MEETING MINUTES

These abbreviated summary minutes will become the official adopted minutes at the next Montana Invasive Species Council meeting when they will be approved. Until then, they are considered a draft.

Meeting Name:	Montana Invasive Species Council		
Date of Meeting:	December 13, 2023	**Time:**	9:00 am
Minutes Prepared By:	Anna Connerton	**Location:**	DNRC HQT - Helena & Zoom

Attendees

MISC: Jason Allen, Jared Beaver, Jasmine Chaffee, Charles Headdress, Dennis Longknife Jr., Parker Osterloh, Sara Ricklefs, Pam Schwend, Steve Tyrrel, Steve Wanderaas, Gary Adams, Ian Foley, Kenneth Keever, Casey Lewis, Monica Pokorny, Tahnee Szymanski, Jessica Zarate.
MISC staff: Liz Lodman and Anna Connerton
Other Attendees: Jacob Bradford, Ryan Brook, Bob Carter, Susan Chin, Bryce Christiaens, Katie Finley-Squeque, Kraig Glazier, Steven Harada, Russ Hartzel, Kelly Hendrix, Emilie Henry, Melissa Maggio, Molly Masters, Craig McLane, Merry Michalski, Jason Mohr, Stephanie Murphy, Sara Owen, Arthur Potts, Jennifer Riddle, Brent Smith, Dona Stafford, Onno Wieringa.

**MISC voting members are underlined.

Agenda and Notes, Decisions, Issues

Topic	Discussion
Welcome & Roll Call	Steve Wanderaas (Co-Chair) opened the meeting at 9:06 am. Wanderaas conducted a roll call and confirmed the quorum. Attendees introduced themselves. **MISC Orientation** Bryce Christiaens conducted MISC Orientation for the newly appointed MISC members.
Administrative Business	***Action: Approval of September 13th Meeting Minutes.** Motion: Steve Tyrrel Second: Jared Beaver **Motion Passed Unanimously** **Council Member Open Seat Updates** **Confirmed Appointments:** Steve Tyrrel – Agriculture Sara Ricklefs – Conservation Organization Steve Wanderaas – Conservation Districts Jennifer Pelej – Department of Commerce Pam Schwend – County Weed Districts Jared Beaver – Montana State University Extension **Appointments Pending:** Jasmine Chaffee* – Department of Agriculture Jason Allen – Department of Transportation

	Parker Osterloh – Department of Natural Resources and Conservation *Council members will remain on the council until a successor is named.

Committee Reports	**Committee Reports**
	- **eDNA and Meta Barcoding Information Needs – COMPLETE**
	  o Committee: Tom Woolf and Steve Wanderaas
	Liz Lodman: This meeting was held on September 14th in Missoula. Tom will create some bullet points from the meeting to share about what was discussed and what came of the meeting. The reason for this meeting is because technology is moving so quickly and some of us don't quite understand. 3 experts were speaking at this meeting. This meeting was also to help aid the AIS Grant Review committee, so they have a better understanding of when the grant applications are being reviewed.
	- **Invasive Species to Watch – Fish**
	  o Committee: Bryce Christiaens and Tom Woolf
	Bryce Christiaens: I don't have a lot to report on this. We still have not been able to successfully get engagement from FWP, on how they want to handle the messaging around some of these fish. Given that, there are both economic benefits and impacts from some of these species. The update is that this is ongoing and may potentially fit within the Science Advisory Panel.
	- **Science Advisory Panel – Process to access the potential invasiveness of a species.**
	  o Committee: Bryce Christiaens, Gary Adams, Tom Woolf, and Michelle Cox
	Bryce Christians: These meetings are typically held in April or May so people who are busy with field season can participate. The next steps are to reach out to people who have expressed interest and plan to have a meeting in January to talk about this. We have a process laid out for how we conduct the SAPs. A meeting in January would be good to discuss the purpose and walk through the process that way we can do it in May. *A meeting will be planned by Liz Lodman for the Council to review and discuss this in January.
	- **Communications Workshop for Natural Resource Professionals**
	  o Liz Lodman, Jan Stoddard, Jane Mangold, and Amy Gannon
	Liz Lodman: I am on this committee with Jan Stoddard and Jane Mangold who are no longer a part of MISC as their terms have ended. Amy Gannon showed interest in helping with this, but I have not taken any steps forward with this. We are hoping to get someone from the Department of Commerce (Jenny Pelej) to help with this and anyone else who is interested in helping. This will be a one-day thing for stakeholders who are interested in how to be better communicators.
	- **Woody Invasives Best Practices Workshop/Seminar**
	  o Committee: Jasmine Chaffee, Liz Lodman, and Sara Ricklefs
	  o Woody Invasives Working Group Update: Kelsey Miller, Dan Rostand, and Jasmine Chaffee

	Sara Ricklefs: We held a Woody Invasives Science Advisory Panel on November 20th. This meeting was held in Billings, MT, and virtually. There were about 50 participants. The big outcomes that we were hoping for were to gain a better understanding of both current and emerging management techniques and protocols for each of the focal species, which are Russian Olive, Salt Cedar, and Common Buckthorn. We wanted to identify gaps and challenges that would impact Montana's managers, and we would collaborate and discuss both successes and challenges that people have experienced in management and treatments both within Montana and from our experts who showed up from outside of Montana. We also finally wanted to compile some information from those technical experts so that we could use it in the statewide management plan. That will hopefully be distributed for public comment in October of 2024. There were 6 panelists, Casey Sesenarios, John Leary, Dr. Clayton Marlow, Dr. Mike Schuster, Dr. Charlene Sing, and Dr. Natilie West. **Steve Tyrrel:** Were there any of the topics that covered geolocating using drones or other aerial mapping? **Sara Ricklefs:** There was a bit mentioned by Dr. Mike Schuster, but it was not in-depth. **Liz Lodman:** Do you have a date for the next SAP? **Sara Ricklefs:** No but the next working group meeting will likely be at the end of January.
Spongy Moth Update	**Gary Adams:** PowerPoint Attached

AIS Grant – Flowering Rush Update	**Melissa Maggio:**
	The Montana Biocontrol Coordination Project (MTBCP) is a soft-funded, grassroots effort initiated in 2013 by federal, state, county, non-profit, tribal, and private land managers throughout Montana who saw a need for increased coordination within the state's weed biocontrol program. A program assessment is conducted every 5 years to ensure that we are providing deliverables that MT land managers need. The most recent assessment was in 2019, we will be redoing this in early 2024. If anyone has any thoughts or ideas, please be sure to fill out the assessment and we will do our best to distribute as widely as possible.
	Current Focus Areas for MTBCP:
	- Insect collection and distribution
	  o For abundant and effective biocontrol systems in MT
	  o Work with a variety of land managers throughout MT to host collection days and ship insects to managers in need.
	- Education:
	  o Workshops, presentations, educational materials, share research updates, social media.
	- Monitoring
	  o New biocontrol systems are the priority.
	  o Working with agencies to establish a comprehensive plan.
	  o Research needs.

Flowering Rush *(Butomus umbellatus)*: Flowering Rush is a non-native, aggressive freshwater invasive. It is rapidly colonizing wetlands, lakes, slow-moving rivers, canals, and irrigation ditches. It is both emergent and submerged growth forms. It's both triploid (does not produce seed) and diploid (produces seed) and it disperses through rhizome fragments and buds. Current management options include herbicide, covering, hand-pulling, digging, diver-assisted suction, and dredging.

Because of the difficulty in managing flowering rush, several states and provinces got together in 2013 to form a biocontrol consortium regardless of the target weed. The main purpose of biocontrol consortiums is fundraising - to raise all the funding needed to develop biocontrol systems for your target species. We were all very excited about the potential of biocontrol for flowering rush because flowering rush is the only species within the Butomaceae family. This makes it an ideal candidate for biocontrol because during host specificity testing if we see impacts on plants other than our target species, they're almost always, if not always, a close relative of that target species. So, since flowering rush does not have close relatives, we're less likely to see any non-target impact, which is the goal. All our biocontrol development for new biocontrol systems is typically conducted by our overseas partners at CABI they begin this process with a literature search to determine what insects and or fungal pathogens have been recorded to develop on your target species. Then it's followed up by field surveys to see what they can find in the native range. They bring those potential Biocontrol agents back to the lab or field sites. They conduct host specificity tests and impact studies. So, we want to make sure that any biocontrol system that we're looking into has host-specific meaning. It's only utilizing that target species.

Flowering Rush Biocontrol:

- *B*agous nodulosus a leaf and rhizome-mining beetle
    - Adults live mainly underwater
    - Larvae develop in leaves & rhizomes (May-September)
    - The larvae leave plants and swim to other plants.
    - Overwinter as adults.
- Host-specificity tests completed in 2021.
    - No-choice oviposition test.
    - Adult feeding tests
    - No-choice larval establishment tests.
- Petition was submitted to USDA-APHIS in April 2022
- Rearing in quarantine began in 2022 at ARS in Sidney, MT

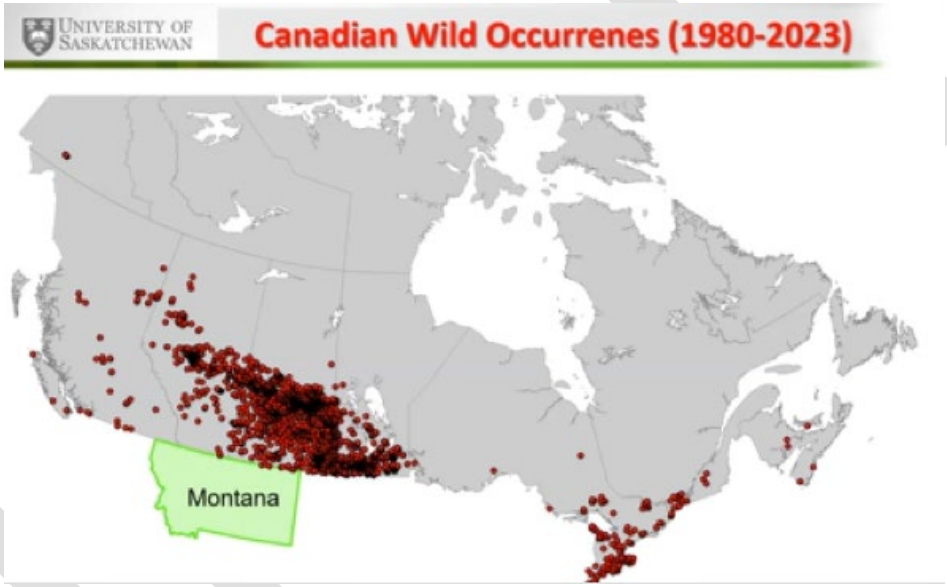
Flowering Rush Weevil Release Sites

Site searched on and around Flathead Lake began in 2022. Looking for sites where 1) the water isn't more than 3ft deep, 2) are under water all year, and 3) large enough infestations to establish 20m transects. Most ideal sites identified: Ducharme Fishing Access – began monitoring in 2023, Thompson Reservoir – decided to drop, Fennon Slough – working towards access for monitoring in 2024. Next steps include consistent monthly site visits for 12 months to gain insight to the variable nature of these aquatic sites, ideally obtain 3 years of pre-release data before releasing weevils at sites, soil scores will begin in 2024, cages will be fabricated and tested in 2024.

Comments:

	- Liz Lodman: We got to take a tour of ARS in Sidney and see the Flowering Rush plants that they are research they have there. - Dennis Longknife: Do you know if CSKT has identified any healing properties. - Melissa Maggio: I did join the meeting and present when they approved my permit. From the conversation, I only heard concerns and the impacts that they are going to cause. - Liz Lodman: I saw that there may be a grant opportunity to work on Flowering Rush, have you seen that? - Melissa Maggio: Yes, I have seen that and filled out the corresponding information.
FWP AIS Year-End Summary	**Craig McLane:** PowerPoint Attached In 2023 of the 130,000 boats that were inspected, roughly ¾ of them were done by partners. Besides contracted partners that we have, there are other partners out there that we don't financially support who are also doing inspections. In 2016 before the Tiber Mussel finds and the Villager finds in 2017, we saw a mixture of roadside stations, border stations, and roving stations where crews moved from different water bodies. We transitioned to more roadside stations. In 2023 we were able to delist Tiber and Canyon Ferry as positive suspects, after this, we were able to get rid of those. We have a lot of border stations and ones close to the divide. I want to highlight the areas of responsibilities, there are inspection supervisors, who oversee staff and oversee the contracted stations to ensure that we are doing the best we can. In 2023 there were 17 stations where over 130,000 watercrafts were inspected, about 600 plants were found on vessels, and 3,700 standing water decontaminations were done. There were 53 boats with mussels across the state. Most of these watercrafts are coming from out of state and either going to another state or into Montana. Our inspection stations were on par with previous years. The mussel-fouled vessels were all from out of state, most of the time from the Great Lakes region or from the western regions where mussels are established. Drive-by rates: we have always had a problem; these are decreasing but some stations are still having problems - Anaconda and Wibaux have the highest number of drive-bys. **Updates:** Earlier this fall, Idaho. Release the information that they found quagga muscles in Snake River at Twin Falls. They initiated a response and control effort there. They did a copper treatment to try to kill the mussels. The copper was released over two 96-hour periods. They won't know how effective this effort was until next year. The estimated price for this treatment is 3 million dollars. On Thursday we received the press release that adult mussels were found at two different docks on Lake Owaki which is part of the Missouri River system. 2023 FWP Early Detection Sampling and Eradication/Control Efforts: When we go out and sample, we sample everything. We sampled plants, macroinvertebrates, plankton, crayfish, mussels, and clams. We use different tools for each of these. Statewide we've sampled about 350 waterbodies statewide which was over 3,100 samples. Some of the smaller, less frequented waterbodies we will sample every 2-3 years along with high mountain lakes that people don't usually recreate at.

Feral Swine Update	**Tahnee Szymanski:** In 2015, Montana's legislature passed regulations making feral swine populations illegal. The Fish, Wildlife and Parks and Department of Livestock collaborated to pass the legislation. The agency is responsible for preventing hunting constituency, as people may want more pigs to continue hunting. The gist of the regulations include: • The definition of what a feral swine is -one of the important pieces there is that we define feral swine phenotypically. • if you leave them kind of to their own devices in the wild. For a while. They'll revert to a feral state very quickly, so they could be any genetic makeup. The regulation prohibits various activities such as trucking, expanding range, feeding, living in a state, profiting from, or assisting with these animals. The control portion of Montana's hunting regulations allows the Department of Livestock and authorized personnel to remove feral swine, preventing hunting constituencies. Wildlife service employees will be the primary resource in Montana, and potentially FWP personnel may be involved on a case-by-case basis. This is a strict policy to prevent hunting. There's a good chance that if you see a pig or shoot a pig, you shot somebody else's animal and so they could come back with some sort of civil suit against you. If it's a problem, animal like your neighbors aren't keeping their pigs in, and this is your maybe attempt to try and solve that problem. There are actual regulations in the Brand's division that prevent people from letting pigs run loose. Everybody talks about Montana's a free-range state but that's for cattle, not pigs. Pigs must be behind a fence. There's a mechanism to ticket those people. Penalties: The penalties are mimicked after FWP, the Bucket Biologist. If they translocate species, they are subject to a fine of up to $10,000 per violation. Feral swine will impact far beyond the department of livestock and livestock industry here in Montana. The department must spend a thousand dollars of our money on a response, and then we're able to tap into general funds. We're very fortunate in Montana for wildlife services should we have a detection. We've had consistent communication from wildlife services both at the State and National level, that some funding would be available. To help with our response here in Montana as well as additional resources.
Feral Swine Risk Model	**Dr. Ryan Brook** Canadian Domestic Wild Boar Farms: Production peaked in 2001 in Canada at 500 farms+32,000 animals. Some provinces allow high fence shoot farms as well, where you can pay money and shoot confined pigs, and that has caught on in several provinces, but several of them have outlawed it some time ago, so it has primarily been meat farms for the most part.

	We published a paper last year that showed online sales, which have been a major issue. You can go online and pay $400-$600 to take your vehicle and buy some wild boar or hybrids. This is a major challenge; it should be an easy part to control but there are some major outlying issues with where the farms are and such. The biggest pig we have handled was a 638lb pregnant female. One of the things we talk about is a rule in ecology called Bergmann's Rule, generally if you look at the distribution of a wild species that has a big range, the further north you go the larger the animal as they have to survive the cold and have less surface area to volume. A big animal is going to do better at surviving the cold. Normally the pigs will be under several feet of snow when the winter starts. Most all pigs that you see on the prairie are some types of hybrids, people want to cross bread to get a bigger animal and better reproductive rates (average 6 young per liter). The pigs wean quickly and then go back to breeding quickly causing the number to rise quickly.  Up until 2022 we were getting 4.4 new occurrences every day. 2023 has been overwhelming, especially on the prairies. 99.8% of the occurrences are in Alberta, Manitoba, and Saskatchewan. Hunters are probably taking about 3% per year and control programs about 1% per year. We would need to be north of 70% to even begin controlling the population over 70,000 sq miles. The least pigs we see are in Saskatchewan corner and that is good because they don't have a lively hood of moving down. There is currently a paper in review that should be published soon. Comments: - Dennis Longknife: Can you create a map with an overlap of the Canadian Reserves? - Ryan Brook: Yes! Please grab my email from Liz and I can get that created and shared with you or whomever you would want that shared with. It would take about 20 minutes. - Dennis Longknife: Do you work with the tribes in Canada? - Ryan Brook: Yes! There are different perspectives on pigs, but we are coming to the common circle and realization that they come with baggage and impacts. I do work with the first nations on multiple things.
Outreach Events	**Outreach Events:** - MISC Booth at MWCA Conference – January 30-February 1, 2024 - AIS Short Course, Missoula – March 4-6, 2024

	- USDA/APHIS Emergent Preparedness and Response Training, Polson – June 4-6, 2024?
	- Alberta-Montana Invasive Species Joint Meeting
	  o Possibly push off to 2025 as we have the Summit and NAISMA in 2024.
	- NAISMA Conference, Missoula – September 30-October 3, 2024
	  o Pest and Pathogen Conference to be tacked on before or after NAISMA?
	- MISC Summit
	  o Need a committee.
	  o Suggested topics to be discussed: Woody Invasives

Wrap-Up and Adjourn	**Location of December meeting:** March or April in Great Falls? **Final Discussion:** None **Public Comment:** None ***Action:** **Motion to adjourn the meeting.** Motion: Charles Headdress Second: Jared Beaver **Motion passed unanimously.** **Meeting Adjourned at 3:56 pm.**