Montana Beaver Working Group

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

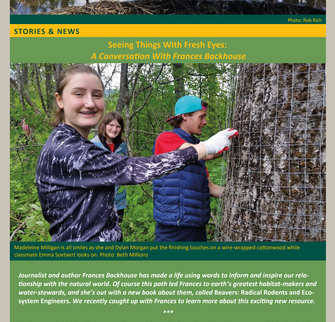
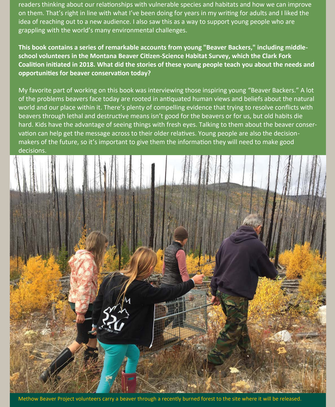


Photo: Rob Rich

STORIES & NEWS

Seeing Things With Fresh Eyes:
A Conversation With Frances Backhouse



Madeleine Milligan is all smiles as she and Dylan Morgan put the finishing touches on a wire-wrapped cottonwood while classmate Emma Soetaert looks on. Photo: Beth Millions

Journalist and author Frances Backhouse has made a life using words to inform and inspire our relationship with the natural world. Of course this path led Frances to earth's greatest habitat-makers and water-stewards, and she's out with a new book about them, called Beavers: Radical Rodents and Ecosystem Engineers. *We recently caught up with Frances to learn more about this exciting new resource.*

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You've examined 37 million years of beaver history in *Once They Were Hats*, an award-winning book of adult nonfiction. You've picked up a microphone to produce Rethinking the Beaver, a radio documentary for the Canadian Broadcasting Company's ideas series. What inspired you to direct your latest adventures with beavers to a younger audience?

An editor at Orca Book Publishers knew about *Once They Were Hats* and asked me if I would like to write about beavers for their Orca Wild series. These nonfiction books for nine- to 12-year-olds aim to get readers thinking about our relationships with vulnerable species and habitats and how we can improve on them. That's right in line with what I've been doing for years in my writing for adults and I liked the idea of reaching out to a new audience. I also saw this as a way to support young people who are grappling with the world's many environmental challenges.

This book contains a series of remarkable accounts from young "Beaver Backers," including middle-school volunteers in the Montana Beaver Citizen Science Habitat Survey, which the Clark Fork Coalition initiated in 2018. What did the stories of these young people teach you about the needs and opportunities for beaver conservation today?

My favorite part of working on this book was interviewing those inspiring young "Beaver Backers." A lot of the problems beavers face today are rooted in antiquated human views and beliefs about the natural world and our place within it. There's plenty of compelling evidence that trying to resolve conflicts with beavers through lethal and destructive means isn't good for the beavers or for us, but old habits die hard. Kids have the advantage of seeing things with fresh eyes. Talking to them about the beaver conservation can help get the message across to their older relatives. Young people are also the decision-makers of the future, so it's important to give them the information they will need to make good decisions.

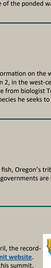
Methow Beaver Project volunteers carry a beaver through a recently burned forest to the site where it will be released.

You're a master at creating memorable images for readers, and this book boasts an exceptional synthesis of photographs, diagrams, and words to enhance the learning experience. Drawing on your process of creating, collecting, and selecting content for this book, do you have any tips or techniques for people who communicate and educate about the keystone role of beavers?

Whether I'm working with words or images, I keep two things in mind: the human brain is hardwired to connect, and people are interested in people. Although I'm a biology geek who loves scientific concepts and facts, I'm always looking for stories and characters that will keep all members of my audience engaged. Of course, beavers are the main characters in this book and I think the photos really capture their personality. I had fun with the visual side of the book-making process and was fortunate that so many members of the "beaver community" across the continent were willing to share their photos with me. I also appreciate the creativity that Orca's book designer brought to the project, with wonderful touches like the buckstooth motif in the chapter headers.

This book is bound to have impacts with children of all ages across the continent, and beyond. What lessons do you hope that readers draw out of this book and apply in their home communities?

I hope this book gets kids excited about beavers and gives them a solid understanding of why this keystone species is so important. I hope it also convinces them that coexistence with beavers is both feasible and desirable. At the end of the book I offer five ideas for celebrating beavers and five suggestions for how young people can get involved in beaver conservation and coexistence work in their communities. I'm looking forward to hearing about how readers respond.



Beavers:
Radical Rodents and Ecosystem Engineers
Is now available from Orca Book Publishers! This independently-owned Canadian children's book publisher can distribute throughout the United States in print or digital formats, and they have excellent complementary resources for educators.

UPCOMING EVENTS

Blackfeet Kik Staki Project Receives a 2021 Montana Watershed Stewardship Award

Sparked into action by ancestral respect for the beaver and the uncertainty of our changing climate, this collaborative effort is achieving on-the-ground conservation and enduring education on native land. Be sure to check out this notice highlighting their work, and the Award Ceremony held over September 15-17, 2021 on the Rocky Mountain Front.

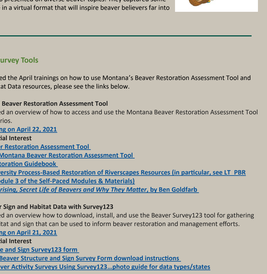


Photo: Libby Khumalo

RESOURCES

Thermal Characteristics of a Beaver Dam Analogues Equipped Spring-Fed Creek in the Canadian Rockies
Water
Tariq M. Munir and Cherie Westbrook, 2021
This new paper examines the effects of different configurations of BDAs – in series of one, two, or three – and the impacts to water temperatures upstream and downstream of the structures. While the BDAs in single and double configurations showed warmed the waters, the triple-configuration BDAs cooled the stream, thanks to the increased groundwater discharge of the ponded water.

Region 2 Wildlife Quarterly
Montana Fish, Wildlife & Parks
April 2021
This quarterly publication is an online resource featuring extra information on the wildlife projects and science taking place around Montana Fish, Wildlife & Parks' Region 2, in the west-central part of the state. The latest issue (April 2021) features an extensive nongame update from biologist Torrey Ritter, including a nod to the beaver as a keystone species benefitting many of the species he seeks to conserve.

Bringing Beavers Back to the Beaver State
Oregon Public Broadcasting
April 2021
Given the beaver's role in creating habitat for culturally important fish, Oregon's tribes are speaking up and taking action. Check out this story to learn more about how tribal governments are leading by example when it comes to partnering with beavers to heal the land.

California Beaver Summit Recordings
April 2021
For those who missed recent California Beaver Summit in early April, the recordings are now available in full and in highlight versions on the summit website. Congratulations to the extensive collaborative team who created this summit, the 19 speakers who presented on diverse beaver topics: They captured some amazing knowledge in a virtual format that will inspire beaver believers far into the future!

Beaver Habitat Survey Tools
April 2021
For those who missed the April trainings on how to use Montana's Beaver Restoration Assessment Tool and Beaver Sign & Habitat Data resources, please see the links below.

1. Using Montana's Beaver Restoration Assessment Tool
This session provided an overview of how to access and use the Montana Beaver Restoration Assessment Tool with use case scenarios.
Recording of Training on April 22, 2021
Materials of Potential Interest
- Montana Beaver Restoration Assessment Tool
- User Guide for Montana Beaver Restoration Assessment Tool
- The Beaver Restoration Guidebook
- Utah State University Process-Based Restoration of Riverscapes Resources (in particular, see LT_PBR Manual and Module 3 of the Self-Paced Modules & Materials)
- *Eager: The Surprising, Secret Life of Beavers and Why They Matter*, by Ben Goldfarb

2. Gathering Beaver Sign and Habitat Data with Survey123
This session provided an overview 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.
Recording of Training on April 21, 2021
Materials of Potential Interest
- Beaver Structure and Sign Survey123 form
- Survey123 and Beaver Structure and Sign Survey Form download instructions
- Field-based Beaver Activity Surveys Using Survey123...photo guide for data types/states

When a beaver's chiseled teeth gnaw down a shrub's leading stem, the plant distributes a growth hormone called auxin to other shoots, each which reach for the light. Thanks to millennia of beaver-plant co-evolution, this knack for regeneration is especially strong in riparian hardwoods like willows and cottonwoods, or this speckled alder (*Alnus incana*). Beyond providing for the rodents and healing or propagating themselves, beaver-cut shrubs make dense nesting habitat for birds like common yellowthroats, or tender browse for ungulates like moose. Especially in the early spring, sap exuding from cuts also sustains butterflies like mourning cloaks and offers protective defenses for other insects like cottonwood leaf beetles. Given the ways that humans have relied on such cuttings for the likes of woven baskets or thatched roofs, it's highly probable that beavers inspired the traditional practice of coppicing wood. When beavers cut a shrub, they create life. Photo: Rob Rich / Twain Valley Connections

Please send photos, stories, upcoming events, and other resources to:
Rob Rich
National Wildlife Federation
rhrich@gmail.com

MT Beaver Working Group newsletters are posted online at:
nwf.org/WorkingWithBeavers