

Summer 2022

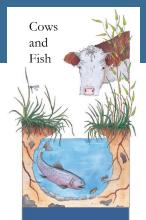
The Cows and Fish Newsletter



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Common Misconceptions

By Logan Peters, Communications Coordinator with contributions from staff

For 30 years, Cows and Fish has been giving you the cold, hard facts about riparian areas. Some might even say that we are riparian detectives; assessing and analyzing countless streams, rivers, lakes, and wetlands. One aspect of our work is supporting landowners and community groups by dispelling the myths and misconceptions about riparian health and their functions, and replacing those misconceptions with science-based knowledge and advice. Here are three common misconceptions that we've encountered over the last 30 years.

Misconception 1:

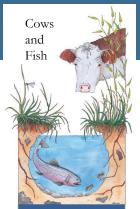
"Messy riparian areas are not healthy"



Left Picture: A "Manicured lawn." Right Picture: Riparian area is left "messy."

A "messy" riparian area is often a healthy one. When we say "messy," what we really mean is the area is "rich in biodiversity," rather than mowed and manicured. When talking about riparian areas, biodiversity means more diverse types and depths of roots to hold the streambank together, more structural layers provide a home for species to thrive, and more plants filter and trap sediment, ultimately resulting in cleaner

water. When the Cows and Fish team works with landowners and partners to restore a riparian area or change management, we aim to "mess" it back up again, leaving behind leafy litter for ground cover to slow runoff, add nutrients and retain moisture in the soil; sometimes we even scatter woody debris to slow runoff further and provide habitat. The more diverse a system is, the better able it is to cope with environmental stressors, such as floods and drought. The same is true for waterfront properties. Clearing and mowing land along your lakefront property to access the lake or for better views can increase runoff, with negative impacts to water quality, such as algae blooms. Simply leaving an un-mowed buffer along a water's edge encourages willows and native plants to grow back naturally, providing a filter for runoff and habitat for wildlife (with an added bonus of less yard work!)



Misconception 2:

"Floods are bad"

When we think of floods, we typically think of loss – loss of habitat, loss of land, loss of home. But did you know that floods have benefits too? One important aspect of flooding to consider is that if humans did not live and develop in floodplains, flood events would pose little or no risk to us. Floodplains exist as a temporary area to house excess water produced by heavy rains and snowmelt that the stream and river channels cannot hold. Natural flood events can aid in habitat restoration by



An example of sediment trapped by plants in a flood event, creating deep rich soils and rebuilding banks



The Bow River in Calgary during the flood of 2013

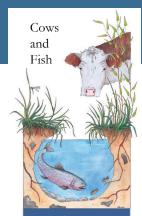
flushing out sediment. Floods scour algae from rocks, re-wet the floodplain, recharge aquifers, and flush nutrients, putting sediment back onto the banks where it can support primary productivity as 'good mud', including allowing space for new baby trees and shrubs to establish (aka seedlings).

Misconception 3:

"Beavers are pests"

Beavers are nature's best builder. These hard workers are often known for causing flooding and damage, but did you know that beavers have many positive impacts on the landscape as well? Not only do beavers promote biodiversity by creating wetlands and streams, their ponds store surface water, and act as a natural filter by trapping and storing sediment – effectively expanding riparian areas. This process provides clean sources of water for a variety of uses in both agriculture (drinking water for livestock and for irrigation) and recreation (better hunting and fishing opportunities), not to mention cleaner water reaching water treatment plants for human use. Click here to learn more.





Cows and Fish at 30: Meet the Board

By Norine Ambrose, Executive Director



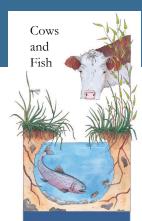
Cows and Fish Board members and staff on tour with ranchers, showcasing the work they have been doing - looking forward to doing this again after 2 years of missing these in-person tours

In this, our 30th year, we are taking time in our newsletter to profile our members – those organizations and individuals that have ensured our success with pragmatic actions, shared interests, and strategic connections. In this issue, we are profiling one of our long-standing members, the Canadian Cattle Association (CCA - recently renamed from the Canadian Cattlemen's Association) and one of our somewhat newer members, the Rural Municipalities of Alberta (RMA).



CCA was represented in our earliest meetings, bringing a national perspective to the development of what would become the Cows and Fish Program, bringing environmental considerations to how land is managed **Association** by the beef sector with insightful understanding of the politics (small 'p') of the world we work in—helping

connect our messages, and program, to other provinces, other federal programs and initiatives, giving us national profile. In addition to the work on the Board and committees, CCA has also helped connect us to funding and strengthen collaborations with partners like the MultiSAR program, as we work on riparian and grazing management to benefit greater sage grouse habitat in south eastern Alberta in recent years. Doug Sawyer has been on our Board of Directors, as a CCA representative, for many years, and is currently our vice president – his strategic thinking and connections to the broader beef sector and government strengthen our organization.



The Rural Municipalities of Alberta (RMA) represents every rural and specialized municipality in Alberta, including counties and municipal districts, which covers 85% of the province. RMA's membership is an invaluable asset, since a significant amount our work is with rural municipality's agricultural and



conservation departments and staff. Having a better connection and understanding of these local governments and programs helps us work more effectively, since on-the-ground work is critical to influence riparian area management. The RMA brings an understanding too of the intricacies of how counties are making decisions, are affected by provincial mandates or regulations, and offers an opportunity for us to support our mandate, with improved relationships to local decision makers and those on the ground working with landowners. Often, rural municipalities are the key to unlocking invitations into their communities—to work with them, host events, and provide the local contact for landowners. Currently, Jason Schneider represents the RMA, bringing a wealth of experience in municipal governance, as well as practical understanding of agriculture and organizational management, that strengthens our Board.

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Caring for the Green Zone

A Fortress Made of Wood

By Amy McLeod, Provincial Riparian Specialist

"Try imagining a place where its always safe and warm

Come in she said,

I'll give you shelter from the storm"

-Bob Dylan, Shelter from the Storm



Some of my earliest and fondest memories are playing in the trees down the street from my house.

Escaping to the woods to collect sticks, stumps, and leaves to build a fort provided refuge from the sweltering heat of the badlands and a haven from the pressures of childhood chores. In my child's frame of reference, when time lasted longer and my backyard was the world, that green fringe along the Red Deer River, was a vast and endless forest.

The forest offered comfort and security. A big tree to climb was the perfect outlook offering a different perspective—when I wanted to feel bigger, I would climb up and watch the world around me get smaller. A large overhanging branch provided the perfect place to secure a rope swing; ideal for a quick thrill or a moment to swing my cares away. Branches and sticks were erected for shelter, old wooden stumps for furniture, and leaves and grasses for bedding. My fortress by the river was the perfect hiding place for our kids club, a space to belong, and a container for secrets and plotting mischief. The narrow wooded area by the river provided, and in my fort, I felt safe and secure.

Later in life, during a wilderness survival course, I learned that after securing water and building a fire, the next step to ensure survival is to build a shelter—a fort. This is recommended for two reasons. The first reason is to provide shelter from the elements, to keep you physically comfortable, warm, and most importantly, dry. The other reason is psychological, to keep your mind focused on caring for yourself—shelter creates a feeling of security. Looking back on it now, it makes sense that those memories of building forts as a child are still so vivid in my mind, particularly now, when the world seems so uncertain and unforgiving.

I know now that those early experiences of building forts in the woods were critical for setting the foundation for the work I do today as a biologist, and for the connection, responsibility, and commitment I feel for the environment. As a Riparian Specialist, I also know how important those areas connecting land and water, riparian areas, are for security of the river and the communities the river supports. Although these areas only make up 2-5% of Alberta's landscape, the products, services, and benefits of these riparian areas are tremendous.

Caring for the Green Zone



There are a lot of things in the world right now that threaten our security. More and more, I think about those small wooded sanctuaries to escape, to feel safe, and their profound importance to security. Last time I visited the Drumheller valley, I took my kids to show them the place where I grew up. We parked across the street from my old house and walked up the block toward the river. My heart broke as we crested the dike, which was much larger than I remember, and most of the trees were gone. A stump remained where an epic poplar once stood.

The tree that held my favorite rope swing and many of my fondest memories was gone. That same poplar also once held nests for birds, the bank of the river together, and the solutions for a sustainable future.

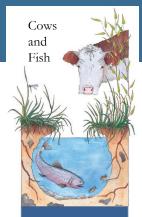
"Now there's a wall between us, somethin' there's been lost, I took too much for granted, I got my signals crossed..."





To thwart the threats of catastrophic flood events, that could become more prevalent as a result of climate change, the trees along the Red Deer river were logged to make room for a larger dike to separate the river and the floodplain. The current dike was made large enough for trucks to drive along, and drop sandbags and rocks in a desperate attempt to armour and guard the river bank and to hold all the water in. The irony here, is that the very thing that enabled bank stability and water storage in the first place—the forest, was removed. And therein lies an important question: *Is it worthwhile to try to hold a river in its channel—isn't the floodplain meant to flood?*

In the words of my mentor, and Cows and Fish's founder, Lorne Fitch, "Rivers don't cause floods—they simply convey flood waters... Blaming the river for flooding is like blaming the hammer that you used to hit your own finger." To avoid an incident, it would make sense to keep your fingers out of the way and operate with more care. Hard engineering solutions to floods, such as rip rap and channelization help move the water away quickly, and may provide a temporary solution, such



as moving the water, but this is not a long-term solution if you live downstream, or in low flow periods when water is in short supply.

Channelization also prevents water from accessing the floodplain to rehydrate to soils and deposit nutrients for the benefit of supporting vegetation. This vegetation along the banks is critical for holding the banks together, shading the streams, preventing erosion, filtering run off, and providing habitat for fish and wildlife, not to mention an ideal location for a rope swing and fort. Riparian forests are also critical for slowing the flow and storing water, which is helpful in the event of a flood or a drought, and can mitigate desertification.

Given climate variability and the increased potential of extreme weather events, planning for a secure future means enhancing the resilience of our natural and social systems—being able to withstand pressure, adapt to change, and bounce back, is of the utmost importance if we are to weather the storms. I hope for a future where children have the same opportunity as I did to venture into the woods and built a fort; a place where they can escape and feel safe and secure.

"And if I pass this way again, you can rest assured

I'll always do my best for her, on that I give my word

In a world of steel-eyed death, and men who are fighting to be warm

Come in, she said

I'll give you shelter from the storm"



Caring for the Green Zone

Meet the new Cows and Fishers

Every year, we're lucky enough to bring on a new "crop" of staff to make our mission of healthy, functioning, riparian areas for the benefit of all, a reality. These five individuals bring with them a diverse background of priceless knowledge, passion, and skills, and we are thrilled to welcome them to our team.

Jennifer Caudron, Riparian Specialist

Born and raised in Alberta, Jennifer was first introduced to the field of rangeland and riparian management at Lethbridge College over 25 years ago. As a life long learner, she followed up with the Wildlife and Rangeland Management program from the University of Alberta and has been hooked on helping land managers make sustainable decisions on the land they are passionate about, ever since. Jennifer is the current president of the International Mountain Section of the Society of Range Management and has recently returned to Cows and Fish as a Riparian Specialist after spending the last 4 years working with agricultural producers and the ALUS program in Parkland County.



Levi Williams-Whitney, Riparian Specialist

As a recent graduate of the University of Lethbridge's Environmental Science program, Levi is excited to collaborate with the many stewards that call southern Alberta home. He brings to Cows and Fish a diverse background that includes various roles within conservation, industry, and agriculture. He understands the growing need for watershed resiliency and the role exceptional riparian management plays in protecting our land, water, wildlife, and people. Levi is passionate about the Cows and Fish process and hopes to carry on the torch of the many dedicated stewards that have paved the way thus far.



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Maddison Skinner, Riparian Resource Analyst

Maddison grew up on a small farm in Australia, and her childhood love for the outdoors transformed into a passion for conservation that led her to a degree in ecology. She has since worked in a variety of areas: camera trapping on ecological reserves, auditory owl surveying projects, invasive plant control in National Parks, and threatened snake and turtle surveys in Ontario. Maddison is passionate about working with ranchers and farmers to help them to improve the health of the beautiful riparian areas they steward.







Anne-Marie Lefebvre, Riparian Resource Analyst

Anne-Marie is a recent graduate of the Recreation, Fish, and Wildlife program at Selkirk College's School of Environment and Geomatics. Her passion for native flora and fauna, outdoor recreation, and aquatic ecosystems has led her to Cows and Fish, where she is evaluating the health of riparian areas across Alberta. As the planet is starting to show evident signs of global warming, Anne-Marie is especially interested in further understanding how different species interact within ecosystems, and how they respond to disturbances. Above all, she desires to influence decisions that will limit negative impacts on the fragile ecosystems of Alberta.

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April Kurtz, Administrative Assistant

April joined the Cows and Fish team this Spring in the role of Administrative Assistant, working part-time in the Lethbridge office. She comes to us after retiring from a well-enjoyed career in the Disability Services field. When not at work, April's favourite past-time is spending time with her children and growing company of grandchildren. She also enjoys creating furniture and décor with her husband in their home workshop, camping, traveling, reading fiction, and gardening.





<u>Click here</u> to learn more

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Protecting Alberta's Crown Jewel - Crown Land

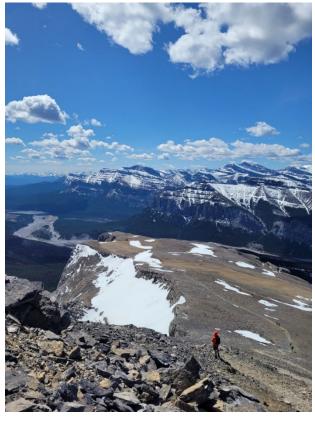
By Alberta Environment and Parks

If you've spent any time exploring Alberta's great outdoors, chances are you've visited provincial Crown land. Crown land covers approximately 60 per cent of the province, including provincial parks, protected areas and public land, and sustains Alberta's abundance of resources and biodiversity. Albertans have always been passionate about exploring all that Alberta has to offer. In recent years, our outdoor recreation patterns on Crown land have changed. The demand and intensity of use has increased, and the equipment Albertans use on the trails has become more specialized and powerful. Alberta is seeing conflicts over land use and increasing demand for outdoor recreation opportunities, and pressures are having large-scale impacts on the health and sustainability of land, water and natural resources. This impact includes our riparian areas and waterways, which are some of the most sensitive and well-loved areas in Alberta.

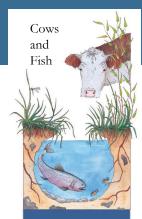
Crown land is for all Albertans to enjoy – responsibly. Outdoor recreation impacts the environment, and it is up to all of us to ensure those impacts are responsible.

Responsible recreation means thinking ahead and following a few best practices during outdoor adventures.

- Plan your trip on established trails that are designated for your activity.
- Follow the regulations in place for the area you are visiting to help ensure sensitive areas are not being accidentally disturbed.
- If you are riding an off-highway vehicle (OHV), remember to use legal crossings and keep your wheels out of the water – off the bed and shore of waterbodies – to avoid erosion and impacting downstream aquatic ecosystems.
- Leave the area you are visiting better than you found it. This means leaving nothing behind – take all garbage, compost, recyclables and human waste home or to a dump station for proper disposal.



A Crown land hiker enjoying the view of the Ghost River watershed



Responsible recreation can go a long way to protect delicate areas, now and into the future. So whether you are planning your first or hundredth visit to provincial crown land, know and follow the rules in place for your activity and for the area you are visiting. These rules are designed to keep you, other users and the environment safe so we can continue to enjoy Alberta's Crown land.

There are lots of great resources available to learn more about responsible recreation, and the rules that apply to all types of outdoor activities. Check out these resources, and share them with others that you encounter on the trail!

- Alberta's Guide to Outdoor Recreation on Crown Land includes helpful information about recreation activities, best practices and maps: alberta.ca/OutdoorRecGuide
- Follow Environment and Parks on social media (<u>Respect the Land in Alberta</u> and <u>Alberta</u> Parks on Facebook
- Search for more resources using the Outdoor Recreation Look Up tool: https://www.alberta.ca/lookup/outdoor-recreation-resources.aspx

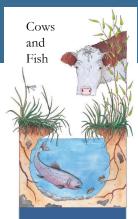


Two OHV riders crossing a bridge on Crown land

Users can also help protect the land by calling 310-LAND to report public safety incidents, illegal activity and enforcement concerns you may experience or witness. Crown land users can also call this line 24 hours a day, 7 days a week for general information about Crown land and Crown land use in Alberta.

Through responsible use and enjoyment of the land, we can all play a role in ensuring Crown land can be enjoyed for generations to come.

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Riparian Fun Fact: Sedges have Edges

By Jennifer Caudron, Riparian Specialist

Sedges have edges, rushes are round, grasses have nodes from their head to the ground. Have you heard this rhyme? If so, (or not) you likely know that identifying grass and grass-like plants can be tricky even for the most discerning of botanists. If you have ever joined a Cows and Fish staff member on a riparian or pasture walk, you have most likely noticed that they usually have their head to the ground, keenly noting finite vegetative details of grasses, sedges and rushes.



Can you guess which of these images are grasses, sedges, or rushes? **Hint**: Continue reading the newsletter to find the answers

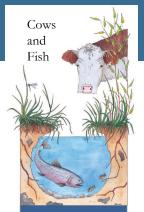
Applying The Rhyme

Sedges have triangular stems, unlike grasses, which are round stemmed. Rushes, also round stemmed, are not hollow like grasses.

You might be wondering, 'Why does this matter?' The key feature of a riparian area is the relationship between soil, water and vegetation. The types of plants present is an indicator of riparian health. These plants perform several key functions like binding banks and shorelines together against the forces of erosion. Grasses and grass-like species are critical to the health and function of riparian areas, providing ecosystem services such as sediment capture, primary productivity, and fish and wildlife habitat.

FAST FACTS

- There are over 100 species of sedges in Alberta
- Sedges are more palatable to livestock in the fall and winter – a lot of landowners call these 'slough grass' and while there is a grass actually called slough grass, often what is called 'slough grass' is actually sedges, not grass at all
- Rushes improve riparian habitat for amphibians and create spawning areas for fish
- Native riparian grass and grass-like species such as marsh reed grass, sedges and rushes have deep rooted systems that can tap deeper water and withstand drought conditions in addition to providing streambank stability





- **1. Beaked Sedge,** *Carex utriculata* (sedge, so grass-like but not a true grass). One of the most widespread large sedges across Alberta.
- **2. Common Cattail,** *Typha latifolia* (a broad-leaved plant, not a grass-like plant at all). The hotdog shaped seed head it is named for dries and releases many fine, fluffy seeds.
- **3. Blue-eyed grass,** *Sisyrinchium montanum* (a broad-leaved flowering plant, not a grass-like plant at all). It has 'grass' in its name because of the very narrow leaves and slender stem.
- **4. Downy brome (or cheat grass),** *Bromus tectorum* (a true grass). Unlike most grasses in Alberta it is an annual and is invasive in riparian areas and elsewhere.
- **5. Common Great Bulrush,** *Scirpus validus* (a rush, so grass-like but not a true grass). Prefers to live in standing water along lakeshores and wetlands, or very slow moving water. Also renamed to *Schoenoplectus tabernaemontani* which is a lot harder to say!
- **6. Slough Grass,** *Beckmania syzigachne* (a true grass, found in riparian areas, particularly wetlands, in the moist, but not extremely wettest zones)

HAVE YOU REACHED YOUR RIPARIAN HEALTH GOALS? We can help! Our services include: riparian grazing management, off-stream watering, riparian restoration, riparian buffers, riparian planting/restoration, healthy lakeshores, hands-on field days and riparian health assessment. Best management practice funding is available in some localities! Have you worked with us in the past? We would like to hear from you! Help inspire change in your watershed by sharing your story.

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Contact us today: At cowsandfish.org or at (403) 381-5538 / riparian@cowsandfish.org

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Upcoming Events







2022 Recreational Stewardship Fairs

Date: Aug 6 / Aug 20 / Sept 24, 2022

Time: 10am – 3:30 pm Location: Various Locations

Description: If you like recreating in Alberta's beautiful backcountry, we've got you covered! Discover backcountry skills, eat delicious food, take part in hands-on activities, and learn how to be a steward of the land at the Recreational Stewardship Fair nearest you! Register Here

Riparian Health Assessment & Plant ID Training

Date: August 11, 2022 Time: 9am - 4pm

Location: Southwest Alberta

Description: Register to spend a day with Cows and Fish staff to improve your understanding of riparian ecology and management. This day is designed for those working in agricultural or conservation extension, or others in related professions who need to have a better understanding of riparian health and ecology. Register here

Peace Country Forest Grazing School

Date: September 9 & 10, 2022

Time: TBA

Location: Eureka River

Description: Save the date! Topics will include grazing forested pasture, plant ID & forest range/riparian health assessment, dealing with problem wildlife (e.g. elk, beaver), as well as management & economics of good grazing

practices.





Did you know that we have a <u>digital stories</u> library?

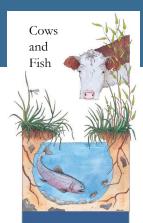
Cows and Fish has partnered with the <u>Centre for Digital Storytelling</u> to continue to enhance our storytelling skills and engage audiences with meaningful messages. Digital storytelling is the art of using digital media to craft, record, share, and value the stories of individuals and communities, in ways that improve all our lives.

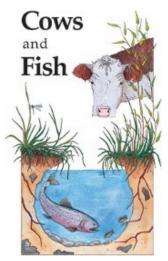


Original development of our newsletter was graciously supported by **Alberta Ecotrust Foundation**, along with our many core <u>funders and supporters</u>. As you may know, we rely upon grants to do much of the work we do, so if you want to suggest an opportunity, collaboration, or make a donation, please do!

DONATE

SUBSCRIBE





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.

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 website at: https://cowsandfish.org/contact-us/

Cows and Fish

2nd Flr, Avail Building, 530-8th Street South, Lethbridge, AB, T1J 2J8 Ph: 403-381-5538













A special thank you to our partners