

Update on Northern Long-eared Bat in Minnesota



*For
Minnesota Forest Resources Partnership
April 7, 2016*

*By
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MNDNR Ecological and Water Resources*



Outline:

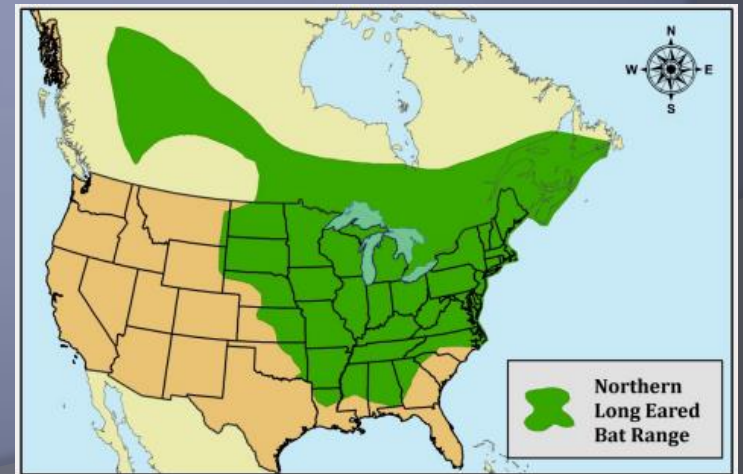
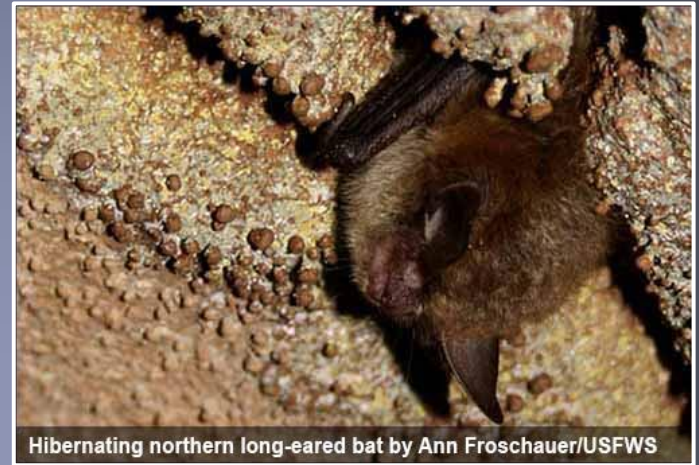
Update on Northern Long-eared Bat in MN

- **Background**
- **Federal listing and 4(d) rule**
- **Research**
- **Habitat Conservation Plan**

Northern Long-Eared Bat ("NLEB")

Myotis septentrionalis

- MN Special Concern since 1984
- Federally **Threatened** (5/4/2015)
- **Threat** is White-Nose Syndrome
- **Winter:** Hibernates in caves & mines
- **Migrates** up to 170 miles to summer habitat
- **Spring/Summer/Fall:** Inhabits forested areas, roosts in cavities and under loose bark of live/dead trees.
- Gives birth in June and July in **"maternity roost trees"**



Threatened Status under the Federal ESA



- **“Take” is prohibited:** “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Take can be “purposeful” or “incidental”
- **Allows protective regulation** or “4(d) Rule” that is “necessary and advisable to provide for the conservation of the species.” (threatened only)
- Federal ESA **authorizes “citizen lawsuits”** to require enforcement of take prohibition

4(d) Rule



Final 4(d) Rule effective 2/16/2015

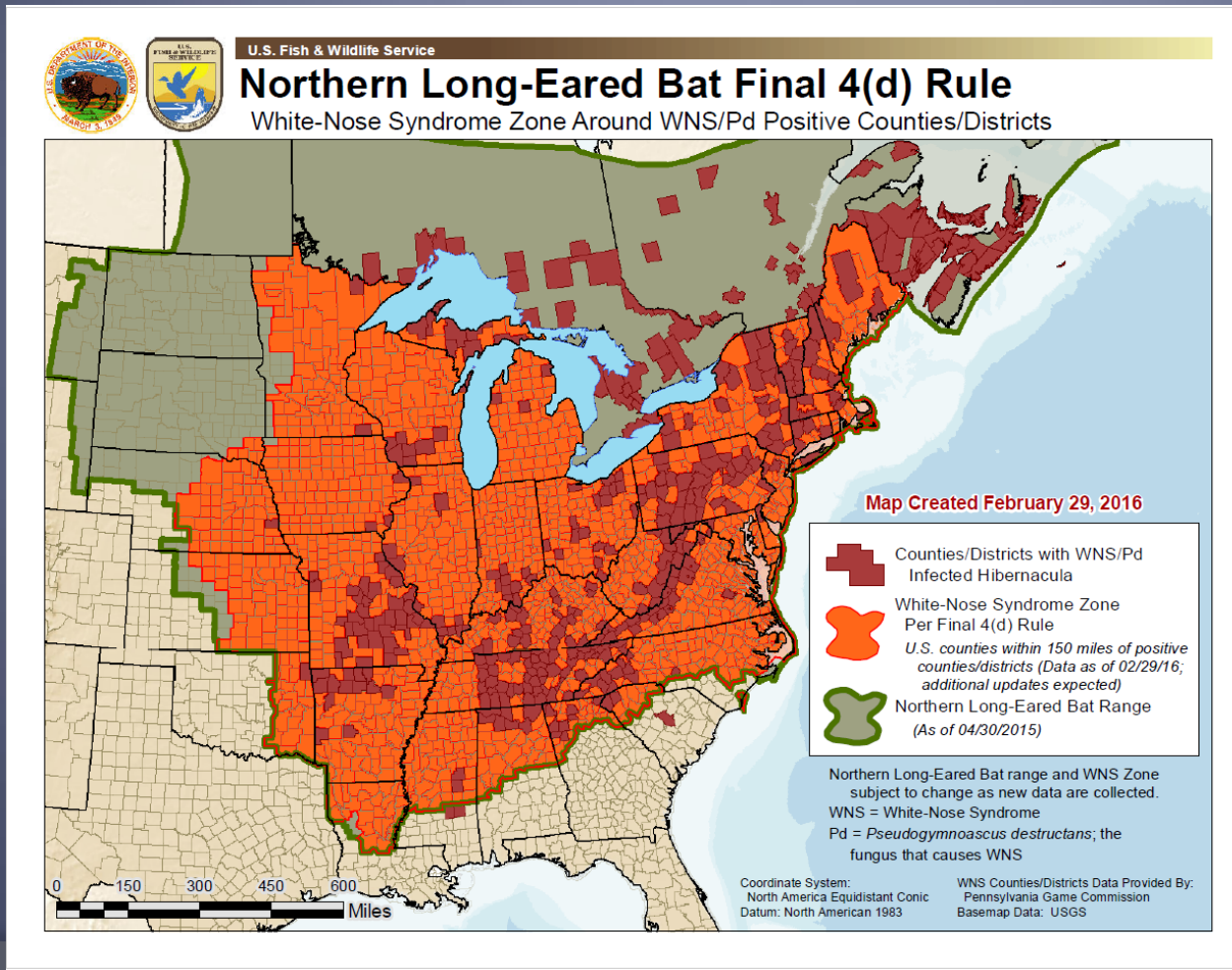
A successful compromise

Provisions of the 4(d) Rule

- ⊙ **“Purposeful” (Intentional) take is prohibited except:**
 - removal from human structures,
 - in defense of human life,
 - research (for one year), or
 - as a result of removing trees hazardous to human life or property.

4(d) Rule

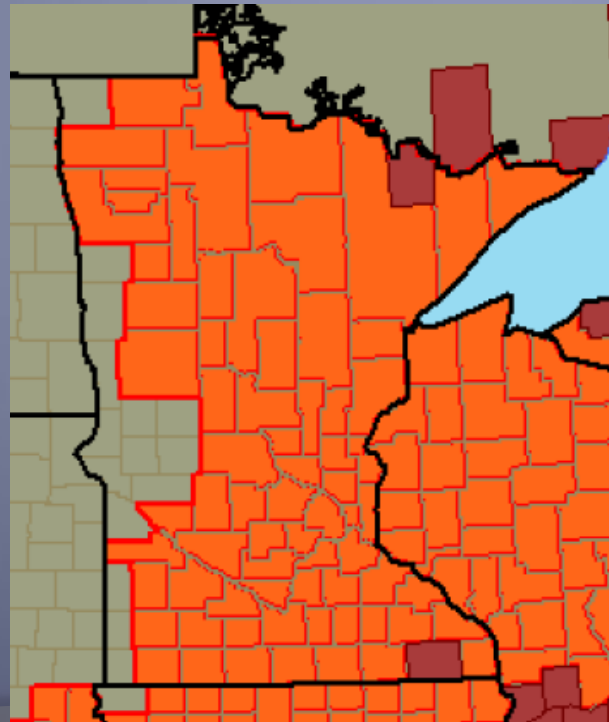
Designated **White-Nose Syndrome Zone**



4(d) Rule



- **“Incidental” take allowed outside** of White Nose Syndrome Buffer Zone (15 western MN counties)



4(d) Rule



- **“Incidental” take** (resulting from otherwise legal activity) **prohibited inside** of White Nose Syndrome Buffer Zone (72 MN counties) **only**:
 - if it occurs within a hibernaculum
 - if tree removal is **within ¼ mile of an entrance** to a known, occupied hibernaculum
 - if tree removal cuts or destroys a known, occupied **maternity roost tree** or other trees within 150 feet of that tree during June and July



Use the FWS “Key to the 4(d) Rule”

Known Northern Long-eared Bat Locations in Minnesota

- **“Occupied Hibernacula”** – 34 known entrances
- **“Maternity Roost Trees”** – 230 known trees
- 200+ additional roost trees likely to be found over next few years
- **So, where are they???**



**TOWNSHIPS CONTAINING
DOCUMENTED NORTHERN LONG-EARED BAT (NLEB)
MATERNITY ROOST TREES AND/OR HIBERNACULA ENTRANCES
IN MINNESOTA**

Minnesota DNR/U.S. Fish and Wildlife Service April 1, 2016

- The federal 4(d) Rule for conserving the northern long-eared bat (NLEB) is administered by the U.S. Fish and Wildlife Service (FWS) and may regulate tree removal or other activities if they are conducted:
 - within ¼ mile of an entrance to a known NLEB hibernaculum (a cave, mine, or other feature in which NLEBs have been documented to overwinter)
 - within 150 feet of a known NLEB maternity roost tree (a tree in which a female NLEB has been documented to roost)
- To learn more about NLEBs, NLEB conservation, the NLEB 4(d) Rule, and how you may be affected by this regulation, review the information available at <http://www.fws.gov/midwest/angered/mammals/nleeb/>. See especially the "FAQs" and "Key to the 4(d) Rule".
- Use the "Key to the 4(d) Rule" to determine if your activity is regulated by the 4(d) Rule.
- Use this Township List and Map to help you answer questions #3 and #6 in the Key.
 - If your tree removal or other activity is not within a listed township, and does not involve federal funding, a federal permit, or federal lands, no further action is required.
 - If your tree removal or other activity is within a listed township, you can determine more precisely where in the township the 4(d) Rule restrictions apply by requesting from the DNR a data printout or a data license to access additional details on the location of the feature within the township. (see <http://www.dnr.state.mn.us/nhrp/nhis.html#datarequest> for instructions)
 - If you can determine from this additional information that your tree removal or other activity is not within 150 feet of a documented maternity roost tree, or within ¼ mile of a hibernaculum entrance, and if your project does not involve federal funding, a federal permit or federal lands, then no further action is required.
 - Contact the FWS (see below) to obtain guidance on how to proceed with your project if:
 - you have chosen to not obtain additional locational information from the DNR, or
 - your tree removal or other activity is within 150 feet of a maternity roost tree, or
 - your tree removal or other activity could alter a hibernaculum interior, a hibernaculum entrance, or the environment within ¼ mile of a hibernaculum entrance, or
 - your tree removal or other activity involves federal funding, a federal permit, or federal lands.
- These data are current as of April 1, 2016. Updates of this information will be released annually on April 1.
- As of this date, there are 230 known maternity roost trees and 34 known hibernaculum entrances in Minnesota.
- This document should not be used to determine the distribution of the NLEB in Minnesota, since NLEB surveys in Minnesota are incomplete, and not all known locations of the NLEB were included in preparing the list and map.
- A township that lies within more than one county is listed under every county in which the township lies.

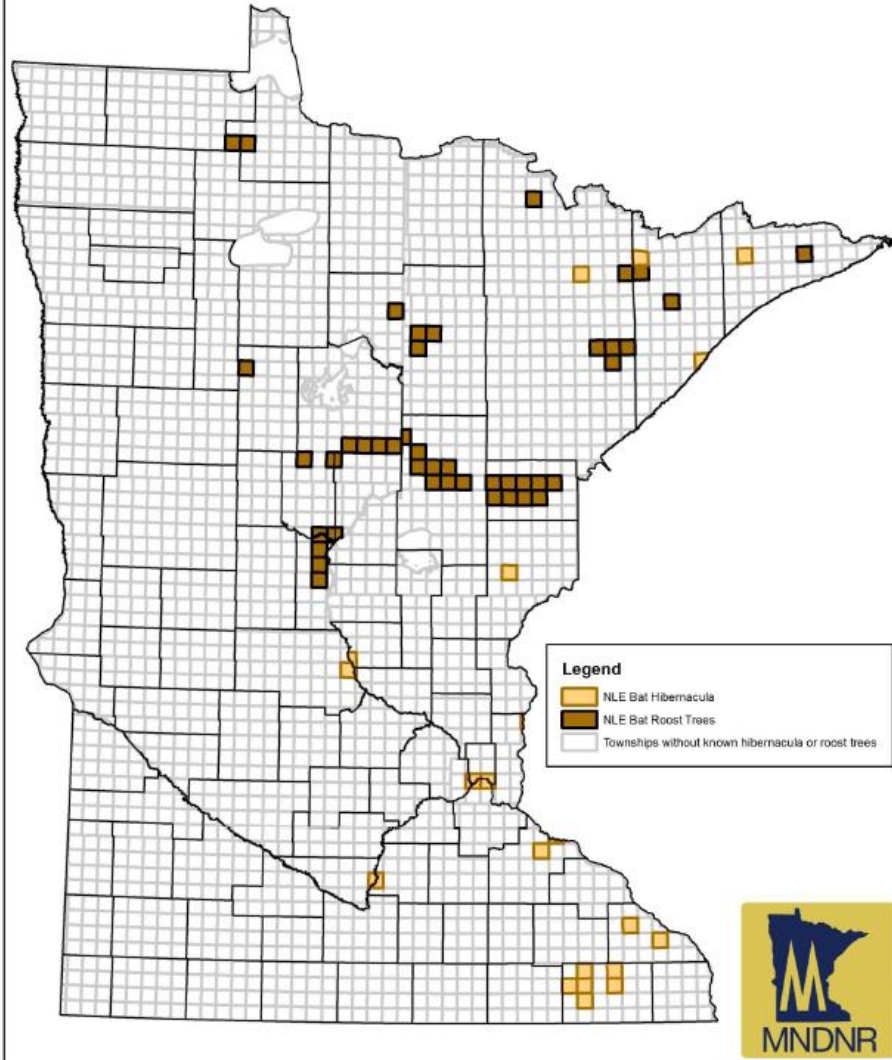
For more information, contact:

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County	Township	Contains Hibernaculum	Contains Roost Tree
Aitkin	T48N R23W		X
Aitkin	T48N R24W		X
Aitkin	T48N R25W		X
Aitkin	T49N R24W		X
Aitkin	T49N R25W		X
Aitkin	T49N R26W		X
Aitkin	T50N R26W		X
Aitkin	T51N R27W		X
Benton	T36N R31W	X	
Carlton	T47N R18W		X
Carlton	T47N R19W		X
Carlton	T47N R20W		X
Carlton	T47N R21W		X
Carlton	T48N R17W		X
Carlton	T48N R18W		X
Carlton	T48N R19W		X
Carlton	T48N R20W		X
Carlton	T48N R21W		X
Cass	T133N R29W		X
Cass	T133N R30W		X
Cass	T138N R29W		X
Cass	T138N R31W		X
Cass	T139N R25W		X
Cass	T139N R26W		X
Cass	T139N R27W		X
Cass	T139N R28W		X
Cook	T63N R1E		X
Cook	T63N R4W	X	
Crow Wing	T133N R29W		X
Crow Wing	T138N R29W		X
Dakota	T28N R22W	X	
Dakota	T28N R23W	X	
Fillmore	T102N R12W	X	
Fillmore	T103N R10W	X	
Fillmore	T103N R12W	X	
Fillmore	T103N R13W	X	
Fillmore	T104N R10W	X	
Fillmore	T104N R12W	X	
Goodhue	T112N R15W	X	
Goodhue	T113N R14W	X	
Hennepin	T28N R23W	X	
Hubbard	T144N R35W		X

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MATERNITY ROOST TREES AND/OR HIBERNACULA ENTRANCES**



Information on Locations of Occupied Hibernacula and Roost Trees

Township List and Map will be updated each April 1st

Natural Heritage Information System – official source of information on “known” rare species locations

- Obtain access through a **Data License**
- Submit a **Data Request Form**
- **Contact U.S. Fish and Wildlife Service**

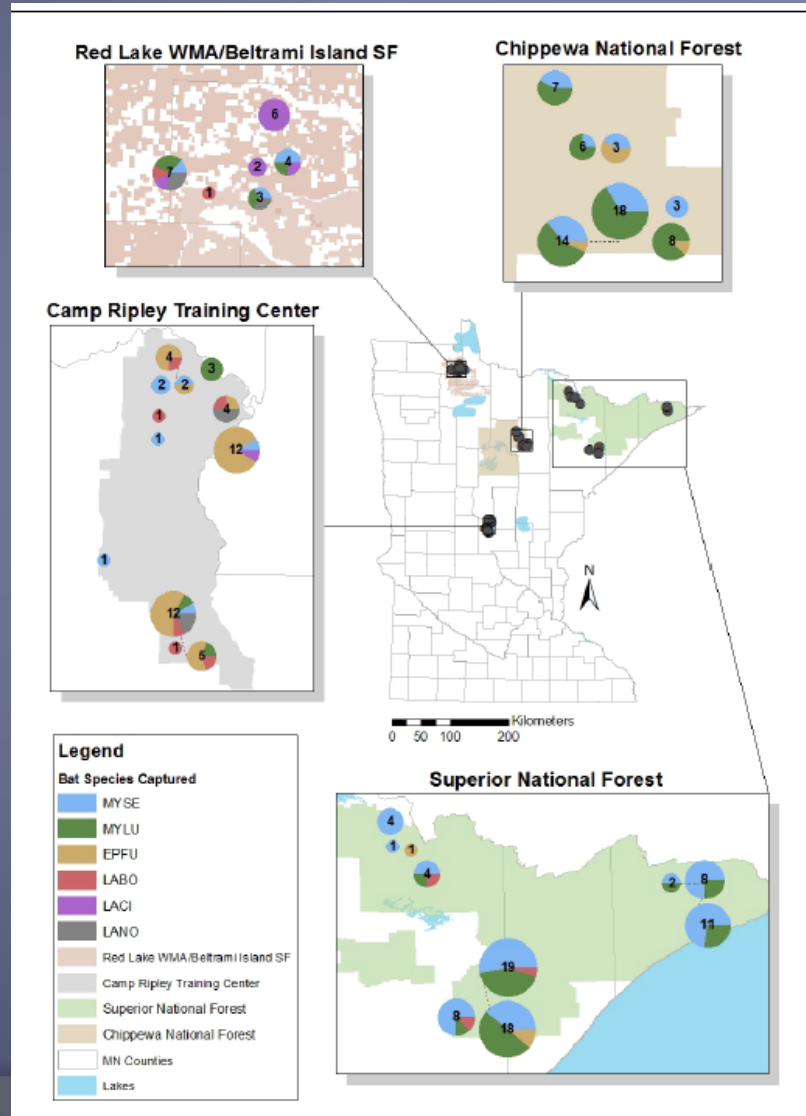
Northern Long-eared Bat Research in Minnesota



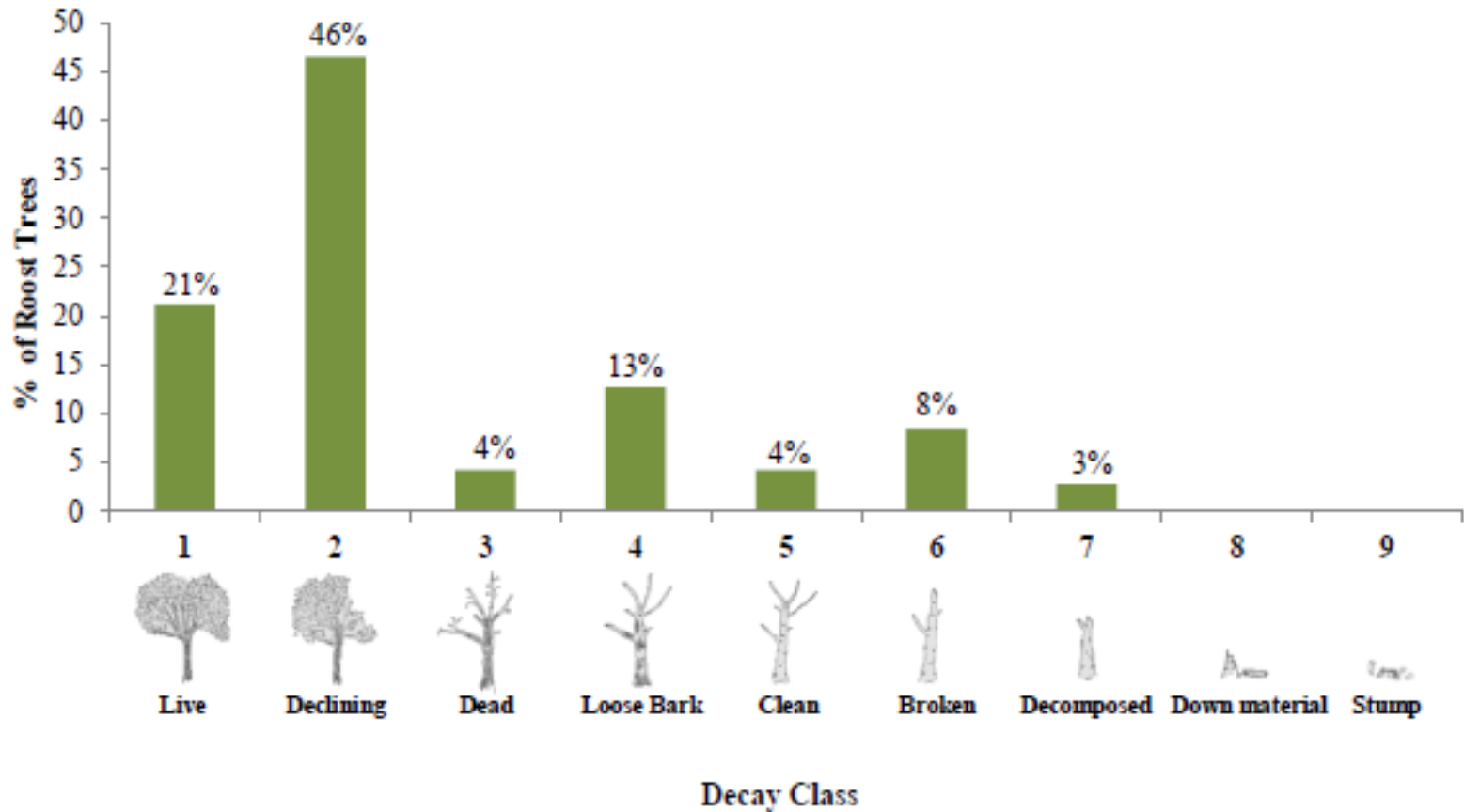
- Research on NLEBs began in 2014
- \$1.25 million ENRTF grant: July 2015 – June 2018
 - Summarize data on distribution of NLEBs in Minnesota
 - Conduct acoustic surveys to complete info on range in MN
 - Capture and place radios on female NLEBs
 - Follow to roost trees; document use
 - Characterize roost trees and stands in which they occur



2015 Capture Locations



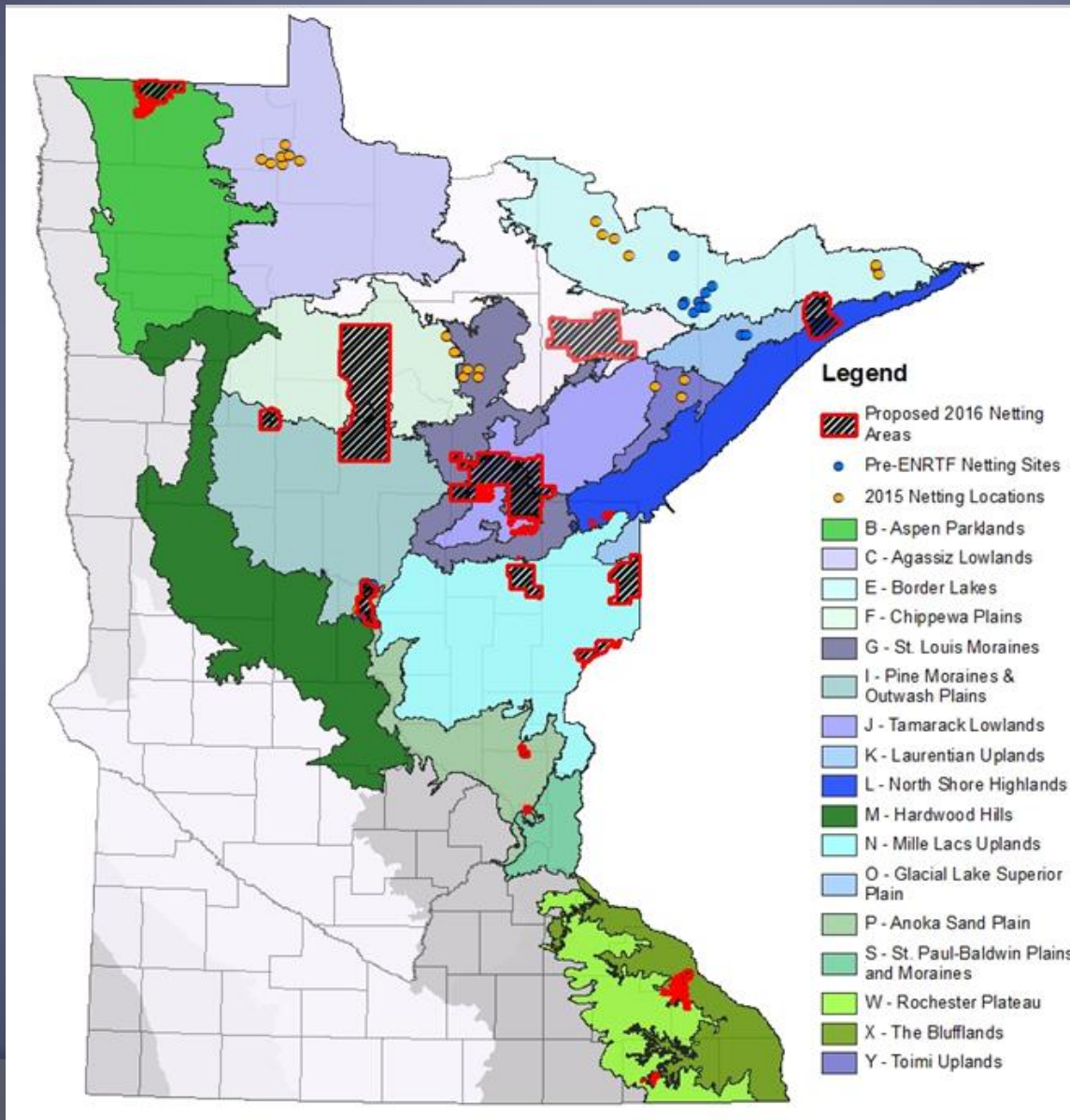
24 radioed NLEB females lead to 71 roost trees of 17 species



2015 Research Conclusions

- Female NLEBs showed **no obvious preference of tree species** for roost sites
- Most roost trees were in an **advanced state of decay**
- Females **traveled an average of .5 miles** from capture location to first roost tree
- Females **used an average of 3.2 (0-6) roost trees** while transmittered (6.4 day ave; 1-11 days)
- Females traveled an average of **770 feet between consecutive roost trees**
- An **average of 21.5 bats** (up to 79) were observed emerging from a single roost tree

Proposed 2016 Capture Locations



2014-2016 Capture Locations

2014

<u>Land Unit</u>	<u># of Sites</u>	<u>Managing Agency/Entity</u>
Superior National Forest	5	USDA-Forest Service
Camp Ripley Training Center	7	US Military/MN DNR

2015

<u>Land Unit</u>	<u># of Sites</u>	<u>Managing Agency/Entity</u>
Superior National Forest	10	USDA-Forest Service
Chippewa National Forest	7	USDA-Forest Service
Camp Ripley Training Center	14	MN Department of Military Affairs/MN DNR
Red Lake WMA	2	MN DNR – Fish & Wildlife Division
Beltrami Island State Forest	6	MN DNR – Forestry Division

Distribution of Proposed 2016 Mist-Netting Sites

2016

<u>Land Unit</u>	<u>Managing Agency/Entity</u>
Superior National Forest	USDA-Forest Service
Chippewa National Forest	USDA-Forest Service
Camp Ripley Training Center	MN Department of Military Affairs/MN DNR
Hill River State Forest	MN DNR - Forestry Division
Savanna State Forest	MN DNR – Forestry Division
Cloquet Forestry Center	University of Minnesota
Carlton County Tax-Forfeited Land	Carlton County Land Department
St. Croix State Park	MN DNR – Parks & Trails Division
Arden Hills Army Training Site	MN Department of Military Affairs/MN DNR
Itasca State Park	MN DNR – Parks & Trails Division
Solana State Forest	MN DNR – Forestry Division
Nemadji State Forest	MN DNR – Forestry Division
Roseau River WMA	MN DNR – Fish & Wildlife Division
Whitewater WMA	MN DNR – Fish & Wildlife Division
Mystery Cave State Park	MN DNR – Parks & Trails Division

What's New? What's Next?

- **White-nose Syndrome** first documented in Minnesota last month
- FWS has received Notices of **Intent to Sue** to challenge Threatened designation and 4(d) rule
- If reclassification or lawsuit leads to loss of the 4(d) rule, continued summer forest management will require an **Incidental Take Permit (ITP)**
- **Habitat Conservation Plan (HCP)** is required to apply for an ITP

What is in an HCP?

- Species, Lands, and Activities covered by an ITP
- Amount of take anticipated and covered by an ITP
- How take would be avoided and minimized
- How unavoidable take would be mitigated
- How mitigation would be funded
- How take and mitigation would be monitored
- How the plan would change if necessary
- How landowners would participate

Examples of Bat HCPs

- Midwest Wind Energy HCP
- Pennsylvania Forest Management HCP
- NiSource/Columbia Pipeline HCP

Lake States Forest Management Habitat Conservation Plan

- MN, WI, and MI have received over \$1,230,000 in 2 federal grants to develop
- Risk management strategy
- Other options for ESA compliance in a timely manner are very limited
- Funding currently runs Oct 2014 – Sept 2017
- States may apply for up to 2 more grants

How is the HCP being developed?

- Supported by senior leadership in each state
- Administered by MI
- Contractor (ICF International) hired as of late 2015
- Steering Committee of representatives from the three state DNRs, USFWS, and consultant
- All three DNRs are committed to covering forest management in all non-federal forest lands
- Will take several more years, including required NEPA process (public review of an EIS)

How will landowners participate?

- Most details yet to be determined
- Potential participants will be included in development of the HCP
- The HCP will likely be structured to allow “opt-in” (or not) by individual landowners through a **Certificate of Inclusion**
- As specifics develop, we will be contacting all partners with specific plans for participating in the development process and the HCP

Thank You!

