## 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	King Ballroom			
	Resources				
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 56<sup>th</sup> ANNUAL MEETIG OF THE MONTANA CHAPTER

### OF THE AMERICAN FISHERIES SOCIETY

### **AGENDA**

Tuesday, I	February 21, 2023				
Plenary Se	ession: Population Growth and Aquatic Resources				
Moderator	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				
	Fundamentals of National Wild and Scenic Rivers in Montana. Colter Pence				
3:40	(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-	Welcoming Social				
9:00					

Wedneso	day, February 22, 2023			
Symposi	um: Managing Montana's Arctic Grayling			
Co-Auth	ors 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

Contributed Papers - Co-Authors listed in abstract section of the program				
**Indicat	tes Student Paper			
Moderator: Sam Bourret Location: King Ballroom				
11:00	<b>Evaluating Sturgeon Chub Populations in the Powder River: Contributing</b>			
	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)			

Moderat	tor: 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 Muhlfeld (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	<i>C</i> /			
	Break			

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			
4:10 4:20	·			
4:20 6:00-9:00	Committee Meetings Student Mentering/Fish Trivia Social			
0:00-9:00	Student Mentoring/Fish Trivia Social			

Thursday	y, February 23, 2023			
Contributed Papers - Co-Authors listed in abstract section of the program **Indicates Student Paper				
Moderate	or: 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			
	<b>Predators.</b> 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			

Contributed Papers - Co-Authors listed in abstract section of the program				
**Indicates Student Paper				
Moderator	: Kristen Cook Location: King Ballroom			
10:30	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			

Contributed Papers - Co-Authors listed in abstract section of the program				
**Indicates	Student Paper			
<b>Moderator:</b>	Brian Ertel Location: King Ballroom			
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			

Contributed Papers - Co-Authors listed in abstract section of the program				
**Indicates	**Indicates Student Paper			
Moderator: Brian Ertel Location: King Ballroom				
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	e e e e e e e e e e e e e e e e e e e			
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