

A WILDLANDS ADVOCATE

THE ALBERTA WILDERNESS ASSOCIATION JOURNAL

DECEMBER 2012

A BIODIVERSITY PRIMER
A CASTLE-CROWN COLLAGE
IS THERE A BIODIVERSITY
STRATEGY IN ALBERTA'S STOCKING?
BURN, BIODIVERSITY, BURN

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COVER PHOTO

Daniel Olson captured the beauty of Butcher Creek on a winter's day. Protected areas such as the Butcher Creek Natural Area are vital to the health of biodiversity in Alberta.

FEATURED ARTIST

Barbara Amos is a visual artist whose projects have involved a variety of materials including paint, steel, textiles, video and photography. Her finished works encourage questions and conversation about our role in the world. The paintings featured here are melting and dissolving, creating metaphors using the landscape as its subject. Her most recent project, (google Red Alert For The Castle Headwaters) used social media, the community, and the colour red, to bring attention to environmental issues in southern Alberta.

Barbara's work has been exhibited across North America for the past 20 years. Her work will be shown at the Bugera Matheson Gallery, Edmonton, Feb 14-28, 2013; it may also be seen at Gibson Fine Art, Calgary, Marcia Rafelman Fine Art, Toronto and Gust Gallery, Waterton.

She has completed 3 public art commissions. Her work is in many collections including the US Library of Congress, Fairmont Hotels, Alberta Foundation for the Arts, and Deloitte Canada.

For more information visit www.BarbaraAmos.com

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ALBERTA WILDERNESS ASSOCIATION

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Alberta Wilderness Association is a charitable non-government organization dedicated to the completion of a protected areas network and the conservation of wilderness throughout the province. To support our work with a tax-deductible donation, call 403-283-2025 or contribute online at AlbertaWilderness.ca.

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A ghost of Christmas Past

“North America Facing a Biodiversity Crisis” - that was the headline of a post-Christmas Reuters story from early 2002. The headline was sparked by a study commissioned by the environmental agency set up under the the North American Free Trade Agreement. The Commission on Environmental Cooperation reported that half of the continent’s most bio-diverse ecosystems were degraded severely. “Our report,” said the Commission’s executive director, “shows that over the past few decades, the loss and alteration of habitat has become the main threat to biodiversity.”

This ghost still haunts our landscapes. World Wildlife Foundation reported this year that its index of biodiversity (the Living Planet Index) shows “around a 30 per cent global decline in biodiversity health” from 1970 to 2008.

The biodiversity theme, and the associated question of what’s been done to ensure biodiversity is treated seriously by decision-makers, figures prominently in this issue of *Wild Lands Advocate*. Katie Rasmussen, AWA’s newest Conservation Specialist, offers us a valuable primer on just what biodiversity means and how important it is for our shared ambitions to live good lives on Earth. We need to act decisively on the conclusion reached in 1995’s Canada Biodiversity Strategy: the loss of biodiversity is one of the “most serious global threats now facing humanity.” Her general overview is complemented by her second article about the important work the Alberta Biodiversity Monitoring Institute is doing generally and, more specifically, in the Willmore Wilderness. Congratulations for good deeds are tempered though

by what I read as the notion that only fools wait for perfect information before acting. Here’s where the prescription for responsible behaviour becomes insuring that our use of the best available is guided by the precautionary principle.

Dr. Kevin Timoney offers a case-study of what can happen when decision-makers turn their backs on caution and deny biodiversity significant standing in their calculus. His report is from the upper North Saskatchewan area where prescribed burns aimed at controlling mountain pine beetle have inflicted serious damage on rare plants and rare communities.

Kevin’s work adds an exclamation mark to Carolyn Campbell’s discussion of how significant land-use planning exercises in Alberta, such as the Lower Athabasca regional plan, continue to proceed without any guidance from an overall provincial biodiversity strategy.

Dr. Alison Dinwoodie, who along with Dr. Lorne Fitch received a Wilderness Defenders award in November, also is featured in this issue of the *Advocate*. Her second career as a wilderness defender has been distinguished by her concern over the loss of biodiversity, particularly in the Cardinal Divide Wildland Park.

Finally, three ecologists from southwestern Alberta - Cyndi Smith, Peter Sherrington, and Reg Ernst - take you on a biodiversity tour of their home. It’s an amazing journey. May the wonderful places and experiences they describe and the urgency of our circumstances inspire your actions in the New Year.

Have a joyous, peaceful Christmas!

- Ian Urquhart, Editor



A LAST LOOK AT AWA'S 2012 Priorities



BY SEAN NICHOLS,
AWA CONSERVATION SPECIALIST

As December marches on, it seems appropriate to look back through the various issues of *WLA* we've put out this year. Thumbing through the April issue, I notice the article that kicked off this series presenting AWA's 2012 priorities focused on two of Alberta's iconic endangered fauna: the woodland caribou and the greater sage-grouse. The June issue moved on to look more specifically at land-based issues, focusing on AWA's concerns and efforts regarding the conservation of Alberta's forests, and especially the Castle in the province's far southwest. The August issue gazed first at another threatened species, the grizzly bear, before casting an eye further north to look at the Cold Lake area in the province's boreal forest: an area that AWA believed – and continues to believe – offers significant opportunities for seeing the establishment of new protected areas. Another area of concern in northern Alberta highlighted the October issue of *WLA*: McClelland Lake and its patterned fen that is at great risk from

tar sands-related industrialization. More broadly, water was the other theme of October's priorities article: the pressures on Alberta's wetlands, headwaters, and riparian areas.

This brings us to December, and the two remaining issues AWA has designated as priorities for this year. Alberta's wild waters are of course a matter of serious concern, but so too are our wildlands and wild life. These two overarching concerns are addressed by the priorities we chose to highlight in the last entry in this series: the management of our public lands and the establishment of a provincial biodiversity strategy.

Most of the province's outstanding pristine – and priceless – wildlands exist as public lands, lands held in trust for current and future Albertans by the government. Both the Alberta public and the government are responsible for the stewardship of these lands and for the wellbeing of the innumerable species that presently call them home. Public lands are found across the province, in

all six of our Natural Regions. They take the form of parks and protected areas, of swathes of boreal and alpine forest, and most notably of the undulating fescue plains characteristic of Alberta's southern grasslands. In the case of this latter region especially, public lands are under great pressure to be auctioned off into private hands, to be ploughed under and exploited in a manner that is the absolute antithesis of responsible stewardship. Such thoughtlessness was at the heart of the "Potatogate" case that so enraged Albertans last year. Such thoughtlessness prompted the campaign promise by Premier Redford to prohibit that sale. AWA applauded her for keeping her word. Yet the conditions that allowed the sale to be proposed in the first place remain. AWA is firmly opposed to all sales of public land in Alberta, and remains committed to insisting that they be managed to protect and enhance native biodiversity.

Arguably much of the value in Alberta's wildlands lies in the species



The healthy, diverse landscape near Del Bonita (previous page) stands in sharp contrast to the monoculture in Warner County.

PHOTO: © C. OLSON

those lands support. From the tiniest alpine flower in a mountain meadow to the caribou picking their way through the boreal wetlands, innumerable species of flora and fauna interweave in the great mosaic of life that blankets the province. Yet the diversity and range of this mosaic belies its fragility. Species interact to such an extent that the upsetting of just a few of these species can have far-ranging ripple effects as the species relying on the first are also affected, affecting in turn more species yet. In a sense, all of AWA's priority issues – as well as those concerns that were not on the “top ten” list – aim to maintain and sustain the equilibrium of Alberta's network of life: its biodiversity. To properly ensure that this network can survive and thrive, biodiversity must be sustained not merely as an afterthought or side effect of first-order policies. Rather biodiversity needs to be addressed foremost through an explicit strategy. With such a biodiversity strategy in place, there could be real optimism that human developments in Alberta take place in a

context that supports sustainability as a real concept and not just a buzzword.

Public Land is the Best Thing the West Has Done

AWA Position: Public lands are held in trust for Albertans by elected representatives and must be managed in the best interest of all Albertans. AWA believes this is best achieved by preserving native ecosystems and protecting endangered species for the benefit of present and future generations. The sale of public lands takes place at the discretion of the Minister for Environment and Sustainable Resource Development, with no requirement for a transparent public process. AWA believes all public land sales should be suspended until a full, transparent process is developed to allow for public input. In particular, AWA is strongly opposed to the conversion of native prairie and rangeland on public lands for industrial or agricultural use. Less than 43 percent of our native grasslands remain intact

and although over 70 percent of the species at risk in Alberta are found in the Grassland Natural Region, less than one percent is currently protected. In Alberta, the provincial government continues to authorize the conversion of dwindling rangelands and the continued alteration and destruction of these sensitive ecosystems by expanding industrial and agricultural development.

In this issue: As many of AWA's ongoing concerns relate to species and activities occurring on public lands, a case could be made that almost all the articles in this issue relate to public land in some manner. AWA's newest conservation specialist, Katie Rasmussen, keeps us posted on this issue with a pair of updates concerning Bill 202, the *Public Lands (Grasslands Preservation) Amendment Act 2012*. This private member's bill seeks to require greater public input and participation during the process surrounding sales of public grasslands in Alberta, and came up for second reading in the legislature this November.



Aspen Meltdown
30"x30" oil on canvas
© BARBARA AMOS

Precaution – Worth a Pound of Cure

AWA Position: Biodiversity has intrinsic value and enormous environmental, economic, and social value to humanity, underpinning the Earth's life support systems. A precautionary principle is important because the complex interactions between native organisms within an ecosystem remain poorly understood. The Government of Alberta has made commitments to maintain and restore biodiversity in keeping with Canadian and international commitments and to fulfill its responsibility to future generations of Albertans. Alberta officials pledged that a biodiversity action plan would be one of the provincial policy pillars guiding the implementation of the Land-use Framework. The February 2009 oil sands strategy also committed to protect and maintain biodiversity in the oil sands region. A provincial biodiversity strategy and policy framework still needs to be developed to maintain and restore Alberta's biodiversity. At the regional level, it should be applied to assess risks and define thresholds and triggers for

management action. It should include land disturbance targets and thresholds as well as appropriate regulatory actions to inform land use planning and approval processes.

In this issue: With biodiversity being a topic concerned with the interactions among multiple species, we believe it is appropriate in this issue of *WLA* to feature an article, a collage if you will, whose structure mirrors those interactions. Peter Sherrington, Reg Ernst and Cyndi Smith bring their expertise to bear in a collaborative article that examines the biodiversity in Alberta's southwest corner, one of the rare places where the grasslands abut the alpine. Carolyn Campbell contributes to this discussion with an update on the progress being made toward an overdue provincial biodiversity strategy: where is the Government of Alberta in their progress toward that goal? What lessons can we take from other jurisdictions where a similar strategy has already been developed? Katie Rasmussen jumps on board with her inimitable enthusiasm and contributes two articles. In one

she introduces the Alberta Biodiversity Monitoring Institute, an organization dedicated to the monitoring of more than 2,000 species and habitats to support decision-making about provincial biodiversity. Katie's other article looks at biodiversity from a more general perspective, placing it into a wider context that takes into consideration the federal *Species at Risk Act*.

Where To Next?

As I wrote in the first article of this series, back in April, this list of priorities represents one outcome of the long-term planning that AWA does at the beginning of every year. It is not intended to be an exhaustive list of our concerns nor is it meant to be a rigid plan dictating our every position on these issues. Instead it is meant to guide our conservation efforts over the course of a year, to help us pick out a path when we are faced with a multitude of options.

It would of course be wonderful if these paths all met with immediate success and we were able to end every year with a neat list of checkmarks, then progress to a new list. Life is of course not like that and we begin each year aware that more progress will be made on some paths than others. Especially in this type of enterprise there will be successes and setbacks, and so long as there is life in Alberta's wilderness, the undertaking will never be over.

We now look forward to 2013 by re-holding our annual deliberations. Up for discussion: which of these issues will remain priorities in the new year? Some of them certainly will be; the Castle has remained dear to our hearts for 47 years and so long as that special place remains unprotected, I cannot imagine a day when it will not find a place on our list of priorities. Other issues may be more likely to be re-evaluated.

Our guiding principles, of course, remain the same. We remain absolutely committed to defending wild Alberta, and will select our 2013 priorities such that they represent issues we know are vitally important to the ecological health and natural wellbeing of Alberta. As always, there will be many worthy issues from which to choose and the debate will be long and heartfelt.

We hope you will join us in the new year, when we plan to discuss our priorities in a future issue of *WLA*. 🌲

what exactly is Biodiversity?

BY KATIE RASMUSSEN, AWA CONSERVATION SPECIALIST



The word “biodiversity” appears often in the conservation literature; in fact, it is often the conservation of biodiversity that we are referring to. AWA chose biodiversity as one of our 2012 top ten priorities, the Government of Alberta has promised a (still to be seen) Biodiversity Strategy, and many countries, including Canada, have signed international agreements to share knowledge about and co-operate to protect biodiversity. The loss of biodiversity has been said to be one of the greatest threats to humanity. So *what is* biodiversity and why should we care so much about protecting it?

The Meaning and Importance of Biodiversity

The term biodiversity was introduced in the mid-1980s as the field of conservation biology, and the threats to the natural world creating the need for conservation, were rapidly advancing. It comes from the joining together of the words biological (“of, relating to, caused by, or affecting life or living organisms”) and diversity (“variety or multiformity, difference”). The United Nations Convention on Biodiversity (1992)

defines it as “the variability among living organisms from all sources including, inter-alia, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.” For the average person this definition may not do much to help explain the concept! Simply put, biodiversity refers to the totality of life and life processes on earth including genes, cells, species, populations, ecological communities, ecosystems and ecosystem processes.

And yes, this includes *Homo sapiens*.

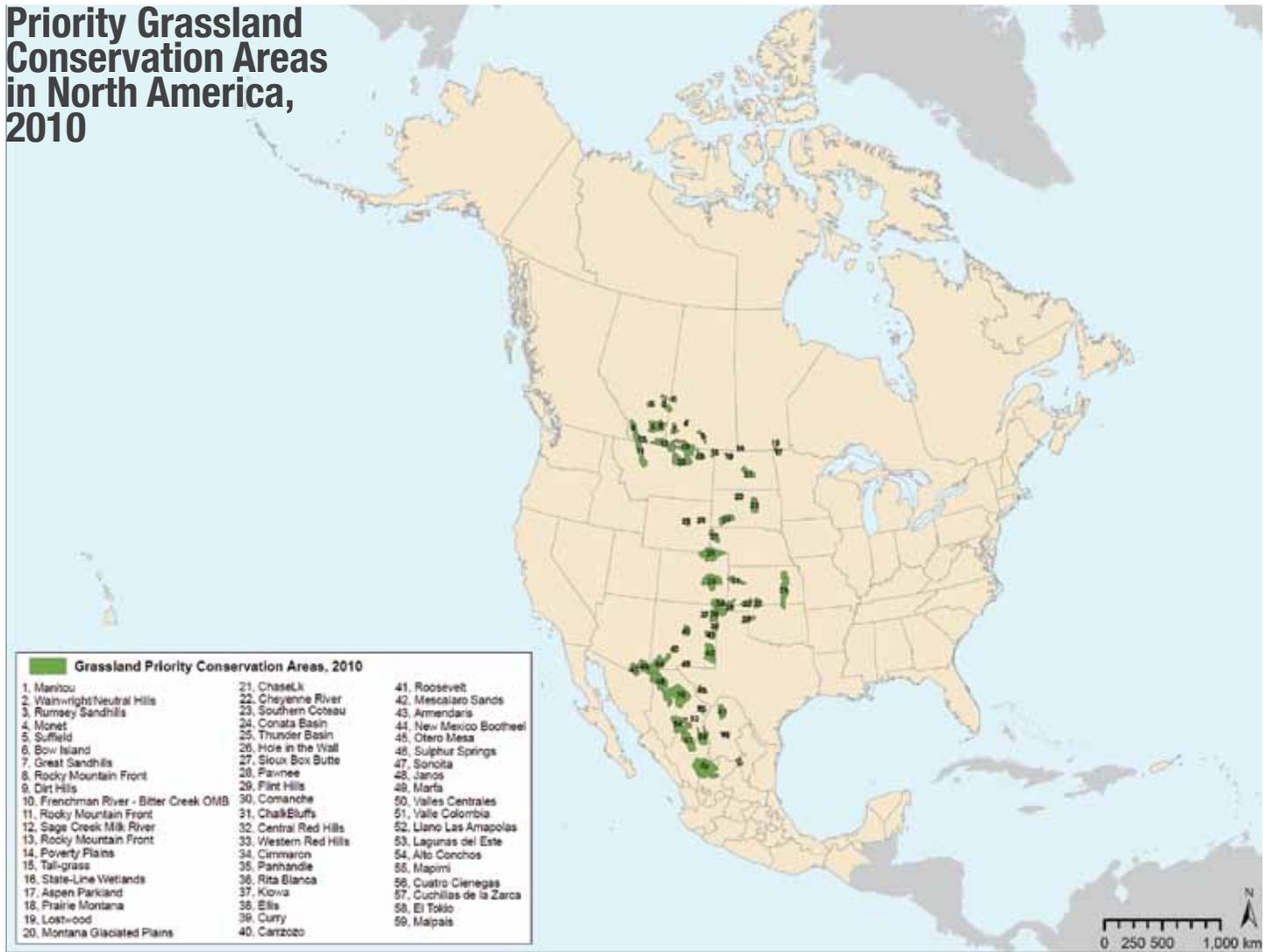
The example of the greater sage-grouse and the mixed-grass prairie of North America is a good example to illustrate these varying levels of biodiversity and why they are important to protect. As you may know, sage-grouse is critically endangered in Alberta but their populations in the United States, although at risk, are doing better. Now you might immediately think that, because sage-grouse and native prairie still exist, we have not lost biodiversity. But if you look more closely you will see this is

.....

“Biodiversity loss is rapid and ongoing. Over the last 50 years, humans have changed ecosystems faster and more extensively than in any comparable period of time in human history. Species are going extinct at rates 1,000 times the background rates typical of Earth’s past. The direct causes of biodiversity loss—habitat change, overexploitation, the introduction of invasive alien species, nutrient loading and climate change—show no signs of abating. Every year, between 18,000 and 55,000 species become extinct.”

– CONVENTION ON BIOLOGICAL DIVERSITY

Priority Grassland Conservation Areas in North America, 2010



Seven of the priority grassland conservation areas identified by the Commission on Environmental Cooperation are in Alberta: *Wainwright/Neutral Hills, Rumsey Sandhills, Suffield, Bow Island, Rocky Mountain Front (1), Sage Creek Milk River, Rocky Mountain Front (2).*

CREDIT: DATA LAYERS AND IMAGERY PROVIDED BY THE COMMISSION FOR ENVIRONMENTAL COOPERATION, THE ROCKY MOUNTAIN BIRD OBSERVATORY, AND THE NATURE CONSERVANCY.

not the case. The erosion of biodiversity in this case began with the widespread conversion of native prairie to cultivated land. The mixed-grass native prairie is one of the most endangered ecosystems in North America and what remains of it is highly fragmented. This fragmentation cut off the historic connection between Canadian and American populations of sage-grouse and led to a loss of genetic diversity in each population. In a related vein, this dramatically reduced migration between populations. So while we still have mixed-grass prairie and we still have sage-grouse we have been losing biodiversity. We have lost a number of ecosystem processes (migration of certain species) resulting in a loss of resiliency. Moreover, we have lost genetic diversity within the sage-grouse populations, resulting in populations that are less

adaptable to changes in their environment and more susceptible to local extinctions.

In living systems, there is complexity and variability at every scale from within an individual animal to between all the species sharing a landscape. Maintaining this complexity is integral to maintaining systems and organisms that are resilient in crises, adaptable to change, and able to take advantage of new opportunities. Functioning, healthy, ecosystems are intricate and complex compositions of life, with built in redundancy, meticulous precision in some acts and pliable opportunism in others, and enigmatic feedback loops that often conceal their hidden inter-connections until one or more of them is lost or broken. Biodiversity is the beauty of life all around and within us.

Biodiversity on Earth – Take Your Best Guess

Given the complexity of biological systems, it is essentially impossible to know all of the diversity of life on earth. While we may have described fairly comprehensively the largest eco-regions on earth, as we move to finer scales of life such as small communities, species, and genetic variation, knowledge comes slowly; we don't even know all that we don't know. In 2011, a study by Mora et al. published in the PLOS Biology online journal estimated that there are roughly 8.7 million terrestrial and aquatic species on Earth (6.5 million on land and 2.2 million in the oceans). While this total is one of the best estimates to date, previous estimates have ranged from 3 to 100 million species and new evidence could dramatically change that number again

in the future. This same study estimated that we have yet to discover a staggering 86 percent of all species on land and 91 percent of species living in the oceans. What this means for conservation is that we are likely losing many species on Earth before we discover them. With each species lost we lose knowledge and lose ecosystem function and resiliency plus future discoveries that may enhance human survival and quality of life. Such uncertainty, such ignorance, also demonstrates why it is so crucial that we use precaution when approaching any activity that will impact an ecosystem. Our lack of knowledge demands humility; we must act with caution and attention.

Conservation of Biodiversity

While living in our modern day comforts we can often feel very disconnected from other animals and the processes that run the natural world. Scientists warn us that we cannot afford this attitude; the loss of biological diversity on earth, according to 1995's *Canadian Biodiversity Strategy*, is one of the "most serious global threats now facing humanity." The erosion of ecosystems and loss of ecosystem function leads to the loss of life-giving services we depend on for survival: the production of oxygen, the filtration and purification of air and water, the fertilization of soils, the regulation and stabilization of weather and climate, the pollination of food crops, and the provision of the raw materials necessary for food and shelter.

“Humanity coevolved with the rest of life on this particular planet; other worlds are not in our genes. Because scientists have yet to put names on most kinds of organisms, and because they entertain only a vague idea of how ecosystems work, it is reckless to suppose that biodiversity can be diminished indefinitely without threatening humanity itself.”
– E. O. WILSON *THE DIVERSITY OF LIFE*

Recognizing the need to slow the further loss of biodiversity and address the human activities threatening it, the international community, including Canada, signed the United Nations Convention on Biodiversity twenty years ago. The objectives of the Convention are to conserve biodiversity, engage in sustainable use of the resources of biodiversity, and share genetic resources fairly and equitably. Since the early 1990s, the international community has continued to pursue these goals and has made great strides in knowledge, planning, and conservation theory. Unfortunately, these efforts have not been able to keep ahead of the rapid human development. We are degrading biodiversity faster than we can come up with and enact solutions. Currently, much conservation research focuses on developing the tools and knowledge that will enable us to prioritize areas of high biodiversity, known as hotspots, areas of high sensitivity or vulnerability and areas of high irreplaceability as priorities to direct limited conservation resources and time towards. Building interconnected

protected areas networks, working with local communities to promote community-based conservation programs, and conducting research into better understanding how natural systems and species can thrive in different land-use scenarios are important ongoing global conservation activities.

For the Love of Biodiversity

For over 99 percent of human history, we had an intimate knowledge of and connection with the living world around us. Biodiversity was and still is the foundation of our very survival. The conservation of biodiversity is necessary not only for our basic survival, but to inspire us and make our lives richer. We feed our bodies, minds, and souls with the offerings of biodiversity. From the single most basic cellular organism to a large herd of mammals migrating across the prairies, the diversity of life on this earth captivates us with its beauty and incredible innovations and provides us with life-sustaining and life-enhancing resources. Simply put, biodiversity is life. The conservation of biological diversity is the conservation of life on Earth. 🌱

Pronghorn antelope
PHOTO: © K. RASMUSSEN



WATERTON LAKES NATIONAL PARK – WHERE THE MOUNTAINS MEET THE PRAIRIES

A CASTLE-CROWN COLLAGE

1



BY CYNDI SMITH

Back in the spring of 2001, while packing up to move to Waterton, I came across an old park map and thought I'd better open it up and start to orient myself to the area. Almost the first thing that I noticed was that, at 1:50,000 scale, the park only occupied the north half of the topographical sheet, with the south half showing the northern part of Glacier National Park in Montana. My next thought was that, when I patrolled on horseback in the backcountry of Jasper and Banff national parks, I often carried three to four topo maps to cover just my district. My conclusion? Waterton was SMALL! But, as I was quickly to learn, Waterton packs an awful lot of biodiversity into a small area!

With over 1,000 vascular plant species, Waterton has more species than Banff and Jasper national parks combined, yet is less than one-tenth their size. Much of this diversity is because the park includes the Foothills Parkland Natural Subregion (in addition to the Alpine Natural, Subalpine Natural, and Montane Natural Subregions). No other national park in Alberta has this subregion. The low elevation grasslands of this ecoregion are

reflected in Waterton's slogan, "where the mountains meet the prairies." The highly successful Waterton Wildflower Festival highlights the spectacular floral diversity found in this ecoregion each June.

These grasslands are also home to approximately 800 to 1,000 elk which attract photographers from across the continent during the fall rut. Most of the elk summer at higher elevations outside of the park and winter on the park's healthy rough fescue grassland. Deep snow causes them to drift east onto ranchland to graze. The health of these rangelands is critical to the health of wildlife populations in the park, particularly wide-ranging large ungulates and carnivores. The Nature Conservancy of Canada has been instrumental in using conservation instruments to help ranchers maintain their traditions and grasslands to the benefit of regional biodiversity.

In July 2005, 27 entomologists from across the country converged on Waterton for the 2005 Biological Survey of Canada Bioblitz. This one-week "arthropod bioblitz" came to Waterton because of the richness of the park's four natural subregions. That July bioblitz made an

important contribution to the biotic survey of Waterton. Many of those participants continue to return to study their special taxa. Their investigations have documented new species for the park, for Alberta, and even for Canada.

Waterton also attracts bird watchers for good reason – nearly 300 species, both breeders and migrants, have been tallied in the park. The range and proximity of habitats is unequalled in the province.

Waterton may be a small park but, as this brief survey suggests, it's home to a rich diversity of flora and fauna. Looking ahead, the health of these species will depend importantly on the outcomes of campaigns to protect southern Alberta's Castle wilderness and British Columbia's Flathead valley. These regions, along with Glacier National Park in Montana, are instrumental to maintaining the biodiversity that Waterton Lakes National Park is famous for. ▲

Cyndi Smith recently retired after 32 years working for Parks Canada, most recently as Vegetation Specialist in Waterton Lakes National Park. She is a former member of AWA's Board of Directors. Cyndi lives near Mountain View.



Chinook arch in the vicinity of Waterton Lakes National Park

PHOTO: © C. SMITH



A Land Where the Mountains Meet the Prairies
PHOTO: © C. SMITH

BIODIVERSITY IN SOUTHWESTERN ALBERTA: A PERSONAL VIEW 2



BY PETER SHERRINGTON

I first visited this area in the fall of 1972 and have continued to watch birds and enjoy the wildlife and magnificent scenery here since then. My short visits to the area, however, gave me little inkling of what amazing biodiversity the area held. My visits became sporadic after the spring of 1992 when we started studying raptor migration at the Mount Lorette site in the Kananaskis Valley which kept me in the field there for up to seven months a year. On October 8, 2000, however, the area really grabbed my attention when Doug and Teresa Dolman, who had been reconnoitering a raptor site at the southern end of the Livingstone Range, counted 1,071 migrating golden eagles in a single day.

It was not until the fall of 2006 that I, with assistance from members of the Crowsnest Conservation Society, was able to conduct a first season-long count at the site. The results were encouraging as we counted 7,217 raptors; 4,400 of them were golden eagles. We subsequently conducted full fall counts from 2007 to 2009 and spring counts from 2008 to 2010. Cumulatively, in 625 days (7,104 hours) at the site over this period we observed 41,959 migrating raptors from 18 species; 27,250 of the migrants were golden eagles. The counts also recorded 3,620 bald eagles, 5,337 sharp-shinned hawks, 1,436 red-tailed hawks and 150 peregrine falcons. What amazed me was that, from a narrow ridge at an altitude of 1,900 metres, we

recorded more than 150 bird species, including several that had not been recorded in the area before.

During September and early October, migrant songbirds landed in the trees and shrubs on the ridge during the first couple of hours of daylight to feed after migrating overnight. Hundreds of birds, from dozens of species used this waystation. Flycatchers, thrushes, sparrows, and warblers all visited the site. The warblers included unusual species such as the Cape May, magnolia, blackburnian and black-throated green.

Other rarities spotted from here included parasitic jaeger, chestnut-backed chickadee, pygmy nuthatch, lark and grasshopper sparrow. The site also had the unique distinction in Canada of being visited by all four of the country's swift species: Vaux's and chimney in the spring, black and white-throated in the fall.

The numbers of more common birds using this migratory path also amazed us. During the 2008 fall count, for example, a total of 3,069 red-breasted nuthatches flew south along the ridge, including a two-day consecutive total of 760 birds.

The site also recorded 28 species of mammal. They included: wolf, grizzly bear, black bear, cougar, and bobcat. Even more surprisingly, thirteen-lined ground squirrels both breed and hibernate there. This mix of alpine and prairie animals is also reflected in the 50 species of butterfly recorded at the site where

parnassians and wood-nymphs can be seen on the wing together.

Since conducting the last complete count at the site in spring 2010, I have had time to explore and conduct daily counts in the two townships centred on my home in Beaver Mines. In this period I have gathered data over 658 days on 226,600 birds of 256 species; this record includes around 30 species that were previously unrecorded in the area. In addition I have records on 43 species of mammal and 83 species of butterfly.

Habitat diversity contributes importantly to these surprising numbers. My study area stretches from the alpine habitats of Table Mountain in the west to prairie grasslands and sloughs in the east. The numbers also result from being able to slowly explore the area on an almost daily basis throughout the year and record every creature I see. I hope this growing familiarity will allow me to begin to understand better the ecology of the area, its seasonal and yearly variability and the underlying mechanisms that drive this change. I look forward to continuing to be delighted and amazed by this remarkable area. I am humbled too to realize just how little we really know about our back-yard. 🐾

Peter Sherrington is a Past President of AWA and he has worked through the years to help others learn to observe and recognize the absolute beauty of nature and its delicate balance.



Looking south into Waterton
Lakes National Park

PHOTO: © C. SMITH

HOME IN THE CASTLE 3



BY REG ERNST

Prior to moving to Southern Alberta in 1995, I spent many years recreating in Alberta's National Parks, Kananaskis Country, and Willmore Wilderness. After spending time in the Castle area, I soon realized how important this area was to natural processes throughout the mountain corridor that links with areas to the south. As part of the Rocky Mountain corridor the Castle connects the Northern Rockies of the US to the Southern Rockies of Canada; it provides a critical transportation corridor for large mammals. The watersheds in the Castle provide most of the water used in the rural and urban communities of southern Alberta.

The area differs from mountainous areas to the north mainly because of its climatic factors and topographical features. The area has the highest precipitation in Alberta and intense Chinooks moderate winter temperatures. The northwest/southeast alignment of the Rockies' front range canyons is unique and contributes to its productivity and the overall biodiversity found in the Castle.

Overlapping ecosystems provide unique opportunities for plants and animals in the region. Almost all of the species of fauna in Alberta can be found here (other than caribou) and the area produces more species of flora than any other in Alberta (estimated to be 824). More than half of the plant species occurring in Alberta may be found in the Castle.

Throughout the past 17 years I have completed several studies and

led interpretive hikes to try and raise awareness and understanding of ecological problems in the Castle. During my three-year rare plant survey (2003-2005) in the Castle I discovered 64 plants from the Alberta Natural Heritage Information Centre (ANHIC) tracking list: I have found several more species since. I am sure a comprehensive survey would reveal many more. In Canada, many plant species (including rare ones) occur only in the Waterton/Castle area of Alberta. The Castle is home to more than just remarkable flora. During the 2012 AWA summer hike in the South Drywood canyon we had the opportunity to watch two blonde grizzlies traversing a slope across from our camp.

Both whitebark and limber pine, listed as endangered, occur in the Castle area. Without active efforts to maintain these species they may very well go extinct. Coordinating with Alberta Environment and Sustainable Resource Development, I have been working collaboratively with the Alberta Tree Improvement and Seed Centre in Smoky Lake, collecting seed for current and future research. Last summer we planted both whitebark and limber pine seedlings to compare survival rates on one year versus two year seedlings and with some treatments applied to try and increase survival rates. This past summer we established plots to compare seedling survival rates. Investigating the feasibility of using five needle pines for reclaiming decommissioned sites will be the focus of our future research.

It is difficult to over emphasize how important this area is to the biodiversity and natural functioning of the entire region. The Castle has suffered many wounds from various sources including industry, agriculture, and recreation. But given the chance, many of these wounds will heal.

Personally, what I love most about the Castle is getting above the disturbed areas and hiking along the ridges, on the peaks, or in the alpine basins. Leaving behind the industrial disturbances, the non-native plants, the OHV trails, and the cows is so rewarding because of all the unique landscape features found in the upper subalpine and alpine areas. From many ridges you can gaze out onto the sea that is the prairies, you can see the region along the Continental Divide and you can see the unique mountains such as Font and Windsor. You can easily hike from the Foothills Parkland Natural Subregion into the Alpine Subregion in a day. But for me, ridge hiking is one of the most rewarding elements distinguished as it is with snow covered peaks, forested valleys, alpine lakes and tarns, and views out onto the prairies that must never be altered. The natural value of those images cannot be exaggerated. ▲

Reg Ernst, a former member of AWA's Board of Directors, has spent years walking the Castle and collecting data on flora. Some recognize him from a distance as he walks along with a copy of his favourite book, Budd's Flora of Alberta, under one arm and his eyes searching for the rare and endangered plants of the Castle.

Alberta Biodiversity Monitoring Institute and the Willmore Wilderness



BY KATIE RASMUSSEN, AWA CONSERVATION SPECIALIST

While the conservation of biological diversity in one form or another is the main goal driving the majority of conservation efforts, a constant challenge is our lack of knowledge about these complex and dynamic systems. When considering the profound and far-reaching decisions that must be made around land-use planning and choices of land management strategies, one can easily feel overwhelmed by the uncertainty under which we're asked to act. However, we must act. As the saying goes, uncertainty is the only certainty in life. Advancing knowledge of biodiversity must happen in tandem with using the best-available knowledge. Luckily, here in Alberta, we have an organization that may rapidly improve our knowledge of biological diversity in the province.

The Alberta Biodiversity Monitoring Institute (ABMI) is an independent research organization established to measure biodiversity throughout Alberta. The latest ABMI annual report outlines the Institute's mission "to inform government, industry, environmental communities, First Nations, and the public about what is happening in our environment so that they can make informed decisions and plan for the future." According to the ABMI, Alberta is home to over 80,000 species; the Institute is researching and monitoring over 2,000 of these species at 1,656 sites across the province. Data collection across the province is the main activity of the ABMI as it works to strategically reduce knowledge gaps and decrease uncertainty in land-use planning and management decision making. The information gathered by the ABMI is independent of any government or organization, is publicly available to everyone in Canada, and is invaluable as a long-term database that uses a consistent methodology. This consistency allows for comparison and analysis across the data from different years and regions.

The Willmore Wilderness area, a

priority AWA area of concern, is just one example of where ABMI data collection is active in the province. The Willmore Wilderness is delimited by a provincial Wilderness Park in the Eastern slopes of Alberta north of Jasper. It is a large mountain park that is a virtually untouched wilderness and is home to many interesting and sensitive species such as the wolverine, grizzly bear, and caribou. In collaboration with other groups, ABMI is engaged in the Willmore Biodiversity Research Project. The project focuses on understanding differences in species detection using different monitoring methods and how the ability to detect different species affects results of data collection, monitoring, and ultimately land-use planning and management decisions. The Willmore research project has already identified areas where research and monitoring need to be improved to fill data gaps. It also has provided valuable information about wildlife and rare habitats in the park and will continue to actively guide the management of the protected area.

Having the knowledge and tools provided by the extensive, ongoing, and strategic research of groups like the ABMI and projects such as the Willmore Biodiversity Research Project are invaluable. They enhance our ability to understand the life around us as well as the human impact on natural systems. If treated seriously by government they will

enable Alberta to make better choices when it comes to regional and local land-use planning and management. At the same time, we must remember that we cannot be paralyzed by uncertainty; we cannot wait until we have "perfect" information.

Too often governments and decision-makers use "lack of data" as an excuse for not taking appropriate actions to minimize or altogether avoid the plausible risks from human activities. Every land-use decision must use the best available data to prepare for and mitigate the likely consequences and risks arising from human interventions on the landscape. Uncertainty will inevitably be a part of any planning or management process in the complex and dynamic natural world. We simply cannot know everything but we must move forward using the best available scientific knowledge and guided by the precautionary principle. Finally, we must ensure that the ongoing and rigorous data-collection efforts of groups such as ABMI are not neglected as stacks of data filed away on a shelf or in someone's hard drive. Data must be transferred into knowledge and knowledge must be transferred into action for it to be of any use. By using the best available knowledge in conjunction with the precautionary principle we can make decisions that allow us to tread more lightly on this sensitive and complex planet we call home. 🌱

The Precautionary Principle is defined by the United Nations Educational, Scientific and Cultural Organization (UNESCO) 2005 as: "When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. Morally unacceptable harm refers to harm to humans or the environment that is: threatening to human life or health, serious and effectively irreversible, inequitable to present or future generations, or imposed without adequate consideration of the human rights of those affected."

Alberta's Biodiversity Strategy Needs to be Pushed Forward



BY CAROLYN CAMPBELL,
AWA CONSERVATION SPECIALIST



Elk in the Suffield National Wildlife Area in southeast Alberta. A provincial biodiversity strategy with a goal to maintain and restore biodiversity and clear targets and actions is essential to uphold international commitments made by Alberta and Canada since the early 1990s.

PHOTO: © D. OLSON

“Preserving Alberta’s environment and its natural heritage is important to me. Albertans deserve to know that the species that call this province home today will still be here for generations to come.”

- Alison Redford, September 12, 2011

In a companion article, Katie Rasmussen outlines the critical importance of conserving biological diversity, as it is crucial to the conservation of life on Earth. By declaring 2011-2020 to be the United Nations Decade for Biodiversity, the UN has underlined both the importance and neglect of the issue. Here, I discuss the Alberta government’s slow progress towards a meaningful biodiversity strategy. With enough encouragement from citizens, and leadership from elected officials, Alberta may soon take a significant step towards fulfilling its important commitments to the international community and to future generations, commitments to maintain and restore wild lands, wild waters, and wildlife.

In 1990, the federal government, Alberta, and other provinces agreed to a *Wildlife Policy for Canada* that included biodiversity as a key concept. Its goal was “to maintain and enhance the diversity of Canada’s wildlife, for its own sake and for the benefit of present and future generations of Canadians.” It stated that wildlife conservation should expand to include all wild organisms and that maintaining and restoring ecological processes and biodiversity were required to achieve the main policy goal.

Some of the 1990 policy’s notable policy statements which still need to be taken to heart in Alberta include: “Governments should provide specifically for conservation of biodiversity in policies and legislation on resources and the environment;” and “Governments should ensure that the concept of wildlife in all policies and legislation includes wildlife habitat.”

False Promises For Twenty Years

The international community, including Canada, signed the United Nations Convention on Biodiversity in 1992.

In late 1995, Alberta along with the federal, territorial, and other provincial governments committed to adhering to the *Canadian Biodiversity Strategy* that followed the 1992 treaty commitment. This strategy, like the convention, set as a goal the conservation of biodiversity. Here biodiversity was further defined as maintaining ecosystem, species, and genetic diversity. The report Alberta published in June 1998 as a follow up consisted of little more than listing many environmental and wildlife-related programs. The Special Places program, which was going to “complete Alberta’s network of protected areas in 1999” by representing the ecological diversity of Natural Regions and Subregions, was listed as a cornerstone of Alberta’s efforts to conserve biodiversity.

As long-time AWA members will recall, Special Places unfortunately did not live up to its promises. After much pressure from environmental groups and citizens, Special Places created new protected areas over just 3 percent of Alberta. These areas will generally exclude industrial activity once

grandparented leases expire. However, many of the areas were chosen based on low conflict with industrial interests. Ecological integrity or importance was not the primary criterion. As well, the targets the government created were too low, and even these were not met, particularly in the Foothills and Grassland Natural Regions.

Since then intensive motorized recreation pressures in some of these areas have degraded their ecological values. On the 88 percent of Alberta's landscapes outside formal protected areas in the 1990s and 2000s, there were few measurable targets set for biodiversity. There also was little integration between biodiversity commitments and the sprawling footprints of the energy, mining, forestry, transportation, urban and rural development sectors.

False Promises No More?

The creation of the Alberta Biodiversity Monitoring Institute in the early 2000s was a bright spot in this discouraging picture (as described by Katie Rasmussen elsewhere in this issue). Then came a strong sense from many Albertans that genuine cumulative effects management was needed if our children were to enjoy the same quality of life of current generations: this led to the Land-use Framework development. In many public presentations in 2009 and 2010, Government of Alberta officials pledged that a biodiversity action plan would be one of the provincial policy pillars guiding the implementation of the Land-use Framework and transition to cumulative effects management. The February 2009 oil sands strategy "Responsible Actions" also committed to protect and maintain biodiversity in the oil sands region. Alison Redford, when campaigning for leadership of the Progressive Conservative party, affirmed her support for maintaining biodiversity in the statement that leads this article.

The Lower Athabasca Regional Plan (LARP) was finalized in August 2012 and on paper it affirms good intentions about biodiversity. Its third regional outcome is: "Landscapes are managed to maintain ecosystem function and biodiversity." A key strategic direction is: "Managing air, water and biodiversity through management frameworks that take proactive approaches and set limits and triggers and by minimizing land

disturbance in the region".

Its most concrete actions so far are creating new Wildland Provincial Parks in 13 percent of the Lower Athabasca region (a sizeable new Public Land Use Zone allows industrial forestry in the Red Earth woodland caribou range). These Wildland Parks are definitely a positive step forward from the status quo; however, there is a sense of déjà vu about them. They appear to have been selected mainly based on where bitumen resources are absent, at the edges of the boreal region and in the Canadian Shield. Conservation biology principles such as representing southern ecosystems or caribou critical habitat do not appear to have been the key drivers.

On the working landscape that is 80 percent of the Lower Athabasca region, there is still no guiding provincial biodiversity strategy. Nor is there a land disturbance plan; nor is there a regional biodiversity management framework. And consultation for the developing South Saskatchewan Regional Plan is well along, without any sign of the promised biodiversity strategy. We cannot treat the Land-use Framework as coming close to fulfilling its intended role without these promised pieces. The LARP promises a biodiversity framework by the end of 2013 that will set regional targets for selected vegetation, aquatic and wildlife indicators and "address caribou habitat needs in alignment with provincial caribou policy." It promises a regional landscape management plan for public land by the end of 2013 that will include stakeholder advice on a managed land disturbance footprint.

The government still intends to consult with Albertans on a provincial biodiversity policy called "Maintaining Alberta's Natural Advantage." AWA believes a responsible policy goal consistent with international commitments would be to "maintain and restore" biodiversity, including specific milestones to be achieved between now and 2020. Let's follow the example set by the United Kingdom (see text box). Clear goals and transparent reporting are



Cover of ABMI Bird Report. Since 2003, the Alberta Biodiversity Monitoring Institute (ABMI) has performed valuable monitoring of human footprint, species' populations and habitat intactness. In a 2012 report pictured here, ABMI estimated that land bird species in the boreal plains ecozone (covering most of northern Alberta) were 80 percent intact, and that 21 percent of the region had been directly altered by human activity, mostly cultivation.

important to spur institutions to action. The consultation timing is unclear, but it needs to happen soon to meet the deadline of December 2013 for a northeast Alberta framework of specific targets, triggers, and thresholds.

Potential Progress on the Process

AWA is encouraged to see that internal government work is continuing on a biodiversity management "process." Government presentations at LARP public consultation sessions noted that science-based indicators to chart progress could range from coarse to fine measures, for example from "land cover" and "habitat types," to "guilds of species" (e.g., "old-growth forest birds" or "index of native fish integrity") to specific species (such as woodland caribou). With public/stakeholder involvement and First Nations consultation, biodiversity and land disturbance goals may be developed at a sub-regional level. This would be

appropriate in the face of sub-regional economic and ecological diversity (for example, the South Athabasca watershed is a possible sub-region within the Lower Athabasca region). A multi-sector group for a particular sub-region could examine ecological assets and desired human activities in that sub-region. It could review scenarios of how greater or lesser degrees of footprints and access could affect the biodiversity indicators and provide advice on the desired outcomes.

This could be a real step forward if the process was well executed: with a clear biodiversity goal, sound and transparent scientific and socio-economic data, good facilitation, representatives well connected to their sectors' leadership, and a deadline to motivate timely advice.

How can citizens help narrow the large remaining gaps in the "wildlife" part of Alberta's cumulative effects management? We hope the biodiversity articles in this issue help you show

your colleagues, friends and family, the connections between the troubling environmental news we read about, the wildlife we care about, the UN's Decade on Biodiversity, and what Alberta can and has pledged to do to move forward. It's also very valuable to encourage elected officials to support progress on these overdue biodiversity goals and actions to achieve them. We will keep you posted on what happens next. 🌱

INTERNATIONAL BIODIVERSITY COMMITMENTS

In October 2010 in Nagoya, Japan, over 190 countries including Canada agreed to take urgent action to halt the loss of biodiversity, to uphold the Convention on Biological Diversity that Canada signed and ratified in 1992. A set of 2011-2020 "Aichi" targets had this overarching vision: "By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people." Here is a sample of "Aichi" targets relevant for Alberta that are to be attained by 2020 at the latest:

- people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably;
- incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied;
- the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is

- significantly reduced;
- areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity;
- at least 17 per cent of terrestrial and inland water...especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes...;
- the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained
- ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 percent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

THE UNITED KINGDOM EXAMPLE

In June 2011, European Union (EU) member states adopted a framework EU Biodiversity Strategy. Later that year, the UK government issued a biodiversity strategy that committed to halt national biodiversity loss by 2020; it has measured and reported that between 2002 and 2008, over 40 percent of priority habitats and 30 percent of priority species were declining, and eight priority species were lost entirely from the UK. In May 2012, the UK finalized 24 indicators it considers robust and reliable to measure biodiversity progress to 2020. These include the extent and condition of protected areas and priority habitats; habitat connectivity; and bird, butterfly and plant diversity in woodlands and farmlands. Amongst the 24 indicators are "People" indicators for which sufficient trend data is still being gathered, including "proportion of people visiting the natural environment several times a week," "conservation volunteering" and "proportion of households undertaking wildlife gardening."

Rare Plants and Rare Plant Communities in Alberta Face an Uncertain Future:

A Case Study of a Prescribed Burn near Saskatchewan River Crossing, Alberta



BY DR. KEVIN P. TIMONEY, TREELINE ECOLOGICAL RESEARCH

In 2007, I conducted a study (Timoney 2007) of montane and subalpine vegetation in the upper North Saskatchewan River area between Whirlpool Point and Saskatchewan River Crossing, Alberta. The report was submitted to the provincial government and Parks Canada and recommended that a prescribed burn planned for the area be postponed. According to the Alberta government and Parks Canada, the primary objectives of the prescribed burn were to reduce the number of pine stands susceptible to mountain pine beetle, to create a fuel break, and to create vegetation types typical of the historical fire regime. The government's objectives were not grounded in evidence-based science and are discussed in detail in the Timoney report.

The recommendation to postpone the burn was based upon the facts that there was insufficient knowledge to predict the response of rare landscape elements to fire, that the burn would have probable negative effects upon rare plants and rare plant communities, and that the prescribed burn plan was flawed. The report was suppressed. A prescribed burn of roughly 7,900 ha was conducted in 2009 (Figure 1). Following the burn, I conducted further studies of the area in 2009 and 2011. This article presents a summary of that study's findings (Timoney 2012).

Observations Within Plots

Results documented a significant number of rare vascular plants, lichens, and bryophytes and rare plant communities associated with limber pine, whitebark pine, and montane grassland. Significantly, about 251 rare taxa were

found in the study plots. About 73 percent of the rare taxa were non-vascular plants. A composite burn index scored to indicate fire severity was the strongest environmental factor that explained variations in vegetation composition two years after fire. Total vegetation change (assessed through ordination) was strongly correlated with fire intensity. Fire caused declines in species richness of rare lichens, rare bryophytes, rare vascular plants, and of lichen species richness in general. At moderate to high fire severity, about three to seven rare species were lost per plot at two years post-fire. Relative to the average of 17 rare species per plot, the loss of three to seven species resulted in an average reduction in richness of rare species of 18 to 41 percent.

Percent cryptogam crust post-fire was negatively correlated with fire intensity, indicating that sites that burned severely had either a lower cover of cryptogam crust before fire, or that fire destroyed cryptogam crust. Seven species indicators of severe fire were identified, five of which were bryophytes and two of which were vascular plants. Of the 444 taxa that were found in the 22 plots sampled in 2007 and 2011, some were present in only one of the years. Both ecological and non-ecological factors account for the differences in presence-absence. Statistical tests revealed that the lichen, bryophyte, and vascular plant species matrices were significantly correlated, indicating that these plant groups comprise integrated communities. Across years and within vegetation groups, the strongest correlation was between the vascular plant matrices, which suggests that the vascular plant assemblages were more resistant to post-fire change

than were the bryophyte and lichen assemblages.

More study should be conducted to better understand the ecology of the rare species and communities and, in particular, their responses to fire. Observations should be expanded to alvar and cliff communities to better understand these landscape elements. Similarly, study of cryptogam crusts would further understanding of their response to fire.

Observations Outside of Plots

Some of the most-affected areas lay outside the vegetation plots that were established before the fire. Despite low fuel loads, some undescribed cliff and alvar communities were strongly degraded in the fire (Figure 2). Trees in open limber pine savannahs were sensitive to low intensity fire. A major impact of the prescribed burn was the loss of many formerly healthy rare limber pine and whitebark pine vegetation communities. The barren bedrock created by intense heat presents an inhospitable environment for plant propagules. Recovery from site degradation in such communities may take decades. The area lying between Highway 11 and plot PSP11 was subjected to high intensity fire; there was near total mortality of trees. Water erosion and wind deflation of exposed soils were noted. Slope angles of ≥ 20 degrees appeared to be more prone to erosion than did less steep areas.

Spread of *Ribes* species after the fire is of conservation concern due to their role as the intermediate host for white pine blister rust. Extensive walking between plots indicates that *Ribes* plants have

increased in frequency since the fire. The loss of cryptogam crusts, if widespread, could have long-term effects on soil stability, site quality, ecological integrity, and species richness. The weed response detected to date has been moderate. Among the exotics, *Taraxacum officinale*, *Tragopogon dubius*, *Poa pratensis*, and *Vicia cracca* have appeared in the flora within or outside of the plots.

In areas where fire caused stand replacement, there was loss of limber pine forest and savannah associations, whitebark pine woodlands, montane, subalpine, and riparian old-growth forests, and scientifically important old limber pine trees. In the short-term, the rare limber pine and whitebark pine communities have been made rarer.

In the long-term, the impacts to the limber pine and whitebark pine populations will depend on whether both species can successfully regenerate. Regeneration is not a certain prospect given a rapidly changing climate, white pine blister rust, an expanding mountain pine beetle population, and the uncertain future of the Clark's nutcracker, the critical seed dispersal agent for both pine species.

Management and the Future

It was irresponsible for government to have proceeded with the prescribed burn in the absence of sufficient knowledge as to how the fire would affect rare plants and rare communities. Use of aggressive and degradative land management techniques was not justified by the situation. The use of repeated aerial ignitions to "clean up" (i.e. burn) high elevation forests with a documented naturally long fire return interval was counter to the normal ecological processes and conditions that shape the landscape.

The primary objectives of the burn: "Reduce the number of pine stands with high susceptibility to mountain pine beetle... Create a strategic fuel break... [and] Restoration of an area in the Upper North Saskatchewan River valley to vegetation types reflecting historic fire regime..." are discussed in the report (Timoney 2012) and shown to be based on outdated policy and a poor understanding of science. The government's use of misleading information is documented.

At last communication with the government, plans were to continue to use prescribed burns in the area, including burning the riparian zone of the North Saskatchewan River south of Highway 11. The Alberta government and Parks Canada need to do a better job of incorporating science into their decision-making; they need to change policy that has proven ineffective, outdated, or detrimental.

Plans to burn other parts of the upper North Saskatchewan area should be postponed. Prior to any future prescribed burns, monitoring the effects of the 2009 burn should continue over the next decade in order to determine if the burn is achieving ecologically defensible objectives. If it is not, then prescribed burns should cease.

Policies and objectives of the Alberta Environment and Sustainable Resource Development and Parks Canada prescribed burn programs should be reviewed in light of changing

environmental conditions, especially in regard to conservation of rare plants, rare vegetation communities, and critical or rare habitats. The forest environments of Alberta are different from what they were in past decades. Climate change is leading to regional desiccation. Glaciers are retreating and stream flows in many areas are in decline. Species ranges are in flux. The mountain pine beetle has effectively escaped containment in Alberta in spite of aggressive efforts to contain the beetle's spread.

In the rush to battle a perceived mountain pine beetle threat, significant components of the ecosystem are being ignored and, in the case of this burn, degraded or destroyed. The North Saskatchewan prescribed burn was not supported by science. Hopefully, the results presented here will help to focus future monitoring efforts and to engender a more cautious approach to the management of such valuable ecosystems. Government can and should do better. ♣

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Note: The study to which this article refers was conducted in the public interest without remuneration. All costs were borne by the project participants. A copy of the full report (Timoney 2012) is available upon request to: treeline@treeline-ecological.ca.

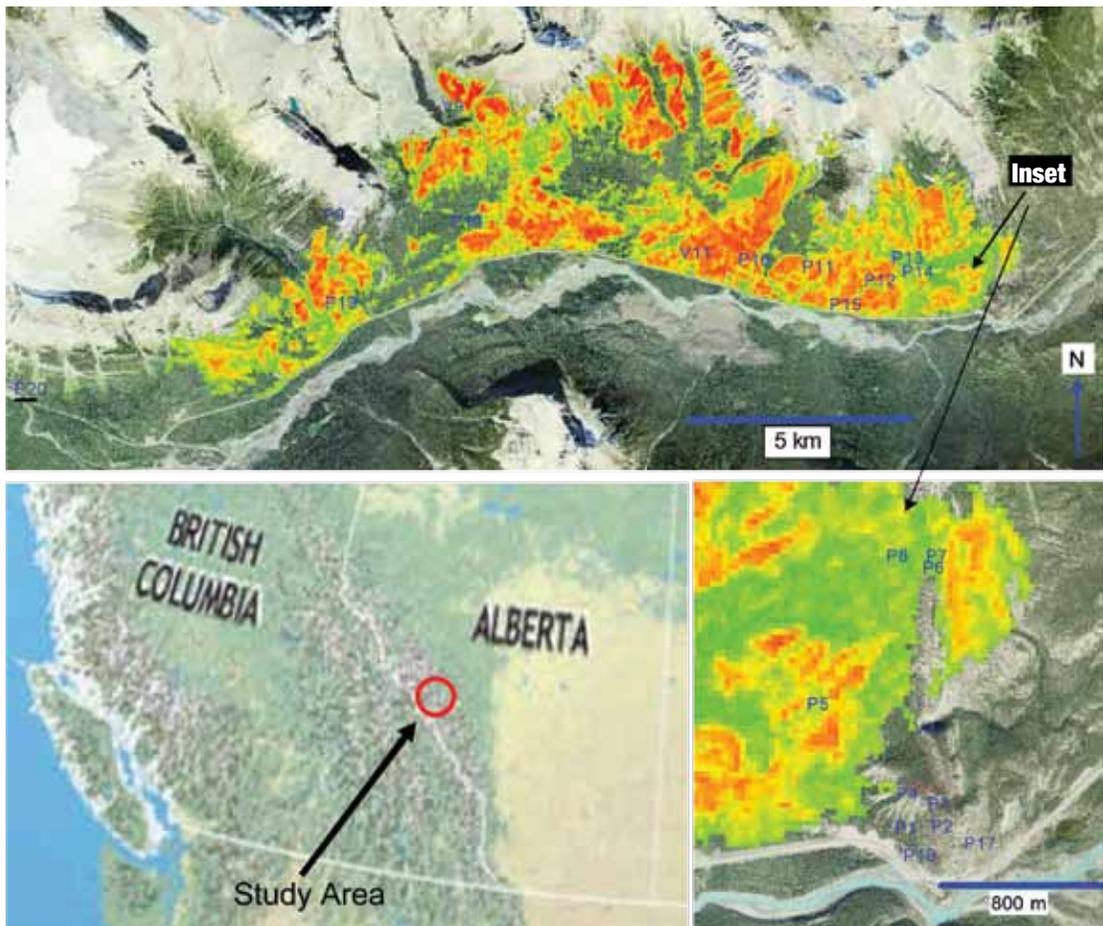


Figure 1. Locations of rare plant study sites that were sampled in 2007, and again in 2010 and/or 2011, in relation to a 2009 prescribed burn severity index (from ASRD 2011). Maximum burn severity is bright red; minimum burn severity is green. The colors are coded to a unitless normalized burn ratio based on differences in Landsat TM/ETM bands that are sensitive to fire. Maximum and minimum values in this image were +1353 and -186. Unburned areas are reportedly indicated by values of about -100 to +100, whereas burned areas range from about +100 to +1300. See ASRD (2011) and Caners (2011) for details. Maximum burn severity is correlated with increased charring, consumption of fuels, exposure of mineral soil and ash, scorched or blackened vegetation and with decreased moisture content and aboveground biomass and cover (Caners 2011).



Figure 2. Bedrock in this intensely burned alvar (limestone pavement) community suffered exfoliation. The whitish areas are bedrock depressions that contained a thin layer of plants and organic soil before the burn. The dark gray areas are burned saxicolous cryptogam communities. Regeneration of such sites may take decades and the future plant assemblages that will occupy such sites are unknown. 6 September 2009.

Financing Wilderness Protection



BY CHRISTYANN OLSON

I want to personally thank each one of you for your financial contributions to AWA through the years. You have helped make AWA the strong force it is today.

AWA is highly respected and recognized throughout Alberta for its integrity, tenacity, corporate memory, and ability to work for wild Alberta.

Our reality is that only a small number of our members donate. And yet, in this past year, 72 percent of AWA's revenue came from individual donors. *Just imagine what we could do with the financial support of every single one of our members.*

Given the current political climate in Canada I think it's very likely that, as a conservation group with charitable status, we will depend more and more on friends like you to supply us with the resources we need

to do our work well.

So please, if you can afford it, accept this invitation to donate today. Your financial support, large or small, will help us to make a difference.

Please use the form inserted in this copy of the *Wild Land Advocate* to send your gift today and help us reach our target for increasing our number of donors. If you prefer to donate through our secure online donation service please visit it at www.AlbertaWilderness.ca.

We love to hear from you at the office too, so if you would like to call we are happy to take a donation over the phone (403 283-2025 or 1-866-313-0713). I hope to hear from you soon.

Please give generously; we are honoured with every gift.



Gifts of Celebration

AWA is privileged and grateful to receive gifts recognizing important family events, milestones, and times of celebration. In 2012 the following have been given special recognition with a donation made in their honour to AWA-

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Cindy Aldred
Steve Dixon - 95th Birthday
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Karl Winkler - 9th Birthday

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Wildlife Remembered

Black Bears

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2011-2012

AWA is honoured and grateful to have received gifts in memory of the following supporters during the past year.

Kathy Allsop 1949-2011	Jessie McAllister 1924-2012
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Lije Mardres 1973-2011	Edward Zirk 1927-2012



IN PRAISE OF SECOND CAREERS: Alison Dinwoodie, Wilderness Defender

BY IAN URQUHART

When Alison was scrambling in the Scottish Highlands on weekends as a young member of the University of Glasgow climbing club the idea of becoming a persistent, thoughtful, defender of wild spaces in Alberta, like the books she had put temporarily aside, was far from her mind. So too was any thought of needing to sign waivers before you joined your mates on excursions into the highlands. Alison's first group climbing experiences were the stuff of which lifelong friendships were made. "The friends that I made on the hills there are friends that have stayed for my life," she says. "When you survive some really not very pleasant conditions and various adventures you get to know these people very well and... I try to keep up with some of them."

Glasgow was where Alison earned her Honors degree in biochemistry. After graduation she began her first career as a clinical biochemist. She accepted a position at the Glasgow Royal Infirmary where she took on another challenge – pursuing a PhD in biochemistry. Her specialty was in working with kidney disease patients.

In 1968 she joined Western Infirmary, a teaching hospital in the west end of Glasgow. She was appointed the Principal Biochemist there. For the next four years she worked on subjects such as "alkaline phosphatase substrate specificity and the separation of alkaline phosphatase isoenzymes on polyacrylamide gels." I didn't ask her what that important work really means to the likes of me.

In 1972, Dr. Keith Walker, a former colleague at Western Infirmary, called a feverish Alison (she was suffering from German measles) early one morning to ask her if she wanted to come to Canada. "I thought I was dreaming," is how Alison recalls that moment. She had been to Saskatoon on a sabbatical in 1965 and I think she viewed the chance to come to Canada as the career equivalent of her hikes in the highlands. She'd come here for a few years and then go back to Great Britain. Fifty years later...she's



Alison at Jarvis Lake in William A. Switzer Provincial Park

PHOTO: © E.BEAUBIEN

still here. Dr. Dinwoodie left Scotland to pursue her medical biochemistry career in Edmonton that year. Dr. Walker had been appointed as the Head of the Division of Biochemistry in the Department of Laboratory Medicine in the University of Alberta Hospital.

When Alison wasn't practicing her profession at the U of A hospital she spent time discovering Alberta's waterways and mountains. In Scotland she had been an avid sea canoeist. The west coast of Scotland provided a fabulous setting for that sport. Here she joined Edmonton's Northwest Voyageurs canoe club and joined fellow paddlers on many memorable trips on most of Alberta's major rivers. "I always looked for these wild sections," she remembers, "and I managed to get to a lot of them before they became very popular. I think back now and I'm so glad that I did it then."

Her adventures with the Voyageurs were important formative ones in Alison's life. They helped forge her environmental consciousness for she came to believe that these special places wouldn't necessarily be there forever and that we needed to take more interest in how we treat them.

At least as formative were Alison's early encounters with the Rockies. Here, the Edmonton section of the Alpine Club of Canada was her vehicle. It also was the institution through which, in the 1980s,

Alison began to pursue her stewardship concerns in the mountains. The section had a small environmental committee and became involved in the early efforts to establish the Cardinal Divide area (south of Hinton and just east of Jasper National Park) as a candidate natural area. Soon after Alison and other members of the Edmonton section found themselves in the thick of Eastern Slope access management plans and rumours that a gigantic open-pit coal mine, Cheviot, would be proposed by Cardinal River Coals.

Post-1994: Alison's Second Career Takes Off

The campaign against the Cheviot coal mine figures prominently in the second career Alison plunged into after she retired from the University in 1994. As stewards of the Cardinal River Divide area the Alpine Club received intervenor status in the Cheviot hearings. Alison chuckles to note that the Cheviot campaign "became a bit of a full-time job for two or three years."

Alison's second career as a wilderness defender also is distinguished by her role as a founding member of the SAPAA (Stewards of Alberta's Protected Areas Association). Why, I wondered, if Alison was involved in the Alpine Club would she join others in founding another somewhat similar organization? Alison's response that it wasn't a deliberate



Alison at the 2012 Martha Kostuch Wilderness and Wildlife Lecture where she received a Wilderness Defenders Award

PHOTO: © K. MIHALCHEON

decision suggests that there wasn't one factor behind the decision. Instead, several factors nudged her towards the idea of the Stewards Association.

She wanted to focus more intensely on the conservation agenda than some of her fellow members of the Alpine Club. SAPAA gave her such a vehicle. Provincial parks officials also were very encouraging when it came to establishing non-governmental stewards for natural areas. The Association became an important conduit for information between Stewards and parks officials. But, when the Klein cuts were taking more and more muscle out of the Parks division, the Stewards were essentially left to fend for themselves. Alison is justifiably proud of what this volunteer association has accomplished over the years. They played an important role, for example, in opposing one of the government's more misguided initiatives – the Natural Heritage Act.

That the government's decision to create distance between itself and the Stewards should be seen as ideological as well as financial is suggested by the situation today. The government, in Alison's view, is not willing to appoint stewards for natural areas where there's likely to be controversy. The answer I received when I asked Parks for information about the Stewards program supports Alison's view. I asked why the Stewards list hadn't been updated since 2009 and what progress was being made on developing a Steward site priority list. I was told that the department was focusing on supporting existing Steward activities. Four days after that answer the

2009 list was deleted from the website as was any mention of "developing a project and site priority list."

Today Alison's second career has gone full circle. She's focused once again on Cheviot; her focus this time is on reclamation. Along with the Alberta Native Plant Council, Alison continues to serve as a Steward for the Cardinal Divide area. In her typically modest way she says that she's "just" playing a watchdog role with respect to Cheviot. With the support of the Native Plant Council Alison is pushing Teck Corporation, the current owner of the Cheviot property, to reclaim the Prospect and Cheviot pits in a way that brings native plant species back to the area. They want the company to avoid creating the "sheep farm" that was the product of reclaiming the Luscar and Gregg mines.

Alison isn't confident that the multinational Teck is going to care much about how the sites of the first two pits are reclaimed. She's also concerned that the current approach to recreational access is going to threaten the prospects

for restoring at least some of what the mines have stripped away. Today everyone – hikers, horses, bikers, and... OHVs – is welcome on the west side of Grave Flats road. If OHVs gain access to the lands slated to be reclaimed in approximately three years time on the west side of the road this would seriously threaten the long term viability of the Wildhorse Wildland Park. Alison would like to see Grave Flats road become the boundary between motorized and non-motorized access areas: OHVs to the east, non-motorized access to the west.

Recently Alison has usually been the only stewardship voice heard in discussions about the future of the Cheviot lands. Even the ablest of Alberta's wilderness defenders, people such as Alison, need help if their conservation concerns are to be taken seriously. If you would like to get involved in trying to ensure a healthy future for the lands in and around Whitehorse Wildland Park I know Alison would like to hear from you at adinwoodie@shaw.ca



Aspen Dissolve
30"x30" oil on canvas
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Updates

Species at Risk in Alberta

In October, Ecojustice released *Failure to Protect: Grading Canada's Species at Risk Laws*, a report evaluating Canada's federal, provincial, and territorial approaches to protecting species at risk. As the report's title implies, those approaches were found wanting. AWA has been advocating for the protection of wildlife and wild spaces in Alberta for over four decades and is not surprised by the Ecojustice report. According to the best available evidence on species at risk conservation, Ecojustice used four main criteria to grade the governments on their species at risk legislation. The four categories are simple and intuitive; one might say that they are common-sensical. First, you must identify species that need help. Next, don't kill them! Finally, give them a home and help them recover.

Unlike many other provinces, Alberta has no specific species at risk legislation and utterly fails to meet three out of four of these critical criteria.

1. Identifying species at risk: Alberta's system for identifying species at risk is entirely voluntary. Voluntary processes have been demonstrated time and again to be ineffective when it comes to making the difficult trade-offs often required to protect species and habitats.

2. Don't kill species at risk: The Wildlife Act restricts hunting sensitive species.

3. Give species at risk a home: While it is a relief that we don't directly kill species at risk, their future is dim if they have nowhere to live, eat, and raise their young. Alberta has absolutely no legal requirement to protect species' habitats. Given that habitat loss is known to be one of the greatest threats to wildlife today, this is clearly an unacceptable legislative omission.

4. Help these species recover: In Alberta, there is no legal obligation to implement recovery action. While the government produces and implements recovery plans for some species, it is, again, a voluntary process that does not have legal teeth when difficult decisions must be made. History shows that species conservation will not win out over immediate development desires if there are no legal means to ensure that conservation has a place at the decision-making table.



Meltdown August
30"x30" oil on canvas
© BARBARA AMOS

In essence, there are no legal tools in Alberta to protect species facing severe population declines. These declines, if left unaddressed, will likely lead to extirpation or extinction.

Alberta has no excuse for this legislative vacuum or for relying completely on voluntary and ineffective processes. There are examples, nationally and internationally, of effective species at risk legislation. These laws protect and help species to recover. This is not a case of lacking the tools or the ability to address the problem; it's a case where our leaders lack the political will to adopt and implement readily available tools. AWA would like to see Alberta adopt effective species at risk legislation, such as the federal Species at Risk Act (SARA), that provides a solid legal basis for the protection of species. But, unlike the federal example, we would expect Alberta to respect the law's obligations

and follow through with protection of critical habitat. Protecting Alberta's endangered species cannot be addressed on a voluntary basis.

Species such as woodland caribou, grizzly bear, and greater sage-grouse are a few examples of where the governments of Alberta and Canada are failing to protect the natural heritage that Canadians deeply value. With the federal threat to weaken the *Species at Risk Act*, there is an even greater need for the provinces to be leaders and protect species at the provincial level. AWA will continue our work on critically endangered species in the province and push for legislation that will protect these unique and spectacular species and their homes. These magnificent creatures that are integral elements of our provincial identity deserve nothing less.

- Katie Rasmussen



Another Tar Sands Mine Ignores the Public Interest

The Oil Sands Environmental Coalition (OSEC), including Alberta Wilderness Association, presented November 6 and 7, 2012 before a joint federal-provincial environmental assessment panel considering another large tar sands mine along the lower Athabasca River. The joint review panel process aims to assess environmental, economic, and social impacts of a project to determine whether it is in the public interest and should proceed. Shell's proposal to expand its Jackpine bitumen mine would increase production at the existing facility by 100,000 barrels per day. Regulators have already approved plans to triple Alberta's

oil sands production to more than five million barrels per day. These approvals fly in the face of serious, unresolved environmental problems with current operations.

OSEC – comprising the Pembina Institute, Alberta Wilderness Association and the Fort McMurray Environmental Association – outlined why Shell's Jackpine mine expansion proposal is not in the public interest and should not be approved. Alberta Wilderness Association emphasized the project's significant contribution to expected irreversible losses of peat wetlands and old-growth forest. Furthermore, AWA underlined the harm to the Athabasca River that will occur during the lowest winter flows

from further water withdrawals.

The coalition's expert panel included University of Alberta scientist Dr. David Schindler, who focused on impacts to the Muskeg River basin, and Dr. Glenn Miller, Professor of Natural Resources and Environmental Science at University of Nevada, who outlined risks from unproven end pit lakes in reclamation. Pembina Institute panelists Jennifer Grant, Simon Dyer, and Marc Huot outlined harmful impacts to wildlife, including species at risk, and unacceptably high predicted air emission impacts, including greenhouse gas emissions.

- Carolyn Campbell

Logging the Castle: Now You See It, Now You Don't

On October 10, Albertans learned of a decision made by Alberta Environment and Sustainable Resource Development (AESRD) to impose a delay on logging in the C5 Forest Management Unit. The way in which Albertans learned this was telling: it was not through any announcement by AESRD, not through any notice on the AESRD web site. Instead, the only publicity this decision initially received was a lone story on page 6 of the *Pincher Creek Echo* – a manner so discreet that AWA was at first uncertain whether there was any substance to the story at all.

Following investigation on the part of AWA and other ENGOs, confirmation eventually emerged that a decision had in fact been made that would change the ground reality in the Castle. Of the roughly 770 hectares of forest flagged to be logged by Spray Lake Sawmills (SLS) under a plan approved by AESRD in September 2011, that portion scheduled for harvest this winter (roughly one third) will be permitted to continue. The remainder of the plan is to be placed on hold pending the completion of the *South Saskatchewan Regional Plan* (SSRP).

As was the case with the method of announcement, clarity regarding many aspects of this decision remained wanting. Even to confirm the above facts,

AWA had to resort to digging through documents obtained under a request made under the provisions of the *Freedom of Information and Protection of Privacy Act* (FOIP) earlier this year.

This is the kind of decision that any number of concerned parties have been asking and waiting for since February, when several local residents were willing to put their personal freedom on the line and be arrested rather than stand by to see their beloved Castle logged without any resistance. It was therefore initially puzzling that AESRD did not see fit to so much as let the environmental community know that the decision had been made, much less explain what the decision actually entailed.

The devil, as the saying goes, turns out to be in the details. Although it appeared at first as though it might have been the entire C5 falling under this stay of execution, it soon emerged that this was not the case. Rather, only forests within the Castle Special Management Area would be spared for the time being. For the rest of the C5 and elsewhere the plan remains, “full steam ahead.” As of the time you're reading these words, logging has started in the Hidden Creek area of the Livingstone-Porcupine, some of the only remaining habitat for the fast-disappearing westslope cutthroat trout. There have also been recent logging plan approvals in the Trout Creek, as well as

in West Bragg Creek, elsewhere in Spray Lake Sawmills' Forest Management Area. It may be that SLS will try to use this stay in the Castle as leverage to obtain fast-tracking of approvals elsewhere in its mandates.

Of potentially longer-term concern, it is important also to note that this decision does not represent any permanent halt to logging even in the Castle. It is merely a delay until the SSRP comes out. It is encouraging that AESRD is showing some willingness to hold industry to this same constraint that they have been imposing on environmental legislation for some time. But make no mistake: there is no guarantee that once the SSRP comes out it will respect the multitude of wilderness values in Alberta's southwest forests. It may end up being just as beholden to valuing forests only for their saleable timber as is the existing legislation.

Will this delay turn out to be a portent of long-term changes for the better? Or is it only so much “smoke and mirrors” - a distraction before the fellers start again in earnest? Time will tell, but in the meantime, AWA continues pressuring the government to do the responsible thing, to include legislation under the SSRP friendly to true sustainability and to help ensure the Castle retains its existing magic

- Sean Nichols

Logging begins in the Castle, February 2012.

PHOTO: © D. THOMAS





Just Before Triptych
 30"x90" oil on canvas
 © BARBARA AMOS

Bill 202 and Public Land Sales in Alberta

In late September the Province of Alberta sold 14,000 acres of public land in southern Alberta to municipalities without any public engagement process or public notice. The transferred land was part of 84,000 acres of “tax recovery” lands spread over southern Alberta that the government has put up for sale to municipalities. Tax recovery lands were once privately-owned but were forfeited to the province during the Depression of the 1930s by families who could not pay their taxes. The lands have since been part of the public trust and managed in the public interest. Since 2009 the province has been selling the land to municipalities at the cost of \$1.00/acre.

Currently, the sale of public land does not require any type of public engagement process; Albertans don’t know when or where public land is being sold or if the land being sold has high ecological or other social value. As a consequence, we do not have the ability to prevent the sale or restrict future use of that land to ensure that these values are being protected.

The grassland region, where the majority of the lands are being sold, is one of the most under-represented ecosystems in the world’s catalogue of protected areas. It contains many species at risk and other unique species. The fact these lands have been in the public trust and managed for the well-being of current and future Albertans is one of the only reasons they have remained natural and have not been cultivated or developed the way roughly 80 percent of Alberta’s grasslands ecosystem already has been.

Dr. Neil Brown, the MLA for Calgary – Nose Hill (PC), introduced Bill 202, *The Public Lands (Grasslands Preservation) Amendment Act, 2012*, introduced earlier this year. This private member’s bill passed the first reading in the legislature in May 2012 and debate on Bill 202 was adjourned in the November sitting. The purpose of Dr. Brown’s bill is to “ensure the continued protection of public grasslands and grazing leases containing significant and/or sensitive wildlife habitats.” The bill would require that ecological assessments be undertaken before the sale of public land and that the results of those assessments be made available to the public. The bill would also require public consultation at least 90 days prior to any proposed sale of public land in southern Alberta.

Currently, the government is not required to consult the public on these proposed sales. There are no safeguards to prevent the sale of land that has high ecological value. Nor is it possible to put future use restrictions on the transfer of such ecologically valuable lands. While Bill 202 would not necessarily prevent the transfer of ecologically sensitive land, at the very least it would ensure a transparent process, give the public an opportunity to voice their concerns, and make the government accountable for their decisions.

The sale of public land is part of a disturbing national trend of governments selling ecologically important lands to private interests and leaving the fate of the land to individuals or companies. Our neighbours in Saskatchewan started selling large tracts of their public grasslands last year. The federal

government’s spring announcement that it would be transferring the large native prairie pastures that make up the Prairie Farm Rehabilitation Administration pastures (commonly known as PFRA pastures) to the provinces is worrying. Will the prairie provinces choose to sell them to individuals or companies?

Public lands represent an invaluable holding of native grasslands and parkland ecosystems, 80 percent of which have already been lost to cultivation and human development. Large public grazing lands are some of the last representatives of healthy, intact prairie ecosystems. They are vital areas providing critical wildlife habitat, numerous ecosystem functions, large pastures for individual or cooperative grazing, and opportunities for spiritual and recreational connection with these incredible landscapes

In September, AWA wrote a news release supporting Bill 202. While we oppose public land sales in Alberta, Dr. Brown’s bill is at least a step in the right direction towards ensuring a more democratic and transparent process and acknowledging the need to evaluate and protect the sensitive and valuable ecosystems represented by these public lands. The long-term interest of all Albertans is best served by retaining public lands as a trust held by government for conservation purposes. Short of that goal Bill 202 nonetheless deserves to be passed by the legislature when it meets in the spring of 2013. 🍀

- Katie Rasmussen



PHOTO: ©A. LEARMONT

In Memoriam

Roger Creasey 1953-2012

BY CHRISTYANN OLSON

On October 10, 2012, a large group of friends and colleagues from Roger's many walks of life gathered to remember him. When Mona asked me to speak at the service, I was honoured to be part of a tribute to a dear friend and colleague – Roger. What to say to honour him was been difficult only in knowing how to express the great difference Roger has made, and to do him proud. As the Executive Director of the Alberta Wilderness Association, Alberta's oldest conservation association that works for a network of representative, protected areas some folks may have thought it strange that I would be invited to speak about this fine man, but indeed,

it would be just what Roger would have chosen. It is who he was.

Roger Creasey was one of the nicest men – that's how folks are remembering him these past few days as the news of his sudden passing slowly sinks in. The sparkle in his eyes and the smile he always shared warm our memories of a colleague lost. We remember his kind ways, his subtle discrimination, his accomplished career. We remember too how he was able to think and act with thoughtfulness and respect for both sides of an issue. Roger was always willing to participate fully and positively at meetings, on committees and in the field. There isn't anyone who worked

so successfully across the different sectors: government, industry, science, environmental; his ability was exemplary and unequalled.

Throughout the past 10 years, as Roger would come by the office sometimes at 7am with coffee and muffins to review a proposal or just think out loud; he sometimes mused about what legacy he could help become a reality. Would it be an environmental chair? Perhaps it would be a restored site or an ongoing program for eager young students? These would all be valuable and important tributes. But, as I have thought about Roger in these past two weeks, and realized he is gone, I feel certain about Roger's legacy.

His legacy really rests in his ability to see the greater good, the value for all when we accept controversy and find a way to work together and move forward.

As I spoke with others about Roger our memories shared a common theme, from the earliest times Roger showed the way by including his environmental colleagues at AWA and others at the decision-making table and making a difference because of that dedication to working together.

For some, like Vivian Pharis our longest serving board member at AWA, as Roger began his career he seemed like a boy, full of fun, eager in his new career and yet already able to take on larger responsibilities; Roger obviously had the confidence of the industry he represented and was able to make decisions on the spot.

Vivian remembers working with him in his days at the ERCB, especially regarding a sulphur well owned by Canterra (later Husky) up against the Banff National Park boundary just to the south of the Panther Corners. This is where Vivian first worked with the young Roger and Harry Lillo from Ed Brushett's group at the ERCB as well as with Barry Worbetts of Canterra and Luigi Morgantini (at that time, biological consultant to Canterra). They were not afraid to take Vivian along on trips up to that well despite its contentiousness. They stuck up for AWA and ensured Vivian attended meetings with Forests Lands and Wildlife while others would much rather have excluded that environmental voice from the table. Together they made progressive decisions and helped others learn to think about doing likewise.

Roger was always helpful and tried to ensure some level of fairness for environmental groups. He brought scientific and environmental concerns into his government and industry work and places like the Castle benefited as a result. Landowners and conservationists still talk about Roger's seminal IL93-9 document, produced in 1993 when he was with ERCB, as one of the most positive measures ever introduced to protect sensitive fescue grasslands.

Cliff Wallis, another of AWA's long serving board members, remembers seeing Roger in Ottawa at an environmental assessment workshop when he was working for Shell.



Roger and a new friend in the winter of 1987.

Rather than shying away from taking a controversial position, Roger was proactive and suggested AWA and Shell get together to work on the Castle and move past the bad history that preceded Roger's arrival at the company. Roger's efforts started a whole new era of Shell-AWA dialogue with clear benefits for Alberta's landscapes.

Roger really got it when it came to the Castle – our days in the field, reviewing plans for restoration, questioning the best reclamation efforts, looking closely at rare plants and recognizing community leaders and experts who could contribute to the decision making process were refreshing and helped all of us learn more about the oil and gas industry and about the importance of the precautionary principle. His scientific approach and respect for research and researchers benefitted many – students, professors and the public. He knew the perils of research for the sake of research and stepped in when he needed to. Most of all on days in the field, he always took a few moments to appreciate the horizon, to feel the sunshine on a mountain ridge, to hear the call of the red-tailed hawk or the Clark's nutcracker, to see the incredible wildness that the Castle offered, and he knew the need for protection for generations to come. The Castle is better off for Roger's efforts and the protection the Castle needs will continue

as a lifelong pursuit for those of us who remain.

Roger helped caribou at the Alberta Caribou Committee and worked with Luigi Morgantini at Weyerhaeuser in the northeast corners of BC and the northwest corners of Alberta. He and Luigi managed to get things going in spite of Alberta's intransigence. In spite of what others were not doing – they kept moving forward. Roger made a difference.

We all miss Roger terribly, may he rest in eternal peace.

If there is one thing we can all do to honour Roger's memory it is to keep moving forward, to continue to find ways to be inclusive and work together; to accept controversy and see it as an invitation to find solutions, to enjoy every day in the field, and to remember the wildness that is the soul of our world. 🍂

AWA is honoured that Mona Creasey named AWA to receive memorial donations as tributes for Roger. In time as we know the value of these gifts, AWA will dedicate a specific project in Roger's memory.



Events

TALK: GREATER SAGE-GROUSE PARTNERSHIP

TUESDAY JANUARY 29, 2013

Join us for the first talk of the New Year as we discuss the critically endangered Greater Sage-grouse in Alberta and what efforts we have underway to protect this unique and incredible prairie bird. We will be joined by AWA staff and guest speakers who will speak about their experiences with this prairie icon.

- **Location:** 455 – 12 Street NW, Calgary
- **Doors open** at 6:30 p.m.
- **Program begins** at 7:00pm
- **Tickets:** \$5.00
- **Registration:** 403-283-2025
- **Online:**
www.AlbertaWilderness.ca/events



Sage-grouse have been endangered for many years but governments have done very little to eliminate human disturbances in critical sage-grouse habitat.

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