



**COWS
& FISH**

CARING FOR THE GREEN ZONE

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Cows & Fish

Adding up the Inches



Bombus perplexus, likely a queen based on size and time of year.
Image taken in Bowmont Park, May 7th, 2023

ADDING UP THE INCHES

Written by Amy Berlando, Provincial Riparian Specialist

There is a famous speech delivered by Al Pacino in the film *Any Given Sunday*, that refers to both life and football as 'games of inches'. In the speech, Inch by Inch, Pacino states, "When you get old in life things get taken from you...it's part of life. But you only learn that when you start losing stuff. You find out that life's this game of inches. So is football. Because in either game, life or football, the margin for error is small... The inches we need are everywhere around us... On this team, we fight for that inch. We claw with our fingernails for that inch... Cause we know when we add up all those inches, that's going to make the *\$#@ing difference."

I am not on a football team or even really a fan, nor do I typically measure anything but body size in inches, but I am part of a team where working together to gain inches is part of the job. In conservation, healthy habitat and species are gained or lost in inches, and sometimes we must fight to protect those inches (literally clawing through dirt with our nails).

For those that aren't familiar with how big an inch is, it is 2.54 cm. An inch might seem insignificant to some, but they do add up to make a difference, as my pants can attest. For example, it takes approximately 500-1,000 years to build just 1 inch of topsoil and tens of millions of microbes, insects, and worms can live in just 1 cubic inch of healthy soil. If you are a bumblebee, the largest type of bee here in Alberta, you are just shy of 1 inch, only 0.98 inches long on average (25 mm), but can visit approximately 6,000 flowers in a 10-hour workday (yeah, those busy bees work overtime for those inches). And the threatened Rocky Mountain Sculpin, a rather sedentary fish found in the St. Mary's and Milk River basins here in Alberta, on average travels less than 2,000 inches from home (<50m) in their lifetime.

Whether you are a sculpin, bee, or microbes in soil, inches are important, particularly in the green zones. Riparian shrubs and flowers are important food for bees, especially in the early spring when the willows flower. Roots from plants hold soils together and leafy foliage provides cover to prevent topsoil from eroding into streams, maintaining clean gravels for fish, while overhanging riparian forests shade streams to keep them cool.

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Adding up the Inches Cont.

Although they make up only a small fraction of the land, riparian areas are among the most productive and valuable of all landscape types but have also been the focus of conflicts between resource users. The health of riparian areas has declined dramatically in many areas of Alberta and North America since the early 1900's. So, the inches we can protect and gain in the green zone are impactful.

In the spirit of acknowledging the inches and of celebrating the small gains, here are some of the inches we collectively gained in 2024 (not including waistlines):

INCHES OF SHORELINE PROTECTED OR ENHANCED:

Approximately 618,110 (15.7 kilometers)

SQUARE INCHES OF RIPARIAN HABITAT PROTECTED OR ENHANCED:

1,097,272,915 (70.8 hectares)

INCHES OF RIPARIAN SHORELINE ASSESSED:

4,033,465 (102.45 kilometers)

SQUARE INCHES OF RIPARIAN HABITAT ASSESSED:

8,777,670,000 (566.3 hectares)

These accomplishments did not happen alone and were only possible working alongside many partner organizations, land managers, and volunteers. "Now either we heal as a team, or we are going to crumble, inch by inch... 'til we're finished." Together our inches make a difference.



Silvester Creek in 2018 before restoration work
[Click here](#) to watch a video about the site on Instagram



Silvester Creek in 2024 on a riparian restoration and willow planting day. [Click here](#) to learn more.



2009



2019

The same area on the Allingham's property after ten years of rest and recovery

KEEPING IT WILD

HOW THE ALLINGHAM FAMILY IS WORKING TO PRESERVE RIPARIAN AREAS ON THEIR PROPERTY FOR GENERATIONS TO COME

By Logan Peters, Communications Coordinator

“Can you hear me okay?” Lionel Allingham’s voice crackled through the phone while he described the mystical experience of seeing his property near Goodfare, Alberta for the first time. The abundant poplar forest, beautiful Beavertail Creek, and animals like mink, muskrat, great blue heron, and even beaver, caught the eye of Lionel and his wife Daniela.

As the creek’s name suggests, this area is home to some very busy beavers. One three-legged beaver in particular is to credit for the fuzzy phone call after having chewed through the landline to clear a path to its dam prior to the interview. The line had been repaired but the audio quality has never quite been the same.

After completing a Bachelor of Fine Arts from Sir George Williams University (now known as Concordia University in Montreal), Lionel went on to receive a diploma in arts education.

Lionel met his wife Daniela at a painting class in 1970

“When I stepped onto the property, something happened inside my heart and I knew intuitively, instinctively, that this is where I’m going to live and raise my family.”

and the two were married two years later. It wasn’t long after that they made their way from Quebec, through to northern Saskatchewan, and eventually to Alberta, where they searched for a property that they hoped to transform into a ranch and wildlife preserve.

“When I stepped onto the property, something happened inside my heart and I knew intuitively, instinctively, that this is where I’m going to live and raise my family,” Lionel said. The first quarter section of the property was purchased in 1978, and the south quarter, which contained a massive black spruce forest and riparian area, was purchased the following year. At

the time of purchase, the property had no road, no house, and no power; it didn’t even have a well.

Learning as they went, the Allinghams began settling on the property.

They purchased their present-day home for \$1000, which was delivered via a 48km journey on a bush road on Christmas Eve.

They started a cow-calf operation while Daniela taught at the Catholic school in Beaverlodge and Lionel completed a Master of Fine Arts degree and taught and developed an art program at the Grande Prairie Regional College; all while raising five children.

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Keeping it Wild Cont.

Their ranch, which is now managed by their daughter, runs about 400 head of cattle.

This family is proof that hard work, curiosity, and the willingness to try new management approaches is integral to stewardship.

“We need to realize that there has to be a balance between what we aspire to and how we manage the nature... If we lose that, we lose everything.”

For years, the Allinghams hosted school groups on their ranch. The children had the opportunity to look at plants, animals, and learn about the value of decomposers. Lionel took great pleasure in teaching the young ones about the land and the importance of preserving it.

“We need to be really understanding of the importance of the environment, of nature... to have an innate regard and love for the creation. And how everything is interdependent and that we as human beings are no different,” Lionel said.

In 2008 over 2000 pine and spruce seedlings were planted on the property through funding and other support provided by the Alberta Conservation Association, the Woodlot Extension Program (as it was called at the time), the West County Watershed Society, and the County of Grande Prairie. After having previously worked with Ducks Unlimited Canada on a weir project, Cows and Fish was brought in as part of the West County Watershed Society project to assess the health of a marshy wetland on his property.

“We had our animals running around and it really bothered me that they were going into this wet area.”

Not only were these animals at risk of being bogged down, bloating, and experiencing hoof rot, they were also damaging the sensitive riparian area. With the help of funding through local conservation partners, Lionel was able to install fencing around the wetland, which successfully kept his cattle and horses away. The bears, beavers, moose, and elk on the other hand, were a different story.

After years of maintaining and sometimes rebuilding this fence due to wildlife activity like beavers felling trees, partner organizations were brought in to revisit the site and replace this fence with one that was smooth underneath, which allowed wildlife to enter and exit the area freely.

Even though beavers have been chewing their phone lines and breaking their fences, the Allinghams maintain their commitment to preserving them. Cows and Fish was brought in again, along with the County of Grande Prairie, to wrap more trees on the property, a [coexistence method](#) where wire fencing is placed around the trunk of a tree, leaving enough space for the tree to grow, while protecting it from beavers.

“With the drought we had this year, if we didn’t have the beaver dams, there’d be no water here whatsoever. The creek was totally dried up, but we had water, we had the lakes still.”



Lionel Allingham (pictured on the left) poses with crew after a day of wrapping trees with wire on the Allingham's property, October 2024

As the ranch transitions from one generation of land managers to the next, the family all agreed: that the forest and riparian area on the property are to be preserved.

“Both Daniela and I feel that in a way this is our promised land. I pinch myself and I say how is this possible that my dreams in life have been so completely fulfilled... We need to definitely contribute to something very positive and that is the preservation of life, nature, wildlife, you name it.”

On the east side of the wetland, Lionel hopes to install a boardwalk so people can birdwatch and spend time in nature.

You can view Lionel Allingham’s artwork at the Art Gallery of Grande Prairie’s [“A Second Horizon” exhibition](#) running from January 30 – July 13 2025.

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HEALTHY RIPARIAN AREAS FOR HAPPY LITTLE FISH

By Marnel Müller, Riparian Specialist

As we reflect on our past field season over the winter, we are excited to share some accomplishments of our 'Little Fish' project.

Cows and Fish and the Milk River Watershed Council Canada (MRWCC) are working together on this initiative called "Little Fish, Big Stewardship." We have funding from Fisheries and Oceans Canada (DFO) through the Canada Nature Fund for Aquatic Species at Risk (CNFASAR), to work with landowners in the Milk River watershed. The project focuses on benefiting two federally listed at-risk fish species in the Milk River watershed: the Western Silvery Minnow and the Rocky Mountain Sculpin. Plains Sucker, another federally listed at-risk species, and Stonecat, a provincially listed at-risk species, will also benefit.

For our joint initiative, MRWCC is taking the lead in water quality and fish sampling efforts, as well as setting up cost-share agreements with landowners for stewardship projects. You can read about more of the project elements in Jill Makin's articles in the [MRWCC Fall-Winter newsletter](#), published November 2024.

In this article, I wanted to share more about the riparian health inventories that Cows and Fish completed to complement MRWCC's efforts. These assessments contribute to understanding habitat quality and can help inform landowners' stewardship projects.

We do this work to measure the health of a riparian area, the area of lush vegetation bordering lakes, streams, rivers, and wetlands. Healthy riparian areas trap sediment and filter water, improving fish habitat and benefiting water quality for livestock. These areas rebuild soil, reduce erosion, and slow water down to help fill underground aquifers. In contrast, signs of potential problems within a riparian area include eroding banks, low numbers of fish and wildlife, and few remaining preferred woody plants such as willows or cottonwoods.

When we assess the riparian area, we inventory all the plants and physical features there to answer some questions about the site: does it have deep-binding roots that can hold riverbanks in place? Are the plants native, disturbance-related, or invasive? Is there bare ground, erosion, or compacted soils?



Fish sampling confirmed the presence of species at-risk fish including Rocky Mountain Sculpin at two sites, Stonecat at one site, and Plains Sucker at two sites. Photo by Jill Makins

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Healthy Riparian Areas for Happy Little Fish Cont.

This summer we assessed 21 sites, in collaboration with 10 ranchers in the Milk River watershed. We saw much of the watershed, covering areas along the North Milk River, south fork, and mainstem of the Milk River. Our sites were spread across three counties: Cardston, Warner, and Forty Mile. Although the lack of water resulting from the diversion failure was hard for many landowners and a concern for the community, the low water levels offered a unique chance for us to gather details on the materials that make up the river bottom and banks, information usually hidden under water.



Cows and Fish Riparian Resource Analyst, Alexander Cressman, sampling river bottom materials as part of a Riparian Health Inventory. Different fish species prefer different sizes of materials as part of their habitat.

This summer we assessed 21 sites, in collaboration with 10 ranchers in the Milk River watershed

Different fish prefer different sized materials in the river bottom. Rocky Mountain Sculpin prefers relatively larger, roughly gravel-sized material compared to the Western Silvery Minnow, which are happy with mud and silt. Knowing what size of channel materials there is helps us understand where we may expect to see which fish.

Each riparian health assessment was done where the rancher had a special interest in the health of the riparian area, often

because they were planning a stewardship project for the site, such as new off-site watering or riparian fencing projects. These kinds of projects benefit cattle by providing safe, clean water access, while also offering rest to the pastures in riparian areas, improving both forage production and riparian health. We are also aiming to do one or two restoration projects in 2025, another way to improve riparian health.



Milk River Watershed Council Canada completed fish sampling this fall, as a part of the Little Fish, Big Stewardship project. Four tributaries and one site on the mainstem of the Milk River were sampled. Photo by Tim Romanow

Once we have summarized their results, each rancher will receive a report on their riparian area. The reports include suggestions on how to maintain the health of their riparian area, or if needed, some insights and management suggestions to consider that may help improve riparian health, so it can provide all those great functions: clean water, productive land, and wildlife habitat, including better habitat for these little, but often overlooked, fish. Making management changes is voluntary and if landowners want support, we have funding to cost-share projects, or we can direct them to other resources and funding opportunities.

The riparian health data we have collected over the past 25 years has been critical to support the MRWCC State of the Watershed Reports. Each site's results are kept anonymous and wrapped up into the overall results. This long-term trend monitoring informs watershed-level stewardship like the Little Fish, Big Stewardship project.

One exciting thing about the Little Fish, Big Stewardship work is that some of the ranchers have worked with Cows and Fish as far back as 1998, over 25 years ago! It is inspiring to see a stewardship ethic being passed on to younger generations, knowing Cows and Fish can continue to support their efforts. It has been equally exciting to meet ranchers who are new to our organization and open to learning more. It is through long-term and growing interest like this that we keep riparian areas, and the life they support, thriving.



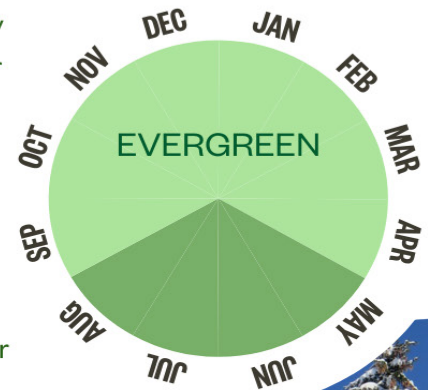
IN SUMMER & WINTER

RIPARIAN FUN FACT

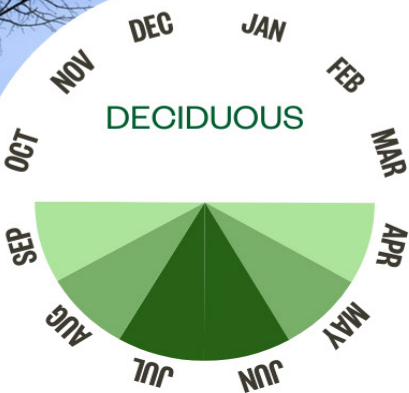
By Lori Goater, Riparian Specialist

It's all about the strategies that plants use to thrive in different climates. Boreal conifers (spruce, pine, fir) play a long, slow game by staying active all year round, while deciduous trees invest all of their growing effort during the summer and are dormant in the winter.

Their evergreen strategy gives conifers the upper hand where winters are long and where growing conditions can be challenging even during the summertime. While conifers take longer to grow up, their conservative approach makes them more tolerant of low-light and poor soils. As they can outlast their deciduous neighbors, they tend to become the climax forests that we associate with the north.



Conifers can grow well along streams and ponds with stable banks. Waterbodies with finer soils and more frequent disturbance tend to be colonized by faster growing, deciduous plants first. Once the banks are stabilized, conifers will have a chance to play their long game!



Deciduous leaves are energy powerhouses but they are vulnerable to water loss and frost injury.



Conifer needles are a thick, resinous type of leaf- built to conserve water & protect its photosynthetic machinery.

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Upcoming Events

THE ALBERTA NATIVE TROUT SCIENCE WORKSHOP & GATHERING

(Sold Out)

This is the second Native Trout Science Workshop & Gathering featuring exciting talks, guest speakers, workshops, and networking opportunities centered around connecting people and organizations interested in recovering native fish. [Learn more](#)

DATE

26-28 February 2025

LOCATION

Four Points by Sheraton
Calgary Airport T0A 2C0

ALBERTA NATIVE TROUT TOOLSHED BREWING SOCIAL

Looking for a way to connect after the Alberta Native Trout Science Workshop & Gathering? Head over to Toolshed Brewery for a chance to network and test your fish knowledge with a game of trivia!

REGISTER NOW

26 February 2025

6:00pm - 9:00pm

[Click here to sign up](#)

LOCATION

801 30 St NE #9,
Calgary, AB T2A 5L7

BRBC QUARTERLY EDUCATIONAL AND NETWORKING FORUM

Cows and Fish will be presenting with the City of Calgary on the function and importance of riparian areas along with a summary of riparian health within the Bow River Basin.

REGISTER NOW

12 March 2025

9:00am - 3:30pm

[Click here to sign up](#)

LOCATION

Southern Alberta Institute of
Technology, Calgary AB

GREEN ACREAGES WEBINAR: WORKING WITH BEAVERS

During this live, online workshop you will learn about the [Green Acreages Program](#) and hear from our Executive Director, Norine Ambrose on how to work in harmony with beavers. Presented by [Land Stewardship Centre](#).

REGISTER NOW

25 March 2025

7:00pm

[Click here to sign up](#)

SOUTHERN ALBERTA GRAZING SCHOOL FOR WOMEN

Save the date! Don't miss the 2025 Southern Alberta Grazing School for Women! This is a fantastic opportunity to meet fellow ranching women and take part in workshops taught by experts in the field. Visit the [Grazing Schools for Women Facebook Page](#) for event updates!

EVENT INFO

16 & 17 July 2025

Twin Butte AB

AGRICULTHER SCHOOL

Save the date! The 2025 AgriculTHER School will be taking place in the Sunset House area this June. Visit the [Grazing Schools for Women Facebook Page](#) for event updates!

EVENT INFO

21 June 2025

Sunset House, MD of Greenview

RIPARIAN AREAS INFORMATION SESSION

Save the date! For more information contact Susie Jack, Saddle Hills County at (780) 864-3760

EVENT INFO

8 April 2025

Gordondale Hall
Saddle Hills County

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Special Features

RANCHERS ARE SUPPORTING NATIVE TROUT RECOVERY

Livestock grazing is a major part of the Eastern Slopes economy and identity. Small changes in land management can have big impacts on the conservation and restoration of native trout habitats. [Click here](#) to watch Erik Butters' "Story from the River" to learn more about how he's turned the creek on his ranch into a riparian oasis that benefits him, his family, his ranch, and Alberta's native trout.

This video was created by the Alberta Native Trout Collaborative, which is a group of partner organizations, including Cows and Fish, who are working to advance native trout recovery in Alberta via habitat restoration, restoration stocking, land use planning, watershed and fish population assessments, and public education. [Click here](#) to view the Stories from the River StoryMap to check out the whole project.

STATE OF THE BOW RIVER WATERSHED REPORT

Using decades of riparian health work with landowners and partners in the basin, Cows and Fish had the opportunity to summarize riparian health data for the main watersheds of the Bow River Basin as part of Bow River Basin Council's [State of the Bow River Watershed Report](#), which was released in December, 2024. [Click here](#) to check out the Riparian Health section of the

report. Cows and Fish is presenting with the City of Calgary at BRBC's Quarterly Forum on March 12 at the Southern Alberta Institute of Technology. [Click here](#) to learn more.

VOLUNTEERS NEEDED FOR THE INTERNATIONAL NCF-ENVIROTHON

The Alberta Envirothon Association (of which Cows and Fish is a Board member) is seeking volunteers for the [NCF-Envirothon \(International\)](#) competition being held at Mount Royal University in Calgary on July 20-26, 2025. They are looking for resource professionals to be judges on the Friday for the student Oral Presentations and seeking general volunteers for a variety of roles throughout the week. There will be a college and career fair on the Friday as well.

SIGN UP NOW

[Click here](#)

COWS AND FISH SWAG

We officially have Cows and Fish branded stickers, patches, water bottles, caps, and toques to give away! Want to get your hands on some of these new items? Keep an eye on our [Instagram](#), [Facebook](#), [LinkedIn](#), and [X](#) accounts for a chance to participate in a giveaway!



KING CHARLES III CORONATION MEDAL

We are proud to announce that our Executive Director, Norine Ambrose was awarded a King Charles III Coronation Medal for her significant contributions to Canada, Alberta, and the communities she works in.

We would like to thank Alberta Environment and Protected Areas for the nomination, as well as Alberta Forestry and Parks, and our Board Members for their support.



Minister of Environment and Protected Areas, Rebecca Schulz with our Executive Director, Norine Ambrose, February 19 2025

Cows & Fish

Connecting land & water

HAVE YOU WORKED WITH COWS AND 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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Riparian areas, the areas connecting land and water, help clean our water, create drought and flood resiliency, and provide habitat for fish and wildlife.

Cows and Fish's mission is to promote healthy landscapes by fostering riparian stewardship.

MEET OUR BOARD OF DIRECTORS

The Cows and Fish Board of Directors and Members include local producer and community representatives.

Cows and Fish members provide the input, support, and guidance needed to achieve Cows and Fish's mission. We also rely on financial and in-kind support from Donors and Funding Sources to accomplish our goals. Visit our [support page](#) to make a donation.

CONNECT WITH US

Find a riparian specialist in your area or send us a general inquiry

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