Montana Invasive Species Summit

October 25 & 26, 2022

Day 1.
October 25, 2022

Agency Directors' welcome

Cort Jensen – Department of Agriculture
Weed laws depend on county attorneys working with the Weed Districts to provide enforcement. When these positions are empty they are hard to fill. "The same pressures that impact programs and business across the state are there, higher housing costs, higher commute costs, and in our case the private sector pays $350/hour fees compared to our $30 PLUS these folks have to run for re-election. Ag law is not what they run on." Noxious weed laws are difficult to enforce as Montana has strong private property laws that are at odds with the requirements to take prescribed actions.

Jenny Pelej - Department of Commerce
The Department includes "Brand MT" and Tourism both of which depend on a healthy and beautiful environment. The tourism industry has supported a stewardship approach and encourages responsible tourism from Montana's visitors.

Quentin Kujala – Montana Dept of Fish Wildlife & Parks
The background work for this Summit included a listening session conducted in August 2022. A serious effort was made to reach stakeholders who came in person and participated virtually to identify the top invasive species issues and the backdrop of challenges and opportunities we face. Invasive species are an enormous issue and require a comprehensive approach.

Purpose: The MISC framework describes shared priorities.

Bryce Christiaens, MISC Chair
The Montana Invasive Species Council was established by Executive Order in 2014 then codified in statute in 2016. The statute further instructed the Council to make policy recommendations, foster cooperation, engage in regional coordination, and identify permeant funding. The first Invasive Species Summit was held in 2016 to identify the policy and coordination priorities in the Montana Invasive Species Framework which was revisited in the second Summit in 2018. This year, the 2022 Summit goal is to establish shared priorities and a work plan that clearly states the tasks we'll take on that fit our shared priorities.

WORK SESSION #1: Top 10 Invasive Species to Watch

Question: What are Montana's top invasive species and what is their impact? What group of species will clearly tell the story of why we manage invasive species in Montana?

- Zebra and Quagga Mussels
  These species will have major impacts on the ecology of Montana's waters, damage infrastructure, and are a top regional priority.

- Annual Grasses
  These species will have major impacts on the ecology of Montana's rangelands and grasslands.

- Emerald Ash Borer
  Firewood transport creates a pathway and this species will impose heavy costs on urban areas.

- Feral Hogs
  This species will impact livestock producers through predation and as a disease reservoir.

- Eastern Heath Snail
  While this is a pest of agriculture, it highlights how programs targeting plant insect pests and diseases have made it difficult to make other species national priorities.

- Grasshoppers
  The species that are responsible for the outbreaks across Montana are native and so are excluded from the official definition of invasive species. The 2020-2022 outbreaks may represent a shift in their abundance and behavior exacerbated by a changing climate.

- White-nose syndrome
  This wildlife disease can be spread through visitors to local caves that bring in contaminated soil from areas with outbreaks.

- Saltcedar (*Tamarix* spp.)
  The impacts of this species to water availability and access to Montana's rivers creates an ongoing impact.

- Flowering rush and Eurasian watermilfoil
  The spread of aquatic invasive plants highlights the need to protect shoreline areas and improve detection programs across waterways.

- Walleye
  The spread of gamefish is beneficial to a small group of advocates who promote this species but negatively impact biodiversity and other fisheries.

WORK SESSION #1: Top 10 Invasive Species to Watch continued…

- Non-native praying mantises

  These generalist predators would never be considered in a modern bio-control program but are commonly sold as natural pest control.

- Cats

  Sometimes the biggest impacts from urbanization have been with us for a long time. The ability of cats to negatively impact song birds and small reptiles is well known, their spread out from urban areas in Montana is less clear.

- Starlings

  Invasive birds have impacts that are concentrated with certain producers but the birds themselves are widespread.

- Rush Skeletonweed

  Persistent flower stems are so tough they can hamper harvest machinery and the weed causes lost production in wheat fields.

Update: Eastern Heath Snail Science Advisory Panel and Economic Impact Report

Council speaker: Gary Adams, USDA APHIS PPQ

Xerolenta obvia Eastern Heath Snail is included in USDA's New Pest Response Guidelines for Temperate Terrestrial Gastropods but overall funding for this group of pests is low. The Science Advisory Panel convened in December 2020 confirmed that the native range of the snail and Montana are both at the same latitude and include many similar habitats, so the likelihood of establishment and continued spread is high.

The current North American populations are limited to sites near Belt, MT and Detroit, MI, and in the area surrounding Toronto, CAN. The Belt, MT population may have been imported with immigrants arriving from the snail's native range in the late 1880's and been confined by the lack of suitable habitat including limestone soils.

This snail is one of a number that climb up grasses, other vegetation, or other hard surfaces in large numbers to "aestivate" when the weather is hot. After rain they then descend once again to feed. Under some conditions, the snails will reach such high numbers as to interfere with harvesting, resulting in serious contamination, downgrading of the quality of the grain, and even complete rejection of the crop. The snails are primarily a contaminate in grain/hay production but in their native range do contaminate of fruits and vegetables.

In the field they can transmit the spores of:

- *Alternaria* sp.
- *Fusarium* sp.
- *Phytophthora* sp.

And vector animal diseases:

- *Protostrongylus rufescens* (sheep lungworm)
- *Davainea proglottina* (cestode)
- *Dicrocoelium dendriticum (*trematode*)*

The spread of this species could impact top Montana crops. Montana is 3rd nationally in wheat production, 2nd in barley production, and 1st in lentils and dry peas. Approximately 80% of total grain production is exported and MDA alone certifies about 500 million pounds of grain exports annually.

Partnerships between the Department of Agriculture, USDA, Montana State University Extension, and the Belt community initiated experiments and further surveys. In 2012, the population was confined to Belt and has since spread along road corridors and with equipment and gravel moved to surrounding communities. Experiments in control efforts included a snail round up carried out by local kids collecting snails, the Montana Department of Transportation's use of heavy equipment, and applications of the extremely limited labeled molluscicides available. A voluntary best practices guide was produced that encourages cleaning equipment between sites.

The 2020 Montana Invasive Species Council organized Science Advisory Panel on Eastern Heath Snail and supported the 2022 Economic Report make the case for further action: distribute

information to all interested parties, engage regional coordinating bodies for both impacted industries and invasive species, support research on both the biology of this pest and possible control strategies, encourage and support the development of funding and regulations for invasive gastropods (slugs and snails).

WORK SESSION #2: Quantify the Impacts of Invasive Species

Question: What invasive species issues would benefit from clearly quantifying the impacts?
Outcome: Identify the top three topics to support with research or review.

- Analysis of the "Top 10 Invasive Species to Watch" list for the cumulative impacts to recreation and biodiversity.

- Annual grasses and hogs have impacts beyond their costs to control. What are the changes to fire regimes, property values, and threats to human safety from their spread?

- What are the impacts of aquatic invasive species on recreation? These should be considered as a group and include: threats to fisheries like proliferative kidney disease (PKD), salt cedar, Emerald Ash Borer on riparian corridors, and a new look at how zebra mussels might impact tourism.

- Wildlife diseases like white-nose syndrome and chronic wasting disease have broad impacts to populations of keystone species. Is the capacity to prevent and detect these harmful outbreaks in scope for the potential impacts they cause?

- What is the scope of the impact from rush skeleton weed on Montana agriculture?

- Feral hogs will have complex impacts on Montana. The reduction in populations of ground nesting birds, leaf litter dependent animals like salamanders, and physical disturbance of wetlands are relatively well known based on their behavior elsewhere in North America. What are the impacts to hunting opportunities, cultural adaptation, and management from the spread of feral hogs?

- Emerald ash borer (EAB) will substantially change the size structure and abundance of native ash in eastern Montana woody draws. This will have a cascade of ecological impacts but the spread of EAB will also cause loss of a substantial portion of the urban tree canopy. What are the social impacts of this invasion including indirect impacts like intensifying the heat island effect of urban areas with fewer mature trees, increased energy use to compensate for shading, and water availability?

- The future impacts of new invasive species are difficult to predict. For emerging issues, shifting management from current priorities to new targets requires quantifying their likely impacts. Increasing the capacity to quickly produce impact analyses for feral hogs, invasive praying mantises, fire regimes under new invasive annual grasses, and other emerging issues will improve response planning.

Agency Directors' welcome

Amanda Kaster – Department Natural Resources & Conservation

The Department houses the MISC Administrator Liz Lodman and supports the work of the Council. It's important to recognize the working partnership of the Council which includes the following voting members:
Montana DNRC
Hydropower Representative
Private Landowner
Chippewa Cree
County Weed Districts
Fort Peck Assiniboine & Sioux Tribe
Fort Belknap Indian Community
Blackfeet Nation
Montana Department of Commerce
University Extension
Montana Department of Agriculture
Montana Department of Transportation
Conservation Organization
Confederated Salish and Kootenai Tribes
Fishing Organization
Wildlife Organization
Agriculture
Conservation Districts
Montana Fish, Wildlife & Parks

Thank you.

Success Story 1: Dyer's Woad Task Force

Presenters: Amber Burch, Ngaio Richards, and Mr. Toby.

"The history of dyer's woad in Montana can be considered a success story. It was originally found in Missoula county in 1934 and has since been found in 19 counties. However, with an early detection and rapid response strategy, dyer's woad has been eradicated from 12 counties. Populations are now monitored and managed in Beaverhead, Flathead, Missoula, Park, Lewis & Clark, Stillwater, and Treasure counties. Dyer's woad is a priority 1A noxious weed in Montana, meaning management priorities are prevention, early detection, and eradication."

Jane Mangold, Feb 2019, Monthly Weed Post, MSU Extension.

Legislative Panel

Rep. Marler, Rep. Duram, Rep. Curdy, Senator Cuffe.

Council Moderator: Steve Wanderaas

"How do we make invasive species a priority?"
Rep. Curdy: The work to prevent invasive species is supported by constituents. When asked about the AIS check stations, the response from residents is positive.
Rep. Marler: This issue is still a priority for the Natural Resources Committee but there are 100 representatives and 50 senators and there is turn over every 2 years. Coming to the sessions and having one on one conversations is helpful and field days outside of session for staff are useful. Tying invasive species to current legislative packages and hearings like bringing cheat grass into a discussion about sage grouse ensures that programs are working towards the same conservation goals.
Rep. Curdy: During session, turn out at hearings is key to demonstrating a sense of urgency about the issues.
All: Bill introduction can be a form of advocacy. This keeps the issues front and center and as long as the funds requested go towards Montana, there's support for protecting resources. The credibility of those advocating for the issue is very important.

"Be honest, tell the truth, demonstrate a need."

Keeping focus on the issues requires momentum and demonstrated work outside of the session. Regional coordination and support for your programs areas is a place where MISC can work for your programs.

When sharing your position 100 words is a better approach than 1000 words. And if you bring doughnuts and hand them out, you can get a word in!

Success Story 2: Invasive bullfrog and turtle removal - a partnership project

Presenter: Kristina Smucker

In Montana, snapping turtles are a native species east of the continental divide, but they are non-native west of the divide and can cause significant harm to native populations of pond-dwelling species like frogs, turtles, snakes, ducks, and fish. Snapping turtles likely end up in waterways in western Montana through illegal releases of animals kept as pets[1].

Photo: Montana Fish, Wildlife & Parks

In 2018, FWP received a report of a snapping turtle in a backwater at Milltown State Park just east of Missoula. In 2019, FWP responded to a reported snapping turtle in the Rattlesnake Creek area just north of Missoula but was not able to locate it. Fish Wildlife and Parks, and the Montana Conservation Corps partnered in late 2020 to begin tackling reports of snapping turtles and on-going concerns with bullfrogs in western Montana. The partnership formed a five-person crew in 2021 with grant funding to survey and map FWP's Regions 1 and 2 for the animals, including the pond slider. The sliders proved too widespread to feasibly target for control with the resources and crew available. The "MCC Herptile Crew" surveyed wetlands and conducted night removal efforts for the targeted species.[2]

[1] Montana Fish, Wildlife & Parks. (2021, May 19). *Report snapping turtles in west-central Montana* [Press release]. https://fwp.mt.gov/homepage/news/2021/may/0519-report-snapping-turtles-in-west-central-montana

[2] McLaughlin, J. (2022, March 9). Biologists will be on the lookout for nonnative snappers, bullfrogs. *Hungry Horse News.* https://hungryhorsenews.com/news/2022/mar/09/biologists-will-be-lookout-nonnative-snappers-bull/

Panel: Recognizing the values of managing invasive species.

Speakers: Jennifer Mohler - Gallatin Invasive Species Alliance, Virgil Dupuis, Salish Kootenai College Extension, Diane Medler - Discover Kalispell, Clayton Elliott - Montana Trout Unlimited

Council Moderator: Tom Woolf

Jennifer Mohler - Gallatin Invasive Species Alliance

The Upper Gallatin has experienced explosive growth and new home building. This fragmentation and changing management priorities has challenged us to find new ways to create a culture of stewardship. As part of our efforts to reach property owners and visitors we share regional outreach campaigns about clean recreation and invasive species prevention. The homeowners associations are offered 3 years of support to develop a stewardship program and by including home owners, build a sense of community pride in protecting the area's natural resources. A view of what is possible is provided by the Crail Gardens maintained by the Gallatin Invasive Species Alliance. This relatively small native plant demonstration garden has influenced the landscaping on many more acres in the surrounding area by showing off the beauty of Montana's wildflowers and what is possible with invasive species management.

Website: https://www.gallatinisa.org/hoa-habitat-owners-association-prog

Virgil Dupuis, Salish Kootenai College Extension

The spread of flowering rush *Butomus umbellatus* creates a closed water habitat so that trout avoid the near shore areas colonized by this plant but invasive fish like northern pike. Other species take advantage of the extra surface area provided by the stems and the increase in algae feeds snails that in turn transmit swimmer's itch. The multiple impacts on the resources provided by Flathead Lake and the clogging of irrigation ditches have inspired survey and control efforts that are supported by local landowners. Treating aquatic plants by using chemical control in areas with many landowners is typically slowed by the need to address concerns about the methods. By focusing on the resources including fish, clean water, sedimentation, and nutrient accumulation there has been broad support for the control efforts in Flathead Basin.

Website: https://extension.skc.edu/flowering-rush/

Clayton Elliott - Montana Trout Unlimited

Angling for trout is worth about $750 million per year or about 20% of all tourism spending in Montana and the number of angler days per year has doubled over the last few years. Montana Trout Unlimited has approximately 5,000 members across the state. The overarching goal of our organization is to protect cold water fisheries and warming water is a way to have conversations about global issues. Conservation management actions are local and when building support for these actions people are more likely to listen to their neighbors than state agency staff.

Website: https://montanatu.org/

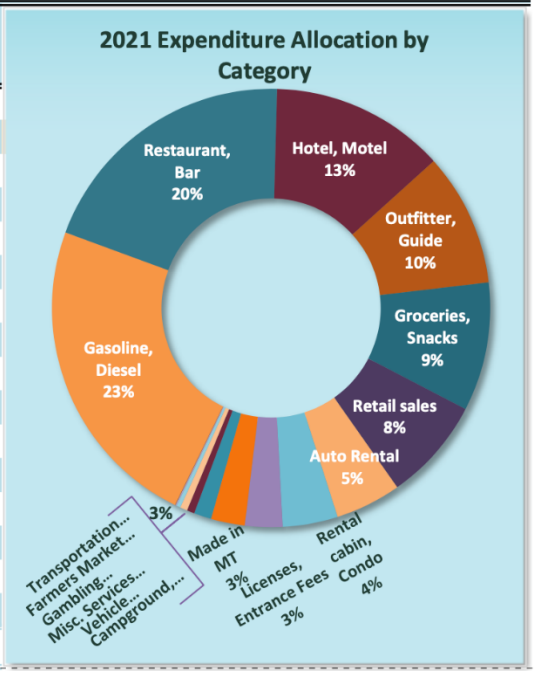
Diane Medler - Discover Kalispell

The power of travel is clear: Montana hosts 12.3 million visitors per year who bring in $5.1 billion dollars to the state and pay $388 million in state and local taxes. The draw for these visitors are the National Parks, open space, lakes and rivers, and winter sports. They take part in scenic drives, day hiking, fishing, birding, wildlife watching, and rafting. Currently, 50% of the visitor tax goes to the general fund which includes support for natural resource management. The tourism industry recognizes that we can be a pathway for invasive species and a resource to promote responsible travel. We're working to spread out the visitor season to include spring, fall, and winter and lessen the impact of the peak summer season on the communities that are stretched for resources. The rise of volun-tourism is one expression of the time and effort visitors are willing to contribute towards supporting the landscapes and species they have traveled so far to see.

Website: https://discoverkalispell.com/

Table 1 - 2021 Nonresident Traveler Expenditures[1]

Expenditure Category	Average Daily Per Group[2,3]	Allocation by Category	Total Expenditures[2,4]
Gasoline, Diesel	$41.43	23%	$1,204,670,000
Restaurant, Bar	$35.20	20%	$1,021,820,000
Hotel, Motel	$22.83	13%	$663,160,000
Outfitter, Guide	$17.62	10%	$506,100,000
Groceries, Snacks	$16.88	9%	$489,030,000
Retail sales	$13.43	8%	$392,110,000
Auto Rental	$8.67	5%	$250,110,000
Rental cabin, Condo	$7.19	4%	$209,670,000
Licenses, Entrance Fees	$4.77	3%	$142,240,000
Made in MT	$4.42	3%	$128,900,000
Campground, RV Park	$2.34	1%	$66,290,000
Vehicle Repairs	$1.01	1%	$28,920,000
Misc. Services	$0.95	1%	$27,560,000
Gambling	$0.52	<1%	$15,270,000
Farmers Market	$0.17	<1%	$4,860,000
Transportation Fares	$0.04	<1%	$1,220,000
Estimated Total	**$177.46**		**$5,151,930,000**



Reports from partners

Steve Tyrell, MISC Member representing Agriculture
The Central and Eastern Montana Invasive Species Team now has an all-taxa focus and a full-time coordinator. Common buckthorn will be the subject of a project planning meeting and the group will also support feral hog reporting and eastern heath snail sightings. This coordinating group has been attending tradeshows and other events with a focus on reaching livestock growers. These efforts are a force multiplier for agency messages about conservation and invasive species.
Website: https://cemist.macdnet.org/

Jasmine Chaffee, MISC Member representing the Montana Department of Agriculture
The Dept. of Agriculture is currently short on staff in the Pesticide License Program which may impact applicators. This past year's CAPS survey did not result in any new detections. In an expansion of weed-free certifications, the Butte gravel pit has been certified noxious weed free. The 2023 work plan will include a revision to the State Weed Management Plan. To increase capacity, the Department is considering hosting AmeriCorps staff.
Website: https://agr.mt.gov/

Kate Wilson, ex-offico MISC Member representing the UC3 and Flathead Basin Commission
Since 2017, the focus of these organizations has been to increase coordination within the region. This discussion will continue at the UC3 meeting this week and during the coming legislative session when combining the UC3 and Flathead Basin Commission will be weighed.
Websites: https://invasivespecies.mt.gov/uc3/
https://flatheadbasincommission.org/

Dan Rostad, Coordinator for the Yellowstone River Conservation District Council
The Yellowstone Conservation District Council is establishing a comprehensive study on the Yellowstone and includes all districts that border the river. The woody weeds in this region include buckthorn and tamarisk.
Website: https://yellowstonerivercouncil.org/

Day 2.

October 26, 2022

Welcome

Council speaker: Jane Mangold

Agency Directors' welcome

Kerry Davant– Department of Conservation and Natural Resources

"The mission the department is to protect natural resources and ultimately, that's your mission too. Keep up the momentum and keep invasive species issues in front of the legislature and the public."

Update: Firewood Science Advisory Panel

Council speaker: Amy Gannon, DNRC

MISC has supported the limited staff of the Forest Pest Management team in providing outreach and sharing our messages including "Don't Move Firewood". In May, 2022 the Council hosted a Science Advisory Panel on Firewood in Missoula, MT. Background work for this panel began in January 2022 as a suggestion to take on emerald ash borer which evolved as the discussion and planning centered around firewood as the most likely pathway for introducing this and other pest species. The added benefit of the pathway-focused approach is that it addressed other pests as well. Before the panel was convened, we developed a "what we know" document to clarify what gaps the panel could fill in.

"When the panel ends, the work begins."

During the spring of 2022, the organizing committee developed the purpose statement and questions to address the gaps in our knowledge. The next few months included conversations with potential panelists and work to identify experts who would be available to participate in May as the field season began.

Including the visitor industry Megan Schultz from the Institution for Tourism and Recreation Research helped us understand that there are a lot of messages out there related to travel, safety and the environment. Including firewood in a "recreate responsibly" combined message and working VisitMT.com reduces the communication load and shares the same message regionally. Finding ways to create a unified message across regions and keep updating our communication with stakeholders are areas where we'll be increasing our effort in cooperation with MISC in the coming years.

WORK SESSION #3: Science Advisory Panels.

Question: What topics would benefit from a Science Advisory Panel review?

- Climate Change, will the risk for known invasive species change and will native species shift their behavior
- Invasive annual grass impacts, including the benefits of control, landowner buy-in, impacts to recreation, secondary invasions
- Developing effective messages to change behavior
- Best practices from integrated weed management through revegetation
- Noxious weed pathways: identifying the vectors and improving prevention.
- Feral hogs: What is the plan
- Feral cat impacts from urban areas to rural populations
- Data sharing and standards
- Impacts of aquatic invasive plant control with herbicides on aquatic plant communities
- Effective techniques for vehicle decontamination from terrestrial weeds and pests
- eDNA technology has evolved, beyond mussels, how can it be used
- Legislative tools and regulatory harmonization
- Best practices for roadside vegetation management
- Balance best practices for weed control with providing pollinator habitat and not attracting herbivores to the road.
- Frontiers in control: What has changed that can improve management
- Praying mantis

Update: Feral Swine in Montana

Speaker: Tahnee Szymanski – Dept of Livestock

The department of livestock is responsible for state regulations related to feral swine. All domestic pigs must be kept behind a fence. Our regulations date from 2015 as we watched other states deal with the impacts of feral swine which were being trapped and spread by people to locations well away from established populations. Over the past few years, sightings in Canada have increased. We worked with MISC to raise awareness and communicate about the threat posed to Montana by feral swine. These animals are landscape architects: they dig and modify wetlands. They predate ground nesting birds, small vertebrates and fawns and provide a disease reservoir that impacts both wildlife and livestock. While there is a hunting culture in Montana, you cannot hunt your way out of a feral swine infestation. Sows can have multiple litters per year and these intelligent animals will scatter and move if exposed to hunting pressure. Another observation from states with feral swine populations is that once a hunting constituency for swine is established there is a demand for more areas and higher densities of pigs leading to more impacts.

In 2022 we conducted a tabletop exercise supported by MISC that included partner agencies. Three areas that will benefit from additional planning include: identifying additional audiences for detection beyond our traditional livestock stakeholders, coordinating responses across diverse land management jurisdictions, and responding to community concerns or sightings.

81-29-102. Control of feral swine. A person, a state agency, or a federal agency authorized by the state or the federal government is allowed to control or eradicate feral swine

WORK SESSION #4: Focused Efforts to Improve Programs and Increase Capacity

Question: What invasive species issues or initiatives should the Council support with focused effort including trainings, jurisdictional review, workshops, tabletop exercises, or outreach?

- Education and Communication: Workshop
  - Targeted communication
    - Audiences: targeted efforts for specific groups including landowners
    - Focus: use the tools we have in-state to improve contact with the right audience.
  - Community-based social marketing
    - Messages that are positive give people a reason to get involved.
    - Develop modules for youth groups like scouts and 4-H
  - Tools that change with the times
    - Social media's role in communication
    - Break the scientific language barrier
  - Constant messaging
    - Promote consistent language
    - Share pre-packaged presentations across agencies

- EDRR: Planning
  - ICS training should be consistent
  - MOUs should be in place prior to rapid response efforts for priority species
  - The means to respond should be identified in advance. Where will emergency funds come from?

- Resources: Planning
  - Consistent funding
  - Invasive Species themed license plates to fund grants

- Climate change: Workshop or Science Advisory Panel
  - Current invasive species will change their behavior and native species' distributions may change. How do we plan for control and revegetation in a changing environment?

- Compliance: Workshop
  - Why are the current laws not fully enforced?
  - Is there an opportunity to modernize reporting?
  - What is the best approach to achieve invasive species control goals?
  - Work with county attorneys to develop a meeting or training that meets their needs.

Reports from partners

Michelle Cox, Ex-Officio MISC Member representing the USFS
Sharing information about invasive species and management across land jurisdictions is a priority for our managers. The Forest Service is a promoting WildSpotter to map invasive species. The monitoring and forest data plan is available for review. The work of monitoring biocontrol is shared across landscape level efforts and we're working to distribute and monitor the impacts of these organisms. Hot water decontamination of firefighting equipment will both reduce risk from spreading aquatic invasive species and reduce the time needed to ready equipment for service.
Website: https://wildspotter.org/

Tom Woolf, Vice-Chair MISC representing Montana Fish, Wildlife & Parks
Watercraft inspection stations stopped 53 mussel fouled boats in 2022. Used boats purchased in the Mid-West and being transported through the region remain a high risk for attached mussels. This year's detection of live adult mussels in Pactola Reservoir in South Dakota brought a population within 70 miles of the Montana border. We assisted in the establishment of exit inspections for this site by sending staff and coordinating with local managers. Tiber Reservoir was delisted from the list of waters with mussel populations and while there were no mussel detections in Montana this year, new populations of curly-leaf pondweed and New Zealand mud snails were found. The CrAy-Team has a notable social media campaign.
Website: https://fwp.mt.gov/conservation/aquatic-invasive-species

Jason Allen, MISC member representing Montana Department of Transportation
Spreading noxious weeds through roadway maintenance including *Ventenata dubia* is being addressed with timing, when possible, and equipment cleaning. This past year, rush skeletonweed was found on the I-5 corridor and blueweed was discovered near Hot Springs, MT. The Department is working with the Department of Agriculture to certify gravel pits used by road crews and contractors.
Website: https://www.mdt.mt.gov/other/webdata/external/maint/2018-2024_vegetation_mgmt_plan_final.pdf

Gary Adams, Ex-Officio MISC Member representing the USDA
The USDA APHIS PPQ branch is responsible for international ports of which Montana has several airports and border inspections. Joint responsibilities are coordinated through committees including the Port Pest Risk Committee and the Smuggling Interdiction and Trade Compliance (SITC). Locally, detection is carried out cooperatively with the Cooperative Agricultural Pest Survey (CAPS). The CAPS survey includes species like the spongy moth for which there are pre-prepared detection and control plans. Online reporting tools allow cooperators to report priority species like the Asian long-horned beetle. Support can be provided to partners with training including Incident Command System training and tabletop workshop development for pests. Biological control is cooperatively funded with regional partners. Grasshoppers and Mormon crickets native pest outbreaks are specifically identified by the Plant Protection Act as responsibilities of the agency.
Website: https://www.aphis.usda.gov/aphis/resources/pests-diseases/asian-longhorned-beetle/report-it

Success Story 3: Asian Clam at Lake Elmo

Presenter: Craig McLane, FW&P

Asian clams were discovered in Lake Elmo near Billings in summer 2019 during a training event when FWP monitoring staff found several dead Asian clam shells near the Lake Elmo State Park boat ramp. The following month, FWP staff returned to Lake Elmo and conducted an organized grid search of Lake Elmo. Live juvenile Asian Clams were found in 2 locations and dead shells of all age sizes in several locations.

Asian clams were probably introduced by people transporting mud or water on boats and gear. The microscopic larvae can go unseen in bait buckets and livewells. FWP reminds boaters and anglers to clean, drain and dry boats and gear every time they leave the water to help prevent the spread of ALL aquatic invasive species. The clams are also still sold commercially as bait throughout the United States, and in the aquarium trade as pygmy or golden clams. It is illegal to transport bait from out of state.

To control the clams at Lake Elmo a water drawdown was planned. Due to the high number and variance of size in dead clam shells found, it appeared that a recent event killed most of the adult clams. This could have been the harsh winter of 2018-2019. In the 2019 surveys, 5 live juvenile clams were found. This may indicate that the population of Asian clams was just starting to bounce back from a kill event. The best time to draw down the lake level to kill remaining clams is while their densities are low. Drawing down and draining the lake will likely expose the clams to freezing temperatures and dry conditions which could kill the remaining clams in the lake. This was also an opportunity to improve access and community infrastructure around the area to increase fishing opportunities.
Website: https://fwp.mt.gov/binaries/content/assets/fwp/conservation/fisheries-management/lake-elmo/asian-clams-r5-info-sheet.pdf

Photo: Amy Benson, U.S. Geological Survey, Bugwood.org

Panel: Regional Neighbors

Speakers: Megan Evans - Alberta Invasive Species Council (virtual), Steven Hayward - Invasive Species Council of British Columbia (virtual), Richard Weisz - North Dakota Department of Agriculture, Lloyd Knight - Idaho State Department of Agriculture(virtual), Josh Shorb - Wyoming's Park County Weed and Pest District (virtual), Jacob Bradford - BOR, Robert Walters - Colorado Parks & Wildlife (virtual)

Council Moderator: Jasmine Chaffee

Jacob Bradford – Regional Coordinator BOR

Pactola Reservoir complex is located in the Black Hills National Forest in South Dakota. The Bureau of Reclamation manages the dam and water and on July 4, 2022 a kayaker found a pair of sunglasses in shallow water that were encrusted with live adult dreissenid mussels. The immediate response was to add a mobile decontamination unit and switch from entrance inspections to exit inspections. Existing outreach materials were provided to residents and users. South Dakota Game & Fish were not able to decontaminate all boats leaving the water with the equipment available as there was limited hot water. The funding available through BOR is congressionally dedicated to mussel prevention and will be used to provide a self-contained decontamination unit.

Richard Weisz - North Dakota Department of Agriculture

North Dakota found Palmer amaranth in 2018 and it has since been detected in 19 counties. There is a good effort to contain this weed in 14 counties that have full time weed staff and the remaining 39 are not able to provide as much effort. Green ash is the most common native tree in draws, windrows, towns so emerald ash borer is a real concern. Japanese beetle was discovered in 2012 but has stayed contained in local golf courses and parks.

Lloyd Knight - Idaho State Department of Agriculture

Division of Plant Industries is one of several agencies with responsibility for invasive species. Statewide, watercraft inspections were reduced for the current year from their peak but the AIS program is expanding their treatments of aquatic noxious weeds. Japanese beetle is present in Boise and other urban areas around the state where irrigation improves habitat for this species. Programmatic funds for invasive species are a mix of invasive species sticker revenue, general funds, and Water Resources Development Act funding.

Megan Evans - Alberta Invasive Species Council

The Alberta Invasive Species Council is a non-profit coordinating group and center for distributing regional outreach materials including "Squeal on Pigs" and "Clean/Drain/Dry". Regulatory authority is provided by the Weed Control Act that identifies 75 species, the Agricultural Pests Act, and Fisheries Act that lists 51 AIS and a schedule of fines for failing to stop at boat inspection stations. Aquatic invasive species populations of current concern include 100 populations of goldfish and new detections of Prussian carp. Feral pigs are considered a pest only when they escape and there are farms producing wild boars. A bounty program led to the take of about 30 feral pigs, professional hunters take was 70/year. Biological control releases for oxeye daisy and tansy are planned.

Josh Shorb - Wyoming's Park County Weed and Pest District

Wyoming's counties are allowed up to 2 mill levies to fund individual Weed and Pest Districts. Other funding sources are pesticide registration fees of which $125 goes into a pool to provide grants. Responses to emergency insect management are directly appropriated. The work is carried out in consultation with the WY Dept. of Transportation who manages the rights of way. The districts offer a cost share program for landowners. Statewide coordination of the Weed and Pest Districts is provided by the WY Dept. of Agriculture. Governor Mark Gordon's Invasive Species Initiative was completed in 2020 and encouraged research by the University of WY and local colleges on invasive species, supported public awareness and incentivized landscape level management. Going forward, invasive species data will be housed at UW. Current species of concern include ventenata and medusa head, yellow star thistle, and Palmer amaranth especially in dry bean crop systems. There is a need to find controls for large populations of Scotch thistle and dalmatian toadflax. Wyoming Game & Fish are responsible for AIS response.

Steven Hayward - Invasive Species Council of British Columbia

Like the Alberta Council, the Invasive Species Council of British Columbia is a non-profit and a founding member of the Canadian Council on Invasive Species. The province has 233 m acres of very diverse landscapes of which only 1-2% is federal land, 6% is private and the remainder is Crown land. There are 200 tribes and 39 Métis councils. The BC Ministries of Forestry, Environment, and Climate Change all have programmatic elements related to invasive species. Invasive species are prioritized via a risk assessment and management is carried out in 26 regional districts (link below). Japanese beetle trapping and control and Lymantria suppression are ongoing. We partner in the Squeal on Pigs campaign. The future includes a 2023-2027 Invasive Species Strategy BC and a team of advisors are reviewing the previous strategy and identifying gaps. Two areas that have been identified are including indigenous knowledge and clarifying leadership. External influences are climate change and addressing the role of invasive species in the carbon cycle like Scotch broom and cheat grass. We've worked with 682 youth ambassadors on invasive species reporting.
Website: https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species

Robert Walters - Colorado Parks & Wildlife

Colorado staffed 73 watercraft inspection and decontamination stations all based out of existing offices and base yards. The complexity of the watercraft inspection has increased as more positive boats arrive with 180 intercepted, mostly arriving from Lake Powell. A pilot project at Loma Point of entry intercepted 26 infested boats in 3 days so there are likely many more boats transiting through that are contaminated. The plan for 2023 is to move the inspection stations to alternative ports of entry. Liley Fisheries (a stocking supplier) did detect New Zealand mud snails and borders Boulder Creek where this species is established. Their process of decontamination led them to adopt an annual dewatering and cleaning protocol as it ended up being beneficial to their operation. On September 4, 2022 mussels were found on an artificial substrate at Highline Lake. A containment program was begun within 4 days and all departing boats are being decontaminated.

Research hub: Montana Institute for Tourism and Recreation Research

Melissa Weddell, Director, and Megan Schultz – ITRR

Montana's Institute for Tourism and Recreation Research is funded by the lodging tax to provide research. The institute employs a team of social scientists and sends out an RFP every fall for research projects. Data is collected through the traveler intercept surveys which are conducted at neutral locations like airports, gas stations, and rest areas. Past collaborations between ITRR and the AIS program led to changes to the AIS inspection signs making it clear that all watercraft, not just motorized watercraft were required to stop. Reports can be generated by anyone via the website and staff are available to help design a report that meets your specific questions.
Website: https://itrr.umt.edu/interactive-data/instructions-classic.php

Panel: Sharing Your Message.

Coordinated communications, messages and methods that are better adapted to a changing population.

Speakers: Cassidy Bender – AIS, Leah Elwell – Invasive Species Action Network, Leigh Greenwood – Don't Move Firewood

Council Moderator: Kate Wilson

Leigh Greenwood – Don't Move Firewood

The purpose of our "Don't Move Firewood" campaign is to protect forests by changing human behavior. About half of all US residents use firewood so having message that says "no" is OK as long as it is followed by a message of what we should do next. In developing this message, we asked who residents would trust with information about what to do and the answer was generally state foresters. To tell them what to do, think of effective passive reminders like your dentist uses: a text the day before your appointment. Having these reminders visible where firewood is used acts in the same way. The campaign website has a suite of tools and includes links to local rules to make sure it's possible to find and then comply with firewood regulations.

Cassidy Bender – Aquatic Invasive Species

The sole focus the Upper Columbia Conservation Commission is to prevent aquatic invasive species spread in the Columbia River Basin. Our work is coordinated with FWP and adds on to the media plan 140+ radio PSAs, ads in 2 magazines and 8 newspapers, and a billboard. In 2023 a video content is planned and expanding outreach to public gathering places including brew pubs through themed coasters. We're also reaching trusted sources by providing training to water sport retailers and training watershed partnership members in outreach skills.

Leah Elwell – Invasive Species Action Network

"Don't Let It Loose" is both a message and a campaign to reduce the release of pet animals. Not all states have a single point of contact for pet retail locations or provide independent pet store licenses so contact with this industry requires targeted local efforts. Reaching the public is supported by the development of signs for high risk waterbodies and a strong effort to provide classroom education and teacher packets to reach kids. Resources for pet stores include adding this message to the care sheets created for new pet owners and new efforts like sponsoring the fly tying for conservation event that included spotted lanternfly.