

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



JIM UFFELMANN

feature article

The Ten Last Years of Birding at Beaverhills Lake



TWO TURKEY VULTURE NESTLINGS, ABOUT 62 AND 64 DAYS OLD, ABOUT TO MAKE THEIR FIRST FLIGHTS. SEE STORY, PG 32. LEN PETTITT

SEE "WILDLIFE STARRING...THE AMERICAN WHITE PELICAN" STORY, PG 30. SANDRA HAWKINS



MANY WILD HORSES ARE EXTREMELY SHY AND ELUSIVE, EVEN MORE SO THAN DEER, ELK OR MOOSE. WHOAS (WILD HORSES OF ALBERTA SOCIETY) NAMED THIS MAGNIFICENT STALLION "THE GHOST", BECAUSE HE RARELY SHOWS HIMSELF. SEE THE STORY ON PAGE 18. BOB HENDERSON

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

(a) To encourage among all Albertans, by all means possible, an increase in their knowledge of natural history and understanding of ecological processes;

(b) To promote an increase in the exchange of information and views among natural history clubs and societies in Alberta;

(c) To foster and assist in the formation of additional natural history clubs and societies in Alberta;

(d) To promote the establishment of natural areas and nature reserves, to conserve and protect species, communities or other features of interest;

(e) To organize, or coordinate symposia, conferences, field meetings, nature camps, research and other activities whether of a similar or dissimilar nature;

(f) 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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CELEBRATE NATURE ALBERTA

IT'S OUR 40TH BIRTHDAY IN 2010!!!



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Editor's Page

BY DENNIS BARESCO

FROM BIRDS TO BEES

Spring and Summer are upon us, and naturalists are heading out to immerse themselves in the wonderfulness of nature – whether in local natural areas, wild places, lakes and rivers, or even their own backyard. Birders take along pencil and paper: to add to their life list, start a new annual species list, or log observations at specific sites. Some flower watchers do the same.

I once kept a bird “lot list” for my yard on Riverside in Medicine Hat. Noticing that many of the species were landing in a large, tangled, Red-osier Dogwood outside my kitchen window, I started a “dogwood list”. I was quite amazed – my list at that single bush reached forty-seven species! It also proved to me that spraying pesticides for aphids on bushes like dogwood was, at best, a silly endeavour. Between the birds and ladybugs, my dogwood maintained excellent health and vitality.

More and more naturalists are branching out with life lists for invertebrates such as Araneae (the Order of spiders) and insect Orders like Lepidoptera (butterflies, moths), Hymenoptera (bees, wasps, ants), Coleoptera (beetles), Diptera (flies), Odonata (dragonflies, damselflies), Orthoptera (grasshoppers) and Hemiptera (bugs). In the May *Nature Alberta E-Newsletter*, it is suggested that an interesting activity might be to keep a list of just one group of Hymenoptera: Bumblebees.

The listing fervour runs from “not the least interested” to zealousness. Either end of the scale and everything in between is just fine; it’s all part of being a naturalist.

TRICKLING UP

Exactly one year ago, I wrote in this column: “Naturalists can be forgiven if they get a tad discouraged when reading, watching or listening to the news. Hard times for nature abound.” Not much has changed in the past year; overall, the outlook for nature has deteriorated, and not just in Alberta. No need to list the assailing or the assailants – you already know the list. Almost all of it can be lumped under three main categories: insatiable greed; unyielding ideology; and an egotistical disregard for nature (and the future). I suppose there’s a fourth category – weak will – that perhaps prevents the combating of the other three. Not easy barriers to overcome.

Perhaps that is why people are more and more turning to local improvements regarding the environment and nature: that is, to build respect, awareness and a nature ethic at a local level, the theory being that it will “trickle up” until we are led by those with ethics and humane ideals. Of course, groups like Nature Alberta (or Nature Canada) still must work at the provincial (or national) level, but a strong and motivated local movement for conservation would open new avenues and opportunities

for success. It would also, I might add, provide an increased quality of life for virtually everyone – well, except those whose only criteria for quality is how many toys they have! Which brings to mind the old bumper sticker, “He who dies with the most toys – wins!” An astute philosopher later reminded everyone: “But he’s still dead!”

BETTER LATE THAN NEVER

From Pelicans to Sasquatch, Beaverhills Lake to Wild Horses, Meteorites to Turkey Vultures, a rescue at Lake Bonavista to profiles of two outstanding naturalists – there is a little bit of everything in this quarter’s issue of *Nature Alberta*!

If you are thinking that this issue is a tad late, you’re right. Your Editor has been too busy lazing about and enjoying Mother Nature’s Spring blessings (blizzards and all!) and that other great Spring blessing: the start of another Major League Baseball season. Okay, I say that with tongue-in-cheek (except the baseball part); goodness knows there is no shortage of old and new issues with which to deal. Fortunately, naturalists don’t discourage easily, and they keep their sanity by occasionally renewing themselves with the spirit of nature.

If it is any consolation, confronting those who would destroy the environment is not a new phenomenon; said Ansel Adams (1902-1984): “It is horrifying that we have to fight our own government to save the environment.” Still, on the other end of the scale, environmental appreciation is as old as human society. Aristotle (384-322 BC) said: “In all things of nature there is something of the marvelous.” Those quotes pretty well sum up the philosophy of the active naturalist.

LETTERS TO THE EDITOR

“RE CALLS”

No, not another Toyota model. Re: the four coyote calls described in the winter 2010 *Nature Alberta* [“Songs of the West”, pg 32], there’s one more - the ululating cry that you can hear occasionally. It’s easily distinguished from the *yip yip yip* which is sharper, more abrupt. I recorded it once at Spruce Coulee in Cypress Hills as part of a long coyote repertoire one night, and I’ve heard the Peigan women from south west Alberta make exactly the same call in their dances just before ending a song. I don’t know what it signifies.

DAWN DICKINSON

NEW BOOK

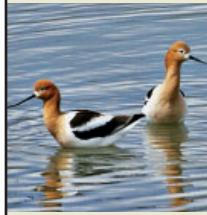
Just a quick note to let you know that my NEW book, *Growing Pains - A Planet in Distress*, is finally available at usual outlets (Chapters, Coles, Amazon, etc.) You can also find out more about it on my new POPULATION IN SYNC website, www.populationinsync.net, where you can read the book reviews and endorsements.

I am so excited that I just had to share this great news with you. Also, I have book signings scheduled for the Crowsnest Pass, Lethbridge, and Fort Macleod, so please watch your local paper for dates and places.

Please sign my guest book on my website, and I would welcome any comments or suggestions you may have.

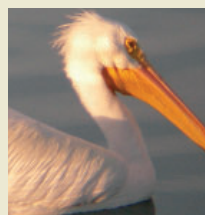
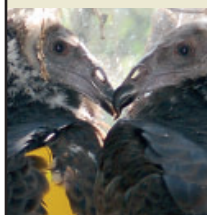
VALORIE M. ALLEN (403-553-4400)

On the Covers:



FRONT COVER

As Jim Uffelmann’s cover photo illustrates, the American Avocet is quite possibly the most exquisite bird in Alberta: striking colour, streamlined body, long legs, and very slender up-curved beak. It likes sparsely-vegetated lakes and sloughs, which made Beaverhills Lake a prime spot for the species. In this issue’s Feature Article, Dr Dick Dekker tells his story of “The Ten Last Years of Birding at Beaverhills Lake” starting on page 22.



INSIDE FRONT COVER

Turkey Vulture is not exactly the province’s most lovable bird; nevertheless, it is a fascinating species – and a truly great and beautiful soarer! These two nestlings (about 62 and 64 days old) are about to make their first flight. The authors of

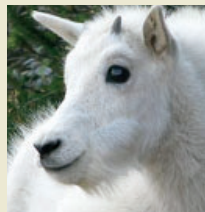
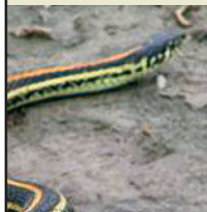
the story “Process and (Maybe) Promise,” on page 32, have studied Turkey Vultures for years and have developed a real affection for them.



American White Pelican, another bird with a huge wingspan and superb soaring capabilities, is viewed differently and much more positively than vultures. Indeed, if there is any

Alberta bird that could be called awesome, our pelican is it. See the story, “Wildlife Starring...” on page 30.

Wild Horses are, in human terms, somewhat of a contradiction: beautiful, undoubtedly – but equally controversial. One of the main reasons for controversy is scientific investigation butting against old perceptions or vested interests. Claudia Notzke addresses the issue in the story “Western Canada’s Wild Horses: The Struggle for Legitimacy,” on page 18. (For an earlier *Nature Alberta* story, see “REAL Wild Mustangs”, by Robert Alison, Summer 2008, Vol 38, No. 2, pgs 10-13.)



INSIDE BACK COVER

Spring is a visual feast! Out come the Plains Garter Snakes from their winter hibernaculae. Bumblebees busily

forage the multitude of flowers. And new life abounds – in this case, a Mountain Goat youngster. Photographer Bonnie Mullin, whose photos you have seen many times in *Nature Alberta*, was right there to catch the moment.



BACK COVER

There is a serene loveliness about the Milk River that is a natural subject for photographers; Ian Gardiner has captured that essence in this issue’s “Nature gallery” photo. The Milk River flows along the southern edge of the province, draining into the Missouri River.

LETTERS TO THE EDITOR ... CONTINUED

COYOTE DENSITY



Your Winter 2010 feature article *Considering Coyotes* was fortuitously complemented by my piece on the fearless Coyote, while your note on the species added interest.

However, your statement [in "Citizen Coyote", pg 30] that "Biologists also agree that Coyote populations have no lasting effects on other wildlife populations" invites comment. Having watched these adaptable

canids over many years and in different habitats, I have seen them attain high local densities, particularly in regions where their winter food is augmented with road kills or dead cattle dumped by livestock owners. Under these conditions, it is folly to believe that Coyotes do not have a lethal impact on other animals. Apart from preying on rodents and deer, they compete directly and indirectly with the smaller predators. In my opinion, the threatened status of the prairie

Long-tailed Weasel can be blamed on the ubiquitous Coyote. And, in recent times, after the coyote expanded its vast range to the B.C. west coast, the Red Fox has all but disappeared. In my books and papers, I have written extensively about the running battle between these two. And frankly speaking, at anyplace – on farmlands, in the mountains, or the city – I would rather see Reynard than his common cousin.

DICK DEKKER, PHD.

Ponderables

Any intelligent fool can make things bigger, more complex, and more violent.

It takes a touch of genius - and a lot of courage - to move in the opposite direction.

ALBERT EINSTEIN

RESPONSE:

The question, as always, is: how good is the evidence?

Here's the old scapegoat, citizen Coyote again! In his letter to the Editor (above), Dick Dekker gives his opinion that the threatened status of the prairie Long-tailed Weasel can be blamed on the ubiquitous Coyote. Evidence please! Are the results of research studies of the Long-tailed Weasel's decline in numbers available? Have there even been any studies? Considering the massive changes that have occurred in the prairies over the last couple of centuries it would be difficult to ascribe reduction of the weasel population to a single species, moreover one which has lived alongside the Long-tailed Weasel for many more centuries.

Road kills and ranchers' dead cattle provide scavenging opportunities for many carnivores including Coyote. This is not abnormal since to some extent they take the place of dead bison on which Coyotes scavenged in the 19th and preceding centuries. If Coyotes are spending more time scavenging these days then they must have less time available to go mousing, so small rodent populations should benefit. Populations of Coyotes have increased and decreased over time and the author of the article "Citizen Coyote" wrote that "Coyote populations have no *lasting effects* on other wildlife *populations*" [emphasis added]. But the letter by Dr. Dekker to the editor concludes that "it is folly to believe that Coyotes do not have a *lethal* effect on other *animals*." It does not appear that anyone was making that argument. Any mouse that is pounced on can expect a lethal effect!

DAWN DICKINSON

Your letters commenting on any aspect of Nature Alberta or its articles are welcome! Email them to na@naturealberta.ca or mail/fax to addresses on pg 1, under "Contents".

ALBERTA ISSUES IN BRIEF

Grizzlies' Future Still Up in the Air

The official population count of Grizzly Bears in Alberta is 691, with only 359 breeding adults. The question now is: what does that mean?

One sector says we should open up hunting – not everywhere, but at least in areas where there may be too many Grizzlies. Another sector says that the population is too small to be sustainable and extinction will be the end result from the many causes of Grizzly mortality.

The government is hedging, though leaning towards a hunt. “We have a suspension in hunting and that suspension will remain for this particular point in time,” said Sustainable Resource Development (SRD) Minister Mel Knight (quoted

in the *Calgary Sun*, Mar 9 2010). As to the small numbers but scattered distribution: “What it’s pointing to is a situation where, at some point in time, we may very well need to look at a harvest,” said Knight.

What next? Nature Alberta will continue to press for intelligent, science-based management decisions, not just over the hunting controversy, but for habitat protection and the reduction of mortality from the many other causes – many of which require no more than political will. At this point, it is up to the Alberta Government Cabinet, through Minister Knight, to decide what future, if any, is in store for Grizzlies in the province.



CHUCK PRIESTLEY

UPDATE On June 3, the Alberta Government designated Grizzlies a threatened species. What that will mean for the species depends on the actions actually taken.

Wetlands

The Sierra Club Prairie has obtained a leaked copy of the most recent Alberta Wetlands Policy that shows the extent of industry influence over environmental decisions for the province. The confidential document reveals an undermining of the work of the Alberta Water Council, a multi stakeholder group that has been developing the tenets of the wetlands policy. The policy, already a compromised position to get the buy-in of 25 multi-sectoral groups, was radically changed after backdoor industry pressure.

“Apparently the oil & gas and mining industries hold the trump card in this province when it comes to environmental policy,” commented Sheila Muxlow, Interim Director of the Sierra Club Prairie. “Public stakeholders are expected to engage honestly through official government lines, while the oil and gas industry can waltz in the back door and change all the decisions,” asserted Muxlow.

Wetlands provide water security for the province as well as substantial ecological, social, environmental

and economic services that would cost billions if we had to achieve them through other means. Over 60% of Alberta wetlands in settled areas have already been lost. For more information, contact:

Sheila Muxlow
Interim Prairie Director
Sierra Club
(780 660 0312)

[From a Sierra Club Prairie news release]

Bighorn Protection Calls Bolstered by Grizzly Report

Calls to protect one of Alberta's last great unprotected watersheds received a recent boost with the publishing of the province's new report, Status of the Grizzly Bear in Alberta. The 4,000 square kilometre Bighorn area, which sits east of Jasper and Banff National Parks, has suffered from motorized abuse, and it is now clear that Grizzly Bears are one more victim of that abuse.

"The new grizzly report underlines what we [and Nature Alberta] have been saying for a long, long time," says Nigel Douglas, Alberta Wilderness Association (AWA) conservation specialist. "Grizzlies in the Bighorn region are in trouble, and motorized access must be reduced if they are going to survive."

The March 2010 report states clearly: "A large area of grizzly habitat, particularly south of Highway 16, currently appears to be a population sink, but could support a self-sustaining population if human-caused mortality was reduced. ...To reduce mortality, motorized access to bear habitat must be minimized and human activities that lead to conflicts with bears must be mitigated."

As well as being important wildlife habitat, the Bighorn is the source of drinking water for many Albertans.

The Alberta Government's own studies, produced to give direction



BIGHORN RIVER VALLEY ERIK LIZEE

to the Land-Use Framework process, also recognize the majority of the Bighorn area as Nationally Significant.

For more information:

Nigel Douglas,
AWA Conservation Specialist
(403) 283-2025

Tarsands

A provincial court judge has rejected Syncrude Canada's attempt to dismiss the case against it regarding the deaths of 1,600 ducks in one of its toxic tailings lakes. The federal government has argued that the lakes violate Canada's environmental laws and the Migratory Bird Act.

While most tarsands companies would love to find a solution to the mess they created, they might be more motivated to do so if serious prosecutions hang over their heads.

Good News

The Alberta government has expanded the size of Sir Winston Churchill Provincial Park by adding about 423 hectares. The addition of all islands in the east basin of Lac La Biche increases the size of the park to 662 hectares. The expanded park includes Currant, Birch, Red Fox and Pelican Islands, as well as two un-named islands. High Island and Black Fox Island Natural Areas have also been consolidated into the provincial park.

Lac La Biche has the international designation of Important Bird Area for having a globally significant number of nesting California Gulls

and Western Grebes. The park is home to more than 200 bird species. Cindy Ady, Minister of Tourism, Parks and Recreation, said: "Expanding the park further recognizes the province's commitment to preserving this internationally significant bird sanctuary."

Recreational activities that currently occur on the lake in the east basin of Lac La Biche like boating, fishing and snowmobiling will not be affected. Other activities such as hiking, picnicking and rustic camping will continue to be allowed on the islands in designated areas.

Carbon Capture & Storage Useless?

A study from Houston University claims what most people already suspected: carbon capture and storage (CCS) “is not a practical means to provide any substantive reduction in CO₂ emissions, although it has been repeatedly presented as such by others.” The study claims that proponents of CCS, including governments, have vastly overestimated the technology’s value. Industry has refuted the claims in the report, citing some small-scale successes, but co-author of the document, Michael Economides, has dismissed the criticism as

“nonsense” and stated that CCS defies the laws of physics. The British Geological Survey is hoping to produce a peer-reviewed analysis of the study soon.

There is little argument that CCS is tremendously expensive per ton of carbon and that no one really knows both what will happen to the carbon and what the long term effects are. (For a good article on this, see www.naturealberta.ca, under “Issues: Are we digging ourselves into a hole with carbon capture and

storage?”) Economides suggests that the carbon could eventually produce “so much pressure that it fractured the rock and allowed the carbon to migrate to other zones and possibly escape to the surface.”

Still, if governments and taxpayers can be persuaded of CCS – regardless of its value or validity – it would allow industry to build new coal fired power plants and call them climate-change friendly.

Turbines and Transmission Lines

The number of applications and plans for industrial wind facilities in Alberta is substantially increasing, along with the accompanying electrical transmission lines. Nature Alberta’s concern is centered on the varying degrees of ecological and wildlife damage being done, though the many other problems (inefficiency, taxpayer subsidies, health and social issues, industrialization of the landscape, misinformation) cannot be ignored, especially considering what may be grossly exaggerated benefits to wind energy’s touted solution to climate change.

Wind energy is a controversial subject; simply questioning

it has been tantamount to heresy in some circles. However, the potential problems it creates for the environment are now being examined more closely by a variety of sectors, and the concerns that we may be in the throes of “way too much of a good thing” are deepening. Nature Alberta is working with those sectors on approaches to be taken to move forward with greater caution and concern for the whole environment.



Learning about the Energy Industry

The Alberta government has announced that it will be taking its promotional message to schools to ensure that students get the truth about the oil, tarsand and gas industries and climate change initiatives. Energy Minister Ron Liepert denied that the government will be imposing propaganda. Instead, he said, “We should always be looking for opportunities, and I would say especially [among] young people. They tend to be easily influenced, and from a social media standpoint, they’re the most active and that’s the easiest way to spread information, whether it is right or wrong.”

Part of the message will be to inform young people on the value of carbon capture and storage technology, to which the government has directly committed at least \$2 billion.

The Good, the Bad and the Ugly

THE GOOD:

Federal Environment Minister Jim Prentice announced, on May 20th in Lethbridge AB, that the government will be putting seven million dollars towards conservation and restoration in Waterton Lakes National Park. The focus will be on fescue grass, Whitebark Pine and Limber Pine. Mr. Prentice acknowledged that the Park has not seen any major investment for decades. That should change since the federal government has initiated actions towards ecological integrity in Canada's national parks.

THE BAD:

The Federal Government is deliberately reclassifying some lakes and rivers across Canada, turning natural, living bodies of freshwater into lifeless, toxic waste dumps. The government will allow mining companies to use the water bodies as dumping grounds for mine tailings and rock waste, hence increasing the companies' profits. The new rules will wipe out fishing, wildlife and pristine lakes, poison streams and groundwater,

assault the social, spiritual and economic well-being of some First Nations communities and permanently remove fresh water from the system. The Council of Canadians is working on a legal challenge in hopes of ending this unconscionable aggression.

THE UGLY:

Last year's Federal Government budget contained items unrelated to the budget that were designed to eliminate 100 years of protection for Canada's navigable waters. The government's message to the opposition was simple: Let us remove environmental protection or we'll call an election. It worked. Now the government is back for a second time.

Included in the latest budget bill are amendments to the federal environmental assessment rules. According to a report by Devon Page (Executive Director of Ecojustice Canada) in *The Hill Times* (www.thehilltimes.ca), Canada's Politics and Government Newsweekly, the proposed changes "purport to sidestep a recent

Supreme Court ruling, subvert the Parliamentary process, silence Canadians who would otherwise participate in environmental assessments, and strip away the federal role in responsible environmental decision-making." So once again, the government is threatening an election if they are not allowed the changes, which Devon Page says, "would deliver a body blow, if not a death strike, to the idea of environmentally sustainable development in Canada." Ugly indeed!

Less Environment, More Energy

As budgets tend to do, the 2010 Alberta budget, essentially outlining government priorities, angered some and cheered others. Alberta Environment's budget was cut \$17.5 million and Sustainable Resource Development will lose 112 positions. As well, some energy sector environmental monitoring will be cut back. The Department of Energy, however, was blessed with an increase of \$50 million.

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

Nature Alberta NEWS



HONOURING EXCELLENCE

Dedicated naturalists – that is what drives conservation efforts in Alberta. Each year, Nature Alberta recognizes dedication at its Annual General Meeting Awards Celebration. This year, on April 10th in Edmonton, six naturalists were honoured

The magazine *Nature Alberta* doesn't happen overnight. One of the more important aspects is proofreading: the job of ensuring that errors in punctuation, structure, spelling and other aspects are caught before the magazine is printed. For over four years, four faithful volunteers have consistently proofed every issue. In recognition of their valuable contribution, Nature Alberta has honoured Elaine Cathcart, Marilyn Ross, Val Scholefield and June Vermeulen with the 2009 VOLUNTEER AWARD. In presenting the award, Editor Dennis Baresco remarked how each of the four always finds several items that have escaped the notice of the others. Sharp eyes are a blessing that everyone greatly appreciates! It must be noted that *Nature Alberta* has a fifth proofreader, Sandra Foss, who has been equally dedicated to the job. Since Sandra is a



A FINE DINNER, RECOGNITION OF ACHIEVEMENT AND JASON DOMBROSKIE'S EXCELLENT PROGRAM ON LEPIDOPTERA HIGHLIGHTED NATURE ALBERTA'S ANNUAL GENERAL MEETING.

VID BIJELIC

member of the Executive, she is not eligible for an award; she is, however, eligible for a big "Thanks!"



NATURE ALBERTA EDITOR DENNIS BARESCO PRESENTS THE 2009 VOLUNTEER AWARD TO ELAINE CATHCART (LEFT) AND VAL SCHOLEFIELD (CENTER). VID BIJELIC

The **Frank & Alice Harper Memorial Award** is presented to an individual who has contributed significantly to the continued success of their local naturalist organization. **Greg Pohl**, of the Alberta Lepidopterists Guild, was this year's very worthy recipient.

For a profile on Greg, see page 37. The award was presented by Dr Felix Sperling, President of the Guild.



FELIX SPERLING PRESENTS THE 2009 FRANK AND ALICE HARPER MEMORIAL AWARD TO GREG POHL. VID BIJELIC

Named for a respected Alberta naturalist, the **Loran Goulden Memorial Award** is given annually by Nature Alberta for outstanding contributions to natural history in Alberta through: fostering amateur natural history study; contributing to our knowledge of Alberta natural history; supporting conservation of

Alberta's natural heritage; showing leadership; and a willingness to share knowledge. It was with great pleasure that Past President Sandra Foss presented the Award to **Lu Carbyn**, present Director for Edmonton Nature Club. A profile of Lu is on page 29.



PAST PRESIDENT SANDRA FOSS PRESENTS THE 2009 LORAN GOULDEN MEMORIAL AWARD TO LU CARBYN.

JAYNNE CARRE

NOTE: **NEW!** A new criteria for the Honourary Life Membership Award have now been developed and approved by the Board at the AGM.

EXECUTIVE AND DIRECTORS NAMED

The Nature Alberta 2010-11 Executive and slate of Appointed Directors were approved at the AGM on April 10.

APPOINTED DIRECTORS 2010-11:

Dennis Baresco, Dawn Dickinson, Jim Gendron, Peichen Gu, Ted Hindmarch, Chuck Priestley and Don Stiles.

EXECUTIVE for 2010-11:

President: Chuck Priestley

Chuck is a biologist with eleven years of academic and professional work experience for a variety of industry clients, government agencies, non-governmental organizations and environmental consulting companies. Chuck and his wife Lisa co-own STRIX Ecological Consulting. He has been Chair of the Beaverhill Bird Observatory's Board of Directors for the past eight years and became a member of Nature Canada's Board of Directors in 2009. He has been involved with Nature Alberta in many different ways over the last few years.

Vice President: Ted Hindmarch

Ever since he was a lad, Ted has been interested in birds and nature. This has led to him taking on a very active naturalist role with the Beaver River Naturalist Society, the Board of Nature Alberta, and the

Edmonton Nature Club. He is Co-owner and Moderator of the Yahoo Albertabird List_serv and last year became *Nature Alberta* Magazine's circulation manager. Ted's birding interests have been expanded to include local plants and butterflies, and he has continued his self-education into the natural history of Cold Lake and Alberta. In 2007, Ted received the FAN Volunteer award for his work on collecting and coordinating information in the Cold Lake area for the Alberta Breeding Bird Atlas project in the Cold Lake area.

Treasurer: Peichen Gu

Peichen is currently a student, seeking her Chartered accountants designation. She has a wide variety of experience in the banking business in northern Alberta, and has used Quickbooks (our "system") in a previous job as a Manager of a Medical clinic. She comes with excellent references, and is looking forward to learning more about Nature Alberta, and what we are all about! She is keen to expand her accounting knowledge into the non profit world!

Secretary: The position is presently vacant.

NEW CHAIRMAN FOR ISSUES COMMITTEE

The position of Chairman for the Issues Committee is one of the functions of the Vice President, so

Ted Hindmarch is now in charge. At the April Nature Alberta meetings, it was suggested that the Issues Committee be proactive on issues of a provincial nature. With the huge number of environmental problems in Alberta, Nature Alberta must prioritize its involvement. More local issues should be handled by the local clubs. Nature Canada handles many national issues. Philip Penner, NA Executive Director, has attended the Northern Gateway Project (sending tarsands oil to Kitimat) and the Mackenzie Valley Pipeline process.

NEW MEMBERSHIP CATEGORIES

A new membership structure for Nature Alberta was approved by the Board of Directors at the AGM. There are two main changes, both of which resulted from many requests and inquiries.

First, a category for groups, businesses, and like organizations has been established. This will allow those who would like to join Nature Alberta to do so without joining one of the two major and official Club categories.

Second, four categories of individual membership will be introduced: Adult, Student, Family and Life; all of the individual members will receive *Nature Alberta* magazine as part of the membership. This is being done to clear up some confusion over just who is a member versus a subscriber.

Further details and initiation of the "perqs" of being a member of Nature

Alberta will be forthcoming soon. One thing is certain: it is an exciting time for Nature Alberta as it celebrates its 40th Anniversary and develops numerous programs and benefits for naturalists of all stripes.

RUN 'N FUN!

Nature Alberta again partnered with the Running Room in Edmonton for a pair of "Hypothermic Half Marathons" on Feb 14th and 28th. Executive Director Philip Penner sends an enormous thank you to all the volunteers who helped out. "All your enthusiasm and cheering," said Philip, "was contagious and much appreciated by the runners." Partnering with the Running Room makes the Hypothermic Half a worthwhile and fun initiative to be involved in. "We will continue to look for ways to grow the race through our partnership with the Running Room as well as through potential sponsor organizations," said Philip.



NATURE ALBERTA TREASURER (PAST) DON GORDON STILL HAS LOTS OF ENERGY AS HE "RUNS FOR FUN"!

IT'S COMING! SEPT 24 TO 26!

Nature Alberta is planning a 40th Anniversary Gala Celebration – and you are all invited! A wonderful setting along the Red Deer River, at the Deer Valley Meadows facility at Alix AB, will be the venue. **Mark your calendar for the weekend of Sept 24 to 26!**

The 40th Anniversary team is planning activities, speakers and field trips; full details will be released later. Committee members are Claudia Cameron (Chair), Lu Carbyn, Ted Hindmarch, Christine Brown, Dawn Dickinson and Dennis Baresco.

ONE MORE REMINDER

Nature Alberta has been adopted as the new brand name of the Federation of Alberta Naturalists. So whenever and wherever you see "Nature Alberta" or "NA", remember – it's still FAN! Federation of Alberta Naturalists will remain our official, legal name.

In Memoriam



Ernie Kuyt

The natural world lost a great friend recently when well-known biologist and conservationist Ernie Kuyt passed away suddenly, on Friday, May 21, at age eighty-one.

Mr. Kuyt was born in the Netherlands in 1929 and emigrated to Canada with his family shortly after the Second World War. Ernie's pursuit in the fields of biology and conservation led him to Saskatchewan where he met and married Elsie Kulyk, the lady with whom he would go on to spend an adventurous 50 years.

Ernie joined the Canadian Wildlife Service in 1960, and enjoyed a successful career in wildlife conservation, of which 25 years were dedicated to working with Whooping Cranes, culminating in his being awarded the Order of Canada. *Nature Alberta* readers may remember his most recent article for our magazine in the Winter 2010 issue, "A Back Yard Bird Bander's Banter."

Ernie is survived by his loving wife Elsie, daughter Pamela (Mike) Stroh, and son Jonathan. Nature Alberta sends its sincere condolences to Ernie's family.



Up Close Naturally: First Insects and Spiders!

BY MARGOT HERVIEUX

Even when the snow is lingering in the woods, there are already insects and spiders out and about.

The first of these creatures survive the winter as adults, rather than eggs or pupae, so they have a head start on spring.



WOLF SPIDER. FIR0002

Look around on a sunny porch or fallen log and you might find a wolf spider. These large, brown spiders don't spin webs but catch their prey by running and pouncing. Wolf spiders stay active under the snow all winter long. They are excellent mothers and later in the year you will see the females carrying egg sacs and even baby spiders.

The large bees and wasps that we see early in the season are queens that spent the winter dormant

in the leaf litter. They are busy searching for early sources of nectar and pollen and exploring the forest floor in search of new nest sites. After the queen hatches her first batch of young, the workers will take over the job of looking for food so she can focus on egg production.

A few of our butterflies also over-winter as adults. As soon as the days warm you can see the orange and brown Milbert's Tortoiseshell. The large, brown and yellow Mourning Cloak and the commas, with leaf-like underwings, will be on the wing shortly after. A great spot to see these butterflies is on a tree trunk where sap is leaking from a wound.

Ladybugs also survive the winter in the leaf litter or in our buildings. Some hibernate on their own while others, like the little two-spotted, cluster in groups. Many over-wintering ladybugs are pregnant females so, come spring, their focus is on egg laying. They feed on insect eggs and pollen until the first aphids hatch.

Some ground beetles stay active under the snow and can be found in gardens and woods as soon as

the ground is exposed. These active predators dine on a wide variety of caterpillars and other insect prey.

Those big, slow mosquitoes that appear early in the spring have also just emerged from hibernation in the leaf litter. Once the ponds warm up, other species of mosquito will complete the aquatic stages of their life cycle and fly forth in search of a blood meal.

Mosquitoes are one of many aquatic insects that become active as the snow melts. Even temporary ponds in flooded fields and ditches are alive with creatures that provide important food for migrating ducks and shorebirds.

Surviving the winter is a major challenge for soft-bodied creatures like insects and spiders. For most it is easiest to get through the cold months as an egg or pupa but for those that can make it as an adult there is little competition for spring resources.



MOSQUITO.
ALVESGASPAR

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





DEBBIE GODKIN

Nature Diary: “Sharp-shinned Hawk & April Snowstorm”

BY DEBBIE AND ALAN GODKIN

Well over a hundred Dark-eyed Juncos – the highest concentration of Juncos we’d ever seen during spring migration – and one female Sharp-shinned Hawk took refuge

in our yard for three days during a spring snowstorm. I took the picture from my living room window of the Hawk perched on a poplar branch after a failed

attempt to catch a Junco. On the fourth day the snow quit and the sun broke through the clouds, and as if on cue, all the Juncos, as well as the hawk, left.

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!

Close to Home: Nature Photography in Alberta



JOHN WARDEN

Sasquatch Country — Walking With the Ancients

BY JOHN WARDEN

I don't think that my Dad thought of himself as a bush-pilot. But at least for part of his flying career, that's what he was.

He flew little twin-engine airplanes, in and out of small makeshift airstrips at construction sites in the bush across Alberta and in the North. He did go on to fly corporate business jets, but I remember him telling us stories of flying into the bush.

The Bighorn Dam, west of Nordegg, was being built in the late 1960's and my Dad flew into the Dam construction site a few times. Sitting around the supper table one night he told us stories that he had heard from the workers at the dam site, stories about a 'Bigfoot' or 'Sasquatch'. They told stories about a big hairy creature that had been seen regularly around the camp. They were sure that it was a Bigfoot and not a Grizzly Bear that had raided one of the lunch shacks out on the construction site one night.

Flooding behind the dam created Abraham Lake, the largest man-made lake in the province. You can see a bit of the Bighorn Dam from the David Thompson Highway,

which runs alongside Abraham Lake for nearly twenty kilometers. I've never been to the dam, but I've spent quite a bit of time at Windy Point and up on Windy Point Ridge above Abraham Lake. The name is appropriate; this can be a really windy place and when the water is low in the lake, it can appear to be quite desolate, almost spooky. The sort of place you might expect to find a 'Bigfoot'.

It turns out that Windy Point is famous for Bigfoot sightings. Who'd have thought? There are at least two reported sightings of Sasquatch right at Windy Point and more reported sightings in the area.¹ Personally, I've never seen a Bigfoot and I don't really want to, but if you were going to see one in Alberta, apparently your chances are better at Windy Point than in Sherwood Park!

Abraham Lake is fed by the North Saskatchewan River. Hmm... Saskatchewan and Sasquatch,

has anyone else noticed the similarity between these two words? The river originates at the Saskatchewan Glacier in the nearby Columbia Icefield. Sasquatch aside, this is amazing country, and it's close to home.



¹ http://www.bigfootencounters.com/creatures/tallest_bigfoot.htm



JOHN WARDEN

I was introduced to Windy Point by the Edmonton Bonsai Society back in the mid 1980's. It's just a few kilometers east of the David Thompson Resort and we would go to the point and up onto the ridge to study and marvel at the naturally dwarfed and twisted spruce and pine trees that are found there. For thousands of years, the wind has come roaring down the valley and has stripped the soil and nutrients away from Windy Point Ridge. The trees have twisted with the force of the wind and they cling to life in pockets of soil. These are naturally dwarfed trees. Japanese Bonsai gardeners, growing and shaping trees in small pots, are mimicking the natural effects that nature has had on the trees at places like Windy Point.

There are stunted trees at Windy Point but, where there is enough soil, trees will also grow to regular sizes. Big or small, many

of the trees on Windy Point Ridge are old...ancient even. There are trees at Windy Point that appear to be three or four hundred years old or older. Walking amongst the ancient trees there is a special experience. It is quiet and clean and seemingly full of a natural energy. It's a spiritual place, perhaps even a sacred place. Sunbeams filter through the branches and needles of the old trees like sunshine through the stained glass windows of churches. Warm, golden light that makes you feel special, just to be there. The trees are like ancient sentinels perched high on Windy Point Ridge, watching time and perhaps the occasional Sasquatch march through the valley.

Another thirty or forty kilometers west of Windy Point, past Siffleur Falls and the Kootenay Plains Ecological Reserve, is Whirlpool Point. There is no sign, just a good-sized pull-out

on the highway and ancient trees everywhere you look. You can walk down to the river and the Point, or climb up onto the ridge. It's worthwhile to take the time to explore both areas.

Whirlpool Point is perhaps an even more amazing place than Windy Point. The North



JOHN WARDEN

Saskatchewan River makes a ninety degree turn at this location and the bend in the river causes a whirlpool effect in the water. The trees here are just amazing. It's like being dropped into a parallel dimension where man has not intruded for a thousand years. It's a place that you want to share with someone special, but talking out loud would be improper, like talking in church. I could say that the trees are Limber Pines or Whitebark Pines; I don't really know the difference. But you can see these kinds of old, ancient, worn and weathered, twisted and beaten trees down in the Crowsnest Pass and up on the Whaleback. There's another little pocket of trees like these along the Trans Canada Highway as you're driving towards Banff, and more up on the Cardinal Divide and here at Whirlpool Point. These are special trees that create special places.

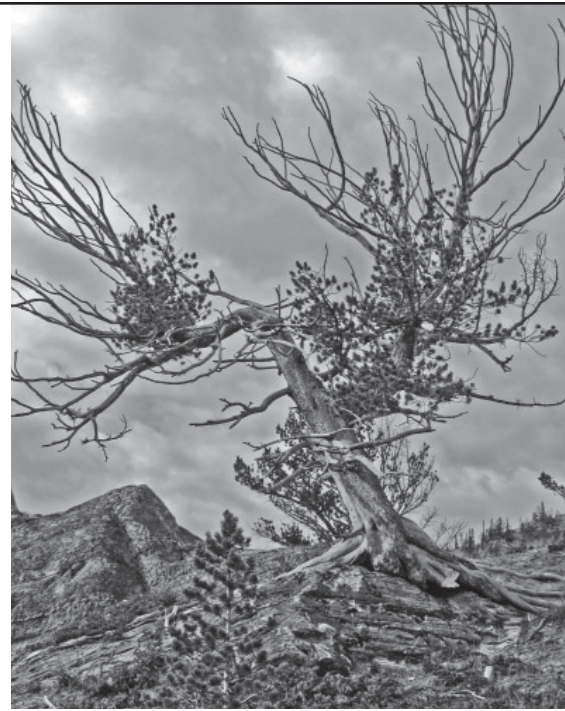


A highlight of Whirlpool Point is found right on the bank of the river – an ancient Limber Pine. One of the oldest trees in Alberta, it is estimated to be a thousand or more years old². This is one cool tree. It's not very tall and the entire trunk has a twisting characteristic that you'll begin to recognize if you hang around really old trees. It's the kind of tree that you need to touch to assure yourself that it's real, that it's alive. You've heard about tree hugging: give it a try. And while you're pondering this great old tree, do the math in your head. This old tree has been here, on the bank of the river since well before Columbus came to America. That's a lot of living and reproducing – pinecones everywhere!

All around Whirlpool Point are these very old Limber Pines and it's an easy and fascinating opportunity to walk amongst these ancient trees. But you're not done yet. Hiking up from the highway and scrambling up onto Whirlpool Ridge offers its own rewards. The view is fabulous, and there's another great old Limber Pine about half way up, clinging to a rock face on a ledge. This is a spirit tree. It's big and brave and bold, tenaciously clinging to life with its roots wrapped around a massive rock. The tree is old...and beautiful.

**the ancient pine-tree,
watching for a thousand years –
men with fire.**

HAIKU BY JOHN WARDEN



There's rarely any traffic on the highway down below, there are no signs, no buildings and no people. It's so quiet that it seems you can hear the trees breathing, naturally, with the rhythm of the mountains.

The stories from my Dad and others of Sasquatch in the Abraham Lake area are fun and interesting. Because of the trees though, I've come to appreciate Windy Point and Whirlpool Point as spiritual places. They are places that can provide perspective for our own lives and our own small place in the Cosmos. But they are also places of connection. If Sasquatch have come to visit this area, I'm sure it's because of the trees. Perhaps they too have felt a need to connect with the very essence of nature by walking amongst the ancients.

I'm told there was a 'controlled burn' that got away from the forestry workers and burned a part of Whirlpool Point Ridge since I was last there. I worry about what I'll find when I go back. I almost don't want to go back, but – the magic pulls at me.

² Heritage Trees of Alberta, Heritage Tree Foundation of Canada, 2008.

The Meteorites of Alberta

REVIEW BY: CHRISTINE BROWN

When I was asked to do this review I was a little wary, as I am no astronomy or meteorite expert. However, as the book's cover boasted the human side of the history of Alberta's meteorites, I was at the very least intrigued.

The book contains some very interesting history of the meteorites that have fallen on Alberta's soils. These consist of five iron meteorites and ten stony meteorites. Although many of the meteorites' histories between their find and their research are short, a few, like the Iron Creek Meteorite, are several hundred years long. One, the Bruderheim Meteorite, is considered to be the most researched in the world, and its chemical measurements are now used as a standard by which to measure new technology.

The book also goes into the history of astronomy in Alberta with the development of the Meanook and Newbrook Observatories, as well as the Meteorite Observation and Recovery Project. A chapter describes the active search for several meteorites and another on how average people can find evidence of a cosmic death to the dinosaurs in Alberta. A description of where Alberta's own impact craters can be found is also given.

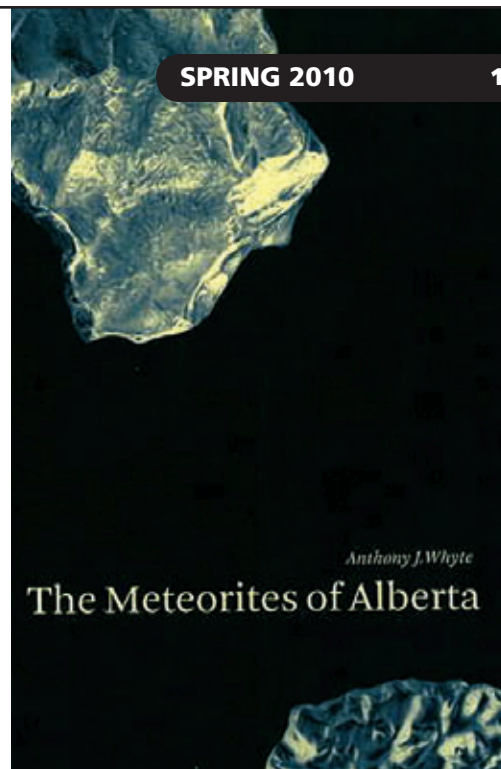
The author has aimed this book at both amateur and professional astronomers. Luckily for the amateur, he included both the periodic table and a short glossary. In his introduction he describes the differences between the iron and stony meteorite, and how these are further classified. He also describes the methods by which the chemistry of the meteorites is measured.

Each chapter on each meteorite is separated into History and Science. Unfortunately, these science sections fall apart for those reading this book as amateurs. The vast majority of the research on meteorites is on their chemical composition. This will tell us the history of the meteorite and our solar system. The author tells us what information the researchers have tried to find through their chemical analysis of the meteorites, but with little to no summary of the researchers' conclusions or his own on

Anthony J. Whyte. University of Alberta Press. ISBN: 978-0-88864-475-6. \$34.95 Cnd

what the research may mean. It also feels that every paragraph describes new research on the meteorite. With such an excess of data the importance of the research is lost to the average reader and a quiet Saturday read turns into an afternoon of painful study.

This book is not a complete loss. For those interested in learning more about meteorites, I feel that it can be an important resource. It not only gives an Albertan perspective but also conveys the importance of the Alberta finds and research to the science of astronomy, although a little extra study and second read may be required.



Western Canada's Wild Horses: The Struggle for Legitimacy

BY CLAUDIA NOTZKE

"The Horse War" (Cowley 2010) and "A Herd for the Killing" (Powter 2010): these were the headings of articles in the recent popular press in Alberta.

Such headlines bear eloquent testimony to the beleaguered state of western Canada's wild horses.

Only numbering in the hundreds (in contrast to their equally besieged cousins in the United States whose numbers amount to approximately 60,000 – less than half of whom still roam free), their major population concentrations are found on British Columbia's Chilcotin Plateau, in Alberta's Rocky Mountain Foothills and Saskatchewan's Bronson Forest. These animals have been subjected to mindless cruelty, with the body count of shot horses in central Alberta alone amounting to more than thirty over the past decade. In Alberta, it was only in January 2010 that the RCMP laid the first charges in any of the killings, and at this point, the outcome of impending court proceedings is entirely open.

Up to the point where these first charges were laid, one was left

to wonder about a "conspiracy of silence" and a disconcerting lack of determination and political will on the part of those investigating such incidents. As far as the government was concerned, there appeared to be overwhelming evidence to the effect that the death of wild horses was totally inconsequential for the authorities. Much of this indifference (and ambiguity) can be associated with the ongoing debate of just what these horses are.

ALIEN...

Many government agencies consider wild horses as domesticated escapees and invasive species with no dollar value attached to them as either livestock or huntable wildlife. As "alien" species they must be doing what all alien species do: compete with "native wildlife" and damage "native ecosystems." This is powerful mythology and makes them a challenging cause to champion. The only scientific work ever conducted on wild horses in Alberta dates back to the 1970s

and was carried out by R.E. Salter (Salter 1979; Salter and Hudson 1979&1980); it did not document forage or behavioural competition with either wildlife or domestic cattle. Independent and peer-reviewed research into the ecology and ethology of these animals is badly needed and provides great opportunities for up and coming biologists.

...OR WILDLIFE

In contrast to this seemingly entrenched government attitude many scientists (paleoecologists, mammologists, range scientists) view the wild horse in North America as returned wildlife (Martin 2005:194; Flannery 2001:295; Morin 2006:303; see also Burckhardt 1996). The horse coevolved with American ecosystems over 4 million years before becoming extinct 11,000 years ago, due to a combination of human overhunting and climate change. It was reintroduced by the Spanish ca 500 years ago and spread throughout the Americas, in many cases reoccupying its ancient ecological niche. Despite "domestication" the modern horse *Equus caballus* is genetically equivalent to *Equus lambei*, a horse, according to fossil records, that represented the most recent *Equus*



DR. NOTZKE WITH A SPANISH MUSTANG COLT ON THE BLACKFEET RESERVATION IN MONTANA

Claudia Notzke is a geographer and Associate Professor in the International Program of the Faculty of Management at the University of Lethbridge, where she teaches courses and conducts research in the fields of environmental management and sustainable tourism. She is an avid equestrienne and outdoors enthusiast, and horses, wild and tame, have always been part of her life. Her current research program focuses on management challenges related to wild horses. She has enjoyed the company of wild horses throughout western Canada and the western United States, Sable Island/Nova Scotia, Germany and Mongolia.



HARSH WINTERS AND PREDATORS SEEM TO EFFECTIVELY CONTROL WILD HORSE POPULATIONS. BOB HENDERSON

subspecies in North America prior to extinction. To speak with Kirkpatrick & Facio (2010:5f; see also Forsten 1992 and Hofreiter et. al. 2001):

The key element in describing an animal as a native species is (1) where it originated; and (2) whether or not it co-evolved with its habitat. Clearly, *E. caballus* did both, here in North America. There might be arguments about "breeds," but there are no scientific grounds for arguments about "species."

The non-native, feral and exotic designation given by agencies are not merely reflections of their failure to understand modern science but also a reflection of their desire to preserve old ways of thinking to keep alive the conflict between a species (wild horses), with no economic value anymore (by law), and the economic value of commercial livestock.

Native status for wild horses would place these animals, under

law, within a new category for management considerations. As a form of wildlife, embedded with wildness, ancient behaviour patterns, and the morphology and biology of a sensitive prey species, they may finally be released from the "livestock-gone-loose" appellation.

BLIND SPOTS

Using the 16th century as a baseline of what "natural" North American ecosystems should look like is totally arbitrary. Paleoecologist Paul Martin's term "Columbian curtain" fittingly describes this blind spot. While there will never be absolute certainty about what led to the extinction of North America's megafauna, there is overwhelming scientific evidence to the effect that horses did not disappear from this continent where they evolved over millions of years without the "help" of newly immigrated and very efficient stone age hunters. It is difficult if not impossible for most people to think in terms of "geological time", but this ought

to be "nature's calendar" and the time frame in which to explore the legitimacy of the horse's ecological status in our environment. This is not Australia or New Zealand, where the horse is indeed an "alien introduced species", its well-deserved cultural and historical status notwithstanding, nor is it a "goats on the Galapagos" scenario!

ECOLOGICAL OPPORTUNITIES

Government managers' preoccupation with wild horses' anticipated ecological damage tends to ignore ecological opportunities presented by horses.

- Where there is a greater number of species in a given ecosystem, having evolved and evolving a complementarity and a diversification of niches, there is also a healthier and more stable ecosystem, whose checks and balances are well established. The African savannah is the best example.
- From fossils we know that the grasses, forbs, shrubs, and trees of the Americas coevolved with a much greater variety of large herbivores than exist today.

- New World vegetation has evolved in the presence of herbivory by horses.
- Of all herbivores, horses tend to be the most effective “seeders.” Whereas cud-chewing cattle (and other ruminants such as buffalo, deer, antelope, and sheep) thoroughly masticate and destroy a majority of seeds they may ingest, the horse does not. Its inefficient post-gastric digestion system passes grass seeds, and by “banking seeds” insures the perpetuation of its own forage.
- Due to their upper incisors, horses nip off plants above the ground, rather than ripping plants up by their roots, thus frequently killing them (as sheep and cattle can do.)
- Other benefits: horse trails being used by other species; crusted snow removal by horses to access forage and water, benefitting cattle, elk, deer and antelope; removal of coarse stands of grass, reducing fire hazard and providing spring grazing for other species; providing prey for predators.

(Downer 1977/2007; McCrory 2002; Henderson pers. comm. 2006)

In several European countries semi-wild horses are used as ecosystem engineers, reoccupying their ancient ecological niches and in many cases boosting biodiversity. There are also potential cultural, genetic and economic (tourism!) opportunities.

REVISITING MANAGEMENT

These observations should justify revisiting resource managers' approach to the wild horse question. Currently no “management” is being



HORSES IN THE WILD DISPLAY INTRICATE SOCIAL BEHAVIOUR. BOB HENDERSON

implemented in Alberta, but capture (with no limits on numbers) is being facilitated with no concern for the impact on wild herds or the fate of the captured individuals. In 2004 the Wild Horses of Alberta Society (WHOAS) prepared a well thought-out review of the Horse Capture Regulations, which deserves more attention than it has been getting. It proposes protection as well as management (where and when necessary) of wild horses on all public lands rather than just designated capture areas and placing wild horses under the jurisdiction of the Fish and Wildlife Division rather than the Public Lands and Forest Division of Sustainable Resource Development. It also puts great emphasis on the enforcement of regulations and stronger measures against individuals who illegally graze and release domestic horses on public lands.

I would advise caution in following the United States 1971 Wild Free-Roaming Horse and Burro Act without a thorough study of its many loopholes, pitfalls and implementation problems. Furthermore, our

management requirements are much less onerous, since wild horse numbers are smaller and more importantly, already subjected to the influence of a full range of large predators.

In November 2009, there was a precedent-setting development in Saskatchewan: Bill No. 606 (a private member's bill), An Act to protect the Wild Ponies of the Bronson Forest, was passed in the Saskatchewan Legislature.

OPEN MINDS

What is needed most of all is a change in attitude towards our free-roaming horses. Resource managers, conservationists and others who oppose the horse's presence in the wild should try to open their minds to the possibility that the wild horse is not just a foreign domestic interloper or recent barnyard escapee. While herds in Alberta, Saskatchewan and British Columbia differ in their natural and cultural history, there is every indication that these animals are of varied origin, some in all likelihood descending from Spanish bloodlines, others of more recent domestic origin. What they share is natural smarts and genetic diversity acquired through generations of natural selection, features no longer present in many of our domestic breeds.

Management decisions for wild horses should be made based on actual observations and research findings and verifiable data, not assumptions and prejudice. We owe it to the horse's unique role in our own history and culture to acknowledge it as a biological being in its own right, not just as a servant of Man.

References

- Burckhardt, J. W., 1996. Herbivory in the Intermountain West: An Overview of Evolutionary History. Historic Cultural Impacts and Lessons from the Past. Idaho Forest, Wildlife, and Range Experiment Station, Station Bulletin 58.
- Cowley, P., 2010. The Horse War. Red Deer Advocate, April 3, 2010.
- Downer, C.C., 1997, 2007. Wild Horses: Living Symbols of Freedom. Minden, Nevada.
- Flannery, T., 2001. The Eternal Frontier. An Ecological History of North America and its Peoples. Grove Press, New York.
- Forsten, A. 1992 Mitochondrial-DNA Timetable and the Evolution of Equus: Comparison of Molecular and Paleontological Evidence. Ann. Zool. Fennici 28:301-309.
- Henderson, R. 2006. Personal Communication.
- Hofreiter, M., Serre, D. Poinar, H.N. Kuch, M., Paeebo, S. 2001. Ancient DNA. Nature Reviews Genetics 2(5):353-359.
- Kirkpatrick, J.F., and P. M. Facio, 2010. Wild Horses as Native North American Wildlife. Revised January 2010. The Science and Conservation Center, ZooMontana, Billings.
- Martin, P. S., 2005. Twilight of the Mammoths. Ice Age Extinctions and the Rewilding of America. University of California Press, Berkeley, Los Angeles, London.
- McCorry, W., 2002. Preliminary Conservation Assessment of the Rainshadow Wild Horse Ecosystem, Brittany Triangle, Chilcotin, British Columbia, Canada. Submitted to Friends of the Nemiah Valley.
- Morin, P., 2006. Honest Horses. Wild Horses in the Great Basin. University of Nevada Press, Reno & Las Vegas.
- Powter, G., 2010. A Herd for the Killing. Explore, May 2010, pp.38-45, 64-65.



BOB HENDERSON

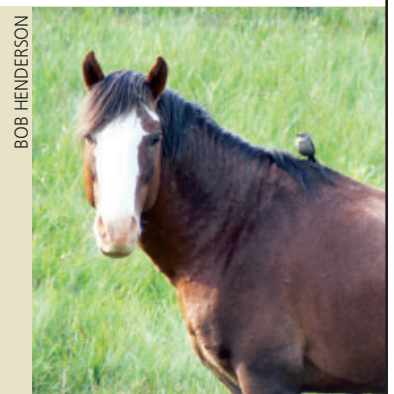
Depending on their natural and cultural history, different herds of free-roaming horses tend to show varying characteristics. Many of the wild horses west of Sundre like this young stallion, display the "dun factor": a dorsal stripe down their back as well as stripes on their withers and legs. These primitive markings are widely thought to indicate descent from Spanish horses, particularly Sorraias. Based on their conformation, colouring, preliminary DNA test results and archival evidence (all of which is under further investigation) it is suggested here, that this population may be descended from early Spanish stock more than two centuries ago, which was joined by heavier horses released in the early 20th century.

- Salter, R.E., 1979. Biogeography and Habitat-Use Behavior of Feral Horses in Western and Northern Canada. Proceedings: Symposium on the Ecology and Behavior of Wild and Feral Equids. University of Wyoming, Laramie, September 6-8, 1979, pp.129-141.
- Salter, R.E., and Hudson, R.J., 1979. Feeding Ecology of Feral Horses in Western Alberta. Journal of Range Management 32(3), 221-225.
- Salter, R.E., and Hudson, R.J., 1980. Range Relationships of Feral Horses with Wild Ungulates and Cattle in Western Canada. Journal of Range Management 33(4), 66-271.



BOB HENDERSON

In contrast to "The Ghost" (see "On the Covers"), young bachelor stallions tend to be boisterous and curious, like these three beauties (left) ... or this obliging young stallion near Nordegg (right). Western Canada's remaining wild horse herds mostly occupy forest ecosystems. In view of initiatives in European countries where free-roaming horses have been re-introduced into forests to boost biodiversity (for example Germany's Hutewald Project) a study of the wild horses' ecology in western Canadian forests would be a worthwhile endeavour.



BOB HENDERSON

FEATURE ARTICLE

The Ten Last Years of Birding at Beaverhills Lake

BY DICK DEKKER

Beaverhills Lake east of Edmonton, Alberta, was one of the major staging areas in western North America for migrating waterfowl and shorebirds. However, by 2009 its formerly huge size of 140 square km had dwindled to zero.

Its demise was a serious setback for local birdwatchers, who used to flock to its shores ever since 1920, when the late Professor William Rowan and his technician Robert Lister began their collections of the lake's avian riches. In 1948, the south shore became a seasonal Mecca for members of the Edmonton Bird Club. My own intensive field observations started in 1965, and I visited the lake every spring and fall, less often in summer and winter. During the last decade of its existence, from 2000 to 2009, I averaged 25 day trips per year, concentrating on a section of shore overlooking the last remaining pool of shallows in the East Bay.

I walked that 4 km stretch of wet ground a total of 178 times. Returning by the same route, I sat down for an hour or more on a stony point where a 40 cm high boulder served as a water level marker. On an additional

68 days I visited other parts of the lake to check out the waders, geese, ducks, divers, and gulls. As a lifetime raptor aficionado, I paid special attention to the falcons and eagles hunting the waterbirds. As the lake became shallower, it was interesting to observe the changes in littoral habitat, such as the drying up of emergent vegetation and the succession of plants colonizing the former lake bottom.

By road the distance from my Edmonton home to the lake's east side was exactly 100 km one way. Thus, to get there during the past ten years alone, I have driven a total of 52,800 km, whilst the price of gasoline went up and up and lake levels went down. The money came out of my own pocket, but to my mind, those ten years of discovery were worth every penny spent.

The ecological dynamics of this once world-famous and now dead wetland have fascinated me

over 45 years. Its wide vistas offered a peaceful and magic refuge from an increasingly noisy and hectic city. This article, in chronological order, presents some of the highlights of my mostly solitary wanderings.

2000

May 1. On this year's first visit, I checked the Ducks Unlimited weir blocking the inlet of Amisk Creek. Winter snow had been below average and there was no inflow of meltwater. Thousands of **Snow Geese** were bypassing the area and heading farther north. During the remainder of May, I walked various sections of the lake shore. Numbers and species of waders were not out of the ordinary, except on May 28, when I counted 18 **Red Knots**, more than I had seen in some years. Once quite common, these waders have declined everywhere in North America. The fall season was again unremarkable, but on September 23 there were about one thousand **Black-bellied Plovers**, an unusually large number for this locality.



BRIAN GENEREUX

2001

After an unremarkable spring passage of geese and shorebirds, May 21 stood out in my diary with a sighting of 22 **Buff-breasted Sandpipers**. Some decades ago, this species could be counted by the hundreds. On August 31, I saw two **Upland Plovers**, a locally rare southern species that used to be a regular on the pastures along the north shore. In September, the number of sandpipers was again unexceptional. Tens of thousands of **Snow Geese** stayed into the first week of October.

2002

This year turned out to be the second driest ever since regional weather records began 120 years ago. With only 260 mm of annual precipitation, the lake retreated far from its

former shores, leaving a wide belt of mudflats. By late May, whilst inland sloughs dried up, wading birds concentrated at the lake and reached unprecedented numbers exceeding 50,000 and probably approaching double that estimate. This surpasses the maximum of 52,000 shorebirds recorded in May of 1995 when Ducks Unlimited crews, driving ATV's, conducted a census of the entire lake. Their report became the basis for a successful application to add the lake to the prestigious list of Western Hemisphere Shorebird Reserves. On May 27, 2002, about half of the thousands of shorebirds thronging the east shore were **Stilt Sandpipers** and **Sanderlings**, which are

normally far less numerous than Semipalmated, Least, and Pectoral Sandpipers. White-rumped Sandpipers were present too, but required a careful look to confirm their identification. Farther out on the water, dense flocks of **Red-necked Phalaropes** rose high into the sky at the approach of Peregrines and Merlins. On May 9 and again on May 27, I had very close views of a gang of seven **Parasitic Jaegers** hunting shorebirds. On September 8, out on the drying mudflats, there were as many as 40 **Killdeer**. Also **American Avocets** were more numerous than normal, but still



SEMIPALMATED SANDPIPERS ON
BEAVERHILLS LAKE. BRIAN GENEREUX

well below the huge numbers seen during the next two years.

2003

The month of May was again superlative for shorebirds. On the 18th, I carefully determined the mean number per linear metre of shore, and then extrapolated that figure to the circumference of the entire lake in its present much reduced size. Added to the huge flocks of **phalaropes** and **dowitchers** foraging far off-shore, my estimate worked out to at least **100,000 shorebirds**. They stayed several days and attracted many migrating **Peregrine Falcons**; on May 22, I tallied 20 sightings. Often there were two or more falcons simultaneously stooping at the waders. Engaged in peregrine studies elsewhere, I did not visit the lake during the return migration of arctic shorebirds, which starts in early July. Other local birders saw masses of sandpipers in the East Bay. On August 2 and 10, Brian Genereux and Stan

Gosche reported **1,500 American Avocets**. My rough estimate of avocet numbers was one thousand on October 5, and there were still more than 700 on October 21. **Snow Geese**, using the lake as a daytime resting and staging site, stayed late into October and reached overwhelming numbers. Impossible to count or even estimate, their flocks might have contained in excess of 100,000 birds.

2004

As always, **Canada Geese** were back in early March, and already on April 2, thousands of **Snow Geese** were passing over the south side of the lake. On April 9, my impression of their number was again in the order of **100,000**. The only way to obtain a realistic estimate of geese numbers of that magnitude is through aerial photography of roosting flocks. **White-fronted Geese** were present by the hundreds until the second week of May. **Ross Geese**

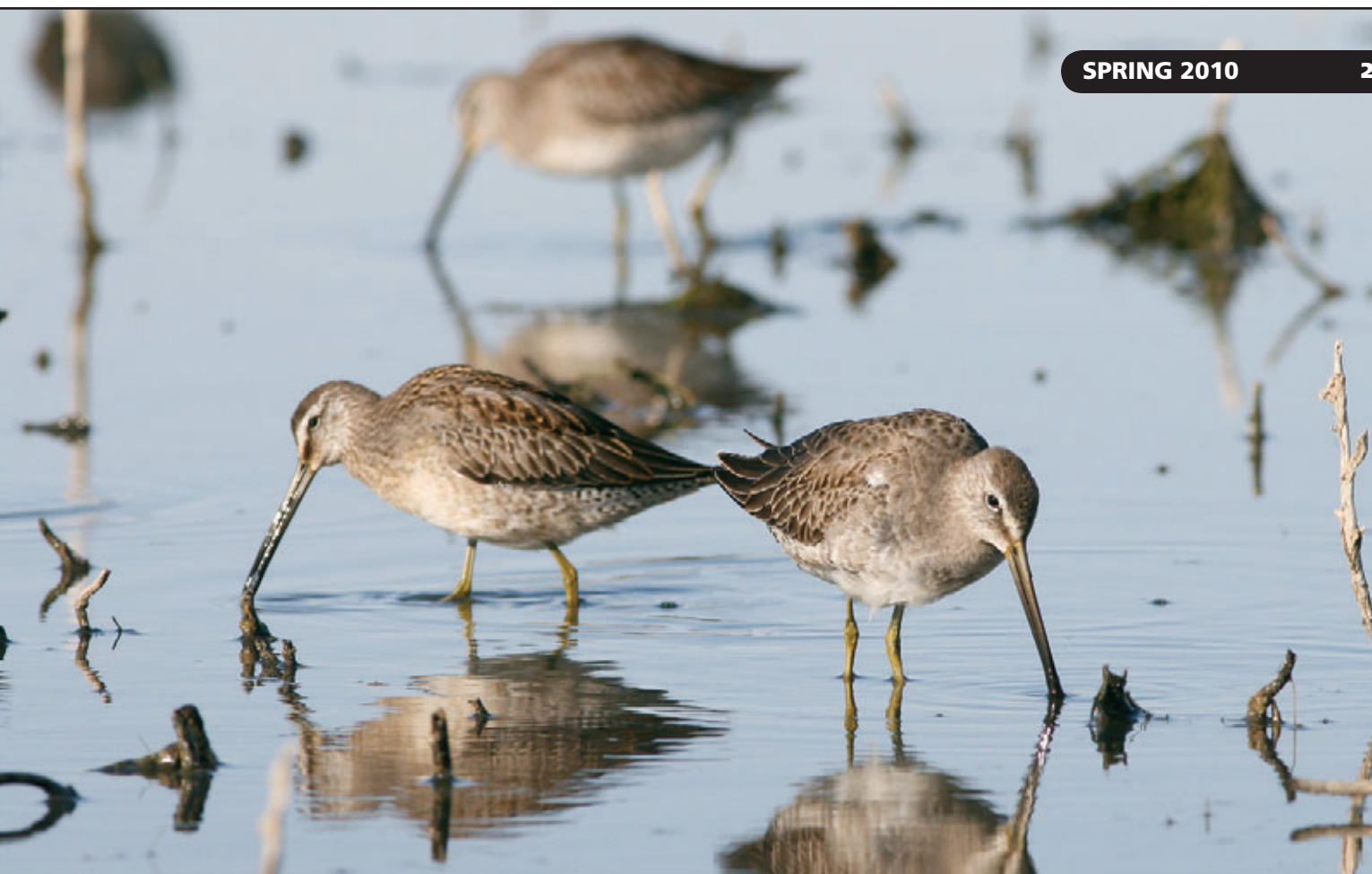
stayed until May 16, when I saw about 500 lifting off from the east shore and flying inland to feed on stubble fields. Another interesting phenomenon this spring was the concentration of **Rough-legged Hawks** and **Northern Harriers**, evidently attracted by the local explosion of small rodents (Meadow Voles) in the matted vegetation covering the former lake bottom. On the late afternoon of April 30, while scanning the area through binoculars, I counted 11 **Short-eared Owls** flying far and near. Later that spring and early summer, the owls performed their peculiar courting display. The migration of shorebirds began rather early. On May 10, I recorded **tens of thousands** of **dowitchers** and **sandpipers**, all over the shallows and vast mudflats. It was quite a spectacle to see their flocks billowing up into the sky, alarmed by Peregrine Falcons or Merlins. On May 16 and 19, I again made an effort to calculate the total avian population of the lake by extrapolating the mean number of birds per linear metre to the entire extent of shoreline. And again I reached a figure of around **100,000 shorebirds**. The relative proportion of species was difficult to assess, but it seemed that the **Semipalmated Sandpiper** was the most numerous by far. Tens of thousands stayed until May 24, until they were suddenly gone the next day after a warm southerly wind had sprung up overnight.

2005

This was again an interesting year. Realizing the value of keeping score of the migrations at this vanishing Ramsar site, I increased my visits



KILLDEER. RAYMOND TOAL



DOWITCHERS ON BEAVERHILLS LAKE. BRIAN GENEUX

to a total of 41 days: 5 in April, 10 in May, 3 in June, 3 in July, 5 in August, 7 in September, 5 in October, and 1 in November. On April 2, there were hundreds of Canada Geese and thousands of Snow Geese along the south and west shores. Small flocks of sandpipers arrived in the first week of May and built up to a total of about 1000 on May 8. By mid May, there were many thousands. On May 22, I counted 50,000 Semipalmated Sandpipers along my 4 km of East Bay shore. On the 26th of May, the last of the northern migrants included some 100 Black-bellied Plovers and untold masses of Red-necked Phalaropes. In early evening of the same day, I counted 27 ravens flying by, perhaps on their

way north or to a local roosting site.

Return migrations began early that year. On June 1, my walk along East Bay was enlivened by many small flocks of Sanderlings, easily totalling 2000 birds. They were gone on June 16. On July 2, there were about 200 Semipalmated Sandpipers and three Baird's in addition to a hundred or so Red-necked Phalaropes. By July 9, scattered along the entire shore, there were many Lesser Yellowlegs, some 40 Marbled Godwits, and three Hudsonians. On July 26, I counted at least 500 Hudsonian Godwits. Others were too far away for certain identification. This record and the June sighting of 2000 Sanderlings shows how the passage of some species could

easily be missed during this time of year when few birdwatchers visit the lake. On August 2, there were still about 40 Hudsonians, but none on August 10. On the 19th, I spotted 3 Black-necked Stilts, always rare on the main lake. Another rarity for this time of year was 4 Buff-breasted Sandpipers. The most common wader was the Long-billed Dowitcher. Far and near, they numbered about one thousand. At the end of the month, many Black Terns had joined the clouds of Franklin's and Bonaparte's Gulls hawking lakeflies over the water.

By September 8, the peeps had greatly declined. During my usual walk along East Bay I saw 60 Sanderling, 200 Baird's Sandpipers, 20 Semipalmated, 10 Pectoral, and 2 Least. In the last week of September, there were still 700 dowitchers, 200



Black-bellied Plovers, 50 Golden Plovers, several hundred White-fronted Geese, and a few dozen **Tundra Swans**. In earlier years, when the water was deeper, numerous migrating swans used the lake as a traditional staging site, dredging up the roots of the abundant Sago Pond Weeds, which have now practically gone. Predictably, tens of thousands of Snow Geese stayed well into October. On November 1, the lake was frozen except for some holes kept open by the last of the geese. In late afternoon, as seen from the west shore, several thousand **Snow Geese** flew inland to feed on the stubble fields, which they shared with scattered flocks of **Snow Buntings**.

2006

As seen from the south end, the former lake bed looked like a vast wasteland stretching to the horizon. On April 11, half a dozen **Short-eared Owls** and **Northern Harriers** were winging to and fro over the matted vegetation. As is usual, shorebird migrations began during the first week of May and peaked during the third week. There were thousands of **Semipalmated** and **Baird's Sandpipers**, many hundreds of **Stilt Sandpipers**, and tens of thousands of **Red-necked Phalaropes**. On May 21, in

awe of what I had seen that day, my notes included this phrase: "**several hundred thousand shorebirds!**"

On May 24, I guesstimated the phalaropes

alone at about 100,000. On one memorable day, when several other local birders were present, I saw six **Peregrine Falcons** in simultaneous pursuit of a dowitcher. It made a miraculous escape by plunging down in the middle of a group of swimming ducks, which kicked up water to ward off a persistent attacker.

During June, as the East Bay shrunk in size, **ducks** were concentrated into great rafts, consisting of 50 % shoveler, 20 % teal, 15 % mallard, 10 % gadwall, and 5% pintail.

During two summer visits -- on July 15 and 30 -- there was a scattering of the usual waders, including yellowlegs, dowitchers, Stilt Sandpipers, avocets, Hudsonian, and Marbled Godwits. Willets had been scarce all year. A single **Whimbrel** made my day on July 30. By early August, the last remaining pool had become too shallow even for ducks. Unable to dive at a falcon's attack, they had flown away to deeper water. Here and there on the wet mud, a few Baird's Sandpipers, Black-bellied Plovers, and Killdeer were running about, snapping up flies. By the first of September, all water had dissipated and the flats turned the colour of chalk. On windy days, dust devils swirled high into the sky and sheets of soda salts shifted downwind like drifting snow.

2007

This year began with a surprisingly good snowmelt runoff from the lake's huge watershed in the Beaver Hills to the west. Both major inlet creeks -- Amisk in the south and Ross in the north -- kept running well into June. The Lister Lake weir was overflowing vigorously, releasing its dammed-up waters into the dry basin of what used to be the main lake. Flooded out of their shelters in the protective vegetation, **Meadow Voles** became vulnerable to predators. On April 14, scanning through binoculars from a point on the south shore, I counted at least 16 **Short-eared Owls** and 10 **Rough-legged Hawks** in addition to many ravens and harriers, quartering the ground for prey. The life-giving waters rose to restore the lake to about one third of its former size. Walking my 4 km survey route, I was pleased to see that the marker stone was completely inundated. Meanwhile, dormant roots and seeds of Bulrush and Cattail began to sprout, and by mid August extensive stretches of the formerly open waterline became overgrown. Another noticeable change was the return of sticklebacks, minnows, and aquatic crustaceans, apparently flushed into the lake by the overflowing weirs inland. The fishes supplied a food base for **pelicans** and **grebes**, which had been absent for several years. Also attracted by the enriched marsh habitat were a dozen or more **Black-necked Stilts**, which established a nesting colony in the wet meadows south of Lister Lake. Another two pairs nested successfully on East Bay.

By contrast, the 2007 spring passage of shorebirds was very poor. The explanation was simple. All dried-up sloughs in the region had been rejuvenated by snowmelt, and Beaverhills Lake was no longer the only available wetland for feeding. By the third week of May, flocks of **peeps** and **plovers** along my route were no larger than a

few dozen, or at most a couple of hundred, a far cry from the preceding years. Another change was the return of a few nesting **Wilson's Phalaropes** and **Marbled Godwits**, formerly common around the entire lake but absent during the drought years. Migrants on their way south began to make their appearance in mid July, when I recorded hundreds each of **Lesser Yellowlegs** and **Hudsonian Godwits**. Two weeks later, on July 31, the Hudsonians were gone. In early August, numerous sandpipers, many of them **Pectorals**, were foraging in wet grass. Along shore, I counted 13 **Willetts** and 10 **Marbled Godwits**. The lake bed must have been rich in aquatic foods, such as the larvae — called bloodworms — of midges, for the build-up of dowitchers was spectacular.

From September 9 to October 7, anywhere from five to ten thousand **dowitchers** were probing the shallows far and wide. As well, the lake was a place of plenty for fish-eating species. **Common** and **Forster's Terns** were hovering over the water, and some 200 **White Pelicans** collected on a gravel bar near the location of their former breeding colony. In addition, after a long absence, I saw the odd **Western Grebe**. Three **Hooded Mergansers** represented the first specimens of this beautiful species I had ever seen on the main lake. As usual, Franklin's, Bonaparte's, and Ring-billed Gulls filled the sky, and on September 27, I spotted a **Sabine's Gull**, which was later photographed by Gerald Romanchuk. Birds of prey were well represented.

Throughout September, it was routine to see several **Peregrines** and **Merlins**, and in mid September Richard Klauke reported a **Gyr Falcon**. I had seen this big falcon several days earlier but failed to identify it correctly because I seldom carry a telescope during my long walks. My previous earliest fall record for the Gyr Falcon was September 25. In most years, during summer and early fall, the **Prairie Falcon** shows up at the lake too, where it hunts shorebirds. In this wetland habitat, Prairie Falcons are easily mistaken for Peregrines. Gerald Romanchuk obtained an excellent photo of a Prairie Falcon as it passed right overhead. On September 10, my diary entry reads tens of **thousands of ducks and geese**. This wealth of waterfowl attracted many eagles. On September 30, Gerald and I counted 10 immature **Bald Eagles** roosting in the trees near the Mundare road. On that date, I also watched a **Golden Eagle** hunting ducks. In the meantime, the lake continued to drop and by October 7 my marker stone was entirely free from the water line. This means that the lake had lost about half a metre in level over the summer. On October 22, the last of the shorebirds included a dozen **Black-bellied Plovers**, their sad whistles haunting my walk over the ever widening mudflats.

2008

This was another poor spring for runoff despite a fair amount of winter snow. Apparently,

the meltwater went straight into the parched and cracked ground. During the first two weeks of May, geese and gulls were common, and there were a couple of hundred **avocets** in East Bay. Sandpipers increased to several thousand on May 19 and 24, but the pelicans and other fish-loving birds had gone. During June and July, on the extensive flats of sand and grit, I was delighted to come across several **Piping Plovers**. On July 15, one pair was guarding four chicks. On that same date, there were many **Stilt Sandpipers** probing the shallows. During August the remaining pool of water continued to shrink, but the wet mud attracted good numbers of peeps as well as a few plovers until August 29. On September 19, I saw no water at all. Like last year, **Black-bellied Plovers** were the last to hang around.

2009

Another very dry spring. In early May, a few migrants were attracted by the shallow pool of snowmelt and wet mud near the centre of the former East Bay. On May 16, there was a fair range of species including



AMERICAN AVOCET. JIM UFFELMANN

20 Red-necked Phalaropes, 2000 Semipalmated Sandpipers, 50 Semipalmated Plovers, 10 Stilt Sandpipers, 2 Baird's, 3 Sanderlings, 3 Black-bellied Plovers, 20 Golden Plovers, 12 dowitchers, and one each of Whimbrel and Marbled Godwit. This day became my last ever to walk the survey route. I decided that another visit, involving 200 km of driving, did not seem worthwhile. That spring the weather continued warm and windy without major rains. At the lake, all birdlife would soon vanish into dry air.

SUMMARY

Water is the wellspring of life. Conversely, its absence spells death. In my lifetime, I know of no more striking example than the rise and fall of Beaverhills Lake, a once

huge and world-famous wetland vibrant with the wings and cries of thousands of birds. In less than ten years, it went from a teeming avian treasury to a wasteland. As the water levels dropped, the first birds to abandon the lake were the fish-eating and island-nesting species: pelicans, cormorants, grebes, and terns. The collapse of reedbeds and marsh led to the departure of bitterns, night herons, blackbirds, and rails. Nesting habitat also vanished for ducks, Marbled Godwits, Willets, and Wilson's Phalaropes. By contrast, the shrinking lake and widening mudflats attracted masses of migrant sandpipers and waders. In May of 2005-2007, my rough estimate of their total number was in the order of magnitude of several hundreds

of thousands, surpassing all previous records for central Alberta. The final days of the lake were again quite dramatic and sudden. By the fall of 2009, all shorebirds, ducks, geese, and gulls had left.

It was interesting to observe how quickly the great scar of new land was covered up with a succession of quick-growing plants sprouting from the fertile mud. Marsh Ragwort bloomed and went to seed early, to be replaced by vast beds of Foxtail Barley. As soon as the soil fell dry, the prominent colonizers were Many-flowered Aster, Oak-leaved Goosefoot and Western Dock. After two growing seasons the former lake bed was transformed into a knee-high jungle of sedges, reedgrass and thistles, stretching as far as the eye could see.

Dick Dekker, PhD., is a wildlife ecologist living in Edmonton.

The past ups and downs of Beaverhills Lake

During its heyday, Beaverhills Lake received a number of conservation accolades. In 1987 it was designated a Wetland of International Importance under the Ramsar Convention. In 1996, it became a Western Hemisphere Shorebird Reserve and a Wetland for Tomorrow under the North American Waterfowl Agreement, signed between Canada, the USA, and Mexico. Alberta did its share by listing the southeast corner and some islands in the north as Provincial Natural Areas to be protected and preserved unimpaired for future generations. In addition, in 1985, the Canadian Nature Federation declared Beaverhills Lake a National Nature Viewpoint, and the Beaverhill Bird Observatory set up shop in the same year. Finally, in 1997 the lake's status was raised another notch when BirdLife International ranked it as a Birding Spot of Global Significance. Sadly, by

September 2009, all of this had come to naught.

An eutrophic sheet of shallows lying in a flat agricultural plain, Beaverhills Lake has gone through extreme highs and lows. Historically, as far as is known, the cycle reached its highest point at the turn of the 18th century. After 1920, the water level gradually dropped to a deep low in the 1950s, until it rose again to an intermediate peak in 1974. After two decades of relative stability, the lake went into a gradual decline as a result of 35 years of upstream water diversions superimposed on a series of years with below average precipitation. During the fall of 2006, the lake came close to point zero, but the following spring, due to a vigorous inflow of snowmelt, it was restored to roughly one-third of its 1980s size. Unfortunately, the total annual

precipitation in 2008 and 2009, respectively 309 and 293 mm, was well below the 30-year mean of 450 mm, and by early September of 2009 the last puddles had evaporated. It remains to be seen, whether annual snowmelt and rainfall will ever be sufficient again to restore this once famous wetland to its former splendour.

For further information, see the following publications by Dick Dekker.

- 1998. *Prairie Water – Wildlife at Beaverhills Lake*. University of Alberta Press, Edmonton. (Updated and enhanced from the 1991 publication).
- 2004. Beaverhills Lake in the drought years 2001-2004. *Nature Alberta* 34(3):10-12.
- 2005. The water crisis at Beaverhills Lake. *Nature Alberta* 35(4): 10-13.
- 2008. Will Beaverhills Lake ever regain its former greatness? *Nature Alberta* 37(4):26-30.



Lu Carbyn

Loran Goulden
Memorial Award recipient

For a list of his publications, see:
www.wildbirdgeneralstore.com/carbyn/books.html

BY SANDRA FOSS

Dr. Lu Carbyn's research interests have included avian ecology, ecosystem biology (grasslands), and studies on mammals in several western and northern Canadian national parks. He became a biologist with the Canadian Wildlife Service in 1967, a research scientist in 1974, and has served on assignments in Poland and Portugal.

From 1989 to 1993, he headed the Canadian Swift Fox Reintroduction program as chairman of the Recovery Team. Dr. Carbyn is the Canadian member of the International Union for the Conservation of Nature and Natural Resources (IUCN) Wolf Specialist Group and Canid Group, and is currently an Emeritus Research Scientist with the Canadian Wildlife Service in Edmonton, Alberta.

An adjunct professor with the University of Alberta, Dr. Carbyn works with graduate students. He is currently offering a course called *Wildlife-Human Activities: Conflicts, Assessment and Mitigation*; the course gives University of Alberta students an appreciation of the issues and concerns in this province.

He has been invited to provide advice on wolves in the United States, Mexico, Poland, Italy and Portugal. As a consultant, he is involved with the conservation efforts in Nebraska of media magnate Ted Turner.

Ludwig Carbyn grew up in Namibia, in southern Africa. His forester father taught him many of the basics about nature. As a young boy, he spent hours sitting under a camel thorn tree watching the myriad birds around a local water hole.

"I wrote my first article for a wildlife journal when I was nine years old and I got a prize for it," he says. "It was for my observations of cattle egrets." His family moved to New Brunswick when he was 11 and he quickly became absorbed by the new temperate forests which were so different from the dry African savanna. Lu met a fascinating old trapper named Henry Fagan, who got Lu into a northern Canadian frame of mind. Fagan also taught the young Carbyn how to find and trap bobcats, mink and red foxes – skills which would serve him well in years to come.

In the early '80s he was one of the driving forces behind the establishment of the Clifford E. Lee Wildlife Sanctuary near his acreage home.

Every year since 1985, he's travelled to Wood Buffalo Park to observe its wolves and bison. His research originally started as a government project, and he has continued for more than a decade at his own expense in order to provide continuity.

I first met Lu on a University of Saskatchewan course (trip) in Wood Buffalo National Park (WBNP), where he was teaching a number

of interested individuals, as well as a National Park staffer and a CBC-TV film crew. He taught this further education course to naturalists in WBNP for several years, sharing what he knows about the wolves, bison, birds, ecology and ecosystems of WBNP.

He and his wife Jaynne operate the Wildbird General Store in Edmonton, which gives him another venue for delivering his numerous wildlife education projects, particularly to groups of small children, but also to Edmonton Nature Club members and many others. As an NA Director, Lu is active with the Young Naturalists committee and has been a Board Member of the Edmonton Nature Club for many years.

He has spoken about his work with wolves and bison at a conference in Texas and he's been invited to be the guest speaker at the U.S. premier showing of an IMAX film on wolves. He helped David Suzuki film a *Nature of Things* (CBC) episode in Wood Buffalo Park in the mid '80s, but it was his work with BBC film makers that brought the wolves of the north to a huge audience.

Lu has spent much of his life educating folks about Alberta's wildlife and ecosystems, and is a most appropriate recipient of the Loran Goulden Memorial Award.

Wildlife! Starring... the American White Pelican

BY SANDRA HAWKINS

Some may believe that the American White Pelican (Pelecanus erythrorhynchos) is a bird designed by a committee! Others will marvel at its functionally elegant design.

No matter how one may look upon this bird, it is an endangered species in many parts of its former range. Although its population is still considered to be low in Alberta, it has recently been removed from the provincially endangered list. In eastern Canada, however, it is largely extirpated and a pelican sighting is cause for excitement.

American White Pelicans (AWP) are a migratory species. They return to Alberta near the end of April and begin their southward migration in late September before the freeze-up. The winter range encompasses the US Gulf States (especially Texas and Florida), eastern Mexico, Baja California and parts of western Mexico. There are some that winter on inland waterways with the Salton Sea in southern California being the most notable.

DESCRIPTION

The AWP is one of the largest birds in the world with a wing span of up to 3 m and weighing 5-8 kg. These are large white birds with black-tipped wings. Their legs may be pale yellow to light orange in colour, while the bill and gular pouch are flesh-coloured or yellow. A flattened protuberance is evident on the upper part of the bill during breeding season. There is no differentiation in the outward appearance between sexes, but juvenile birds usually display grey feather patches on the back of the neck and on top of the head. The irises of juveniles are brownish, while those of their parents tend to be an orange/yellow. In the wild, the life span of the AWP is 12-14 years, although one has been recorded to have lived for over 26 years (Knopf and Evans, 2004).

DISTRIBUTION

American White Pelican distribution in Alberta ranges from the border with the USA north to the 60th parallel wherever suitable locations may be found on lakes in the aspen parkland, prairie and boreal forest. For a distribution

map refer to the reference, "Species at Risk in Alberta."

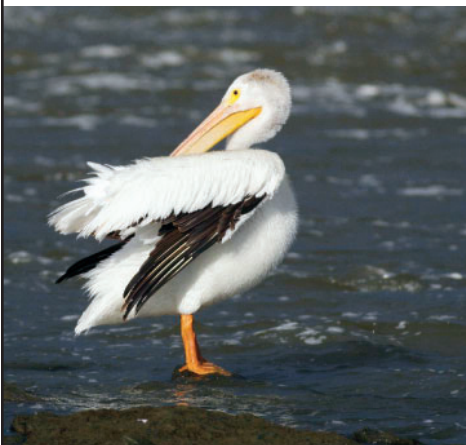
DIET

Shallow-water fish, amphibians and crustaceans make up the greatest part of the American White Pelican's diet, although they sometimes will forage in deeper water when fish may be close to the surface. They mostly feed in daylight, but during nesting season they may be forced to feed at night as well. Lone foragers and co-operative groups (usually more successful than single birds) intermingle. When foraging in groups, the birds try to drive fish such as carp and minnows into shallow water where the prey may then be scooped up by their bills and stored in the expandable gular pouch.

COURTSHIP AND NESTING

Upon arrival at the breeding colony, seasonal monogamous pair bonds are formed after a round of courtship displays that include bowing, head swaying, tandem strutting and circular courtship flights. Highly synchronous colonial breeding takes place on islands separated from shore by deeper water. The separation from the mainland provides an added safety measure for the nesting birds.

Nests are not elaborate. They are simple scrapes (on flat ground with



SANDRA HAWKINS



A POD OF PELICANS. SANDRA HAWKINS



AMERICAN WHITE PELICANS FISHING COOPERATIVELY. SANDRA HAWKINS



A PELICAN DUO. SANDRA HAWKINS

easy access) in areas that are not subject to fluctuating water levels and free from mammalian predators. Two eggs, chalky white in colour, laid two days apart are the norm. There is a single brood. Damaged eggs are not replaced and nests are abandoned if both eggs are lost. Both parents participate during the 30 days of incubation when the eggs are continuously protected under the webs of their feet. Food is regurgitated and the young are brooded for 15-18 days. The second chick in a brood often dies from starvation.

Young pelicans are able to fly at 11-12 weeks, and by the time they reach the 14 week mark they tend to move to another lake to feed. Prior to flight, young birds of varying ages gather together in groups called pods with older chicks offering some protection to the younger birds. At this stage, the parents get a well-earned break.

FUTURE OF THE AMERICAN WHITE PELICAN IN ALBERTA

Disturbance (and the resulting loss of habitat) from humans, be it from industrial, residential or recreational sources (including the vandalizing of nests) poses

the most serious threat for these birds. Fluctuating water levels due to human or natural causes may also damage nests and force the pelicans from their established colonies. Effects from pesticides and mercury, especially in wintering locations, also take a toll.

Since 1977, Alberta's Wildlife Act has designated seven breeding areas as Wildlife Sanctuaries where "It is illegal to enter or approach within 800 m (1/2 mile) of these critical nesting sites between April 15 and September 15" (*Additional information is available from the "Species at Risk in Alberta" web site listed below*). The American White Pelican is part of every Albertan's heritage; habitat enhancement projects and on-going funding are critical. The future is in your hands.

REFERENCES

- Species at Risk in Alberta, Government of Alberta (Includes map of present and historical ranges in Alberta)
- www.srd.alberta.ca/BioDiversityStewardship/SpeciesatRisk/SpeciesSummaries/documents/SpeciesatRisk-AmericanWhitePelicanJuly2009.pdf
- Erlich, Paul R., David S. Dobkin, and Darryl Wheye, 1988, *The Birder's Handbook: A Field Guide to the Natural History of North American Birds*, Simon and Schuster, New York, N.Y.
- Knopf, F. And R. Evans, 2004, American White Pelican (*Pelecanus erythrorhynchos*), *The Birds of North America Online*, 57: 1-20. <http://bna.birds.cornell.edu/bna/species/057>, http://animaldiversity.ummz.umich.edu/site/accounts/information/Pelecanus_erythrorhynchos.html
- Where to find American White Pelicans in Alberta: <http://talkaboutwildlife.ca/profile/?s=11>

Ponderables

Forget not that the earth delights to feel your bare feet and the winds long to play with your hair.

KAHLIL GIBRAN

Process and (Maybe) Promise: Wing Tagging Alberta Turkey Vultures

BY R. WAYNE NELSON, RICK MORSE, FLOYD KUNNAS, AND DAVID MOORE

If we dream big, and add some hard work and good luck, maybe we will find answers to some big questions. With about 20 Turkey Vulture (Cathartes aura) nests being found each summer in abandoned farm buildings in our east-central Alberta study area (Nelson et al. 2008), by the end of the 2007 nesting season it appeared that marking nestling Turkey Vultures with wing tags might be a feasible way of discovering much more about this elusive and enigmatic bird.

In early August 2008 we spent a fascinating day learning the wing tagging technique with Brent Terry, Marten Stoffel, and Michael Blom, the team that Stuart Houston had organized for that sixth year of tagging nestling Turkey Vultures in Saskatchewan. Wing tags, like bird bands, are approved and coordinated by the Bird Banding Office of the Canadian Wildlife Service, Ottawa, and the U.S. Fish and Wildlife Service, Patuxent, Maryland. Before a person can apply wing tags, the Banding Office requires that the person is trained and approved by someone who is already approved to apply wing tags. Stuart described it as being sort of like practicing medicine in some third world nations: "See one; do one; teach one." For Alberta vultures, we were issued the combination of yellow tags

with three black letters (we tag only the right wing).

Turkey Vultures and a few other non-vulturine species of birds cool down with evaporation by using urohydrolysis (defecating on one's legs). Even though vultures do bath in water, this guano on their legs can accumulate outside and inside traditional bird bands and cause leg abrasions and life-threatening problems. After Ed Henckel discovered this problem in the mid-1970s, the banding of Turkey Vultures was banned, and wing-tags were tested for suitability and safety.

WING TAGGING – THE PROCESS

The process is not complicated 'rocket science', but there are some 'touchy-feely' elements that require concentration, attention

to detail, and great concern for the bird's welfare. The Saskatchewan team that taught us had gained much experience in tagging almost 300 nestling vultures in the previous five years with no evidence of injury or mortality as a result of the tagging process or the tags themselves.

The young vulture should be roughly 57 days old, mostly feathered, and around 5-7 days prior to making its first flight at an age of about 60-64 days old. Earlier in the season, we or cooperators visit most of the vulture nests in order to age the nestlings (see Nelson et al. 2009) and predict the

WAYNE APPLIES THE EARTAG THAT HOLDS THE WING TAG IN PLACE, AS ALORA NELSON HOLDS THE NESTLING VULTURE'S FEET AND THE BAG OVER ITS HEAD. LEN PETTITT



best date to visit them for wing tagging. Our experience handling large raptors was of some help (we grab the bird's legs to immobilize it, then carefully fold its wings), but a vulture's claws are of little concern relative to its beak, and we always have to watch out for that beak! We take the captured bird to a well-lit and debris-free work area in its abandoned building, or just outside. We may slip the bird into a long, somewhat snug box for weighing and temporary holding, and when we are ready to tag it we slip its head, upper body, and folded left wing into a dark cloth bag. With the left hand, the assistant holds the bird's legs and the cloth handles of the bag (hood) that is over the bird's head and beak, and lays the bird on its breast on our equipment tub with the bird's right wing exposed. The assistant's right hand is free to help the person who is doing the tagging.

In front of the bird's elbow, between its shoulder and wrist, there is a piece of strong, very flexible skin that connects the upper arm to the forearm – the patagium. (Check it out on a chicken wing.) At the right spot in the patagium we want to punch an approx. 4mm diameter hole with a Tandy leather punch, and through that hole in the skin we will insert a trimmed, standard sheep ear tag. With the appropriate pliers we clamp the two parts of the ear tag together, after we ensure that our wing tag



WAYNE HOLDS THE VULTURE'S LEGS AND MEASURES TARSUS LENGTH, AS RICK HOLE-PUNCHES THE RIGHT PATAGIUM FOR A WING TAG. ALORA NELSON

is properly threaded onto the ear tag and is lying against the upper and lower surface of the wing.

But first we spray rubbing alcohol onto the upper and lower feathers of the bird's patagium. The alcohol, while providing some sterility to the skin that will be punched, also wets and mats the fluffy down feathers that almost obscure this area of skin. We then can see the skin itself, and the pinfeathers that we want to avoid, and any visible blood vessels that may remain in the patagium. As the young vultures near their dates of first flying, most of the visible blood vessels in the patagium shut down. Through the patagium we can easily see light and any significant blood vessels that remain and must be avoided. We also want to be at least 1cm back from the leading edge of the wing because of an important thicker area there

(tendon?) that we do not want to damage. Finding the right spot for the hole through the patagium is the most difficult part of the process, and sometimes it takes us 10 minutes to find just the right spot. As desired, for almost all of the holes that we have punched through the patagium there has been no bleeding whatsoever; a few have bled a tiny amount. With obvious differences, the process is somewhat akin to piercing human ears and putting eartags in the ears of livestock. It is not recommended for the faint-of-heart!

After some measurements are taken, the tagged young vultures are put back into their familiar space, and we quickly depart. On one memorable occasion, as we left the old farmhouse, one of the freshly tagged young vultures watched from an upstairs window. We could only guess what it was thinking!

PRODUCTIVITY AND DISTRIBUTION

In our first year of tagging (2008), we tagged 20 nestling vultures at 11 nests, and we visited several other nests too late for tagging. In 2009 we tagged 35 nestlings at 21 nests; at two of those nests we were a day or two too late, and one of the two siblings flew before we could catch it for tagging. And in the fall of 2009, from our ever-increasing company of informants we learned about three additional vulture nests, each of which reared two flying young; i.e., a total of 43 young vultures at 24 nests in 2009.

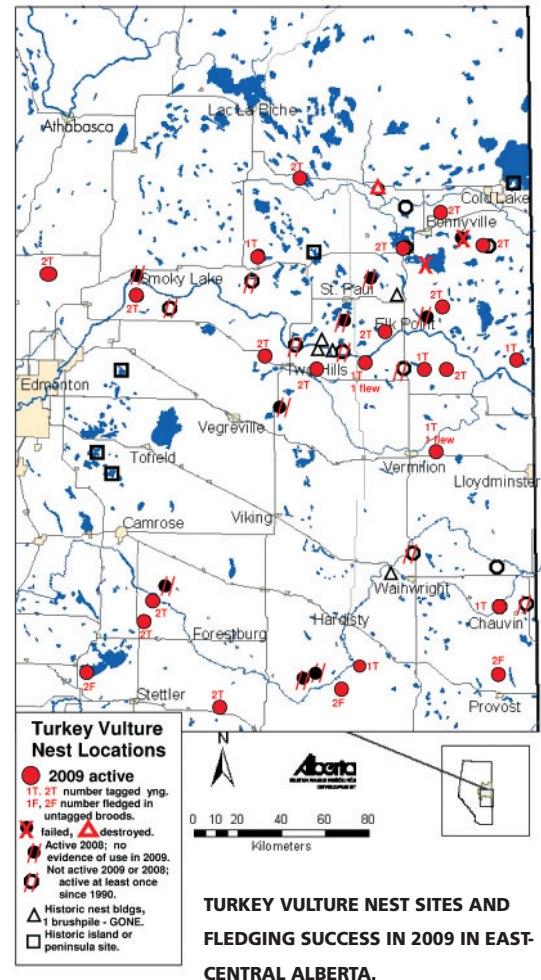
The accompanying map shows the widespread distribution of the known vulture nests and their 2009 successes in this broad area east of Edmonton. These nests have been found largely by chance. With only one exception, all of the vulture nests that we know about have arisen from sightings reported to us by others. How many other vulture nests are there within this study area?

POPULATION DYNAMICS, DEMOGRAPHICS, DISPERSAL – AND BIG DREAMS

Why do we go to all this trouble to wing tag young vultures? Because there is so much basic biology that is still unknown about Turkey Vultures, and marked vultures may help answer some of those many questions...such as: At what age do young vultures settle down and breed? How far from their hatching place do young vultures breed? Once they have nested, do vultures stick with that nest site and mate, or do they move to other nesting sites in future years? Do they take some years off and 'hang out' in the neighborhood, but don't breed?

When a nest site is lost (e.g., a building collapses), does the vulture pair then nest in other buildings in the nearby vicinity? What happens when one member of a pair dies? How does a pair of vultures split the incubation, brooding, and feeding duties between the sexes (we are trying to address that question by using cameras at a few nests)? Do pairs of vultures ever have helpers at their nests for incubating and rearing young, and if so are the helpers relatives? What mortality factors are significant to our vultures? Where do our vultures, from this extreme northern edge of their breeding range, migrate and spend their winters?

Many of these questions require that a number of vultures are identified a number of times at their nest sites, by means of their wing tags or some other identifying features. This may require huge amounts of time with telescopes in order to spot and ID the parents as they arrive or depart from their nest buildings. Is that even possible? As another means of trying to ID individual vultures and learn about their parental duties, in 2009 we began experimenting with some "trail cams" that normally are used outdoors and for big game – we have discovered that photographing vultures indoors



with those cameras is a very different challenge! But strategically placed motion-sensitive cameras (preferably without visible flash) may be an important tool for obtaining data and answers, when combined with wing tags or other individual ID features on the parent vultures (e.g., it may be possible to use the whitish tubercles on adults' faces). So, simply observing and identifying any returning and nesting vultures are a big challenge.

And of course we are hoping that our tagged vultures return to breed in the same general area - or at least the same general region - where they were hatched. There is a hint that this may be the case in some of the early results from the vulture tagging studies in Saskatchewan,

where at least one of the vultures from their first tagged cohort in 2003 was known to have been in Saskatchewan, paired at a building, but not yet nesting, in 2009. But, even if young vultures do return to near home to settle and nest, and if we and others are able to persist with this study for a few decades, over the years will we get *enough* sightings of tagged vultures to answer some of these big, important, population biology questions? Of course it is possible that Turkey Vultures have a very different reproductive-dispersal strategy from some other large species that are relatively well understood (e.g., Peregrine Falcons, Bald and Golden Eagles), and it may be that most of the breeding vultures in our area were hatched at nest sites very far away, that very long distance dispersal is the norm, and that most of our tagged young vultures will in turn settle at sites so far away that we (and others) will not find them. That's a very bad dream!

Regardless, to find out what we can about this vulture population, we will continue to spend large amounts of time afield and will continue to rely on vulture observations from serious and casual birders alike.

DISTURBANCE AT VULTURE NESTS

Always in the back of our minds is the concern that our visits to vulture nests may be placing nestling vultures at additional risk or causing parent vultures to abandon nests in the current or future years. Even at nests that can be reached without a ladder we have had no indication that predators follow

us into buildings to eat young vultures. Indeed, in our seven years of visiting vulture nests we have found only one instance of predation or scavenging upon a nestling vulture, and it appears that they have various means to successfully repulse potential predators (including hissing and vomiting). From three different lines of evidence in our data, and from the experience of our Saskatchewan colleagues, we are fairly sure that our visits and our wing tagging have not caused nest abandonments or failures and have not caused parent vultures to shift to other nesting locations in subsequent years. Whether we make only quick visits to nests, make wing tagging visits to nests, or visit nests in mid-late September after vultures are mostly gone, we find that between 20 and 30% of the vulture nests that we visit in one year will be vacant (or at least not productive) in the following year. The wet, cool, slow spring of 2009 appeared to contribute to the 30% figure for that year.

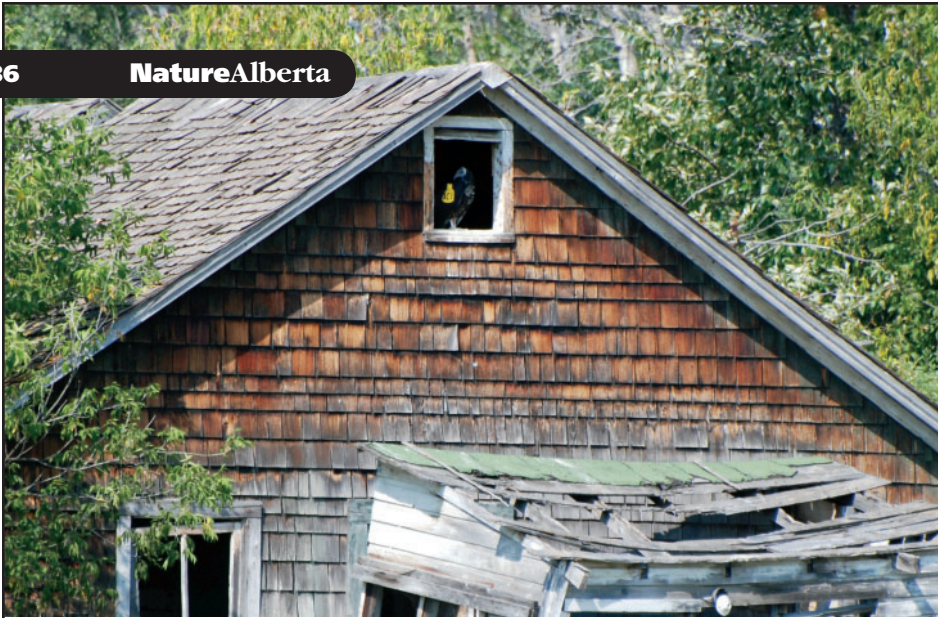


CO-AUTHOR RICK MORSE HOLDS AAM. ABOUT A MONTH LATER AAM WAS HIT BY A CAR ABOUT A MILE FROM HOME. ITS BROKEN WING WOULD NOT MEND AND IT WAS EUTHANIZED. WAYNE NELSON

TRAVELS AND DEATHS OF YOUNG VULTURES

We have received no reports of our individual tagged vultures far away on migration, but in mid-January 2009 an e-mail reported that two Turkey Vultures with yellow tags on their right wings (i.e., east-central Alberta vultures) had been observed in Venezuela (the observers could not read the letters on the tags). A few Saskatchewan-tagged vultures have been reported from Venezuela too.

A major value of bird banding is associated with the death of the bird carrying the band. The same applies to wing tags. In our project we are hoping to observe *living* vultures that are individually recognizable because of our wing tags; therefore the death of a young vulture with a wing tag comes as a very unpleasant surprise. To date we've had two such reports. One of the 20 tagged nestlings from 2008, AAM, was barely a month into flying when it was hit by a car about a mile from its home; under rehabilitation in Edmonton its broken wing would



ACI STANDS IN ITS HOME WINDOW AT ABOUT 67 DAYS OLD AND PROBABLY FLYING FOR A FEW DAYS. WAYNE NELSON

not mend, and it was euthanized; the preserved skin is at the Royal Alberta Museum. On 26 September 2009, a young vulture, ABK, tagged east of Two Hills on 7 August 2009, hit a powerline near Kinley, Saskatchewan, almost 400 km southeast of its hatching place; it was seen spiralling down into a crop, and was taken to the Western College of Veterinary Medicine in Saskatoon, but its injuries were so major that it was euthanized. Do most or all of the east-central Alberta Turkey Vultures initially head southeast on their fall migration? Each bird, each wing tag, has a fascinating story to tell.

Please report all sightings of wing tagged vultures; see *Nature Alberta* 37(2):12-13 for color combinations and contact people from Alberta and elsewhere; or check the Nature Alberta website: www.naturealberta.ca (click on "NEWS"). And please report all sightings of vultures on buildings to the authors.

ACKNOWLEDGEMENTS

We thank the Alberta Sports, Recreation, Parks, and Wildlife

Foundation for a grant in 2009 that covered a portion of our very considerable gasoline costs and for some trail cams for experimental use to monitor comings and goings at three vulture nests. The vulture project would not be possible without the many observant folks who kindly report to us "a vulture on a building", the many landowners who graciously allow us to access their land to search for young vultures in long-forgotten buildings, and our occasional field assistants including Jim Struthers,

A NESTLING SHOWS ITS WING TAG.

WAYNE NELSON



Jim MacGregor, Allan Zimmerman, and especially Len Pettitt and Alora Nelson.

LITERATURE CITED

- Nelson, R. W., F. Kunnas, and D. Moore. 2008. Turkey Vulture update. *Nature Alberta* 37(4):14-21.
- Nelson, R. W., D. Moore, F. Kunnas, and R. Morse. 2009. Turkey Vultures: a photographic guide for aging nestlings. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 124. Edmonton, AB. 44 pp. Downloadable at: <http://srd.alberta.ca/fishwildlife/speciesatrisk/projectreports.aspx>

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Greg Pohl

Frank and Alice Harper
Memorial Award recipient

BY FELIX SPERLING

Greg Pohl was one of the founding members of the Alberta Lepidopterists' Guild (ALG) in 1999, and since then he has served this Nature Alberta Affiliate Club continuously as either secretary/treasurer or president.

He has managed their email listserve, which has been essential for regular communication among members, and he has organized and provided most of the content for their website*. He has overseen the adjudication and disbursement of their awards, and personally arranged to fund the Wolley Dod Award for the best Lepidoptera discovery of the year. In 2003 he was a key member of the organizing committee that hosted an international Lepidopterists' Society meeting in Olds. Throughout the past decade, Greg and his family have regularly hosted ALG meetings at their home.

Greg has been publicly active at multiple levels, including organizing major outreach events and encouraging new members from across Alberta. He was the primary ALG organizer of a strong response to the EnCana proposal to drill in the Suffield National Wildlife Area. He has also served conscientiously on Alberta's Endangered Species Conservation Committee (Scientific Subcommittee), and on the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Arthropods Specialist Subcommittee. Most recently, Greg was instrumental in working with Nature Alberta to amicably develop

an insect collecting policy that is supportive of watchers as well as collectors, encouraging an ethical environmental stance that is also a foundation for evidence-based conservation management.

In short, Greg Pohl has been the heart and soul of the Alberta Lepidopterists' Guild, and has been incredibly hard working in allowing this new club to thrive. In doing so, he has also helped to strengthen Nature Alberta as well as nature appreciation across Alberta. The entire membership of ALG joined me in our enthusiastic nomination of Greg Pohl for the Frank and Alice Harper Memorial Award.

*ALG website: <http://www.biology.ualberta.ca/uasm/alg/index.html>

O P I N I O N

Rights of “Mother Earth”

BY TED HINDMARCH

Disappointed and disenfranchised by the results and exclusion from decisions made in Copenhagen in December 2009, 30,000 representatives from developing countries and indigenous groups world-wide spoke out over Earth Day April 19-22 in Cochabamba, Bolivia.



The World People's Conference on Climate Change and the Rights of Mother Earth, have no doubt that the Copenhagen Accord failed in taking the necessary steps needed to save Mother Earth, her peoples and her wildlife from the destructive ravages of Climate Change.

On January 5, 2010, just 18 days after the conclusion of the climate summit in Copenhagen, Bolivian

President Evo Morales made a public call for the World People's Conference on Climate Change and the Rights of Mother Earth. Its goal would be to principally analyze:

- 1) The structural causes of climate change;
- 2) Propose alternative models for Living Well in Harmony with Nature;
- 3) Discuss and agree upon a Universal Declaration for the Rights of Mother Earth;
- 4) Work out the mechanisms that would permit carrying out a World Referendum on Climate Change;
- 5) Develop a proposal to create a Climate Justice Court.

The conference declared the rights of the Mother Earth are the right to life, the right to regenerate her bio-capacity, the right to a clean life, and the right to harmony and balance with all, among all and from all.

The conference statements indicate clearly that participants felt a primary cause of the current state of our climate is the consumer-based, growth-oriented and heavily industrialized economic system and over-consumptive lifestyles of developed nations. On Earth Day 22 Apr, the People's Agreement was ratified. (<http://mother-earth-journal.com/2010/04/bolivia-the-peoples-agreement>), and stated the following:

It is imperative that we forge a new system that restores harmony with nature and among human beings. And in order for there to be balance with nature, there must first be equity among human beings. We propose to the peoples of the world the recovery, revalorization, and strengthening of the knowledge, wisdom, and ancestral practices of Indigenous Peoples, which are affirmed in the thought and practices of “Living Well”, recognizing Mother Earth as a living being with which we have an indivisible, interdependent, complementary



and spiritual relationship. To face climate change, we must recognize Mother Earth as the source of life and forge a new system based on the principles of:

- *harmony and balance among all and with all things;*
- *complementarity, solidarity, and equality;*
- *collective well-being and the satisfaction of the basic necessities of all;*
- *people in harmony with nature;*
- *recognition of human beings for what they are, not what they own;*
- *elimination of all forms of colonialism, imperialism and interventionism;*

• *peace among the peoples and with Mother Earth.*

A number of Working Groups met and forged additional conclusions and proposals. It will be interesting to see if this grassroots initiative will have any impact when these proposals are brought forward at the 2010 United Nations Climate Change Conference scheduled to be held in Cancun, Mexico, from Nov. 29 to Dec. 10. It is the first round of formal UN climate talks since the Copenhagen conference last December.

Meanwhile, Canada moved closer to passing into law Bill C-311, the Climate Change Accountability Act, when it passed 2nd reading on 14 Apr 2010. This will be an important first step to changing the course towards reduction of

green-house gas emissions in Canada, following the US lead at Copenhagen. Bill C-311 sets out science-based reduction targets for greenhouse gas emissions and a plan for regular assessments of how the government is progressing toward those targets. Bill C-311 will commit the government to take action on climate change - with greenhouse gas reduction targets of 25% below 1990 levels by the year 2020, and 80% by 2050.

Ted Hindmarch is Vice-President of Nature Alberta and Chairman of the Issues Committee.

TWO FREE PUBLICATIONS

[INFO BELOW FROM BIRD STUDIES CANADA "LATEST NEWS"]

HAWK GUIDE

A new silhouette *Guide to Hawks Seen in North America* is now available free from the Hawk Migration Association of North America (HMANA). The two-page guide helps users compare the shapes and key field marks of 21 species of migratory hawks seen throughout most of the continent. The guide is a handy field reference for all hawk watchers, and a great start for beginning hawk watchers.

The guide is available in two forms: as a free downloadable PDF (for single-copy printout for personal, non-commercial use), or as a professionally printed, laminated copy on card stock (cost: \$6.00). For complete information, and to order or download the new guide, visit www.hmana.org.

PREVENTING BIRD COLLISIONS AT HOME

An estimated 300 million birds or more die each year from collisions with glass – and particularly, windows on homes. These fatalities occur more frequently during spring and fall migration periods, and can be prevented.

A publication recently released by the American Bird Conservancy offers techniques homeowners can use to help birds see windows. The *How to Prevent Birds from Colliding with Home Windows/Doors* brochure offers quick and cost effective ways to protect birds from your windows, while minimizing obstruction of your view. To access the brochure and learn more about preventative measures that can be taken to ensure birds are safe in your neighbourhood, go to: www.abcbirds.org/abcprograms/policy/collisions_flyer.pdf

First Hand: Red-necked Grebe Rescued at Lake Bonavista

BY DON STILES

On Nov. 30, 2009 I got a call from Terry Korolyk that he had seen an immature Red-necked Grebe under the dock at the island in the center of Lake Bonavista in Calgary.

Terry is a keen bird watcher who checks the lake on an occasional basis. The lake was in the process of freezing over and this was the last open water left. As grebes need a fair distance to get airborne, Terry was wondering if the grebe could be rescued before it was finally frozen in.

I went to the lake and checked with staff. They said it was not possible to get on the lake as it was frozen too much to get a boat out and not frozen enough to walk on.

This information was passed along to Sara (ph: 403-239-2488) at the Calgary Wildlife Rehabilitation Society (CWRS), (near the Calgary Correctional Centre in northwest Calgary), who was willing to take the grebe if it could be captured.

Dec. 4 – Call from Terry – the bird is still there.

Dec. 5 – Call from Terry – the bird is still there. He called the staff at the lake and they said no

way would they let anyone in to retrieve the bird.

Dec. 8 – Call from Terry at 12:00 noon. He had seen the grebe (walking across the lake southeast from the island and then) at the south end of the lake compound and wondered if I could go rescue it as he had to go to work.

At 1:00 PM I went to the lake. The foreman, Chris Soby, and I walked to the south end and searched thoroughly for the grebe but didn't find it there or see it from any of the pathways on the way back. We spent one hour at this.

At 3:00 PM, volunteer driver from the CWRS, Ted Downard, came by and we decided to try once more. We walked to the south end of the lake compound again and searched the southeast corner without success. When we had finished this, foreman Chris came by on his quad and said the grebe had been found and he had captured it and put it in a cardboard box.

Lynda Yewen had heard it squawking under a spruce tree directly east of the island and notified the staff. It had moved back north from where it was spotted earlier by Terry. The bird was quite feisty but bloodied somewhat, probably from crash landings. Luckily, Lynda had heard it or it may never have been found. She was one of the few (the only person?) who was walking in the lake compound that day. Ted Downard then drove the grebe to his home in Willow Park and took a picture of it. It was picked up that evening by Sara of the CWRS.

It appeared that the bird had found it necessary to move from its spot in the open water under the dock due to its freezing over, and had moved about the lake by flying or hopping short distances at a time. Apparently, it couldn't get airborne, as it needed open water to do this. It had moved an estimated 400 m (1/4 mi) to

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.



SARA JORDAN-MCLACHLAN, CALGARY WILDLIFE REHABILITATION CENTRE

the south end of the lake where Terry saw it and then a similar distance back later on. (Jerry Pilny of the Nature Calgary Bird Study Group suggested that the bird was a late hatch and that it was too immature to get airborne.)

Dec. 22 – Sara of the CWRS reported that the grebe was doing fine, eating fish, and that it would be kept over the winter as most of its habitat was now frozen over. It would be released in the spring when there would be open water for it.

Jan. 25, 2010 – Thank you note and picture received from Sara Jordan-McLachlan of the CWRS. “The grebe is still doing well and is still feisty as ever! You would think with me handling him every day to put him in our kiddie pool that he would calm down but to no avail.”

UPDATE According to Sara, the grebe was released at the Inglewood Bird Sanctuary when all the warm weather arrived in later April. Another successful rescue completed!

Nature Alberta

(Federation of Alberta Naturalists)

Celebrating 40 years of promoting the appreciation and conservation of our natural environment through:

- ~ books and field guide publishing and sales
- ~ projects focussed on birds, water, youth, ecology and science
- ~ our excellent quarterly magazine, **NATURE ALBERTA** - subscribe now!

A photograph of three grebes swimming in water. Two adults are in the foreground, and a small chick is visible behind them. The grebes have dark bodies and distinctive reddish-brown throats.

It's Spring

BY DENNIS BARESCO

Spring 2010 began with the March 20 Spring Equinox and ends on June 21 – the day after Father's Day – when the Summer Solstice occurs.

Flowers, flowers and more flowers: the calendar Spring – March 20th to June 21st – is a flower-watcher's earthly garden of delights. Whether it is the first Crocuses or Moss Phlox, the early bursts of dandelion yellow, a field of lupines, orchids springing through the forest floor or any of the hundreds of other flowering plants, the array of colours, scents and sizes signifying Alberta in bloom in Spring is, as Robin Williams said, "nature's way of saying, 'Let's party!'".

"Spring has returned. The earth is like a child that knows poems."

RAINER MARIA RILKE

"Sitting quietly, doing nothing, spring comes, and the grass grows by itself."

ZEN PROVERB

"In the spring, I have counted 136 different kinds of weather inside of 24 hours."

MARK TWAIN



**RAINDROPS
ON ROSES!**

BONNIE MULLIN



CELESTIAL HAPPENINGS

Starry Nights

Spring/Summer: May to July

BY JOHN MCFAUL

FEATURED CONSTELLATIONS – OPHIUCHUS AND SERPENS

Ophiuchus, the Serpent Bearer, is one of the larger constellations and is best seen in the southern sky from June to August. It occupies a large portion of the celestial stage below Hercules. The head of Ophiuchus lies just to the east of the head of Hercules. Associated with Ophiuchus is Serpens, the Serpent (snake). The head of the serpent (Serpens Caput) is to the west and the tail (Serpens Cauda) is to the east of Ophiuchus.

Ophiuchus is associated with the story of the Greek god Aesculapius, the founder of medicine. Aesculapius was a son of Apollo who was taught the art of medicine and healing from the centaur Chiron. More importantly he was able to bring the dead back to life. This power is revealed in the constellations by his ability to restore life back to Orion who was killed by Scorpius.

Pluto, the Roman god of the underworld and the realm of the dead, became quite alarmed at the depletion of the number of dead entering his kingdom due to the healing powers of Aesculapius. Thus he petitioned Jupiter to kill Aesculapius with one of his thunderbolts – after which he was placed amongst the stars.

It was Serpens, the snake, who gave Aesculapius the power to restore

life. The periodic sloughing off of the old skin by snakes is symbolic of the renewal of life. When Ophiuchus was placed in the heavens, he had the snake with him. The twining snake around a staff is symbolic of medicine today.

The Sun does pass through Ophiuchus from November 30th to December 18th. Thus in modern times this constellation is the thirteenth constellation of the Zodiac. Its bottom boundary lies between Scorpius and Sagittarius.



CELESTIAL HAPPENINGS

Sun: Rise - May 1 (05:59 MDT), June 1 (05:11 MDT), July 1 (05:09 MDT)
Set - May 1 (21:04 MDT), June 1 (21:53 MDT), July 1 (22:06 MDT)
Note: Times are for Edmonton

Moon: Full – May 27, June 26, July 25
New - May 13, June 12, July 11
Partial Lunar Eclipse: June 26 starting at 4:16 AM. Will reach maximum just before moonset at 5:31 AM. Almost the top 50% of the Moon will be in shadow at maximum eclipse.

Planets: **Mercury** will be very low in the eastern sky just before sunrise in May. Its best appearance will be at the end of July low in the western sky just after sunset.

Venus will be seen low in the western sky from May to July. With each month it will be a little higher in the sky. By the end of July it will form a close grouping with Saturn and Mars. On July 15th the thin crescent Moon will be close by.

Mars will move from high in the southern sky in May to low in the west in July. At the end of July it will be very close to Saturn and Venus.

Jupiter is a morning object low in the southeast in May. By July it will be higher in the southeast before sunrise.

Saturn starts off high in the southern sky in May. By July it will have moved into the western sky where it takes part in a close conjunction with Mars and Venus at the end of the month.

Meteor Shower: Eta Aquirids, May 5 (before sunrise), 20/hour
Delta Aquirids, July 28, 20/hour

The rate of meteors observed is for dark skies well away from city lights and with no Moon.

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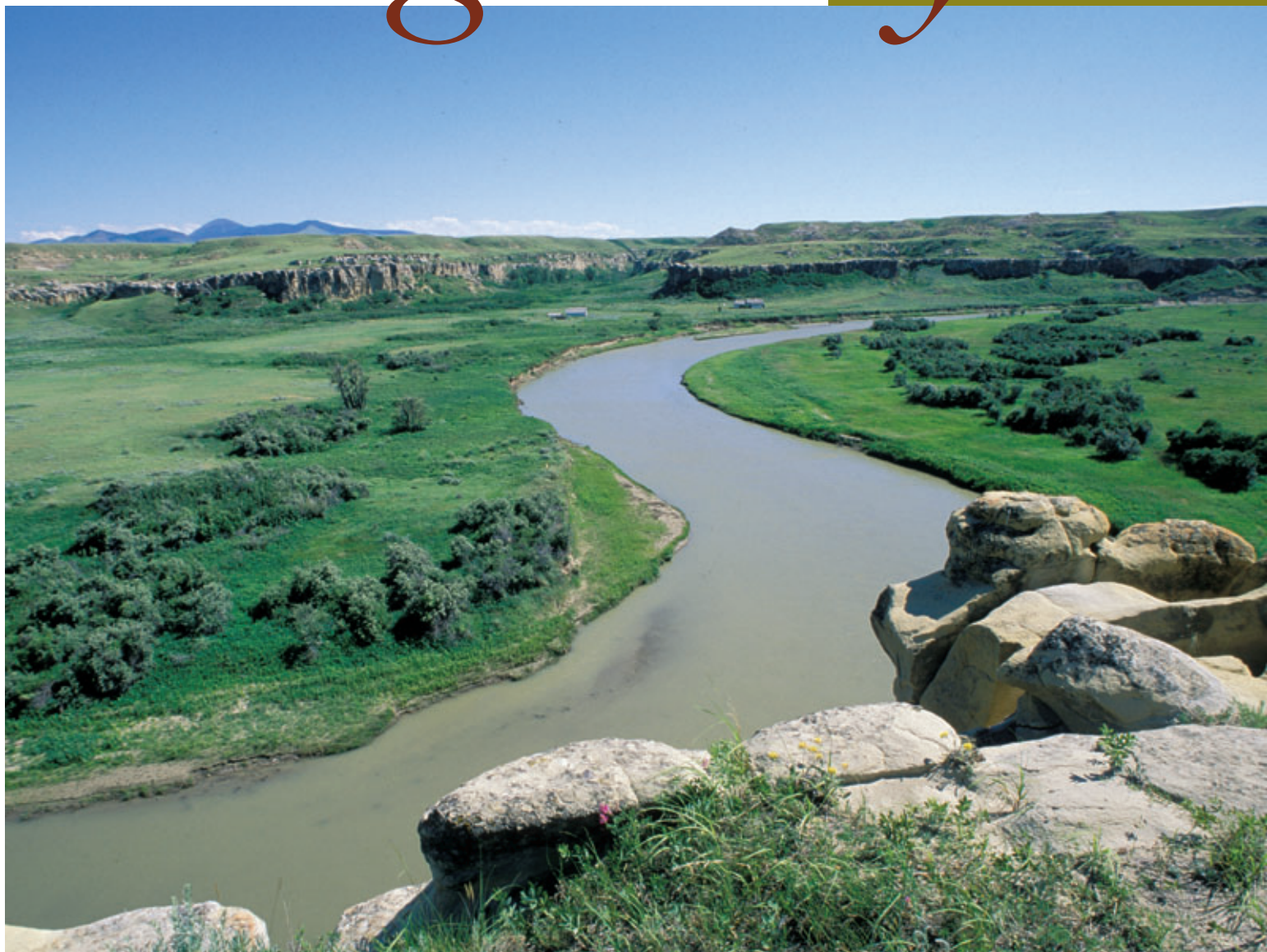




SPRING IS A VISUAL FEAST! SEE "ON THE COVERS"
PG 3. PHOTOS BY BONNIE MULLIN



Nature gallery



"THE WATER OF THIS RIVER POSSESSES A PECULIAR WHITENESS, BEING ABOUT THE COLOUR OF A CUP OF TEA WITH THE ADMIXTURE OF A TABLESPOONFULL OF MILK. FROM THE COLOUR OF ITS WATER WE CALLED IT MILK RIVER." SO WROTE CAPTAIN MERIWETHER LEWIS – OF LEWIS AND CLARK FAME – IN HIS JOURNAL IN 1805. THE COLOUR IS THE RESULT OF FINE-GRAINED SEDIMENTS – "ROCK FLOUR" – SUSPENDED IN THE WATER. IAN GARDINER



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