Montana Beaver Working Group

Connecting people and sharing resources
to advance the beaver's keystone role in watershed health

Along Deer Creek, near its confluence with the Clark Fork River, beavers are at work in Milltown State Park. Not far from where the Milltown Dam once stood, the beavers' dynamic, organic approach to engineering is starting to restore the diverse, resilient floodplain habitat that was lost over the last century. Photo: Rob Rich

STORIES AND NEWS

Advancing the Montana Beaver Action Plan

The Montana Beaver Working Group has been busy as you know what! On March 19, 2021, the Clark Fork Coalition and National Wildlife Federation convened a virtual workshop to affirm and advance Montana's Beaver Action Plan (original plan from 2020 is available here). This meeting served as a benchmark to assess progress made since February 2020, when participants gathered to outline key goals, strategies, and actions they would pursue. Partners across the state have made great strides over the last year, centering on four core goals to:

1. **Integrate beaver into the design and approach of stream and wetland restoration**, so that beaver restoration scales up and expands beyond isolated beaver habitat projects
2. **Expand beaver on public lands headwaters** to restore self-sustaining ecological processes on riparian lands that will build resilience to drought and wildfires
3. **Provide coordinated education and outreach** on the benefits of beavers and options for addressing nuisance concerns
4. **Remove legal and policy obstacles** to beaver habitat restoration and relocation of beavers to suitable, prioritized habitat.

Success is emerging in many forms, from behind-the-scenes policy, permitting, and planning developments to on-the-ground applications of research, monitoring, and restoration practice. At the March 19 meeting, partners shared contributions to a Progress Report highlighting these efforts and establishing teams and leadership to help advance and share information about: strategic priorities in the year ahead. The Progress Report and an updated 2021 Action Plan will be posted soon; with links included in this newsletter. For more information, contact Sarah Bates at bates@nwf.org.

UPCOMING EVENTS

BEAVER INVENTORY TRAININGS WITH MTNHP, BLM, AND FWP

To help partners statewide in beaver restoration planning, the **Montana Natural Heritage Program** and **Bureau of Land Management** have developed some outstanding resources to inventory, map, and assess beaver habitat. With **Montana Fish, Wildlife & Parks**, they will be hosting two free, complementary training events that will be relevant and useful for various practitioner needs. Both trainings will be recorded and available for later viewing, but you can participate live with the following links:

Gathering Beaver Sign and Habitat Data with Survey123
April 21, 2021 12 noon MDT (one hour)
Register in advance for this meeting here.

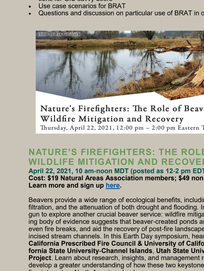
This session will provide an overview on how to download, install, and use the Beaver Survey123 tool for gathering data on beaver habitat and sign that can be used to inform beaver restoration and management efforts. Attendees will be given a chance to receive feedback on how the tool can be used in their specific projects.

Draft Agenda
- Welcome and introductions
- How to install Survey123 and the Beaver data form
- How to gather data with the Beaver data form
- Questions and discussion on particular projects and situations

Using Montana's Beaver Restoration Assessment Tool (BRAT)
April 22, 2021 12:00 noon MDT (one hour)
Register in advance for this meeting here.

This session will provide an overview of how to access and use the Montana Beaver Restoration Assessment Tool (BRAT). This tool is available in Montana's GIS Data List (search for BRAT) and publicly available as an interactive web map. The speakers will present on use scenarios, and attendees will have the chance to receive feedback on how they intend to use BRAT in a group discussion.

Draft Agenda
- Welcome and introductions
- How to access and an overview of the BRAT AGOL and User Guide, including download options for GIS savvy users
- Use case scenarios for BRAT
- Questions and discussion on particular use of BRAT in ongoing or upcoming projects



NATURE'S FIREFIGHTERS: THE ROLE OF BEAVERS IN WILDLIFE MITIGATION AND RECOVERY
April 22, 2021, 10 am-noon MDT (posted as 12-2 pm EDT)
Cost: $19 Natural Areas Association members; $49 non-members
Learn more and sign up here.

Beavers provide a wide range of ecological benefits, including wildlife habitat creation, pollution filtration, and the attenuation of both drought and flooding. In recent years, researchers have begun to explore another crucial beaver service: wildfire mitigation and post-fire recovery. A growing body of evidence suggests that beaver-created ponds and wetlands offer fire refugia and even fire breaks, and aid the recovery of post-fire landscapes by capturing debris and aggrading incised stream channels. In this Earth Day symposium, hear from experts from the **Northern California Prescribed Fire Council & University of California Cooperative Extension**, **California State University-Channel Islands**, **Utah State University**, and the **Methow Beaver Project**. Learn about research, insights, and management recommendations. Participants will develop a greater understanding of how these two keystone ecological processes, beavers and fire, interact on North American landscapes.

EARTH DAY TREE PLANTING AT MILLTOWN STATE PARK
April 22, 1 pm MDT.
Learn more and sign up here.

April is full of "days" honoring beavers, and rightly so, since it's the season when so many of these keystone rodents are going birth. April 7 was International Beaver Day, and of course April 22 is Earth Day. If you're looking for some family-friendly, hands-on, fun ways to promote beaver habitat in the Missoula area, **Milltown State Park** is hosting an event to plant and protect native trees and shrubs in the floodplain.

BEING BEAVER: THE ECOLOGY AND CONSERVATION OF A KEYSTONE SPECIES
May 10, 6:30 pm MDT
Webinar link here.

Rob Rich will be representing **Swan Valley Connections** in a virtual beaver presentation for the Sacagawea Audubon Society. With extensive observations and research affirming the significance of this wildlife-buffering, life-diversifying, water-storing rodent, Rob's talk will explore just what it takes to *be* a beaver, and how the beaver's natural history can help us to better understand, appreciate, and protect the world we share.

PARTNERING WITH BEAVER IN RIVER RESTORATION
4-hour classes: May 17, 19, 21, 24, 26 & 28
Cost: $750
Co-sponsored by River Restoration Northwest and Portland State University's Environmental Professional Program
Learn more and sign up here.

Students in this virtual short course will learn how to partner with beaver to achieve river restoration goals. With leading academics and experts working in the United States and the United Kingdom, this course will explore varied trial topics surrounding beaver natural history and restoration techniques.

RESOURCES

California Beaver Summit
Recently held over two half-days in early April, this event explored the many benefits that beavers offer to the ecosystems they occupy. It featured two keynote presentations on the relationships between beavers, salmonids, and fire refugia, as well as short sessions with leaders advancing the best available science and practice. Check out the recordings here.

Caroline Nash, et al. 2021. Great Expectations: Deconstructing the Process Pathways Underlying Beaver-Related Restoration. *BioScience*.
This new paper deconstructs the dynamic, complex relationships between goals and outcomes in the process of beaver-related restoration. As it explores contexts and contingencies across the many forms of beaver-related restoration, it evokes key questions about how to advance enduring, effective, nature-based solutions.

Brianna Randall. 2021 Simple Hand-Built Structures Can Help Streams Survive Wildfires and Drought. *Science News*.
For a comprehensive look at the increasing relevance of beavers and the low-tech, process-based restoration work they inspire, check out this article. With excellent graphics and current examples from leading researchers and practitioners across the American West, this article describes the "how" and "why" that's driving beaver restoration. Portions of Randall's new publication formerly appeared in the **National Wildlife Federation's** blog post, "How Beavers Boost Stream Flows," and the story is widely told in this video with Jay Wilde and Joe Wheaton, which summarizes the beaver benefits they've seen.

Castor Podcasters
For those ready to take a break from the screen and listen to some great conversations about beavers, make sure you check out this new podcast with Heidi Perryman, a steadfast advocate whose nonprofit – **Worth a Dam** – is a news and networking hub for the global beaver community.

For more, this podcast pairs nicely with the beaver episode in Chris Morgan's podcast *The Wild*. It features **Beavers Northwest**, whose non-lethal management of beaver population work directly informs and inspires many of the approaches we are now taking in Montana.

One Stick at a Time: What Beavers and Biochar Have in Common
In this new blog post from **Conservation Northwest** (the National Wildlife Federation's Washington state affiliate), author and **Okanogan Forest Lead Leaffer Michael Liu** explores how innovative solutions can restore healthy, functioning ecosystems when anthropogenic changes disrupt natural processes.

Montana Tech Public Lecture Series
On March 31, **Carly Peach** of **Montana Technological University** offered her presentation, "Beaver Ponds as Catchment-Wide Retention Basins for Heavy Metals Sequestration." You can find the recording of her presentation in the archive here.

ASWM-BLM, Beaver Restoration Professionals Survey
The **Association of State Wetland Managers** (ASWM) and the **Bureau of Land Management** (BLM) are working to better understand the barriers and opportunities to beaver restoration projects; existing or needed resources; and ideas, questions, or success stories you have encountered in your experiences that can be shared to improve beaver restoration processes and outcomes nationwide.

To help with this effort, ASWM has developed a Google Form to gather any information you are willing to share. They will then use this information to help develop a dedicated web resource on beaver restoration, which ASWM will host. This outreach effort includes representatives from Federal, State and Tribal agencies, as well as non-profit, academic and other beaver restoration professionals.

They are especially interested in learning about: barriers/challenges to beaver restoration work; communication strategies, tools, or resources; training needs; example beaver restoration projects; opportunities to expand collaboration and education or improve outcomes; existing or needed technical resources.

You can learn more and participate here.

ASWM-BLM Beaver Restoration Series
This impressive series, co-sponsored by the **Association of State Wetland Managers** and the **Bureau of Land Management**, currently contains six presentations archived here.

Working with Beaver for Stream and Riparian Health: How University Research Supports Conservation and Management, Part 1 and Part 2
Part 1 (featuring **Andrew Lahr**, **Andrew Bobst**, and **Jamie McEvoy**) and Part 2 (featuring **Torrey Ritter** and **Rebekah Lavine**) of this series, co-sponsored by the **National Wildlife Federation** and **The Nature Conservancy** for the **Institute on Ecosystems' Rough Cut Seminar Series**, is now available online. Stay tuned for Part 3 in Fall 2021!

Mistakis Institute — New Webinar and Report on Beaver Coexistence Tools
Our Alberta partners at the **Mistakis Institute** have been busy too! On March 18, their "Putting Beavers to Work Initiative" worked with the nonprofit **Cows and Fish** to host a webinar on beaver coexistence tools. This video was part of their winter speaker series "Exploring Riparian Stewardship and Regulations," and it provides an excellent complement to their related, recent report, Challenges to Using Beaver Coexistence Tools in Alberta. Together, these resources provide insightful, nuanced perspectives with transferrable lessons and questions for Montanans.

Please send photos, stories, upcoming events, and other resources to:
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MT Beaver Working Group newsletters are posted online at:
http://montanabeaverworks.org/