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Alberta Conservation Association

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Alberta Conservation Association

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Our Vision

An Alberta with an abundance and diversity of wildlife, fish and their habitats; where future generations continue to use, enjoy and value our rich outdoor heritage.

Our Mission

ACA conserves, protects and enhances fish and wildlife populations and their habitats for Albertans to enjoy, value and use.

photo: ACA, Amanda Rezansoff
Kris Kendell, ACA biologist, uses environmental DNA to monitor amphibians

From the President

This April represented the 20-year anniversary for ACA and my 10-year anniversary as the President and CEO. For 14 years before joining ACA, my wife and I owned a consulting firm working directly on wildlife and fish species; I was doing the kinds of things every young biologist dreams of, in locations many ecotourists would pay a fortune to see.

I've been hunting and fishing since I was very young and I have always been interested in wildlife and fish; as a result, I spent way too much time in school completing three degrees in biology so I could make working in the bush on wildlife and fish species into a career. Being out in the forest or on a mountain top or trudging across arctic tundra doing biology work was my dream job.

Over time, as our consulting business grew and the economy changed, I found myself living in Calgary and being called in on some of the biggest industrial projects occurring in the province to act as the "regulatory specialist." Officially I was still a biologist, but the closest I got to dealing directly with wildlife and fish was chasing the neighbour's cat out of my yard.

When I received a call from ACA about a job opportunity, I really didn't know much about the organization. After a bit of research and chatting with a few staff, the position began to intrigue me. Here was an organization funded by hunters and anglers that worked on wildlife and fish conservation and dealt directly with stakeholders. It sounded like a great opportunity to get back to the kind of biology that had interested me in the first place.

The past 10 years have been amazing. At first, I was apprehensive about how much this organization could accomplish, but it did not take long to realize that the people working here are dedicated and the stakeholders are committed.

The field staff still don't let me handle too many live animals (I don't think they trust me), but at least they invite me along to help write notes, and they share their experiences in the break room, not just to make me jealous, but because they are truly excited by their work. They live and breathe conservation and truly value the experience they have working at ACA.

As you read through this anniversary issue, you will note the number of staff that have been here more than a decade (many for two decades). You will also note the emphasis on partnerships and collaboration, because we understand how much more can be achieved working together. ACA has come a long way in 20 years, and I feel privileged to have been part of it, but everyone who works here knows that it has been a group effort between us and you: our stakeholders, partners, sponsors and member groups.

Thank you for 20 years of support!

Todd Zimmerling

President and CEO
Alberta Conservation Association

Conservation Magazine

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We've Only Just Begun

1997-2017

► *by Karen D. Crowdis*

If you bought a house for under $150,000 in Alberta or paid around $4.50 for a movie ticket, congratulations—you're older than Alberta Conservation Association (ACA). Now in its twentieth year, ACA has witnessed, as well as created, change in the conservation field of Alberta. Overcoming a rocky start, ACA has struggled through all stages of maturing to reach this benchmark. Being twenty increases expectations for performance, but retains the optimism of potential. It's only the beginning of protecting Alberta's wild things.

The Way We Almost Weren't

Leading up to 1997, Alberta experienced significant change and relative unease. The Ralph Klein government was implementing sweeping changes to achieve its debt-free fiscal restructuring. Programs were terminated or moved to alternative service delivery methods. The Fish and Wildlife Trust Fund, established to work with fish and wildlife habitats, was abruptly moved under a Delegated Administrative Organization (DAO) and renamed Alberta Conservation Association.

"It was a shock. Initially the mandate was it would be 'business as usual.' There was lots of skepticism with partner groups at first," remembers Paul Hvenegaard, Northwest Regional Manager and twenty-year veteran with ACA.

ACA was to be an arms-length, self-funded entity with stakeholder guidance. It's responsibility was to manage the trust fund for the enhancement of fish and wildlife habitats and operate the Report A Poacher program. Hunting and angling communities had vested interest in what ACA was going to do. All that was missing was structure.

Lee Foote, Public at Large and Academic Representative on the ACA Board of Directors for nearly twenty years adds: "The first few years were really rough. ACA almost collapsed and there was a lot of turnover."

"It was hard in the beginning," agrees Joanne Melzer, Administrative Assistant in Sherwood Park, who has lived it all with ACA. "Between what was handed down and the various changes in direction… I've seen a lot of changes."

Indeed the association struggled through an identity crisis in its infancy. Margaret Neufeld, Administrative Assistant in Lethbridge started in 1998. "There were lots of growing pains—not knowing what our role was. Trying to distinguish ourselves from a government entity. People thought we were government, but we aren't," she recalls.

Public attitude toward hunting and angling was less positive. Many conservation efforts presented an "all or nothing" approach that polarized groups making cohesive forward momentum difficult to attain.

"Misunderstandings early on—the growing pains were predictable and difficult, but tempering. They were necessary to get to a functional level," notes Foote.

Clarity Forges Growth

Once a defined role was established, ACA faced substantial growth. Neufeld says: "There was a lot of growth. Lethbridge grew from six to 19 people. It keeps getting busier and more often stakeholders are seeking out ACA instead of us going to them."

Melzer notes that "people had more work than they could do. New management recognized that and brought in more staff."

Early on, ACA was considered a junior step in the career path of biologists. ACA now retains highly trained, knowledgeable staff that stakeholders trust.

"We were more of a granting organization. Now we have the expertise to do the work," says Todd Zimmerling, President and CEO of ACA for ten years. What seems to appeal to staff is the primary goals remain the same—conserve wild species and spaces.

"Our relationship with the government has become more of a partnership. We will continue to work beyond what the government can do alone. We accomplish that through relationships and leveraging funding to complete projects that may not get done otherwise," he adds.

In This Together

When Zimmerling came on board, he focused on developing stronger relationships with stakeholders. "A big part of what we do is to always come back to the stakeholders. If they have questions, we want to hear from them. If we have made a mistake, we want to hear from them."

The board of directors is cohesive and dialogue is more productive creating much needed stability across the organization. With less than ten percent of the population falling into the hunting or angling communities, a shift was necessary to justify the use of public funding. ACA responded by broadening its reach to include habitat and help to bring diverse groups together to collaboratively protect wild areas.

"We have expanded our stakeholder and partnership scope over the last twenty years, which has allowed us to increase the profile and importance of wildlife and fish populations as well as the habitat they rely on," says Trevor Council, South Regional Manager who has been with ACA since inception.

Doug Manzer, Wildlife Program Manager and seasoned, decade-long staff member notes: "In trying to find common ground between groups, we are more stakeholder-driven now. Staff are building trust with key stakeholders like partner organizations and landowners."

Currently there are nine partner groups as well as corporate supporters on board. While there is some debate about partnering with oil and gas companies, Zimmerling believes it is beneficial to both sides to work together to preserve habitat areas. As a result, the single-source funding model of ACA has changed. Zimmerling says funding is now about one-third non-levy sourced, directly related to inclusive relationship building.

Changing Course

This groundwork has modified the trajectory of ACA's work. Projects were once assigned, but are now decided on by the board. Input from many sources and a consideration of the greater good play a role in determining which projects move forward.

"We have created our own identity and we can decide where projects go. It used to be that we operated in silos," says Paul Jones, Senior Biologist. "When I started 19 years ago, projects were dictated by budgets and not necessarily the project quality. Now we are focused on doing good projects and have secured the funding to see them through."

"Our function as a team-based organization has improved over the last twenty years. It is a strength that gives us flexibility to move resources around to complete projects," observes Council.

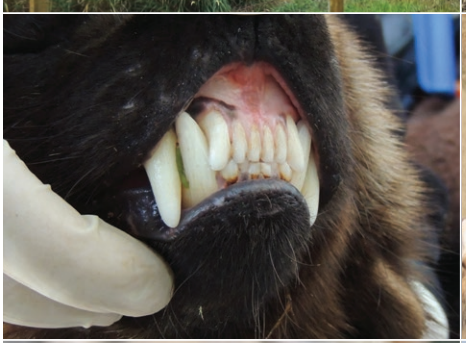
Species large and small are benefiting from the quality project focus. In just the grants program alone, over 20 years, there have been more than 1,600 applications for grants, with 1,078 projects getting the nod to the tune of $16.7 million dollars. Add this to ACA projects and it equals a lot of investment in Alberta-specific research. The data collected is available for public viewing. In some cases, specific data may be kept confidential to protect sensitive habitat features such as mineral licks and denning sites.

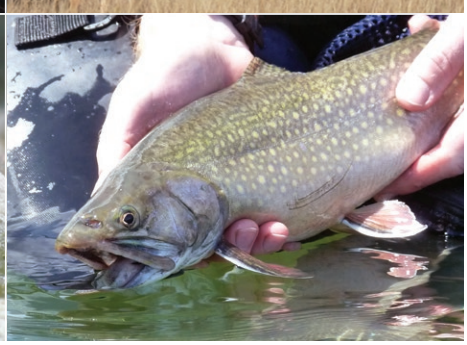
"One ACA principle is that information collected is made known to anyone who wants it. It was a defining moment for ACA to take a stand on that. Our mission is to make the information known and use it to create dialogue between interested parties. It's part of our role," says Manzer. "When landowners know what is on their land, they have impartial data to help direct dealings with other parties. It is an interesting role to play."

Council adds: "Working with landowners on private land provides an opportunity to improve and increase habitat availability to benefit many species and landowners. As a result, ACA has been able to influence change on a landscape that has many man-made impacts on habitat."

Research is already generating long term benefits in Alberta. Dr. Mark Boyce, ACA/ University of Alberta Chair in Fisheries and Wildlife Representative on the ACA Board of Directors, works with bears, wolves and ungulates resulted in reassessment of numbers of hunting licenses issued. Antelope studies by Paul Jones have resulted in identifying corridors, moving wires and modifying fences to protect their movement. The government is using grant reports on elk to determine next steps for species management.

The collaborative nature of the work at ACA reaches beyond borders as well. "Partnering with other biologists in the United States who are doing the same kind of research gives us even more information. Combining findings enables us to better direct our efforts," adds Jones.





Getting Tech-y With It

Arguably the single biggest change in twenty years is the technological advancements. These developments have spanned across all areas of the operation.

"I remember coming back from the field to a stack of pink message slips," laughs Hvenegaard. "So voicemail was a pretty big deal. Most advancements, however, have been in GIS platforms. Trail cameras were once cool to have. Now they are standard equipment. Next up is learning what capabilities drones have and how they can help us."

Radio collars have also changed and provide data beyond tracked movements; now they can obtain energy expenditure readings. This data further informs our understanding of wildlife needs.

Shell True North Conservation Site
photo: ACA, Garret McKen

According to Zimmerling, the data will be less expensive to collect and analyze, enhancing the matching of conservation efforts to needs. Technology changes the scale of information availability.

Certainly the advent of social media platforms has put the spotlight on hunting, angling and conservation issues like never before. Recent backlash to specific hunter situations creates some real challenges in addressing public attitudes.

"Much of the public see hunting as allowed. Hunters see it as a right," says Foote. "Social media can negatively sensationalize events. It should be used to promote the positive events."

An ideal platform to engage and unite different communities in a common cause, the challenge for ACA will be resetting the public relationship with hunting. Sharing successes, the positive experience of hunting, respect for the animal will all demonstrate that, at its most basic level, hunting is done to secure food but also connects hunters with that food in a unique way.

"Attitudes are shifting as a whole," says Zimmerling. "Not necessarily about conservation, but about thinking of hunting as being about food, not glory." That is the focus of the Harvest Your Own education campaign ACA has launched.

Citizen science is the buzz in conservation circles right now. Not a new concept, but the development of technology to facilitate it is. Smartphone applications and other simple to use technology will alter how much involvement citizens will have in information collection. Although ready to embrace this type of data collection, ACA recognizes verifying data will be necessary prior to use.

"It will become a bigger part," says Manzer. "It is another way to get people engaged in the effort and create value for them. If they value it, they will work to protect it. Hunters and anglers have given input for a long time and now the public is getting involved too."

Not So Passe

A utopian view of the work of ACA would see a future where much of the work they do becomes obsolete. Alberta would have human-nature interactions that are less combative. That idyllic scenario may never be realized because as much as humans change, we remain creatures of short memory and lazy habits.

Undoubtedly the future holds new challenges as land use changes and populations increase. Both put pressure on already sensitive habitats. Knowledgable staff who are proud to work here, embracing new methodology, and inviting all citizens to be involved are critical to the future.

"We will need to find a way to work with new Canadians and use technology to get information translated for people so they understand what happens here. That will be a big need going forward," adds Zimmerling.

Increasing pressures on habitat, changes to land uses, population growth, climate change, and undesirable events like the spread of invasive aquatic species necessitate the existence of ACA. It will have an ever larger role to play in promoting the conservation and protection of wildlife, fish and habitats. Without a guiding partner, Albertans risk the loss of these finite resources and a significant part of our heritage.

Stepping into its twenties, ACA has matured and come into its own. The bar is set high for the organization to be more and do more. As technology advances and engages more citizens, the relationship between people and nature has recognized value. If the adage "we protect what we love" holds true then Alberta, with ACA, is headed in the right direction with key partnerships, relationship building and education efforts. ACA will need to be adaptable without losing focus on its primary goals: to conserve and protect wild species and spaces.

The Birds and the Bees

Twenty Years of Serious Commitment

► *by Ariana Tourneur*

It's a bit funny how ACA encourages people to tap back into a simpler way of life—hunting, fishing and enjoying the outdoors for exactly what it is—yet to accomplish this we must often participate in the opposite, spending hours in a beige-on-beige boardroom or manually inputting data from 800+ surveys into a computer. Admittedly, we have occasionally romanticized the fact that we get to work outdoors, but for every hour we spend in the wild there are many more spent in the office behind a computer, at meetings or on the phone. Why? Because that's how you connect with the people who share the same vision for Alberta's future.

Reaching out and fostering long-term partnerships makes a much bigger impact than anything else when it comes to conservation. Twenty years of work allows for some solid relationship building, and ACA's partners have more than upheld their end of the deal. Whether it's helping to educate the public, leveraging dollars by the millions or putting in the grunt work (pulling fence posts, planting trees, helping children safely catch and release fish), their support equals action. Think more waterbodies cared for, more wildlife managed and more land conserved.

Single and ready to mingle

Changing circumstances thrust people into new roles. In 1997, the government's Fish and Wildlife Trust Fund was abruptly moved under a Delegated Administrative Organization (DAO) status and renamed Alberta Conservation Association. Confusion reigned on how ACA would be a self-funded entity yet be guided by government—and what that process should look like.

Those days are gone and honest, open communication has since made ACA confident in its role as a DAO. Results from our population studies, surveys and assessments feed directly into the government's management plans and contributes to fishing and hunting regulation changes and evaluations of new management strategies. ACA takes advantage of its flexibility to tackle tasks outside the reach of government, making both entities truly more effective.

Playing the field

When it comes to conserving wild species and spaces, the stakes are big. What we choose to take on now will help form the future of Alberta's conservation science, practice and policy. This is where our partners come in. Collaborating with our member groups, applying for grants and forming relationships with like-minded organizations and government agencies—being a social butterfly is vital.

Our Corporate Partners in Conservation (CPIC) Program encourages businesses to get as directly involved in conservation as they'd like. It's an opportunity to get out of the office and into the field—planting trees, installing fencing, helping out with wildlife surveys and so much more. They support or participate in real conservation that makes a tangible difference, all while meeting their own business goals.

While corporations certainly have a financial advantage in making a difference, individuals can help tip the scales.

photo: ACA, Mike Jokinen

photo: ACA, Colin Eyo

Volunteers, donors and landowners are the heart and soul of conservation work. No one forgets the volunteer who takes the time to fish with the six-year-old newcomer, the landowner who creates a shelterbelt on his farm solely to improve habitat or the grandmother who diligently mails her donation year after year. These individuals are everything; without them we wouldn't know success.

Tying the knot

"What I am most proud of? That we have worked very hard at making conservation a partnership," says Todd Zimmerling, ACA President and CEO. Kids Can Catch events have introduced thousands of people to fishing in Alberta, habitat purchases have conserved thousands of acres of land and the 4-H Pheasant Raise and Release Project has engaged young people in upland game bird conservation. "All of these projects have been successful because of the support we have received from corporate partners, member groups and local communities. Without partnerships, we would not be accomplishing half as much for conservation."

The key to bigger and better partnership projects as time goes on? "Maintaining relationships and remembering what we are trying to accomplish. Partnerships don't work if people don't communicate with one another about their ideas, concerns or suggestions. In the end it's not about who gets the credit for a particular project, or who gets an interview in the paper; it's about what we have accomplished for conservation."

In the beginning, we had no tried and true methods—and now, 20 years later, we focus on building, strengthening and expanding our strategic partnerships for conservation because it gets real results: healthier wild spaces and species. Building on our partners' strengths, we can work together across vast landscapes while engaging the communities we serve, benefitting our generations to come. And in our minds, a few hours in the boardroom are worth just one in Alberta's remarkable outdoors.

Visit: ab-conservation.com/cpic

Our first love

The founding member groups officially incorporated ACA under the Societies Act so we could continue to enhance the work previously accomplished by the Alberta Fish and Wildlife Trust Fund. ACA's member groups are a grounding force—a reminder of the hard work behind all past accomplishments and how they've paved the way for conservation work in Alberta. We partner with member groups often, with most projects focused on education. They've been the building blocks behind many successful conservation initiatives, and we're thankful their history helped create ours.

Member Groups:

photo: ACA, Brook Skagen

Colin Starkevich

ACA seasonal staff

Every year, Alberta Conservation Association (ACA) hires university students to help with a variety of projects taking place across the province. Colin Starkevich, recent graduate and wildlife artist, talks about his path to working in conservation.

Education I attended Lakeland College, Vermilion Campus where I earned a diploma in Wildlife & Fisheries Conservation, then attended the University of Lethbridge where I completed a B.Sc. majoring in Environmental Sciences. I chose this educational route as I wanted to learn more about the wildlife and their habitats that I enjoy depicting so much in my artwork, allowing me to create much more accurate, realistic pieces. I also knew that choosing this educational route would allow me to contribute more directly in the conservation field.

Past experience I have conducted bird surveys in southern Alberta for Nature Alberta, worked as a wildlife technician assisting with lesser snow geese, shore and songbird research in Canada's arctic for two summer seasons and have now worked as a wildlife technician on the multisar project with ACA.

Working for ACA This summer on the MULTISAR crew, I have been involved with breeding bird surveys, amphibian surveys, riparian surveys and eastern short-horned lizard surveys in the beautiful grasslands and foothills of southern Alberta.

Good advice My best advice to future summer staff would be to get prepared for some early mornings. But you also get to soak up some beautiful sunrises and experience some breathtaking places in nature while making a positive contribution to the conservation of our provinces natural places and meeting some great people along the way.

Art I am a visual wildlife artist who has been painting the Canadian grasslands since 2009 in efforts to raise awareness about this unique region and support conservation efforts within this region. Working for ACA has enabled me to learn more about the grasslands and its wildlife more than ever before. From being in the field most days, I have been able to develop some new ideas for future paintings I cannot wait to start.

paintings: ACA, Colin Starkevich

Colin Starkevich's proudest accomplishment was his 2015 solo exhibition at the Royal Alberta Museum as a Feature Exhibit, with the premier of The Grassland Series. He has also had group and solo exhibitions and, among many other achievements, has been invited to attend a Master Artist's Seminar taught by Master Artist, Robert Bateman.

Colin is also on the board of directors for the international *Get to Know Your Wild Neighbours* program, a program devoted to connecting youth to nature and celebrating it through the arts.

You can learn more about Colin's Grassland Series at colinandthegrasslandseries.com and the rest of his art at colinstarkevich.com.

Calgary Fish & Game Club names ACA

Mitchell Wolley-Dod **Conservationist** OF THE YEAR

"Honoured" is the word Todd Zimmerling, President and CEO of ACA used when receiving, on behalf of ACA, the Mitchell Wolley-Dod Conservationist of the Year award from Calgary Fish & Game Association.

Honoured because the award comes from a club with a 109-year history of standing for fish and wildlife, hunters and anglers.

"Think of the habitat pressures this club has seen in its own backyard over time—let alone the social changes as Calgary grew," reflects Zimmerling. "When the club formed in 1908, Calgary had 12,000 people and probably more horses than cars. Today there's well over a million people and who knows how many cars. The club and the work its volunteers do to keep hunting and fishing a part of urban life has never been more important."

Founding member of Calgary Fish & Game Club, Robert A. Darker likely shared that sentiment. In the club's first few years, Calgary's population more than tripled, and, quite likely, club members found the frantic pace of construction reaching their favoured hunting grounds and secluded fishing holes. Members did then what Fish & Game members across Alberta continue to do today—they gave voice to sportsmen and women and got actively involved in conservation projects.

"The fact that an organization like this is recognizing ACA for our conservation efforts means a lot," says Zimmerling. "We have come a long way in our first 20 years. We have learned a lot and grown a lot and to me, ACA receiving an award like this from our member groups means we are heading in the right direction."

The Mitchell Wolley-Dod Conservationist of the Year award is something ACA proudly shares with its board and member groups. "We are only successful together," Zimmerling says. A refrain the Calgary Fish & Game Club has understood for well over a century.

photo: Bruce Waddell, Calgary Fish & Game

Left to right, Jordan Dorozio, CFGA President, Todd Zimmerling, ACA President and CEO, Joseph Baranyay, Dinner Chairman

workout
The latest from the field.

photo: ACA, Colin Eyo

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Report on the NEW REPORT A POACHER TRAILER

After years of development, our famous Report A Poacher program is getting an upgrade—a brand new promotional trailer. It will still travel all over Alberta to promote the Report A Poacher program and educate the public on various issues surround poaching in Alberta; that hasn't changed.

The trailer is split into two large displays: one featuring hunting violations and the other, fishing. Both sides contain dynamic visual content, complete with fun quizzes and short videos that will make learning about poaching and Alberta's wildlife interesting and fun for people of all ages.

Although ACA has put in many hours to get this trailer up and running, it wouldn't have been possible without massive donations from Inter Pipeline and Martin Motor Sports covering the entire cost of the base trailer. Thanks to them, our new trailer will be seen by thousands of people for years to come.

Thanks again Inter Pipeline and Martin Motor Sports!

GOLDEN RANCHES Gets Shinier

Our hugely popular Golden Ranches conservation site has recently seen a major expansion. With the addition of 309 acres, the site now totals over 1,700 acres. As one of the more popular hunting destinations for Edmonton-based outdoorsmen and women, we expect many people are going to be very excited about this recent addition.

While the new addition isn't open to the public yet, it has a number of outbuildings and houses, which provides us with a unique opportunity to work with conservation partners and develop a plan to use the infrastructure for education and training purposes.

Located on the east side of Cooking Lake, the site features an impressive eight kilometres of shoreline and provides an opportunity to view avian species, waterfowl and shorebirds on the lake during migration.


photo: ACA, Stefanie Fenson

photo: ACA, Garret Mcken

ROSS CREEK Celebrated for Canada's 150th

Environment Canada has selected the Ross Creek conservation site, one of 150 properties, to celebrate Canada's 150th anniversary of confederation. Properties all over Canada are being recognized for the part they play in habitat conservation efforts as part of the Habitat Stewardship program (HSP) for Species at Risk and the Ecological Gifts Program (EGP). The government wants to celebrate Canadians who have set aside private land for conservation, either by selling or donating the land, and the recipient organization (us!).

At nearly 1,000 acres, Ross Creek was purchased in 2012 through funding from ACA, AFGA Wildlife Trust Fund, Government of Canada – Habitat Stewardship Program for Species at Risk, and Pheasants Forever – Calgary and Chinook Chapters. It is located east of Medicine Hat along the Trans-Canada Highway. This land conserves native prairie and enhances habitat for game species, such as pronghorn, sharp-tailed grouse and ring-necked pheasant, and for species at risk, such as Sprague's pipit and northern leopard frog. Over 600 acres consist of native grass communities, and nearly 300 acres are comprised of a mix of riparian vegetation along Ross Creek, tame grasses and ephemeral wetlands. During wildlife inventories, 70 different species were observed, including eight species at risk.

Vamping Up AVAMP

We often get asked by the public if there is any volunteer work that they can help with. The Alberta Volunteer Amphibian Monitoring Program AVAMP program is in constant need of help from volunteers all summer long.

Of Alberta's ten species of amphibians, only three species are considered secure with healthy populations, while the remaining seven species require special attention or protection to prevent their decline or extirpation. Beyond the fact that amphibian decline negatively impacts ecosystem health and biodiversity, who doesn't love frogs? No one, that's who.

Signing up is easy, and voluntary data helps biologists better understand the distribution and status of Alberta's amphibian populations. Acquiring this information is an important first step to many amphibian conservation initiatives in the province. Just imagine the data you provided, twenty, fifty or maybe even hundreds of years from now being used to inform biologists about the status of the wood frog at your favourite picnic spot.

To get started, visit ab-conservation.com/avamp


photo: ACA, Kris Kendell


photo: ACA

The CREEL Deal

This summer, some of our biologists will be conducting creel surveys about pike and walleye at access points on Gull Lake and Snipe Lake. If you are wondering what a creel is, don't worry, that's normal. A creel is a wicker basket used by recreational anglers to hold fish. Traditionally lined with moss and submerged to keep the day's catch chilled. It is called a creel survey because we are asking angers to tell us about their catch and other fishing-related questions; although many anglers don't use creels anymore, we kept using the name because, well, it's cool.

The surveys are conducted on-site at access points along the waterbody. The angler will be asked about their target species, number of each species caught and released and how many hours were spent fishing. This information is used to determine the fishing pressure that is put on that particular fishery, which fosters better fisheries management decisions down the road.

The surveys don't take much time and are a huge help. If you see an inquisitive biologist, be sure to take a few minutes and tell them about your day.

NOT on My Watch

The first detection of invasive phragmites in Alberta

► *by Kate Wilson, Fish &Wildlife Policy, AEP*

I have heard about epic efforts to combat invasive phragmites in recent years, both in Ontario and Nebraska, where they are mostly using helicopters to treat the invasive plants given their density and abundance. Last spring, the tall reeds were reported in Alberta and I would like to ensure it is both the only report and a successful "Early Detection, Rapid Response" effort. Call me an optimist, but I (as an aquatic invasive species specialist) am passionately dedicated to the protection our waters and all the critters and plants that belong here. This one simply does not.

Invasive phragmites (*Phragmites australis*, sub species *australis*) is an invasive perennial grass from Eurasia that is causing severe damage in North America. It is also known as "European common reed." This aggressive plant grows and spreads easily, quickly developing into dense stands and outcompeting native species for water and nutrients. It also releases toxins in the soil that impede the growth of other plants, often killing them, which could spell disaster for agricultural crops as well as our native plants. Not to mention the fire and road safety hazards caused by the very tall stalks that dry out in the colder months!

Controlling invasive phragmites before it becomes well-established and spreads will reduce environmental impacts, time and costs. Due to the vigorous nature of the plant, response efforts need to be rapid and aggressive. While it is not (yet) listed as a noxious prohibited species in the *Weed Control Act*, it is listed as a prohibited aquatic invasive species in the *Fisheries (Alberta) Act* due to its harmful effects on native species and aquatic ecosystems. This means that since 2015, it has been illegal to import it into the province, sell it, transport it or possess it.

The suspect plant stand was along Canadian Pacific Railway's main rail line property near Brooks, Alberta. First we had to confirm the species because there is a native phragmites

"I am passionately dedicated to the protection our waters and all the critters and plants that belong here. This one simply does not."

in western Canada that looks remarkably similar. Major differences include: the invasive phragmites is bigger (up to 5 metres), nastier (up to 200 stems per square metre) and kind of evil (so dense it kills off other plants and provides zero habitat for wildlife).

While its preference is standing water, invasive phragmites roots can grow to extreme lengths, allowing it to survive in relatively dry areas, which we saw at this site, extending all the way from the dry upland ballast (gravelled area) of the railway right-of-way into the wetland, which at its deepest point was over three feet of water.

The Plan

Response to this species almost always involves a phased approach, using both manual and chemical control options known to be effective. We used the "Alberta Aquatic Invasive Species Early Detection Rapid Response Plan" (EDRR Plan), which provides the framework for a consistent approach for aquatic invasive species detections and response.

Given the complexity of the site (access, tromping across wetland, potentially spreading seedheads on boots and equipment and water volume), we thought of very few solutions that could be implemented immediately. No aquatic herbicides are registered in Canada for phragmites, which is a pretty big deal given that it is the number one recommended tool to effectively eradicate the species, and considering the havoc it has wreaked already on aquatic ecosystems in other areas in Canada. So we arrived at a containment plan for the season, with eradication options to come.

Containment options typically include cutting, mowing or burning the seedheads before they can spread; though burning and mowing are not really options as this site given the volume of water and the inability to get equipment into the area. Currently there are very limited resources to address aquatic and riparian invasive plants.

A work party was organized in August for the containment of this terrible plant. The county of Newell offered up its summer staff and Eastern Irrigation District did the same. Canadian Pacific provided a rail dump truck and staff. These stakeholders spent two long and brutal days cutting the entire stand of invasive phragmites so that it wouldn't spread any further. They went beyond just the seedheads; they cut the entire half-acre incredibly dense stand. They loaded heavy bags of vegetation into the Canadian Pacific railtruck (on a track that receives a train every 45 minutes), that were then transported to the landfill and immediately buried.

To follow the recommendations and achieve our best chance of eradication for invasive phragmites, we'll be pursuing a two-part control plan: cutting of seedheads and stems combined with the application of aquatic herbicides. We have our work cut out for us. We need an Emergency Use Registration for an herbicide (shown to be the most effective in the U.S.) from the federal government, a Special Use Approval from the province and funding to ensure the cutting and spraying can be done in a timely manner.

We have every intention of successfully eradicating invasive phragmites. Between the Early Detection, Rapid Response effort and working together with partners and stakeholders, we plan never to see another infestation.

Photos: AEP

For more information on this and other elements of our provincial Aquatic Invasive Species Program or to report AIS, see our website: aep.alberta.ca/fish-wildlife/invasive-species

If you have any information about the illegal importing, distribution or sale of invasive phragmites, or think you have seen it in the wild, please call our AIS Hotline: **1-855-336-BOAT [2628]**

It also releases toxins in the soil that impede the growth of other plants, often killing them, which could spell disaster for agricultural crops as well as our native plants. Not to mention the fire and road safety hazards caused by the very tall stalks that dry out in the colder months!

Free Bird

North America's Migratory Bird Treaty

by Sheri Monk

In 1916, the population of the U.S. and Canada was less than one-third of what it is today, yet the migratory bird populations were being decimated. "Labrador duck went extinct. Great Auk went extinct. But I think what captured people's attention more than anything," says David Howerter, director of national conservation operations for Ducks Unlimited Canada, "was the passenger pigeon." The passenger pigeon was once the most populous bird in North America, estimated to number between three and five billion individuals.

"That really got people thinking about the impact that commercial harvest in particular could have on these populations, and at the time there were big markets for birds commercially," he continues. "Ducks were the hot item in the top restaurants in New York City and Boston, so train loads of ducks would be shot commercially in Chesapeake Bay and shipped into these big urban centres." Other birds were killed en masse for their feathers as decorative elements for ladies' hats.

Because these birds fly over international borders, regulating harvests by individual province or state would not work. The Migratory Bird Treaty was an agreement between Canada and the United States that was enacted in 1916. In order to fulfill the treaty, Canada established its Migratory Birds Convention Act in 1917, and the U.S. enacted its equivalent act in 1918.

"We know that waterfowl populations, especially the gamebird populations that are migratory that fall under the convention are doing very well," says Howerter. "In four out of the last five years, I believe, ducks have been at all-time highs, so it's easy to connect the dots that without this attention, those kinds of high populations would probably not be recognized today."

While waterfowl are flourishing, some other species are still struggling. Birds that aren't harvested don't necessarily receive the same attention that hunted species do, and as a result, grasslands birds and aerial insectivores aren't doing quite as well. The cause is likely complicated, but is suspected to be habitat-related.

Migratory birds are some of the most well studied animals on the planet and scientists continue to make new discoveries. "As technologies advance, we are learning more and more about where these birds travel, how fast they travel, what habitats they use along the way, what kind of mortality rates and survival rates they experience at different parts of the life cycle. We continue to learn more about just how dynamic these organisms are and what they are able to do and need to do to thrive," Howerter explains.

Even in the 26 years he has been with Ducks Unlimited, Howerter has seen advancements and major changes in bird conservation. Not that long ago, experts believed that the key to waterfowl, and especially duck conservation was conserving large bodies of water. "The early biologists thought that what was really limiting populations was duckling survival, so they wanted to make sure that there were big ponds, big water that was persistent year after year and throughout the year in all sorts of locations," he says, adding that the Eastern Irrigation District in the Brooks region is one of the legacies of that philosophy.

Since then we've learned that duckling survival is a less important factor than nest survival. "The proportion of nests that are laid that actually hatch is what really, really drives many duck populations," says Howerter.

The new knowledge ushered in a new approach where landowners, conservationists and biologists began to consider much smaller wetlands as being crucial to bird survival. "We also need to think about the uplands that surround these small wetlands because many ducks like mallard and gadwall and shovelers and pintails don't actually nest in the wetlands—they nest in the grasslands that surround them," says Howerter. The narrow focus on conserving large water bodies has really broadened to a much wider landscape focus.

The 1916 treaty was ground-breaking, but it was just the foundation for a future of international cooperation. "Canada and the United States collaborate on one of the broadest surveys geographically and one of the longest-running surveys of wildlife populations anywhere in the world," says Howerter. "Since 1955, the two governments have cooperated on counting breeding duck populations every year over an area that runs from South Dakota all the way up through the centre part of Canada and to Alaska, and then in 1990, they expanded that into all of eastern Canada and the northeastern United States too."

Mexico, Russia and Japan have joined Canada and the United States in protecting migratory birds, and the model has been the basis for many other conservation efforts around the world. The North American Waterfowl Management Plan, created in 1986 between Canada and the U.S., added Mexico as a signatory in 1994 and continues to be heralded as an example to this day.

"It is often held up as the model of wildlife management throughout the world. It is a public-private partnership arranged around the idea of joint ventures," said Howerter. "For example, the prairie habitat joint venture falls within the provinces of Manitoba, Saskatchewan and Alberta, and it includes non-profit organizations like Ducks Unlimited, but also the provincial governments, and the federal government all working with the common goal of maintaining these populations. It's certainly at the leading edge of conservation and wildlife science anywhere in the world."

"It's certainly at the leading edge of conservation and wildlife science anywhere in the world"

photos: Ducks Unlimited Canada

It Ain't Pretty, It Just Looks That Way

Lakefront property and riparian health

► *by Kelley Stark*

Imagine a cabin with a beautifully manicured lawn beckoning you down to the lake, or a luxurious sandy beach adorning your lakefront property. Sounds heavenly, but this splendour causes untold damage to the land, lake, fish and wildlife.

A riparian area is the zone between water and predominantly dry land. According to Alberta Conservation Association (ACA) fisheries biologist, Brendan Ganton, riparian areas are some of the most productive land because of the availability of water.

"It's a nutrient-cycler," adds Stephanie Fenson, ACA land biologist. "It filters sediment; it acts as a protective barrier against increased sedimentation, increased nutrients and erosion."

And while "nutrients" sounds like a healthy component we'd want in our water, the primary nutrient flowing in is phosphates—the perpetrator behind those blue-green algae blooms that make water unswimmable.

The problem

"Typically," says Ganton, "we take a natural shoreline that is usually a transition from aquatic emergent vegetation to shrubs and trees on shore and clear those away and turn it to grass."

What's happening is that the property (including the cabin itself) and everything up to the lake becomes a "hard" surface. A raindrop will land on a cabin roof, fall into the eavestroughs, onto the grass and roll into the lake, picking up nutrients and fertilizer as it goes. Unfortunately, it's not just one raindrop ending up in the lake.

Clearing a natural shoreline also doesn't allow the land to stop erosion. Erosion is a natural process that occurs at a very slow rate and is affected by the size and depth of the lake, the waves, currents and ice. Erosion happens a little quicker than it naturally would when cabin owners make shoreline modifications. "All the waves come up and nothing is there to absorb the force," explains Ganton. Eventually the beach washes away.

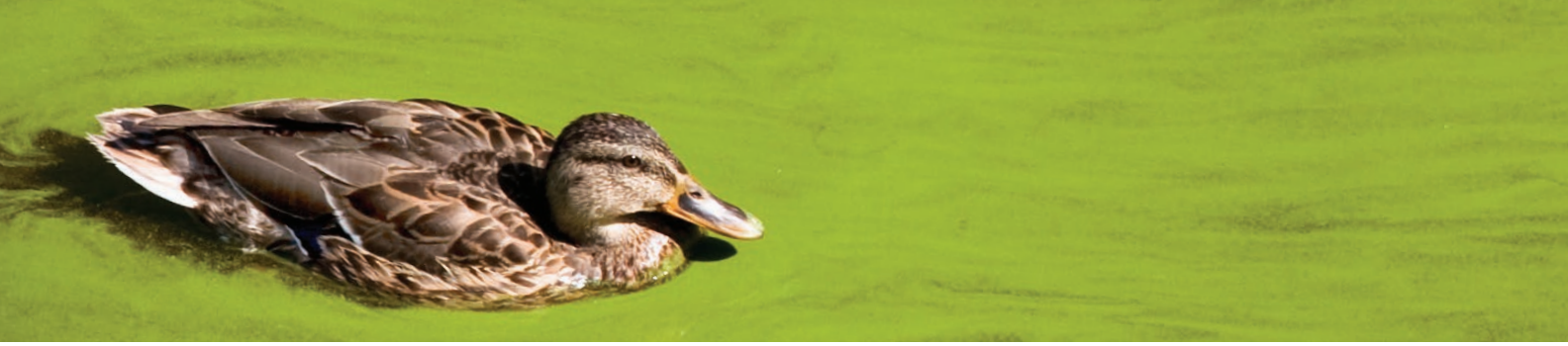
Many "solutions" are not only unhelpful but also illegal. Shoreline modifications cannot be made without a permit. Layering rocks to stop the beach from washing away doesn't work and is against the law. And, as Gerry Haekel writes in *The Law and the Lake: Navigating Alberta's Regulatory Framework*, "The vast majority of lakefront property owners in Alberta do not own the land right to the water's edge. …It doesn't matter what the real estate agent said, the land title will tell you what you own and the survey plan will show you visually the dimensions and extent of your property."

When we clear away the shoreline vegetation from the water in front of our cabins, we remove important habitat for fish spawning and predator avoidance. The desire for neatness and order not only affects the land surrounding our lakes but also kills the fish living there. "Many people consider aquatic plants like cattails and reeds as 'weeds' and a nuisance," writes Haekel. "These plants, however, play an important ecological role in maintaining the health of our lakes. They stabilize the bed and shore, reduce soil movement and erosion, and are important habitat areas for fish, waterfowl and other wildlife."

Not only is the riparian area vegetation cleared, but the aquatic vegetation as well. Fertilizer and nutrients flow right into the lake from manicured lawns causing algae blooms. This is uninhabitable for any fish and wildlife.

While there is a bit of a buffer zone, this property has a HUGE expanse of fertilized lawn. The buffer is not enough to protect the lake.

photos: ACA Drone, Brendan Ganton



While "nutrients" sounds like a healthy component we'd want in our water, the primary nutrient flowing in is phosphates–the perpetrator behind those blue-green algae blooms that make water unswimmable.

The solution

The solution is pretty easy: don't remove shoreline vegetation. Basically, leave soft surfaces. "In general, cabin owners should look to slow the speed of water flowing across their property," says Ganton. "Leaving shrubs on your property or a healthy strip of vegetation between you and the lake slows down the flow of water from cabin roof or your parking area or your lawn into the lake." Do what you can to slow down the flow into the lake.

If shoreline vegetation has already been removed, the solution will take more work and time but is by no means impossible. Replanting shrub lines or vegetative barriers (native plants only please) between the property and the lake or just letting all that was cleared away grow back will certainly help.

Trees, bushes and long grass slow nutrients from entering the waterbody. Leaving shoreline vegetation is not only better for the health of the lake and the fish that live in it, but also benefits wildlife.

Other solutions on the property include:

- Rain gardens — a depression lined with rocks that your eavestroughs drain into to create a pool that drains into the groundwater instead of flowing into the lake.
- Swales — a dip or trench between your property and the lake, basically a low area between you and the lake that water will collect in.
- "If time and geology didn't create a sand beach naturally," writes Haekel, "it's unlikely an artificial sand beach will remain where you put it. Don't waste your money on replacing lost sand year after year—use the public beach."

The "leave it alone" advice also works for aquatic vegetation. As much as we all hate the idea of something touching our foot while swimming in the lake, it certainly beats the idea of not being able to swim in the lake at all. Alberta's cabin owners can apply for a permit to clear up to an eight-metre swath for boat access, but sharing a dock with your neighbours will cut back on the amount of area that is cleared.

It pays to research a property before buying. Watch for altered shorelines and how neighbours treat their own shorelines. A healthy lake is not surrounded by manicured lawns.

No question, nature is messy, but that's where much of the beauty is found. Try spending less time mowing and clearing and more time enjoying the healthy lake. Says Fenson, "Do more for your lake by doing less."

SALAMANDER superheroes

and the evil chytridiomycosis

► *by Kris Kendell*

Salamanders are the animal kingdom equivalents to silver screen caped crusaders, working hard each day to keep earth and people safe while providing us wonder and pleasure. However, their mostly recluse lifestyles and reserved behaviours mean they are unfamiliar to most of us. As with many superheroes, salamanders prefer to keep a low profile—not to evade supervillains or hide a double life, but rather to avoid their predators and adverse environmental conditions.

Salamander superheroes

In ecosystems around the world, living species of salamanders contribute to environmental quality in a myriad of ways. In Alberta, the tiger salamander and long-toed salamander take up this mantle of heroic responsibility. In fishless ponds within their respective distributions, the larva of both salamanders can be considered apex predators in a diverse community of small freshwater organisms including the aquatic young of disease-carrying mosquitoes. When on land, salamanders dine on a variety of insects and other small organisms, some of which are considered pests in urban and agricultural areas. In so doing, salamanders provide us a free pest control. As part of the food chain, salamanders also provide food for northern pike, great blue heron and grizzly bears. Whatever their role, salamanders quietly perform their ecosystem services without glory, like the best superheroes.

Keeping earth and people safe

With insatiable appetites, woodland salamanders consume enormous amounts of tiny leaf-shredding bugs that are part of the rich forest ecosystem underfoot. By suppressing the number of bugs that rip leaves to pieces, the salamanders ensure some of the fallen leaves remain intact, slowing their rate of decomposition. As the leaf layer thickens a process called humification begins, sequestering carbon in forest soils that would otherwise be released into the atmosphere through decomposition. As hidden climate heroes, woodland salamanders provide us a vital ecosystem service that may help decrease the incidents of extreme and unpredictable weather by regulating the capture of carbon (a greenhouse gas) from leaf litter—that is, as long as these denizens of the forests aren't wiped out by the infamous Bsal.

Bsal: The Devourer

Everyone knows that any superhero movie plot needs a villain. And an excellent villain is the one that presents the greatest threat to the beloved hero. The disease chytridiomycosis caused by the fungal pathogen *Batrachochytrium salamandrivorans* (Bsal for short) may be the salamander's ultimate villain!

Nicknamed "The Devourer" because of the skin abnormalities—ulcerations, lesions and excessive shedding—that often result from infection, Bsal is a major emerging threat to salamanders worldwide.

While Bsal seems to be limited to salamanders and newts, both diseases affect the vital function of amphibian skin—respiration and the maintenance of water balance—and are often lethal.

Transmission is from direct animal-to-animal contact with an infected individual, or from contact with water or mud, leaf litter and other organic matter where the fungus lives. It can also be spread during human activities such as movement of soil, water or even by the use of fishing bait between waterbodies. Once introduced into a new environment, Bsal is capable

BSAL happens to be the evil close relative of the fungus Batrachochytrium dendrobatidis, which has already been responsible for the rapid and **CATASTROPHIC** global decline or extinction of hundreds of amphibian species, most notably frogs and toads.

photo: Rory McAlduff

photo: Jeff Streifling

of surviving in the absence of salamanders. Work is underway to control and cease its transmission. Unfortunately, the eradication of the disease in the wild is a practical impossibility.

Salamander apocalypse?

Researchers believe that Bsal may have been introduced to Europe from Asia through imported exotic salamanders that have coexisted with the disease for a millennia and that can act as carriers. Without an established resistance to Bsal, wild salamanders in areas of Europe experienced severe die-offs and local extinctions. The pathogen is now threatening North America's salamanders because hundreds of thousands of wild-caught and captive-bred salamanders and newts have been imported to Canada and the United States through the pet trade over the years.

Experimental trials on some North American salamander and newt species have revealed that they are highly susceptible to the fungus and could experience similar high mortalities from infection as seen in species in other parts of the world. In response to the looming Bsal threat, a coalition of organizations (including ACA) and individuals are studying the fungus and beginning surveillance initiatives, monitoring wild salamander populations, conducting continental-scale sampling and developing intervention and management strategies to prevent the disease from entering North American and spreading to native salamander populations.

They need our help

One of the easiest things you can do to help our salamander superheroes is share your knowledge and excitement about salamanders with others. You can also consider submitting salamander sightings to ACA's Alberta Volunteer Amphibian Monitoring Program (AVAMP). We use your voluntary data to better understand the distribution of Alberta's amphibian populations, an important first step for many amphibian conservation initiatives in Alberta.

Foiling the evil chytridiomycosis

There are several important things you can do—whether you are an outdoor enthusiast, pet owner or biologist—to help reduce the risk of disease transmission to local salamander populations.

- ✗ Do not transport and release any salamander between sites.
- ✓ Promptly report any large numbers of suspected diseased or dead amphibians to your local Fish & Wildlife office.
- ✗ Do not release any pet salamanders, of any species, into the wild.
- ✓ Submit individual observations of wild amphibians suspected to be suffering from disease through AVAMP's online observation submission form.

For further information:
www.salamanderfungus.org

Alberta Volunteer Amphibian Monitoring Program

For more information about AVAMP and amphibian stewardship, please visit **ab-conservation.com**

photo: ACA, James Potter

photos: ACA Budd Erickson

Wake Up. GET INVOLVED.

The West County Watershed Society's Annual Riparian Spring Tour

► *by Kelley Stark*

Frisbees fly through the cafeteria, a hip surfer-type dude dances as he talks passionately about bees, and adorable beavers light up the screen: if that doesn't get the attention of a bunch of sleepy teenagers, then wait until after lunch for the hands-on approach.

The Beaverlodge Annual Riparian Spring Tour is aimed at high school students, though everyone is invited. Throughout the morning, students learn why healthy riparian areas are necessary and what they can do to keep them that way. Many organizations step up to teach: the West County Watershed Society, the County of Grande Prairie Agricultural Service Board, Alberta Conservation Association (ACA), AgroForestry and Woodlot Extension Society, Cows and Fish, and Matrix Solutions.

After the presentations, everyone meets at the Beaverlodge River for a barbecue lunch and activities that show (rather than tell) how to have healthy riparian areas. Field stations highlight subjects like dendrology (scientific study of trees), water safety, riparian plants, soils, and culverts and erosion.

The logic behind targeting mostly youth is that they are next in line to becoming the decision-makers of the world. "We felt that maybe they would pursue environmental careers," says Jill Henry, tour organizer and Rural Extension Officer, Agriculture for the County of Grande Prairie, "or they're from the farm and if they're going to be farmers, they should know this."

The tour started out in 2007 for the public (still is: everyone's invited), geared towards any interested farmers or producers. "It was quite small, maybe 10 people," says Henry. "We rented a small bus and would just drive and look at different projects that ACA and the West County Watershed Society were doing on private land. That was a good way to start some conversations and get people thinking 'That's something I might like to try.'"

Since including high school students, the tour has expanded to many different schools. "We've had them come from as far away as Hanson, and of course, Grande Prairie and Teepee Creek. We've expanded our focus, not just to include the West County Watershed but also the eastern part of the county." In 2016, students from as far away as Sexsmith were there.

Response from sponsors is positive. For example: "ConocoPhillips is awesome because they're in the community and they love to step up." Henry is happy the event is expanding and that more than just one or two entities are taking it on. Other sponsors for the 2017 event include: Matrix Solutions, County of Grande Prairie and Agroforestry & Woodlot Extension Society.

The tour is getting bigger and more recognized. "Now we have people coming to us saying 'can I be a presenter on your tour?' or 'How can I help?'" Henry says it is much easier to organize when so many people are willing to wake up sleepy teenagers.

2017 annual spring tour

PRESENTERS:

- Cathy Newhook from the West County Watershed Society
- Wanda Watts from ACA
- Luke Wonneck from AgroForestry & Woodlot Extension
- Kerri O'Shaughnessy from Cows and Fish

A League of Their Own

▶ *by Ariana Tourneur*

Boom! Boom! Boom! She was smooth and restrained, but the clays exploding above were anything but. Some people were already watching in awe, while others began to saunter over, curious. One of the skeptics declared what everyone was thinking: **"Holy %#@$! She can shoot!"**

As one of the founding members, Dona Murphy polishes her shooting skills through the Ladies League as part of the Onoway Fish & Game Association. The women-only group launched in spring 2014 and despite the league's infancy, it has over 75 members with events drawing 15-30 women.

All She Wants

What can't be assigned a numerical value is the reignited interest in Onoway's Fish & Game Association. It's again relevant and exciting, welcoming anyone who loves the outdoors and wants to improve skills or learn brand new ones, like Murphy.

While the United States has women-only brand partnerships, the Ladies League is more than that. "Our scope is *much* greater," says Bob Rogers, past president of the Onoway Association. "If a woman wants to draw from the hip with a 9mm, we can teach her. If she wants to shoot a compound bow, we'll show her. If she wants to fly fish, we'll be tying flies with her."

Her Happy Place

As a venue for women to learn and do whatever they collectively choose, the Ladies League and its backers pride themselves on the non-critical, non-judgmental atmosphere. It removes spouses and provides carefully selected instructors who are just as patient as they are professional.

"I can ask questions while feeling safe and comfortable," says Murphy. "Until this I didn't know there were other women who enjoy the same things as me!"

It's no surprise she didn't know—Fish & Game clubs are traditionally male-dominated. "I pledged to change that, and when I first saw Onoway's big 'Education Centre' sign, I knew I was in the right place," says Rogers.

Worth the Work

Everything hinged on finding a woman with the skills, tenacity and experience to make this dream league reality. Meeting Ingrid Horner, outdoorswoman extraordinaire, was fate. But executing an idea this big isn't easy. "The men were a little challenged by us," remembers Horner. "Of course they 100 percent support us now, but in the beginning it was difficult to spread the word that we were looking for women to join. But if you persevere, it's *so* worth it."

Learn as You Go

Horner has instructed AFGA's (Alberta Fish & Game Association) BOW program (Becoming an Outdoor Woman) for many years, and wondered why the fun was limited to a handful of days. With events almost monthly and many more opportunities to connect, the Ladies League is making what was once considered "special" ladies' events the norm.

Learning archery and trap shooting has been memorable, but so has expertly operating a chainsaw and building lean-tos. An all-out car clinic is next for the ladies, and perhaps what they anticipate the most is their spring campout. Fly fishing, archery, survival skills, canoeing—not a minute goes to waste.

Whatever the ladies can dream up is on the table, and whenever possible they recruit the many talents within Onoway's Association. Outside contributors like Cabela's and Husqvarna are also irreplaceable, volunteering expertise and dollars so the ladies can learn.

How to Get the Ladies

Most Fish & Game clubs are often looking to boost membership. "When AFGA caught wind of our League, they were thrilled to see what our numbers were doing," says Rogers. Thanks to the women (and the youth they often bring along!), Onoway's membership is much more diversified.

A generous $4,000 donation from Zone 4 of the AFGA will allow Onoway to set up other clubs with a similar model. "A how-to package is in the works, which will help establish ladies' groups for long-term success," says Horner.

Members agree the women are naturals at networking and making things happen, funneling their energy into the original philosophy and core values of Fish & Game clubs. Education, community service and introducing youth to the outdoors are all agenda staples.

The ultimate goal is to have a Ladies League in *every* Fish & Game club across Alberta—maybe even in every province. It's not farfetched considering how far the Onoway association has come in such a short time. In the meantime, there are clubs to help, cars to fix and clays to shoot!

photos: Onoway Fish & Game

photo: Nature Alberta

NATURE ALBERTA

When Nature Speaks

► *by Ariana Tourneur*

We often perceive nature as separate and apart from humankind; we're insignificant as it could go on without us. Yet aren't humans and Earth all part of the same phenomenon? In the same way an apple tree eventually produces apples, the Earth eventually produced humans. Whether you buy it or not, no one can argue that we're in it together.

That's why Nature Alberta speaks up for nature. "We are looking to the future and planning for how we will continue our mission to be that strong voice for the greater appreciation and conservation of Alberta's natural environment," says Brian Joubert, Vice President of the organization.

Nature Alberta became that voice in 1970, when six local natural history clubs joined together. We're fortunate to have a wide diversity of wildlife and wild spaces, and Nature Alberta's membership has always believed all native plants and animals have a right to co-exist with Albertans. The more connected and "at home" we feel with nature, the more we innately care for it, and the more respect grows.

Nature's Track Record

Nature Alberta's 40+ corporate and affiliate member clubs representing several thousand naturalists base their work around encouraging Albertans to learn about… well, nature (think natural history and ecological processes). The organization also shares data within the conservation community, promotes the formation of new natural history clubs, and unifies naturalists' voices when it comes to conservation issues. Learn about a few recent commitments:

photo: Nature Alberta

A Shore Thing

Shorelines and riparian areas are typically the most sensitive yet ecologically significant areas around—able to stabilize soil, reduce erosion, filter surface runoff and maintain or even improve water quality. Nature Alberta staff have visited over 30 lakes and consulted with nearly 900 home sites since the start of the Living by Water program, which teaches lake residents about the ecology of their lake and associated environmental concerns.

The program is successful because it's realistic—initiating small, doable changes owners can make themselves. Residents maintain the integrity of their property's natural ecosystem and still enjoy it recreationally, knowing that their great grandchildren will get to do the same.

Kids and Nature: A Match Made

Through its Nature Kids program, Nature Alberta offers up educational materials and field experiences to families with children ages 4-12 that inspire being outdoors, observing nature, scientific investigation, environmental stewardship and healthy living. A significant part of Nature Kids programming is delivered through Nature Kids chapters that have been established in communities around Alberta. These are run by volunteer chapter leaders and supported by the Nature Kids Program Coordinator.

Over 750 people in Edmonton decided ditching television for a night might be a worthwhile gamble. In 2016, The Nature Kids Edmonton chapter had its most successful series of Family Nature Night ever—educating children and their families about nature by letting them loose in it. It's a good thing the Nature Kids Edmonton Facebook page has over 1,600 followers…those people will be in the know for this summer's nature line-up!

There's Always a Bigger Picture

The Important Bird and Biodiversity Areas (IBA) program is a worldwide effort (read: 170 countries and territories involved) to maintain and improve the conservation of birds.

Since its launch in Canada, the program has identified 48 IBAs in Alberta (36 are globally significant). Most sites are where many birds regularly breed, congregate or pass through on migration.

Under its Important Birds and Biodiversity program, Nature Alberta recently reenergized Alberta's IBA initiative by reengaging IBA Caretakers, hosting a workshop and webinar, partnering on Nature Canada's Cats and Birds campaign, and creating and distributing print materials that explain bird mortality causes and the best preventative measures.

With education at the forefront of their frontier, Nature Alberta has inspired longevity and measurable results. "We will work to provide the strategic direction needed to ensure our 'community connected by a love of nature' remains strong, resilient and sustainable," says Joubert. It's about working hard, consistently and smart—if nature could speak, she'd definitely agree.

Humans have created expressive vocabulary to try to do nature justice. See if you can remember one of these the next time you experience their meaning.

Apricity
The warmth of the sun in the winter (Latin origin)

Moonglade
The track of moonlight on water (Latin origin)

Psithurism
The sound of rustling leaves (Greek origin)

Komorebi
Sunlight that filters through the leaves of trees (Japanese origin)

Alpenglow
A rosy glow that suffuses snow-covered mountain peaks at dawn or dusk on a clear day (German origin)

That's a weird looking eagle!

North America's largest hawk

► *by Adam Moltzahn, ACA*

Sometimes mistaken for an eagle, the ferruginous hawk (*Buteo regalis*) is North America's largest hawk, weighing up to two kg and reaching over 55 cm in length. In general, the adult females are larger than their male counterparts. This *Buteo*, or soaring raptor, can be classified into two colour morphs: light and dark. Both feature a yellow gape (the line around its beak), whitish-grey tail feathers and the white underside of the primary and secondary feathers.

This grassland specialist is predominantly found in southeastern Alberta where large, relatively unbroken tracts of native prairie habitat and abundant ground squirrel populations exist. However, some individuals can be found nesting and foraging in areas near cultivated lands and tame grass pastures. Ferruginous hawks are currently listed as *Endangered* provincially and *Threatened* federally. The loss and degradation of native grasslands, human disturbance at and near nests, and fluctuating prey populations continue to limit the reproductive success and survival rates of this species.

Home Sweet Home!

In late March, ferruginous hawks return to Alberta from their wintering grounds in the southern United States to pair up and start building new nests or refurbishing old ones. These birds use a variety of nesting structures, such as trees, cliff ledges and even the ground to support the massive nests they build. Some hawks might be lucky enough to find a vacant, artificial nesting platform (ANP) to start stacking sticks on. Landowners, wildlife biologists and some private companies install ANPs on the landscape to provide this endangered species with robust, elevated nesting structures.

Ferruginous hawk nests can measure up to one cubic metre in volume and consist mostly of sticks, with sometimes even deer antlers and old bones. The nest bowls are lined with cow manure to fill in the cracks between the sticks. By April, the female begins to lay eggs and incubates them over the next month or so.

Say Cheese!

A trail camera (thanks to all who donated towards this campaign!) was installed on an ANP where a known nest exists prior to the arrival of the breeding pair. It is unknown whether this pair of hawks will exhibit similar behaviours as described above or if an unwelcomed intruder, such as the great horned owl, will make an appearance at the nest. Either way, we'll learn a lot about the ferruginous hawk.
Visit: ab-conservation.com/ferruginous

It's a whole new world

From late May to August, the nest are lively. When the young hatch, the female keeps them warm and well fed with dead Richardson's ground squirrels, more commonly referred to as gophers that are brought back by the male. As each day passes, the chicks' downy feathers are covered with flight feathers, and their wing muscles become stronger. With growing appetites, the female joins her partner to search nearby pastures for gophers and drops off the fresh kills at the nest, which are consumed by the young without parental assistance. By August, the fully feathered young, or fledglings, are ready to explore the world beyond their nest and practice flying. Shortly after, they begin their migration to the wintering grounds and the parents follow suit in the early fall.

photos: ACA, Adam Moltzahn

Still Achieving, Still Pursuing

► *by Kelley Stark*

photo: ACA, Kelley Stark

CANADA 150

SILVER SAGE


photo: ACA, Kelley Stark

The Canadian government is recognizing 150 properties that were secured via federal funding that has been set aside to allow future generations to enjoy the same benefits that these lands provide today. With its grassland beauty and wildlife, Silver Sage certainly deserves the recognition.

Although ACA's concern is with wildlife and our passion is conservation, awards for our work are a great bonus and we love to share this recognition.

We, along with our partners, have been acquiring the property in parcels since 2010. "A large portion of the property," says Tyler Johns, ACA biologist, "was dominated by cultivated croplands and provided an opportunity for native prairie restoration and enhancement. Working in partnership with MULTISAR, we have re-seeded 1,060 acres back to native grass."

The plan is to enhance wildlife habitat in an area of the province with so much cultivated land. Silver Sage was purchased in collaboration with Government of Canada Habitat Stewardship Program for Species at Risk, Alberta Fish & Game Association (Wildlife Trust Fund and Medicine Hat Fish & Game), Pheasants Forever (both Calgary and Chinook chapters) and a private donor.

Sixty different species have been recorded on the 2,731-acre site including 18 species-at-risk. This property provides a "great opportunity to restore habitat for grassland birds, particularly greater sage grouse and Sprague's pipit," says Johns. It will also "provide benefits to other grassland species such as ferruginous hawk, sharp-tailed grouse, swift fox and pronghorn."

We'll continue to work to make this land a special place for wildlife: removing as much human footprint as possible, installing wildlife-friendly fencing and restoring the wetland area. And, as with all of our conservation sites, we'll "allow future generations to enjoy the same benefits that these lands provide today."


Pronghorn
photo: ACA

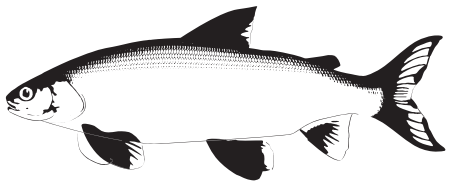

Sharp-tailed Grouse
photo: ACA


Swift Fox
photo: ACA, Colin Starkevich

photo: Kevin Kossowan

Whitefish

THE NOT-SO-SECRET BUT KIND-OF-SECRET UNTAPPED RESOURCE



► *by Budd Erickson*

Before August of 2014, you could find gussied up patrons in overpriced New York City restaurants nibbling on appetizers topped with golden roe, a delicacy sourced from Alberta's whitefish. On the surface, commercial fisheries in Alberta delivered millions of pounds of food for the world's table and provided hundreds of jobs for locals, but some concerns began bubbling up over the industry.

To start, one significant government expenditure that might be overlooked is that any fished waterbody demands fisheries management.

When people begin pulling large numbers of fish out of a lake, is it absolutely necessary that biologists keep a close eye on the sustainability of that resource and health of that waterbody.

Unfortunately, after some number crunching by Alberta Environment and Parks (AEP), it turns out that for every dollar a commercial fisherman made, 70 cents had to be spent on fisheries management. At half of the commercially fished lakes, the cost of management actually exceeded the return for commercial fishermen. In the end, the industry didn't make much economic sense.

Money issues aside, commercial fishing operations were also attracting the ire of Alberta's anglers. Known as by-catch, the problem with catching fish in large nets is that it's nearly impossible to catch only the target species. Commercial fishermen would regularly catching apex predator fish like walleye and pike in addition to whitefish. Unfortunately, the mortality rate is very high for net-caught fish, and there is no point in releasing a dead fish.

If you are an Alberta angler and that got your blood a little warmer than usual, that's normal. But before you get too fired up, there is more to the story. According to AEP, at Lesser Slave Lake, less than five percent of the walleye catch could be attributed to commercial enterprises. In terms of walleye, sport fishing made the commercial walleye catch look like a drop in the bucket. However, as you can probably imagine, restricting walleye fishing for regular fishermen while allowing commercial fishing to continue would create some serious social tension.

In the end, the government decided to put an end to commercial fishing in Alberta. As with any issue, there are pros and cons so whether that was a good or bad thing is complicated and depends on your position. For hundreds of commercial fishermen in towns all over Alberta, it was the end of a career they loved, with thousands of dollars of equipment no longer providing income. For sport fishermen, it meant larger populations of whitefish, pike and walleye.

After the silt settled, whitefish kind of fell off the radar. Now, Alberta's whitefish are getting bigger and more abundant. However, it turns out that whitefish aren't a very popular species for average Joe fisherman.

Although whitefish have a reputation for being finicky to catch, they are strapped with some of the best white and flakey meat in Alberta's waters. Many former customers of Alberta's commercial whitefish industry will attest to that.

Tom Bateman, a former member of the ACA board of directors, says "Whitefish are a great natural resource in Alberta, and now they are kind of underutilized." Bateman is involved with a few organizations such as Alberta Fish & Game Association and Trout Unlimited who are starting to host workshops for anglers and kids that want to learn how to catch whitefish.

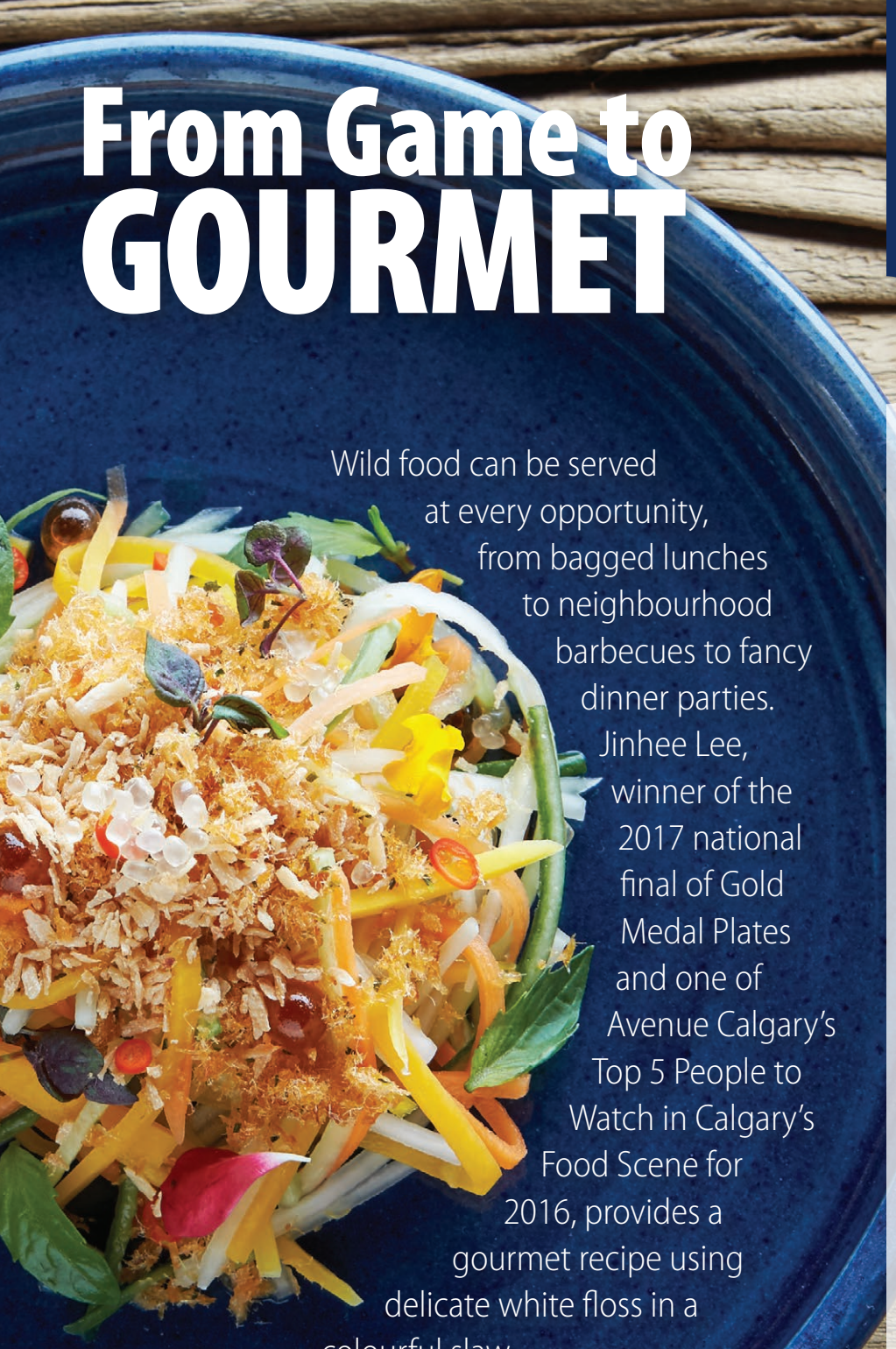
GET WISE ON WHITEFISH

If you are looking to tap into this delicious resource, but aren't sure where to start, we have some tips to get you started.

- You want to use a very light fishing line. Anything above a 10-pound test line and your jigging will be diminished by the stiffness of the strong line. You need the line to be continually taut as well, whitefish bites can be as light as a whisper, and you need to feel them in order to know when to set the hook.
- Ever head of wireworms? Simple copper wire, or other coloured wire can be wrapped around a size 10 or 12 hook. Jig it lightly—the wireworm mimics bloodworms and other aquatic invertebrates that the fish feed on, so they don't need to be very big. The hook can also be tipped with maggots or mealworms to sweeten the presentation.
- Regular small brassy-coloured spoons have also been used with great success. Sometimes when the whitefish are being difficult, quickly switching over to a small spoon can turn things around for you. Jig the spoon upwards quickly and then let out some slack to allow the spoon to naturally flutter back down—your best chance at a strike is when the spoon is on its way back down, so be vigilant during this short window.
- In terms of where and when, there doesn't seem to be much consistency with whitefish. They could be in two feet of water or 20, but fishing in two feet of water is often more fun because you can see them when they are eyeing up your lure (assuming you are in a nice dark tent when ice fishing). However, some days it can seem like the fish are on a lake-wide fast. So don't fret, even the most seasoned fishermen can be skunked by these picky eaters.

Although whitefish have a reputation for being finicky and difficult to catch, they are worth the effort. With a little bit of fat, they are great fish to smoke, but they can also be pickled, fried or baked to excellence. And with the semi-recent closure of commercial fisheries, there should certainly be no shortage of them.

From Game to GOURMET



Wild food can be served at every opportunity, from bagged lunches to neighbourhood barbecues to fancy dinner parties. Jinhee Lee, winner of the 2017 national final of Gold Medal Plates and one of Avenue Calgary's Top 5 People to Watch in Calgary's Food Scene for 2016, provides a gourmet recipe using delicate white floss in a colourful slaw.

Thai Flaked Whitefish with Rainbow Carrots and Rhubarb Dressing

Thai-style Rhubarb Dressing

- 1 cup fresh rhubarb juice
- 2 tbsp palm sugar
- 2 tbsp fish sauce
- 4 tsp tamarind paste
- 1 tsp salt
- 1 inch ginger, grated
- 2 tsp sambal
- 100 ml blend oil (50 ml canola oil and 50 ml olive oil)

In a large bowl, combine rhubarb juice, ground palm sugar, fish sauce, tamarind paste, salt, grated ginger and sambal. Mix well then slowly add oil while whisking.

Flaked Whitefish

- 1 fillet whitefish
- 1 inch ginger
- 2 tsp white wine
- ½ tbsp canola oil
- 1 tsp green onion, minced
- 1 tsp salt
- 1 tsp palm sugar

Peel off the ginger skin and grind the ginger well. Mix with white wine. Clean fish carefully. Hand rub mixture of white wine and ginger on fish and let sit for 15 minutes.

Steam the fish for 15 minutes.

Let cool. Tear small pieces of fish meat into a bowl.

Heat oil and fry minced onions until fragrant. Add the fish into a pan and fry well. Season with salt and palm sugar. Keep stirring. Fry another 10-15 minutes until fish is dry.

Place fried fish into the stone mortar and crush by pestle until like silk thread.

Rainbow Carrot Slaw

- 2/3 cup rainbow carrot, julienned
- ½ cup asparagus, julienned
- ½ cup kohlrabi, julienned
- ½ cup cucumber, julienned
- 2 tbsp flaked trout
- 1 tsp crispy shallot
- 3 leaves Thai basil leaf, chopped
- 3 leaves fresh mint, chopped

In a large bowl, put in julienned rainbow carrot, asparagus, kohlrabi, chopped Thai basil and mint with 2 tbsp of Thai style rhubarb dressing. Mix well and let sit for 3 minutes so vegetables absorb flavours. Plate with flaked Alberta whitefish and crispy shallot.

For more of Lee's creations, check out Foreign Concept in Calgary where she is the executive chef.

photo: Jinhee Lee

Au Naturale

photos: tpsdave/M. Buskas

► *by Lee Foote*

Ranchers, farmers, my co-workers doing forest management and garden construction: their daily work in nature is elemental and visceral. It raises the question though, is it natural? And what is natural anyway?

Is it the pure absence of the quirky heavy-handed influence of humans? Is it something that reflects an unbroken transfer of sun energy, water and soil producing plant and animal communities in an orderly way? Is nature something we humans can even get into without screwing it up? Can our outdoor activities carry on and still keep the environment natural? I think so and some of it depends on what we expect to come of our actions.

The simplest working definition I can find of "natural" is "Existing in, or caused by nature."

Hmm… that is a big tent. A second easy (but wrong) way of defining nature is to say everything that is not human-caused is natural. As outdoors enthusiasts know, such a separation is artificial as we pick wild saskatoons, build fly rods from bamboo strips, fill nature's predator role and cycle nutrients to and from our favorite wildland haunts. Yet, we sometimes feel city-bound and apart from nature.

My grandfather could look out of his country home's window and see his milk cow, the hay pasture, a wood lot for firewood, and a garden for household vegetables. He lived close to the land and by today's standards, he would be a back-to-the-land hipster grandpa. When he was born in 1891, 80 percent of Canadians lived in rural settings. Today, 80 percent of us live in urban environments and nature's bounty is trucked to us from afar. Unlike Grandpa, we have to make the effort to reconnect with nature, so we escape into wild settings to exercise the primitive senses of sight, smell, hearing, taste and touch more directly. We all carry a mental toolbox of rarely used skills such as wayfinding, spatial problem-solving, interaction with other species, pattern recognition in nature and adrenaline-rich responses to wildlife. It is uniquely gratifying to reward our bodies with exertion and exercise our ancient ancestral instincts.

Nature cultivates hopes and dreams too. Everyone can think of a time when they felt excited anticipation: a wedding day, birth of a child, an overseas holiday or opening day. Outdoor lovers might wish for a bouncing whitetail, a lush berry patch, trout rising at an urban riverside, or even a beautiful sunrise from a high-rise building. As shown in scientific studies of recovering hospital patients, as little as a view of nature can improve health and healing. We can find the natural if we are open to it and don't forget that hopeful anticipation is one of nature's delicious pleasures.

There are so few things in our world that give us such a positive sense of hopefulness as paying attention to the outdoors and ideally, going out into it.

Who would not want to improve their health, exercise their minds in creative ways, be thrilled by the unexpected and engage in hopeful optimism? Far from being separated from nature, we humans can embrace the natural and become part of it.

photo: ACA, Charmaine Brunes

Learning has never looked so good

Report A Poacher has a brand new trailer and a brand new look to show off at events and tradeshows thanks to Inter Pipeline and Martin Motorsports.

Report A Poacher is a hotline to call when you see a fishing, hunting or land abuse crime being committed. The trailer is used for outreach to let all Albertans know about the program and what they can do to protect Alberta's fish, wildlife and habitat.

Project Partners: Alberta Culture and Tourism, Alberta Environment and Parks, Alberta Ministry of Justice and Solicitor General, Inter Pipeline, Martin Motorsports.

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