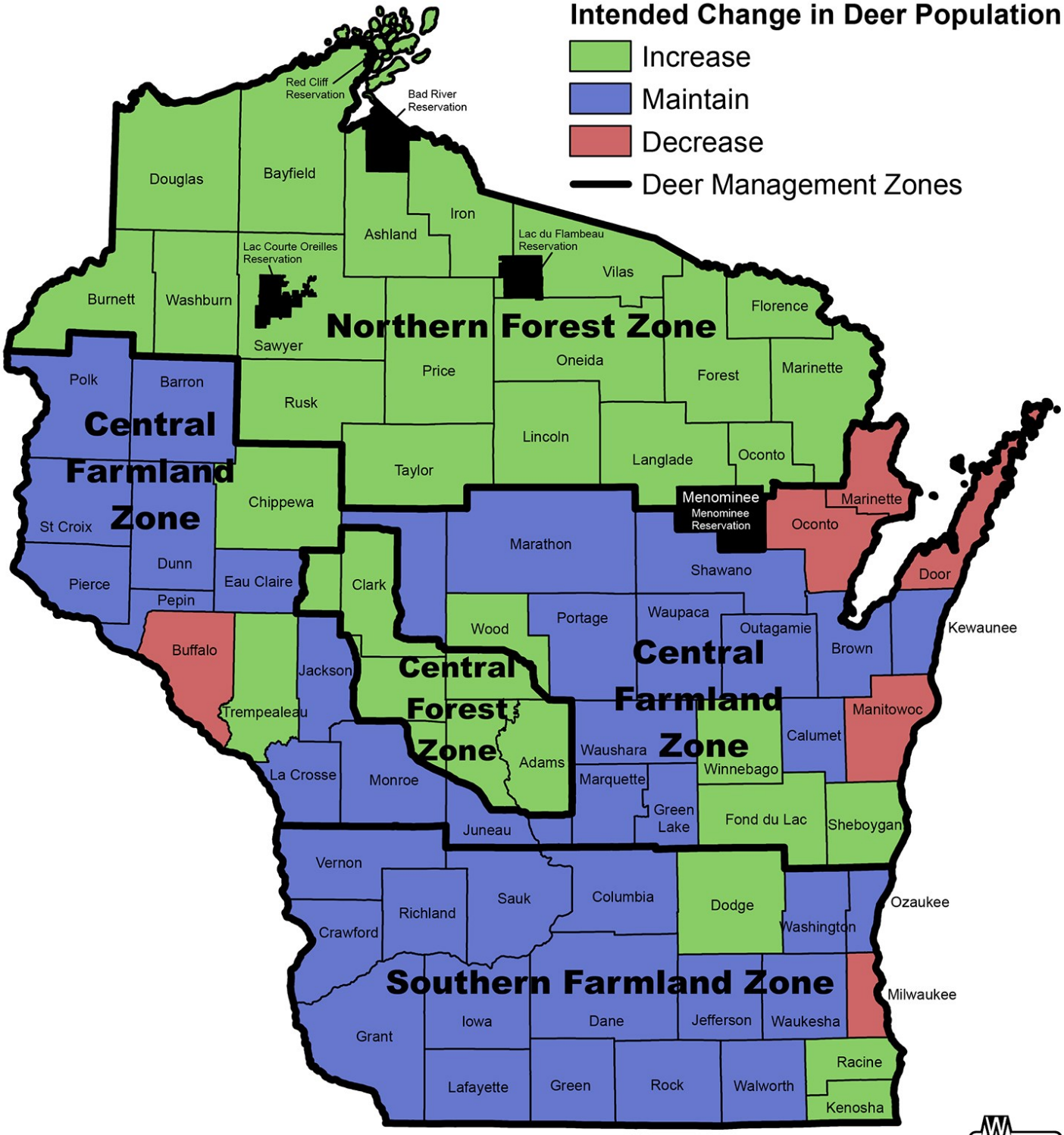

Cumulative CWD Positive Locations of Wild Deer in Wisconsin and Illinois.
Douglas
Bayfield
Ashland
Iron
Vilas
Florence
Burnett
Washburn
Sawyer
Price
Oneida
Forest
Marinette
Polk
Barron
Rusk
Lincoln
Langlade
Taylor
St Croix
Chippewa
Menominee
Oconto
Dunn
Marathon
Shawano
Door
Pierce
Eau Claire
Clark
Pepin
Wood
Portage
Waupaca
Outagamie
Brown
Kewaunee
Buffalo
Trempealeau
Jackson
Waushara
Winnebago
Calumet
Manitowoc
La Crosse
Monroe
Juneau
Adams
Marquette
Green Lake
Fond du Lac
Sheboygan
Vernon
Sauk
Columbia
Washington
Crawford
Dodge
Ozaukee
Dane
Waukesha
Milwaukee
Jefferson
Grant
Iowa
Racine
Walworth
WISCONSIN
Lafayette
Green
Rock
Kenosha
ILLINOIS
CWD Positive Location
CWD Affected County
Map printed 5/19/23
* WI locations as of 5/19/23.
Illinois locations as of 5/19/23.


CWD-affected counties
Douglas
Bayfield
Ashland
Iron
Vilas
Florence
Burnett
Washburn
Sawyer
Price
Oneida
Forest
Marinette
Polk
Barron
Rusk
Lincoln
Taylor
Langlade
Oconto
Door
St Croix
Dunn
Chippewa
Menominee
Marathon
Shawano
Pierce
Pepin
Eau Claire
Clark
Kewaunee
Buffalo
Wood
Portage
Waupaca
Outagamie
Brown
Jackson
Trempealeau
Waushara
Winnebago
Calumet
Manitowoc
La Crosse
Monroe
Juneau
Adams
Marquette
Green Lake
Fond du Lac
Sheboygan
Vernon
Columbia
Richland
Sauk
Dodge
Washington
Ozaukee
Crawford
Dane
Jefferson
Waukesha
Milwaukee
Iowa
Grant
Lafayette
Green
Rock
Walworth
Racine
Kenosha
Past positive CWD farms, depopulated
Deer farms infected with CWD currently in operation
Hunting ranches infected with CWD currently in operation
CWD wild positive location
County Boundary
CWD affected county per positive(s) detected in the county
CWD affected county "watch county" per being within 10 miles of
a CWD positive detection (e.g. CWD has not been detected in these counties)
Will Ceelen
GIS Services
06/01/2023


CWD-affected Counties
Douglas
Bayfield
Ashland
Iron
Vilas
Florence
Marinette
Burnett
Washburn
Sawyer
Oneida
Forest
Price
Polk
Barron
Rusk
Lincoln
Langlade
Taylor
Menominee
Oconto
St. Croix
Chippewa
Door
Dunn
Marathon
Shawano
Pierce
Pepin
Eau Claire
Waupaca
Kewaunee
Buffalo
Trempealeau
Clark
Brown
Wood
Portage
Outagamie
Jackson
Winnebago
Calumet
Manitowoc
Adams
Waushara
La Crosse
Marquette
Fond Du Lac
Monroe
Green
Lake
Vernon
Juneau
Sheboygan
Richland
Washington
Ozaukee
Crawford
Columbia
Dodge
Sauk
Jefferson
Grant
Milwaukee
Dane
Waukesha
Iowa
Racine
Lafayette
Green
Rock
Walworth
Kenosha
5/30/23
Counties with a wild CWD+
Counties within 10 miles of a wild CWD+
Counties with a captive CWD+
Counties within 10 miles of a captive CWD+
Counties with both wild and captive CWD+
Counties within 10 miles of both a wild and captive CWD+
Note: For all counties a wild CWD+ in a county will take precedence over a captive CWD+ in a county for shading. A captive CWD+ in a county will take precedence over a wild or captive CWD+ within 10 miles of a county.

County Deer Advisory Council

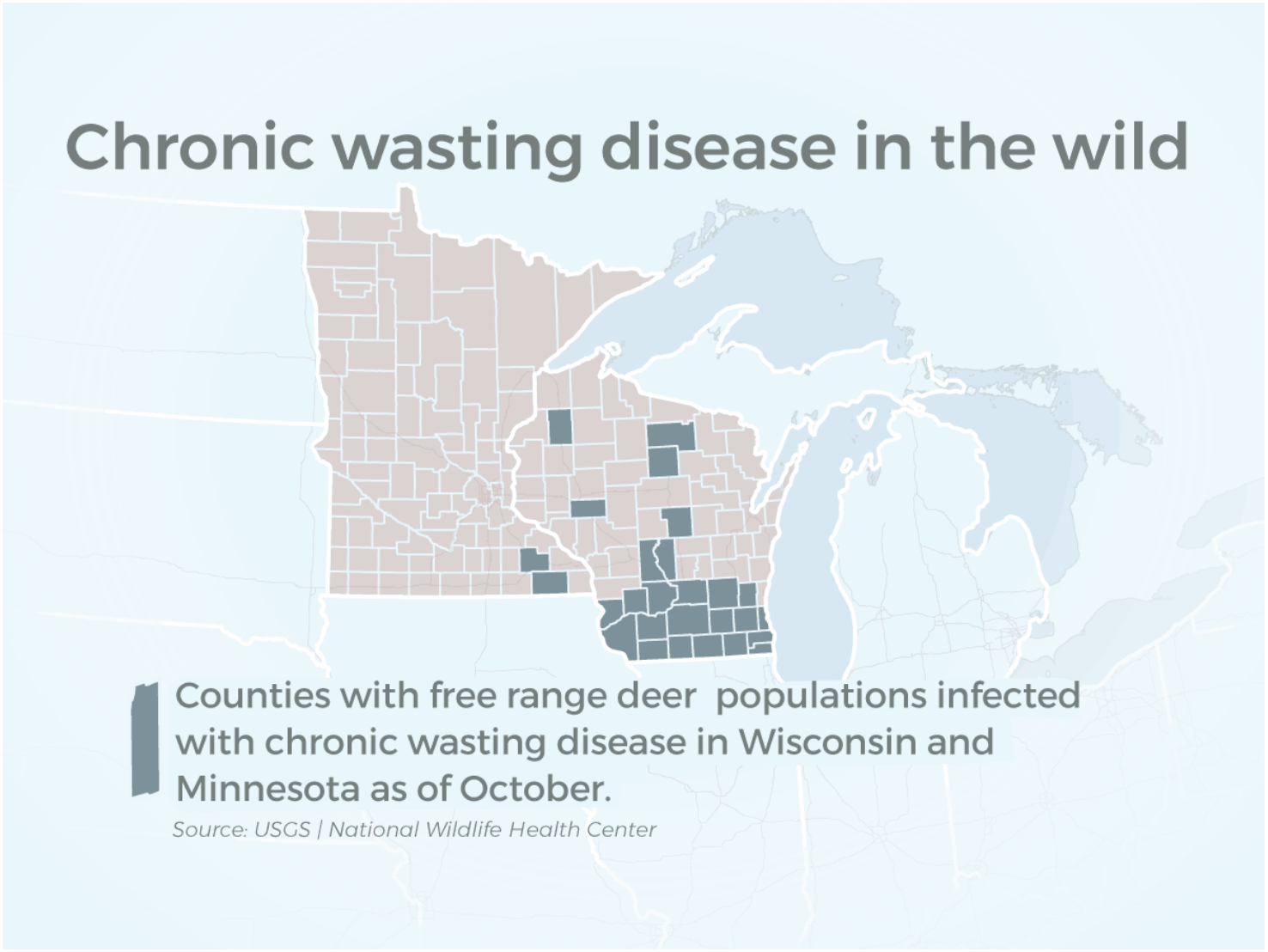
2014 Final Recommendations
Deer Population Objectives



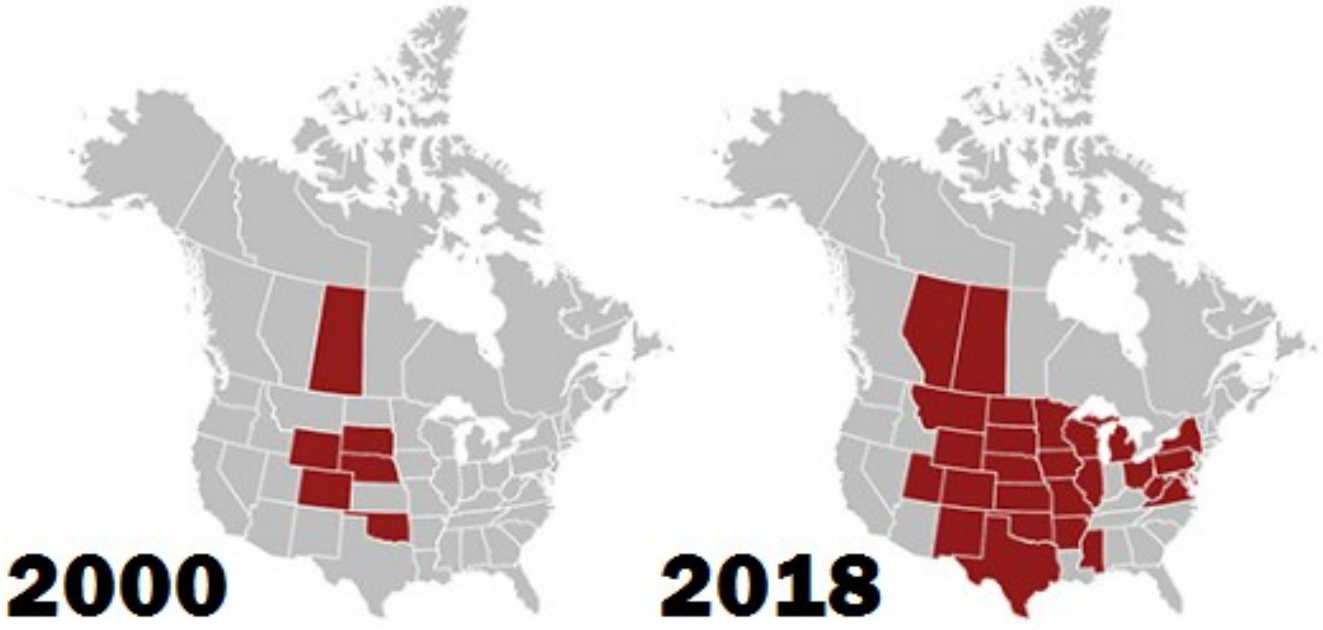
Population objectives are not established for tribal reservation units as identified on this map.

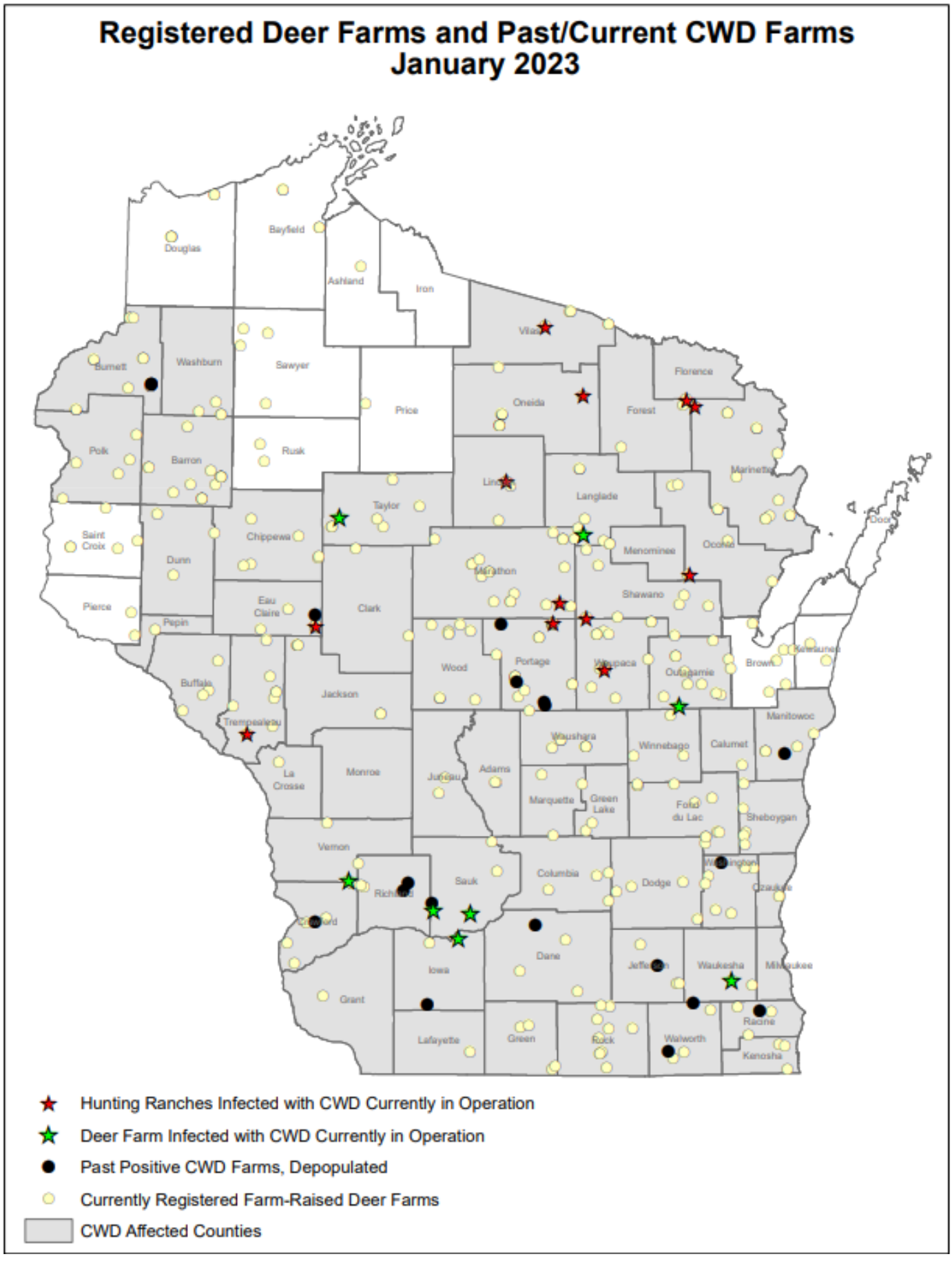
WISCONSIN DEPT. OF NATURAL RESOURCES

Revised 12/19/14



CWD AFFECTED AREAS




Registered Deer Farms and Past/Current CWD Farms
January 2023
Douglas
Bayfield
Ashland
Iron
Burnett
Washburn
Sawyer
Price
Florence
Oneida
Forest
Polk
Barron
Rusk
Taylor
Langlade
Marinette
Saint Croix
Dunn
Chippewa
Menominee
Oconto
Pierce
Pepin
Eau Claire
Clark
Shawano
Wood
Portage
Brown
Buffalo
Jackson
Trempealeau
Manitowoc
Waushara
Winnebago
Calumet
La Crosse
Monroe
Juneau
Adams
Marquette
Green Lake
Fond du Lac
Sheboygan
Vernon
Sauk
Columbia
Dodge
Ozaukee
Grant
Iowa
Dane
Waukesha
Racine
Lafayette
Green
Rock
Walworth
Kenosha
Hunting Ranches Infected with CWD Currently in Operation
Deer Farm Infected with CWD Currently in Operation
Past Positive CWD Farms, Depopulated
Currently Registered Farm-Raised Deer Farms
CWD Affected Counties

Chronic Wasting Disease Positives in Farm-raised Deer Revised: 1/13/2023			
County (Premises #)	**Sample Collection Date of First CWD Positive in Farm-raised Deer**	**Sample Collection Date of Last CWD Positive in Farm-raised Deer**	**Total CWD Positive in Farm-raised Deer**
Portage(1)	9/4/2002	1/18/2006	82
Walworth(1)	9/20/2002	12/13/2002	6
Manitowoc	3/5/2003	3/5/2003	1
Sauk(1)	10/3/2003	10/3/2003	1
Racine	5/1/2004	5/1/2004	1
Walworth(2)	7/28/2004	11/3/2004	3
Crawford	1/19/2005	1/25/2007	2
Portage(2)	9/22/2008	11/18/2008	2
Jefferson	12/1/2008	12/1/2008	1
Marathon	11/7/2013	11/3/2021	114
Richland(1)	9/13/2014	11/19/2014	8
Eau Claire(1)	6/8/2015	11/24/2015	34
Oneida	11/4/2015	11/8/2022	44
Iowa(1)	1/22/2016	5/4/2022	6
Oconto	9/4/2016	11/23/2022	605
Shawano	9/18/2017	11/17/2022	105
Waupaca	9/21/2017	12/7/2017	12
Washington	2/18/2018	11/15/2018	12
Richland(2)	5/11/2018	5/11/2018	1
Dane	5/16/2018	5/16/2018	1
Iowa(2)	5/18/2018	5/18/2018	21
Marinette	5/19/2018	11/7/2022	4
Sauk(2)	6/4/2018	6/11/2022	5
Portage(3)	10/23/2018	10/23/2018	1
Portage(4)	11/16/2018	5/1/2019	8
Forest	1/8/2019	10/31/2022	20
Burnett(1)	7/30/2019	7/30/2019	1
Trempealeau	11/7/2019	11/1/2022	6
Burnett(2)	9/3/2020	9/3/2020	1
Sauk(3)	7/19/2021	7/19/2021	1
Taylor	7/24/2021	7/28/2022	84
Outagamie	8/12/2021	9/3/2021	2
Langlade	8/13/2021	8/13/2021	1
Portage(5)	9/8/2021	11/17/2022	11
Vilas	9/9/2021	9/9/2021	1
Eau Claire(2)	10/13/2021	11/1/2021	3
Waukesha	12/3/2021	8/3/2022	11

Wisconsin Department of Agriculture, Trade and Consumer Protection
Division of Animal Health
2811 Agriculture Dr., P.O. Box 8911, Madison, WI 53708
https://www.datcp.wi.gov

Chronic Wasting Disease Positives in Farm-raised Deer Revised: 1/30/2024			
County (Premises #)	Sample Collection Date of First CWD Positive in Farm-Raised Deer	Sample Collection Date of Last CWD Positive in Farm-Raised Deer	Total CWD Positive in Farm-Raised Deer
Portage(1)	9/4/2002	1/18/2006	82
Walworth(1)	9/20/2002	12/13/2002	6
Manitowoc	3/5/2003	3/5/2003	1
Sauk(1)	10/3/2003	10/3/2003	1
Racine	5/1/2004	5/1/2004	1
Walworth(2)	7/28/2004	11/3/2004	3
Crawford	1/19/2005	1/25/2007	2
Portage(2)	9/22/2008	11/18/2008	2
Jefferson	12/1/2008	12/1/2008	1
Marathon	11/7/2013	11/28/2023	117
Richland(1)	9/13/2014	11/19/2014	8
Eau Claire(1)	6/8/2015	11/24/2015	34
Oneida(1)	11/4/2015	10/31/2023	52
Iowa(1)	1/22/2016	5/4/2022	6
Oconto	9/4/2016	1/31/2024	723
Shawano	9/18/2017	12/3/2023	113
Waupaca	9/21/2017	12/7/2017	12
Washington	2/18/2018	11/15/2018	12
Richland(2)	5/11/2018	5/11/2018	1
Dane	5/16/2018	5/16/2018	1
Iowa(2)	5/18/2018	5/18/2018	21
Marinette	5/19/2018	11/10/2023	16
Sauk(2)	6/4/2018	1/24/2023	6
Portage(3)	10/23/2018	10/23/2018	1
Portage(4)	11/16/2018	5/1/2019	8
Forest	1/8/2019	9/30/2022	16
Burnett(1)	7/30/2019	7/30/2019	1
Trempealeau	11/7/2019	10/31/2023	7
Burnett(2)	9/3/2020	9/3/2020	1
Sauk(3)	7/19/2021	7/19/2021	1
Taylor	7/24/2021	7/28/2022	84
Outagamie	8/12/2021	1/25/2024	12
Langlade	8/13/2021	8/13/2021	1
[illegible]	[illegible]	[illegible]	[illegible]

PREDATORS ON WHITE-TAILED DEER:

HUMAN HUNTERS:

Human hunters are the single biggest predator of deer in North America. In the United States alone, 5 to 6 million deer are shot by people every year.

Not only is hunting a necessary method to keep the ecosystem healthy, it also provides a lot of American families with deer meat. Most hunters selectively kill adult bucks or yearlings, making sure the species as a whole is capable to survive and thrive.

White-tailed deer are the most common species in North America, and are also the most hunted species. Despite the surprisingly large number of hunted individuals, they are by no means an endangered deer species.

WOLVES

On average, one gray wolf kills 20 white-tailed deer per year. With a population of about 78,000 individuals in North America, wolves consume around 1.5 million deer per year, making them the most important non-human predator of deer in the US and Canada.

During summer, a wolf is more likely to hunt individually. Lone wolves that hunt for deer will mainly eat helpless newborn fawns, which are the prey that require the least amount of energy to hunt and kill. Menominee Radio-collared wolves spend 90% of their time in surrounding farm country hunting farm fields.

COYOTES

Coyotes are one of the most important predators of newborn baby deer. When the new generation of fawns is born, coyotes can kill and eat up to 75% of all fawns in a local deer population. The impact of coyotes on the deer population is a matter of great concern for wildlife preservation.

Newborn baby deer are often left alone by their moms for long periods of time. A fawn will hide alone in the tall grass, where the strong smell of the coyote is able to find and eat them.

The problem is actually so big, the U.S. government has to kill thousands of coyotes each year to save deer and preserve balance in ecosystems across the country. According to ecologists, it is doubtful if these ‘coyote removal events’ actually end up helping to improve the deer population.

BLACK BEARS:

Black bears eat fawns. They are an important food source for the animals. Many newborns are systematically hunted and eaten by bears in their first days of existence.

The omnivorous bear would prefer to go for easier prey for their protein, including fish, amphibians, reptiles, and insects. It is unlikely for a bear to actively hunt and kill a healthy adult buck or doe. Injured or otherwise weakened deer are more likely prey for most bear species.

BOBCATS:

While relatively small in stature, the bobcat is capable of hunting and killing prey much larger than themselves. Bobcats are a known predator of deer, but their impact on the North American populations is limited.

An impressive 2 million to 3.75 million individual bobcats remain in the wild in North America. Their population is stable and thriving, and they can be found in mixed forests, swamps, and desert areas throughout the continent.

Wildlife experts confirm that bobcats hunt and eat wild deer if given the opportunity, but that a bobcat killing deer is not very common. Considering the high number of bobcats found in forests throughout North America, the deer population is barely affected by the feline hunters.

BALD EAGLE:

As an icon of the American nation, the bald eagle is probably one of the most well-known birds out there. Normally, eagles use their impressive claws and beak to hunt for small prey like fish, other birds, rabbits, and rodents. They will also commonly eat carrion, including the carcasses of moose, elk, reindeer, mule deer, and white-tailed deer.

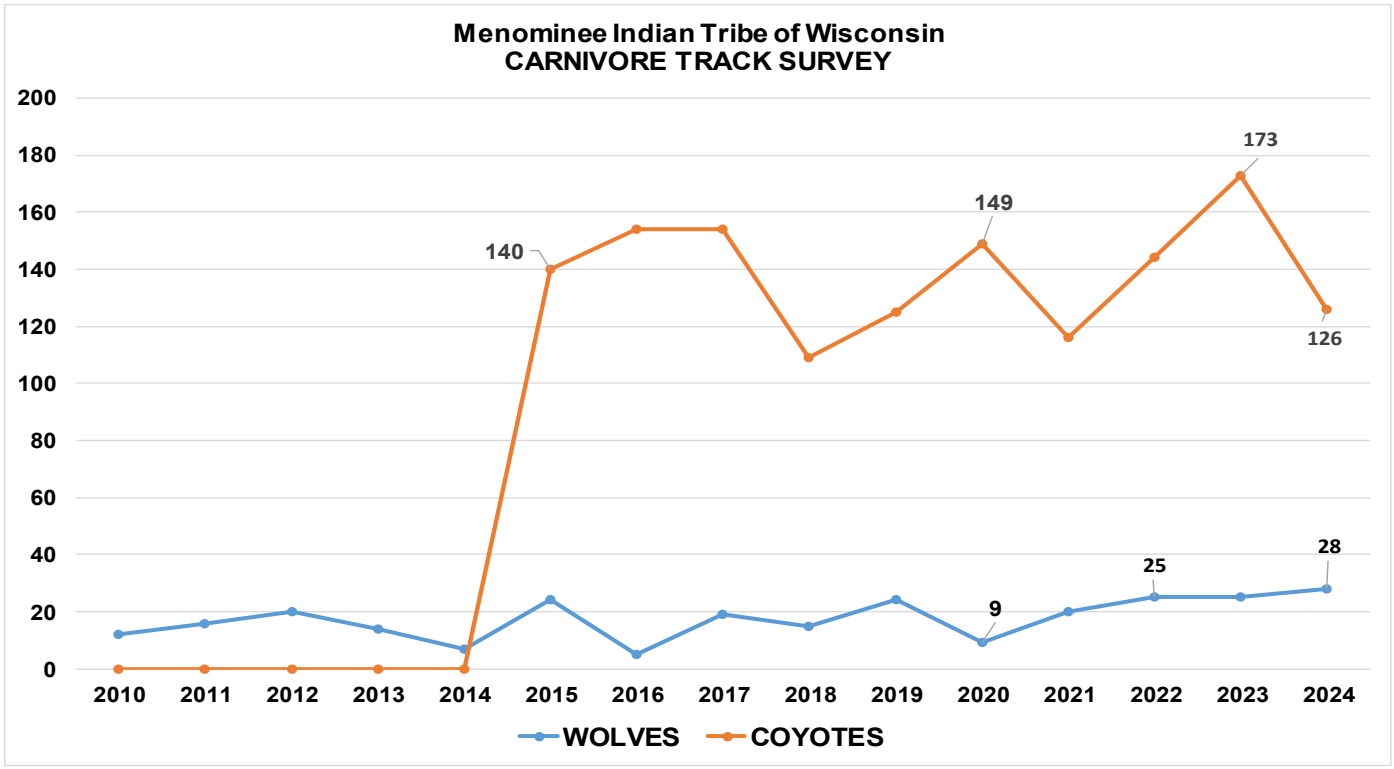
However, bald eagles are also known to use their 'birds-eye view' to spot helpless newborn fawns from above. They will hunt and eat fawns in summer (late May – early June), which is the annual period in which the new generation of deer is born.

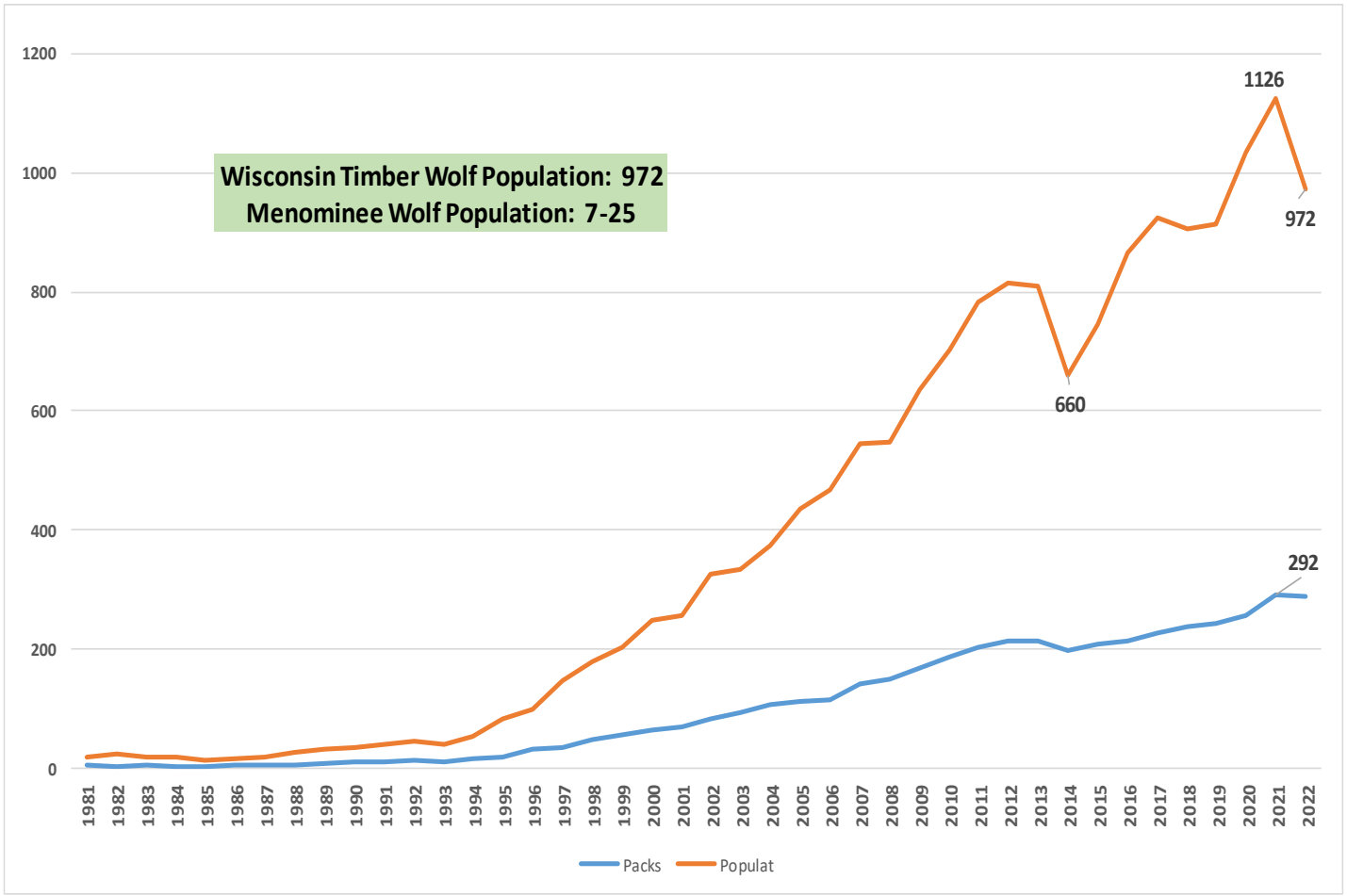
Eagles can carry prey of up to 12 pounds (about 0.5 kg) in their powerful claws. If their prey is too big to carry, they will rip pieces off of the deceased animal and transport their meal that way. It must be noted that it is not very common for a bald eagle to kill deer, although it does happen.

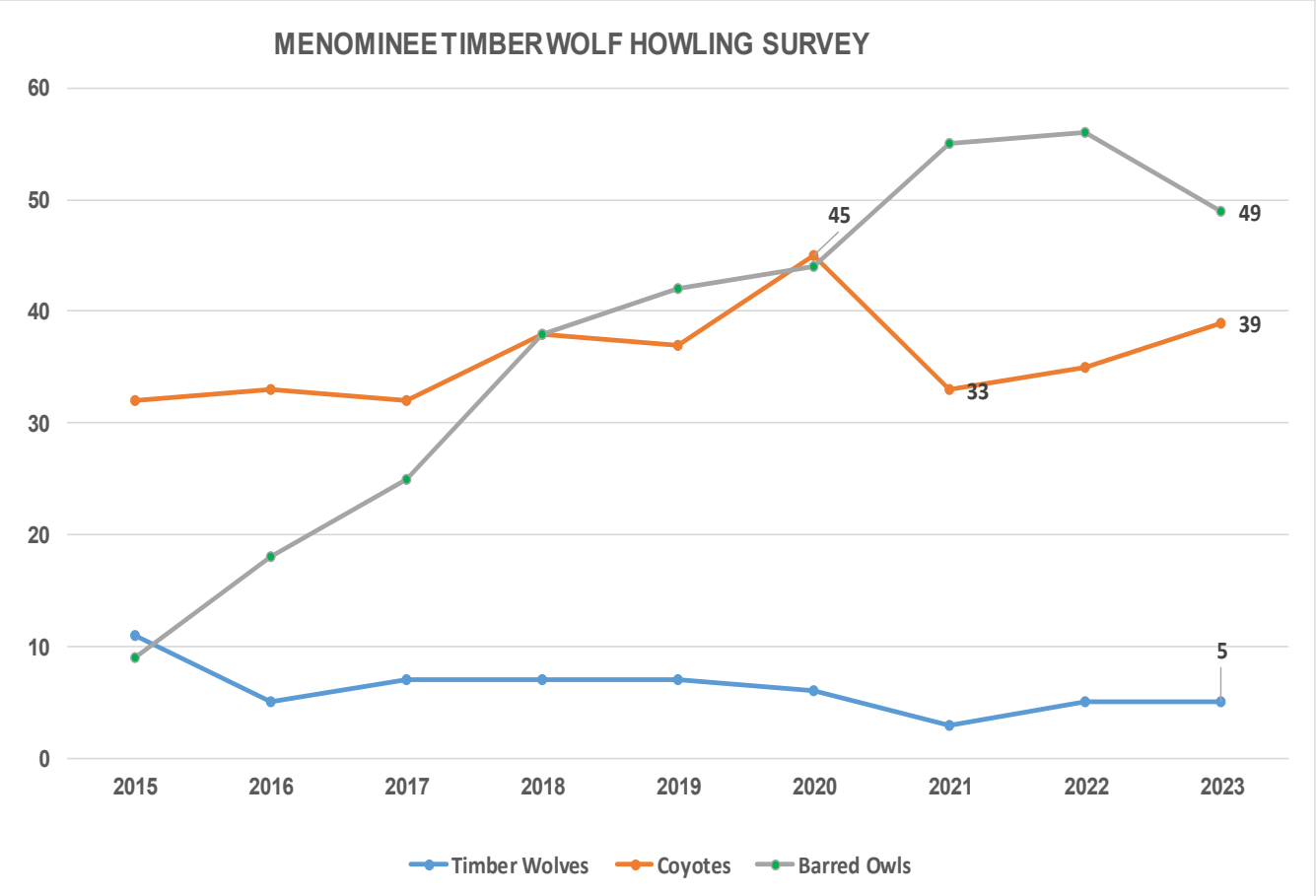
TURKEY VULTURE:

Vultures are scavenger birds, exclusive feeding on carrion. Deceased deer are part of the diet of the Turkey vulture where available.

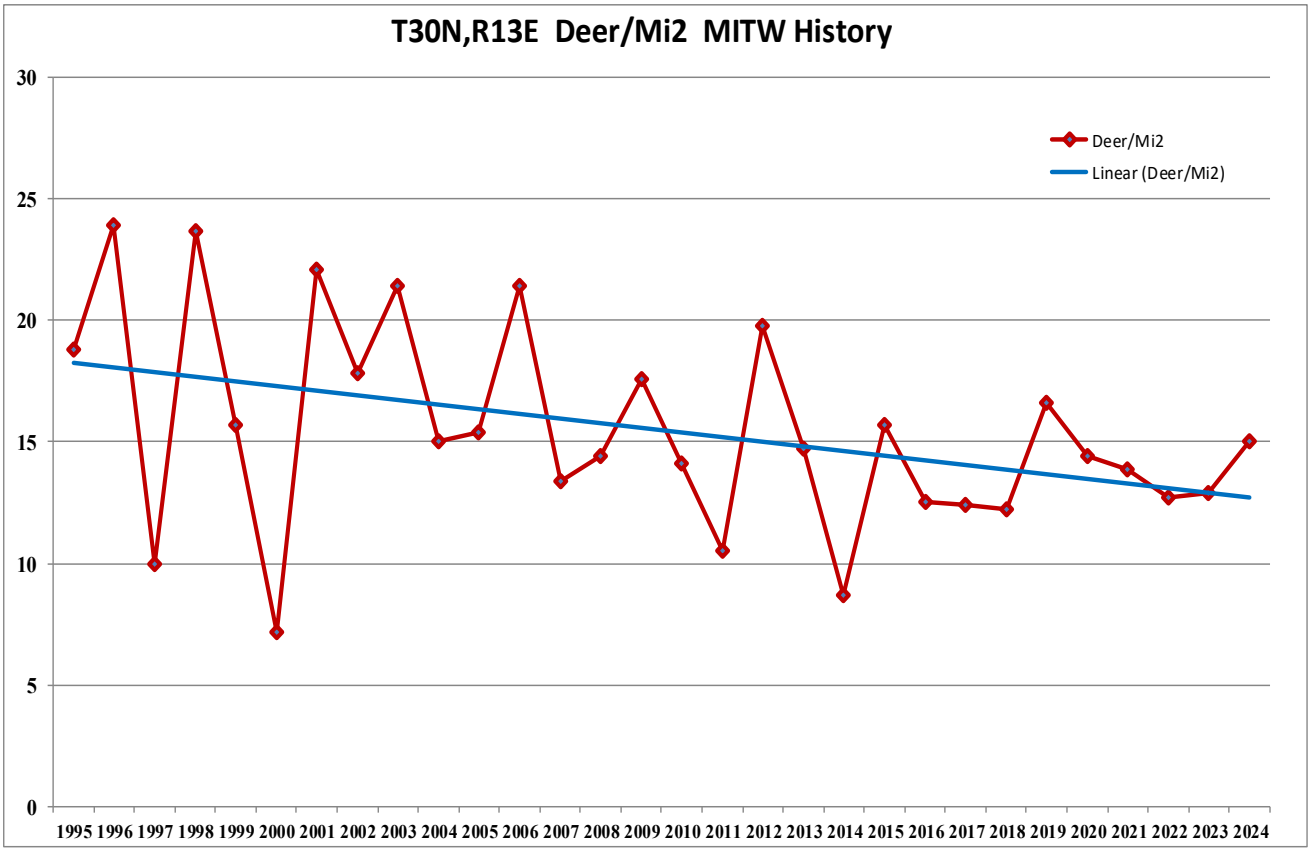
Wolves and Coyotes Present on Menominee

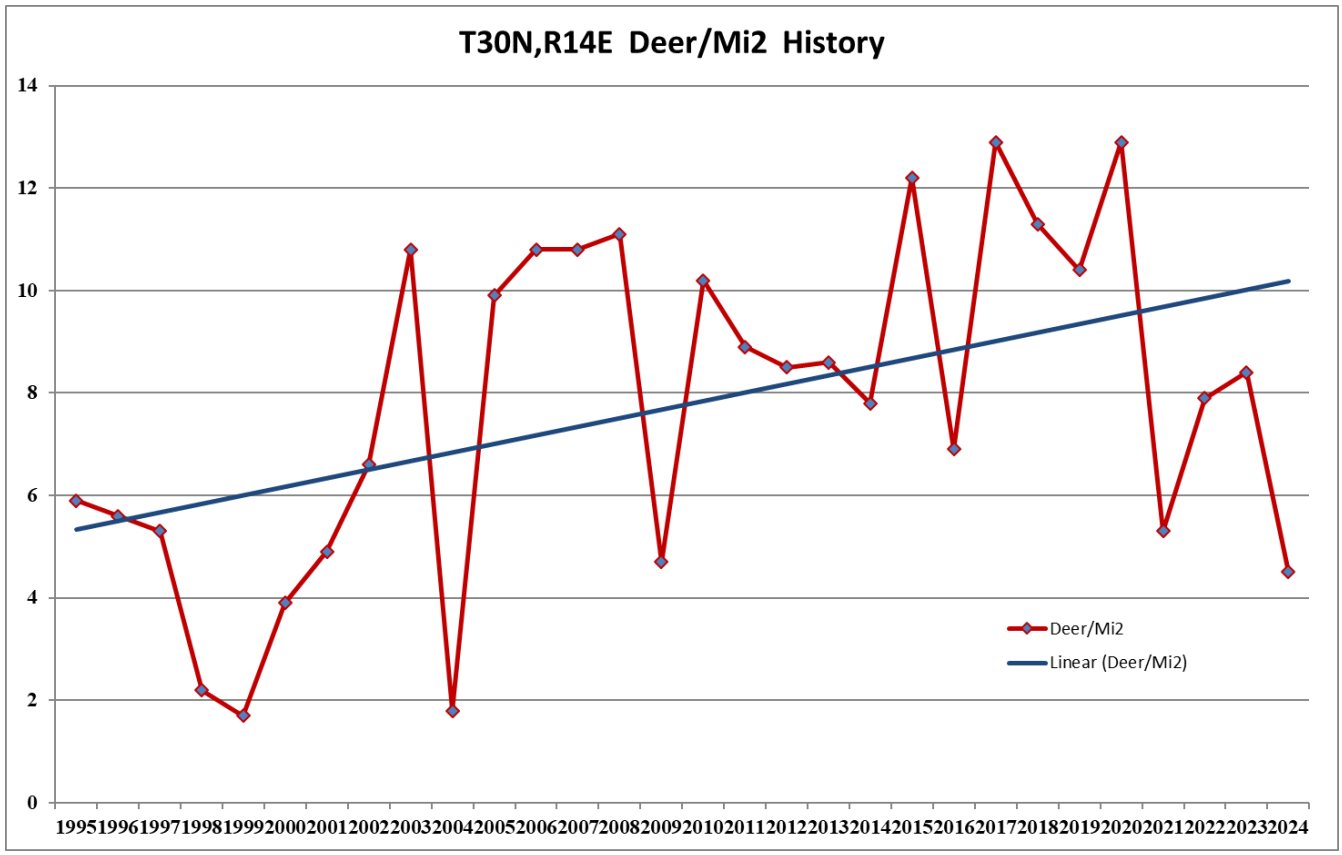


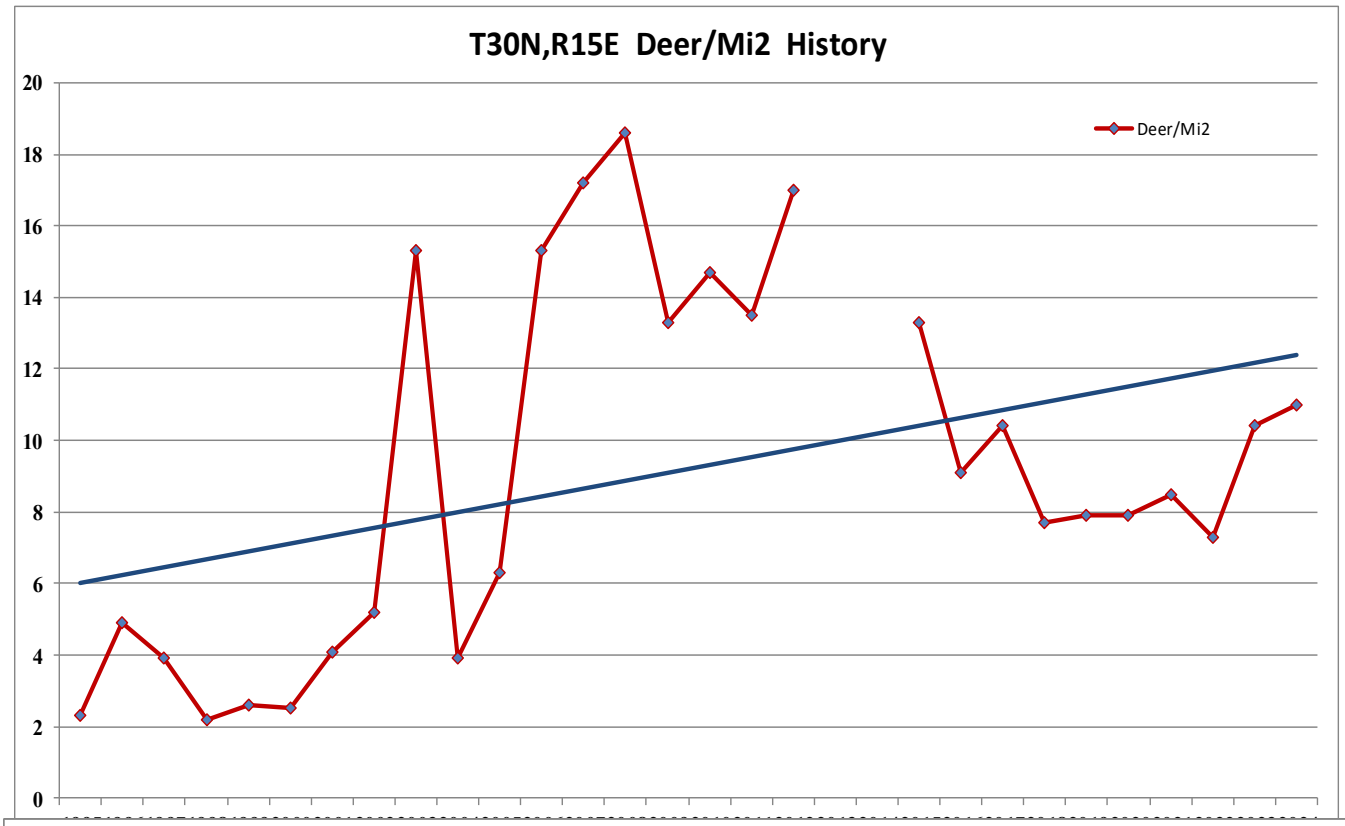


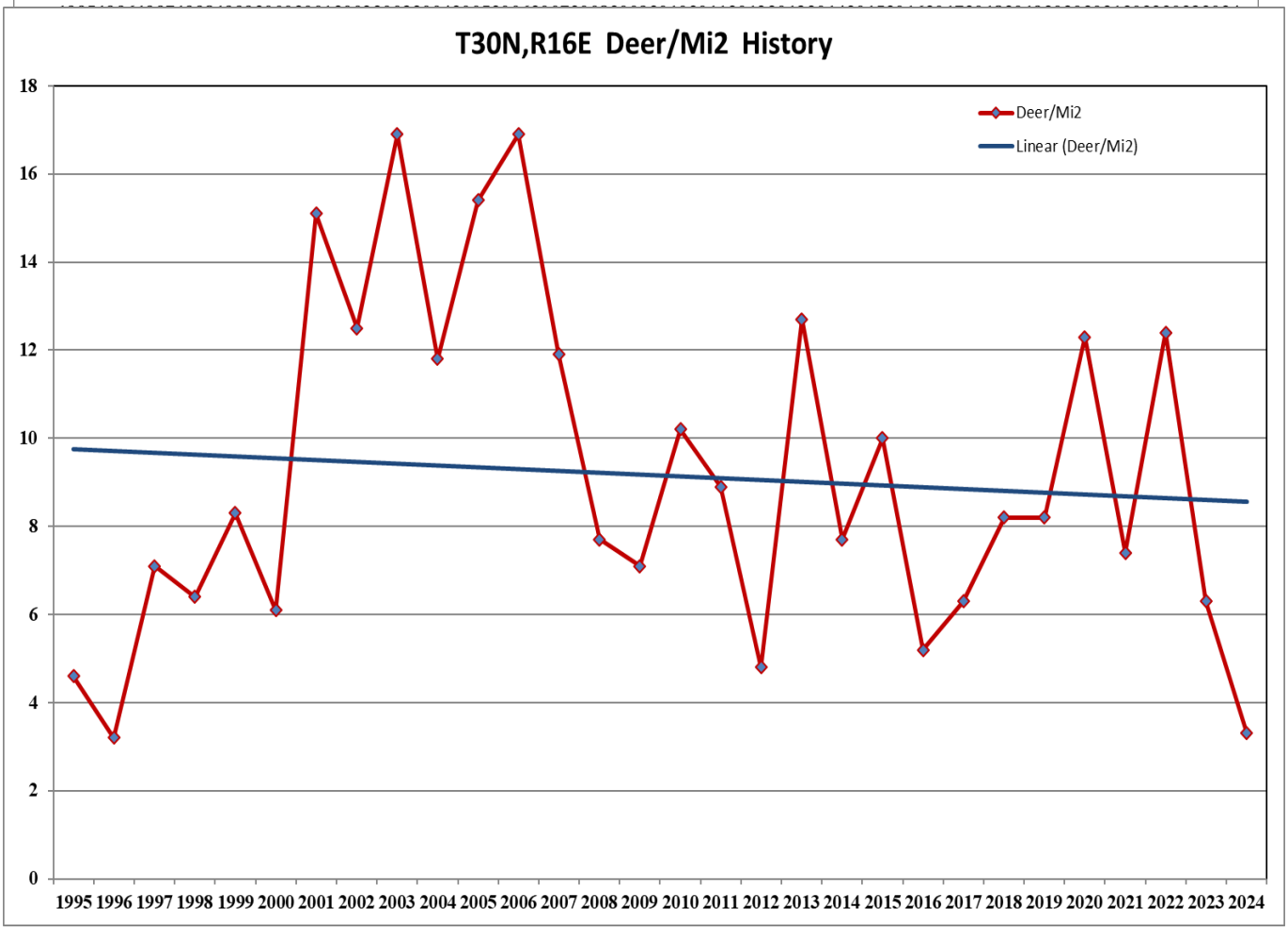

MENOMINEE TIMBER WOLF HOWLING SURVEY
60
50
40
30
20
10
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
45
49
39
33
5
Timber Wolves
Coyotes
Barred Owls

White-tailed Deer per mi2
By Township

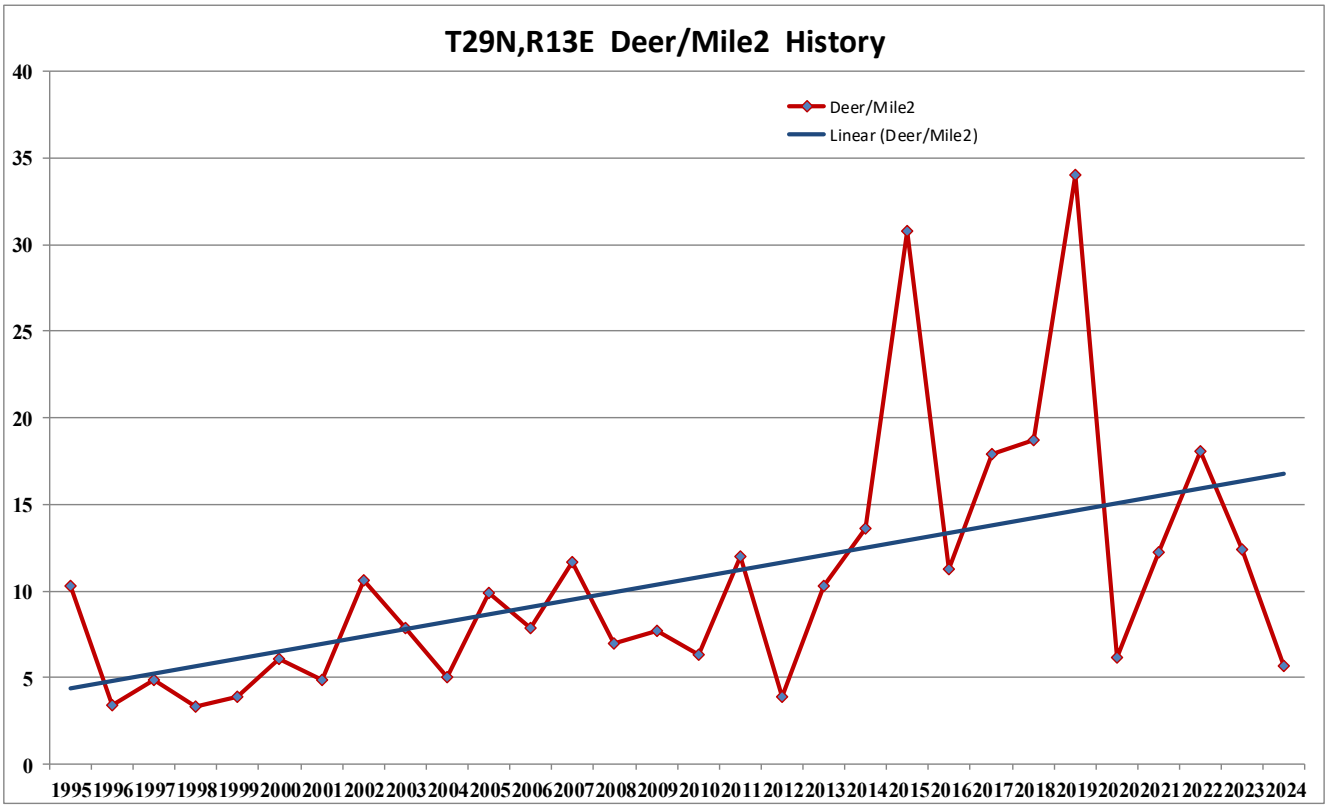


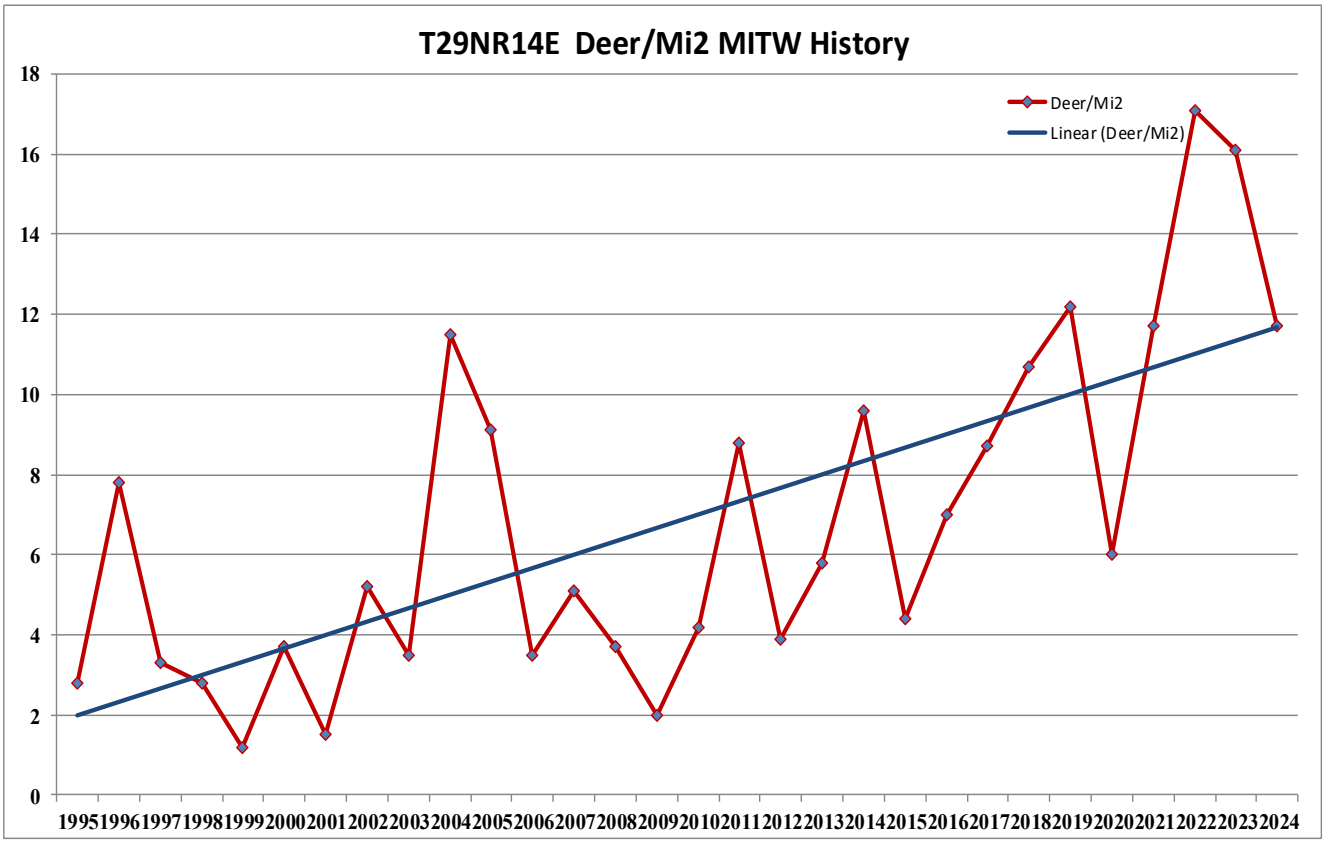



T30N,R15E Deer/Mi2 History
Deer/Mi2
20
18
16
14
12
10
8
6
4
2
0

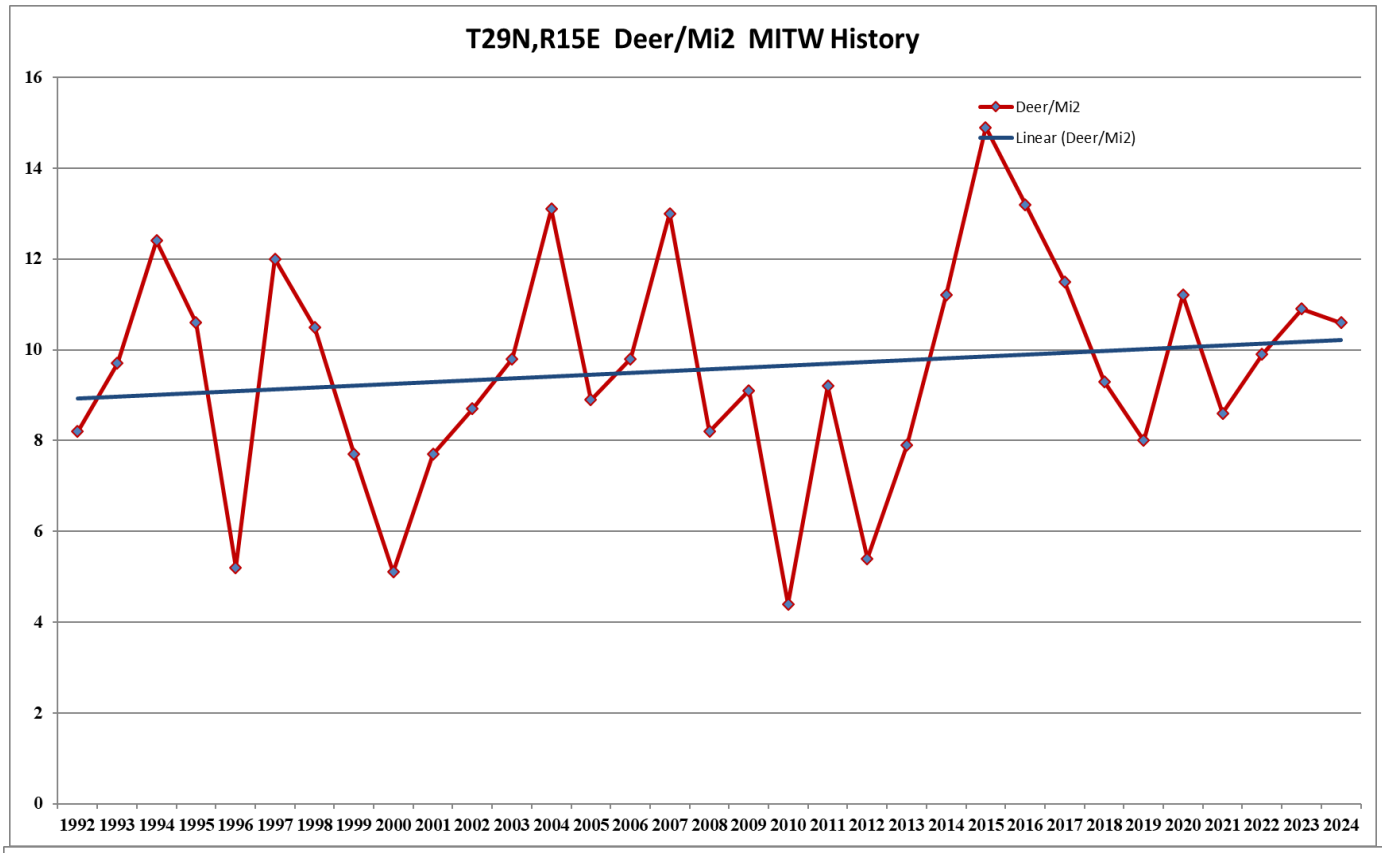

T30N,R16E Deer/Mi2 History
Deer/Mi2
Linear (Deer/Mi2)
18
16
14
12
10
8
6
4
2
0
1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

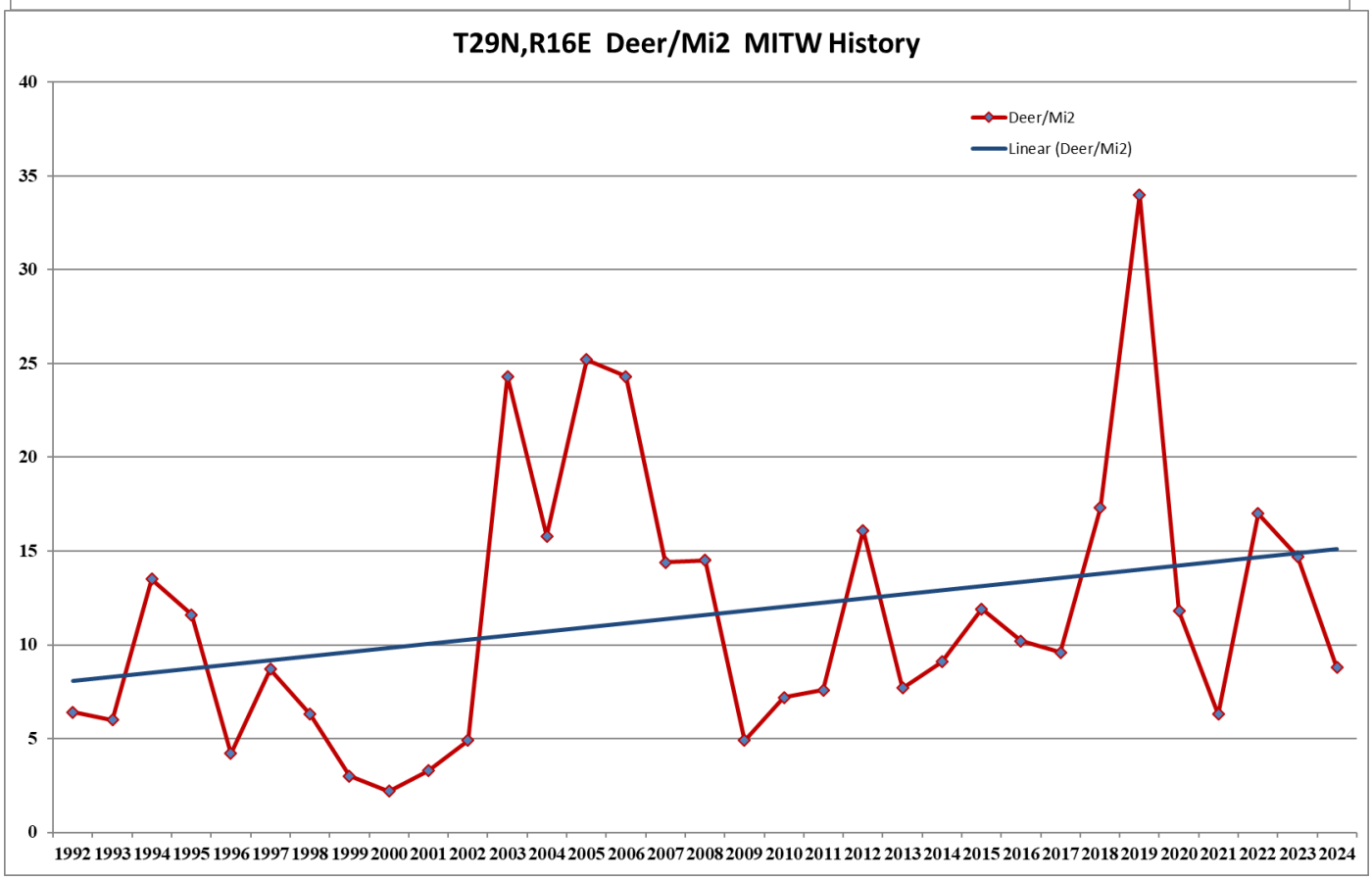
White-tailed Deer per mi2 by Township



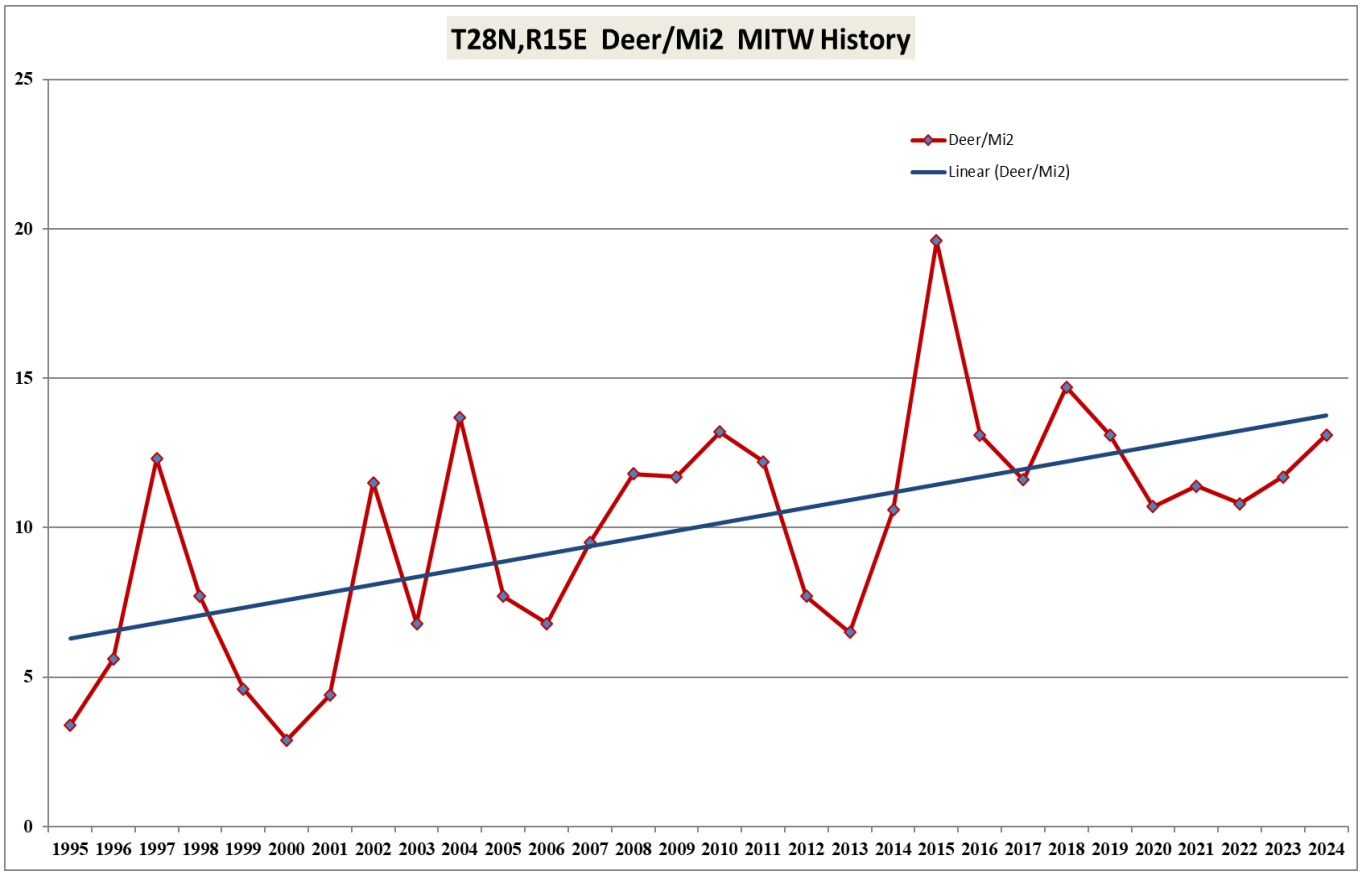


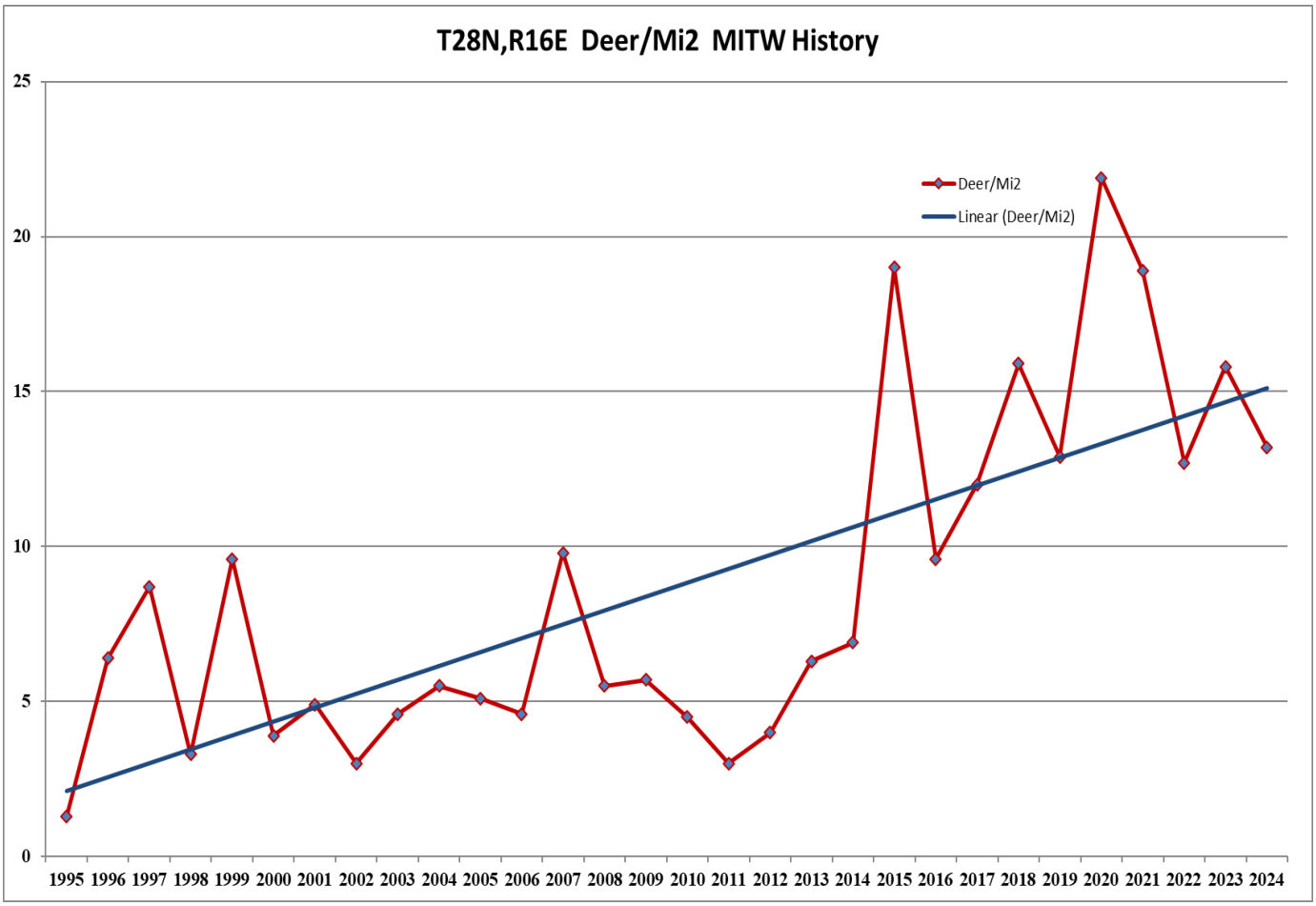
White-tailed Deer per mi2 by Township

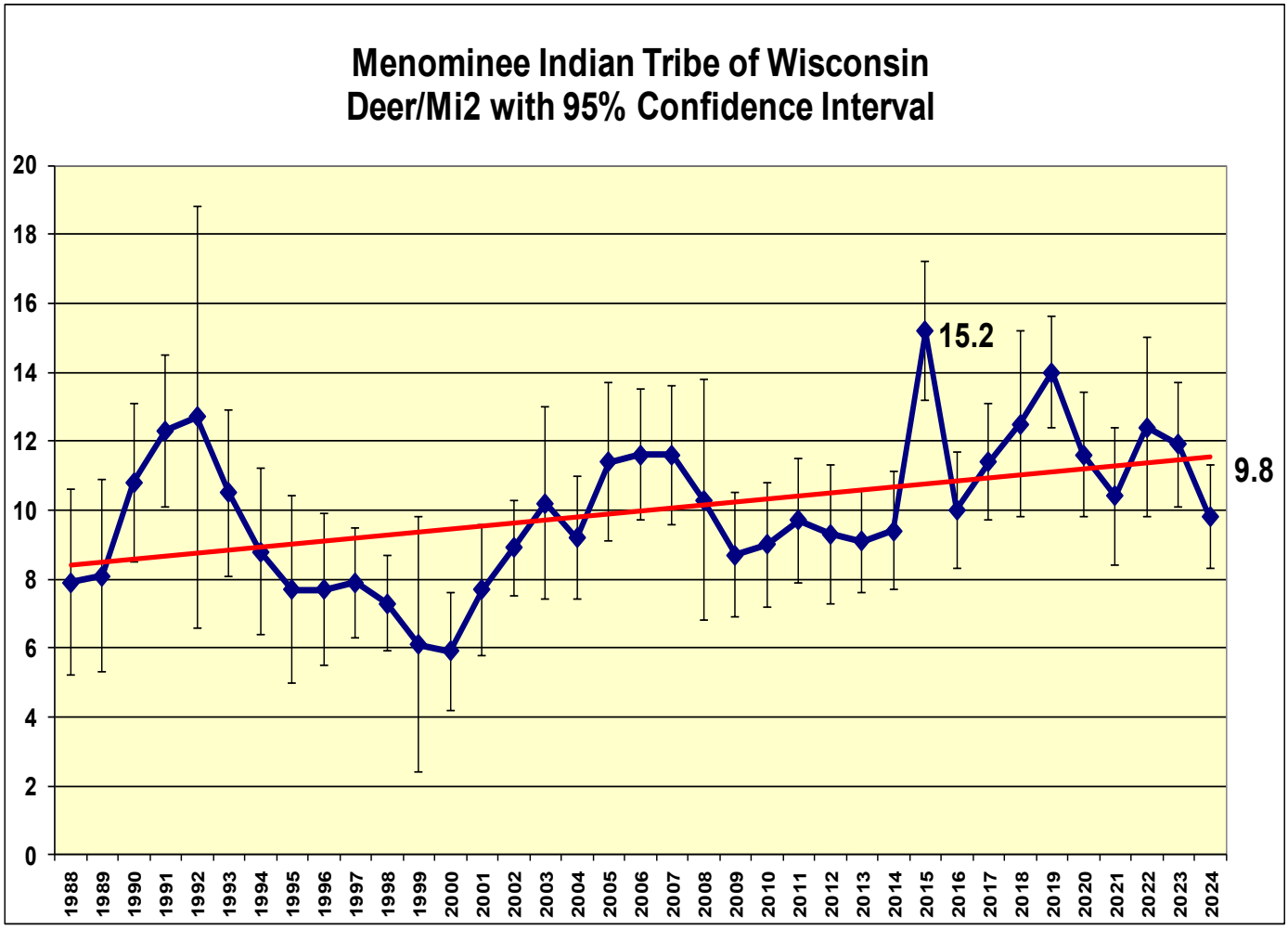


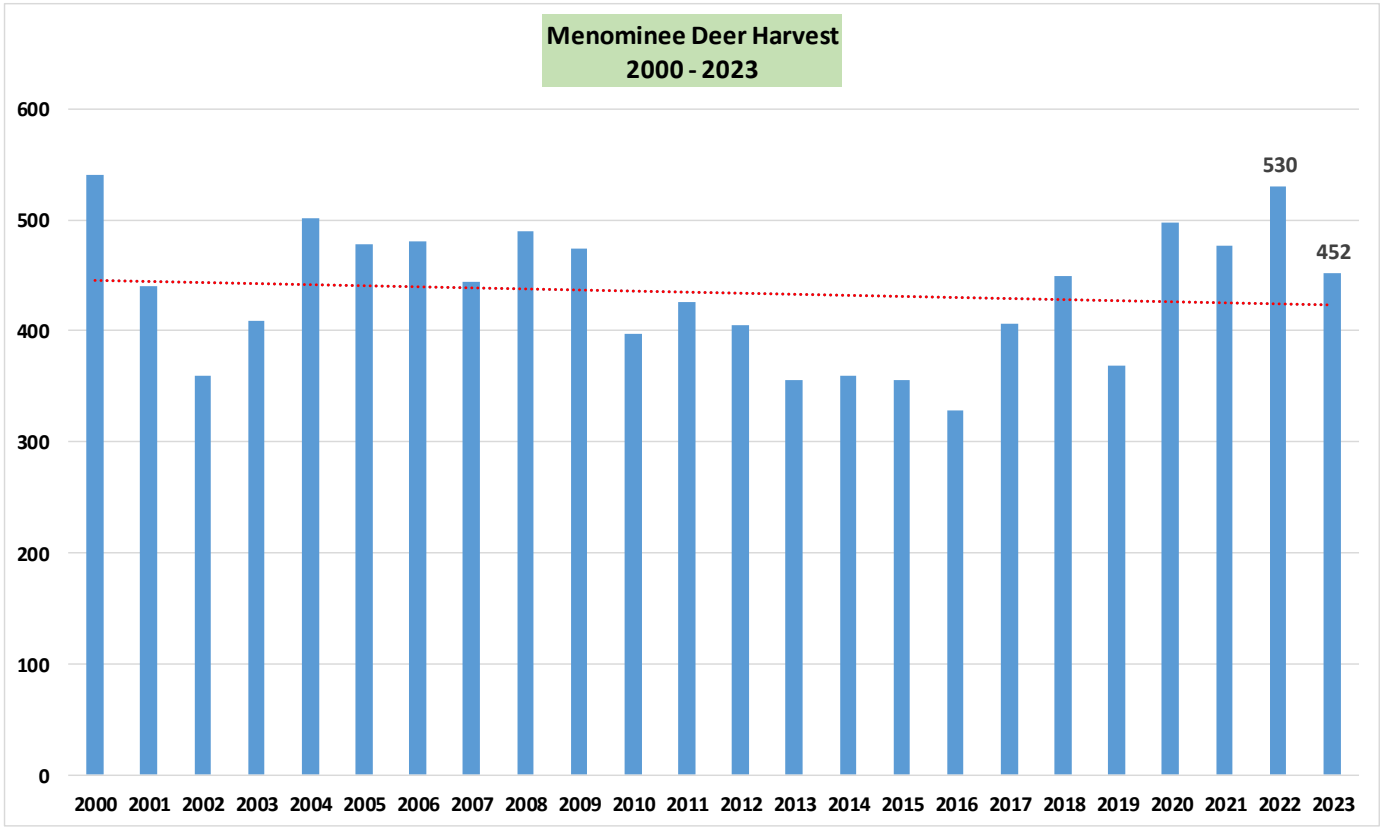


White-tailed Deer per mi2 by Township






Menominee Indian Tribe of Wisconsin
Deer/Mi2 with 95% Confidence Interval
20
18
16
14
12
10
8
6
4
2
0
15.2
9.8
1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024


Menominee Deer Harvest
2000 - 2023
600
500
400
300
200
100
0
530
452
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

MENOMINEE DEER MANAGEMENT RECOMMENDATIONS

Each and every spring, Menominee Tribal Enterprises Marking Crew, Environmental Services Department. MITW and others help determine how many deer the forest holds by counting the most visible part of a deer. Deer pellets, which is the nice term for deer waste. This technique, known as white-tailed deer pellet group counts, is a widely used approach to estimate deer densities. Calibrated years ago by observing how many times per day white-tailed deer eliminate waste. The method consists of counting the pellet groups found along miles of unmarked paths in very early spring to obtain estimates of how many deer inhabit a given area over the winter. Deer population estimates calculated from the pellet group counts are indispensable because they allow scientists to track how variation in deer population densities affects plant diversity.

In this report will look at:

1.) Menominee Deer per Square Mile
2.) Menominee Deer Harvest
3.) Menominee Winter Severity Index
4.) Chronic Wasting Disease
5.) Predators: Coyote and Wolf

MENOMINEE DEER PER SQUARE MILE:
Is there significant Habitat? Yes there is. Checking deer yards and different forest management cover types indicate no loss of habitat. There is no presence of an established browse line. There is enough habitat present on the Menominee Forest to maintain an average deer herd of 12 deer per square mile. The 2024 Menominee White-tailed deer population estimate was 9.8 deer per square mile. The 2023 White-tailed Deer Population is 11.9 deer per square mile. The deer population is ok. A total of 120 of 120 transacts were completed across the ten townships. The completion rate was one hundred percent (120/120 = 100%). The deer per square mile was pretty uniform per township from previous years.

MENOMINEE DEER HARVEST:
No wild animal in Menominee is as recognizable as the white-tailed deer. Whether a mature buck with splendid antlers, a graceful doe or a spotted fawn running with its mother, the white-tailed deer is one of the most popular of animals.

A deer's coat is usually a tannish brown, or some shade of brown, ranging almost to gray. It usually has a white patch on its neck and large prominent ears. Its eyes are circled with white and a white band rings the muzzle. The belly is white, with white running down the inside of the legs. The tail, about 9 to 11 inches long, is mostly brown although the underside is all white. The hooves have two toes covered with a hard fingernail-like material, and another toe, called the dew claw, appears about 3 inches high on the back of each leg.

Bucks, or male deer, grow and shed their antlers each year. Antlers range in size from little spikes that protrude from the skin, to larger "racks" that branch out to a variable number of points.

The white-tailed deer is a herbivorous animal. It will eat many green-leaved succulent plants and the tender new growths of stems and fruits. One of their most important food sources is acorns. White-tailed deer also forage on a variety of agricultural crops. Deer are so adaptable that they are found in almost any type of habitat. They like creek and river bottoms, oak ridges, pine forests, farmlands or any other type of habitat that offers food, water and cover.

The 2023 White-tailed Deer Harvest was 452 (page 32). This was the highest in the Menominee Deer Harvest ever recorded. The 2024 White-tailed Deer Estimate is 9.8 deer per square mile.

Menominee Hunters are allowed to harvest deer by Regular Still Hunt, Vehicle and Bow Hunt as means of harvesting deer. "Buck only season" is from August 1 through August 31. Bucks and Does Season will run from September 1-December 31.

WINTER SEVERITY INDEX FOR WINTER 2023-2024
The State of Wisconsin had an overall Winter Severity Index of 69 which labelled as "Moderate" The Menominee Indian Tribe of Wisconsin a is listed as a "Mild" Winter. The Winter Severity Index for Menominee during the winter of 2022-2023 is 25 (Page 11) which could indicate Deer will have an incredibly high reproductive potential with mature females 2-1/2 to 5-1/2 years old nearing a 100 percent pregnancy rate each fall. If mild conditions persist, we could expect to see good fawn production with healthy birth weights, along with does that are in good condition to meet the physical demands of nursing. Fluctuations in deer populations are a normal aspect of wildlife management and with management and favorable conditions, populations can rebound quite quickly.

MENOMINEE CHRONIC WASTING DISEASE:
The Menominee Indian Tribe of Wisconsin (MITW) Chronic Wasting Disease Monitoring and Response Plan is a comprehensive approach to identify the earliest possible intrusion of Chronic Wasting Disease (CWD) into Menominee Reservation. The highest priority is to collect lymph nodes and/or brain stems to test sick and harvested deer to determine cause of death. Testing will be required within ten mile radius of a positive identified CWD Sample Site. Risk factors were informed by field surveys conducted by Wisconsin Department of Natural Resources (WDNR) and Environmental Services Department, MITW.

MITW is therefore establishing the following goal for the management of CWD over the next 10 years: **Minimize the area of Wisconsin where CWD occurs and the number of infected deer in the Menominee Reservation, Wisconsin.**

To achieve this Menominee CWD goal, it is imperative that the Environmental Services and Menominee Conservation Departments have public support for and active participation in this plan.

The Environmental Services and Menominee Conservation Department has the public trust responsibility for managing wildlife and ensuring the health of wildlife populations in the Menominee Reservation. There are real health risks to deer and elk from CWD and ongoing questions about possible health risks to humans and livestock. Additionally, there are secondary risks to the tribe's and state's economy, socio-cultural traditions, and ecosystem from the long-term effects of the disease.

Advances in understanding of the ecology and epidemiology of CWD in Wisconsin have contributed significantly to informing departmental management actions. Yet, to date, there is no clear prescription for managing CWD. The Environmental Services and Menominee Conservation Department will need to continue intensive monitoring of CWD prevalence and distribution in order to make decisions on CWD management using an adaptive management and response approach. The departments believe that the results of an ongoing monitoring of CWD in the state's wild deer along with advances from research into the epidemiology of the disease over the next 10 years will aid the state to better evaluate the effectiveness of actions on controlling CWD.

In 2024 Environmental Services Department, MITW will work on key objectives of this MITW Chronic Wasting Disease Response Plan are to:

- **Prevent new introductions of CWD in areas where disease is not currently believed to be present.**
  - **Enforcement of baiting ban.**
  - **Wild Deer Herd Response**
  - **Public notification.**

- **Monitor for new areas of CWD infection (new foci)**
  - **Collect biological samples.**
  - **Work in cooperation with other agencies**

- **Monitor and collect biological samples in High Priority Areas of CWD infection (new foci)**
  - **T30N,R14E; T30N,R15E; T28N,R15E; T28N,R16E, T29N,R16E**

COYOTES AND WOLVES:

Predation: Along with coyotes, wolves, bobcats and black bears, coyotes are one of the few remaining predators of white-tailed deer . Many deer hunters believe that "coyotes keep down the white-tailed deer population." This has led to many coyotes being killed by deer hunters in the name of "saving" the deer herd, but is this true? No. Coming to this seemingly simply answer requires an understanding of population dynamics—how populations change over time and the ecology of each species.

Since coyotes and wolves struggle to take down healthy adult deer, they mainly predate fawns. But fawns are hard to find, they are camouflaged, almost scentless, and spend most of the day motionless in dense vegetation. If a fawn survives its first 30 days, it is highly likely to survive to adulthood, as it will be able to outrun potential predators.

In July 2023, Menominee Timber Wolf Research Started. The Environmental Services Department with assistance from USDA APHIS Wildlife Services from Rhinelander was able to trap 4 female timber wolves in different areas of the Menominee Reservation. The radio-collars are fitted with GPS Units and are trackable via use of the computer. The GPS Coordinates are taken twice daily. One question with this wolf research was to find out where the wolves travel in the different seasons. During the summer months the wolves tend to leave the Menominee Reservation and hunt farms along the boundaries. The first year this has been documented. By following and documenting timber wolf locations, the Menominee Reservation has a potential of 5 timber wolf packs. This would give us total coverage of the Menominee Reservation. Timber wolves need extensive area and each wolf pack leaves the Menominee Reservation at different times throughout the year.

Across Menominee, hunter harvest and predation are the primary causes of mortality of white-tailed deer. However, it is important to note that the relative importance of these 2 causes of mortality vary among years and local deer populations, dependent upon differences in hunter pressure, winter severity, predators and deer densities, and sex and age composition of the deer population. It has been well documented in studies that wolves primarily kill young of the year and older deer in the population, and these individuals are often compromised by deterioration of their overall physical condition or a specific abnormality. Predation on deer is greatest during mid-late winter, coinciding with the period of poorest condition and deepest snow. Severe winter weather negatively impacts survival of northern white-tailed deer either through nutritional restriction when predators are scarce or by predation where wolves or other predators are common .

For the most part, coyotes are compensatory predators of deer. This means, they do not impact a deer population. The deer they eat probably would not have survived the year. This finding has been demonstrated by several studies, one study looked at the deer populations in the Southeast and East Coast, which had recently been colonized by coyotes. If coyote predation was additive then deer populations would go down, but that is not what the study found. It found that deer populations increased following coyote colonization. Another study in South Carolina removed coyotes from a large area for three years, and the researchers found that the deer population was largely unaffected by removal. Instead of being eaten by coyotes, fawns died from other causes like starvation and disease.

In conclusion, Predators will remove white-tailed deer from the population, but this is not a limiting factor. The Menominee White-tailed Deer herd is doing fine. If the goal of predator population reduction is to increase deer populations, time and money would be better spent on deer habitat improvements than on predator control. Proper habitat management increases available food and cover in a forest. Improved habitat conditions not only allow fawns to better escape predation it also reduce stress on does, increasing fawn birthweights and allowing them to produce more nutritious milk. Stress on females can also be reduced by establishing “reserve" areas or sanctuaries on a property where recreation does not occur or is limited. Limiting the use of motor vehicle and high-impact recreation in spring when fawns are especially vulnerable will help their survival.

ENVIRONMENTAL SERVICES RECOMMENDATION:
The recommendation from the Environmental Services Department shall be to leave the season “As Is” The White-tailed Deer herd has decreased from 11.9 deer per square mile to 9.8 deer per square mile. As a Manager I would exercise caution. There is no significant increases or decreases seen the population that would warrant drastic objectives to be followed.

Successful management was one of the keys to increasing populations. However, other key factors have contributed as well. Large predators such as wolves and mountain lions, have been eliminated from much of the white-tail deer’s range, removing the natural check on deer numbers. More recently, habitat changes, including reversion of abandoned fields to forest, and forest management logging operations that cut through some of the white-tailed deer plots that probably is the major contributing factor of the increase in numbers of deer. When a logging operation goes through an area, tops of trees with buds are on ground level making this ideal for deer to search for food. In this situation, this artificially brings in deer into an area for a period of one year before the deer move back to their normal patterns. Variation in deer abundance across the reservation largely reflects variation in the quantity and quality of habitat together with the influences of climate. Coupled with relatively mild winters will contribute to higher deer densities. I would recommend reviewing the data for the next two years to look at all aspects of deer management and monitor the direction the Menominee White-tailed Deer Population is trending

MENOMINEE DEER MANAGEMENT RECOMMENDATIONS

Hopefully, the Menominee Conservation Commission will think about the following things in deciding what to do with this years White-tailed Deer Season. Here is the following bullets I think of when determining what to do for management of deer: "How can we increase the deer herd?"

1.) Winter Severity Index for the winter of 2023-2024 is listed as a Mild Winter which could indicate Deer will have an incredibly high reproductive potential with mature females 2-1/2 to 5-1/2 years old nearing a 100 percent pregnancy rate each fall. If mild conditions persist, we could expect to see good fawn production with healthy birth weights, along with does that are in good condition to meet the physical demands of nursing. Fluctuations in deer populations are a normal aspect of wildlife management and with management and favorable conditions, populations can rebound quite quickly.
2.) Is there significant Habitat? Yes there is. Checking deer yards and different forest management cover types indicate no loss of habitat. There is no presence of an established browse line. There is enough habitat present on the Menominee Forest to maintain an average deer herd of 12 deer per square mile. **2024 White-tailed deer population indicate 9.8 deer per square mile**. The White-tailed Deer Population for **2023 is 11.9 deer per square mile. There is a drop of 2.1 deer /square mile.**
3.) Predation: Coyotes population numbers are extremely high, bobcat numbers are large, but have a Minimal effect on deer. Wolves population numbers are at 28. Black Bear numbers are 250-270 And according to past studies in this area are not high in killing white-tailed deer (2.11%) found in their scat. Domestic dogs, not known their take. Coyote management must be looked at, but remember it is not a cure all.
4.) How can we increase registration numbers? Our concern with current reporting rates is not the resulting quality of our harvest estimates. Rather, we are concerned that low reporting rates may reflect a declining awareness among hunters about the important role they have in the game management. There is a lot of important deer data that is used to make important decisions on the health of the deer herd. Our objective is not to limit the numbers of deer harvested, but to make better informed decisions. You can only complete this by taking valuable biological information from each deer.
5.) The recommendation from the Environmental Services Department shall be to leave the season "As Is" The White-tailed Deer herd has decreased from 14.0 deer per square mile to 12.4 deer per square mile. As a Manager I would exercise caution. The 11.6 deer per square mile will have to be examined more thoroughly.
6.) In 2022, In T28N,R16E; T29N,R16E; White tailed deer will have their lymph nodes removed and tested for Chronic Wasting Disease (CWD). This is due to CWD being found in Apple Creek White-tail Deer Farm located on the SE Corner of Menominee Reservation, WI. We need to monitor this area.
7.) CWD OPTION 1: Leave all "As Is" Request from the hunters to bring in deer head for sampling.
CWD OPTION 2: The Tribe needs to test for CWD in the highlighted Area, Reimburse Menominee Hunters one tag for a deer head. Limit 2 tags for 2 CWD sample submissions.
CWD OPTION 3: Have Mandatory Testing of all White-tailed Deer. This would provide a large sample.

These are valid options because we need to protect the Menominee Reservation from potential Chronic Wasting Disease Introduction. How would these options fit into regulations/

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