

MISAC Meeting Minutes 05.23.2019

May 23, 2019 • 10:00 am to 3:00 pm • MnDOT Training and Conference Center • Shoreview, MN

Present

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|-----------------------|------------------------------|-----------------------------|
| 1. Angelique Dahlberg | 11. Tyler Kaspar | 18. Doug Jensen (via phone) |
| 2. Megan Weber | 12. Laura Van Riper | 19. Kelsey Wenner |
| 3. Angie Gupta | 13. Dan Larkin (presenter) | 20. Andrew Dickhart |
| 4. Missy Anderson | 14. Dane Huiniker | 21. Jennifer Burington |
| 5. Val Cervenka | 15. Kate Hagsten (via phone) | 22. Byron Karns (via phone) |
| 6. Rob Venette | 16. Kate Wyman-Grothem | 23. Bob Dunning |
| 7. Roger Becker | 17. Allison Gamble | 24. Keenan Bergstrom |
| 8. Jim Calkins | | 25. Skyler Werner |
| 9. Kate Sickmann | | |
| 10. Dave Hanson | | |

Council Business

1. Review Agenda
 - a. Request to move Dane's Wild-spotter update to an earlier spot.
 - b. Agenda **approved** with change.
2. Approval of Meeting Minutes from 1/10/2019
 - a. **Approved** with no changes.
3. Treasurer's Report
 - a. Income: \$7633.03 from UMISC
 - b. Expected expenses: MISAC logo, have final copy
 - c. Laura pointed out \$10,000 needed every 2 years to support MISAC activities and we may need to reduce expenses.
 - d. Treasurer's report **approved**
4. Leadership for 2019 and introductions
 - a. Megan Weber (Chair), Angelique Dahlberg (Past Chair), Missy Anderson (Co-Chair)
5. Upcoming Meeting Dates
 - a. Wednesday 7/17; Wednesday 10/16
 - b. Field tour, 9/4 or 9/5

Invited Speakers

1. **Framework for Strategic Response to Invasive *Phragmites australis* (common reed) in Minnesota** (Dan Larkin, Assistant Professor & Extension Specialist, University of Minnesota)
 - a. Tall, cool season grass, global distribution with a cryptic invasion by European (non-native) lineage. Genetic changes greatest at point of entry with European lineage dominating
 - b. Spreads through clonal reproduction as well as seed production, which has been shown to be significant
 - c. Factors in spread include the usual suspects, disturbance, altered hydrology, nutrient enrichment. Excess nutrients in system, especially N increases seed production

- d. McCormick et al. 2010 diagram – large, multi-genotype patches have high seed production
- e. Invasive Phragmites is an ecosystem engineer “native Phrag on steroids”
- f. Effects include loss of native biodiversity and degraded habitat
- g. Methods chosen to address gaps in knowledge – clarify distribution and abundance, find effective long-term control, align policy
- h. Hybrid approach to find distribution: crowd-sourcing, targeted search, EDDMapS, identification guide on www.MNPhrag.org, morphological and genetic variability documented.
- i. 95% accuracy on identification but slanted toward identification of invasive Phrag. Native was misidentified as the invasive frequently (but not by expert). So crowd-source method is effective for surveillance, but needs expert ID/genetic testing.
- j. 400 populations in 39 counties. Found in lakeshore, roadside, wetland and a variety of other habitats with mixed ownership. Most populations are small (only 6 > 1 acre or more; 90% < ¼ acre). Still early in invasion process.
- k. Spread risk: still processing data, viable seed was produced everywhere but amount highly variable – more seed was produced in S. MN infestations.
- l. There is a window of opportunity. Most populations are small and seed set is low. Strategy needs a landscape-scale perspective.
- m. Effective BMPs are available: end of summer herbicide treatment with glyphosate or imazapyr or combo, mowing (winter) alone not effective but enhances herbicide application. Decon of equipment (see DNR) needed and follow-up required.
- n. Assessment is available on website- uses a regional approach and outlines effective response.
- o. Coordination and networking needed due to many jurisdictions/land owners.
- p. Costs 3 years = \$800 k for all verified populations in MN does not account for in-kind (WI has spent \$2.3 million so far; NE \$5.4 million; MD up to \$175 k for 25 yrs) – we still have potential to reverse spread/invasion
- q. Training needs ID, control, decon, restoration
- r. WW treatment – ‘green tech’ used to concentrate bio-solids to decrease disposal. No risk, because no seed, but oops. Requires inter-agency cooperation – need to minimize spread risk, issue permits, etc.
- s. Key partners: MNDNR, MNDOT, MDA, MPCA (wastewater treatment) and many others. Ex. Lake Associations have been engaged and BWSR working with the CWMA model using single –species focus.
- t. Questions- -
 - i. Has there been spread from wastewater treatment sites? – website has a Google earth widget that includes that info as well as other features.
 - ii. MNDOT Rx? using mostly herbicide but also using some mowing and burning in conjunction with herbicide.
 - iii. Hybridization? Occurs in greenhouse and research is on-going with wild hybrids, which is known to happen but seems to be rare so far. Call for more testing in Great Lakes area. 500 plants were sampled in upper Midwest and no hybrids were found although genetic tools may be insufficient.
 - iv. Confident in ‘Bemidji area-desert’? Fairly confident, many surveys have been done and all searches tracked. Native stands were marked as negative in EDDMapS. Areas

that need further survey – continuing to accept samples, especially where there is currently no evidence it exists.

v. Distribution of native? See website, map of occurrences, left icon at top of map to see distribution – this is an important message – most of what we see is native.

vi. Where are larger sites? Wastewater sites not included. Active CISMA in Duluth area – St. Louis River has large pops. Native pops seem to be absent in those areas. Even info on native distribution would be valuable.

vii. Ownership? – mixed, but private is a major component and control in those areas unknown.

viii. Use of invasive in wastewater treatment – easier to grow and presented as low-risk. Use of native hasn't worked as well but may have been due to implementation – lots of potential to improve.

u. Please contact Dan for any further questions.

2. The Minnesota Invasive Terrestrial Plants and Pests Center: Research progress on invasive species.

(Rob Venette, Director, Minnesota Invasive Terrestrial Plants and Pests Center)

a. Acknowledged the role of Roger, Jim, Laura, Val, Dave, Kelsey on the advisory board in making it a success.

b. MITPPC 'Mitt-Pick'

c. History- purpose etc. Minnesota Legislature 2014, Ch. 312, article 13, sect 44

d. Center is needed instead of just having research done so that common priorities can be found and dollars can be targeted. Multiple disciplines can be coordinated. Builds a culture for grad students and future impact.

e. Top 125 with updated Rankings – clarifies priorities. Threats evaluated that aren't here yet. Environmental impacts are prioritized. Updates occur as needed using an existing process

f. Research themes: 4 from website. People are cause and solution!

g. 24 projects currently : since 2014-2016 funding amounts are large – research is funded using larger teams for longer periods (up to 4 years; there is a maximum annual cap) LCCMR trust fund is major source.

h. 45% plants 35% insect 20% path

i. Projects: Oak wilt

i. now *Bretziella* worse for red oaks, 1/3 of oaks at risk, can be confused with other declines, focus on stopping spread to N/NW.

ii. Project includes remote sensing, whole plant disease detection, pattern of reflectance is indicative of disease cause using symptomatic leaves. Not as accurate at canopy level, but accuracy improves longer infection is present. Using fixed wing aircraft/satellite imagery from NASA.

iii. Diagnostic tools – for rapid and early detection for field use. Gold medal approach – diagnostic DNA markers attach to gold nanoparticles and causes aggregation 'sphere' that can produce a color change using assay. Tech won't be limited to oak wilt pathogen.

j. Buckthorn

i. Capitalizing on connection to agriculture (crown rust oat, soybean aphid). There are pockets in MN where it is still less abundant.

ii. Cover it up! Sustainable approach to buckthorn mgmt. Create more shade during the removal process. Experiment in Cloquet. Regeneration and survival are impacted but need 95% shade. Using native seeds and transplants of woodies. Evidence of suppression with woody transplants.

- k. Goats as supplement – benefits and limitations. Don't like garlic mustard, can defoliate moderately sized BT. Passage through gut – 2% of seeds make it through and 11% of those were actually viable. There is some risk of spread, although it is low.
- l. Encouraging researchers to participate in symposia, summits, UAV symposium to build bridges and promote collaboration. Member of community of practice.
- m. Contact info <http://www.mitppc.umn.edu>, twitter or email Rob
- n. Questions:
 - i. goat health? Snails and slugs host parasitic nematodes that goats are susceptible and solution may involve using ducks and geese to remove snails and slugs. Duck-training by 4H duck-wranglers is being tried.
 - ii. The 2020 MISAC calendar will include Cover it up and 2019 calendar includes MN Phrag.

MISAC Meeting Work

1. Goal review (Megan Weber) - see updates section.
2. MISAC Calendar (Laura Van Riper) Topics text complete, photos done by graphic designer ready for first proof. Great selection of topics, email coming in July requesting orders.
3. Species Rating Review update (Laura Van Riper) 2009 appendix has all invasives in one location and is being updated. Species groups have each had several meetings, working from the master list. Working on second review of ratings; progress depends on # of species. The aquatic pathogens group hasn't started yet, but Laura will be reaching out for participants.
4. Website committee update (Missy Anderson)- asking for committee participants, risk assessments are being used, and can use website to have MISAC in a larger advisory role.
5. UMISC 2020 Update (Doug Jensen) – joint conference not occurring but location is secure, Belle will not be conference administrator for 2020 but will assist with transition. Her role has been greatly appreciated and she did an excellent job and we wish her well. Action item – Can MISAC send a letter of thanks, certificate of appreciation, or other ideas? Clair Ryan (MIPN) is interested in conference administration and could work under a similar service agreement. There is support for her/MIPN among all the conference partners and there are additional benefits. But some additional tasks would need to be farmed out such as some local arrangements as Claire is geographically further away and lacks the local Duluth knowledge and experience/connections that Belle has. If part-time event planner is needed, it would be an added budget item. Options presented: 1. Ask MIPN/Claire for service agreement (would be written with Belle's help) 2. RFP for new administrator - ref 2009 effort, which was substantial and likely to be more expensive or 3. Another proposal? MISAC can decide and share decision with IPAW (meeting yesterday, communication expected). 2022 would still be a WI location, although MOU not finalized. Added info – **Motion to write letter to Belle thanking her for work as conference administrator. Approved.** Laura will draft the letter. **Motion to give a \$100 gift card to an outdoor shop for Belle as a thank you. Approved.** Discussion of 3 options: legal issues/liability with contracts – IPAW would continue to be fiscal agent. Time is running short to do a full RFP and we could consider Clair for 2020 with an option to administer future conferences. Would need clear outline of the additional tasks and where help is needed. **Motion to ask Clair Ryan of MIPN for a service agreement proposal to outline services she would be able to provide as UMISC 2020 conference administrator including details on what tasks would require assistance and where help would be needed within 3 weeks. Approved.**

Updates on Submitted Topics

1. Bylaw Review Process (Laura Van Riper) – Jim, Megan and Laura have done most of the work, added vision, mission, guiding principles, and draft presented includes track changes from sending out via email. Review of MN statewide IS Plan included. Participation is open and welcomes new members. Membership to have annual review (attend 1 meeting in person or remotely to retain active status), 3 year review of bylaws still in, quorum is defined. Currently do not have a fiscal agent specified. **Motion to accept bylaws as presented at meeting. Approved.**

2. Update on comment letter on proposed EAB regulation changes (Megan Weber)

Update sent to email, comments were submitted (still available on Google group). It seems that MDA was open to comments but not sure when final version will be coming out. Google /Doodle has increased our capacity to deal with concerns in a timely manner.

3. MISAC logo update (Megan Weber) – the full suite of logo files will be added to leadership team site. Dane can proceed with registration now that we have final versions. Will try to get logo added to calendar and work on brand standards (expect discussion at July meeting).

4. Goal setting for 2019 (Megan Weber) - combined with Goal Review. Future agendas will include 2019 goals.

a. Bob gave update on field tour: start and end at Itasca SP, September 4 or 5. Potential stops EWM biocontrol with weevils, goats, meadow knapweed, WP mowing, BT control with BT bag, larch casebearer and eastern larch beetle infestations, boat cleaning (CD3). MNDNR could help with meeting room pricing. Another idea could be common carp project if one is occurring in the area. **Motion to allow committee to spend up to \$1000 to begin field trip preparations. Approved.** We will get a spending update from the committee in July.

b. DNR has jumping worm classification summary document. The next step is to proceed with the rule-making process to make jumping worms prohibited invasive species. Awaiting management approval to move forward on the rule-making process. Rule-making process includes a public comment period. The jumping worm rule-making process would be part of the rule-making process for updating the DNR invasive species list with aquatic invasive species that are listed in the Lacey Act (prevents species from entering US and transport of listed species). Great Lakes states are working to unify species lists, Kelly Pennington leads the rule-making process for invasive species. Laura will ask Kelly for an update.

c. Updating membership can occur now that bylaws have been updated.

d. Advocacy goal achieved. Other potential advocacy topics:

i. Invasive Phragmites with a specific recommendation related to noxious weed law or advocating for state-wide efforts and funding. Dave can provide info on risk assessment and potential update, although letters could be submitted anytime to the Minnesota Department of Agriculture.

ii. Herbicide safety/IPM/Glyphosate use - MDA is a potential source for speaker, Kelsey will provide name or Natalie Hordahl from Master Gardener program, the 'Glyphosate friend or foe' presentation on YouTube (<https://www.youtube.com/watch?v=K3q907TkYkw&feature=youtu.be>) is another resource.

e. Invited speakers are needed – biocontrol document from Kelsey, can reach out to Monika. Dave Hanson could speak on the Phragmites risk assessment and regulation possibilities. MPCA could be a potential group to include as a member of MISAC– could reach out to Sherry Bock. **Motion to send a letter to MPCA commissioner to invite them to be part of MISAC. Approved.** Potential connected issues with

MPCA: Jumping worms, yard waste sites management of weeds and weed seeds, Invasive Phrag in wastewater treatment plants, disposal of noxious weeds in landfill (ex. Poison hemlock and Japanese knotweed), Green Corps program (EAB disposal). Angie will draft letter.

Timed Updates from members

1. Dane Huiniker– Wild Spotter would like to add logos of partners, has additional info. FS funding is providing outreach at this point, but is nation-wide and focused on FS land. It is connected to EDDMapS. Discussion of consolidating the various apps that feed EDDMapS (GLEDN, iNaturalist, EDDMapS (regions), Arrest the Pest). Wild Spotter is “EDDMapS light”, have some MN organizations already, but could use more.
2. Byron Karns- Terrestrial work – will continue to be a focus on improving/restoring tracts of federal fee land of high ecological value. Primarily invasive plant species such as garlic mustard, buckthorn, honeysuckle, etc. At the end of the work, management does/will include seeded, planting and fire/mechanical treatments. Supporting the SCRA’s AIS program (20K) to continue work on the river and within the basin. This includes placing zebra mussel pvc plate samplers in lentic water (e.g. flowages) upstream of St. Croix Falls and placing cinder blocks at 10 locations from Stillwater to Prescott. All are removed and analyzed in early fall. Other work includes outreach at landings and events and water sampling for veliger detection. Waters (mostly lakes mid-Basin) that are assumed zebra mussel free are sampled for presence/absence, while main stem sampling south of Stillwater involves density protocols. SCRA also collected temp data associated with ASH and EAB this past winter (have to get these to Rob!) Also, I became an AIS first detector in 2018 and continue to do work professionally and as a volunteer. This includes helping Sea Grant at Habitattitude events in the cities during winter and spring, and again this summer, the state fair, Starry Trek, community outreach and Phrag surveys.
3. Kate Hagsten– 5 crew members, working on garlic mustard and greater celandine. Cass county specific projects, EWM with schools, Forestry working with DNR to diversify forest in anticipation of EAB. Working on wasp watcher program.
4. Roger Becker- working on knotweed grants, genetics management
5. Drew Dickhart Carver County has lost partner funding, shifting to inspections at higher use areas and monitoring at lower use lakes. Have hired interns to do AIS surveys. Carp management program – trying to expand project to involve citizens as volunteers in carp removal Aug/Sept. would help bait and removal.
6. Jim Calkins - Minneapolis Parks Board has a Glyphosate moratorium and a Pesticide Advisory Committee formed of 15 members (MNLA well-represented along with citizens) drafting recommendations. Discussion has been very emotional around pesticide use in general.
7. Allison Gamble – Curly leaf pondweed treatment ongoing in 50-60 degree window. Echoed that the treatments are a very polarized topic.
8. Laura Van Riper– DNR Forestry division’s invasive species program coordinator Susan Burkes retired and Sascha Lodge has been hired (did PhD at the University of Minnesota working with buckthorn). Bernd Blossey gave a Phrag biocontrol webinar noting that APHIS’s Technical Advisory Group recommended release, but USFWS and APHIS still have to do additional review. Prefers invasive subspecies but does impact native. Insects (moths) can’t live in southern us. MDA, UMN, PCA have been meeting about wastewater treatment plants with Phrag and how to dispose of the biosolids

that contain Phrag parts and seeds. People have been applying to farm fields but with very little guidance. Can take to a landfill, but would like to avoid that. U of MN, DNR, and MDA will work on best management practices.

9. Katie Sickmann– SCRA partnered for a Phrag workshop and now working on roadside surveys with Julia assisting with ID. 3 summer interns started as well as a forestry intern. Yellow iris inventory of Kettle River planned this year. Cinder blocks on lower 21 miles waiting for water levels to go down. Plate samplers out. 27 unconfirmed OB sites, interns are working on that. Applied for LCCMR multi-county grant CWMA model. Sean Griffin’s position is being filled.
10. Val Cervenka – Program is Division of Forestry, Forest Health specialists. Coordinates 4 specialists throughout state and the aerial survey program. Surveys determine where salvage harvest can occur and generates risk map. Specialists are: Brian Schwingle, Megan O’Neil, Rachel Nichol, Eric Otto. Would like bigger presence than with DNR Foresters, available for outreach and will work with private landowners.
11. Dave Hanson – terrestrial work, biocontrol, noxious weed control, risk tree, supporting road construction and maintenance. Working on visiting districts to train on herbicide application, focused on Phrag treatment. Phrag treatment has been ongoing for several years and some sites have been eradicated. Tailoring ‘hot weeds’ to individual Districts.
12. Angie Gupta – partners had successful Forest First Pest Detector and Weed ‘em out workshops. Empower U – citizens can advocate for IS management to decision makers and participants will have an engagement plan by the end of training. July 13 is Cloquet training combined with Invasive Blitz on July 12. MN Soybean growers are supporting research and training. Extension is leading a farm crisis group. Thanks to all who have helped with projects in the past. Augmented reality project with 4H, for example zebra mussel scan of plate using your phone. Video will be sent out. Ash log peeling back bark, PCG boot brush with GM, gypsy moth egg mass. Invasive species videos, BT 4 part video and Invasive Blitz videos, By Land and By Sea lots of good work winning awards. Ash wood bike shed has new green roof. Urban ash wood waste parklet approved.
13. Skyler Werner – working with volunteers on garlic mustard, narrowleaf bittercress, buckthorn and wild parsnip.
14. Keenan Bergstrom – will be working with CCM crews at Three Rivers on invasive plant management.
15. Kelsey Werner – hosting event at June 6 at Pier B Resort about how to manage Phrag, targeting lakeshore groups, free food provided! IS program focusing on protection of native species/cultural sites and use of IS. Examples include encouraging people to eat wild parsnip. Harvesting Chinese mystery snail out of lakes to make salsa and using invasive Phrag with seed heads off for basket weaving. All other types of control buckthorn, purple loosestrife etc. are on-going.
16. Kate Wyman-Grothem – continuing to add rapid risk screening reports to website and can be used to provide a quick literature review (https://www.fws.gov/fisheries/ans/species_erss_reports.html). Climate matching Risk Assessment Mapping Program (RAMP) maps climate similarity of species established occurrences to a target region, can match to MN and runs in ArcGIS. This tool is available with operating procedures (https://www.fws.gov/fisheries/ans/erss_supporting_documents.html). Great Lakes invertebrate early detection sampling in Lake Superior focused on a few target species rather than trying to sample as much as possible. Targets are 3 amphipods, red swamp and marbled crayfish plus fish sampling. Great Lakes region-wide landing blitz from June 28 to July 7, all Great Lakes States and Provinces have committed to doing at least 1 event for boaters, website info is

being added (<https://www.glc.org/work/blitz>). June 30, 5 locations in MN coordinated by Adam Doll. Invasive crayfish collaborative has an active website (<http://invasivecrayfish.com/>).

17. Bob Dunning – annual conference end of July. Opportunity to train on weed-free gravel program. Executive board meeting recognized need for more township officer training and working with Emilie Justen to offer more training at a regional level.
18. Jennifer Burington – taking over for Kathy Kromroy, Michelle Garbowski will be replacing her and may attend meetings. EAB in Stearns County, 50 attended open house, quarantine well received, lots of questions. Willing to do EAB presentations. Plant pest insider coming out next week, taking on more outreach duties. Purchased seed needs to be labeled according to law, same with nurseries in terms of labeling (pollinator-friendly wording). Seed pathways for Palmer amaranth: one way is through seed screenings for cattle feed, equipment and seed itself present in seed mix as a contaminant. Question about give-aways- label rules should be applied to free pollinator seed packets also. Pest detection unit block grant for BMSB looking for biocontrol (Samurai wasp). Seasonals out looking in community gardens, orchard, vineyard, forest for specific pests. Working on EAB parasitoid release and trapping. Gypsy moth treatments are ongoing Stillwater and Lakeville, one is planned for Chisholm. Trappers are surveying now. Farm bill grant for IS advertising for ‘Don’t move firewood.’
19. Rob Venette – Severe cold and EAB, -20 degrees = 50% mortality, -30 degrees = 90% mortality. Looking to see what happened, results were positive but difficult due to peeling insect out of tree. Duluth around 70-90% mortality, Fort Snelling 40-90% mortality, Sauk Center nearly 100% mortality. Data could appear in Pest Alert. MITPPC hired 2 communication interns and reviewing 22 new proposals.
20. Tyler Kaspar – Phrag open house spread the word, the food will be great! Moderating event, speakers will be in panel: Julia Bohnen, Jeffrey Flory, Mari Hardel, Duluth CISMA, Melissa Solen, Jeremy Bates from WIDNR. Great Lakes landing blitz at Munger landing and Rice point from 9-3 on June 30. Hired Matt Santo for aquatic IS technician. 2 aides also hired and will work with SeaGrant interns again. Fortune Bay marina boat inspections during tournaments.
21. Doug Jensen- *Past:*

Minnesota Sea Grant co-hosted a Habitattitude Surrender at three events, two in Bloomington and one in Duluth, which resulted in 12 hobbyists rehoming 75 fish, mostly koi and goldfish. Since January, Sea Grant participated in 27 events (workshops, meetings, shows, events) educating 4,746 people. Major events included the Duluth Boat Show, Arrowhead Home Show, Northland Community Wellness (Duluth) and MN Aquarium Society’s first Aquarium Expo (Mpls), Beltrami Co. Advance Training Workshop (Bemidji) and Big Lake Community Lake Association meeting (Big Lake). Nearly 1,500 6th graders were educated during River Quest. Partnered with over 20 organizations including: 1854 Treaty Authority, Minnesota Aquarium Society, UM Extension AIS Detectors, Fond du Lac AIS Program, Itasca Co AIS Program, Master Naturalists, UM Extension, DNR Law Enforcement, Lake Co SWCD AIS Program, Duluth CISMA, St. Croix River Association, St. Louis Co. AIS Program, Carver Co. AIS Program, Beltrami Co. AIS Program, and Big Lake Community Lakes Association, Animal Allies Humane Society, World of Fish, Great Lakes Aquarium, University of Minnesota Duluth PAWS, and University for Seniors.

Current:

Hiring 5-6 summer student interns.

Future (18 events total; bolded are multi-day, multi-partner events):

May 25 Bent Brewstillery Crayfish Boil, Roseville (with Lake Co SWCD)
May 28 AIS Intern and Partner Training Day, Duluth
June 15 Aitkin County River and Lakes Fair, Aitkin
June 30 **GL Regional AIS Landing Blitz**, 5 NE locations (No St Louis Co SWCD, Lake Co SWCD, Cook Co AIS Program, 1854 Treaty Authority, DNR Enforcement and WCI Programs and University of Minnesota's AIS Detectors Program)
July 9-14 **South St. Louis County Fair**, Proctor
July 11-14 **Two Harbors Heritage Days**
July 13 **Mills Fleet Farm Kids Fishing Day** (SG coordinating staffing at 16 stores; many partners)
July 17 Lake Vermilion Take a Kid Fishing Day, Cook (with 1854 Treaty Authority)
July 19-21 **Lake Superior Days**, Duluth Canal Park & Superior Park (Lake Superior Maritime Museum, Lake Superior Magazine, Lake Superior National Estuarian Research Reserve)
July 26-28 **Ely Blueberry Festival** (WICOLA coordinates staffing)
July 31-Aug 4 **Grand Marais Fisherman's Picnic**
July 31-Aug 4 **No. St. Louis County Fair**, Chisholm
Aug 3 **Bent Paddle Crawfish Boil**, Duluth (with St. Louis Co, Wildlife Forever, Lake Co SWCD)
Aug 18 Starry Trek (statewide)
Aug 15-18 **Carlton Co. Fair**, Barnum

Looking for partners to help staff booths at many of these multi-day events highlighted in bold. Stay tuned.

22. Angelique Dahlberg – working with zebra mussels for PhD program with Nick Phelps's lab, after lab rotations with 4 MAISRC labs. Looking at suppression methods, using copper to target the veliger life stage. Will collaborate with USGS at Lake Minnetonka in July. Will use suspended cages and investigate Cu concentrations in tissues of fish and invertebrates. Looking forward to more work with ZM, has a large outreach component. Funded as a fellowship through donations. Please contact her with questions.
23. Missy Anderson – Have been busy with volunteer events, GM pulls, etc. Have a combined event with ceramic artist Ursula Hargens that uses TRPD invasive plant data, starry stonewort invasion data and depicts rare plants threatened by invasive plants. RFP out now for wild parsnip treatment to match Carver County's efforts. 180 acre buckthorn project 'savanification' is ongoing (burned earlier this month). New confirmed EAB site at North Mississippi (2nd for TRPD). Current protocol: cut down infested ash and ash in the immediate area and hold them on site for 2 years.
24. Megan Weber – AIS trackers program has added a stronger education component. Online program is being piloted to volunteers. AIS management/control 101 for consumers with focus on chemical control and goal to make people better informed consumers of chemical treatment (suggested by participants). There are a series of modules to educate about issues but glyphosate is not specifically addressed. AIS detectors will give feedback and then will be available as paid course. Neat online tools have been incorporated, thing-link, etc. to make info more interesting. Starry trek, looking for host sites, please contact or respond to request. Last year added 5 more sites to first 20. AIS detectors 2 workshops left, still room in Fergus Falls. Currently over 230 people have been through training. Can work to get volunteers if needed for events and if event is fun, people will travel. Events can be shared with volunteers through Megan. Phrag had 2 events yesterday- webinar went very well with lots of questions. Answers will be provided on website. Webinar has been posted and is available for viewing. Aquatic plant ID workshop with DNR, 86 plants in tubs of water including invasives and species of concern. Has optional morning intro session, registration is open July 25th in Sauk Rapids, please share, open to all.