Update on CWD Surveillance and Management in Wild Deer

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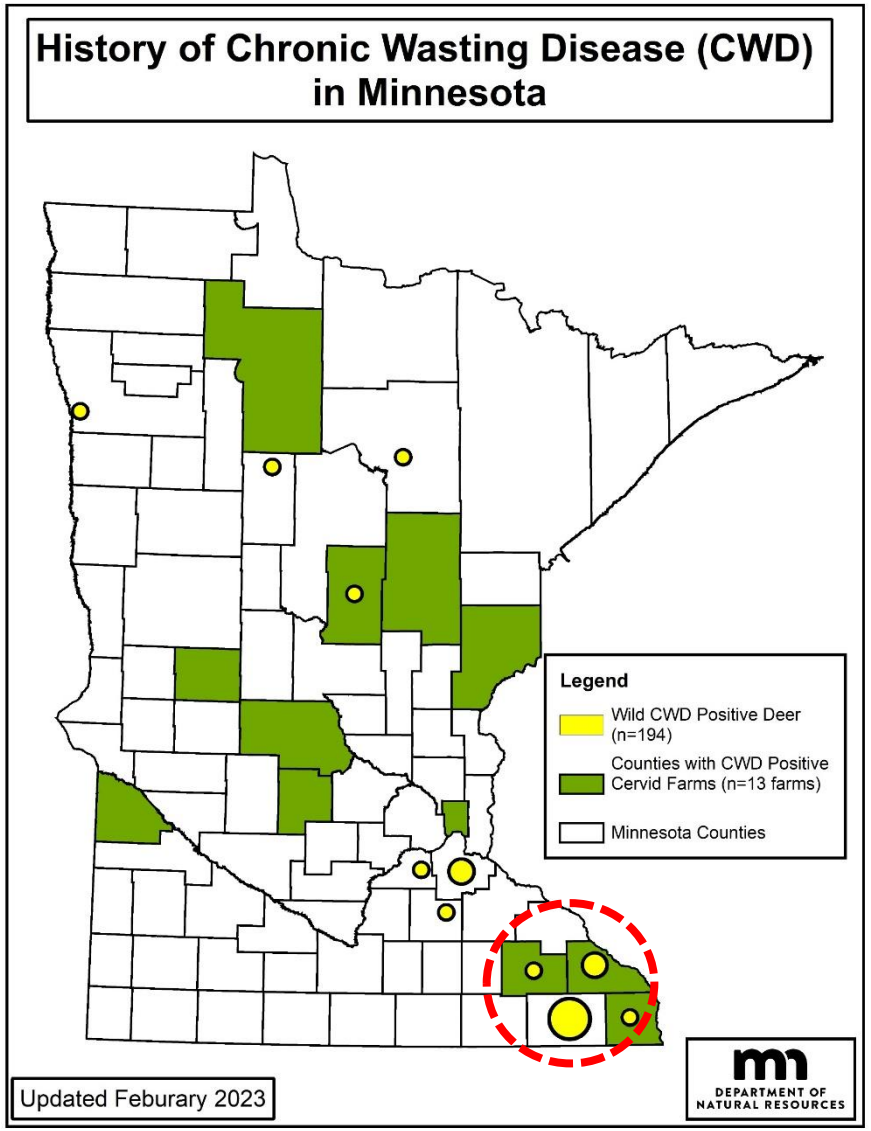
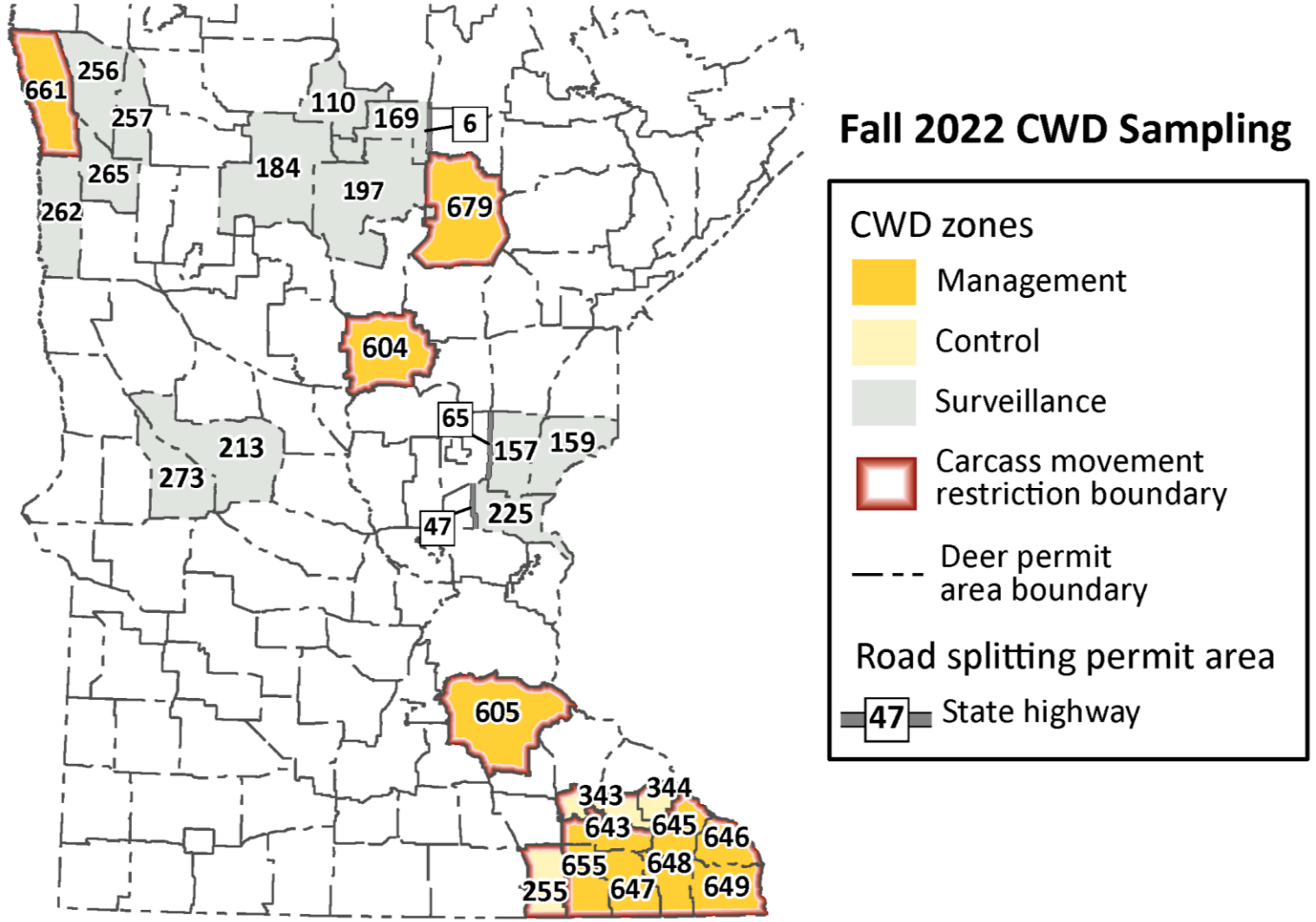
DEPARTMENT OF NATURAL RESOURCES

Chronic Wasting Disease in Minnesota: Current Status



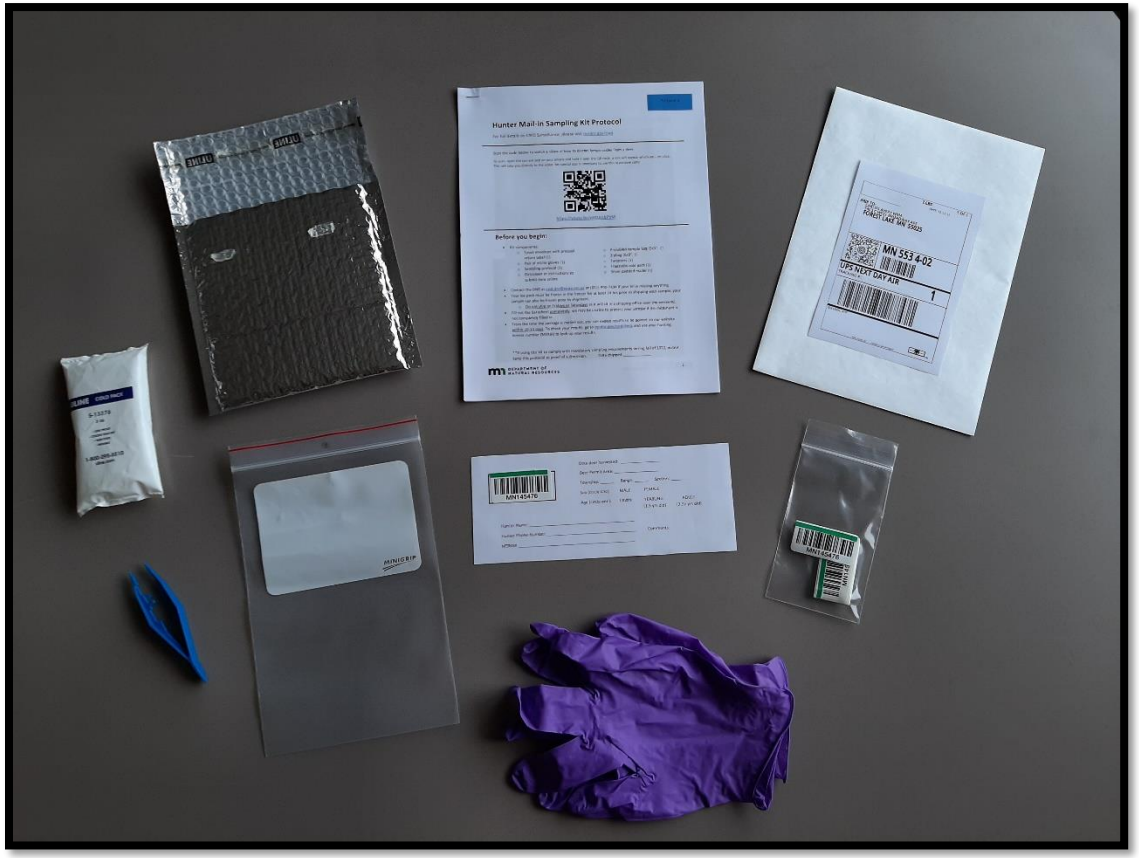
- 120,000 wild deer have been tested for CWD since 2002; 194 deer have tested positive, primarily in southeast MN
  - MN also has a wild elk population in NW MN; over 250 hunter-harvested elk have been tested for CWD since 2004 with no detections
  - MN also has moose in the northeast. Over 350 moose have been tested for CWD from 2004 to present with no detections
- CWD has been found in 13 captive cervid facilities since 2002, most recent detection was Houston County in 2022

Overview of CWD Surveillance Plan for Fall 2022



- CWD Surveillance occurred in 10 areas of the state during Fall 2022
- We sampled nearly 13,000 deer this year; 26 new cases of CWD in wild deer
- Compliance with mandatory sampling requirements remains high: average of 87%
- CWD surveillance and management continues to be DNR priority and large commitment of resources
  - 214 DNR staff and 142 students from 10 colleges/universities assisted with CWD sampling efforts

Hunter Mail-in Kits



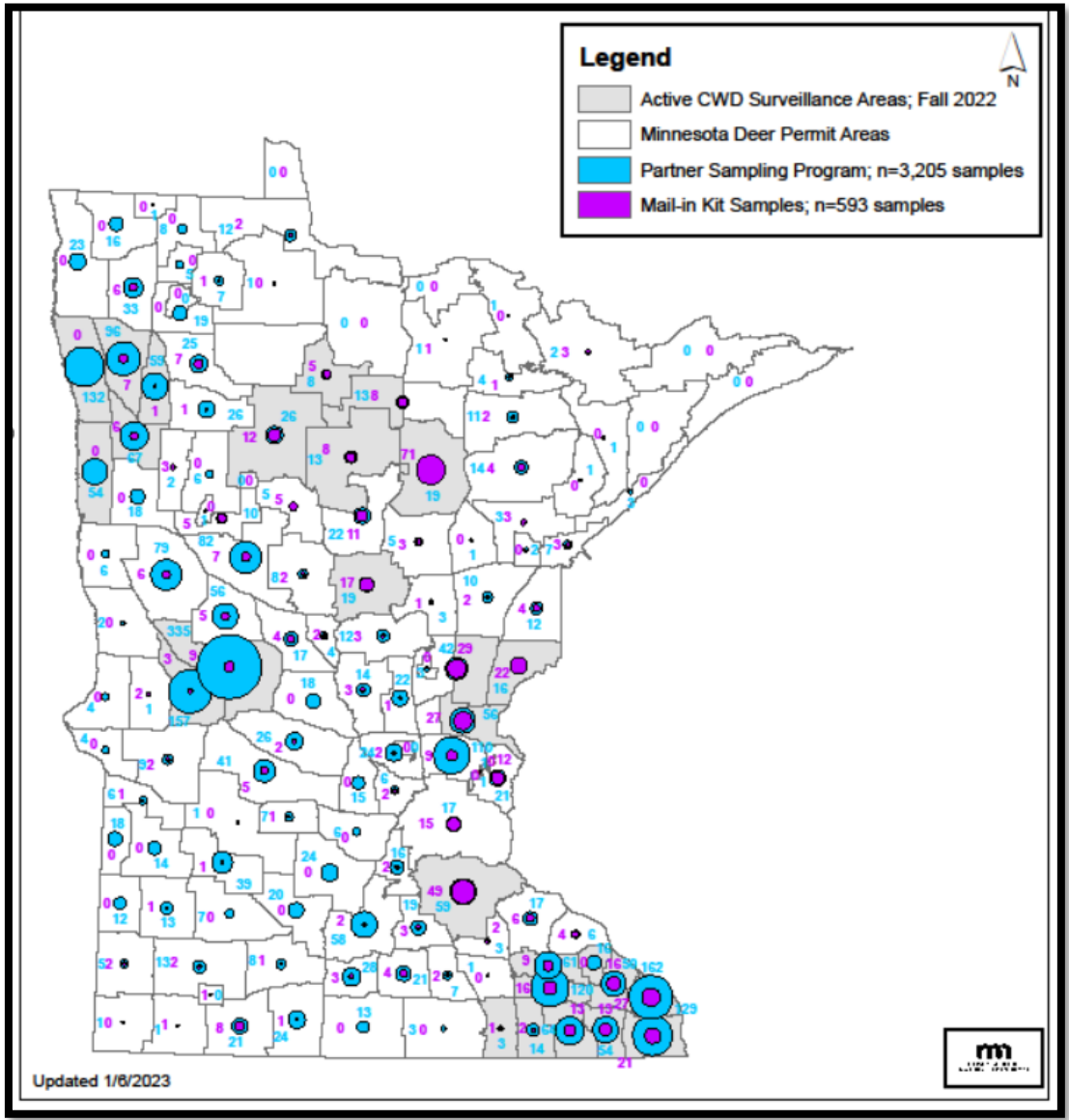
*** This was a pilot project ***

- Designed to address hunter service requests
- Tests provided at no cost to hunters
- DNR's Wildlife Health Program built 5,000 kits
- Distributed through partner groups, area offices and online request
- High demand; all kits were requested
- 1 CWD positive wild deer detected through these kits

Partner Sampling Program

- WHP has worked with taxidermists/partners since 2016
  - To date: collected 8,000+ samples; 16 CWD-positives
- Significant savings (time and money) to partner with taxidermists
  - Multi-year efforts to recruit meat processors = extremely limited success
- **NEW** for fall 2022
  - Taxidermists collected samples from any DPA in the state (bucks or does)
  - All taxidermists shipped samples back to WHP for processing

- Awarded 2022 USDA-APHIS grant to support program: $250,000
  - Partnering with MN Conservation Federation for program administration
- WHP sent letters and follow-up phone calls to 563 taxidermists
  - Recruited 157 vendors
- Collected 2,164 samples through 'normal' taxidermist program
  - 5 new CWD positives
- Additional 1,041 samples collected through the Risk-Based Surveillances conducted by West Central and Climax areas in R1
  - Vendors include taxidermists, meat processors, special interest groups, etc.
  - No new positives

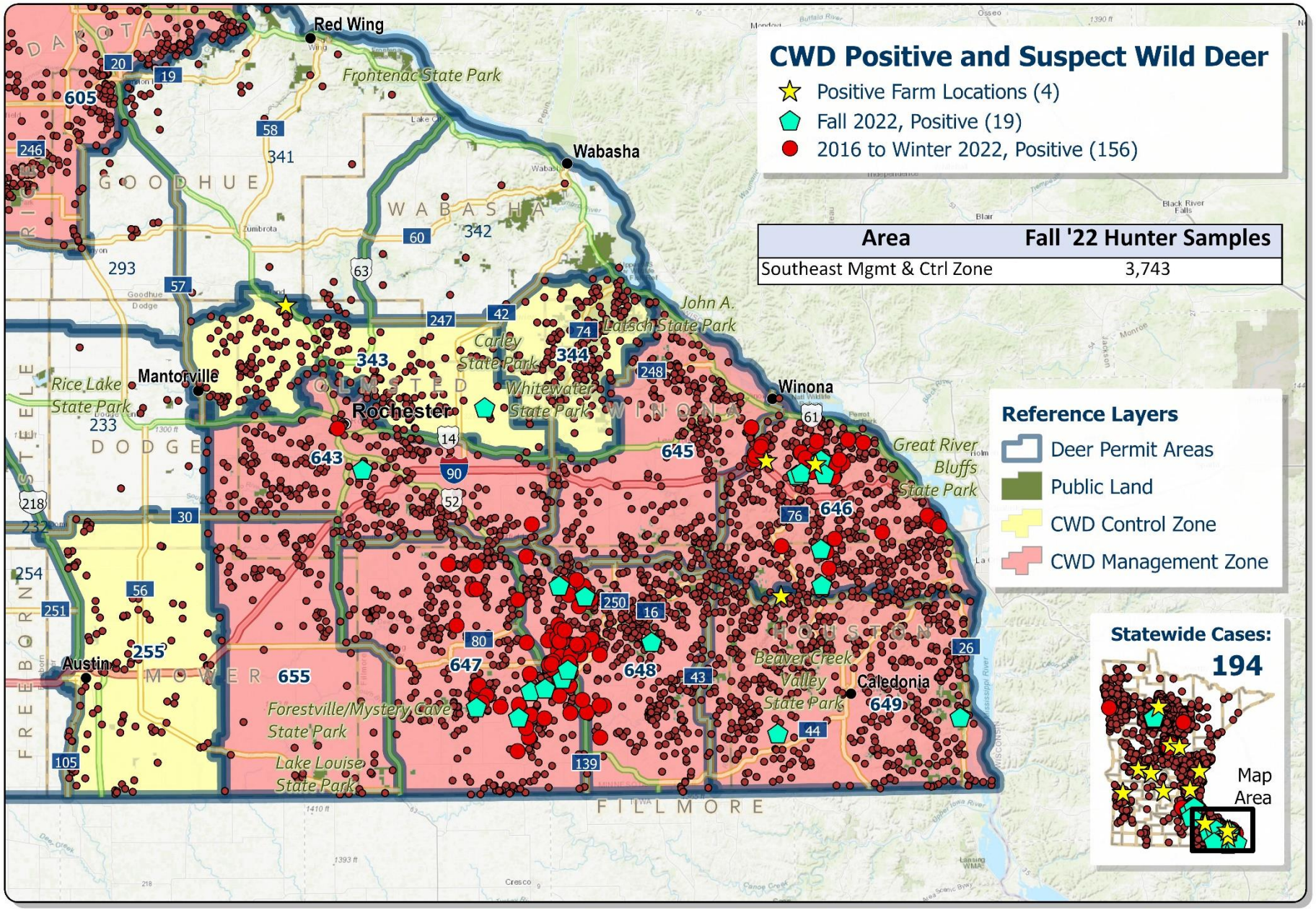


Southeast

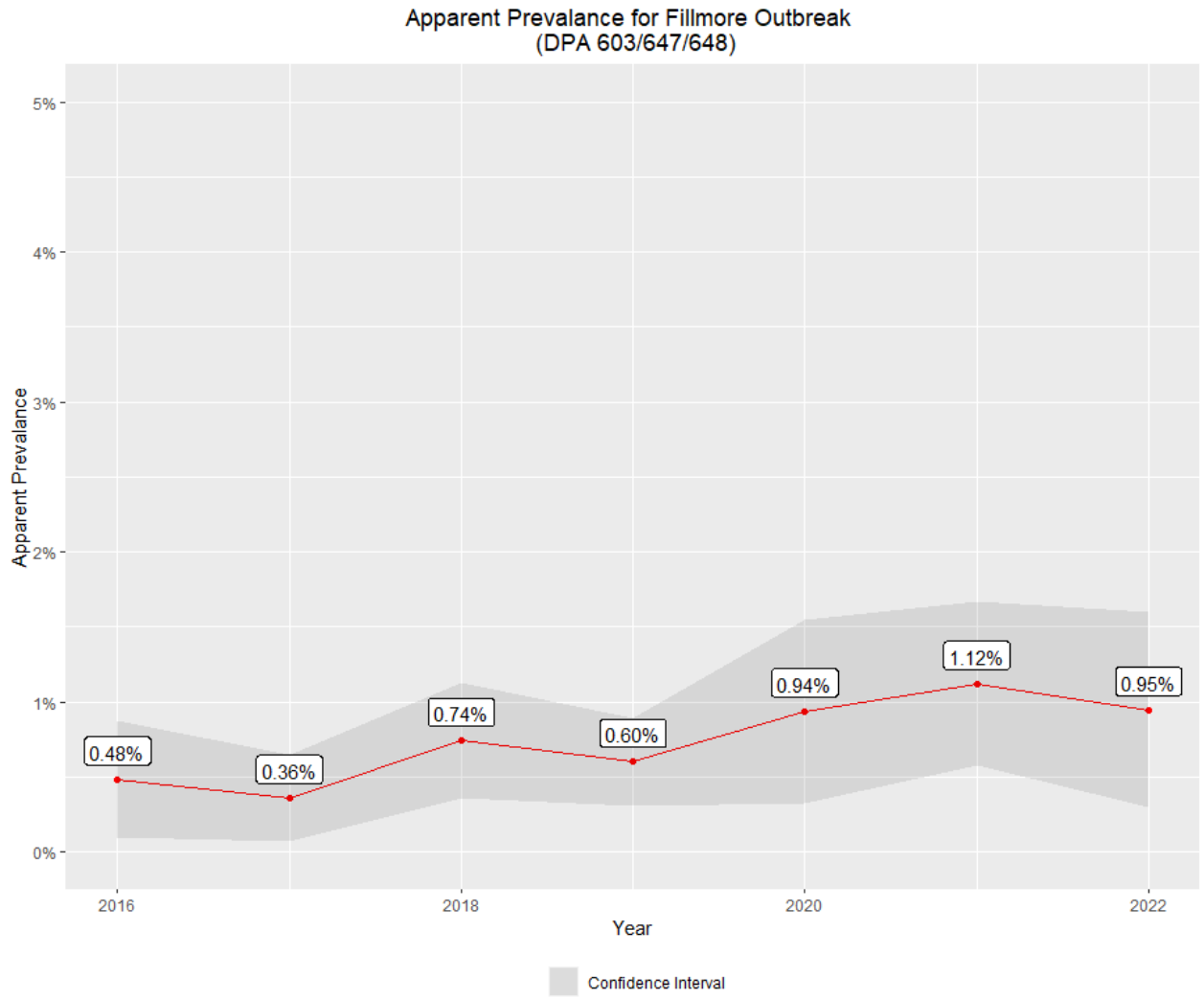
- Area of persisting disease-19 new cases this fall
- Only work on private land with permission or public land
- Focused areas surround 2-miles of a recent positive or cluster of positives
- Goal is to remove social groups that are more likely to be related to a positive deer originating from that section
- Deer are processed at a licensed facility
- All deer are tested for CWD
- ‘Not detected’ deer are provided to the public through Share the Harvest or returned to the landowner by request.

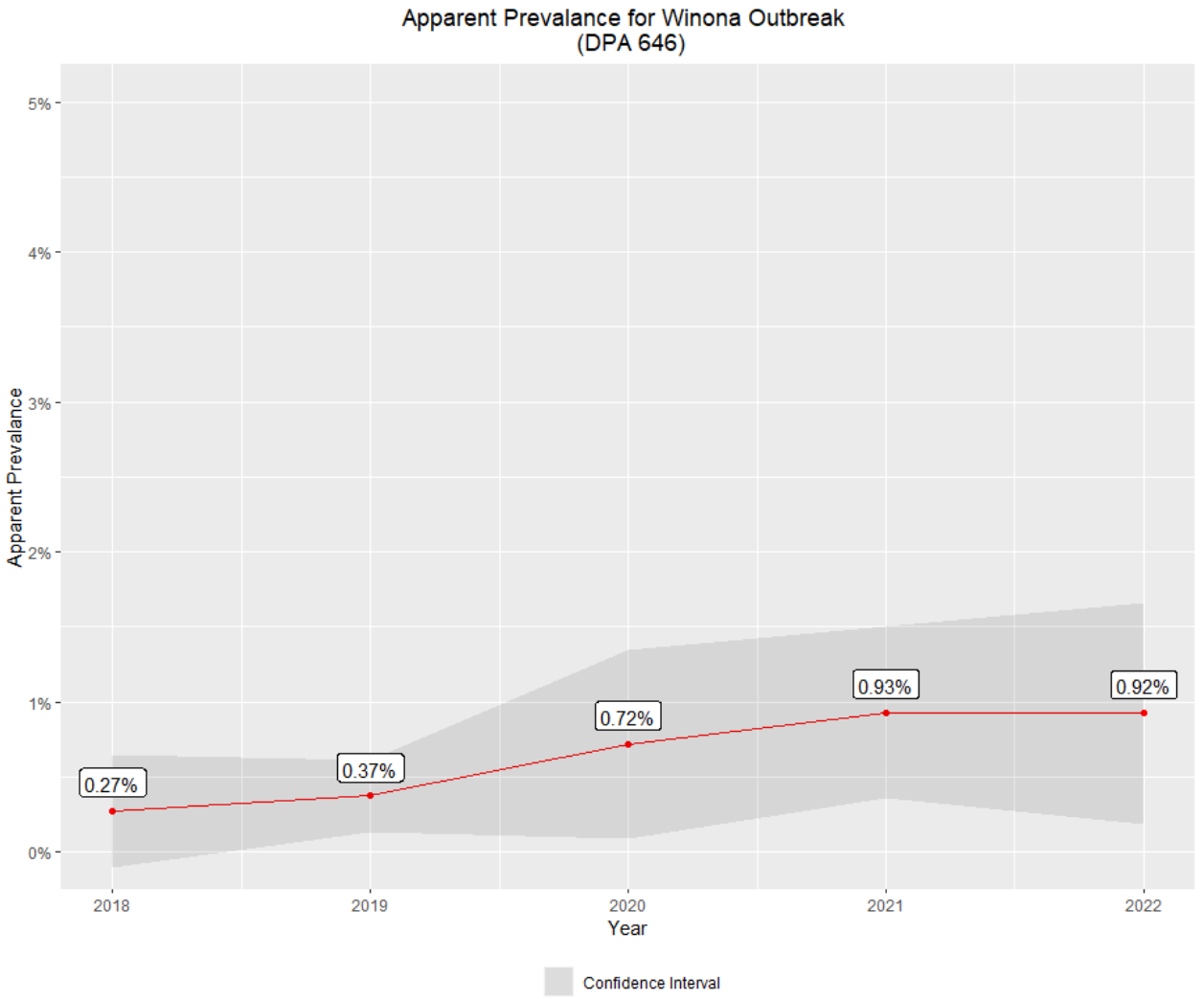
Southeast Minnesota CWD Positive/Suspect Locations

Date Updated: 1/24/2023



CWD Prevalence in the Fillmore County Outbreak (DPAs 603/647/648) and the Winona County Outbreak (DPA 646)





Updated 1/23/2023

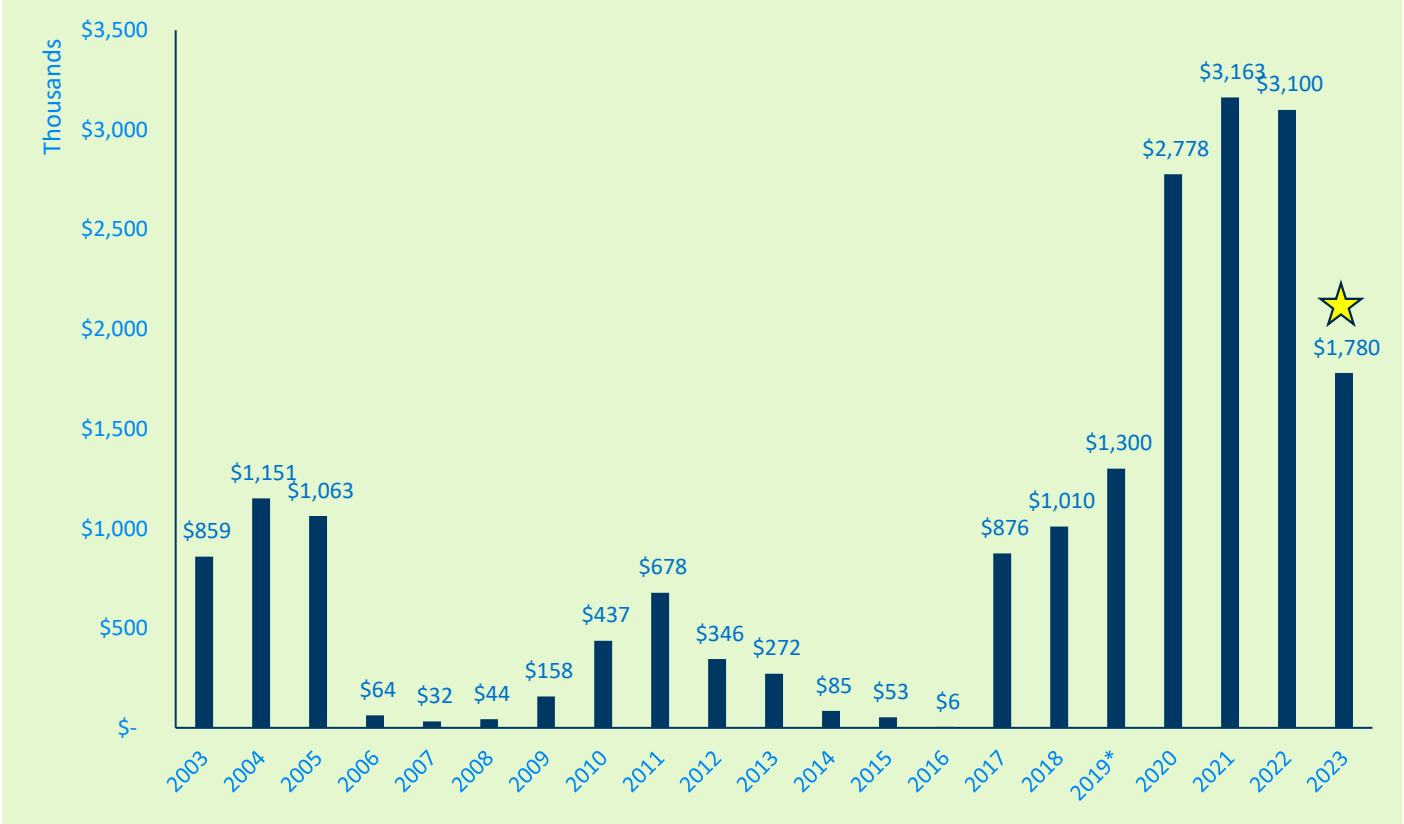
Managing CWD: Partnership with Hunters & Landowners

- Carcass movement restrictions in all CWD Management and Control Zones
- Dumpster program to remove potentially infected carcasses off the landscape
- Importation ban that does not allow whole cervid carcass to be brought into MN from ANYWHERE outside our borders
- Recreational feeding and attractant bans in areas of heighted CWD risk
- Increased hunter opportunities
- Partnership with Minnesota Conservation Federation (USDA grant)

Biennial Spending (FY22-23) on CWD-Related Efforts & Overall CWD Spending

- **Overall spending FY22-23: $4,879,962**
  - DNR staff salary: $1,926,322
  - Sample collection efforts: $1,221,631
    - Includes travel, supplies, student contracts, taxidermists, meat processor, and equipment
  - CWD diagnostic testing: $577,994
  - Agency culling with USDA: $378,186
  - Adopt -A- Dumpster program: $632,791
  - CWD-related research projects: $143,038
- Funding sources: General Fund ($1.9M), Game & Fish ($2.1M), DNR Dedicated Accounts ($0.9M)

CWD Spending on Wild Cervids, FY03 to FY23



★ FY23 expenses pending; expecting another $1M in culling and fall invoicing

***Total CWD spending from FY03 to FY23 = $19,902,554**

Summary

- CWD remains a rare disease in MN
- Aggressive approach to protect statewide deer population, hunting heritage
- Adapt as we assess effectiveness
- We cannot be successful in managing this disease without the help of hunters, cooperators, and businesses

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Thank You!

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Chronic Wasting Disease legislative update

Dr. Courtney Wheeler | Assistant Director

Farmed Cervidae and CWD surveillance

- Cervid farmers must:
  - Test all animals 12 months of age and older that die (only post-mortem testing) for Chronic Wasting Disease (CWD).
- Two decades of CWD surveillance in Farmed Cervidae:
  - 2002 – 2022
    - 13 CWD positive herds, 1,502 depopulated
      - 54 positive animals
      - 1,448 animals CWD not detected

Year (SFY)	Total tested for CWD	Total Not Detected	Total Positive	Percent Positive
2018	1,849	1,733	9	0.5%
2019	2,172	2,143	9	0.4%
2020	2,173	2,139	6	0.3%
2021	1,763	1,725	23	1.3%
2022	1,515	1,515	0	0%

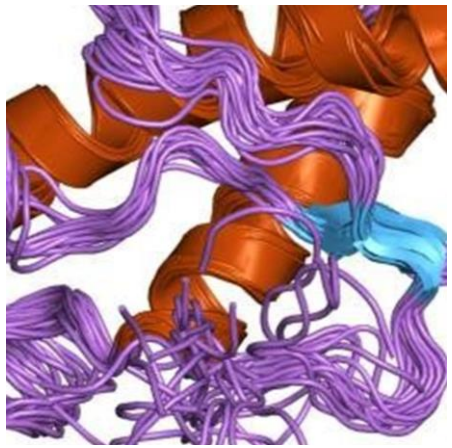
Farmed Cervidae and CWD projects

USDA funding available to states to control and prevent CWD in farmed cervids

Project 1

ASSESSMENT OF THE ECOLOGY OF WILDLIFE NEAR THE PERIMETER FENCE OF CERVID FARMS

Veterinary Services



Project 2

WHITE-TAILED DEER GENOMIC SUSCEPTIBILITY RESEARCH STUDY

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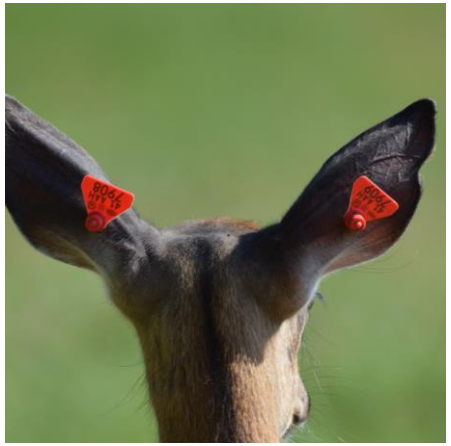

Project 3

CERVID PRODUCER ONLINE PORTAL FOR HERD DATA SUBMISSION

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Farmed Cervidae and biosecurity

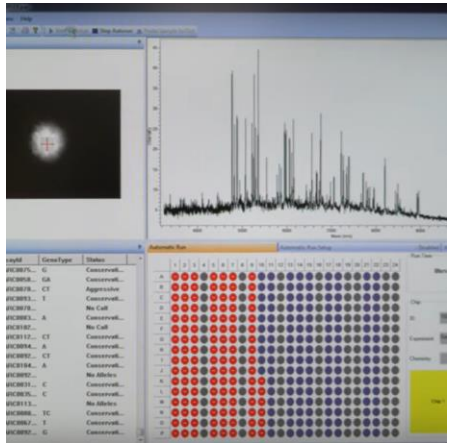
Assessment of the ecology of wildlife near the perimeter fence of cervid farms

What is biosecurity?

- Biosecurity refers to plans and procedures implemented to reduce the risk of a hazard, in this instance, an infectious disease like CWD, from entering an operation (being carried onto your place by animals, equipment, vehicles, or people).
- Biosecurity practices works like insurance: the more you invest in appropriate preventive practices, the more you can reduce your risk.
- Biosecurity practices need to address the primary risks or hazards specific to a farm which may be different from risks to other farms.
- For CWD prevention, it is critical to consider all of the potential pathways of transmission, and highlight those which pose the greatest likelihood of occurrence.

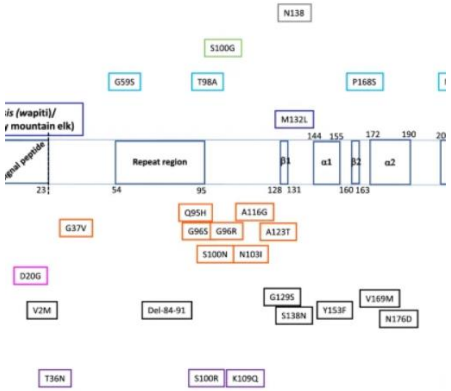
Farmed Cervidae and genetic susceptibility to CWD

Accurate Genomic Predictions for CWD in U.S. White-tailed Deer



Phase I

Identify highly susceptible animals by analyzing DNA samples from 123,987 regions of the white-tailed deer genome and looking at regions unique to animals known to be CWD positive.



Phase II

Blinded validation testing to confirm that the method developed in Phase I is able to achieve the same or better results in making determinations about the CWD susceptibility of each animal.

Phase III

Partner with producers who have CWD-positive animals in their herds to genotype their animals and help them make decisions about the susceptibility of the rest of their herd.

Conduct a select breeding pilot project with willing producers to remove animals considered to be at high-risk for CWD and then monitor how the herds fare over time.

Farmed Cervidae and herd data

Cervid producer online portal for herd data submission

- Accurate and timely herd data is critical to prevent, manage and respond to CWD.
- Farmers currently submit data on paper forms by mail or electronic forms via e-mail.
- This project will eliminate the need for annual census gathering as producers can submit data at the time of an event (e.g. herd addition, death) through an online portal.
- Data submission through the portal will result in reductions of staff time in State Animal Health Officials' office and increased accuracy in animal inventories.

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Thank You!

Courtney Wheeler

Assistant Director