



Meeting Minutes 07.17.2019

July 17, 2019 • 10:00 am to 3:00 pm • MnDOT Training and Conference Center • Shoreview, MN

Present

1. Angelique Dahlberg
2. Megan Weber
3. Angie Gupta
4. Missy Anderson
5. Mike Schuster (via phone)
6. Rob Venette
7. Roger Becker
8. Jim Calkins
9. Kate Sickmann (via phone)
10. Michelle Grabowski
11. Ariana Richardson
12. Nicole Clapp
13. Kim Fackler
14. Brian Winter (via phone)
15. Celie Borndal NRCS (via phone)
16. Laura Van Riper
17. Cori Mattke
18. Dane Huinker
19. Kelly Pennington
20. Kate Wyman-Grothem
21. Monika Chandler
22. Doug Jensen (via phone)
23. Kelsey Wenner
24. Andrew Dickhart (via phone)
25. Jennifer Burrington
26. Byron Karns
27. Bob Dunning
28. Forest Eidbo
29. Chelsey Blanke (via phone)

Council Business

1. Review Agenda
 - a. Agenda **approved** without change.
2. Approval of Meeting Minutes from 5/23/2019
 - a. **Approved** with 2 edits.
3. Treasurer's Report
 - a. Income: None, ending balance \$29, 601.56
 - b. Expected expenses: REI gift card
 - c. Treasurer's report **approved**.
4. Leadership for 2020
 - a. Missy Anderson will assume the role of chair, Megan will continue as support, accepting nominations for co-chair and vote will be in October. Please consider nominees and share.
5. Upcoming Meeting Dates
 - a. Next meeting, Wednesday 10/16
 - b. Field tour, 9/5

Invited Speaker

1. **The Genetic Biocontrol of Invasive Species Working Group** (Kelly Pennington, Aquatic Invasive Species Prevention Consultant & Laura Van Riper, Terrestrial Invasive Species Program Coordinator – Minnesota Department of Natural Resources) Contact Kelly.pennington@state.mn.us and Laura.vanriper@state.mn.us
2. Laura presented examples of genetic biocontrol that will be in 2020 MISAC calendar.

- a. Genetic biocontrol of invasive species defined. Currently a broad definition using many new technologies such as CRISPR, gene drives, RNA silencing and more.
- b. Include link for sources of information and referenced Oye et al. 2014 on regulating gene drives (<https://science.sciencemag.org/content/345/6197/626>)
- c. Examples at field release stage: Diamondback moths and *Aedes aegypti* mosquitos. Both are engineered to have a self-limited gene. Repeated releases are needed. Cornell has Diamondback moth page <http://shelton.entomology.cornell.edu/diamondbackmoth/> and Oxitec has the 'friendly mosquitos' page <https://www.oxitec.com/friendly-mosquitoes/>.
- d. Projects at UMN: Spotted wing drosophila at MITPPC in Phase I under Michael Smanski.
- e. Another UMN project for common carp also with Michael Smanski with MAISRC in Phase II, rearing transgenic carp in containment.
- f. USGS research on zebra mussels, by Chris Merkes and Jon Amberg involves silencing RNA molecules https://www.usgs.gov/centers/umesc/science/developing-rna-interference-control-zebra-mussels?qt-science_center_objects=0#qt-science_center_objects.
- g. USGS also has invasive Phragmites project using a gene silencing spray with species-specific action https://www.usgs.gov/centers/glri/science/invasive-phragmites-science?qt-science_center_objects=0#qt-science_center_objects.
- h. Kelly presented "MN and genetic biocontrol for invasive species" technologies being developed with applications for invasive species, working to build capacity and hoping MISAC can be a venue for future discussions. No field releases proposed for MN at this time.
- i. Funded by GLRI (USFWS). Planning team included UMN, USFWS, USGS, MNDNR. Meeting held over 3 days in June 2019. Had presentations from researchers, regulatory agencies and experts in public participation. Related issues not tackled: legal frameworks at other scales, ethical questions, development, risk assessment details and field testing. Participation included about 60 natural resource managers, regulators and researchers. Used 'workbook tool' that included background reading, key points from presentations and discussion questions sent out ahead of meeting. MNDNR also collaborated with other Minnesota state agencies to present preliminary assessment of state agency regulatory roles in genetic biocontrol. Will share meeting notes and next steps as they are planned. Capacity has been built and understanding of different aspects improved. Other meetings on this topic have been occurring but there was feedback that having state leadership was a unique and welcome feature.
- j. Discussion of MISAC's role. Some MISAC members were present at the June meeting. Rob- Could this even work in the lab and how can ecological impacts be evaluated and engage in a broader dialogue. Thought was good discussion overall. Doug – highly interactive meeting. Challenge on the outreach side, low knowledge level in public but could tie into GMO with differentiation. Could have a special session at UMISC. Monika – great learning experience, MISAC could promote education and understanding through webpage and link to applicable projects and have a role in engagement. Megan – not there for entire time Laura – regulatory pathways are complicated and explaining approval process and regulatory steps may be helpful, MISAC could advertise the comment periods for the various projects. Angie – There are negative applications of technology to overcome. Hard to address pop culture issues.
- k. Laura- in FL Keys held community meetings and decided genetic biocontrol would not be released unless passed referendum. People were more likely to be against release near the release site. Start early, educate and adjust expectations, maybe not all will be applicable.

Monika – Lyme disease and ticks on Nantucket, asked community before starting research. Michelle – asked about APHIS how involved – depends on authorities set up as a framework. APHIS would be involved in invasive plant pests. Angie – how does traditional plant breeding fit? Genetic modification uses other techniques. RNA silencing applied to specific cultivar, although it seems targeting photosynthesis seems broad. Regulatory pathway may pass through the ag sector first. GM crops are not made using CRISPR. Roger- Local control what impact? MDA can choose not to allow certain herbicides. Insect movement cannot be controlled as easily, MN should be involved at federal level discussion. MEPA has requirements that could give some control. EPA clarified that some would be regulated under FIFRA (biopesticide) some under APHIS. Laura -Many genetic technologies are self-limiting. The gene drive does not have that limitation and could drive species to extinction. Jim -Concern is the same in horticulture about interfering with native species to create new weeds. Megan – did regulation seem well categorized? Advice to work with regulators early as specific authorities are not always geared for new technologies. Also takes time for legislation to be updated. MISAC could play a role in giving concerns to working groups for researchers to advance work and also for clarity. MISAC can help put framework together to help facilitate early discussions and bringing partners together, can designate website space. MNDNR does not have a webpage designated yet. MISAC could at least put info out there on webpage and share summary. MDA was consulted by EPA on this developing technology because of state regulation. Make clear that MISAC has no regulatory role, but fits into reaching out and not leaving decision up to agencies. MN may be ahead of the curve with looking at this technology, but there is a long way to go. Doug organized session with state advisory groups, MN's group is strong, but others are up and coming. Some states have a very formal advisory group, ex. NY. Can we learn from any of these groups or should we push ourselves to grow more? Another opportunity is to invite some of the researchers to present at our meetings. MISAC could also provide a forum for members to comment on the info on the website. Messages could be drafted so as to avoid shut-down with terminology that doesn't promote discussion. Careful choice of language and definition of terms could be used to avoid triggers. There are legal issues with some terms to be aware of especially around GMOs. Toolkit of language for researchers could be developed, example of SDS/pesticide labels. MISACs would like to support research that advance the cause of invasive species. Success of terms with GMO corn and soy has worked but backlash has occurred. More info is usually always good. Technology served famers but not necessarily end user, so frame as beneficial to people. Regulation is fluid and evolving but common knowledge and promoting awareness is good. To be continued...

MISAC Meeting Work

1. Goal review (Megan Weber) check off of goals with progress on all, Earthworm Pest Risk Assessment can be part of Kelly's update. Goals on agenda need to be updated.
2. MISAC Calendar (Laura Van Riper) Designed and ready to go, collecting orders now. Mid-August will provide count and start bid process. Goal is to have them mid-Oct.
3. Species Rating Review update (Laura Van Riper) last meeting 2 months ago. Taxa teams are meeting, aquatic plants group is in final comment stage and others are close to being finished. Hope to share by next meeting.

4. Website committee update (Missy Anderson) as was discussed in the past, and the committee agreed that could put the calendar photos on the main page. Just need the photos. We have had suggestions from Emily on the site design: 1. Change background for new logo, which also needs to be added. 2. Less text and a bit different emphasis on who we are and 'call to action' so to speak. 3. Some re-organization of navigation, shorten menu titles, tighten navigation, and change 'educational materials'.
5. Brand standards update (Dane Huinker) Glue to hold logo and brand together. Can use icons as stand-alones and keeps logo consistent through the use. Language about use of logo can be developed if we want to have it available on the website. Subheading font may not be very available, but the Lato font family is accessible. Serif could be a good choice too. Is a configuration for a vertical logo possible? Continuity between website and logo might not be needed but using available fonts and providing brand standards is important. Art files for the logos may be accessible and Forest could create vertical logo. Experience placing logo on calendar, the small writing under the logo is difficult to read if shrunk and a version without MISAC spelled out and just as a black bar would be useful. The rules of when to use each can be spelled out Megan will ask Emily if this is a quick and easy change she can do.
6. Field trip update (Monika Chandler) Kate Hagsten, Mari Hardel, Bob Dunning and Monika. Sept. 5th at Forestry Inn at Itasca. Parking will be free for work vehicles, personal vehicles need to be identified during registration. From Itasca will head up to Hubbard County and circle back around. Mari is looking into logistics, finalizing stops and calculate mileage tomorrow – then can get quotes on bus. Topics to include: EAM biocontrol and talk at Inn, brown knapweed infestation, buckthorn control demo with baggies, larch casebearer, purple loosestrife biocontrol, faucet snails, starry stonewort preserved samples, honeysuckle identification, garlic mustard identification. Deciding who can handle the registration and developing flyer. Wildlife Forever would make payment for bus/lunch once invoice is sent. Bus will ask for deposit and WF can help with that. EventBrite can allow checks that could be made out to WF and include EventBrite fees in registration – Megan can help with set up if needed. Google Form was used last time and checks were physically collected. Could set up an EventBrite using the email that came with the website domain (or other gmail). CCM does lots of invasive species work, would like to involve the field specialists (might be 4) in this field trip and ask them to share info with the larger CCM group in exchange for waived registration. Would also like to give them an opportunity to volunteer at UMISC. Megan can bring the UMISC discussion to EC. Motion to waive registration fees for CCM field specialists for this year's field trip. **Approved.**

Updates on Submitted Topics

1. UMISC Update (Doug Jensen and Megan Weber) 2 MOUs shared with group, MIPN proposed pricing and gave us an MOU to review. 2022 conference location to be selected by IPAW but what does less risk mean? Normal conference schedule disrupted, we are honoring WI request to move conference farther from border and reduced effort/less risk for MISAC is reflected there. Perhaps if the conference were to lose money that would be the reduction of risk, hasn't been defined but it is a separate MOU. Proposed terms are between IPAW, MISAC and MIPN. The other is for MOU with MIPN specifically for conference administration. Request location of 2022 be in WI and add to MOU. Travel distance could impact attendance of agency employees. Other Midwest states could host conferences in off years using UMISC, although not sure who owns the branding. Adding that 'UMISC' is shared between IPAW, MIPN and MISAC, wording to be determined. MIPN would be the administrator of the conference, not Clair specifically. Edited wording will

be sent out and electronic voting will serve to approve the MOUs. Could get suggestions in before other groups meet. Can also continue to discussion of what is upper Midwest. 2012 was the first 'UMISC' with the same 3 organizations. Fiscal agent is IPAW, both offer discounted registrations for members (paid memberships) but this is not followed through in allocation of finances. MISAC would benefit by taking a pro-rated share of the conference revenue or if MISAC members could get a discounted rate. Registration and membership opportunities should be separated and this would clarify financial planning. Note for wording to be drafted was added to draft MOU. MISAC's comments can be responded to by the other groups at their respective upcoming meetings. Motion to accept these comments and send them out to the partner organizations for consideration. **Approved.**

MOU with MIPN flat fee of \$32,000. Document includes comments from Doug. Belle may have already signed contract with Duluth venue. Mark Renz is treasurer of MIPN, is Willis Brown the contact for IPAW? Add wording that MIPN or UMISC EC designate an individual to sign contracts with venues so that there is legal accountability. Or can add a sentence that Clair has the authority to sign contracts as the conference administrator. The current wording is similar to MOU that existed with former conference administrator. Perhaps need to also define what is agreement of EC. Changes to MOU may need to be reflected in MOU with MIPN or remove sentence about equal share of proceeds and debts. Could have more definition and details on roles, finances etc. Wildlife Forever may like to review the MOU separately and provide edits by the end of next week. Can also provide budget info (spreadsheet summary) to wildlife forever to assist in their review. Motion to give EC authority oversight to have review done and make the necessary edits to MOU. **Approved.**

2. Membership review (Megan Weber) – Google group list is difficult to manage, Megan has gone through using attendance records. Remote meeting capabilities has improved interest in membership. APHIS has not responded, could add Erin Stires. Allison Gamble has moved from DNR to MPCA but may stay on in role attending MISAC meetings, she will keep us posted. Kelsey will reach out to other staff at BIA. Monika thought Mike Sorensen or another might want to participate from Minneapolis Parks. Dept. of Health has responded and would like to be available as a resource. Google group just for active members/back-ups so that maintaining separate lists is not required.

3. Group discussion, advocacy goal (MISAC) – Please use Google group for full update especially with upcoming events and shorten the individual updates. Looking more at how to fill advisory role and agenda doesn't always lead to facilitating that activity. As new techniques and technologies emerge could provide info on impacts, standardized language and resources for communication with the public and act as a conduit for the broader perspective and concerns of Minnesotans in approaching the regulatory process. Can MISAC offer leadership where one agency cannot with public-facing issues? Can MISAC push groups to think about different invasive species issues on the regulatory side? This might be difficult for Tribal representatives. MISAC tends to have members with a similar background and education, which is something to be aware of with outreach. Could host listening sessions or bring in speakers to address this. There are multiple ways to come up with advocacy topics. Would having more time to discuss issues instead of 2 presentations provide a space to determine topics? Traditional agenda has a lot of time for updates from members and is really a fire hose of info, might be better to encourage members to use Google group as an open forum and place to post important info and shorten update section. More discussion time would be available to find place of where MISAC is with advisory role. Can send a reminder out to new members about the info available on MISAC website and include Vision/Mission/Logo on agenda and minutes. In past people have timed updates and asked for longer updates to be added to agenda. Could have organizations give annual update. Also can send out the email to facilitate communication using the Google group. Group discussion might be difficult

with some topics, but could be flexible. Hope to keep balance between aquatic and terrestrial invasive topics. Could assign focus group based on topics MISAC wants to pursue and invite broader group to review. Fiscal review needs to be a future discussion topic for meeting and contract with Wildlife Forever is due Oct. Website committee can determine what needs are and whether \$2500 is needed. Electronic voting has helped improve how much can we get done – Megan can see the list of names, and will keep the transparency of being able to see others responses. As a point of order can capture nays or abstentions in minutes.

Timed Updates from members

1. Mike Schuster- buckthorn removal group excited to launch citizen science initiative.
2. Roger Becker- still working on GM.
3. Jim Calkins - DNR had a working group meeting on aquarium pond working group meeting. Interesting comments from industry.
4. Michelle Grabowski– new to group.
5. Kim Fackler – from MNDOT, attending for Dave Hanson.
6. Nicole Clapp– working on BWSR agreements.
7. Forest Eidbo– almost done with reviewing DNR PlayCleanGo for user groups.
8. Kate Wyman-Grothem – working on AIS prevention proposals for next year.
9. Bob Dunning – Exec board focused on upcoming conference, trying to attract more Ag inspectors. Drove to TN, MN roadsides looking good!
10. Missy Anderson – Our adopt a woodlot program had a nice segment on MN Bound!
11. Monika Chandler– Monika uploaded her leafy spurge and spotted knapweed biocontrol data (1,101 records) into EDDMapS. These data not available yet but will be soon. DNR already uploaded their purple loosestrife biocontrol data and they are available. Stearns County uploaded their weed biocontrol data. MNDOT is planning to upload their data too.
12. Byron Karns – St. Croix CCM crews doing restoration sites, working with Polk county on ‘project RED’ for volunteers to survey river way.
13. Kelly Pennington – meeting GLRI funded project on community based social media to motivate AIS prevention behavior change for trade industry, anglers and shoreline owners. Jumping worms in process internally, to be included in next rule making package.
14. Laura Van Riper– State Fair volunteers needed. In June the Phragmites Adaptive Management Framework training covered in how to enroll and monitor units as part of PAMF and share results.
15. Kelsey Wenner– drone surveys indicated shrinkage of Phragmites patches. Ash basket/EAB workshop this Friday and Saturday.
16. Angie Gupta– EAB ashwood parklet completed using material with sign on treated ash tree. Ashwood bike shed green roof installed. Buckthorn pen giving to participants – ramping up wood projects. Augmented reality invasive species display will be at 4-H building.
17. Ariana Richardson- excited about proposal for ‘water patriots’ to get juniors and seniors to contribute hours to education events. No new infestations from inspection programs.

18. Rob Venette– this summer have internship program writing stories about researchers and work they do. Can sign up for newsletter! MN Soybean research council has provided funding for one intern.
19. Cori Mattke– public release of zebra mussel genome. Soon will be announcing 10 new research projects. Registration open for ‘Research in Management’ Sept 18.
20. Jennifer Burington– Gypsy moth treatments went well and traps are out. Surveys are ongoing in parks, orchards, gardens and elsewhere. Next year policy changes coming to MDA for regulation and MISAC could contribute.
21. Angelique Dahlberg– MAISRC research on zebra mussel with Jim Luoma, testing low-dose copper concentrations on veliger stage application for fewer non-target impacts, starting at Lake Minnetonka.
22. Megan Weber – Starry trek, 27 spots, biggest year yet for a volunteer one-day effort. Volunteers both years have found new infestations. Registration is open!

Rapid fire updates were a success!

Submitted by email after meeting:

MISAC Update 7/17/19 Submitted by Doug Jensen, MN Sea Grant

Past and Current Efforts:

- MN Sea Grant hired 6 interns, four in Duluth and two in Grand Portage. All are supporting AIS outreach with partners at summer festivals and fairs. In Duluth, one is splitting time with 1854 Treaty Authority and another is splitting time at NRRRI. Two are conducting independent study projects, one looking at AIS impacts on wild rice and another conducting analysis of public event surveys concerning awareness and behavior.
- To that end, post event surveys show increased awareness and behavior change (>90%) when exposed to prevention messages from *Stop Aquatic Hitchhikers!* and *Habitattitude* campaigns.
- Supporting UMISC 2020 planning and conference administrator MOU efforts.
- Supported 10 events @ 2,000+ educated = Bent Brewstillery Crawfish Boil, Sea Grant Intern and Partner Training Workshop; Aitkin Co Rivers and Lakes Fair; South St. Louis County Fair; Two Harbors Heritage Days; Fleet Farm Kids Fishing Appreciation Day (16 MN locations); UMD Summer Senior Program; Take A Kid on Lake Vermilion (today, 87 kids, 42 at boat operators and guides breakfast, 80 family members at fish lunch and 20,000 exposures via interviews with Scott Hanson, USA 99.9 radio); Lake Superior Days; and Wabedo-Little Boy-Cooper-Rice Lake Assoc. Annual Meeting.
- Great Lakes Regional Landing Blitz was a success! MN Sea Grant helped coordinate Blitz’s at 5 locations in NE MN June 30th. Outputs and outcomes: 192 educated; 80 boat inspections; 0 decons; 0 violations; 28 staff from 9 organizations supported; 157 hrs contributed.

Upcoming Events:

1. No. Central Region Pesticide Safety Education & Applicator Certification Meeting, July 24
2. Café Scientifique, Beaner’s Central, Duluth, July 25
3. Ely Arts and Blueberry Festival, booth led by White Iron Chain of Lakes Association, July 26-28
4. Great Lakes Aquarium Wildlife Field Course, Duluth, July 30
5. St. Louis Co. Fair, Chisholm, July 31 – August 4
6. Grand Marais Fisherman’s Picnic, Aug 2 - 4

7. Bent Paddle Tales and Ale Crawfish Boil, August 3, 4-8 PM
8. Carlton County Fair, Barnum, August 15-18
9. Lake Superior Harvest Festival, Duluth, Sept 7
10. Chester Bowl Fall Festival, Duluth, Sept 21
11. Habitattitude Surrender @ Animal Allies, Duluth, Sept 21

Thanks to 1854 Treaty Authority, St. Louis, Lake and Cook Co. SWCDs, MNDNR Enforcement and Watercraft Inspection Programs for co-hosting booths. We could not reach the public to this breadth and extent without their support!