

Nature Alberta

C E L E B R A T I N G O U R N A T U R A L H E R I T A G E



PLAINS BISON IN ELK ISLAND NATIONAL PARK; SEE STORY PGS 24 & 30. GUY SWINNERTON

feature articles

The Beaver Hills Initiative, Alberta
& A Guide to Biosphere Reserves, Zoning,
and Protected Areas



YOUNG NATURALISTS EXPLORING; SEE STORY PAGE 44. KELSIE SHARUN



**OSPREY; SEE
STORY PAGE 36.**
SANDRA HAWKINS

*Nature Alberta:
Celebrating our natural heritage*

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WANT TO SUBMIT ARTICLES OR PHOTOS?

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Nature Alberta is composed of natural history clubs from across the province. The aims of the Federation are:

- To encourage among all Albertans, by all means possible, an increase in their knowledge of natural history and understanding of ecological processes;
- To promote an increase in the exchange of information and views among natural history clubs and societies in Alberta;
- To foster and assist in the formation of additional natural history clubs and societies in Alberta;
- To promote the establishment of natural areas and nature reserves, to conserve and protect species, communities or other features of interest;
- To organize, or coordinate symposia, conferences, field meetings, nature camps, research and other activities whether of a similar or dissimilar nature;
- To provide the naturalists of Alberta with a forum in which questions relating to the conservation of the natural environment may be discussed, so that united positions can be developed on them, and to provide the means of translating these positions into appropriate actions.

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Editor's Page

BY DENNIS BARESCO

This edition's "Feature Story" on the Beaver Hills Initiative (page 24) illustrates the possibilities if people are serious – and many people are – about a "balanced relationship between humans and the biosphere." Across Canada and around the world, the biosphere reserve program is just one solution to "promote the sustainability of local economies and communities, as well as the conservation of the terrestrial or coastal ecosystems they are in. Biosphere Reserves illustrate and demonstrate on-ground testing of sustainable development."

It needs to be noted that "balance" and "sustainable development" are loaded words. Balance has long been defined by unethical or obsessed governments as: "we'll exploit everything that can possibly be exploited; to provide balance, we will leave what's useless to us – until we find a use – or initiate mitigating measures." Of course, everyone (including those who say it) knows perfectly well that's not balance, and that mitigation is usually the equivalent of a robber stealing your car but promising to mail you bus fare.

Sustainable development wasn't really meant to mean that development and growth is sustained forever, regardless of the consequences – that if you eliminate or run out of something,

you simply exploit something else and hope you retire with the wealth of Croesus or, better still, die before you're personally affected. No, it is assumed in the definition of sustainable development that the whole biosphere is sustained. Agreeing with that and working towards it makes you a hero of the state and a patriot – not, as has recently been pathetically sneered, an "enemy of the state" or a "traitor."

In his article, "Challenging our Thinking" (pg 40), Lorne Fitch sets out another solution that parallels the biosphere reserve idea. His essay is a logical and legitimate blueprint laying out goals and objectives for a better Alberta – better for everyone. Not just better, as Lorne states, "to satisfy the needs of a few, those with a narrow economic horizon." Perhaps those who hope to retire with the wealth of Croesus or die before being personally affected?

Challenging our thinking isn't enough, naturally. The obvious question is, as Lorne asks: "So, where do we start?" Lorne mentions Bob Geldof, the founder of Band Aid and Live Aid. When Geldof first mentioned his ideas, it seemed so impossible that reactions ranged from laughter to ridicule to being embarrassed for him. He went out and did it anyway. He had lots of help along

the way, obviously, but he did it and it was wildly successful.

So, who are our Bob Geldofs? I've always been convinced that there are doable solutions to everything; that includes everything Lorne blueprinted in "Challenging our Thinking." But the solutions may well require innovation and creativity. Unfortunately (and I hope I'm not being too critical here), if there's one thing I have learned from experience about many environmental organizations (ENGOS) over the years, it's that getting them to move away from old methods and to try new things is as difficult as persuading government; i.e. challenging thinking has never been the strong suit of mainstream ENGOS in Alberta. We need something new! We need more Bob Geldofs!

Suppose I asked you, the reader, to come up with just one idea where and/or how we start? Could you? Probably. Okay, think about what Lorne writes, jot down an idea, and send it to your Editor (wildhavn@memlane.com). Feel free to send MORE than one idea. Feel free to send ideas that seem impossible (I won't laugh or ridicule or be embarrassed for you!). Who knows – your idea may be the impetus for Band/Live Aid-like success.

ALBERTA ISSUES IN BRIEF

Open-Topped Vertical Pipes

This is one of those problems that may have taken many by surprise! Last fall on a property adjacent to the Kern River Preserve in California, a 20 foot tall by 8 inch diameter vent tube on an abandoned irrigation system rusted and fell over. When Audubon stewardship staff picked up the pipe they were shocked to find inside a 7 foot long, black mass composed entirely of decomposed carcasses of **hundreds** of dead birds and animals including kestrels, flickers, bluebirds and fence lizards. The date etched into the concrete at the base of this vent pipe showed that it had been in place for over 50 years. All that time animals had been silently suffering and dying in this trap as unsuspecting people went about their business nearby.

Open-top vertical pipes have been found to be a hazard to birds,

WELL-SECURED CAPS SOLVE THE PROBLEM BUT MUST BE OCCASIONALLY INSPECTED TO MAKE SURE THEY HAVE NOT ROTTED OR BEEN KNOCKED OFF.



lizards, small mammals and other wildlife that get into these pipes and are unable to get out. Birds looking for nest cavities, animals escaping from predators or lizards just scampering into open pipes are frequently trapped. This leads to a miserable death from starvation and exposure, which is completely unnecessary.

After learning about this problem, Kern River Preserve staff started seeing open-topped pipes with dead animals in them all over the landscape – pipes as small as 1 inch and up to 10 inches in diameter. They immediately began to remove, cap or screen open-topped pipes.

Hollow steel and plastic PVC pipes are used across North America; there are likely hundreds of thousands of open-top pipes. And the pipes do not have to be in place very long. Sean Rowe of the Kern River Preserve said: “Twice I have leaned a 3 inch steel pipe against a building, expecting to use it within a few days, only to find dead birds

inside – two House Finches in one and a Rock Wren in another.

Open-ended pipe-markers have been illegal since 1993 in Nevada, and following a 2009 law, removal is now required. Question: is this a problem in Alberta, and if so, how much of a problem? The issue has been brought to the attention of wildlife agencies here; hopefully, it is being addressed. Certainly the solutions, though time consuming, are relatively easy.

WHAT CAN YOU DO?

Please look around to see if you can find open-top vertical pipes on signs, fence posts, survey markers, buildings and irrigation systems. All responsible landowners should cap, close, remove or screen all open-topped pipes on their property. Volunteers can do that as well. Check with your local Fish and Wildlife officer to see what the situation is in your area.

CLOSE-UP PHOTO OF THE GROSS WILDLIFE CEMETERY THAT EXISTS IN THESE PIPES.



CORRECTION

In last issue’s article “New Canadian Big Day Record”, birders Tom Hince and Paul Pratt were identified as being from Calgary. Though their “Big Day” was done in Alberta, the pair of birders is actually from the Point Pelee area in Ontario. Our apologies for any confusion this may have caused.

BC Woman Forces Pesticide Safety Review

BY COLLEEN KIMMETT, NOV 22, 2011, FOR *THE TYEE*.

Thanks to a legal challenge by a Smithers, B.C.-based woman, Health Canada must now undertake a formal safety review of an herbicide widely used in forestry and agriculture.

Josette Wier, an environmental activist, says that around 2006, she noticed a pesticide permit application in the local newspaper for the aerial spraying of the Monsanto herbicide Vision in the forests near Smithers.

Glyphosate is the key ingredient in Vision, Roundup and other herbicides, and has become the top-selling weed-killer worldwide since Monsanto introduced it in 1974, according to Reuters. Wier argued that since glyphosate was first approved for use in Canada, there had been new scientific evidence indicating glyphosate herbicides pose unacceptable health risks to human health and the environment. Specifically, those that contain certain additives, known as POEA (Polyethoxylated tallow amine), which help the chemical stick to leaves.

Health Canada is required to address requests by the public for pesticide safety reviews when there is scientific uncertainty about its risks. Wier's first request was turned down, but in 2009 she appealed the decision, and on Monday Justice Michael Kelen of the Federal Court of Canada ordered Health Canada to conduct the review.

Wier said she could not have done it without the help of West

EDITOR'S NOTE:

While this is a British Columbia story, *Nature Alberta* is reprinting it here because of its relevance to Alberta as well as confirmation of the Margaret Mead philosophy "*Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has.*"

Coast Environmental Law and her lawyer, Jason Gratl. Andrew Gage, staff counsel for West Coast Environmental Law said Health Canada is now required to look specifically at the pesticide's impact on amphibians. Currently, he says, it cannot be sprayed over water surfaces but can be sprayed on wetlands or creek beds that are dry some of the year. Gage says the decision could have "fairly significant implications" therefore, on how it is used by logging companies.

Glyphosate-based herbicides have come under fire recently by environmentalists, consumer groups and scientists who are concerned the chemical could

cause infertility or cancer amongst humans – as well as by the agricultural industry which claims weeds are becoming resistant to the herbicide. Wier says she is "ecstatic" about the decision but wonders "why does the public have to do the work for government?"

"These agencies, these bureaucracies, they really try to discourage you," she said, referring to the fact that she had to go to court to force Health Canada to do a review. "I don't know what's wrong with me but I'm extremely stubborn. It's a curse but in some cases it's useful."



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CPAWS: “Keep Jasper as our national park, not a theme park!”

BY CANADIAN PARKS AND WILDERNESS SOCIETY (CPAWS), EMAIL ALERT, DEC 13, 2011

Canada’s treasured Jasper National Park could be on its way to gaining a theme park-like attraction. Brewster Travel Canada, owned by a US-based company, wants to blast out the side of the cliff beside the Icefields Parkway to build the Glacier Discovery Walk. This would be a 400 metre walkway and massive glass-floored “skywalk” extending 30 meters over the Sunwapta Valley.

CPAWS believes that this may signal the start of a renewed surge of inappropriate commercial development within our Rocky Mountain national parks that could put their ecological integrity at risk. We were able to stop this trend in the 1990s in Banff.

Twenty years later, it’s time once again to take a stand to protect the natural wonders of our mountain national parks.

WHAT WOULD THIS MEAN FOR YOU?

The stunning Tangle Ridge viewpoint on the Icefields Parkway would be privatized and visitors would have to pay fees ranging from \$15 to \$30 per person to access Brewster’s Glacier Discovery Walk. The remaining free public viewpoint would look onto the massive glass and metal structure, marring the natural canyon landscape – where today, mountain goats and sheep roam freely.

WHAT DOES THIS MEAN FOR THE FUTURE OF OUR NATIONAL PARKS?

In our view, the Glacier Discovery Walk contravenes Parks Canada’s policy that says that “Only outdoor activities which promote the appreciation of a park’s purpose and objectives, which respect the integrity of the ecosystem, and which call for a minimum of built facilities will be permitted.” (*Parks Canada Guiding Principles and Operational Policy*, section 4.1.3)

By permitting the construction of this massive privatized “skywalk”, CPAWS believes Parks Canada would be creating a dangerous precedent for future commercial developments in our national parks that are more appropriate in theme parks, outside our treasured national parks.

Don’t let this be a trend for future park development. PLEASE ACT NOW!



Giants Among Us!

BY NORMAN BROWNLEE

There still be Giants among us.

I had heard the rumours many times...that hidden on **Tar Island** (about an hour and twenty minute boat ride north of Peace River), were HUGE Black poplar (*Populus balsamifera*) trees – some possibly provincial records in terms of diameter growth or height. But...plans to visit the site in 2009 and 2010 never seemed to materialize... So in the summer of 2011, I was determined to visit the rumoured Giants.

On August 18th, with Rob Lamont at the helm of the Fish & Wildlife jet boat, Darcy Beach (Area Manager, Peace/Upper Hay Management Area), Forester Marty O'Byrne and I, we made our way north on the Peace River. This is a very scenic journey with ospreys and eagles overhead and bears and deer wandering in the dense green hills. The beauty of the river though should not be taken for granted, as shallow gravel beds quickly appear by many islands, and the dance to stay in deep water will keep boat operators wide-eyed.



MARTY O'BYRNE MEASURES THE BLACK POPLAR "GIANTS"!

PEACE RIVER MUSEUM AND ARCHIVES



PEAK WATER LEVELS IN JULY DEPOSITED SEVERAL METERS OF FINE SILT, SAND AND LOGS ACROSS THE ISLAND. PEACE RIVER MUSEUM AND ARCHIVES



WINTER 2012

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AT THE PEACE ISLAND TOURS CAMP. PEACE RIVER MUSEUM AND ARCHIVES

Arriving at **Tar Island** (recently renamed Peace Island) we were warmly greeted by Heather and Mackenzie who operate the Peace Island Tours camp at this site. Of the many Crown islands located along the Peace River, this is the only spot currently with a commercial recreation lease. The camp welcomes hundreds of visitors each year. As we mounted the long ladders to the camp above, one couldn't help but notice the silt covered stairs and piles of sand shoveled to the sides. During the peak water levels in July, the Mighty Peace had risen some six-plus meters from its current level. When it finally returned to more normal levels, it had deposited several meters of fine silt, sand and logs across the island.

The island itself is approximately one kilometer in length and is criss-crossed with several trails, each emanating from the main camp. Early in the 1920s and 1930s, several companies conducted oil and gas drilling activities along the banks of the Peace River and on the islands.

While some significant deposits were found, most were not considered commercially viable at that time and were abandoned. During this trip we did not see any signs of the early drilling on the island...though a more thorough inspection is needed to see if any artifacts from this time period still remain.

As we moved southward on the trail, gingerly pushing back over-grown branches of wild rose and willow, they suddenly appeared...not one, but in groups of 2, 3, 4 and more. **Magnificent** was the first impression which immediately struck you as you slowly approached. Standing perfectly straight, with no lower branches, these aged Giants shot skyward some 25 to 30 meters. The bark, bleached white by decades of harsh winters and summer heat, was deeply furrowed – creating an Imperial Roman column effect. Their girth would make most Sumo wrestlers look svelte by comparison.

Marty O'Byrne measured several trees with the "average" tree coming in at 75 - 80 cm and the

largest, The Tribute (Plaque) tree, measuring 118 cm in diameter. Unfortunately, it was not a Provincial record (164.5 cm for a Black poplar – Recorded in the 1986 Trees of Renown) but it remains a truly spectacular find.

Tar Island is indeed a rare ecological spot in Alberta in that it is home to several dozen of these aged trees. A Seniors lodge of sorts, for elderly Black poplars. It is definitely worth a visit so that you too can stand among the Giants. May they tower high above the Peace River for many more years to come.

Unfortunately, we did not get an opportunity to revisit Tar Island in the fall. However, the many small islands north of the Town of Peace River definitely warrant further study. Ecologically, they have largely been untouched by wildfires over the centuries and the moderating effect of the Peace Valley allows for some unusual flora not seen on the nearby east or west banks. Historically, we also know that there may still be some signs of early drilling in the area which goes back to the 1920s and 30s. We will be heading out again early this spring.

Norman Brownlee is the Business Services Manager with Alberta Sustainable Resource Development, Peace/Upper Hay Management Area.

Nature Diary: Harris's and Fox Sparrows

BY DEBBIE AND ALAN GODKIN

My first sighting of a Harris's Sparrow (Zonotrichia querula) was in the spring of 2001.

In the time it took me to get dressed for the cold weather, the Harris's was long gone. The following spring was a repeat of the first. I was beginning to think that I was never going to get a close up look or a photo of this big, black- and silver-faced sparrow.

Then in May of 2006, two Harris's Sparrows showed up at the feeder a week apart. The first one stayed for two days and the second one for three days. I thought I might have been looking at the same sparrow until I got my pictures back, which clearly showed a slight difference in their markings.

In the fall of 2005, I spotted a Harris's in with a few American Tree Sparrows (*Spizella arborea*) and Dark-eyed Juncos (*Junco hyemalis*). I had to consult a field guide to correctly identify it as an immature Harris's given its buffy-colored face and white throat. My last sighting of a Harris's was on May 21, 2007. Considering that the Harris's is an uncommon spring migrant in Alberta, I felt fortunate to have seen it on 6 separate occasions.

No less exciting was my first sighting of a Fox Sparrow (*Passerella iliaca*) back on April 20, 2007. You couldn't miss it.

Given its rusty red color and larger size, it stood out like a beacon amongst a large flock of Dark-eyed Juncos. But the Fox Sparrow was wary and hard to approach. I had to be satisfied with photographing it through the window.

Since then I've seen one Fox sparrow on April 21, 2008, two at the same time on April 28, 2009, and one on May 24, 2010.

Like many naturalists, Debbie and Alan Godkin, from Westlock AB, have numerous stories of their experiences with nature – stories they love to share with other naturalists in this "NATURE DIARY" series!

FOX SPARROW DEBBIE GODKIN





HARRIS' SPARROW DEBBIE GODKIN

FOX SPARROW DEBBIE GODKIN



HARRIS' SPARROW DEBBIE GODKIN



BOOK REVIEW

The Rights of Nature: The Case for a Universal Declaration of the Rights of Mother Earth

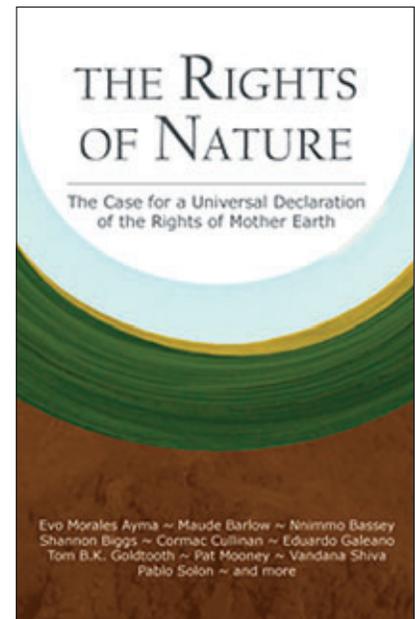
In April 2010, Bolivia hosted a gathering for civil society in the wake of the failed December 2009 United Nations Copenhagen climate summit (COP 15). It was clear to millions of climate activists, scientists and environmentalists around the world that the UN process had been sidelined by a deal, the Copenhagen Accord, which represented a major step backward in the search by the UN for a binding, comprehensive agreement that would protect humanity and the Earth from the ravages of climate chaos. When more than 32,000 participants from around the world gathered for the World People's Conference on Climate Change and the Rights of Mother Earth in Cochabamba, Bolivia, it was evident that a counter message had to be sent to the UN and the world that a far stronger commitment was needed if humanity is to successfully move to a safe and sustainable future.

Out of this World People's Conference came a call to protect nature differently by recognizing the Rights of Nature, or as expressed by others, the

Rights of Mother Earth. The UN General Assembly proclaimed April 22, 2010, Mother Earth Day, and the Declaration was introduced to the G-77 countries and UN Secretary General Ban Ki-moon several weeks later. It is the intention and hope of the drafters and supporters that this groundbreaking Declaration will take its place alongside the Universal Declaration of Human Rights as a guide for the future of humanity.

This book brings together the voices of acclaimed authors, progressive thinkers, political leaders and environmental and community activists from around the world who share their passion and insights about the Declaration, the Rights of Nature and the urgent need to recognize the unbreakable link between respecting ourselves and respecting the planet – Mother Earth – on which we all live and depend. The authors all reflect on the important question: What would our world look like if nature had rights?

With distinguished contributors such as Maude Barlow, David Suzuki, Margaret Atwood, Eduardo



Published jointly by The Council of Canadians, Fundación Pachamama and Global Exchange (2011). Copies can be ordered at: www.canadians.org/rightsofnature.

Galeano, Nnimmo Bassey, Pat Mooney, Shekhar Kapur, Susan George, Dr. Vandana Shiva and Archbishop Emeritus Desmond Tutu and more, *The Rights of Nature: The Case for a Universal Declaration of the Rights of Mother Earth* is meant to inform and inspire others about the need to create and ratify a binding instrument to protect the rights of the Earth and all living things upon it.

This new way forward would inspire a new model of governance that places the Rights of Nature – the Rights of Mother Earth – at the heart of existence, recognizing that there is no such thing as a human right unless the natural world is protected now, and for all time.

Nature Alberta NEWS



STAFF CHANGES

Nature Alberta has hired **Petra Rowell** (B.Comm., B.Sc., P.Biol) as its new Executive Director. Petra is a wildlife biologist and consultant with twenty-one years of wide-ranging experience in wildlife and environmental project management. She has a strong understanding of Alberta's environmental issues and research, writing, editing, layout and presentation skills for communicating issues to a variety of audiences throughout Alberta and elsewhere.

In the past, she has worked as a biologist for a variety of clients including the Alberta Conservation Association, Alberta Fish and Wildlife Division, Beaverhill Bird Observatory, Canadian Wildlife Service, Federation of Alberta Naturalists and the Land Stewardship Centre of Canada. She has presented talks on bird-banding, bird atlassing, peregrine falcons and the history of fish and wildlife to a variety of government and public-interest groups.

Petra has been an active member of Alberta's natural history community, including serving as a Federation of Alberta Naturalists Director and Executive member.

LET'S GO OUTDOORS

In celebration of the upcoming launch of Michael Short's new television show, the Let's Go Outdoors website has been refreshed! You can view the new look at www.letsgooutdoors.ca. Not only does it look pretty, but the upgraded content management system gives more flexibility to offer more value to the audience.

New items you can browse include: Team profiles; video and audio on demand; a comment system; blogs; and a beefed-up links section giving some extra profile to outdoor organizations and groups who are active in Alberta. This section also acts as a resource for anyone looking for information on outdoor issues and activities.

One of the TV shows will feature Nature Alberta, so watch for it!

Annual General Meeting

The date of Nature Alberta's Annual General Meeting (AGM) has been changed from that advertised in the last edition of the magazine (i.e. March 3-4).

The AGM will now be held in Edmonton on **April 14 – 15, 2012**. A Board of Directors meeting and Awards ceremony will also take place that weekend.

All members of Nature Alberta are invited to the ceremony and AGM. Members in good standing can vote on presented motions at the AGM; on the agenda is:

- 1) Ratification of the Executive and Appointed Directors as presented by the Board;
- 2) Acceptance of the audited financial statements;
- 3) Special resolutions (any members who would like to submit a special resolution must get it to the Executive well in advance so that it can be made available to the full membership 21 days prior to the AGM);
- 4) Presentation of Committee and other annual reports.



THIS PHOTO, SAYS PETRA, "HAS A LOT OF MEANING, AS IT IS ME AS A YOUNG GIRL, WITH A GREAT MENTOR (MY GRANDMA), AT HER LAKESIDE CABIN IN MOBERLY LAKE BC, WHERE WE SPENT MANY HOURS FEEDING THE SQUIRRELS AND WATCHING OTHER WILDLIFE."

DIRECTORS' CHANGES

Chuck Priestley has resigned as President, due to his ever-expanding business as a biologist; **Ted Hindmarch** will take on the position until the Annual General Meeting (AGM) in April. Chuck will become Past-President, thus replacing Sandra Foss. **Tony Blake** will replace Ted as Vice-President for the interim.

Iris Davies has also resigned, as NA Secretary and Vermilion River Naturalists Society elected

Director; no word yet on her Vermilion River replacement.

Chrissie Smith will step into the Secretary role until the AGM.

VOLUNTEERING FOR NATURE ALBERTA

As you know, there are many facets to the work at Nature Alberta. We have great staff and a contingent of volunteers, but they cannot do it all. We could use your help to carry out the many tasks that are required to

keep our organization operating effectively. Please consider volunteering your time. It doesn't matter where you live; there are always things that can be done from wherever you are.

If you're interested, please contact Petra Rowell, Executive Director, at: 780. 427-8124; or petrar@naturealberta.ca. Your contribution is greatly appreciated!



Ponderables

This we know; all things are connected like the blood that unites us. We do not weave the web of life, we are merely a strand in it. Whatever we do to the web, we do to ourselves.

CHIEF SEATTLE

Marking Fences BY ROB GARDNER

On December 30, four of us (Marty Drut, Ben Velner, Corlaine Gardner and I), put up about 2,700 plastic markers that help Sage Grouse avoid flying into barbed wire fences. We did most of the fence surrounding one of the two remaining leks in Alberta. Grasslands Naturalists contributed the \$400 required to buy the materials.

Research in the US has shown that fences account of 15% of grouse mortality. We thought we should try to do something if Fish and Wildlife are going to continue bringing in new birds.



L TO R: MARTY DRUT, DAVID HEYDLAUFF (THE LANDOWNER), CORLAINE GARDNER, BEN VELNER WITH THE SWEETGRASS HILLS ON THE HORIZON. ROB GARDNER

Close to Home: Nature Photography in Alberta



JOHN WARDEN

The Long Slow Look

BY JOHN WARDEN

There is a deliciousness to that phrase. I wish I had come up with it. It expresses so eloquently how I 'feel' about nature photography - the beauty, mood and sensuality.

The phrase belongs to Roger Housden who uses it as a chapter title in his book *How Rembrandt Reveals Your Beautiful Imperfect Self - Life Lessons from the Master*¹. He talks about needing to spend at least twenty or thirty minutes with a Rembrandt painting in order to

contemplate and feel the “poetic depth” of the masterpiece.

Most of us involved with experiencing and appreciating nature have our own recipes for slowing down and taking the time to look, see and feel the wonders of nature around us. For me, it starts

with finding or following the light. Then I pause in what some call the zen or haiku moment to look for the color, light and line. They are the tools that will help me to communicate what I am seeing and feeling.

Sometimes though, my camera gets in the way of a long slow look. Out

¹Harmony Books, Random House, 2005





JOHN WARDEN

in nature, there's so much going on. There are bugs and birds and critters, light and composition and exposure, focus and depth of field. And often, there's action. When a trumpeter swan is spreading her wings in the golden light of dusk, then it's time to seize the moment. But when the action slows down and I can pause and breathe out, maybe that's the time for a long slow look across the winter ice of Astotin Lake in Elk Island National Park, to watch the sun rise. Maybe that's the time to revel in the beauty and mood of the moment.

In his book, Housden goes on to say that after spending time with a Rembrandt, the experience changes him. Leaving the gallery or museum and going back out into the world, he notices more and in the noticing, it makes him more human.

I can do that. I'm adding a long slow look to the practice of my art and to how I polish my spirit. If, through the practice, I too, notice more and look more, well...that can only be a good thing.



www.jwardenphotography.com

John Warden's website (www.jwardenphotography.com) is definitely worth a visit for excellent photos of wildlife and landscapes in Alberta and beyond. John also posts articles on his blog (<http://jwardenphotography.blogspot.com/>) from previous *Nature Alberta* magazines.

Drop in and say hello!

Alberta May Species Count 2011

BY JUDY BOYD

The number of species went up this year: from 270 last year to 279 this year; the number of individual birds also went up: 310,396, up from 217,141. In 2010, the most numerous species was the Franklin's Gull with 17,360.

Second was the Canada Goose with 12,748 and third was the Red-winged Blackbird with 10,878. This year, the most numerous species was again the Franklin's Gull with a whopping 138,350. Second was the Red-winged Blackbird with 8,956 and third was the Cliff Swallow with 7,725.

Last year, 33 species were seen in only one location and 16 species were found in only two locations around the province. This year 21 species were seen in only one location and 18 species were found in only two locations around the province. Of the single sightings: Bohemian Waxwings and Pacific-slope Flycatcher were each seen at BowKanBirders; Burrowing Owl was seen at Brooks; Surf Scoter, Hudsonian Godwit, Pectoral Sandpiper, Northern Pygmy Owl, and Great Gray Owl were each seen at Calgary; Clark's Grebe was seen at Cardston; Greater White-fronted Goose, Pacific Loon, American Golden Plover, Arctic Tern, Sedge Wren, Black-throated Green Warbler, Blackburnian Warbler, Nelson's Sparrow, and Snow Bunting were each seen

at Cold Lake; Glaucous Gull was seen at Fort McMurray; Yellow Rail was seen at Medicine Hat; Cassin's Finch was seen at Waterton.

Of the species found in two locations: Peregrine Falcon was seen at Central Alberta and Calgary; Pine Grosbeak was seen at Cardston and Lac La Biche; McCown's Longspur and Nashville Warbler were each seen at Brooks and Milk River; Yellow-breasted Chat was seen at Medicine Hat and Taber-Vauxhall; Mourning Warbler was seen at Claresholm and Cold Lake; Chestnut-sided Warbler was seen at Cold Lake and Lac La Biche; Cassin's Vireo was seen at Calgary and Waterton; Willow Flycatcher was seen at BowKanBirders and Calgary; Black-backed Woodpecker and American Three-toed Woodpecker were each seen at Calgary and Fort McMurray; Barred Owl was seen at Banff and Calgary; White-rumped Sandpiper and Rough-legged Hawk were each seen at Brooks and Cold Lake; Virginia Rail was seen at Calgary and Medicine Hat; Wild Turkey was seen at Crowsnest Pass and Calgary; Dusky Grouse was seen at Crowsnest Pass and Waterton;



RED-WINGED BLACKBIRD WAS THE 2ND MOST ABUNDANT SPECIES IN THE MAY COUNT.

CHUCK PRIESTLEY



CLIFF SWALLOW WAS THE 3RD MOST ABUNDANT SPECIES IN THE MAY COUNT. WIKIMEDIA COMMONS

Snow Goose was seen at Cold Lake and Taber-Vauxhall.

Last year we had fifteen species seen in all areas. This year we had three species in all areas: Canada Goose, Tree Swallow and American Robin. Last year ten species were found in all areas except one and four species were found in all areas except two. This year four species were found in all but one area: Mallard, Yellow Warbler, Red-winged Blackbird, and Brown-headed Cowbird. This year thirteen species were found in all but two areas: Blue-winged Teal, Wilson's Snipe, Northern Flicker, American Crow, Cliff Swallow, Black-capped Chickadee, Yellow-rumped Warbler, Common Yellowthroat, Chipping Sparrow, Clay-colored Sparrow, Savannah Sparrow, Song Sparrow, and Pine Siskin.

A Spanworm Moth

BY EILEEN FORD

Dr. Charley Bird confirmed the moth in the photos (by Stewart Ford) as a female Operophtera bruceata. (Bruce's Spanworm Moth). It is four feet up in the crack of an elm here in our yard in Penhold.

When the grandkids found it on Sept. 26th, 2011, the moth was on the left side of the egg mass and a spider was busy spinning the upper section of the tunnel web which appears to be the medium that the eggs are attached to. This morning, Sept 27th, she was on the right side as you see on the picture, and now, she has moved towards the centre.

The eggs are perfect little pearlescent beads. Apparently, Bruce's Spanworm is not an uncommon species, but who ever gets to see such a sight? And how come the flickers and downy woodpeckers that are always pecking around these trunks haven't had both Mom and babes for dinner?

Investigating further, here's what John Acorn says: "She dies once her eggs are laid, and what looks like spider silk is actually the mother's former cocoon, into which her larval hairs have been woven, making it distasteful to birds such as flickers!"

The moth was no longer in sight three days after that picture was taken. The egg mass remains on the elm and we'll keep tabs on it. They are supposed to hatch in May-June so they can eat the foliage. It has been suggested to us that we might do everything a favour by doing away with the eggs. No! We will let nature take care of things.



STEWART FORD



AKAYO' KAKI A' PAWAAWAHKAA



BY RYAN HEAVY HEAD; SIKOOHKOTOKI, KAINAISSKSAHKOYI

My Walk through Ecology, Dreams, Natural Education and Experience in Blackfoot Territory.

KSIIKIIHKINI (8 JAN 2012)

08:47. I see that one of the "wild" Magpies has somehow managed to break off all its tail feathers. This happens to Derrick during the winter, as a result of repeated crash-landings sourced to his clipped wings. I've never seen it happen with any of the other Magpies though, but here it is. The wind gusts are extremely strong this morning, and yet the Magpie with the missing tail seems to have no problem at all navigating by wing, and landing perfectly on target at the rock where I've offered them food.

I've often wondered about the long tail of the Magpies, what its functions might be. I've seen it used in social displays of three different sorts:

- 1) When a bird is coming to land among others at a food source and wants to frighten them, it fans its wings and tail wide at the last moment;
- 2) When a bird is approaching another on certain occasions, which I do not completely understand but that seem assertive, there is a most complex song used, which

produces a sound of two or more birds, and the tail is held horizontally at a ninety-degree angle, forming a V of body and tail, the open end of which is brought toward the recipient, perhaps in a manner of making him/her feel surrounded; and

- 3) When a bird is making a certain display, the purpose of which I do not fully understand, but that has something to do with calling attention to itself, it will perch, hold the tail straight up, and flick it in time to a particular chirp. Of the three, this last social display may be the most primal, because Derrick does it, though I doubt he learned it from the others. He always uses it when he wants to get someone's attention, and usually right before he launches into a related (but separate) display of toughness by attacking some non-living object with his beak [Note: this tail-up display exposes the genital region, and I suspect, but have never confirmed, that it may be put to use in a mating dance]

I have also noticed that the long tail can be used in landing more generally, as a kind of cushion against the impact. But seeing this Magpie today with no tail, yet still very coordinated of flight, invites speculation for yet another function ... that the long tail feathers can serve in defense against predators in a manner similar to the long detachable tails of some other animals. The longer the tail-to-body ratio, the more likely a predator will grab/attack the tail, and this may afford the Magpie just what it needs to escape relatively unharmed.

15:08. I'm back on the levee again and just starting to think about how odd it is that I haven't come across any Magpies yet, when I begin to hear calls from my favorite Corvids a little ways ahead. A few more paces along the trail, and I understand why they've been so scarce...the Bald Eagle is back again, and the attention of the Magpies is consumed by it. This time, I pretend not to notice the huge bird perched above the river. I look at it only through my peripheral vision and keep moving along the trail. As I close



RYAN HEAVY HEAD

Wee-Wakee, Wee-Wee-Wakee ... Wee-Wakee, Wee-Wakee, Wee-Wee-Wakee.” While listening to the song, my mind lingers partially back with the Eagle. And by the time the singing is concluded, and the Magpie flies off again, I decide not to let the opportunity pass, that I must return to the Eagle to try to watch it hunt.

15:30. The idea is short-lived. I follow the trail again, the one that the Eagle’s used to seeing humans travel on. There’s a bench not far from the perch, and I reason that perhaps the Eagle has witnessed some of us sitting there, too. So I go to the bench and

take a seat, never looking directly at the bird. But I’m only at the bench for thirty seconds before it’s had enough, and wings away again across the river. I then re-shoulder my pack and hike back to my vehicle, without another encounter to report.

SCOUT BEE AND MAGPIE BATH (22 JAN 2012)

14:17. Still walking on the pond, winding around the south pool toward the marsh, Mahoney makes a great discovery ... there’s a Honeybee frozen on top of the snow. Since

the snow only fell a few days ago, when out temperatures were around thirty below, this bee could have only come out from the hive in the relative (six degree) heat of yesterday. She was probably scouting the bulberry brush to ascertain whether there were flowers yet, but we are still three moons away from that happening. It definitely says something for the kind of winter we’re having that the bees would already be sacrificing scouts on the off chance of learning that there are already flowers. [Note: We picked up the bee and brought her home on the off chance that she might not be frozen dead, but had no luck in reviving her]

15:30. I rejoin Mahoney a little ways downriver and together we head toward the north wood. But no sooner do we reach the edge of the treeline than we hear the Magpie back at the crag start calling, and this prompts three other Magpies to fly immediately out of the north wood to meet it. The call is also responded to by two Magpies across the river who glide over to join the aggregation, and all six of them sound off with staccato calls. They’re not

the gap between us, the Eagle leans over to keep an eye on me from between the branches. Just like the jogger from earlier, I am able to pass right by it, even snap a few pictures, and it doesn’t fly away. All I can think is that the Eagle has become accustomed to having mostly oblivious humans pass along this trail, and while it watches with caution it isn’t prompted to retreat unless the human demonstrates more awareness.

15:16. One of the Magpies stationed around the Eagle follows me to north-pond, and there sets to singing a song for me that I’ve never heard before (and I know my Magpie calls). Though impossible to render in writing, it sounds a bit like: “Wee-Wakee,



RYAN HEAVY HEAD

alarms, we're fluent enough in Magpie to know that, but they do register excitement. Mahoney and I suspect we must have missed some other animal hidden over there, so we turn around and rush back. To our surprise, we arrive at the cutbank directly above the birds just in time to witness their communal bath. The Magpies have selected a spot on the downriver end of the open crag which affords them an ice foothold under a few inches of river water. One by one, they take turns hopping in for a splash. For us, it's a beautiful sight, and it makes so much sense. Our Magpie Derrick at home, who is consanguineally related to these birds, also likes to bathe in the evening, and demands our company to do so. What better time to cleanse than after



a day of rummaging around for food, especially if you've been ripping and tearing at a carcass somewhere.

15:44. When the Magpies finish their bath and disperse again in different directions, we head off toward our vehicle. As we walk, a family of Coyotes erupts in yelps

and howls up on the coulee rim. Between the scout Honeybee and the communally-bathing Corvids, this has been the most interesting and satisfying visit to the pond this winter. I'm very glad we came.

Ryan Heavy Head and his wife Adrienne are caretakers of a Beaver Bundle for the Blood Tribe of southern Alberta. He works as the coordinator of Kainai Studies at Red Crow College, on the Blood Reserve, where he teaches field courses in phenology and traditional foods.

Advertising in Nature Alberta

Nature Alberta is now accepting a limited number of advertisements for future issues. Ad rates vary from \$35 (business card size) to \$249 (full page), X2 for colour.

Full details, including rates and sizes, are available at:

online: www.naturealberta.ca

email: na@naturealberta.ca

phone: (780) 427 – 8124

A PIPING PLOVER AND A WELL-CAMOUFLAGED

CHICK; PIPING PLOVER IS LISTED AS

"ENDANGERED". AUBURNXC/WIKIPEDIA



Eyes on IBAs

Fourth in a Series

Update Where We Are At



Alberta has two kinds of Important Bird Areas (IBA): sites qualified by large congregations of birds (either migrating or breeding); and sites qualified by species at risk (SAR).

Of Alberta's 48 IBAs*, approximately ten are SAR-qualified (five of these are Piping Plover lakes). At these SAR sites, Nature Alberta (NA) has no formal Caretakers enlisted; because the Recovery Teams know the species, their numbers, the sites, their ecological health, etc., the Recovery Teams could possibly be the de facto Caretakers.

Of the remaining 38 congregatory sites, about 20 of them have Caretakers, though they are not formally signed up.

The core strength of the Alberta program is its Caretakers. Many were in place watching out for the birds long before IBAs came along. A look at the Caretaker Manual

and a review of the eight possible Caretaker tasks/activities makes it clear that many sites do have stewards, watchdogs, caretakers and/or monitors, though they may not be formally recognized.

If you are monitoring a site (informally), please let us know. The 20 IBAs with Caretakers (as of November 2011) are:

IBA	Caretaker	Group
Beaverhill Lake	Chuck Priestley	BBO
Big Lake	Miles Constable	BLESS
Lac La Biche	Jennifer Okrainec	LLBBS
Lakeland PP	Jennifer Okrainec	LLBBS
Lesser Slave Lake	Patti Campsell	LSLBO
Grande Prairie Trumpeters	Margot Hervieux	PPN
Killarney, Dillberry, Leane Lakes	Iris Davies	VRN
Bearhills Lake	Judy Boyd	RDRN
Kimiwan Lake	Mark Heckbert	Kimiwan Group
Frank Lake (north)	Barry Himer	
Frank Lake (south)	Greg Wagner	
Ewing, Erskine Lakes	Claudia Cameron	BLN
Wavy Lake	George Newton	NA
Manawan Lake	George Newton & Dean Dragich	
Hansmann Lake	Christine Brown	
Chappice Lake	Michael O'Shea, Phil Horch	GN
Miquelon Lake	Jim Lange	ENC
Hays Reservoir	Lloyd Bennett	LNS
Eagle, Namaka, Stobart Lakes	Mary Kettenbach	Nature Calgary
Ministik, Joseph, Oliver Lakes	Chuck Priestley	BBO

For these remaining (18) sites, Caretakers are needed:

Peace-Athabasca Delta
 Utikiuma Lake
 Cardinal Lake
 Pelican Lake
 Hay- Zama Lakes
 Pakowki Lake
 St. Lawrence Lake
 Sounding Lake
 Gooseberry Lake
 Sullivan Lake
 Metiskow (Sunken) Lake
 Bellshill Lake
 Schultz Lake
 Kirkpatrick, Fitzgerald Lakes
 Whitford, Rush Lakes
 MacGregor, Travers Reservoir
 St. Mary's Reservoir
 Lake Newell/Kitsim Reservoir

These (10) sites are qualified by SAR:

Milk River
 McIntyre Ranch
 Sage Creek
 CFB Suffield
 Cavendish Rail Line
 Little Fish Lake
 Dowling Lake
 Handhills Lake
 Chain Lakes
 Muriel Lake

Important Bird Areas (IBAs) is a program of BirdLife International (BLI); the Canadian BLI partners are Nature Canada and Bird Studies Canada. Nature Alberta, as Nature Canada's provincial affiliate, is the IBA lead in Alberta. The three pillars of the IBA program are identification, conservation and monitoring.

**COMMON GOLDENEYE – JUST ONE
OF MANY WATERFOWL SPECIES THAT
BENEFIT FROM IBAS. RICK PRICE**

Conservation plans have been written for 10 IBAs, most by local stewards: Big Lake, Beaverhill Lake, Grande Prairie Trumpeter Swans, Lac La Biche, Lesser Slave Lake, Kimiwan Lake, Frank Lake [north], Chappice Lake, the McIntyre Ranch and Sage Creek. In part due to private ownership and in part due to the sensitive grassland SAR involved, the last two conservation plans remain in draft form.

UP NEXT?

Innovative education initiatives, like videos, field trips, digital storytelling and a multi-media “field guide to IBAs” are being considered. The scope of the IBA program is limited solely by imagination, people-power and financial resources. Got ideas?! Contact Petra Rowell: petrar@naturealberta.ca.

WHAT CAN YOU DO?

If you know any of these lakes, would like to know more about



being a caretaker, or would like to be a caretaker, or would like to help out a present caretaker, you're very welcome to join the IBA experience! Just email Petra Rowell at: petrar@naturealberta.ca.

* Note: the IBACanada website shows only 43 of 48 Alberta sites on the map. Missing in action are Milk River Canyon, C.F.B. Suffield, McIntyre Ranch, Sage Creek, and Manawan; the first four are SAR sites.

Nature Alberta's IBA is possible because of the tremendous support we have received from our partners. Our most recent (2011-2012) and long-time supporter is the Alberta Conservation Association. Other partners and contributors have been Alberta Sport Recreation Parks and Wildlife Foundation, Bird Studies Canada, Nature Canada and TD Friends of the Environment Foundation.

IT'S NOT JUST BIG, MIGRATING WATER BIRDS THAT BENEFIT; IBA ARE VERY VALUABLE TO SONGBIRDS, LIKE THE VARIED THRUSH – PLUS, OF COURSE, BIRDERS AND PHOTOGRAPHERS! GEORGE HALMAZNA



TUNDRA SWANS AT FRANK LAKE IBA JOHN MCFAUL



BONNIE MULLIN





Eyes on IBAs

Where To Next?

Planning for Alberta's Important Bird Areas Program

BY PETRA ROWELL

My kids will groan when I say this but “It seems like just yesterday...” when I was a brand new wildlife biologist, barely out of university, enjoying my first summer job at the Beaverhill Bird Observatory.

The year was 1988 and the area was freshly minted as the *Beaverhill Lake Natural Area* (designated as such by the Government of Alberta in 1987). Also in 1987, the lake was designated as a *Wetland of International Importance* under the Ramsar Convention. The Canadian Nature Federation [now called Nature Canada] had already beaten everyone to the punch by declaring the east shore of Beaverhill Lake a *National Nature View Point* in 1982.

Keeping up the momentum, the Western Hemisphere Shorebird Reserve Network dedicated the area as a Regional Reserve in 1996. And finally, the Important Bird Areas program deemed it as having *Global Significance* in 1997 because of the large numbers of shorebirds and waterfowl that use the area as a stop-over site during migrations.

Three decades later (since the first designation in 1982), it's hard to know what all this renown has

brought to the “birds and birders of Beaverhills Lake” (with apologies to the late Robert Lister). Has all this national and international acclaim kept Beaverhill the jewel it is today? Or was that just the result of local interest and local acts of stewardship

by surrounding landowners, the good folks at the Beaverhill Bird Observatory and the Tofield Nature Centre, the Snow Goose chasers, the naturalists and the many birders, all who went a little out of their way, if needed, to make sure this area was preserved, for the birds, but also for current and future generations of Albertans?

I don't have any answers. But these are some of the questions I've been pondering lately. As I look at Nature Alberta's strong roots in the birding community, and the birding programs it has championed over the years, I ask myself: “*where do we go from here?*” What role do programs like the Important Bird Areas Program (IBA) have in protecting Alberta's bird populations and bird habitats? The IBA program has been developed to recognize, monitor and protect critical bird areas. There are 48 IBA sites in Alberta. Is this enough? Are more needed? And what is the role of



HOUSE FINCH PETRA ROWELL

local stewards? Everyone likes to get out to a good birding spot during the season but who wants to stick around for the long term? Who will do the monitoring, implement the management plan, and if needed, undertake remediation when these postage-stamp parcels are impacted negatively by surrounding growth and development? Better yet, who will take the time to get involved at the land-use planning table (and in some municipalities, watershed planning) to make sure important bird areas have been identified and protected long before development reaches their boundaries?

As we move forward into a new year at Nature Alberta, I look forward to investigating the Important Bird Areas program more, both here in Alberta and elsewhere in Canada. What are other jurisdictions doing?

I would also love to have feedback from Alberta's birders! Where do you think Nature Alberta should be going in the future with its birding programs? What do you think about the IBA program? How can we make it stronger? I am waiting to hear from you! (petrar@naturealberta.ca)



Over the coming months, we will be bringing you more about the IBA program in Alberta. In the meantime, for a look at some of the IBA sites and their stewards, see these Youtube videos:

Hays Reservoir IBA Site Overview.wmv: www.youtube.com/watch?v=t-Qj9u0_B9E

Big Lake IBA Site Overview: www.youtube.com/watch?v=giCokFNScNU&feature=mfu_in_order&list=ULwatch?v=giCokFNScNU&feature=mfu_in_order&list=UL

Plantwatch Publications

There are 2 new plant-related publications from Elisabeth Beaubien posted on the Nature Alberta website: www.naturealberta.ca (<http://plantwatch.fanweb.ca/resources>).

"BioScience" talks about changes over 70 years in plant timing and weather in central parkland; the other publication outlines about 2 decades of Alberta Plantwatch data, data quality and observer involvement. Most of the data (47,000 records 1987 to 2006) comes from folks who reported to Alberta Plantwatch for nine years or longer.

Elisabeth did the publications for her PhD in Phenology at the University of Alberta. Nature Alberta congratulates Elisabeth on these excellent documents.



FEATURE ARTICLE

The Beaver Hills Initiative, Alberta

BY GUY S. SWINNERTON

A Canadian Example of Collaborative Bioregional Planning

INTRODUCTION

Urban society is putting unprecedented demands on natural capital and ecosystems throughout the world. The resultant landscapes with increasingly anthropocentric characteristics and attendant loss of biodiversity is particularly evident in urban-centred regions. In such circumstances even the long-term ecological integrity of protected areas becomes threatened.

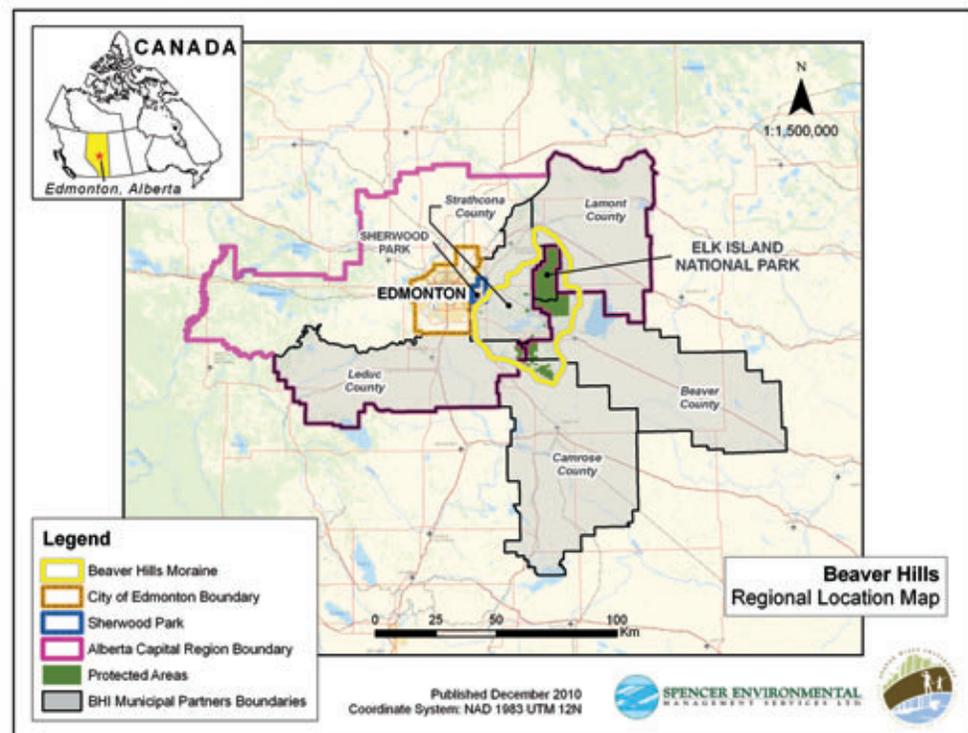
Although protected areas are crucial anchors in safeguarding biodiversity, there is increasing recognition of the need to adopt collaborative bioregional approaches that sustain ecological health at the broader landscape level. Elk Island National Park and the surrounding landscape of the Beaver Hills are situated at the eastern periphery of Alberta's Capital Region that is centred on the city of

Edmonton. The Beaver Hills Initiative (BHI) with its goal of safeguarding the biodiversity and landscape character of the Beaver Hills region provides a working example of collaborative bioregional planning in action.

THE BEAVER HILLS

The Beaver Hills (also referred to as the Beaver Hills-Cooking Lake Moraine) located immediately east of the City of Edmonton, is a distinct geomorphological feature characterized by hummocky

BEAVER HILLS REGIONAL LOCATION.





PEOPLE ENJOYING A LOVELY DAY AT MIQUELON LAKE PROVINCIAL PARK; RECREATION IS ONE PART OF THE BIOSPHERE RESERVE PROGRAM.

GUY SWINNERTON

“knob and kettle” topography, extensive forest cover, and abundant native wetlands. Almost 1,600 km² in extent, its higher elevation and wetter climate result in boreal vegetation. The Beaver Hills is considered to be a disjunct portion of Alberta’s Dry Mixedwood Boreal Forest Natural Subregion. Being surrounded by the Aspen Parkland Subregion, the Beaver Hills is an ecologically distinct transition zone supporting plant and animal communities of high biodiversity. In addition, the combination of hummocky terrain, wetlands, and poor soil conditions has limited past agricultural clearing with the result that approximately 43 percent of the Beaver Hills remains in natural cover.

Recognition of the unique ecological values of the Beaver Hills resulted in some of the earliest examples of conservation in Canada and Alberta by both federal and provincial agencies. At the present time, over 25 percent of the Beaver Hills is protected through various designations. Elk Island National Park (194 km²) is the largest single protected area within the Beaver Hills. This National Park plays a crucial role in protecting the ecological integrity of the Beaver Hills ecosystem and contains one of the highest densities of ungulates in North America. Other important protected areas within the Beaver Hills include, Ministik Bird Sanctuary, Miquelon Lake Provincial Park, Miquelon Bird Sanctuary, and the Cooking

Lake – Blackfoot Grazing, Wildlife and Provincial Recreation Area. The larger protected areas are complemented by six provincially-designated Natural Areas, the Strathcona Wilderness Centre, and numerous conservation easements, stewardship programs, and land purchases achieved through the active involvement of a variety of environmental non-government organizations (ENGOS). The latter include Ducks Unlimited Canada, the Nature Conservancy of Canada, Alberta Fish and Game Association, the Alberta Conservation Association, and the Edmonton and Area Land Trust.

Many of these protected areas as well as the surrounding countryside have traditionally provided opportunities for a

Dr. Guy Swinnerton is a Professor Emeritus in the Faculty of Physical Education and Recreation at the University of Alberta in Edmonton. He has over forty years of academic and professional experience with parks and protected areas and is a member of the International Union for the Conservation of Nature’s World Commission on Protected Areas Protected Landscapes Specialist Group. He has been involved with the Beaver Hills Initiative since its inception and Chairs its Protected Areas Working Group.



A BEAVER LODGE IN THE BEAVER HILLS. GUY SWINNERTON

variety of land- and water-based outdoor recreation opportunities for local residents as well as visitors from adjacent urban communities and beyond. The attraction of the natural features of the landscape is complemented by the area's rich cultural heritage. These resources are being increasingly promoted as assets for sustainable tourism.

Not surprisingly, the distinctive landscape character of the Beaver Hills together with its proximity to Edmonton has made the area highly sought after for living and recreation space. As a result, the Beaver Hills is being increasingly transformed into an anthropogenic

landscape due to the impacts of urban and country residential development, commercial and infrastructure expansion, changes in agriculture, and the growing demands for outdoor recreation opportunities. Moreover, with the Capital Region's population forecast to increase by nearly 50 percent, to over 1.7 million by mid-century, continuing pressure on the Beaver Hills is inevitable. It was the growing concern over the cumulative effects of these development pressures on the landscape of the Beaver Hills and the quality of life of local residents that led to the establishment of the Beaver Hills Initiative.

THE BEAVER HILLS INITIATIVE (BHI)

Local residents, scientists, and NGO's, have recognized the importance of protecting the distinctive ecosystem and landscape character of the Beaver Hills for many years. The most recent undertaking to safeguard the essential landscape character and biodiversity of the Beaver Hills is the Beaver Hills Initiative (BHI). The initial impetus to establish the BHI occurred in early 2000, with a proposal for oil and gas development adjacent to Elk Island National Park (EINP). In response to

this threat, Parks Canada staff at EINP began promoting the need for a more coordinated and long-term approach to land-use planning and management within the Beaver Hills. The underlying premise for this action was not only the protection of the ecological integrity of EINP but also concern for the ecological health of the Beaver Hills as a whole and the need to ensure that the environmental and socio-economic viability and quality of life of the region would be enhanced and sustained.

The Beaver Hills Initiative was established in the fall of 2002 through the cooperation of elected officials from the five counties in

which the Beaver Hills is located (Beaver, Camrose, Lamont, Leduc, and Strathcona), representatives from the provincial government, the federal government, academia, and non-government organizations associated with industry and conservation interests. Over the past nine years the BHI has successfully pursued its vision of “valuing the region for its beauty, quality of life and supporting cooperative effort to sustain the quality of water, land, air, natural resources, and community development.” The Initiative’s mission is: “working together for a sustainable region through shared initiatives and coordinated action.”

It is this collaboration of over 30 partners and based on bioregional planning and a total landscape and trans-boundary perspective that is fundamental to the success of the BHI. The BHI has also adopted many of the principles of the World Conservation Union’s (IUCN) “Protected Landscapes” protected areas management category. This category includes guidelines for a collaborative approach to guiding change involving landscapes that comprise a mosaic of land in public and private ownership and operating under a variety of management regimes.

A critical consideration in implementing the BHI has

AGRICULTURE HAS ITS PLACE IN THE BIOSPHERE RESERVE SYSTEM, ALL PART OF THE “BALANCED RELATIONSHIP BETWEEN HUMANS AND THE BIOSPHERE.” GUY SWINNERTON





ASTOTIN LAKE, ELK ISLAND NATIONAL PARK. GUY SWINNERTON

been the involvement of the five municipal governments due to their statutory land-use planning responsibilities involving private land. Many of the initial BHI projects have provided science-based planning information and a comprehensive environmental data base that has been available to all BHI partners. Of particular significance has been the development of a Land Management Framework based on an assessment of the natural capital of the Beaver Hills and Best Management Practices guidelines for both strategic and site specific planning. Other significant projects include: woodlot management planning; ecosystem health monitoring; invasive species management;

transfer of development credits; food systems planning, Golden Ranches – Creating a Wildland Legacy; and a tourism development opportunity assessment study. In September 2006, designation of the Beaver Hills Dark Sky Preserve recognized the importance of its nocturnal habitats and the values of the night sky as a cultural heritage for present and future generations.

THE BEAVER HILLS: A BIOSPHERE RESERVE CANDIDATE AREA

From the early stages of the BHI there has been tacit acknowledgement amongst a number of the partners that the overall collaborative bioregional

approach and the geography of the Beaver Hills appeared to meet the criteria for possibly seeking designation of the Beaver Hills as a Biosphere Reserve under the Man and Biosphere Program (MAB) of the United Nations Education, Scientific and Cultural Organization (UNESCO).

Biosphere Reserves are designated areas that demonstrate approaches to living and working in harmony with nature and are working examples of sustainable development. They have three major functions: conservation; sustainable development; and logistics (building local capacity). In order to meet these three functions Biosphere Reserves have three distinct zones: a core area that consists of one or more

protected areas; a buffer area that supports the conservation objectives of the core area(s) while accommodating compatible activities such as ecotourism; and a transition area or zone of cooperation that is usually the largest part of the Biosphere Reserve comprising the lived-in and working landscape and which is of considerable economic and social significance for regional development.

In January 2009 the BHI's Board of Directors gave approval for the BHI's Protected Areas Working Group to commence the preparation of the nomination document for seeking Biosphere Reserve designation for the Beaver Hills. The nomination document provides the detailed evidence required to assure UNESCO that the proposed area and the organizational framework is in place to meet the requirements of the Biosphere Reserve international program.

If successful, designation of the Beaver Hills as a Biosphere Reserve would provide international acknowledgement of the unique qualities of the Beaver Hills and what the BHI has achieved to-date in demonstrating biodiversity protection and sustainable development. More importantly, Biosphere Reserve designation would enable the



COUNTRY RESIDENCES IN BEAVER HILLS GUY SWINNERTON

Beaver Hills Initiative to become a more active participant and contributor to finding solutions to global challenges such as the effects of climate change, the provision of ecosystem services, and the impact of urbanization on natural capital and ecosystems.

For further information on the Beaver Hills and the Beaver Hills Initiative reference should be made to the following web site:
www.beaverhills.ab.ca

See also:

Mitchell, N., Tuxill, J., Swinnerton, G., Buggey, S., & Brown, J. (2005). Collaborative management of protected landscapes: experience in Canada and the United States of America. In J. Brown, N. Mitchell, & M. Beresford (Eds.). *The protected landscape approach: Linking nature, culture and community* (pp. 189-202). Gland, Switzerland & Cambridge, UK: IUCN.

On an invitation from BHI to Nature Alberta, President Ted Hindmarch has attended the last two Biosphere workshops involving all the BHI representative organizations. The BHI celebrates their 10th anniversary in September 2012, with the hope that the Biosphere proposal will have reached the submission milestone to UNESCO by that date. The only other Biosphere reserve in Alberta is Waterton.

FEATURE ARTICLE

A Guide to Biosphere Reserves, Zoning, and Protected Areas

BY GUY S. SWINNERTON

BIOSPHERE RESERVES: FUNCTION AND ZONING

A Biosphere Reserve is an international designation of recognition from UNESCO (the United Nations Educational, Scientific, and Cultural Organization) for an area in the world which is deemed to demonstrate a “balanced relationship between humans and the biosphere.” By this is meant that collaborative efforts among people in the designated area serve to promote the sustainability of local economies and communities, as well as the conservation of the terrestrial/or coastal ecosystems they are in. Biosphere Reserves illustrate and demonstrate on-ground testing of sustainable development.

The three inter-connected functions and the zoning associated within Biosphere Reserves are illustrated in the following figure (Source: Bullock, 2007).

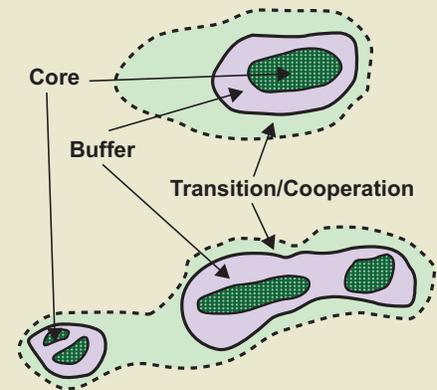
Biosphere Reserves have this zonation pattern in order to accommodate the different management objectives and forms of land use associated with the three functions of Conservation,

Biosphere Reserves:

Living and working in harmony with nature

Three inter-connected functions:

1. **Conservation:**
Landscapes, ecosystems, species & genetic variation
2. **Logistic support: (Capacity building)**
Research, monitoring, education & training
3. **Development:**
Local & regional social & economic sustainability (bottom-up effort)



Logistic Support (Capacity Building), and Development. The three zones are:

- **Core Areas:** This area consists of one or more securely and legally protected sites for conserving biological diversity, monitoring minimally disturbed ecosystems, and undertaking non-destructive research. The Core Area(s) acts as a reference point or benchmark on the natural state of ecosystem(s) that the Biosphere Reserve represents. Low impact uses such as education and nature-based/appreciative forms

of outdoor recreation may also occur within Core Areas under appropriate management guidelines.

- **Buffer Zones:** These areas must be clearly identified, and usually surround or adjoin the Core Areas. Activities and management practices within the Buffer Zone help to protect the conservation function of the Core Area(s) within Biosphere Reserves. Consequently, Buffer Zones emphasize conservation and may be used for cooperative activities compatible with sound



WHEN YOUNG EMERSON GROWS UP, HE WILL HOPEFULLY HAVE THE OPPORTUNITY TO EXPLORE THE AWESOMENESS OF NATURE, WHICH IS DEFINITELY ONE OF THE PURPOSES OF BIOSPHERE RESERVES! N. & E. FOSS

ecological practices, including environmental education, recreation, ecotourism and experimental, applied, and basic research involving the management of natural resources and associated ecological processes.

- **Transition, or Cooperation, Zones:** This area usually comprises the largest part of the Biosphere Reserve and surrounds the Core and Buffer areas. Transition/Cooperation Zones consist of lived-in and working landscapes. They may contain towns, farms, woodlots, fisheries, and other human activities and are the areas where local communities, management agencies, scientists, non-governmental organizations, cultural groups, economic

interests, and other stakeholders work together to manage and sustainably develop the area's resources. Given the role that Biosphere Reserves should play in promoting the sustainable management of the natural resources of the region in which they lie, the Transition Zone is of considerable economic and social significance for regional development.

Although zoning within Biosphere Reserves is often presented schematically as a series of concentric rings, the three zones are usually implemented in many different ways to accommodate local geographic and administrative conditions as well as local constraints. The "boundaries" of Biosphere Reserves including those of the

three zones are conceptual, not prescriptive. They are by definition, fluid, adaptable, and responsive to local needs and expectations.

However, since the Core Area(s) of Biosphere Reserves are designated protected areas through legislation [such as national parks] their boundaries are established by the relevant legislation. UNESCO/MAB assumes that individual Biosphere Reserves will apply the three zone concept

The biosphere –
"sphere of life"

– includes all living things on earth, as well as the land, water and atmosphere that sustain them. Human well-being is directly linked to the health of the biosphere.

It is no longer adequate to simply mitigate environmental or social impact for economic benefit. A corporation has to prove it is leaving behind a visible and tangible improvement in the environment and in the social fabric of the community.

– Alan Kreisberg, President, Western North America Lafarge Construction Materials (from the Biosphere Reserve brochure)

in a way that is appropriate to the particular circumstances prevailing in a specific Biosphere Reserve and where the decisions can be rationalized and applied on a consistent and workable basis. The overriding principle is that no one zone is more important than any other in the overall function and purpose of Biosphere Reserves. Each zone has a critical and unique role to play in meeting one or more of the three functions of conservation, development, and logistics (capacity building). The three zones compliment each other in such a way that the overall purpose of a Biosphere Reserve is achieved and sustained.

BIOSPHERE RESERVES, ZONING, AND PROTECTED AREAS

Considerable confusion and uncertainty has existed over the years regarding the relationship between Biosphere Reserves their zoning and protected areas. This section clarifies this relationship and in so-doing provides guidance as to which protected area category each zone of a Biosphere Reserve might be assigned (see Bridgewater, Phillips, Green, & Amos, 1996).

Protected areas serve many management objectives. However, all protected areas should aim to conserve the composition, structure, function and evolutionary potential of biodiversity, and contribute to regional conservation strategies. Under the IUCN categories system, protected areas are classified according to primary management objectives (see Dudley, 2008). The numbering system used to identify the various categories does not signify a hierarchical system but rather acknowledges that protected areas have different primary management objectives and consequently require different approaches to management. In addition, protected areas are assigned to a category on the basis of the primary management objective and not how well an area is managed, i.e. management effectiveness.

The categories also imply a gradation of human intervention ranging from effectively no intervention in the case of some Category I areas to quite high levels of intervention in Category V areas.

In contrast to individual protected areas, the functions and roles of Biosphere Reserves cut right across the primary management objectives approach that forms the basis of the IUCN categories. Keeping in mind the purposes of the IUCN protected area management categories and the three zones of Biosphere Reserves – it is possible to develop a matrix that illustrates the relationship between the IUCN categories and the three Biosphere Reserve zones (see Bridgewater, Phillips, Green, & Amos, 1996)

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DEBBIE GODKIN

DEBBIE GODKIN

First Hand: Dangers of Beaver-watching!

BY DEBBIE AND ALAN GODKIN

I went outside with the intent of going down to the slough to watch the industrious beavers plug the culvert for the tenth time, as I had every evening for the past six days. But that night I only got as far as the garage before stopping to reconsider.

It was muggy and the mosquitoes were as thick as pea soup. As I was contemplating what to do, I suddenly heard the sound of rushing water. Alan, who was working outside the shop, heard it too and went down to investigate. A minute later he returned to say that the beaver dam upstream must have broke, as there was a

twenty-foot swath of water, some two feet deep, running across the road.

In the time that it took for me to wheel down to the slough for a look, the flow of water had slowed to a trickle. The road had completely washed out next to the culvert, right where I always

sat and watched the beavers as they plugged up the culvert again and again.

Had I been sitting there at that moment I might not be here to tell this story. I had those ferocious little mosquitoes to thank for my well being.

If you have a first-hand experience with nature, send it in and share it with other naturalists. After all – there are 8 million stories in the Nature City. Yours...could be one of them.



HELMUT AMELANG

First Hand: The Right Place at the Right Time

BY HELMUT AMELANG

On a late January day, Helmut Amelang came across two juvenile Lynx close to the road.

First, he took a photo from his truck, with the window closed. Next he opened the window for photos. Then he went outside behind the truck and went closer until one of them (on the left) made a mean face! Getting this close of a look at Lynx in the wild is an amazing “First Hand” event.



Montana Audubon's Annual Bird Festival

June 8–10, 2012 • Kalispell, Montana

It's not too early to begin planning for your June vacation. During winter, when birds are sparse, it's easy to dream of long summer days and abundant birds. You will find plenty in the beautiful Flathead Valley of Northwestern Montana.

Our theme this year is "Birding and Conservation: The Crown of the Continent." We are bringing in top-notch experts and speakers from all around the state for the Saturday afternoon presentations, as well as acclaimed Golden Eagle researcher and our lunchtime keynote, Peter Sherrington, from Alberta. You can expect new and ever-popular guided field trips, and as always, fabulously fun Friday and Saturday evenings with new and traditional events in the works.

Twenty-eight field trips will be guided by knowledgeable birders and naturalists familiar with the species and their

habitats in the Flathead Valley, Glacier National Park, and the surrounding area. These trips include: Biking and Birding on the Rails to Trails to Somers; A Walk through the Owen Sowerwine Natural Area; Glacier National Park; Bison, Birds and Blooms of the National Bison Range; Birding by Ear on the Way to Tally Lake (Montana's deepest lake); and Lost Trail National Wildlife Refuge.

Pre-Festival Conservation Workshops (for June 8th) include Northwestern Montana Birds and Wildlife in a Warming World; River-to-Lakes Initiative; plus an Education Workshop, Develop a Bird Education Program in your Community.



BIRD REFUGE AT SMITH LAKE, MONTANA.

SHERYL HESTER

Festival headquarters is located at the Hilton Garden Inn and Conference Center on the south edge of Kalispell on US Highway 93.

For more information, please contact the Montana Audubon Bird Festival Coordinator, Larissa Berry: lberry@mtaudubon.org; tel: 406.443-3949; or any Flathead Audubon Board Member. Festival brochure and registration will be available in March.

For updates:

Visit www.mtaudubon.org/birdwatching/festival.html

OR

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ONE FIELD TRIP IS TO THE BIRD REFUGE NEAR SOMERS, MONTANA, ON THE NORTHEASTERN TIP OF FLATHEAD LAKE. SHERYL HESTER



AN OSPREY BRINGS HOME ITS CATCH
IN THE NORMAL FASHION: WITH
THE HEAD OF THE FISH POINTING
FORWARD. SANDRA HAWKINS



Wildlife! Starring... The Osprey (*Pandion haliaetus*)

BY SANDRA C HAWKINS

With its wings crimped in gull-like fashion, an Osprey (Pandion haliaetus), aka Fish Hawk or Fish Eagle, may often be observed in summer hovering above one of Alberta's lakes or rivers.

With fish being its primary source of food, the bird has evolved into one of nature's most superb fishers.

Clearly in awe of its skill, no less a naturalist than Henry David Thoreau wrote:

"Its shrill scream seems yet to linger in its throat, and the roar of the sea in its wings. There is the tyranny of Jove (god of the sky and thunder) in its claws and his wrath in the erectile feathers of the head and neck".

DESCRIPTION

When a pair of Ospreys is apart, it may be difficult to separate the male from the female. When together, the female is seen to be

somewhat larger in both body size and wing span (1.6 kg vs. 1.4 kg; 163 cm vs. 159 cm). Both sexes have a white breast and belly, blackish brown wings and back, white crown and cheeks, and a dark stripe through a yellow eye. The head and upper breast may have streaks of brown, as do the underside of the tail and wings. The breast stripes of the female are often more pronounced. The plumage of juvenile birds is similar to their parents, although brown upper feathers are edged in white. Their eyes are an orange colour. Juveniles take about 18 months to attain full adult feathering.

DISTRIBUTION

Ospreys are widely distributed throughout the world with the exception of regions with temperatures too cold to host open water. They are, however, found throughout all regions of Alberta that offer suitable habitat along lakes and rivers.

FEEDING TIME FOR A YOUNG
OSPREY WHILE THE OTHER PARENT
LOOKS ON. SANDRA HAWKINS

DIET

Ospreys are almost exclusively fish eaters. Very rarely have they been known to take amphibians, small reptiles, rodents and birds. With superb visual acuity and depth perception, and with the ability to compensate for refraction in water, Ospreys successfully hunt from heights well above their prey. Fish weighing between 150–300 grams (5–10 oz.) and about 25–35 centimetres (10–14 in.) in length are commonly taken.

When hunting, Ospreys plunge feet first into the water. Closable nostrils prevent water from entering during dives. Specialized sharp spicules beneath their toes, along with backward facing scales on their talons, help to secure prey as the birds rise up out of the water. Fish are oriented in a head forward position in order to improve the aerodynamics when in flight.

COURTSHIP AND NESTING

In spring, male Ospreys are usually the first to return to Alberta. Females follow soon after. Whether delineating territory, advertising for a mate or re-establishing a pair bond, males engage in an aerial ballet or "sky dance" over a desired nesting site (near water) in a tree top, rocky outcropping or man-made nesting platform atop a telephone pole. At times



a pair will circle together high above and often dive one behind the other.

The nest is permanent, massive and made of sticks. It often incorporates other detritus (such as brightly coloured plastic bags and baling twine) cast off by careless human beings. The inner cup is lined with grasses and stems. Both birds build the nest. The male tends to fetch the materials and the female organizes them into the actual structure. Often there is much vocalizing as he returns with a new stick and presents it to her.

There are usually 3 (sometimes 2-4) eggs. Both parents participate in the incubation over 32-33 days (beginning with the first egg) with the female doing the greater part. The male feeds the female while she is on the nest. Hatching of the altricial and downy young is asynchronous and, if food is scarce, the smallest chick may not survive. For about 30 days, the female remains at the nest to brood, feed and protect the young while the male brings in all the food. Fledging occurs at 51-59 days after which the family remains together for another 8 weeks. Mortality is high with 50% of fledglings dying within the first year.

STATUS AND FUTURE OF OSPREYS IN ALBERTA

From the 1950s-1970s, Osprey populations were in severe decline largely as a result of DDT-related egg shell thinning. Although their number rebounded after the ban on DDT was instituted, the birds are still considered endangered in many jurisdictions along their

southerly migration route. In Alberta, their status is classified as "Sensitive". Agricultural pesticides, herbicides and fertilizer runoff into our lakes and streams is not decreasing and the massive water requirements (and resultant pollution) required for tar sands development and natural gas "fracking" cause great concern for the continued future of these magnificent water-dependent raptors.

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- www.watershedsentinel.ca/content/fracking-natural-gas-affects-water-quality (Fracking in Canada)
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Ospreys are truly amazing. The nest in the photos is located along the Belly River. Here, in Ontario, my husband Bob and I have had the privilege of observing several nests over the years. One year, an Osprey decided to nest in a Great Blue Heron colony. Its presence led to many aerial battles. The herons used their bills as swords. They dive bombed the Ospreys while clacking their bills together. Truly an amazing sight!



THESE TWO YOUNG OSPREYS ARE NOW AS BIG AS THEIR MOTHER. SANDRA HAWKINS

Up Close Naturally: Leave it to Beavers

BY MARGOT HERVIEUX

Beaver may be best known for its picture on our nickel, but they actually play a critical role in controlling the flow of water on the landscape.

Beaver are famous for their construction projects. After removing all the tasty bark, twigs and leaves from a fallen tree, they use the branches and smaller trunk sections to build two different structures: dams and lodges.

Lodges are beaver homes. These large, domed dwellings sit on the bottom of a shallow pond or against a river bank. Within the wood and mud mound is a cozy chamber where beaver can eat and sleep in safety.

As winter approaches, beaver store piles of twigs near the lodge as food caches. Since the lodge's twin entrances are underwater, beaver can easily come and go under the winter ice.

Beaver are most well known for their dam building. They

need water at least a couple of metres deep around the lodge to float logs and survive the winter. Using rocks as anchors, the dams are built entirely of large sticks and mud and the beaver maintain them on a daily basis. Dams allow them to create their own ponds along creeks and streams that are too shallow.

Beaver dams can be quite impressive structures. The world's largest known beaver dam (see the photo) is in Alberta – in Wood Buffalo National Park; it is 850 metres



THE WORLD'S LARGEST BEAVER DAM! THE LIGHT SPOT ON THE FAR RIGHT AND CENTER OF THE PICTURE ALSO SHOWS NEW DAMS BEING BUILT WHICH COULD ULTIMATELY JOIN THE MAIN DAM AND INCREASE THE OVERALL LENGTH BY ANOTHER 50-100 METERS IN THE NEXT DECADE. PARKS CANADA



Margot also writes a column for the Peace Country Sun, archived copies of which are available at www.peacecountrysun.com.





WHEN BEAVER ARE BUSY, NOT MUCH DETRACTS THEM, NOT EVEN A NOSY HUMAN! DEBBIE GODKIN

long and others have been known to reach over five metres in height. The dam is so large that it can reputedly be seen from space.

Beaver get into trouble when they try to dam creeks near roads and homes, but dams are very important to natural water management. Beaver ponds slow flowing water and reduce erosion. Since slow water can't carry large loads of silt and debris, beaver dams also filter and purify water.

Another important feature of beaver dams is their ability to

contain heavy rain and melt water that can cause flooding. More importantly, they store that water and then slowly release it. Studies have found that beaver ponds increase the available moisture in the surrounding soil and also disperse the flow of ground water.

Last but not least, beaver ponds add diversity to the landscape and provide important habitat for a wide variety of creatures. Over 85 percent of the wildlife in North America depends on wetlands during some stage of their life

and in our northern forests most of those wetlands are created by beaver.

It is hard to imagine that only 100 years ago beaver had been almost trapped to extinction. They have bounced back, however, and are once again shaping our landscape. Despite their sometimes misplaced dam building, it is hard not to be impressed by their tree cutting and construction skills.

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Challenging Our Thinking

(Will we get the future we planned for or the one we didn't?)

BY LORNE FITCH

*“Someone’s sitting in the shade today because someone planted a tree a long time ago.”
This from Warren Buffett, the American business magnate coincidentally also known for his philanthropy.*

One can only surmise Mr. Buffett values planning as well. His metaphor, the act of planting a tree for the future takes both a plan and planning. To carry the metaphor to Alberta, few trees have been planted here since the Klein administration effectively ended most planning in the early 1990's. To end the lurch from indecision to indecision and from ad hoc to ad nauseum in the unfolding of Alberta land and resource use requires us to get back on the planning track.

The Land Use Framework, championed by Alberta Sustainable Resource Development (ABSRD), is perhaps an indication the current Alberta administration understands we need to plan. Integrated Land Management (ILM) is the underpinning of the plan.

In over three decades of natural resource planning and management I've seen and participated in many ILM-like (maybe ILM-lite) initiatives: sub-regional integrated resource plans, regionally integrated decisions, regional strategies, integrated watershed plans,

integrated access plans, municipal plans, forest management plans, water management plans and on and on. Most of these added to my skepticism and aided my cynicism. That's in spite of the fact that a lot of effort went into them.

It was a wonderful opportunity to meet and work with people with a variety of viewpoints and interests. We often had nice lunches together, salvaging something out of the process. However, I can't really look back on those initiatives with a profound sense of accomplishment for all the effort and time. It seemed like the status quo reigned, in spite of file cabinets full of data, multiple years of planning, glossy documents and hopeful hype and rhetoric after the plan's conclusion. After the end, we all went back to doing what we had done before the plan began. It was similar to society's craze for lotteries where everyone hopes to win, but no one expects they will. I got to the point where whenever I would hear words like “integrate”, “resource”, “land” or “management” put in the context

of planning a better future, I would hope that something would come of it, but I didn't expect anything to happen.

Do we need something new? Yes! I would submit we have fallen into a policy and planning vacuum because to engage in these two activities has been perceived as interventionist. The present situation seems to satisfy the needs of a few, those with a narrow economic horizon, but many question this and our multiple use approach. The present practice of doing everything, everywhere, all the time, any time, heedless of the cost isn't a promising pathway to guide us to a future that sustains our quality of life or that of future generations. Perhaps there is an enlightened sense now that to plan for the province's future is a legitimate, necessary and vital role for government.

Why would this initiative of ILM be any different than ones that have preceded it? I think the time is ripe, based on several compelling reasons, for this one to succeed where others have failed.

1. **Thresholds/limits** – The science of cumulative effects analysis has progressed to provide us reasonable interpretations of overlaps, what the future trajectories are, given the growth rates of today, and the signals

to determine when to stop. Coupled with information that helps us see the results of stressors, the concept of a “line in the sand” becomes less theoretical and more tangible. These tools will only help us if we use them; it is counterproductive to ignore the past footprint of land use and begin as if it doesn’t exist.

2. **Public perception** – There is growing awareness and literacy amongst the public on environmental issues. The momentum will increase, fueled by unease over direct threats to health, economy and lifestyle. As Frank Graves, from EKOS Research Associates relates, “The environment has developed an additional layer of significance. It’s not just socially virtuous anymore. People are scared stiff about the implications for them and their grandchildren”. Angus McAllister, a Vancouver based pollster finds some anger in people’s responses to environmental issues. “What really drives people’s concerns about the environment is not the incidents themselves but the sense that government and industry aren’t doing anything about them.” As a sign that the public is sensitized and anxious, I find people often preface their comments with, “I’m not a tree hugger, but...”.
3. **Shared responsibility** – There is growing recognition that solutions to land use issues are beyond the capability of Alberta Sustainable Resource Development, beyond any one provincial government department or municipal

government and beyond any one corporate entity. Although we are not quite there yet, when we agree there is a problem and all accept that we are part of the problem, we will be in a much better position to find the appropriate solution.

4. **Political support** – Escalating competition, conflicts and demands over increasingly scarce resources will create losers and that haunts politicians. Fueled by increasing rural concerns about the intensity and impacts of development there is the onset of the “no more in my back yard” movement. Urban landowners, long isolated from the fray, have recently seen sour gas well proposals on their doorstep (Calgary), and well blow outs in viewing and breathing range (Edmonton). Industrial scale, clear cut logging in the viewscapes and watersheds of people in southwestern Alberta has led to disenchantment with political process. Constituent sensitivity needs to be reflected in policy decisions.
5. **Social license** – It is a lesson slow in the learning that government and industry require, in addition to legislative or regulatory approvals, the support and acceptance of citizens. The controversy surrounding the environmental impacts of tar sands development is a case in point where denial, obfuscation and prevarication failed to change the opinions of many, most notably those outside our country. The

science showed a truth hard to obscure with a public relations brush. Many Albertans have been waiting patiently for action on land/water use planning. That receptivity has a shelf life, based on timeliness, inclusiveness, balance and access to critical information. The reputational capital of government, part of social acceptance, can be easily tarnished by failure to act and act appropriately.

On the other side of the coin, what isn’t different (yet) about ILM that needs attention?

1. **Where’s the money?** – I don’t know what ABSRD’s budget is for ILM and if there are budgets elsewhere, in government or in business for this task. My suspicion is that if budgets exist they are inadequate to the task. We seem to follow an established trend that when the economy is hot there is no time to plan; when things are slow there’s no money to get on with the planning task.
2. **Talk trumps action** – Change is so fundamentally hard to grasp. Consider the three laws of infernal dynamics: a) an object in motion will always be headed in the wrong direction; b) an object at rest will always be in the wrong place; and c) the energy required to change either of these states will always be more than you wish to expend, but never so much as to make the task appear prospectively impossible. So we continue to talk because it’s easier than taking action. An example is the long-awaited-for Wetland Policy, currently mired in intransigence, corporate stonewalling and

We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we use it with love and respect.

– Aldo Leopold - the Sand County Almanac

government foot-dragging.

3. **Who's on top?** – Alberta's growth imperative gives more prominence to the economy than to societal and environmental interests. We are busy sustaining development, albeit with some minor perturbations like a lack of workers, housing, infrastructure, materials and diesel fuel. We have yet to think much about how to develop sustainably. Beyond the play on words, sustaining development vs. developing sustainably, there is a huge chasm separating those two concepts and a mounting cost with the former choice.

4. **What's the goal?** – On one Alberta government website I found this explanation of integration: "using an integrated approach means that environmental, economic and social issues are considered, while finding ways for all uses to exist together with less conflict". Pardon me, but I think we need to move beyond an exercise in dividing up the Alberta pie to reduce bickering, and start thinking about how much pie is left and what our future needs might be. We have some core natural resources like biodiversity, fresh water, fertile soil, breathable air and a comparatively benign climate which have no real substitutes.

These resources exist everywhere, so we need to get beyond the thinking this is just an issue on public land. The Alberta landscape doesn't just produce beef, barley, oil and 2X4's; ecological services like filtering and buffering our water resources are unseen attributes but fundamental ones to our survival. I think it will be difficult to integrate and move forward until we have a sense of the desired environmental outcomes.

In general terms what will need to happen to give ILM a chance? What "levers" need to be pulled to engage the engine of process?

GOVERNMENT:

1. Make some philosophical/ideological shifts to include and weight environmental and social issues in a more balanced way with economic interests. Include individuals with not only economic but also environmental and social expertise in senior management of ILM programs.
2. Develop meaningful consultation with the public on the desired future of Alberta's resources and landscapes. Part of that consultation requires defining indicators, completing accurate, timely status reports

and monitoring results rigorously to determine if we are on the right path.

3. Develop and sustain meaningful communication and education initiatives to allow Albertans to be better informed about resource and land use issues (and to think holistically about solutions).
4. Increase the skill set of the civil service in communication, consultation and dispute resolution. Resource management is a social issue as well as a technical one.
5. Remove the barriers and silos between departments to allow a systems approach to land, air, water, resource allocation and land use. Reduce the tendency to work in isolation, separating land from water, fish from timber, subsurface resources from surface ones, agriculture from air, and so on.
6. Create a more level playing field for environmental interests in provincial dispute resolution forums and mechanisms. Mandate full cost accounting into decisions on resource development initiatives.
7. Create a higher level of stability in the civil service, with less reorganization, to allow staff to focus on the task and gain proficiency. Success only comes from persistence and continuity.
8. Resource initiatives appropriately, with new money. Include some funding for the not-for-profit sector and the public so they can participate and bring additional expertise to the discussion.
9. Create a variety of incentives to encourage business and the public to adopt sustainability measures; remove the disincentives. Balance enforcement with other compliance mechanisms.

- 10. Take the lead role in developing a shared vision of Alberta for the short and long term; incorporate that vision (including limits and boundaries) into policy, program and budget. Set an example of excellent stewardship in the management of public lands and resources to persuade others to follow.
- 11. Take back effective control of decisions about natural resource allocation, management and conservation. This is the legitimate, mandated role of government, the custodian of natural resources for Albertans.

BUSINESS:

- 1. Consider return on investment over a longer span of time to reduce the pace of development to a rate commensurate with better planning, less intensity, realistic restoration times and a reduced footprint.
- 2. Create mechanisms to determine overlapping interests on a common land base. Work with other interests to understand impacts and cumulative effects, share infrastructure, and reduce footprint. Institutionalize the effort to provide equity.
- 3. Invest in research on new techniques, equipment, applications and meaningful reclamation, restoration and recovery mechanisms.
- 4. Use adaptive management in concert with monitoring to improve mitigation strategies and effectiveness.
- 5. Create industry-wide standards of planning, operation and

restoration that exceed regulatory ones. Encourage action from the ground up.

- 6. Develop education programs for staff at all levels (including contractors) to enhance proficiency at reducing footprint, increasing reclamation success and understanding environmental issues.
- 7. Acknowledge limits and thresholds on a landscape scale.
- 8. Develop an understanding of the need for a social license to operate.

PUBLIC:

- 1. Develop a sense of stewardship based on obligations to the present community and to the future one.
- 2. Take advantage of educational opportunities to become ecologically literate.
- 3. Participate in exercises to define a vision for Alberta's landscape and resources; act in the interests of the future, not just the present.
- 4. Use the power of a consumer/voter to encourage ethical, sustainable practices on the part of business/government.
- 5. Lessen one's own environmental impact and footprint.

Even though these "levers" are arranged by sector there is considerable overlap, great similarities and shared responsibility between them. If everyone, including those in the government and business sectors, took to heart and to action the five "levers" in the public sector we would have a substantial start on this initiative.

So, where do we start?

Will Rogers was once asked what his solution was to the problem of German submarines sinking Allied ships in World War I, a task not dissimilar to that of integrating and planning land use in Alberta. Will said, "Well, first I would raise the temperature of the Atlantic Ocean to the boiling point. Then, when the submarines surface I'd have the Navy pick them off. Now, someone is bound to ask me how to boil the Atlantic Ocean – that's not my job. I'm just the planner".

I don't presume to have all the answers but one of the navigational aids has to be – must be – landscape health. We will have to overcome the inertia of past planning exercises (we already did that), the normal resistance to change (but we've always done it this way) and the uncertainty of the outcome (anything new can't work). Most importantly we need to develop momentum, establish some working relationships, build trust and find the small victories that can be parlayed into bigger ones.

We should acknowledge that the creation of plans takes time; planning doesn't. There will be distractions along the way. The property rights issue has arisen as part of the Land Use Framework. Amid the rhetoric we need to remind ourselves that planning our future is better than blindly waiting to see what might happen. The corporate mantra that development can't wait for the plan is a thinly disguised attempt to enhance business interests at the expense of sober, thoughtful and long term assessment of outcomes.

What if we don't (or won't) change, continue to fiddle and not engage in realistic planning? What if we continue to view with skepticism the warning bells, allow the denial machine a cloak

of credibility, turn a blind eye to evident landscape changes and loss of vital ecological services, and point our fingers at others? It is whispered that many in power wish development would speed up because they fear the onset of some new, benign energy source or a competing foreign supply of timber products that would rob Alberta of our economic advantage. I find that thinking disturbing and remarkably shortsighted. Is there anything worth pursuing other than money and self-interest? If the answer is no, it is worth considering

whether sustainable use in Alberta is possible, if sufficient numbers of people feel this way. I don't believe the majority of Albertans are that myopic.

We can be inspired by actions from abroad. Images of starving African children haunted Bob Geldof, once a minor Irish rock star. He begins by asking why nothing is being done to aid these people. The answers come back with all of the expected hurdles of cost, logistics involving transportation and distribution, priorities, protocols and politics.

As it is explained it is an overwhelmingly difficult task. Geldof responds with, "Bugger the complexities, let's save lives!" and organizes the first Live Aid concert. So to you I say, "Bugger the complexities, let's save Alberta."

There is currently an opportunity to take a different path in Alberta. We can (and must) engage in planning and plans. Change is inevitable; progress is possible. The results may not be perfect but our future may be much more predictable.

Lorne Fitch is a Professional Biologist, Adjunct Professor with the University of Calgary and a retired Alberta Fish and Wildlife Biologist. He is a well-known speaker, writer and photographer, living in Lethbridge AB. "Challenging our Thinking" is the fourth in a series of articles by Lorne.

Youth and Nature

Nature Alberta encourages protection, conservation and appreciation of Alberta's natural areas

BY KELSIE SHARUN

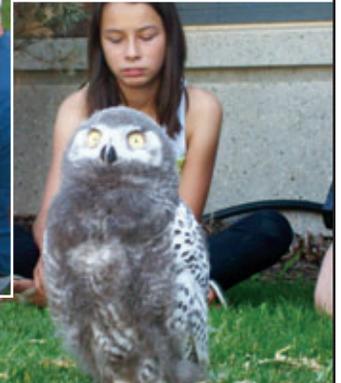
The Young Naturalists Club of Alberta (YNC) is a provincial project that engages children and their families in nature education. The connection children and youth feel to nature is innate. This is witnessed in their natural ability and interest to explore the wilderness unabashedly. As they integrate play and discovery, children do not understand the benefits to their physical and psychological health. To children, discovery is play done purely for the fun of it! More and more, it is up to the parents of children

to facilitate these opportunities, especially in urban centres.

While parents may appreciate the physical and psychological benefits their children are unaware of, they may not realize the contribution they are making to the future of the environment. Children connected to nature today could very well be the naturalists of tomorrow. However, busy modern lives leave little time for parents to create and facilitate opportunities for their children to explore the natural world. It is this need that has contributed to the ongoing success of YNC.

YNC: AN OVERVIEW OF A UNIQUE PROGRAM

What is unique about the YNC project is that it engages both parents and their children in nature education. It is designed to be a social experience between adults, children and like-minded families. For only \$15.00/year YNC offers a safe space for families to socialize and learn about Alberta's natural history. Through participation in monthly nature education events called Explorer Days, parents realize the innate connection their children have with nature and how effortlessly heartfelt play and curiosity can develop into a lifetime of healthy,



naturalist pursuits. Events run for approximately three hours. During this time, children and families engage in participatory learning and hands-on activities.

Families and supporters are frequently delighted to discover that learning and fun does not stop at the end of a YNC event. Included in YNC memberships are resources such as field guides and activity books which are filled with fun, self-guided activities that families can explore together on their own time. Activities are broken down into three types:

- 1) **Nature Detective:** The family observes, experiments, and explores the natural world;
- 2) **Leading Others:** YNC encourages children to share their knowledge about nature with other people. Candidates for sharing can be anyone willing to listen such as friends, relatives, and teachers;

- 3) **Environmental Action:** YNC believes it is possible to foster a sense of environmental ownership in young children by exposing them to the consequences (positive and negative) of human impacts on our local ecosystems. This knowledge gained at an early age may encourage YNC members to protect, preserve, and restore Alberta's environment.

YNC CONSIDERS THE FUTURE

Many active members in the naturalist community know there is a universal need for programming such as YNC, especially in urban settings. Membership in naturalist clubs across the province appears to be decreasing, and there is a need now more than ever to nurture the next generation of naturalists.

Current lifestyles and learning environments that shape young Albertans do not allow much time for physically exploring natural systems. Research indicates youth are at risk of developing social, physical and psychological issues that accompany a disconnection with nature, such as, "obesity; reduced creative and problem-solving capacities; lower school achievement; lower self-esteem; less self-discipline; and attention deficit hyperactivity disorder (ADHD)."¹ Pioneers of the Children and Nature movement argue that "an upbringing without experience in the natural world not only influences later preferences, educational practices, and national policy on the environment, but has a marked effect on physical and mental health as well as learning capacities."^{2,3}

THE HISTORY OF YNC IN ALBERTA

YNC in Alberta has been active since 2004 with its roots in one of Nature Alberta's founding clubs, the Red Deer River Naturalists (RDRN). Drawing on the successes of YNC programming in British Columbia, Judy Boyd and her team saw the potential for a successful province-wide club where YNC leaders from all over the province could rely on a central hub of resources and begin programming in their area.

Therefore, in 2009 YNC became a major project of Nature Alberta. At the same time YNC Red Deer partnered with Red Deer College to expand their programming and YNC Edmonton was established. Since 2009 YNC has been operating successfully in both Edmonton and Red Deer. Explorer Days are held at least once a month in each region and our membership has grown to over 60 families.

HOW YOU CAN CONTRIBUTE TO YNC

YNC relies on local naturalists and other programs with common interests to generously volunteer their time and donate resources to the project. Many undergraduates, master students, biologists, community members and educators enjoy leading Explorer Days where they share their knowledge and expertise with eager young minds. Topics of past Explorer Days include astronomy, animal skeletal systems, trees and leaves, aquatic insects, stalking and tracking, shoreline clean ups, ungulates, urban coyotes, night creatures and birding. The list of

potential topics and activities is endless.

YNC is always recruiting volunteers who wish to contribute knowledge and resources to the project. If you or someone you know is interested in pursuing meaningful connections with YNC please do not hesitate to inquire with Nature Alberta. We are flexible and are interested in offering programming province-wide.

THE FUTURE OF YNC IS ALBERTA

The future of YNC is dependent on contributions from provincial naturalists and community members who wish to see the project expand and reach all families who care about nature. YNC will continue to run programming in Red Deer and Edmonton with the support of current and future funders. There is interest from various organizations and leading industry professionals to establish programming in northern Alberta. Our project has high hopes that there are many nature champions who are willing to take on programming in their region. For more information about this opportunity please contact Nature Alberta.

A FINAL WORLD FROM YNC COORDINATOR, KELSIE SHARUN

My hopes for YNC participants are that they realize how accessible and welcoming the naturalist community is in this province. I hope that each time they come to an Explorer Day or complete an activity in the workbooks, they

learn something new about the world around them. I hope that they will share their experience with friends and family and that next time they feel like going on a naturalist adventure they will invite others along. Nature is contagious; just ask anybody who studies ecology, goes birding, hunting, trapping or grows his or her own garden.

How did they begin their naturalist endeavor? It was probably by exposure to nature from a family member or friend. That's what YNC is here for, exposing youth and their families to the peace and satisfaction provided by the natural world and its creatures that are usually right in their own back yard. For more information about YNC visit the Nature Alberta website at: <http://naturealberta.ca/projects-programs/young-naturalists-club>

Be sure to visit the Facebook page at The Young Naturalist Club of Edmonton. To register for YNC call 780-427-8124 or fill out the on-line registration form and mail it in. **Nature Alberta Family memberships include a YNC membership!** Switch to a Nature Alberta Family membership today and your whole family can participate in YNC programming!

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CELESTIAL HAPPENINGS

Starry Nights

Spring: March to May

BY JOHN MCFAUL

FEATURED CONSTELLATIONS: COMA BERENICES AND CANES VENATICI

With the coming of spring the bright stars of winter begin to recede from the celestial stage to be replaced by the lesser lights of the vernal constellations. Two of these constellations are familiar with those who are guided by their horoscopes. These are Leo and Virgo. Interestingly both these constellations have planetary guests this year. Mars lies just east of Regulus which is the brightest star in Leo. Saturn can be found a little east of Spica, the brightest star in Virgo. Above Virgo and to the east of Leo lie the faint constellations of Coma Berenices and Canes Venatici.

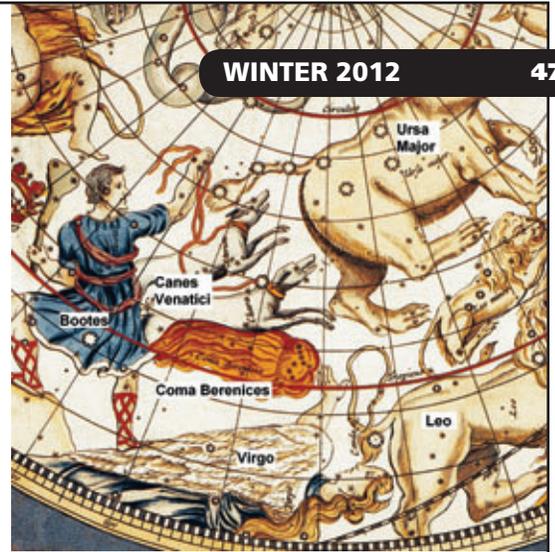
Coma Berenices consists of a loose cluster of moderately faint stars located to the east and above the tail of Leo. In fact at one time it was considered to represent the tuft of hair at the end of the lion's tail. It became recognized as a separate constellation by the famous astronomer Tycho Brahe in 1602.

This dusting of stars represents the golden hair of Berenice of Egypt who was the queen of Ptolemy III (246 – 221 BC). She had promised to sacrifice her golden locks to Venus, the goddess of love, if her husband would return safe from battling the Assyrians. Upon his safe return Queen Berenice had her hair cut off to honour her pledge. The king was greatly upset by what she had done and went looking for the hair at the temple of Venus, but it was gone.

Thinking that someone had stolen the hair he was furious and threatened to put the priests of the temple to death. Fortunately the court astronomer was able to prove that the hair was not stolen, but had been placed in the heavens so that the entire world could admire it.

Lying above Coma Berenices and just beneath the tail of the great bear

is the small constellation Canes Venatici. It represents the faithful hunting dogs of Bootes, the Bear Driver. The dogs are Asterion (starry) and Chara (beautiful). Their leashes are held by Bootes as they chase Ursa Major, the great bear, around the North Pole. The brightest star alpha Canes Venatici marks where Chara stands and is also known as Cor Caroli "The Heart of Charles" named in honour of Charles the II of England.



CELESTIAL HAPPENINGS

Sun: Rise – March 1 (7:20 MST), April 1 (7:06 MDT), May 1 (5:58 MDT)
Set – March 1 (18:13 MST), April 1 (20:11 MDT), May 1 (21:05 MDT)
Times are for Edmonton. Day Light Savings Time will start on March 11th. Spring Equinox occurs at 23:14 MST on March 19th.

Moon: Full – March 8, April 6, May 5 • New – March 22, April 21, May 20

Planets: **Mercury** will emerge from the solar glare in the first week of March when it may be seen low in the western sky just after sunset. On March 8th it will reach its highest point above the western horizon.

Venus will be quite prominent in the western sky from March through April. Watch on March 11 when it will be quite close to Jupiter. The thin crescent Moon will be close by on March 25th and April 24th.

NOTE: Venus will transit in front of the Sun on June 5 starting about 16:08 at the 11 o'clock position and will slowly cross the front of the sun over the next 8 hours. The transit can be viewed by projecting the image of the sun through a spotting scope or binoculars on to a white paper. The next transit will not occur until Dec. 11, 2117. **Do not attempt to look directly at the sun!!**

Mars will lie in the constellation Leo where it can be seen in the late evening in the SE and South part of the sky. Watch as it gradually approaches Regulus, which is the brightest star in Leo, until it will begin to retreat about April 17th.

Jupiter can be seen low in the western sky after sunset from March through early April. Watch as it slowly passes Venus over the three nights of March 10 to 12th. On the 25th of March it will be close to the thin crescent Moon.

Saturn rises above the eastern horizon in the late evenings near the bright star Spica in the constellation Virgo this spring and is best placed in the southern sky in the early morning hours.

Meteor Shower: Lyrids (April 21, 15/hour in a dark sky), Eta Aquirids (May 4th, 20/hour)
The rate of meteors observed is for dark skies well away from city lights and with no Moon.

Flexing Ears for Echolocation

The more scientists discover about bats and echolocation, the more remarkable this biological sonar system seems to become.

Researchers recently reported that “superfast” vocal muscles allow bats to emit the incredibly rapid pulses of sound needed to obtain the very precise information that lets them capture fast-flying insects in the dark. Echolocating bats emit ultrasonic sounds into their path and analyze the echoes that come bouncing back. Shorter, faster calls produce a more precise picture.

Now Rolf Müller, associate professor of mechanical engineering at Virginia Tech, says his team has demonstrated that bats maximize echolocation by changing the shape of their ears in half the time it takes to blink a human eye.

“Certain bats can deform the shapes of their ears in a way that changes the animal’s ultrasonic hearing pattern,” Müller said in a news release from Virginia Tech. “Within just one-tenth of a second (100

milliseconds), these bats are able to change their outer-ear shapes from one extreme configuration to another ... in ways that would suit different acoustic-sensing tasks.”

The study was reported in the journal *Physical Review Letters* by Müller and graduate students Li Gao and Sreenath Balakrishnan, as well as Weikai He and Zhen Yan Shandong University in China.

The research involved horseshoe bats (of the genus *Rhinolophus*) in China. These bats use echolocation to maneuver swiftly through dense vegetation and identify insect prey under difficult conditions, the news release said.

Using techniques that included high-speed, stereo video and high-resolution tomography, the team was able to reconstruct the changing three-dimensional geometry of the outer ears as they deformed in these short time intervals. A bat’s ears act as biosonar-receiving antennas and the shape-changing could improve reception.



The United Nations Environment Programme has declared 2011-2012 the International Year of the Bat. Many events are happening around the world to celebrate these amazing mammals. To keep updated on events, download free resource materials, learn how to sponsor, organize or partner on your own bat celebration, visit Bat Conservation International’s website at www.batcon.org/yotb. To learn more about Alberta’s bats, see the Feature Story in *Nature Alberta*, Spring 2009, Vol 39, # 1.

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RED-BELLIED WOODPECKER, FOUND ON DEC 13TH IN HIGH RIVER, WAY OUT OF ITS NORMAL RANGE, SAYS KIRK. KIRK DAVIS



BLACK-CAPPED CHICKADEES ARE WELL-KNOWN FOR THEIR FRIENDLINESS! LEN PETTITT

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