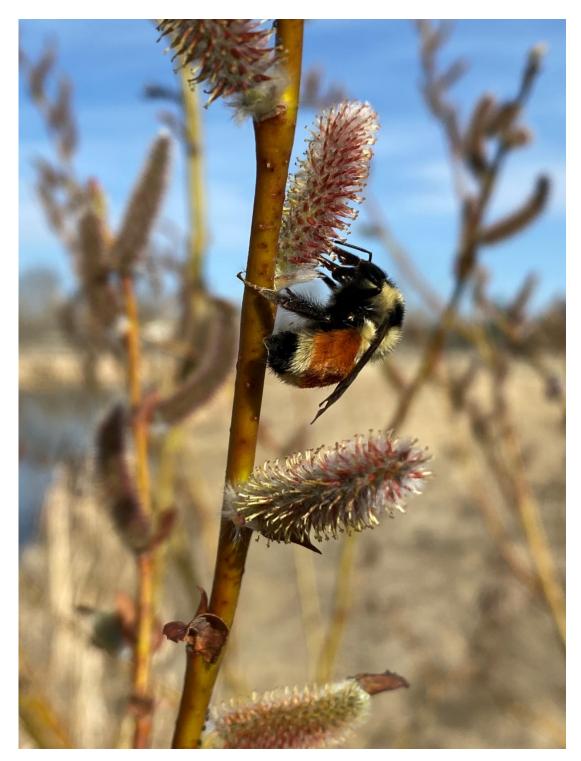
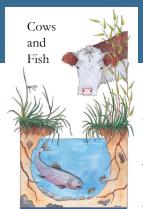


Welcome to the Cows and Fish Spring 2021 Newsletter

Volume 10





Did you know that...

Willows, which are commonly found in riparian areas, are very important spring food for bees? They are one of the earliest native blooming species (think pussy willows!) that can bloom in abundance.

By having a diversity of trees, shrubs, and flowers, each with their own different bloom periods, you create food for longer periods for bees.

According to our partners at the <u>Agroforestry & Woodlot Extension Society</u> (<u>AWES</u>), we have over 300 species of bees in Alberta. Wild bees are the most efficient species of bee because they forage early in the day, buzz pollinate, harass honeybees, and forage in wetter and colder conditions.

Click here to learn more about pollinators



Agroforestry & Woodlot Extension Society



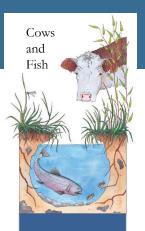
An example of a Willow

Click the links from AWES below to learn more about flowering times for native plants in:

<u>Boreal Areas</u> and <u>Parkland Areas</u>

IN THIS ISSUE

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- <u>Riparian Fun Fact: Buffers</u>
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New Beginnings: Practicing mindfulness to restore our relationship to nature

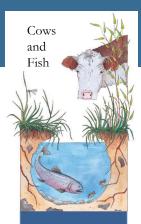
By Amy McLeod, Provincial Riparian Specialist

"Most of us walk unseeing through the world, unaware alike of its beauties, its wonders, and the strange and sometimes terrible intensity of the lives that are being lived about us." — Rachel Carson, Silent Spring



As we reached the crest of Nose Hill Park in Calgary, the anticipation was building, "Mom, I don't see anything yet, they're not ready. It's still too early."

Then, a sigh of disappointment when we reached the plateau, a broad expanse of monochromatic browns from a grassland still dormant. The only reprieve from brown and bland is the occasional straw yellow; a golden marker waving in the spring breeze – a memorial of life before winter, and the sharp contrast of blue sky on the brown and yellow horizon.



"Careful" I warn, "if you aren't paying attention you might miss one. Once you start to notice, a new world will emerge all around you."

When I started my career as a scientist, I never thought I would be writing about mindfulness. Mindfulness was something I did outside of science and had a different look, which involved a different outfit all together. I was younger then.

A key principle that informs the work I do now with Cows and Fish, is that human decisions determine ecosystem health. If people can see themselves as active participants within a system or problem, and understand the dynamics of that system, they may be empowered toward finding solutions. To promote land stewardship, we start with awareness (seeing) to cultivate ethic (caring) in order to motivate action (doing). But what is awareness?



Awareness goes beyond sharing information and memorizing scientific facts. While scientific facts are important, awareness also involves relationship and intimacy; placing oneself within a system and experiencing one's surroundings with all the senses, so the mind becomes fully engaged. Engaging the senses when in nature, allows us to be fully present and see with not just our eyes, but with our whole being. Awareness is embedded in human perception and merges what we experience outside with what we feel inside, creating sensory impressions that become embedded in memory. The addition of human perception of

ecosystems acknowledges that managing ecosystems is inseparable from managing how people perceive, value, and use ecosystems.

"Look! I see one," I say with excitement. "You almost walked right by it without noticing." There, emerging from a tuft of brown crunchy grass sheaths, a little fuzzy purple prairie crocus (*Anenome patens*). A beacon of life. Suddenly it's as if a new scene is revealed, the kids begin to see them all around us, springing forth a sense of delight that spring has come. Cows and Fish

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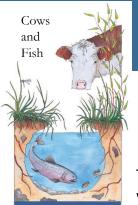
Caring for the Green Zone

For them, excitement takes hold. They get down on their knees to try to smell the ones that have opened. I remind them to leave them for the bees – the prairie crocus is one of the first flowers of spring, so it is an important food source for pollinators. They gently touch the soft fuzzy crocus noting that perhaps this fuzzy coat is what allows the plant to stay warm in the cold spring breeze. We look it up later and find that it is the saucer shape of the flower which tracks the sun that allows the crocus to keep warm. It can be up to 10^oC warmer than the air temperature inside the petals.

I am brought to my knees as well. I take a moment to remember my Papa. For me, the crocus is attached to a memory of him. Every spring he would take us on a search party to see the first crocuses, which we called "coco roses." Having lived in the badlands for most of his life, he knew where to look, the places where the grasslands of his childhood remained. This was a time before television and computers, when kids spent more time exploring outdoors. My Papa passed away a few years ago now, but every spring when I see a crocus, its almost as if I get to experience him again. Now I, like the crocus, begin to feel a warmth inside. I continue the tradition with my kids, these mindful experiences nourish new relationships with my kin, human and non-human, and find new beginnings.

Through practicing mindfulness in nature, we can uncover ways to reconnect ourselves with the natural world around us, building an awareness that what meets our needs, feels good, and connects us to something greater, is consistent with sustainability. There are many ways to know and experience nature. Use your senses to explore the sights, texture, sounds, and smell of the natural world around you. Whether searching for crocuses, taking in the colourful sunset before the night sky, listening to the conversations of birds, or feeling the spring breeze on your skin, mindfulness in nature can enhance awareness, cultivate stewardship, and improve wellbeing.





When the Meadowlark Sings

By Lorne Fitch, P. Biol.

The trill of a meadowlark in full song penetrated the cab of the truck, overcoming the whine of tires, radio voices and engine noise. Somehow the quality of that song, certainly not its volume, triggered a smile and a sigh of weather-related relief. If there is a tangible, audible signal of spring, the meadowlark produces it in an unforgettable set of notes.

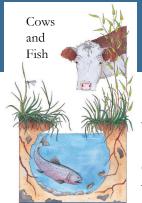
"Repeated, melodious flute-like phrases" is how the Audubon Society's Field Guide describes the sound. Something like "hip hip hurrah! Boys three cheers." This would certainly qualify as the fond expectation of spring.

A more precise description includes: "a complex, two-phrase primary song that begins with 1-6 pure whistles and descends to a series of 1-5 gurgling warbles." I don't think any of those descriptions would help you distinguish the song of a meadowlark, but once you've heard it, the sonogram is riveted in your brain.

A meadowlark's song isn't just a musical composition that provides a sense spring is upon us. The composition and combination of bird and song are more than that audible reminder. A meadowlark is a synecdoche, a tangible, living representation of a grassland landscape that extended from the Rocky Mountains to the Canadian Shield and from the boreal forest to the Gulf of Mexico.



Meadowlark photo Courtesy of Andy Hurly



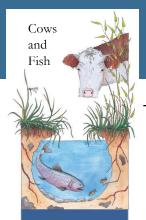
Meadowlarks return to Alberta's grasslands and parkland early, to a brown, sometimes a white world devoid of color. Although these birds have streaked brown upper parts, blending with the tans and browns of early spring grasslands, they harbor hidden splashes of color. Their underparts are a solid rich yellow which the meadowlark males telegraph from perches on power poles, fence posts and sage brush clumps. Across their vibrant yellow chests is an elegant black collar, which resembles a black tie, as if the return is a formal event.

At one time, and not so long ago, the meadowlark's song would have been one of many returning grassland birds. Together, the chirps, trills, twitters, whistles, buzzes, screeches, squeaks, warbles and gurgles would have been a boisterous, even raucous cacophony of sound. The symphony of nearly 70 grassland and parkland birds, in addition to that of waterfowl and shorebirds would have constituted a chorus of combined beauty and variety.

One might think the legions of prairie explorers, like David Thompson, Peter Fidler, Peter Erasmus, Anthony Henday, John Palliser, George Dawson and others might have heard the notes and made a note of this phenomena. They didn't, and perhaps they were more fixated on wildlife to eat, not listen to. John Macoun, a botanist and bird enthusiast collected grassland birds in 1882 but there is little mention in his notes of the riotous nature of the chorus they made. It is thought he and his companions were deaf to some of the songs and missed the subtle intonations of birds like the Sprague's pipits which were not recorded in his bird lists.

One early traveler, the Earl of Southesk, perhaps better provisioned than most, fairly gushed over bird song. On June 15, 1859 he wrote: "At dawn of day I was awakened by a most delicious concert of birds singing...all nature was full of cheerfulness, and the pretty songsters tuned their voices to an encouraging strain. As they fluttered around me...one with a deep voice would sing all alone...then a hundred voices would answer him rapturously... then all would unite together and chorus forth their little ditty again and again."

Where once you would have been tempted to cover your ears from the racket, there is now silence, a deficit of bird song. We are not going deaf, although the gentle voices of Baird's sparrows and Sprague's pipits are hard to hear at the best of times. They can go missing without our acknowledgement or regret.



The silence stems from males— whose songs are a come-on for females:

"Hey baby, I've got territory with food and a great nesting spot"

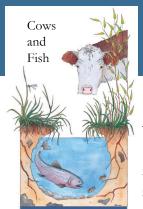
 being unable to find suitable habitat. No songs mean there are no subsequent territorial calls, no alarm, contact, flight or begging calls and the landscape goes quiet.

This silence isn't illusionary or understated. The North American Bird Conservation Initiative, in their 2019 "State of Canada's Birds" points out the shocking statistic that 300 million birds have been lost from the grasslands since 1970. Two of every three birds have gone missing. Birds dependent on native grasslands have declined 87%. Even birds tolerant of agricultural landscapes have dropped by 39%.

Aerial insectivores, birds dependent on insects for food are suffering most of all. Not only are birds in decline but "the little things that run the world" as ecologist E. O. Wilson describes insects, are in free fall. The finger points to agricultural alchemy, the heavy reliance on pesticides, herbicides and intensive farming. Any way you slice it, grassland birds are in sharp decline, even the "common" meadowlark.

A rite of spring passage for us is a wandering drive through the grasslands south and east of Lethbridge. It is like a tonic to see the returning birds, to realize both they and we have survived another winter. But it is disheartening to drive down dozens of kilometers of country roads, through a biological wasteland of fields covered with stubble and not see a single bird.

Agriculture simplifies and eliminates native vegetation; most wildlife relies on vegetation diversity to meet all of their life cycle requirements. Like Goldilocks and the three bears porridge, some birds need undisturbed grassland, others require patchiness (a range of plant height and density) and a few are content with virtually bare ground. Meadowlarks like the middle ground, where the habitat is "just right." Key to bird survival is vegetation diversity, not obliteration.



Less than 20% of the mixed grass prairie remains in Canada and only a fraction of the fescue grasslands, less than 5%. To put this into perspective, this decline in mixed grass prairie would be like the average Canadian family with an average house of 2000 ft² being squeezed into one 400 ft². Consider the ramifications of that and maybe we would have some sympathy for the plight of grassland birds.

The goal of our spring drive is to spot the first meadowlark of the season, an icon even more representative of the season than snow geese, swans, pintails or northern shovelers. Most of these are in transit; the meadowlark is a sticker. Finally, after kilometers of disappointment, a male, in full-throated splendor and song perches on an old cedar fence post beside a remnant piece of grassland, too rough to plow. Our mood improved instantaneously as the repertoire reverberated through the truck cab.

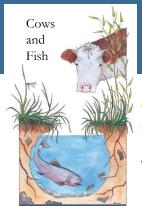
Want to hear what a Meadowlark sounds like? Click here to listen to a Meadowlark call

We read later this isn't surprising, that birds can positively influence people's moods. Analyzing data from 26,000 adults across 26 European countries, compiled in the 2012 European Quality of Life Survey (reported in the *Ecological Economics* journal), the researchers concluded that diversity in nature, especially of birds, had the greatest influence on people's moods, more so than wealth.

It's hard to curse the loss of grasslands (and birds) without being hypocritical. Both my sets of grandparents were sodbusters and, to a major degree, the wealth and comfort I enjoy today was made possible because of the conversion of native landscapes to agriculture. Wallace Stegner, no stranger to grasslands, pointed out that, "western history is a series of lessons in consequences."

Grasslands are one of our most imperiled landscapes and it isn't hyperbole to suggest birds that rely on grasslands are in serious decline. In a major way we have traded the song of the meadowlark for the material pursuits of more potatoes, canola and wheat, as well as urban sprawl and industrial sites.

In Alberta, land trusts like the Nature Conservancy of Canada and the Southern Alberta Land Trust Society, along with conservation efforts by the Alberta Conservation Association, Cows and Fish and the Prairie Conservation Forum have made gains, important ones in



conserving native grasslands. But the losses are still evident and development easily outpaces conservation. Endangered spaces lead to endangered species.

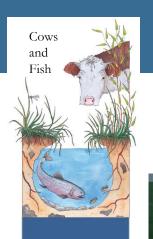
The diversity, abundance and distribution of birds is a metric that provides a window to understand the health and integrity of a landscape. Results from the European Quality of Life Survey show the sights and sounds of birds are also a major contributor to our feeling of well-being. We can't live without bread—perhaps we can't live without meadowlarks either.

> <u>Click here to view our digital story called "I want to</u> <u>be your farmer" about the year Meadowlarks failed</u> <u>to return to Don Ruzika's farm</u>

Given the negative trends in grassland bird numbers I'm not sure what audible signal subsequent generations will hear as the harbinger of spring—lawnmowers perhaps? Without bird song, its variety and exuberance we will surely lose an essential connection to the natural world and, for anyone connecting the dots, a catastrophic loss of a big piece of the natural world.

It will be sad and a failure of our stewardship to say, as William Wordsworth did, "The things which I have seen [and heard], I will see [and hear] no more."

This article was written by Lorne Fitch, who is a Professional Biologist, a retired Fish and Wildlife Biologist and a past Adjunct Professor with the University of Calgary.



The Cows and Fish Follow Up Project

By Logan Peters, Communications Coordinator

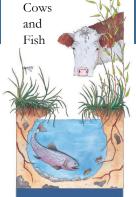


We are so excited to tell you about a new project we are working on that showcases stewardship projects by the dedicated landowners we have worked with over the years. We are creating an interactive story-map that will walk you through landowner's hard work and passion for improving the overall health of their lands. The Follow Up Project will show how landowners have used the <u>Cows and Fish Process</u> in their efforts; by weaving together pictures, interviews, audio, video, and online media collected throughout their land management journeys, we think you will see their passion too.

Improving riparian health is not a linear challenge. This process can take years of consistent changes, adapting and monitoring before the natural recovery of an area noticeably takes place. Our Follow Up Project formed as a result of Cows and Fish staff following up with landowners and land managers in order to better assess their needs, continue to learn with them and share their stories. The land management stories highlighted are examples of the initiative that landowners have taken towards fostering better stewardship of their riparian areas.

Voluntary stewardship efforts are key to our approach – we are helping to change knowledge, management skills, and support a stewardship ethic that will last long into the future. We have a strong commitment to foster voluntary stewardship, with landowners deciding there is a need and interest in making changes, and once they have been involved in the past, also deciding if they are interested in interacting with us again in the future.

Every landowner featured in the Follow Up Project has demonstrated a willingness to learn and make changes to their land management and are proud of the work they have done. Do you want your story featured on the Follow Up Project? Please get in touch with the Communications Coordinator, Logan Peters at Ipeters@cowsandfish.org.



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Glen and Kelly Hall

The Timber Ridge Ranch

The first land management story we have chosen to highlight is the Timber Ridge Ranch with landowners Glen and Kelly Hall. The Halls are passionate about land stewardship and have worked tirelessly to leave the land even better than when they found it.

"Conservation and good agricultural practices are on parallel tracks" – Kelly Hall

Check out the video below to learn more about the steps the Hall's took to better manage their lands through responsible grazing initiatives.

Be sure to also read their Producer Story featured on our website by <u>clicking here</u>.



Click this video to watch land stewards Glen and Kelly Hall share their "aha" moments as managers of Timber Ridge Ranch



Connecting Land and Water: Stories from the Eastern Slopes

Excerpted from the Connecting Land and Water film launch introduction

Written by Amy McLeod, Provincial Riparian Specialist



Photo courtesy of Jim Zenock

The human story is a story of water. Water connects us, everyday we send messages downstream. And, while we may be land dwelling animals, we are all bodies of water. The same water that flows through a fish, will flow through us. The same water that is exhaled from a leaf, will end up in me. In a time when people are feeling particularly disconnected

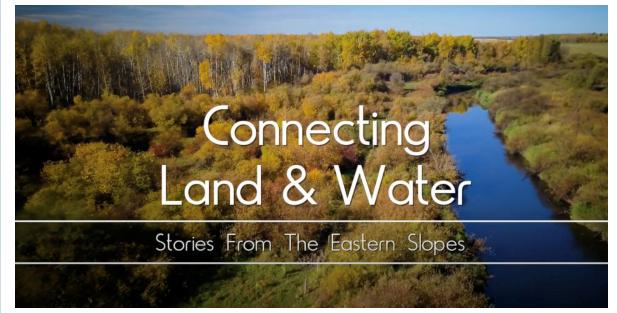
and divided, we can look to water to connect us. Water crosses boundaries and has no political affiliation. We are all nurtured in a womb of water, birthed when water breaks, and will all die without water. We are watersheds. We thirst for water, we cleanse with water, we bleed, sweat, and shed tears of water. I suspect that water was probably humankind's first

Visit our Eastern Slopes Story Map to learn more about the project by <u>clicking here.</u>

mirror—a way to look at ourselves and see a reflection of what we are. Perhaps now more than ever, water is a mirror reflective of our human condition and our relationship to the environment—a way for us to look outward and reflect on who we are and the choices we

have made. From headwaters to the tap, our decisions on the land are reflected in the water. If we gaze into the water, what is reflected about our choices?

We are all connected to a watershed, no matter where we are on the landscape. <u>Connecting Land and Water: Stories from the Eastern Slopes</u> is part of a series of videos produced by Cows and Fish featuring inspiring stories of the landowners, user groups, and partner organizations that have undertaken stewardship projects in Alberta's Eastern Slopes to enhance watershed health. This short documentary features distinct projects from <u>Beaverlodge River</u>, <u>Silvester Creek</u>, and <u>Timber Ridge Ranch</u>, each of which are featured in separate shorter videos. These stories from the Eastern Slopes encourage audiences to connect their values with their actions on the land, and to inspire everyone to think about how their choices might be affecting water.

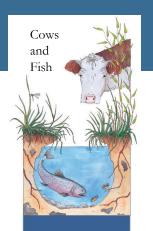


Click on this video to watch our short documentary series showcasing three distinct projects from Beaverlodge River, Silvester Creek, and Timber Ridge Ranch

From a recent evaluation Cows and Fish conducted regarding riparian areas in the Eastern Slopes, and recent controversies surrounding Alberta Parks and coal mining in the Rockies, we know Albertan's care about nature and about the Eastern Slopes. An encouraging result

from our Eastern Slopes evaluation work was that people care a lot about safeguarding water and habitat, with over 80% of people saying that it was important to them. We want to ensure that that care is manifested into behavior, affecting the decisions that are made on the ground. Together our actions make a difference.

<u>Click here to view our</u> <u>Eastern Slopes Survey</u>



Leave it to Beaver – A brief intro to the why and how behind beaver co-existence

By Tonya Lwiwiski, Riparian Specialist



Beavers. You either love them or love to hate them, and your history of dealing with the pesky critters has probably helped shape your view of them. There is no doubt that they can cause a lot of headaches – flooded roads, plugged culverts, prized trees chewed down... But did you know that they also provide many benefits to the landscape?



Each beaver pond can hold up to 6,500 m3 of sediment

The ponds that beavers create help clean water by allowing sediment to settle out, with each beaver pond holding up to 6,500 m³ of sediment – that's 382 tandem dump trucks of sediment! The water storage that beaver ponds create helps recharge groundwater and refill aquifers, and, if you've got cattle, can be a reliable source of water for your watering system even in drier years. Beaver dams along streams also act like speed bumps by slowing the water

and reducing the erosive forces of water, mitigating some of the damaging effects of floods. Lastly (at least for the purposes of this article – there are myriad more benefits to beavers!), beavers and their dams create habitat for the 80% of species that rely on riparian

areas for all or part of their life-cycle – including for themselves. This is part of the reason why beavers are considered a keystone species on our landscape.

So now that we understand the benefits that beavers can bring, it might make more sense why there are more folks that are getting interested in trying to co-exist with beavers, rather than being determined to remove them. Beaver co-existence tools are devices or actions that help mitigate the negative effects of beaver, while allowing the beaver – and the positive ecological aspects that they bring – to remain on the landscape. These tools can be as simple as wrapping trees in wire or painting trees with a sand-paint mixture, thereby discouraging the beaver from cutting them down.

A beaver co-existence tool that is becoming more and more popular in Alberta, is called a pond levelling device – essentially, a beaver-proof pipe that is inserted into the dam that will allow water to flow freely, alleviating some of

the flooding upstream of the dam. The pipe is placed in the



An example of a sand-painted tree

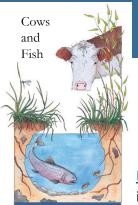
dam at the desired depth of the above pond, and it is important to recognize that beavers do require sufficient water in their pond to survive the winter. While we have seen



Pond levelling devices are installed in beaver dams, and can help regulate water level behind the dam

firsthand that these devices aren't foolproof (but, what is?), nor are they appropriate for all situations, they do provide an alternative method to explore when beaver removal is not the desired outcome.

Interested in more information on beaver co-existence tools? Check out our <u>Beaver Factsheet</u> and our <u>Putting</u> <u>Beavers to Work for Watershed</u> <u>Resiliency and Restoration</u> website, which we created in partnership with the <u>Miistakis Institute</u>.



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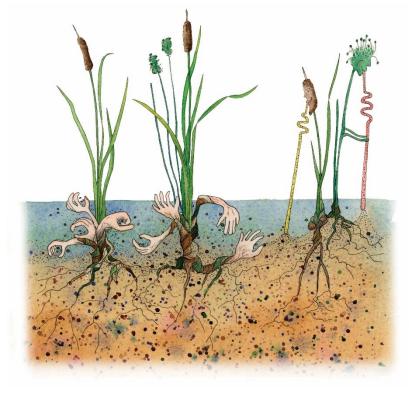
Caring for the Green Zone

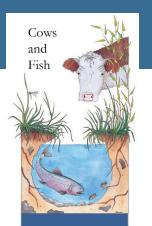
Riparian Fun Fact: Buffer Zones

Written by Kerri O'Shaughnessy, Riparian Specialist

<u>Riparian areas</u> are the last line of defense for our streams, rivers, lakes, and wetlands when it comes to buffering them from our actions in the uplands. The unique vegetation that naturally grows in these "wetter than dry but drier than wet" locations are built differently than those that live in drier places. They have deep roots that hold and bind soil in place, which is needed to grow food and habitat. They thrive on nutrients that while on land create productive, highly palatable, and nutritious forage but once in the water column, those same nutrients can feed other things that are sometimes less desirable. Riparian

plants absorb and hold water in the soil openings (pores) around their roots and contribute to ground water storage and yearround flows, good for fish and insects, among many benefits. A well-managed buffer is suitable in size to the waterbody it surrounds and is unique for each one, but generally wider is better to give water and the things it carries with it room to settle out and allow the riparian area to do the great work that it does.





Upcoming Events

Pasture Pipelines: A webinar on the benefits of offsite watering systems

May 17th @ 9:30am-10:30am MST <u>RSVP By Clicking Here</u>

Join us for a free online webinar about the benefits of pasture pipeline watering systems for livestock producers. This joint effort from Parkland County and Lac Ste. Anne County Alternative Land Use Services (ALUS) programs hopes to provide information to farmers. Barry Irving has been doing this type of work for many decades and we love to hear about the benefits of these systems. There will be a guest speaker from Cows and Fish and you will also hear from local producers about what they are doing on their farms. If you <u>RSVP</u>, a zoom link will be emailed to you the day before the event. Grab a coffee and enjoy the discussion!

The Original Grazing School for Women

June 9, 16, 23 & 30 @ 7pm-8:30pm MST Click Here For More Information

Save the Dates! The Original Grazing School for Women is excited to bring you a 4-week webinar series on June 9, 16, 23 and June 30. The sessions will run from 7:00 PM to 8:30 PM, and will cover topics such as shelterbelts, dugouts, and grazing management. Stay tuned for more details and registration info!

Alberta Range Stewardship Course

July 20, 22, 27 & 29 Stay Tuned for More Information

The Southern Alberta Grazing School for Women and Alberta Range Stewardship Course are pleased to offer a collaborative online school this July, 2021. Topics will include managing weeds, rancher experiences and more. Stay tuned for more information and to RSVP. Cows and Fish

Caring for the Green Zone

Digital Stories

Did you know that we have a digital stories 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.

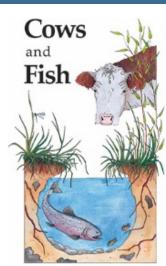


Original development of our newsletter was graciously supported by **Alberta Ecotrust Foundation**, along with our many core <u>funders and supporters</u>. As you may know, we rely upon grants to do much of the work we do, so if you want to suggest an opportunity, collaboration, or make a donation, please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

DONATE



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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. Find out how here....

We love hearing from you!

Please contact Norine Ambrose <u>nambrose@cowsandfish.org</u> or any Riparian Specialist, to follow up on any items in this newsletter. For full contact information, visit our website at: <u>https://cowsandfish.org/contact-us/</u>

Cows and Fish

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A special thank you to our partners