

A WILDLANDS ADVOCATE



THE ALBERTA WILDERNESS ASSOCIATION JOURNAL

JUNE 2017



C O N T E N T S

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Cover Photos

Our cover photo *Like Mother, Like Daughter* by Lindsey Wallis is of her daughter Karina. "There is just something about rocks overlooking prairie rivers..." says Lindsey. It is a legacy and a tradition we hope you can give to your children and theirs as we work to protect public lands and wild spaces for generations to come.

PHOTO: © L. WALLIS



Featured Artist: Lauree Harrison

Lauree Harrison's watercolours grace the pages of this issue of the *Advocate*. Encouraged by her mother, Lauree started painting as a teenager, attending evening classes with the Barrhead Art Club. After high school Lauree took many courses at the University of Alberta. Some of the instructors she has painted with are Paul Braid, Tommie Gallie, Jerry Heine, Brian Atyeo and Gregg Johnson. Drayton Valley chose two of her paintings for gifts to Atsuma, Drayton Valley's sister town in Japan. Before retiring, Lauree taught art and math at H.W. Pickup School in Drayton Valley. Currently Lauree belongs to the Jasper Plein Air Watercolour Retreat and the Jasper Artist Guild. Her love of skiing, mountain biking, hiking, and watercolour painting frequently takes Lauree to Jasper for recreation and inspiration.

Lauree's works can be seen there at the Jasper Art Gallery, 500 Robson St. in Jasper, Alberta and online at <https://www.jasperartistsguild.com/lauree-harrison>. She can be reached at laureeh@telus.net.

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Routes Less Travelled... and More

This issue of the *Advocate* is the definitive signal that summer has arrived. The Features section begins with a summer story of passion...not that kind of passion. Joanna Skrajny introduces you to the Great Divide Trail and those who have tried to build both recognition and trail for this truly wilderness route. Following the continental divide between Alberta and B.C. the Trail may be the ultimate route less travelled in the Canadian Rockies. It's over 1,000 kilometres long and runs through 20 parks and protected areas. If your soul craves solitude and wilderness and you have the essential fitness and wilderness skill set needed to travel safely in the backcountry then this trail, in whole or in parts, should interest you.

Carolyn Campbell next takes you on another route less travelled – to a gem you will find nearly due east of Red Deer near the Saskatchewan border. It's the Wainwright Dunes Ecological Reserve. If you crave the opportunity to walk in a landscape marked by stark, stunning contrasts then this is a trip you will want to make. When I saw the wetland photos of the Reserve I frankly didn't believe that they represented any lands in east-central Alberta. Carolyn recounts the AWA hike to

the Reserve she was on last year and her text is as rich as the dunes and wetlands her group travelled through.

My route less travelled is one you can take as you plan longer, multi-day excursions. It's found in Elk Island National Park, less than an hour east of Edmonton. The trail I took offers a wonderful opportunity to see a wide range of wildlife and, much to my surprise, solitude. I didn't meet another human soul during my five hours of walking in the Park.

Solitude is one of the features that Ray Rasmussen, who delivered last year's Martha Kostuch Annual Lecture, finds so compelling about Willmore Wilderness Park. In last year's annual lecture he treated his audience to a series of virtual hikes to some of his favourite places in Willmore. It was the perfect talk for the "celebrate nature" theme that we try to make especially prominent in the June issue of the magazine. For me, it was impossible to listen to Ray's accounts and not hear and feel the spiritual message the Willmore speaks to Ray and those who have joined him on hikes there over the years. I hope our account here does justice to what Ray said in his lecture.

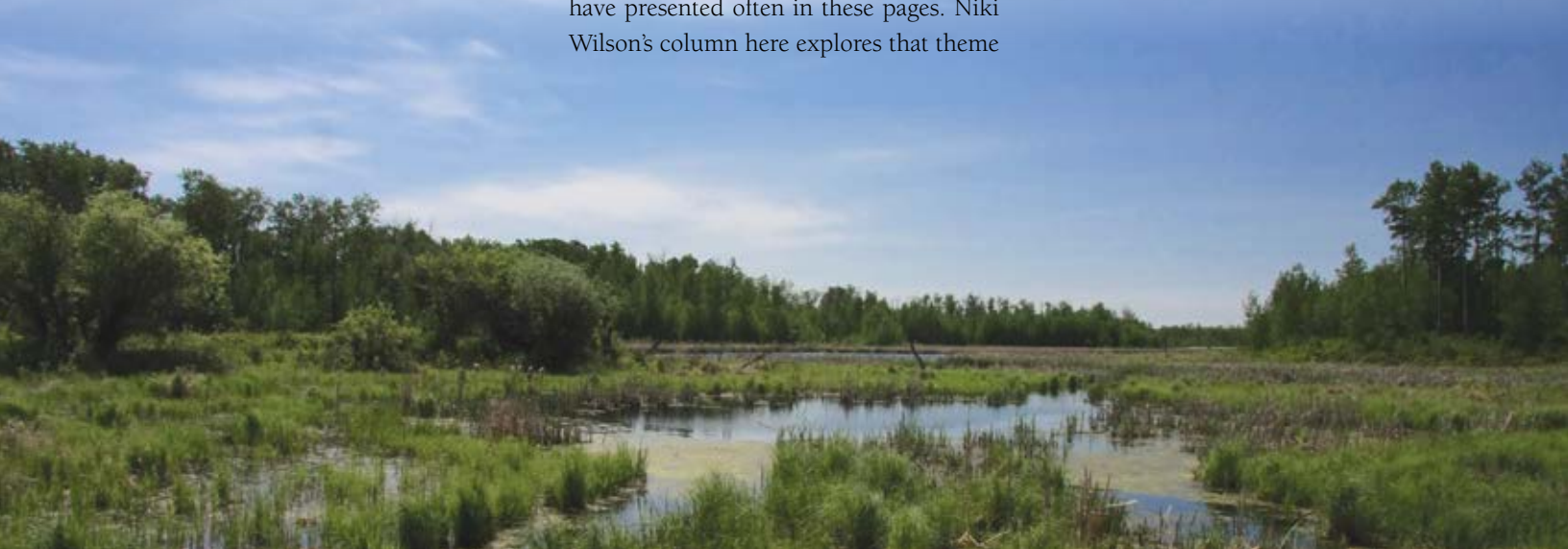
The importance of nature to the soul and spirits of our youth is a theme we have presented often in these pages. Niki Wilson's column here explores that theme

again in this issue and makes the case for nature's importance and value as a tonic for dealing with what life sends our way.

In addition to these "getting out there" stories there is much more in this issue that I hope you'll find interesting. We introduce you to Nick Pink, AWA's new conservation specialist; Andrea Johanscik, who sadly has left AWA to return to Alberta Environment and Parks, writes of the threat a proposed motorsports track and resort presents to Alberta's badlands; Joanna Skrajny gives you AWA's views on a recent report regarding environmental assessments in Canada and the provincial government's review of gravel mining. We're fortunate this month also to offer you Marco Festa-Bianchet's interesting analysis of how the management of Alberta bighorn sheep hunting is affecting the gene pool of Alberta's bighorns.

Finally, on a very sad note, we say farewell to Brian Staszewski – one of the leaders of Alberta's conservation movement. In late May, Brian passed away... far too early in his life. The In Memoriam section at the end of this issue shows you that this giant of a man was truly a giant among conservationists. Those who don't value nature in the next life have been warned.

-Ian Urquhart, Editor



The Great Divide Trail

By Joanna Skrajny, *AWA Conservation Specialist*



Amidst the controversies concerning what will be allowed and what won't be allowed in the Castle Parks one can be forgiven for perhaps overlooking a line on the government's draft management plan. That line is the Great Divide Trail and it represents a major milestone for the Great Divide Trail Association (GDTA). If the route of the Great Divide Trail appears on the final map it will be the first time in the trail's history that it has been officially recognized in a government publication.

To celebrate this major accomplishment, I wanted to hear more about the history of the trail and the efforts to recognize it. I sat down with Dave Higgins, co-founder of the Great Divide Trail Association, Dustin Lynx, author of the guidebook *"Hiking Canada's Great Divide Trail"*, and Dave Hockey, the current president of the Great Divide Trail Association. [Dave Hockey wrote in the August 2015 issue of *WLA* about the first leg of his effort to hike the 4,200 kilometre Pacific Crest Trail that stretches from Mexico to Canada.]

The Continental Divide is the origin for three watersheds – the Atlantic, Pacific, and Arctic – and is the water tower for the Prairies. The idea to establish a long distance trail running along the Continental Divide between Waterton and Kakwa Lake is an old one; various groups and individuals started to imagine this route in the mid 1960s. The idea finally achieved more formal recognition when, in the summer of 1974, six young people received a federal grant to complete a proposed route for the trail.

Dave Higgins was part of that original group of six that first, completed a study to determine the feasibility of such a trail, and then formed the Great Divide Trail Association (GDTA). He said that conservation of wild spaces has always been one of the driving factors behind the association and its goal. "One of the core values of a long distance trail is its ability to bring attention to the area that it goes through, he said. "In order for a trail to be a desirable asset it's important for the area to be relatively untouched. From the very start we felt that the area deserved higher stewardship," he added.

He went on to explain that they had become increasingly concerned over resource extraction and fragmentation of the landscape along the Continental Divide. The group felt that if the trail could bring more people to the land, then those people in turn would become more actively involved in how those lands are managed. This would either encourage those areas to be protected or to be managed in more sustainable ways. As Higgins emphasized, "long distance trails are special because they knit areas together."

Trail building began quickly after the group's establishment; however, the group struggled to achieve official recognition and to secure the protection of the built trail portions. Higgins attributes this to a political shift in the 1980s which created both ambivalence and unwillingness in government to see the landscape used for anything other than resource extraction. Of course, this government disinterest made building and maintaining the trail

a challenge: volunteers could become discouraged and less likely to help if they doubted that the trail might even exist the following year.

The lack of early progress certainly wasn't for lack of trying – Dave Higgins remembers quite clearly the Castle Access Management Process, a three-year period where he attended meetings on nearly a monthly basis trying to get the trail recognized. As he recalled, he wasn't necessarily opposed to motorized use in the area, as long as there were designated areas for motorized and non-motorized travel. At the end of the process Dave Higgins thought they had reached consensus to allow for the Great Divide Trail to be officially recognized. Unfortunately, powerful lobbying by the motorized contingent resulted in more motorized trails through the Castle Public Land Use Zone and taking the Great Divide Trail off of the map altogether.

A major roadblock then (and now) that Dave Higgins points to is the absence of legislation dedicated towards the categorization, establishment, and protection of trails. The United States record is very different. In 1968 Congress passed the *National Trails System Act* and created a system of nationally protected trails. This has allowed Americans to preserve trail corridors in a way that Canada has failed to do.

The lack of political commitment meant, when Dustin Lynx and his wife Julia hiked the entirety of the Great Divide Trail in 1996, their route was unmarked.

As Dustin Lynx says in *Hiking Canada's Great Divide Trail*: "The Great Divide

Trail has a disproportionately long history compared to the amount of trail built in its name. Today it remains an unmarked route despite public support and government approval for an official trail.”

Dustin Lynx is about to release *Hiking Canada's Great Divide Trail – the Third Edition*. His guidebook in many ways has helped to keep the trail alive and available to those adventurers that either don't mind or relish a bit of route finding, especially during years when the GDTA disbanded. Now, 17 years after Dustin's first guidebook was released and 43 years after the birth of the GDTA, official provincial recognition may open the window to change the status and prominence of the Great Divide Trail.

When I spoke to him about how he feels about the Castle Parks and the trail finally being recognized, he said: “It really excited me to see the trail on the provincial map. We've managed to re-protect

an amazing place, which used to be a part of the National Parks system, but protection was rolled back approximately 100 years ago.”

The Great Divide Trail is important to Dustin for many reasons. Initially, he had been looking for a way to continue hiking long distance trails in Canada. Through the years, he's reorganized his life around the Great Divide Trail – first going to the University of Calgary so he and Julia could hike it and finish school, later moving to Canmore where they now reside. Now, along with his children, they've hiked thousands of kilometres of the Great Divide Trail together. Today, Lynx says the trail is still “unmistakably beautiful, it has its wilderness values still in place.” He's excited about the upcoming release of the updated version of his guidebook, not least because it highlights some of the beauty and challenges along the northern sections of the trail.

AWA can claim a place in the history of support for the Great Divide Trail. We supported the GDTA during its formative years. AWA was able to offer some financial support to the Association. Both AWA staff and members helped to construct and maintain sections of the Trail. AWA organized trail maintenance trips to Cataract Creek, Lost Creek, and the Baril Creek area in Don Getty Wildland about ten years ago.

It was also through AWA's “Tuesday Talks” that Dave Hockey, current President of the GDTA, started getting involved in 2010. Then he attended a Tuesday night talk with some of the founding members. He had wanted to give back to the community after his humbling experience of hiking the Pacific Crest Trail and seeing just how much people were willing to do in order to ensure that you had a great experience.

Dave Hockey hopes that through his work with the GDTA he can help ensure

Featured Artist Lauree Harrison



Athabasca River, 21 x 28", watercolour © L. HARRISON

that the public is able to hike through Alberta's wild spaces. As he said: "I think many people don't understand what we have in Alberta and how it is being impacted. What better way than to hike all or part of it, and see nature and development together? If you don't experience it, you won't want to protect it."

I asked Dave what has made it possible to get the trail officially marked 43 years after the idea first emerged. He thinks that having the capacity to be a consistent part of the consultation process and forming working relationships with the government staff have gone a long way to ensuring the Great Divide Trail is recognized. He says that another instrumental piece has been developing a larger Board of Directors and a bigger team of people that are willing to help. "It's really impressive how many people are jumping on board and willing to help," he said, "even if it's in a small way. I think that's

what makes the difference".

AWA hopes the Great Divide Trail will be officially recognized on the final version of the Castle Parks Management Plan. AWA thinks such recognition would help the GDTA secure the funding and volunteer crew needed since recognition offers some assurance the trail will exist in the future. The Castle is currently the worst section of the Great Divide Trail despite going through some of the most beautiful country. It's marred by often running on top of OHV trails. If it's recognized, Hockey hopes to be able to build a whole new section of trail through the Castle.

I asked Dave if he would recommend the current Castle section of the trail to those wanting to explore and enjoy the new parks. "The Great Divide Trail in the Castle is in some of the most spectacular but also some of the toughest parts of the trail," he said. "It's up very high, and there are steep sections in a few areas where you

have to be comfortable with scrambling. So yes, I would recommend it, but not to a novice."

So, at least for now, for an experienced backpacker, hiking the Great Divide Trail is a great way to support the new parks and to see what they may yet become.

As for what the future holds, Dave Hockey hopes that the Great Divide Trail can become recognized during the Livingstone/Porcupine sub regional planning process. He hopes that recognition there will become the catalyst to getting the trail recognized along its entire route through Alberta, B.C. and our National Parks.

If you want to find out more about the Great Divide Trail and the Association, go to www.greatdividetrail.com

They have great trip planning resources, maps, and information on how to get involved. 🐾

Featured Artist Lauree Harrison



Edith in the AM, 16 x 20", watercolour © L. HARRISON

Taking a Road Less Travelled:

Wainwright Dunes Ecological Reserve

By Carolyn Campbell, AWA Conservation Specialist



If you get the chance, be one of those who takes the road less travelled this summer: head east to discover Alberta's Parkland Dunes country. It's a marvelous landscape of contrasts, where 'big sky' prairie is interrupted by striking hills, and where arid winds have shaped sandy dunes that shelter lovely groundwater-fed ponds and wetlands.

The Parkland Dunes is relatively poor farmland due to thin top soil, boulders, and sand. This has been its saving grace, allowing relatively intact areas of native vegetation to remain. There's a high diversity of landforms and wetlands, with aspen groves interspersed with grassland and occasional sandy dune areas. The habitat supports elk, moose, mule deer, and white-tailed deer. Beaver activity in conjunction with groundwater springs is likely responsible for the scale of some of the open water and wetlands areas that are significant for migrating waterfowl and shorebirds. As an important remaining representative area of our Central Parkland Natural Subregion, it is important for Albertans to learn about and help conserve this landscape.

I was able to experience its beauty in summer 2016, on AWA's hike in the Wainwright Dunes Ecological Reserve. The Ecological Reserve covers just over 28 square kilometres, along part of the southeast border of Canadian Forces Base (CFB) Wainwright (see map). We were fortunate to have AWA Board member Cliff Wallis lead our hike. Cliff has been involved for decades in conserving this area. He was part of a cohort of Parks

staff that were encouraged to identify candidate protected areas. Cliff's work was instrumental in creating the Ecological Reserve in 1988.

Like other Alberta Ecological Reserves (ER), the Wainwright Dunes ER aims to preserve and protect natural heritage in an undisturbed state for scientific research and education. The public can enter by foot only. Responsible cattle grazing is also a compatible land use for this protected area; such grazing mimics the important natural disturbance to grasslands and parkland regions that bison and other native grazers provided historically. Local residents of the Buffalo Park Grazing Association hold a lease for grazing rights within and adjacent to the Ecological Reserve, and they have generally practiced responsible environmental stewardship. The Alberta Government hosts a Wainwright Dunes Advisory Committee annual meeting attended by AWA, the Buffalo Park Grazing Association, and other stakeholders to discuss management issues.

For our August 2016 trip, our group approached the Reserve on foot along a sandy route used by grazing leaseholders. Cliff noted that the pasture land in this entrance area had been previously disturbed. Decades ago, range management doctrine wrongly assumed that that more productive pasture would result from tearing up native grasses and substituting 'tame pasture' species. Fortunately, diverse native grassland species had recolonized much of the land.

Once in the Ecological Reserve proper, we soon saw the largest open water body

of the Ecological Reserve, the marshy David Lake. It's a significant way station for migrating waterfowl and its transition wet meadow lands contain valuable vegetative diversity. Our hike continued to the northwest, through treed aspen patches and then skirted a large fen, or groundwater-fed wetland. We observed a family of blue-winged teals, and flushed a pair of sandhill cranes from a roosting spot. Drier ground hosted prairie flowers and grasses; on the sandier spots we found rarer colonizer sedges and grasses.

Over the last decades, there has been encroachment of aspen at the expense of prairie grasslands on drier vegetated ground. An important natural disturbance that has been missing from this landscape is fire. AWA is encouraging the Alberta



Alberta's Parkland Dunes constitute a striking wind-shaped landscape in the transition between grassland and parkland. The Wainwright Dunes Ecological Reserve is one of the few formally protected areas here.



Hikers enjoy the fragile beauty of vegetated and open sand dunes in the Wainwright Dunes Ecological Reserve. PHOTO: © C. CAMPBELL

government to explore limited prescribed burns to renew and expand the open meadows.

Towards the mid-point of our hike, we came into the higher sand dune section. The Wainwright Dunes hills, whether thinly vegetated or open sand, rise perpendicular to the prevailing northeasterly winds. Cliff noted that glacial rivers deposited sands and gravels, which the winds then formed into dunes. Most of Alberta's dunes are parabolic crescents with 'tails.'

Our lunch stop was a higher vantage point, where we watched dark clouds off to the west with some concern. Boom! 'Was

that thunder?' No – we were exploring the Ecological Reserve on a day when there were major artillery and flight exercises over Canadian Forces Base Wainwright, adjacent to the Reserve. The 'boom' was from a fighter jet in the distance that had just broken the sound barrier.

After lunch, we headed west and then south through a higher-ground portion of the large fen. It had been a rainy summer to that point, so there was no avoiding knee-high wading at several places. We walked back along the other side of the fen. Here this wetland takes on characteristics of a 'patterned' fen. The climate

is just cool enough to support peat-forming wetted areas or 'flarks', while the groundwater movement creates narrow aspen-treed ridges or 'strings' running through the low-lying 'flarks.' These elements of a patterned fen are typically associated with boreal wetlands much further north.

Near the end of our circuit we came across an open water section of the wetland complex where there was a large beaver lodge. These architects are so beneficial to keeping water on grassland and parkland landscapes, so it was fitting to see them claim prime real estate in the Ecological Reserve.

After our goodbyes, our hike participants dispersed home through central and southern Alberta. Another reason to visit this lesser known area of Alberta is the amazing landscapes you will discover enroute. In the Parkland Dunes region itself, we enjoyed the striking contrasts between the vast dry lands of the Special Areas, the austere butte formations east of Consort, and the surprising steepness of the Neutral Hills. And if you're heading back towards Calgary, there's the spectacular patterned canyon of the Red Deer River valley to explore. Wherever you call home in Alberta, do take the time to travel to experience this marvelous and fragile part of our natural heritage. 🌲



The Wainwright Dunes' precious shallow groundwater supports a mixture of aspen covered ridges and boreal forest-like peat wetlands PHOTO: © C. CAMPBELL

Taking a Trip to an Island of Conservation

By Ian Urquhart



Imagine a national park where you can hike for five hours and not encounter another person. Imagine a national park where that hike will give you the opportunity to see a species of animal designated as “special concern” by Canada’s Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Imagine a national park where your hike is accompanied by the chorus of dozens of songbird species.

Where do you think your imagination has taken you? To Wood Buffalo National Park? Kluane? Aulavik? Perhaps...but that imagined experience came to life for me at the end of May in Elk Island National Park, less than a one-hour drive from my home in southwest Edmonton. When I arrived at the parking lot to start a hike into the park I was the only one there. I was going to have the trail I had picked for my hike all to myself.

The Park

Elk Island is Canada’s only fenced national park. At only 195 square kilometres, Elk Island is one of Canada’s smallest national parks (Point Pelee National Park, at 15 km², is our smallest national park). It is located in the Cooking Lake moraine, in the northern section of the greater Beaver Hills ecosystem (see Barb Collier’s article in the Feb. 2016 issue of WLA for more on the Beaver Hills ecosystem and efforts to see it recognized as a UNESCO Biosphere Reserve).

Elk Island’s “knob and kettle” topography resulted from the character of the glacial retreat there. Glacial ice there broke off from the still-flowing ice and started to melt slowly over several hundred years. An undulating landscape emerged as the debris-covered ice

melted. Knolls, hummocks, and mounds are the topography’s knobs; irregular, undrained depressions are its kettles – an appropriate label considering how many of them today contain ponds or swamps.

Elk Island National Park, unlike a national park like Banff, was born out of the desire to protect wildlife. In 1906 a handful of men from the Fort Saskatchewan area convinced the federal government to create a preserve to protect what they believed were the last remaining elk on the prairies. Elk Park was established then and its 42 km² territory became the home for a 24-member herd of elk. The following year Elk Park was a waystation for 410 plains bison that were being shipped to Buffalo National Park in Wainwright. Just over ten percent of that population, about 45 plains bison, evaded capture when the time came to move them to Wainwright. Those plains bison became the seed for today’s ge-

netically-pure and disease-free population in the northern section of the Park.

The Park also has played a vital role in a species-at-risk success story – the recovery of the wood bison. Weighing nearly 2,000 pounds as adults, wood bison are the largest mammals in North America. In the late 1950s their population was estimated at only 200 animals. Designated as Endangered in 1978 federal efforts to recover the species have brought it back from the brink. Today there are more than 4,000 disease-free wood bison in nine free-ranging populations plus another 300 that range in the portion of Elk Island National Park south of Highway 16. Its species-at-risk status has been upgraded to “Special Concern” and moving surplus animals from Elk Island to other locations is one key to the brightening prospects for wood bison in Canada. As the Park’s 2005 Management Plan put it: “The recovery of the wood bison



Moose in the southern, wood bison, area of Elk Island National Park located south of Highway 16 have been designated as “hyperabundant” by Parks Canada. Hunting these moose is one management option being considered by Parks Canada. See the Wilderness Watch – Updates section of this issue for AWA’s views on the options Parks Canada is considering. PHOTO: © I. URQUHART



Two male blue-winged teals court a female in the reeds of Flyingshot Lake. PHOTO: © I. URQUHART

depends on the park's herd of this threatened species."

The Hike

Elk Island offers 11 hiking trails ranging in length from just 300 metres (the Living Waters boardwalk at Astotin Lake) to 16.5 km (the Tawayik Lake Trail). Ten of those trails are located in the main section of the park, the section north of Highway 16. The trail I wanted to follow is the only one in the southern section of the park. I wanted to see if the 16 km Wood Bison Trail would let me realize the opportunity to see the free-roaming wood bison advertised on the Park's map of trails. If you start at the eastern trailhead, as I did, you head south until you reach the southeast tip of Flyingshot Lake. Aspen dominates the predominantly deciduous forest that you travel through on this section of the trail. The forest is thick enough that I only got a very brief glimpse of the two elk I spooked during my first 30 to 45 minutes on the trail. They disappeared from sight in a flash as they crashed through the bush. The trail also offered more than a few signs of the fierce windstorm that had swept through the Edmonton area the week before. Windthrow, trees that either had been snapped or uprooted by those winds, crossed the trail at more than a few locations.

The air was thick too at the start of my hike – thick with the calls of songbirds. Listening now to the short recordings I made as I was walking along the trail I'm reminded of the beautiful mosaic those songs created as they reverberated throughout the forest that morning. Their melodies need no accompaniment but, for me, the faint drumming of a grouse and the rustling of leaves in the light, early morning breeze made their tapestry even richer.

When you start to hear the songs of the red-

winged blackbirds you'll know you're getting close to Flyingshot Lake and you can anticipate seeing the cattails and reeds they will nest in. If you use Google Earth's historical imagery viewing tool you can see how much drier this lake area is now compared to at the beginning of this century. The lake as well as ponds in this area were much more extensive in 2002 than they are today.

What I enjoyed most along the southern shoreline of the lake was watching male blue winged teals vigorously pump their heads up and down, as they competed with each other in trying to win a female's attention. I also was grateful for the flights of boreal whiteface dragonflies that escorted me as I walked westward. In my mind they were more effective than insect repellent in keeping the mosquitoes at bay.

When the trail turns north it takes you through terrain that is considerably more open than what I walked through on the east side of Flyingshot Lake. The trail crosses several extensive stretches of treeless, hummocky terrain. The first of these somewhat pasture-like settings offered me what I had hoped most to see on my hike – wood bison. Perhaps two dozen bison, maybe more, were



Boreal whiteface dragonfly (*Leucorrhinia borealis*) PHOTO: © I. URQUHART

scattered across this open expanse carved out of the aspen forest. Even from hundreds of metres away I was convinced that yes, indeed, they must be the largest land mammals in North America. Some grazed on the grasses; others rested – looking like huge boulders on the land. The gentle slopes on the south side of this wood bison pasture were decorated with a handful of wallows, depressions where the bison would give themselves dust baths.

By the time I returned to the parking lot four other vehicles had joined my car there. The human presence on the trail I had taken certainly had increased but...not by much. Although visits to the Park increased sharply in 2016 to 360,000 from 244,000 in 2015 this amount of human traffic in Elk Island National Park is still well below the park's heyday in the mid-1960s when its offerings attracted more than 500,000 visitors. I look forward to returning to the Park in late summer or early fall and hope to once again realize the opportunities the Park offers to see bison, elk, and moose. For information about the park visit Elk Island's website: <http://www.pc.gc.ca/en/pn-np/ab/elkisland> 🐾



Twenty-three wood bison were introduced to Elk Island National Park in 1965 as part of efforts to protect and recover genetically-pure populations of the species. Parks Canada estimates that now there are 333 wood bison in the southern portion of the park. Today Elk Island National Park still plays a vital role in the continuing recovery of wood bison. PHOTO: © I. URQUHART

Conservation Corner:

Nature: Medicine For What Ails You

By Niki Wilson



A few months ago, while working in San Francisco, I received a distressing phone call from my 12-year-old son back in Jasper. He had been sorting through difficult friendships and dealing with bullies, and it had finally come to a head. He was sobbing — the kind of crying that flows uncontrollably from deep despair. I felt helpless as I huddled in the doorway of a candy shop, trying to comfort him from thousands of kilometres away.

I went through something similar when I was his age. My parents had my back and were a tremendous support when I felt lost. One of the things we did regularly as a family was go on “adventures.” Sometimes this meant bushwhacking through tick-infested brush on our way to find a slab of limestone filled with the shells of long-past Devonian creatures. Sometimes my dad had last visited these places when he was young. “They’re around here somewhere,” he would say... sometimes more than once.

These are some of my most vivid memories. There is something magical about turning a fossilized shell over in your hand, knowing it was alive almost 400 million years ago. It lived in the shallow seas that once covered this land, long before humans existed, and certainly long before bullies cussed at kids in grade six.

After a day out adventuring I felt calmer, better. Maybe this came from exploring nature in the relative safety of my family (with the exception of some of the sketchy descents down steep slopes Dad!). Perhaps it came from the perspective I gained from learning we are a small part of a much larger

world and timeline. Regardless, being in nature was key.

Today the health effects of contact with nature is a hot topic of study. Evidence that links time outside with improved wellbeing is growing. Even visits to city green spaces are linked to lower rates of depression and high blood pressure. Nature is associated more and more with healthier immune systems. The list of purported health benefits is long, touching on everything from a decrease in acute migraines, to a decrease in urinary tract infections.

Some researchers are even trying to determine what minimum “dose” of nature is required for better health. Folks, this is where

we are at: prescribing nature like a drug to reconnect ourselves to the behavioural medicine that is coded in our DNA. It’s a good thing to understand. Though I suspect many readers of this magazine intrinsically understand the value of time in the wild, by quantifying the benefits (especially as opposed to the health care costs), conservationists can make a clearer, more powerful case for the conservation of green spaces and nature in general.

Given my recent adventures in parenting, I wonder if it is as important as ever to ensure kids have access to these nature-related health benefits. Every generation has their challenges, but these days the siren



Dylan and his cousin head out to explore Jasper Lake. PHOTO: © N. WILSON

call of video games and beckoning of the Truman Show-reality of social media are easier and more convenient escapes from their troubles and anxieties. It's not all bad, but there is a big difference in our son after an hour of online gaming versus an hour in the bush.

I get it. After a day of researching something like the effects of climate change, sitting down to watch an hour of begetting and beheading on Netflix is a welcome distraction. But it never makes me feel as good as running my hand over a bed of Calypso Orchids that have freshly thrust themselves out of the ground.

After I arrived home from San Francisco, my husband and I took a few moments to slow down and have a hard look at what else we could do to help our son through his difficult time. It is particularly heart wrenching to realize that part of the solution is simply the passage of time, and his learning to navigate the social minefield of tweendom.

However, among other things we've decided to spend a little more time in nature on a daily basis. We are prescribing ourselves at least a few outings a week. While we are good at making big outdoor plans on the weekend, the daily interaction with bees and woodpeckers is some-

times supplanted by soccer, Aikido, and homework. A quick nibble on the toe by a curious lake chub won't alleviate all the pressures at school, but it might provide a little joy, calm, and perspective to help offset these harder times. That... and hugs. Here's hoping. 🐻



Dylan and his dad, Geoff Skinner, ham it up on top of Old Fort Point, Jasper National Park.
PHOTO: © N. WILSON

Featured Artist Lauree Harrison

Whirlpool Vortex,
36 x 17",
watercolour
© L. HARRISON



Winter Shadow Dance,
36 x 17",
watercolour
© L. HARRISON



Management of bighorn sheep in Alberta is not based on science

By Dr. Marco Festa-Bianchet, *Professor, Département de biologie, Université de Sherbrooke*



Alberta is home to about 10,000 bighorn sheep. Of these, nearly all the 7,000 or so that are not on provincial lands are subject to sport harvest. There are two kinds of hunting permits: 'non-trophy' and trophy permits. Non-trophy permits are issued by lottery with local quotas. The number of non-trophy permits peaked at over 1,000 in the mid-1980s. Since then between 200 and 350 permits are generally issued annually. If your non-trophy application is drawn, you can take either a ewe or a lamb. As for trophy permits, an unlimited number are available to Alberta residents and an additional 70 to 80 trophy permits are sold to non-resident hunters. Non-residents must purchase the services of a guide.

The provincial sheep population overall has been stable for about 30 years. This stability has been maintained despite some local population declines in the southern part of their distribution and some increases in the north. As elsewhere in North America, sheep hunters in Alberta have been at the forefront of conservation. They have been particularly active in habitat restoration through prescribed burning. They also have played an important role in the issue that poses the greatest threat to bighorn sheep: exotic pneumonia transmitted by domestic sheep, goats, and possibly other livestock. Alberta still has bighorn sheep in nearly all available habitat, possibly because historically the domestic sheep industry mostly stayed away from the distribution of wild sheep, unlike the situation in BC and in many American states.

The management of 'trophy sheep' in Al-

berta is relatively simple. A resident hunter buys a tag and then hunts for a ram whose horns describe 4/5 of a curl. The hunting season generally runs between late August (or early September in the south of the province) and the end of October. With a few tweaks, that management regime has been in place for about 50 years. The problem with this regime is that it selects for small-horned rams. It's time for a change to remove this unhealthy evolutionary effect. Such a change was long discussed, recommended by provincial wildlife biologists, but

denied by elected officials. Here is why the provincial government's decision is wrong.

Trophy sheep harvest is based on horn size and shape. A ram whose horns fit the 'legal' definition can be shot, a ram whose horns are too short cannot be shot. That sets up a selective process, as is evident in all jurisdictions that, unlike Alberta, measure the annual horn increments of harvested rams: those with rapid horn growth early in life get shot at 4-5 years, those shot when 9-10 years of age had slower horn growth early in life. Of course, we do not know about those with



This photo and the following two photos were taken at Ram Mountain, where there is a temporary hunting ban. A seven-year-old ram with horns that do not meet the legal definition of 4/5-curl (green tag) – he would do very well in a hunted population as his competitors would be shot.

PHOTO: © M. FESTA-BIANCHET



Of these three rams, the one on the left is seven years old. Although barely legal in June he would be legal in late August and would probably be shot. The other two would survive and breed in the fall. PHOTO: © M. FESTA-BIANCHET

really slow growth, because they cannot be harvested and die of old age. There is no question that the hunt is selective: small-horned rams cannot be shot.

A vital question is: does the hunt affect the evolution of sheep in Alberta? Yes, it does. That has been demonstrated at Ram Mountain, with a very conservative analysis of a pedigree up to eight generations deep. Ram horn size is affected by habitat quality, population density and weather. However, it also has a strong genetic component. This is not rocket science: most physical traits in mammals, domestic or wild, have a genetic component, which typically explains 20 to 40 percent of their variability. Ram horns are larger in populations with better habitat, they shrink at high population density, and grow larger if weather is favourable to vegetation growth. Once those environmental factors are accounted for, the horn size of daddy, mummy, and earlier ancestors still matters. If rams with big horns are shot, those with smaller horns will do the breeding, and over time horn size will decrease. Those results are available in international scientific jour-

nals, the kind that wildlife management is supposed to pay attention to.

Intense selective harvest over about seven sheep generations has affected ram horn size in most of the province, as shown by records of harvested rams. Rams shot in the last few years, once age is accounted for, have horns about three centimetres shorter than 35 years ago. The most dramatic change, however, is the proportion of four or five-year old rams in the harvest. To be 'legal' at four or five years of age, a bighorn ram needs to have rapid horn growth in its first few years of life. In the 1980s, rams aged four or five years made up over a quarter of the harvest. Now, this age group constitute less than 10 percent of those shot. The reason for this change is that slower horn growth means that it takes longer for rams to become 'legal'. The change in age structure of the harvest is more revealing than the change in average horn length because rams with small horns are illegal to harvest and therefore do not show up in the harvest records.

Genetic changes in the horn size of breeding rams through intensive trophy hunting

are the best explanation for this decline. There are several reasons to expect that the genetic effect of trophy hunting in bighorn sheep would be stronger than in other species. First, there is their mating pattern: rams with large horns do very well if they survive to rut as 7-year-olds or older, but those same rams are at risk of getting shot by the time they are four or five years old, when they become legal. Including natural mortality and a 40 percent harvest rate, a ram with fast-growing horns that becomes legal as a 5-year-old has a 16 percent chance of surviving to rut at age 7, compared to a 74 percent chance for a ram with slow-growing horns that becomes legal at age eight.

That selective pressure is enormous, the breeding odds are almost 5-to-1 in favour of the ram with smaller horns. The 40 percent harvest rate was observed at Ram Mountain; in the rest of the province that rate is unknown. Trying to underplay this very heavy harvest, some have claimed that the ram harvest is only eight percent, but that includes all adult rams, nearly all of which are illegal to harvest. The harvest rate for 'le-

gal' rams in Alberta is probably somewhere between 30 and 70 percent, and it would be good to know what it is. In the Yukon, about 71 percent of Dall sheep legal rams are harvested either the year they become legal, or the following year – with an unlimited number of permits, the harvest rate in Alberta is likely very high. Two other lines of evidence point to a very high harvest rate. First, the success rate of resident hunters has declined to about four to five percent, presumably because most hunters cannot find a legal ram. Second, nonresident hunters, who hire expert guides, do not kill rams with larger horns than Alberta residents. Large-horned rams are simply unavailable. In other jurisdictions, guided hunters take larger rams, as one would expect.

There are at least two alternative mechanisms that could explain a decline in ram horn size. One is climate change. Ram horns have shrunk while the climate was warming, so perhaps a warmer climate has a negative effect on sheep nutrition, reducing horn growth. Recent analyses from Ram Mountain, however, confirm a trend first detected for Alpine ibex: a warming climate, at least over a few decades, should increase, not decrease, ram horn growth rate. The other alternative is that bighorn sheep population density has increased, leading to a density-dependent decline in ram horn growth. There are two problems with this second interpretation. One, the overall number of sheep in Alberta has been mostly stable over the past three decades. Two, numbers of sheep have increased North of the Brazeau River and that is where ram horn size has not declined.

Why have ram horns not shrunk in the northern part of the species' distribution in Alberta, despite an increase in population size? One possibility is that the selective effect of the hunt is swamped by immigrants from protected areas. Bighorn sheep rams in October-November will prospect for breeding opportunities as far as 60 to 80 km from their winter range. Large-horned rams that are not quite at the top of the hierarchy in protected areas may do well by moving into provincial lands where many of their stron-

ger competitors have been shot. In most of the northern areas, such as the Willmore, there is little harvest of rams in the last week of October. That may be because access in late October is difficult. In the rest of the province, particularly in areas just east of Banff Park, there is a very strong peak in harvest in the last week of October, just before the season ends. The evidence suggests that much of that harvest includes rams coming out of the National Parks and other protected areas, looking for breeding opportunities. Rams shot near the Parks in late October have larger horns and are a bit older than those shot elsewhere in the province or near the Parks in late August. This is consistent with the possibility that the late-season harvest is partly made up of rams from protected areas that are not subject to the selective effects of the trophy hunt. It seems likely that rams that come out of much of Jasper Park survive to breed in provincial lands, possibly swamping the selective effects of the hunt. Many of those that exit Banff, Waterton Lakes, and other protected areas, however, may be shot in late October.

It would be good to have more precise data on ram movements in and out of protected areas, but it currently appears that a substantial proportion of the provincial harvest may involve rams that spend most of their lives in protected areas. That raises

questions about the effectiveness of those protected areas. On average, rams shot in late October are about 20 percent closer to the boundaries of protected areas than rams shot in the first 10 days of the hunting season. It appears that a substantial proportion of the late-season harvest relies on rams originally from 'protected' populations in the National Parks.

Faced with strong, published scientific evidence that the current management selects for smaller horns, Alberta Fish & Wildlife biologists proposed changes to the sheep hunting regulations. Suggested changes included a more restrictive definition of 'legal' ram as a full-curl for areas south of the Brazeau River, and an earlier closing of the hunting seasons. All suggestions were rejected by the Alberta government; it preferred the status quo. There will be no changes in the definition of a 'legal' ram and no changes in the duration of the hunting season. A management regime that selects for small horns and may rely on harvesting rams from protected populations is not based on science and goes against the principles of the 'North American Model' of wildlife management. Research on many aspects of this issue continues, but the decision was political. If changes will come, they will have to be driven by public opinion, particularly the opinions of sheep hunters. 🐾



M23, legal since the age of six years, is now 10 years old. He fathered at least 16 lambs when between the ages of four and eight (we don't know what he did last year yet but presumably he added to his total). Had he been shot at aged six, all but two of those lambs would likely have been fathered by competitors with smaller horns. The yearling behind him is one of his sons. PHOTO: © M. FESTA-BIANCHET

The Expert Panel's Report on Environmental Assessment in Canada

By Joanna Skrajny, AWA Conservation Specialist



I would like to take you back to the not-so-distant past. The year is 2012, which I bemoan as the year Canada's environmental protections died. That was the year the federal government passed a 420-page omnibus budget bill. It was called "omnibus" because it did much more than present the government's financial plans. It de-limbed Canada's environmental legal tree. Bill C-38: the *Jobs, Growth and Long Term Prosperity Act* amended 60 laws and eliminated 6 others. Two thirds of this "budget" bill targeted major national environmental laws: the *Canadian Environmental Assessment Act* was replaced, protections provided by the *Fisheries Act* were stripped, the *Navigable Waters Protections Act* was diluted, the *Kyoto Protocol Implementation Act* was repealed, and amendments to the *Parks Canada Agency Act* cut staff. The irony of the bill's name shouldn't have been lost on anyone.

The 2012 changes to the *Canadian Environmental Assessment Act* (CEAA) were striking and sweeping. Coupled with substantial cuts to the Canadian Environmental Assessment Agency, the new Act guaranteed that Ottawa annually would conduct fewer and fewer environmental assessments, with little attention paid to monitoring and enforcement of project conditions. It's no wonder that sowed public skepticism about Canada's environmental protection commitments.

A New Dawn

Let's fast forward now to shortly after the federal election in 2015. Prime Min-

ister Trudeau's mandate letter to his Environment and Climate Change Minister instructed Catherine McKenna to "immediately review Canada's environmental assessment processes to regain public trust." This resulted in a review of many federal environmental laws, including Canada's environmental assessment law and processes. An expert panel was established in late 2016 which held public hearings and workshops across the country. The Expert Panel's final report – *Building Common Ground* – was released in April 2017. We expect that, after the federal government processes the public feedback it received about this report, changes to Canada's federal assessment processes will be announced in the fall.

The Expert Panel's report has some significant, forward-thinking recommendations. They go beyond resurrecting aspects of the old CEAA and focus on what is actually needed for our federal assessment processes to carry us through the 21st century. Their overall vision is important and refreshing; they call for federal assessments to be transparent, inclusive, informed and meaningful. AWA hopes the federal government remains faithful to this vision as it considers reforming the Canadian environmental assessment regime.

The first substantial proposed change concerns the purpose of federal assessments. Currently, Canada conducts environmental assessments in order to determine whether a project will have significant adverse environmental effects. However, determining that a project has

such significant adverse effects doesn't necessarily prevent it from moving forward. Adverse effects currently can be justified if a project is perceived to provide supposed benefit to society. *Jobs, growth and long term prosperity, anyone?*

The Expert Panel challenges this approach with a sustainability based Impact Assessment (IA) model. This would mean that assessments would approve only those projects which provide a net environmental, social, cultural, health and economic benefit. This would be a significant improvement, because clearly listing trade-offs and determining whether projects provide an overall benefit will help everyone to understand how decisions are made. This may in turn restore the public's trust in the process.

During their tours across Canada, the Panel found that the public currently does not trust the federal assessment process. Part of this reason, they conclude, concerns public participation. Current opportunities for the public to participate are unsatisfactory. The Panel recommends that proponents should move away from only informing the public of a proposed project, to actually collaborating with them to pursue outcomes that better suit the needs and wants of everyone involved.

The Panel's report also recommends that jurisdictions (i.e. municipal, provincial and federal governments, as well as Indigenous organizations) should co-operate to undertake a singular assessment. Such broad cooperation seems key to undertaking successfully a sustainability

based assessment.

When grappling with the topic of *what needs to be assessed*, the Panel has suggested that there should be a list of projects which will automatically require federal assessments. This would be supplemented with a provision that any projects which have the potential to impact current and future generations require an impact assessment. As well, any person or group can also request an assessment be conducted. I can understand the need to provide clarity to industry (it's pretty easy to see if your project is on a list and therefore know if it will need to be assessed), but I am concerned that a list will miss smaller projects. It is usually the cumulative impacts of projects, both big and small, that have contributed to environmental degradation in Alberta.

On this point, it is encouraging to see that cumulative impacts are being considered by the Expert Panel. It seems the Panel is trying to tackle the issue of many projects on a landscape by undertaking regional assessments. These assessments would look at a specific area, determine what the valued components of that area are, and what threats may be posed to these values. This regional approach to disturbances on the land would allow development to be considered in a way that actually looks at the bigger picture.

In this respect I would like to see more substantive commentary on how regional assessments will be done. For example, it's important for regional assessments to determine how an area looked and functioned before there was any development. Current assessments miss the impacts of past projects, which creates a problem known as a shifting baseline, where recent development create a new normal, a baseline that is blind to the changes previous developments have made to the landscape. Even areas that are physically untouched by people are still impacted by us in some way – whether it's pollution, changing climates, or noise. There also has to be some legal teeth and incentives for respecting thresholds and some

mechanisms for proponents to co-operate together. It would also be wise to include provisions requiring that, if thresholds are exceeded, development should stop and the focus should shift to recovery and restoration.

Strategic assessments join regional ones as another level of assessment recommended by the Panel. Strategic assessments are proposed to address the issue of climate change by determining the greenhouse gas emissions of a certain project or region, what impacts climate change is going to have on that landscape, and whether the area is able to cope with and accommodate those impacts. However, other than a comprehensive recommendation on how strategic assessments can be used to determine climate change impacts, the Panel's report falls short on specific recommendations on how strategic assessments will be used. It suggests that strategic assessments should be used as a guiding tool to help implement existing policies, plans and programs in a project. But it seems silent about new policies and initiatives. Strategic assessments should consider them as well to see whether they achieve net sustainability and how they fit within the broader assessment framework.

For example, a proposal in a federal budget to boost the economy by widening every road in Canada would have to be assessed and determined whether this will achieve net sustainability. A strategic assessment would consider the future of transportation, domestic and international climate change policies and agreements, and would perhaps recommend that taxpayer dollars would be better used to incentivize public transportation initiatives instead.

My biggest question might be reserved for the recommendation that, with conditions, the substitution of provincial assessments for federal or joint assessments should remain as an option. This may retain too much of the current situation where a provincial government can undertake an assessment that both the

province and the federal government will use to assess a project. The panel's conditions include insisting that the highest standards will be applied and that the federal government would still need to be actively involved in such a process. Will these conditions be enough to ensure substitution isn't another way for the federal government to abdicate its duties? I worry about this and fear that substitution may weaken the assessment process. However, I'm pleased to see that the panel thinks that the current version of equivalency – where the federal government doesn't need to be involved at all in the assessment process – is not acceptable.

Restoring public trust hinges on transparency and accountability in the process. To this end, the Panel makes a number of good recommendations. They include making assessment information permanently and publicly available, ensuring that scientific data is publicly available on a federal government database, insisting that decisions should be evidence-based, and clearly listing the decision making criteria. There are also recommendations to increase monitoring and enforcement of conditions placed on projects. All of these measures promise to increase accountability and transparency.

Finally, the Expert Panel's recommendations are just that: recommendations. Whether they are adopted by the federal government and how they are carried out in practice will ultimately determine the success of this initiative. This report isn't perfect, but it's definitely a step in the right direction. I hope the federal government achieves the Panel's vision for assessments to be transparent, inclusive, informed and meaningful as they move forward with making decisions on how to change Canada's assessment processes. 🐾

The river of many roses... or the river of many sports cars?

By Andrea Johancsik



When I was 9 years old, my family moved to Melbourne for three years. I remember going to school when the Australian Grand Prix was going on. My school was only a few neighbourhoods away and the roar from engines revving was deafening. The Grand Prix is a Formula One racing event that lasts four days and draws hundreds of thousands of people each year to Melbourne, a city of four million. Now imagine a motorsports facility with “dedicated track cars like Radicals, Ariel Atoms, Formula cars and Sports Racers,” open 350 days a year in a pristine river valley near Rosebud, Alberta. That’s what Badlands Motorsports Resort is proposing in the Red Deer River valley just south of Drumheller.

Rosebud is called *Akokiniskway* by the Blackfoot people, meaning “by the river of many roses.” This is due likely to the large presence of Alberta’s widely recognized wild rose. Symbolically, rosebuds represent beauty, loveliness and purity. If any town represents its namesake, it’s Rosebud, just south of Drumheller in the Red Deer River valley. The pristine and unique valley teems

with rare and sensitive wildlife and is a vital area considered for the long-term health of the area’s natural environment. Beauty, loveliness, and purity, and the image of a fragile wild rose – those likely aren’t the words and imagery you would associate with a motorsports racing facility, open 350 days a year for high-powered vehicles like formula cars and sports racers. The latter is exactly what Badlands Motorsports Resort proposes in the Red Deer River Valley near Rosebud.

The Badlands Motorsports Resort

Under Badlands Motorsports Resort’s vision, an area larger than downtown Calgary would become a world-class automotive course six kilometres long with 1,200 track users and guests per day. In addition, it would offer a full service recreational resort requiring 200 staff and a residential community including vacation style condominiums housing 433 residents. Currently, the plateau is agricultural land and the river valley is undeveloped. To accommodate a new development, roads, parking lots, and buildings

would be constructed; wetlands would have to be altered to allow storm water and waste water treatment; noise levels would predictably increase.

It’s pretty hard to build permanent structures in the ever-shifting coulee formations of river valleys; the University of Lethbridge is built on a coulee formation but structural foundation problems remain one of the top five issues facing campus development today. The Badlands Motorsports development proposes to extend its reach to the coulee formations on the Red Deer River right down to the riparian area, as shown in the developer’s concept image.

River valleys are wildlife oases

In the dry prairies of southern Alberta, river valleys are oases for wildlife. They are even more important as remnant areas when widespread agriculture and development destroys useable or high quality wildlife habitat. Wildlife flock to the area because of the importance of water, but they stay because of lack of human development. The Rosebud



500 pairs of bank swallows, classified as Threatened by COSEWIC, nest along the banks of the Rosebud valley.
PHOTO: © C. WALLIS



PHOTO: © J. GROVES

River Valley has been recognized repeatedly for its significance to wildlife. In a 2010 report on Environmentally Significant Areas (ESAs) commissioned by Kneehill County, the Rosebud River Valley was rated as having Very High and High levels of environmental significance. Its significance was due to the area's unique geological, ecological, and historical features.

ESAs are a way to standardize environmental qualities across different landscapes. AWA uses ESAs as one metric of our Areas of Concern, regions AWA believes are important to protect. The proponent's Environmental Assessment recognizes the ESA designation, but concludes that the impacts to wildlife are anticipated to be "manageable." Cliff Wallis, professional biologist and AWA Secretary-Treasurer, disagrees. "The environmental effects of a high impact development such as this cannot be mitigated without leaving a residual impact," he says. "Badlands Motorsports Resort will negatively impact an environmentally significant area, sensitive species and rare natural habitats. Mitigation does not mean no damage, it just means lessening damage."

Local resident and photographer Jon Groves agrees. Mitigation doesn't go far enough in protecting the prairies near Rosebud. "These areas need to be protected more so than pretty areas that attract tourists," he says, referring to the disproportionate protection of mountain parks as compared to grasslands. "There's a sharp-tailed grouse lek 500 metres away from the project boundary," he recalls. "Bank swallows are federally listed and they're right near the project, they

are using it for foraging wetland habitat." Groves thinks grasslands are under-protected because they lack charismatic species like grizzly bear that most people care about. He cannot see any valid argument for locating this motorsports development in a sensitive environment that is shrinking with time. "It certainly has importance to species at risk that are near and dear to me."

Botanist Linda Kershaw and former Canadian Wildlife Service scientists Dr. Geoff Holroyd and Helen Trefry presented independent findings to Kneehill County during public hearings in 2013. They concluded the company's Environmental Assessment was incomplete and that the development would result in "destruction of this ecological diverse and important area." Their study found an unusually high diversity of bird species and 140 species of rare plants including one 'critically endangered' species, prairie cordgrass. The report noted that the entire project area constituted a recommended area to avoid due to the presence of sensitive species. This means any development in the area is sure to remove important habitat for Alberta's most vulnerable species.

What does the community think?

When local residents Wendy and Richard Clark first found out about the project, they took action to mobilize a loose group of landowners and hamlet residents that were also concerned about destruction to the Rosebud River Valley. Save the Rosebud members have so far sent over four hundred letters to the province about the Badlands Motor-

sports Resort. By comparison, the Badlands Motorsports Resort lists only four letters of support for the project on its website. "What I can say about the Rosebud community is, if nothing else, we are more united now than we were before," Wendy told me. "As for [the Badlands Motorsports Resort's] response, I don't expect that they will respond. They have tried to come out to the community a few times, but they discovered that people are kind of unwavering."

The community has struggled to strike the right target, facing jurisdictional complications. The Motorsports Resort land is within Kneehill County boundaries, but many opposing residents live in the adjacent Wheatland County. "Neither council or county is willing to go out on a limb and fight for environmental issues," Wendy says. But it hasn't been easy for the community to figure out how provincial policy applies either. The South Saskatchewan Region and Red Deer Region, provincial management units, divide on the Red Deer River. Because the river valley is shared between the two regions, Wendy assumed the area would fall under the South Saskatchewan Regional Plan (SSRP) – which is completed, while the Red Deer Regional Plan isn't. But even these plans don't necessarily apply at the project level because sub-regional planning isn't completed. Some provincial legislation does still apply but is still awaiting approval. The company's *Water Act* approval was recently withdrawn because the company had not submitted their application for the *Environmental Protection and Enhancement Act*. The motorsports project may well be a test of whether municipalities



The Rosebud River Valley offers startling contrasts and is a sanctuary for wildlife amidst a cultivated landscape. Its cliffs are prime nesting habitat for prairie falcons. PHOTO: © J. GROVES



This pair of reclusive golden eagles has nested for years in the quiet, remote Rosebud River valley.
PHOTO: © J. GROVES

and the province can overcome jurisdictional challenges to resolve environmental issues.

Wendy Clark took the MLA for Rosebud, Derek Fildebrandt to a community town hall about the issue. According to Wendy, Fildebrandt asked how many people would show up at the meeting. “I don’t know, Derek, I really don’t know,” Wendy recalls saying to the MLA. She expected 30 to 40 people to show up. “Well, there were 150 people. He was blown away,” she says, “that’s the kind of support we’re getting.”

Save the Rosebud is willing to put their money where their mouths are and buy the land back from the developer at fair market value. The community has twice offered to purchase the land in December 2013 and again in May 2016. “We need a little more thoughtful planning in this province about where appropriate places to put high-use, high impact activities,” Wendy says. “The province needs to take a bigger stand in it right now. They can’t leave this all up to small rural councils.” Under the new Municipal Government Act, an Ombudsman whose role is to investigate complaints about municipal decisions could be a resource for Save the Rosebud, but the Ombudsman won’t be available until 2018.

Wendy’s long-term dream is to change the focus of Save the Rosebud to create a network of conservation easements among landowners up and down the Red Deer River valley. “It would be somewhat unprecedented to tap into that many private

landowners to make an agreement,” Wendy says, but it’s a goal she believes is possible to achieve. “We want to move ahead as quickly as we can to conserve this land in the way that we want it conserved.”

Is there a place for Badlands Motorsports in Alberta?

Chris Curtis, spokesperson for the project, believes the resort would attract visitors from Calgary and Edmonton and bring huge benefits to the local economy. “It’s the largest project of its kind in Canada. There would be jobs, there would be ongoing revenue for local businesses,” Curtis says. “Economically, it would be a huge benefit for all surrounding communities.”

Like any development, however, economic benefits are not always a given. Calgary’s former Race City Motorsport Park closed in 2011; canadianracer.com lists over 50 closed racetracks in Alberta. And then there’s the question of if demand is there. A nearby proposal in Mountain View County, Rocky Mountain Motorsports, has been approved just a half hour from the outskirts of Calgary. Badlands Motorsports would be at least an hour and a half from the city.

But the company is hopeful this track will be successful. The company website reads that “with the support of Alberta Tourism and Economic Development and the office of Calgary Economic Development, Badlands Motorsports Resort was recently involved in a trade and investment mission

in China.” AWA spoke with a representative from the Tourism Division of the provincial government to verify this information, and was told that the government is not providing financing to the company, but they are treating them as they do any other Alberta company and they have worked with them on their business plan. Whether the Alberta government’s “support” is a highfalutin claim or an honest description remains to be seen. But, while the government of Alberta needs to consider these applications all divisions of the government need to work together more proactively to secure the future of environmentally significant areas like the Rosebud. This could be done with protective notations or economic instruments like conservation banking or easements.

Future

AWA was unable to get a hold of James Zelazo, CEO for Badlands Motorsports Resort. But the company’s response to our 2013 letter of opposition to the project asserted that “we feel that the AWA has overstepped their bounds and their purpose...” and, “in conclusion, contrary to what the Alberta Wildlife Association [sic] states, Badlands Recreation Development Corp. feels strongly that the proposed Badlands Motorsports Resort development can co-exist with the surrounding agricultural and residential communities, and that it would contribute positively to the preservation and conservation of the environmentally significant area of the Rosebud River in Kneehill County.” AWA continues to support the Save the Rosebud group and is pleased to be part of this collective effort to preserve the natural beauty and value of the Red Deer River Valley. We encourage our readers to share their views on the project with the government.

For information from the Save the Rosebud community and to see contacts to write to with your views about this project, visit www.savetherosebud.ca

For information from the developer, visit www.badlandsmotorsportsresort.com 🐾

Gravel Mining Program Review

By Joanna Skrajny, AWA Conservation Specialist



In early February of this year, the Alberta Government held workshops to review the conduct and monitoring of sand and gravel mining operations throughout the province. This review was prompted largely by the Auditor General's 2016 report. Auditor General Saher pointed to three very troubling facts: gravel pits are not inspected regularly, enforcement of operators' reclamation responsibilities for their pits is virtually non-existent, and operators don't pay a sufficient security deposit in the event they fail to reclaim the mine. This has resulted in a legacy problem. Hundreds of abandoned pits are scattered throughout the province and there is little to no money and resources to deal with this litter.

Why should we be concerned? It's simply because the cumulative impact of all these sand and gravel mining operations is much larger than you likely suspect. The ALCES Group estimates the size of the footprint of sand and gravel excavations to be approximately 24,000 hectares. This is three times larger than the coal mining footprint in the province. What compounds the impact of this footprint is the fact that most of Alberta's sand and gravel mines are located close to waterways. As you likely know, riparian areas – the stretch of green vegetated areas surrounding a creek or river – are essential corridors for aquatic and terrestrial species. Together with the vegetation, shallow sand and gravel deposits located within a floodplain act as a sponge. They absorb water during times of intense rain and slowly release it to the river in times of drought. Therefore, land uses which affect river-connected groundwater have a disproportion-

ately negative effect on the ecosystem and water security.

As a result, the province undertook a number of workshops with stakeholders to attempt to address some of the Auditor General's concerns, which AWA participated in. One of the most positive outcomes from the workshop was to see that aggregate proponents will finally (!) be held to the same standard as other industries. This means that operators will have to conduct wildlife surveys and have appropriate setbacks for sensitive and at-risk species. It was also good to see that there will be yearly reporting requirements for operators on both private and public land, but AWA would like to see that extended and make reporting necessary even if the pit was not "active" that year. This would incentivize operators to complete their restoration work on time and would allow the government to keep better track of abandoned mines.

A disappointing aspect of the current Program Review is that it is going to continue to allow sand and gravel mining within the 1:100 year floodplain by developing a "risk based approach" to gravel mining in the

floodplain. A formal risk assessment only will be part of the decision-making process if the risk is judged to be medium or high. Of course, this presumes, improperly in AWA's opinion, that it's appropriate to allow gravel mining to occur at all in floodplains. This line of reasoning accepts too high an amount of 'acceptable' risk. It places too minimal a cost of the damage this mining could do to the alluvial aquifers that supply drinking water and to the riparian areas so valuable to wildlife.

Taking a Step Backwards: the SWBAP

When pressed as to why this risk based approach was being used, the government planners argued they were simply implementing the Surface Water Body Aggregate Policy (SWBAP). AWA is extremely concerned with this approach since it tolerates the possibility of mining gravel in the 1:100 year floodplains.

Before the approval of SWBAP in 2011, there was a working understanding among provincial regulatory agencies that they would reject new applications for aggre-



Our riparian corridors act like oases on Alberta's prairie landscapes. PHOTO: © C. OLSON



I took this photo of the interface between a gravel pit and a river in the fall of 2015. The riprap, rock used to armor streambanks, in the foreground of the photograph is the outer edge of the excavated pit. This pit has flooded numerous times, delivering high loads of sediment to the water. The river is very likely to overtake the pit again the next time it floods. PHOTO: © J. SKRAJNY

gate extraction activities within active river channels and the 1:100 year floodplain zone. Federally, under the *Fisheries Act*, the Department of Fisheries and Oceans (DFO) routinely rejected applications which would harm the aquatic environment and provincial officials had relocated some sand and gravel operations farther from rivers.

Fish and Wildlife officers and scientists opposed the first attempts to allow gravel mining in the 1:100 year floodplain in 2000. They believed it would send out a confusing and counterproductive message by adding another threat to the health of the aquatic environment. In the following years, multiple processes and groups were set up to develop a policy on how to manage sand and gravel mining operations in the province. But whenever scientists or biologists recommended that gravel mining not be allowed in the floodplain that advice was either ignored or the process was scrapped.

For example, a working group process in 2009/2010 was tasked with reviewing sand and gravel mining issues. It stated that “it is clear from the literature on impacts from instream gravel mining that the mining of aggregate from within the active stream channel can have significant, widespread

and long lasting impacts on the aquatic environment, including fish and fish habitat.” Regarding cumulative effects, the working group noted that “the most severe effects of instream gravel mining may be considered as cumulative because they may become obvious only over time and extend beyond the limits of the mine site itself.”

The advice was ignored when in 2010 a new task force was established and was directed to make “quick progress.” This meant involving only select external stakeholders (primarily aggregate industry interests) in order “to develop a province-level policy direction for the approval of aggregate extraction from gravel bars and floodplains of water courses in the province.” This task force delivered our current *Surface Water Body Aggregate Policy* with its premise that there are acceptable levels of risk associated with gravel mining in our floodplains. Some might regard this policy as little more than green washing an industry-driven initiative.

I spoke about this issue with Jim Stelfox, a retired provincial fisheries biologist. As he points out, the floodplain is a very appropriate name since it expresses something that is plainly obvious...this is an area that is prone to flooding!! During the flood of

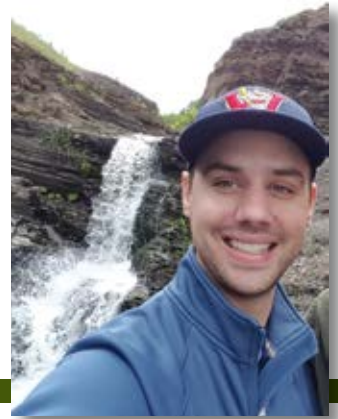
2013, many gravel pits were flooded and resulted in pit capture – where the river flows into the mine, which now becomes the new channel. The impacts of pit capture are numerous and negative: possible reductions in the amount of fish spawning habitat, changes in the stream channel and flow patterns, increased water turbidity, the potential for dissolved oxygen levels to decrease, and the potential for water temperature to increase. All of these can damage aquatic plant communities, benthic macro-invertebrates, and native fish populations. As Jim points out, the result of the river “capturing” a gravel pit can have irreversible results and the recovery of the stream may take decades, if it recovers at all. Even in pits that aren’t captured by the river, many of them end up with stranded fish during flood events.

Jim himself assisted with some fish rescues in the week after the 2013 flood. His observations were that the Alberta Government was responsible for conducting these fish rescues and, to his knowledge, the gravel pit operators were never charged for this work. The government has stated that it is the gravel pit operator’s responsibility to conduct fish rescues in a flood event, but there is a lack of information regarding how much fish rescue work operators actually did. AWA is unaware of whether operators faced any financial penalties for fish that were stranded in their pits. While some operators undoubtedly took responsibility for rescuing fish there is no systematic database for information about crucial subjects such as flooded pits, stranded fish, pit rescues, and operator financial responsibility.

All of this information leads me to conclude that, even under a best case scenario where the above issues are resolved well, fish will continue to be stranded in gravel pits and some will inevitably die. Furthermore, too much of the real costs of gravel mining also are being borne by the taxpayers and not enough lands on the shoulders of the miners. Ecologically and financially the way ahead is clear; that path is not one where we continue to let the profit motive of gravel operators govern public policy. 🐟

Camping For My Job

By Nick Pink, AWA Conservation Specialist



Hello, my name is Nick Pink and I have the pleasure of being the new guy at the Alberta Wilderness Association. You know... the fellow who may not always be sure about everything he's doing but is trying hard. He's long on want and enthusiasm, shorter on experience.

Long before becoming the new guy, I studied at the University of Calgary where I graduated with a BSc in Ecology. I once had ideas of becoming a veterinarian or doctor but, when I realized I had an idealized view of those professions (when have you gone to see a doctor and been interested in being on the other side of that interaction?), I decided to switch course and look towards working in the environmental sciences. Why the environmental sciences, you may ask? Well, speaking of being overly idealistic in my youth, I honestly thought it would be fun to go camping for my job.

Things have worked out well so far. My first job was with the Calgary Zoological

Society where I spent a summer researching northern leopard frogs. We were camping for 10 days at a time throughout southern Alberta and I was living out my dream, although some shifts were dreamier than others.

This one episode always sticks out in my mind. We were camping near Claresholm in early May, before the campground was even officially open, and... out of nowhere – a blizzard hits. Our tents were covered in half-frozen, half-melting snow and it was clear that they weren't going to keep us dry that night. The camp bathrooms offered the only nearby shelter. What were we to do? It was probably time to get a hotel, right?

Not on our budgets. No, we took our sleeping gear to the bathrooms and slept on the floors. Relative poverty trumped pride in this situation. I convinced myself this was the correct choice by imagining that a waterlogged bear likely would be more than happy to sleep in a heated campground bathroom on a night like that

one. Nonetheless, this wasn't exactly what I thought living my dream would look like.

When I started my next job with a pipeline company my "camping during work" days ended. Hotels, comfortable beds, hot showers – that's what went with working in the field there. The same was the case when I moved on to work with an environmental consulting company. My dream of "camping for my job" was further and further away.

And now...the dream has a new life! I'm happily working as the new guy with hopes that my field work with AWA will give me a few more opportunities to go camping for my job – hopefully without the spring blizzards. Like my colleagues, whether I'm camping or not I hope to be a positive force in the conservation community, to protect what cannot protect itself. Dreams of camping – whether on the job or off the job – demand wild spaces and I look forward to making more of them a reality in Alberta. 🌲

Featured Artist Lauree Harrison



Edith Cavell from 93A, 15x 29", watercolour © L. HARRISON

Walking in Willmore:

Ray Rasmussen's Martha Kostuch Annual Lecture

By Ian Urquhart

Ray Rasmussen.
PHOTO: © K. MIHALCHEON



I first met Ray Rasmussen in 1988 nearly 30 years before he gave the annual Martha Kostuch lecture last November. Ray was invited to speak about public participation and environmental decision making in Alberta. Ray spoke plainly and clearly about how values such as trust and respect were crucial prerequisites for effective public participation in Alberta. He also wasn't afraid to say those values were absent from the decisions that the Hon. Ken Kowalski, the keynote speaker, had made as Alberta's environment minister. Some of you will remember the controversy over the construction of the Oldman River dam and the unyielding opposition Dr. Martha Kostuch and others had towards the project. Kowalski was outraged that Martha's Friends of the Oldman River

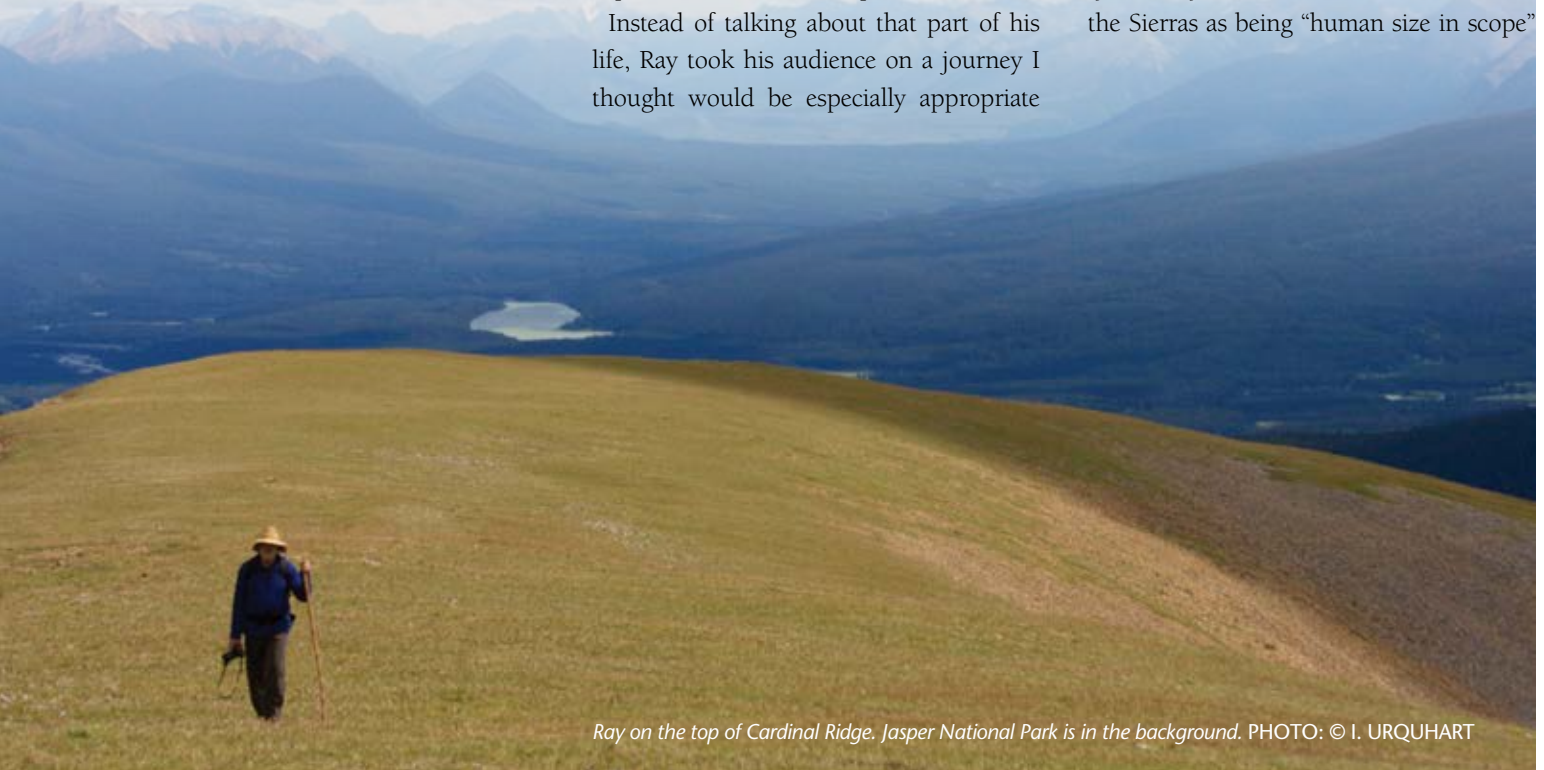
were going to mount a court challenge of his approval of the Dam. That view led the Minister to charge that Martha and her ilk were nothing more than dope smoking social anarchists. The conference was worth attending just to hear Ray tell the Minister how wrongheaded his approach to environmental decision making was.

In last November's Martha Kostuch lecture Ray didn't spend much time talking about the activism that has figured so prominently in his life. AWA, CPAWS, and Alberta Environmental Network are just some of the environmental organizations to have benefited from Ray's passion for the natural world. So too have provincial and municipal advisory committees tasked with trying to give real meaning to the concept of sustainable development.

Instead of talking about that part of his life, Ray took his audience on a journey I thought would be especially appropriate

to save and tell in an issue of the *Advocate* where celebrating nature is a prominent theme. Most of Ray's talk was dedicated to taking his audience on hikes in Willmore Wilderness Park. Ray has an intimate relationship with the Willmore, an intimacy developed during more than 30 years of travel through its valleys and along its ridge tops. Over the decades Ray has introduced hundreds of hikers to the wonders of this special place.

Ray began by suggesting that through his images of the Willmore he hoped to deliver a spiritual message. As someone lucky enough to have joined Ray on one of his hikes I've received that message first-hand. What may enable many to receive the Willmore's spiritual tonic is its accessibility. For Ray, John Muir's characterization of the Sierras as being "human size in scope"



Ray on the top of Cardinal Ridge. Jasper National Park is in the background. PHOTO: © I. URQUHART

applies just as well to the Willmore. Big, riverine montane valleys bordered by long sub-alpine and alpine ridges that are quite easy to get up onto help to make Willmore so accessible. Much of Ray's hiking over the years has centred on the variety of day hikes you can take from base camps in the Eagles Nest Pass area.

As Ray told us the 22 km hike from Rock Lake to the Eagles Nest Pass area is "the price you pay" for what you will experience in your subsequent days of hiking. The first half of the trip is essentially along an old fire road through the forests. It's quite easy walking but the treasures awaiting you at your destination are very well-hidden here. In fact, the first time Ray went into the Willmore he was so annoyed with the lack of any sign of the mountains after about 10 km of walking this hard road that he almost turned around to go back to Rock Lake.

Throughout the rest of the evening Ray took us on some of his favourite hikes. One of those is what he calls the Cathedral Valley and Ridge hike. When you near the top of the valley you arrive at the boundary between Willmore and Jasper National Park. From there you have about a 250 metre climb up a steep slope to get on to

the ridge. You can walk the ridge for about five or six kilometres and from there you are treated to spectacular 360 degree views of your surroundings. For Ray these views and the experience of this ridge hike are the equal to those on Jasper's Skyline Trail. In fact, he agrees with authorities such as Ben Gadd who suggest that the Cathedral Valley and Ridge hike may be superior. Why? The answer is a single word – "solitude." You almost never meet other hikers on this route and Ray's never met horses on the trip.

For the rest of the evening Ray took his audience on a number of other day hikes that Willmore offers. They included a hike to a lake and headwaters basin that sit hidden across the valley from Ray's favourite campsite and a marvelous walk up and along Wildhay Ridge. Although not as high as Cathedral Ridge the vistas from anywhere along Wildhay Ridge are equally spectacular in their own right.

Towards the end of his remarks Ray raised the issue of Willmore's future. No reader will be surprised to hear that this country has attracted the interest of developers of one kind or another. The fact Willmore was established by its own piece of legislation is one factor that has so far spared it from the insults development would hurl at the wilderness character of this park. Any designs to change the status quo in Willmore must be brought before the legislature; the Act would have to be amended in order for industrial activities to take place here. Sections 4 and 5 of the *Willmore Wilderness Park Act* use strong, clear language to pro-

hibit activities that would push this area off of the trajectory established by the Social Credit government in 1959. This is one reason AWA is adamantly opposed to any suggestion that the unique legislative basis of this wilderness park should change.

I cannot help but believe that Ray's audience saw very clearly the spiritual character of the lands he walked them through last November. He underlined that spiritual message when he concluded his talk with an Inuit prayer:

*I think over again my small adventures,
my fears,
Those small ones that seem so big,
For all the vital things I had to get and
reach,
And yet there is only one great thing, the
only thing,
To live and see the great day that dawns
And the light that fills the world.*

Willmore is that great thing, the light that fills the world for Ray. Take a trip into the Willmore yourself and I think you'll see why he feels that way. ▲

Early morning in camp in the Eagles Nest Pass area. PHOTO: © I. URQUHART

Climb for Wilderness 2017

By Christyann Olson, AWA Executive Director



Looking ahead to 2017, AWA's Board of Directors decided that, after 25 years, our Climb for Wilderness event needed a facelift. We thought it was time to move to a new venue but one where we could be true to our traditions, true to our roots, true to our mission to create better awareness about wilderness and wildlife in Alberta. AWA seized the opportunity to move the event to the new Calgary Bow Tower, but not without the trepidation and worry that change always brings. With the help of more than 140 volunteers, a dedicated and untiring core of staff, board

members and, most of all, the more than 800 climbers and supporters who donated funds, we revitalized the Climb for Wilderness in a new venue – the energy efficient, iconic, Bow Tower.

We were thrilled with the transition and change. While the event was an organizational challenge we think the event was as relaxed and inspiring to all the climbers as it could be. Opportunities to learn about Alberta's Wild Spaces were offered at every fifth landing. The displays and opportunities to learn about specific wildlife and wilderness were well attended. Cenovus, our

host for the event, updated participants on their caribou habitat recovery project with videos and display materials.

We truly have had an excellent response to the revitalized Climb for Wilderness. We focused on teaching about wilderness and wildlife and we raised much needed funds (\$75,000 net) for the work AWA does throughout Alberta. We are looking forward to many more years for our iconic Earth Day event!

We want to say thank you to all our supporters for this event, and look forward to Climb and Run for Wilderness 2018! ▲

Thanks to everyone that came to the 2017 Climb for Wilderness! Here are some of our favourite moments:

MLA Dave Rodney provided prizes for top athletes and encouraged participants to enjoy the climb and bring a friend next year!
© K. MIHALCHEON

© J. QUIROZ

Alberta Wild



Climbers who chose to time their climb were able to compare their speed with those of a range of Alberta's wildlife species! © J. QUIROZ



Abigail Hadden (third from left) and the friends she brought to climb with her. Abigail has climbed every one of her 8 years and was our top fundraiser in her age category earning more than \$1,500 for Alberta Wilderness Association. © J. QUIROZ

And with great determination and pride at making it to the top, Debbie made it and her shirt said what so many felt!
© J. QUIROZ



Elek Szabo – 98 years young and strong emerges at the top of the 54th floor!



Twenty month old Karina Eustace Wallis, walked up all 1188 steps, one at a time, with the occasional break for a treat or a little chat while her parents, Lindsey Wallis and Kyle Eustace, watched carefully and cheered her on. Grandpa Cliff was nearby too.



Faithful supporter Gian Carlo Carra and his son and friend made it to the top and took time to welcome everyone on behalf of the City and AWA along the way! Gian Carlo's son donated the money in his piggy bank to feed the owl when they got to the top! Thank you!!
© J. QUIROZ



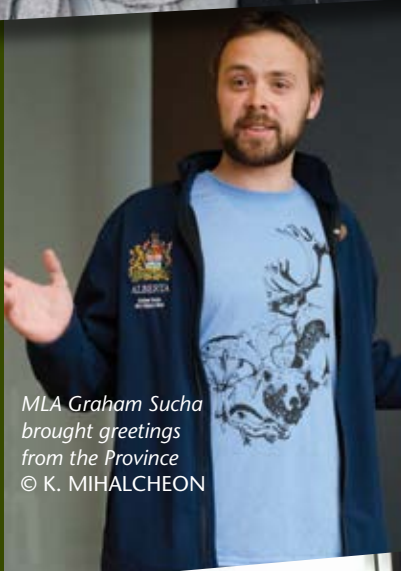
Gord Hobbins of Gord's Running Store and family and friend David Smith – faithful supporters of Climb for Wilderness.



Our bear meeting and taking photos with climbers at the top!
© J. QUIROZ



MLA Graham Sucha brought greetings from the Province
© K. MIHALCHEON



Vanessa and Andrew who flew up the stairs in 10:28!



Emma Hergott with proud grandparents Ed and Mary Alice. Emma raised over \$1,300 for her climb!



Two thumbs up from our Dr. Richard Guy. Richard, 100 years young, raised more than \$6,000 from his friends for his walk up the stairs.
© J. QUIROZ



MLA Dr. David Swann (© J. QUIROZ) and Vicki Reid (© K. MIHALCHEON) of Cenovus welcomed folks to the new event.

Louise Guy Poetry Corner



Celebrating 150 years of Canadian Wildlife!

Manitoba



Who Am I?

Grazing on the open prairie, solemnly I stand,
A silhouette against a golden plain.
I'm heavy and I'm bulky, I travel in a herd,
My head hangs low and has a shaggy mane.

My horns are short and curved, I've a tassel on my tail,
My shoulders have a hump that's mighty large.
You'll think I'm slow to move, but I'm fast upon my hooves,
So be prepared, I might decide to *charge!*



Moose



White-Tailed Deer



Bison

Turn page upside-down for answer!

I'm a Bison!

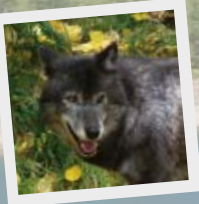
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Celebrating 150 Years of Canadian Wildlife!

Quebec



Who Am I?



Grey Wolf



Black Bear

Spring, summer, fall...my busiest seasons of all!
I wake from my winter's sleep,
Look out from my cave and peep,
I forage around for food on the ground
On hills and mountains steep.

Big, furry and black... I constantly look for a snack.
I stumble across some honey,
That's sticky and sweet and runny;
Ignoring the bees, I eat what I please
'Cause honey's *unbearably* yummy!



Grizzly Bear



Porcupine

Turn Page Upside-down for Answer

© Rosemary Gell, 2017

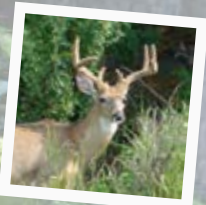
I'm a Black Bear!

Celebrating 150 years of Canadian Wildlife!

Ontario



Who Am I?



White-Tailed Deer



Caribou

Look at the forest, it's perfectly still,
Nothing is moving at all, until...
Look a bit closer, somebody's there,
Someone with antlers and dark brown hair!

Someone who's wearing a bell at his throat,
A bell that is silent and won't play a note.
Somebody solid, imposing and tall,
Someone concealed by the trees every fall.

Eater of twigs and a swimmer of lakes,
My hooves will outrun you, make no mistake.
And though a bit lonesome is how I appear,
I think that you'll find that I'm really a dear!



Mule Deer



Moose

Turn Page Upside-down for Answer

© Rosemary Gell, 2017

I'm a Moose!

Updates

Hydro: this isn't the renewable energy resource you're looking for

On April 4, 2017, the financiers proposing the Amisk Hydroelectric Project (AHP) announced they would delay the AHP application for a dam on the Peace River for at least one more year. They now expect to submit an Environmental Impact Assessment (EIA) in 2020. Significant changes to the project design previously had led the proponents to push back the proposed submission to 2019, three years later than originally scheduled. The 24-metre high Amisk dam would be sited approximately 28 kilometres (km) southwest of the town of Fairview, just over 15 km upstream of the Dunvegan bridge on Highway 2. The headpond, or reservoir, would extend 77 km upstream and flood approximately 1,625ha of land. Almost one third of the flooded area (485ha) would be located in the Dunvegan West Wildland Provincial Park.

While AHP would mark the first Alberta dam on the Peace River, it could become the fourth dam on the Peace. It would join three BC dams on the river: the Bennett Dam (1968), Peace Canyon Dam (1980), and Site C (under construction). Site C, the target of strong opposition during the recent BC election, may not proceed under the new NDP-Green coalition government.

Site C is much larger than AHP – it would flood five times the land and generate three times as much electricity. But, many of the criticisms levelled at Site C apply just as strongly to the Amisk project. Environmentally and financially, 'Big Hydro' is very costly compared to increased energy efficiency, and other renewable choices. Even the existence of Site C, if it is completed, should be a strike against the development of another dam; how many dams and additive impacts can this

vital major river ecosystem take?

Large dams contribute large amounts of methane, a well-known and potent greenhouse gas, to the atmosphere due to the decomposition of flooded land. Reservoir flooding may release dangerous levels of methyl-mercury, a bioaccumulating neurotoxin. This chemical is linked significantly to damaging human health effects such as cardiovascular and neurological abnormalities.

AWA has several other concerns about the AHP project. First, Alberta must keep its protected area protected. The proposed plan will flood 4.85 km² of prime river corridor habitat in the Dunvegan West Wildland Provincial Park, home to important parkland wildlife and vegetation. AHP suggests compensating the Government of Alberta for destroying these lands. Compensation may sound reassuring but, in practice, this rare and specific habitat cannot simply be recreated – that's why we protected these riverine lands in the first place.

Fish in the Peace River, such as threatened bull trout, are already negatively impacted by the upstream dams in B.C. Amisk will further disrupt and fragment their habitat. Dams create barriers to fish movement and, if fish cannot migrate upstream past a dam, a population may be unable to find suitable breeding grounds. Additionally, the genes in fish populations can only move in one direction as downstream populations may be inhibited from moving past the dam. Amisk HP has yet to identify all of its proposed fisheries mitigation measures. However, one current proposed fish passage measure – a fish ladder, can be ineffective. A study in 2013 found that only three percent of a migrating fish population made it past the dam. Success varies with different species and environments but, what remains constant, is that there is a non-zero

impact: efficiencies do not approach 100 percent and certain species, such as salmonids, are more successful than others.

The physical attributes of the Peace River also will be affected by the dam. When the flows of a river are disrupted, so too is its deposition of sediment and nutrients. The sediments that used to be carried down the river will become trapped behind the dam since the Peace will flow too slowly in the reservoir to keep the particles suspended. Temperature, salinity, and dissolved oxygen levels shift as sediments and nutrients accumulate in and upstream of the reservoir. These are important changes to the aquatic ecosystem; they can make conditions unfavourable for cold water native species such as bull trout. If water is retained in a reservoir for long periods, harmful algal blooms may also develop.

The impact of the proposed dam would not be constrained to the immediate area either; the timing and disruption of natural flows and floods of the Peace River from current dams has been implicated in effecting on habitats more than 1,000 km downstream. The Peace-Athabasca Delta, Slave River, and Greater Slave Lake have all been affected by dams on the Peace River. A recent mission report released by the United Nations Educational, Scientific and Cultural Organization (UNESCO) stated that, in their communications with the company, AHP Development Corporation had so far given no consideration to the impacts of these downstream ecosystems.

Large hydroelectric dams are not the clean energy sources that their promoters claim. Renewable energy and clean energy are terms often used synonymously. But, as we continue to diversify our energy economy, it's important to recognize the difference. AWA believes there are reasonable energy alternatives such as

well-sited solar and wind that are similarly renewable and comparatively clean compared to AHP. Instead of creating new disturbance, the government should focus on increasing energy efficiency. Let's work to ensure our current energy

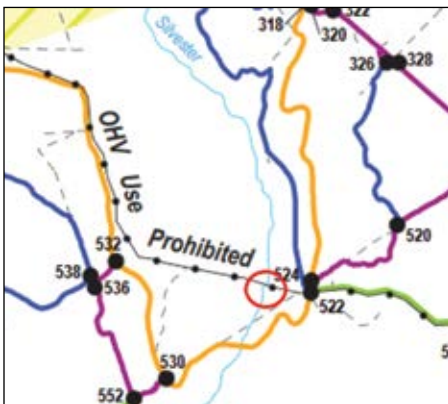
footprint services a larger range of needs. Let's also optimize already disturbed areas by, for example, adding solar panels to the rooftops of houses or on brown-field sites. Due to the ecological costs and the promise of these alternatives AWA

will continue to oppose the development of yet another major dam on the Peace River.

Nick Pink

Westslope Cutthroat Trout Action by Feds is Floundering

I recently had the opportunity to tour the McLean Creek area. While many of you may know McLean Creek as the Mecca for mud boggers, you may not know that it also contains what biologists consider to be one of the last remaining populations of genetically-pure westslope cutthroat trout. Dave Mayhood is an aquatic ecologist who has extensively researched Silvester Creek, which he believes is one of only a few remaining pure populations of this species.



The pipeline right-of-way crosses westslope cutthroat trout critical habitat and is heavily used by OHVs, despite clearly being marked on the map. SOURCE: GOVERNMENT OF ALBERTA.

Westslope cutthroat trout first experienced serious declines decades ago when a combination of over-harvest and hybridization with introduced rainbow trout populations caused the species to suffer. In more recent years, damage to the habitat of the remaining populations continued the downward spiral. Consequently, westslope cutthroat trout were assessed as Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in 2006. It took seven more years until the species was listed as Threatened under the *Species at Risk Act*; it took two more years

for the federal government to issue a critical habitat order (protecting the habitat that westslope cutthroat trout need to survive). This vital federal action only came after AWA and Timberwolf Wilderness Society filed an application in Federal Court demanding Ottawa take this action.

Standing in the Silvester Creek watershed, you would have no idea that there was a federal order protecting cutthroat habitat. This relatively small landscape hosts a myriad of activities that degrade cutthroat habitat. It is used for livestock grazing, logging, and has off-road vehicle use (both a designated trail network and illegal trails) and it also contains old logging roads, an access road, and a pipeline. The density of trails and roads in the area is 2.5 km/km² and reaches 4.8 km/km² in the upper parts of the basin. Such disturbance and fragmentation levels are a far cry from the near-zero levels of disturbance required to recover this species.

We walked down to a portion of westslope cutthroat trout critical habitat where

a pipeline right-of-way is heavily used by OHVs. This use is ongoing despite the fact the map clearly marks it as prohibited for OHV use (see map). The pipeline right-of-way is located on steep slopes on both sides of the creek that runs at a 90-degree angle to the right-of-way. Consequently, an incredible amount of sediment is washed into the creek. Back in 2013, Dave found more than 40 sediment sources contributing to ongoing damage to this 6.5 km creek stretch. He said that ongoing and frequent use of trails has kept them disturbed and, as a result, muddy water is constantly being dumped into the creek. Further downstream, Dave showed me the location of one of the key spawning areas for this population. Leading into this portion of the creek was... you guessed it... another illegal trail which was dumping loads of mud into the water. Measured levels of sediment in this water were many times higher than natural levels. This poses serious challenges to redds and juvenile trout, who are often suffocated by muddy water.



The pipeline right-of-way (foreground) and cutline (background) are both located on steep slope approaches to westslope cutthroat trout critical habitat. Ongoing OHV use of these linear disturbances prevents them from recovery and continues to deliver sediment to the creek. PHOTO: AWA FILES.



This illegal OHV route is located on a pipeline right-of-way and goes into Silvester Creek, which is critical habitat for westslope cutthroat trout. This is clearly marked on the official trail map and with signs saying "OHV Use Prohibited," yet is heavily used and eroded up to 1m deep in places. CREDIT: D. W. MAYHOOD

This situation is not limited to Silvester Creek; it occurs all the way up and down the Eastern Slopes. So far, the critical habitat order seems to have offered very little, if any, protection on the ground. This is despite the fact that under the *Species at Risk Act*, the federal government has a legal obligation not only to prevent this species' extinction, but to recover cutthroat as well. We think that at least one population has gone functionally extinct since westslope cutthroat trout was federally listed as Threatened in 2013. Most remaining populations are small, highly vulnerable, and exposed to ongoing habitat damage.

In order to recover this species, we need immediate action. To that end, the federal government is now more than two years late on producing their Action Plan – this out-

lines exactly what the government intends to do in order to recover this species. Along with Timberwolf Wilderness Society, AWA sent a demand letter this spring demanding that the federal government publish what steps it has taken to date towards completing an action plan for Alberta's threatened westslope cutthroat trout – which is legally required if the Action Plan isn't produced on time. This is now the third time we have demanded that the federal government fulfil its legal responsibilities under the *Species at Risk Act*. It's hard not to see a clear pattern of neglect here.

Our demand letter gave the federal government a chance to prove that it is serious about recovering westslope cutthroat trout. However, the current impression I get from the federal government is that it seems con-

tent to wait until the species goes extinct so that they don't have to spend resources recovering them. Make no mistake, recovering this species will require some difficult choices, but it will only get harder the longer we avoid doing anything.

Unfortunately, my impression of Ottawa's "laissez-faire" approach to recovering species at risk was only strengthened when they released a two-page statement at the end of May. Entitled "Summary of the Action Plan for the Westslope Cutthroat Trout (Alberta Populations)", this statement was supposed to provide a summary of what steps the government has taken towards completing an action plan. Such actions are absent completely. Instead the government suggests that a promise to create a combined recovery strategy-action plan document will satisfy the law and assist this Threatened species. Promises that the government "will do" this or that are used liberally throughout the document. In AWA's view, this two page document is very disappointing. Four years since westslope cutthroat trout was federally listed and 11 years since COSEWIC flagged this species to be in trouble, the most the federal government has done is write a half-hearted statement explaining that they are going to write a plan which would outline what they intend to do in order to save this species. But nothing has been done, even though they have a legal obligation to recover this species! To borrow some words from the King himself, what we really need is a little less conversation, a little more action...

Joanna Skrajny

Regulating coal mine runoff

Environment and Climate Change Canada (ECCC) is developing a federal Regulatory Framework for Coal Mining in Canada. Its first round of stakeholder consultation ended on March 31, 2017.

This regulatory framework, proposed under the *Fisheries Act*, aims to protect fish and fish habitat by limiting the amount of coal mining waste that is released into fish

habitat as an effluent. An effluent is a liquid waste product, formed by mixing water with waste rock, that is released into the environment beyond the mine site through surface runoff, underground seepage, and discharge from settling ponds. If the waste rocks were ground coffee beans, the effluent would be what percolates through the grounds and ends up in your coffee cup. Currently, effluent discharge by coal mines is regulated provincially.

ECCC seeks to set and regulate discharge limits for harmful substances such as selenium, nitrates, and suspended sediments. Selenium builds up in fish tissue and causes toxicity and reproductive failure in fish at relatively low concentrations (two to five parts per billion (ppb)). Nitrates are introduced into waterways through the use of explosives. Since nitrates are usually the limiting factor of plant growth in most ecosystems the introduction of excessive nitrates

into aquatic habitats often causes eutrophication, which can result in algal blooms and massive fish die-offs. Suspended sediments occur naturally in water bodies and, in the correct concentrations, are crucial to ecosystem function. However, ecosystems are adapted to natural levels of sediments and increasing sediment levels above that range can damage both aquatic life and habitat. Therefore, sediment management is focused on maintaining the natural background levels. While suspended, elevated sediment loads can block sunlight from reaching aquatic plants. When deposited at the bottom of a water body, increased sedimentation can suffocate fish spawning beds and invertebrates. AWA advocated against allowing coal mining operations to increase sediment discharge limits during exceptional precipitation and flood events. We argued that structures constructed for use during mine operation should be built to a standard that can accommodate and withstand these types of events.

AWA also advocated for limits on and monitoring of dissolved carbon dioxide and calcite, which can increase concentrations of limestone in streambeds. Additionally, AWA suggested establishing limits on chemicals used for clumping waste particles – called flocculants – in tailings ponds and banning the use of known toxic flocculants.

Once finalized, new and expanded mines will be subject to these new regulations when they come into operation and active mines will likely be required to abide by the standards in short order. To incentivize operators to meet these regulations in as short

a time as possible, AWA suggested increased monitoring and a “polluter pays” tax that increases the longer that operators are in violation of the new regulations.

For mines with “legacy issues” – the very polite phrase used to refer to outdated designs and/or practices – it may not be possible to neatly contain harmful runoff from mines. These types of issues are common with mountain mines where coal is removed by more-or-less taking the top off of a mountain and relocating it into large waste rock piles in valleys and other low points on the site. One issue with mountain top removal is that water also tends to accumulate in these same areas which allows contaminants to travel through the environment. The federal government proposes to monitor the receiving environment, as opposed to monitoring discharged effluents. AWA agrees with this approach and suggested a similar approach for monitoring cumulative effects. This doesn’t eliminate the need to ensure that overall environmental limits are in place. If those limits are exceeded, prompt immediate action must be taken to reduce the release of harmful substances. Given the significant risks these mines pose to environmental and human health and past difficulties in managing them, AWA believes these mines need to be held to daily monitoring schedules.

The regulatory framework proposes depositing mining wastes into water bodies inhabited by fish if there are no other suitable alternatives. AWA believes this should only be a last resort and that, under no circumstance, should designated critical habitat or habitat that contains species at risk be

used for waste disposal. If destruction of fish habitat occurs, the operator must develop a fish habitat compensation plan. A habitat compensation plan outlines how habitat destroyed by a development will be replaced through maintenance or the enhancement of productivity in other habitats.

Fishery habitat compensation plans have so far been a failure in Canada: a study of fish habitat compensation plans in Canada found that 63 percent failed to achieve no net loss of habitat productivity. Inadequate enforcement and monitoring, the time needed to enhance habitat, and ineffectiveness are among the factors responsible for this failure. Another study found that 67 percent of the authorizations issued under the *Fisheries Act* allowed for more fish habitat to be harmfully altered, disrupted, or destroyed than the amount required for compensation. This loss is antithetical to the purpose of the regulatory framework. For a habitat compensation plan to address these issues, it needs to insist on net gains in fish habitat and it needs to insist that the habitat compensation program must be funded and well underway prior to letting mines sacrifice more habitat.

Overall, the regulation appears to be a step in the right direction. It provides increased operator accountability and mitigates some of the environmental issues created by coal mines. AWA will continue to work with ECCC to strengthen the regulation for the purpose of conserving fish habitat.

Nick Pink

Hunting in Elk Island National Park?

Should Parks Canada use hunters to cull what it calls “hyperabundant” ungulate populations in Elk Island National Park? That is one of the proposed management strategies Parks Canada is considering to address what the Agency regards as too many elk, moose, plains bison, and wood bison confined in the Park. “Population control” is the euphemism Parks Canada

uses to describe the hunting option. The other options under consideration are: translocating disease-free animals (both bison populations) to other locations, auctioning the bison, selling all species to slaughterhouses, or altering the park’s fences to allow elk and moose to move outside of the park.

AWA, in a June 30th letter to Parks Canada, told the Agency the Association only could support the translocation and fence

alteration options. While AWA is neutral when it comes to hunting it believes very strongly that hunting has no place in our national parks. AWA regards it as an especially sad irony that Parks Canada is considering the introduction of hunting in a national park that was created in order to protect wildlife.

Given the substance of previous Parks Canada management documents AWA was surprised to learn that Elk Island

sees a need to propose a “Draft Hyperabundant Ungulate Management Plan.” In 1999 the park introduced a strategy to reduce its ungulate population. The 2005 Park Management Plan identified that implementing that strategy was a key action the park would take. Its 2010 State of the Park Report claimed that the strategy had been a great success and that the ungulate situation was exactly the opposite of what management claims now. “In an effort to restore the ecological integrity of

the forest,” the management plan stated, “elk and bison populations **have been reduced substantially since 1999 and the forest continues to improve with time.**” (emphasis added) Park management had “no concerns” about bison and elk numbers in the main Park (the portion of the park north of Highway 16). The only population concerns identified then were with respect to moose in the park. They were “hyperabundant” in the Wood Bison Area (the portion south of Highway 16) but

they were too few in the main Park.

What went so dramatically wrong since 2010? How could a policy that park management described in positive terms in 2010 fail so dramatically, so quickly? AWA believes Parks Canada must explain to Canadians why there is such a dramatic difference between 2010 and now in both the status of and trends regarding Elk Island’s ungulate populations.

Ian Urquhart

Forestry in the southern eastern slopes

On March 8, 2017, AWA attended an information session at Spray Lake Sawmills (SLS). SLS are developing their 2018 Detailed Forest Management Plan (DFMP). This is a high level plan that, among other things, identifies harvest levels, timing of harvests, and changes to the landscape. The plan looks 20 years into the future and is updated only once every 10 years.

AWA was interested particularly to know how Spray Lake Sawmills would incorporate new government directives into its forest management plan. How will the company’s DFMP accommodate the South Saskatchewan Regional Plan and sub-regional plans, a drafted structure retention directive, and the current Grizzly Bear Recovery Plan’s motorized access thresholds in grizzly bear habitat. The general response to these questions was: if a government initiative to place limits on forestry practices is finalized before Spray Lake Sawmills is done writing their plan, Spray Lake Sawmills will have to incorporate it into their forest planning. However, if a document remains in draft form, such as the Draft Alberta Grizzly Bear Recovery Plan, Spray Lake Sawmills will not incorporate it into their forest planning until the company next updates its forest planning. This revelation is concerning, if not alarming, because there is potential for an industry with one of the largest footprints in the

area to dodge important land-use restrictions for at least another 10 years.

Further, AWA believes that it behooves Spray Lake Sawmills, a company that operates in one of the most heavily loved and used landscapes in Alberta, to be a good steward. A company with genuine concern for the environment and respect for other land users should consider adopting these policies as best practices to retain community-given social license. Alternately, Spray Lake Sawmills could commit to incorporating these directives within a reasonable window of time from when they become enacted. Spray Lake Sawmills did say that, at any point, the government has the option to tell them to revise their plan; AWA plans to insist the government do this if the measures found in any major regional, land-use, or species recovery plan were not included in the DFMP.

While this session was not a consultation activity, updates to the DFMP are one of the few occasions when forestry companies are required to consult with the public about their logging activities. The consultation process, or lack thereof, can be frustrating; when cut blocks begin to get flagged the public can do very little to voice their concerns and stop what is about to happen on public lands.

A current example of how this method of operation can be unfair to other stakeholders is the recent discovery of a clear-cut logging plan near Highwood Junction in Kananaskis Country under British Co-

lumbia-based quota holder Balcaen Consolidated Contracting Ltd. Since discovery, strong opposition from stakeholders and residents of the surrounding communities has mounted (see the April 5, 2017 editorial in the *Okotoks Western Wheel*). The area is a highly prized and used recreational area; it also provides valuable watershed and ecological services. But, as appears to be the case in so many places in the southern eastern slopes, these values come a distant second to timber. Unfortunately, the answer from government officials to these concerned citizens has simply been to say the area is getting logged, the companies are following the law, and there are procedures in place to address concerns.

This is a response very familiar to AWA’s ears. It is indicative of AWA’s concerns with Alberta’s forestry industry at large – the regulations are outdated in that they ignore the important range of values our forests offer. Meaningful reform means we need to change the way our forests are managed. You can read AWA’s vision for sustainable forestry here: <https://albertawilderness.ca/wordpress/wp-content/uploads/2015/10/AWA-Recommendations-Southwest-Forests.pdf>

Nick Pink

If you are concerned about the logging near Highwood House and would like to connect with like-minded individuals, you can find them at the Facebook group “Take a Stand for the Upper Highwood”.

In Memoriam

Brian Staszewski,

June 1, 1951 –
May 21, 2017



At Brian's celebration of life, family and friends shared their memories of one of Alberta's great conservation voices. The comments below from Cheryl Bradley, Linda Duncan M.P., Christyann Olson, and Cliff Wallis reflect so well what those assembled that day thought of Brian.

"Brian greatly advanced environmental activism in Alberta. Brian was on the AWA Board in late 1970s, the first President from northern Alberta; and he helped set up the AWA Edmonton Chapter. I recall him engaging David Brower in an AWA conference in Edmonton...and they remained friends and schemed together. He loved the Willmore and with Rocky organized guided horse-assisted trips there for several years. He also was a driving force behind the Emerald Awards (at its outset), setting up the Environmental Resource Centre in Edmonton, and initiating the Destination Conservation Program for Alberta schools for which he was named a "Hero for the Planet" by Time Magazine in 2000. He worked with Nature Conservancy of Canada to secure land along the North Saskatchewan River near Thorsby. And, he was a regular intervenor in hearings of energy regulators."

Cheryl Bradley

"Brian was very instrumental in founding both the Alberta and Canadian He also donated monumental volunteer time to supporting communities fighting power lines, coal mines and thermal plants."

*Linda Duncan,
Member of Parliament for Edmonton Strathcona*

"Brian was larger than life and will be missed. His creative mind and mindful elbow in the side from time to time have helped many on the road to conservation."

Christyann Olson

"Brian and I bumped along the environmental activism road for many decades, often crossing paths but always focused on getting things done and experimenting with new approaches—all the tools in the kit bag. Always scheming and dreaming—a powerful combination!

Like me, Brian's love of Alberta's wilderness was first and foremost. He was active in so many remarkable ways from his stint as President of the Alberta Wilderness Association to setting up the Environmental Resource Centre in Edmonton and many meetings with government officials and regulatory hearings along the way.

His journey culminated in him being named a "hero for the Planet" by Time in 2000. Brian didn't really need the international recognition – he was always our hero.

I personally dodged the "heart" bullet just over a year ago now – Brian's passing reminds us that we all need to live larger and smarter as time marches on towards the inevitable.

Today, as these words are being read in Edmonton, I'm celebrating Brian's life in a way I know he would approve of. I am breathing in the prairie wilderness in southeastern Alberta and remembering that Brian crystallizes the best in environmental activism. That struggle continues.

We must remember how difficult the road travelled has been and who the giants like Brian are. These are the folks upon whose shoulders we stand and see that path to a greener future.

It is a future worth fighting for and I am glad that I had the opportunity to work alongside Brian over the years. There have been some significant (although frustratingly slow) changes in the way we look at things here in Alberta.

You will live on in our dreams Brian—you had a profound influence on us and Alberta in more ways than you ever imagined. Let's pause for a while, raise a glass in remembrance, and then roll up our sleeves again and get back at it.

*Humbly,
Cliff Wallis*



WILD WEST SALOON

September 15, 2017
6pm - 10pm

AWA's Cottage School
455 - 12 St NW, Calgary
Tickets \$100 each
(includes \$75 charitable receipt)

Fun and games (including fun money casino), online and silent auction action, music, great food and refreshments with plenty of time for conversation with AWA friends and colleagues.

Order your tickets online at AlbertaWilderness.ca

Don't wait too long as ticket sales are limited to 125 dudes and dudettes!

Parking is available at the Hillhurst Sunnyside Community Association and volunteers will greet you on the street and show you where to park. The community centre is at 1320 5 Avenue NW (about 1/2 block from AWA's Cottage School).

It will be a toe tapping' wild west good time!

Return Undeliverable Canadian Addresses to:



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