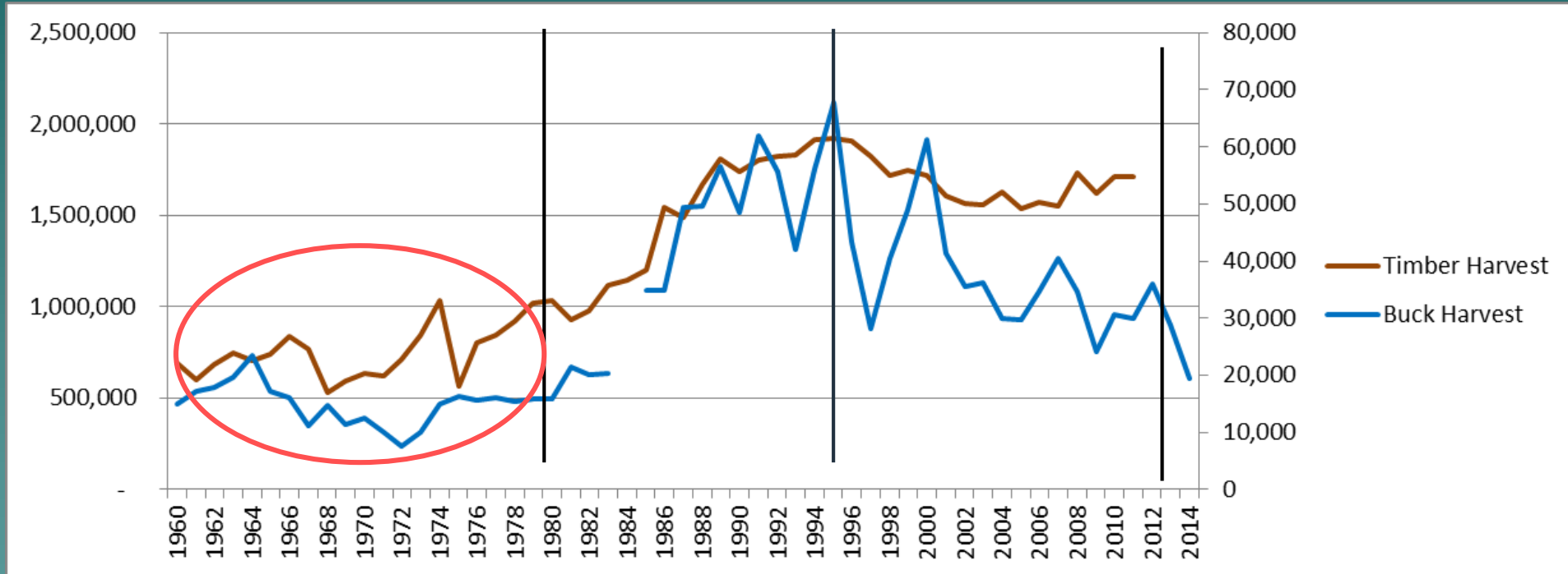


# Deer Population Trends - UP Wide

Buck harvest (population indicator) – Timber Harvest  
Intensity (cords)



- Timber harvest correlates with pre 1980's

# Role of predators, winter weather, and habitat on white-tailed deer fawn survival in the south-central Upper Peninsula of Michigan

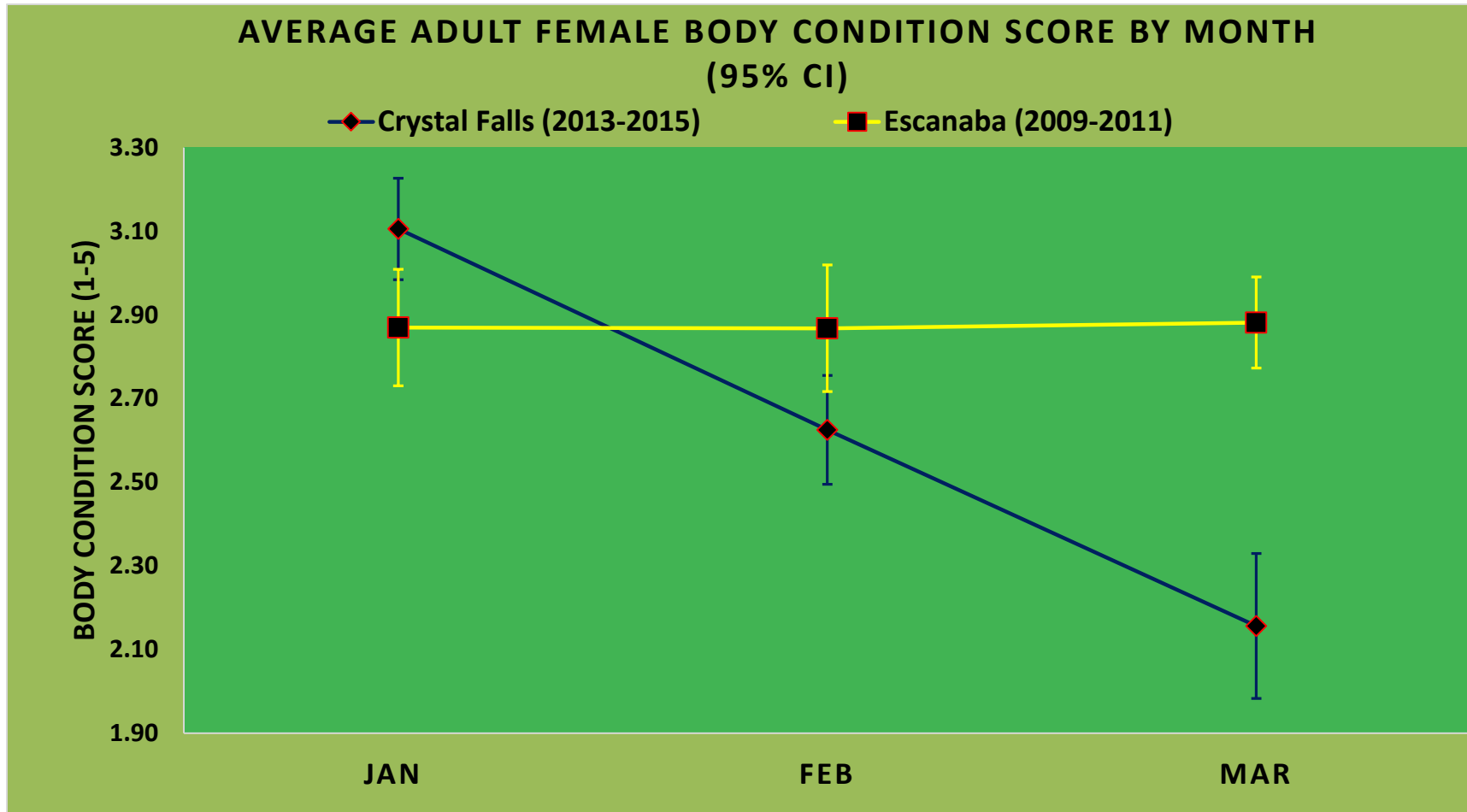


Jerrold Belant, Mississippi State University  
Dean Beyer, Michigan DNR  
Craig Albright, Michigan DNR  
Dwayne Etter, Michigan DNR  
Patrick Lederle, Michigan DNR  
Brent Rudolph, Michigan DNR

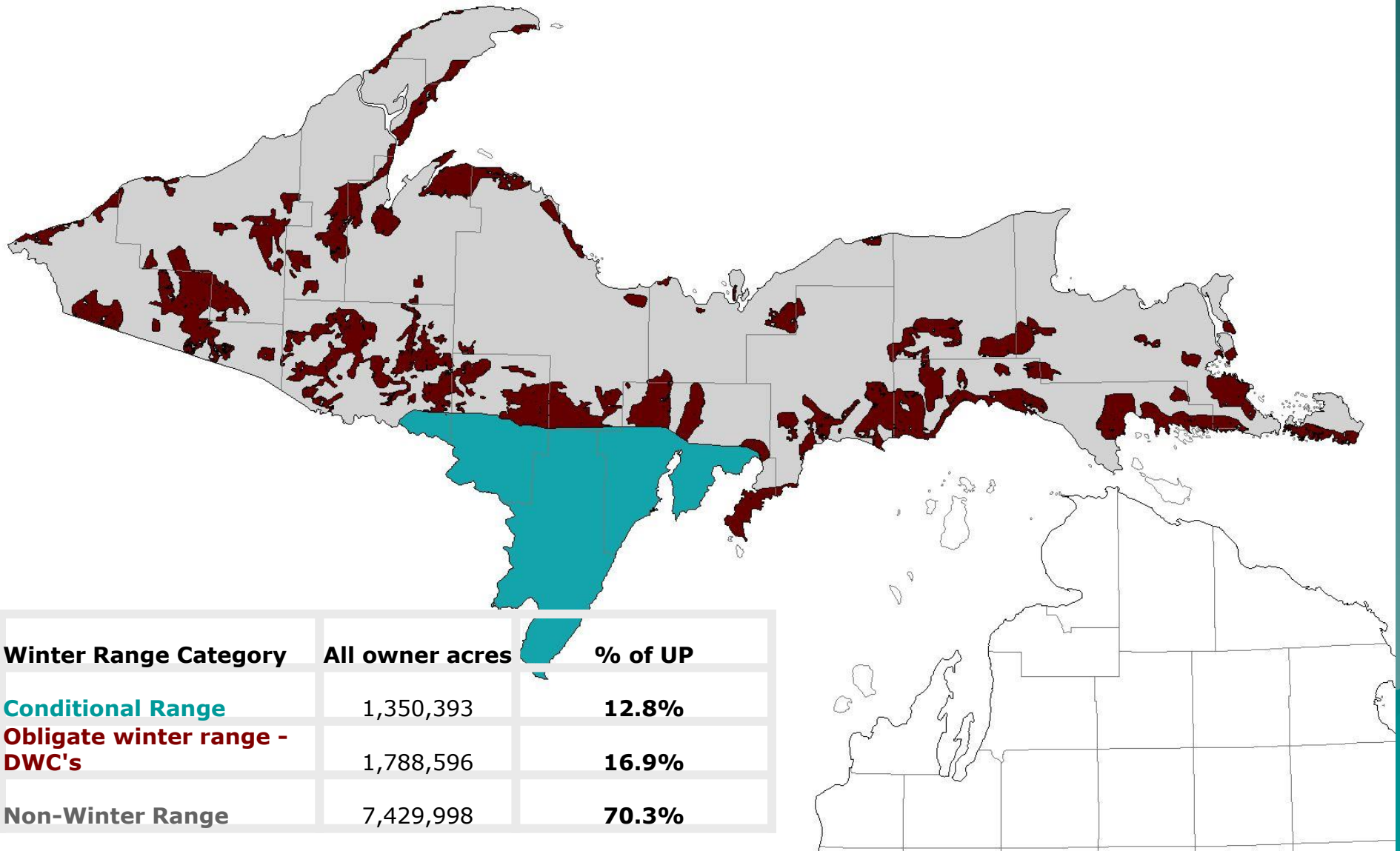


**Safari Club International**  
Michigan Involvement Committee

# Body Condition Scores-Phases 1 & 2



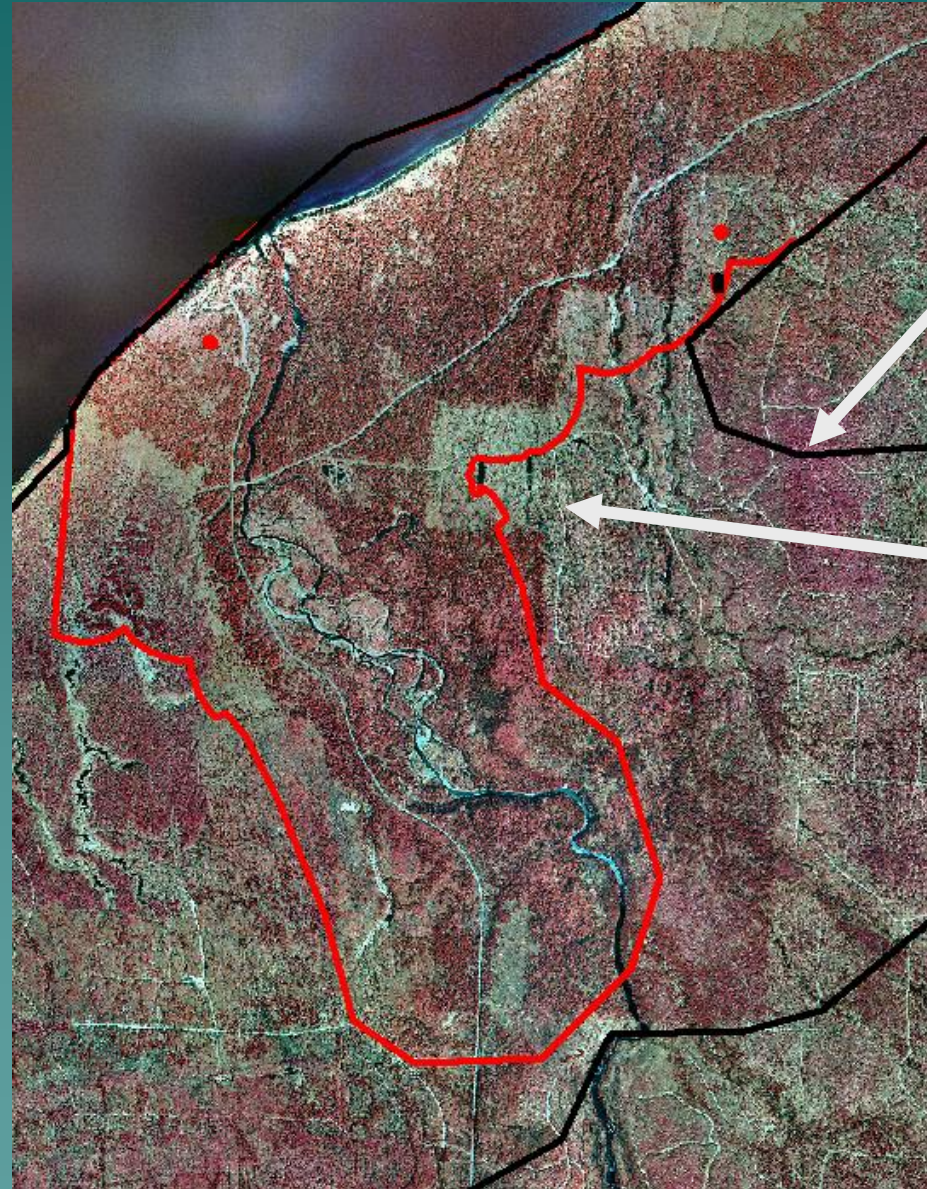
# 2013 UP Deer Winter Range



Winter Range Category	All owner acres	% of UP
Conditional Range	1,350,393	12.8%
Obligate winter range - DWC's	1,788,596	16.9%
Non-Winter Range	7,429,998	70.3%



## Negative Influence of Timber Harvest on Winter Habitat: Shelter Removal, Porcupine Mountains, Presque Isle



Historic DWC  
Boundary

Current DWC  
Boundary



# Deer Winter Range Management in the Upper Peninsula

NRC

February 12, 2015



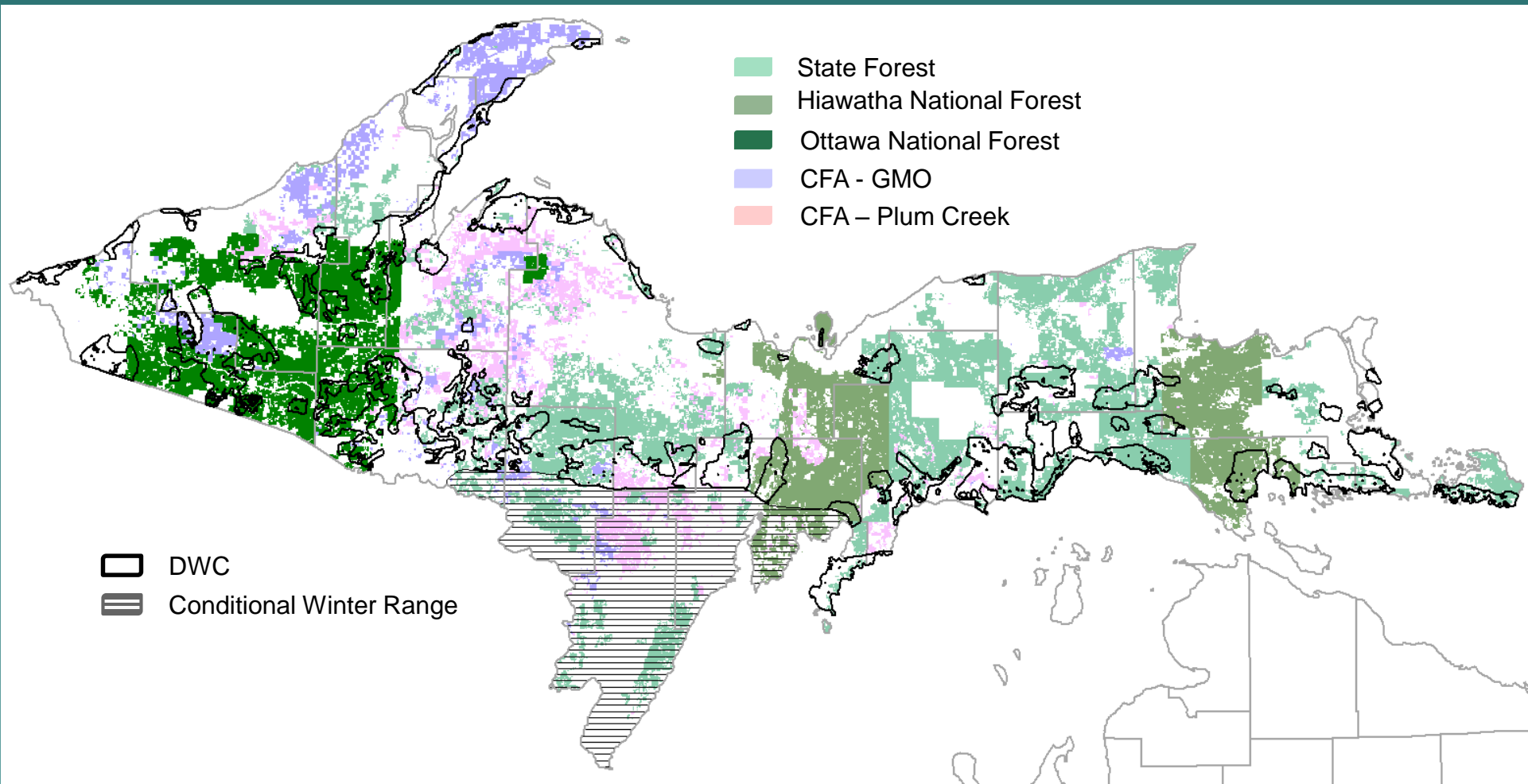


# U.P. Habitat Workgroup Membership:

- J.R. Richardson: Michigan Natural Resources Commission
- Warren Suchovsky: DNR Forest Management Advisory Committee
- Bernie Hubbard: Society of American Foresters
- Jeff Joseph: Plum Creek Timber Company
- George Lindquist: Regional Vice President, Michigan United Conservation Clubs
- Randy Charles: U.S. Forest Service, Ottawa National Forest
- Terry DeBruyn: U.S. Forest Service, Hiawatha National Forest
- Terry Minzey, DNR U.P. Wildlife Supervisor
- Dennis Nezich: DNR Forest Resources Division Field Coordinator
- Tony Demboski: Upper Peninsula Sportsman's Alliance
- Eric Steir: American Forest Management, Inc.
- Jim Hammill: Iron Range Consulting and Services, Inc.
- Matt Watkeys: Marquette County Conservation District

# U.P. Habitat Workgroup Representation:

Group Represents 50% of DWC Acreage







# DEER WINTERING COMPLEXES in Gogebic County, west portion



## Legend

Deer Wintering  
Complexes  
(DWC; circa 2013)

DWC portion on  
Public Land  
(State or Federal land)

DWC portion on  
"Private" Land  
(meaning not on  
State or Federal land)

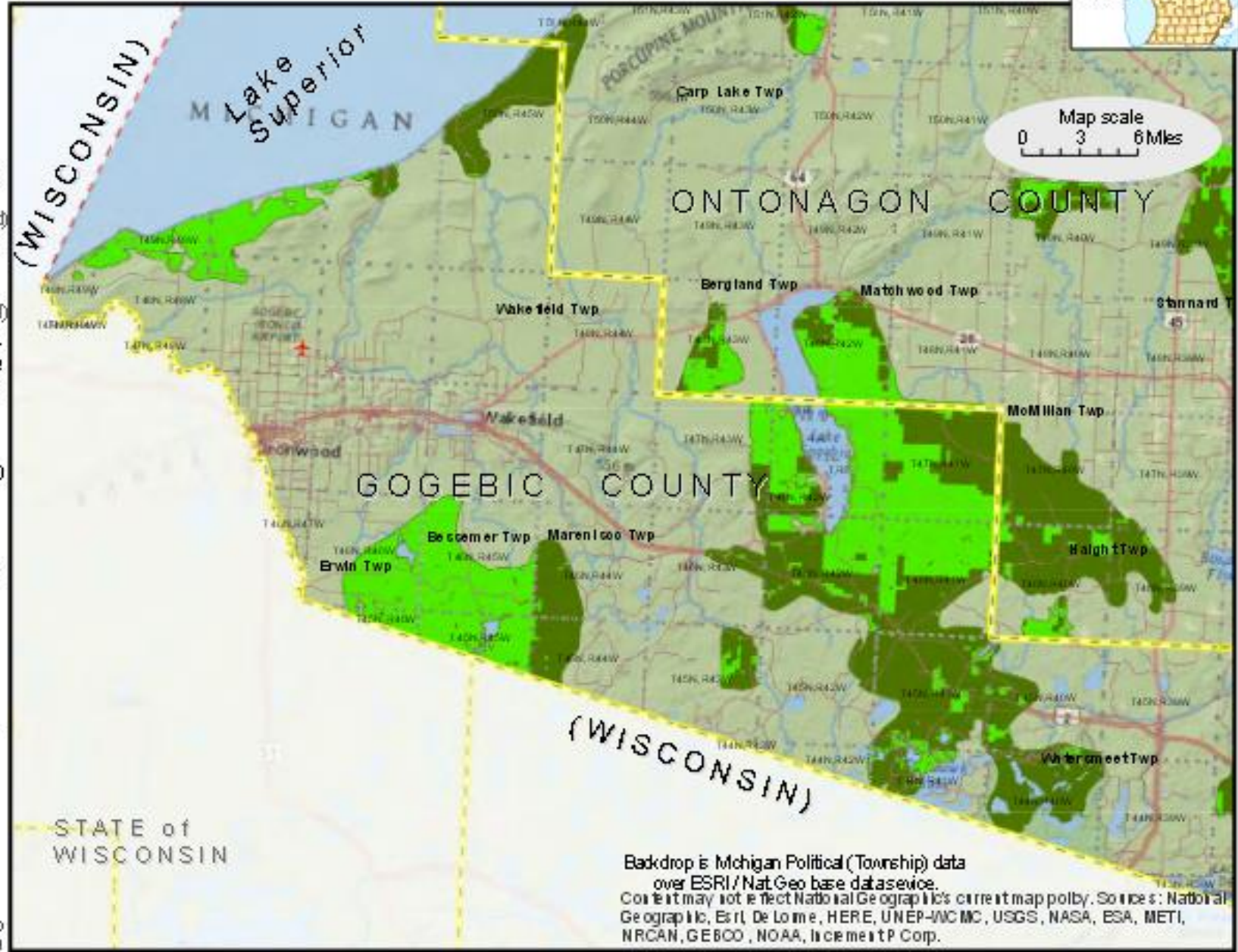
These are special land-  
scape areas which are  
not created exclusively  
using land ownership  
patterns, so they can  
go across or include  
multiple land ownership  
types in one DWC.

See the back of this  
map for help reading  
this map and important  
notes about DWC.

Note: When referring to  
an area, DWCs do not  
have unique names, so  
when describing one,  
use the County name &  
the Town Range block  
- labelled on map like:



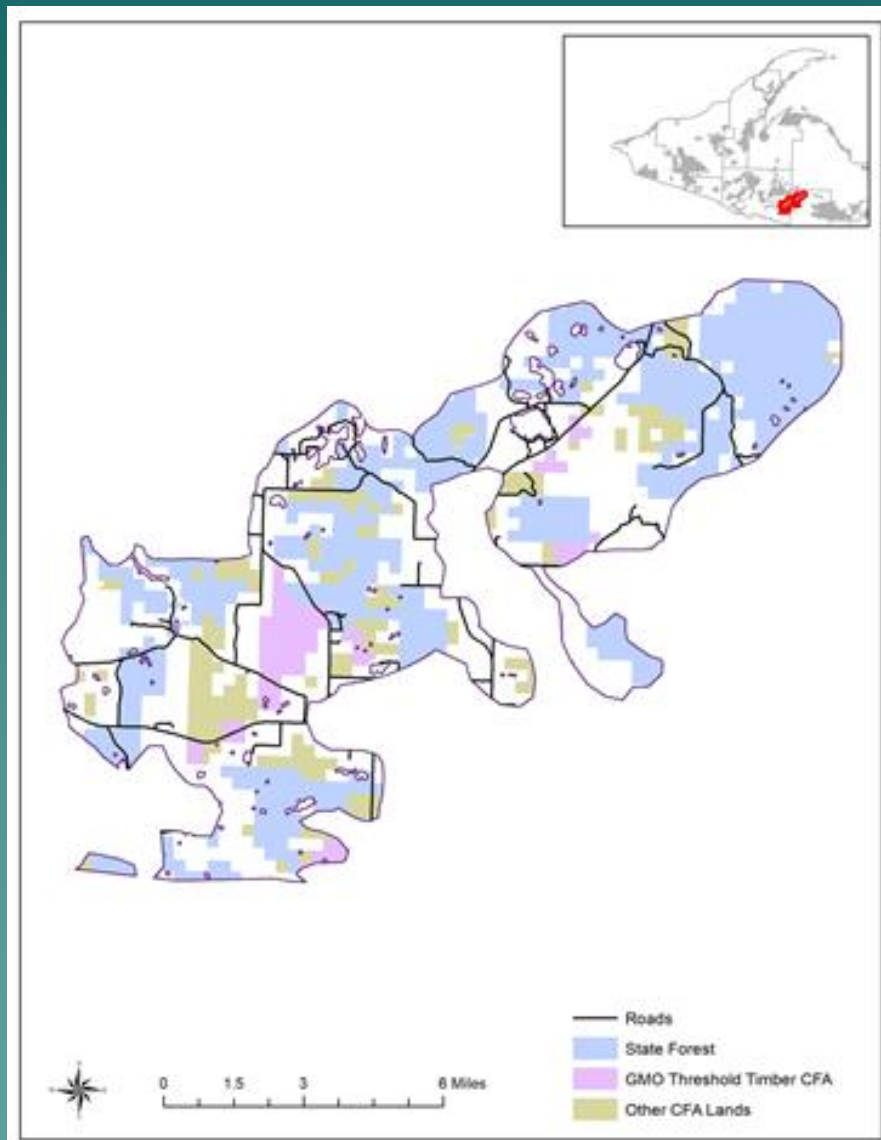
Revised 10/17/2014  
DNR Wildlife Division map  
(WLD/MS)



Backdrop is Michigan Political (Township) data  
over ESRI/Nat Geo base data service.

Content may not reflect National Geographic's current map policy. Sources: National  
Geographic, Esri, De Lorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI,  
NRCAN, GEBCO, NOAA, iCement Corp.

# Plans also contain: background information, maps, references



## References:

### Deer Winter Range Information

UP Habitat workgroup information and online maps <http://bit.ly/uphabitatworkgroup>

Michigan State Forest Deer Winter Range Guidelines

[https://www.michigan.gov/documents/dnr/DeerWinterRangeGuidelines\\_469021\\_7.pdf](https://www.michigan.gov/documents/dnr/DeerWinterRangeGuidelines_469021_7.pdf)

### Forestry Links

List of Conservation District Foresters by County <http://michigan.gov/MIFAP>

Summary of forestry programs for landowners in Michigan

[http://michigan.gov/documents/dnr/GeneralForestryInfo\\_474276\\_7.pdf](http://michigan.gov/documents/dnr/GeneralForestryInfo_474276_7.pdf)

Forest Stewardship Program – provides management plan assistance

<http://michigan.gov/foreststewardship>

Natural Resource Conservation Service (NRCS) – provides management plan assistance

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/mi/technical/landuse/forestry/>

Grant Programs – these programs are competitive and may help fund some of the recommendations identified in this document beyond timber harvest, including conifer tree planting and opening maintenance.

Wildlife Habitat Grant Program – The Wildlife Habitat Grant Program (WHGP) purpose is to provide funding to local, state, federal and tribal units of government, profit or non-profit groups, and individuals to assist the Wildlife Division with developing or improving wildlife habitat for game species.

[http://www.michigan.gov/dnr/0,4570,7-153-58225\\_67395-324696--,00.html](http://www.michigan.gov/dnr/0,4570,7-153-58225_67395-324696--,00.html)

Upper Peninsula Deer Habitat Improvement Grant – The Deer Habitat Improvement Partnership Initiative is a grant program designed to foster productive relationships between the DNR, sportmen's organizations, concerned citizens and other partners that produce tangible deer habitat improvement benefits and educate the public about the importance of the work and the scientific principles involved in it.

[http://www.michigan.gov/dnr/0,4570,7-153-58225\\_67395-271849--,00.html](http://www.michigan.gov/dnr/0,4570,7-153-58225_67395-271849--,00.html)

NRCS Environmental Quality Incentives Program (EQIP) – Provides financial and technical assistance to landowners through contracts that provide financial assistance to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland.

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/>

Tree sales – Most county conservation districts have spring tree sales including white pine, white spruce, hemlock and balsam fir.

List of local districts <http://macd.org/local-districts.html>

References include links to programs that can assist implementation

# How we will have an impact:

## ❖ State

- Specific habitat plans drawn up for each DWC and those plans folded in as appropriate to each Compartment Review
- Current cooperative agreement between Forest Management & Wildlife Divisions to preserve winter habitat on state lands
- Provide grants for habitat improvement on private land such as shelter plantings

## ❖ Federal

- Guidance of DWC Plans made available to Federal land managers
- Conservation of primary winter shelter per current forest plans
- Participate in Opportunity Area Reviews (USFS)

## ❖ Corporate


- Guidance on DWC Plans
- Agreements with state similar to the Plum Creek – DNR agreement
- Explore sale/trade/easements that are mutually beneficial
- Opportunities to participate in habitat improvement grants

## ❖ Private Partners

- Access to guidelines via website
- Opportunities to participate in habitat improvement grants
- Communicate and coordinate with consulting foresters and biologists
- Habitat guidelines to be part of FS Plans and QFP plans.



# Outline of Plans

- ◆ Background of winter range
  - ◆ Overview of the deer use history
  - ◆ DWC, Ownership, vegetation maps
  - ◆ Management recommendations for each habitat type
  - ◆ Reference section with forestry and wildlife program links
- 
- A stylized silhouette of a mountain range in shades of teal, located at the bottom right of the slide.

# For more information contact:

<http://bit.ly/uphabitatworkgroup>

Jim Hammill, Iron Range Consulting & Services

Phone: 906-875-6487

Email: [ironrangeconsulting@gmail.com](mailto:ironrangeconsulting@gmail.com)

Steve Carson, Michigan DNR, UPHW Biologist

Phone: 906-563-9077

Email: [carsons1@michigan.gov](mailto:carsons1@michigan.gov)

A stylized, dark teal silhouette of a mountain range is positioned in the bottom right corner of the slide, extending from the right edge towards the center. The mountains are depicted with sharp, jagged peaks and ridges, creating a layered effect. The color is a solid dark teal, matching the background's gradient.

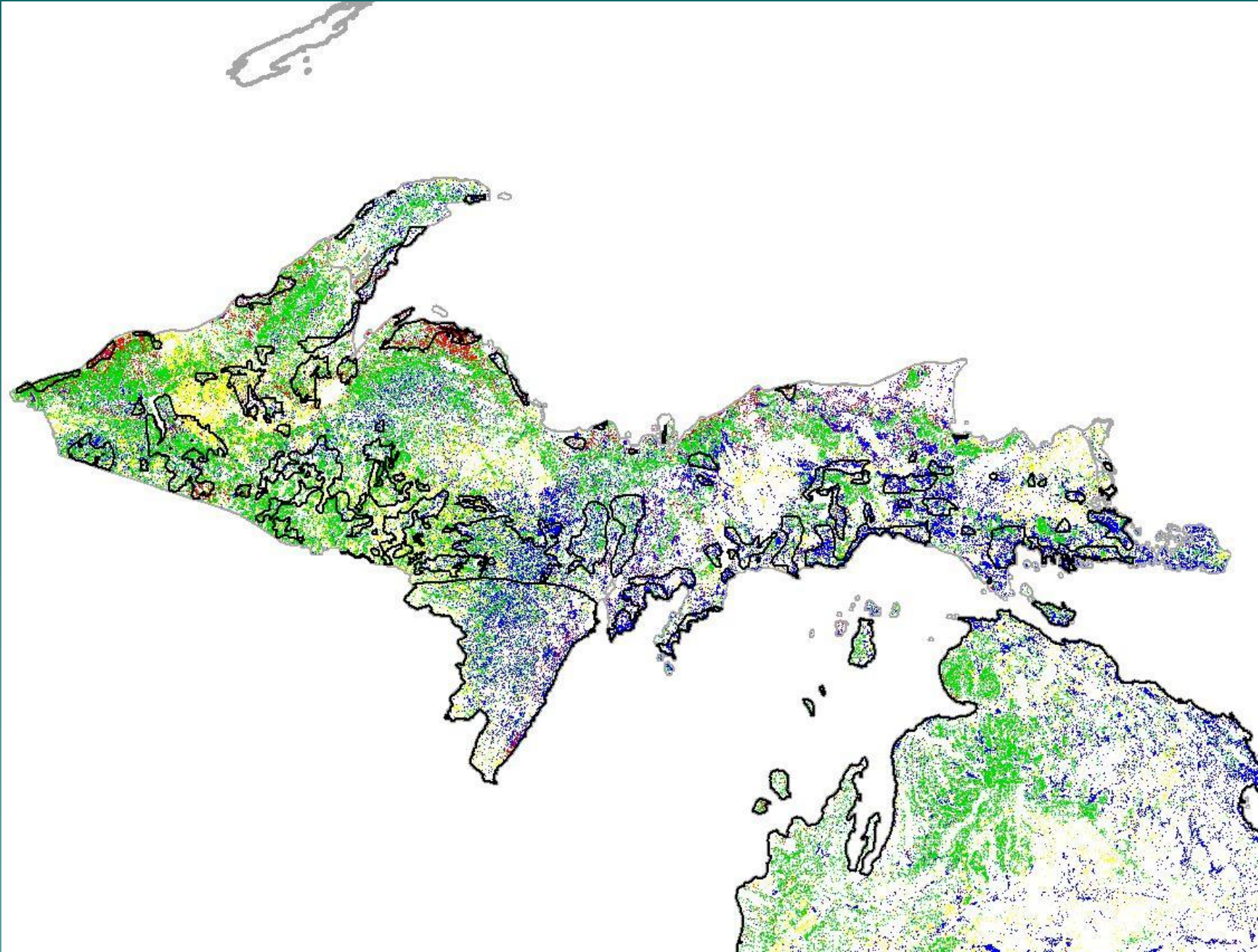
# U.P. Habitat Workgroup Mission:

## Current Status

- **Improving and conserving critical U.P. winter deer habitat.**
- by:
  - Developing comprehensive habitat strategies
    1. General strategies for managing UP deer winter range (DWR)
      - Document outlined
      - Present draft of first chapter by next meeting
      - Draft Oct 1<sup>st</sup>, Final in December
    2. Individual deer wintering complex (DWC) plans
      - 22 completed plans, west UP complete, east UP next
      - Finalize all plans by Oct 1<sup>st</sup>.
    3. Outreach
      - Website operational, plans added as completed
      - Contact with landowners and forest planners related to plan development/completion. Every other month email (120 folks)
      - Landowner outreach – letters and meetings
      - Assist landowners with operational planning as needed, time allows



## Food and shelter combined

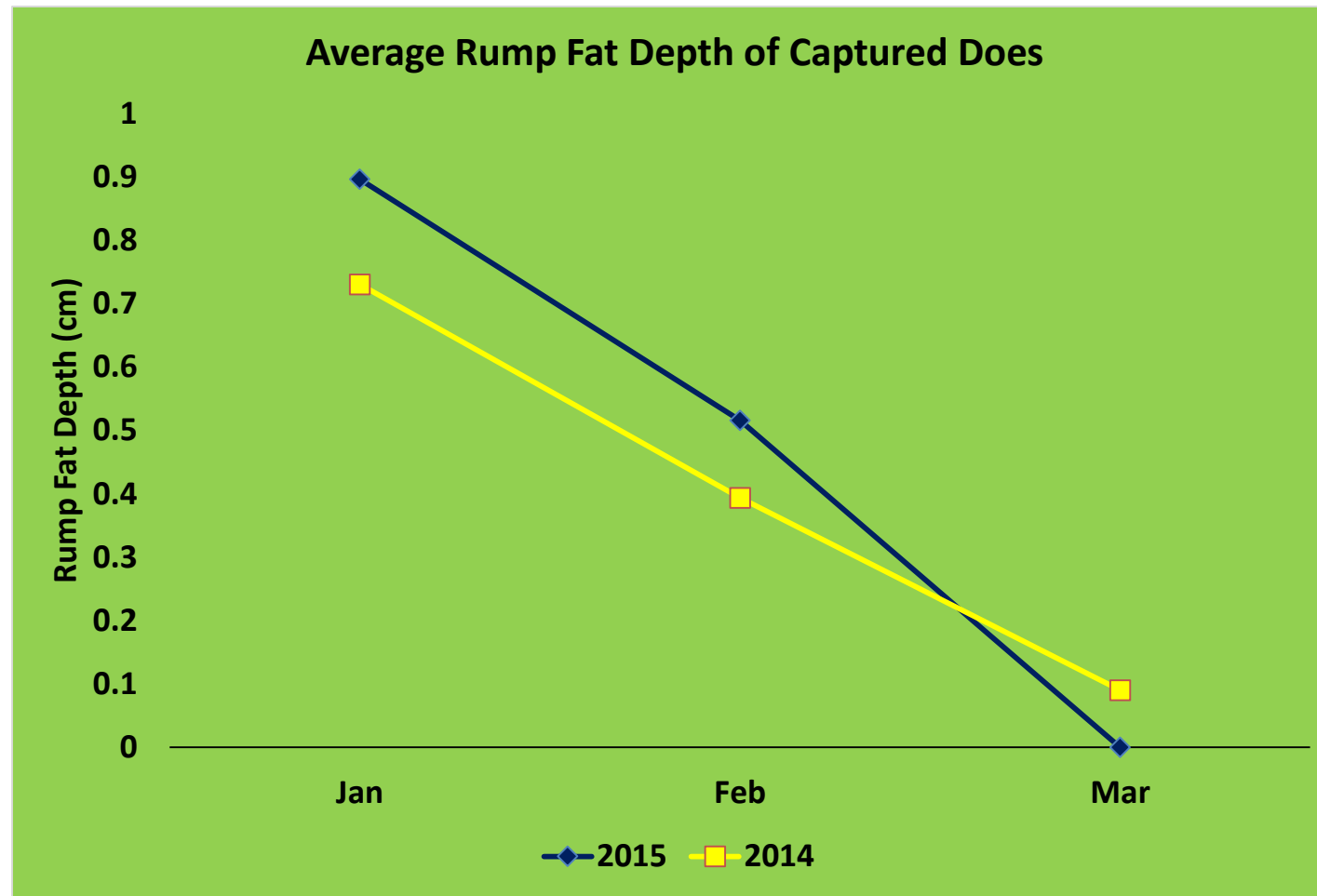


# Michigan Deer Management Plan 2010

[http://www.michigan.gov/dnr/0,4570,7-153-10363\\_41153---,00.html](http://www.michigan.gov/dnr/0,4570,7-153-10363_41153---,00.html)

- ◆ 4.3.1 Action: Evaluate existing deer habitat conditions, especially wintering habitat in the northern two-thirds of the state, and identify strategies to address regional habitat issues

# Rump Fat Depth-Phase 2

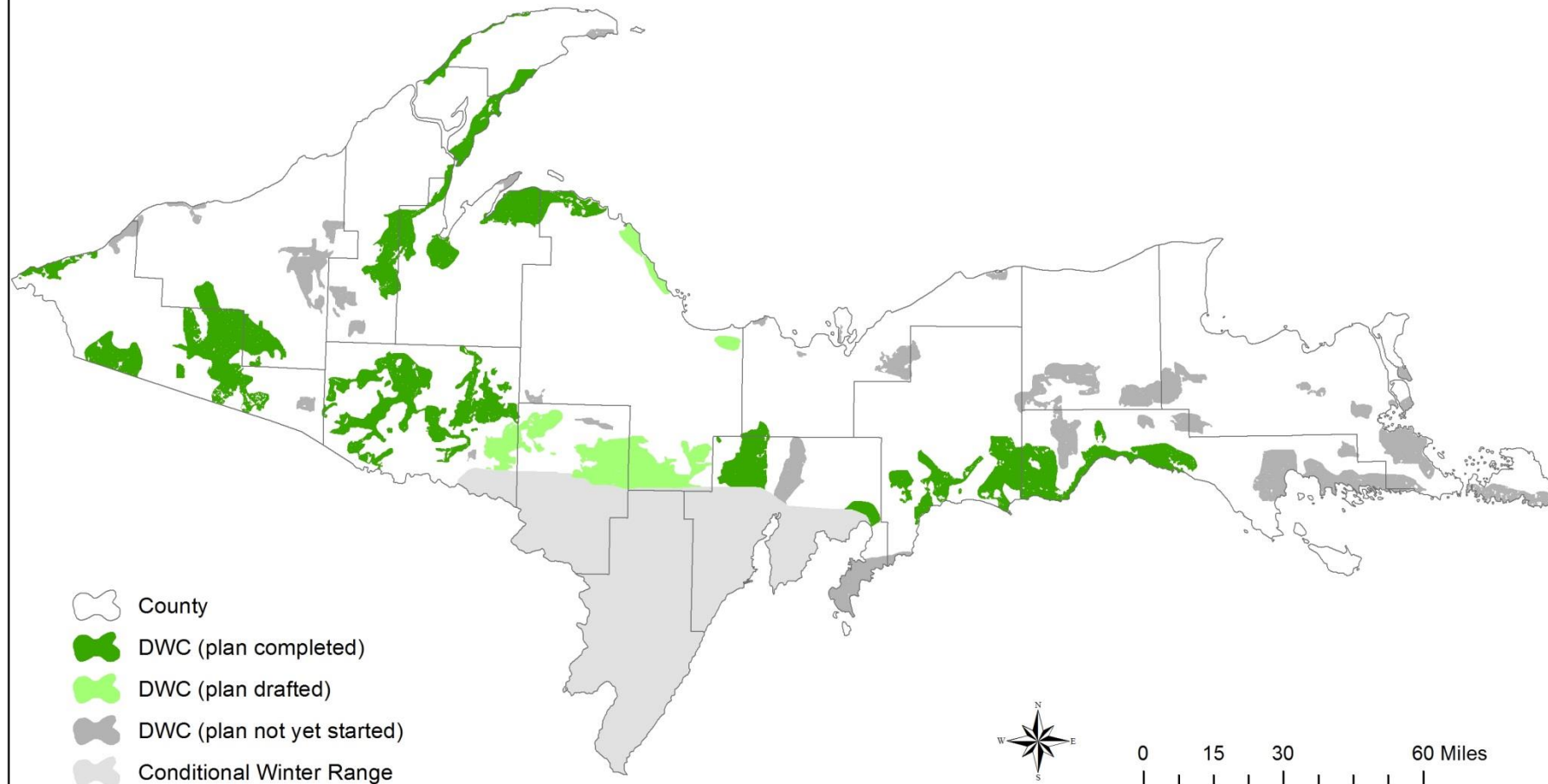




# Goal

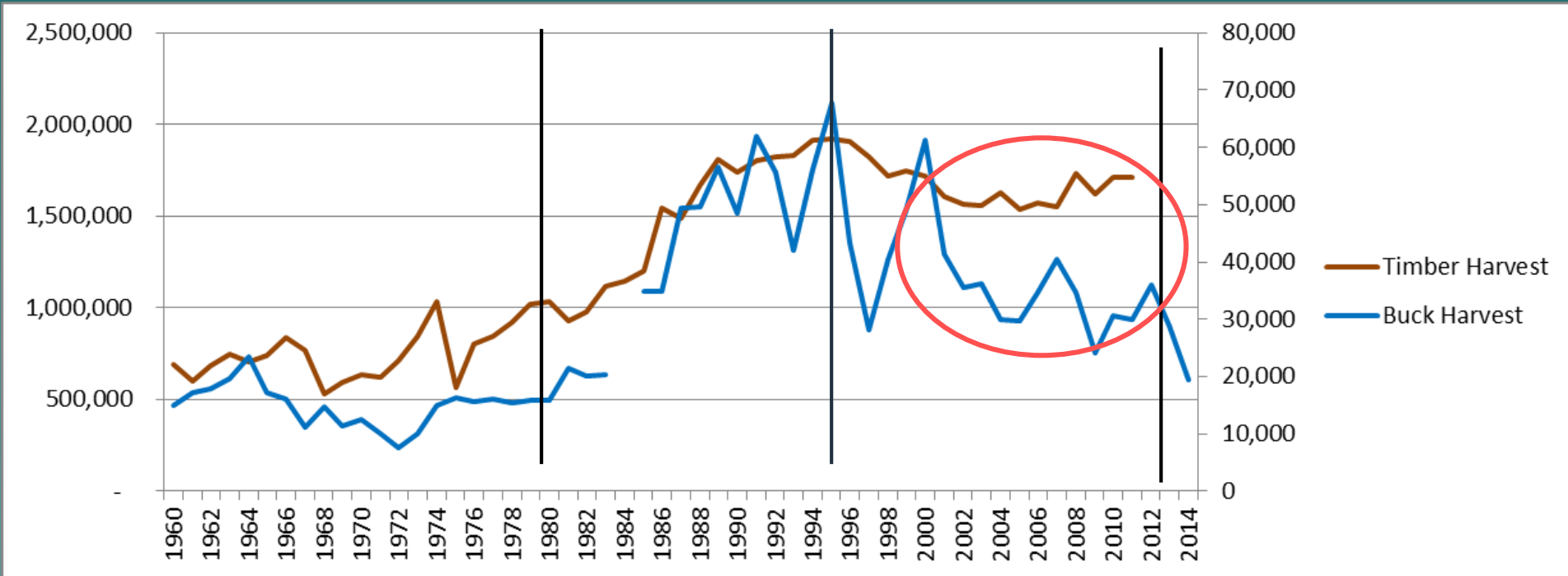
- To assess baseline reproductive parameters and magnitude of cause-specific mortality and survival of white-tailed deer fawns, particularly mortality due to predation, in relation to other possible limiting mortality agents along a latitudinal gradient in Michigan

# UP Habitat Workgroup Deer Wintering Complex (DWC) Management Plan Status January 15, 2015



# Deer Population Trends - UP Wide

## Buck harvest (population indicator) – Timber Harvest Intensity (cords)



- Since 2002, the positive timber harvest correlation appears to be declining.
- Cause? Increased winter severity, predators, hunter harvest, change in habitat quality or combination of all factors?