

**BOW VALLEY NATURALISTS
NEWSLETTER, Fall 2007
BOX 1693, BANFF, AB
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Web site:

<http://www.bowvalleynaturalists.org>

PROGRAMS/EVENTS

**BVN meetings:
7:30 pm., Banff Seniors Centre.**

Wednesday, OCTOBER 24

Bear DNA Study Profiled with Mike Sawaya.

Wednesday, NOVEMBER 28

Suffield Under Siege with Cleve Werschler.

**Banff-Canmore Christmas Bird Count
Saturday, December 15**

Potluck supper and compiling of results will follow at 6:00 p.m. in
the Banff Seniors Centre

For details, contact Diane or Mike McIvor at
762-4160

BANFF NATIONAL PARK PLANNING FORUM

OCTOBER 26-27

Friday: 9:00 am – 4:15 pm

Saturday: 9:00 am – 2:00 pm

The Banff Centre, Donald Cameron Hall

Forum Objectives

- To set the context for the management plan review, and explain the 'building blocks' (including the State of the Park Report) leading to potential management plan amendments.
- To foster discussion and feedback on potential areas for amendments to the management plan.
- To review and discuss the accomplishments and future the Round Table and the annual planning forum.

Agenda

Friday October 26

9:00 – 9:10 Welcome & Introductions

9:10 – 9:30 Superintendents' Remarks

Reflections on the Annual Planning Forum & Round Table

9:30 – 10:30 Round Table Remarks

Topic: In 3-5 minutes, please offer your thoughts on whether the annual planning forum and round table approach is an effective way to foster stakeholder understanding of the management plan and involvement in its implementation? From your perspective,

which aspects work and which do not?

10:30 – 10:45 Refreshment Break

10:45 – 11:45 Round Table Remarks cont.

11:45 – 12:30 General Discussion (including public gallery): the relevance and future role of the planning forum and round table.

12:30 – 1:30 Lunch

1:30 – 2:15 :

A. Introduction to Management Plan Review

- origins of potential amendments
- common themes for all mountain parks

B. Overview of State of the Park Report

- national standards (template, indicators, measures)
- highlights of Banff State of the Park Report
- comparison with other mountain parks

C. Possible Management Plan Sections for Amendment

2:15-2:45 Questions and Answers on the Management Plan Review and State of the Park Report

2:45 – 3:00 Refreshment Break

3:00 – 4:00 Superintendent's Open Forum

4:00 – 4:15 Daily Wrap

4:15 – 5:30 Reception - Banff Planning Forum 10 year Anniversary

Saturday October 27

9:00 – 10:45 Small group workshops (Rounds Table and members of the public invited to participate)

Topic: *Have we hit the mark with our list of potential amendments? Where have we missed the mark and why?*

10:45 – 11:00 Refreshment Break

11:00 – 12:00 Small Group Reports to Plenary

12:00 – 1:00 Lunch

1:00 – 2:00 Feedback on the Forum, Facilitator's Summary &

Thank you

Putting a webbed foot in the waters...

Never the first to embrace new technologies, the BVN executive is nevertheless proud to announce that we have opened our own BVN website (coinciding with the celebration of our organization's 40th anniversary.)

You can find us on the web at

www.bowvalleynaturalists.org

The website is still "under construction" and likely will be for some months... something like Banff Avenue. We will post news of upcoming events such as the Christmas bird count and, of course, a schedule of future meetings and lectures. Newsletters of the past two years are now online. Our thanks to Michael Shuster who made this happen.

ISSUES

Ski Area Long Range Plans

Mike McIvor

The process of preparing new long range plans that were supposed to have been completed several years ago for each of the 4 downhill ski areas in the mountain national parks continues to lurch along. Site Guidelines based on new Management Guidelines announced by former Environment Minister Rona Ambrose will set the stage for long range plan proposals subject to environmental assessment (EA) at the Comprehensive Study level.

Parks Canada and each ski area will work together to produce the Site Guidelines. Marmot Basin in Jasper National Park is farthest along this winding road; our friends with the Jasper Environmental Association who are closely watching this situation - or at least as closely as you can watch a process taking place behind closed doors - are extremely worried about the potential outcome. Parks Canada is very anxious to get this job done with limits to growth established. (Of course what Parks Canada managers always fail to acknowledge is that the 3 ski areas in Banff each went through a long range planning process years ago, the purpose of which was to establish limits - limits that have not been respected by the operators or by Parks Canada as regulator.) The great fear is that Parks Canada will give away far too much in order to accomplish this.

In 1981, at Marmot Basin, in response to the findings of an EA, Parks Canada prohibited any development out of the basin itself into the Whistlers Creek Valley because of potential adverse effects on woodland (mountain) caribou, mountain goats and other sensitive wildlife species, and on unstable soils and vulnerable vegetation. It also refused to allow a ski lift to the summit of Marmot Mountain because it would facilitate access to important wildlife habitat. It stated that developments such as these would "*cause a loss of natural resource heritage values*" and would be "*contrary to National Parks' purposes...*". More recently, in 1999, Parks Canada noted that the absence of a summer visitor use program was "*a very important aspect of minimizing direct disturbance and alienation of secure habitat for wary wildlife*".

Unfortunately, although these "*important or fragile environmental resources which would be impaired by ski area development*" still exist and despite the fact the people of Canada have expressed their desire for protection through a strengthened National Parks Act with priority emphasis on ecological integrity and a relatively new Species at Risk Act (woodland caribou are listed as "*threatened*" while wolverines and grizzly bears which also occur here are designated as "*species of special concern*" by the Committee on the Status of Endangered Wildlife in Canada) Parks Canada appears willing to roll the dice on their future. Apparently instead of simply saying "**NO!**" with good reasons, it has allowed Marmot Basin to place on the negotiating table a ski lift to the summit, 2 ski lifts into Whistlers Creek Valley, and summer use. Of course we all know how this game is played: put proposals for inappropriate development out for consideration, grant approval for part of the package but not all, and declare a "**Win! Win!**"

Implications extend well beyond the boundaries of this ski area in Jasper because the 3 ski areas in Banff are very interested observers and you can be certain they will be demanding concessions similar to whatever Parks Canada hands over to Marmot. If you are

convinced that right now is the time to put a stop to any further expansion of the ski areas in our mountain parks, please take the time to write a letter stating this to the Minister of Environment Canada, the opposition Environment Critics, and senior Parks Canada managers. (Addresses on last page.) If you prefer a less hard-line approach you could request that at the very least, the Management Guidelines be subject to a Strategic Environmental Assessment and that the Comprehensive Study process be initiated prior to the production of individual Site Guidelines.

Good for Tourism?

Peter Duck

It seems inevitable now that the Town of Banff will construct a pedestrian bridge across the Bow River from Central Park to the Rec Grounds picnic area. There is such a momentum of people and resources pushing this idea forward this time it is most likely a done deal. Like flies facing an oncoming locomotive here are my top two reasons this should not come to pass in a community like Banff.

In second place is the problem of misplaced spending priorities. If we can find the dollars to fund a luxury project like this why does the day care sputter along with, as we heard in the municipal election forum, explanations that there is only so much money to go around?

In first place, however, is the issue of etching our diamond in the name of tourism development. Banff has something no other community in the Canadian and maybe the US Rockies has. That gem is the presence of a slow moving river with superb views including a kaleidoscope of natural reflections unaltered by imposing human infrastructure along its banks. Here the glacier blue of Bow Lake flows right through town. The scene from the canoe docks back to the tree garnished view of the Luxton is unique. It's the sort of thing (and protecting its integrity) that defines a UNESCO World Heritage Site community. It shows that we do not rely entirely on the surrounding national park, managed by another agency, to make us special - our townscape is special.

The value of this unobstructed river view to tourism was driven home a few weeks ago. Late one afternoon I was invited to meet a group of visitors at the canoe docks. These visitors had asked for something nature-like that they could do in town for an hour before dinner. A quick-thinking escort offered them an interpretive walk along the river en route to their supper. I joined them and there we stood in that crystal, late afternoon sunlight that arrives with the cool air of early September. They commented about the colour of the river, the reflections of the riverside vegetation on the surface and even the elk bugling in the poplar forest opposite us. All the facets of our urban gem came together.

Folks then asked about the log building, framed by glowing poplars, that punctuated the end of the view along the river. Upon explaining it was the Luxton Museum I offered a few interpretive tid-bits about rivers historically connecting us with native peoples. "No need", they interjected, "we were there earlier in the day and we enjoyed looking all the way up-river to just this spot. Its nice to see the museum from the opposite direction." When I mentioned that the Town Council was considering placing a bridge across the view two or three of the visitors simultaneously offered "Oh, what a shame." I walked them along the bank and said good-bye where the shooting stars (*Dodecatheon sp.*) bloom in June - a spot that

will change in character, if not form, if the bridge is placed in the location currently proposed.

Their reaction drove home the fact that this placid view and all its other sensory components truly is a rarity. Canmore has great downtown river views but they are, of necessity, mostly framed by engineered riverbanks. There is nothing like downtown Banff's unobstructed Bow River views. Not in Jasper, not in Lake Louise, not in Field nor Fernie. Why, when you have been blessed with such a gem would you choose to scratch it?

One of the key UNESCO World Heritage Site criteria for designating the Canadian Rocky Mountains site is "Superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance" Is there something this town can point to as contributing to protecting the integrity of that designation? Perhaps making a little sacrifice to maintain unobstructed views up and down a beautiful mountain river counts in some small way.



"But the Bow at Banff is properly wide, wild, shored, and green, gracious, soft, and swift. It would be difficult to find any other river anywhere which sustains itself so riverly." Jon Whyte from his Mountain Chronicles, Banff Crag & Canyon, May 25, 1978. Photo: Peter Duck

Big Brother is Watching

Peter Duck

A new set of closure signs was erected along the Sulphur Mountain wildlife corridor boundary this summer. The signs extend the full length of the corridor boundary from the Cave and Basin parking lot to Mountain Avenue above the Wheeler House. Each sign bears a warning that the area is under electronic surveillance. That's a lot of cameras in the bush. I realize it is necessary to protect special sites - in this case to provide adequate signage to enable successful prosecution of intruders who claim ignorance of the closure - but it sure changes the nature experience as you walk along and wonder who is watching and from where.

Whose Corridor is This Anyway?

Peter Duck

What a tangled web we unravel as humans alter ecosystems. It is interesting to note that we have learned from monitoring wildlife crossings of the Trans-Canada Highway that some species prefer crossings that tend to have open visibility. This seems to be consistent with my backyard observations of wildlife using (or not) the Sulphur Mountain wildlife corridor behind the upper Middle Springs residential area. One side of the fence (or what is left of it after several windstorms) tends to be wide open due to fuel reduction activities. On the other (no people allowed) side, the dense lodgepole forest often comes close to the fence especially on the slope leading down to the Cave and Basin parking lot.

This configuration of forest and fence seems to be encouraging some wildlife to stay in the open and use the "town" side of the fence. Four grizzly bears used the forest and gravel path less than 20 metres behind the houses in the more open, human side of this space this spring instead of traveling on the other side of the fence. It is not uncommon to have large groups of elk use the open side of the fence and avoid the dense forest of the wildlife corridor where more predatory denizens of the forest may be lurking. Indeed bull elk often drive (or follow?) their harem up and down the open corridor.

If one is concerned about the more secretive wildlife species, then having a movement corridor that is open on the human side and forested on the wildlife side makes good sense. But the openness on the human side of the fence seems to be directing some species of wildlife into the same space, in fact the same trail, used by people. In one location the fence eventually funnels wildlife and humans on the town side into a view-obstructed gully about 30 metres wide between houses and fence.

Hopefully some adaptive management based on learning over time will help us re-think how we design these complex travel corridors, fences and fuel reduction zones to ensure species do not come into conflict to the detriment of one another.

Just Another Black Bear

Mike McIvor

Not long ago, we heard news of 2 black bear cubs that were killed by vehicles on Highway 93S (the Kootenay Parkway) in Kootenay National Park. Apparently this brought to 9 the number of black bears killed on roads or the railway in the Kootenay, Yoho, Lake Louise Field Unit this year. And since then, we have learned, 2 more black bears were killed on the railway in Yoho National Park.

Traditionally, in the mountain parks, black bears have not been subjects of the same degree of attention and concern as their more charismatic relatives - grizzly bears. As a result of not attaining iconic status, their deaths evoke few headlines and little mourning or anger. Most often, the first question in response to word of a bear being killed will be "*What kind?*" We want to know if it was a grizzly or just a black bear.

Over the years, conservationists have been as prone to responding this way as park managers. But even if their populations in North America are greater and healthier causing less worry about long term survival, black bears are part of Rocky Mountain ecosystems; they belong in these landscapes and this level of human-caused mortality is inexcusable.

We should be encouraging national park superintendents, particularly Terry Perkins in the Kootenay, Yoho, Lake Louise Field Unit to recognize the severity of this problem and to intensify the search for solutions. Black bears deserve better than to be quietly written off as just more road/rail kill statistics.

The Kootenay Parkway

Mike McIvor

It is clear from the recent deaths of 2 black bear cubs on Highway 93S that the slaughter described in our spring newsletter is unabated. We are trying to learn the status of the wildlife mortality mitigation feasibility study that was to have been undertaken. And we will attempt to persuade Parks Canada managers to elevate the profile of this issue. They seem determined to emphasize the Icefields Parkway (93N) in the current review of park management plans, but the scale of wildlife mortality on the Kootenay Parkway, with more to come as post-fire habitat changes take effect, poses a more significant threat to ecological integrity than does the situation farther north.

Slash (and Burn?)

Dwayne Lepitzki

No, this isn't another story about prescribed burning in the Bow Valley. But it is about slashing, and potentially burning. Unlike a prescribed burn, where it could take years before the full and positive effects of the actions are noticed (following the visually obvious and immediate effects of scorched earth), the effects of this slashing will be negative, both immediately and more long-term.

Close to a month ago, the Federal Government wielded the budget cleaver once again. If you didn't catch the very early CBC radio news (see www.cbc.ca/canada/story/2007/09/18/enviro-canada-cuts.html) on 19 September, and then missed the 30 second "fluff" piece that following Saturday, these slashes may not even have been noticed. Even the haemorrhaging may not be immediately apparent to us in the Bow Valley.

The CBC learned from its sources that John Baird, Minister of the Environment, massively cut the budget for the Canadian Wildlife Service (CWS), an arm of the Ministry of the Environment. The CWS is the Federal Agency responsible for conserving Canadian wildlife. This includes the protection and management of migratory birds and nationally important wildlife habitat, endangered species, research on nationally important wildlife issues, control of international trade in endangered species, and international treaties. Some of us may remember the "Hinterland Who's Who" spots on television, the central point of the "fluff" piece. But in addition to highlighting Canadian species on the small screen, CWS does much more (see www.cws-scf.ec.gc.ca); at least it used to.

The cuts were deep. The cuts will hurt. The Environmental Monitoring and Assessment Network (EMAN) of CWS, which observes changes in ecosystems through a system of monitoring projects across the country (see www.eman-rese.ca/), lost 80% of its budget. The Migratory Bird Program, which monitors the health of bird populations, was cut by 50%. The budget for the National Wildlife Areas (51 in Canada, the closest is the Columbia, the

closest of the four in Alberta is Suffield, see www.cws-scf.ec.gc.ca/habitat/default.asp?lang=en&n=29B27C83), a program that protects nationally significant habitats for wildlife including birds, was cut from \$1.9 million to zero. Essentially, all scientific field and survey work has been stopped because the service budget has been frozen until the end of this fiscal year, March 2008.

The Honourable Minister Baird apparently was unavailable for comment. An e-mail from his department to the CBC said that no programs had been eliminated but that spending was being re-prioritized for climate change initiatives. While the programs may still be in place, at least on paper, with budget cuts of between 50 and 100%, how long can programs survive? The e-mail also stated: "The government has been clear that its priorities are being a climate change champion, and taking real action to provide clean air and water for Canadians. We think Canadians are supportive of these priorities."

The CWS and its various programs provided some of our eyes and ears. Changes to the various ecosystems across the country, both positive and negative, can only be evaluated through monitoring. EMAN, created in 1994, has a mandate to coordinate integrated ecosystem monitoring and research to provide an understanding and explanation of observed changes in ecosystems. The effects of climate change on Canada's wildlife can only be measured by scientifically defensible monitoring. But, if no monitoring is occurring, data showing negative effects will not continue to accumulate. Perhaps this is a twist to the old "if a tree falls in the forest, and no one is near to hear, has it really fallen?" argument. No monitoring means 'we have no proof that ecosystems are being negatively affected' sound bites. Of course, without monitoring we'll never know for sure if Federal Climate Change actions have had a positive, or negative, effect on Canada's wildlife and its habitat. Is this perhaps the real reason to stop the monitoring?

Surprisingly, since the brief announcements on CBC, nothing more has been heard about the budget cuts. Maybe the official from the Minister's office was right. Maybe Canadians are supportive of these cuts. Or maybe, they don't even know they occurred?

Lands Adjacent to the Town of Banff (LATB)

Mike McIvor

On October 5, Wild Rose MP Myron Thompson announced amendments to the Banff National Park Management Plan would be tabled in parliament to reflect the human use management strategy flowing from the LATB process. Implementation will occur over a period of years, much of it dependent on availability of funds. We will be watching carefully as the strategy unfolds on the ground, trying to ensure that both goals are met:

- To maintain and restore ecological integrity in the montane ecoregion
- To make the LATB area a showcase for meaningful experiences, appreciation and understanding for all visitors.

Believe It or Not!

An article in the Globe and Mail on Saturday October 15, 2007 page T1 reports that "Front-line Parks Canada workers cautiously explained that the department doesn't have scientists who study the impact of climate change on the Columbia Icefield and they are still waiting for direction from the agency about how to handle questions about global warming".

Peter Duck

Of Wild Things...

MAPS

Article and photo: *Peter Duck*

Another season of bird banding out at the Ranger Creek MAPS (Monitoring Avian Productivity and Survivorship) station was completed this year. There were no real bird highlights to separate this season from other years (unless you count the swarms of Pine Siskins (*Carduelis pinus*) that kept us hopping on many of our rounds). But then that is the nature of long term environmental monitoring. The MAPS program offers a continent wide window into population trends that cannot be achieved without the accumulated data from routine record keeping. For just that reason I would like to thank all of the folks who volunteered to rise before the perfection of the morning and keep the Banff record going. In addition to Greg Meyer, our exceptionally committed bander (you get up a lot earlier if you come from Calgary), here are the MAPS volunteers this season. Give them a pat on the back. If I have missed anyone I apologize - rest assured your effort is equally appreciated.: Nikolaas Baker, Staci Ball, Stéfanie Gignac, Joel Hagen, Deb Hornsby, Magda Idasz, Andrea Kortello, Chris Macdonald, Ken Nogami, Jennifer Reimer, Ken Symington, Amy Turnbull, Jesse Whittington



A newly banded Yellow Warbler
(*Dendroica petechia*)

PINE BIRDS

Mike McIvor

One day a few years ago I was standing with a friend in the parking lot at Lake Louise. We had attended a meeting between a small group of conservationists from several organizations and some key members of a foundation who we hoped to convince (successfully as it turned out) of the importance of the vision that formed the basis for the Yellowstone to Yukon Conservation Initiative (Y2Y). Having just made our escape from the site of our meeting, the very large building that so egregiously dominates the north shore of the lake, we were enjoying the mountain air and views, talking about past and future hikes into the spectacular terrain surrounding us.

Two Clark's nutcrackers flew low over our heads; my friend scowled, calling them "*rats of the high country*". It was an offence I have yet to forgive as I politely remind him from time to time.

There is much to be said in defence of nutcrackers but for now, I'll just mention their role in one of those wonderful natural events that marks the turning of the seasons in the mountains - the harvest of pine nuts. Every year beginning the last half of July, the limber pines in the vicinity of the Hoodoos on Tunnel Mountain become the focus of concerted activity as these handsome corvids and red squirrels race to collect a bounty of nutritious seeds.

Dripping with resin early in the season, the large green cones that house the seeds occur on the tips of branches, offering themselves for potential propagation.



photo: Michael Shuster

The squirrels usually haul away entire cones, cones that are almost as big as their own bodies, while the nutcrackers use their long, sharp bills to hammer repeatedly, tearing loose the scales to get at the individual seeds. These are collected in an unique sublingual pouch then carried away in large numbers to be cached in the ground, often at some considerable distance from their source. Utilizing their remarkable spatial memories the birds are able to recover the stored seeds over a period of many months. Seeds that are not retrieved may germinate to eventually produce trees that will allow this relationship to continue. A similar, even more intimate connection binds the nutcrackers and our other 5-needle pine, the whitebark.

The number of cones available for seed harvesting purposes can vary dramatically from year to year, but this year seemed to provide a relatively good crop on the limber pines - just as it has seen the darkening of the tops of Douglas fir and spruce trees with their own, particularly heavy cone crops that are attracting a variety of smaller birds such as both species of crossbill.



photo: Michael Shuster

Next year, in late July or early August, take a walk along the ridge at the Hoodoos and watch this fascinating transaction. Limber pines grow in dry, exposed, south-facing habitats in the montane ecoregion. Another good place to observe this activity is on the benchlands on the north side of the valley above Canmore.

The whitebark pine is more of a timberline species. Two good places to see nutcrackers collecting seeds from these trees, perhaps later into August and September, are the upper portions of the Castle Lookout trail and the Sarbach Lookout trail above Mistaya Canyon.

**Secret pleasures of a carnivore-lover
— August 20, 2007**

Colleen Campbell

I confess that I am challenged to identify creatures with fewer than four legs and plants with little dietary appeal to creatures with four legs. And, honestly, nearly everything I know about animals with four legs and the foods they eat devolves from my involvement with bear research over the past 15 year.

I am the only BVN board member inept in identifying birds. (Editors note: Hmmmm...) But truly, this morning I am suffering a disappointment. My garden is so very quiet. I have been watching, but there is just not much avian activity there.

Yesterday though, I was completely seduced by wild flutterings, birds moving from bush to bush, on the ground and through all the trees. They were eating – EATING!!!! This morning the Amur cherry is empty of fruit, the dogwood is stripped of berries and the anthill in the vegetable patch is a little disrupted in appearance.

Initially I thought that American robins were migrating. Last year I noticed them in the Amur cherry over several days as they headed south. However, in my casual notice, yesterday morning I immediately recognized a multi-species avian community shopping about the garden. Two male Northern flickers picked along the ground, discovered the anthill and studiously picked in the holes of a large piece of tufa; robins, by the dozen, worked the Amur cherry and the ground, and when they abandoned the tree, juvenile Cedar waxwings took over harvesting the cherries. There were numerous little brownish birds I could not identify, beyond recognising that several different species were present. I had bird

books open, but the little brown ones were fast enough to keep me guessing, beyond believing them to be sparrows and warblers.

The flickers confidently worked in small areas, concentrating on their targets and showing off features that enabled me to identify them. A single robin rested on the deck rail for many minutes, so still I wondered if it was injured. Eventually and with specific deliberation, the robin preened, opened each wing, spread its tail, stood tall, groomed its breast, and turned to show off all angles, displaying how beautifully varied its feathers are, particularly on its breast — much more interesting than the illustrations found in most bird books. After ten minutes, it flew back into the cherry tree and continued feeding, quickly lost in the inventory of other robins. The juvenile waxwings also landed with steady grace, and I had time to notice key features, including their tiny forming masks.

The show continued for several hours. I eventually became distracted by events of the day, but kept checking to see what was happening. Different birds cycled through until the cherries were stripped and the berries on other plants were consumed. ~

Today, I am disappointed by the lack of activity. My list of recognized birds is slowly developing, with a few waterfowl (biannual visits to Lac des Arcs), a few raptors (present at carrion), and now a few other little winged creatures. My tiny, tiny foundation of welcome exposure to birds increases my awe of friends who hear a rustling in the trees, a few tiny notes and know from behaviour and song which species is present.

And, secretly, I am intrigued to learn a little more.

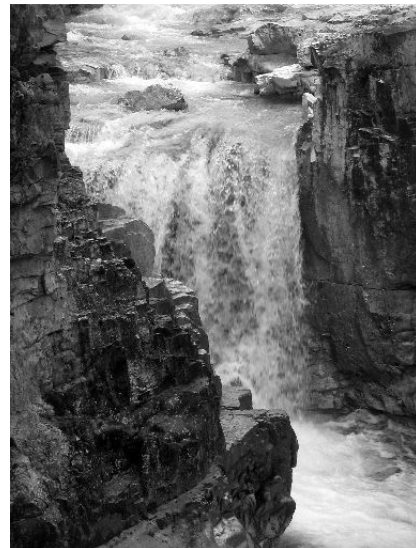


photo: Bob Smith

Long time BVN members Bob and Mary Smith recently visited the newly re-opened Marble Canyon trail in Kootenay National Park to witness the effects the major fires in 2003. The views are dramatically different but the wonderful convergence of rock and water seemed much the same.

The Tercentenary of the Father of Taxonomy

Shelley Mardiros



Ten interesting facts about Carolus (or Carl) Linnaeus:

- Born in Sweden on May 23, 1707. Died January, 1778.
- Also known, especially in Sweden, as Carl von Linné, the name he adopted after being granted nobility in 1761.
- Carl Linnaeus said in his *Philosophia Botanica* (1751), "If you do not know the names of things, the knowledge of them is lost too".
- He is known as the Father of Modern Taxonomy, for developing a system of binomial nomenclature that is still in use today. His system addressed the problem of unwieldy descriptive names that were inconsistently applied, creating confusion in scientific reports. Under his system, each species has a unique standardized Latin name consisting of its genus name and its "trivial" name (today called species name.) For example, prior to Linnaeus, the wild briar rose was variously known by botanists as *Rosa sylvestris inodora seu canina* or the super-mouthful: *Rosa sylvestris alba cum rubore, folio glabro!* Linnaeus succinctly re-named it *Rosa canina*.
- The first edition of his classification of living things, *Systema Naturae*, was a slim 11-page pamphlet printed in the Netherlands in 1735. The 10th edition in 1758 was a multi-volume work that classified 4,400 species of animals and 7,700 species of plants.
- He travelled to the far north of Scandinavia as a young man, learned about the Saami people, and, in writing about them, became

one of the world's first ethnographers. (He also named our species *Homo sapiens*.)

- He adopted as his signature flower the Twinflower, *Linnaea borealis*, found all over northern regions (and here in BNP.) Several portraits of Linnaeus feature his eponymous flower.



Linnaea borealis

photo: Doug McKown

- He was a pioneer in pearl cultivation when, after seeing the search for random pearls in mussels in Lapland, he returned to Uppsala and experimented with introducing limestone fragments into mussels and waiting for the mussels to coat the irritation.
- He reversed the temperature scale developed by contemporary and compatriot Anders Celsius (originally, 0 represented the boiling point and 100 the freezing point of water.)
- Linnaeus was a physician, botanist, zoologist, and professor. His students travelled the world, including two who accompanied James Cook on his circumnavigation of the globe, all sending back samples and descriptions of plants and animals. He helped to found the Swedish Academy of Science, and his influence on science is still strongly felt 300 years after his birth. Skål!

BOOKS

Colleen Campbell

If you have any interest in the world around you, any sense that most of what we see is not always what it seems, *The Geese of Beaver Bog* should appeal to you. It certainly does not require any specific interest in geese.

The Geese of Beaver Bog is better than a winter afternoon mystery tale. I read it in a day, completely taken in by the lives of the birds in the story. I picked it up *because* Bernd Heinrich is the author, not because of a particular interest in geese. I anticipated reading reliable and informative natural history and biology; I did not anticipate mystery and intrigue in a story of the ubiquitous Canada goose.

ADDRESSES

Stimulated by an inadvertent gift, a gosling needing foster care, Bernd Heinrich responds with his scientific curiosity to learn more about a species many of us see and most of us ignore daily for long months each year. When the ‘almost pet’ Canada goose (named ‘Peep’) becomes grown and leaves for life in the wild, Heinrich is prompted to follow the life of the young bird, as much as he can. For several years he visits bogs near his home with enough frequency to monitor the intimate habits of geese in particular. He learns to recognize individuals, records their courtship and mating, nesting and social lives. The success of their seasons, the surprises of their relationships, the squabbles and gosling-care are all recorded and strategically revealed to the reader.

Periodically, Heinrich reminds us that he is recording personal observations, not engaged in scientific research. Truly, he is engaged in socially acceptable voyeurism, spying on and recording the detailed activities of his neighbours. The reader is drawn into the lives of the geese in the bogs, in particular. Each season brings surprising shifts in relationships, territory use and breeding success.

Intrigue draws the reader from page to page. Does ‘Peep’ return? Does she find a mate and rear young? Who is her competition? How do geese sort out social rivals? Where do they take their goslings? Geese apparently live complicated and marvelous lives with social mysteries as complex as those in ‘Desperate Housewives’.

Illustrations are Heinrich’s own beautiful pencil drawings and are totally supportive of the story.

And, as happens with each of Heinrich’s books, the reader will learn a whole lot of interesting ‘stuff’ — biology *and* natural history’ — about the main creatures in the story. If you read *The Geese of Beaver Bog*, you will eye the Canada geese in our own region and the impressive annual migrations with a shift in your awareness.

Additionally, *The Geese of Beaver Bog* will appeal to many children, especially if they see geese where they live, are interested in animals or are learning about wildlife in school.

Bernd Heinrich has been writing really interesting books over the last fifteen to twenty years. Among them are:

One Man's Owl, 1993
A Year in the Main Woods, 1995
Trees in My Forest, 1998
Why we Run, A Natural History (also called *Racing the Antelope*), 2002
Bumblebee Economics, 2004

..... and some favourites:

Ravens in Winter, 1991
Mind of the Raven, 2000
Winter World: The Ingenuity of Animal Survival, 2003

- **Hon. John Baird,**
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