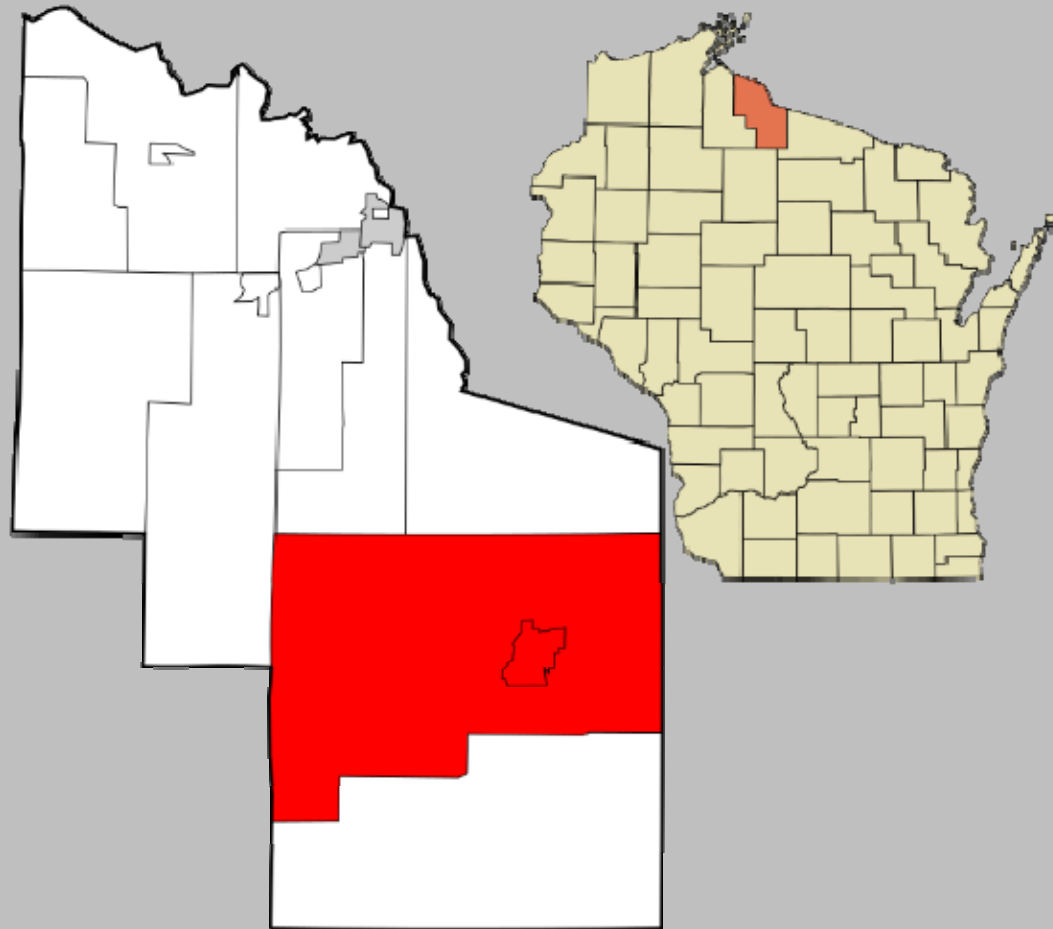


Iron County Land and Water Conservation Department



Iron County, Wisconsin



Iron County Marten Project 2007-2017



Mercer

Hurley

12/23/07 7:44 AM



American Marten ~

(Martes americana)



All in the Family



**The
MUSTELIDAE
Family**





Length:

Female 18-22 inches

Male 20-25 inches

Height: 6 inches

Weight:

Female 1.5-1.8 lbs.

Males 1.6-2.8 lbs.



Adapted to Deep Snow



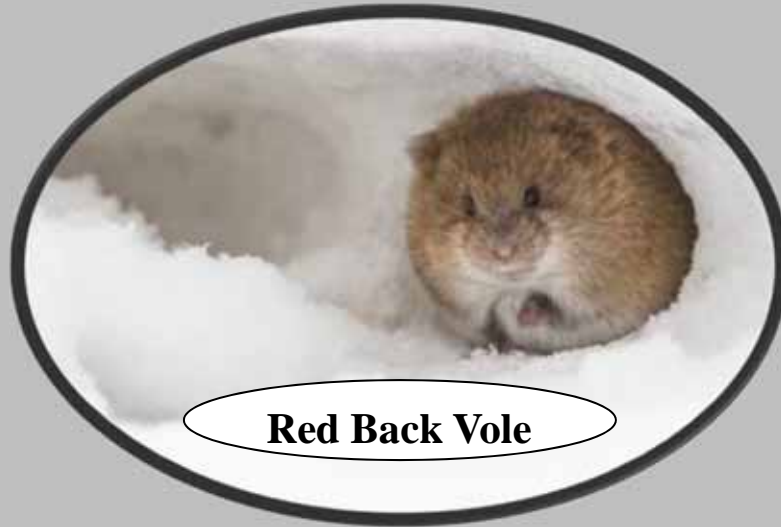
© Dietmar Nill / naturepl.com



Arboreal Species



Marten Diet



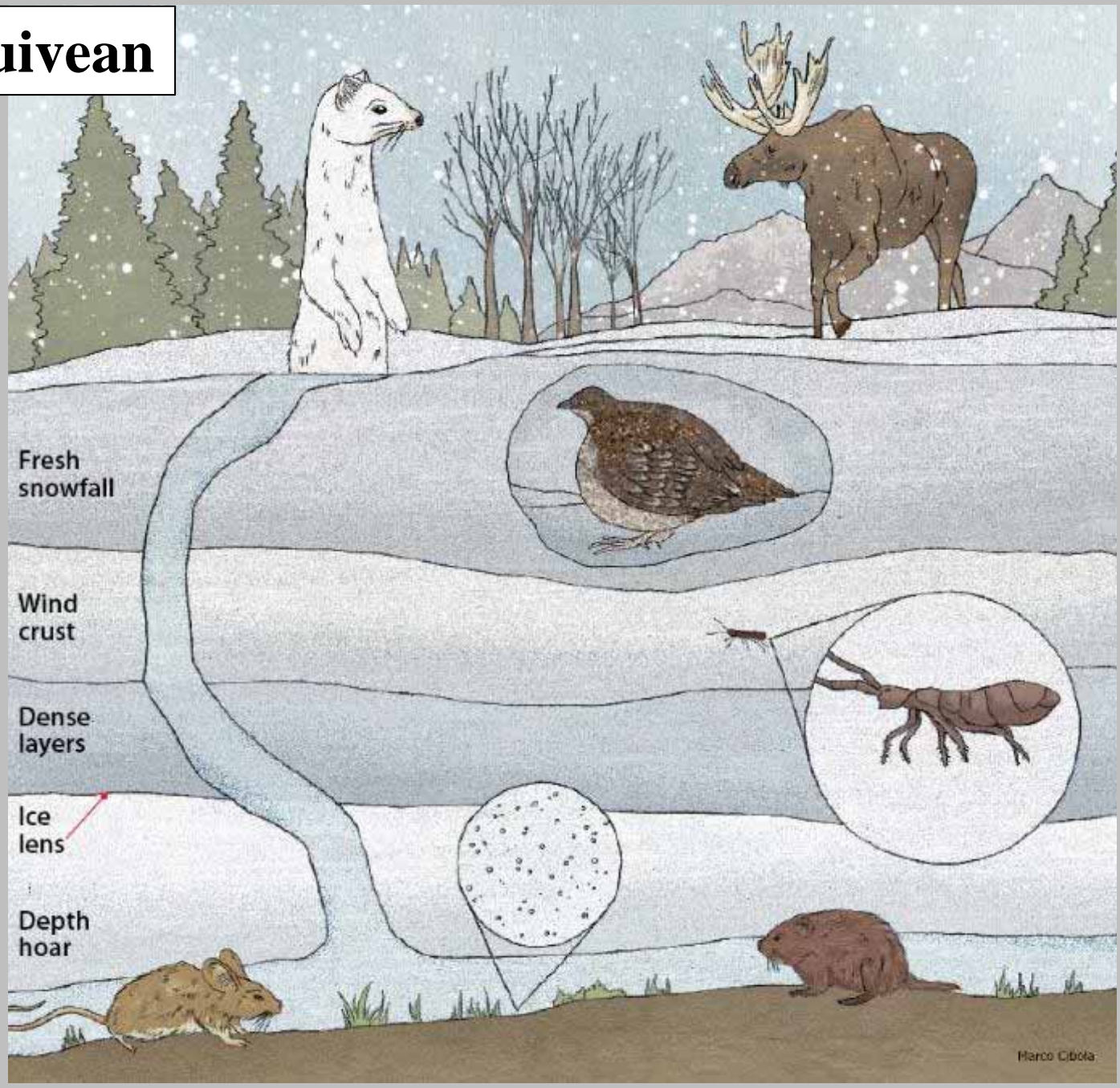
Red Back Vole



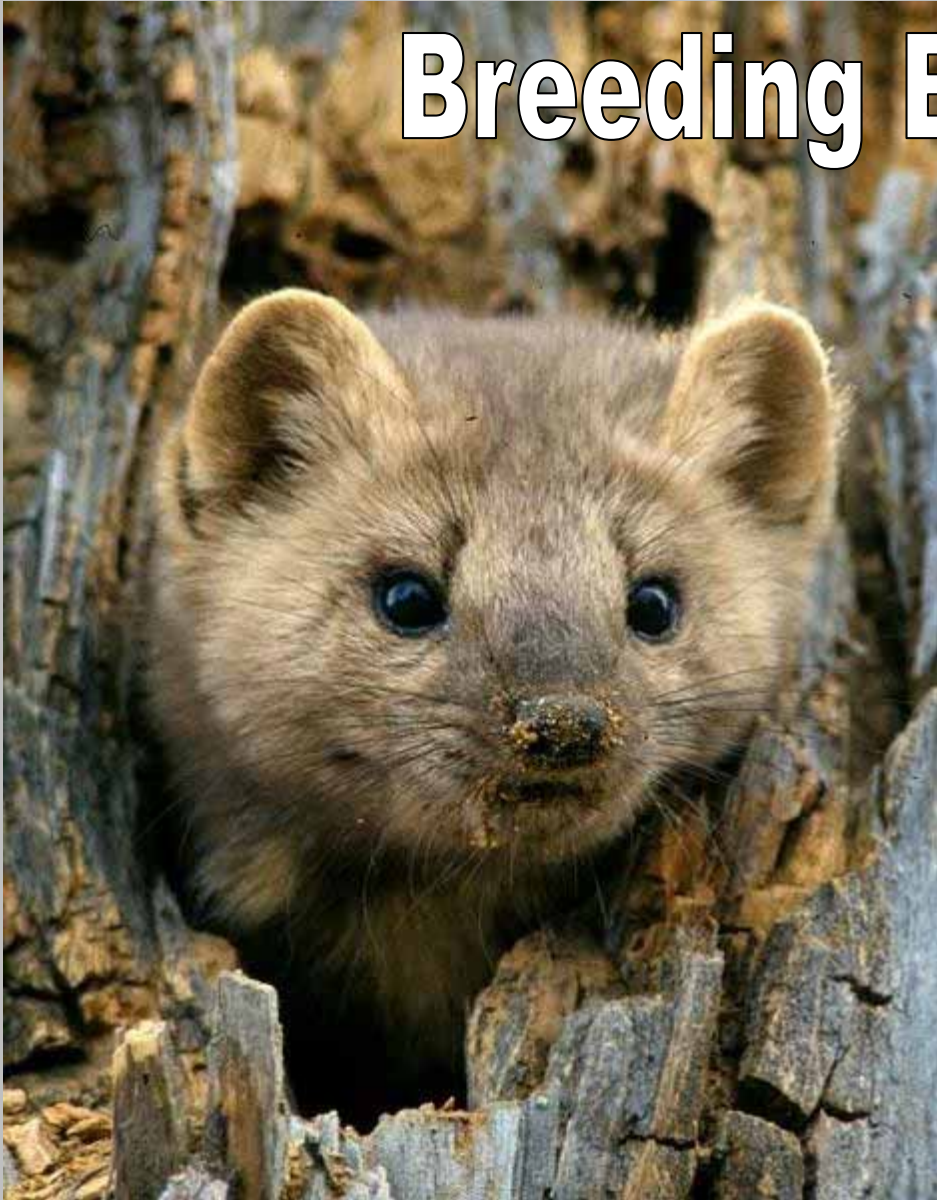
Shrew



Sub-nivean

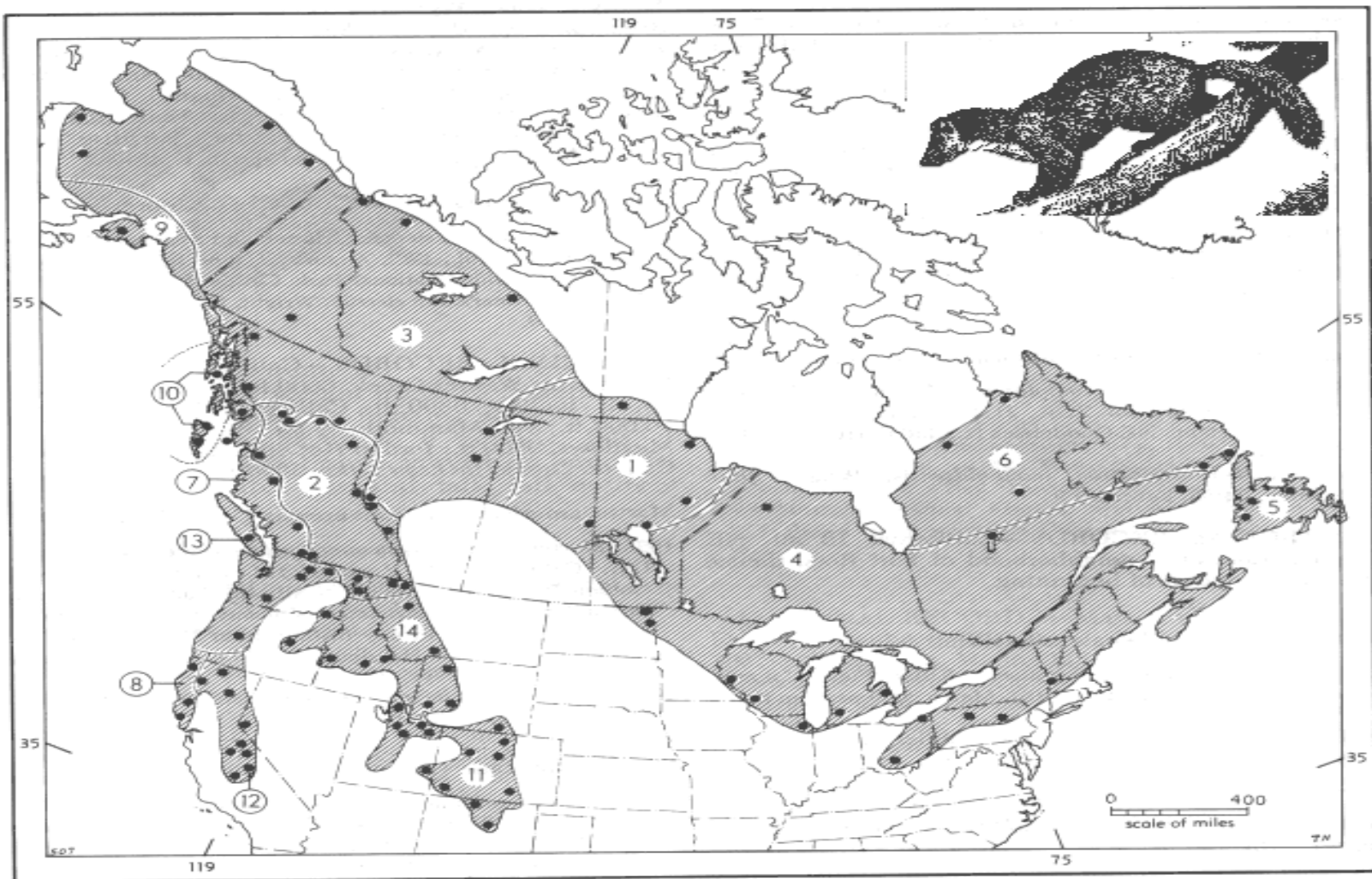


Breeding Biology



Marten Kits

Mostly rest and den in tree cavities



Map 507. *Martes americana*.

Guide

to subspecies

1. *M. a. abieticola*
2. *M. a. abietinoides*

3. *M. a. actuosa*
4. *M. a. americana*
5. *M. a. atrata*
6. *M. a. brumalis*

7. *M. a. caurina*
8. *M. a. humboldtensis*
9. *M. a. kenaiensis*
10. *M. a. nesophila*

11. *M. a. origenes*
12. *M. a. sierrae*
13. *M. a. vancouverensis*
14. *M. a. vulpina*

(Hall 1983)

Fur Trade

LAC DU FLAMBEAU,

May 21, 1805

69 Large bear skins @ 2 plus each . . .	138
18 Small do do	18
47 Deer Skins @ 2 for a plus . . .	231/2
327 Musk-rat skins @ 10 do do . .	323/4
68 Beaver skins, making	58
3 Lynx skins @ 2 plus each . . .	6
20 Otter skins @ do do . .	40
5 Fisher skins	5
100 Marten skins @ 2 for a plus . . .	50
1/2 a Moose skin	1

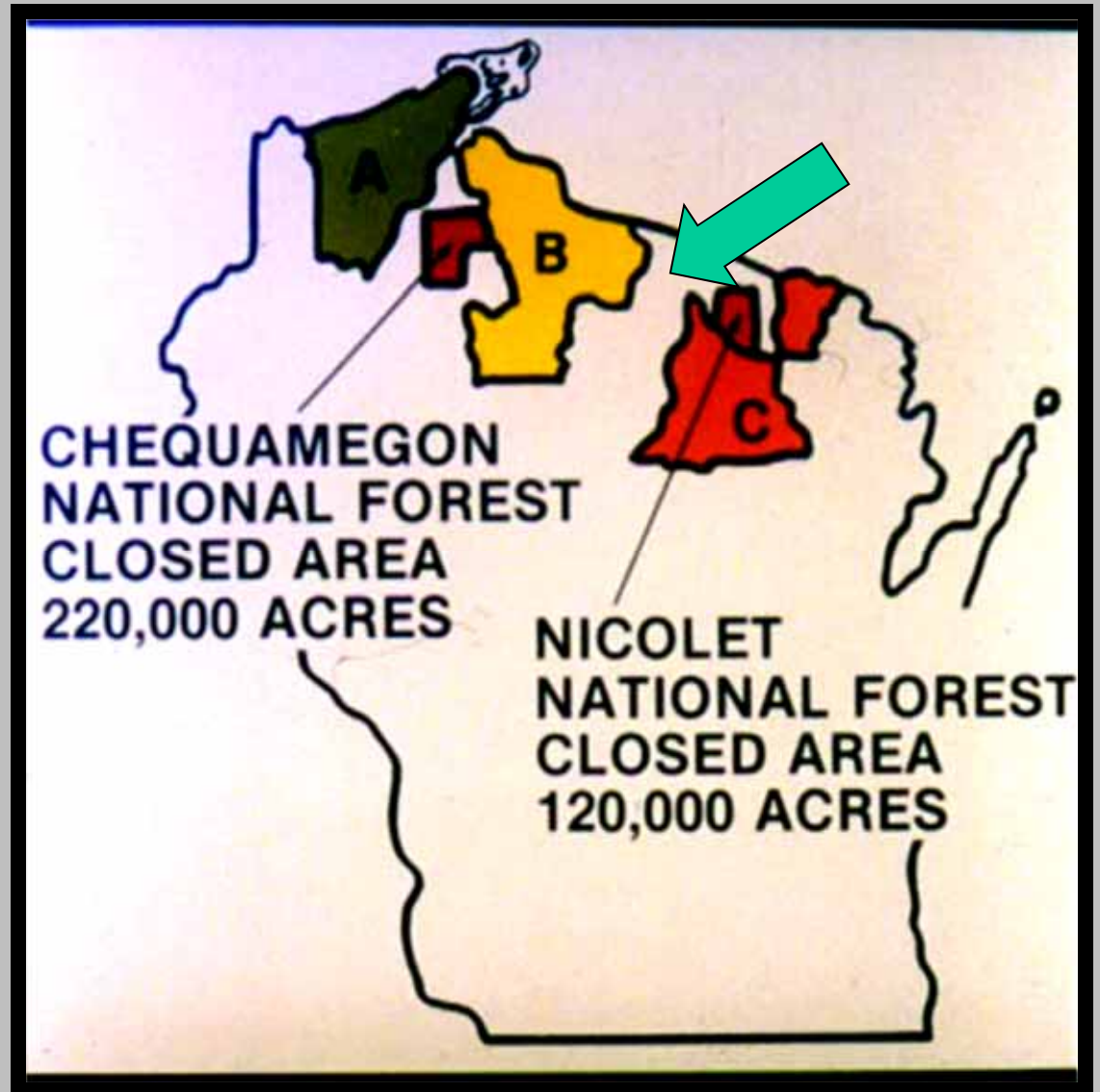


Legal Status

- **U.S. (Not Endangered)**
- **Wisconsin-Endangered**
 - extirpation of the marten in Wisconsin by 1939

Marten Recovery Plan

1953-2012

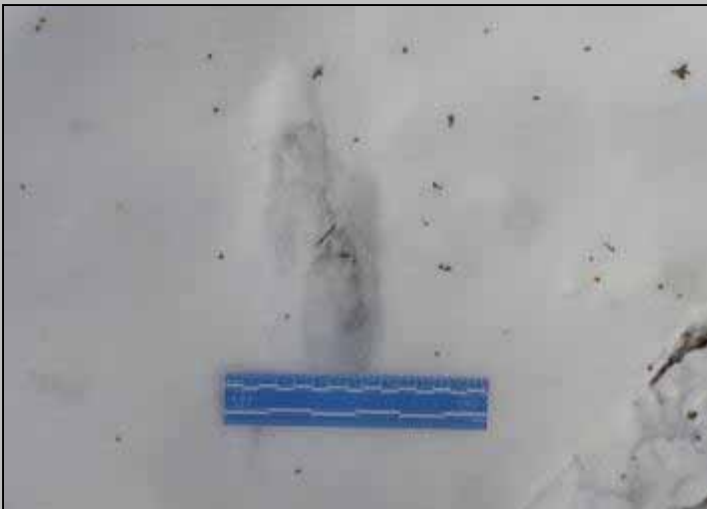


American Marten Team.



2007-2017

Methods



- **Gathered Citizen Input**
- **Tracking Survey**
- **Hair Snare Survey (WDNR)**
- **Camera Trap Surveys**
- **Habitat Surveys**
- **Weather Data Collection**
- **Radio – Telemetry (Collaring)**

TRAPPING MARTENS



Trap

We used a Tomahawk live trap. The marten walks in and steps on the pan at the back the trap closes instantly behind it.



Bait



Lure

Bait & Lure
Beaver, Deer,
Fish, Squirrel,
Mice and Gusto
as the lure.





Forestry and Stand Examination



Cedar Snag



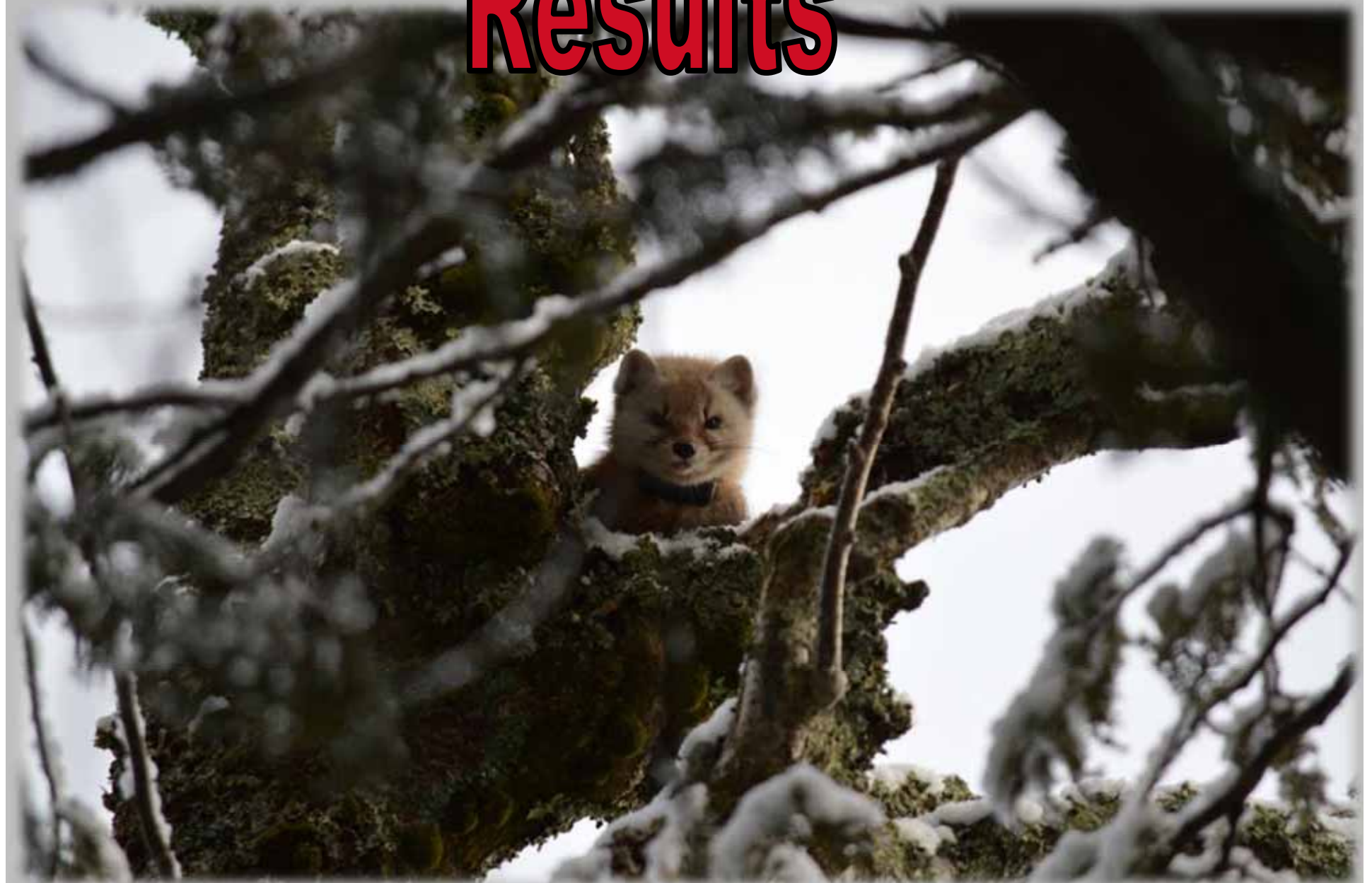
Yellow Birch Cavity Tree



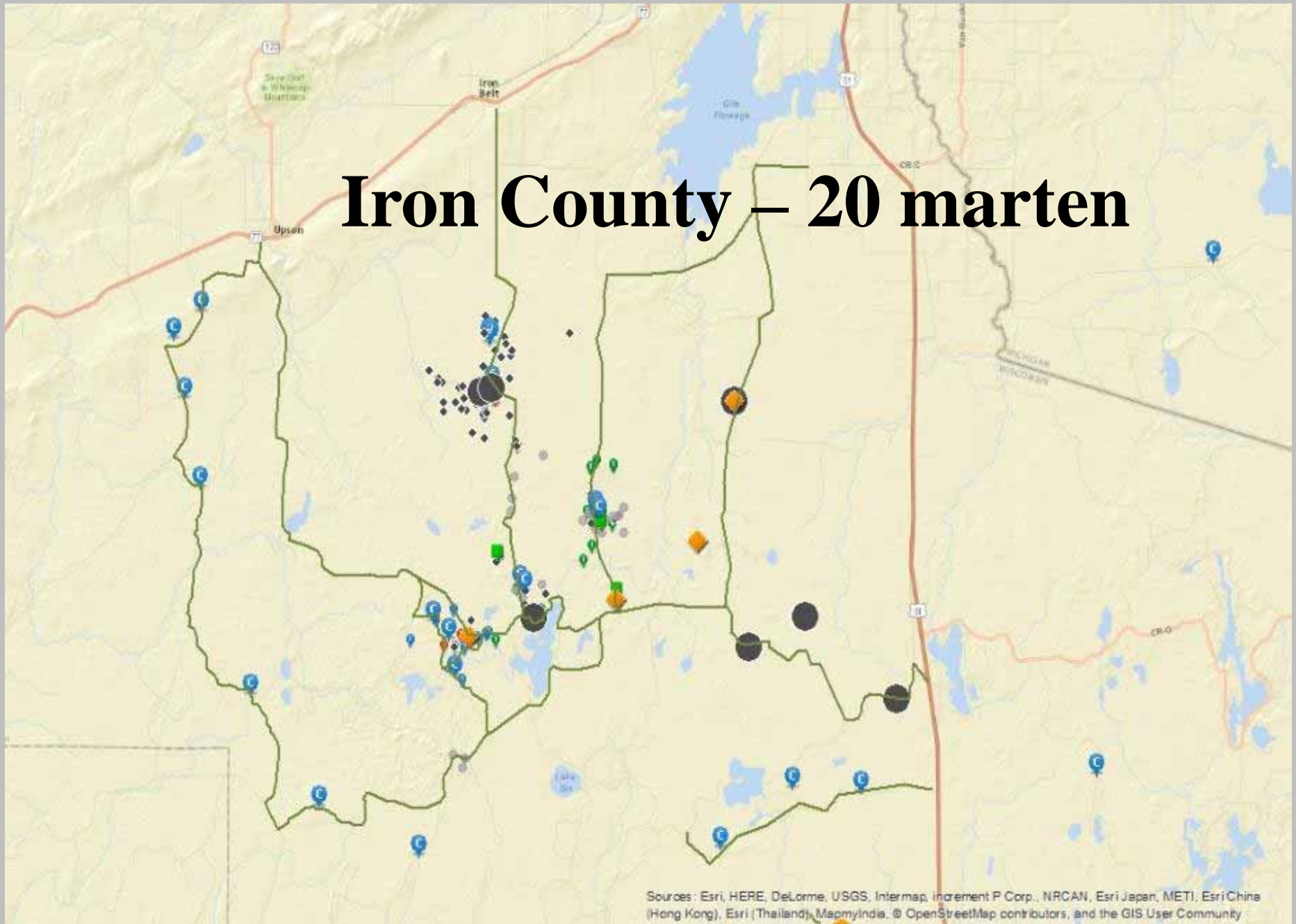
Basal Area



Results

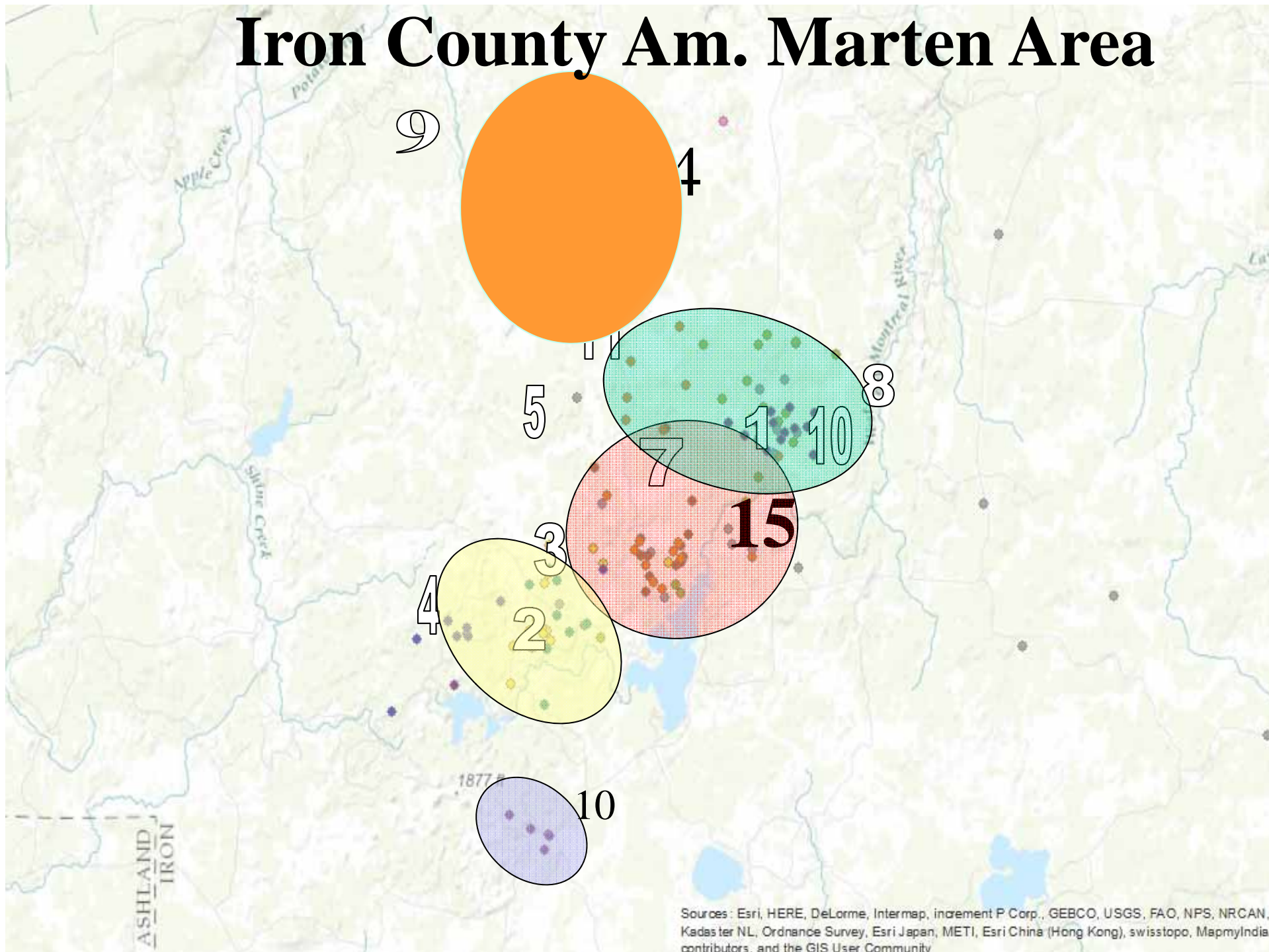


Iron County – 20 martens



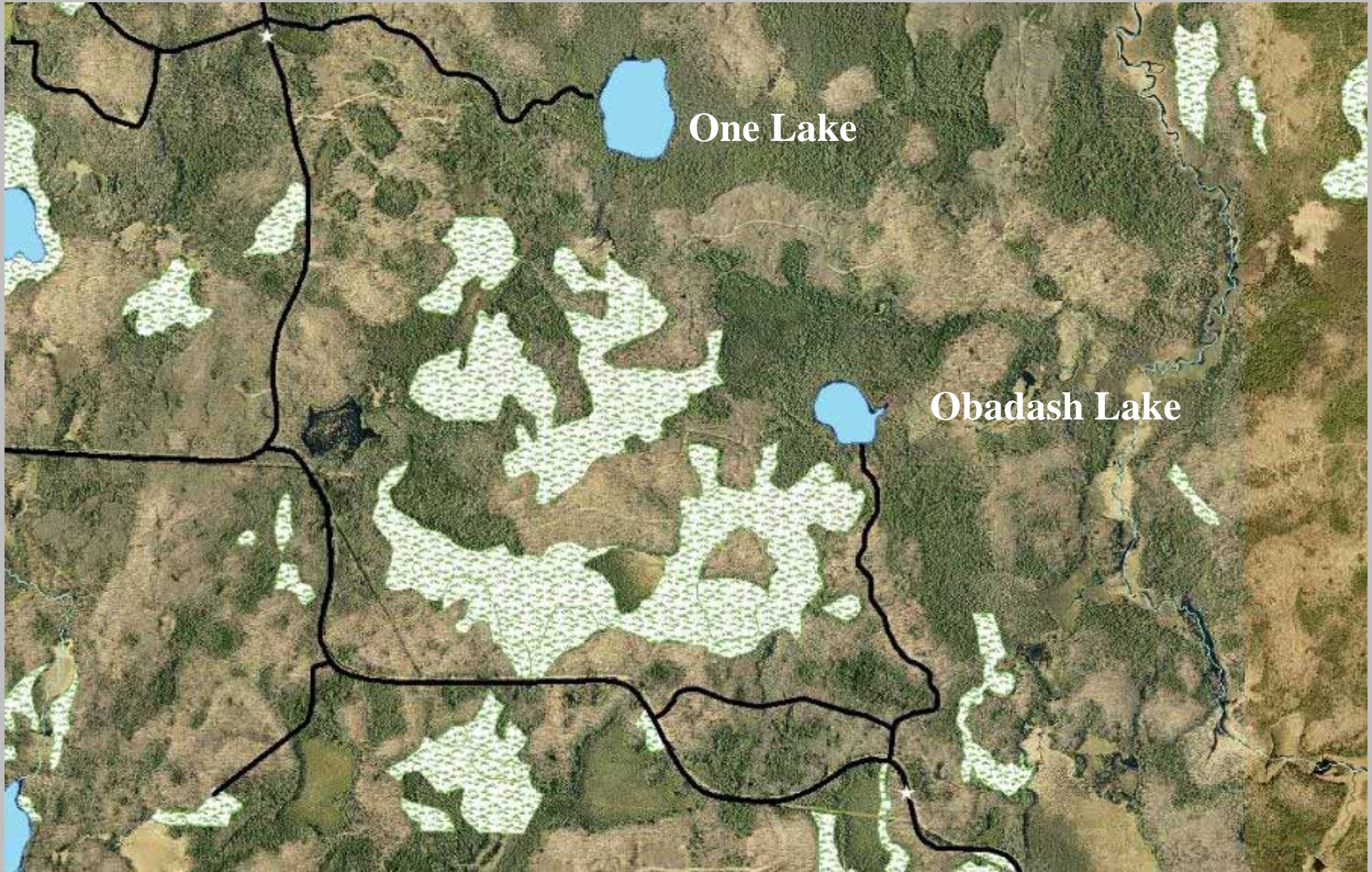
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Iron County Am. Marten Area



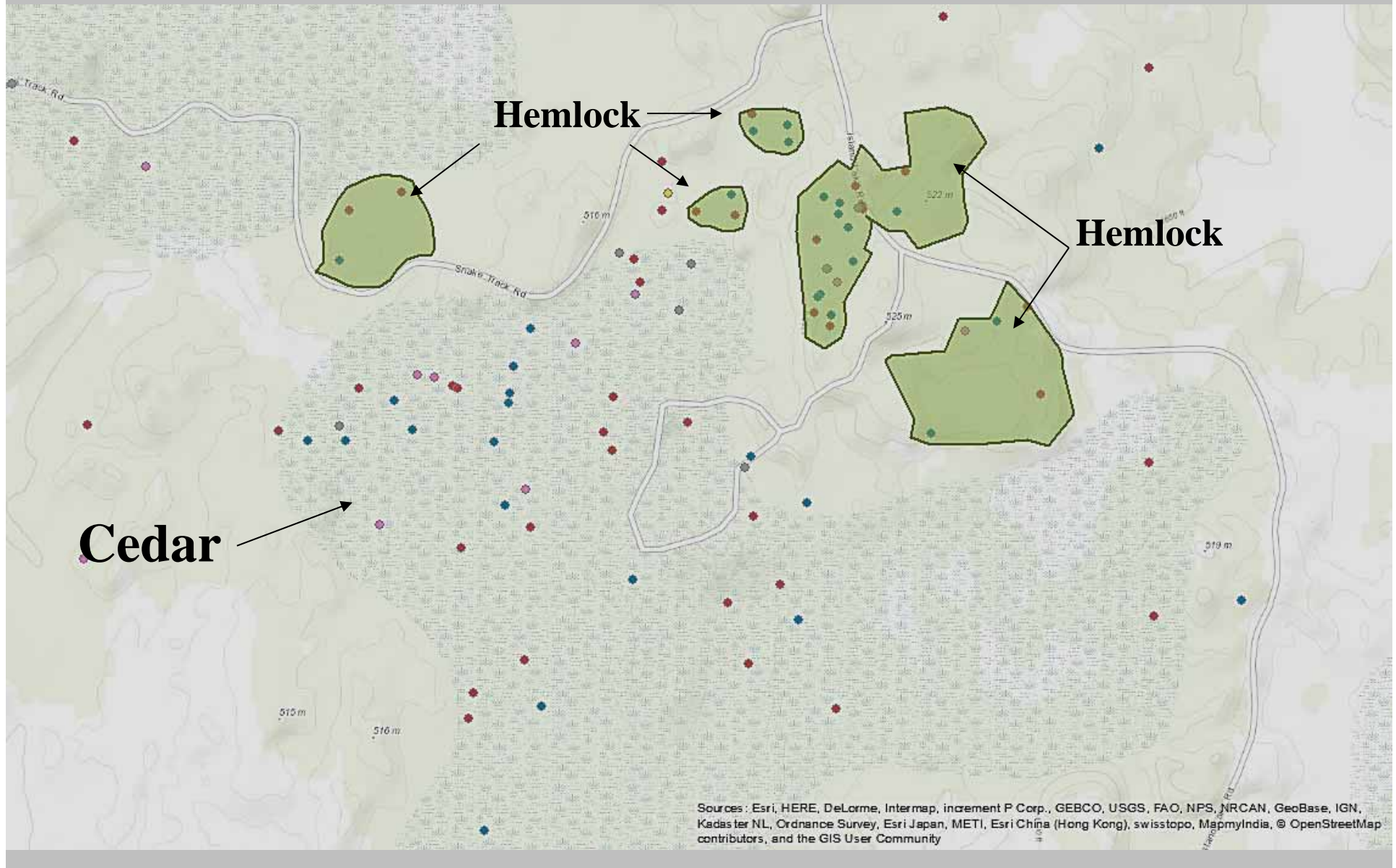
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Kadas ter NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, contributors, and the GIS User Community

Island Lake Rd. South –Obadash Lake

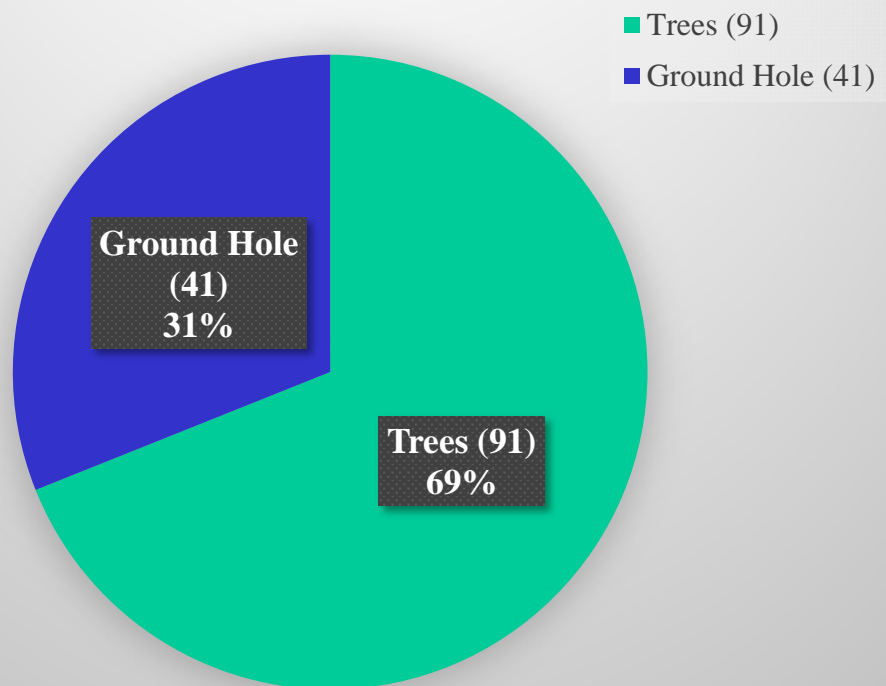




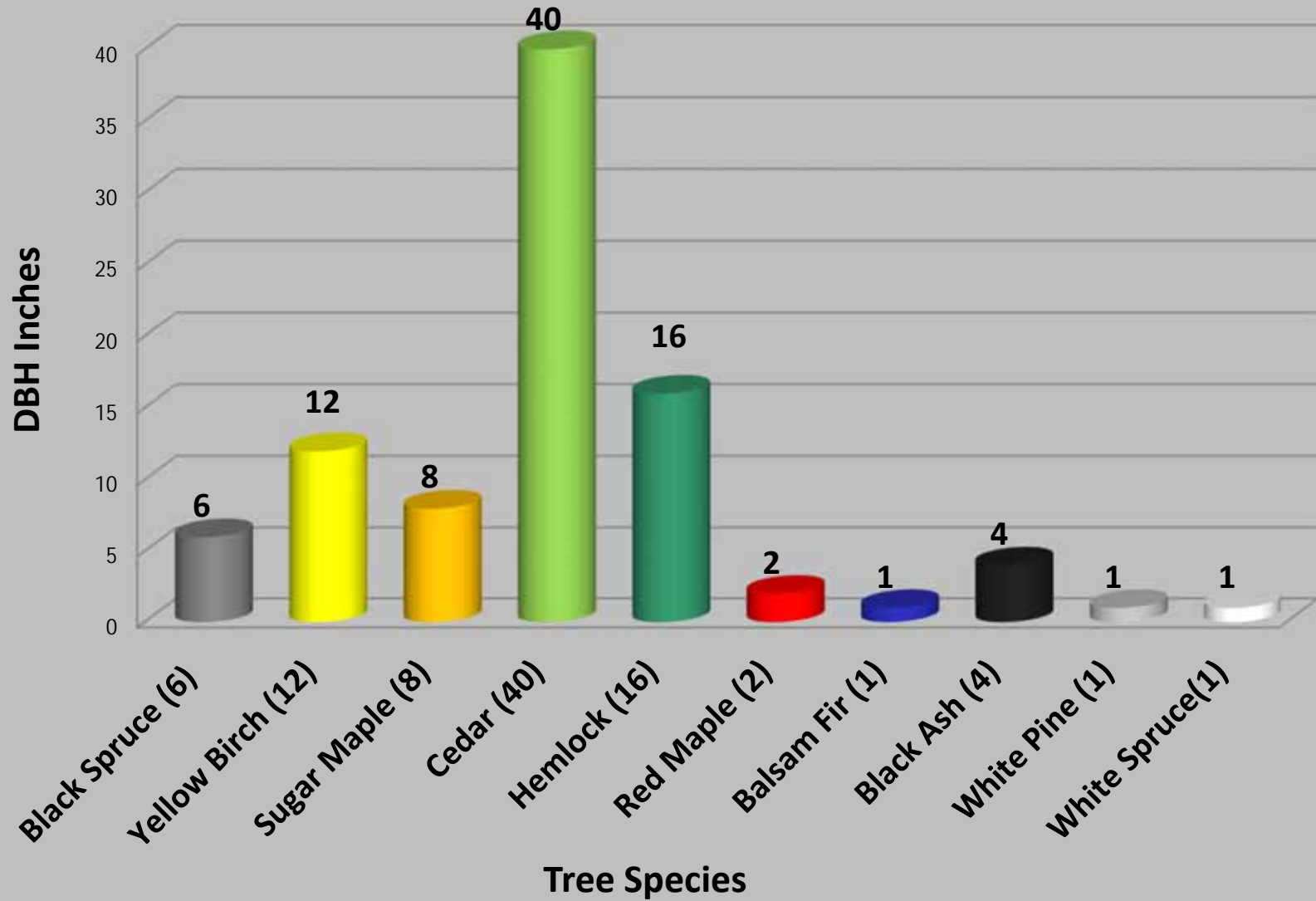
Marten #6, 9,12,13,14 Home range



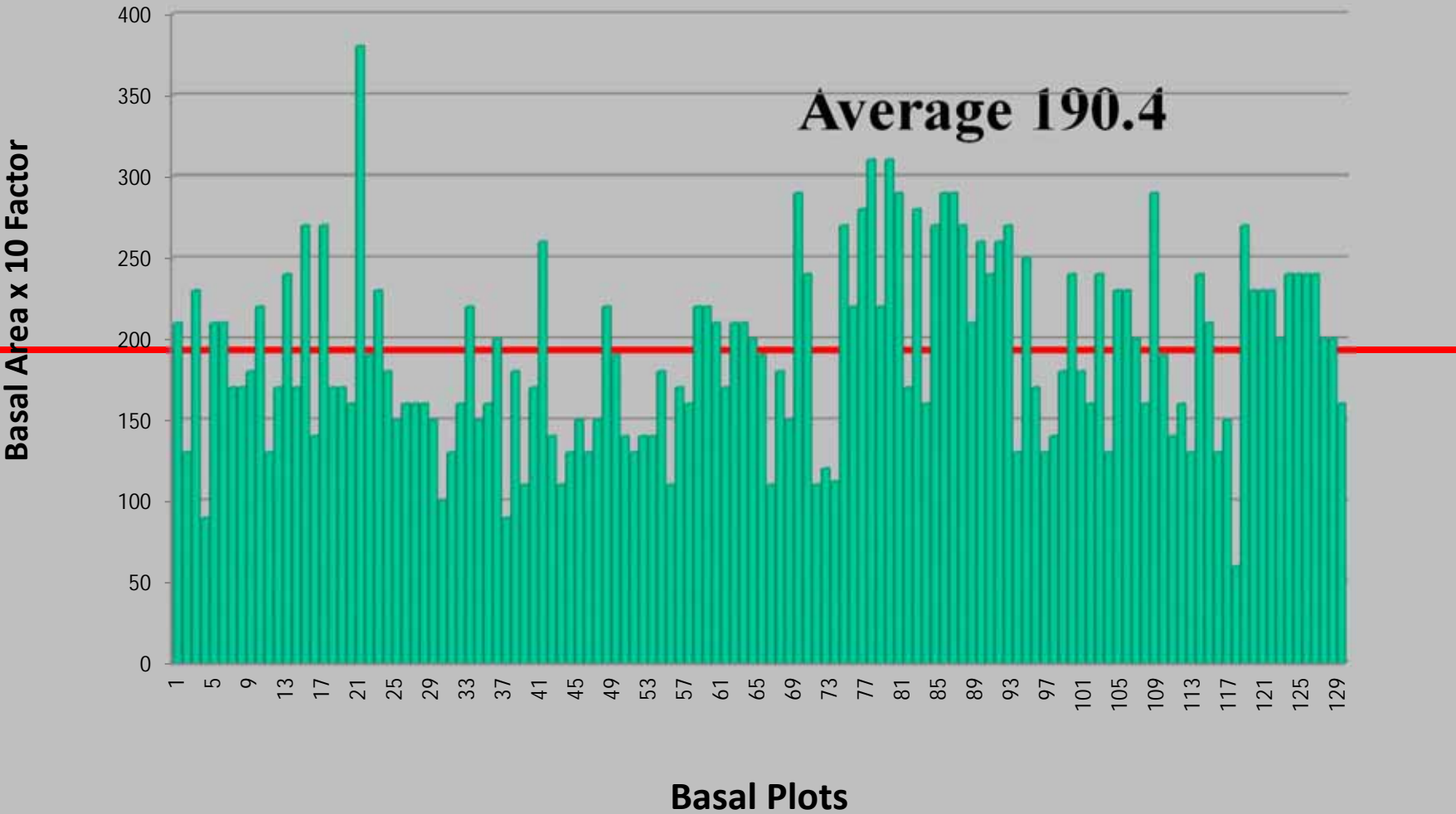
Resting Site Structure 2007-2015



Resting Tree Species 2007-2015



Basal Area at Resting Site 2007-2016





🌡️ 40°F



11/03/15 07:04 AM

1234567890

















Wetlands

Does not include wetlands less than 2-5 acres

- 32 % of Iron County is Classified as Wetlands

What is a wetland?

Wetland communities have a common characteristic - their soil, or other substrate, is periodically saturated with or covered by water. A wetland is defined in the Wisconsin Statutes as "an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions."

Northern Wet-mesic Forest



Coniferous Swamp

General natural community overview

This forested minerotrophic wetland is dominated by northern white cedar (*Thuja occidentalis*), and occurs on rich, neutral to alkaline peats and mucks throughout much of northern Wisconsin. Balsam fir (*Abies balsamea*), black ash (*Fraxinus nigra*), and spruces (*Picea glauca* and *P. mariana*) are among the many potential canopy associates. The understory is rich in mosses, lichens, liverworts, ferns, sedges (such as *Carex disperma* and *C. trisperma*), orchids (e.g., *Platanthera obtusata* and *Listera cordata*), and wildflowers such as goldthread (*Coptis trifolia*), fringed polygala (*Polygala pauciflora*), and naked miterwort (*Mitella nuda*), and trailing subshrubs such as twinflower (*Linnaea borealis*) and creeping snowberry (*Gaultheria hispidula*). A number of rare plants occur more frequently in the cedar swamps than in any other habitat. Older cedar swamps are often structurally complex, as the easily wind-thrown cedars are able to root from their branch tips. Some of the canopy associates have the potential to reach heights considerably beyond those usually attained by cedar, producing a multi-layered canopy.



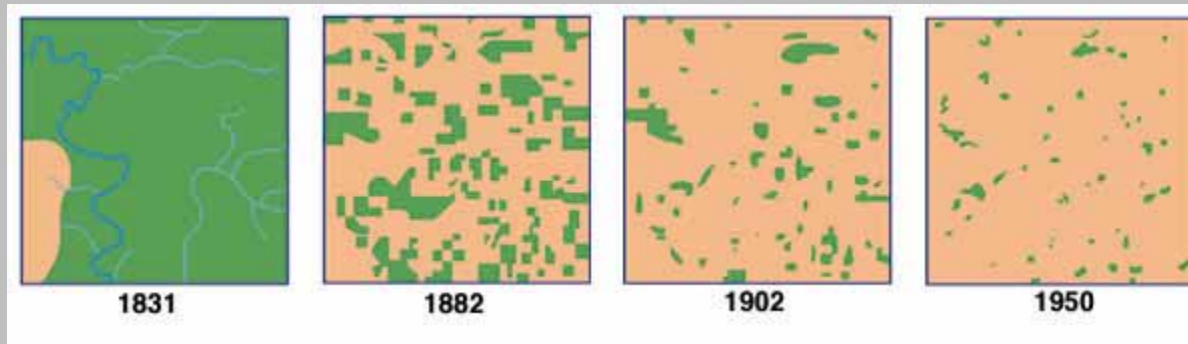
Species of Greatest Conservation Needs –Rare Animals

Mammals		Score
Little Brown Bat	<i>Myotis lucifugus</i>	
Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	
	<i>alustris</i>	
	<i>cteris noctivagans</i>	
	<i>zapus insignis</i>	
	<i>americana</i>	
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	
Reptiles		Score
WOOD TURTLE	<i>Glyptemys insculpta</i>	2

Threats: Forest Fragmentation

Most northern forest communities historically occurred within a large forested matrix. Many forest-dwelling species similarly depend on large blocks of forested habitat. Habitat fragmentation, either through conversion to developed or other non-forest land, or converting one type of forest to other, such as a natural forest to a pine plantation, reduces habitat for species needing large blocks of mature forest, such as forest interior birds. In addition, forested wetlands can be inadvertently converted to non-forested wetlands through unsustainable practices that cause swamping, takeover by reed canary grass, or regeneration failure from deer browse. Some species require young forest, and a lack of disturbance can be detrimental. A balanced approach that takes into account the need for large blocks of older forest as well as areas of midseral and young-seral forest would benefit the most SGCN.

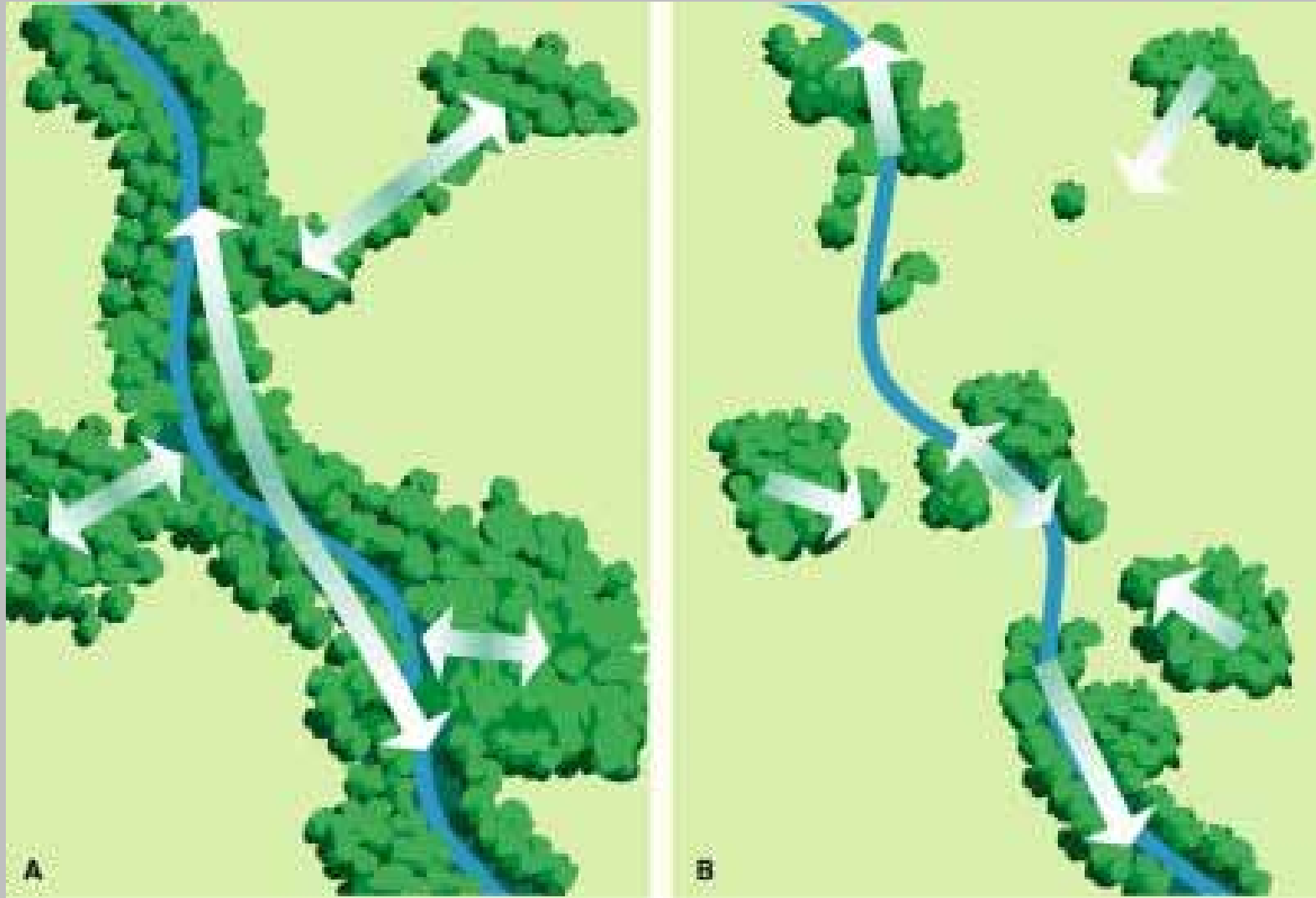
Fragmentation and Hard Edges

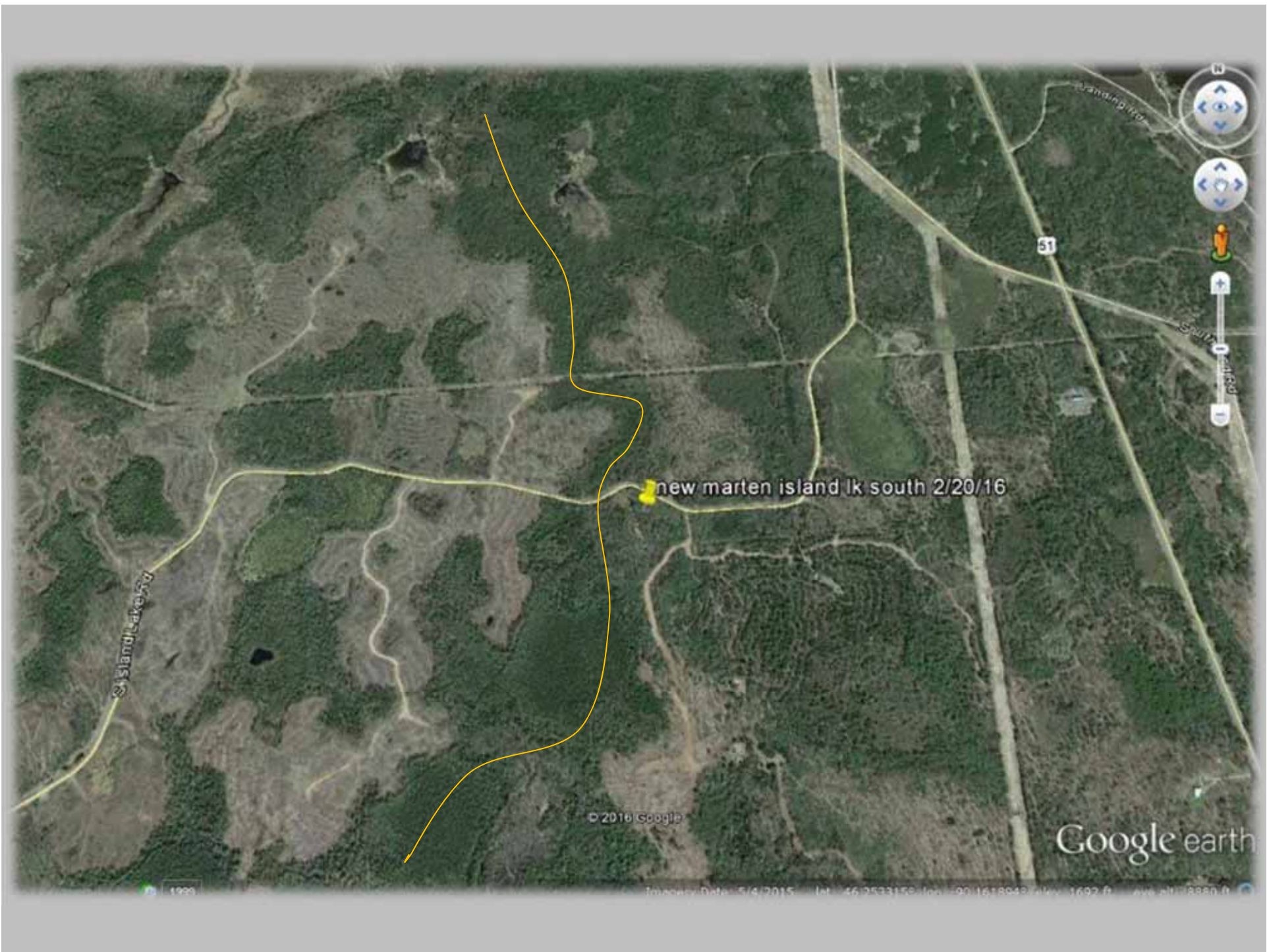


Threats: Soil and Hydro Changes

Soil disturbance and hydrologic alterations are a major concern in forested wetlands, as well as a local concern on sensitive soils (especially on clay and in low wet areas, such as ephemeral ponds) in mesic forests, boreal forests, and other northern forest types. Operation of vehicles or heavy equipment in forested wetlands can cause soil compaction and rutting, and poorly designed roads and stream crossings can cause erosion and sedimentation. Following water quality BMPs and seasonal harvest restrictions on sensitive soils greatly reduces the risk from these activities; however, environmental changes may add complexity to this issue if severe precipitation events increase and the season of frozen ground conditions grows shorter in some areas. Direct hydrologic alteration of forested wetlands through dams, ditching, and filling (through road building, waste rock disposal, etc.), is local in scale, but causes severe habitat alteration where it does occur.

Corridor Protect and Connection





new marten island lk south 2/20/16

Island Lake Rd

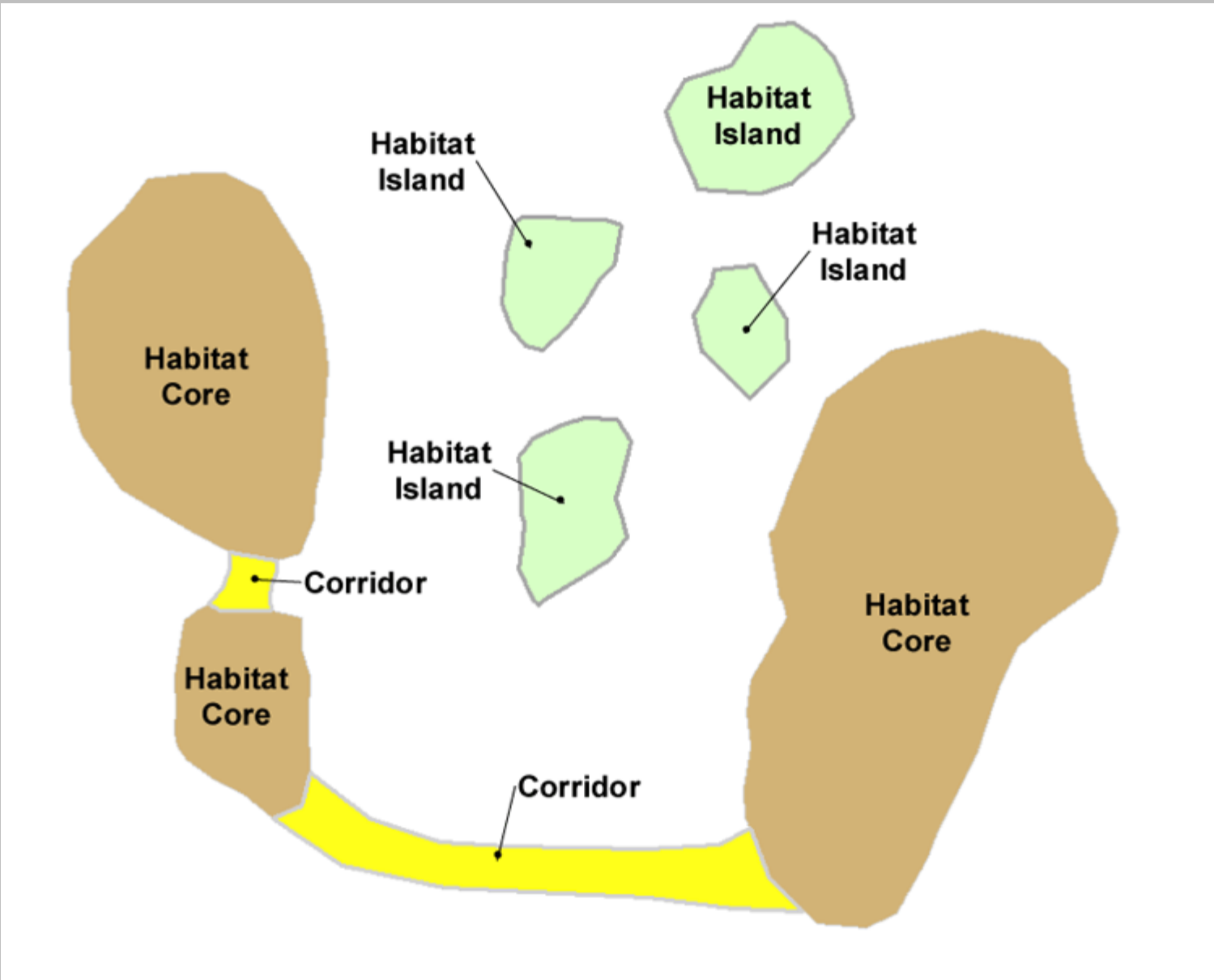
31

© 2016 Google

Google earth

1230

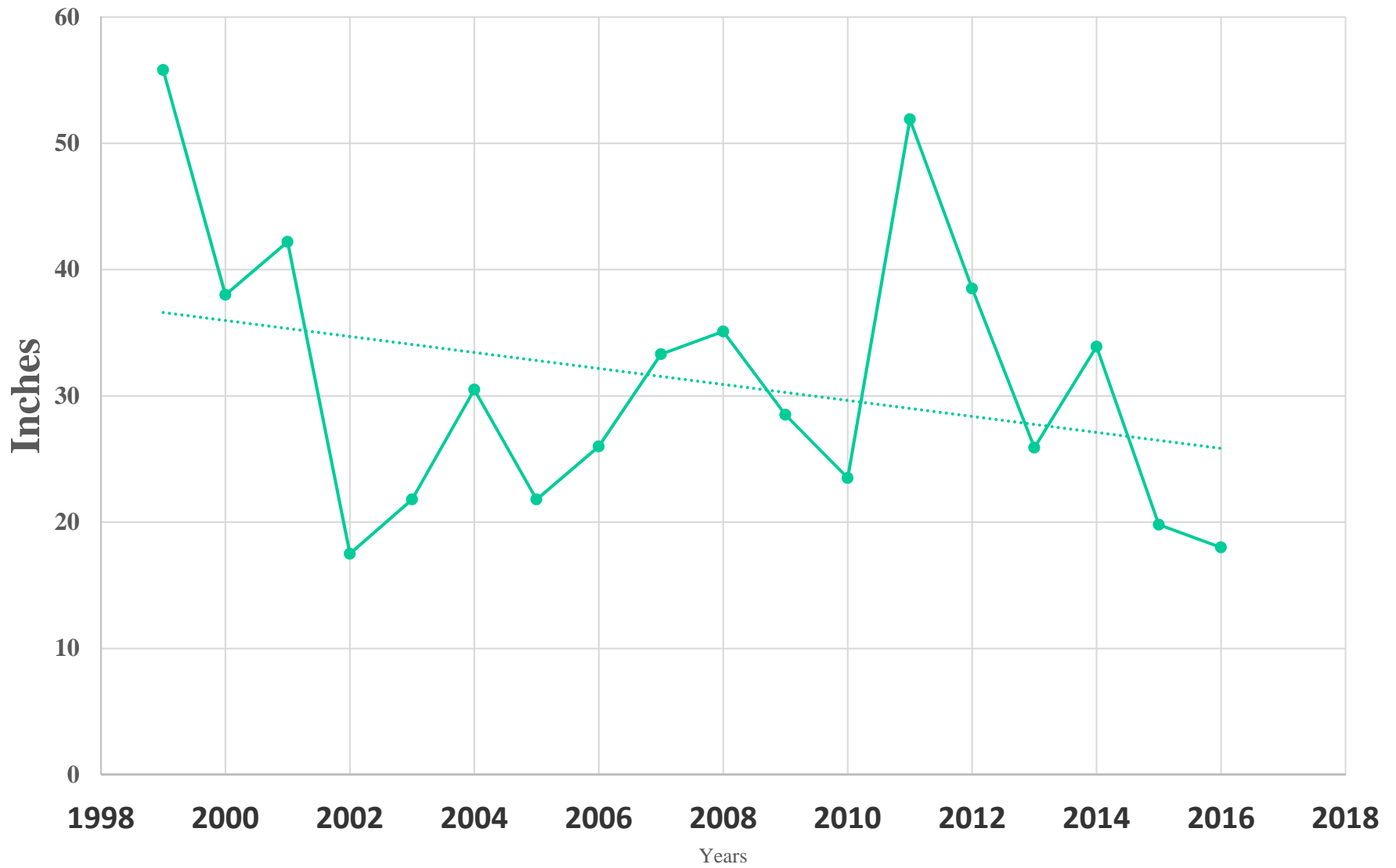
Imagery Date: 5/4/2015 Lat: 46.2533159 Lon: 90.1618942 Elev: 1692 ft Eye Alt: 8880 ft



Treat: Climate Change

In general, climate change adaptation is best approached from a risk management perspective that acknowledges uncertainty while increasing resistance and resiliency. Northern forests may experience direct and indirect impacts from a changing climate (Janowiak et al., 2014). Many species at the southern end of their range, including jack pine, white spruce, black spruce, and paper birch may suffer significant declines by the end of the 21st century, while southern species (e.g, oaks, red maple, basswood) may experience more suitable climate conditions (Janowiak et al., 2014). Extreme storms that cause wind throw and severe flooding are already on the rise and are projected to increase further (WICCI 2010). Climate change may also increase the risk of invasive species, which are often able to respond to disturbance and rapid environmental change, as well as increase the potential damage to vegetation and forest regeneration from deer due to shorter and less severe winters.

Total Snowfall (in.)



* 20 Marten

American Marten

Martes americana



Special Thanks To.....

- **Iron County Forestry Department**
- **Iron County Land and Water Conservation Department**
- **Wisconsin Department of Natural Resources**
- **Great Lakes Indian Fish and Wildlife Commission**
- **Mercer and Hurley Public Schools**
- **Wetland and Wildlife Club**
- **Lynette Anderson (Lake of the Falls Lake Association)**

of Marten / Fisher In Iron County

● # Marten Occurrences ● # of Fisher Occurrence

