

# Natural Resources Commission Meeting

NRC Policy Committee on  
Wildlife & Fisheries

December 11, 2014



# Proposed Orders

- NRC – For Action
  - Salvage Regulations for Game Killed by Collision with a Motor Vehicle (WCO Amendment No. 16 of 2014)
  - Elk Management Unit Technical Change (WCO Amendment No. 17 of 2014)



# NRC Policy Committee on Wildlife and Fisheries

- Fisheries Chief Update
- Wildlife Chief Update
  - Snowshoe Hare Project Results
  - Plum Creek Research Project



# Fisheries Division Update



Department  
of  
Natural  
Resources

# St. Joseph River Berrien Springs Web Cam



# 2014 Muskellunge Stockings

- 400,000 eggs
- Stocked 36,000 Fall Fingerlings
- 23 waters, 18 counties
- Little Bay de Noc
- Wisconsin & Indiana



# Michigan Fishing Tournament Information System





## Michigan Department of Natural Resources Michigan's Fishing Tournaments

### Welcome to Michigan's Fishing Tournaments Information System

The Michigan Department of Natural Resources welcomes you to the Fishing Tournament Information System web site where you can schedule a tournament or view scheduled fishing tournaments for a water body, ramp and date you select. This system is designed to help both tournament organizers and recreational anglers and boaters avoid ramp conflicts. In addition, tournament organizers can electronically report their catch data and help Fisheries Division effectively manage our valuable fisheries resources.

By policy, Fisheries Division will not assist nor become involved in promoting fishing tournaments. However, Fisheries Division recognizes that bass tournament catch and effort data can provide important information about bass populations across the state of Michigan.

[Go to the Map Page](#)



### Get Started with a Search



Place



Waterbody



Date

#### Place Search

Search for a Tournament by a known place such as an Address, a City, Zip, County, Village, Township, Intersection, or Place of Interest.

Enter a Place (required):

[Search for Place](#)

#### About this Application

This application is intended for the use of the Department of Natural Resources (DNR) staff, fishing tournament directors, and the general public for the purpose of scheduling fishing tournaments at designated DNR boat launches and collecting catch data from those events. This application is designed as a tool to allow for transparency in the process, but does not grant exclusivity for general public use. The DNR reserves the right to require an additional [Use Permit](#) for the facilities if required oversight is needed. The scheduling of a tournament does not guarantee access or parking to the facility and it is the responsibility of tournament directors to communicate this to their participants. The DNR reserves the right to remove any events or

#### Tournament Directors

Fisheries Division encourages bass tournament directors to enter their scheduled tournaments into this system as well as voluntarily contribute their tournament catch results to help us manage Michigan's bass fisheries. The scientific value of tournament catch and effort data will be greater if more tournament directors participate in reporting their bass tournament results. This information will be used by state fisheries biologists, in combination with data from other sources, as a basis for informed fisheries management decisions.



# The Tournament Application is intended to:

- Allow tournament scheduling at DNR launches
- Collecting data
- Avoid ramp conflicts
- Help manage bass fisheries



# 2014 Beta Testing

- 127 tournaments scheduled
- 4/17 to 9/21
- 25 counties and 65 lakes
- Southern Michigan
- Less than 10% reported catch results



# 2015 roll out

- Improvements to site
- Increased use to avoid conflict
- Increased catch reporting



# Thank you!

[www.michigan.gov/fishing](http://www.michigan.gov/fishing)



# Wildlife Chief Update

Russ Mason, Chief  
Wildlife Division  
December 11, 2014



# Supplemental Feeding in UP

- Interim Order of the Director
- Current regulations prohibit supplemental feeding of deer in the UP until January.
- December 15<sup>th</sup> start proposed due to two previous severe, snowy winters and expectations of snow depths.
- Considerations:
  - Minimize disease risk
  - Reduce lethal threats related to corn or hay
  - Predator sink
  - Unlawful to place or use as bait to take deer



# CWD Response Plan

- Feeding and baiting will be banned in any future CWD Management Zone (MZ)
- Trigger for response: CWD identified in either a privately owned or wild cervid, in MI or within 10 miles of the MI border.
- CWD MZ established by 10 mile radius (5 mi if positive is a POC) around CWD positive deer



# Thank You

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[www.michigan.gov/wildlife](http://www.michigan.gov/wildlife)



# Preliminary Firearm Deer Season Results



Brent Rudolph, Wildlife Research Specialist  
Chad Stewart, Deer Management Specialist  
Wildlife Division  
December 11, 2014



# Evaluation of 2014 Season

- Decrease in licensed hunters compared to 2013
  - 2.6% through Nov. 13
  - 6.6% through Nov. 30

- Firearm deer check data:

Deer checked as of 12/3 (compared to 2013)

UP: -31.4%

NLP: -11.0%

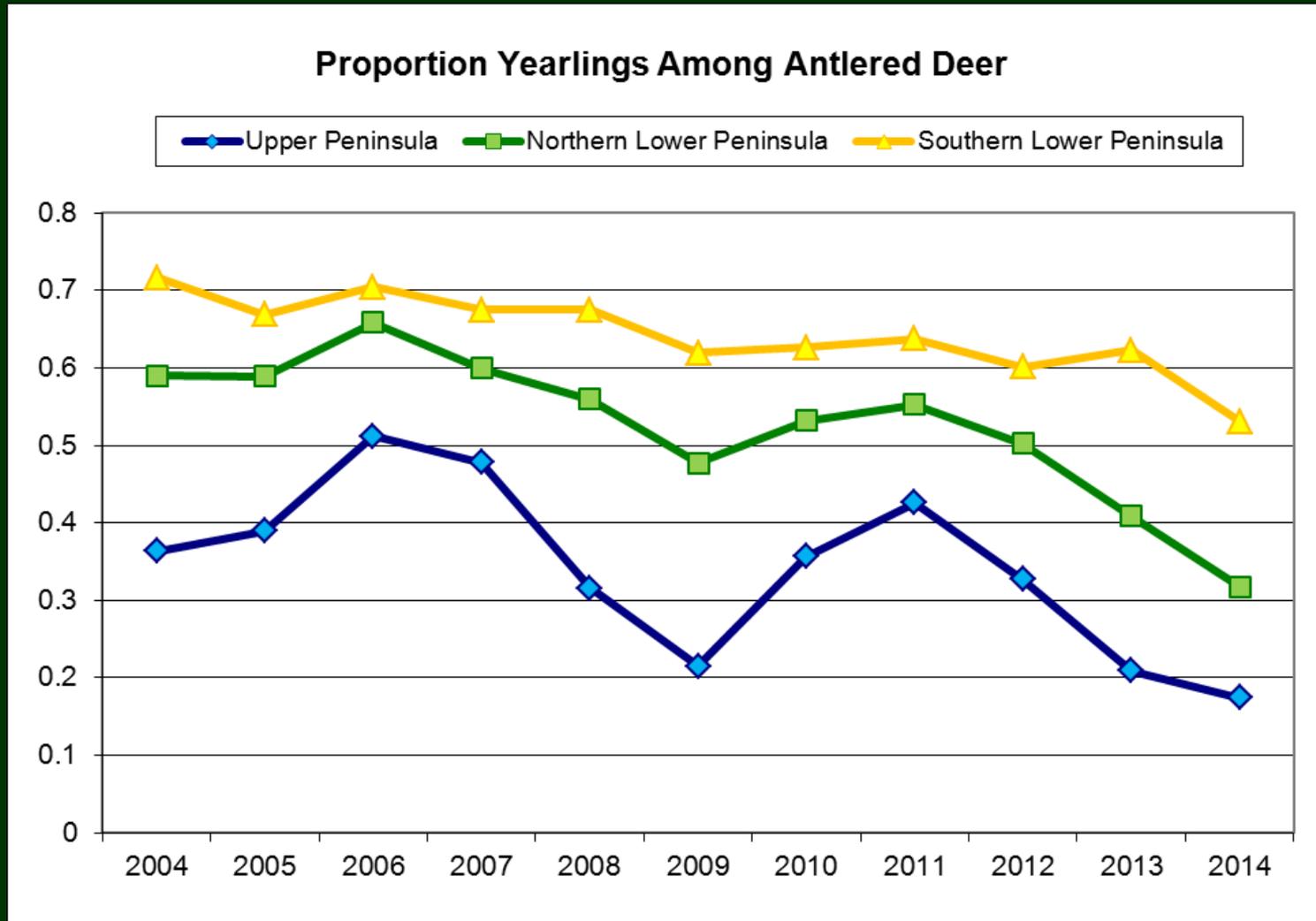
SLP: -6.1%

Statewide: -17.4%

- Results mirror Wisconsin



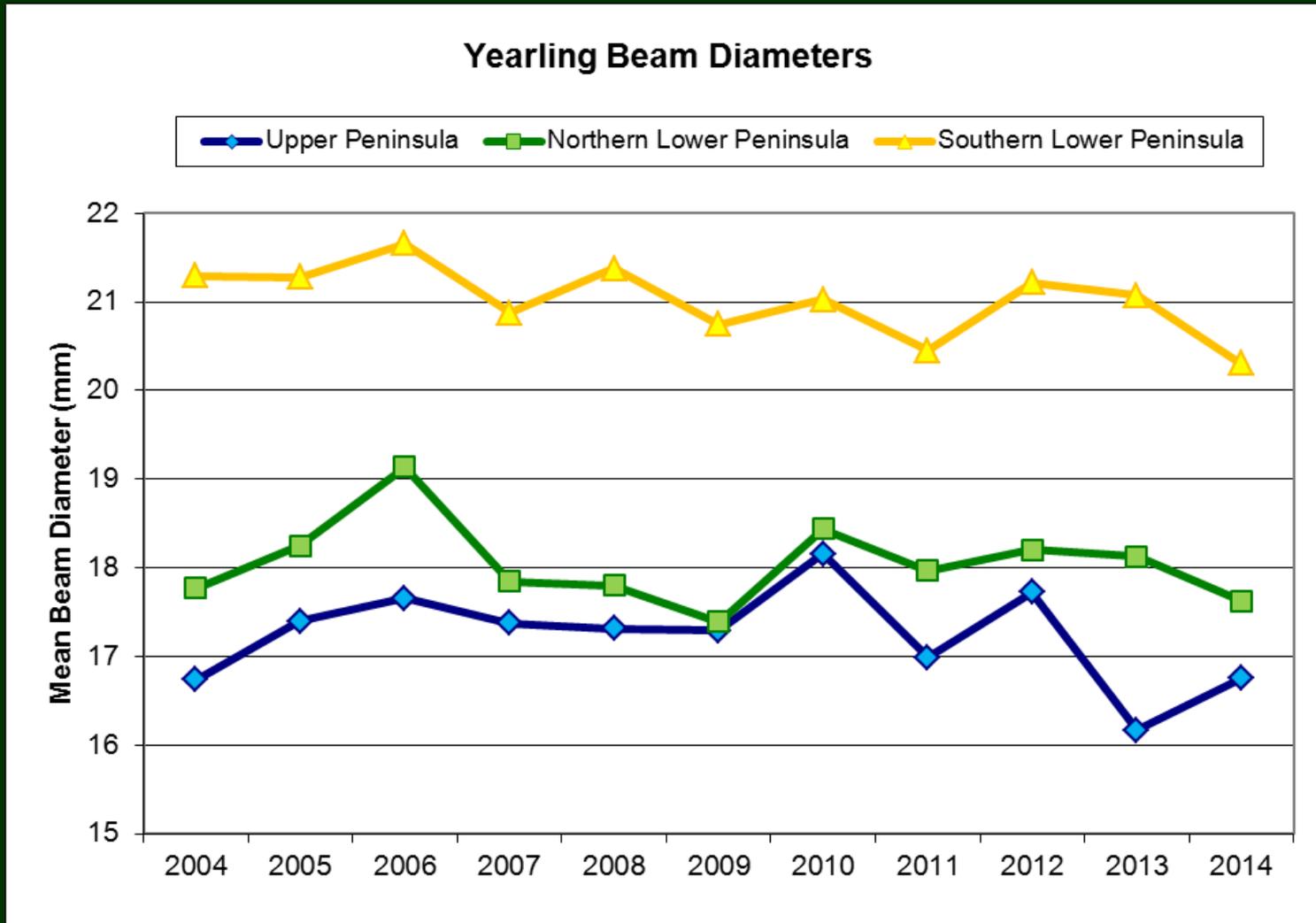
# 2014 Firearm Deer Check Data



Deer checked as of 12/3



# 2014 Firearm Deer Check Data



Deer checked as of 12/3



# Preliminary Firearm Season Harvest Estimates

- Upper Peninsula: decreased 30-40%
- Northern Lower Peninsula: decreased perhaps as much as 10%
- Southern Lower Peninsula: decreased perhaps as much as 5%



# Final Firearm Season Estimates

- Mail survey sample of licensed hunters
- All licensed hunters may report online
  - Questionnaire will be at [www.michigan.gov/deer](http://www.michigan.gov/deer)
  - Submit after all 2014 hunting



# Multiple Year Deer Regulations

- March/April 2015: notification of any Deer Management Units potentially requiring quota adjustments
- Comprehensive regulations recommendations for 2017-2019



# Thank You

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[www.michigan.gov/deer](http://www.michigan.gov/deer)



# Snowshoe Hares in Michigan

## Management Implications



David Burt  
Gary Roloff  
Dwayne Etter



## ▶ Color change



## ▶ Productivity



Photo credit: [eternalsummers.blogspot.com](http://eternalsummers.blogspot.com)

## ► Predation



Photo credit: Robert Levy

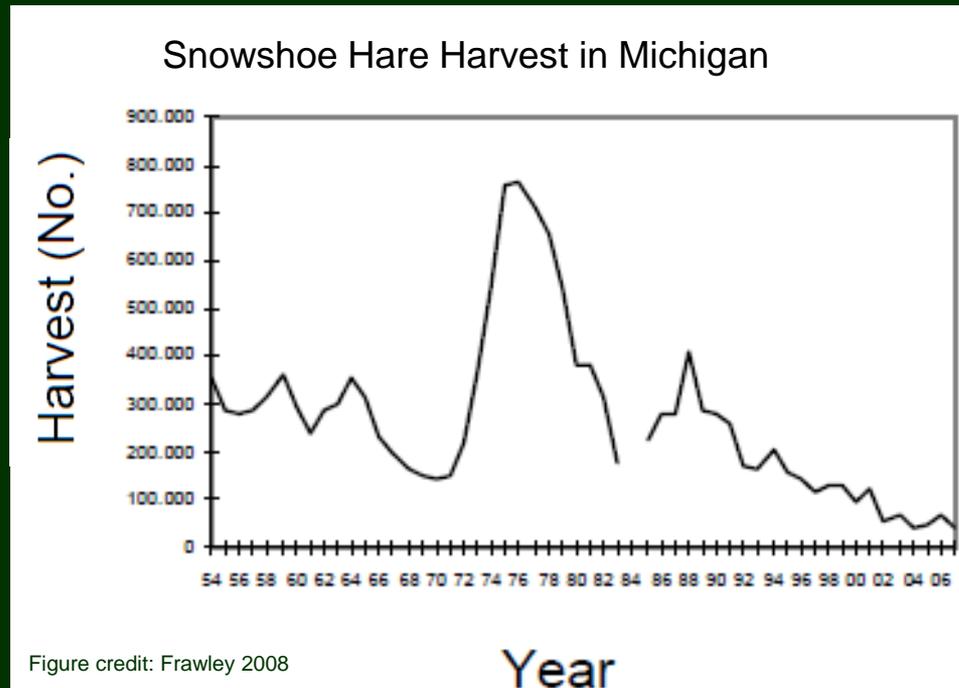


Photo credit: Tom Prestby

## ► Predation



## ► Hunter interest



## ▶ Geographic range

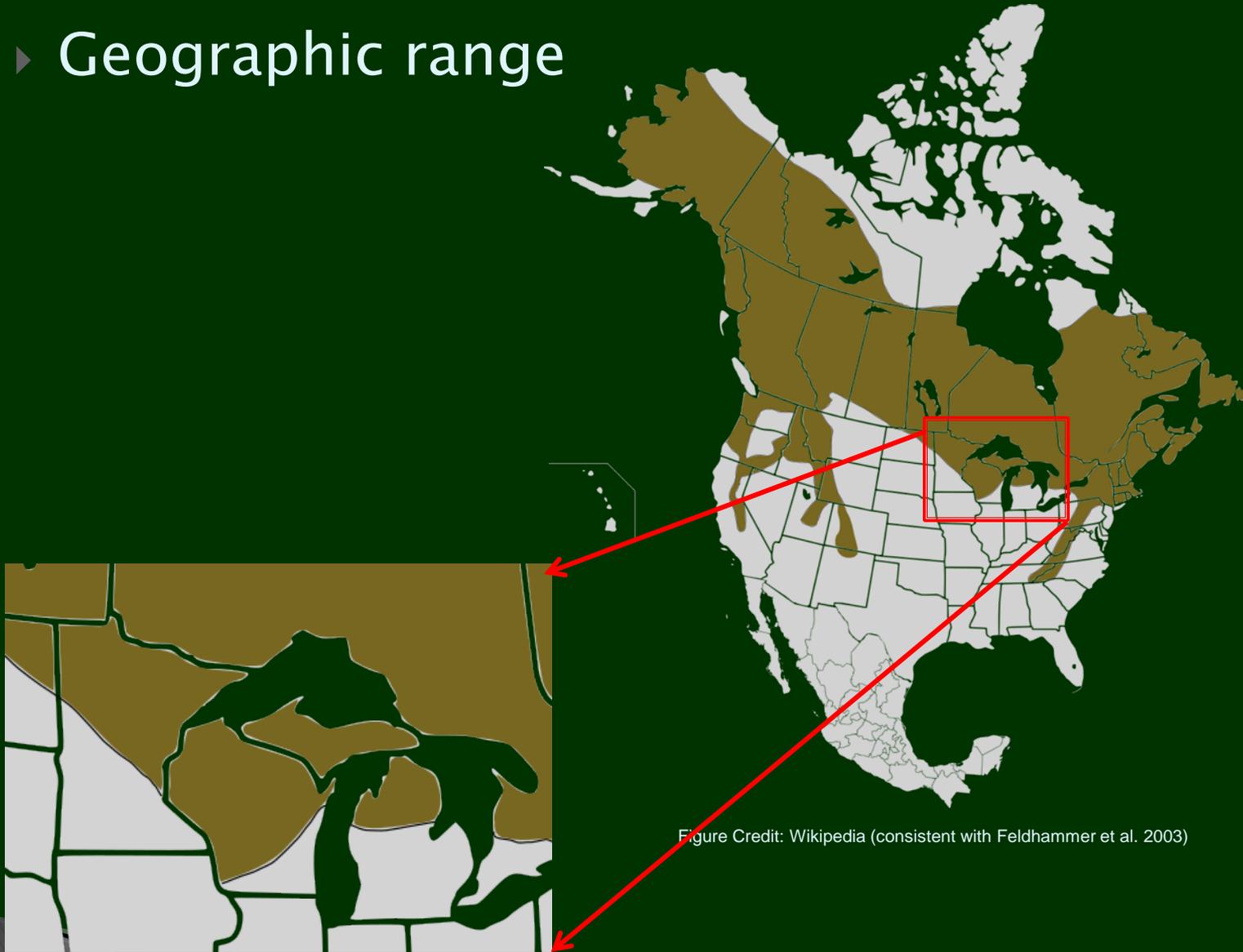


Figure Credit: Wikipedia (consistent with Feldhammer et al. 2003)

- ▶ How does climate influence localized (~15 ac site) snowshoe hare extinction in Michigan?





## ► Field sampling

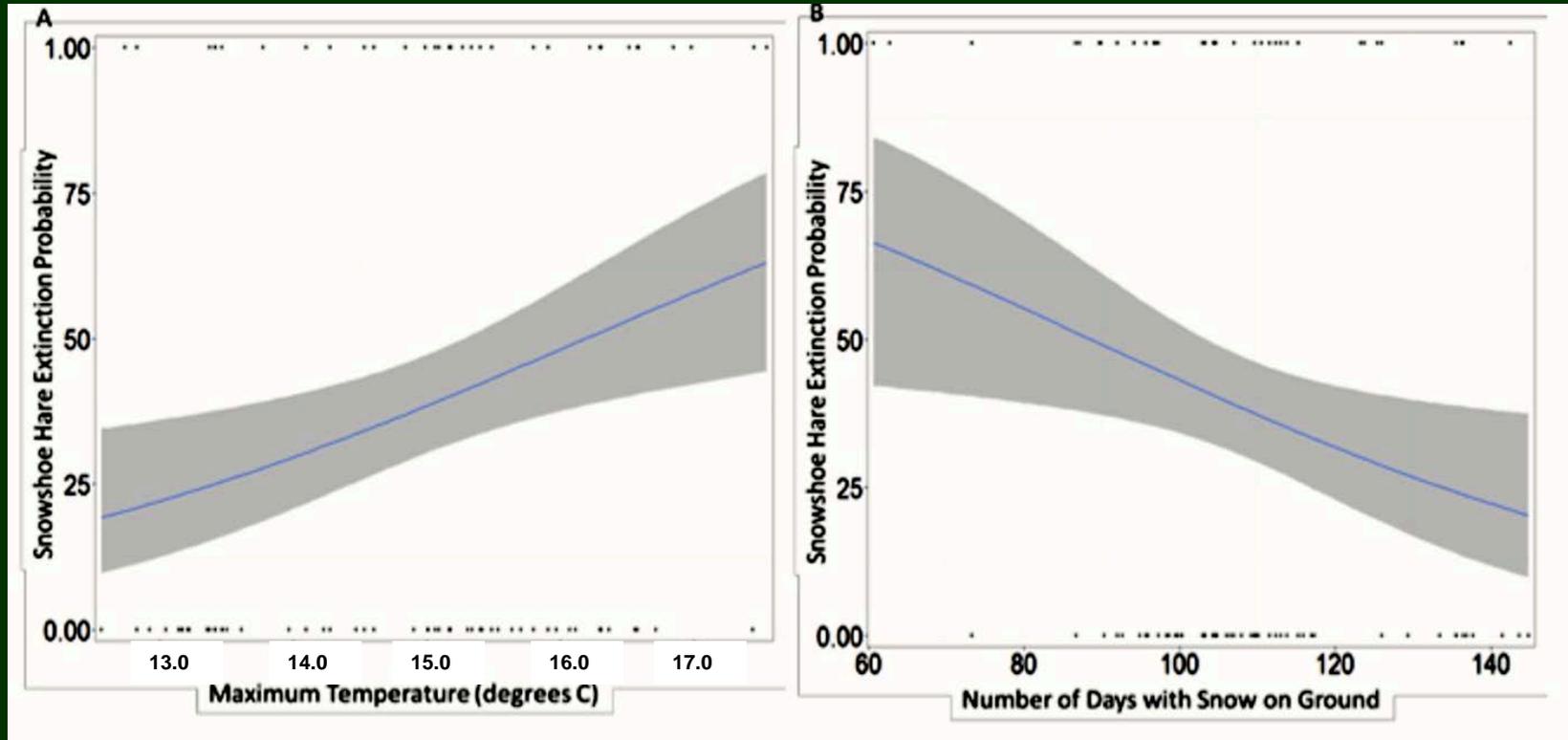




# Findings

- ▶ Top climate variables
  - Maximum temperature
  - The number of days with measurable snow on the ground

▶ Localized (15ac) hare extinction and climate



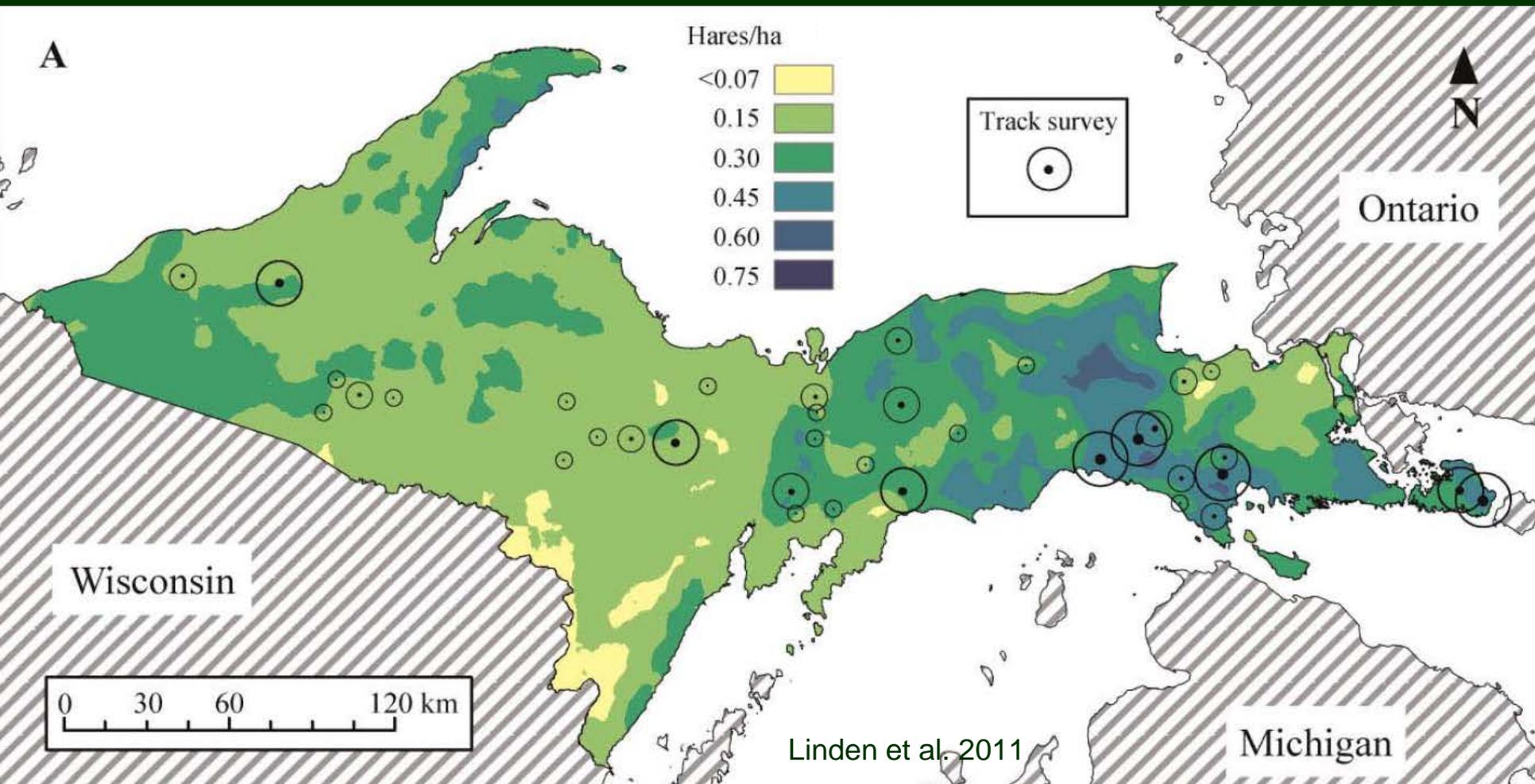
# Findings

- ▶ Top climate variables
  - Maximum temperature
  - The number of days with measurable snow on the ground
- ▶ Climate alone not driving localized extinction
  - Vegetation structure
  - Spatial arrangement of habitats
  - Predators



# Habitat Quality

- ▶ Poor-to-marginal snowshoe hare habitat





*Applied Forest and Wildlife Ecology Lab  
Michigan State University*

# Habitat Quality

- ▶ Conifers
  - 3x more important than deciduous



# Habitat Quality

- ▶ Conifers
  - 3x more important than deciduous
- ▶ Visual obstruction



- ▶ 90% chance of having hare
  - Post-fire jack pine

Horizontal Obstruction	ESD	Pure Conifer (Stems per Ac)	Mixed (Stems per Ac)	Pure Deciduous (Stems per Ac)
10	20	2,333	4,666	6,666
9	33	3,666	7,000	11,000
8	46	5,333	10,000	15,333
7	59	6,666	13,000	19,666
6	72	8,000	16,000	24,000
5	85	9,666	18,333	28,333
4	98	11,000	21,333	32,666
3	111	12,333	24,333	37,000
2	124	14,000	27,333	41,333
1	137	15,333	30,333	45,666
0	149	16,666	33,000	49,666

- ▶ 90% chance of having hare
  - Post-harvest aspen

Horizontal Obstruction	ESD	Pure Conifer (Stems per Ac)	Mixed (Stems per Ac)	Pure Deciduous (Stems per Ac)
10	20	2,333	4,666	6,666
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6	72	8,000	16,000	24,000
5	85	9,666	18,333	28,333
4	98	11,000	21,333	32,666
3	111	12,333	24,333	37,000
2	124	14,000	27,333	41,333
1	137	15,333	30,333	45,666
0	149	16,666	33,000	49,666

- ▶ Horizontal cover
  - When (preceding tables)
  - What should it look like?
  - Where?
  - How much?



# Climate and Habitat

- ▶ Climate AND habitat both important
  - Can habitat be managed to reduce negative climate impacts?

# What's next?

- ▶ Look at transects and abundance
  - Track surveys
  - Genetics
- ▶ Test relationship between climate variables and population mechanisms
  - Decreased litter sizes
  - Mismatched pelage coloration leading to higher mortality rates
- ▶ Can we manage vegetation to have a positive effect on those population mechanisms?

▶ Thank you

# Menge Creek and Huron Mountains Deer Wintering Complex Cooperative Habitat Management Pilot Project



Charlie Becker, Plum Creek Senior Resource Manager

Bill Scullon, DNR Wildlife Biologist

Henning Stabins, Plum Creek Wildlife Biologist



**PlumCreek**

# DWC Cooperative Habitat Management Pilot Project:



## What are Wildlife Division's interest and goals

- Foster a cooperative relationship with industrial partners on wildlife habitat management issues.
- Improve long-term sustainability of conifer cover within two obligate Deer Wintering Complexes in the Lake Superior watershed.
  - Menge Creek DWC
  - Huron Mountains DWC
- Develop applied forest management guidance which favors hemlock retention and long-term management.
  - Which we can share with other partners



Plum Creek

# DWC Cooperative Habitat Management Pilot Project:



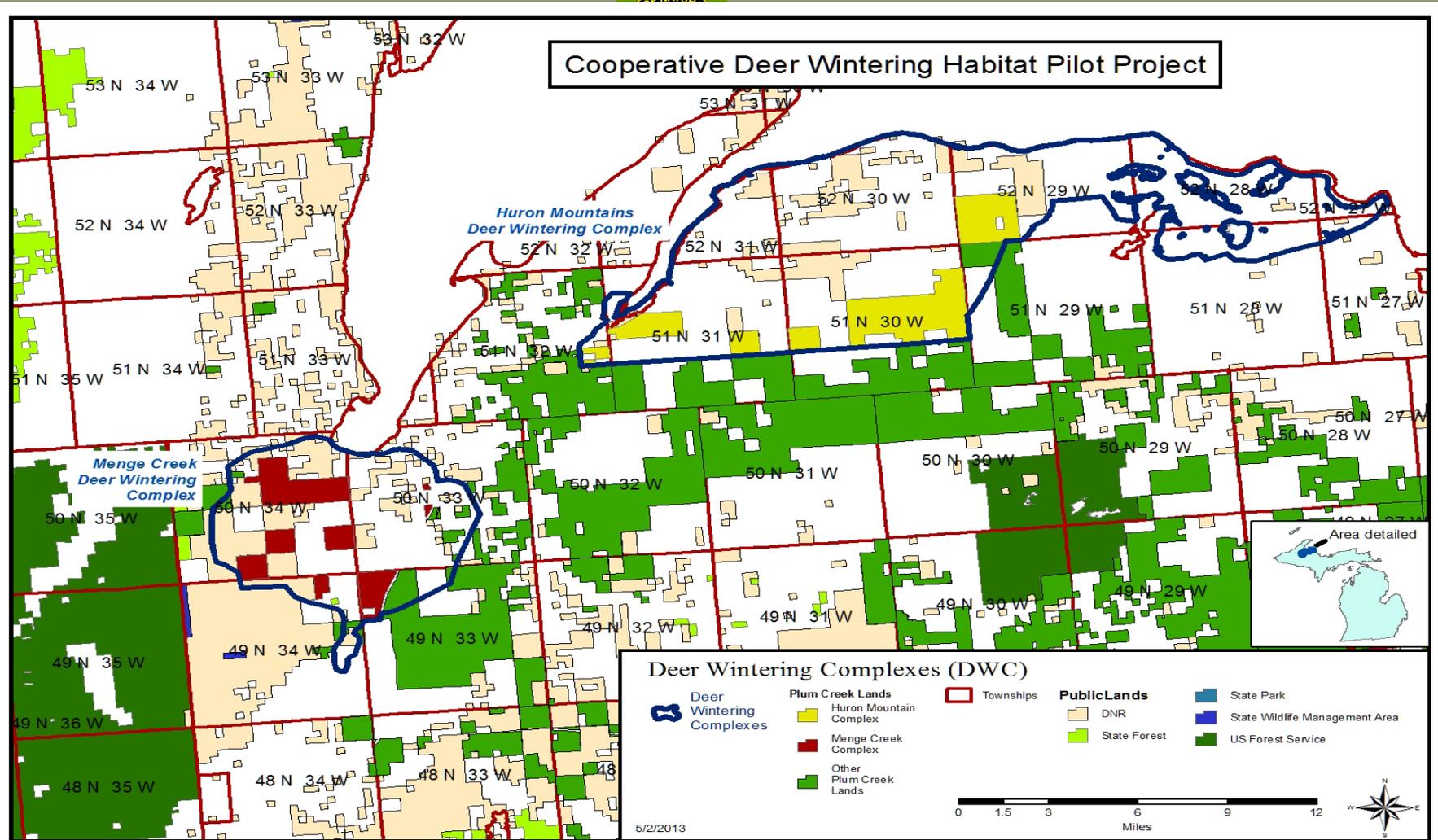
## What are Plum Creek's interest and goals

- Foster cooperative relationship with agency partners on habitat management issues.
- Develop a framework that provides long-term planning predictability for landowners.
- Implement an adaptive management approach with practical habitat guidelines and prescriptions with the goal of continual learning and improvement.
- Willing to commit 16,000 acres to this collaborative pilot project.



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# DWC Pilot Project Areas:



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# DWC Cooperative Habitat Management Pilot Project:



- The background for Deer Winter Complexes at the regional scale.
  - Obligate winter deer range (mid & high snowfall zones) is 20% of total UP landscape (3,369 mi<sup>2</sup>).
    - 44% of obligate DWC in public trust (state or federal)
    - 37% of obligate DWC in small private ownerships
    - 19% of obligate DWC in Commercial Forest lands
  - Menge Creek and Huron Mountains DWC have been critical winter range for 80+ years.
    - Industrial and private individual ownership represent the majority interest within these two DWC's



Plum Creek

# DWC Cooperative Habitat Management Pilot Project:



- How this collaborative project has developed
  - In 2009 collaborative process initiated to address mutual concerns about deer winter range management.
  - Identified broad habitat and strategic goals.
  - Defined the areas, ownerships, and forest inventory process
  - Developed management guidelines.
  - Developed operational prescriptive language.
    - Harvest prescriptions, stand types, spatial arrangements, stand structure, harvest timing, monitoring
  - Applied an adaptive approach to the 'live' project DWC's.



Plum Creek

# Broad DWC Project Habitat Goals:



- Utilize a collaborative learning process about forest management and wildlife ecology.
  - Industry and agency personnel exchanging perspectives and learning from each other
- Implemented a 70% conifer crown closure retention guidance.
  - 70% rule focuses on hemlock as primary retention cover species
  - Maintain an overhead conifer canopy for snow intercept value which allows room for forest regeneration
- PC to conduct a cost / benefit analysis of implementation of these guidelines.
  - Increased hemlock retention resulted in a reduction in tonnage from treated acres
- Recognition that hemlock management has benefits for a multitude of other species.



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# Broad DWC Project Habitat Goals:



- Continued monitoring regarding effectiveness.
- Identify additional opportunities for collaboration on deer winter habitat management within the DWC's.



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# 70% Conifer Canopy Closure Rule



- Why strive to maintain a 70% conifer canopy cover in DWC's?
  - Below 70% canopy and deer usage declines
  - 70% maintains a optimal snow intercept canopy while enabling forest regeneration process to occur.
    - Multistoried conifer canopy ensure adequate snow intercept and wind disruption
    - Limited light penetration to enable shade tolerant forest species to regenerate
    - Enables room for limited thoughtful and deliberate timber selection
  - Long-lived conifers are the target species.
  - Hemlock has a historical and continued importance on landscape.
- Difficulty is in translating to a operational prescription!
  - From conifer canopy to Basal Area



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# Project Operational Considerations:



## Forest management guidelines:

- Hemlock Stands - areas larger than 3 acres in size in which hemlock composes greater than 50% of basal area.
- Hemlock inclusions - Areas less than 3 acres in size in which hemlock is greater than 10% but less than 50% of basal area. The inclusions are usually within northern hardwood stands but are not limited to this type.

Resulted in revised inventory process on the pilot DWC's.



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# Project Operational Considerations:



## Silvicultural Prescriptive Language Guidelines:

- In hemlock stands- Thin stands to 100 to 130 sq. ft. /acre with preference to hemlock retention.
- In northern hardwoods stands with areas of hemlock/inclusions- Select harvest northern hardwood stands to an average basal area of 60-70 sq. ft. / acre. Thin areas of hemlock with mixed hardwoods to 90 to 100 sq. ft. /acre with preference for hemlock (conifer) retention.

Bruce Maki, PC Forester developed these working guidelines



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# Project Operational Considerations:



## Additional management considerations:

- Spatial arrangements – emphasis on connectivity and habitat integrity.
  - Plan to maintain and enhance / link hemlock types over the long-term
- Harvest timing – consider scarification opportunities when scheduling harvests.
  - Promote natural opportunities for forest regeneration and minimize herbivory impacts
- Stand structure – retain a multi-storied canopy composed of uneven aged trees.
  - Adds to stand resiliency and increases value to other wildlife species



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# PC Contribution to DWC Project Areas



## Menge Creek

- 22,449 total DWC acreage
- 5,927 acres of PC ownership (19% of DWC)
- Migratory deer believed to be from Baraga Southern Houghton Counties.

## Huron Mountains

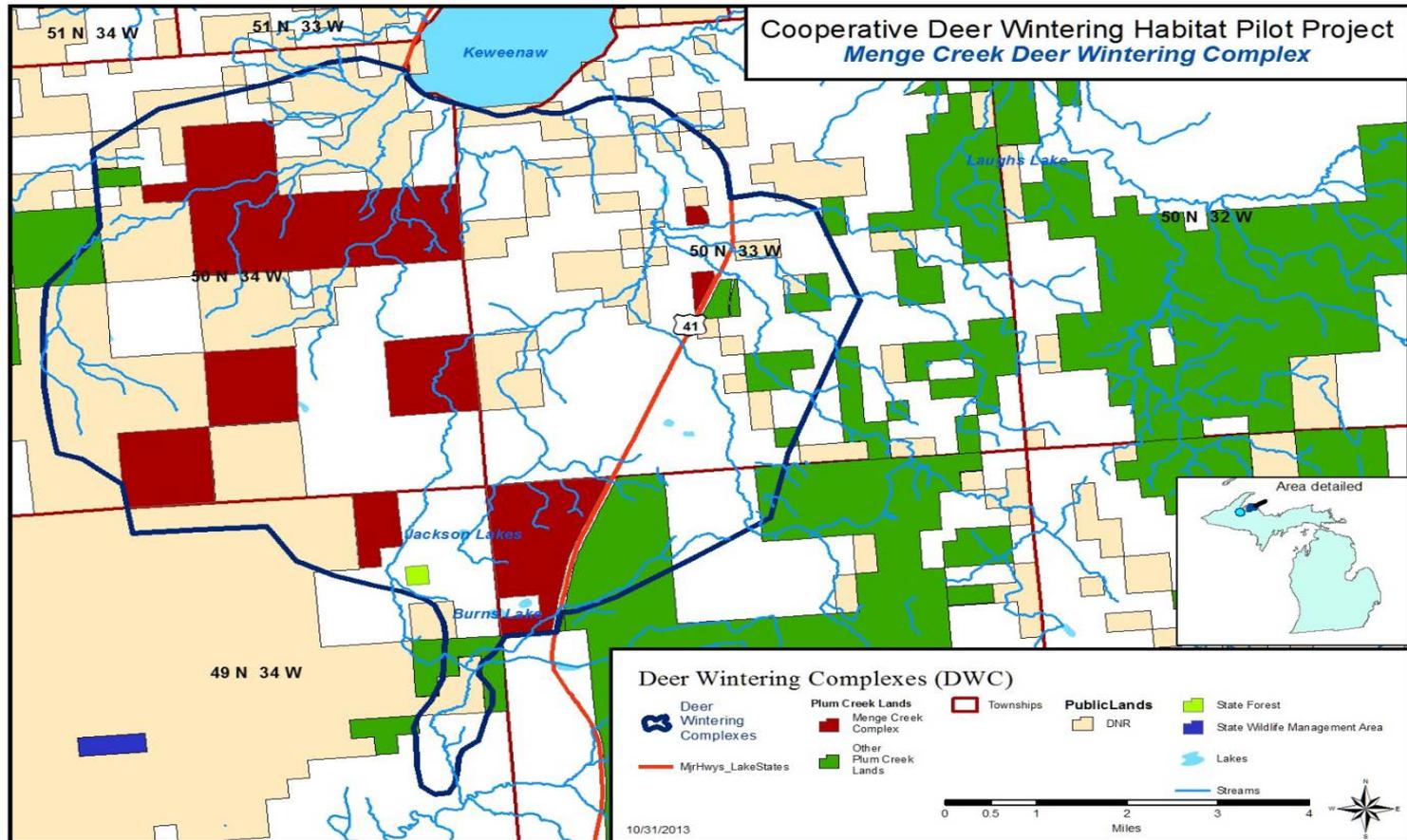
- 72,804 total DWC acreage
- 10,567 acres of PC ownership (13% of DWC)
- Migratory deer believed to be from Baraga and Marquette Counties.

**16,494 acres in total of PC ownership (17% of the DWC's).**



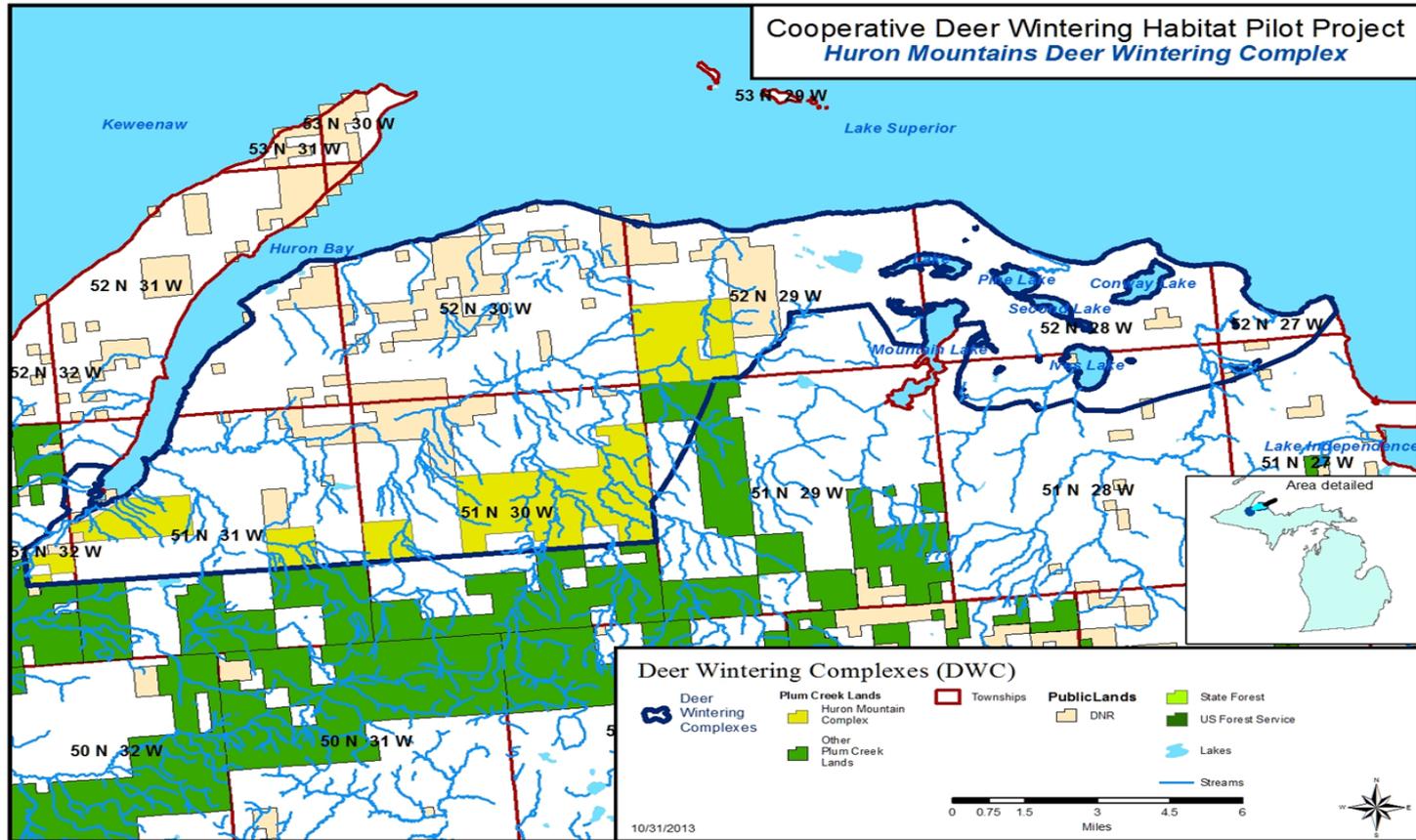
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# Menge Creek DWC



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# Huron Mountains DWC

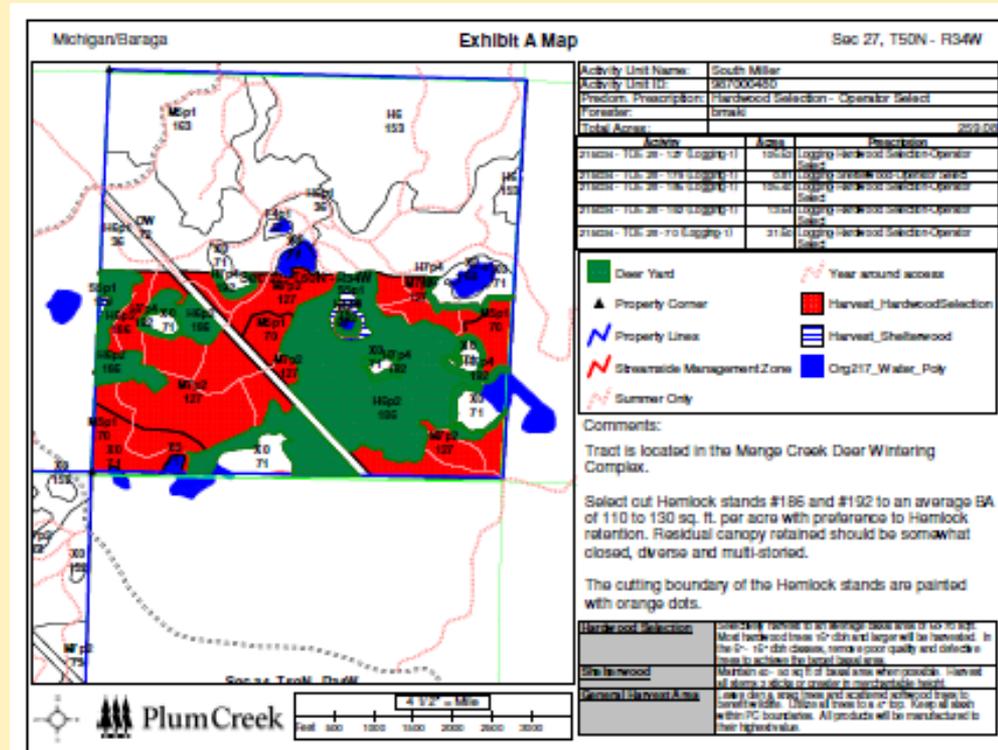


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# Operational DWC pilot project:



- Harvested in 14 stands totaling 829 acres.
  - Normal would have been 70 Sq. feet / acre, favoring northern hardwoods as retention
  - Post harvest residual basal areas have ranged from 100 to 130 sq. feet /acre favoring hemlock
  - Resulted in 25 to 35 additional tons of residual soft wood left on landscape



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# 2014 scarification project



- Scarification using a dozer with a rock rake.
- Intended to expose 90%+ bare mineral soil as seedbed for hemlock and other light seeded species.
  - Expand existing stands and connectivity
- Treated 350 acres.



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# 2014 scarification project



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# Next steps



- Continue implementation and adaptive management approach
- Finalize Private Lands Deer Cooperative Certification process
  - NRC support
- Coordinated public relations and outreach
- Project expansion to other partners?



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# Questions?



## Acknowledgements:

The following PC and DNR personnel have contributed to the development of this pilot project: Henning Stabins-PC, Jeff Joseph- PC, Charlie Becker-PC, Bruce Maki-PC, Dave Tormohlen-PC, Ed Meddaugh-PC, Brian Roell-DNR, Brad Johnson-DNR, Steve Carson-DNR, Craig Albright-DNR, Terry Minzey-DNR, and Bob Doepker-DNR



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