

SCHEDULE AT A GLANCE

Date/Time	Event	Location
Tuesday, Feb. 21		
8:00	Registration	
9:00-12:00 pm	Continuing Ed. Standardized Data Collection for Stream Crossings	
12:00-1:00 pm	Lunch (on your own)	
1:00 pm-5:00 pm	Plenary Session: Population Growth and Aquatic Resources	King Ballroom
6:00 pm-9:00 pm	Welcome social with drinks and appetizers	King Ballroom
Wednesday, Feb. 22		
7:30 am	Registration	
8:30 am	Symposium: Managing Montana's Arctic Grayling	King Ballroom
10:40	Break	
11:00	Contributed Papers	King Ballroom
12:10 pm	Lunch (provided)	
1:10 pm	Contributed Papers	King Ballroom
3:10 pm	Break	
3:30 pm	Contributed Papers	King Ballroom
4:00 pm	End of Session	
4:10 pm	Committee Meetings	
6:00 pm-9:00 pm	Student Mentoring/Fish Trivia Social (beer and apps)	King Ballroom
Thursday, Feb. 23		
7:30 am	Registration	
8:30 am	Contributed papers	King Ballroom
10:10 am	Break	
10:30 am	Contributed papers	King Ballroom
11:50 am	Business lunch	King Ballroom
1:30 pm	Contributed papers	King Ballroom
2:30 pm	Break	
3:00 pm	Contributed papers	King Ballroom
4:00 pm	End of Session	
4:20 pm	Montana Association of Fish & Wildlife Biologists	
6:00 pm	Pre-banquet social	
7:00 pm	Awards banquet and raffle	King Ballroom

Continuing Education

Standardized Data Collection for Stream Crossings

Instructor: Kat Hoenke

Join the Montana water community in learning a standardized data collection survey [drive.google.com] protocol designed by the North Atlantic Aquatic Collaborative (NAACC) that identifies stream crossings that hinder water flow and biological connectivity. You'll help the Southeast Aquatic Resources Partnership (SARP), a National Fish Habitat Partnership, and partners build a national database that will help prioritize the worst offenders that could be removed or modified to allow for aquatic organism passage (AOP).

This is the required virtual portion of a training held by SARP to instruct partners on how to collect data using this protocol, setting the stage for the field portion of the training to be held in the summer, location and date TBD. Once trained, partners can assess road stream structures and use SARP's database to track road stream crossing barriers that are input into a larger effort where barriers from multiple sources can be prioritized within SARP's Southeast Aquatic Barrier Prioritization Tool [connectivity.sarpdata.com]. All participants that take the virtual and field training can train others.

To see what the data look like, visit our web map [fws.maps.arcgis.com]! All data is collected using the free Survey123 application and data is directly input into SARP's inventory system.



**THE 56th ANNUAL MEETING OF THE MONTANA
CHAPTER**

OF THE AMERICAN FISHERIES SOCIETY

AGENDA

Tuesday, February 21, 2023

Plenary Session: Population Growth and Aquatic Resources

Moderator: Leo Rosenthal Location: King Ballroom

- 1:00** Welcome & Introductions: Dave Stagliano (Montana Chapter President)
1:10 Leanne Roulson (Parent Society) and Laurie Earley (WDAFS)
1:30 **Tourism, Recreation, and Rivers, Oh My!** Jenn Thomsen (University of
Montana)
2:00 **Managing Fish in a Growing Montana.** Eileen Ryce (Montana Fish, Wildlife &
Parks)
2:30 **The Natural Streambed and Land Preservation Act, It's History Process and
Current Trends.** Jason Garber (Montana Department of Natural Resources &
3:00 Conservation)
3:20 Break
3:40 **Fundamentals of National Wild and Scenic Rivers in Montana.** Colter Pence
(Flathead National Forest)
**Opportunities for River Advocacy - Wild & Scenic to Urban River
Ambassador Programs Changing the Landscape of River Use.** Sheena Pate
(Flathead Rivers Alliance)
4:20 Panel Discussion
4:50 End of Plenary Session

6:00-9:00 **Welcoming Social**
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Wednesday, February 22, 2023

Symposium: Managing Montana's Arctic Grayling

Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Ryan Kreiner Location: King Ballroom

- 8:30** **Introduction to the Challenges of Grayling Management in Montana.** Ryan
Kreiner (Montana Fish, Wildlife & Parks)
8:40 **The Role of the Candidate Conservation Program with Assurances (CCAA)
in Upper Missouri River Arctic Grayling Conservation.** Jarrett Payne
(Montana Fish, Wildlife & Parks)
9:00 **Big Hole River Sub-Basin Arctic Grayling Introductions.** Jim Olsen (Montana
Fish, Wildlife & Parks)

- 9:20** **Centennial Valley Arctic Grayling Adaptive Management Plan, Applications for Recovery in 2023.** Ryan Kreiner (Montana Fish, Wildlife & Parks)
- 9:40** **Creation and Maintenance of Grayling Genetic Reserves.** Tim Gander (Montana Fish, Wildlife & Parks)
- 10:00** **A Practical Examination of Grayling Eggs, Fry and Fingerling Production at Four Hatcheries for Upper Missouri River Tributaries and Lakes in Southwest Montana, and Handkerchief Lake in Northwest Montana.** Mark Kornick (Montana Fish, Wildlife & Parks)
- 10:20** Panel Discussion
- 10:40** **Break**
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Contributed Papers - Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Sam Bourret

Location: King Ballroom

- 11:00** **Evaluating Sturgeon Chub Populations in the Powder River: Contributing Data to the USFWS Species Status Assessment: Part II.** David M. Stagliano (Montana Biological Survey)
- 11:20** ****Thermal Refuges for Climate Vulnerable Fishes in Montana.** Niall Clancy (University of Wyoming)
- 11:40** ****Preliminary Investigations into How Hydroperiod and Beaver Interact to Shape Biodiversity in Prairie Headwater Streams.** Matt Webster (University of Montana)
- 12:00** **Lunch (provided)**
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Contributed Papers - Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Peter Brown

Location: King Ballroom

- 1:10** **The Evolution of Fish Habitat Restoration Over 20 Years: What Can We Learn?** Michelle McGree (Montana Fish, Wildlife & Parks)
- 1:30** **Are Unpaved Forest Roads a Problem for Instream Sediment?** Robert Al-Chokhachy (USGS Northern Rocky Mountain Science Center)
- 1:50** **Contemplating Management of Riparian Areas as a Public Resource.** Jeff Dunn (WGM Group)
- 2:10** **Rattlesnake Creek Dam Removal Project – A Glimpse Into the Post-Dam River and Floodplain Environment.** John Muhlfield (River Design Group)
- 2:30** **Protecting and Restoring Harvey Creek Native Fish Populations: A Western Montana Case Study.** Nathan Cook (Montana Natural Resource Damage Program)
- 2:50** **Break**
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Contributed Papers - Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Amber Steed

Location: King Ballroom

- 3:10 **Adapting Trout Monitoring to Changing Climate Conditions in the Upper Yellowstone River, Montana.** Michelle A. Briggs (Montana Cooperative Fishery Research Unit)
- 3:30 **Mimicking Drought in Headwaters: Cumulative Effects and Diverging Responses of Native and Non-Native Trout.** Kadie Heinle (Montana State University)
- 3:50 Climate Change Vulnerability of Westslope Cutthroat Trout Across the Northern Rockies.** Vin D'Angelo (US Geological Survey)
- 4:10 End of Day 2 Presentations**
- 4:20 Committee Meetings**
- 6:00-9:00 Student Mentoring/Fish Trivia Social**
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Thursday, February 23, 2023

Contributed Papers - Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Chris Downs

Location: King Ballroom

- 8:30 Rotenone Persistence Study.** Don Skaar (Montana Fish, Wildlife & Parks (retired))
- 8:50 First Discovery of Clinical Signs of Crayfish Plague (*Aphanomyces astaci*) in the United States.** Stacy A Schmidt (Montana Fish, Wildlife & Parks)
- 9:10 **Who's Eating Whom: Diet Composition and Overlap among Three Apex Predators.** Robert Eckelbecker (Montana Cooperative Fishery Research Unit)
- 9:30 **Relative Abundances and Diets of Juvenile Lake Trout in Yellowstone Lake.** Drew MacDonald (Montana Cooperative Fishery Research Unit)
- 9:50 Fish Carcass Deposition to Suppress Invasive Lake Trout Minimally Altered Food-Web Dynamics.** Hayley C. Glassic (U.S. Geological Survey, Northern Rocky Mountain Science Center)
- 10:10 Break**
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Contributed Papers - Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Kristen Cook

Location: King Ballroom

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- 10:30** **After 100 Years of Anthropogenic Impacts Upper Clark Bull Trout Face Continued Challenges.** Caleb Uerling (Montana Fish, Wildlife & Parks)
- 10:50** **A Quantitative Assessment of Status and Risk for Threatened Bull Trout in Montana.** Timothy Cline (Montana State University)
- 11:10** **Bringing Genetics into Bull Trout Conservation.** Ryan Kovach (Montana Fish, Wildlife & Parks)
- 11:30** **Break**
- 11:50** **Montana Chapter Business Lunch**
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Contributed Papers - Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Brian Ertel

Location: King Ballroom

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- 1:30** **Stop, Look, Listen—A Blend of Science and Art Makes a Hatchery Fish a Real Fish.** Mark Kornick (Montana Fish, Wildlife & Parks)
- 1:50** **Inadvertent Hatchery Rainbow Trout *Oncorhynchus mykiss* Introductions Discovered in Native Westslope Cutthroat Trout *Oncorhynchus clarkii lewisi* Habitat Using Otolith Microchemistry.** Samuel L. Bourret (Montana Fish, Wildlife & Parks)
- 2:10** ****Electrofishing and Angling Data Reduce Error in Abundance Estimates for Trout in the Lamar River.** Keith Wellstone (Montana Cooperative Fishery Research Unit)
- 2:30** **Break**
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Contributed Papers - Co-Authors listed in abstract section of the program

****Indicates Student Paper**

Moderator: Brian Ertel

Location: King Ballroom

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- 3:00** **Do Non-Native Rainbow Trout Alleles Reduce Reproductive Success of Westslope Cutthroat Trout?** Jared Grummer (University of Montana)
- 3:20** **Genomic Consequences of Isolation for Headwater Cutthroat Trout.** Donovan A. Bell (Montana Fish, Wildlife & Parks)
- 3:40** **Multigenerational Evaluation of Genetic Rescue in a Native Isolated Brook Trout Population.** Andrew R. Whiteley (University of Montana)
- 4:00** **End of Day 3 Presentations**
- 4:20** **Montana Association of Fish and Wildlife Biologists**
- 6:00-9:00** **Awards Banquet**
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