A publication of Alberta Conservation Association

Conservation

The big bad wolf?

FALL/WINTER 2015

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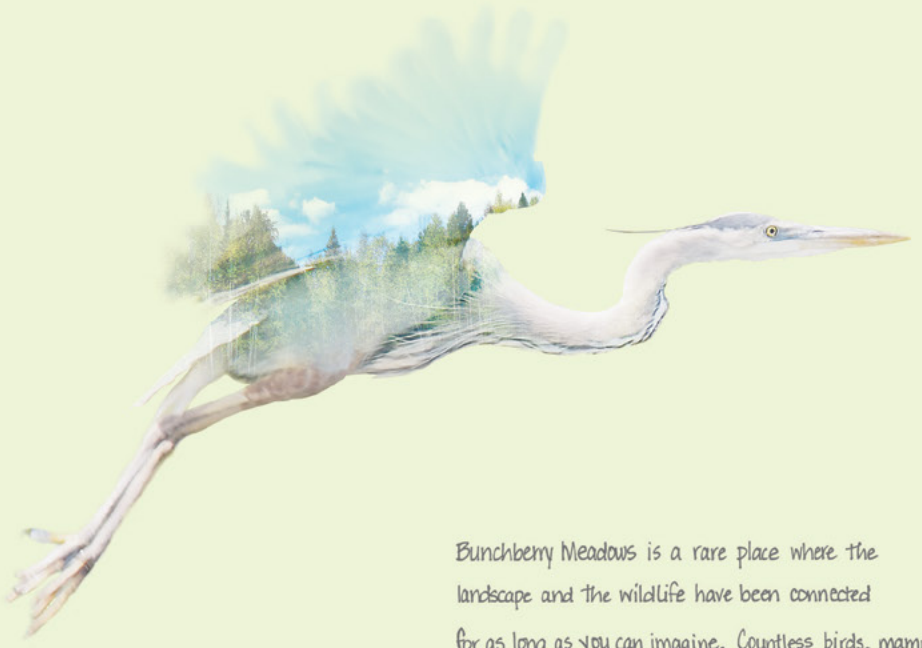

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Alberta Conservation Association

Conserving Alberta's Wild Side

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photo: ACA, Julie Landry-Deboer

Conservation Magazine

Associate Editors: Karen D. Crowdis, Ariana Tourneur, Elize Uniat

Copy Editor: Kelley Stark

Contributing Editor: Ken Kranrod

Contributing Writers: Karen D. Crowdis, Budd Erickson, Brad Fenson, Lee Foote, Sharif Galal, Andrew Jakes, Mike Jokinen, Sheri Monk, Nicole Nickel-Lane, Jim Potter, Corey Rasmussen, Brad Taylor, Ariana Tourneur, Elize Uniat

Design: Don Myhre

Illustration: Christie Lau, Colin Starkevich

Photo Credits: Alison Archinuk, Andy Astbury, Alan Brice – Crowsnest Café and Fly Shop, Robert Burkholder – Images Alberta Camera Club, Brad Fenson, Bob Haysom Mike Jokinen, Paul Jones, Chad Judd, Kris Kendell, Ken Kranrod, Julie Landry-Deboer, Randy Lee, Doug Manzer, Jim Potter, Amanda Rezansoff, Roth and Ramberg Photography, Sharif Galal, Matthew Tyree, Erin Vandermarel, Mitchell Warne, Heine Westergaard, Penny Westergaard, Wildlife Ecology Alberta Innovates – Tech Futures, Noelle Zygmunt

Conservation Magazine
(ISSN 1488-6235) is the official biannual publication of Alberta Conservation Association.
Charitable Registration Number: 88994 6141 RR0001

PUBLICATIONS MAIL AGREEMENT NO.41260556
RETURN UNDELIVERABLE
CANADIAN ADDRESSES TO:
101-9 Chippewa Road, Sherwood Park,
Alberta T8A 6J7

From the President

I believe this issue's cover story illustrates the struggles facing conservation in Alberta. There is no one I know, including ranchers, trappers, hunters, wolf advocates and even cityslickers, who does not think wolves are a majestic, intelligent, iconic species that deserve to exist on the landscape. However, there are no two people I know who can agree on what that existence should look like. Conservation, as a whole, is in the same situation: everyone believes that conservation should occur, everyone wants to know that wild places exist, everyone wants to believe that all species are being sustainably managed, but not everyone can agree on how this should be accomplished. If there were no trade-offs to conservation, then there would be no problem. If we could decide tomorrow to set aside the entire east slopes and boreal regions of the province for conservation and everybody would still have their livelihood in the morning, then that would happen. But as we are all aware, that's impossible. Some people are more directly impacted by conservation decisions, others are more willing to sacrifice for conservation, and perhaps, most importantly, some people are more informed on the issues.

In this issue of *Conservation Magazine*, we provide a number of different articles highlighting people who are involved in conservation. You'll also find informative articles to help us all spend less time picking the black or the white side and more time exploring the grey.

And then, when you're done exploring the intellectual side of the issues, go out and enjoy the physical side. It's going to be a beautiful winter: enjoy it!

Todd Zimmerling

President and CEO
Alberta Conservation Association

workout
The latest from the field.

Alberta's tiny living dinosaur

Did you know we have lizards in Alberta? The baby greater short-horned lizard isn't much bigger than a dime. Nonetheless, with their hearty spiked skin and tail, rock-solid camouflage and jagged brow reminiscent of savage dinosaurs, they can still incite overwhelming fear (in ants at least).

The greater short-horned lizard's range creeps into the southeastern portion of Alberta. Being elusive creatures, they are rarely randomly encountered. Unless you are a biologist conducting detailed surveys, you would be very lucky to come across one.


photo: ACA, Ken Kranrod

To conduct surveys, biologists gently swing a walking stick, old ski pole, or hockey stick (the Canadian method) in front of them, hoping to see lizards as they dart away. At ACA, one biologist holds the record of six lizard sightings in one day!

Surveys for short-horned lizards are often completed through the MULTISAR (Multiple Species At Risk) Program. We keep an eye on the lizards as best we can, as they are considered *Endangered* both provincially and federally.


photo: ACA, Julie Landry-Deboer

The gift

On August 11th, 2015, people came together to commemorate Bernie Letourneau's generous land gift. He donated 80 acres of old growth forest to Alberta Conservation Association (ACA) and The Alberta Fish and Game Association. Karl Zimmer from Environment Canada spoke about the Ecological Gift program, which allows Canadians like Bernie to leave a legacy and receive major tax benefits by conserving sensitive habitats. Todd Zimmerling, ACA President, thanked Mr. Letourneau for deciding to conserve this ecologically significant land. Bernie himself invited all Canadians to enjoy this forest, for generations to come. For more on this property, check out page 36.

photo: Robert Burkholder, Images Alberta Camera Club

Pronghorn run from the storm

In an ongoing project, ACA has been working with many groups to learn more about pronghorn. Over 120 pronghorn were fitted with GPS collars to track their annual movements, and help researchers better understand the challenges pronghorn face.

One winter, the pronghorn battled record snowfall and devastatingly cold temperatures. In Northern Montana, over 108 inches of snow fell and temperatures plummeted to -40°C.

As you can imagine, if your home consisted of a patch of frozen dirt in a brutally cold field of snow, you might consider moving. This is what many of the pronghorn did. These are called "driven movements"—very long-distance jaunts to escape severe conditions.

One female, Pronghorn #165, made an astoundingly hasty night journey. Around midnight, starting from the Milk River breaks, she charged through blizzard conditions for 22.5 km over 6 hours. At one point she travelled 12.5 km in 2 hours. Despite clocking the most impressive one-night march we've seen, she unfortunately succumbed to the relentless cold three weeks later.

photo: Matthew Tyree

Stocking tigers?

Noted for their unique scale colouration and a pattern reminiscent of tigers, tiger trout—arguably the coolest name for a fish—might be coming to a pond near you.

Tiger trout are a sterile hybrid between a brown trout and brook trout. These fish are a natural phenomenon that occur when a brook trout gets a little overzealous during breeding season, fertilizing brown trout eggs. The process is also replicated in hatcheries.

Alberta Environment and Parks is conducting a two-year trial run on nine lakes in Alberta to assess the tiger trout stocking program, including angler satisfaction. Find out more at aep.alberta.ca/about-us/surveys.aspx.

Forging forests

Can you turn an old, dried-up pasture into a rich forest? Time for growth is everything, but so is some serious elbow grease.

WHO: 5 ACA employees & 16 volunteers (thank you!)

WHAT: 590 tamarack trees & 1,440 buffalo berry seedling plugs planted

WHERE: Leavitt Conservation Site

HOW: TD Friends of the Environment fund

ULTIMATE GOAL: Restore native plant communities to majorly improve the habitat for wildlife like deer, moose and birds in the area. It's especially important because the surrounding land is under agricultural production, leaving little room for wildlife. You can enjoy the site too—for hiking, foraging and photography.

photos: ACA, Erin Vandermarel

Ag and wildlife—together

Balancing agriculture and wildlife isn't easy. With one third of Alberta's land used for food production to feed our growing population, life for upland birds is getting harder.

Enter the Upland Game Bird Enhancement Program. We collaborate with local farmers and develop methods that promote upland gamebird habitat while keeping the farm economically feasible. Our first project—dubbed the Enchant Demonstration Farm—had staff planting various shrubs and wildflowers to provide food and shelter for grey partridge and pheasants, among many other improvements that benefit both birds and the farm. This is a 12-year project, so stay tuned!

photo: ACA, Kris Kendell

Putting the Work in Workshop

► *by Sheri Monk*

The 11th Western States and Provinces Deer and Elk Workshop was held May 11-14 in Canmore, in conjunction with the 12th Western States and Provinces Black Bear Workshop. Hosted by Alberta Environment and Parks and Alberta Conservation Association, the events were attended by biologists, wildlife agency officials, and other interested parties from across the U.S. and Canada.

The Black Bear Workshop is held every three years, and the 2015 event featured status reports from the western provinces and states, sessions on orphan cubs and rehabilitation, a panel on bear conflict management in the private sector, and a field trip to tour bear conflict mitigation sites.

Paul Frame, Alberta's provincial carnivore specialist, presented Alberta's black bear status report at the event.

"Mostly what I presented was the new, revised black bear management plan. Basically, it takes the same framework and structure as our recent cougar management plan, which came out in 2012. It just lays out a broad framework and guiding goals and objectives, and then talks a bit about how we plan to meet those goals and objectives," Frame said.

Frame says one of the challenges in managing black bears in the province is the lack of specific population statistics. "Most species we have some survey information where we have abundance estimates. With ungulates, we do our annual aerial surveys for certain WMUs, estimate how many animals are in those WMUs, then set tags based on that."

Instead, for black bears, Frame says the province relies upon voluntary harvest surveys and licence sales to paint a picture of the harvest every spring and every fall.

"So that's the main challenge. There's not really having a good quantitative understanding of what the population is doing in the province, but qualitatively, none of the biologists or hunters anywhere are expressing any concern over the status of black bears in the province."

Though there isn't any hard and fast population data, current grizzly bear research from the southwest corner of the province may yield some interesting results about black bears.

"During the data collection for grizzly bears, they collected a lot of black bear hair samples," explained Frame.

The data will generate population density estimates for black bears as well, and be analyzed to compare how the two species use space and if they are using different habitats within their shared landscape.

While the exact density is not known, Frame says the spring and fall general licence on the species means hunters have options if they choose to pursue black bear.

"It's an ample harvest opportunity and it seems for species like black bear, which often come in conflict with humans, a fairly liberal harvest strategy may help us meet the objective of trying to reduce that conflict," he said, adding that the jury is still out as to whether the hunts do in fact reduce conflict.

Like the cougar management strategy, the new black bear management strategy will be a living document that can be revisited and adjusted.

Kevin Van Tighem, Canmore resident, now-retired Parks Canada worker and author of *Bears Without Fear*, was one of the guests invited to take part in the bear management panel. The discussion was centered around the controversial field case study of Grizzly Bear 105—a sow with three cubs who was becoming too comfortable around the town of Canmore, and too relaxed around the busy TransCanada Highway. The incident caused national headlines when the family was relocated because of officials' concerns (the survival rate of relocated bears is estimated to be roughly 30 percent).

The panel was composed of 11 people representing First Nations, wildlife agencies, ranchers, the government, the public, and conservationists. Van Tighem says that while his viewpoint might not have been popular, he believes agencies need to adopt a new, more modern bear management strategy.

"They're using a management strategy from 30 years ago. Back then, a big part of the momentum to create parks was to give bears habitat," he said, adding that bear and human habitat is inextricably mixed now.

Van Tighem believes agencies need to move beyond managing bears with a primary goal of preventing conflict. He says that tools such as waste management and public education are most beneficial to all parties because humans must learn to co-exist as bear country and suburbia continue to become increasingly enmeshed.

"The bears are everywhere and the people are everywhere. Why are we protecting people from the bears? We don't move mountains for people, but we will move the bears. Most bears are never going to be a problem, but our agencies still take on the responsibility of trying to avoid all human-bear confrontations," Van Tighem said.

The deer and elk workshop was well attended, and just like at the bear workshop, provinces and states provided status reports and lectures about predation, migration, management and CWD. Dr. Mark Boyce, U of A professor and Alberta Conservation Association chair in fisheries and wildlife, spoke about managing deer and elk harvests with environmental variability.

"If we know what the weather is like from, say, August until November, we can predict whether or not it's going to be a severe winter. And with that ability to anticipate that it might be a severe winter, if it's going to be a severe winter, we might as well take them because the mortality is going to be high anyway," Boyce said.

On the surface, harvesting more animals before a severe winter might seem counter-intuitive, but the reality is that reducing the population before a hardship gives the remaining population a better shot at survival. It's no secret that white-tailed deer counts are down in Alberta and Saskatchewan, thanks to a couple of hard winters, so Boyce's presentation was timely.

"The probability of survival for those that are not harvested will be higher because one of the consequences of a severe winter is there is less forage available and you can have very strong density effects," Boyce said. "If you have lots of animals, you may lose almost all of them, but if the population is say, half as large, most of them might make it. So rather than trying to carry too many animals, you might do better to reduce the herd size."

Frame, who assumed his position only a year ago, inherited the project of hosting the two workshops from his predecessor. "It actually went really well, I think, and it went really smoothly, but it sure was a lot of work," he chuckled. "But I think people were happy with it." ▲

The Kids Are Better Than Alright

► *by Ariana Tourneur, ACA*

photos: Penny and Heine Westergaard

Despite shadows dipping onto the prairie, the work had only begun. Bedsheets, buckets, nets and lacrosse sticks flew. The family ran, squatted, batted. Darkness fell while they made slow, painstaking progress.

When pheasant chicks flee the brooder house and scatter themselves aimlessly in the dense ravine behind, you work with what you've got. And when a family cares this much, they amass a team to spend hours searching, catching and returning the pheasants home. One eleven-year-old 4-H member was the all-star of the night, getting low in the brush and hand-catching five of his chicks back to safety.

Chalk it up to another day in the life. They've had an exciting journey to say the least: Wisconsin born, the 10,000 ring-necked pheasant chicks were boxed up in mid-May and driven 2,164 km into Alberta. Five teams delivered them to 101 eager 4-H members. The last family received their chicks at 1 a.m.—not a wink of shuteye for these last three kids until the chicks were settled in!

The project: revisited

Over the summer, the participants raised the pheasants until they were ready to be released into the wild, as part of the ACA & 4-H Alberta Raise & Release Project. Most of these chicks are females. The pheasants are not hunted and if they survive to lay eggs, they could potentially add new pheasants to Alberta's prairie! It's a big responsibility for the kids, especially considering the history—did you know our province was once teeming with pheasants in the '50s? Advancements in farming practices unintentionally diminished pheasant habitat and decreased the availability of insects which are key for chick growth. As farming became more efficient, those shrubby edges and small wetland pockets that hold a diversity of broad-leafed plants (important for insects) have largely disappeared. Now the kids are giving populations a second chance

by making pheasants, wildlife habitat and good land management practices part of conservation.

The learning curve was steep, but luckily the 4-H members got extra help. Says participant mother and 4-H leader Vanessa: "Because of the way 4-H works, parents and siblings get involved. The whole family learns together and becomes aware of what needs to be done, and how the work relates to habitat and farming practices. Most of these kids come from a farming background, and they get to see firsthand how they can make a difference in the issue of habitat, while educating others too."

Support team pheasant!
Text ACAHEN to 41010 to donate $10 or $20.

Handle with care

Say it with me: feed, water, nurture, repeat. Chicks are in a vulnerable state, and require consistent TLC. Whether it be a question about the brooder house or a concern about chicks' behaviour, ACA biologist Doug Manzer was on hand to coach the families.

Doug says the beginning weeks are often the toughest—those first few days are a critical time for the chicks. The kids monitored their temperature, ensuring it remained at "chick level," or 100°F (38°C). If chicks are venturing into outdoor pens, the weather is important (rain and high or low temps can wreak havoc). Since young pheasants can't thermoregulate their body temperatures, they need frequent access to the brood lamp.

It didn't take long for the fuzzy cuteness to morph into awkward teenage territory. Blame those teenage hormones, but at this time chicks often require blinders to reduce the incidence of pecking each other to death or serious damage to the feathers or skin.

Then they got a taste of the real world: outdoors! Families again put their engineering skills to the test—building much larger and impressive outdoor pens to house the birds. The aim is to keep the adaptations happening gradually: it's the best way to ensure long-term survival. Says Layne Seward, one of ACA's leads on the project, "From pen design to construction, we were blown away by the kids' initiative and creativity. These kids are beyond committed to their projects."

All of this work doesn't even consider the power going out, chicks escaping…and of course…the meticulous completion of required 4-H record books. As many of the helping adults have echoed: these kids care. Even the family dogs felt the magnitude—often taking the night-shift and watching over the chicks!

Look back, look ahead

Another, perhaps unexpected, bonus of the project is how it has connected the older generation to the younger one. Many parents and grandparents remember the pheasant heyday, and some even raised their own through the previous government-run raise and release program. Different generations have come together to learn about the pheasant landscape today, and the potential that exists when people decide to work together.

Most of the kids say releasing the young hens is their favourite part of the project. It's the final objective after all, the moment when 14 weeks of work come to a bittersweet triumph. Although the birds are now free and wild, it's not uncommon for 4-H members to see them again, traipsing across the family pasture or stopping in for a visit. Some just don't forget their first home!

The 4-H members have learned more about wildlife habitat and survival, animal husbandry, and farm sustainability during this project than most people will ever know. Conservation, and how our activities can enhance the landscape, is something they not only see firsthand, but experience. We hope this program only continues to grow, because these kids are the future environmental stewards of the land. Scratch that—they already are. ▲

Cache Me If You Can

illustration: Christie Lau

► *by Mike Jokinen and Corey Rasmussen, ACA*

Before cattle in the pasture and chickens in the coop, before grocery stores and drive-thrus, people hunted and scavenged food. They stored as much as they could gather, knowing times would get leaner. Food in hiding meant survival.

There are critters in the wild that use that same strategy. Some place all their eggs in one basket, so to speak, with a single "cache" location. Other food-storing animals have evolved to diversify reserves, stashing food in multiple places. While we wear in the same path to the pantry or cold room for our pickled beets, how is it that these animals remember exactly where they cached their food reserves—especially within the huge expanse of their wild domain?

Make it a memory

Species that cache food have considerable memory capacity. Researchers have learned that variability in memory—whether animals remember where they placed food for as long as a couple seasons ago or only a couple weeks ago—is related to their ecology. So how exactly do they find their hard-earned reward? Some potential explanations include straight-up memory of the cache sites, spatial memory (along specific paths or using landmarks), or scent cues. Likely all of these cognitive functions play a role in successful cache recovery.

Meet me at the usual spot

Single cache location critters work hard during the fall months to accumulate their stores. Entire beaver colonies cache as much food as possible in preparation for the long winter. It can be a dangerous job. When they have to venture further inland to reach appropriate deciduous stands, they face greater risk of encountering predators who are also bulking up for the coming cold. They store food in one location within their colony. The honey bee and squirrel also exhibit this approach: gathering food during times of plenty and planting it at just one place.

Spread the love (and calories)

The multi-location caching habits of some critters is where it gets interesting. Many birds and four-legged forest dwellers follow this storage strategy. Each species has its unique way of finding its food, long after stashing it.

Jays often cache in the fall, depending on this food through winter and spring. We know they have recovered caches beyond chance levels, at close to 300 days post caching! Could you imagine burying a piece of gum deep in the woods and finding it almost a year later? Conversely, species like the chickadee have short-term memory capacity, at around 30 days. They cache and recover their food regularly. Despite contrasting caching styles, both species could reliably pinpoint their stashes.*

Outwit, outwork

Working with nutcrackers who had cached seeds, researchers removed the seeds. The nutcrackers' search for the caches was still accurate, even when the seed stash was completely gone. In another area, two nutcrackers were caching in the same space and each bird recovered its own cache, not the other's. The nutcrackers cached food in an area with an array of landmarks. Researchers moved the landmarks in half the room 20 centimetres over from their original location. Surprisingly, the birds shifted their search approximately 20 centimetres in the same direction, having no problems locating their hidden stash.**

Catch 'em then cache 'em

Investigating caching behaviours has also revealed that fox cache mice. Researchers placed additional mice near locations where fox had cached their own. Interestingly, while the fox cached and recovered their own mice, they almost never found the researcher caches—placed only one to two metres away.

Eat the haystack

Pika are Rocky Mountain dwellers that do not hibernate. They put in tremendous effort to store winter food, gathering organic dried grasses and creating hay piles under overhanging rocks. The sun dries their grasses—pika even move them under shelter when it rains, then back into the sun. They also harvest a grass that is poisonous to them, using it to help along the drying process. The types of grasses are seemingly stacked in a particular order, suggesting that the grasses with the shortest shelf life are on top so the stash will last longer. Talk about work ethic! Researchers have also discovered that pika cache food in ancestral locations. This offers another way to set a baseline of population numbers by counting active caches.

The mysterious ones

The wolverine, *gulo gulo* (latin for glutton), is the largest land-dwelling member of the weasel family. It didn't evolve to migrate or fall into torpor (a deepened sleep with reduced metabolic rate and temperature) when times get tough. When times get tough, and they always do wherever the wolverine can be found, the tough get going. And the wolverine is a stout survivalist.

Deep within Alberta's boreal forest near Rainbow Lake (northwest corner of the province) and the Birch Mountains (north central), researchers from ACA and the University of Alberta spend their winters capturing and monitoring wolverine to learn habits of these *Data Deficient* creatures. A large part of our research this past field season was taking a first-hand look at the caching behaviours of wolverine, by investigating their cluster locations. A cluster is a concentration of wolverine location data (collected by a lightweight 290 gram GPS collar placed on the animal). Visiting these cluster locations, or places they frequent, we have discovered wolverines rest (believe it or not!), hunt (they seek out prey more than we realized), and recover cached food that they've stockpiled throughout their territory.

Take-out, wolverine style

Large craters in the snow appeared out of place, and when investigated, revealed wolverine stockpiles. Bones of a variety of prey get buried under packed snow, and the wolverine returns frequently. On a recent expedition, researchers found hare, fox, grouse and beaver remains. In fact, ACA biologists discovered that beaver is a frequent catch of wolverine! Interestingly, they cache their meat next to the beaver pond and revisit during the winter months when food is scarce. One beaver lodge complex may contain several wolverine caches. Some are located in the open marsh of the pond, while others are under the forest canopy bordering the pond.

Last winter, the spinal cord of a moose was discovered while tracking a cluster of wolverine points. The wolverine had carried this four-foot length of bone approximately one kilometre from its original location!

If there's one thing obvious about animals that cache: they are committed. Researchers are uncovering the clever and unrelenting ways that prepare them for winter, while learning more about their cognitive functions. A sharp memory, a smart location, grit that doesn't quit—it all adds up to survival. ▲

*Reichman and Smith, The Evolution of Food Caching by Birds and Mammals, *Annual Review of Ecology and Systematics.*

** Kamil and Gould, Memory in Food Caching Animals, *Papers in Behavior and Biological Sciences.*

THE RAM

Joy in the journey

► *by Jim Potter, ACA*


José the mule

Vacation comes and goes, every year a little sooner and a little faster. Two Aprils ago, I hit the "over the hill" club so this year especially, I made the most of it. My brother, Steve, and I schemed for another mountain pack-trip for 10 or 12 days.

Our trips require a driving force, like a sheep-hunting trip, for a great opportunity to enjoy the high country. We prepared the mules and equipment about a month in advance. Preparing the old body was a different story. I think the mountain tops got about another mile higher (and steeper too).

We began our excursion four days before the opening of the bighorn sheep season. After loading five mules and all the gear into the trailer, we were off to the "gap" and the end of the road. Our first night was spent at the truck, filling and weighing the pack boxes. We had hay for the mules and we even had a wood stove—pure luxury! The next day was misty and cool, a perfect day for making time with the fat, soft mules.

For the next couple of days, we packed in, sleeping on the saddle pads under a tarp. The area was riddled with fresh grizzly sign of at least four different size tracks in the valley. But we had a perfect camp and time to cut wood, put up an electric fence for the "skins" (as our dad used to call the ponies) and prepare for opening day.

With great anticipation, we headed out on foot the next morning. Once the mules were fed and tied for the day, we checked out the headwaters of the creek that ran past our camp. In the high country, we rediscovered several mountain lakes, enjoyed the waterfalls and glassed a few sheep.

The second morning was similar though we took a side tributary and began to ascend toward the falls we could hear roaring in the distance. We saw fossils everywhere we looked. Then Steve spotted a ram—on the opposite mountain, of course. After glassing and zooming in on pictures we took, we determined he deserved a closer encounter. We watched until he disappeared and assumed he had bedded. So back down we went, losing our hard-earned ground and up the other side of the valley. By the time we reached his hideout, it was almost noon.

After eating, Steve passed out and I took the first watch. I was watching five goats when he awoke and stood to get a better view. Suddenly he whispered, "Get your gun." There was the ram looking down on us. Unfortunately, he didn't look quite large enough to harvest.

He then quartered towards us and Steve said, "He may be." Sure enough, the ram presented us with a broadside view and yes, he was well past the 4/5 legal size. As the ram passed on up the valley, the going away shot looked very much a trophy. We both said, "If you want him, he's yours."

Too easy! Not ready to end this excursion, we carried on up into the bowl behind his living quarters. After watching a golden eagle swoop down on some marmots and narrowly miss his target and taking pictures of a golden-mantled ground squirrel, chipmunk and pika, we returned to watch the ram. As late afternoon rolled around, he began grazing on the lush grasses up against the cliffs where we first spotted the goats. What a gorgeous sight to end the day on the mountain.

It rained several times through the night, and the sound of the rain pattering on the tent combined with the crackling of the pine in the stove was pure ecstasy. I woke at 1 a.m. and realized how content and completely at peace I felt. The day's events rolled across my brain. My decision to pass on what many hunters would consider a trophy of a lifetime was easy for me to justify. On my climb up the mountain to find the bedded sheep, I had already mentally harvested the "Ram."

We slept in until the mules called for breakfast. By afternoon, the sun was out and we explored the canyon, seeing several sheep along the river. The gorge was too deep to follow with deep pools and overhanging walls but was home to at least one dipper.

The following morning, we enjoyed another day of climbing as we returned to the fossil valley and marvelled at the sheer volume of petrified coral and other varieties of early plant life. Upon hearing a sheep calling, echoing up and down the valley, we spotted three ewes. The roar of the waterfall continued to carry all over the valley, so we carried on until we could take in the basins above the falls. The ground was mostly bare and very little sign of game except for grizzly tracks and a fresh wolverine print.

Having covered most of the area we had wanted to see, we packed up and headed out on the two-day return trip. The mules headed home and travelled so fast that it was difficult to take any pictures or even look at the scenery. The weather was perfect for the trip—cool enough when travelling and only raining when we needed a rest. Even back at the truck, we got out before it poured, which saved us chaining up. What a great ride, and you couldn't wish for a better bunch of ponies! ▲

photos: ACA, Jim Potter


ROSS
RANCHES
EIGHT
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Ranch Like a Ross

► *by Karen D. Crowdis*
► *photos by Roth & Ramberg Photography*

In the vast open space of Ross Ranches, the tranquility is both mesmerizing and deceiving. Ranching is tough. Ranching successfully is tougher. Legacies like the Ross family take extraordinary effort and dedication. A love of the land just isn't enough.

It could be said this southern Alberta family knows something of cattle ranching. But that would be an understatement given a history of ranching that rivals the longevity of some of the biggest consumer goods producers in the world. Over 100 years ago John Ross's great grandfather, Walter, settled near Raleigh in the Magrath area. He built a two-storey stone house and raised his family, never imagining that his small decisions then would influence an entire area a century later (he's even the namesake of Ross Lake).

The first winter was a tough one. He trailed 3,000 head of cattle from the homestead to Gliechen. Half their herd was lost to weather and the other half scattered as far as Montana, taking two years to roundup. Still, they persevered.

Around 1920, the family settled where they ranch now, on the mixed grassland east of Milk River. John Ross grew up here, bouncing alongside his dad in the truck to complete the regular duties of branding and

putting out salt. He remembers the feeling of accomplishing something important. At one time he thought he'd be a scientist, but the land beckoned him back.

John Ross is the fourth generation to run cattle in this area. Talking with him is like talking with an old friend; he has the quiet confidence of experience. Kathy, John's wife, is a skilled artist who lights up when she talks about family and the land. Their youngest son, Ryan, takes after Kathy when it comes to being creative and is pursuing his love of music. Darren, the oldest, is the fifth generation to join the family business, and his young son, who already shows an interest in ranching, just might be the sixth.

What a 100 years can do

The Ross' learned from mistakes, experiences and patterns that only time on the land can offer. Through a century of ranching,

John Ross and his wife Kathy, with son Darren and his family—possibly the sixth generation of ranchers!

"History on the land means being taught by people who have been there and recovered from bad times." — John Ross, Rancher

they have weathered drought, excessively wet seasons, storms and rock-bottom cattle prices. The good—but mostly bad—fed the knowledge passed from generation to generation. "History on the land means being taught by people who have been there and recovered from bad times," he says. Understanding the grass cycles and pasturing techniques aren't in any book. Knowledge is intuitive now, and enables their drive.

While looking back has helped them succeed, looking ahead matters just as much. The land hasn't always made it easy to stay, but a willingness to innovate has helped, even in the most inhospitable of times. Unique in the Ross operations is the use of flight to manage their land and cattle, in addition to the more common horseback. With about 62,000 acres to steward, this simplifies the day-to-day monitoring of the cattle, watering holes and fences. Taking on technology impacts operations—the family participated in their first video cattle sale in August. "Being open to new opportunities is important," says Ross.

Prairie gold

Managing native grasslands is imperative for any cattle ranch, but considering the over 2,000 head of cattle and sheer physical size of Ross Ranches, it becomes mission critical. The grasses native to the area, called prairie wool, feed the cattle a complete mix of nutrients they require. Often over the winter, the Ross' put cattle to pasture without supplementing feed—and they come off fat in the spring.

Ross learned how to manage the grass from his forefathers. "They taught me to not overuse the grass or you will destroy it." Conversely, removing all pressures creates an unhealthy grassland too. When the grasses are left undisturbed, old grass falls over and can die off, allowing weeds to take over. Historically, fires and bison applied certain pressure; today, grazing cattle in a well-managed way is the right amount of disturbance to the grass, ensuring it remains healthy. "This grass is the best there is. It holds nutrients for over five years if managed properly," says Ross. "Once it's gone, it's gone. You can't get the grass back."

Stand back to enjoy the view

The land means "just about everything—your family, your livelihood, your future." Ross adds that people need to understand that ranchers and producers want to live in a good environment as much as anyone, if not more. Their entire lives, and in this case the lives of many generations, are tied to the land. "If you screw up the environment, you screw up your future." Ross says.

Ross's big picture thinking is why, with MULTISAR, he has implemented several projects on his land that have helped species at risk and the habitat of other species. Seeking knowledge and putting what you learn into practice gives ranching a chance to impact the land in a positive way.

MULTISAR is a partnership between Alberta Conservation Association (ACA), the Alberta government, Prairie Conservation Forum and producers or landowners. Working together, they analyze land health and decide on projects that benefit wildlife and producers. A key difference compared to other partnerships? They put landowners in the lead.

"The landowner is in charge. They decide what they want to take on," says Brad Downey, Senior Biologist with ACA and MULTISAR.

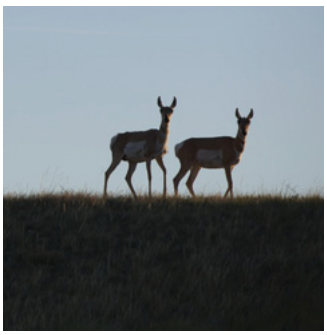
"They don't push an agenda on you. They listen. They understand we know this land, they recognize ranchers for their knowledge, and their plans incorporate the whole picture," says Ross. Often the top-down approach used by policymakers penalizes landowners for the presence of species at risk on their land, instead of motivating change. This adversarial relationship persists, causing landowners to balk at formalized conservation initiatives.

Solar-powered well and trough station.

"We may not use the same terminology, but in the end we all want the same thing."
— John Ross, Rancher

MULTISAR

MULTISAR is a partnership of ACA, Alberta Environment and Parks, Prairie Conservation Forum and producers/landowners. The organization deals with all species of wildlife and habitat sustainability. Working directly with ranchers and producers, they have moved efforts to a multi-species approach with great success. Landowners continue to approach the organization to participate and create sustainable habitat while maintaining economic viability.



People are crazy, cattle are lazy

Ross' neighbours were skeptical at first, but he forged ahead. "Small changes can make a big difference in how the land is managed," he says. As an example, he moved the location of the salt and mineral drops for his cattle. Past generations put them down by the water, leading to overuse of watering holes. It was just always done that way. Since relocating, the banks are less worn. Moving the salt and minerals also deliberately draws cattle to areas to disturb the encroaching invasive weeds and grasses that could destroy native species.

Another project was building a solar-powered well and trough watering station, atop a hill where he wanted cattle to graze. "Cattle are lazy and will opt for the easy way, staying down by the water instead of trekking up the hill after drinking," explains Ross. A solar-powered pump moves water to a tank on a ridge, and troughs are located below the tank. As cows drink and water levels drop, a float opens and gravity moves the water from the tank on the ridge to the troughs. Solar power and gravity eliminate expensive batteries and frequent maintenance. Most pleasing to Ross is that the cattle stay on the hill and graze. "They adapt," he says.

Take care of the prairie, it'll take care of you

But it's not perfect. There are challenges on all sides of the conservation equation. Some believe the only way to conserve an area or species is to remove all human activity. Putting blame in any one direction doesn't cut it. Producers are also conservationists, as Ross pointed out. Obviously human overuse negatively impacts habitat and species, but it's equally true that land needs some pressure from wildlife, cattle and humans. We all use the space, so it really is about balance.

Ross Ranches allows walk-in access for hunting so the land doesn't get chewed up. Harvesting wildlife maintains balance and prevents overgrazing of precious grassland. That helps the game species remain strong through winters because they'll have enough food. In turn, the efforts protect habitat for species like burrowing owls.

Everything is interconnected. Ross has learned about creating more habitat and managing it, and the limits of particular sections of his land and what to expect from it. MULTISAR's reporting also validated practices he already employs, revealing the species and habitat he was helping without even realizing.

He's not the only one learning. Since working with the Ross family in 2004, Downey has gained even more appreciation and respect for the ranching community and what they deal with daily. He notes how much the family has done in the area to promote MULTISAR: "Initially, landowners were nervous. Now, we have long-term relationships with open, two-way

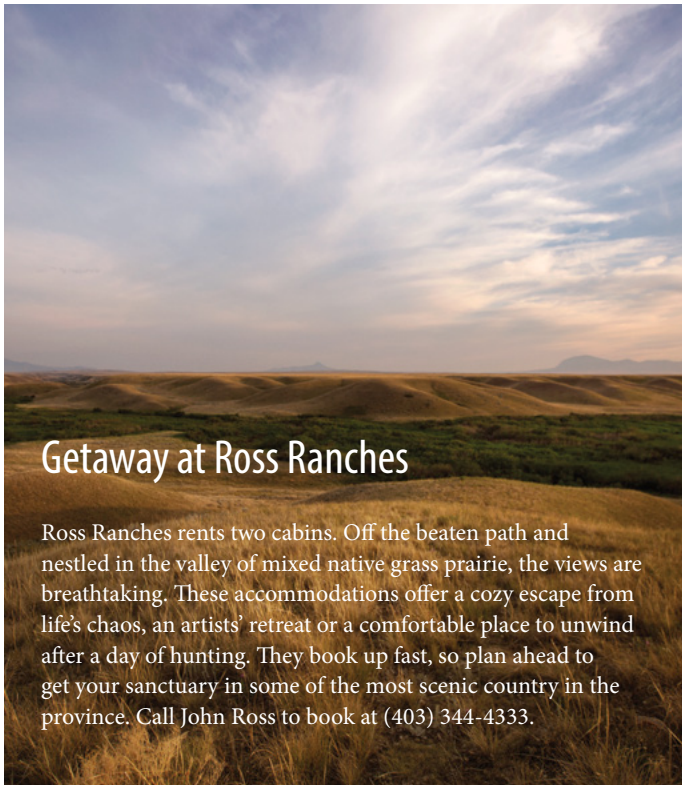
communication. The Ross family and our other ranching families maintain habitat for the greater good. Well-managed ranches have been doing good work for a long time. We need to ranch the land or someone will find another use for it, and all the habitat and species will be lost."

We all want the same thing

John Ross believes the future looks good. "We may not use the same terminology, but in the end we all want the same thing." Once all sides recognize that they benefit from each other, wildlife wins. And us? We get to enjoy for a long time.

Relationships are developing between more producers and MULTISAR. Ranchers are coming onside, broadening the reach of the program. There are about 320,000 acres with multiple families working with MULTISAR. Not long ago, areas of special concern were identified by only biologists. Now producers are coming forward and identifying species on their land. But land stewardship is even more than that—it should fall squarely on the shoulders of all land users, whether it's recreational or commercial.

That started here, with just one family. A family steeped in tradition, yet willing to take risks. Ross Ranches continues to take the lead while balancing a century of passed-down traditions, humble methods and flat-out determination. Maybe, a love of the land is enough. ▲



Getaway at Ross Ranches

Ross Ranches rents two cabins. Off the beaten path and nestled in the valley of mixed native grass prairie, the views are breathtaking. These accommodations offer a cozy escape from life's chaos, an artists' retreat or a comfortable place to unwind after a day of hunting. They book up fast, so plan ahead to get your sanctuary in some of the most scenic country in the province. Call John Ross to book at (403) 344-4333.

The Prairie's White Ghost

► *photos and article by Dr. Sharif Galal*

Maybe you are a bona fide bird nut, or maybe you hardly ever give them a glance. No matter your birding interest, snowy owls are *always* worth a second look.

Snowy owls are the northernmost, heaviest and most distinctly marked owl in North America. They primarily live about 60 degrees north latitude, making them a circumpolar species. Calling the cozy Arctic tundra home, they are considered to be the most northerly breeding species of owls in the world. During winter they migrate to the prairies of southern Canada or the northern United States, which resemble the wide open spaces of the tundra they prefer.

Males are predominantly white, and may turn completely white with age. No other species of owl in the world is so distinctly different in colour between the sexes. The females have dark barring on their feathers and white faces, but never become totally white. Until they take flight or move, they can be virtually impossible to see.

Their large yellow eyes are distinctive and don't move like other owls'. Snowy owls must turn their heads to shift their gaze. They can move their heads a full 270 degrees thanks to their 14 neck vertebrae. Thickly feathered feet protect against the arctic climate, where temperatures frequently dip below -30°C for weeks.

Snowy owls are opportunistic hunters. They hunt in the air by hovering or watching from a perch. From a favourite vantage point of telephone poles, snowy owls can easily track and hunt their prey. Once launched, the four sharp talons on their feet snag their food. Laser-sharp eyesight and great hearing help them hunt critters hiding under thick vegetation or snow cover. During breeding season, males are known to display their kills in caches to impress females.

Unlike most owls, snowy owls are diurnal (active during the day). In the perpetual light of the arctic summer, they hunt continuously. Their favourite food is lemmings, but when they are in short supply, they will feed on other rodents, rabbits, birds and fish.

These large owls breed on the Arctic tundra in Alaska, Canada, Scandinavia and Eurasia, where females lay a clutch of three to 11 eggs each year. The number of eggs and breeding in general fluctuates with the availability of food sources. There is some indication that snowy owls will not even attempt to breed when lemming populations are lower, which could explain how the population count ranges from 2,000 to 20,000 in any given year. Parents are especially territorial and will defend their nests against all predators, even large ones like wolves and polar bears. ▲

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Ghostbusters

DNA analysis suggests snowy owls are closely related to great horned owls. The two often share habitat during the winter months.

In Ariege, France, prehistoric caves show drawings of male and female snowy owls with their chicks. They're one of the first bird species that can be identified in prehistoric art!

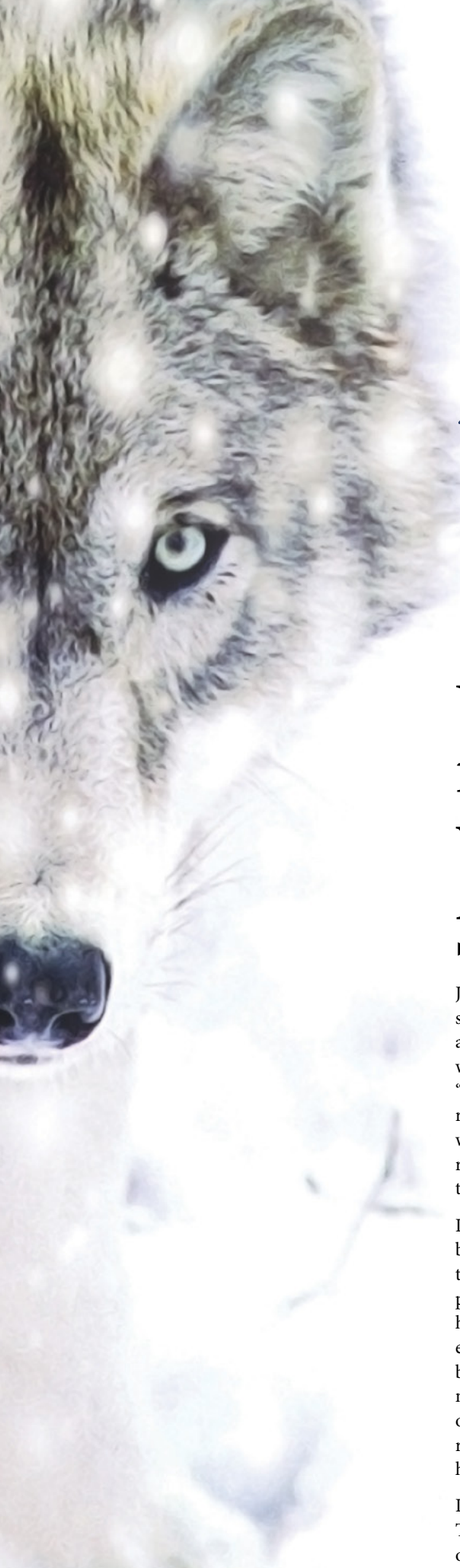
SNOWY STATS:

Height: 68 centimeters

Length: 50-70 centimeters

Weight: 1.20 to 2.04 kilograms. Females are larger than males.

Lifespan: Oldest snowy owl living in the wild was 9.5 years old. One captive snowy owl lived to 28 years.



Into the Grey

What is the future of wolves in Alberta?

► *by Nicole Nickel-Lane*

Just five short years after the grizzly bear status report, Albertans are confronted with another wildlife crisis house of cards with wolves. Again, it's ethics versus economics, "rights" have become blurred with "what is right," and anecdote trumps the full story. We want to take a stand, but how much do we really know about the contributing factors or the end game?

In northern Alberta, packs of wolves are baited and shot from helicopters in an effort to bolster declining woodland caribou populations. In southern Alberta, landowners hire trappers to prevent wolves from making easy pickings out of their livestock. In between, the province is crisscrossed with all manner of other development, pinching—or in some cases attracting—an otherwise ranging predatory species into volatile hotspots.

It's hard not to get emotional about this issue. There are vastly different perspectives and opinions about what should be done. And we're not soft about it either: we'll defend to the extreme our rights as hunters, trappers, landowners, environmentalists or wolf lovers, whether the wolf should be kept in check or allowed to roam free.

Two arguments regularly play out against each other:

Argument number one: *The systematic culling of wolves is a disgusting practice that has brought shame on the province of Alberta. We need to seriously evaluate our land-use policies and stop the freight train of industrial development that has landed us in this mess.*

Argument number two: *If the burgeoning wolf population continues to grow, they will eliminate the iconic woodland caribou as well as seriously threaten the livelihood of ranchers and landowners across much of the province. We need to keep wolf populations under control in order for other species and industries to survive.*

If there is a common thread here, it is that increased human disturbance and habitat fragmentation cannot occur without something paying the price along the way. We have simply run out of vast tracts of open land for everyone along the food chain to roam. As our urban, agricultural and industrial footprints have increased over time, so have the incidences of human-wildlife conflict: increased grizzly bear mortality, coyotes in urban centres, and wolf culling are a few examples in the news recently.

So without grinding all development to a halt, what can be done to better safeguard not only the wolf, but all species into the future? The solutions are not as simple and obvious as the seemingly binary nature of the issue would imply. We need to find our way not only out of a wolf population management debate, but into a sustainable management plan that will serve the province well into the future.

False ecosystems don't work

The wolf is incredibly adaptive, intelligent and resilient. Unlike other species at the top of the food chain, the wolf has the added benefit of a pack structure and a cunning ability to attack and hide. Given prime access to food supply and the absence of predation, as is the case in much of the province, their numbers rise rapidly.

The present-day conflict is not the first time Albertans have had to grapple with

the sticky ramifications of wolf population management. Since the early 1900s, wolf numbers have cycled between a few hundred and several thousand over and over again. The 3,000 killed in bounties between 1899 and 1907 culminated in a full comeback by the 1940s. In the 1950s, a rabies outbreak and dramatic increase in depredation of livestock prompted another wolf cull by poisoning, reducing the population to a few hundred. In the absence of management campaigns over the following years, the population rebounded to approximately 5,000 by the 1970s. Today's populations hover at around 7,000 wolves—a number that is kept more or less in check through active wolf management, at citizen and government levels.

As part of his PhD research, biologist Dr. Nate Webb undertook a scientific study in west central Alberta that demonstrated an estimated 34 percent of all wolves die each year to trappers and hunters and an additional four percent die through natural mortality. "Consider this as a thought experiment," offers Dr. Lee Foote, professor with the Faculty of Agricultural, Life and Environmental Sciences at the University of Alberta. "Imagine Alberta as a no-wolf-harvest province, adding 34 percent to the population each year. In five years we would have a mathematical increase to over 30,000 wolves. Culls are not a biological threat to the species, rather, a dialing in of where wolves are welcomed and where they are not."

On the flip side, in areas of the northwestern United States where wolves indeed succumbed to the pressures of ranchers to have them eradicated, ungulate populations soared unchecked. This ushered in a domino effect of damage to the local ecosystem, known as a "trophic cascade", reducing the availability of browse and cover for other species. False ecosystems don't work.

Over the last 100 years, the wolf has proven itself to be a key factor in our landscape—one that we may not welcome into our backyards, but one we can't live without either. The question is: what is the right number, and how do we sustain it using methods we can stomach?

Cattle, caribou and moose

At issue for biologists is gathering a full understanding of each of the ecosystems in which wolves are present and persist. The inconvenient truth is that there is no such thing as a one-size-fits-all approach. Further complicating matters is the wolf's ability to adapt combined with our ever-increasing demands on the land, eradicating once-effective corridors and putting the wolf within a stone's throw of livestock and herds of woodland caribou, for example. Regional considerations within the province further complicate creating a provincial management plan.

Southern Alberta's densely developed sectors and grazing lands neighbour with protected reserves. When presented the opportunity of an easy food source, or in the absence of wild prey, wolves will take down sizeable numbers of cattle, resulting in huge losses for ranchers and massive compensation payments for the

photo: Wildlife Ecology Alberta Innovates – Tech Futures

province. According to a study conducted by Dr. Mark Boyce and Andrea Morehouse, some 74 percent of predator compensation payments are for cattle that have been killed or injured by wolves, all within an area covering only three percent of Alberta's land base. In certain areas, scavenged cattle make up approximately 60 percent of the wolf diet, meaning hard costs add up fast. In 2014/15, there were 149 claims for wolf kills by ranchers resulting in $245,000 paid province wide for such losses. Here in cattle country, a "natural balance" can be expensive.

Within the ranching community, some producers are adopting creative measures to control the impact wolves can have on their livestock. Many have good success to counter the added costs. The community-based Blackfoot Challenge in Montana demonstrated that having an increased human presence (range riders) on grazing lands accomplishes two things: it reduces opportunities for wolves to prey, and if a cow is taken down by a wolf, the sooner the carcass is found the more likely a landowner will be able to make a successful claim for compensation. Producers are also encouraged to thoughtfully place dead stock disposal sites and have them cleaned out regularly to reduce the attraction of wolves to certain areas.

Sometimes wolves catch everyone off-guard. The Blackfoot Recreation Area is a very active, multi-use facility located 50 kilometres east of Edmonton, and twenty-odd kilometres from the rapidly expanding municipality of Sherwood Park. Where once there were no wolves, a small pack appeared in 2011. Three seasons later, in 2014, 13 head of cattle were lost to the pack (estimated at around 15 wolves). The cattle belonged to the Blackfoot Grazing Association, which uses the grazing reserve inside the recreation area, and the association was understandably concerned over this unprecedented level of loss. Six wolves were approved to be killed under an Alberta Environment and Parks (AEP) damage control licence, and three were taken during the fall and winter. AEP biologist, Delaney Anderson, notes that many of the remaining wolves showed signs of mange, a skin infection causing significant hair loss and raising the probability of winter mortality for infected animals, and in March 2015, AEP could confirm only two wolves still in the area. So far this year, one calf has been killed. Human-wildlife conflict averted, for now, but the pack's presence was a wake-up call for many. Wolves in the backcountry is one thing, but what about wolves on your acreage?

photos: ACA, MIke Jokinen

Up north, biologists have been charged with resolving a different kind of conflict. As with the grizzly bear, human interference with the landscape has altered the interrelationships between species. Where seismic lines and cut blocks allow humans easier access to grizzly habitat, so have these man-made corridors given the wolf access into woodland caribou habitat. Some estimate the caribou may be extirpated from the province within our lifetime if they continue to decline on the same trajectory. Until landscape issues have been addressed and a range plan for the area has been implemented, wolf management is a critical stop-gap measure within the caribou recovery program.

Yet even here in oil sands territory, adaptive measures are taking place. At mine sites along the Athabasca River, curious interactions have developed between wolves and moose. Eric Neilson, a PhD student at the University of Alberta, has collected vast data sets on wolves and moose in this area in an effort to understand how each species interacts with land and water, and how the space they share is impacted by human activity. As part of a five-year study, he has begun to identify patterns of water usage that suggest moose are more likely to use drainage sites if there are no wolves around. Wolves will not approach the moose if there are humans around. Are moose being given a free ride because resident wolves tend to avoid human presence? And if wolves in the area are avoiding moose because of their proximity to human activity, could this contribute to wolves hunting caribou? Neilson admits "landscape ecology is tricky," but data collection such as this provides important insights into species interaction and land use.

Not just numbers

Wolf population inventory monitoring data is being compiled province-wide through cooperative research projects, Alberta Conservation Association's grants and at various levels of university and government. The monumental task at hand is compiling these data sets into a matrix that biologists, government, and industry will use to make informed decisions surrounding habitat conservation and species management.

It's important to understand the difficulty of capturing these data. "The challenge of locating an individual within a 390–1,200

square-kilometre territory can be daunting," says Dr. David Ausband (University of Montana, Montana Cooperative Wildlife Research Unit) in his study. Because of the wolf's elusive nature, low population density and remote, inaccessible range a wolf pack can have an average range of 1,200 square kilometres. Radiotelemetry and GPS collaring is very time- and resource-intensive, so in addition, biologists rely on reports of sightings or wolf howls from the public in order to corroborate their data.

But knowing where wolves are and how they move is just the first piece of the puzzle. When it comes to creating a comprehensive, sustainable wolf management plan, special considerations need to be given to almost every region in which the wolf is present. We are only beginning to understand some aspects, like: the effects of population management on wolf pack size and range (does it shrink or grow artificially in the face of human threat?), pack psychology (what happens to an orphaned pup?), and even female wolf physiology (do reproductive rates increase as a result of the pack being hunted or split?).

In context of all the research and data collected over recent years, and considering the province's current wolf management plan was published in 1991, AEP plans to commence drafting a new plan later this year. Much of the wolf research done over the last two or three decades will need to inform the new Alberta plan.

We may never see an Alberta where wolf population management is not part of public discourse. But according to Provincial Carnivore Specialist Paul Frame, "overall, the new plan will aim to educate Albertans of the importance of species management, the interrelationships between top predators with other species and the land, and create a balance for outdoor recreation while sustaining wolves and landscape."

Important questions have been raised in media and public opinion surrounding species management. The fundamental question is not whether wolves are good or bad, or even whether culling wolves is good or bad. If anything, research is showing how multifaceted the solution needs to be. Careful consideration needs to be given to habitat conservation, land use, and species management for the wolf and all species that live together with it. ▲

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photo: Andy Astbury

Beyond the Bite

► *by Brad Fenson*

photo: Brad Fenson

photo: Alan Brice – Crowsnest Café and Fly Shop

Wading down the rocky shoreline of the Crowsnest River I soaked in the sights and sounds of the unique area. I could smell the drying leaves of the deciduous trees along the bank and their bright colours were a clear indication we were headed towards the winter solstice.

In an attempt to be graceful, I tethered my fly line back and forth before laying my feathery offering on the surface of the moving water. It looked so good I was almost convinced it was a real bug.

If the fish were below, they certainly weren't rising to the occasion.

There is much more to fishing than filling your creel and heading home to heat the frying pan. A river ecosystem is one of nature's wonders, and trying to figure out where the fish are and what they want to feed on is always part of the game. Most of my fishing companions accuse me of overanalyzing everything. I try to pay attention to the temperature, if the sun is shining or if clouds are masking my shadow. Are there deep holes I'm not seeing? Will the fish be in the sunny areas or shade? Some consider these mundane details, but it is all part of the angling game that keeps me fascinated and coming back.

Paying attention also allows me to catch fish with consistency, and it may be due more to my analytical mind than how I lay my line. But not that day on the Crowsnest…

Fishy frustration

I fondly remember being foiled by the trout and whitefish that hid beneath the depths. Not being able to figure out what the fish wanted and where they were hiding, like any good angler, I came up with the best excuses. I convinced myself there simply couldn't be many fish in that stretch of the river. Little did I know I'd soon be testing my hypothesis.

Besides being an avid angler, I also work in the biological field and have been fortunate to study fish and wildlife species throughout Alberta. The following week with work, I had the opportunity to sample the river with a backpack electro-fishing unit. The portable power supply has a

"The thrill is in the catching and not the keeping."

cathode that drags through the water behind you. When you place a hand-carried wand anode in the water in front of you and push the power button, it sends electricity through the water and around you to the conductor, and temporarily stuns the fish without harming them. Of course, you want to ensure your waders don't have any leaks or holes or you might just zap yourself in the process.

I approached the large rock embankment I had fished just days earlier and had convinced myself lacked fish. Wading as close to the deep edge as possible, I made sure my colleagues had dip nets ready to scoop what would potentially surface when I turned on the power. I expected a few small fish, but was stunned when fish erupted around me. At least 50 Rocky Mountain whitefish hit the surface, and I could see individual trout equally spaced between the whites.

How could so many fish be in that small stretch of river without me catching even one? It still leaves me dumbfounded, but proves that there is always more than meets the eye when dealing with the outdoors.

Fall in the Crow

Autumn is a prime time to fish any species in Alberta, and even the rivers that seem to keep their fish secret give up more offerings than usual. The cold-blooded creatures know winter is on the way and feed heavily to build energy reserves before a fairly dormant, long winter. The river water is usually crystal clear and running low, making it easier to target prime pools and fish holding areas.

Couple that with the fact that the entire southwest corner of the province is a fly angler's paradise. Tackle shops in the area even offer local fly patterns to increase your odds of catching fish. The Crowsnest River is a favourite destination for fly anglers from around the world, and you could spend weeks fishing the different rivers, creeks, and lakes without hitting the same one twice. There are several hidden gems and anyone targeting the region should definitely include some time in the headwaters of the Oldman River. I spent many weekends there walking upstream to different pools, catching fish along the way.

Some of my best memories are fishing Racehorse Creek and Dutch Creek where the small, native cutthroat trout were anxious to devour my fly. The trout were never big enough to keep for shore lunch, but they were confidence builders for an angler with moderate skills and offered much more than that. They presented the opportunity to catch one of Alberta's true native and wild trout species. I still consider the diminutive cold water fish a highlight and accomplishment in my angling career.

Seeing the beauty and value in our fish resource is important, and I firmly believe that, sometimes, it's more about where you've been than the size of the fish you catch. So if the fish don't cooperate, take a little time, try to figure them out, and take lots of pictures just to prove you were there. Pack along a bucket or bag so you can harvest some of the thick berry crops, just in case you don't take a trout or whitefish home. ▲

Did you know? In the 1970s the Crowsnest River, specifically in the lower reach of the river, was stocked with brown trout before the construction of the Oldman Dam during the 1990s. Remnant fish from the stocking efforts still exist in the Crowsnest, and it is believed that brown trout reared in the Allison Creek trout hatchery have slipped out of the facility into Allison Creek—tributary to the Crow—over the years.

The Habitat Organization

photo: ACA, Doug Manzer

photo: ACA, Amanda Rezansoff

► *by Elize Uniat, ACA*

An energetic dog bounds through the long, brown grass. Suddenly, she freezes, her body coiled tighter than the tightest spring.

On point.

The hunter moves in front of the frozen dog, startling a sassy ring-necked rooster into flight, ready for the gun. The shot rings out.

"Fetch."

The dog rushes forward, eager for her colourful reward. Gently, she picks up the limp pheasant, and brings it back to the grateful hunter.

"Good girl."

If this stirs something in you, you've probably already heard of Pheasants Forever (PF). If it doesn't, consider that while hunting isn't everyone's thing, habitat protection certainly should be, and that's what this organization is all about. Dogs are fun. Pheasants are beautiful and tasty. But habitat…that's forever. People, polar bears, pheasants—we all need a place to live.

PF has four chapters in Alberta. Many volunteers get involved because they're pheasant hunters who notice a marked decline in pheasant numbers and realize that habitat seems to be scarcer and scarcer. Hard to believe now, but back in the 50s and 60s, Alberta was *the* destination for pheasant enthusiasts. But, as in many parts of the world, progress has a high price. Agriculture became more efficient, more and more land was cleared, and pheasants (and other upland birds) faced more and more challenges to their survival. From an annual harvest of 145,000 pheasants at the peak in the '50s, pheasant hunters now harvest fewer than 20,000 birds each year. Even so, the pastime still contributes almost $10 million to Alberta's economy annually (from an economic impact survey prepared in 2010).

Bob Haysom, managing director of the Calgary PF chapter, says, "Our members…like to get out with their dogs and their families and friends, enjoy the sport and eat their game, but they know that we're a habitat organization." Garnet Clews, the Central Alberta chapter's president and a proud new grandfather, echoes the sentiment when he says, "The work Pheasants Forever does in Alberta is creating a spot for my grandson and me to hunt in the future. That's why all Pheasants Forever chapters need to be participating with other agencies to acquire land and make it public—land the birds can live on and everyone can access, even if they don't hunt."

Roughly 1,300 members strong in Alberta, the organization's grassroots approach allows its members to determine how the money is raised, what projects are planned, and how the project funds are spent. All funds raised in Alberta stays

in Alberta, and the chapters generously contribute money and volunteers to several habitat projects in the province. In 2009, Alberta Conservation Association teamed up with PF Calgary, as well as the Chinook PF chapter in Medicine Hat and the Lethbridge PF chapter on the Habitat Legacy Partnership project. Together, our work is improving upland habitat and hunting opportunities in Southern Alberta. It focuses on six Conservation Sites in an area that stretches from Lethbridge to the Montana border and east to Medicine Hat. The work includes everything from planting thousands and thousands of shrubs and many acres of nesting and escape cover for pheasants, to controlling weeds, building fences, and maintaining wetlands. Other partners, like Ducks Unlimited Canada and the Alberta Fish and Game Association (to name just two), get involved as well.

The changes that can happen when many partners pull in the same direction is impressive. All of Alberta's wildlife, not just pheasants, reap the benefits. So the next time you watch your dog enthusiastically retrieve a ball, think about how PF's commitment to the land is creating spaces where you and your canine buddy can experience a slice of Alberta wilderness—even if you never plan to hunt a pheasant in your life. ▲

The beginnings of what will be a shelterbelt to provide cover for pheasants (and other wildlife).

photo: ACA, Mitchell Warne

photo: Bob Haysom

Left to Right: Vince Aiello, Layne Seward, Julia Wachowski, Vance Finley

Seeing is believing

Along with many other partners, PF's Alberta chapters have helped conserve and improve Conservation Sites like Silver Sage, Ross Creek, Bull Trail, Escape Coulee, and Peigan Creek (and that's only a few). It adds up to thousands of acres, so who knows what you'll startle up if you go explore! Visit www.albertadiscoverguide.com for more.

If you're a pheasant hunter, check out www.ab-conservation.com during pheasant season for a list of release sites and experience the importance of good pheasant habitat for yourself.

site seeing

THE SOUTHERN WAY

Escape Coulee

Prairie rattlesnake
photo: ACA, Randy Lee

► *by Brad Taylor, ACA*

While "Go south, young man!" was not exactly the familiar catchphrase of the early settlement era, three homesteaders did just that. Through the Dominion Land Grants program, Helmer Hanson (1913), Ulrick Klevgaard (1917), and Fred Meyers (1919) settled on what now forms the Escape Coulee Conservation Site.

These early homesteaders cared for the land in a way that has conserved many of its native characteristics. Subsequent ranching kept those practices in mind while contributing to the rich history of the area. Lucky for us, thoughtful land management conserved large expanses of native prairie and, in turn, the varied species that rely on it for survival.

Sold!

A routine search of properties for sale revealed a not-so-routine piece of land. At 800 acres, this spectacular parcel boasts biodiverse native grassland, with a coulee complex that runs to the Milk River on the Pronghorn Grazing Reserve. No doubt, not a window shopping scenario. Through grants from the Government of Canada – Habitat Stewardship Program for Species at Risk, a significant contribution by TransCanada Corporation, and financial support from Alberta Fish and Game Association, Pheasants Forever (Chinook Chapter) and Wild Elk Federation, the site was assessed and acquired.

Escape Coulee is located near the U.S. border, in a part of the province that draws you in and imparts a sense of wonder. History buffs walking down the coulee can see the Northwest Mounted Police making their

photo: ACA, Julie Landry-Deboer

way to Pendant Oreille, or a herd of "doggies" seeking shelter from one of the extreme winter snowstorms. Equally enthralling are the phenomenal rock formations, humbling views of the Sweet Grass Hills, songs of the Sprague's Pipit, or—listen very carefully—the paralyzing rattle of the prairie rattlesnake.

"I am very pleased to see such a meaningful conservation offset completed by TransCanada, Alberta Conservation Association, and other project partners. This project will benefit numerous wildlife species, including species at risk, and help mitigate the impacts of development that occurred on native grassland habitat. Hopefully we will see more of these types of projects in the future," says Joel Nicholson, Senior Species at Risk Biologist at Alberta Environment and Parks.

Look a little closer

The primary goal is to maintain the native prairie communities at Escape Coulee. To do so, ACA has enlisted the MULTISAR (Multiple Species at Risk) program. MULTISAR is all about working collaboratively, providing free assessments of land and working with landowners to maintain or create habitat for wildlife. In our case, they are helping document the different types and health of vegetation communities, and providing detailed wildlife inventories.

To date, we've recorded approximately 54 different wildlife species, including 10 mammals (including two species of bats!), 42 birds, one reptile and one amphibian. Among those spotted are pronghorn, sharp-tailed grouse, mule deer and the occasional elk and moose moving through. Site assessments revealed several Species at Risk also call this area home.

photo: ACA, Randy Lee

Biologists discovered crested wheatgrass on a portion of the site, which degrades biodiversity when it takes over. Armed with MULTISAR's recommendation, ACA is trying grazing management. Cattle on the land can help mimic natural disturbance patterns that evolved on the prairies (e.g. fire and bison), controlling the crested wheatgrass. In this way, ranching continues to be part of the future of the area and is actually a valuable management tool.

See the South

The Escape Coulee Conservation Area is a day-use site with foot access only. Right beside it is the Government of Alberta's 76,000-acre Pronghorn Grazing Reserve, also open for public access (see Government of Alberta website for Recreational Access Conditions). Through joint effort, we can continue to value and conserve habitat and the species that depend on our care of these places. It means more for all of us to enjoy—for years to come—just as Helmer, Ulrick and Fred did so long ago! ▲

"This is a haven for animals. You might say it's their last stand."

site seeing

Letourneau

by Budd Erickson, ACA

The Letourneau property is 80 acres of old growth forest in an urban landscape, generously donated to Alberta Conservation Association (ACA) and The Alberta Fish and Game Association (AFGA) by Bernie Letourneau. Wanting to profile this memorable donation, ACA staff members Juanna Thompson and Budd Erickson visit Bernie Letourneau to talk about his donation and photograph the site.

As soon as we arrive, Bernie warmly invites us inside and we sit at his kitchen table. He begins to talk fondly about the bird feeders he has made for his backyard and the various creatures that frequent them.

His passion for his land and the wildlife that frequents it is obvious, but our interview is on a timer. We regretfully interrupt to ask him about his recent land donation. "What made you want to donate your property?" Bernie expresses a sentiment that hits us hard: "Once you let it go, you never get it back. Never ever."

He's right. The site is so close to the town of Stony Plain, everything in the area has been logged, the water diverted, the forests replaced by utilities or converted to farmland – transformations that may never be undone. Bernie's land is a relic, a living artifact that tells one story of an original wild Alberta.

Keeping the woodland in its natural state wasn't easy—Bernie fought to keep it in pristine condition. He clashed with the county over the installation of power lines, brawled with a proposal for the drainage of the watershed, and refused lucrative logging offers. Bernie's unwillingness to give up paid off. Not in the traditional sense, but the land is of great value for wildlife and all Albertans.

I ask him why he fought so hard to protect his land from any development or changes, even with the prospect of huge financial gains. Bernie again gazes out his back window. A few birds chase each other over the privilege of his feeders. "This is a haven for animals. You might say it's their last stand."

More than just a patch of trees, this mixed habitat and nearly century-old growth provide food and shelter for a broad range of species. Many animals rely on large trees specifically, and since areas with old trees are becoming fewer and fewer in Alberta, some species that depend on big trees are in decline.

We make our way to the soon-to-be Conservation Site. Bernie expresses that as much as he would like to accompany us on the hike, he regrets that his golden years have been hard on his knees, and he is unable to easily traverse the wild terrain. I see this as part of his reasoning for donating the property—just as he is no longer able to easily traverse the site, neither can he easily defend it. Thus, he passes his land onto people who will conserve it as fervently as he did.

Regardless, Bernie escorts us in his white pick-up to the best entry point. While we suit up for the winter trek, Bernie expresses concern about large canine prints he saw in the snow earlier. As we say goodbye, Bernie drives off and Juanna and I attempt to attach ourselves to some snowshoes I brought along. A moment later, while we're still fiddling with our snowshoes, Bernie pulls around the corner again. He tells us he has confirmed that the prints were from his neighbour's dogs. Bernie zips off again. When we finally get our gear sorted out and plunge into the snowy forest, Bernie pulls up again—cautioning us about the uneven terrain and the possible ice-capped waterbodies. Bernie is more concerned about our safety on this hike than my own mother would be! After assuring him of our safety, we make our third and final goodbye, and settle into our hike.

Taking photos as we go, we find large patches of Labrador tea holding its dark green allure even in the dead of winter. We point out nearly every type of tree you can find in Alberta. It's rare to see such variety in an area this small. We come across a large opening that must be a wetlands in the summer. This place has nearly everything any Boreal forest animal could ask for in a home.

Albertans, human or otherwise, salute you Bernie Letourneau. Your gift will not be forgotten. ▲

photo: Robert Burkholder, Images Alberta Camera Club

Cold Goose Spread

► *by Budd Erickson, ACA*


photo: Noelle Zygmunt

Goose was one wild meat that I hated as a kid. The flavour is not very strong, but I always found it too dark and gamey on its own.

After years of experience and experimentation, my family has discovered a few methods of preparing goose that really transforms the meat into a culinary experience that is worth inviting friends and family over for.

One of those dishes is this cold goose spread. Although more of an appetizer, this dish is one that can inspire the question: "So, uh, can you teach me how to hunt?"

Note: This recipe is just as enjoyable when made with duck.

Ingredients:

3 goose breasts, cleaned and washed (enough to make about 4 cups of cubed meat)

3 yellow onions, peeled and quartered

3 celery ribs

2 bay leaves

1/2 cup chopped green onions

1 cup finely chopped celery

2 cups mayonnaise

1/2 cup finely chopped mango chutney (I used Sharwood's Major Grey mango chutney and just diced up the large chunks)

Preparation:

Place quartered onions, celery ribs, and bay leaves in a roasting pan. Put goose on top and add at least one inch of water. Cover pan with aluminum foil or a close fitting lid. Roast in an oven at 250°F for at least six hours (roasting at low temperature for a long time makes the meat tender). After the meat is done and falling off the bones, remove from pan and let cool. Cut the meat from the bones and discard bones. Carefully remove all hemorrhaged meat and shotgun pellets. Cut meat into small cubes (should be about 4 cups in all).

In a mixing bowl, combine mayonnaise and chutney. Then mix in the chopped green onions and celery. Add cubed meat and gently fold into mayonnaise mixture. If it doesn't look juicy enough, you can always make more of the mayo and chutney mixture.

Refrigerate until serving. Serve with unflavoured salted crackers for spreading (I used Breton original crackers). Enjoy! ▲

4 Difficult Words

► *by Lee Foote*

In the realm of natural resources, using the right word for the right thing is critical for true understanding. And who doesn't want to be understood when they speak up? Here are four important words worth delving into a little deeper:

Conservation – This old warhorse of a word originates from water irrigation schemes, where spring flood waters were trapped for use in the drier summer growing season. Conservation is use-oriented to benefit humans, an aspect often confused with preservation. This is why extractive activities (hunting, trapping, fishing and plant collection) are allowed within limits that prevent permanent or accumulating harm to the ecosystem. Keeping these lifestyles available to the public requires a diverse, resilient system.

Biodiversity – It is not measured by simply counting the number of species in an area. Biodiversity also considers the abundance of species, how well-distributed their numbers are, species interactions, and dynamics of species appearance and disappearance from a given area.

Envision two 5,000-hectare plots of land. One is a highly productive wheat field with a five-hectare zoological park and garden on one edge. This land offers a high species count, but it's not a self-sufficient system. Consisting primarily of a single species—wheat—means biodiversity would remain very low.

The second plot is seemingly vacant native prairie land. A closer look shows it is rife with small mammals and nesting waterfowl (which feed birds of prey and other small animals), complex plants, insects, amphibians and four-season grazers whose carcasses support larger predators. Dens of smaller animals provide overwintering sites for many reptiles. There's high biodiversity with many interconnections.

If we add a natural disaster or large grazing herds, things change, bringing us to our third term.

Sustainability – Without regular human inputs to the first plot, the wheat field rots and the zoo animals die. The prairie, however, is resilient and thrives on natural disturbances: fire, storm, periodic overuse, volcanic ash deposition, drought and flood. Some species are eliminated, others favoured and the system continues working indefinitely. The key is foresight, human buy-in and personal, will to not mess with it too much.

Stewardship – Stewardship means proactively stepping up to care for the land, and all the species and processes that come with it. It's translating your care for something into action—with intention and commitment to continue. Stewardship requires we recognize our power to affect biodiversity to promote sustainability and to conserve our resources.

These words are only difficult if you don't use them. Thinking about and using them correctly will bring them to life—not just for you but for others too. And that can become its own form of stewardship. ▲

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illustration: Colin Starkevich

Grassland Harmonies is from the exhibition "Glimpses of the Gasslands: The artistic vision of Colin Starkevich." The exhibition was featured at the Royal Alberta Museum. Starkevich, originally from Edmonton, hopes to use this series to contribute to conservation projects within the region, while raising awareness of the grasslands.
You can see more of his work at: www.colinandthegrasslandseries.com

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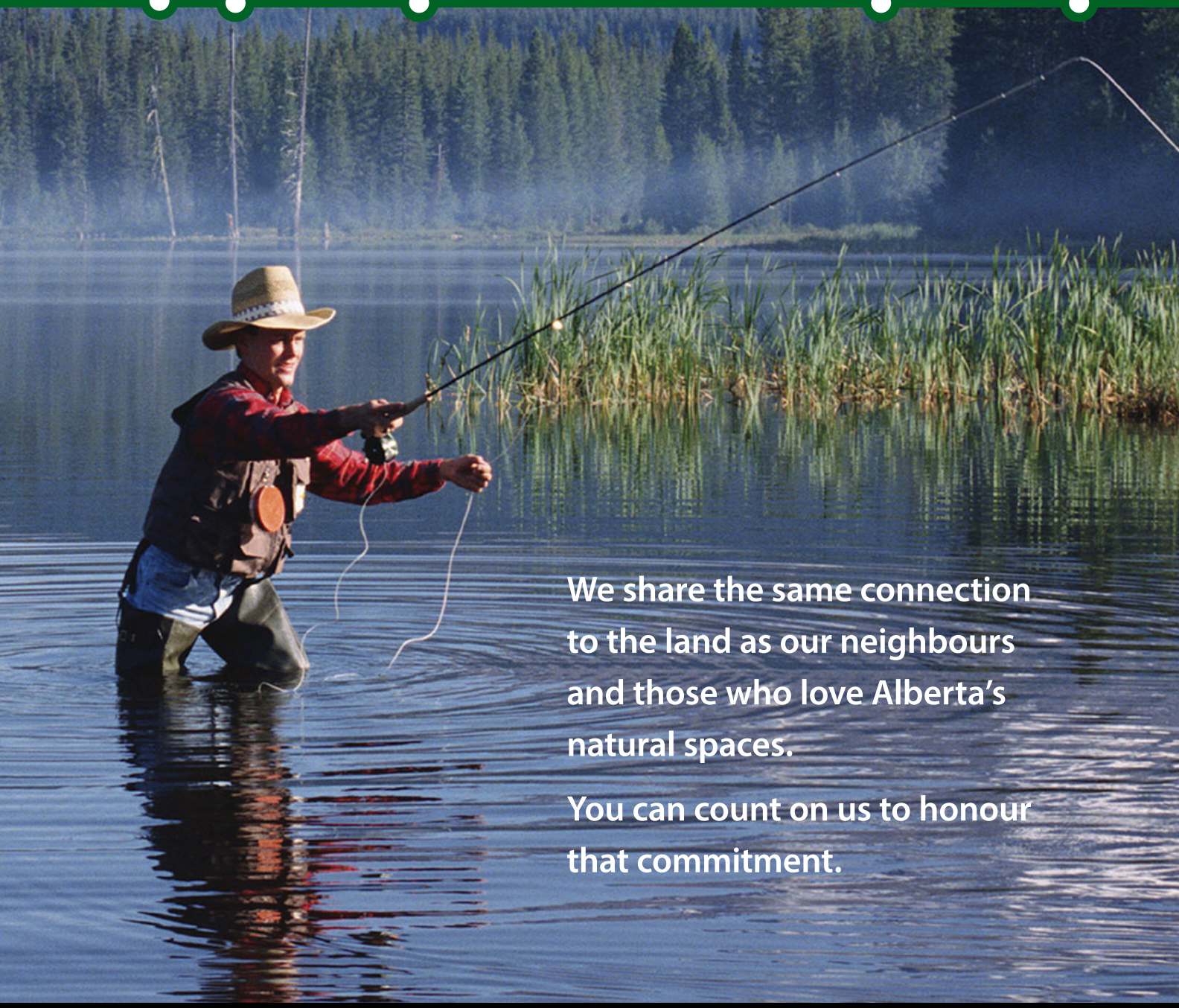

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photo: MULTISAR

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