

## Meeting Notes: Commissioner's Advisory Committee (CAC) on Natural Heritage

December 4, 2019 – DNR Central Office, 500 Lafayette Road, Saint Paul

### Attendance

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**Members Present:** Nancy Braker – Chair; Alyssa Alness, Kristen Blann, Kevin Brennan, Tom Casey, Kathryn Keller-Miller, Linda Kingery, Jaxon Lane, Sarah Malick-Wahls, John Pearson, John Schladweiler, Angela Smith, Christopher Smith, and Mike Spry – Vice Chair

**Members absent:** Peg Furshong and Jeanette Eller Watland

**DNR staff present:** Steve Colvin, Ann Pierce, Jan Shaw Wolff, Jane Norris, Rich Baker, Bruce Carlson, B.J. Carré, Welby Smith, Melissa Driscoll, Kelly Randall, David Minor, Kari Wallin, and Cynthia Osmundson

**Guests present:** Ellen Fuge, Friends of Minnesota Scientific & Natural Areas; Ethan Karp, Carlton College Arboretum

### Call to Order/Introductions/Overview of Meeting Agenda & Purpose

- Chair Nancy Braker called the meeting to order; with today's packed agenda, Nancy asked that members: please wait to be recognized, and state your name when making or seconding a motion
- CAC Members, DNR Staff, and guests introduced themselves
- Overview of Meeting Agenda & Purpose – Additions? Approval?
  - Tom C. – Addition of Governor's Executive Order on Climate Change – to be discussed during Legislative Update
  - Nancy – asks for a motion to approve the agenda: **Motion made by John Schladweiler and seconded by Mike Spry to approve the agenda. Motion carried unanimously.**

### CAC Business

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#### Approve the Minutes

- **Handout:** *Unapproved Minutes of October 2, 2019 CAC Meeting*
- Correction:
  - Page 9: change the phrase 'Since Restitution **requires** legislative action,' to 'Since Restitution **could require** legislative action,'.
- Nancy asks for a motion to approve the amended minutes: **Motion made by John Schladweiler and seconded by Angela Smith to approve the amended minutes of the October 2, 2019 CAC meeting. Motion carried unanimously.**

#### Feedback on Oct. 4, 2019 lunch with Nongame Wildlife Staff: did members find it worthwhile?

- Nancy B., Mike S., Sarah MW., and Tom C. all found it useful to have one-on-one conversations with NGW Staff
- John P. would find it helpful for there to be an 'icebreaker' element to spur conversations

- Jan SW.:
  - Would like to continue to take the opportunity to invite DNR staff assembled at CO for their own meetings to join CAC for lunch and informal discussion.
  - To that end, the Commissioner's Office was invited to join CAC today; however, many of them are currently attending a meeting with some of the Tribal leaders.
  - Invited SNA Staff to lunch today and to give CAC highlights of their 50<sup>th</sup> Anniversary year

## CAC Subcommittee Reports

- Peatland Conservation/Ramsar Convention on Wetlands of International Importance Subcommittee -- *Linda Kingery*
  - Linda has collected all Ramsar correspondence and resources into a folder to pass along to her successor.
  - Current Status of Sax-Zim Bog Project
    - No contact with Sparky Stensaas (Friends of Sax-Zim Bog) since the Oct. 2019 CAC Meeting
    - Sparky's intention is to hire someone to move their application forward.
    - Doug Norris (DNR Staff) has been in contact with Sparky
    - CAC needs to decide between:
      - Getting one application through the Ramsar process.
      - Take a more strategic approach moving forward:
        - *Prioritization and promotion*
        - *For example: [WI Wetlands Association](#)*
  - If CAC finds value in this, then it needs a new subcommittee chair
  - Sarah M-W. – What's the need?
    - Linda K. –
      - Sax-Zim Bog may well move forward regardless of our involvement
      - Is CAC the right group to take this on?
      - John S. – Looking forward, CAC is not the organization to continue this in the long term. Perhaps the MN Wildlife Society would be better? John S. is willing to take the ball from Linda K. but he lives far from DNR CO and has only one year of CAC tenure left.
      - Tom C. volunteered to help John S.
  - Nancy – Linda, can you:
    - Reach out to Sparky and have him get in touch with John S.
    - Get all RAMSAR correspondence and resources to John S. (and B.J.C.)
  - Linda – I'll also ask Doug Norris for the DNR perspective: after the first application is complete, then what?

## Other CAC business

- **Vice-chair nominations:** (vote occurs at February meeting)
  - Nancy Braker steps down as Chair; Mike Spry steps in as Chair
  - Two candidates for Vice-chair: Tom Casey and Sarah Malick-Wahls

- Nancy asks for a motion to approve the slate of candidates for Vice-chair: **Motion made by John Schladweiler and seconded by Kristen Blann to approve the slate of candidates. Motion carried unanimously.**
- How to handle the vote? Suggestions/discussion included: show of hands, paper (secret) ballot, email vote (if unable to attend the meeting in person), Google Poll (anonymous)
  - Nancy B. – The vote will be set up in an anonymous fashion.
- New members (attending their first CAC meeting in Feb.) do not know either candidate.
  - Candidates have until mid-January to write something up to distribute to all members.
- Tom C. – He is available to speak with members over the phone, anytime.
- Sarah M-W. – Members can expect x-mas cards (joking about influencing her standing).
- **CAC Charter approval update** – Steve Colvin and Ann Pierce
  - Jan SW. – submitted the Charter to Commissioner Strommen through Steve Colvin, who had two issues/concerns.
  - First concern: - I. Purpose and Scope:
    - In the second paragraph, the Charter specifically states ...“The Committee **advises** the department on topics/issues related to . . . **terrestrial**” invasive species... This distinguishes the role of CAC to make recommendations on Natural Heritage and the role of the Aquatic Invasive Species Advisory Committee to make recommendations on on Aquatic Invasive Species
    - In Desired outcomes; article 4.’ the Charter specifically deletes the word “terrestrial” and states: “...Shared **understanding** of issues . . . **as well as the impacts of invasive species...**” This is to indicate the CAC on Natural Heritage is systems based and biodiversity inclusive and needs a comprehensive understanding of relationships between terrestrial and aquatic components of watersheds and landscapes.
    - **I. Purpose and Scope stands as currently written.**
  - Second concern – II. Audience and Affected Staff, article 4:
    - CAC had amended the Charter by adding “**DNR advisory committees**”
    - Steve C. – This CAC (Natural Heritage) does not have a role advising other CAC’s
    - Ann P. – The MNDNR Commissioner is the advisee of all CAC’s. There is no advisory committee to advisory committee communication channel.
    - Chris S. – Is there any history of sharing between CACs?
    - John P. (longest serving Natural Heritage CAC Member) – No.
    - Ann P. – The Commissioner can bring our concerns to the attention of other CACs. For example, Comm. Tom Landwehr did this a couple of times; specifically our concerns on Mille Lacs Lake.
    - John P. This was added to indicate a desire for exchange between CACs, not to advise other CACs
    - Angie S. – Collaborative role, not advisory role; so we are not working in a bubble.
    - John P. Let’s drop that phrase. We, as a committee can be more proactive to be more collaborative.
  - Nancy calls for a motion – **Motion made by Kevin Brennan and seconded by Tom Casey to amend the Charter by deleting “DNR advisory committees” (in Section II., article 4) and approve the Charter as amended. Motion carried unanimously.**
  - Sarah M-W. – Do we want a more organized process to see the other CACs’ work?
    - Steve C:

- There are three Groundwater Management Areas that have advisory teams, all have an online presence:
  - [Bonanza Valley](#)
  - [North and East Metro](#)
  - [Straight River](#)
- [Aquatic Invasive Species Advisory Committee](#)
- [Game & Fish Fund citizen oversight committees](#)
  - Fisheries Oversight Committee (FOC)
  - Wildlife Oversight Committee (WOC).
- Tom C. – Can we get our work online?
  - Nancy B. – Currently the following CAC info is available online: [Charter](#), [Members, Programs We Advise](#)
  - Nancy B. – Not available on line: Agendas, Minutes, handouts... – we’ve been discussing this with Jan SW.
  - Jan SW. – Are we comfortable with our agendas and minutes being available online?
    - Tom C. – Commissioners orders (designating SNAs) could go on our website as well
- Nancy B. – Due to time constraints, we’re going to table this discussion for now.

## DNR Program Updates

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- **Non-toxic Fishing Tackle and Non-toxic Ammunition;** response to CAC’s 11/12/2019 Resolution recommending topic to be included at the January 2020 DNR Roundtable event – Steve Colvin and Ann Pierce
  - Commissioner Strommen has expressed the DNR’s commitment to this issue. A meeting to discuss next steps was held Nov. 26 with the Division Directors and Deputy Directors of Fish and Wildlife (FAW), Enforcement, and EWR attending.
  - Dave Olfelt (Director of FAW) and Steve have been discussing an “Open Space” Event for spring 2020.
  - Open Space Concept is used to bring together folks with different perspectives and sometimes opposing views; it is not facilitated; the attendees put forth topics for discussion; vote with your feet – each person engages in the topic that interests them and is free to leave the session whenever they wish.
  - Example of Open Space Concept: Three Open Space sessions were held in August to discuss AIS, Angling, and Access. . A valuable outcome that participants expressed was the opportunity to share each other’s interests and concerns and to discover that there were areas of common ground.
  - Steve is working with Brian Stenquist (EWR Planning Director) to develop Open Space event(s); lumping lead shot and lead tackle might be too much; have an event for each group
  - From the petition and letters of support, we are aware of the conservation stakeholders; FAW needs to think about which retail and manufacturing groups they want to include. FAW knows who was behind the opposition and can make certain to include them.
  - John P. Does DNR choose the participants, or would they open it up?
  - Ann P. – AIS had three different (regional) Open Space events

- Jan SW. – An important role played by the AIS Advisory Committee was having members represent the Committee and participate in these events
  - Chris S. – The Commissioner says the responsibility for this issue is in the hands of the Legislature. Does this mean the DNR is neutral on this topic?
  - Steve C. – The DNR would want to work with the Legislature on a bill the DNR could support.
  - Ann P. – We need to build support (through Open Space or other concept) first.
  - Tom C. – Do we frame the outcome ahead of time?
  - Ann P. – We try and frame hurdles ahead of the meeting. What does the landscape currently look like?
  - Tom C. - Where does the DNR want to be at the end of the process?
  - Steve C – DNR wants to determine where there is momentum; where are the addressable hurdles; what is the next step?
  - Tom C. – DNR is not leading the charge? We’re waiting for others to lead?
  - Nancy B. – DNR is trying to use all the stakeholders to help with the issue as opposed to going in with a presumed answer.
  - Ann P. – With AIS, we came out with tangible steps; whereas many of our previous meetings were two poles talking **at** each other. Open Space allowed us to **listen** to each other, (first step).
  - Sarah M-W. – Commissioner has recognized that lead is a problem.
  - Kathryn KM. – Strong-arming, like last time, is not effective
  - Tom C. – How we get there is up for discussion, but do we agree with the end game? That lead needs to be eliminated?
  - Kevin B. – there are folks out there who do not agree with the end goal of eliminating lead; starting with the end goal sets up a confrontational dynamic.
  - Chris S. – If you leave it open, you are not being honest. The DNR is the ‘bad guy’ – we need to assume the role.
  - Sarah M-W. – We tried it that way the last time, and our opponents banned any rule making on the issue for three years.
  - Jane N. – Have we thought about engaging with MN Dept. of Health and MPCA?
  - Steve C. - DNR is speaking with MPCA regarding BP dollars and their ‘Get the Lead Out’ program. CAC may want to invite MPCA to make a presentation at one of their meetings.
  - Ann P. – Clarification: We are looking at the Open Space concept; where it’s not appropriate to talk about an end game; we find out the present landscape and what the conversation is out there on various sides of the issue
  - Tom C. – So, the Commissioners Roundtable will not include this topic?
  - Steve C. & Ann P. – No. It’s too late in the game to include this topic in the January Roundtables
  - Nancy B. – What can CAC do now to support this effort (we want to be included)?
  - Steve C. –Do CAC members know of conservation organizations that the DNR may not think of that ought to be invited?
  - Discussion shifted to availability of non-toxic ammo: Some hunting clubs have gone to copper ammo; Star Trib article says the number of hunters using non-toxic ammo is increasing; non-toxic ammo is still hard to come by; often can only be found online
- **Status of CAC charter approval and new member application process** – Jan Shaw Wolff
    - Jan SW. will submit the amended Charter to the Commissioner for her signature

- We have a good and diverse pool of over 25 applicants for new membership. DNR staff made a list of recommendations to the Commissioner; members ought to be appointed in January and can attend the February CAC meeting
- Jan is putting together a 'Welcome Portfolio' for new members, including:
  - Outlines of the Heritage Programs on which CAC advises
  - CAC roster
  - CAC Charter
  - Logistics (mileage reimbursement...)
- Send Jan an email if you have further suggestions.
  - Tom C. – A thumb drive of all the Commissioners Orders (on SNAs)
- **SNA 50<sup>th</sup> Anniversary** – reflections and introductions of key project staff – Kelly Randall
  - SNA Outreach Staff that worked on SNA 50<sup>th</sup> Anniversary:
    - Kelly Randall – Volunteer/Outreach Coordinator
    - David Minor – SNA communications outreach
    - Kari Wallin – SNA volunteer outreach
    - David and Kari are both in individual placement positions from Conservation Corps Minnesota Iowa (CCMI)
    - Other SNA staff introduced themselves: Melissa Driscoll (SNA Program Acquisition Coordinator) and Jane Cowan (Native Prairie Bank Easement Steward)
  - Kari W. – 50<sup>th</sup> Anniversary Highlights for her were the specially branded events, including:
    - Bio-blitzes at Wood-Rill, Seminary Fen and Iron Horse Prairie – 41 people attended and 595 species were identified
    - Seed Collections on SNAs, including Grey Cloud Dunes, Bluestem Prairie, and Oronoco Prairie on National Public Lands Day – 55 attended and 160 hours volunteered
  - David M. – 50<sup>th</sup> Anniversary Highlight for him was tracking down Gerald (Jerry) Jensen, the first SNA Program supervisor (1972-1980), and interviewing him for an article that appeared in the [November 2019 issue of "Nature Notes"](#)
  - Kelly R. shared some final statistics on the anniversary (**Handout – Highlights – 50<sup>th</sup> Anniversary**)
- **Long-term Monitoring Efforts** - Bruce Carlson, supervisor, Minnesota Biological Survey
  - **Handout:** *MBS's Ecological Monitoring Network*
  - **Power Point Presentation on Monitoring in General** (*included in the Handouts*)
  - Questions:
    - Tom C. – monitoring of federally listed animals?
    - Bruce C. – The DNR surveys:
      - Wolf and Lynx (Wildlife)
      - Bald Eagle (Nongame)
      - Northern Long-eared Bat (MBS)
    - Kevin B. - We need to take our old data and find new techniques to use it
    - Kathryn KM. - survey versus monitor?
    - Bruce C. - Surveying is searching for/finding an organism and determining its condition/distribution in the state; it is a point in time with no intention of returning. Monitoring is having the intention to come back, for example the Re-relevé Project. How do we make monitoring useful?
    - Tom C. – Welby was monitoring ginseng. Were the results useful? What's the next step?

- Bruce C. – Will talk to Welby for an update on that work
- Chris S. – Some states contract out monitoring work. Can MN do that?
- Bruce C. – We do use contractors, some examples include:
  - Jason Husveth
  - Design phase of EMN protocols
  - We also use seasonal workers (instead of contract workers)
- Nancy B. – Kristen Blann is the current SNA Monitoring subcommittee chair; Anyone on CAC could join her; Kristen recently attended an SNA meeting; Chris Smith is interested
- Tom C. – What kind of monitoring does MBS do?
- Bruce – All (MBS) monitoring up to now has been status and trends; SNA has done some effectiveness monitoring on their lands
- Tom C. – Have you tackled causation?
- Bruce C. – We can correlate and infer, which is not the same as causation; many of our reports are short-term/grant driven
- John S. – Even lack of management leads to change in a native plant community. SNA does informal threshold monitoring.
- Chris S. – Nongame tried to tease out fire and butterflies at Sand Dune State Forest
- Bruce C. - will talk about Ecological Monitoring Network (EMN) another time. Briefly, it is monitoring status and trends statewide (wetland, forest, grassland) under all ownership; goal is 600 sites revisited every 6 years; fully funded by LCCMR the first year; zero funding from LCCMR the second year; we cannot run EMN with funding like this
- Jan SW. – If MBS is looking to put together a funding request for Biodiversity & Natural Heritage work, this may be a role for CAC to recommend funding and support biodiversity work.

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## Lunch: The Sioux Chef, Sean Sherman

- “Bringing modern indigenous cuisine of the Dakota & Minnesota territories to the home cook”.
- Locally sourced catering business, hoping to open a restaurant soon (also a great cookbook).
- SNA Staff were invited to join us.

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## DNR Program Updates, continued

- **Legislative Session** – EWR Director Steve Colvin and Deputy Director Ann Pierce
  - Funding
    - Bonding Year (**Handout:** *MMB letter and DNR Project Narrative*)
      - SNA (acquisition and development) and Prairie Bank are in the DNR’s proposal
      - MMB will work with the Governor to prepare 1<sup>st</sup> Bonding Bill
      - There’ll be lots of requests for assistance due to high lake levels; public works will also be added; Senate (R) bill and House (D) Bill will need to be brought into agreement
    - Supplemental Budget Year - DNR has nothing proposed
    - FY21 budget - DNR’s interested in increased funding for Natural Heritage work
  - Policy – light on policy - exploring permitting for allowing snakes, lizards, and salamanders as pets

- Bonding questions, specifically on parking and access
  - Tom C. – we don't want SNA funding to go to parking projects like the one proposed for Prairie Smoke Dunes
  - Ann P. – some SNA access is just a pull-over, which is not legal
  - Tom C. - does SNA have a list of projects (location and scope)?
  - Ann P. – SNA puts together a list of priorities after the bonding bill has a dollar amount and goes to hearings
  - Tom C. – Can you bring that list of priorities to CAC before it's too late?
  - Nancy B. – Trust SNA staff to develop an appropriate list
  - Chris s. – leadership and staff don't always agree; things get politicized.
  - Nancy B. – Yes, we want to see the list to check for anything controversial so we can give the DNR support
  - John P. – “Development of parking areas” in the proposal is alarming – need specifics
  - **Motion Made by Tom Casey and seconded by Chris Smith that if funding comes for “SNA development”, CAC wants to see the list of potential projects.** Discussion...  
**Motion carried unanimously.**
- Policy questions:
  - Tom C. – On August 9, 2019, we sent CAC's list of legislative priorities to Assistant Commissioner Bob Meier. Did anything on this list make it into the Commissioner's Packets? (excerpt)
    - repeal the Road Right-of-Way Exemption and the Ignorance is Bliss Exemption under the E.S. law
    - ban commercial turtle harvesting and place limits on recreational turtle harvesting.
    - support legislation banning both lead shot and lead tackle
    - support either existing or enhanced roadside mowing and haying permits
  - Steve C.
    - We aren't opening up the E.S. law to any changes, so no to repealing the Right-of-Way and Ignorance is Bliss exemptions
    - No legislation on turtle harvest. We will be working directly with a wide range of stakeholders. There's a meeting scheduled with FAW to design a stakeholder engagement process.
    - We've already talked about toxic ammo and tackle
  - Tom C. – If you (Steve) know of anything on the horizon, we need to have a defensive agenda. The MN Environmental Partnership (MEP) is an umbrella group that coordinates lobbying (paid lobbyists and staff). They coordinate work on both new laws and a defensive agenda. MEP frames as many items as possible under climate change.
  - Steve C. – We do have a list of defensive items we'd be happy to share.
- **Climate Change** – Steve Colvin (*Handout – Gov. Tim Walz, Executive Order 19-37*)
  - Governor Walz spoke passionately on Climate change at the MN Environmental Quality Board's [MN Environmental Congress](#). He has no patience for folks who think climate change is not already happening. The Governor has issued Executive Order 10-37 to accomplish the following:
    - “Establishing the Climate Change Subcabinet...” – composed of the Commissioner, Executive Director, or Chair of 15 state agencies and boards – DNR representatives will



be Commissioner Sarah Strommen, Assistant Commissioner Shannon Lotthammer, and EWR Division Director Steve Colvin

- “...and the Governor’s Advisory Council of Climate Change...” – DNR representative will be EWR Division Director Steve Colvin

## • SNA Program Mission Drift

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- **Review of this issue (*Handout: Legislative Purpose Unfulfilled: Minnesota Scientific and Natural Area Commissioner’s Orders 2011-2019*)**
  - Have only looked at info from last eight years; do we want to continue this trend? Does not fulfill SNA’s mandate;
  - Incompatible uses include: hunting, fishing, horses, dogs, and access by watercraft, bicycles...
  - The Friends of Minnesota SNAs tries to get ahead of acquisition, but in one recent instance it took five months to obtain data through the Data Practices Act.
  - The Outdoor Heritage Fund, one of four funds created by the Clean Water, Land and legacy Amendment, supports some of the SNA acquisitions. There is pressure to keep SNAs open for hunting and other activities based on recommendations by the Lessard-Sams Outdoor Heritage Council.
  - Bonding money has declined over the years and SNAs and Prairie Bank Easements have received increased support from The Environment and Natural Resource Trust Fund, whose funding recommendations come from LCCMR, the Legislative-Citizen Commission on Natural Resources. Bonding money has different requirements.
- **Identification of information needed for February discussion** (with Molly Roske, SNA Program Supervisor)
  - Nancy B. – as acquisition projects progress, when do ‘exceptions’ get brought up? When are options still open?
  - John S. – Lots of times it’s the landowner.
  - Nancy B. – Can we look further back than 2011?
  - Tom C. – Can SNA give CAC a zip drive with all the Commissioners SNA designations?
  - Bruce C. – There was a change that happened that gave County Boards approval authority on SNA designations (or perhaps all new public land acquisitions?); asked if the trend of including hunting and other activities correlates with that change?
  - John S. – Originally there was not hunting allowed on any SNA; we then realized the deer would take refuge in SNA during hunting season and cause damage
  - Chris S. – On Brownsville Bluff, the Commissioner wanted hunting, while EWR had concerns a state threatened species could be negatively impacted by hunting (there’s evidence that turkey hunters shot a state threatened species on Brownsville Bluff in the past).
  - Ellen F. – Historically (when CAC was only advising on SNAs), there was an SNA Acquisition Subcommittee
  - Jan SW. – Why was that subcommittee eliminated?
  - Ellen F. – After Bob Djupstrom retired as CAC liaison, CAC ‘drifted’.
  - Kevin B. – How are acquisitions prioritized, or is it opportunistic? (currently, not historically)
  - Tim C. – What are proposed remedies?
  - Ellen Fuge – there are Legislative Guidelines
  - Kevin B. – maybe we need to look at when other programs (WMAs, for example) might be more appropriate

- Jan SW – The DNR has been doing this since 2013, when it launched the [Strategic Land Asset Management Program](#) (SLAM). This program is run out of the Regions and includes all public lands. SNAs are typically prioritized as the highest quality lands containing high biodiversity sites, rare species, and rare natural features.
- Angie S. – What is the process for starting a new subcommittee?
- Nancy B. – No formal process, tends to happen organically, and sometimes they die a slow death.
- Moly Roske is on the agenda to discuss this topic at the February 5, 2020 CAC meeting.

## Next Meeting/Next Steps

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- **Date of next Meeting: February 5, 2020**
- **Proposed Focus Topics for Next Meeting**
  - White-tail Deer feeding - Wildlife
  - Enforcement and Wildlife Perspectives on Restitution
  - Conservation of State-Listed Species Operational Order (if ready)
- **Proposed Focus Topics (not for next meeting)**
  - Update on Wolf Management Plan
  - Detail on Spending of BP Funds
- **Other business to address at next meeting**
  - Introduction of New CAC Members
  - MPCA 'Get the Lead Out' Update
  - SNA 'Mission Creep'/Legislative Purpose Unfulfilled – Molly Roske, SNA Program Supervisor
  - How do we plug into HCVF (High Conservation Value Forest) Gap Analysis? – (follow-up to Emily Peter's October CAC meeting presentation)
- **Actions needed before next meeting**
  - Line up guest presenters
  - Get the CAC Charter signed by the Commissioner

## Open Time – for public Comment

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- Ellen Fuge – thanked CAC for allowing her to participate.
- Jan SW. – A sincere thank you to Linda Kingery (participating remotely), Kevin Brennan and Alyssa Alness for their important contributions and service to CAC. She had wanted to present letters from the Commissioner to Kevin Brennan and Alyssa Alness, as this is their last CAC meeting; expect them in the mail. This is also Nancy Braker's last meeting as CAC Chair.

## Meeting adjourned at 3:00



# Biodiversity Monitoring – Ecological & Water Resources/MBS

Bruce Carlson, Program Supervisor, Minnesota Biological Survey

December 4, 2019

# Biodiversity Monitoring – Status within EWR

In a rapidly changing world full of difficult questions and choices:

- The name of the game is keeping up with change
- Biodiversity composition, condition, distribution changes within our lifetimes

But some things are constant:

- “Change is the only constant”
- People continue to make decisions involving biodiversity
- *DNR/EWR is responsible for providing* timely and accurate biodiversity data, information, and expertise to help solve the State’s ongoing conservation and management questions and decisions.



# Why Do We Monitor?

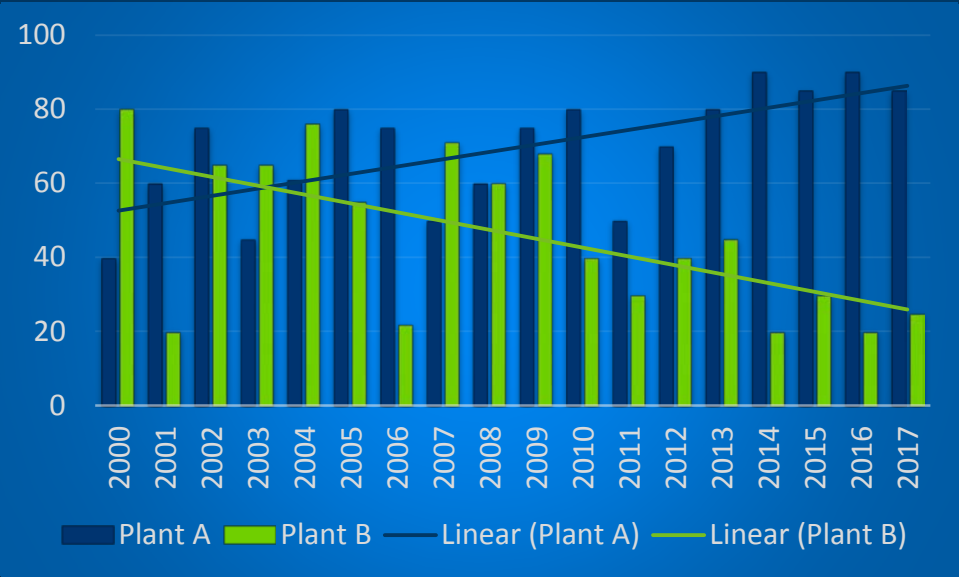
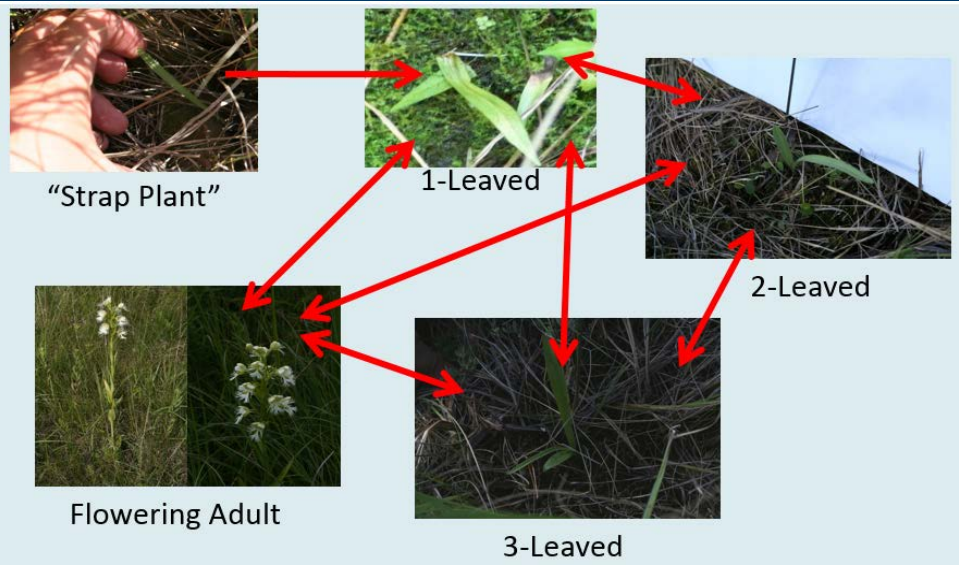


Photo: Judy Schulte



# What directs us to monitor?

- Statutes
- Science
- DNR Strategic Plan – Conservation Agenda
- EWR Strategic Plan
- MBS Strategic Plan
- MN State Wildlife Action Plan
- MN Prairie Conservation Plan
- ~All biological management plans call for it

# Biodiversity Monitoring – Status within EWR

Type of Monitoring	Purpose
<u>Status and Trends - baseline</u>	To understand the system, no specific action to address, foundational information applicable to many actions.
<u>Status and Trends – surveillance</u>	A heightened/targeted/specific S&T approach to address immediate needs (e.g. bats and White-nose Syndrome)
<u>Threshold</u>	To decide if and when to act.
<u>Effectiveness</u>	To assess outcomes of action(s).
<u>Adaptive Management</u>	To assess outcomes of action(s) within an explicit framework for informing the next action(s).

# Biodiversity Monitoring – Status within EWR

## Three ecological scales of monitoring



### Species and populations

This scale has been given the most attention to-date in MN natural heritage programs



### Native plant communities

This scale was added w/in ~ last decade with major new initiatives



### Landscapes

This scale happening the least. No(?) direct example in MN natural heritage programs.

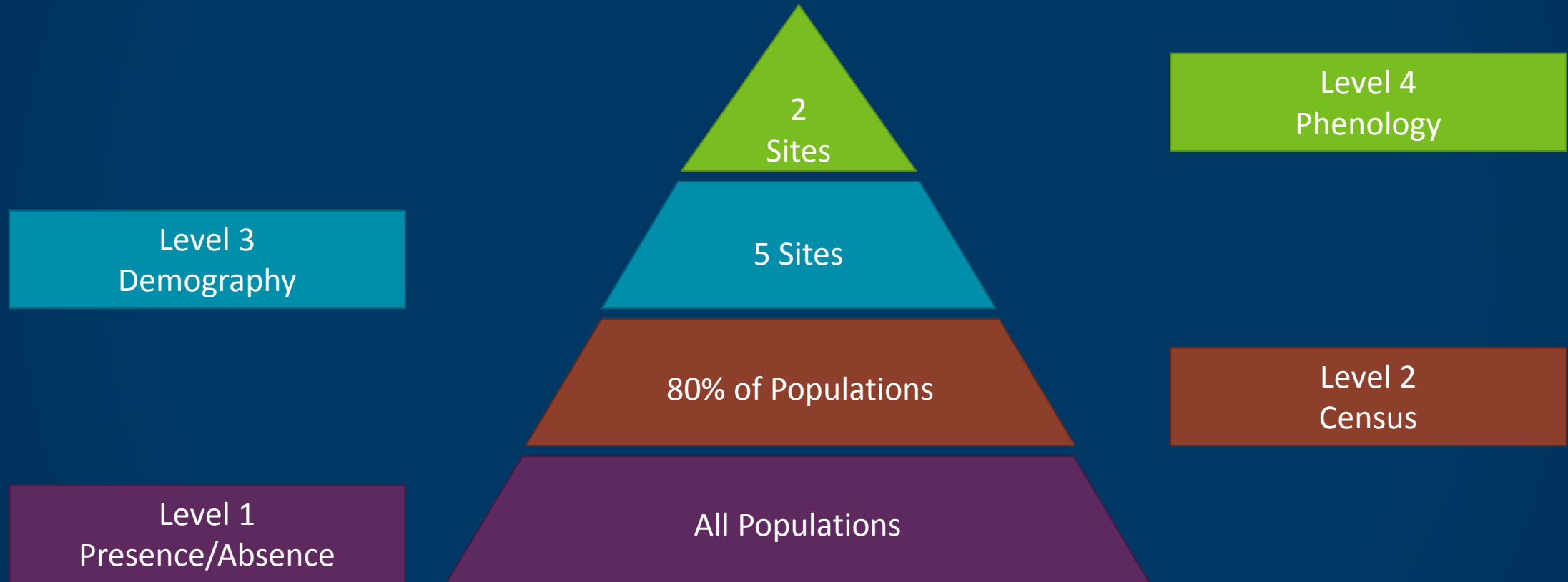


# Biodiversity Monitoring – Status within EWR

## Numerous other considerations...

When	Forever/Finite; Once started how do we stop?
Where	Statewide? Public lands? SNAs? One place?
What	<ul style="list-style-type: none"><li>• Individual entities/systems?<ul style="list-style-type: none"><li>• If plants, pollinators too? If wildlife, habitat too?</li><li>• Air? Water? Soil? Geology?</li></ul></li><li>• Rare/common, secure/vulnerable,</li><li>• High quality/low quality,</li><li>• composition/function</li><li>• Native/non-native</li></ul>
How	random or subjective selection of locations/sites?
Why	What question(s) are you trying to answer? Who needs the information?

# Nested Levels of Monitoring



# Biodiversity Monitoring – Status within EWR

- Successful monitoring is *critically dependent* upon...
  - careful planning,
  - clearly defined questions to address,
  - well-designed protocols,
  - a large enough sample size,
  - adherence data governance, protocols, and centralized, integrated information systems,
  - a commitment to invest staff and funding over many years, and
  - delivering information that people need.

# Biodiversity Monitoring – Status within EWR

EWR has long been invested in various aspects of biodiversity monitoring

- Federal and state-listed plants and animals
- Upper Mississippi Long-term Resource Monitoring
- Wetlands quantity (DNR) and quality (MPCA)
- Grassland Monitoring Team

# Examples of Plants Have We Monitored



Goldenseal



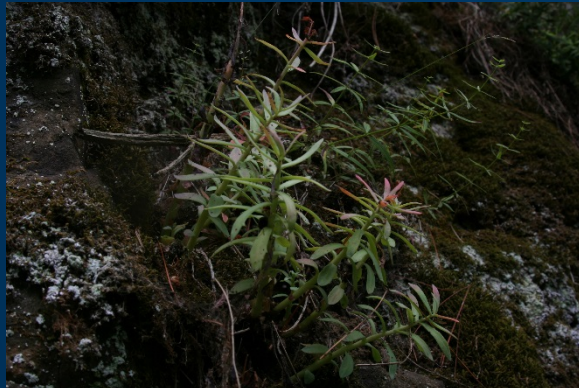
Western Jacob's Ladder



Ram's Head Lady's Slippers



Ginseng



Leedy's Roseroot



Small White Lady's Slippers



Moonworts



Prairie Bush Clover



# Volunteers Make it Possible!



Photo: Karen Ibberson

Photo: Donna Spaeth

Photo: N. Malinowski

Photo: Ron Taalerrud



# Biodiversity Monitoring – Status within EWR

EWR has more recently launched new monitoring initiatives:

- Bats and White-nose Syndrome
- MN River Valley Reptiles project
- Prairie snakes
- Wetland hydrology (incoming)
- Ecological Monitoring Network
- Relevé resampling
- Prairie management veg monitoring – patch/burn/graze
- Prairie management - reed canary grass

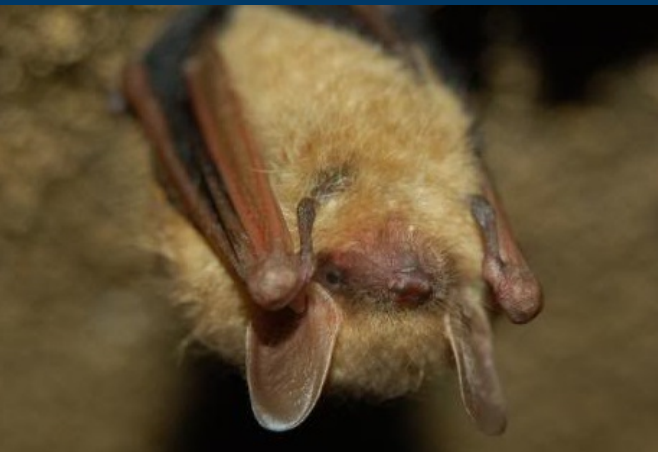
# Minnesota Cave Bats



Little Brown Bat  
Bat



Northern Long-eared Bat



Tricolored Bat



Big Brown

# Minnesota Migratory (Tree) Bats



Eastern Red Bat



Silver-Haired Bat



Hoary Bat



Evening Bat





*Dead bats at the base of a tree  
outside a coal mine in Pennsylvania*

# White-nose Syndrome

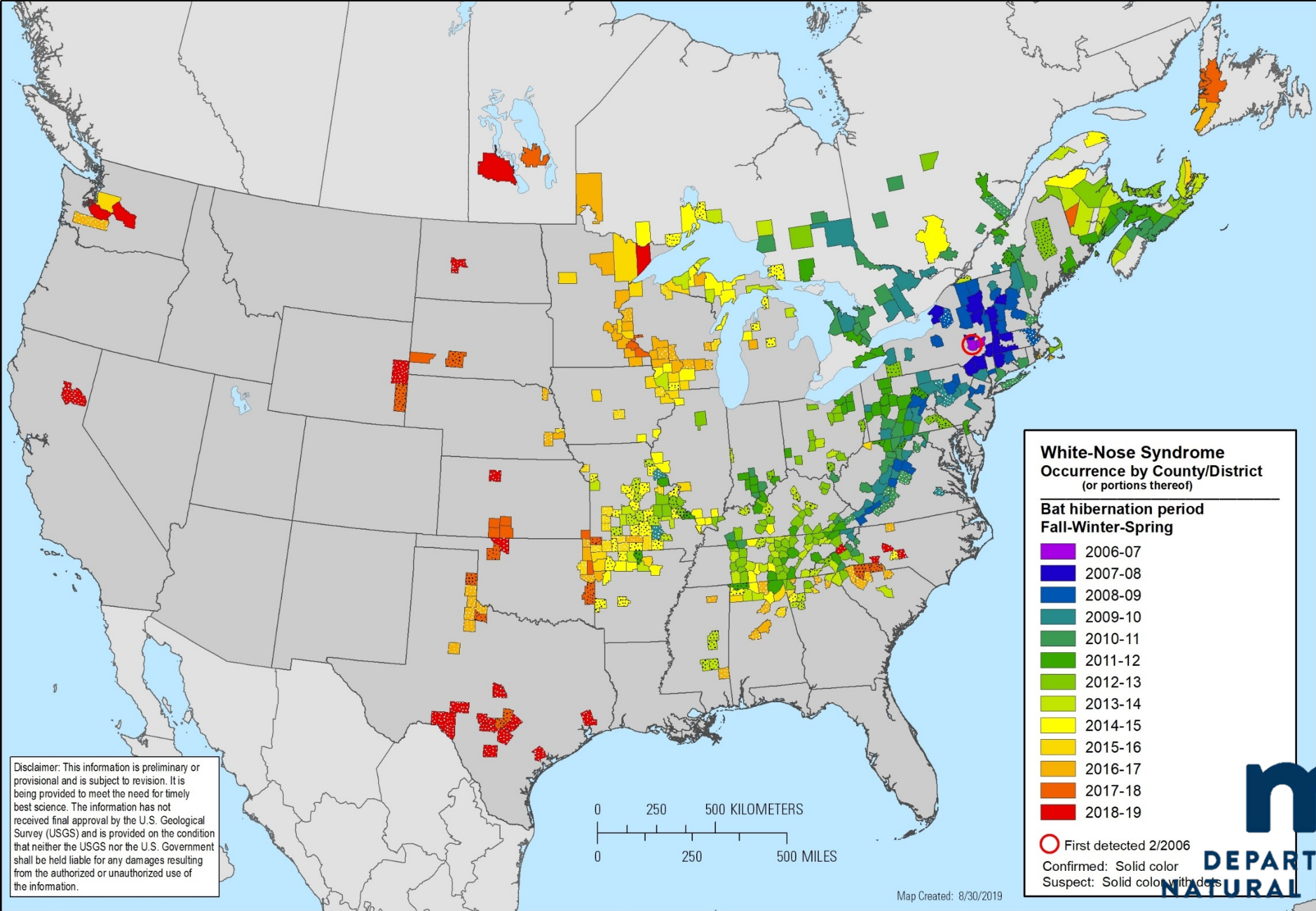
A disease affecting cave hibernating bats,  
causing widespread mortality  
across North America.

*Pseudogymnoascus destructans* –  
originally from Europe

WNS affects only cave bats due to their  
unique life cycles



DEPARTMENT OF  
NATURAL RESOURCES



Disclaimer: This information is preliminary or provisional and is subject to revision. It is being provided to meet the need for timely best science. The information has not received final approval by the U.S. Geological Survey (USGS) and is provided on the condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the information.



# Biodiversity Monitoring – Status within EWR

## Specific to SNAs and their role in monitoring...

- Provide opportunities to monitor unique, rare, high quality, remnant biodiversity not available or accessible anywhere else.
- SNA for most of its existence has prioritized acquisition and management
- SNA within recent past has received ENRTF funding for monitoring of SNAs.
- SNA has not traditionally staffed monitoring scientists – collaborates with MBS and Nongame staff who conduct most of the DNR monitoring that occurs on SNAs.
- SNA developing a more defined SNA monitoring ~plan, strategic plan.

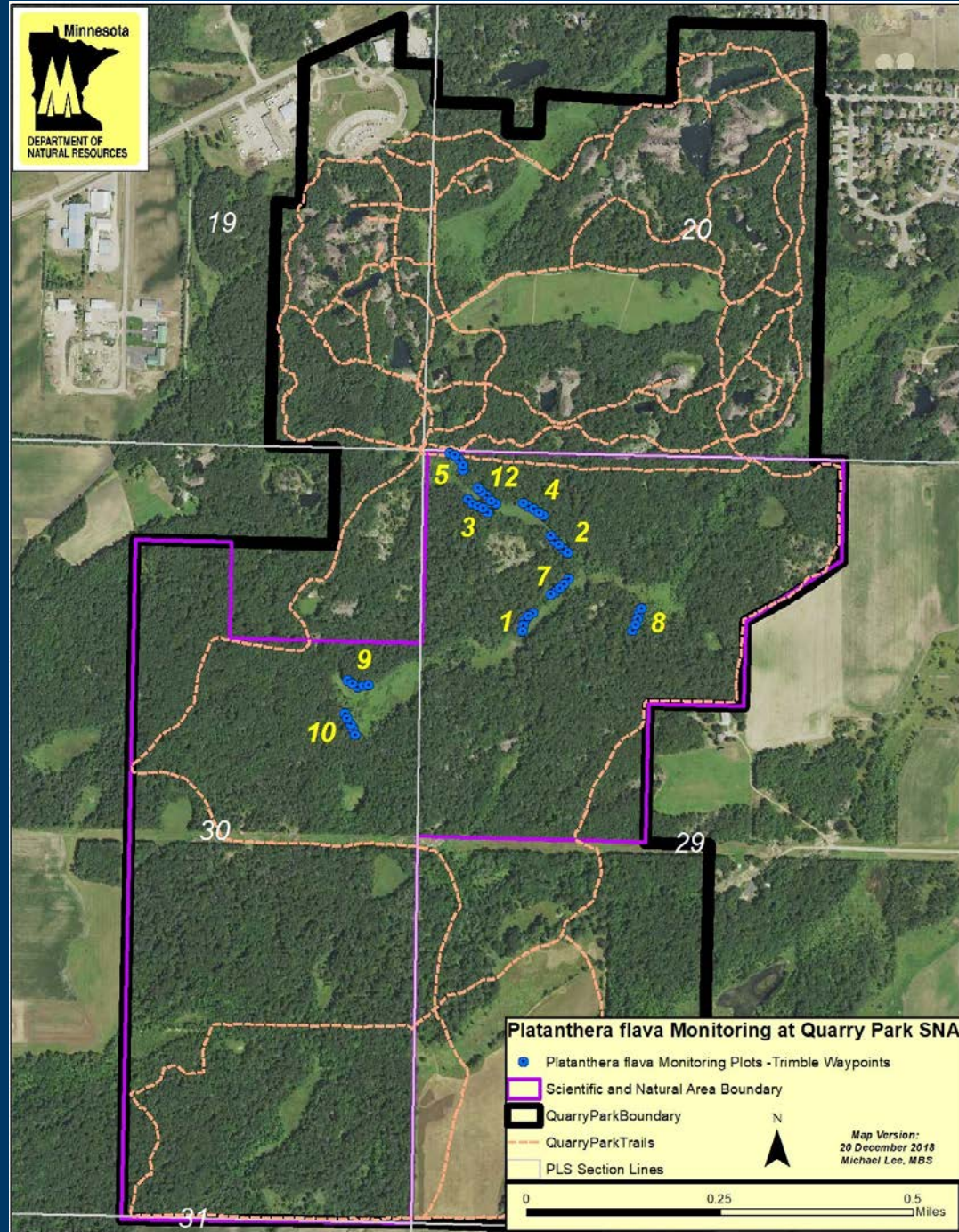
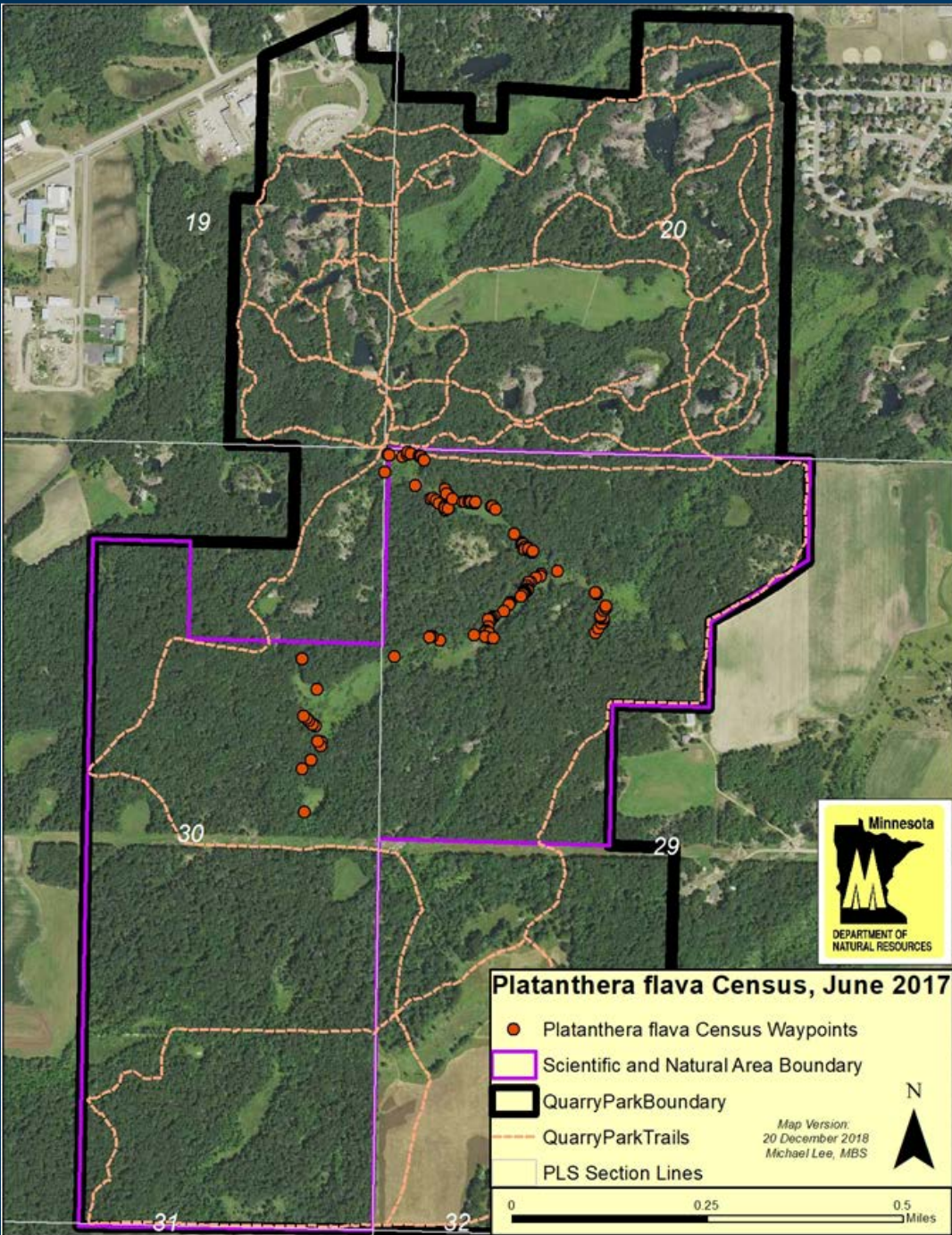


# The Tubercled Rein Orchid



- Listed as State Threatened 2013
  - State Endangered 1984-2013
- Northwestern edge of species range
  - Limited amount of suitable habitat in MN
- Populations Vary
  - Several to 1000s
- Threats
  - Habitat loss
  - Woody encroachment
  - Grazing
  - Invasive species







# Biodiversity Monitoring – Status within EWR

## Challenges

- EWR routinely has more requests for monitoring than resources can address.
  - Especially true for effectiveness monitoring
  - EWR currently lacks an efficient and clear method for vetting these requests
- Building monitoring funding or project proposals within larger Division, Department, partner contexts.
- Funding – committed, long-term, stable.
- Shift in programs' traditional focus on survey/inventory and taxa expertise to monitoring expertise

# Biodiversity Monitoring – Status within EWR

The *EWR Biodiversity Work Assessment Project Team* recommends to EWR leadership....

## **Establish an EWR Biodiversity Monitoring Team**

### Initial Tasks:

- Inventory, compile and describe current and past EWR biodiversity monitoring projects.
- Define the types of monitoring EWR focuses on: effectiveness, status and trends, etc.
- Determine if a common set of questions can be defined for all EWR biodiversity monitoring.
- Identify gaps, overlaps, under and over-investments in EWR biodiversity monitoring based on the above bullets.
- Recommend to EWR leadership desired levels of investment for each type of EWR biodiversity monitoring.

# Biodiversity Monitoring – Status within EWR

## **EWR Biodiversity Monitoring Team initial tasks continued:**

- Collaboratively develop tools for individual EWR monitoring projects to use for
  - 1) determining projects' relevance or placement within EWR/DNR monitoring priorities,
  - 2) defining the questions the project will address, and
  - 3) establishing the intended duration of a monitoring project.

## Ongoing tasks:

- Use the results of Initial Tasks above to guide work.
- Establish and maintain a community of practice around biodiversity monitoring.
- Collaborate internally with EWR and externally with other divisions and partners on design, implementation, analysis and reporting of monitoring efforts.
- Recommend priority monitoring work on various timescales and types of monitoring



# Biodiversity Monitoring – Status within EWR

- Establishing EWR biodiversity monitoring standards and priorities would
  - clarify current and future monitoring needs,
  - simplify information/data design and management,
  - improve planning for needed resources (staff and other),
  - improve consistency in our monitoring approaches and
  - encourage a common language for this practice.
- This recommendation offers significant contributions to the Department's climate change data and monitoring needs.

# Biodiversity Monitoring – Status within EWR

## Role for CAC relative to monitoring:

What are those mandates placed on DNR/EWR/Natural Heritage Programs to *monitor biodiversity*? Help us ensure that we are meeting their intent and purpose.

Help frame the questions MN biodiversity monitoring should be asking/addressing and the role for DNR/EWR biodiversity programs to lead/contribute.

Help define/design what the relevant outcomes/deliverables should be from us.

Peer review/input to priority setting, planning, design, analysis

Participate in monitoring activities

Other?

# Biodiversity Monitoring – Status within EWR

Break.

Questions at this point?

Next up: overview of the Ecological Monitoring Network project

# STATE OF MINNESOTA

## Executive Department



## Governor Tim Walz

### Executive Order 19-37

#### **Establishing the Climate Change Subcabinet and the Governor's Advisory Council on Climate Change to Promote Coordinated Climate Change Mitigation and Resilience Strategies in the State of Minnesota**

**I, Tim Walz, Governor of the State of Minnesota**, by the authority vested in me by the Constitution and applicable statutes, issue the following Executive Order:

Climate change is an existential threat that impacts all Minnesotans and our ability to thrive. Communities, farms, and industry face more frequent extreme weather events that threaten the infrastructure that we rely on to connect all parts of our state, cause undue economic stress, and place our communities and environment at risk. By increasing risks from vector-borne diseases and extreme weather, especially for vulnerable populations and individuals with pre-existing conditions, climate change threatens Minnesotans' health and wellbeing.

Climate change is a complex problem, and Minnesota recognizes that the impacts of climate change are disproportionately borne by disadvantaged communities. Disparities exist in Minnesota, including those based on race, gender, geography, and economic status, and they prevent us from reaching our full potential as a state. These disparities can be exacerbated by policies that do not reflect considerations of equity.

By working collaboratively, we can build resilient communities, promote community prosperity, mitigate risk to our farms and businesses, and create a homegrown clean economy. Currently, job growth in the clean energy sector is outpacing job growth in the overall economy. Continued leadership on climate change will position Minnesota for long-term economic success.

Minnesota's 2007 Next Generation Energy Act set statutory goals to reduce greenhouse gas emissions in the state by 30% of 2005 levels by 2025 and 80% by 2050. Minnesota fell short of its 2015 goal of 15% and is not on track to meet the 2025 goal. We must redouble our efforts to meet our future goals.

To fulfill Minnesota's statutory goals, avoid the severe economic, health, and ecological impacts associated with a changing climate, and fully realize the benefits of a healthy, sustainable, and resilient state, our state government must work across the enterprise in a coordinated approach to develop equitable strategies that will mitigate climate change and achieve greater resilience.

For these reasons, I order that:

1. A Climate Change Subcabinet (“Subcabinet”) is established.
2. The purpose of the Subcabinet is to:
  - a. Identify policies and strategies that will put Minnesota back on track to meet or exceed our goals, established under Minnesota Statutes 2019, section 216H.02, to reduce statewide greenhouse gas emissions across all sectors to a level at least 30% below 2005 levels by 2025, and to a level at least 80% below 2005 levels by 2050.
  - b. Identify policies and strategies that will enhance the climate resiliency of Minnesota’s natural resources, working lands, and communities.
3. The members of the Subcabinet are the Commissioner, Executive Director, or Chair of the following agencies and boards:
  - a. Pollution Control Agency (“MPCA”)
  - b. Department of Commerce
  - c. Department of Labor and Industry
  - d. Department of Management and Budget
  - e. Department of Employment and Economic Development
  - f. Department of Agriculture
  - g. Department of Public Safety
  - h. Department of Natural Resources
  - i. Department of Health
  - j. Department of Transportation
  - k. Board of Water and Soil Resources
  - l. Department of Administration
  - m. Metropolitan Council
  - n. Environmental Quality Board
  - o. Minnesota Housing Finance Agency
4. The Commissioner of the MPCA will serve as Chair of the Subcabinet.



5. The duties of the Subcabinet are as follows:

a. **Climate Mitigation and Resilience Policy and Strategy Development.**

- i. Identify policies and strategies that the State may adopt to meet or exceed the economy-wide greenhouse gas emissions goals of the 2007 Next Generation Energy Act and achieve 100% clean energy by 2050.
- ii. Identify challenges and opportunities to mitigate climate change and consider how climate change mitigation policies intersect with the work of the Subcabinet members' agencies or boards.
- iii. Identify policies and strategies that will enhance the climate resiliency of Minnesota's natural resources, working lands, and communities and assist the state enterprise, families, businesses, and local communities to prepare for climate change impacts that cannot be avoided or mitigated.
- iv. Consider how climate change mitigation and resilience policies and strategies can reduce greenhouse gas emissions and energy waste; promote economic development, innovation, and job creation; ensure equitable distribution of benefits; and address disparities in current impacts related to climate change.
- v. Submit a written update to the Governor on December 1 of each year, with a first update due by December 1, 2020.

b. **Public Engagement.** Successful policy and strategy development requires that those impacted, including frontline communities, indigenous peoples, industry, and workers, among others, have a voice and the opportunity to participate in the process. The Subcabinet will develop and implement a public engagement framework to ensure meaningful public engagement is conducted by the Subcabinet's agencies and boards. The purpose of the engagement framework is to:

- i. Build partnerships and shared understanding across Tribal Nations; local communities; and sectors including, but not limited to, agriculture, transportation, business, and conservation and environmental interests.
- ii. Provide a platform for dialogue about the strengths and challenges of climate change mitigation and resilience solutions, including policies and voluntary actions, and how these solutions will impact the lives of Minnesotans, including those who have been traditionally underrepresented in policy discussions, are disproportionately impacted by climate change, and are impacted by the transition to a clean energy economy.

- iii. Highlight regional differences across Minnesota regarding the effects of climate change and locally relevant solutions.
  - iv. Share and gather ideas for how Minnesotans can get involved with, and stay informed about, climate change issues that matter to them.
6. The Governor’s Advisory Council on Climate Change (“Advisory Council”) is established to advise the Subcabinet in its duties.
7. The Advisory Council will be comprised of up to 15 members appointed by the Governor. The Governor will seek representation from community leaders, individuals with experience in the business sector, agriculture, conservation and environmental protection, and other relevant stakeholders.
8. The duties of the Advisory Council are as follows:
- a. Meet up to four times per year to identify opportunities for, and barriers to, the development and effective implementation of policies and strategies to reduce greenhouse gas emissions and promote climate change resiliency.
  - b. Promote equity by examining how climate change impacts communities across the state and how potential solutions can address current disparities, incorporating the perspectives of people of color, indigenous people, rural Minnesotans, and other populations who experience disproportionate impacts from climate change.
  - c. Promote a just transition for impacted workers and communities by examining the trade-offs that may accompany policies.
9. The MPCA, in coordination with other state agencies and boards, will provide staffing and administrative support to the Subcabinet and the Advisory Council.

This Executive Order is effective fifteen days after publication in the State Register and filing with the Secretary of State. It will remain in effect until rescinded by proper authority or until it expires in accordance with Minnesota Statutes 2019, section 4.035, subdivision 3.

Signed on December 2, 2019.

  
\_\_\_\_\_  
Tim Walz  
Governor

Filed According to Law:

  
\_\_\_\_\_  
Steve Simon  
Secretary of State



## Highlights - 50<sup>th</sup> Anniversary

### EVENTS

#### St. Louis River Quest and Iron Range STEM Event

- Duluth, May 13-14 (800 students)
- Hibbing, October 14 (1800 students/community)

#### Master Naturalist Conference

- Willmar, May 17-19 (155 stopped by booth)
- 50<sup>th</sup> Anniversary Presentation (28 attended)
  - SNA and NPB field trip (30 attended)
- Provided 50<sup>th</sup> anniversary posters to all 350 participants

#### Summer Bioblitzes

- Wood-Rill, Seminary Fen and Iron Horse Prairie
  - *41 people attended and 595 species identified*

#### Fargo Street Fair

- July 19 (90 people)

#### Wednesdays in the Wild

- Seven SNAs in NW MN, throughout summer
  - *46 attended*

#### Open House with Sugarloaf Association

- Sugarloaf Cove on October 19 (200 visitors)

### Seed Collections

- Grey Cloud Dunes, Bluestem Prairie, Oronoco Prairie
  - *On National Public Lands (September 28)*
  - *55 attended and 160 hours volunteered*
- Grey Cloud Dunes on November 7 (5 youth, 9 hours)
  - With Urban Roots (also celebrating 50<sup>th</sup>)
- Grey Cloud Dunes on November 9 (24 people, 82 hours)

### MEDIA

#### SNA "Nature Notes" Newsletter

- All regular issues + 2 special issues focused on 50th anniversary and SNA supervisors
  - Sent to over 7,000 recipients
  - 36,000 total (not unique) opens

#### SNA Facebook

- 49 specific posts on the 50<sup>th</sup> anniversary
  - One more planned before the end of the year!
- Top reach on a single post was over 7,700
- Total reach for all 50<sup>th</sup> anniversary post was 76,500
- Most interaction (engagement) on a single post 1300
- Total interaction (engagement) was 4500



## SNA 50<sup>th</sup> Anniversary Web Page

- 2300 page views since it was put up in December 2018
- Average time spent on page was about a minute and a half

## State Fair

- SNA staff at information counter in DNR building
- Distributed about 325 50<sup>th</sup> anniversary posters to fairgoers
- Planned SNA sticker, but not allowed to distribute at fair.

## SNA Sticker and Facebook Promotion

- Post went out on November 7
- Reach of 9600 and nearly 1500 interactions (engagement)
- Mailed over 350 stickers, brochures, and thank notes
- Over 220 people sent thank you notes and many of those people sent kind words such as “Thanks so much for all your hard work! You are doing great things for this great state”
- Still getting requests and a sticker has already made it to Italy!

## News articles

- Star Tribune (50 anniversary)
- KSTP Channel 5 (50th anniversary)
- Albany Enterprise (buckthorn and 50<sup>th</sup>)
- Bemidji Pioneer Press (Lost 40 and 50<sup>th</sup>)
  - Picked up by Pioneer Press as well
- Agate Magazine (John Moyle and 50<sup>th</sup>)