2021 Bovine Tuberculosis Surveillance

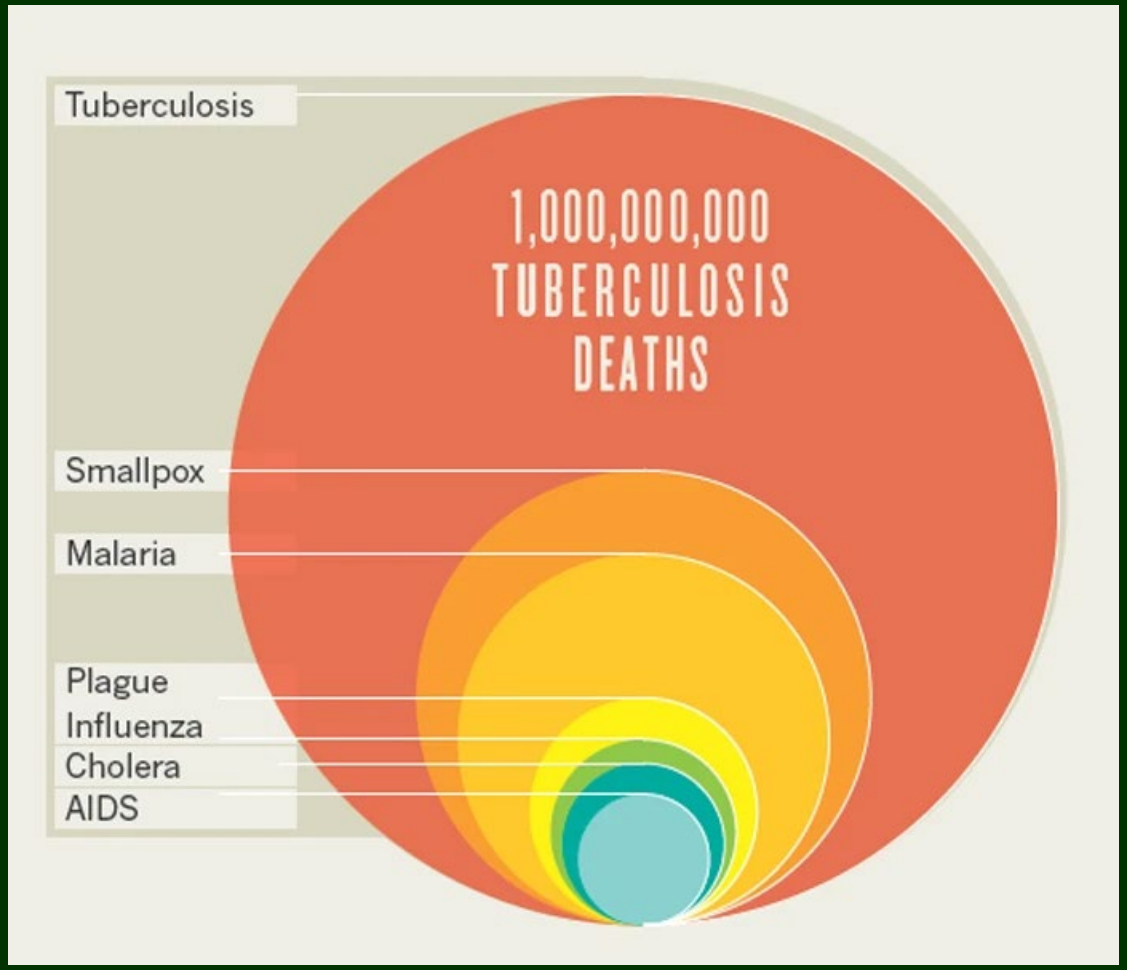
Natural Resources Commission Update

April 14, 2022

Megan Moriarty, Wildlife Veterinary Specialist
Emily Sewell, Wildlife Health Specialist
MDNR

Nora Wineland, State Veterinarian
MDARD

Bovine Tuberculosis: One Health

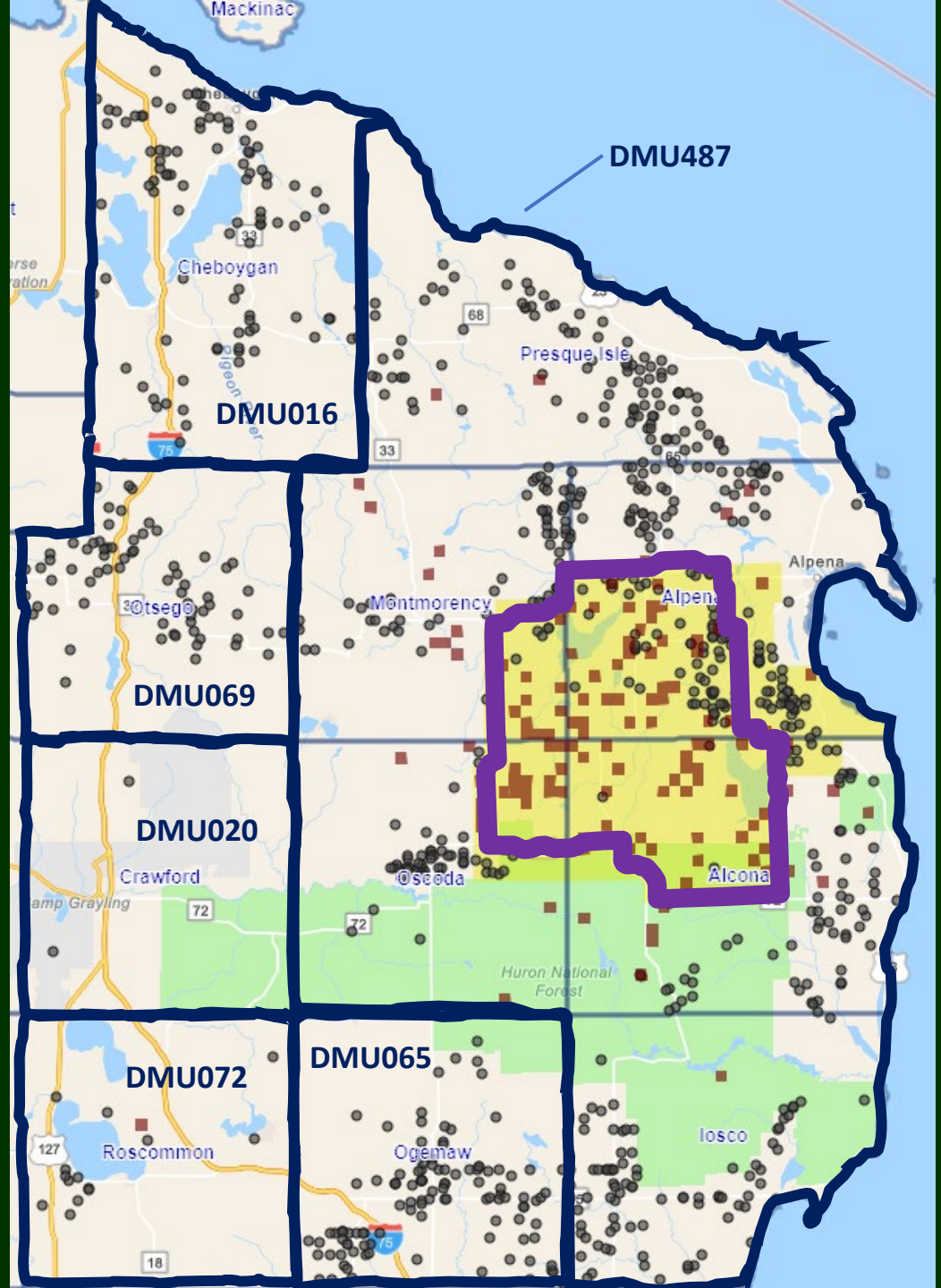


Paulson, T. Epidemiology: A mortal foe. *Nature* **502,** S2–S3 (2013). https://doi.org/10.1038/502S2a

Presentation Outline

- Shared goals of bTB surveillance
- Adaptive management
- Sample collection
- What we learned (data analyses)
- Cattle update
- Future directions
- Questions

Map of All Cattle Herds in Relation to DMU452



Shared Goals of Bovine TB (bTB) Surveillance

1

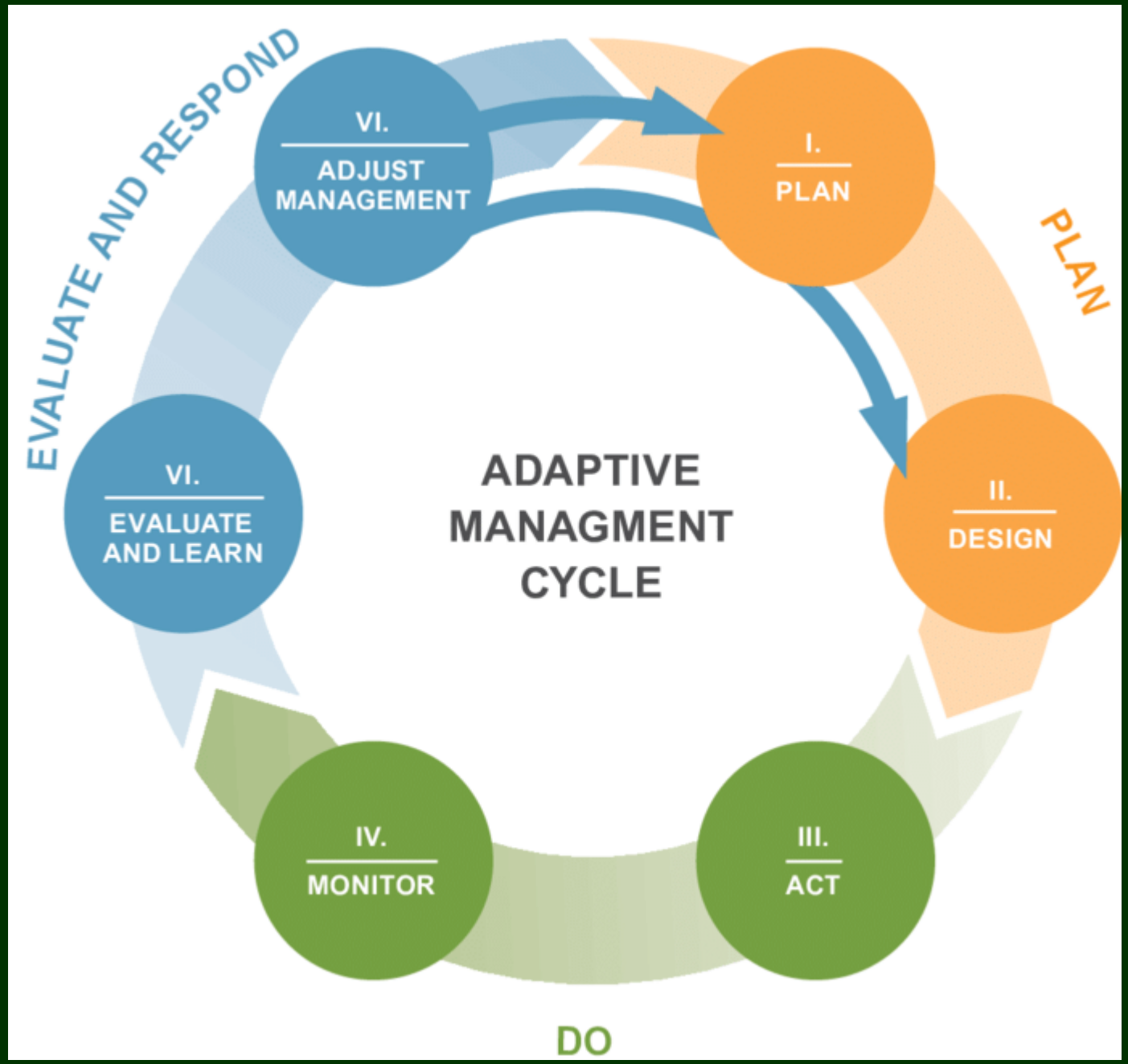
PREVENT

2

RESPOND

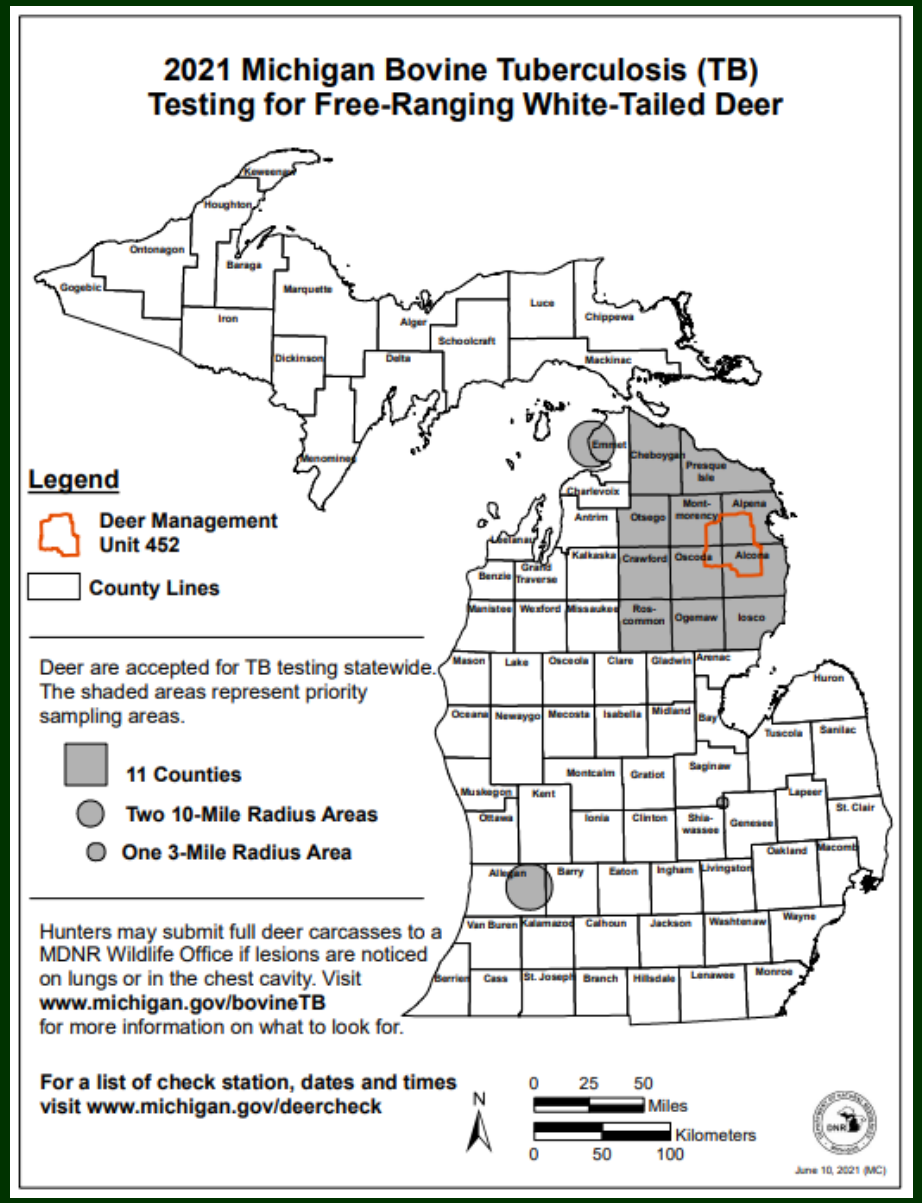
3

ELIMINATE


EVALUATE AND RESPOND
VI.
ADJUST MANAGEMENT
I.
PLAN
PLAN
VI.
EVALUATE AND LEARN
ADAPTIVE MANAGMENT CYCLE
II.
DESIGN
IV.
MONITOR
III.
ACT
DO

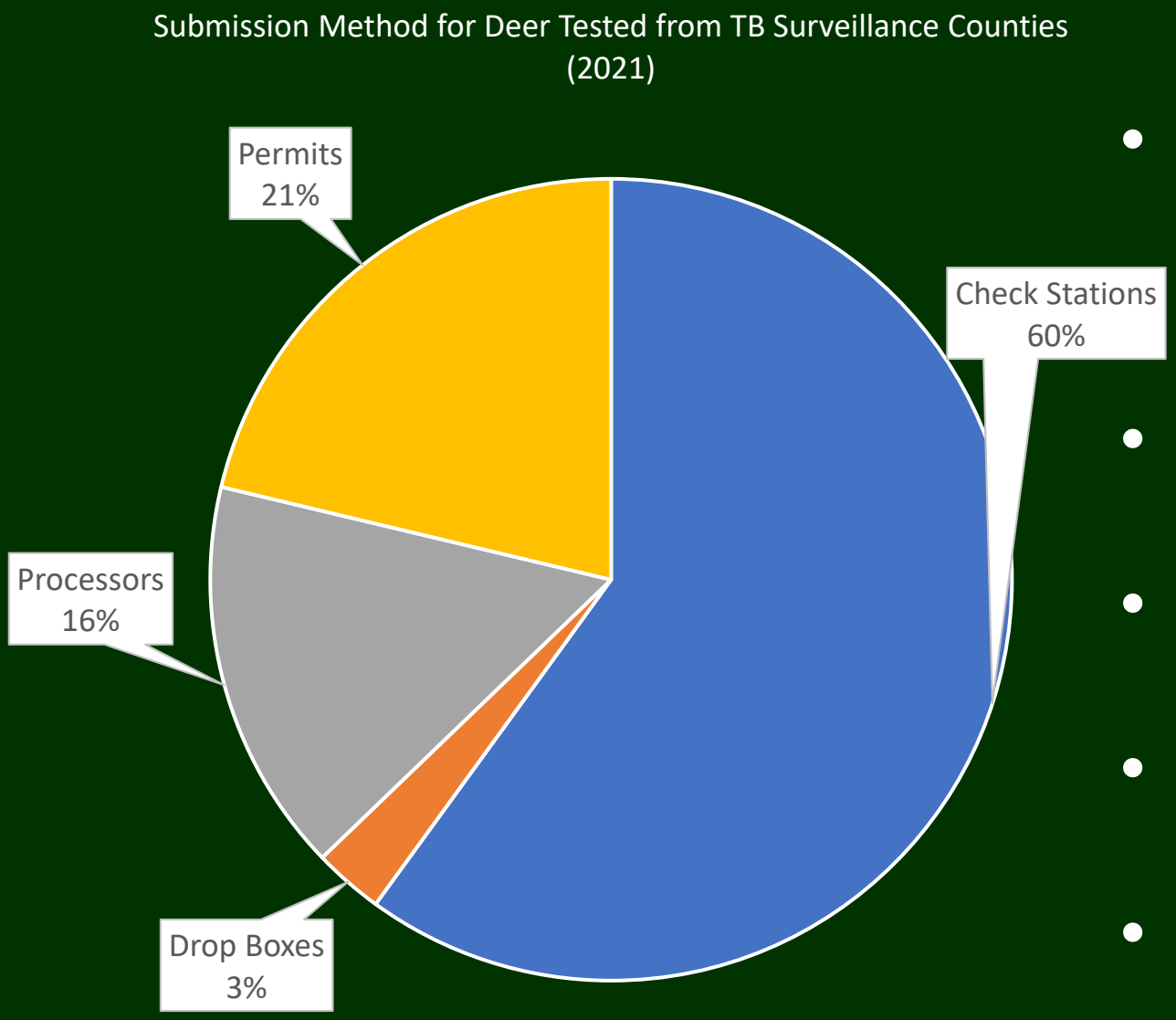
Sample Collection

2021 Bovine TB Surveillance Efforts



- Deer check stations
  - 24-hr. self-service drop boxes
- Permits
- Processors
- Communications
- Deer Head Collection Workgroup

2021 Bovine TB Surveillance Efforts



- Deer check stations
  - 24-hr. self-service drop boxes
- Permits
- Processors
- Communications
- Deer Head Collection Workgroup

Photo: M. Cosgrove, MDNR

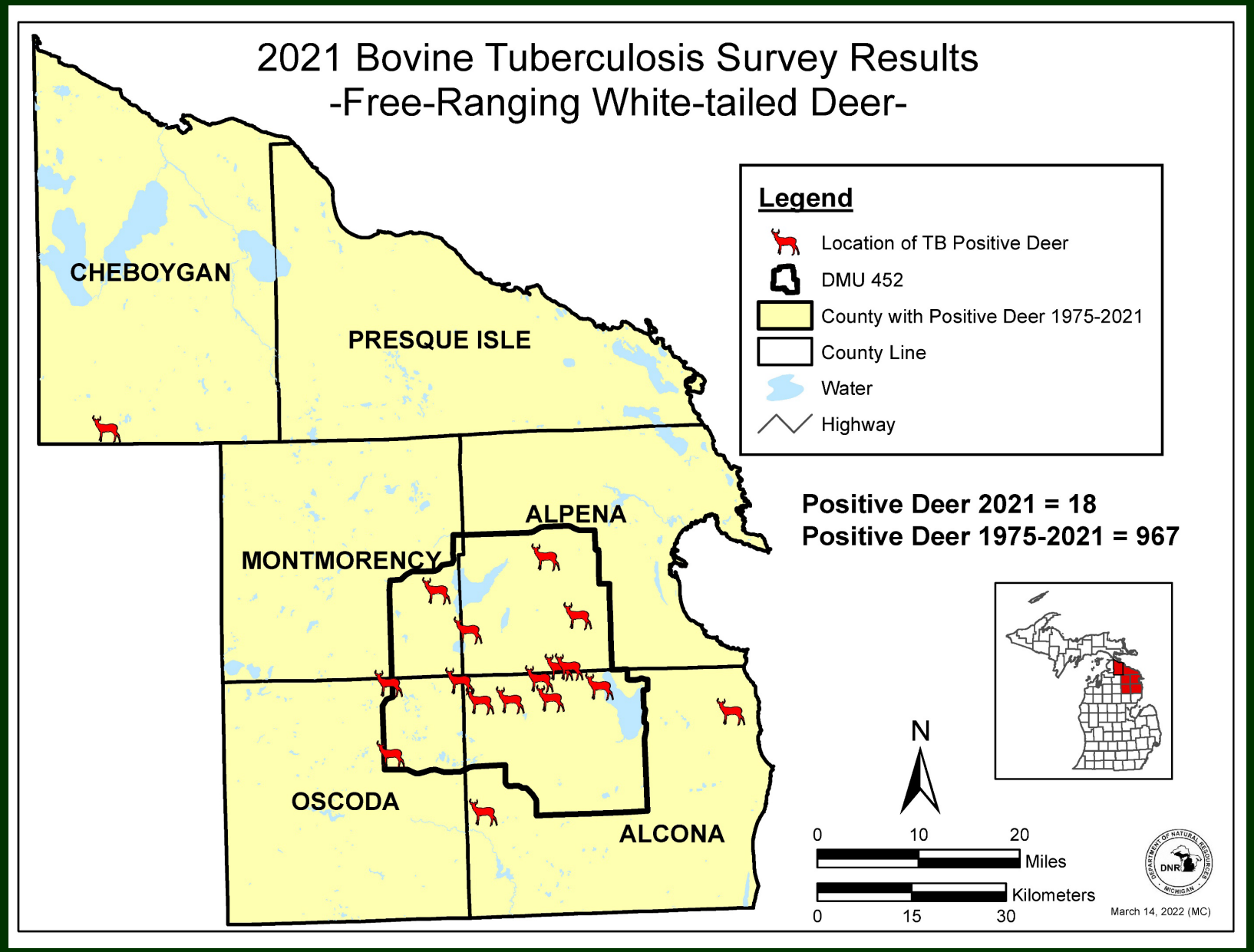
What We Learned

White-tailed Deer bTB Surveillance

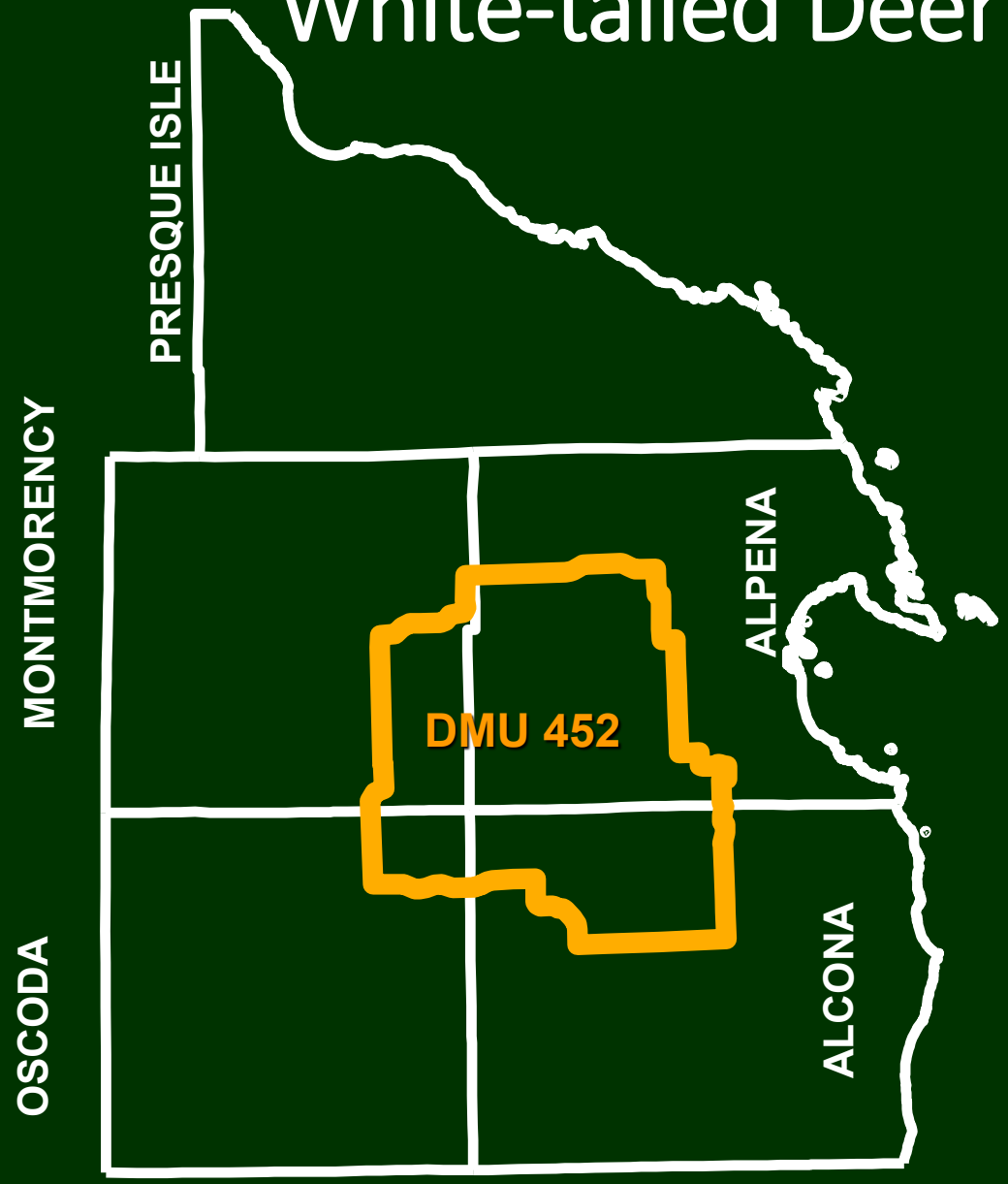
Year	Positive	Total Deer Tested
1975 & 1994	2	2
1995	18	403
1996	56	4,966
1997	73	3,720
1998	78	9,058
1999	58	19,497
2000	53	25,855
2001	61	24,278
2002	51	18,101
2003	32	17,306
2004	29	15,134
2005	16	7,365
2006	41	7,918
2007	27	8,316
2008	37	16,312
2009	31	5,723
2010	24	4,974
2011	17	6,026
2012	23	4,725
2013	21	5,903
2014	12	4,266
2015	34	8,461

Year	Positive	Total Deer Tested
2016	29	12,031
2017	49	23,068
2018	26	35,620
2019	31	25,100
2020	20	7,460
2021	18	11,791
2022*	0	711
Grand Total	967	334,090

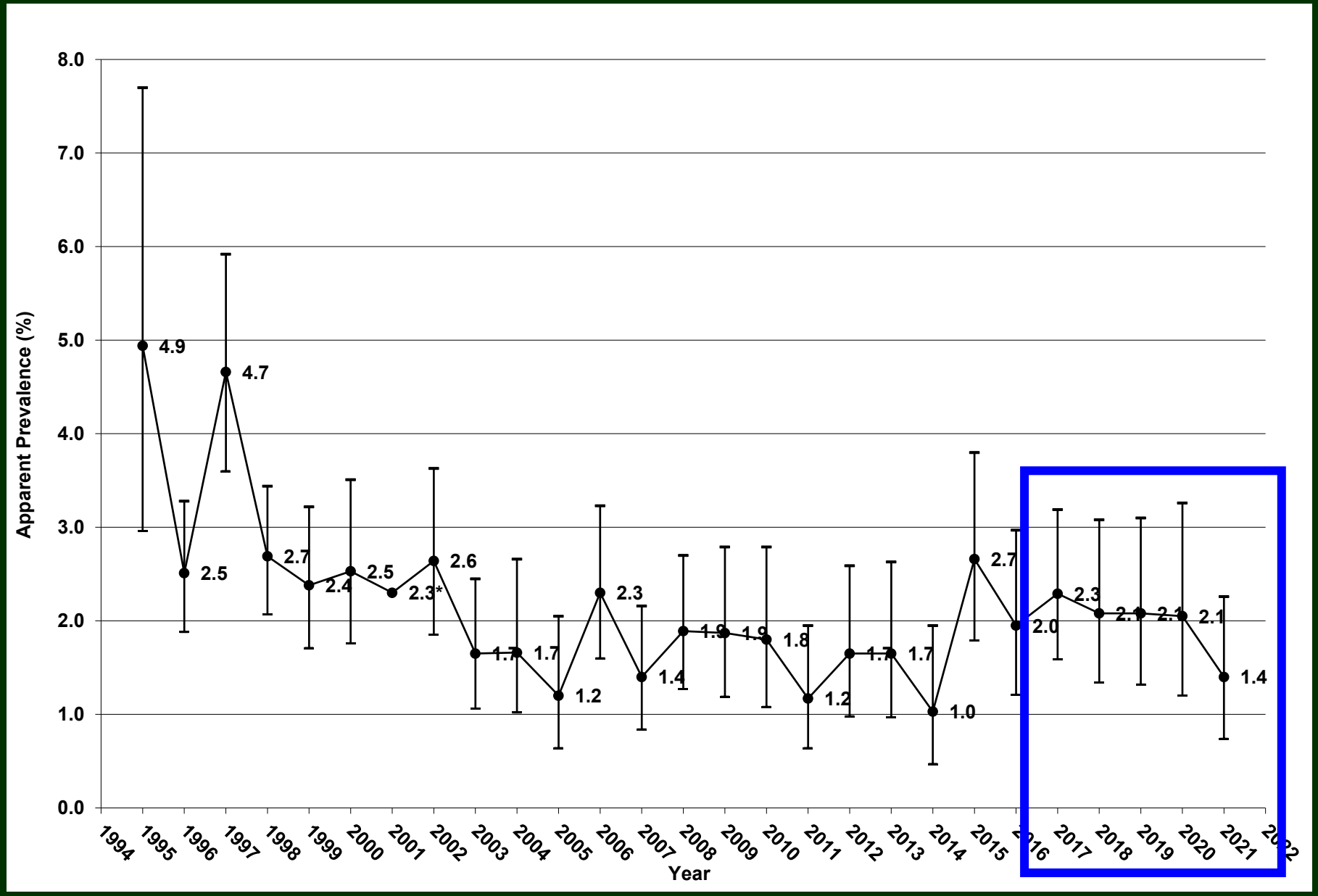
*testing for current year on-going


2021 Bovine Tuberculosis Survey Results
-Free-Ranging White-tailed Deer-
CHEBOYGAN
PRESQUE ISLE
ALPENA
MONTMORENCY
OSCODA
ALCONA
Legend
Location of TB Positive Deer
DMU 452
County with Positive Deer 1975-2021
County Line
Water
Highway
Positive Deer 2021 = 18
Positive Deer 1975-2021 = 967
N
0 10 20
Miles
Kilometers
0 15 30
March 14, 2022 (MC)

Apparent bTB Prevalence in White-tailed Deer



Year	DMU452	5-Co.Outside DMU452
1995	4.9%	(no testing)
1996	2.5%	0.2%
1997	4.7%	0.4%
1998	2.7%	0.3%
1999	2.4%	0.2%
2000	2.5%	0.4%
2001	2.3%*	0.5%
2002	2.6%	0.5%
2003	1.7%	0.2%
2004	1.7%	0.2%
2005	1.2%	0.1%
2006	2.3%	0.3%
2007	1.4%	0.2%
2008	1.9%	0.3%
2009	1.9%	0.4%
2010	1.8%	0.2%
2011	1.2%	0.1%
2012	1.7%	0.3%
2013	1.7%	0.2%
2014	1.0%	0.2%
2015	2.7%	0.3%
2016	2.0%	0.3%
2017	2.3%	0.6%
2018	2.1%	0.1%
2019	2.1%	0.4%
2020	2.1%	0.1%
2021	**1.4%**	**0.1%**

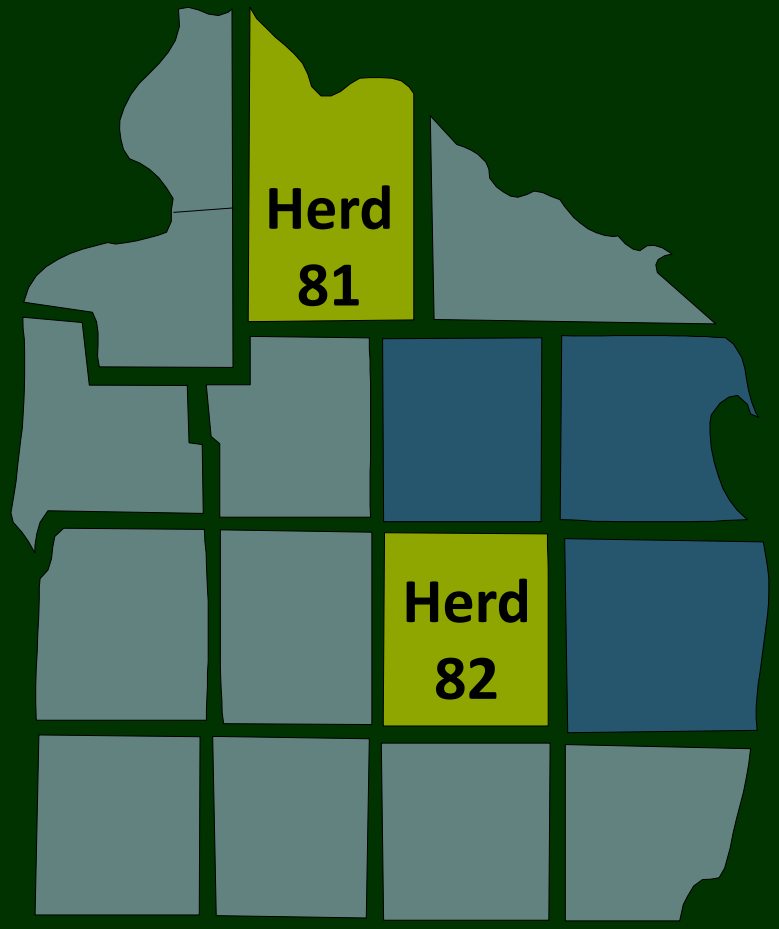

Apparent Prevalence (%)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
4.9
2.5
4.7
2.7
2.4
2.5
2.3*
2.6
1.7
1.7
1.2
2.3
1.4
1.9
1.9
1.8
1.2
1.7
1.7
1.0
2.7
2.0
2.3
2.1
2.1
2.1
1.4
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Year

Cattle Update

Detecting and Responding to bTB Positive Cattle Herds

- Infected herds are detected through:
  - Annual surveillance testing
  - Movement testing

- Once detected:
  - Quarantine
  - Test-and-removal program
  - Mandatory herd protection

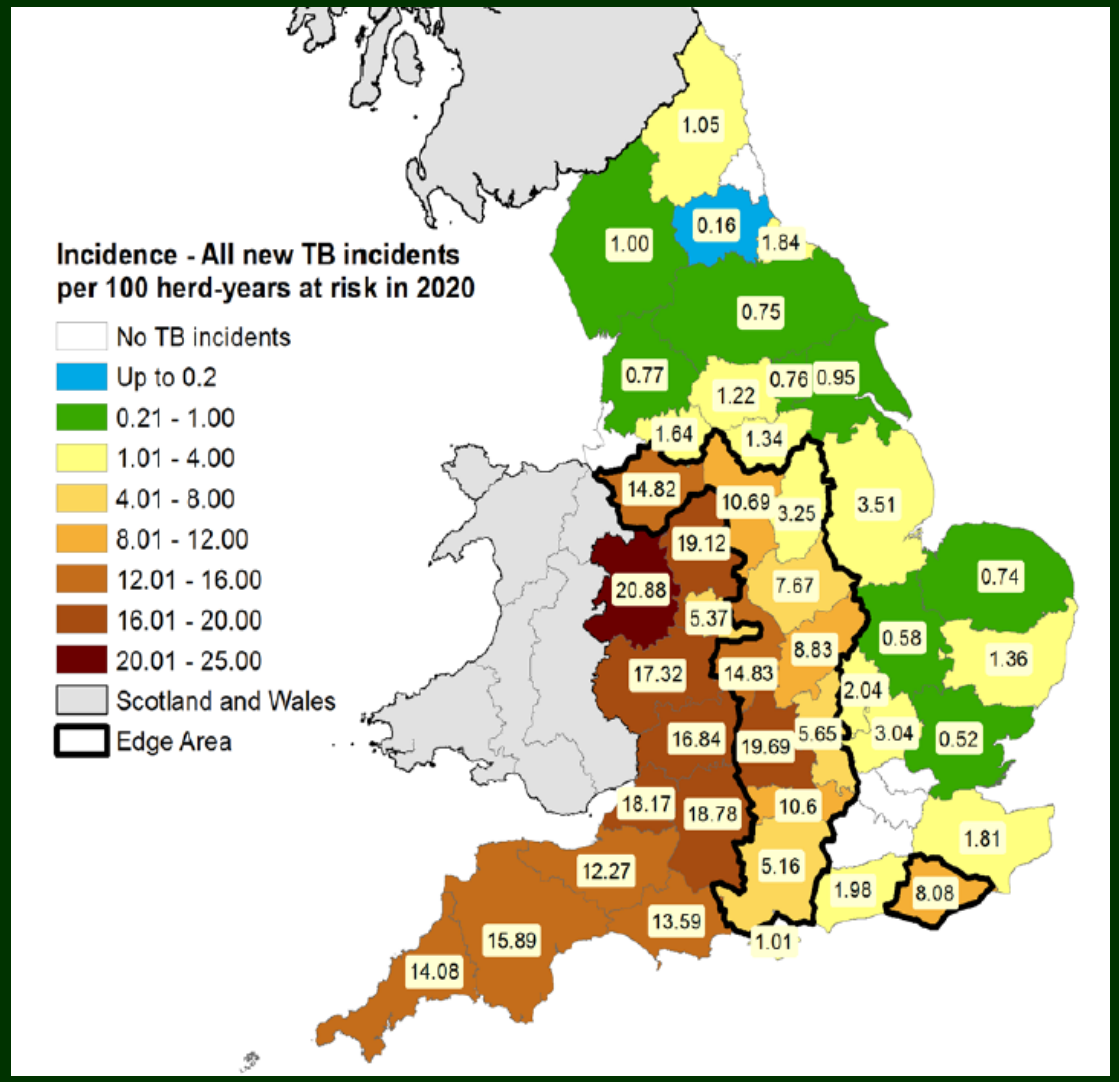


Current status of bTB positive cattle herds

Future Directions

Great Britain As A Potential Model For Michigan

- Significant cattle industry
- Endemic TB in a populous wildlife species that are habituated to farms (European Badger)
- TB transmits from badgers to cattle
- Have been battling TB for many decades



Great Britain As A Potential Model For Michigan

- Made good progress up until 2002
- Efforts were relaxed due to other diseases – amount of TB exponentially increased
- Currently, finding thousands of TB-infected cattle herds each year
- TB is transmitting between livestock and wildlife **both ways**

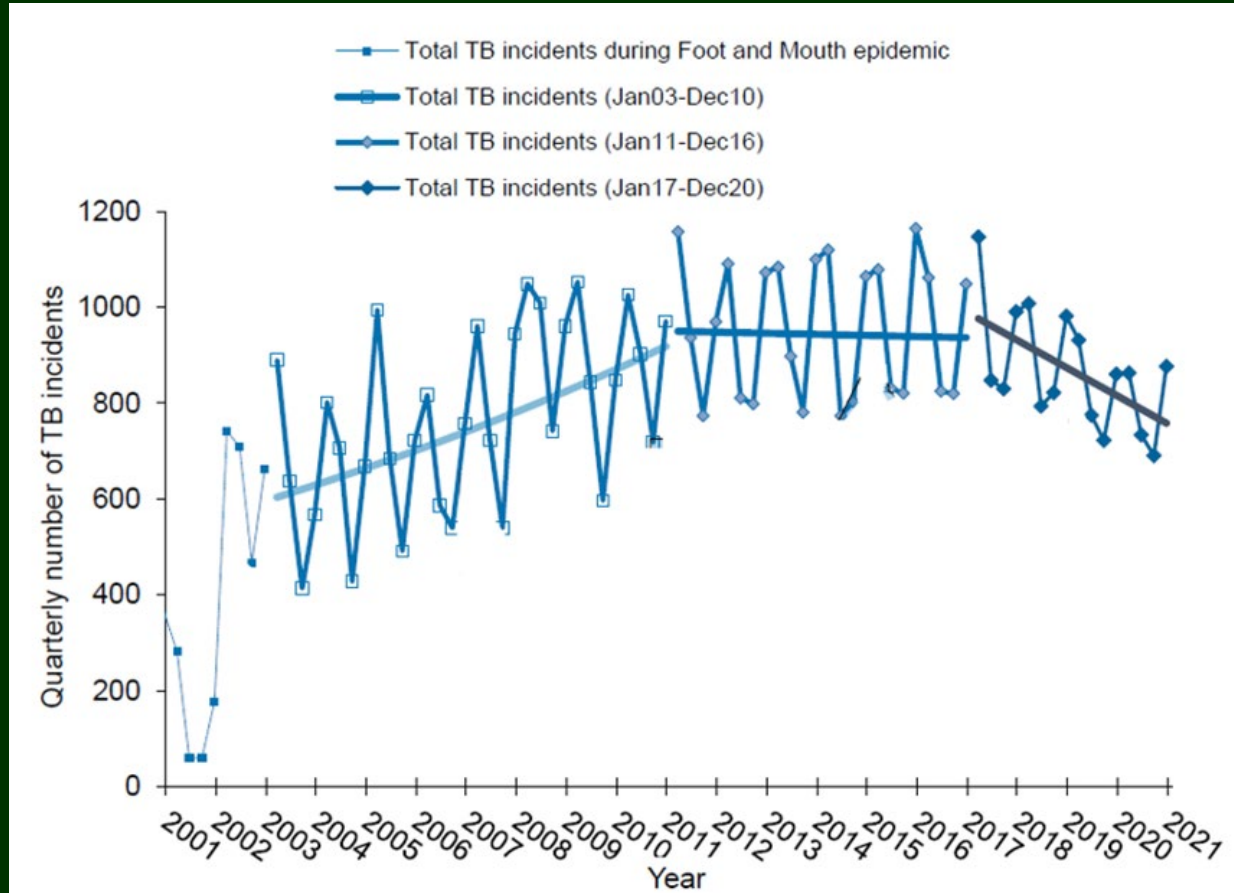


Figure 3.1.1 Quarterly totals for new TB incidents detected in England between January 2001 and December 2020

Prevention and Wildlife Risk Mitigation

- For MDARD, the focus needs to be kept on protecting herds.

- Main tools to reduce risk to herds:
  - Feed cattle safely
  - Water cattle safely
  - Store feed safely
  - Remove habituated deer

- Encouraging producers to take advantage of and apply these tools.

Further Prevention Strategies in Wildlife

- bTB vaccine for deer
  - National Wildlife Research Center (USDA-APHIS Wildlife Services)
  - Ongoing field and lab trials – delivery method

New Surveillance Tools

- Force of Infection (FOI) model
  - bTB incidence (rate of new infections) in DMU 452 has been increasing since at least 2012 in both sexes
  - Geographic areas of highest transmission over time

TB Hazard, all ages, core outbreak area, 1996-2020

Bovine TB Surveillance Going Forward

- More efficient head collection – building partnerships
  - Processor program
  - Cooperation with groups, clubs, etc.
  - Continued coordination with MDARD
- Resume Herd & Hunter TB Connections meetings
  - Joint public engagement developed in 2018

Thank you!

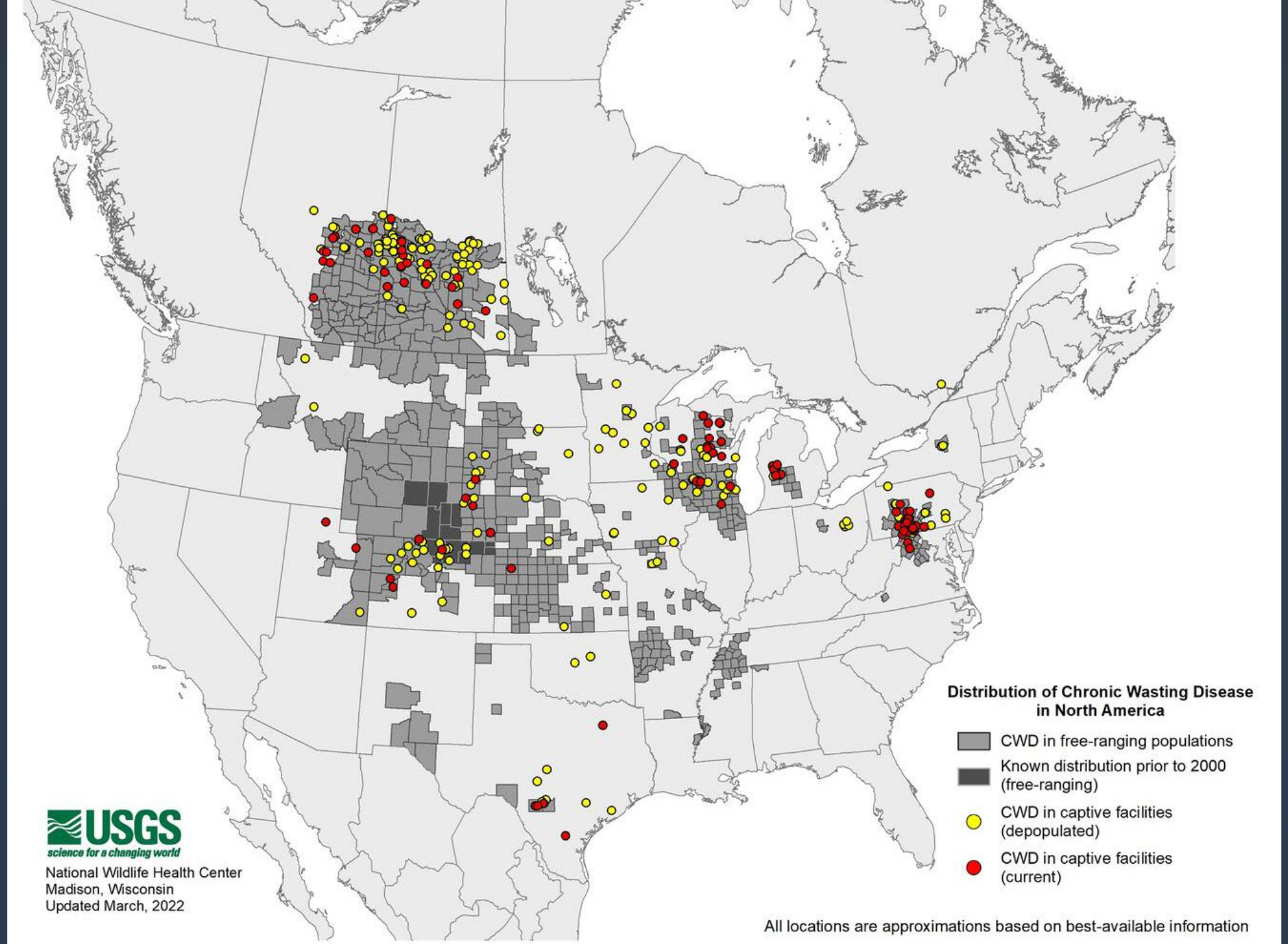
Questions?

Special thanks to Dan O’Brien for sharing content from previous presentations

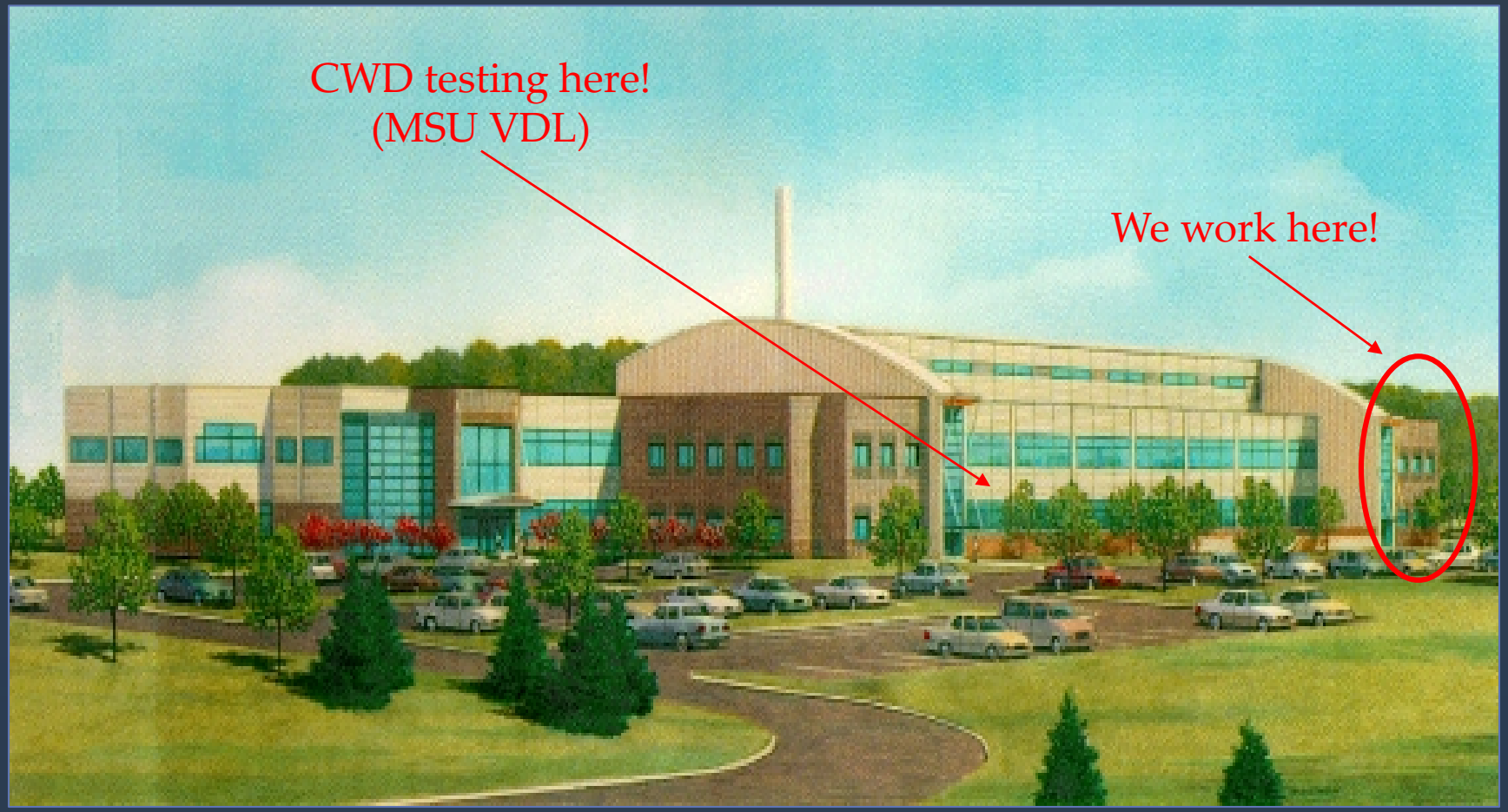
Department of Natural Resources
CWD Update 2021-2022

Melinda Cosgrove
Laboratory Scientist Manager
Wildlife Health Section

Scott Whitcomb
Director, Office of Public Lands
Executive Division

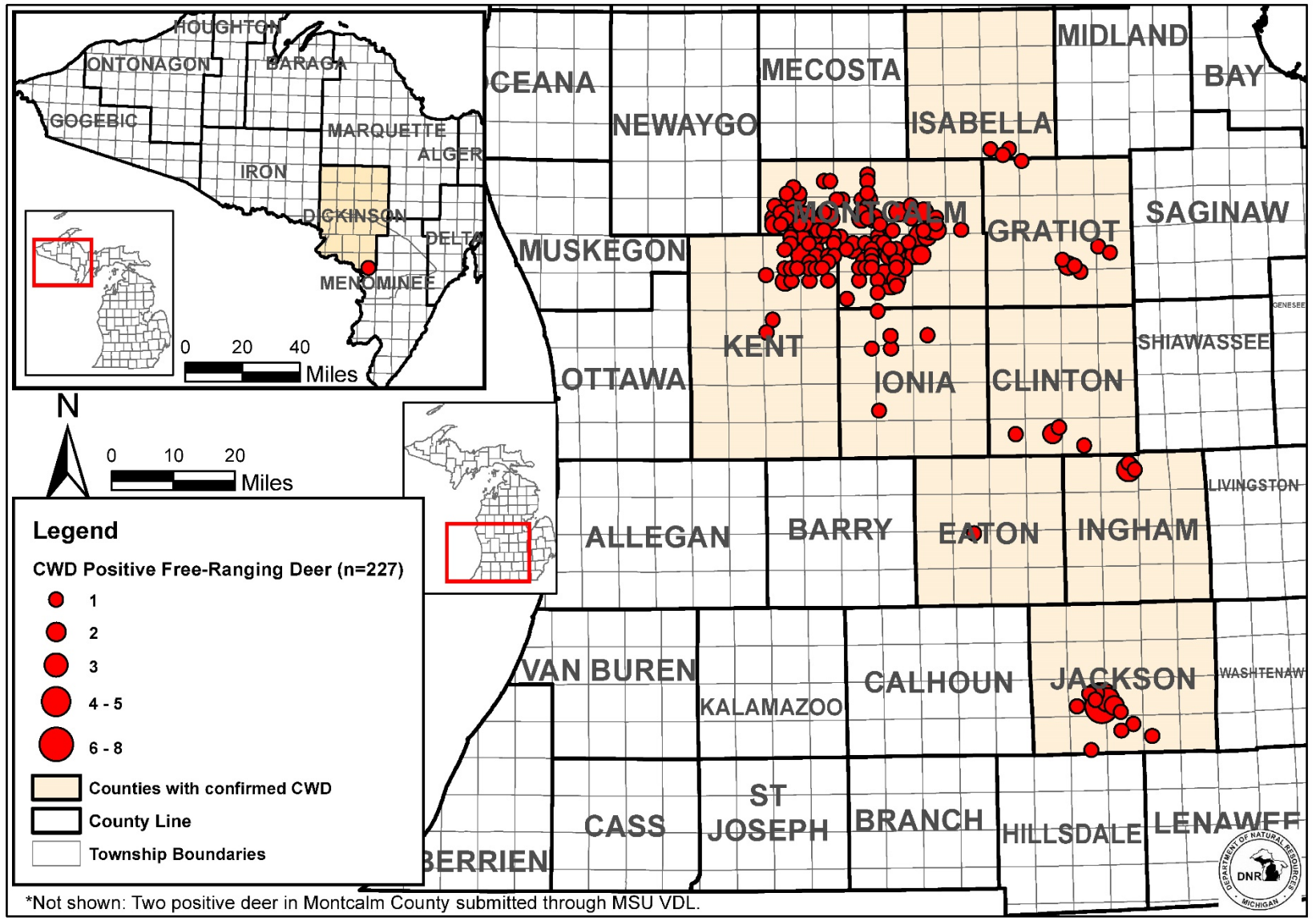

Distribution of Chronic Wasting Disease in North America
CWD in free-ranging populations
Known distribution prior to 2000 (free-ranging)
CWD in captive facilities (depopulated)
CWD in captive facilities (current)
All locations are approximations based on best-available information
USGS
science for a changing world
National Wildlife Health Center
Madison, Wisconsin
Updated March, 2022

Michigan Department of Natural Resources Wildlife Disease Laboratory



Free-ranging White-tailed Deer Positive for Chronic Wasting Disease (CWD)
Michigan

as of March 15, 2022



*Not shown: Two positive deer in Montcalm County submitted through MSU VDL.

March 15, 2022 (MC)

CWD Surveillance History

2012: 35 tested

2013: 46 tested

2014: 30 tested

2015: CWD DETECTED

2016: >7,000 tested

2017: >17,000 tested

2018: >30,000 tested

2019: >20,000 tested

2020: >2,000 tested

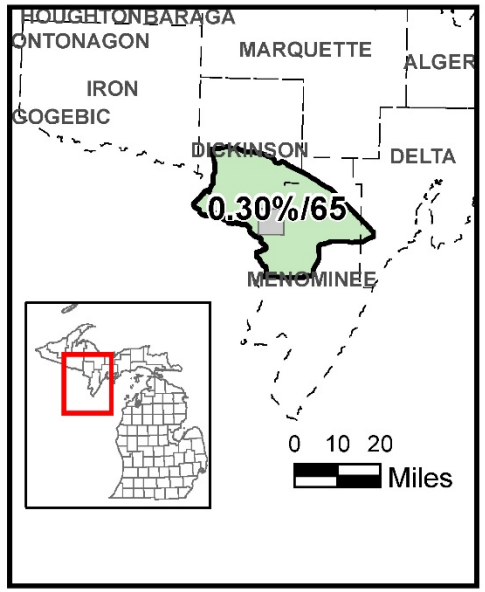
2021: >7,000 tested

- Continue to provide testing for hunters outside of current CWD surveillance areas by partnering with diagnostic labs for direct submission of samples by hunters.
- Use DNR resources to intensively survey areas with historically low testing.
- Review after each season to assess confidence in our ability to detect the disease if present.



Estimated Potential Undetected Chronic Wasting Disease (CWD) Prevalence/Positive Deer* in the CWD Surveillance Areas, Michigan

Based on 2008-2020 Testing

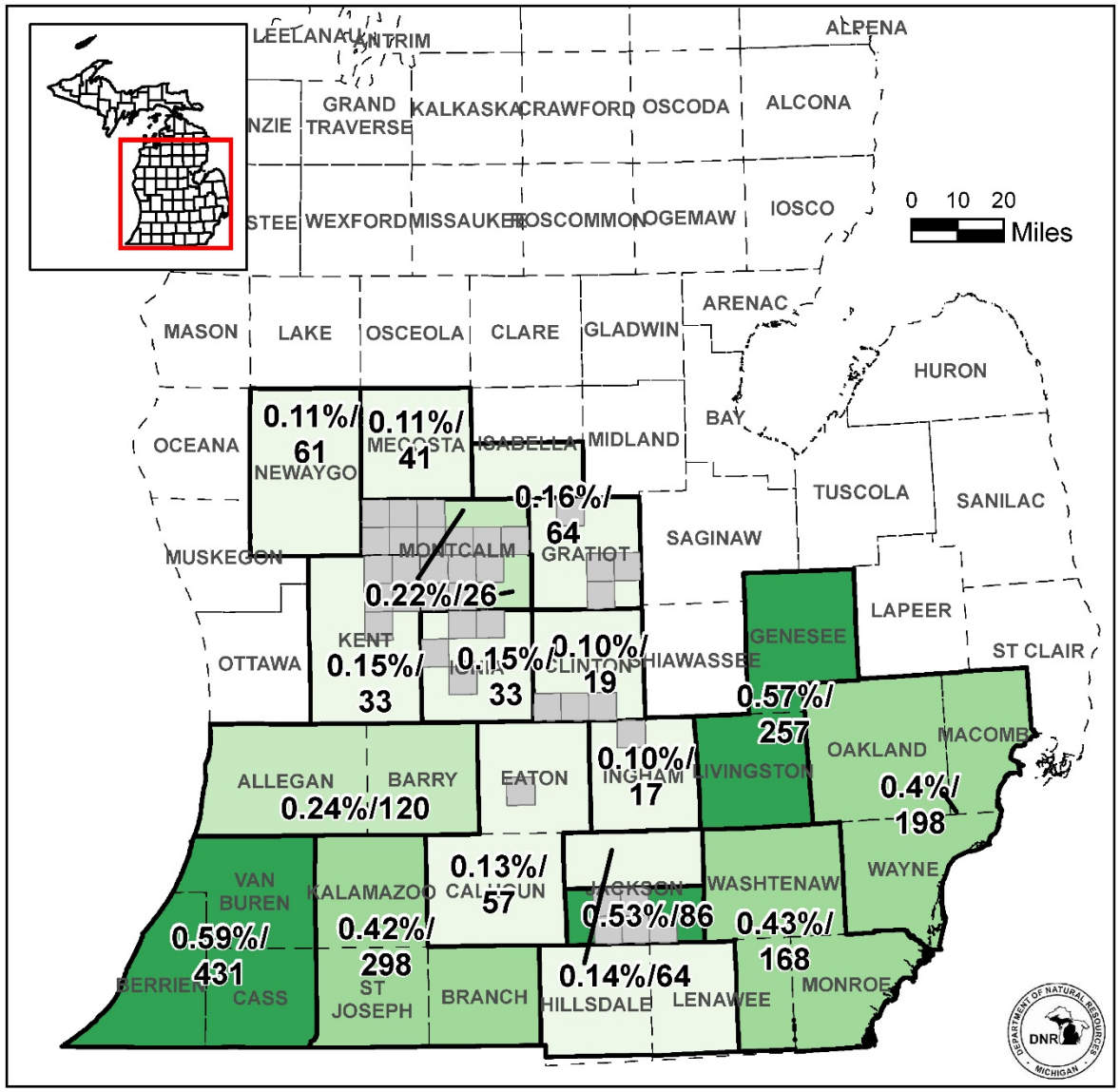


Legend

- CWD Positive Township
- 2020 CWD Surveillance Populations
- County Line

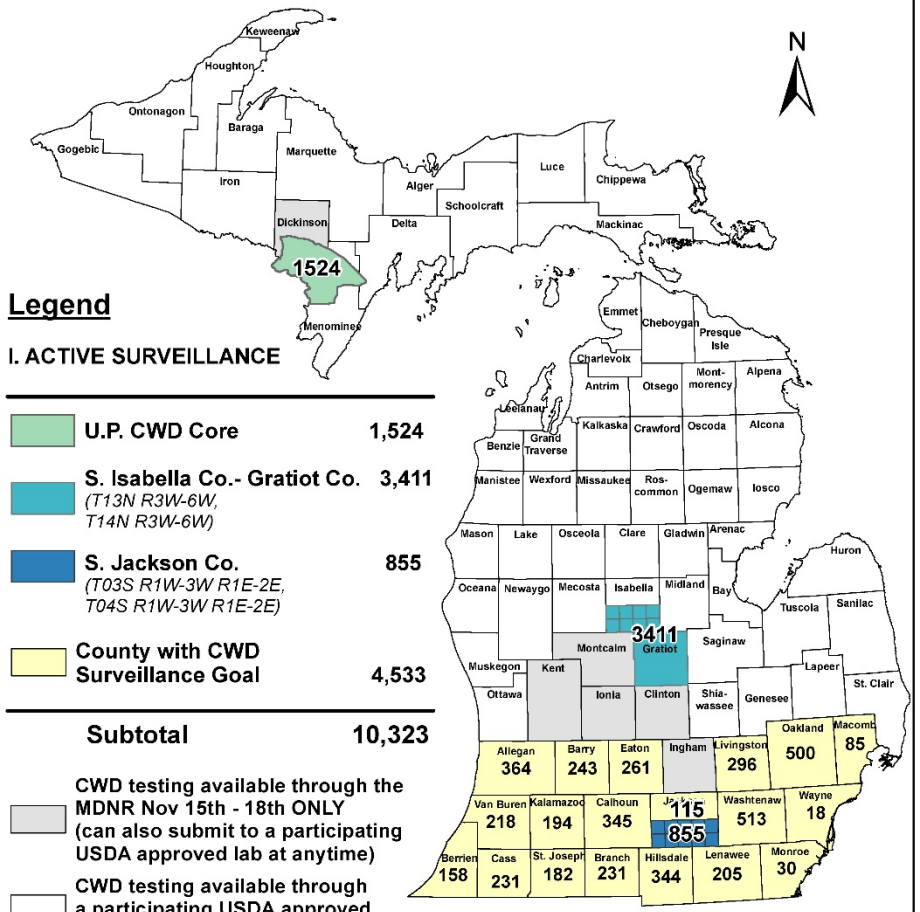
Numbers represent the upper 95% credibile limit for undetected prevalence and the corresponding maximum number of positive deer.

*To the extent that CWD is clustered on the landscape and/or the deer tested are not represenative of the underlying population, prevalence/number of positive deer could be higher.



May 27, 2021 (MC)

2021 Michigan Chronic Wasting Disease (CWD) Surveillance Plan for Free-ranging White-tailed Deer



Legend

I. ACTIVE SURVEILLANCE

U.P. CWD Core	1,524
S. Isabella Co.- Gratiot Co. *(T13N R3W-6W, T14N R3W-6W)*	3,411
S. Jackson Co. *(T03S R1W-3W R1E-2E, T04S R1W-3W R1E-2E)*	855
County with CWD Surveillance Goal	4,533
Subtotal	**10,323**

CWD testing available through the MDNR Nov 15th - 18th ONLY (can also submit to a participating USDA approved lab at anytime)

CWD testing available through a participating USDA approved lab only

II. TARGETED SURVEILLANCE

Carcasses from deer with CWD-like symptoms accepted statewide, year-round

All deer tested for CWD are also tested for bovine tuberculosis.

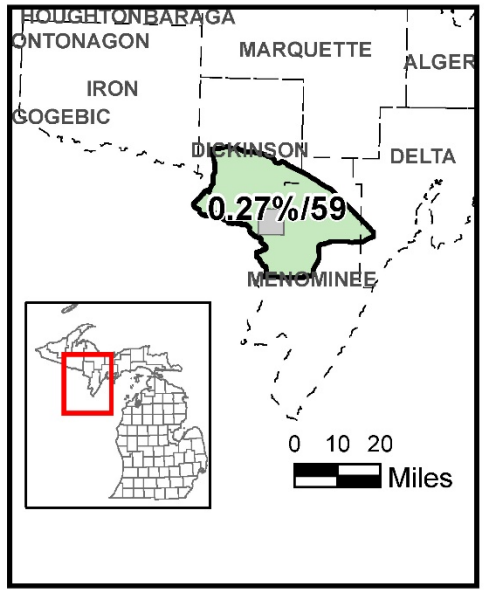
0 25 50 Miles

0 50 100 Kilometers

June 7, 2021 (MC)

Estimated Potential Undetected Chronic Wasting Disease (CWD) Prevalence/Positive Deer* in the CWD Surveillance Areas, Michigan

Based on 2008-2021 Testing



Legend

- CWD Positive Township
- 2020 CWD Surveillance Populations
- County Line

Numbers represent the upper 95% credibile limit for undetected prevalence and the corresponding maximum number of positive deer.

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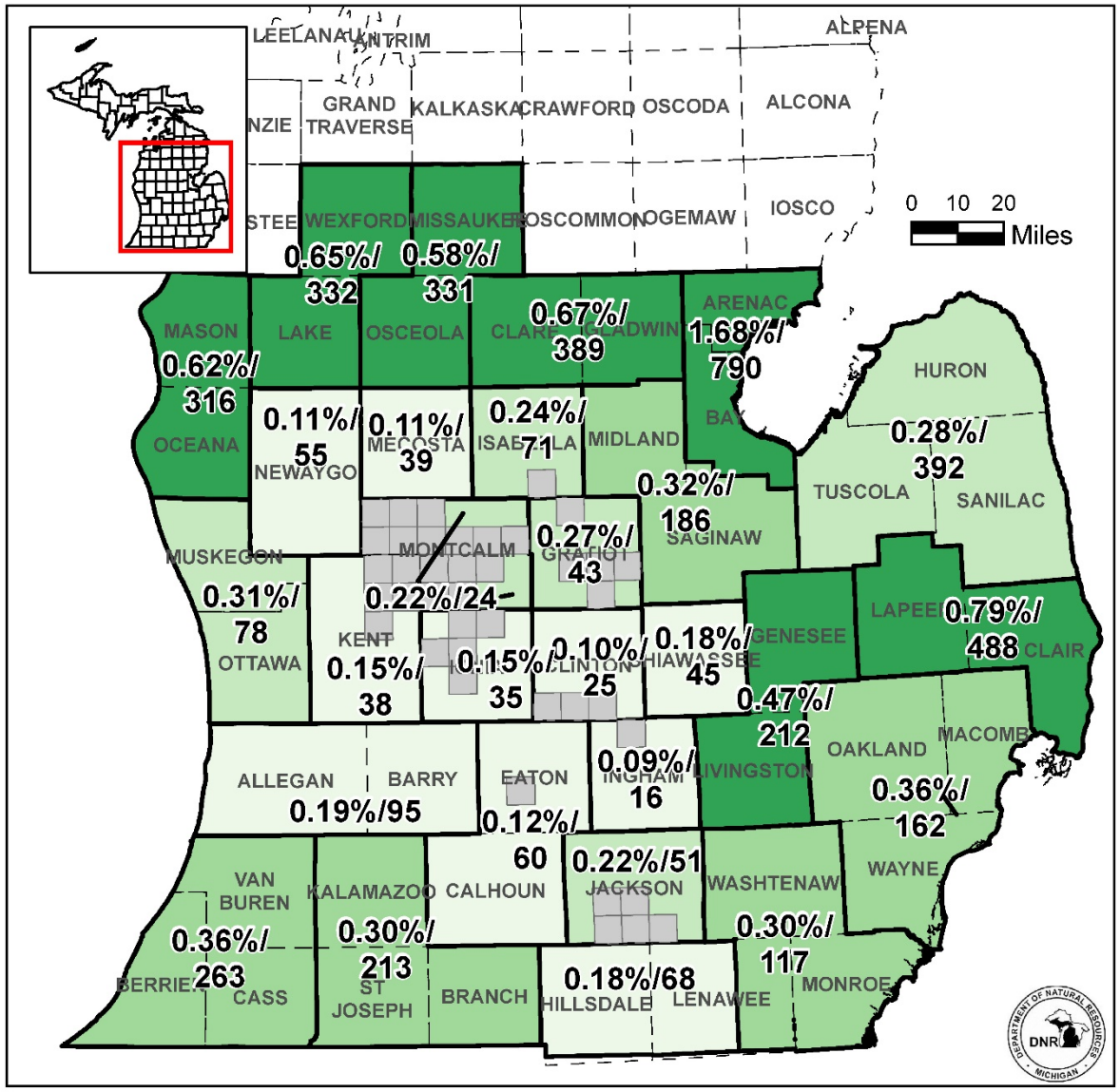
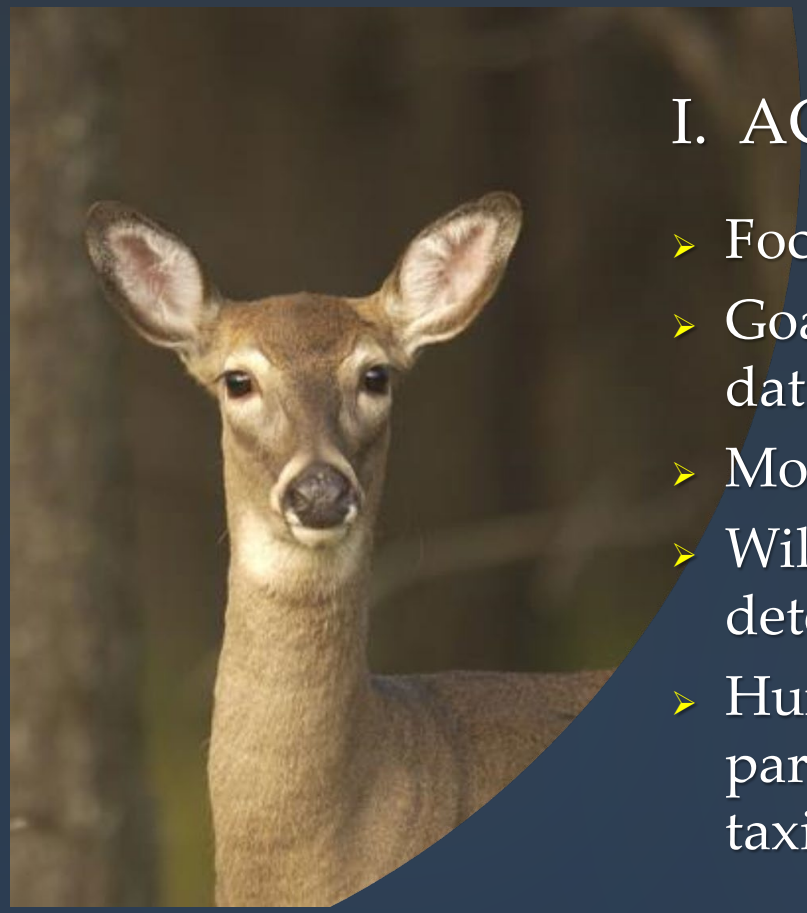


March 14, 2021 (MC)



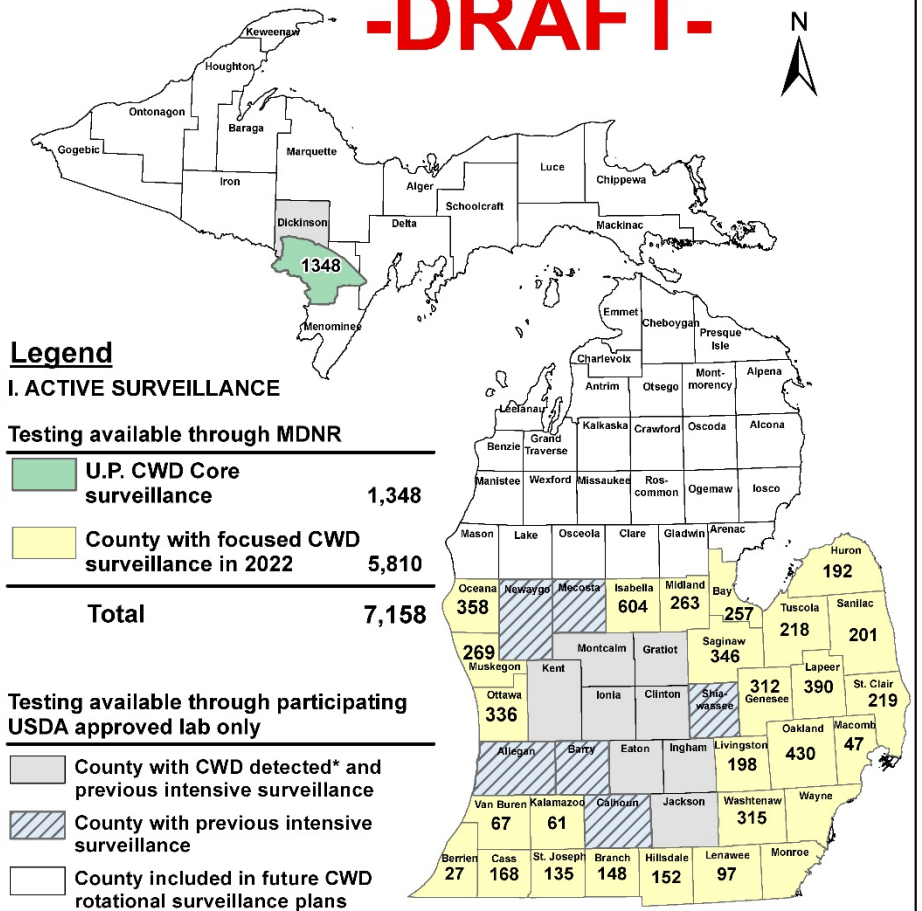
I. ACTIVE SURVEILLANCE

- Focus on Southern Lower Peninsula in year one
- Goals statistically modelled using best available data
- More intensive sampling in priority areas
- Will address gaps in historical surveillance-early detection
- Hunter support will continue through expanded partnerships with landowners, processors and taxidermists

II. Cervids with CWD-like symptoms accepted statewide, year round

2022 Michigan Chronic Wasting Disease (CWD) Surveillance Plan for Free-ranging White-tailed Deer

-DRAFT-



Legend

I. ACTIVE SURVEILLANCE

Testing available through MDNR

U.P. CWD Core surveillance	1,348
County with focused CWD surveillance in 2022	5,810
Total	**7,158**

Testing available through participating USDA approved lab only

- County with CWD detected* and previous intensive surveillance
- County with previous intensive surveillance
- County included in future CWD rotational surveillance plans

**CWD has also been detected in Isabella Co.*

II. TARGETED SURVEILLANCE

Carcasses from deer with CWD-like symptoms accepted statewide, year-round

All deer tested for CWD are also tested for bovine tuberculosis.

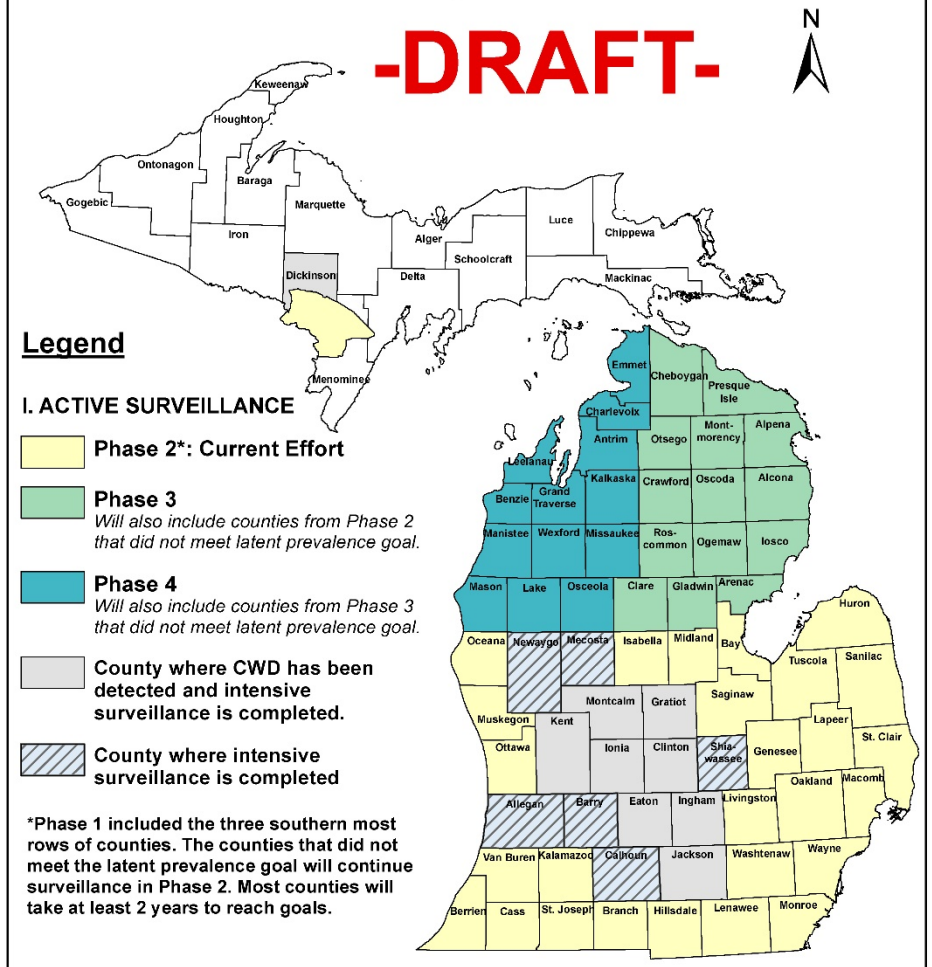
0 25 50 Miles

0 50 100 Kilometers

March 24, 2022 (MC)

Michigan Chronic Wasting Disease (CWD) Surveillance Plan for Free-ranging White-tailed Deer Conceptual Plan

-DRAFT-



Legend

I. ACTIVE SURVEILLANCE

Phase 2*: Current Effort

Phase 3
Will also include counties from Phase 2 that did not meet latent prevalence goal.

Phase 4
Will also include counties from Phase 3 that did not meet latent prevalence goal.

County where CWD has been detected and intensive surveillance is completed.

County where intensive surveillance is completed

***Phase 1 included the three southern most rows of counties. The counties that did not meet the latent prevalence goal will continue surveillance in Phase 2. Most counties will take at least 2 years to reach goals.**

II. TARGETED SURVEILLANCE

Carcasses from deer with CWD-like symptoms accepted statewide, year-round

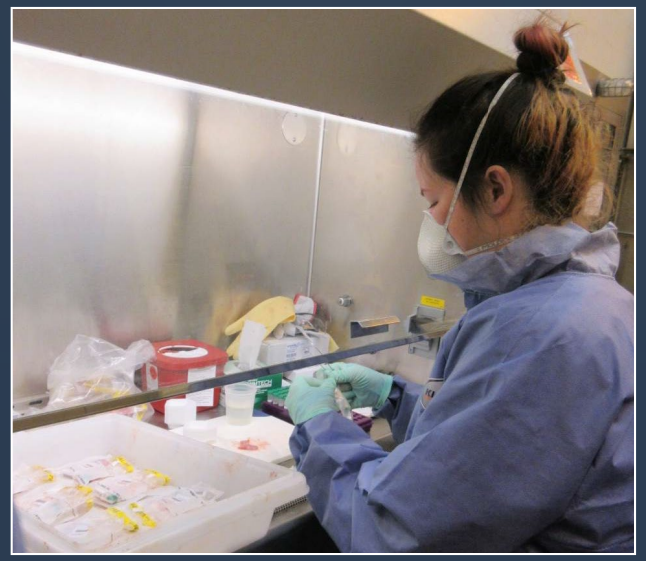
All deer tested for CWD are also tested for bovine tuberculosis.

0 25 50 Miles
0 50 100 Kilometers

March 22, 2021 (MC)

When it comes to CWD in 2021 and beyond, the goals of our surveillance are to:

1. Assess if disease is present in new areas (i.e. catch it early), and
2. Continue to support limited testing in core areas and continue to develop opportunities for hunter submissions to non-DNR labs
3. Determine appropriate frequency and effort needed for long-term monitoring



#1: Systematic, risk-based rotating surveillance

#2: Exploring partnerships with MSU VDL, MSUE, stakeholder groups

#3: Goal is to gather information to inform models developed by MSU, which inform how the disease moves on the landscape

Thank you!

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Overview of Deer Management in Michigan

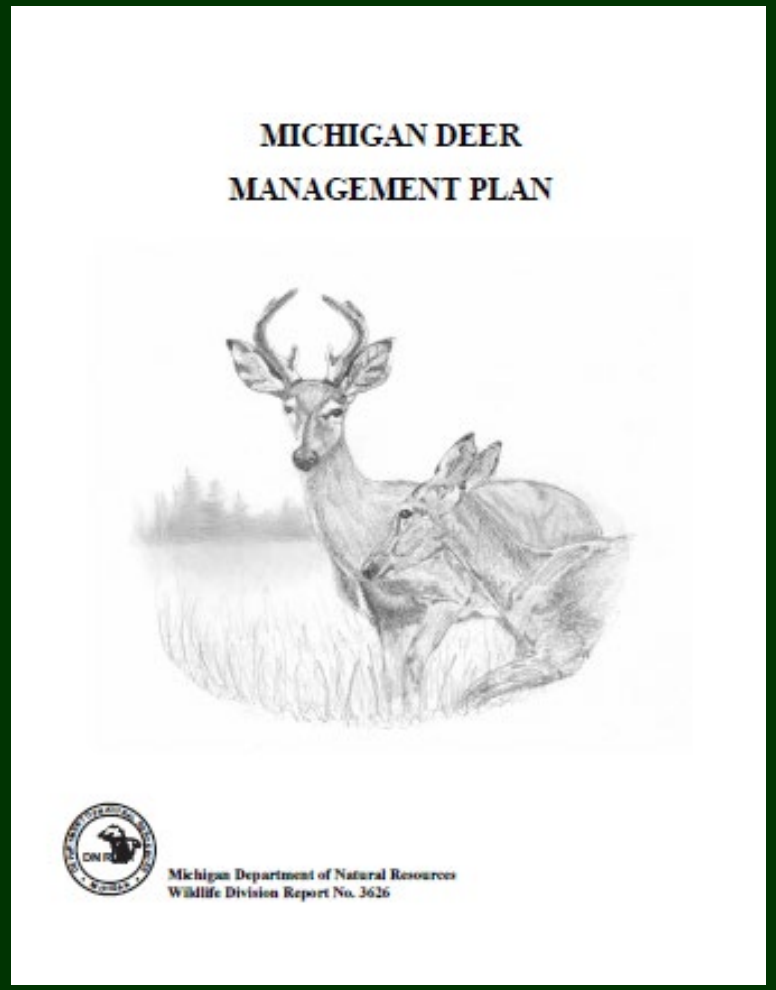
Chad Stewart, Deer Management Specialist
Wildlife Division
April 14, 2022

Overview

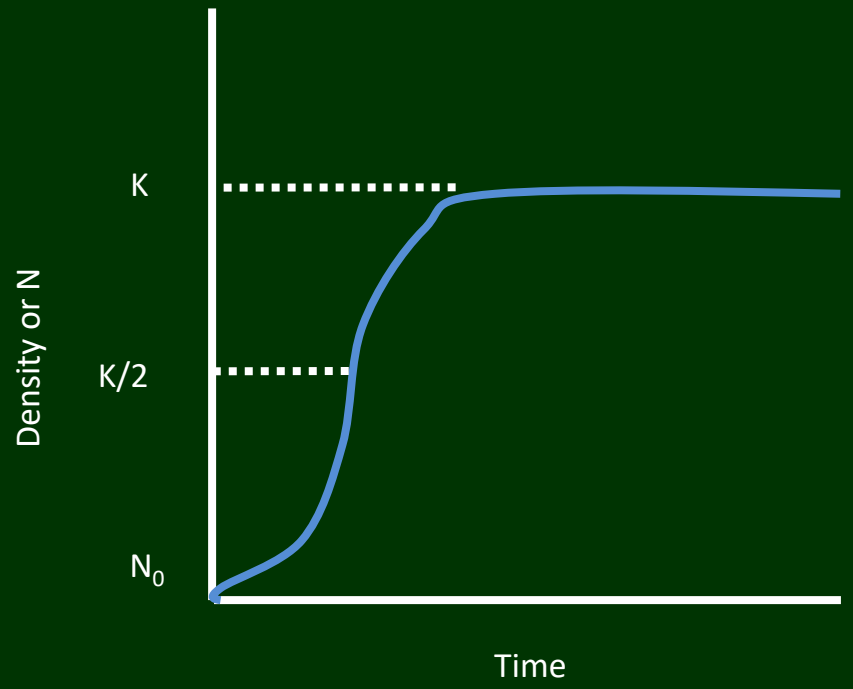
- Summary of deer biology and management in Michigan
- Management topics and their corresponding impacts
- Chronic Wasting Disease and baiting
- Deer research topics

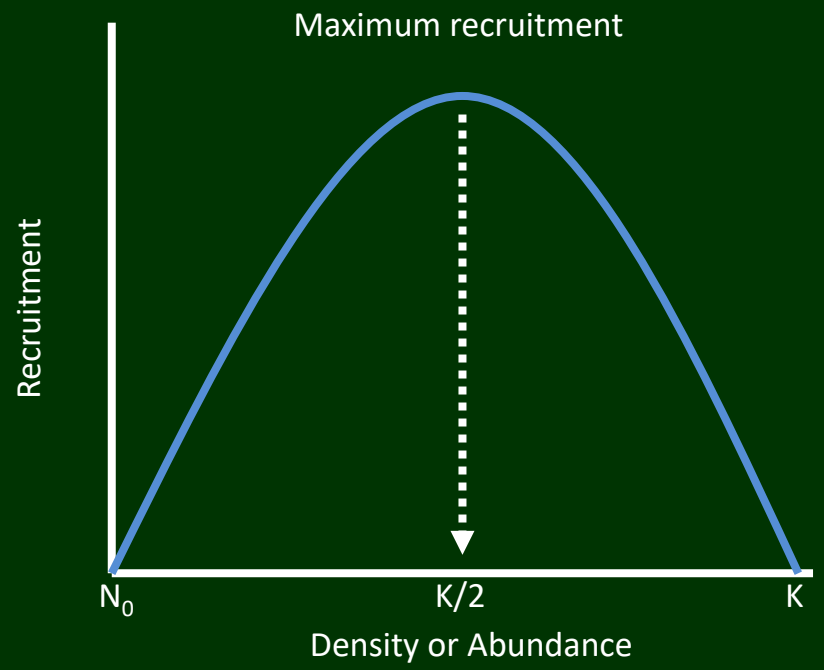
Deer Program Mission

- To maintain a healthy white-tailed deer population, using sound scientific management, maximizing recreational opportunities while minimizing negative impacts on ecosystems and other wildlife species and without creating undue hardship to private interests.

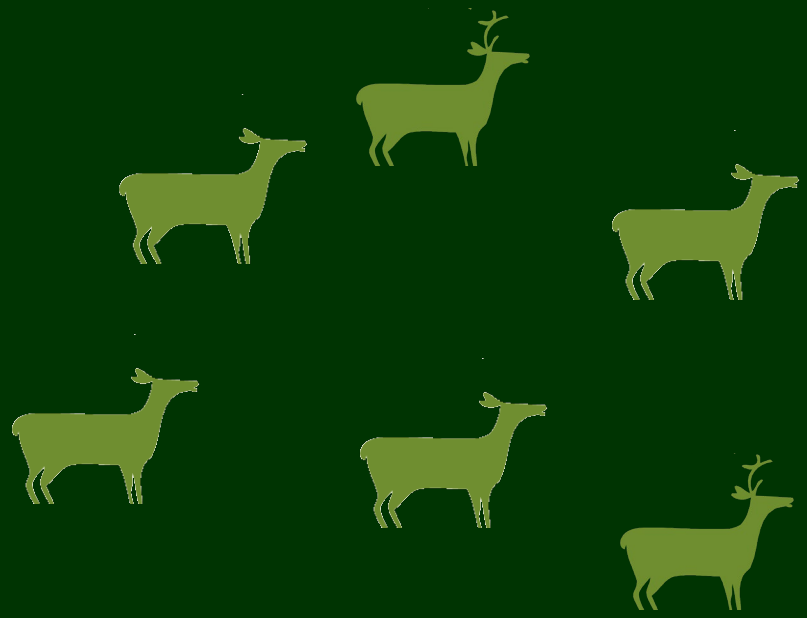


Deer Biology and Management

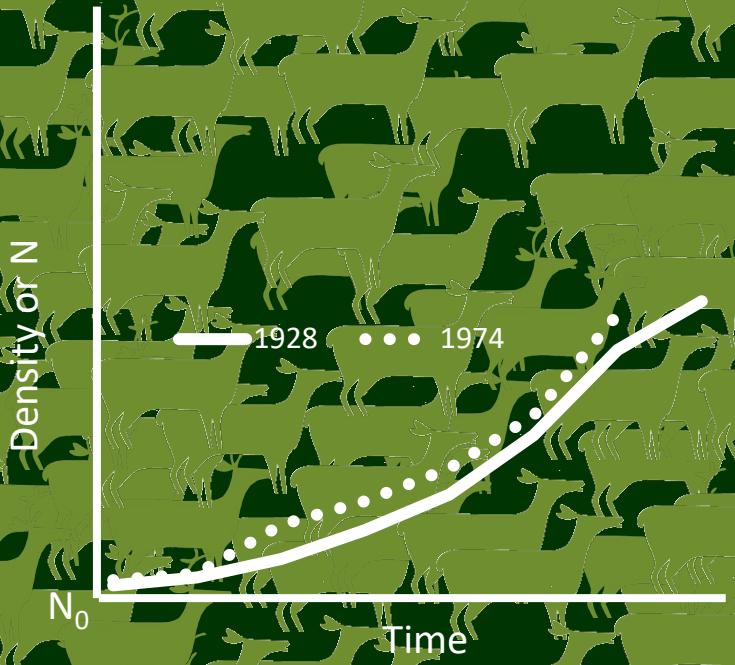




The George Reserve, Michigan: Year 1



The George Reserve, Michigan: Year 7



Deer Harvest (1963-2020)

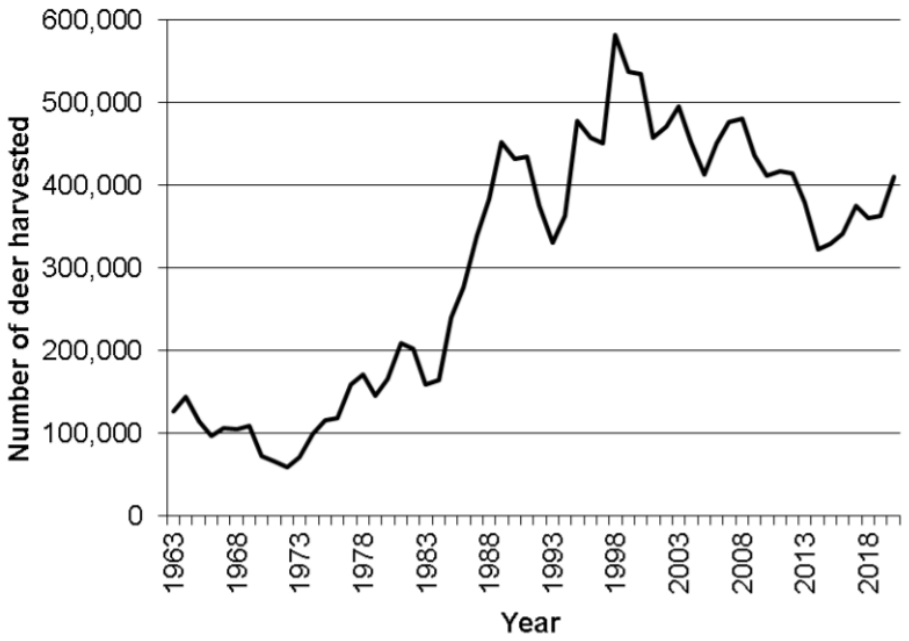


Figure 12. The number of deer harvested in Michigan's hunting seasons, 1963-2020. Harvest from all seasons and for all deer sexes was combined.

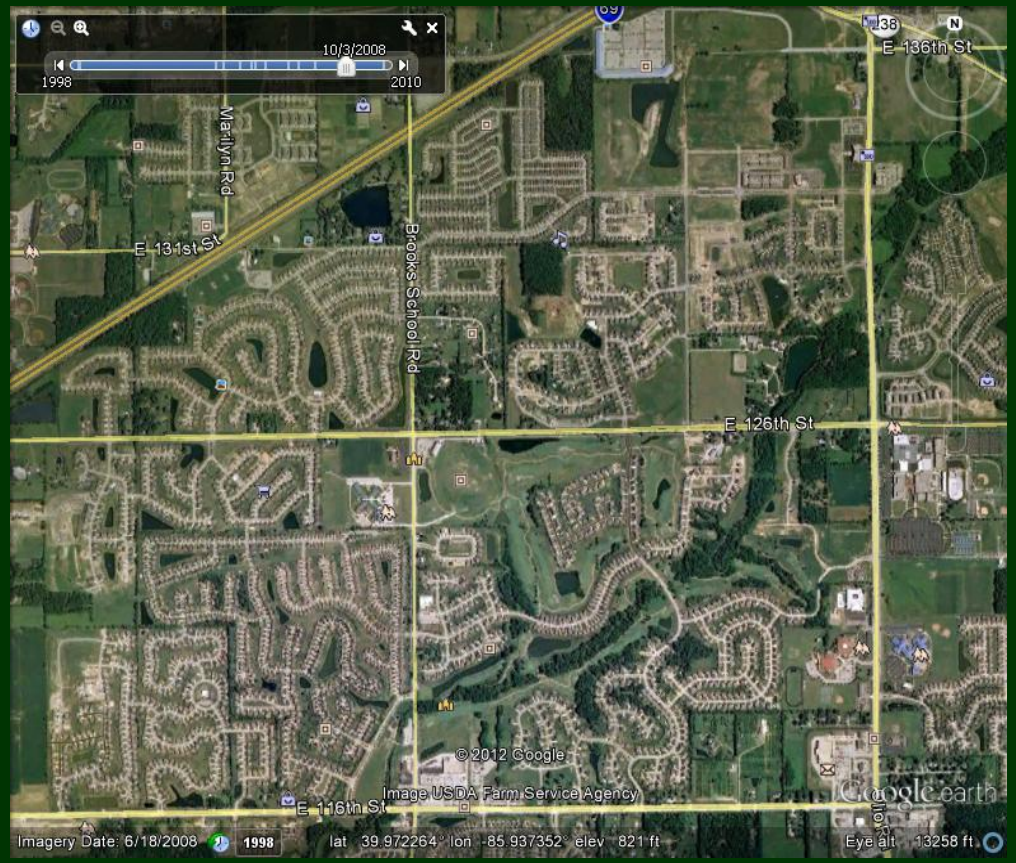
Buck Harvest by Region (Avg. 2016-2020)

UP: 25,971

NLP: 72,465

SLP: 114,412

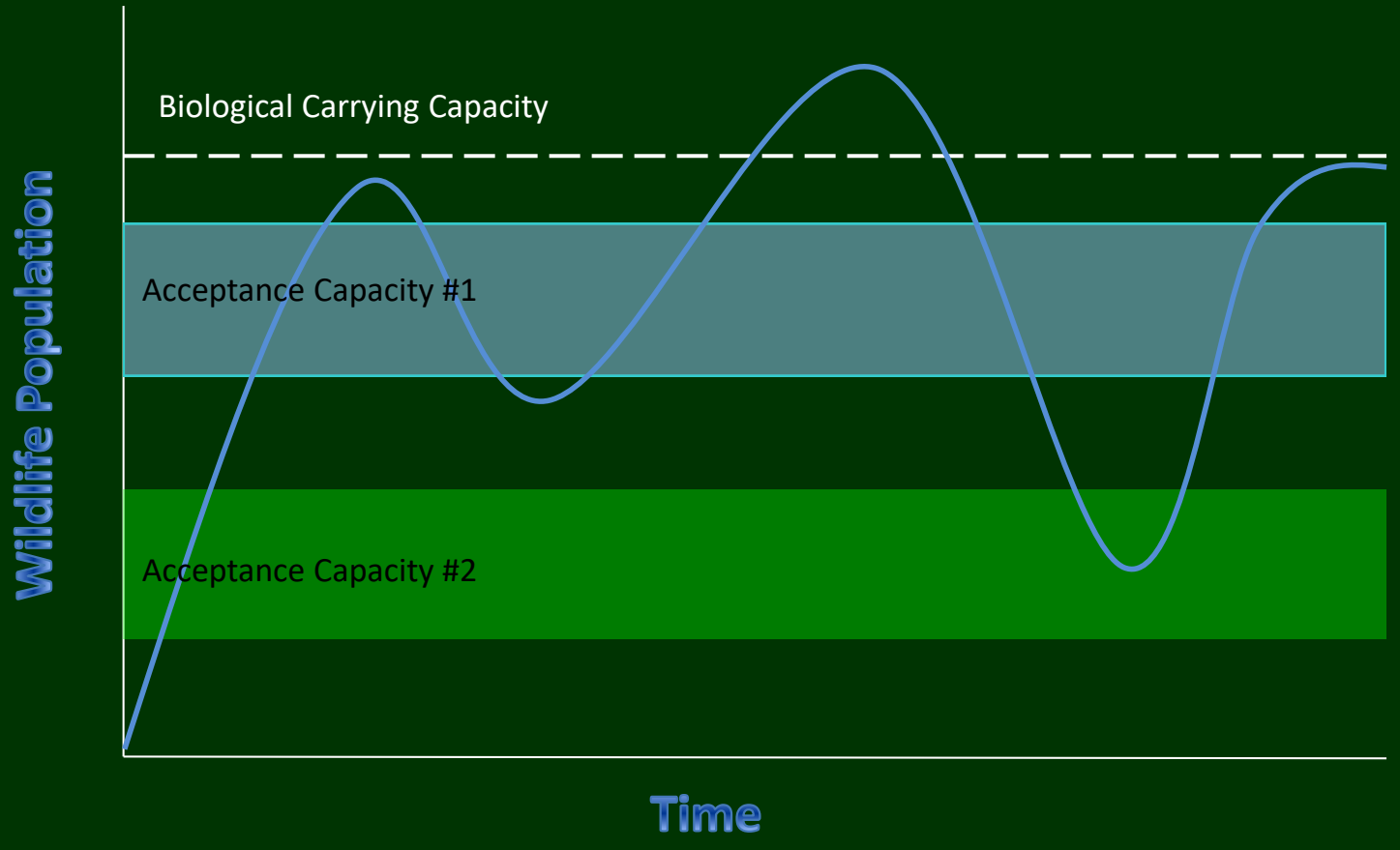
Changes on the landscape



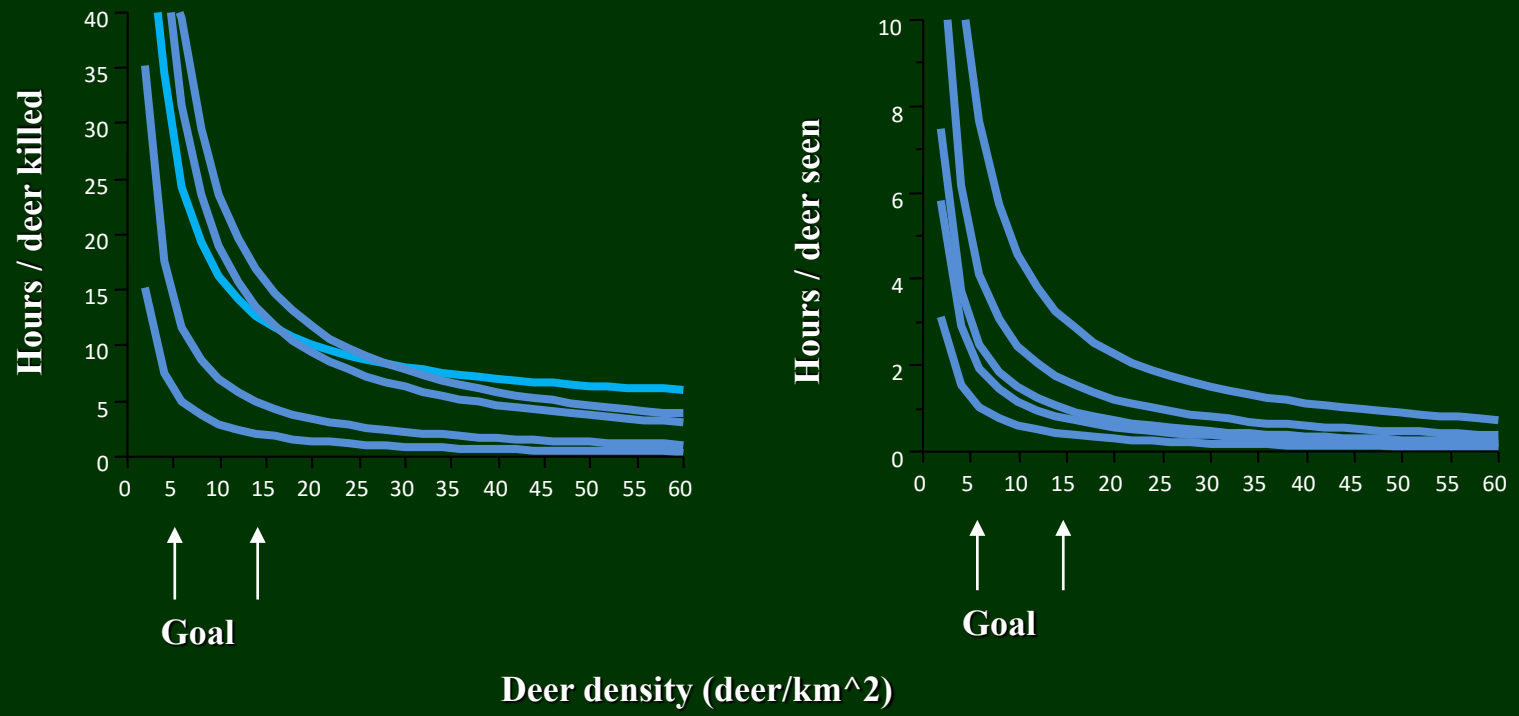
1999

2008

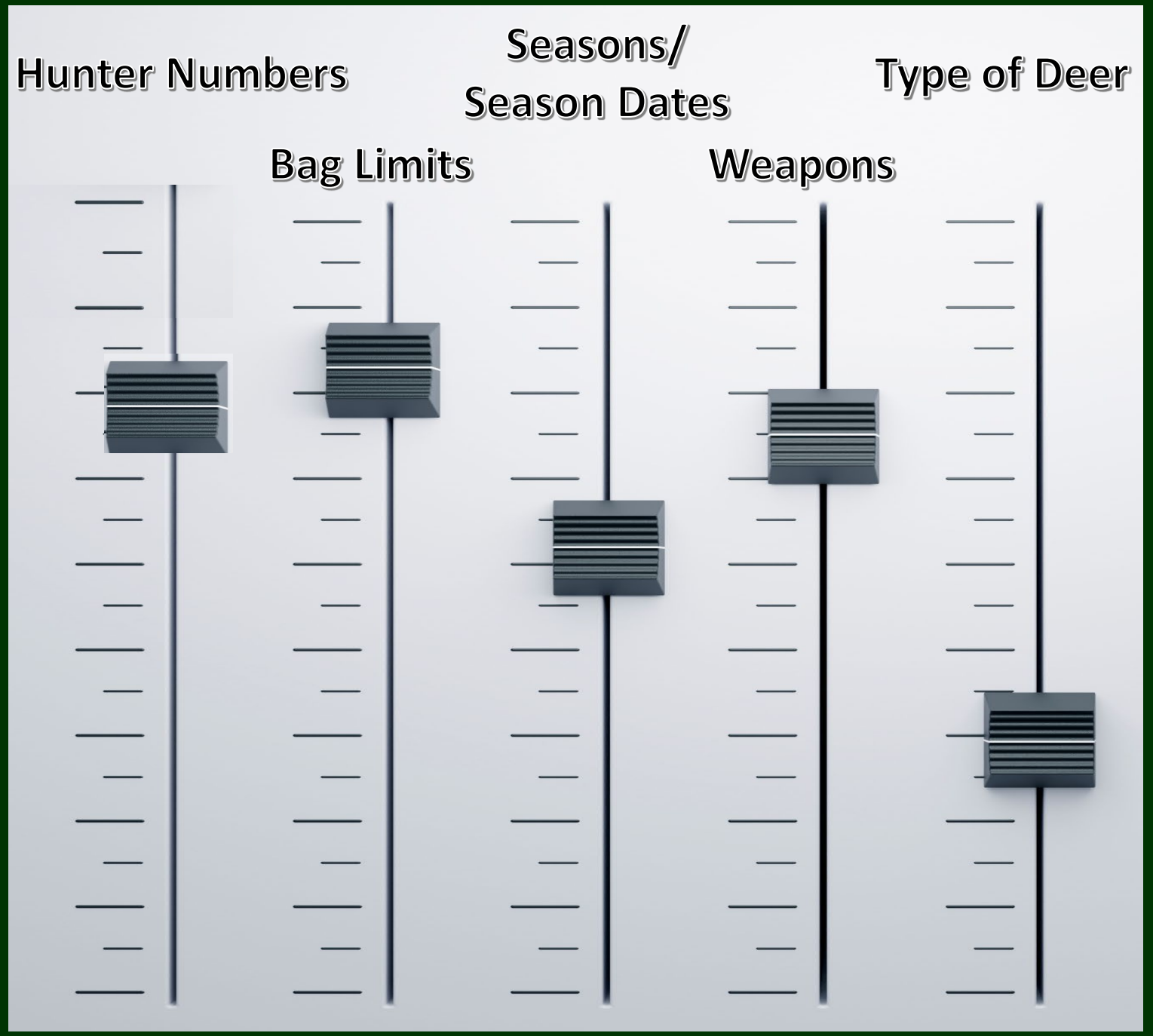
Measures of Capacity for Wildlife Populations

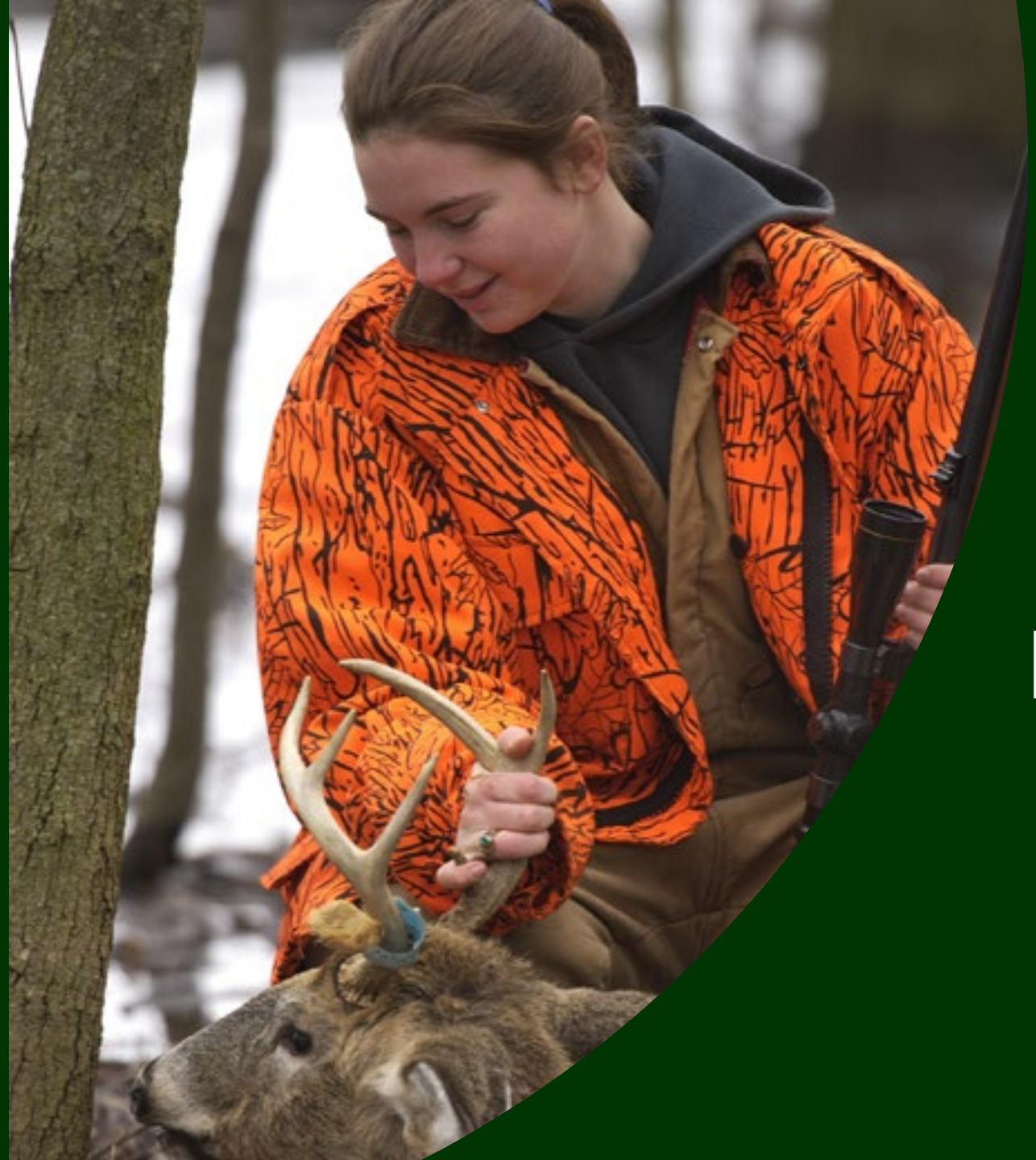


Hunter Behavior with Deer Density



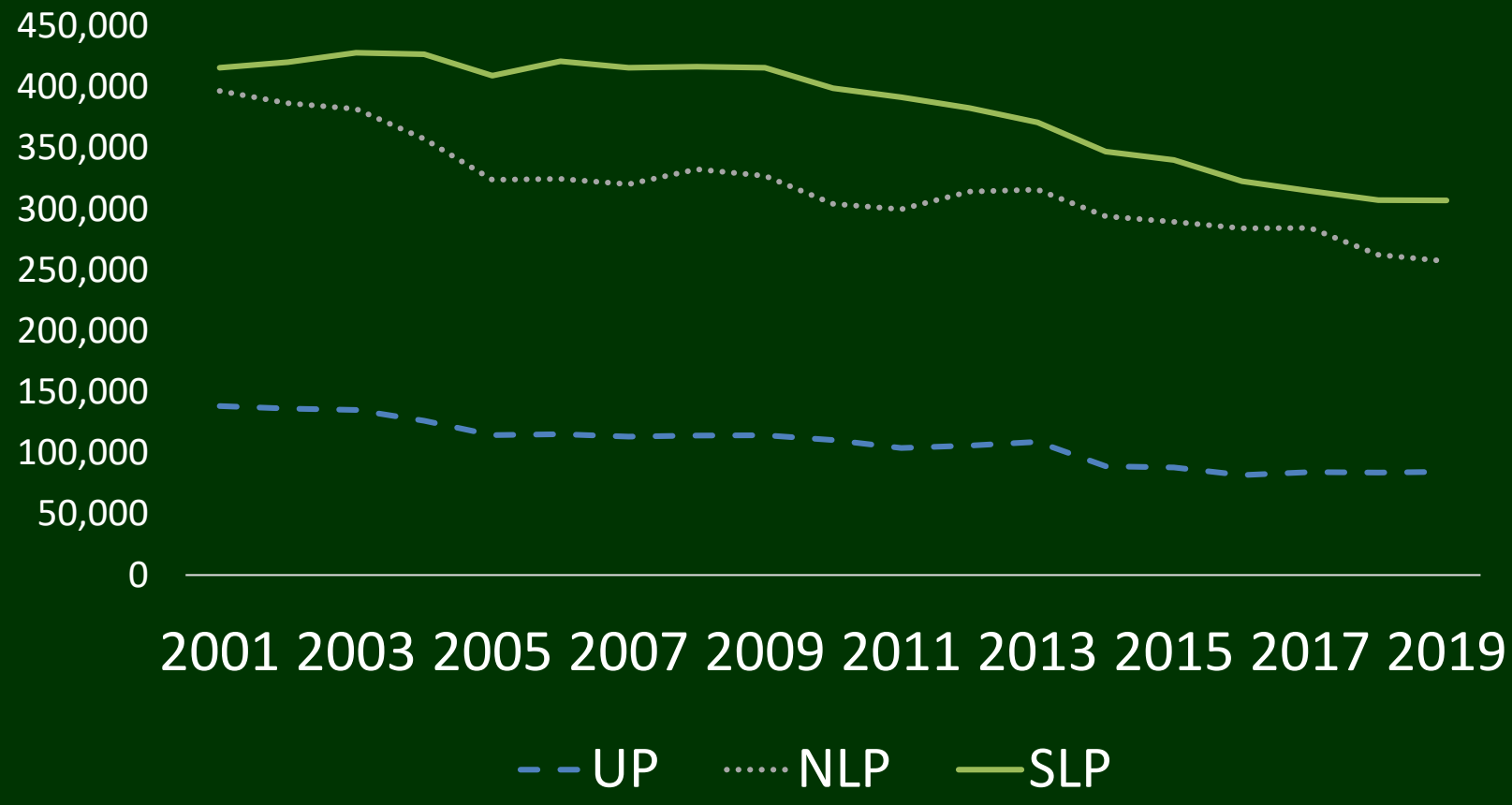
Van Deelen, T. R. and D. R. Etter, 2003. Effort and the functional response of deer hunters. *Human Dimensions of Wildlife.*


Hunter Numbers
Seasons/
Season Dates
Type of Deer
Bag Limits
Weapons



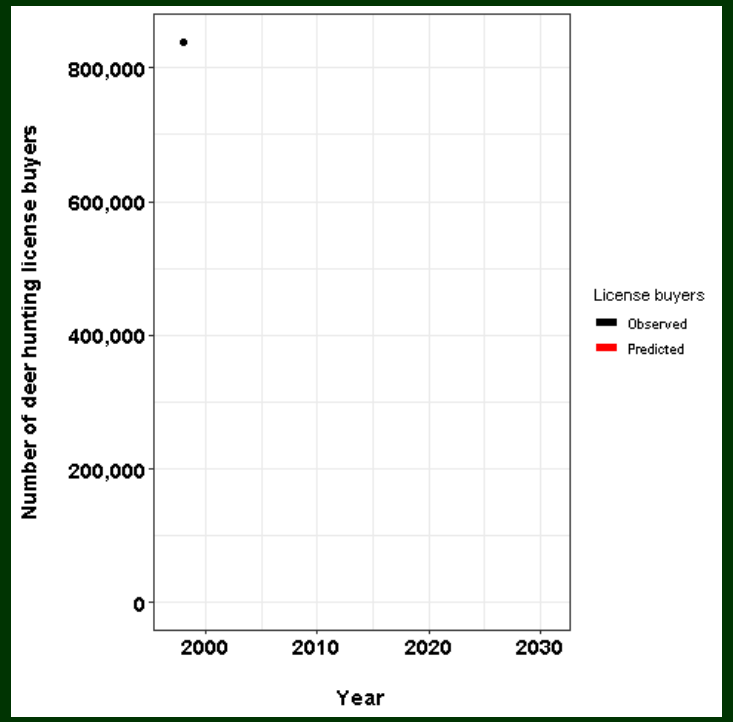
Hunter Numbers

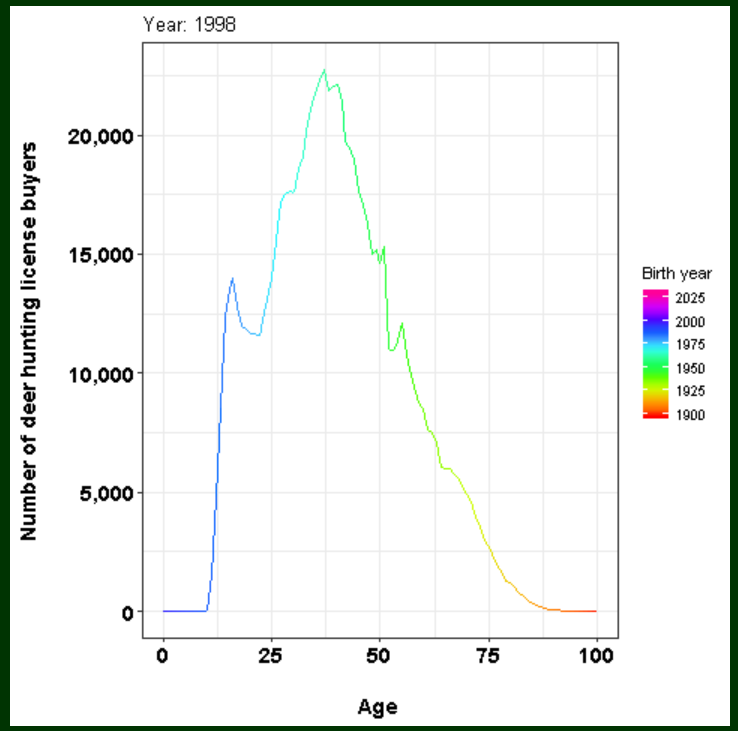
Hunter Numbers by Region (2001-2019)



Since 2001: UP down 39% NLP down 35% SLP down 26%

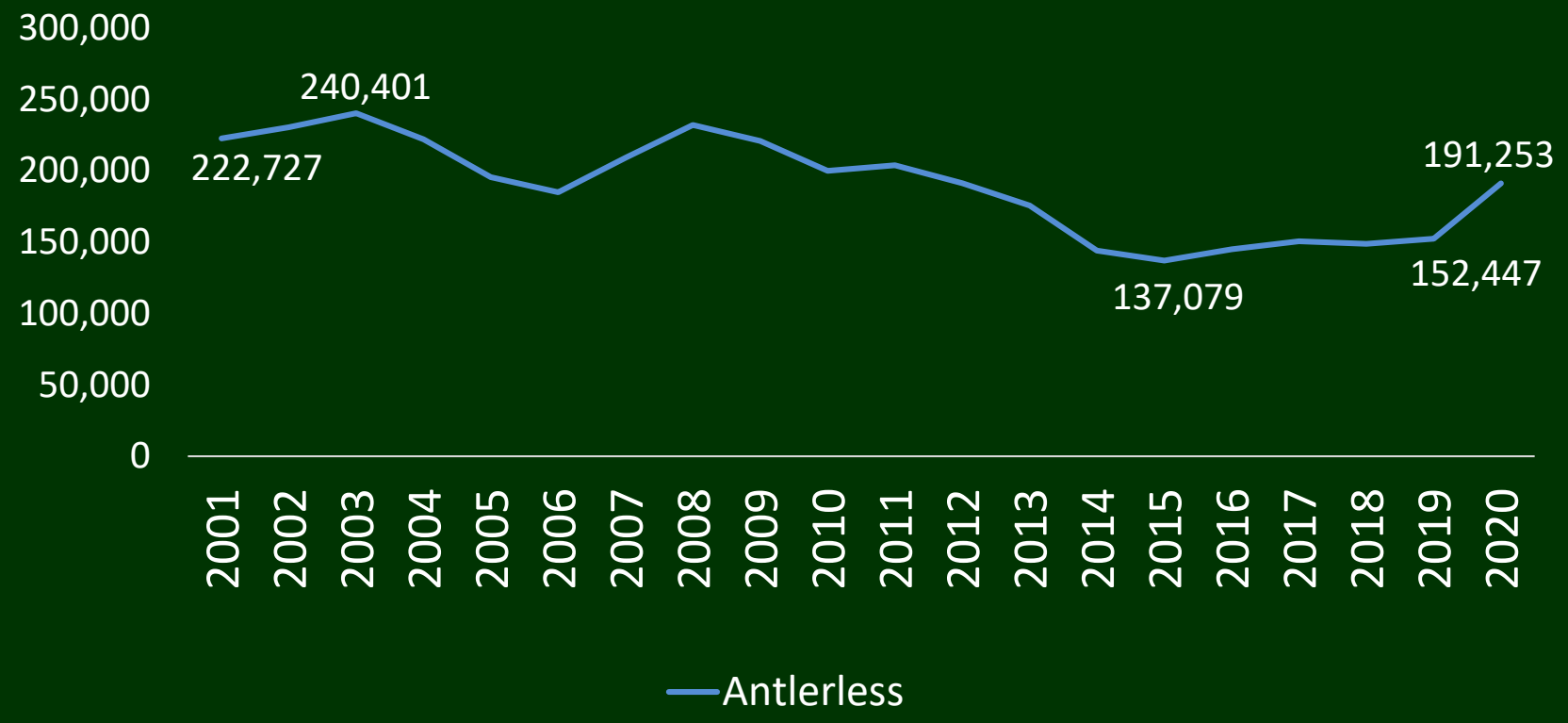
Future Hunter Numbers



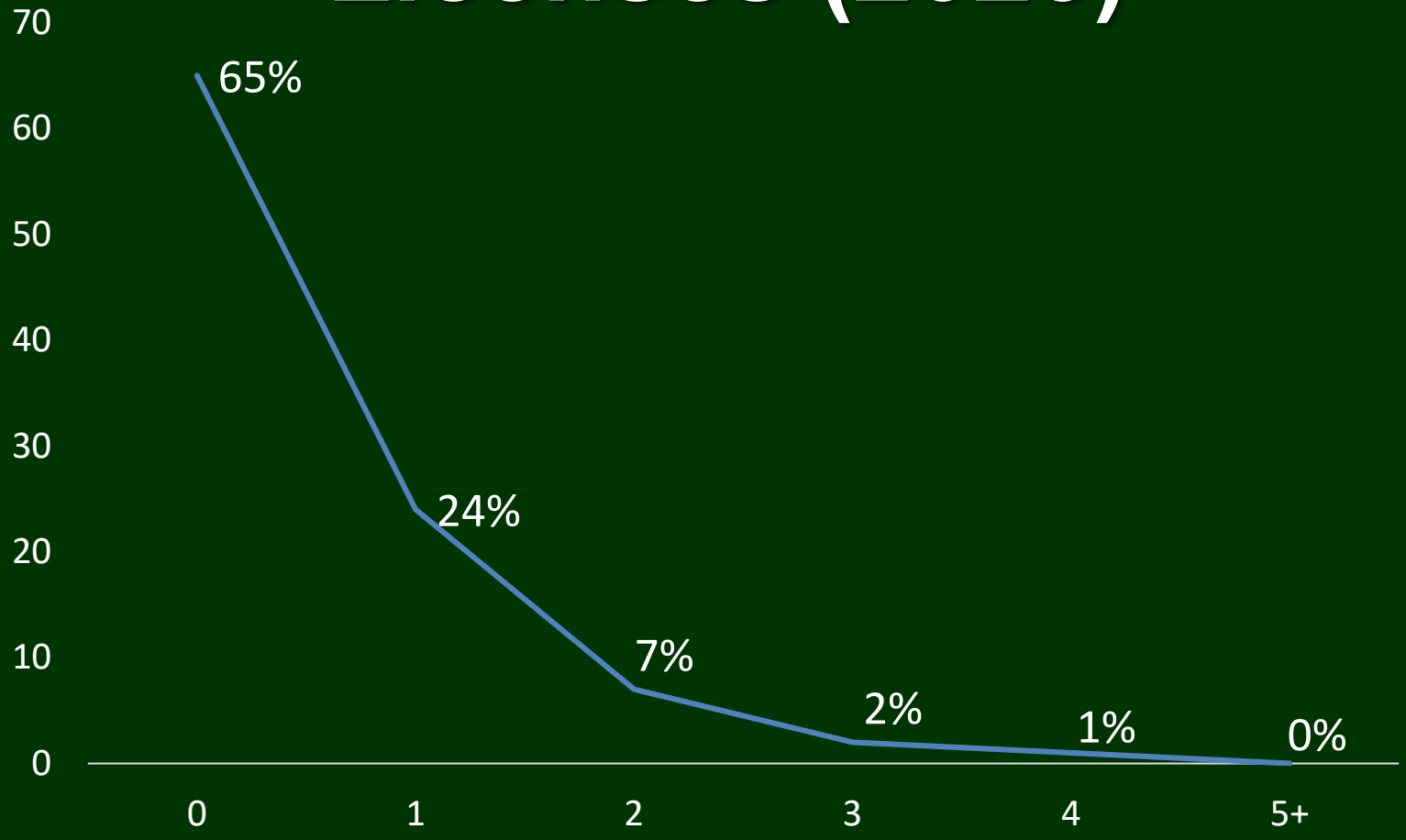


Bag Limits

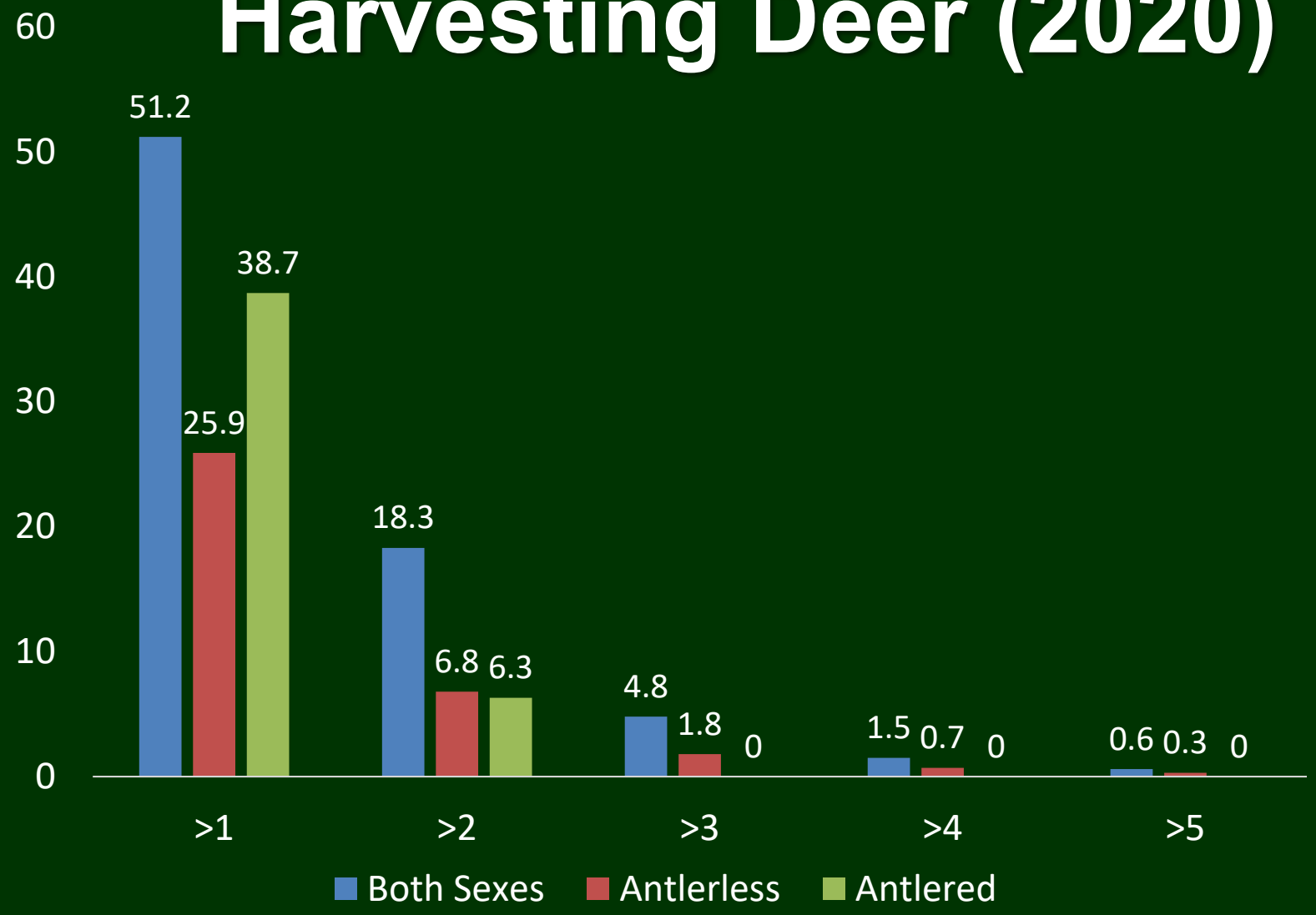
Antlerless Harvest Trends 2001-2020



Percentage of License Buyers Purchasing Antlerless Licenses (2020)



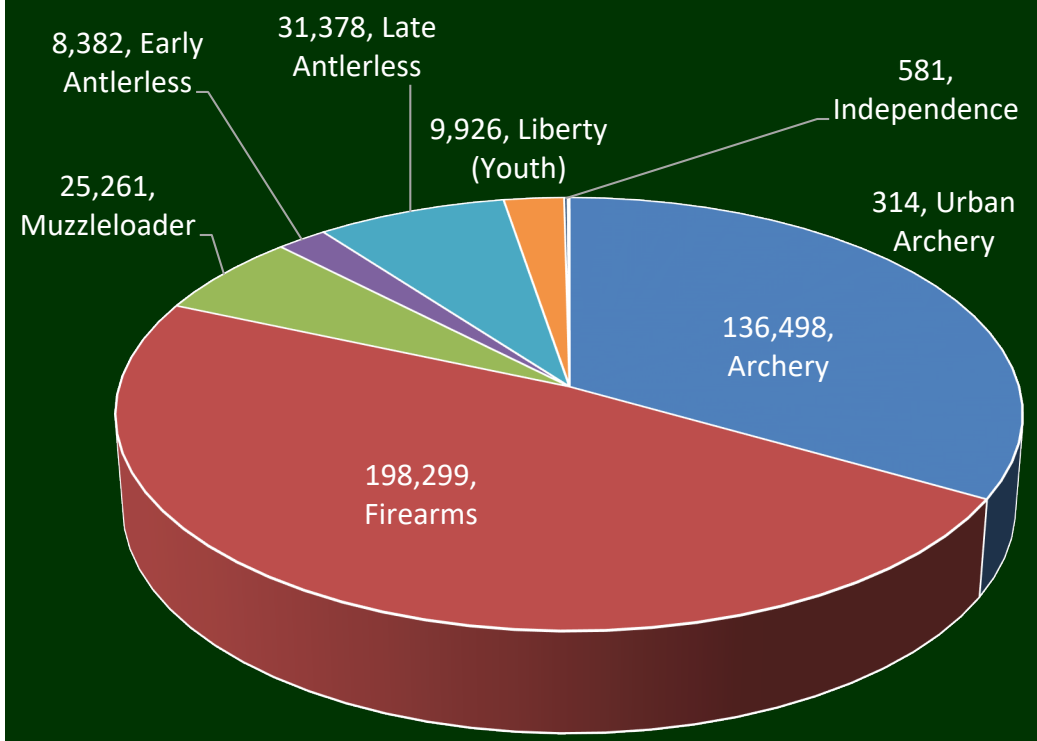
Percentage of Hunters Harvesting Deer (2020)



Seasons/ Season Dates

White-tailed Deer Hunting Season Dates

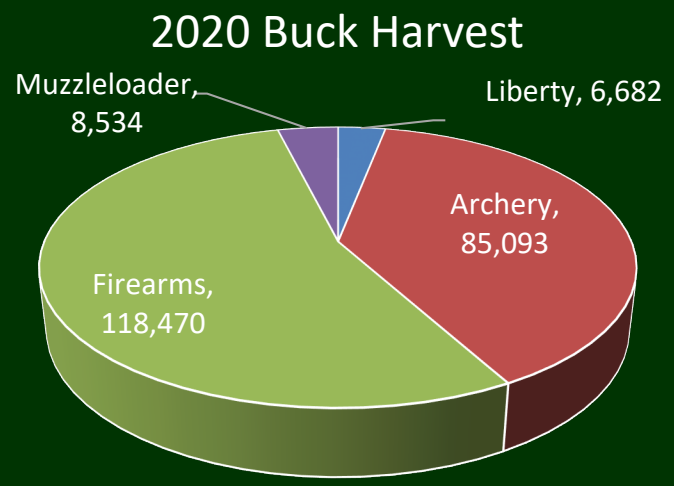
Deer Seasons	Bag Limit	Area	Season Dates (dates listed may be hunted)	Notes
Deer - Liberty Hunt	1 per hunter	See pages 37 and 43.	Sept. 11-12	See Youth (page 37) and Hunters with Disabilities, (page 43).
Deer - Early Antlerless Firearm	1 per kill tag	See page 52 for open DMUs	Sept. 18-19	Open on private lands only.
Deer - Independence Hunt	1 per hunter	See page 44	Oct. 14-17	See Hunters with Disabilities, page 44.
Deer - Archery	1 per kill tag	Statewide	Oct. 1 – Nov. 14 and Dec.1 – Jan. 1	See Lower Peninsula, pages 53-55, and Upper Peninsula, pages 58-59, for antler point restriction regulations. For counties with an extended archery season, see page 53.
Deer - Regular Firearm	1 per kill tag	Statewide	Nov. 15-30	See Lower Peninsula, page 53-55, and Upper Peninsula, page 58-59, for antler point restriction regulations.
Deer - Muzzleloader	1 per kill tag	Statewide	Dec. 3-12	See Lower Peninsula, page 53-55, and Upper Peninsula, page 58-59, for antler point restriction regulations.
Deer - Late Antlerless Firearm	1 per kill tag	See page 52 for open DMUs	Dec. 13 – Jan. 1	Open on private lands only.



Liberty/Youth Hunt

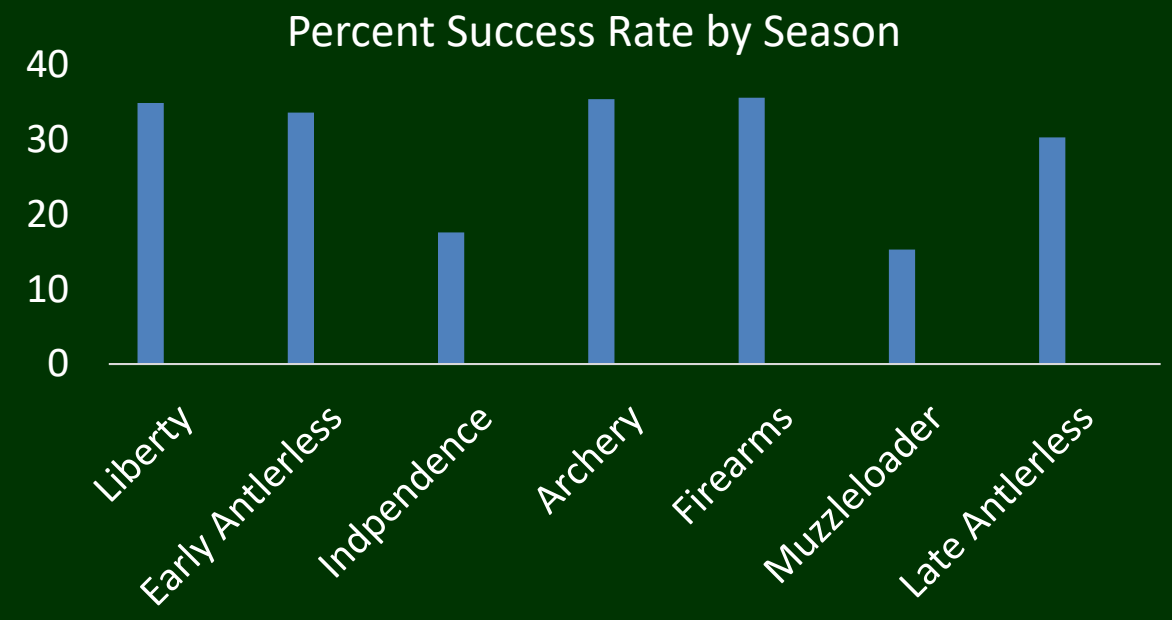
Yearling buck harvest percentage by season (2017-2019)

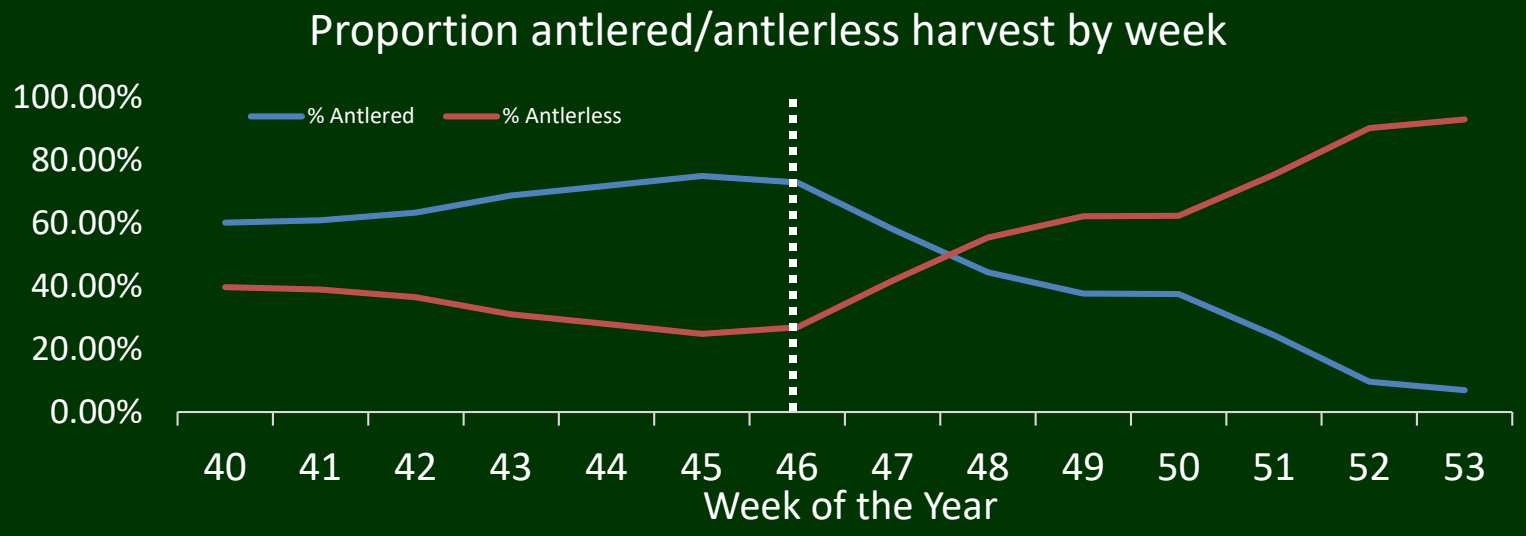
Season	2017	2018	2019
Liberty	56.7%	57.3%	43.2%
Archery	42.5%	38.6%	33.4%
Firearms	41.1%	31.9%	28.6%
Muzzleloader	42.8%	39.5%	42.2%



Liberty Hunt: 1 antlered deer for every ~14 square miles in Michigan

Weapons


Percent Success Rate by Season
40
30
20
10
0
Liberty
Early Antlerless
Indpendence
Archery
Firearms
Muzzleloader
Late Antlerless


Proportion antlered/antlerless harvest by week
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
% Antlered
% Antlerless
40
41
42
43
44
45
46
47
48
49
50
51
52
53
Week of the Year

Type of Deer

One Buck Rule

- Michigan-historically ~4-6% of hunters report harvesting a second buck

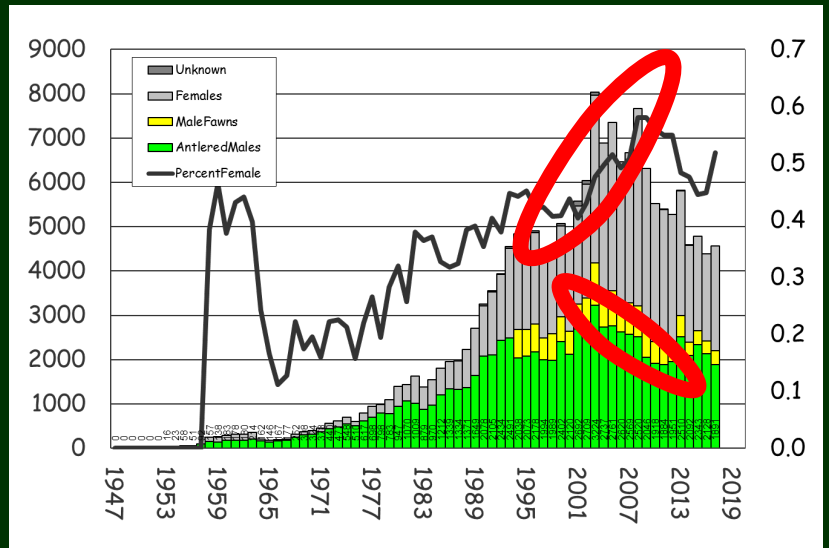
- Indiana
  - Transition from 2 bucks to 1 buck (2002)
  - 2 bucks split by season
    - 1 archery
    - 1 firearms/muzzleloader
  - Minimal impact on antlered harvest
  - Unknown impact on antlerless harvest given other variables

Table 5. Sex and age structure of the Indiana deer harvest between 1987-2013, as determined from check stations and online registration.

	Adults		Fawns		
Year	Males (%)	Females (%)	Males (%)	Females (%)	Total
1999	46,371 (46)	30,474 (31)	11,645 (12)	11,129 (11)*	99,618
2000	44,621 (45)	31,986 (32)	11,072 (11)	11,046 (11)*	98,725
2001	48,357 (47)	31,806 (31)	11,230 (11)	11,770 (11)*	103,163
2002	**47,177 (45)**	**35,357 (34)**	**11,291 (11)**	**10,603 (10)***	**104,428**
2003	49,533 (46)	36,303 (34)	10,262 (10)	10,887 (10)*	106,986
2004	54,743 (44)	41,749 (34)	12,501 (10)	14,065 (11)*	123,058
2005	52,488 (42)	44,286 (35)	13,030 (10)	15,722 (13)*	125,526
2006	49,097 (39)	45,257 (36)	13,688 (11)	17,339 (14)*	125,381
2007	49,375 (40)	44,514 (36)	13,313 (11)	17,225 (14)*	124,427

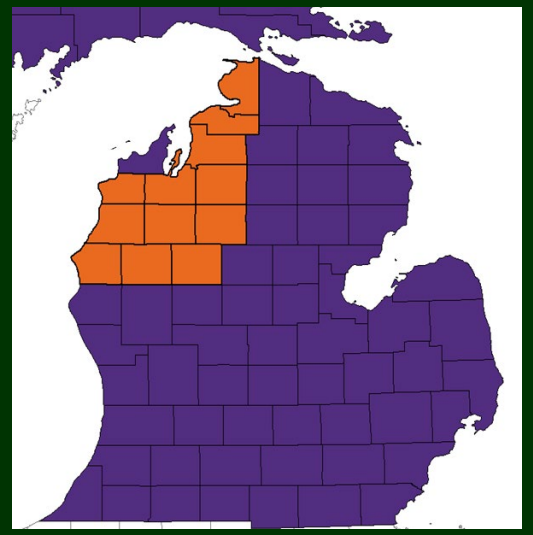
Earn-A-Buck

- Wisconsin (Earn A Buck)
  - Adopted in 1996 for ag. damage; discontinued
  - Adopted in 2003 as part of CWD response
  - Wisconsin Act 50 (2011) prohibited Earn-A-Buck from future implementation
- Virginia (Earn A Second Buck)



Fauquier County Deer Kill

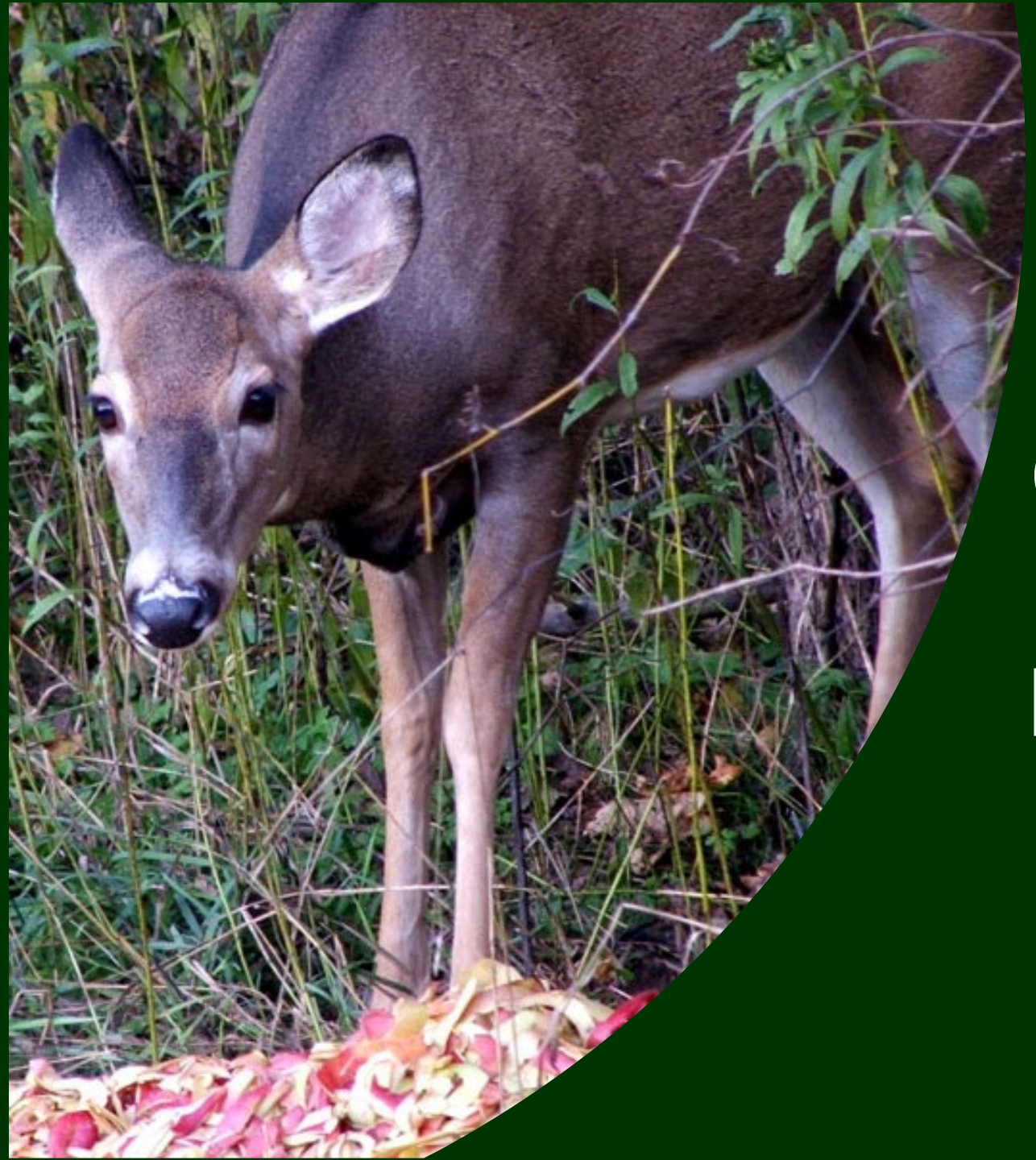
Antler Point Restrictions



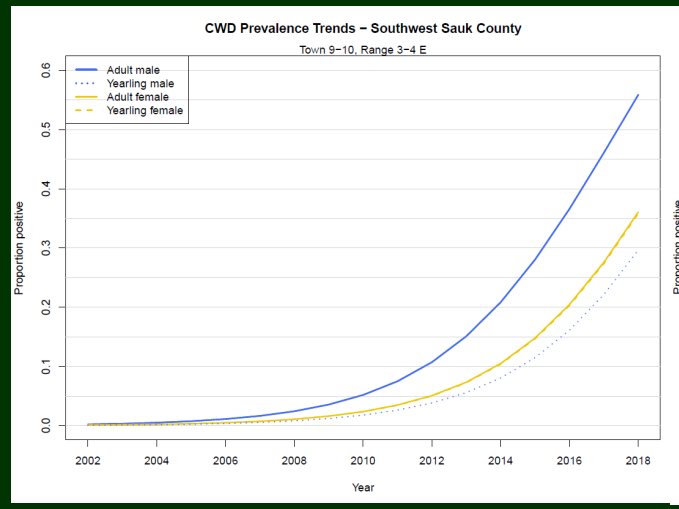
BOONE & CROCKETT QUANTITATIVE WILDLIFE CENTER

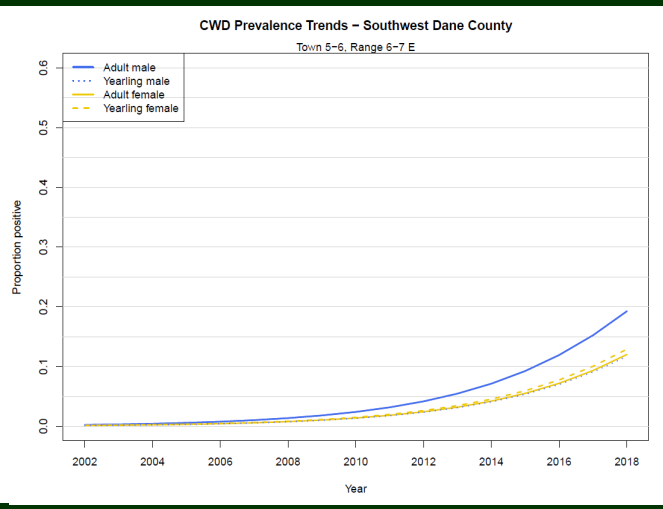
Hypothesis	Supported by Data?
Decreased harvest of male yearlings	Yes
Increased antlerless harvest	No
Increased number of hunters	No

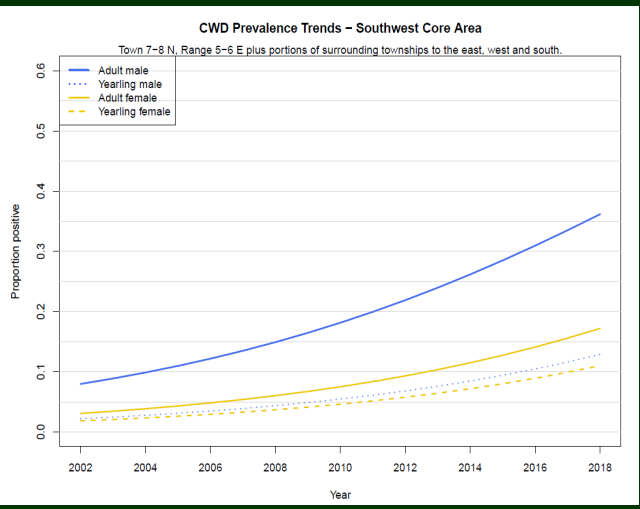
DEPARTMENT OF NATURAL RESOURCES DNR MICHIGAN

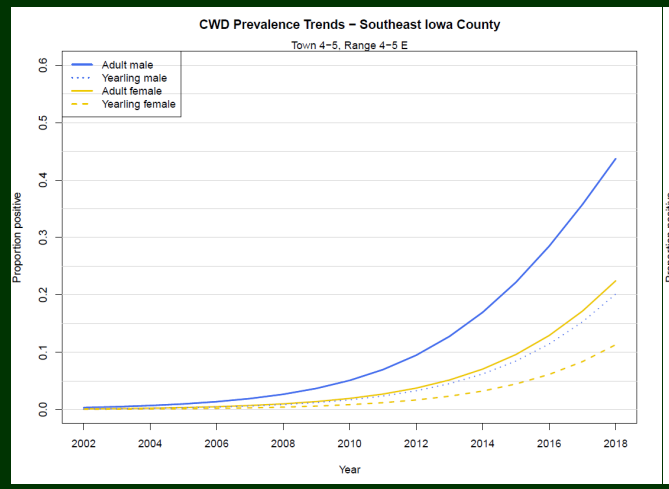


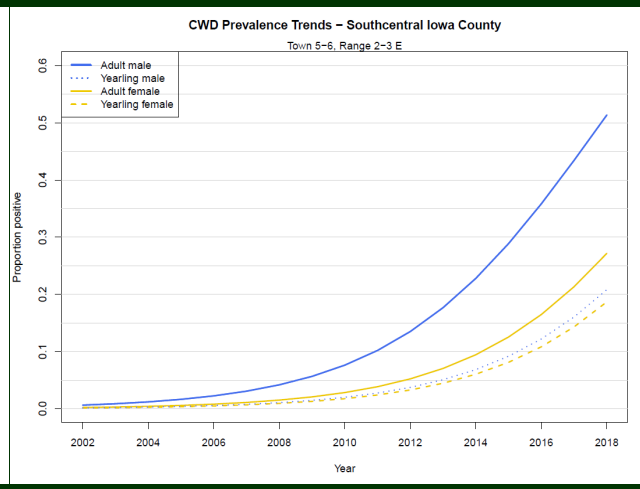
CWD and Other Research

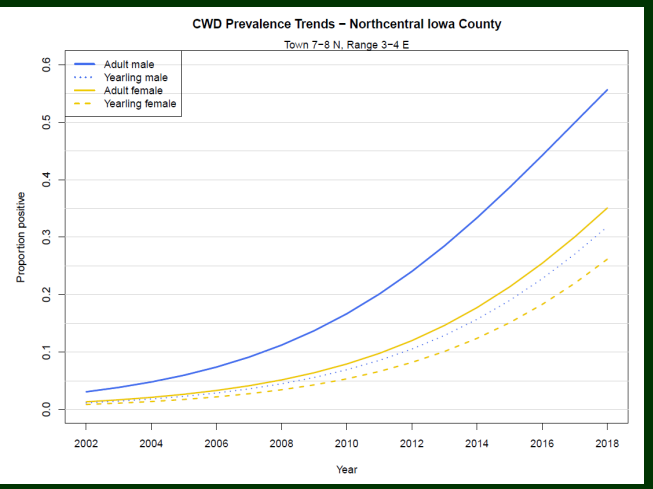

CWD Prevalence Trends – Southwest Sauk County
Town 9–10, Range 3–4 E
Adult male
Yearling male
Adult female
Yearling female
Proportion positive
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2002
2004
2006
2008
2010
2012
2014
2016
2018
Year

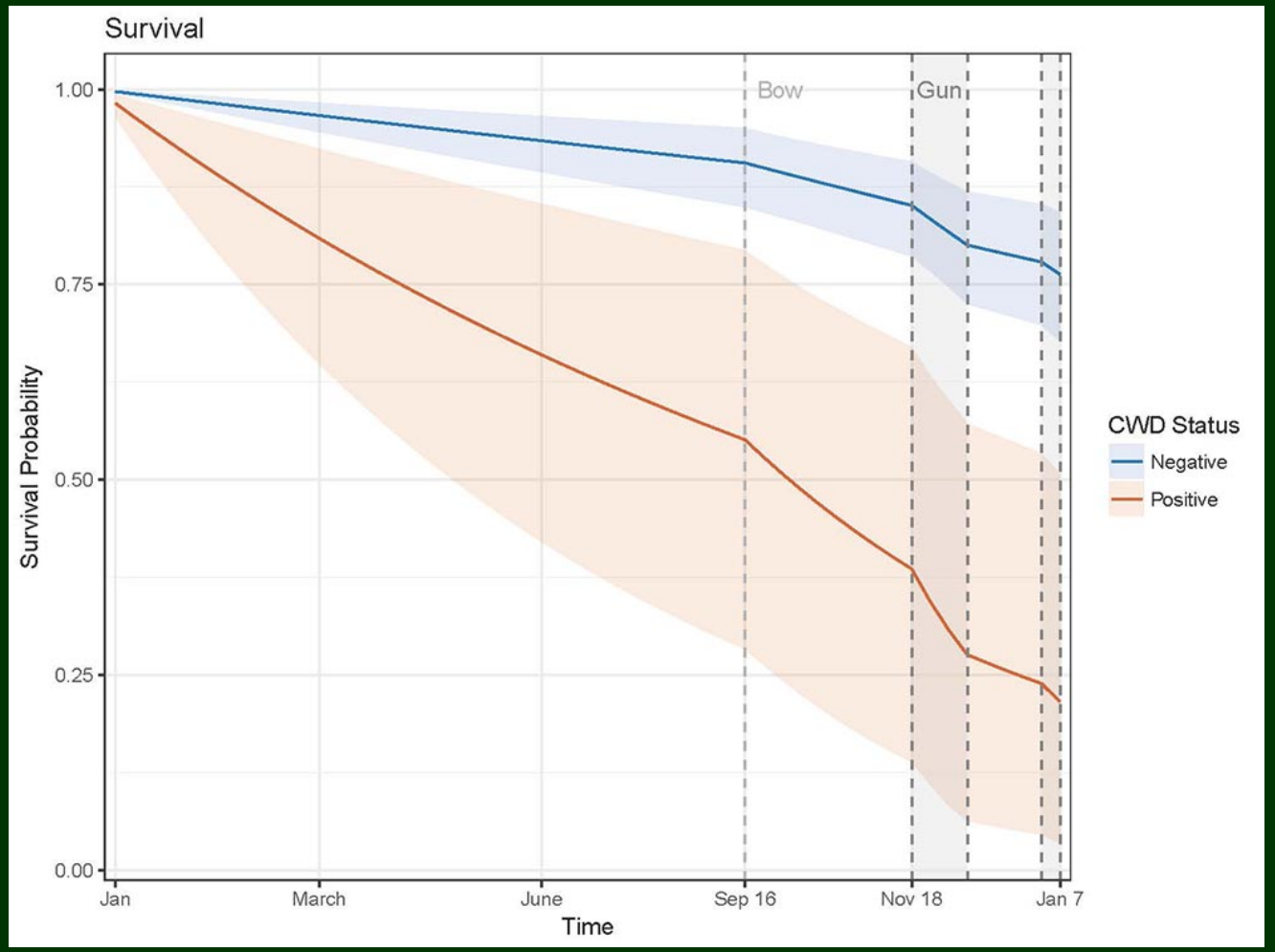

CWD Prevalence Trends – Southwest Dane County
Town 5–6, Range 6–7 E
Adult male
Yearling male
Adult female
Yearling female
Proportion positive
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2002
2004
2006
2008
2010
2012
2014
2016
2018
Year


CWD Prevalence Trends – Southwest Core Area
Town 7–8 N, Range 5–6 E plus portions of surrounding townships to the east, west and south.
Adult male
Yearling male
Adult female
Yearling female
Proportion positive
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2002
2004
2006
2008
2010
2012
2014
2016
2018
Year


CWD Prevalence Trends – Southeast Iowa County
Town 4–5, Range 4–5 E
Adult male
Yearling male
Adult female
Yearling female
Proportion positive
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2002
2004
2006
2008
2010
2012
2014
2016
2018
Year

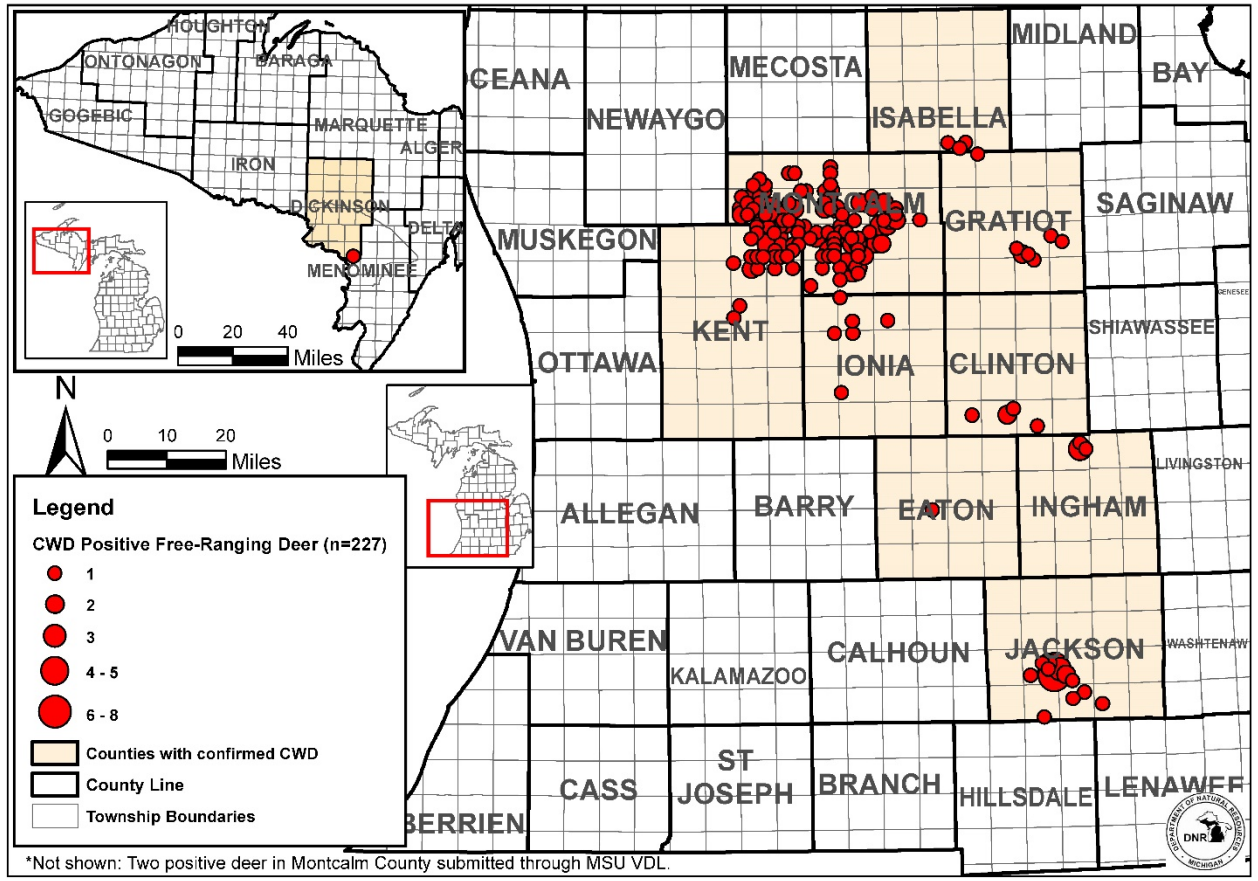

CWD Prevalence Trends – Southcentral Iowa County
Town 5–6, Range 2–3 E
Adult male
Yearling male
Adult female
Yearling female
Proportion positive
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2002
2004
2006
2008
2010
2012
2014
2016
2018
Year


CWD Prevalence Trends – Northcentral Iowa County
Town 7–8 N, Range 3–4 E
Adult male
Yearling male
Adult female
Yearling female
Proportion positive
0.0
0.1
0.2
0.3
0.4
0.5
0.6
2002
2004
2006
2008
2010
2012
2014
2016
2018
Year



Southwest Wisconsin CWD, Deer, & Predator Study: February 2018 Newsletter

Free-ranging White-tailed Deer Positive for Chronic Wasting Disease (CWD)
Michigan
as of March 15, 2022



*Not shown: Two positive deer in Montcalm County submitted through MSU VDL.

March 15, 2022 (MC)

AFWA Best Management Practices for Prevention, Surveillance, and Management of Chronic Wasting Disease (CWD)

A Technical Report of the Association of Fish and Wildlife Agencies

Best Management Practice:

- **To reduce the risk of CWD transmission and establishment of CWD through unnatural concentrations of cervids, states and provinces should eliminate the baiting and feeding of all wild cervids using regulatory mechanisms such as jurisdictional bans.**

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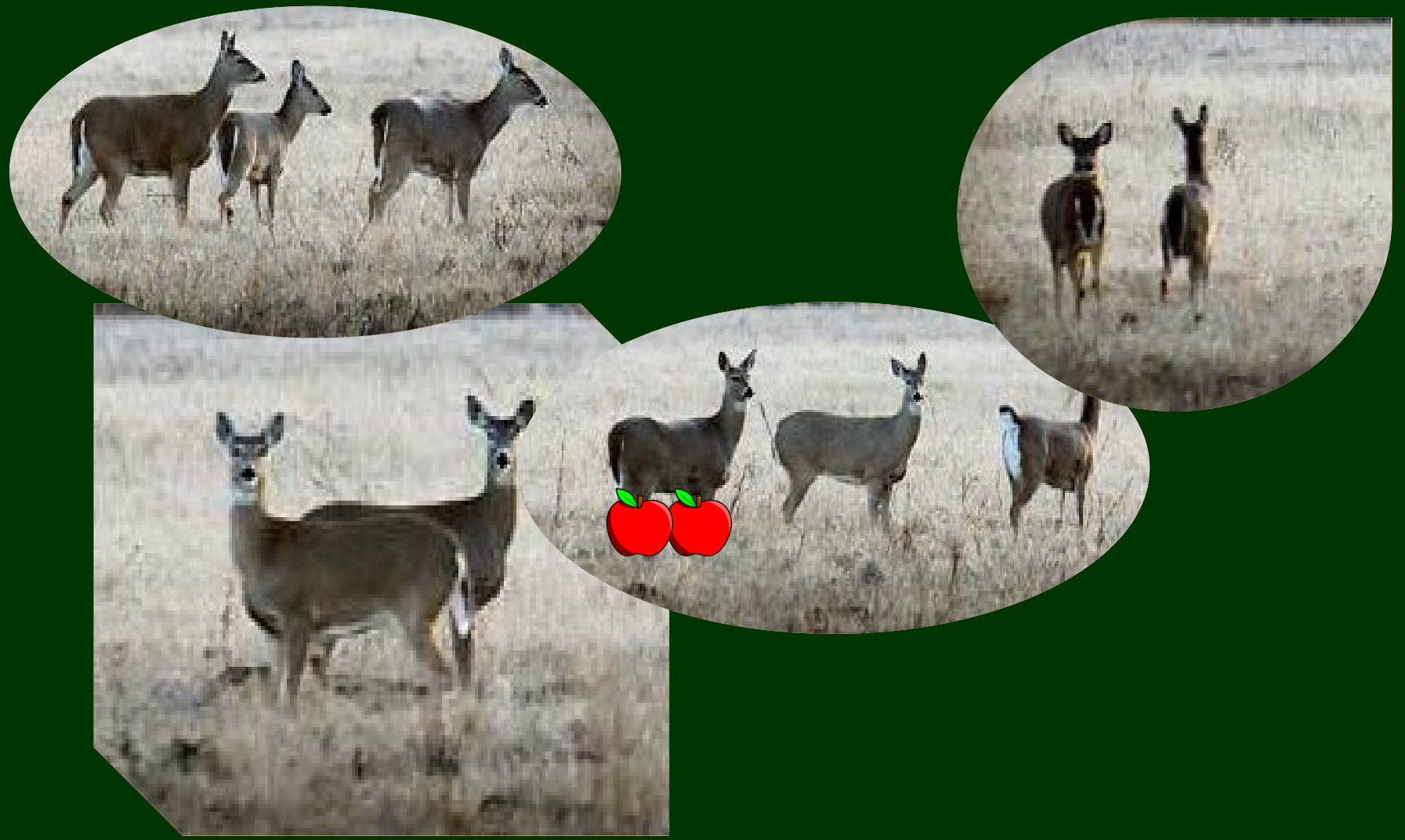
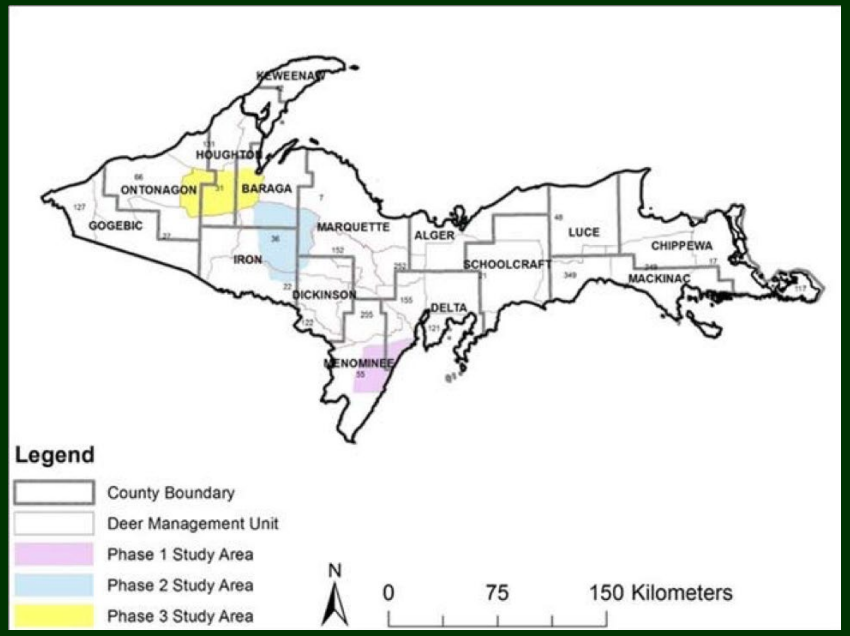


CWD Research Supported

- Influence of deer harvest regulations on antlerless harvest, abundance, and sex and age composition
- Field animal side testing and improving laboratory diagnostic sensitivity
- A standardized, high throughput genetic resource to inform white-tailed deer population and disease management
- Composting deactivation of CWD prions
- Multistate CWD strategic planning initiative
- Employing collaboration and innovation to develop CWD education and outreach
- Assessing drivers of spread and transmission of chronic wasting disease in Michigan deer
- Mechanistic understanding on environmental behavior, bioavailability and persistence in chronic wasting disease prions
- An agent-based approach for surveillance and management assessment of CWD
- Optimizing CWD surveillance: Regional synthesis of demographic, spatial, and transmission risk factors
- Inactivation of CWD prions by peroxymonosulfate and hypochlorous acid
- Quantifying factors affecting chronic wasting disease transmission among deer
- Evaluation of deer population parameter estimates and implications for CWD management

Other Deer Research Supported

Predator-Prey Study



EHD Impacts and Recovery

Harvest Outcomes and Satisfaction in Deer Hunting Cooperatives

MICHIGAN WILDLIFE COOPERATIVES

DEPARTMENT OF NATURAL RESOURCES DNR MICHIGAN

Summary

- Deer hunting has changed over recent years and will continue to change.
  - Our management has to continue to respond to these changes
- Multiple data sets are measured to detect trends that occur over time.
  - These data are used to support recommendations
- Deer research is widely supported and used to inform management decisions

Thank You

www.michigan.gov/deer

Lake Trout Harvest and Regulations in Northern Lake Huron

Seth Herbst, Ph.D.
ASRA Unit Manager
April 14, 2022

2000 Consent Decree

- Across the 1836 Treaty Area, annual harvest limits are set for Lake Trout and then allocated to the State and the Tribes.
- The Lake Trout regulations established by the NRC are meant to keep harvest within the allowed limits.
- If either the State or the Tribes exceed their annual harvest limit by more than 15%:
  - The amount of the overage is deducted from the next year's harvest limit, *AND*
  - The party "shall take management action" to ensure its harvest stays within the next year's limit.
- The State exceeded its harvest limit by 20% in MH-1 during the 2021 fishing season.

MH-1 Lake Trout Harvest

- The State's 2021 harvest was not biologically harmful to the lake trout population.
- Lake Trout harvest limit for 2022 will not be finalized by parties until April 26th
- Recreational fishery will likely need to target an expected 40% reduction in harvest.
  - from approx. 68,000 lbs. to 40,000 lbs.

MH-1 Lake Trout Harvest

- **Recommend** reducing daily possession limit from 3 to 2 Lake Trout and Splake in MH-1
- Previous reductions to address penalties have resulted in greater percent reduction than predicted
- Increase in daily possession limit in MH-2 to offset reduction in MH-1 will be further discussed by Lake Huron Fishery Citizen Advisory Committee during meeting on April 24th
  - Similar increase was considered in 2019 and not supported by anglers

THANK YOU!

QUESTIONS?