

Montana Invasive Species Council

Meeting Materials Packet for December 2, 2020

Contents

Note: Documents are hyperlinked for ease of navigation

- 1. Meeting Agenda for December 2
- 2. September 3, 2020, Meeting Minutes
- 3. Feral Swine Final Fact Sheet
- 4. 2020 AIS Grant Applications, Cycle 2
- 5. 2021 North American Invasive Species Management Assn., Save the Date
- 6. Xerolenta obvia Science Advisory Panel, Workshop Agenda
- 7. 2021 Invasive Species Legislation
- 8. FY20 MISC Accomplishments Report

AGENDA

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



WEDNESDAY, December 2, 2020 9:30 a.m. - 9:40 a.m. WELCOME AND INTRODUCTIONS **Chair Bryce Christiaens** Roll call and confirm quorum 9.40 am - 9.50 amADMINISTRATIVE BUSINESS *ACTION: September 3, 2020, meeting minutes 9:50 a.m. - 10:10 a.m. FERAL SWINE UPDATES Dr. Tahnee Syzmanski, Assistant State Veterinarian, Department of Livestock **AQUATIC INVASIVE SPECIES** Tom Woolf-AIS program update 10:10 a.m. - 10:30 a.m. Stephanie Criswell-AIS grant program update Kate Wilson–Upper Columbia Conservation Commission update 10:30 a.m. - 11:00 p.m. PROGRAM UPDATES 2021 North American Invasive Species Management Assn. Conference Xerolenta obvia (Xo) Science Advisory Panel Education and outreach and events 11:00 p.m. – 11:20 p.m. 2021 LEGISLATIVE SESSION Education and outreach Proposed invasive species legislation 11:20 p.m. - 12:00 p.m. WRAP-UP AND ADJOURN Agency and partner updates *Public comment

This meeting is open to the public. The most current meeting information including meeting materials are available on the MISC website at: https://invasivespecies.mt.gov/misc/meetings-schedule.

Members of the public who wish to participate via Zoom may do so by emailing a request with your name to shawna.swanz@mt.gov. Instructions for joining and participating will be sent by 5 p.m. the day before the meeting.

*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 shawna.swanz@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 Shawna Swanz at 406-444-2613 or shawna.swanz@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/ Project Name:	MISC		
Date of Meeting:	September 3, 2020	Time:	8:40 AM
Minutes Prepared By:	Shawna Swanz and Stephanie Criswell	Location:	Virtual, Zoom, Recorded
Attendees			

MISC Voting Members: Bryce Christiaens (Missoula County Weed District – Chair), David Brooks (Montana Trout Unlimited), Bob Cloninger (MDT), Anna Forseth (DOL), Amy Gannon (DNRC representative), Leigh Greenwood (TNC), Dennis Longknife (Fort Belknap), Jane Mangold (MSU-Ext.), Jasmine Reimer (MDA Representative, MT Noxious Weed Coordinator), Jan Stoddard (DOC representative), Steve Tyrrel (Agriculture) Steve Wanderaas (CDs), Andy Welch (Hydropower), Tom Woolf (FWP)

MISC Federal Partners: Gary Adams (USDA-APHIS), Michelle Cox (USFS), Monica Pokorny (USDA-NRCS),

Other Attendees: Cassidy Bender (DNRC), Sarah Carlson (Legislative Audit Division), Erik Hanson (Confederated Salish and Kootenai Tribes), Lauri Hanauska-Brown (FWP), Stacy Hoehn (USFWS Missouri River Basin (IR5) & Upper Colorado Basin (IR7), Liz Lodman Stine (FWP), Phil Matson (Flathead Lake Biological Station), Bryce Maxell (MT Natural Heritage Program), Sara Owen (MT Natural Heritage Program), Liv Stavick (Missouri River Conservation Districts Council), Hope Stockwell (Legislative Services Division), Kate Wilson (DNRC-Upper Columbia Conservation Commission), Unidentified: 1406****552, 1406****384, 1406****529

Agenda and Notes, Decisions, Issues		
Торіс	Discussion	
Welcome & Introductions	Bryce opened the meeting at 8:40 a.m. Stephanie conducted roll call. Quorum confirmed.	
Annual report and FY20 Budget closeout	Stephanie reported that the FY20 Annual Report will be to the designer by end of September with features on the Squeal on Pigs Campaign and Feral Swine Summit, the <i>Mogulones</i> <i>Crucifer</i> Science Advisory Panel, new website, and AIS Grant Program Cycle 2. The final FY20 budget and expenditures (see meeting materials) were reviewed and discussed. Travel budget adjusted due to reduced travel following COVID-19 restrictions. Xo science advisory panel budget dollars reprogrammed from travel and onsite meeting to a video production and virtual facilitator. Over-expenditure of FY20 allocation due to new contracts that used accrued FY 20 funds and FY21 funds.	
January 8, 2020 meeting minutes and April 9, 2020 Grant Hearing minutes approval	Meeting minutes were distributed via meeting packet for review prior to meeting. Motion: Steve Wanderaas motioned to adopt minutes from the January 8, 2020, meeting and April 9, 2020, AIS grant hearings. Second: Jane Mangold Discussion: None Public comment: None Action on motion: Motion passed unanimously	

All-taxa guideline adoption	An overview of the recommended updates to the <i>Notification and Reporting</i> sections of the All-taxa guidelines was provided. The edited guidelines were developed by a small working group of council members. Council came to consensus on other sections of the guidelines at the October 17, 2019 meeting
	The revised sections (included in meeting packet) provide consistency with the reporting website page at invasivespeciesmt.gov and outline a more logical, streamlined reporting process, including an example of a report. Stephanie did a quick virtual overview of the web page.
	ACTION: check reporting tree pest link (done)
	Motion: Leigh Greenwood motioned to formally adopt the State of Montana's Rapid Response Guidelines including the edited notification and reporting sections. Second: Jane Mangold Discussion: None
	Public comment: None
Feral Swine	Action on motion: Motioned passed unanimously Anna Forseth reporting for Dr. Tahnee Syzmanski, Assistant State Veterinarian, Department of
Updates	Livestock
	Highlights/Updates:
	In July there was a presentation to the Canadian Invasive Wild Pig Campaign's operation group about MTs efforts to keep feral swine out of the state. Multiple provinces were represented with varying degrees of feral swine presence. Information about the Squeal on Pigs campaign was shared during the presentation.
	The Fact Sheet is finalized and it will be printed and available for distribution this fall.
	DOL submitted an article on Feral Swine to MSU Extension which was published in their Summer 2020 <i>Lives & Landscapes</i> magazine. <u>https://apps.msuextension.org/magazine/articles/5469</u>
	There has been an increase in calls reporting possible feral swine presence. A couple of examples include 1) unusual turf damage reported in the Big Fork area, but no contact information for the reporting party, however USDA Wildlife services and FWP field staff were made aware to follow-up on the report; 2) Flathead county caller reported a piglet found dead in their driveway. After DOL staff reviewed a photo submitted by the caller, staff determined it was a domestic breed.
	Work is being done to provide consistency in communication internally. An email notification list has been created, so all appropriate parties are notified when a report is made.
	Overall, good news so far on feral swine.
	Discussion:
	Anna and Tahnee were complemented on a nice job describing and explaining in the Extension magazine article the reasons why hunting is not a viable approach to dealing with feral swine.
	Following Anna's update, Stephanie shared information on the Western Governors' Association Feral Swine Transboundary Working Group Committee with its end goal of providing recommendations on how to better manage transboundary feral swine issues. A development from this working group is that the Saskatchewan government, the Alberta Invasive Species Council, the Manitoba and British Columbia governments, and the Canada Wild Pig Initiative (nationally for Canada) have already or are in the process of adopting the Squeal on Pigs campaign. Idaho, Washington, and Idaho are also using the campaign.

FY21 Budget	A budget worksheet for MISC was provided in the meeting packet to start discussion on how to allocate the FY21 budget. The FY 21 budget was previously approved as part of the 2021 biennium budget but needs adjustments due to COVID-19 effects including travel restrictions and many events going virtual.
	\$37,906 remains in the budget to allocate (see previous discussion on FY20 final budget expenditures)
	Discussion followed about how to deliver E&O in light of COVID since traditionally the council has done much of it through in-person events. See meeting packet for the status of FY21 outreach events and those attended in FY20. In FY20, 1/3 of the E&O budget was spent on event-related activities.
	Suggestions included:
	 Digital kiosks at trailheads Virtual sponsorship Digital banner/booth at organization's virtual conference could be good investment in MISC E&O. Target print advertising Videos—have been more effective for MSU-ext. than traditional print advertising gauged by comments and interest
	Discussion about the effectiveness of virtual sponsorship. Overall, consensus that other methods of E&O would be more effective.
	There was some preliminary discussion about allocating the budget including allocating funds for virtual registration fees, video production, and additional print materials in place of travel and registration for inperson events. State, county and federal agencies have travel restrictions including mandatory travel only, so staffing booths is not possible currently.
	Discussion about the need to finalize and vote on budget. Bylaws or statute do not address budget, so council has flexibility to keep fluid and adjust as needed. Consensus to hold off on registering for any events for now and reassess during the December meeting. If things improve, executive committee can make decisions on events in the meantime.
	The Executive Committee will continue discussions on how to conduct and budget E&O activities until Dec. meeting. Council encouraged to continue to share opportunities and ideas.
	No motion taken. Action: add FY21 budget to December agenda.
White-Nose	Lauri Hanauska-Brown, Nongame/T & E Bureau Chief, Fish, Wildlife & Parks
Syndrome Presentation	Power Point: <u>https://prodinvasivespecies.mt.gov/Portals/220/misc/documents/MISC Sept 2020 WNS and</u> Pd Lauri H-B.pdf?ver=2020-09-14-152010-480
	(Pseudogymnoascuc destructans) Fungus appears a couple of years before bats are found with the disease. Medora, ND, confirmed 20 bats this spring that have died from White Nose Syndrome (WNS). Disease kills during winter hibernation period or soon after.
	There was planned capture of live bat samples in 11 counties for spring 2020 but decided to close all live bat handling due to COVID-19 restrictions; didn't know if humans could actually transfer Sars-CoV-2 to the bats.
	Instead, sampling was done with bat guano and environmental samples in 12 counties. Didn't find any dead bats but did find positive results in seven counties.
	Glacier National Park has different admin system and were able to capture live bat samples this spring at a couple of different sites with results coming back negative.
	Positive detections in the largest hibernacula in Montana in Phillips county did lead to sampling in late June at Azure Cave. No bats were found to be positive and did not find any sick or dead bats, but BLM was collecting guano at the entrance of the cave and did have a positive for the fungus. FWP suspects to find

	dead bats next year or the year after that based on 2-3-year window; until fungus begins to impact individuals.
	Sites previously sampled that were unable to visit this year include a couple of cave sites in Lewis & Clark and Cascade Counties. One in Lake County on the Salish and Kootenai Tribal Lands, Lewis & Clark Caverns in Jefferson County, and some caves in Carbon County. Can't say if the fungus is there in previously sampled sites. Due to limited resources and sampling requests from the National Health Center we are unable to sample this year. Expect Health Lab to move leading edge target counties to the west next year. Bozeman health lab would like to sample at previous sitesworking on trend analyses and larger project over the next eight years to determine if there is any change in bat distribution due to WNS.
	Laurie also shared information on bats and COVID. Risk assessment findings after a study are Non- negligible Risk Transmission. Highest Risk: Rehabilitation actives (none in MT) Medium Risk: Research & Monitoring, Lowest but sill non-negligible: Wildlife control operators. Complex issue with PPE availability, etc.
	Montana bat sampling teams and caving community have been vocal about taking a break during COVID to help keep both humans and bats safe.
	Sampling discussion about disease jumping from OK to WA and CA. Could be human movement, could be trains, camper awnings, trucks or bats could be moving on their own. No proven known cause of movement.
	From a human assisted spread perspective, Lauri identified Lick Creek Cave outside of Great Falls where Malmstrom AF Base conducts tours and Lewis & Clark Caverns with over 50,000 visitors a year. L & C Caverns conducts pre-screening. Lick Creek Cave will soon be gated and locked with access from Forest Service. These sites will probably be sampled next year, if funding is available for kits and results.
Terrestrial Weed	Jasmine Reimer, State Weed Coordinator, Department of Agriculture
Update	 New invaders Medusahead infestation in Gallatin Co. was found at the fairgrounds in 2019 and was treated. Currently, being monitored by the County WD and fairgrounds keeper. It was either bought in on straw to fairgrounds or was seeded during a fairgrounds project, but no there was seed lot so thread count got cut. No plants have been found this year.
	Phragmites population found in in Lake County. Was surveyed and treated in 2019; MDT, CSKT and Missoula Co. are working together on the infestation; site was monitored and treated again this summer. CKST fisheries tech found the outbreak. Possible Phragmites outbreak in Rosebud Co. Samples are on the way for identification. More to come.
	Weed Listing Petitions are now accepted on a rolling basis with first review in October. Petitions are due Sept. 30 for first review. No petitions have been submitted to date. MDA will hold a meeting with the review committee to assess species already on the list this fall. Jasmine will send out invite this fall when she has a date.
	Esplanade - Rejuvra The emergency label for Esplanade 200SC for use on grazed land in the treatment of ventenata and medusahead has expired and is not being extended.
	Rejuvra has replaced Esplanade with no grazing restrictions and includes some of our more invasive grasses including bulbous bluegrass, ventenata, cheatgrass, medusahead, and jointed goatgrass. Rejuvra has been approved by EPA and Montana. Steve Tyrell noted that herbicide distributors are just beginning to supply Rejuvra.
	Western Governors' Association (WGA) Invasive Grass Toolkit The WGA released a toolkit for Invasive Annual Grass Management in the West. Toolkit includes a roadmap (best management practices for identification, protection, and expansion of the core; case studies from ID and WY; an analytical tool that uses federal data to help asses extent of invasion on the landscape and identify the degraded state, transition state and the intact core). Available at:

https://westgov.org/news/article/wga-introduces-toolkit-for-invasive-grass-management-in-the-west#:~:text=Read%2C%20download%20the%20toolkit.,damage%20to%20western%20working%20lands...

Weed Free Materials Legislation

MDA has recently gotten approval to move forward on creating a weed free materials program for the state. Materials will include products outside the forage program like gravel, straw mats, mulch, and other construction and restoration materials. It will be much like the Noxious Weed Seed Free Forage program, a volunteer program. MDA will work with regional partners and NAISMA to create a training program for inspectors and producers/owners, create statewide inspection protocol, tracking, and fees, and work with county and extension agents to have a statewide network of inspectors.

Producers/owners and counties have been asking for a statewide program for years and now that federal agencies are requiring certified materials for bids and MDT is on board, we are moving forward with the legislation.

MISC will be an essential supporter of any bill brought forward, and once the bill language is drafted, Jasmine will reach out to partners for feedback.

It was noted that the Forest Service had to update regional Weed Free Forage order so changed the title to Weed Free Material.

Palmer Amaranth Listing

MDA made an emergency rule change to the Restricted Seed List as part of the Seed Act. Palmer was added in anticipation of contaminated seed being sent to MT because several of our neighboring states have either listed it as a restricted weed seed or as a noxious weed. No palmer plants have been identified in MT to date, but seed has been found in Custer Co. Some of the seed that came in with millet was planted and customers were contacted and are cutting plants prior to seed set and fields are being monitored by MDA staff, the lots that were not planted were either destroyed or further cleaned.

Unsolicited Seeds

MDA is working with USDA on receiving and getting seeds tested. No MT noxious weeds have been found to date, but some crop seeds have and are being tested for possible pathogens (lentil, pea, corn). Seeds are being tested by both MT and the USDA. Seeds can be sent to the USDA office in Helena.

Noxious Weed Trust Fund Grants

- \$1,700,091 has been awarded to grants in 2020
- 45 local cooperative projects were funded at a total of \$1,154,600 or 68%
- 10 research projects were funded at \$265,556 or 16%
- 12 educational projects were funded for \$279,935 or 16%.
- Funding opportunities for 2021 are posted including emergency grants. No E-grants have been submitted to date. E-grants close November 1, other grants due January 6.

Fall Pesticide Training

MDA is not conducting in person trainings this fall, all will be remote. Live webinars, recorded webinars, and pre-recorded training episodes for those who need recertification credits to maintain their pesticide license in good standing. Categories that expire: Aerial, Ag Plant Pest, Mosquito Abatement, Public Health Pest, Ag Animal Pest, and Sewer Treatment.

MWCA Trainings

Board is meeting to discuss fall training and the annual conference. Most likely fall will be either cancelled or held online, and they are looking into a tri-state annual conference with Wy and ID. More details to come.

Discussion:

Sanders Co. hurdles for managing blueweed population. Sanders Co. does not have a consistent Weed Coordinator but a commitment to begin treating. Blueweed is on steep hillsides and difficult to reach. It is a big priority for Sanders county.

Suggestion to be prepared for a blueweed rapid response.

	Extension Service Cropland Weed Specialist went to Roosevelt Co. where there was a report of Water Hemp, another amaranth species. They found some growing in a wheat field and in an adjacent sugar beet field. First documented case of Water Hemp in Montana. The Extension's September <i>Weed Post</i> includes the findings. Question about status on Russian Olive in Montana. Jasmine noted Russian Olive is a restricted weed in Montana and comes up for discussion every year. Some counties have treated Russian Olive, especially by river corridors, but no state-wide push or list when growing by water. The list is not set up to address that.
Program Updates Need to rework this section with audio	 NAISMA Conferences MT conference co-sponsored by MISC was postponed. Instead the 2020 conference will be delivered virtually, October 6-8. MISC can pay registration fees for Governor-appointed MISC voting members. Contact Shawna or Stephanie to be included with MISC group registration for the meeting. MISC will co-host the 2021 conference in Missoula late October. Conference theme will be Transboundary Cooperation. Kate and Stephanie are co-chairing the event. More information to come when available. MISC's NAISMA membership includes access to their resources. For example, PLAY. CLEAN. GO materials.
	 Xo (<i>Xerolenta Obvia</i>, Eastern Heath Snail) Science Advisory Panel (see handout in meeting packet) MISC's third Science Advisory Panel, 1) eDNA for invasive mussels, 2) <i>Mogulones crucifer</i> 3) Xo 8 confirmed panelists, more than usual with a couple of panelists from Australia with experience on three similar species of snails and their impacts Questions for panelists were developed and distributed, answers have been consolidated, common themes developed and reviewed for discrepancies and gaps. Report is out for review with panelists. Once approved, a workshop agenda will be developed for a virtual event. An 8-minute video is being produced as a primer for panelists which will include history, background, etc. with context for Montana. Some video already complete. A contractor will manage the facilitation of the three-day science advisory panel workshops to be scheduled in early December 2020, which will then conclude with recommendations.
Aquatic Invasive Species Updates	 Tom Woolf-AIS Bureau Chief Check Stations Winding down for the season; stations being closing Labor Day; some will operate through November if necessary. Record 116,000 inspections so far this year. 113,000 total last year. 27 mussel-fouled vessels intercepted so far this year; 16 last year. Most recent interception at Nashua station near Fort Peck. A kayak coming from Michigan going to Glacier National Park with a mussel on it. Emphasize on checking non-motorized watercraft. COVID-19 safety protocols have been implemented. Wearing masks, social distancing, cleanliness. A challenge, with the heat and masks, causes the need to slow down. Targeted Enforcement: 266 citations issued so far this season with 290 warnings. Targeting enforcement to areas where there were compliance issues in the past.
	 there were compliance issues in the past. AIS surveys No Zebra/Quagga Mussels evidence has been detected so far this season. Sampling continues through the Fall, including eDNA sampling, divers, mussel detection dogs up the Tiber. New detections: Faucet snails, New Zealand mud snails, curly-leaf pond weed New Zealand mud snails in the Blue Water Fish Hatchery outside of Bridger First detection at FWP hatchery in the state. Drastic measures to shut things down. Most likely worked their way upstream from the hatchery.

 Tightening biosecurity at all FWP hatcheries in the State.
 Detection at Blue Water was found during review of current protocols
 A stronger, tighter protocol will be developed
AIS Outreach Program
 Messages on TV, Radio, and Social Media
 Recognition to Steve Tyrrel for aquatic invasive species video directed toward irrigated
agriculture. The video will be distributed when it is finalized.
 Reports of Snapping Turtle
 Working with partners on outreach emphasizing the Don't Let it Loose campaign
AIS National
 South Dakota has had two more water bodies this season with Zebra Mussels. They now
have 4-5 total water bodies.
 Ramping up their program, additional funding, MT FWP working closely to see how
the program can be expedited.
Photo shared of snapping turtle in Missoula. FWP was contacted.
The importance of reporting quickly and not encouraging the public to take action on their own
highlighted. FWP continues to work on monitoring, reporting, multi-species (snapping turtles, bull frogs,
red-ear sliders) education and outreach and move towards eradication.
The second second free second s
Tom expressed need for continued, aggressive education and outreach so the community knows how to
report, understand the mission, etc.
Increased use of non-motorized watercraft this year. Dennis requested excitations from EWD surveying
Increased use of non-motorized watercraft this year. Dennis requested assistance from FWP surveying launch areas at Ft. Belknap when COVID restrictions are lifted.
autor areas at Ft. Deixnap when COVID restrictions are inted.
AIS Grant Program Updates
 Cycle 1 ended early 2020 with grant hearings in April.
\circ \$222,651 awarded
 All but one project under contract
 Lower Musselshell Conservation Grant still working on scope of work with CEMIST
 Some project reports have been received, next round of project reports will be end of
September.
 Cycle 2 opened August 25, deadline October 19
 Review committee updated guidelines. <u>https://invasivespecies.mt.gov/montana-invasive-</u>
species/Aquatic-Invasive-Species-Grant-Program
 Main change Conflict of Interest section and ranking criteria
 Updated application.
 Main goal for updates was to allow for better quality applications and make applications
more consistent for reviewers.
 Discussion about when to hold Cycle 2 grant hearings. Next meeting is December
2. Could hold in conjunction with business meeting or schedule for a different
timeframe. Consensus to hold off until we know how many applications are
submitted to determine how much time will be needed for hearings.
с. С
Dept. Of Commerce sent grant information via Friday Flash that reaches 800 tourism and economic
development partners across the state. Received some calls, could possibly help with community-based
initiatives.
UC3 Updates
UC3 Legislative Committee met in January 2020 to discuss moving recommendations forward from
MISC's 2018 Law Review and discussion at the2019 FWP AIS summit.
UC3 sent a letter to FWP and DNRC directors outlining 5 areas where improvements could be made.
Have since met and are moving towards bill drafting for recommendations as follows:
Creating an Aquatic Invasive Species List with FWP having the authority to manage that list in the
future.

	AIS Trust Fund. Currently the fund cannot be utilized until it reaches \$100,000,00. At current deposit rate it could take 50 years to reach the cap. Recommendation is to lower to be more like noxious weed trust fund where interest from the funds could be used in more timely manner. This recommendation has been tabled for the upcoming session.
	Higher penalty for AIS watercraft inspection station drive-by . Current bond/ticket first offense amount is \$85. Second offense \$750. Concern among stakeholders that first time offense amount is not enough of a deterrent to keep people from skipping stations. Discussions and information gathering continue following meetings with Legislative committee and FWP enforcement.
	Pull the plug rule. Not much different than what is in place now but think it would be easier to enforce and comply with to create a better floater experience at the inspection station. Pursuing as an agency or committee bill.
	Non-resident boater prevention pass . Following FWP enforcement meeting, this issue will be addressed internally.
Agency and Partner Updates	Discussion and comments provided about the invasive seeds being sent from China. Shipments have been sent nationwide including Montana. USDA-APHIS could provide a guest speaker to discuss issue in future. Call for public comment: none
Wrap-up Adjourn	Motion: Steve Wanderaas moved to adjourn the meeting. Second: Andy Welch Discussion: None Public comment: None Action on motion: Motion passed unanimously Meeting adjourned: 11:57 am



WHAT ARE FERAL SWINE?

Feral swine are an invasive, non-native species. Over time, pigs have escaped or were released intentionally, creating free-ranging feral swine populations in the United States and Canada. Prolific breeders, they can produce four to eight piglets per litter and multiple litters per year. Feral swine are highly adaptable but prefer habitats with an abundant supply of water and dense cover. They are aggressive and pose serious ecological, economic, and health threats.

Species like the Russian or European boar were brought to the United States as domestic pigs from Europe and Asia and are considered the traditional species of feral swine. Both species, as well as hybrids, are prohibited under Administrative Rules of Montana (ARM).

Domestic swine species can also revert to a feral state in just a few generations. Because of this, Montana's laws defining feral swine do not include a genotypic definition. Instead, feral swine in Montana include 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.



Berryman Institute, Utah State University

WHO IS RESPONSIBLE FOR THE MANAGEMENT OF FERAL SWINE IN MONTANA?

The 2015 Legislature gave authority over the control and eradication of feral swine to the Department of Livestock (DOL). Since that time, DOL has worked closely with Montana Fish, Wildlife & Parks (FWP), the United States Department of Agricultures' Wildlife Services (USDA-WS), and the Montana Invasive Species Council (MISC) on preventing feral swine introduction into Montana.

WHY ARE FERAL SWINE PROHIBITED IN MONTANA?

Feral swine are an invasive species that damages crops, pastures, and waterways, and these animals can carry diseases that spread to livestock, people, and wildlife. Because of their destructive nature, DOL worked with FWP, USDA-WS, and industry to pass laws prohibiting feral swine presence in Montana. The laws were written recognizing the hunting constituency that rapidly builds after feral swine are established and the difficulty in eradicating populations once established. The law also includes penalties for violations. These include fines up to \$10,000 per violation and repayment of costs incurred in the eradication of feral swine.

WHAT ARE THE SPECIFIC PROHIBITIONS PERTAINING TO FERAL SWINE?

The following actions are prohibited in the state of Montana:

- 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 HUNTING FERAL SWINE FOR SPORT PROHIBITED?

The 2015 Legislature passed a bill banning hunting of feral swine based on the following facts:

- A group of feral swine is called a sounder. If a sounder is detected and not all of the sounder is killed, animals that escape can disperse further on the landscape and learn behaviors to help them evade further attempts at hunting.
- Feral swine are prolific breeders. Failed attempts to kill an entire sounder can lead to exponential growth of feral swine numbers. Such growth has been documented in states and provinces that allow recreational hunting.
- Experts in other states and Canadian provinces attribute the severity of their feral swine issues to recreational hunting. Once a hunting constituency becomes established, eradication becomes nearly impossible.

ARE FERAL SWINE HERE YET?

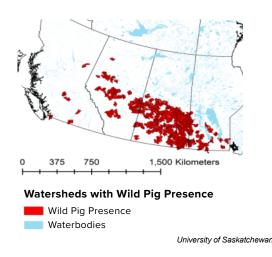
No. DOL has been working in partnership with FWP and the USDA-WS to respond to reports of feral swine in Montana. Since the prohibition was passed by the 2015 Montana Legislature, DOL has received reports from the public of possible sightings of feral swine in Montana. These reports include feral swine imported from Texas for hunting purposes, sightings by hunters along river bottoms, and reports from landowners along Montana's Hi-Line. A report of a feral swine population in north central Montana in January 2018 resulted in 13.5 flight hours looking for evidence of feral swine in the area. Fortunately, nothing was found.

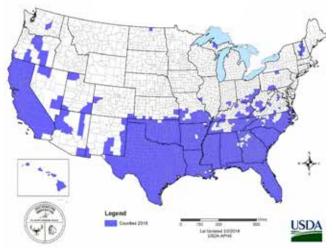


SQUEAL ON PIGS!

Canadian Distribution 2011-2017

Feral Swine Populations 2018 by County





WHERE WILL FERAL SWINE COME FROM?

Feral swine were first brought into the United States in the 1500s by early explorers and settlers as a source of food. Due to their highly adaptable nature and reproductive efficiency, the geographic range of this destructive species is rapidly expanding, and its populations are increasing across North America. Feral swine are capable of crossing land borders through natural behavioral movements. Their range has also been expanded through the illegal translocation of swine by humans and escapes from enclosures.

WHY SHOULD I CARE?

Feral swine are aggressive animals that can be extremely destructive to fields, fences, and facilities.

- Feral swine destroy habitats and young wildlife. Their wallows can affect ponds and wetlands, muddying the water and destroying aquatic vegetation. They can strip a field of crops in one night and pose a threat to ground nesting birds and some endangered species. Feral swine also aid in the spread of invasive plant species.
- Feral swine compete with native wildlife for important food supplies and prey on the nests, eggs, and young of
 native ground nesting birds and reptiles. Feral swine have also been documented eating deer fawns and actively
 hunting small mammals and reptiles.
- Feral swine spread diseases to people, pets, and livestock. Feral swine also can transmit diseases and parasites, such as pseudorabies, brucellosis, and tuberculosis, to livestock and people. In domestic animals, these diseases can cause abortion, infertility, decreased production, and high mortality in newborn animals.
- Feral swine impact the economy. Feral swine have been found in at least 39 states and cause up to \$2.5 billion in damages in the United States annually. This includes control costs, agricultural production losses, and non-production losses like damage to infrastructure.

WHAT SHOULD I DO IF I SEE A FERAL SWINE?

Report sightings to the Squeal on Pigs hotline at 406-444-2976. The eradication of feral swine in Montana is restricted to the following groups:

- Employees of DOL
- Other state or federal employees designated by the DOL

A private landowner or lessee who encounters feral swine on their land or land under their control may attempt to eradicate the feral swine if the animals pose an immediate danger to persons or property, or the animals will expand their range without immediate eradication. In this instance, the individual is still responsible for notifying DOL within 24 hours.

FERAL SWINE FACT SHEET



Bill Hamrick, Mississippi State University

Bill Hamrick, Mississippi State University

WHAT ARE THE CHARACTERISTICS OF FERAL SWINE?

- Feral swine exhibit wide variation in color and size.
- Their hair is coarse with long bristles, and the color ranges from black, gray, brown, blonde, and red to spotted combinations. Generally, they are black.
- The tail is moderately long, with sparse hair.
- The average female weighs between 77 and 330 pounds. The average wild boar weighs between 130 and 440 pounds.
- The elongated snout is flattened on the end and is tough and flexible. The males have four tusks that grow
 continually and can be extremely sharp. The upper tusks are as much as 3 to 5 inches long, and usually are worn
 or broken from use.

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

Sometimes landowners are unaware that they have had wild pigs on their property until they see an animal or until the damage is widespread. There are several specific signs that indicate the presence of feral swine:

- Extensive rooting or digging, as feral swine search for various foods like acorns, roots, and earthworms. Rooted acres can stretch many miles when sounders are involved.
- Wallows, especially in moist areas during summer months.
- Tree rubbing following wallowing behavior.
- Trails through dense vegetation and tunnels in the brush.
- Tracks in the mud near streams, ponds and spring. Feral swine tracks can be distinguished from deer tracks due to their round or circular shape, about as wide as they are long.
- Scat or droppings of feral swine can vary depending on the material eaten. Scat may contain partially digested remnants of acorns, grains, and animal material.

WHERE DO I GET MORE INFORMATION?

- SQUEALonPIGSMT.com
- fieldguide.mt.gov
- invasivespeciesinfo.gov/terrestrial/ vertebrates/wild-boar
- aphis.usda.gov/aphis/ourfocus/ wildlifedamage/operational-activities/feralswine/feral-swine-resources







	FY21 AIS Grant Applications-Due Oct	t. 17, 2020				
	Applicant	Project Name	Request	Recommended		Score
1	Missoula County Weed District	Watercraft Inspector Training Video	\$11,200			
2	Harriman Trout Company	Primary Spring Capture	\$15,000			
3	Swan Valley Connections	Voices for an AIS-Free Swan Valley	\$2,514			
4	Montana State Library	AIS Data Centralizaion and Exchange	\$17,748			
5	Montana Conservation Corps-Greater Yellowstone Region	Control to Prevent Further Spread of Non-Native Frogs and Turtles	\$50,000			
;	Invasive Species Action Network	Don't Let it Loose Campaign Expansion	\$29,131			
7	Missoula County Weed District	Fragrant Water-lily Impact Assessment	\$4,027			
3	UM-Flathead Biological Station	AIS Early Detection and Monitoring at Two High-Risk MT Waterbodies	\$47,316			
)	Clearwater Resource Council	Clearwater Region Early Detection Program	\$22,982			
	Total Amount Requested		\$199,918.00			
	Amount Availble:		\$250,722.00		\$50,804.00	
	Submitted after deadline via e-mail					
	Gallatin Invasive Species Network	CleanDrainDry in the Upper Gallatin	\$20,233.00		\$60,593	
	Lower Musselshell Conservation District	CEMISTE&O, monitoring	\$38,204.00		\$139,325	
	Little Bitterroot Lake Associaton	AIS Education and Outreach	\$15,000		\$199,918	



Save the date! 28th ANNUAL CONFERENCE Transboundary Cooperation

Sept. 27-30, 2021 | Missoula, Montana North American Invasive Species Management Association | co-hosted with the Montana Invasive Species Council





NAISMA.org/conferences



Montana Invasive Species Council

Xerolenta obvia (Eastern Heath Snail Science) Advisory Panel December 7 – 10, 2020 Zoom

Purpose: To examine the existing body of knowledge about *Xerolenta obvia* (Eastern Heath Snail), identify gaps related to its basic biology, monitoring techniques, control options, and best practices for managing pathways, and develop recommendations for a containment and management strategy to address populations in Belt, Montana and the outlying areas.

Expected Panel Outcomes:

- Review the state of science about the basic biology of X. obvia and identify gaps in knowledge.
- Identify gaps and challenges associated with containing and managing X. obvia.
- Identify information and strategies to improve management of X. obvia.
- Acquire input and guidance regarding funding sources for research and regulatory needs.
- Develop management strategies to address survey and monitoring, control options, private landowner education and outreach, and best practices for managing movement through forage, gravel, and other material pathways.
- Identify next steps to be taken by researchers, regulators, and managers regarding the containment and management of *X. obvia*.
- Discuss including snail inspection to "weed free" certification in upcoming legislation

Agenda (Times are for Montana, MST)

Day 1	Monday, December 7	Biology & Research
2:00 PM	Welcome	Bryce Christiaens
	Background and need for Science	,
	Advisory Panel on X. obvia	
2:10 PM	Introductions	Panelists
2:20 PM	X. obvia interviews and status	Video
2:25 PM	1. Population Status and Biology	Ian Foley, Administrator,
	 Overview and control efforts 	Agricultural Sciences Division,
	since the publication of the	Montana Department of
	draft EA in 2012.	Agriculture
2:40 PM	2. Montana research and	Jeffrey Littlefield, Ph.D.
	research priorities	Research Scientist, Montana State
	• Research to support	University
	management and future needs	
	for staff, facilities, and funding.	
2:55 PM	Panelist Discussion	Panelists
	Focus: Population status in	
	Montana, local snail behavior and	
	priority research areas.	
3:45 PM	Attendee Questions (via chat)	Stephanie Criswell
3:55 PM	Daily Review	Mindy Wilkinson
Day 2	Tuesday, December 8	Control Tools & Integrated Pest Management
2:00 PM	Welcome	Mindy Wilkinson
	Review Day 1 discussions and	
	ite ie w Buy i disedesions and	
	recommendations	
2:05 PM	recommendations 3. Integrated Pest Management	Helen Brodie, Agricultural
2:05 PM	recommendations	Entomologist, South Australian
2:05 PM	recommendations 3. Integrated Pest Management	Entomologist, South Australian Research and Development
2:05 PM	recommendations 3. Integrated Pest Management (IPM) and Impacts	Entomologist, South Australian
2:05 PM	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, 	Entomologist, South Australian Research and Development
2:05 PM	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to <i>X. obvia</i> 	Entomologist, South Australian Research and Development
2:05 PM	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to <i>X. obvia</i> Management: costs (chaining, 	Entomologist, South Australian Research and Development
2:05 PM	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to <i>X. obvia</i> Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness 	Entomologist, South Australian Research and Development
2:05 PM	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to <i>X. obvia</i> Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness 	Entomologist, South Australian Research and Development
2:05 PM	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to <i>X. obvia</i> Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness What early interventions could 	Entomologist, South Australian Research and Development
2:05 PM 2:35 PM	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to <i>X. obvia</i> Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness What early interventions could have changed the course of the 	Entomologist, South Australian Research and Development
	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to X. obvia Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness What early interventions could have changed the course of the establishment of the snails? 	Entomologist, South Australian Research and Development Institute
	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to X. obvia Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness What early interventions could have changed the course of the establishment of the snails? Panelist Discussion 	Entomologist, South Australian Research and Development Institute
	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to X. obvia Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness What early interventions could have changed the course of the establishment of the snails? Panelist Discussion Focus: Cost of continued spread, 	Entomologist, South Australian Research and Development Institute
	 recommendations 3. Integrated Pest Management (IPM) and Impacts Species present in Australia, similarity to X. obvia Management: costs (chaining, till, rolling, baits), environmental impacts, effectiveness What early interventions could have changed the course of the establishment of the snails? Panelist Discussion Focus: Cost of continued spread, priority compared to other pests, 	Entomologist, South Australian Research and Development Institute

Day 3	Wednesday, December 9	Response Considerations
2:00 PM	Welcome	Mindy Wilkinson
	Review Day 1 & 2 discussions and	
	recommendations	
2:05 PM	4. Regulatory status and	Brian Sullivan, Plant Safeguarding
	population control experience	Specialist, USDA APHIS PPQ
	Within-state containment	
	resources	
	• Regulations relating to	
	movement of introduced snails	
2:20 PM	Panelist Discussion	Panelists
	Focus: Experience with small	
	population removal, response	
	resources and duration, US	
	registered pesticides	
3:45 PM	Attendee Questions (via chat)	Stephanie Criswell
3:55 PM	Daily Review	Mindy Wilkinson
	· · · · ·	
Day 4	Thursday, December 10	Recommendations
2:00 PM	Welcome	Mindy Wilkinson
	Review Day 1, 2, & 3 discussions	

	Review Day 1, 2, & 3 discussions	
2:05 PM	5. Management	Panelists
	Recommendations	
	Best practices	
	• Management approach for Belt	
	• Detection and pathway	
	monitoring	
2:50 PM	6. Next Steps	Panelists
	Stakeholder engagement	
	Funding	
	Regulatory framework	
3:35 PM	Attendee Questions (via chat)	Stephanie Criswell
3:45 PM	Review Recommendations	Mindy Wilkinson
	Close	

09/10/2020 <u>LC0360</u>	Environmental Quality Council	(C) Draft in Legal Review	11/09/2020	Revise membership of the Montana Invasive Species Council
<u>LC0361</u> 09/10/2020	Environmental Quality Council	(C) Draft Request Received	09/10/2020	Clarify AIS management authority laws
09/11/2020 <u>LC0372</u>	Environmental Quality Council	(C) Draft in Edit	11/02/2020	Revising laws on mandatory decontamination of vessels with ballast and bladders
09/16/2020 LC0431	Economic Affairs Interim Committee	(C) Draft Request Received	09/16/2020	Expand materials certified under noxious weed seed free program

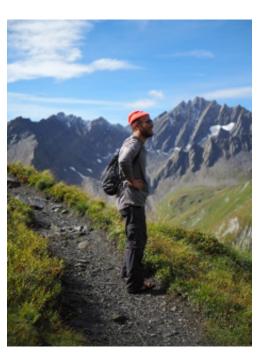
2020 MISC ANNUAL REPORT



Montana Invasive Species Council

LETTER FROM THE CHAIR

In FY20 (June 1, 2019-June 30, 2020), the Montana Invasive Species Council continued its work to implement the tasks and objectives outlined by stakeholders in the Montana Invasive Species Framework. Much of our work during this timeframe included implementation of the 2018 Law Review findings, which have culminated in potential legislation during the 2021 legislative session to address gaps related to aquatic invasive species and prevention efforts for emerging species, such as feral swine and emerald ash borer. A major focus of MISC's work in FY20 included travel to all corners of the state and points in between to provide education and outreach about invasive species and coordinate local and regional invasive species issues. MISC also expanded its regional coordination by serving on the Western Invasive Species Council. Through that effort MISC created and led a transboundary feral swine management workgroup, which aided in expanding networks with neighboring western provinces and states to address the movement of swine across the border. Early FY21 (July 1, 2020 – June 30, 2021) has been a period of transition as MISC develops plans and strategies for delivering invasive species education and outreach and accomplishing its work in a virtual world. MISC planned to co-host the 2020 North American Invasive Species Management Association annual conference. That event has gone virtual, and we look forward to co-hosting the event in fall 2021.



Bryce Christiaens, MISC Chair

Cover photo: Montana Office of Tourism and Business Development Location: The white cliffs; National Wild and Scenic Missouri River



The Montana Invasive Species Council is a statewide partnership working to protect Montana's economy, natural resources, and public health through a coordinated approach to combat invasive species.

MISC's work is guided by the objectives outlined in the Montana Invasive Species Framework, which is organized by the five tenants of invasive species management—coordination, prevention, detection, rapid response, and control. Projects are selected based on the highest priorities identified by partners, stakeholders, and the Council. MISC's FY20 accomplishments follow.

MONTANA INVASIVE SPECIES COUNCIL

COORDINATING MONTANA INVASIVE SPECIES EFFORTS

In FY20, MISC's members and staff traveled across the state to coordinate invasive species issues, provide education and outreach at events such as the Montana Stockgrowers Association and Montana Weed Control Association, and participate in meetings to share and learn about local invasive species issues.



Outreach Events and Coordination Meetings

MISC SPEAKING EVENTS

- San Diego, CA Western Plant Association Annual Meeting
- Saratoga Springs, NY North American Invasive Species Management Association Annual Conference
- Washington, D.C. Senate Subcommittee on Water and Power
- Coeur d'Alene, ID Invasive Species Innovation Conference **REGIONAL COORDINATION**
- MISC staff was appointed to serve on the Western Invasive Species Council and participates in monthly calls with Invasive Species
- Coordinators from western states to coordinate regional invasive species issues and share information.

MISC Education and Outreach Exhibition Events

PREVENTING THE INTRODUCTION OF INVASIVE SPECIES

Provided **education & outreach** statewide and regionally through the Invasive Species Bulletin, presentations at conferences, and outreach events across the state and regionally.

In partnership with Department of Livestock and the United States Department of Agriculture's Animal and Plant Health Inspection Service Wildlife Services, launched the Squeal on Pigs campaign and hosted a Feral Swine Summit.

In its role serving on the Western Invasive Species Council, established and led a transboundary feral swine workgroup to discuss gaps and develop strategies to enhance transboundary prevention and management of feral swine.

Participated in podcasts produced by the **National Invasive Species Council** and **Western Governors' Association** about invasive species threats in Montana and MISC's role in coordinating statewide prevention efforts.

IMPROVING EARLY DETECTION EFFORTS

MISC continued to partner with the Montana Natural Heritage Program to enhance **Invasive Species Data** contained in the state's Natural Resource Information Database.

Launched an all-taxa website at **invasivespecies.mt.gov** to direct the public and natural resources managers to information about invasive species early detection, as well as provide resources for all areas of invasive species management along the invasion curve from prevention to control.

In partnership with multiple state and federal agencies and organizations, produced a fact sheet about the **emerald ash borer**.

PREPARING FOR INVASIONS

Hosted its second **Tree Pest Incident Command System Tabletop Exercise** with partners and stakeholders to practice and prepare for a tree pest invasion, such as emerald ash borer.

All-taxa Rapid Response Guidelines were developed to have an on-the-ready template to be customized for any invasive species emergency.

MONTANA INVASIVE SPECIES COUNCIL

CONTROLLING INVASIVE SPECIES

Accomplished a Science Advisory Panel to guide the potential for approval of *Mogulones crucifer (houndstongue root weevil)* for classical biological control of houndstongue in the U.S. Houndstongue is a state noxious weed that is impacting land managers of private and public land across Montana.

Launched a Science Advisory Panel on *Xerolenta obvia* (Eastern heath snail) to address infestations of the invasive snail in and around Belt.



FERAL SWINE

Feral swine populations are expanding in the western provinces of Canada and are on the rise in the United States. Montana has identified this invasive species of immediate concern and has taken action to prevent their introduction. In coordination with the Department of Livestock and the USDA APHIS-Wildlife Services, MISC launched the Squeal on Pigs education and outreach campaign, hosted a Feral Swine Summit, and coordinated a series of community workshops to prevent and stop feral swine along interstate and international borders.

The Squeal on Pigs campaign is intended to raise awareness about feral swine and the threat they pose to Montana's economy, waterways, and natural resources. The effort is intended to stop the expansion of feral swine populations, inform private landowners of the need to report feral swine, provide information on Montana's laws and regulations, highlight the reasons recreational hunting of feral swine increases rather than reduces their population, and connect landowners with agencies that can provide technical assistance in feral swine management.

MISC hosted a Feral Swine Coordination Summit in November 2019 to launch Montana's Squeal on Pigs education and outreach campaign and engage neighboring states/provinces and partners to improve coordination of feral swine management to prevent introduction in Montana.



MONTANA INVASIVE SPECIES COUNCIL

SCIENCE ADVISORY PANEL

The 2017 legislature tasked MISC with creating and coordinating science advisory panels to evaluate and provide recommendations on key invasive species issues and topics. Montana land managers identified the need to scope the potential for approval of *Mogulones crucifer* for classical biological control of houndstongue in the United States and MISC supported this topic as deserving of a Science Advisory Panel in 2019.

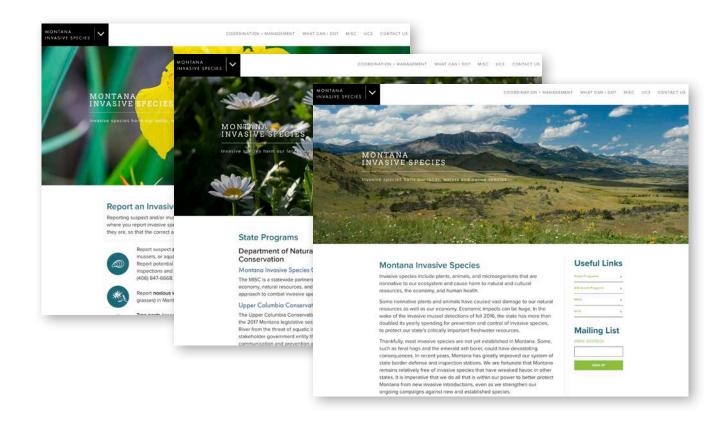
A seven-person panel of leading researchers and expert senior representatives from regulatory and management agencies was assembled to scope the potential for approval of *Mogulones crucifer* for classical biological control of houndstongue in the U.S. Efforts resulted in a set of recommendations in the process of moving toward a successful petition for the release of *M. crucifer* on houndstongue in the U.S.

MISC launched its third science panel in 2020 to examine the existing body of knowledge about *Xerolenta obvia* (Eastern heath snail) to identify gaps related to its basic biology, monitoring techniques, control options, and best practices for managing pathways; and to develop a containment and management strategy for populations in Belt, Montana, and the outlying areas. An international panel has been assembled to accomplish this work, and a virtual series of sessions will be held in early December 2020 for panelists to discuss the issue and develop recommendations on how to address *X. obvia* in Montana.



INVASIVESPECIES.MT.GOV

MISC and the Upper Columbia Conservation Commission (UC³) launched invasivespecies.mt.gov in April 2020. MISC and UC³ worked with invasive species organizations, managers and partners across the state to develop a one-stop-shop for Montana invasive species resources and information. Features of the website include information about state programs and the species they manage; educational resources for prevention; how to report invasive species, and links to field guides for all invasive species including aguatic, noxious weeds, pests and disease, and emerging threats. The goal of the website was not to recreate existing information but to serve as a 'landing page,' organizing the information in one place to direct resource managers, researchers, citizen scientists and others to reliable, accurate, and up-to-date information.





MISC FY20 Report | MISC.MT.GOV

Invasive species

awareness and

prevention ad was included in targeted publications in FY20.

Aquatic invasive species are often inadvertently spread by boats. Clean, drain and dry every time

weed

CLEANDRAINDRYMT.COM

AQUATIC INVASIVE SPECIES GRANT PROGRAM

Beginning in FY20, MISC, in coordination with the Department of Natural Resources and Conservation, began overseeing the state's Aquatic Invasive Species Grant Program. The first cycle of the new program occurred in Fall 2019, and MISC provided funding recommendations for nearly \$251,000 to support local efforts to address AIS issues. For more information about the program, visit:

invasivespecies.mt.gov/montana-invasive-species/Aquatic-Invasive-Species-Grant-Program

Save the date? 28th ANNUAL CONFERENCE

Transboundary Cooperation

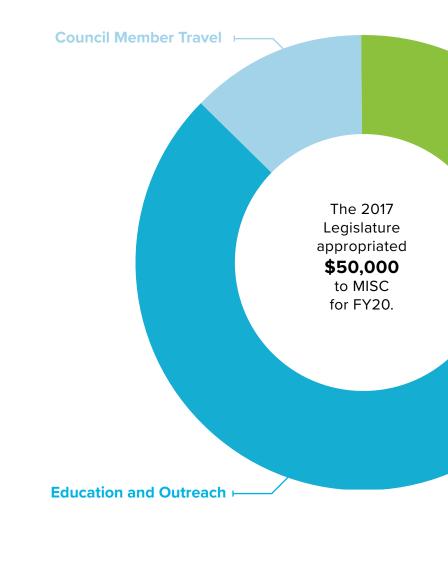
Sept. 27-30, 2021 | Missoula, Montana North American Invasive Species Management Association | co-hosted with the Montana Invasive Species Council



MISC

NAISMA.org/conferences

FY20 EXPENDITURES



North American Species Management Association/MISC Conference

Science Advisory Panels

MISC MEMBERS AND PARTNERS

MISC COUNCIL MEMBERS

Bryce Christiaens, Chair Missoula County Weed District Manager

Steve Wanderaas, Vice Chair *McCone County Conservation District*

Tom Woolf, Vice Chair AlS Bureau Chief, Fish, Wildlife & Parks

Bruce Anderson Private Landowner, Blaine County

David Brooks Executive Director, Montana Trout Unlimited

Martin Charlo Tribal Council, Confederated Salish and Kootenai Tribes

Amy Gannon Pest Management Specialist, Department of Natural Resources & Conservation

Leigh Greenwood Forest Health Program Director, The Nature Conservancy

Dennis Longknife Climate Change Coordinator, Fort Belknap Indian Community

Jane Mangold Noxious Weed Specialist, MSU-Extension

Jasmine Reimer MT State Weed Coordinator, Department of Agriculture

Mike Miller Noxious Weed Coordinator, Department of Transportation

Dona Rutherford Blackfeet Nation Environmental Office

Laurie Shafter Water Quality Specialist, Fort Peck Assiniboine & Sioux Tribes

Jan Stoddard Industry Services & Outreach Bureau Chief, Department of Commerce Steve Tyrrel Vice President/CEO, Integrated Agriculture Services

Alec Underwood Western Montana Field Rep. Montana Wildlife Federation

Andy Welch Hydropower Compliance Specialist, Northwestern Energy

Daryl Wright II Tribal Council, Chippewa Cree Tribe

Gail Whiteman Conservation Specialist, Crow Tribe of Indians

FEDERAL AGENCY PARTNERS

Gary Adams U.S. Department of Agriculture, Animal and Plant Health Inspection Service

Cara Riwai-Couch U.S. Bureau of Reclamation

Steve Bekedam Yellowstone National Park

Patricia Gilbert U.S. Army Corps of Engineers

Lynn Hurst U.S. Customs and Border Protection

Monica Pokorny U.S. Natural Resources Conservation Service

Wendy Velman U.S. Bureau of Land Management

Jessica Zarate U.S. Fish & Wildlife Service

Michelle Cox U.S. Forest Service

COUNCIL COORDINATOR

Stephanie Criswell Department of Natural Resources and Conservation

Visit misc.mt.gov for more information and to access MISC meeting archives, events, reports, publications, and more.