

Nature Alberta

ALBERTA'S NATURAL HISTORY REVIEW



AUTUMN LEAVES, NORTH SASKATCHEWAN RIVER VALLEY BRIAN R. PARKER
PHOTOGRAPHED ON OCTOBER 5, 2003, USING A CANON AE-1 CAMERA, A 70 MM MACRO LENS AND KODAK GOLD FILM

feature article

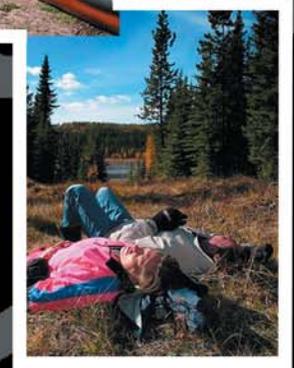
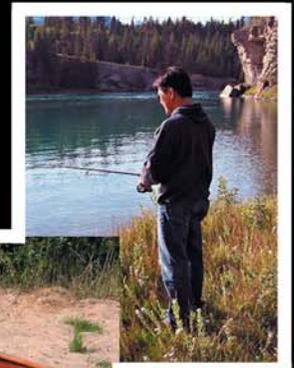
Beaverhills Lake

— in the drought years

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Naturalists usually start in as beginners who have their curiosity aroused about nature: some start very young; others not until late in life. Age does not matter in a naturalist; it is the spirit that counts."

From *The Amateur Naturalist* by Vinson Brown

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11759-GROAT ROAD, EDMONTON, AB T5M 3K6

PHONE. 780.427.8124 **FAX.** 780.422.2663

EMAIL. fan@fanweb.ca

SUBSCRIPTION \$20.00 PER YEAR

EDITOR. BRIAN PARKER 11759 GROAT ROAD, EDMONTON, AB T5M 1K6

EMAIL. NA@FANWEB.CA

EXECUTIVE DIRECTOR. GLEN SEMENCHUK

EXECUTIVE ASSISTANT. KAREN RIMNEY

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ELAINE GORDON, 15216-74 STREET, EDMONTON, AB T5C 0Y7

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

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

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P R E S I D E N T ' S P A G E

On Vultures & Politics

BY DENNIS BARESCO

I changed my mind. In the Summer 2004 Nature Alberta (NA) I said this column was going to be on "how do we advocate?" It's not.

I changed my mind and will save that topic for the next column. What changed my mind was in reading the Summer *NA* and the excellent articles contained within. So, that's what I'm going to talk about.

It was a pleasure to read the article on Turkey Vultures, by Nelson, Kunnas and Moore. Vultures "don't get no respect", yet they're a fascinating, glorious bird - well, glorious if you can overlook their eating habits and protection devices. Watching them soar along in their unique fashion is quite a thrill, especially if you are fortunate enough to see many of them - ten or more - circling together. If you think that is thrilling, imagine the feelings of Medicine Hat couple Bill & Ruth Tidy when they discovered a pair of vultures sitting in low trees in their backyard, drying off with wings spread wide!

Southeast Alberta - the Medicine Hat & Cypress Hills area - provides great vulture viewing

(just ask Bill and Ruth!). You can see them almost daily in and around Police Point and Echo Dale Parks here in "the Hat", as they nest in South Saskatchewan River cliff cavities. In at least two of the last ten years, a nest site could be seen directly from the Nature Centre's front door.

If you read the Summer *NA* issue, you'll have noticed, in the "Environment Platforms" article, that the Alberta Liberals and NDP offered a reasonably detailed explanation of their environmental policy. You'll also have noted that the Conservatives - the governing party - failed to submit anything. I suppose they were at a loss on how to put a positive spin on their platform.

The selling and trading of public lands was one focus of the "Issues" page. This is a huge issue, and not just for naturalists. It could well lead to the decimation of traditional ranching. In the potato farmland swap, it appears that the

government broke a number of laws. I'm not sure if the farmer committed any illegal acts. There's a good question for the Law Centre: if an individual takes actions that are against the law, is s/he actually breaking the law if the government is the main contributor to the action? I know that the RCMP received a copy of the information relating to the trade. I wonder if they're investigating.

Yes, lots of issues, but still lots of good naturalist stuff - well, in the near future at least. However, the more we get out there, and take our friends out there, and we and they insist - absolutely insist - on environmental policies that are good for everyone, not just a few government pals, the more likely that we'll have "good naturalist stuff" well into the distant future. Agree?

EDITOR'S PAGE

“The serious problems of today will not be solved by using the same mindsets that created them.”

ALBERT EINSTEIN

The Massey Lecture Series

BY BRIAN PARKER

How many of our readers are fans of the Massey Lectures, co-sponsored by the CBC, Massey College at the University of Toronto and House of Anansi Press?

The 2004 lectures, “A Short History of Progress” by Ronald Wright, which were recorded in lecture halls across Canada, were presented on CBC Radio One some weeks ago. Ronald Wright is an historical philosopher with formal training in archaeology. Wright suggests we have some lessons to learn from the rise and fall of past civilizations, lessons that may help us prevent our society from falling into a progress trap.

In his lectures, he describes several examples of ancient and historical societal collapse, from Sumer to Easter Island. These were characterized by a combination of: environmental degradation (a loss of natural capital); loss of “commons” to private ownership; concentration of wealth and power in elite social classes; and societal inertia, the tendency of people and civilizations to resist change. Wright proposes that our civilization is on this path today, but that we will pay a higher price than earlier peoples. In the

past, civilizations appeared, blossomed and then failed, but none of them encompassed the entire planet. New civilizations flourished where unexploited natural capital remained or after the passage of centuries or millennia allowed recovery of the over-exploited capital of previous societies. Today, he suggests, we live in a global civilization and if our natural capital is exhausted worldwide then peoples across the entire planet face severe consequences.

The solution to our potential downfall, he argues, is an immediate change from short to long-term thinking; a recognition that we must live on the interest of our natural capital, not the principle. To quote Wright: “We are now at the stage when the Easter Islanders could still have halted the senseless cutting and carving, could have gathered the last trees’ seeds to plant out of reach of the rats. We have the tools and the means to share

resources, clean up pollution, dispense basic health care and birth control, set economic limits in line with natural ones. If we don’t do these things now, while we prosper, we will never be able to do them when times get hard. And this new century will not grow very old before we enter an age of chaos and collapse that will dwarf all the dark ages in the past.”

Regardless of your personal view of the future of our civilization, the 2004 Massey Lectures make interesting and thought provoking listening or reading (the lectures are published by Anansi Press, www.anansi.ca). The Massey Lectures series, which began in 1961, was intended to encourage public debate and discussion of a variety of issues affecting our society. The 2004 lectures certainly continue that tradition.

ALBERTA ISSUES

EAB Delays Cheviot Appeal

In a move that stunned observers and left conservationists shaking their heads, the Alberta Environmental Appeals Board (EAB) announced that it has put off their hearing of Ben Gadd's appeal of the provincial approvals for the haul-road development, the first phase of the new Cheviot open-pit coal mine located adjacent to Jasper National Park. Backed by the parent companies, Fording Canadian Coal Trust and Teck Cominco, Cardinal River Coals (CRC) had filed a court notice

stating that it is taking the EAB to court over its decision last May to hold a hearing on Gadd's appeal.

Meanwhile, Elk Valley Coal Corp, which is using CRC's provincial approvals to build the controversial Cheviot mine, is nearing completion of the massive haul-road and pushing ahead with work in the heart of the proposed Mountain Wildland Park. None of the federal authorizations required for the mine are in place. A federal court case launched by a coalition of conservation groups

(including the Canadian Nature Federation) over the lack of a federal environmental assessment is expected to be heard early in 2005.

FOR MORE INFORMATION:
<http://www.sierraclub/national/cheviot/>

Ben Gadd, (780) 852-4012

Dianne Pachal, Alberta
Wilderness Director, Sierra Club
of Canada (403) 234-7368

“Experimental” Coalbed Methane Development in the Rumsey Natural Area

With the approval of the Alberta Government the Rumsey Natural Area in east central Alberta is being threatened by extensive coalbed methane (CBM) development. Rumsey Natural Area and the adjacent Rumsey Ecological Reserve were established to protect the largest block of native aspen parkland and plains rough fescue grassland remaining in North America. “Once rough fescue grasslands are destroyed, they are gone forever, since attempts to restore them have consistently failed,” says professional botanist Cheryl Bradley. “Furthermore, disturbances provide avenues for invasion of non-native

species into these special grasslands. The footprint of numerous CBM wells will seriously compromise the ecological integrity of the area.”

Rights to the natural gas in the coal underlying the Rumsey Natural Area have been leased to several companies, including Encana, Canadian Superior, CNRL, Husky Oil, Pioneer Natural Resources and Trident Exploration. Currently, Trident has the only CBM well in the Natural Area, drilled in the spring of 2004, and has yet to determine the feasibility of broader CBM field development. The conservation community is requesting Trident and other companies forego development

in the Natural Area due to the high environmental cost.

Although the 1993 area management plan, or Regional Integrated Decision (RID), allowed for restricted conventional oil and gas development, it was developed prior to the natural area designation. Further, CBM development was not contemplated when the RID was developed. Well densities are often higher with CBM development than with conventional gas development and recent studies show plains rough fescue grasslands to be at greater risk than was thought at the time the natural area was established.

ALBERTA ISSUES

Field Safety in the 80's



by Laurel Hawkswell

Field Safety in 2005



Forest Ethics is launching a new market action campaign against Victoria's Secret.

Victoria's Secret is one of the largest, most recognizable, and most influential catalogues in the industry and a leader in forest destruction. The company

mails out more than 395 million catalogues a year and operates 1,000 stores across the U.S. Instead of using its leadership to challenge the logging industry's destructive practices,

Victoria's Secret uses little recycled paper and refuses to make a real commitment to protect Endangered Forests. Read more: www.victoriadirtysecret.net

Woodland Caribou Recovery Plan

BY GLEN SEMENCHUK

The Federation of Alberta Naturalists (FAN) has been participating in Woodland Caribou Recovery Team for the last two years. In May of this year a Recovery Plan was submitted to the Director of Wildlife for the Province. It was forwarded to the Endangered Species Coordinating

Committee, to review and make a recommendation to the Minister of Sustainable Resource Development as to the disposition of the plan. A small group of stakeholders were able to delay referral to the Minister, saving him from tough decisions before an anticipated provincial election.

The plan acknowledges that the status of woodland caribou reflects continuing declines in population and distribution, and that there were a number of factors contributing to this, including resource development across the entire caribou range. The plan reflects that while recovery in

ALBERTA ISSUES

Woodland Caribou Recovery Plan...continued

Alberta is feasible, commitment, collaboration and action by government and involved stakeholders are paramount to successful recovery of this species.

Many limiting factors are related to human activities and developments, which means that there are opportunities to manage and reduce the effects of these human caused limiting factors. Government priorities, industrial land use, and public activities will be important factors as caribou management approaches are implemented. For example, commercial and non-commercial users, together with government, need to accept further access limitations, or the use of more expensive (or less convenient) development techniques.

The plan states that: "This recovery plan is based on the assumption that all land users on caribou range, including all affected branches of government, share responsibility for and are committed to the goal of caribou recovery."

From FAN's perspective the plan fell short of dealing with some critical issues. Previous drafts of the plan had prescribed actions to assist in recovery on Caribou herds several categories. In the two

most critical categories - those in "*Immediate Risk of Extirpation*" and those "*In Decline*" - a clause putting a moratorium on further resource allocation and on new construction/development activities should be put in place until a range plan is completed, evaluated, and implemented. It is anticipated that this process will take a maximum of one year from the date of range team formation. What was finally approved confirmed "business as usual" for industry across the majority of these ranges. In the ranges of caribou at "*Immediate Risk of Extirpation*" the plan supports deferring any new allocations, but approved new development and construction. In the ranges of caribou known to be "*In decline*", the plan endorses continued industrial activity at present or greater levels.

Both of these critical habitats are targets for development. For example, Suncor Energy Inc. recently applied for a pipeline through the largest intact piece of caribou habitat left in the Grande Cache area. The proposed 101 km pipeline will be crossing the home ranges of two Woodland Caribou herds. One is the home range of the Little Smoky Caribou which is listed nationally as a threatened population. The decline of the Little Smoky Caribou to 80 to

100 animals is well documented and the population is considered to be at "*Immediate Risk of Extirpation*" in the Recovery Plan.

A report prepared for Suncor states "Recent research and data analyses indicate that the Little Smoky Caribou herd is in precipitous decline, and it is currently considered to be one of the populations in greatest jeopardy in Alberta. At present levels of industrial development, the population is expected to continue to decline steeply, and is considered at *Immediate Risk of Extirpation* (local extinction). Analyses of caribou ranges across Alberta show the greater the disturbance due to industrial activity, the lower the viability of the caribou population (as measured by adult female survival and recruitment of calves into the population). The range of the Little Smoky herd contains the highest level of industrial development of any caribou range in Alberta, and requires immediate action to recover range quality necessary for the continuing existence of this herd.

The report recommends, "all possible options for routing outside the ranges of these herds be considered. Due to the status of both populations, and sensitivity of

Woodland Caribou Recovery Plan...continued



caribou to industrial development, we believe that any increase in human activity and infrastructure is likely to impact the condition of the ranges, and overall viability of the herds. The efficacy of various mitigation measures is largely unknown, thus we cannot predict the extent to which such measures could reduce impacts. With the large decline of the Little Smoky herd, and time frames involved with habitat recovery, there is low potential for the caribou to recover.”

Suncor has received approval from the Energy and Utilities Board to build the pipeline this winter. Conservation groups in the province have appealed to Suncor to either re-route the line outside of the caribou range or put the

project on hold until the Recovery Plan is implemented and/or a range recovery team evaluates this caribou range.

This is the same Suncor Energy Inc that recently signed on to The Boreal Forest Conservation Framework of the Canadian Boreal Initiative (CBI). The Framework was announced as “a new and balanced approach to nature conservation and development, endorsed by a diverse group with historically competing interests. It will position Canada as the world leader in forest and wetlands conservation and management.” Commitments of the Framework are: to support the realization of conservation goals as an integral part of consensus-

based decision-making prior to land use decisions or industrial development; ensure ecological resiliency so boreal species can adapt to natural disturbances and climate change; maintain abundant and natural distributions of wildlife populations within large intact boreal landscapes and waterscapes; agree to deferrals in both allocated and unallocated lands based on key ecological values (which include intactness, old growth/late seral stage forest, connectivity, water and wetlands values, rare ecosystem types, and core habitat of focal species) in order to allow land use planning processes to be completed in advance of industrial development and support the use of policy tools such as interim land deferrals to facilitate voluntary stewardship by industry.

In the meantime, who is looking out for the woodland caribou?

For more information on the Canadian Boreal Initiative, check www.cpaws.org/boreal

Breeding Common Poorwill in the Cypress Hills, Alberta

BY BEN VELNER, RICHARD KLAUKE, DAWN DICKINSON, MIKE O'SHEA, AND ROBERT FREW

On the evening June 29th 2004, Dawn Dickinson and Mike O'Shea led a Grasslands Naturalists field trip to the Cypress Hills to search for Common Poorwill (Phalaenoptilus nuttallii) on the Alberta side of the Interprovincial Park.

Starting at 9 pm the group slowly worked their way along the firebreaks that wind along the brow of the benchlands along the Reesor Lake road, east of Highway 41, stopping at regular intervals to listen for the distinctive "poorwill" call.

Following many unproductive stops, and well after dark, the group identified a single bird starting to call in front of them, its profile visible in the moonlight, as it perched on a dead spruce snag (Reported in "Exciting sightings" Sagebrush Chronicle, 16 (7), July 2004).

This initial sighting gave rise to a series of further observations presented below:

On the evening of July 1st Ben Verner and Tim Cowley heard the call of a Common Poorwill near the same site.

On July 6th, while slowly driving the firebreak just after 11 pm, Bob Frew, Ken Frew and Ben Verner observed, in the beam of their headlights,

a Common Poorwill in flight and foraging close to the ground. Within the next 50 m two additional birds were flushed from the firebreak in quick succession. This suggested that at least three Common Poorwill were present in the area. During these sightings several more birds were also heard calling the in the distance.

Advised of the location of these sightings, Richard Klauke spent July 14-17th searching the area and succeeded in locating a nest containing two eggs on the ground, on the firebreak, in an open wooded area. The elevation was 1402 meters. On the evening of the 14th, Richard walked along a section of the firebreak having flushed a bird from it. Shortly after doing so he then flushed another bird, probably the female, which gave distraction calls, indicating that the nest was very close. The next morning he again walked this section and

observed a male perched on the ground. That evening before dark Richard again walked this section of the firebreak and flushed the female off the nest. The following morning the male flew by the nest site several times, calling the two syllable "poorwill" a couple of times.

Photos were taken on the 15th of the nest and on the 16th of the female on the nest. The female was also on the nest on the morning of the 17th.

Mike O'Shea, Ben Verner and Bob Frew confirmed the nesting observation, finding the female incubating two eggs on July 22nd at 9.30 pm.

On July 29th while in the area making field notes, Mike O'Shea observed the adult female incubating with eyes closed.

On August 14th we again visited the nest site and, as anticipated, found the nest



POORWILL NEST R. KLAUKE

empty and the young fledged. We used this opportunity to carry out a detailed examination of the nest site and the surrounding habitat, observing what appeared to be a second vacated nest site within 1-2 m of the first. The significance of this remains unclear. However we speculate that it may have

Mike O'Shea and Dawn Dickinson observed an adult Common Poorwill near the nest site as late as September 5th.

In Canada, the Common Poorwill occurs only in the southernmost part of the Okanagan Valley of BC and in the Cypress Hills of Alberta and

the lower Red Deer River. Breeding is suspected, but to date there have been no confirmed records (Semenchuk 1992, Cleve Wershler personal communication). To our knowledge, ours is the first confirmed report of breeding in Alberta. Careful observation in the future should ascertain if the events we describe are a regular occurrence.

“*To our knowledge, ours is the first confirmed report of breeding in Alberta.*”

been a roosting site used by the male, as the male was seen in close proximity to the nest on several occasions. It is also thought that Common Poorwill chicks move frequently during the nestling stage, which would be consistent with this observation. As we were leaving, the adult female suddenly appeared and engaged in a series of noisy distraction displays, indicating the fledglings were still close at hand. The female continued this behavior until we moved ~100 m away from the site.

Saskatchewan. Ideal habitat includes semi-arid sagebrush bench lands with grassy openings in dry open woodlands (Godfrey 1986). Suitable habitat occurs in the Cypress Hills. Although breeding has been reported on the Saskatchewan side of the Cypress Hills (Kalcounis *et al.* 1992, MacDonald *et al.* 2003), the species is considered rare in Alberta (GNBSG, 2003). There are records for calling birds from the Cypress Hills, the Suffield National Wildlife Area, the south side of Milk River Canyon and the sandhills on

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Beaverhills Lake

in the Drought Years 2001-2004

BY DICK DEKKER,

The long drought that affected south and central Alberta during the 1990s did not let up in the new millennium. Conditions rapidly worsened in 2001, leading to a crisis in agriculture and the evaporation of wetlands all over the southern half of the province.

The drought created a special dilemma for the community of Tofield: in early 2002 the town announced that its popular Snow Goose Festival had been cancelled for the coming spring. The reason given was that the size of nearby Beaverhills Lake¹, measuring 18 by 10 km less than a decade ago, had declined alarmingly due to a long series of years with below average precipitation.

THE TOFIELD SNOW GOOSE FESTIVAL.

Soon after its establishment in 1992, the two-day Snow Goose Festival, held on the third weekend in April, attracted between six and ten thousand visitors each year. According to John Acorn, the event probably was the best-attended bird festival in North America. Its sudden cancellation took everyone by surprise. Gerry Beyersbergen, the main

organiser of the event, explained: "It did not seem to make sense to take busloads of people to the lake, and having no more to show them (of the geese) than a white line on the horizon!"

THE DECLINE OF BEAVERHILLS LAKE

There was no denying that the water had almost dropped out of sight. As seen from public access points, the lake was little more than a distant shimmering mirage. To get into viewing range of any wildfowl, only the most intrepid of birders were willing to stumble through a wide belt of rough vegetation and over soft ground pock-marked by cattle. In the spring of 2003 lake levels were even lower than in 2002. Although the amount of snow over the winter of 2002-2003 exceeded the previous year's, there was not enough run-off to raise the level

of the lake. Ross Creek, entering from the northwest, was little more than a trickle and soon stopped running. In the southeast, Amisk Creek carried sufficient snowmelt to fill the Lister Lake impoundment, but very little flowed over the weir into Beaverhills Lake.

I thought it worthwhile to record the decline of Beaverhills Lake for future reference. I did so simply by walking as far as possible towards the waterline from six access points around the lake (a-f on the map). In most places I was stopped well short of the water by soft ground.

Through the spring and summer of 2003, the lake stayed at roughly the same size, but a steady decline set in during the fall. The map shows the approximate waterline in late October 2003. It was much the same size in the spring of 2004.

¹ After the "s" was dropped in everyday usage, the lake is now commonly called Beaverhill Lake. The author's preference is for the plural form: Beaverhills Lake. Water drains into the lake from the Beaver Hills (now known as the Cooking Lake Moraine) to the west. Beaverhills Lake appears on Thompson's 1814 map as Beaver Lake.

Beaverhills Lake in the Drought Years 2001-2004...continued

Unfortunately, snowmelt was practically nil and after a few relatively warm days, the retreat resumed with stunning speed. On May 23 2004, looking south and west from a stony promontory along the east shore (d on the map), I saw a lifeless expanse of mud where there had been a vast vista of water and sky only two days earlier. The speed of the drying process proved that much of Beaverhills Lake was no deeper than a few cm. Far offshore, stones could be seen protruding from its surface and birds were wading instead of swimming. As the water evaporated, vast stretches of mud fell dry and turned white with soda salts. Strong winds whipped up the deposits into a blizzard-like curtain and on sunny days, swirling dust devils were a common phenomenon.

In 1982, Beaverhills Lake was declared a National Nature Viewpoint by the Canadian Nature Federation, and in 1987 it was designated as a wetland of international importance under the Ramsar Convention. As of this writing, in August 2004, this splendid water body is on its way to oblivion. Will it ever return to its former glory?

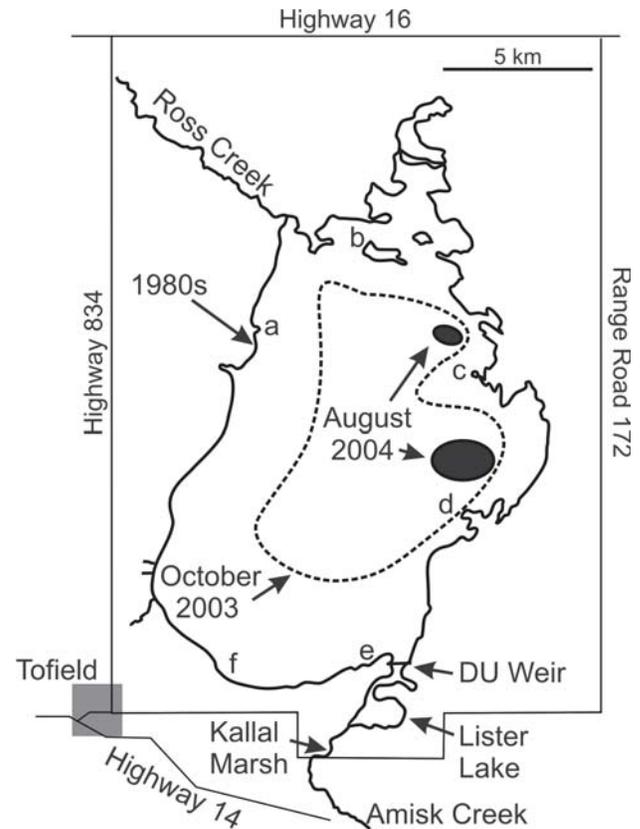
WILL BEAVERHILLS LAKE DRY UP COMPLETELY?

Oral history records suggest the size of Beaverhills Lake has fluctuated wildly over the 20th Century, which was relatively

wet compared to the previous 800 years (long-term research on tree growth shows central Alberta was subject to periodic, sometimes decades long droughts before 1900). Water levels peaked in the early 1900s, when the lake reached its historical high-water mark and may have been as deep as 3.6 m (12 feet). Extreme lows were recorded in the 1880s and 1950s (Lister 1979; Mitchell and Prepas 1990)

when Beaverhills Lake was said to have come close to drying up completely.

If the vanishing point had indeed been approached half a century ago, it would certainly be possible today. The effects of the current drought have been compounded by human modification and use of the area's water resources. Amisk Creek has been dammed, by both Ducks Unlimited (DU) and beavers, which must have resulted in a net loss to the lake's inflow as water was withheld and evaporative losses



MAP OF BEAVERHILLS LAKE, ALBERTA, SHOWING ITS APPROXIMATE SIZE IN THE EARLY 1980S, OCTOBER 2003 AND AUGUST 2004. MAP ADAPTED FROM DEKKER (1991-1998).

of water upstream from the lake increased. Reducing the size of DU's impoundments during drought is difficult because of long-term commitments between DU and local farmers requiring the temporary flooding of low-lying hay meadows. Further, local farmers have been withdrawing surfacewater from both the lake and inflowing creeks during the recent drought years. To refill empty dugouts for cattle, they piped in water by means of tractor-driven pumps. Several landowners were aided by a pumping installation funded by

Beaver Lake in the Drought Years 2001-2004...continued

Alberta Agriculture. Groundwater pumping over a large area surrounding Beaverhills Lake, by both industry and private residents, probably also helped to lower the regional groundwater table. As all of these negative factors accumulated, the lake had only one way to go: down.

On the positive side, the southeast DU dam on Amisk Creek, constructed in 1973-74, has proven its worth by maintaining the level of Lister Lake. The Kallal Marshes, just upstream from Lister Lake, have also remained a haven for ducks and other waterbirds during the drought years.

PROBLEMS FOR LIVESTOCK AND NATURAL AREAS

Some stockmen may have benefited from the drop in lake level. As the shoreline retreated, adjacent pastures expanded, creating more room for grazing. Already during the mid 1990s, livestock commonly crossed the reedy shallows that separated the north-end islands from the mainland. These islands are part of the Beaverhill Natural Area, established in 1987 as a nature preserve where livestock grazing was not permitted. In 2002, the bay north of the main island (point b on the map) fell completely dry and effectively became an open range. Cattle were free to explore the drying lake bottom.

There was one complication:

unless fences were extended onto the mudflats or new ones built, the herds could escape and mingle with the neighbours. To check on their animals, local people rode their ATV's across the mudflats. Others toured the lake looking for a popular collector's item: the skulls of bison protruding from the mud.

The frequent intrusion of cattle into the Natural Area on the southeast corner of the lake was a concern for the people of the Beaverhill Bird Observatory, who worried about possible damage to their bird study projects. Asked to reign in straying cattle, a neighbouring farmer obliged by stringing a fence line between his pasture and the Natural Area. Unfortunately, the shoulder-high fence was built on top of the dam, a favourite walkway for birdwatchers. Following discussion with Alberta Public Lands Division it has since been agreed that the fence will be rebuilt 100 m north of the dam, which is the legal boundary between the pasture and the Natural Area. As of this writing, in August 2004, the high fence is still in place. It is connected to a similar fence running north along the former lakeshore. It constitutes a potentially hazardous barrier for wildlife such as moose, which have become quite common in recent years. Unfortunately,

there are no government regulations limiting the height of barbed wire fences, not even on public lands.

EXPLORING NEW GROUND

Along the south, west and north shores, the ground that fell dry consists of clay or fine silt. By 2004, much of it had become grown over with early colonizing plants such as marsh ragwort and foxtail barley. The character of the east shore is quite different. Here, vast expanses of sand or gravel are littered with stones, and the common colonizing plants are many-flowered aster, western dock and oak-leaved goosefoot. Eventually willows and poplars may take root on formerly open terrain as occurred along the receding south and east shores in the 1940s. The existence of artesian springs in the centre of the lake, suggested by Lister (1979) and Mitchell and Prepas (1990), has not been proven to date.

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ACKNOWLEDGEMENT:

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Fall Migration through a City Garden

BY ERNIE KUYT

Soon now, the only bird life we will see in our garden will be magpies, Blue Jays, House Sparrows, chickadees and a few other “winter” birds. What other birds slip through our city gardens—only occasionally seen—during their fall migration?

I often wondered about this, but I did not really get any good answers until retiring in 1994 and concentrating on bird banding in the backyard.

I've held a Federal Bird Banding Permit since 1964, and during my employ with the Canadian Wildlife Service almost 11,000 birds (123 species and 2 hybrids) have been banded on this permit. Most of these represent waterfowl and crane banding in Wood Buffalo National Park, and geese, swans and raptor banding in the Thelon River area of the Northwest Territories. A large proportion of birds banded since 1994 have been passerines taken in my Edmonton city backyard.

The yard, measuring about 15 by 25 metres, consists of a vegetable garden, bordered by a lawn, with a few large trees (maple, elm, spruce, mountain ash) and smaller trees or shrubs (elderberry, horse chestnut, crabapple) along the perimeter. The bird catching device is a 9 by 2 meter black nylon mistnet,

arranged in an East-West direction. The 3.5 cm mesh is meant to catch small birds but on several occasions it has trapped birds the size of a magpie.

The fall of 2004 was my most productive “harvest” in terms of total numbers (248) and species (30) banded. This, no doubt, was due to the large amount of time the net was being watched. The net was in operation for 481 hours between late July and 14 October, accounting for 1 bird banded per 1.93 hours of net time (not counting re-trapped birds or birds released unbanded, such as a few House Sparrows and a female Ruby-throated Hummingbird). Thirty species were banded this fall, including: Downy Woodpecker, Black-billed Magpie, Blue Jay, Northern Oriole, House Finch, Pine Siskin, White-crowned-, White-throated-, American Tree-, Chipping-, Song-, Lincoln's-, and Swamp Sparrow, Dark-eyed Junco, Orange-crowned-,

Tennessee-, Cape May-, Yellow-, Yellow-rumped-, Magnolia-, and Palm Warbler, Ovenbird, Northern Waterthrush, American Redstart Common Yellowthroat, White-breasted-and Red-breasted Nuthatch, Black-capped Chickadee, Hermit Thrush and American Robin.

Not taken this year, but banded between 1994 and 2003 in the same place, were 19 additional species:

Merlin, Yellow-bellied Sapsucker, Yellow-bellied-and Least Flycatcher, Purple Finch, Common Redpoll, Harris'-, Clay-coloured-and Fox Sparrow, Rose-breasted Grosbeak, Ruby-crowned Kinglet, Blackpoll-, Wilson's-and Canada Warbler, House Sparrow, Cedar Waxwing, House Wren, Swainson's and Wood Thrush.

A few observations may be of interest:

1. I had not observed Magnolia- and Cape May Warblers before 2004.



Fall Migration through a City Garden...continued

2. Surprisingly, 7 House Finches were taken, also a "new" species. Apparently, these finches are rapidly expanding their range in Alberta.
3. Previous to 2004 I had banded a total of 17 Pine Siskins. This fall, 82 of these small finches, well known for their erratic movements, were caught. Although predominantly seed-eaters, the siskins in our garden fed almost exclusively on the huge numbers of aphids infesting the sunflowers.
4. The Wood Thrush I caught in 1997 was the first one banded in Alberta. This thrush is common in eastern Canada, and appears to be expanding its range westwards.
5. The male Merlin was trapped in 2000 when the falcon, in pursuit of a small bird, hit the "top shelf" of the net. The banded Merlin was found dead on the roof of a house in Billings, Montana, two years later.
6. Chickadees and Red-breasted Nuthatches never seem to learn the location of the mistnet, as they are caught time and again, Chickadees are a nuisance in the net, as they bite and never stop struggling.
7. A Junco taken on 3 and 11 October 2004 had been banded in my yard on 16 October 2001.
8. The weight of an Orange-crowned Warbler is only 8-9 grams, about the same as a "loonie" coin. Inside this tiny package, a heart, lungs, liver, kidney, etc. work to perfection. Incredible!!
9. The only time I carelessly forgot to take the net down for the night, I was rewarded with the capture of a small brown bat the next morning, and a good half hour of the delicate job of safely extricating that little flying "mouse".
10. Another wild mammal in the yard, a resident red squirrel, has always successfully avoided the mistnet during his frequent forays to our crabapple tree.

Now, with snowy conditions and dropping temperatures it is no longer advisable to operate the mistnet. A few White-throated Sparrows and Juncos are still here, but soon they too, will disappear, leaving the yard and its sunflowers to chickadees and raucous Blue Jays.



The Eagle [fragment]

TENNYSON

He clasps the crag with crooked hands;
Close to the sun in lonely lands,
Ringed with the azure world, he stands.

The wrinkled sea beneath him crawls;
He watches from his mountain walls,
And like a thunderbolt he falls.

Early Morning Birding at the Castle River

BY BOB PARSONS

The Castle River area lies north of Waterton Lakes National Park and south of Crowsnest Pass. It is one of Alberta's ecological hotspots, home to 120 rare plants, 7 percent of Alberta's wintering bighorn sheep and many rare or endangered animals such as grizzly bear, cougar and wolverine.



The West Castle Provincial Ecological Area (~4 km²) is characterized by running water and luxuriant vegetation, including a variety of trees and shrubs and some areas of peat deposition. The gravel road to the nearby Castle Mountain Ski resort passes through the ecological area, but in early summer the region is fairly quiet at 5:30 am. I made three early morning birding outings in this area in the second week of June, complete with a flask of tea and whatever snack food I could find.

Many of the peaks were snow-covered and numerous trees had their tops broken off, probably a result of a recent heavy snowfall. Woodpeckers were drumming early as a solitary Raven patrolled the gravel road. The Fox Sparrows were singing, very much in evidence I thought. The interior is home to the slate-coloured subspecies, relatively long tail, drab gray on back and head but with heavy spotting on

underparts. The song is best described as clear and ringing with every other note either buzzy or trilled. I noted quite a few variable songs, but that is typical for sparrow species. What I was not ready for were a couple of LeConte's Sparrows on my second morning visit – not at all the typical habitat they frequent, perhaps they were passing through. The Lincoln's Sparrow was heard in the wetland area, its song a rich loud bubbling trill. Willow Flycatchers were everywhere, singing very early as the sky lightened up. Typical habitat for them here – brushy and wet. They were easy to pick with a spotting scope out as the birds perched on the tops of willows. They are best identified by their burry “fitzbew”. Northern Waterthrush was also very much in evidence. One note in my diary mentions one of the warblers, with its very noticeable underside streaking, singing away while sitting on top of a spruce. The Waterthrush is

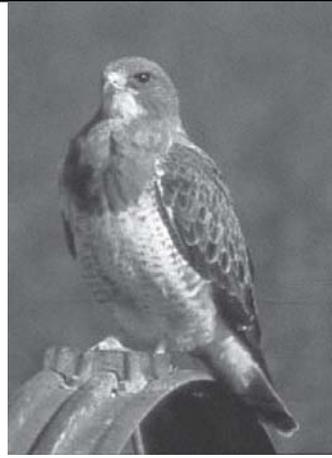
fairly common in dense shrubs and small thick trees near slow moving or standing water. They usually are hard to spot.

During these early morning visits, I moved up and down the road trying to get a feel for the area. Spruce treetops appeared to be favourite hangouts for Cassin's Finch, Wilson's Snipe and Black-headed Grosbeak. This grosbeak is quite solitary in the southern part of Alberta and seems to stay in the upper levels of trees. Its song is almost identical to its cousin, the Rose-breasted Grosbeak, but less squeaky. Other interesting species noted included Townsend's Warbler, Ruby-crowned Kinglet, Warbling Vireo, Yellow Warbler, Varied Thrush and Barrow's Goldeneye, the last just down the road at the nearby Ski Resort sewage lagoon!

It is common knowledge that early morning is the best time to bird-watch and this proved to be no exception. Hopefully I will soon revisit this area.

A Field Full of Hawks

BY LLOYD BENNETT



An incredible sight was seen the afternoon of September 23, 2000.

As I was driving towards Taber from Chin Lake (~20 km south of Taber) I noticed several Swainson's Hawks in a weedy stubble field on the east side of the road. When I stopped I could see hawks scattered all over the field, so I went to the north end of the field and started to count them. Before long I reached 50, and by the time I reached the south end of the field I had counted ~160 hawks. I then turned onto a road leading east, continuing to tally many more, but now counting by tens. When I reached the next road a mile from the highway, I turned north, where I could see still more hawks, especially on the east side of the road. A couple of places where I stopped I could see ~100 hawks at once. The final number that I estimated was 550 Swainson's Hawks, plus a single Red-tailed Hawk. This area has gently rolling terrain, so it is conceivable that more hawks could have been present but hidden from view.

The mystery is: where had all these hawks come from? I had driven past that area about two hours earlier, on my way from

Taber to Stirling and Tyrrell Lakes, and had seen only 2 Swainson's Hawks and one Red-tailed Hawk in that distance. I had noticed no hawks at all in the stubble field. Had they dropped from high up in the sky? All of the birds were found in a weedy stubble field, which had many green Kochia (*Kochia scoparia*) and Russian Thistle (*Salsola kali*) plants. They were observed on the ground or walking, and appeared to be eating grasshoppers, which were attracted to the green plants. The summer of 2000 was very dry in southern Alberta, so the grasshoppers were concentrated in areas with green growth. All of the hawks were found in a 2 km by 3 km area.

There have been few reports of concentrations of Swainson's Hawks in Alberta. Around September 13, 1993, Victor Hafichuk reported up to 120 Swainson's Hawks were coming in to roost nightly for about a week at Moon River Estates, near Monarch. They were thought to be feeding on the Blood Reserve land just across the Belly River. On July

5, 1996, T. and D. Dolman found between 60 and 70 Swainson's Hawks in a kettle along the Milk River, north of Del Bonita. On September 18, 2002, the Dolmans found between 200 and 300 hawks about 3 kilometers south of Champion, which were on the ground in a stubble field. When I visited the area two days later, there were still at least 75 hawks present. I have found flocks of Swainson's Hawks on only 2 other occasions. The first time was a flock of about 40 birds circling over a field southeast of Taber, on September 20, 1997. The other time about 30 birds were seen in a kettle near Wrentham in September 2001.

It is interesting to speculate on why such concentrations of Swainson's Hawks occur in Alberta. At times it could be a large supply of food that attracts so many birds to the same place. Other times, weather conditions can lead to many hawks traveling at the same time and in the same place. Whatever the reasons may be, seeing a large group of hawks at once is a memorable experience.

Mountain Pine Beetle

The mountain pine beetle is the most destructive insect pest of mature lodgepole pines in Western Canada.



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It has been estimated that the current epidemic in British Columbia will be responsible for destroying 80% of that province's mature Lodgepole pine forests. At our current rate of harvest this is an area approximately equivalent to 2,000 years of harvesting by Spray Lake Sawmills.

Although the beetles are small, just 5-7 mm long, most infested trees will die within a year. Trees die from a combination of pine beetle larvae feeding on the inner bark, effectively stopping the flow of nutrients, and by introducing blue stain fungi into the tree.

Populations of this beetle can increase dramatically within a few years. In Alberta infestations are treated the same as wildfire with an emphasis on early detection and immediate control.

Pine forest? Report the location of yellow-green or red-brown crowns. Pine Beetle Hotline 1 (877) 927-BUGS.

Word Search: *Amphibians and Reptiles*

BY LAURIE LYWAK

Circle the words found below. Words may be horizontal, vertical or diagonal and may be spelled backwards. The remaining letters can be rearranged to answer the following clue:

Mythical double-headed snake of the Kwakiutls (a west coast tribe).

Amplexus	Mark	Toad
Bar	Newt	Track
Call	Ova	Trill
Crawl	Oviparous	Turtle
Ectothermic	Peep	Venomous
Egg	Red	Wart
Eye	Salamander	Young
Frog	Scale	
Garter	Slither	
Herpetology	Slough	
Hibernacula	Snake	
Keel	Spot	

C	I	M	R	E	H	T	O	T	C	E	H
S	L	O	U	G	H	L	E	E	K	I	E
T	N	T	U	G	N	U	O	Y	B	A	R
T	U	A	S	L	I	T	H	E	R	S	P
K	O	R	K	U	I	F	R	O	G	U	E
O	C	P	T	E	O	N	K	A	T	O	T
E	V	A	S	L	A	R	R	R	O	M	O
L	W	A	R	C	E	T	A	E	A	O	L
A	L	S	U	T	E	W	M	P	D	N	O
C	L	L	I	R	T	E	S	E	I	E	G
S	A	L	A	M	A	N	D	E	R	V	Y
L	C	I	S	U	X	E	L	P	M	A	O

SOLUTION FOUND ON PAGE 19

F A N C L U B S P A G E

Edmonton Nature Club

18 years in the making

BY JIM LANGE, DIRECTOR, ENC



*Have you heard the exciting news from Edmonton?
A new naturalist club has formed.*

Now, unless you're new to Alberta's naturalist community, you might be thinking "There are already two nature clubs in Edmonton—why start a third? ... and where, all of a sudden, are the people for this new entity?" It is actually very simple when one realizes that the Edmonton Bird Club (EBC) & Edmonton Natural History Club (ENHC) have merged to form this new group, with a combined membership of about 450 individuals.

Surprised? Well, given the history of this issue, one should be. It did not happen overnight or without some controversy. This merger issue has been smoldering for at least 18 years. Every so often, like a volcano, it would briefly erupt only to die down again.

The EBC had long-time, devoted members who really were not interested in other aspects of nature beyond birds. On the

ENHC side were a similar group of members who were not so interested in birding. Neither side was willing to give up their identity through a merger. Muddying the waters was the

“...after 18 years of deliberation, the Edmonton Bird Club and the Edmonton Natural History Club went into the history books. In their place is the fledgling Edmonton Nature Club.”

fact that the ENHC had a small component of dedicated birders in its membership. Some held memberships in both clubs while others did not. In the mid 1980's the ENHC birders formed a Bird Study group. It was first chaired by Darwin Wiggett, then Terry Thormin, Gerry Lunn and finally by Petra Rowell (ENHC) & Jim Lange (EBC). On March 20 1987 the study group became a joint committee between the two clubs. After a number of years Dick Dekker asked what the difference was between the EBC

& the study group. My reply: "a fine fuzzy line". The bird study group was set up primarily for instruction on bird ID or calls, using a field guide assisted approach, whereas the EBC had a lecture format. With rising room costs and falling attendance the bird study group was eventually dissolved.

At an EBC meeting in September 1986 the merger volcano once again erupted when Dick Dekker raised questions about the struggle to secure executive members, dual memberships, and the potential benefits of shared costs, programs and field trips. The EBC, under president Jim Lange, decided to look into the issue. In February 1987, vice-president John Allan asked members of the EBC for feedback. The results were clear: members were not interested in merging. Nonetheless, some members were interesting in cooperating in areas of common interest. This suited me, so the EBC commenced talks with ENHC president Carol Smith, and

F A N C L U B S P A G E

later Geoff Holroyd, about areas where we might work together. Shortly following these talks, Alan Hingston proposed a joint newsletter to advertise meetings and field trips. The joint newsletter, *Nature Network*, became a reality and was and will continue to be mailed to members of both clubs.

Over the years work progressed slowly, mainly behind the scenes, trying to blend and support the activities of both clubs. Opposition to the merger also began to wane as long time members from both clubs passed on. With new people and fresh ideas on both executives, the merits of merger once again became attractive. The process was furthered when the executive of the EBC appointed a liaison representative to work with the ENHC executive—to pass information back and forth. This sharing of information—conducted by Audrey Gordey and Jim Lange—remained in effect until this past spring when the clubs' executives started to hold joint meetings.

In 2002 the issue of merger again erupted when Bob Parsons, past president of EBC, brought it forward. The clubs decided, with all the joint initiatives already in place, that the time was right to approach the members once again. An exploration committee, co-chaired by Bob Parsons and Chris Fisher, developed a 'merger survey' to ask members whether or not they wished their respective executives to pursue a

merger. Circulated to members of both clubs during the summer of 2003, the survey results were collected by Bob Parsons (for EBC) and Tanya Hope (for ENHC). Both clubs were overwhelmingly in favour of the merger.

Now the real work began. A finance committee examined the legal and logistical requirements of merging the two clubs' finances. And a publications committee studied merging the clubs' respective publications, the ENHC's *Edmonton Naturalist* and the EBC's *Wingbeat*. Last but not least, a bylaws committee was charged with developing new bylaws for the club, including job descriptions, which detailed the expected monthly time commitments for each position. Aware that all this would take much hard work, by many volunteers, it was decided to shoot for completion by fall, 2004: we would hold our joint AGM on the 12th of October.

Work progressed well. The draft bylaws were circulated to all club members for their approval. The clubs' finances were audited and then merged. After conducting a title search, the new club's name—Edmonton Nature Club—and its new bylaws were approved and officially registered on the 14th of June, 2004. As a not-for-profit group, we are not yet a registered Charitable organization—one step at a time!

Next in order was the striking of a nominations committee. Its

role was to canvas the existing executives and club members to see who might be interested in standing for positions on the new executive. There were early suggestions that it would be difficult to find a president willing to look after such a large group. My own personal thoughts were that the numbers were irrelevant—the work was done for all members, be they 200 or 500!

Well, the moment of truth arrived and we headed into the meeting. The nomination committee had an impressive list of candidates for the various positions. Much to our delight, the turnout for the meeting was high. With 55 members present, most of the executive positions, directors and committee chairs were filled. And so, after 18 years of deliberation, the EBC and the ENHC went into the history books. In their place is the fledgling Edmonton Nature Club. With a great new executive—headed by Marg Reine—and many motivated members with lots of ideas and enthusiasm, the new club's future bodes well.

In closing, I wish to thank everyone for their tremendous effort in working to see this become a reality. It certainly would not have happened without your commitment. We have a bright future ahead and I look forward to seeing the results.

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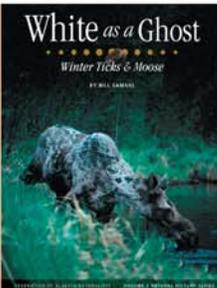
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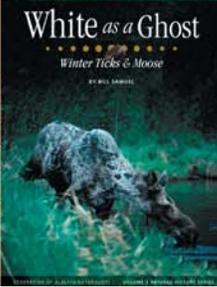
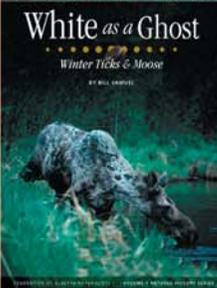
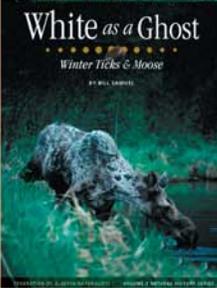
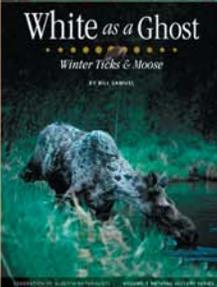
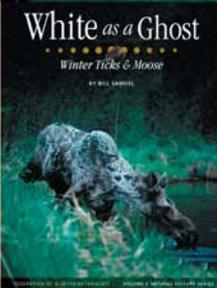
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WINTER TICKS & MOOSE

By BILL SAMUEL



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WHITE-TAILED DEER, KANANASKIS COUNTRY COLIN R. PARKER
PHOTOGRAPHED IN NOVEMBER 1997 USING A NIKON F-1 CAMERA, 300 MM LENS AND KODACHROME 64 FILM



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