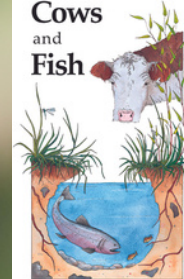


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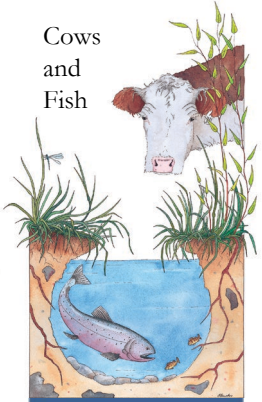


THE COWS AND FISH NEWSLETTER



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Lakeshore Living

By Norine Ambrose, Executive Director &
Kerri O'Shaughnessy, Riparian Specialist

Enjoying spending the summer at the lake? Most people are excited by the opportunity to spend time on the waterfront, whether for the chance to catch a fish, go for a swim, or sip a cold drink in a lounge chair, watching the grebes dive for insects. Having lived in the Lethbridge area for over 20 years, I really miss the call of a loon, often heard in central and northern Alberta lakes.

Families with a lakefront cabin often have generations of important memories and traditions that make their time there very cherished.

Riparian areas around lakes are important, just as they are along rivers and streams:

- Shorelines are the last chance to filter nutrients and other pollutants from runoff before they enter the lake.
- 80% of all wildlife depend on a healthy shoreline for at least some part of their life cycle. The plant biodiversity provides fish, mammals, birds, amphibians and invertebrates with food and shelter.
- Healthy shorelines stop erosion and protect the shoreline from much of the damage ice and waves can do.

Keeping a lake healthy, with clean water and habitat for fish, swimming opportunities, and all the other great things lakes have to offer often means keeping the lakeshore, and riparian area healthy too. Water quality in the lake is affected by the entire watershed that flows into the lake, but the area close to the water's edge is an important filter and buffer from impacts on the land.

In the early 2000s, we started working as part of the Vincent Lake Working Group, a group of partners around the St. Paul area, where there are many popular lakes. Collectively, we wrote articles for local newspapers, did radio interviews, held community open houses and lakeshore pancake breakfasts, to educate as well as learn from lakefront residents. The most important thing we learned was how much people loved their lake, and how they thought they were doing things that were good for the lake.

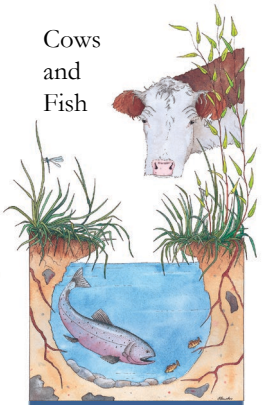
Watch Digital Stories

- [Memories](#) by Peggie Juchli
 - [My Alberta Home](#) by Tim Clark
-



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When we surveyed lake residents, the most common thing people told us they did at the lake was yard work, and when we asked further, we realized that keeping their lawns neat and well maintained was a point of pride for many. It was also a bylaw requirement for many summer village residents, since, like most towns and cities, you are required to keep your yard tidy. Removing the weeds and having a well-trimmed lawn was seen as keeping the place clean, and equated with helping keep the lake clean and healthy too.

Unfortunately, that connection is incorrect – the lawn certainly does not help filter and trap much runoff or nutrients. In fact, lawns are often a source of extra nutrients that can cause increased algae growth in the lake, as the lawn is fertilized. The plants growing in or near the water, like cattails and bulrushes, even willows, were often seen as weeds and were removed or trimmed, resulting in loss of habitat and increasing potential shoreline damage from waves and ice push up.

The efforts we made to help people connect the dots between their yards, lawns and imported beach sand, and the health of the lake and water quality did pay off – it was a rewarding day when we started to hear from community members, letting us know that they had stopped mowing their lawns, and could spend more time relaxing instead of pushing the mower!

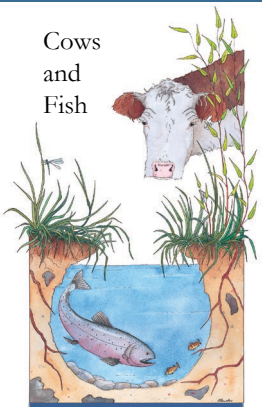


Over the years, we have worked with many lake stewardship groups, including the Pigeon Lake Watershed Association. A 2008 video shoreline assessment showed that 65% of Pigeon Lake's shorelines were highly compromised. To show how a shoreline can be restored to a healthy and functional riparian area, while still maintaining access to the shore and keeping key features to ensure enjoyment of the homeowner, we partnered on a demonstration site.

With them, and the Alberta Low Impact Development Partnership (ALIDP), we helped a lakefront homeowner make changes to their yard to create a healthier shore and lake. The key to starting was developing a plan that maintained a view of the lake, and left a path for the boat and hoist to be pulled out of the lake before ice up. Planting native willows, which could be trimmed if needed, to still allow a lake view, along with removing all the weeds was central to getting the project started. In conjunction with the shoreline planting, ALIDP developed native shrub and flower beds with extra deep soil to act as rain gardens to hold extra water, maximizing filtration before snowmelt and rainfall reach the lake.

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Pre-Construction.

Because of the fluctuating water levels and the impact of ice, bare soil often becomes covered by weeds, which needed to be removed before planting the native willows, which once established, provide more natural shoreline erosion protection.

Approximately 60 willow cuttings of 3 different species were added to the shoreline and 2 bundles of willows (fascines) were buried.

Restoration doesn't happen overnight, but with an eye for what is needed to help these spaces recover,

changes can be remarkable. Living on the lakeshore is a wonderful opportunity to build memories, play in nature, and relax. Caring for the lake is about caring for the land too—what we do on land not only affects the lakeshore, but the lake as well. We hope you have enjoyed your summer; loving the lake, and soaking in the sun and fun.



Pre-Construction: Before weeds were removed



Pre-Construction: After weeds were removed



Willow Staking



October 2016



July 2017

Two Years Later.

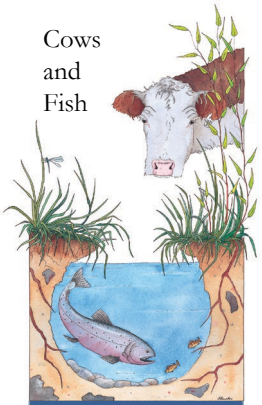


Native non-woody plants are coming back on their own and gaps are starting to fill in. A balsam poplar tree sprouted on its own.

Learn more about our [Street to Stream](#) initiative and many great stewardship stories on our YouTube Channel: [Digital Stories: Street to Stream](#)

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Welcome to the Team

Some of you might recognize these smiling faces of two of our newest Cows n' Fishers, Alex and Jed, who joined us this winter as Riparian Resource Analysts. Keep reading to learn a little more about how these two found themselves in waders, assessing riparian areas near you.

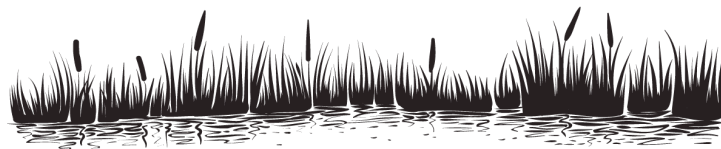
Alex Cressman



Alex Cressman has a Bachelor's in Environmental Studies from the University of Waterloo, with diplomas in protected areas management, environmental assessment and restoration and rehabilitation. He has field experience in wetlands, grasslands, and forests across Canada, working to identify and restore damaged ecosystems and to maximize ecosystem services for Canadians. A strong advocate for sustainable living and wild spaces, Alex is passionate about many environmental issues. When not in the field or at the office, Alex can usually be found looking for wild berries or bugs in ditches on his off time.

Jed Lloren

Jed Lloren obtained his Master's degree from the University of Lethbridge in 2021, where he studied the effects of the Kenow Wildfire on plant communities at Waterton Lakes National Park. Prior to joining Cows and Fish, Jed worked as a Spatial Ecologist at ApexRMS and as an Environmental Data Technician with the Canadian Centre for Evidence-Based Conservation. Those past positions have helped Jed develop his skills in the realms of biology and management and make him a great addition to our analyst team. Going back to his roots, Jed is eager to work in the field again and enjoy all the different landscapes that Alberta has to offer.



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Celebrating Five Years with Riparian Specialist, Tonya Lwiwski

We want to take a moment to congratulate Riparian Specialist Tonya Lwiwski for five wonderful years on the Cows and Fish team. Whether she's treading through a wetland in her waders, identifying every plant she can find, or serenading us on the ukulele, Tonya inspires us all with her passion and expertise on all things riparian in Alberta. Plants always bring Tonya back to her roots, and help to "root" her to a sense of place and ecological understanding, which she happily shares with those she works with. Be sure to learn more about her passion for plants in her digital story called "[The Uprooted Botanist](#)." We're so thankful that Tonya is a part of our team and we can't wait to work with her for many years to come.

16 Years of Riparian Stewardship with Kathryn Hull

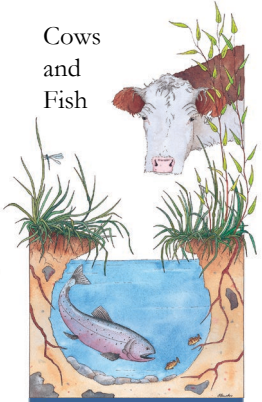


If you've worked with us, or attended a walk or volunteer event, chances are you've met Kathryn Hull. Since 2007, she has offered her seemingly endless knowledge of riparian ecosystems, not only with her colleagues, but with community members and partners alike. She has certainly left her mark on Cows and Fish through her passion for science and the natural world. Even though we miss her already, we wish Kathryn all the best as she moves on to the next chapter of her life!

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Photo of Iris George, TUC

Are you a Beaver? Cause Dam!

Low-Tech Process-Based Riverscape
Restoration Pilot Project

By Iris George, Trout Unlimited Canada

LTPBR is an emerging technique for increasing floodplain connectivity in structurally starved streams, bringing them to a self-sustaining state. These techniques have been widely utilized in the United States to address habitat loss and degradation for native trout. A major cause of structural starvation in streams in North America is the loss of beaver overtime. During the fur trade, beavers were trapped to near extinction across much of the continent, and while populations have recovered in some areas, trapping continues, and their populations continue to be much lower than they once were.

Two types of structures are utilized in LTPBR, both built entirely with natural materials: beaver dam analogues (BDAs), and post-assisted log structures (PALS). BDAs are built to mimic natural beaver dams, creating upstream pools to slow stream flow and increase available fish habitat while increasing water storage both at the surface and in groundwater. PALS mimic natural, in-stream log jams and wood accumulations, and are built to alter erosion and deposition patterns within streams to combat incision and restore water flow between the stream and riparian area.

Desired outcomes of LTPBR include attenuating flood flows, increasing water storage, recharging groundwater aquifers, increasing habitat complexity, and providing valuable overwintering habitat for native fish. LTPBR is a promising tool to accomplish these goals because of its cost-effective nature, as building materials are natural and largely sourced on-site, and structures can be built using hand tools as opposed to relying on large machinery. This creates the potential for it to be utilized at much larger scales, which match the scope of stream degradation in Alberta.

Trout Unlimited Canada (TUC) saw great potential for utilizing LTPBR to benefit native trout and their habitat in Alberta, but a lack of understanding and examples of these techniques in Alberta proved to be a challenge in implementing projects.

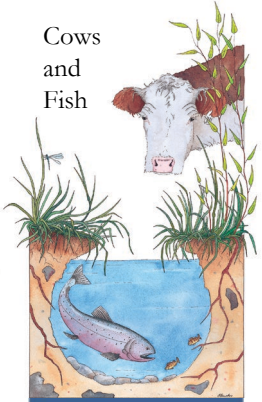
TUC proposed hosting an LTPBR Workshop in Alberta, which was spearheaded by our Adaptation and Resilience Training Project Assistant, Iris George, who helped us pull off a successful workshop. Alberta's first Low-Tech Process-Based Restoration (LTPBR) Workshop from May 9-11, 2023 was born! With the help of partner organizations and grants, we contracted Dr. Stephen Bennett and Scott Shahverdian from Anabran Solutions along with Idaho rancher Jay Wilde to run the workshop, and had representatives from permitting agencies, local restoration organizations, academia, and landowners present at events.



The BDA workshop crew

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The workshop took place over three consecutive days in the Chain Lakes area, and included classroom presentations, stream site tours, and an in-stream LTPBR build. Across all workshop activities, 56 individuals were reached. Partner organizations in the LTPBR Workshop along with their associated contributions included:

- Alberta Conservation Association, Land Stewardship of Canada (Watershed Stewardship Grant), and Alberta Environment and Protected Areas (Watershed Resilience and Restoration Program): provided financial assistance for the workshop and associated stream rehabilitation activities
- Cows and Fish, Miistakis, and Oldman Watershed Council: provided financial assistance towards the workshop and networking event, and in-kind support by way of advice, knowledge sharing, and monitoring
- MD of Ranchland 66: provided in-kind support by hosting the classroom session at their municipal building as well as use of their side by side and for hauling materials to the restoration sites
- Waldron Ranch: provided permission to host the hands-on component of the workshop on their property

Over the next few years, TUC hopes to see several outcomes from the 2023 LTPBR Workshop. Internally, TUC will utilize the knowledge and experience gained from the workshop to aid in the design and installation of several more LTPBR projects. They will continue the LTPBR construction begun in Jim Creek during the workshop and have plans to begin several more projects over coming seasons. They also hope to see other organizations present at the workshop adopting LTPBR practices and installing projects of their own. They also hope to see some Alberta-specific LTPBR research undertaken by the academic researchers present at the workshop.

Thank you to all of our partners on the LTPBR Workshop for their guidance and support of our vision, including Cows and Fish, the Miistakis Institute, the Municipal District of Ranchland 66, and the Oldman Watershed Council. Thank you to Stephen, Scott, Jay, and the rest of their team at Anabran Solutions for their willingness to help us bring LTPBR up to Alberta, and their push to keep expanding the use of this promising technique. And finally, thank you to the Adaptation and Resilience Training Program and the University of Alberta for their creation of this incredible program and support to the interns throughout this process.



The BDA workshop in action



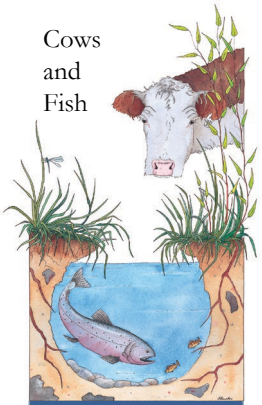
Learning the BDA technique



The completed BDA

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Upcoming Event

Join Big Lakes County, Peace Country Beef and Forage Association and Northern Sunrise County for a workshop on September 12, 2023, at 9:30 a.m. – 4:30 p.m. at the Triangle Hall that will focus on several different forest grazing topics with a pasture walk at 1:00 p.m.

Tickets can be purchased online by [clicking here](#) or by contacting Big Lakes County at (780) 523-5955.

Event Cost: PCBFA members will be \$25/person, non-members will be \$30.



Join our Team

Are you passionate about environmental stewardship? Do you love working outside? We're hiring for two Riparian Specialist positions in Southern Alberta! **Deadline to apply is September 15, 2023.**

[Click here to apply](#)



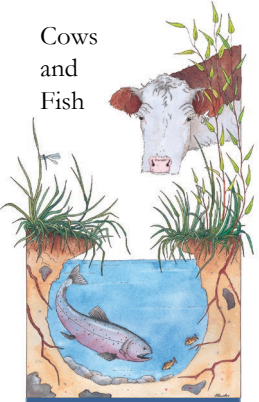
10 years of ALUS: Measuring Farmer's Stewardship

Check out the latest video series showcasing the environmental stewardship of farmers and ranchers in Red Deer County, supported by [ALUS](#) and measured by Cows and Fish. [Click here](#) to watch all of the videos.



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Can we do something to get water back into dry creek beds? Yes, we can, and beavers can help. But beavers need OUR help first. Like the question of what came first, the chicken or the egg, what is the sequence of beaver and water?

Like trout, ranchers, and willows, beavers need water, otherwise they can't construct dams quickly enough to dodge predators. Beavers are amazingly adaptive creatures, but they can't build safe homes overnight from nothing. So the answer to what needs to come first is water. Read the article "Being a Beaver's Little Helper" by our co-founder, Lorne Fitch, P. Biol. on [Alberta Native Trout Collaborative's blog](#).

Did you know that Lorne Fitch is now a published author? Make sure you check out his new book, "Streams of Consequence," which has been called a cross-section of stories and essays on Alberta's biodiversity riches and treasured landscapes. [Click here to learn more](#).



Original development of our newsletter was graciously supported by **Alberta Ecotrust Foundation**, along with our many core [funders and supporters](#). As you may know, we rely upon grants to do much of the work we do, so if you want to suggest an opportunity, collaboration, or [make a donation](#), please do! If you haven't already subscribed to our newsletter, [click here](#) to sign up.

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Have you worked with Cows & Fish in the past?

- Have you wondered how your riparian area scores now?
- Wanted to have an extension event in your local community?
- Have a riparian management story to share?

To increase the broader community's riparian awareness and expertise, we will deliver extension events with local partners, bringing together neighbours and sharing successes. If you are a landowner we worked with in the past, and want to reconnect with us, give us a call or email. Visit our [contact us page](#) for more information.

We love hearing from you!

Please contact Norine Ambrose nambrose@cowsandfish.org or any Riparian Specialist, to follow up on any items in this newsletter. For full contact information, visit our [contact us page](#).

Cows and Fish

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Trout Unlimited
CANADA



Truite Illimitée
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RMA
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of ALBERTA



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Association**

A special thank you to our partners