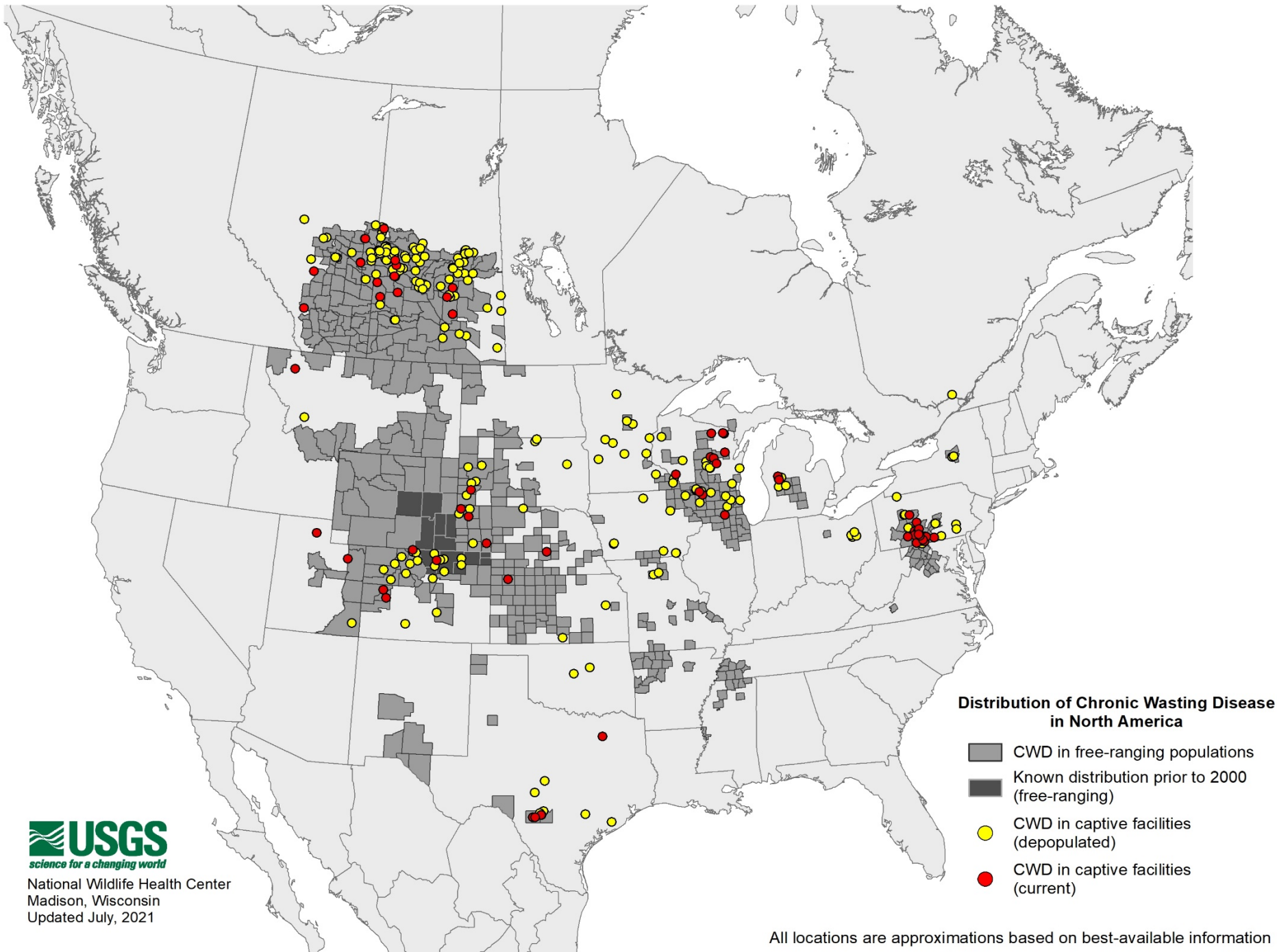# Department of Natural Resources CWD Update 2020-2021

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WLD Health Section Supervisor

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Wildlife and Public Lands

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)

USGS
science for a changing world

National Wildlife Health Center
Madison, Wisconsin
Updated July, 2021

All locations are approximations based on best-available information

Michigan Department of Natural Resources Wildlife Disease Laboratory

CWD Surveillance in Michigan

➤ The DNR has historically undertaken massive testing efforts for CWD in order to:
1. Better understand the distribution and prevalence of disease
2. To provide "hunter service" testing across the state

➤ This is neither sustainable *nor effective* for the long term…

….not if the goal of surveillance is early detection of disease.

2018 Chronic Wasting Disease (CWD) Surveillance in Free-ranging White-tailed Deer, Michigan

Legend

County Lines

I. ACTIVE SURVEILLANCE
(These samples were also tested for bovine tuberculosis)

Testing Zone	Sample Goals	Samples Tested
(red)	300	4,435
(yellow)	8,475	5,598
(light blue)	6,260	14,445
(light green)	155	306
(medium green)	300	830
(dark green)	600	915
(white)	0	4,227
Total	**16,090**	**30,756**
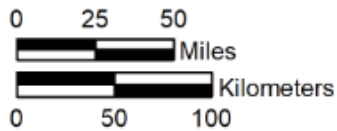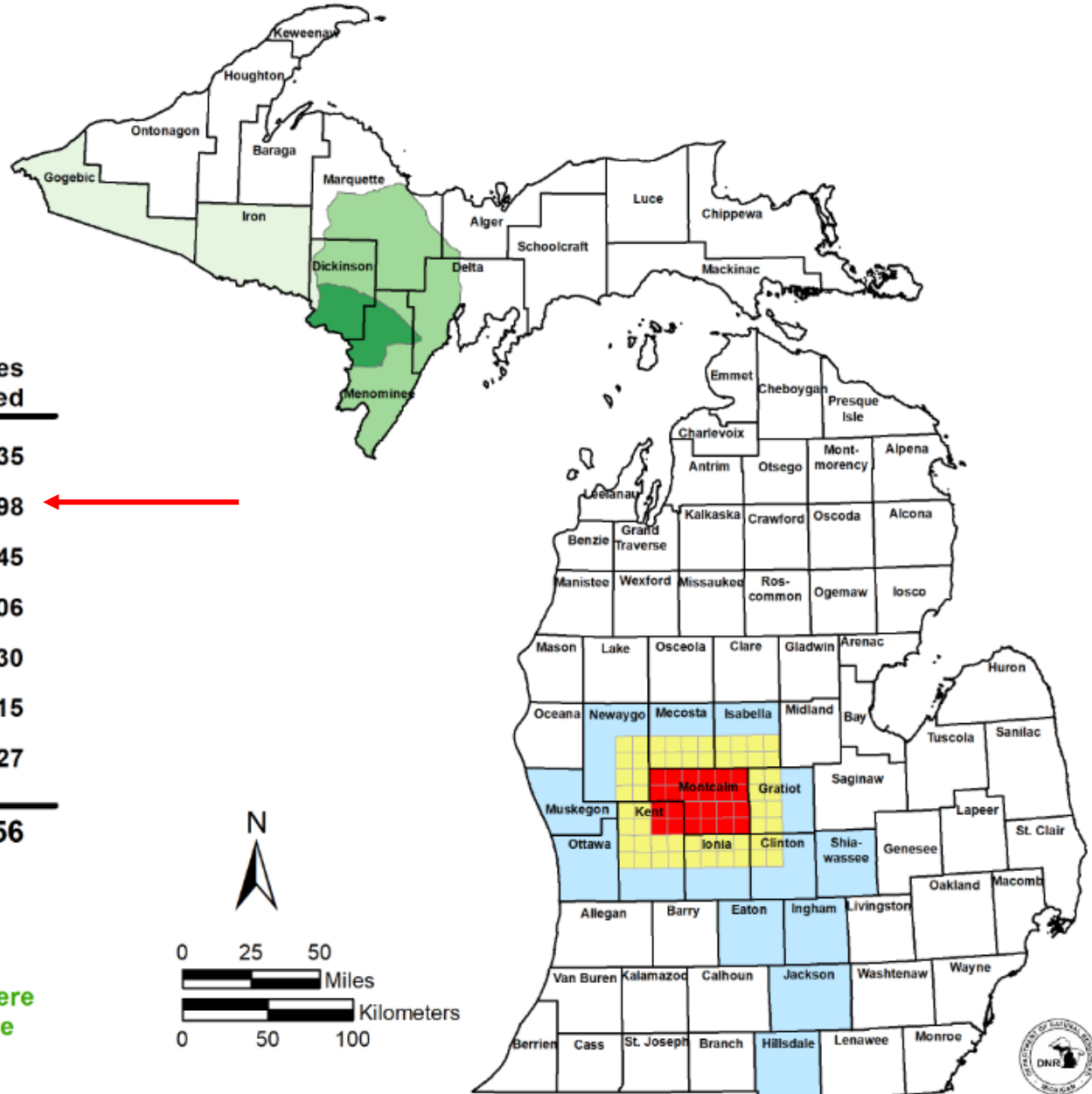
II. TARGETED SURVEILLANCE
Cervids with CWD-like symptoms

229 of the 30,756 deer tested in 2018 were tested as part of targeted surveillance

N

0   25   50 Miles

0   50   100 Kilometers

April 10, 2019 (MC)

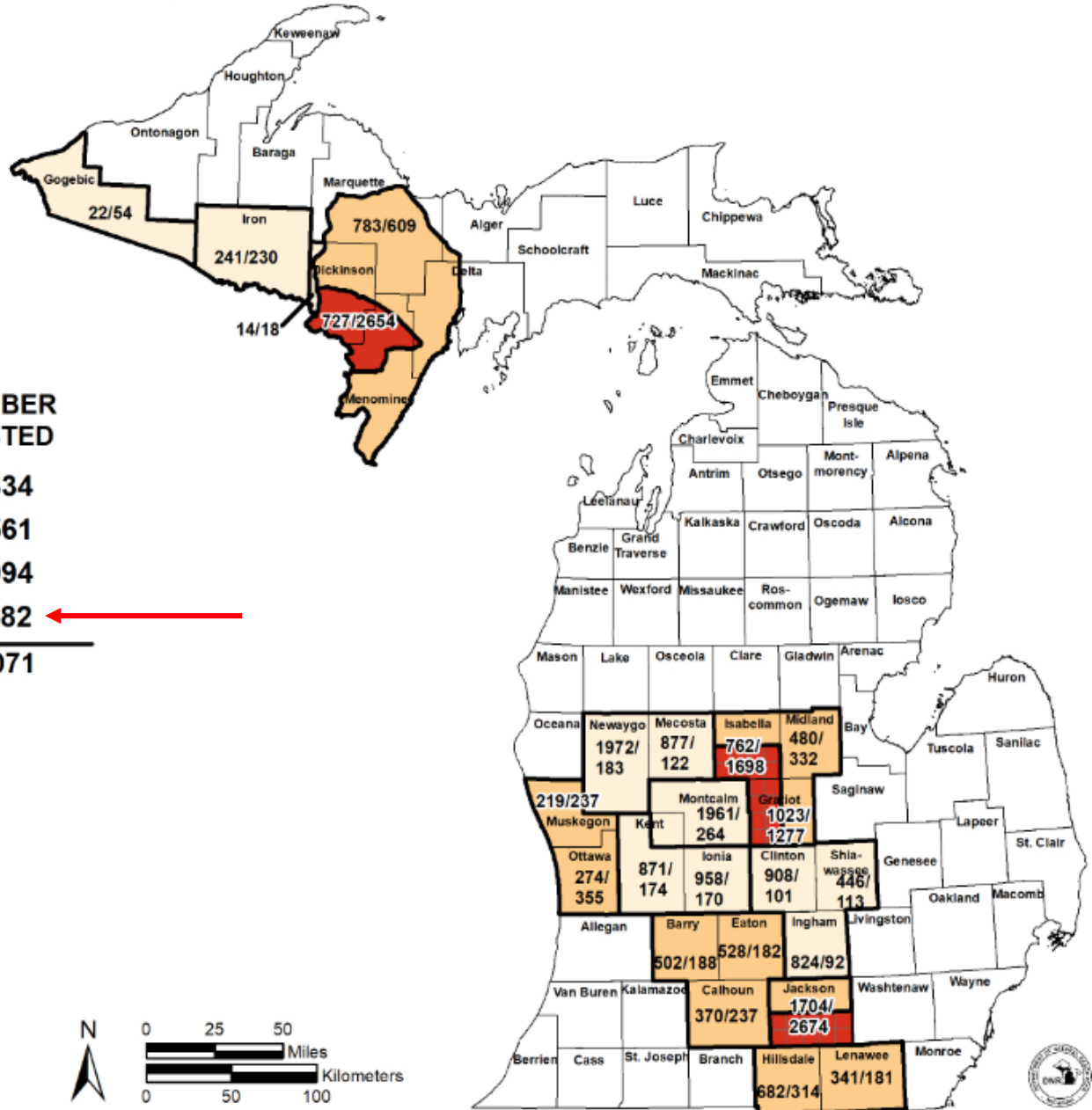# 2019 Michigan Chronic Wasting Disease (CWD) Surveillance for Free-ranging White-tailed Deer by Sampling Unit

Legend

I. ACTIVE SURVEILLANCE

ZONE	DETECTION LEVEL*	SAMPLE SIZE	NUMBER TESTED
(red)	0.1%	7,922	2,834
(orange)	0.5%	3,016	5,561
(light)	1.0%	1,521	9,094
(white)	N/A	0	2,582
Total		**12,459**	**20,071**

Numbers on map represent
the number tested/county goal

*Detection Level is the prevalence
at which CWD can detected with 95%
confidence through the corresponding
sample size.

II. TARGETED SURVEILLANCE
Cervids with CWD-like symptoms

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

N

0   25   50
Miles

0   50   100
Kilometers

March 16, 2020 (MC)
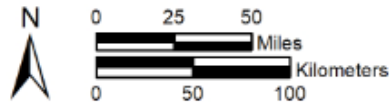
Estimated Potential Undetected Chronic Wasting Disease (CWD)
Prevalence/Positive Deer* in the CWD Surveillance Areas, Michigan
Based on 2008-2019 Testing

KEWEENAW

HOUGHTON

ONTONAGON

BARAGA

GOGEBIC

0.49%/104

IRON

MARQUETTE

ALGER

DICKINSON

0.32%/305

DELTA

0.38%/82

MENOMINEE

0 10 20 Miles

OCEANA

NEWAYGO
0.11%/62

MECOSTA
0.11%/41

ISABELLA
0.25%/67

MIDLAND
0.25%/51

BAY

MUSKEGON

MONTCALM

GRATIOT

SAGINAW

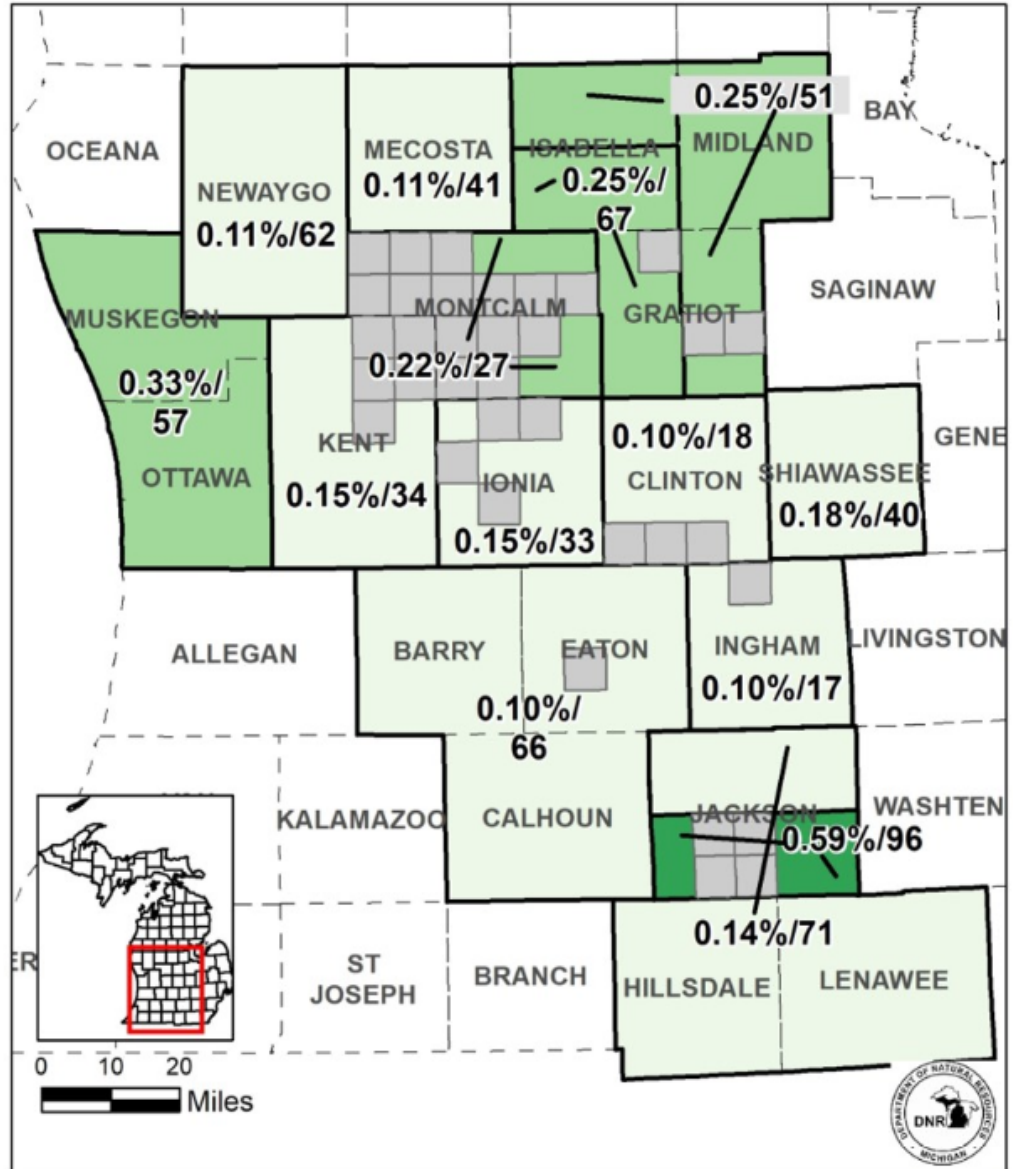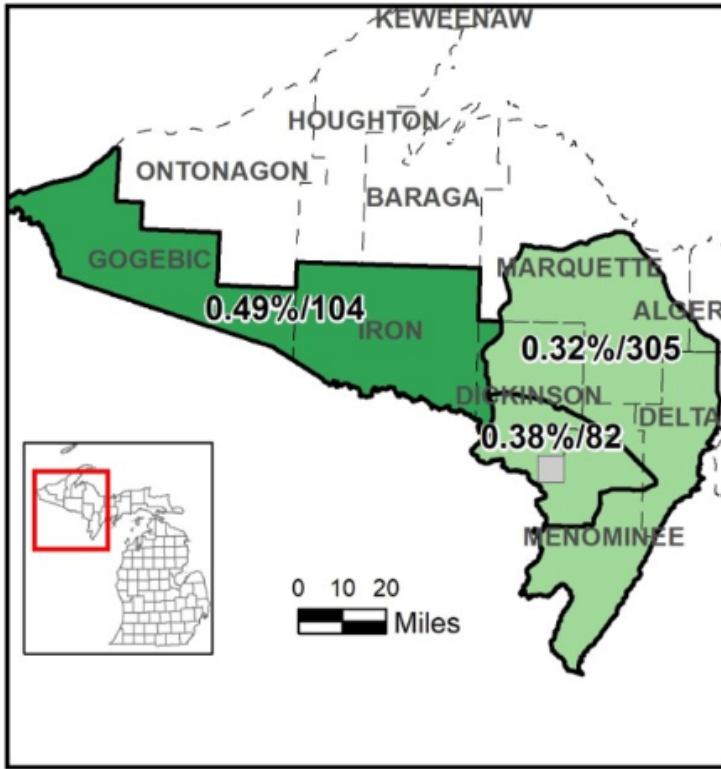OTTAWA
0.33%/57

KENT
0.15%/34

0.22%/27

IONIA
0.15%/33

CLINTON
0.10%/18

SHIAWASSEE
0.18%/40

GENE

ALLEGAN

BARRY

EATON
0.10%/66

INGHAM
0.10%/17

LIVINGSTON

KALAMAZOO

CALHOUN

JACKSON
0.59%/96

WASHTEN

0.14%/71

ST JOSEPH

BRANCH

HILLSDALE

LENAWEE

0 10 20 Miles

Legend

2019 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.

DNR

March 12, 2020 (MC)

CWD Surveillance History

2012: 35 tested

2013: 46 tested

2014: 30 tested

2015: CWD DETECTED

2016: >7,000 tested

2017: >17,000 tested
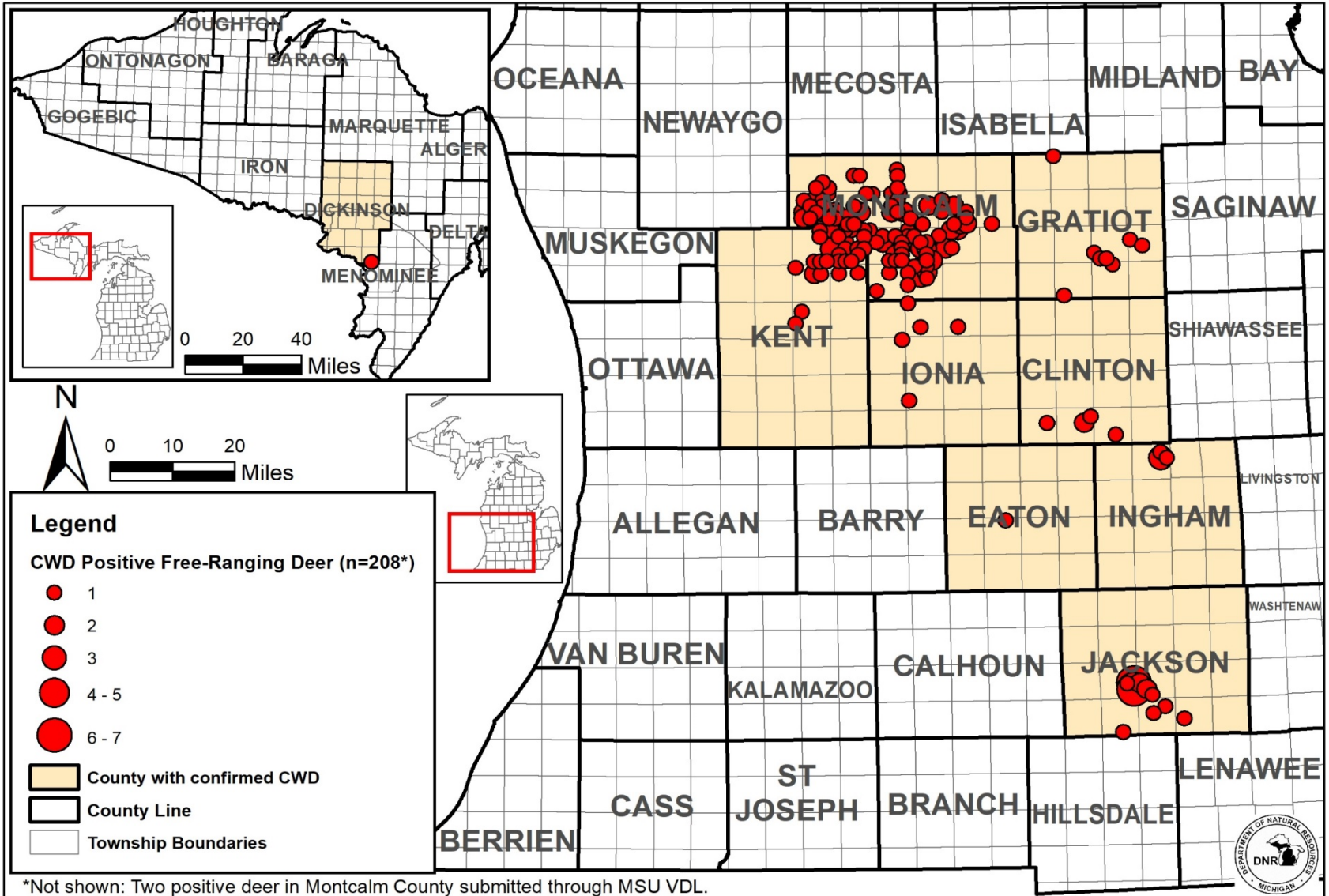
2018: >30,000 tested

2019: >20,000 tested

2020: >2,000 tested

2021: 8-10,000 is goal

Free-ranging White-tailed Deer Positive for Chronic Wasting Disease (CWD) Michigan
as of March 19, 2021

Legend

CWD Positive Free-Ranging Deer (n=208*)

- 1
- 2
- 3
- 4 - 5
- 6 - 7

- County with confirmed CWD
- County Line
- Township Boundaries

*Not shown: Two positive deer in Montcalm County submitted through MSU VDL.
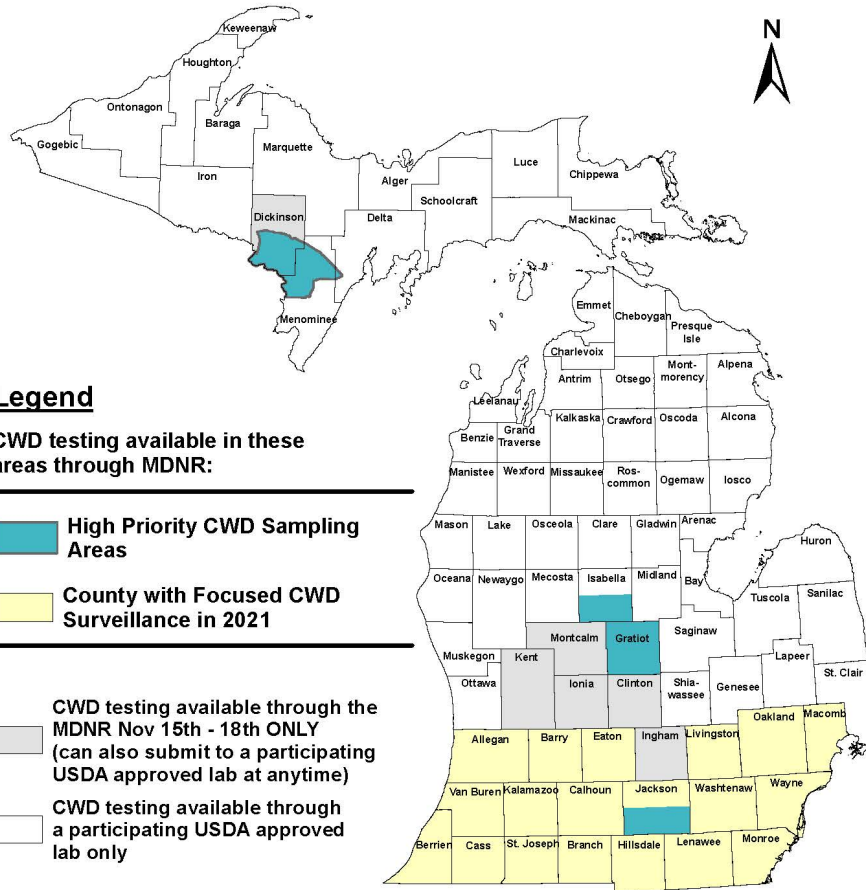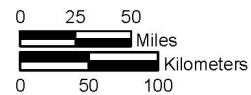
March 19, 2021 (MC)

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

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

Legend

CWD testing available in these areas through MDNR:

High Priority CWD Sampling Areas

County with Focused CWD Surveillance in 2021

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

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

All deer tested for CWD are also tested for bovine tuberculosis.
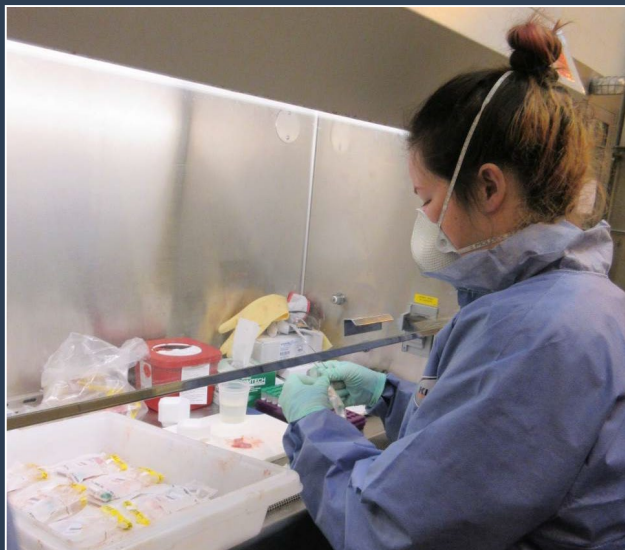
July 8, 2021 (MC)

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: Expanding partnerships with MSU VDL, MSUE, stakeholder groups

#3: Combination of data from #2 and modelling efforts

Thank you!

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