



Montana Invasive Species Council

Meeting Materials Packet for September 13th, 2023

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MONTANA INVASIVE SPECIES COUNCIL

AGENDA



Note: Agenda is subject to change and times are approximate. Actual times may vary by up to one hour.

Montana Fish, Wildlife & Parks 3201 Sprugin Road- Missoula. Hybrid meeting.

WEDNESDAY, September 13, 2023

10:00 - 10:30 am	INTRODUCTIONS Co-Chairs Steve Wanderaas & Tom Woolf Welcome, roll call, and introductions
10:30 - 10:50 am	ADMINISTRATIVE BUSINESS *ACTION: Approve June 20, 2023, meeting minutes Council Member Open Seat Updates Governor's Montana Board Resources Portal
10:50 - 11:00 am	COMMITTEE REPORTS eDNA and Meta Barcoding Information Needs Invasive Species to Watch-Fish Science Advisory Panel- access potential invasiveness of a species Communications Workshop for Natural Resource Professionals Woody Invasive Best Practices Workshop/Seminar
11:00 - 11:30 am	WOODY INVASIVES WORKING GROUP UPDATE Sara Ricklefs
11:30 - 12:00 pm	BIG SKY WATERSHED CORPS REPORTS Speaker 1 - Sean Simpson: Grow Wild Speaker 2 - Jenna Asnault, Haylee Pearce, Noah Gilder: CSKT/FWP Bullfrog Project
12:00 - 1:00 pm	LUNCH
1:00 - 1:45 pm	FERAL SWINE UPDATES PNWER Report Out - Liz Lodman & Steve Wanderaas Transboundary Feral Swine Working Group Department of Livestock - Tahnee Szymanski (invited) Montana Feral Swine Outreach
1:45 - 2:00 pm	BIG SKY WATERSHED CORPS REPORTS Speaker 3 - Sophiane Nacer: FWP AIS
2:00 - 2:15 pm	BREAK
2:15 - 2:45 pm	OUTREACH EVENTS NAISMA Conference: Oct 16-19, 2023 - Lincoln Nebraska *ACTION - Steve Wanderaas attendance at NAISMA NAISMA Conference: Sept 30 - Oct 3, 2024 - Missoula AIS Teacher Workshop: Oct 20-21 - Flathead Lake Bio Station MT Association of Conservation Districts Conference: Nov 14-15 - Billings
2:45 - 3:15 pm	BIG SKY WATERSHED CORPS REPORTS Speaker 4 - Sam Yonan: Dept of Agriculture Speaker 5 - Niah Brass: Yaak Valley Forest Council
3:15 - 4:15 pm	MEMBER UPDATES
4:15 - 4:30 PM	WRAP UP & ADJOURN Location of December meeting Final Discussion *Public Comment

This meeting is open to the public. The most current meeting information and meeting materials are available on the MISC website at: <https://invasivespecies.mt.gov/misc/meetings-schedule>. Persons who wish to attend the meeting in person or via zoom must register by noon on September 11 at: <https://www.surveymonkey.com/r/MISCSeptPublic>. If you have trouble registering using the link, please email Anna.Connerton@mt.gov with your name and a request by the deadline.

*Public comment will be available during times the Council acts on items as indicated on the agenda and during the end of the meeting. To provide public comment, participants may "raise their hand" and participate after being recognized by the presiding officer or Zoom manager. Comments will be taken in order. Written public comment may be sent via email in advance of the meeting to Anna.Connerton@mt.gov and will be provided to council members.

Any oral or written public comment provided to the committee is a public record that is recorded and archived.

The Montana Department of Natural Resources and Conservation will make reasonable accommodations for persons with disabilities who wish to participate in this public meeting. For questions about accessibility or to request accommodations, please contact Anna Connerton at 406-444-2613 or Anna.Connerton@mt.gov as soon as possible before the meeting date.

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:	June 20, 2023	Time:	8:30 am
Minutes Prepared By:	Anna Connerton	Location:	Sidney, MT Agriculture Research Service & Zoom
Attendees			
<p>MISC: Jason Allen (MDT), Jasmine Chaffee (MDA), Steve Wanderaas (Conservation Districts), Tom Woolf (FWP), Dennis Longknife Jr. (Fort Belknap), Parker Osterloh (DNRC), Paul Rossignol (Wildlife Rep), Andy Welch (Hydropower Rep), Martin Charlo (CKST).</p> <p>MISC staff: Liz Lodman, Anna Connerton</p> <p>Other Attendees: Jared Beaver (MSU Extension), Sara Ricklefs (ISAN), Veronica Grigaltchik (DNRC – CDB), Josh Campbell (USDA – ARS), Dave Branson (USDA – ARS), Natalie West (USDA – ARS), Brent Smith (CEMIST), Trish Smith (Petroleum County CD), Jacob Bradford (BOR), Dan Rostad (YR CDC), Cody Hendrix (BOR), Dona Stafford (Fergus CD), Chrissy Mott (DNRC – Forest Pest Management), Joey Grewell (Field Rep-Congressman Rosendale), Kelsey Miller (Montana Weed Control Association)</p>			
Agenda and Notes, Decisions, Issues			
Topic	Discussion		
Welcome & Roll Call	<p>Liz Lodman opened the meeting at 8:30 am, conducted roll call and confirmed quorum. Attendees introduced themselves.</p> <p>Dave Branson welcomed everyone and provided an overview of the Sidney USDA Agriculture Research Service.</p>		
Administrative Business	<p>*Action: Approval of April 12th meeting minutes</p> <p>Motion: Martin Charlo Second: Jasmine Chaffee Motion Passed Unanimously</p> <p>Governor’s Montana Board Resources Portal</p> <p><i>Liz Lodman:</i> Terms for 8 council members ended in May. Lieutenant Governor Juras contacted Liz and explained that council members remain in their positions, even if their term has ends, until a new person has been appointed by the Governor. MISC issued a news release about the open positions and how to apply online via the Governors Boards and Appointments website.</p> <p>The Governor asks all council members to go through training courses (<i>Roberts Rules Made Simple</i> and <i>Chair a Meeting with Confidence</i>) offered at this website Montana Landing (robertsrulesmadesimple.com). It’s possible to do this as a group at a future meetings.</p> <p>Council Member Updates:</p>		

Administrative Business

Applicants for open positions to date:

- **County Weed Districts:** Pam Schwind (Carbon County Weed District)
- **Conservation Districts:** Steve Wanderaas*
- **Agriculture:** Steve Tyrrel*
- **Blackfeet Nation:** None thus far
- **Conservation Organization:** Sara Ricklefs (ISAN) and Jon Malovich (Madison River Foundation)
- **DNRC:** Parker Osterloh – Director Appointed
- **Department of Agriculture:** Jasmine Chaffee* – Director Appointed
- **Department of Transportation:** Jason Allen – Director Appointed
- **MSU Extension:** Jared Beaver
- **Crow Nation:** None thus far
- **Little Shell Tribal Government:** None thus far
- **Northern Cheyenne Tribal Government:** None thus far
(*) seeking another term on council.

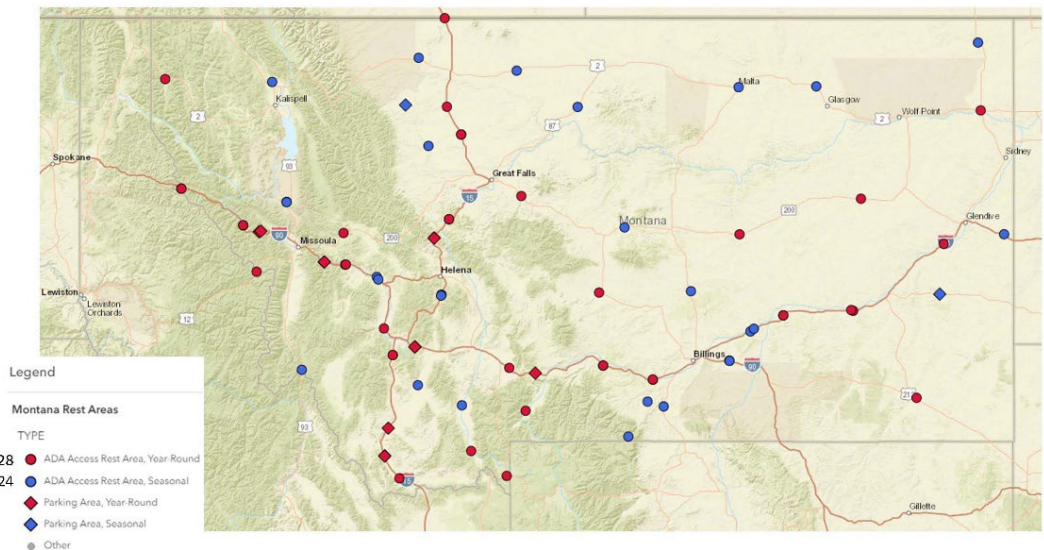
Two positions are open before their terms ended:

- **Private Landowner:** MISC will recommend an applicant to Governor.
Steve Wanderaas: MISC should consider finding a landowner from the northern border to aid with our feral swine efforts. We need a representative that will be an active participant in MISC.
- **Rocky Boy:** Brandon Gopher no longer serves on the Rocky Boy Tribal Council. The Governor needs a formal letter from Rocky Boy with this information. Tracy Tyner has been recommended to replace Mr. Gopher.

Legislative Wrap-Up

SB293 - Invasive Species Posters at MDT Rest Areas

Liz Lodman & Jason Allen: This bill allows posters related to invasive species prevention to be posted at MDT rest areas. MISC will create and print the posters and provide to MDT for distribution to rest areas. The law goes into effect October 1st, MDT would like the posters by September 1st. A couple MISC member will help Liz with the message and design of posters, message options include AIS, Watercraft Inspection, Noxious Weeds, PlayCleanGo, Terrestrial, Don't Move Firewood. Below is the map that shows the rest areas where the posters will be located. Red circles are year-round and blue circles are seasonal.



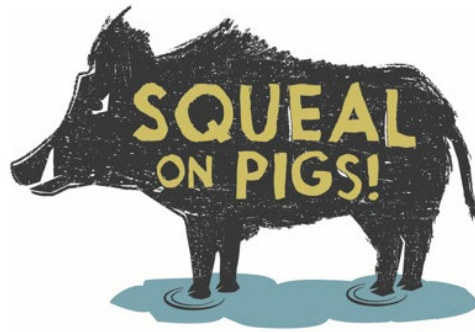
<p>Legislative Wrap-Up</p>	<p>Questions from audience: Can a poster about Eastern heath snail be placed at the Armington Junction rest area near Belt? YES</p> <p>HB821 – Grants to Combat Saltcedar, Russian Olive, and Common Buckthorn <i>Jasmine Chaffee:</i> Appropriates one time funding (\$250,000) to MT Department of Ag (MDA) for grants to control woody invasives in riparian areas. Funding is for entities in Yellowstone, Musselshell, and Stillwater Counties beginning July 1, 2023. Applications are available through MDA web grants. If herbicides are part of the grant, MDA will conduct an Environmental Assessment with them. Grants are due in early July. The MDA advisory panel will meet on July 12, review the grants and give recommendations and the MDA director for the final decision. Grant will be issued by August 1st. Successful applicants will have 3 years to spend the funds.</p> <p>Other updates:</p> <ul style="list-style-type: none"> • HB321 - Conservation District Trust Fund • SB83 – Creates Western Montana Conservation Commission (combines Upper Columbia Conservation Commission and Flathead Basin Commission)
<p>Committee Reports</p>	<ul style="list-style-type: none"> • eDNA and Meta Barcoding Information Needs <i>Committee: Tom Woolf and Steve Wanderaas</i> Goal is to have an informational meeting about eDNA so MISC and the AIS grant review committee will have a better understanding of the gaps and needs regarding eDNA. Tom will talk to representatives from USGS, Flathead Lake Biological Station, and US Forest Service about a meeting date in September. Possibly hold in conjunction with the MISC quarterly meeting. • Invasive Species to Watch – Fish <i>Committee: Bryce Christiaens and Tom Woolf</i> – NO report • Science Advisory Panel – Process to access potential invasiveness of a species <i>Committee: Bryce Christiaens, Gary Adams, Tom Woolf, and Michelle Cox</i> – NO report • Communications workshop for natural resource professionals <i>Committee: Liz Lodman, Jan Stoddard, and Jane Mangold</i> – NO report Michelle Cox will connect Liz with science communication staff from Rocky Mountain Research Station. • Woody Invasives best practices workshop/seminar. <i>Committee: Jasmine Chaffee, Liz Lodman and Sara Ricklefs.</i> – NO report, see next agenda item.
<p>Woody Invasives Working Group</p>	<p><i>Dan Rostad:</i> Custer County CD is managing the grant on behalf of the Yellowstone River Conservation District Council (YRCDC).</p> <p><i>Kelsey Miller:</i> This is a relatively new working group with collaboration from MT Weed Control Association (MWCA), YRCDC, MISC, MDA, CDs, and weed districts. The working group is open to anyone who is interested in working with woody invasives.</p> <p>The working group has 3 objects:</p> <ol style="list-style-type: none"> 1. Create a statewide woody invasives management plan. 2. Launch a wild scale education campaign for awareness and best management practices. 3. Secure future funding. <p>The working group received a Noxious Weed Trust Fund Grant for \$65,000 that ends October 2024. The contract to manage the grant has been awarded to the Invasive Species Action Network (ISAN)</p>

and Sara Ricklefs. ISAN will convene the working group, host a Science Advisory Panel (sponsored by MISC), draft the management plan, conduct education, and seek other grants. Kelsey will continue to coordinate between the working group, ISAN, and MDA on grant reporting. Contact either Sara Ricklefs sara@stopais.org or Kelsey Miller mwca@mtweed.org if anyone wants to get on the email list for updates. If anyone has Woody Invasives data, send it to MDA's Josh Wagoner at josh.wagoner@mt.gov.

Dennis Longknife: Fort Belknap Indian Community has a lot of Russian olive along the flood plan of the Milk River corridor that is becoming a problem. The private landowner on the other side of the river is also interested in removal.

Squeal On Pigs!

Liz Lodman: The "Squeal on Pigs!" campaign has a new brand and logos that will be rolled out soon. These images should work better for printing and social media. The logos will be available on a new webpage that the Transboundary Feral Swine Working Group is developing at SquealOnPigs.org. MISC will be updating the poster and fact sheet that we coordinate with Dept of Livestock.



OLD LOGO



NEW LOGO

Feral Swine
Updates

Pacific Northwest Economic Region (PNWER):

Liz Lodman: Feral swine is a topic at the PNWER Summit on July 17-19 in Boise. Panels will discuss impacts, economic risks and management actions. A Technical Workshop hosted by the Transboundary Feral Swine Working Group has invited experts to share information about using trail cameras, drones, thermal imaging, eDNA, detection dogs, and traps. Liz is attending PNWER and moderating a panel. PNWER information is here: <https://www.pnwer.org/2023-summit.html>.

***Action:** Approve MISC to pay travel and registration expenses for Steve Wanderaas to attend the PNWER Summit in Boise.

Motion: Jason Allen

Second: Paul Rossignol

Motion Passed Unanimously

Northeast Montana Feral Swine Tour

Jared Beaver: County extension agents in the northeast are interested in feral swine education events for their producers. The plan is to travel around for a week and reach as many places as

<p>Feral Swine Updates</p>	<p>possible. Best timing would be this fall in September or October. Jared is working with Extension Agents and Conservation Districts to help plan.</p> <p>MOU for Feral Swine</p> <p><i>Michelle Cox:</i> After the feral swine tabletop exercise it was evident that Montana needs an memorandum of understanding/agreement so that partners understand their roles and will commit to doing certain things if feral swine are detected. An example MOU from another state was provided.</p> <p><i>Liz Lodman:</i> This MOU provides a great example for Montana to model. It also includes a statewide strategic plan for eliminating feral swine and messaging to the public. DOL needs to be in support of this project for us to move forward. We should look for other state/provincial MOU's.</p> <p><i>Jared Beaver:</i> Colorado (Travis Black) has an MOU.</p> <p><i>Dennis Longknife:</i> It would be good to know if any indigenous nations/tribes were a part of MOUs.</p>
<p>Eastern Heath Snail Updates</p>	<p>Outreach Events</p> <p><i>Brent Smith:</i> CEMIST, MSU Extension, and Judith Basin CD hosted a community meeting in Stanford on April 25. Gary Adams, Jeff Littlefield, and Jenny Birdsall provided information on the history of Eastern heath snail, how humans move them, prevention, and (the bad news) there are no effective measures to control or eliminate them. It was well attended, about 40 people, including 4 or 5 crop adjustors and producers who are impacted. Fergus CD would like to host another meeting in Lewistown later this year. Oregon State is in the Belt area this week doing research and trapping snails to see if they carry pathogens.</p> <p><u>Discussion:</u></p> <ul style="list-style-type: none"> • <i>Liz Lodman:</i> The UM Economic Report shows the suitable habitat for EHS is central Montana. MISC can host a webinar with Gary and Jeff after field season is over and help with the Lewistown Meeting. The Lewistown "Ag in Action" publication did a 2-page spread on EHS thanks to Brent promoting the April meeting. • <i>Steve Wanderaas:</i> Is there a plan to share inform about the research that going on in the Belt area? • <i>Brent Smith:</i> I'm not sure, but we can contact them and maybe have them share information at a future meeting. • <i>Michelle Cox:</i> Bryce Maxwell is asking for surveys to go to MT Natural Heritage Program as the central location for reporting. • <i>Brent Smith:</i> Are we telling the public to report sightings to their county extension agent? • <i>Liz Lodman:</i> Can we do a training with central Montana extension agents so they know what to look for and how to report? • <i>Jasmine Chaffee:</i> We can add EHS to EDDMaps so reports go to Frank at DOA. <p>Action Items:</p> <ul style="list-style-type: none"> • Brent will notify MISC when a meeting is scheduled for Fergus County. • Liz will work with Gary and Jeff to schedule a webinar. • Liz will contact Extension Agents on needed training and reporting of EHS.

**Eastern Heath
Snail Updates**

Montana Reporting Authority for Snails:

Bryce Maxell: Unable to attend the meeting but said there are a growing number of introduced slug records on iNaturalist and submitters are wondering what agency they should report information to? *Reporting should go to Department of Ag.*

Bryce also submitted this information to share:

There are 20 non-native mollusk species documented in Montana and another 8 recognized as having the potential to invade Montana. We are all aware of the risks of Zebra Mussel, Quagga Mussel, and New Zealand Mudsail to aquatic environments and Eastern Heath Snail's threats to agricultural exports. However, there are 10 terrestrial gastropod mollusks documented and another 6 that have the potential to invade Montana and the localities these species are being reported from are growing. They have the potential to compete with native mollusk species and threaten crops in gardens and greenhouses and citizens reporting them are asking what agencies are doing to control them and what they can do to control them. Threats to native species have not been formally assessed. On the positive side, much of Montana is too dry to support invasive slugs and snails. Frequently reported localities include moist areas of campgrounds, trailheads, and roadsides near streams. Pathways of introduction likely include nursery plants/pots, potting soil, recreational equipment such as boats and trailers, and construction materials. They are active at temperatures above 5 degrees Celsius and are most active at night in order to conserve moisture. Control methods include hand collection and then euthanization (sedation in 5% ethyl alcohol, killing in 95% ethanol, and disposal by burning) in natural settings and barriers and chemical pellet control in human altered areas. Chemical bait control should not be used in natural settings to avoid impacts to native mollusks, but may be acceptable at points of introduction (e.g., invaded campgrounds or trailheads).

Bryce provided information sheets for non-native, non-aquatic mollusks in Montana (see page 7) and provided this summary:

- 1) Report rates are increasing.
- 2) Potential impacts to native species have not been formally assessed.
- 3) The public has asked what agency will respond with control efforts or how they can help control them.
- 4) Need to identify whether or who will respond and what they will do and communicate that to the public.
- 5) Need to educate agencies and resource managers on appropriate and effective control methods. Example: [https://accs.uaa.alaska.edu/wp-content/uploads/European Black Slug Risk Assessment Copper River Delta.pdf](https://accs.uaa.alaska.edu/wp-content/uploads/European_Black_Slug_Risk_Assessment_Copper_River_Delta.pdf)

Action Item:

- Continue discuss with MDA and Frank Etzler.
- Consider attending an Extension training event (fall meeting for all agents in Bozeman, spring meeting for ag and natural resource agents, and district meetings in west, central and east) about slugs, snails and other invasive species topics.

Montana's Non-Native Terrestrial Gastropod Mollusks



Eastern Heath Snail
(*Xerolenta obvia*)



Giant Gardenslug
(*Limax maximus*)



Chocolate Arion
(*Arion rufus*)



Dusky Arion
(*Arion subfuscus*)



Gray Fieldslug
(*Deroceras reticulatum*)



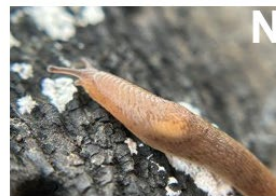
Brown-banded Arion
(*Arion circumscriptus*)



Orange-banded Arion
(*Arion fasciatus*)



Hedgehog Arion
(*Arion intermedius*)



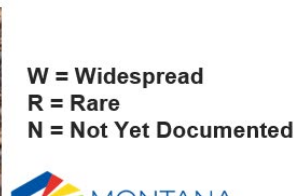
Longneck Fieldslug
(*Deroceras invadens*)



Dark-bodied Glass-snail
(*Oxychilus draparnaudi*)



Garlic Glass-snail
(*Oxychilus alliarius*)



Widespread Non-Native Terrestrial Mollusks



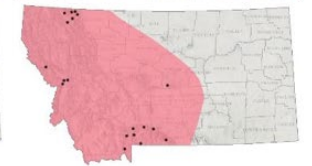
Eastern Heath Snail
(*Xerolenta obvia*)



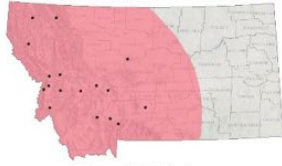
Giant Gardenslug
(*Limax maximus*)



Chocolate Arion
(*Arion rufus*)



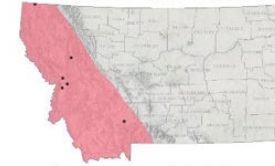
Dusky Arion
(*Arion subfuscus*)



Gray Fieldslug
(*Deroceras reticulatum*)



Brown-banded Arion
(*Arion circumscriptus*)



Orange-banded Arion
(*Arion fasciatus*)



Partner Updates

Liz Lodman - MISC:

The North American Invasive Species Management Association (NAISMA) conference is in Lincoln, Nebraska, on October 16-19. Jason Allen, Jasmine Chaffee, and Liz Lodman are attending. Are there other MISC members who want to attend? Information is here: <https://conference.naisma.org/>.

Montana will host NAISMA in Missoula in 2024. MISC will take a large role in helping plan the 2024 conference and will help staff a conference planning committee to work on logistics, organize field trips and fundraising.

Jasmine Chaffee: NAISMA can apply to the Noxious Weed Trust Fund Grant for funding to support weed districts, conservation districts, and extension agents getting a percentage off their registration. Applications open in September and close in January.

Tom Woolf – Fish Wildlife and Parks AIS:

This season is going great; staffing has mostly been full. Over 22,000 boats inspected which is ahead of last year; 26 mussel fouled boats have been intercepted; one with live mussels in a bait bucket. AIS staff are surveying around the state looking for invasives and collecting samples. Over 300 water samples have been processed with no mussel detections in Montana samples; however, the lab detected a new mussel population in Nebraska. FWP has worked with the Flathead Lake Bio Station, CSKT, and CEMIST to train about 40 people in AIS surveys/early detection. FWP is looking for more opportunities to train people. New detections include New Zealand Mudsnails in the Upper Clark Fork River near Warm Springs. A mystery snail (large aquarium snail) was reported on Flathead Lake thru iNaturalist. FWP previously found a mystery snail in the same area and will do more surveys here. Milfoil has been detected on tribal waters (Pablo Reservoir) for the first time. No evidence of clams in Lake Elmo but it could take 3 years before they show up. FWP Big Sky Watershed Corps member Sophiane Nacer is traveling to AIS outreach events and providing content the [Protect Our Waters Montana Facebook](#) page.

Jason Allen – Department of Transportation:

Missoula County has done really well with Rush Skeleton along the I-90 corridor. Lincoln county has gone over and above treating Ventenata and they plan to help in Sanders County. Maintenance forces are working on a new Blueweed patch in the right-of-way in Sanders County; it's hard to deal with as it grows new rosettes and needs to be treated every two weeks. MDT received a research grant to work with spectral imaging with drones that will help with MDT's mapping and monitoring.

Steve Wanderaas – Conservation Districts:

McCone CD will be moving the Nashua watercraft inspection station; work on the new site will start tomorrow. Steve attended the [Invasive Grasses](#) public meeting sponsored by the BLM in Belle Fourche, SD. Steve said ventenata is spreading faster than people realize, a lot of outreach is being done but the issue is that people aren't listening. What can we do to assist outreach efforts on invasive grasses. Ideas for outreach should be sent to Jasmine Chaffee.

Dennis Longknife Jr – Fort Belknap:

The BLM Director will visit on July 11 to tour native intact prairie/grassland restoration sites. This is a result of national attention on the Fort Belknap grassland restoration project. Dennis is helping mentor the students and is the liaison between the BLM and people.

<p>Partner Updates</p>	<p>Jasmine Chaffee – Department of Agriculture:</p> <p>MDA has an education and outreach person helping out 4 month during the summer, her other job is pesticide training. MDA has a Facebook page. Noxious Weed Awareness week was held the first full week of June. MDA worked with MWCA, MISC, and MSU to develop themes for each day. MDA crews organized rush skeletonweed workdays at two fire burned areas on CSKT land. Also assisting were Lincoln County, Missoula County, AmeriCorps members and CSKT tribal members. At the recently burned area very little was found, but the older burned area (2022 Rattlesnake) had a lot of rush skeletonweed. The crews were able to map and treat the area. EDDMapS has reported rush skeletonweed in Jefferson County and Madison County. MDA will work with the rush skeletonweed task force to verify the reports or see if it’s a different type of skeletonweed. Jasmine will run the materials program until a new person is hired to replace Andrew Lamb. Jasmine submitted a pre-proposal to America the Beautiful Challenge grant for invasive annual grasses that was denied for this year but encouraged to reapply next year. This proposal is working with Wyoming, South Dakota and southeast Montana. The Noxious Weed Management Advisory Council will meet July 12 in Huntley. Montana will host the EDDMaps summit next spring.</p> <p>Michelle Cox – Forest Service:</p> <p>Infrastructure funding has been received for aggregate projects to survey and treat invasive species. A site visit was held at Beaverhead Deer Lodge Forest with MDA staff to discuss survey methods and other considerations; more site visits will be held. Forest Service is working with UM on invasive grasses projects to map grasses and offer workshops next season. Infrastructure funding is supporting an agreement with FWP AIS program (inspections, signs, monitoring), North Dakota Game and Fish, and possibly with MISC.</p> <p>Andy Welch – Northwestern Energy:</p> <p>Their annual public meeting for recreators in West Yellowstone is in July, Andy will give an update on AIS inspection program. A lot of people from out of state own summer cabins here so there is a lot of watercraft movement.</p> <p>Parker Osterloh – DNRC:</p> <p>The division is in the final stages of approving a weed management plan for all bureaus and trust lands that will help improve consistency. Staff is on the look out for ventenata and collecting data. They have a Lidar drone and will conduct test plots this winter. The Minerals Bureau is requiring a weed management plan on any new gravel pits on state trust land. They are putting biocontrol on state trust lands with the hope to go back and collect bugs for future releases.</p>
<p>Guest Updates</p>	<p>Veronica Grigaltchik – DNRC – Conservation District Bureau (CDB)</p> <p>Conservation districts can apply for education grants year-round. Some CD’s use these grants for invasive species outreach, such as the Pull Your Share program.</p> <p>Dona Stafford – Fergus CD</p> <p>Last week they held a stream permitting workshop for realtors and contractors. Presenter Brenda Murry from the weed district spoke about noxious weeds.</p> <p>Brent Smith – CEMIST</p> <p>CEMIST and FWP held an AIS monitor training in Miles City last week. Another training will be held August 9 in Harlowton. CEMIST will help coordinate ISAN AIS trunk training workshops. BLM suggested and CEMIST is pursuing invasive species information and signage</p>

<p>Guest Updates</p>	<p>be available at FWP Block Management sign in boxes.</p> <p>Sara Ricklefs - ISAN</p> <p>ISAN’s QAQC evaluator for watercraft inspection stations is traveling throughout Montana and the Columbia River Basin. ISAN is applying for grants to expand the Don’t Let It Loose and Clean Drain Dry programs and evaluate efficacy and messaging. Sara is presenting on Don’t Let It Loose at the Western Regional Panel meeting in Salt Lake in September.</p> <p>Jacob Bradford – BOR</p> <p>BOR completed noxious weed spraying at Clark Canyon Reservoir near Dillon, in cooperation with Beaverhead County Weed District and MDT, to control knap weed and leafy spurge. Also funded a contractor to do fall treatments. BOR coordinated with Yellowstone County Weed District to treat poison hemlock near Huntley Project. BOR will sample all reservoirs for invasive mussels the first week of August. BOR had funding for state aquatic invasive species program and awarded nearly \$340,000 to South Dakota Game, Fish and Parks to beef up exit inspection program at Pactola reservoir. South Dakota turned down the funding. BOR shifted and give the funds to the Wyoming Game and Fish Department to increase inspections and personnel on their eastern border with South Dakota.</p> <p><i>Tom Woolf:</i> Montana watercraft inspection stations have seen a “handful” of boats from Pactola mostly at the Broadus station; half of the boats were not inspected in South Dakota. Montana inspectors have not detected AIS on these boats so far.</p>
<p>ARS Research Overview</p>	<p>See recording from ARS staff Natalie West and Josh Campbell starting at 3:43 time marker.</p>
<p>Wrap-Up and Adjourn</p>	<p>Final Discussion: Location of September meeting will likely be in Missoula to coincide with the eDNA meeting.</p> <p>Public Comment: none</p> <p>Motion to Adjourn: Jasmine</p> <p>Second Motion: Tom Woolf</p> <p>Motion passed unanimously.</p> <p>Meeting Adjourned and attendees toured the ARS facility.</p>

Current Appointments

invasive					
Last Name	First Name	Board	Position	Term Start	Term End
Bias	Michael	Invasive Species Council (ISC)	Fishing Organization Representative	6/15/2021	5/31/2025
Charlo	Martin	Invasive Species Council (ISC)	Representative of the Confederated Salish and Kootenai Tribes (CSKT)	6/15/2021	5/31/2025
Christiaens	Bryce	Invasive Species Council (ISC)	Representative of County Weed Districts	8/1/2017	5/1/2023
Cloninger	Bob	Invasive Species Council (ISC)	Department of Transportation Director or Designee	9/13/2019	5/1/2023
Cobell	Gerald	Invasive Species Council (ISC)	Representative of the Blackfeet Nation	10/16/2020	5/1/2023
Gannon	Amy	Invasive Species Council (ISC)	Department of Natural Resources and Conservation (DNRC) Director or Designee	8/1/2017	5/1/2023
Gopher	Brandon	Invasive Species Council (ISC)	Rocky Boy Representative	6/15/2021	5/31/2025
Headdress	Charles	Invasive Species Council (ISC)	Fort Peck Representative	6/15/2021	5/31/2025
Longknife	Dennis	Invasive Species Council (ISC)	Representative of the Fort Belknap Indian Community	5/1/2021	4/30/2025
Mangold	Jane	Invasive Species Council (ISC)	Montana State University (MSU) Extension Representative	8/1/2017	5/1/2023

Last Name	First Name	Board	Position	Term Start	Term End
Pelej	Jenny	Invasive Species Council (ISC)	Designee of the Department of Commerce	7/14/2023	6/1/2025
Reimer	Jasmine	Invasive Species Council (ISC)	Department of Agriculture Director or Designee	3/13/2020	5/1/2023
Ricklefs	Sara	Invasive Species Council (ISC)	Conservation Organization Representative	7/25/2023	5/1/2027
Rossignol	Paul	Invasive Species Council (ISC)	Wildlife Organization Representative	6/15/2021	5/31/2025
Tyrrel	Steven	Invasive Species Council (ISC)	Representative of Agriculture	7/25/2023	5/1/2027
Wanderaas	Steve	Invasive Species Council (ISC)	Chair and Representative of Conservation Districts	7/25/2023	5/1/2027
Welch	Andy	Invasive Species Council (ISC)	Representative of Hydropower Utility Industry	6/15/2021	5/31/2025
Whiteman	Gail	Invasive Species Council (ISC)	Representative of the Crow Nation	1/5/2018	5/9/2021
Woolf	Tom	Upper Columbia Conservation Commission (UC3)	Representative of the Montana Invasive Species Council	6/7/2021	4/30/2025
Woolf	Tom	Invasive Species Council (ISC)	Department of Fish, Wildlife and Parks Director or Designee	6/15/2021	5/31/2025

Current Openings

Upcoming Openings

invasi				
	Board ▲	Position ▼	Term Length ▼	Intended Start Date ▼
Apply Now!	Invasive Species Council (ISC)	Invasive Species - Representative of the Little Shell Tribal Government - 5/9/2017		ASAP
Apply Now!	Invasive Species Council (ISC)	Invasive Species - Representative of Northern Cheyenne Tribal Government - 5/9/2017		ASAP
Apply Now!	Invasive Species Council (ISC)	Representative of the Crow Nation		ASAP
Apply Now!	Invasive Species Council (ISC)	Representative of County Weed Districts	4 Years	ASAP
Apply Now!	Invasive Species Council (ISC)	Department of Transportation Director or Designee	4 Years	ASAP
Apply Now!	Invasive Species Council (ISC)	Representative of the Blackfeet Nation	4 Years	ASAP
Apply Now!	Invasive Species Council (ISC)	Department of Natural Resources and Conservation (DNRC) Director or Designee	4 Years	ASAP
Apply Now!	Invasive Species Council (ISC)	Conservation Organization Representative	4 Years	ASAP
Apply Now!	Invasive Species Council (ISC)	Montana State University (MSU) Extension Representative	4 Years	ASAP
Apply Now!	Invasive Species Council (ISC)	Department of Agriculture Director or Designee	4 Years	ASAP

MISC Environmental DNA Panel Discussion
Montana Fish, Wildlife & Parks Region 2 Office
3201 Spurgin Rd, Missoula
September 14, 2023

Panel Speakers:

- Jon Amberg. USGS, Upper Midwest Environmental Sciences Center
- Gordon Luikart. University of Montana, Flathead Biological Station
- Taylor Wilcox. USFS, Rocky Mountain Research Station

Panel Objectives:

- Provide information on what eDNA and metabarcoding are and how they are used.
- Identify strengths and challenges of using molecular tools for AIS early detection.
- Identify gaps and needs where MISC AIS funding could potentially support the development of the science.

8:30 Introductions

9:00 eDNA, Metabarcoding and other molecular techniques: What they are and how they are used to detect invasive species? (Jon Amberg)

9:45 Gordon Luikart: Evaluating methods to improve qPCR sensitivity.

10:00 Taylor Wilcox: Using eDNA to support invasive species eradication and delineation.

10:15 Jon Amberg: Moss balls, method standardization and lessons learned.

10:30 Break

10:45 Panel Discussion and Questions

- eDNA Success Stories.
- Applying the Science to AIS Management.
- Council and Audience Questions.

Noon: Lunch

12:45 Questions and Continued Panel Discussion.

2:00 The Future of eDNA and AIS

2:30 Adjourn

Feral Swine Session and Workshop



July 18, Tuesday 1:45pm–3:30pm
Session 11b – Room 100-DE

Hog Wild: managing the threat of feral swine in our region

Cross-Border Livestock Health, Invasive Species, and Transboundary Feral Swine Working Group joint session.

Welcome and Opening Statements

- PNWER Invasive Species Working Group: Senator Van Burtenshaw, *Idaho*
Martina Beck and Emily Lomas, *British Columbia Ministry of Land, Water and Resource Stewardship*
- Transboundary Feral Swine Working Group: Kellie Sherman, *Canadian Council on Invasive Species and Co-Chair Transboundary Feral Swine Working Group*
- PNWER Cross-Border Livestock Health: Janice Tranberg, *Alberta/National Cattle Feeders Associations*

Feral Swine Economic Impacts and Risks

- Dr. Stephanie Shwiff, *US Department of Agriculture-Animal and Plant Health Inspection Service-National Wildlife Research Center (USDA APHIS)*

Panel 1: Economics and Impacts of Feral Swine

- Stephanie Shwiff, *USDA APHIS-National Wildlife Research Center*
- Dr. Wayne Lees, *Squeal on Pigs Manitoba Coordinator*
- Dale Knouse, *Saskatchewan Crop Insurance Corps*
- David Bergman- *Canada-Mexico-US Trilateral Committee for Wildlife and Ecosystem Conservation & Management-North American Feral Swine Working Group*

Facilitator: Jeanine Neskey, *USDA APHIS WS*

North American Management Action Plan

- Canada Wild Pig Strategy: Kellie Sherman, *Canadian Council on Invasive Species and Co-Chair Transboundary Feral Swine Working Group*
- Canada-Mexico-US Trilateral Committee-North American Feral Swine Working Group:
David Bergman, *Trilateral Committee Representative*

Panel 2: Feral Swine Management in Action

- Jeff Flores, *USDA APHIS WS-Oregon State Director*
- Dr. Wayne Lees, *Squeal on Pigs Manitoba Coordinator*
- Hannah McKenzie, *Wild Boar and Pest Program Specialist – Alberta Agriculture and Irrigation*
- Dr. John Tomeček, *Texas A&M University and Chair of the National Wild Pig Task Force*
- Emily Lomas, *Terrestrial Invasive Fauna Specialist, British Columbia Ministry of Water, Land and Resource Stewardship*

Facilitator: Liz Lodman, *Montana Invasive Species Council and Co-Chair Transboundary Feral Swine Working Group*

Closing Remarks and Call to Action

July 19, Wednesday - 9:30am–3:30pm

Session 14d – Room 130

Feral Swine Technical Assistance Workshop and Demonstrations

Hosted by Transboundary Feral Swine Working Group, USDA APHIS WS, and PNWER

9:30am–noon

Welcome and Elimination Stories

- Jeff Flores, *USDA APHIS WS-Oregon State Director*
- David Bergman, *USDA APHIS WS-Arizona State Director*

Feral Swine Tools for Detection, Management, and Control

- Trail Cameras
 - Jack Robertson, *Hog Eye Cameras*
- eDNA Detection
 - Jeanine Neskey, *USDA APHIS WS*
- Detector Dogs
 - Pete Coppolillo, *Working Dogs for Conservation*
 - Hannah McKenzie, *Wild Boar and Pest Program Specialist – Alberta Agriculture and Irrigation*
- Trapping Systems
 - Aaron Sumrall, *Pig Brig*
 - Rod Pinkston, *Jager Pro*

Noon–1:30pm Lunch in conference center - Ballroom 100A

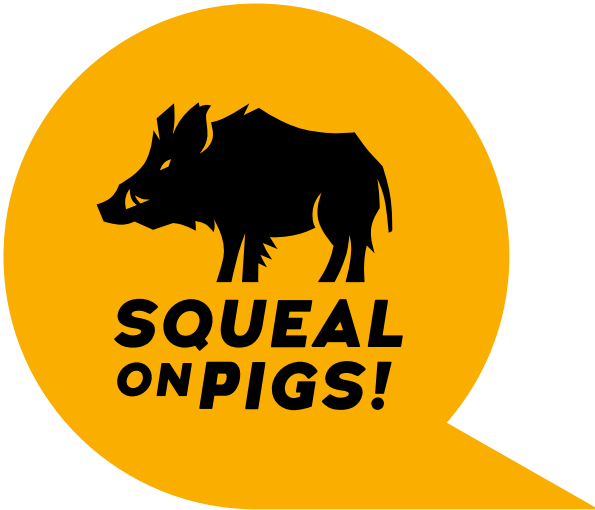
12:30pm–1:30pm Transboundary Feral Swine Working Group *informal meeting*, Room 130

1:30pm–3:30pm **Technical Demonstration Office Hours**





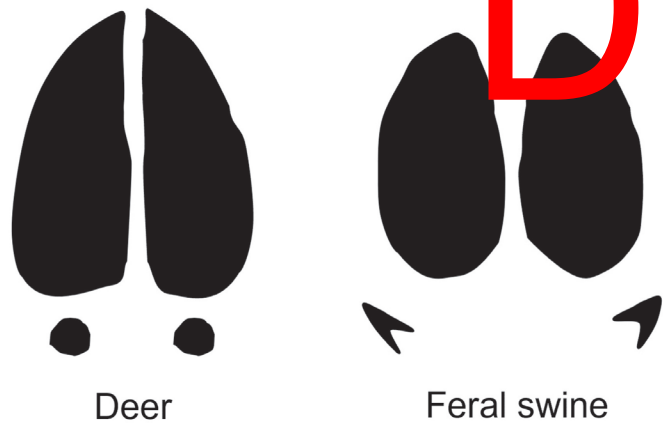
MONTANA FERAL SWINE FACT SHEET



HOW WILL I KNOW IF FERAL SWINE HAVE BEEN ON MY PROPERTY?

Signs that indicate the presence of feral swine include:

- Extensive rooting or digging when searching for food like crops, roots and earthworms. Sounders can cause rooting damage that stretches for miles.
- Wallows, especially in moist areas during summer months.
- Tree rubs for scratching and scent marking.
- Trails through dense vegetation and tunnels in brush.
- Scat or droppings vary depending on what they have eaten and may contain partially digested remnants of grains and the hair or feathers of animals they have eaten.



Tracks that look similar to deer tracks but have a more round or circular shape and are about as wide as they are long.

WHERE DO I GET MORE INFORMATION?



USDA-APHIS National Feral Swine
Damage Management Program
aphis.usda.gov



Montana Department of Livestock
liv.mt.gov
406-444-2076



Montana Invasive Species Council
invasivespecies.mt.gov
squealonthepigsmt.com



Russian or European wild boar are considered the original species of feral pigs, but domestic swine can revert to a feral state in just a few generations.

Russian and European boar (and hybrids) are listed as a prohibited exotic species in Montana. [ARM 12.6.1540]

Montana's law defines feral swine as any hog, boar, or pig that appears to be untamed, undomesticated, or in a wild state, or appears to be contained for commercial hunting or trapping. [MCA 81-29-101]



WHAT ARE FERAL SWINE?

Feral swine are an invasive, non-native species with populations spreading throughout the U.S. and Canada. Feral swine are considered one of the worst invasive species in the world.

Prolific Breeders – They can produce four to eight babies per litter and multiple litters per year.

Highly Adaptable – They can live in a variety of climates and habitats but prefer areas with an abundant supply of water and dense cover.

Devastating Impacts – They are aggressive and pose serious ecological, economic, and health threats.

Feral swine destroy habitat and agriculture land

- Wallows can affect ponds and wetlands, muddying the water and destroying aquatic vegetation.
- Fields can be trampled or stripped of crops in one night.
- They aid the spread of invasive plants.

Feral swine threatens wildlife

- Compete with wildlife for important food supplies.
- Prey on ground nesting bird eggs and young, and on some endangered species.
- Are known to actively hunt small mammals, reptiles and deer fawns.

Feral swine can spread diseases to people, pets, and livestock

- Carry diseases and parasites, such as pseudorabies, brucellosis, and tuberculosis, that can transfer to livestock and people. In livestock these diseases can cause abortion, infertility, decreased production, and high mortality in newborns animals.
- Prey on young sheep, goats and calves.

Feral swine impact the economy

- Feral swine are found in at least 39 states and cause up to \$2.5 billion in damages annually in the U.S. Costs include control efforts, agricultural production losses, and non-production losses like damage to infrastructure.



FERAL SWINE CHARACTERISTICS:

- Hair is coarse with long bristles.
- Color is generally black but can be gray, brown, blonde, red or spotted. Piglets are brown and black striped for first few weeks.
- Tail is moderately long, with sparse hair.
- Weight for females is 77-330 pounds and for males is 130-440 pounds.
- Elongated snout is flattened on the end and is tough and flexible.
- Males have four extremely sharp tusks that continually grow. The upper tusks are 3-5 inches long and usually are worn or broken from use.

WHY ARE FERAL SWINE PROHIBITED IN MONTANA?

Feral swine are an invasive species that will damage crops, pastures, and waterways. They can carry diseases that spread to livestock, people, and wildlife. Because of their destructive nature, the Montana Legislature passed laws prohibiting their presence in Montana. The Montana Department of Livestock is responsible for control and eradication of feral swine in Montana.

WHAT ARE THE SPECIFIC PROHIBITIONS PERTAINING TO FERAL SWINE?

- Importing, transporting, or possessing live feral swine
- Intentionally, knowingly, or negligently allowing swine to live in a feral state
- Hunting, trapping, or killing feral swine
- Assisting in hunting, trapping, or killing of feral swine
- Intentionally feeding feral swine
- Expanding the range of feral swine
- Profiting from the release, hunting, trapping, or killing of feral swine.



WHY IS RECREATIONAL HUNTING OF FERAL SWINE PROHIBITED IN MONTANA?

- Due to their reproductive efficiency and intelligence, swine cannot be effectively controlled by simple hunting practices.
- Hunting pressure that fails to eliminate the entire group of pigs (called a sounder) can result in further dispersal of animals.
- Feral swine that have been hunted learn behaviors to avoid hunting pressure making them harder to eradicate.
- Should a hunting constituency build, competing interests will want ongoing opportunities for hunting feral swine.
- In Montana, all reports of feral swine that involved live animals investigated by the Department of Livestock have proven to be domestically owned pigs.

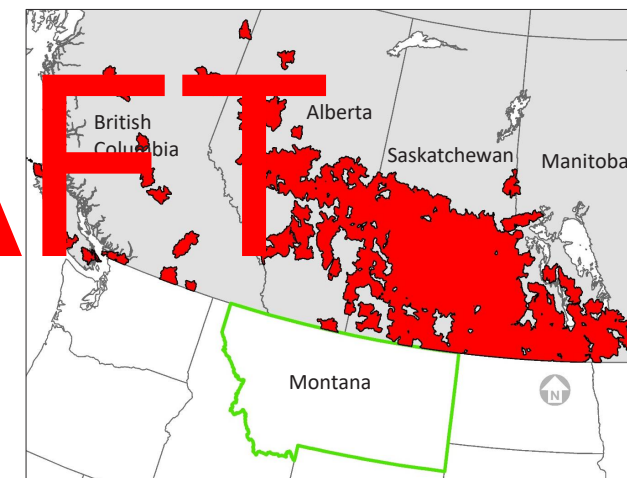
WHERE ARE FERAL SWINE FOUND?

Feral swine are not native to North America. They were first brought to the U.S. in the 1500s by early explorers and settlers as a source of food. In the 1900s, European wild boar were introduced into parts of the United States for the purpose of sport hunting and into Canada to diversify livestock production.

Today, feral swine populations are a combination of escaped domestic pigs, European wild boars, and hybrids of the two. Their expansion in the North American is due to natural migration into adjacent areas and intentional movement by humans.

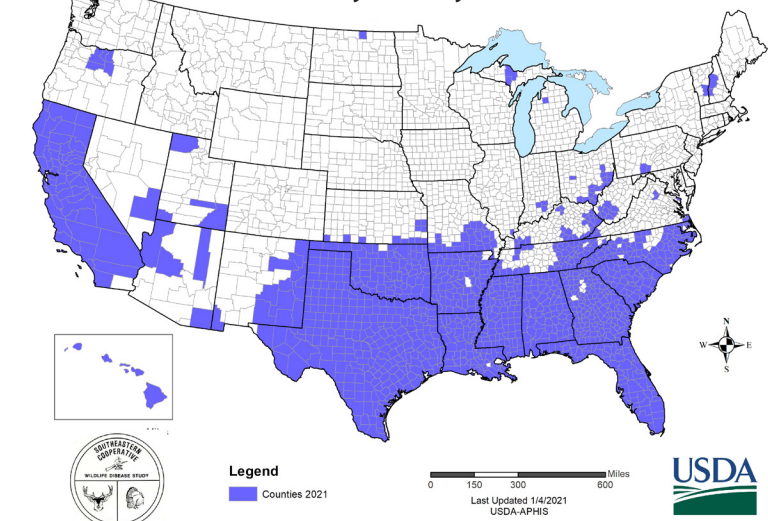
DRAFT

Canadian Wild Pig Research Project 2012-2023



UNIVERSITY OF SASKATCHEWAN | USDA | Saskatchewan Ministry of Environment | Fish and Wildlife Development Fund

Feral Swine Populations 2022 by County



Invasive wild pig occurrences from trail cameras, GPS Collars, observations, and kill sites mapped by level 9 watersheds.

Feral swine occurrences reported to USDA Wildlife Services by county.

TAKE ACTION TO PREVENT FERAL SWINE

- Report any feral swine sightings, signs, or damage to the Montana Department of Livestock at 406-444-2976.
- Help spread the word to discourage others from transporting feral swine into Montana.





Sunday, October 15th (all times are in CST) Committee Meetings are open to NAISMA members to attend unless otherwise noted.			
12:00 - 5:00 pm	NAISMA Board Meeting		
Monday, October 16th (all times are in CST) Committee Meetings are open to NAISMA members to attend unless otherwise noted.			
9:00 am - 11:00 am	NAISMA Board of Directors (Private) (Board Room)		
11:00 am - 1:30 pm	Committee Meetings		
12:00 am - 4:00 pm	Field Trips		
5:30 pm - 7:30 pm	Welcome Reception/Get to Know Your Sponsors - Meet and Greet		
Tuesday, October 17th (all times are CST)			
7:30 am - 8:15 am	Breakfast with exhibitors		
8:15 am - 9:30 am	Welcome Keynote: Dr. Patty Biaio		
9:35 am - 10:35 am	Concurrent Session - Monitoring, Detection and Management	Concurrent Sessions - Invasive Aquatic Management	Concurrent Session - Invasive Annual Grasses and Technology
10:35 am - 10:50 am	Networking break		
10:50 am - 11:50 am	Concurrent Session - Invasive Aquatic Animals	Concurrent Session - Outreach and Education	Concurrent Session - Invasives in Protected and Sensitive Sites
11:50 am - 1:00 pm	Lunch; Annual General Meeting (box lunch provided)		
1:00 pm - 3:05 pm	Special Session - National EDRR Framework	Special Session: Certified Weed Free Products	Special Session: Classical Biocontrol
3:05 pm - 3:20 pm	Networking break		
3:20 pm - 4:20 pm	Special Session: Infrastructure Bill	Concurrent Session - Outreach, Community Science	Concurrent Session - Invasive Insects
5:30 - 7:00 pm	Poster Reception (Dinner on your own)		
Wednesday, October 18th (all times are CST)			
7:30 am - 8:15 am	Breakfast with exhibitors		
8:15 am - 9:30 am	Keynote: Keynote: Dr. Janette Davis		
9:35 am - 10:45 am	Concurrent Session - Terrestrial Plant Monitoring, Detection and Management	Concurrent Session - Invasive Plants	Special Session - Regional Invasive Species and Climate Change Network
10:50 am - 11:50 am	Concurrent Session - Aquatic Plant Detection, Monitoring, and Management	Concurrent Session - Biocontrol	
12:00 am - 4:00 pm	Field Trips		
4:30 pm - 8:00 pm	Not A Banquet Award Ceremony and Book Signing		
Thursday, October 19th (all times are CST)			
7:30 am - 8:15 am	Breakfast with exhibitors		
8:15 am - 9:30 am	Closing Day Keynote: Platte River Timelapse Project		
9:35 am - 10:35 am	Concurrent Session - Monitoring, Detection and Management	Concurrent Session - Invasive Aquatic Monitoring	Concurrent Session - Invasives and Climate Scenarios
10:35 am - 10:50 am	Networking break		
10:50 am - 11:50 am	Concurrent Session - Novel Approaches Towards Invasives	Concurrent Session - Outreach and Education	Concurrent Session - Aquatic Monitoring Methods
11:50 am - 1:00 pm	Lunch (on your own)		
1:00 pm - 3:05 pm	Special Session: Island Biosecurity	Concurrent Session - Policy, Legislation, Economics	Concurrent Session - Invasive Annual Grasses
		Concurrent Session - Mapping, Surveying, and Monitoring	Concurrent Session - Education, Outreach, and Communication
3:10 pm - 3:30 pm	Nebraska Session	Nebraska Session	Nebraska Session
3:35 pm - 3:45 pm	Concluding Remarks		

AQUATIC INVASIVE SPECIES (AIS) TEACHER WORKSHOP

Montana Fish, Wildlife, and Parks and the Flathead Lake Biological Station invite K-12 teachers to a teacher workshop to learn about Aquatic Invasive Species threatening Montana's waters.



Explore seven AIS lessons



Learn from local scientists

APPLY AT:

<https://fwp.mt.gov/ais/teacher-workshop>
*Apply by July 15, 2023

