

**BOW VALLEY NATURALISTS
NEWSLETTER, Fall 2004
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PROGRAMS/EVENTS

BVN meetings:

7:30 pm., Banff Seniors Centre.

Wednesday, OCTOBER 27

Valleyview-Middle Springs Natural Area
with Peter Duck
and

**Tickles and Bergy Bits - Kayaking Newfoundland
and Labrador** with Heather Dempsey.

Wednesday, NOVEMBER 24

**The Influence of Human Use on Fine Scale, Spatial and
Temporal Patterns of Grizzly Bear Activity in the Bow
Valley of Alberta** with Steve Donelon.

Banff-Canmore Christmas Bird Count

Saturday, December 18

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

Exshaw/Seebe Count

contact: Cliff Hansen (403) 673-2422

BANFF NATIONAL PARK PLANNING FORUM

November 26 & 27th.

Room 300, Donald Cameron Hall, The Banff
Centre

Friday: 9:00 am - 4:30 pm

Saturday: 9:00 am - 3:00 pm

The purpose of the annual planning forum is to provide an opportunity for Parks Canada to report on progress in implementing the Park Management Plan and for sector representatives and members of the public to offer their evaluations of the year's activities

BVN members are strongly encouraged to attend this event. It is an accountability session for Parks Canada that offers information on a range of issues and an opportunity to observe, perhaps even participate in, some of the current debates about the future of the park.

ISSUES

UPDATE FROM THE PRESIDENT

by Peter Duck, President

Welcome to our fall newsletter and a new season of evening programs. What's happened since we last met?

The summer seemed to demand reaction to a surprising array of new and old-made-new-again development proposals that seek to increase the human boot-print on the ecosystem. To give you an over view of such things a list of selected advocacy activities BVN took on is included elsewhere in the newsletter. Members of the BVN executive also continue to participate in a number of ongoing public advisory committees on topics such as aquatics the Lands Adjacent to the Town of Banff. We continued to support the MAPS project to Monitor Avian Productivity and Survivorship in the Bow Valley.

All of this activity takes up a lot of individuals' volunteer time when they are pinning to enjoy a summer evening walk or even just a chance to sit quietly after a day of demanding field work. A tip of the hat to them for their ongoing commitment to ensuring that nature is both understood and has a voice in the currents of human activity in this special place.

It is with pleasure and a measured amount of folded-arm pride that BVN can announce the completion of the bridges and walkways in the Middle Springs - Valleyview natural area. This project involved a significant amount of volunteer commitment over a year and a half. And, as we had hoped, it became a project that went beyond BVN to bring individuals as well community organizations (and some very special individuals within organizations) together to make it happen at a busy time of year. Our sincere thanks to all of you.

I hope you enjoy hearing about the details of some of these issues and projects as well as a little about nature in this and future newsletters. Your own contributions are welcome. Looking forward to hearing from you and chatting at our '4th Wednesday of Month' evening presentations,

**A Snapshot of BVN Environmental Advocacy Activities
In Recent Months**

by Peter Duck

Commenting on provincial applications, uncontested by Parks Canada, for more helicopter tourism traffic adjacent to and over Banff National Park from a base in the North Saskatchewan River Valley.

Commenting on various applications and appeals over a proposal to develop a large resort just east of Kootenay Plains in the North Saskatchewan River Valley.

Commenting on new projects that affect undisturbed land at Skiing Louise. These projects continue to arise on a regular basis in spite of Parks Canada's and the Ski Area's inability to move forward with a required long-range plan to direct such developments.

Participation in the ongoing struggles to protect the natural integrity of the Bow Valley from the continuing development of the Three Sisters property.

Commenting on yet another proposal to develop on the wonderful alluvial fan forests at Dead Man's Flats. This is perhaps the last best alluvial fan habitat in the Bow Valley with its combination of wildlife corridors, poplar forest and Bow River riparian zone.

Commenting on the proposal to bring Banff Indian Days activity back to the Indian Grounds. This has wonderful cultural importance but desperately needs a voice to speak for the protection of the ever so rare montane grassland communities that are disappearing in Banff National Park.

Providing on-going public review and comment on the parade of key environmental assessments, not the least of which is the assessment of forest fire fuel management in and around the town of Banff.

TRANS CANADA HIGHWAY PHASE III B

by Mike McIvor

The environmental assessment for this phase of TCH twinning went out for public review at the height of the busy summer season. Parks Canada is expected to make a determination on the EA in the near future. (Note: because of the way federal EA legislation is structured, Parks Canada is not only the proponent of the project, it is responsible for ensuring an EA is conducted – in this case by hiring a consulting company – and then it determines whether the EA is sufficient to form a basis for its own decision on its own project. This is known as self-assessment. The outcomes are not in doubt.)

The funding allocated by the federal government is approximately one-third of what is required to complete the work from Castle Junction to the B.C. border so Parks Canada is proposing to do a section from Lake Louise eastward to somewhere near Moraine Creek. Many questions remain: Were alternatives fully explored? Why are speeders and other dangerous drivers being accommodated through twinning rather than removed from the highway through enforcement? What steps will be taken to improve safety for people and wildlife on the un-twinning sections? Will the wildlife mitigations be adequate? Will the new area of twinning be fully fenced and where will the fence be situated at the Village of Lake Louise? If traffic volumes continue to grow unchecked, what will be the response when the engineers inform us that 4 lanes are not enough? How much asphalt in the Bow Valley is enough – or too much?

From a variety of viewpoints, the TCH is the most important element of infrastructure in the Bow Valley. Its impacts are significant and far-reaching. BVN members should continue to follow this issue closely and should not hesitate to write Environment Minister Stephane Dion about any aspect of concern.

Seasonal Hearing Loss

by Colleen Campbell

Spring and summer provided members of the environmental community with many opportunities to participate in (what is claimed to be) democratic processes. BHB (DeadMan's Flats) and Three Sisters persistently lobbed proposals into the public arena.

The BHB proposals were tabled and presented at both MD Council meetings and public hearings. During all the opportunities to present, the only speakers in favour of the proposal were the proponents, themselves. Opposition was eloquently stated by a solid crowd (yes, crowd) of presenters who shared concerns for social and environmental impacts, as well as the questionable timing of such a development before there has been any time to assess the effectiveness of the new G8 Wildlife underpass built during the period in which these hearings were held. The number of letters submitted were also weighted heavily against the by-law changes that would enable the BHB proposal.

Nevertheless the MD Bighorn Council passed the by-law changes. Only one elected MD official voted against the BHB proposal. One suggested he voted in favour because of the overwhelming support he heard for the development. Apparently his hearings were held in private.

The Three Sisters Hearings, held in Canmore, were also heavily tilted with speakers who were against the bylaw changes. Again, the 'imbalance' was also expressed in the letter count shared at the hearings.

At the crunch, only one councilor voted against the by-laws. They were passed with a series of amendments intended to make them more responsive to all those documents that are supposed to guide development proposals in the Canmore area (NRCB, BCEAG, Golder advice of 2002).

It became clear to BVN representatives at the hearings that the environmental assessments prepared for developers have become weaker with time, and that some councilors tend to have selective hearing.

Both these series of events were covered in local papers.

As these developments advance through further processes there will be more opportunities for public participation. Let's not allow the behaviour of some developers, some consultants and some elected officials discourage us. We should keep pushing for what is right.

Weight or use restrictions on trails?

by Dungbeetle

We've all seen the weight-restriction signs along public roadways during the spring. These signs limit the allowable weight of vehicles which may use a road thereby protecting and preserving the roadbed from costly repairs. With the wetter-than-normal summer we've had, some of the trails in our fair park have taken a severe beating. One only has to go to the Cave and Basin to see some of the local multi-use trails where cyclists, walkers, and horse riders are all permitted users. Of these user-groups, it's the horses that appear to have caused most of the recent wear and tear. Given the lack of an adequate Parks Canada trail maintenance budget, one possible solution would be to restrict or reduce horse-use similar to

the spring-time roadway weight restrictions. Another simple solution would be for the user who is causing the majority of impact to begin taking care of their investment and following the proper CEAA process, propose a schedule for ongoing trail maintenance.

Trail use around the Town of Banff is a current topic of discussion at the Lands Adjacent to the Town of Banff process. What do you think? Send your ideas and possible solutions to Parks Canada.



Trail wear-and-tear at the Cave and Basin caused by horses and wetter-than-normal weather.

You call this pruning?

by *Dungbeetle*

A stroll or cycle, or for those of us with limited mobility, a drive along Vermilion Lakes Road is a way to get a quick shot of nature - especially in the fall with all the migratory birds briefly stopping to load-up on eats. It's suspected that for some visitors the drive to the lakes could be their only contact with the park aside from the Trans-Canada highway and down-town shopping. But what was discovered during a recent trip to the lakes was appalling. Limbs, some the size of your arm, had been unceremoniously ripped from trees on both sides of the road from First to Third Lake, and dumped in the road's gutter. One tree must have been particularly troublesome as it seems to have caught the wrath of the pruner. Limbs from ground level to at least 10 m up had been shredded and torn. Tracks from what appeared to be a front-end loader were observed in the sand next to the tree. We wondered what visitors would think when they see this destruction. Who was the vandal? We don't know but the incident has been reported and BVN will let you know what we find out.

Jumbo Glacier

by *Mike McIvor*

On Thursday, October 14, the B.C. government announced it had approved the environmental assessment for a massive ski resort/real estate development deep in the heart of the Purcell Mountains west of Invermere. This represents a crucial advance by the developers towards realizing their long standing ambition. In what is emerging as a major theme for the way governments at

various levels respond to clear expressions of public concern, this decision flies in the face of overwhelming opposition from people in the East and West Kootenays and well beyond. It ignores the scientific advice that was asked for and received. It demonstrated the success that can be achieved by proponents with sufficient time and resources to lobby politicians and bureaucrats on behalf of their projects, unceasingly, day after day, year after year.

Of course the ecological costs associated with building a major urban conglomeration in the wilderness will be borne by the landscape itself and its resident species such as grizzly bears. And as for the highly questionable economics of this proposal, no doubt the government of B.C. is well aware that costs the developers can't or won't pay, can be passed along to the very taxpayers who opposed it.

The Jumbo Creek Conservation Society along with other groups and individuals who have been working hard for many years to prevent this development have vowed to continue the fight. We will keep you posted.

Of Wild Things...

Just Passing Through

by *Shelley Mardiros*

On August 21st, six canoeists (5 of them BVN members) paddled through the whitewater of Lake Louise rapids, parked their 3 canoes on the banks of the Bow River, and sat on the rocky prominence below the rapid to eat lunch. A bird floated by, riding the bouncy wave at the end of the rapid. Lynn said: "Hey, look at the duck."

I looked through binoculars: "That's a cormorant."

Chorus (doubtfully): "A cormorant?"

Six pairs of eyes watched as the bird floated downriver, then made a right angle turn and paddled into the eddy, apparently curious about the red, yellow, and blue boats lined up on the bank.

"Has anyone ever seen a cormorant in the Park?" I asked.

"Nope."

The bird got out of the water and jumped up onto the gunwale of Pam's canoe, teetering back and forth, with a little wing action for balance.

"Has anyone got a camera up here?"

"Nope."

The bird shuffled off its precarious perch on the gunwale to settle its webbed feet comfortably around the wide, padded yoke. It spread its wings into the typical wing-drying position, there in the middle of Pam's red canoe. I noticed a furtive movement in the trees beside the canoe. Bill slowly crept out of the bush and rustled around in the drybag in his nearby canoe. We human watchers held our breath as Bill carefully drew out his camera. What a picture. As Bill raised the camera into position, the bird flew off.

It was a cormorant. In the Park. I swear.

Editor's Note

Your faithful editor is the last person who would question the accuracy of our treasurer's bird observations. (Of course, there was that penguin she reported on our Christmas Bird Count several years ago...?) At least she didn't base her identification on the cormorant's song. Interestingly, within a few days of Shelley's encounter, Kevin Barker reported a Double-crested Cormorant at the Cave & Basin and Rosemary Power and Eric Langshaw saw 5 on the Bow River near Canmore.

Caterpillars by the Million

by Mike McIvor

One afternoon in early August when Diane and I were returning to Banff from the Columbia Valley, we stopped just north of the Hawk Creek/Floe Lake trailhead to walk in part of the area burned by last year's major fires in Kootenay National Park. We were curious to see how much vegetation was re-generating and whether native or non-native plants were winning the race to colonize the scorched soil.

It wasn't long however, before we stopped looking at plants and started looking at animals. In many places a lush, low growth of fireweed (*Epilobium angustifolium*) covered the ground. On one of them we noticed a large, strikingly marked caterpillar chewing on a leaf. And then we saw another, and another. We soon realized as we looked around us that everywhere the new fireweed was growing it was being devoured by these caterpillars – hundreds of them. Thousands. Uncountable thousands. Many individual plants, swaying and bouncing from the weight and movement, held a dozen or more. This miniature forest of fireweed was literally crawling with caterpillars.

Farther north between the Paint Pots and Marble Canyon we walked into another section of the burn where a similar scene awaited us: caterpillars, often several, on almost every clump of young fireweed near us and in the distance as far as we could see with binoculars through the blackened trees. A week later, on our next trip south we found the same situation just north of Vermilion Crossing. Out of curiosity, we stopped at the Simpson River trailhead, crossed the Vermilion River and traveled a few hundred metres into the area burned by the Mt. Shanks fire in 2001. Here, we saw a great abundance of fireweed, much of it in flower, but no caterpillars.

And to prove that large mammals are not the only victims of highway mortality, this time on our return trip north through the 2003 burns we saw places where the road was smeared black from caterpillars being killed in the hundreds as they tried to cross.

These caterpillars are the larval stage of the Bedstraw Hawkmoth (*Hyles gallii*) also known as the Galium Sphinx. In fact it is better known for feeding on fireweed than bedstraw. The fire/vegetation people in Kootenay and Banff were not aware of it but apparently this kind of outbreak by this species has been known to occur in other areas, as a first-year-after-fire event. Typically, populations crash the following year.

We don't know if there was any significant amount of predation on these caterpillars but for birds and even for larger species such as bears they must have been a protein bonanza. Stumbling across this remarkable phenomenon reminded us what a dynamic role fire

plays in an ecosystem. Watching the landscape of Kootenay National Park respond to last year's dramatic disturbances will provide fascinating opportunities to witness ecological change for many years to come.



PHOTO: Bedstraw Hawkmoth caterpillar

D. Lepitzki

Year of the Mushroom

by Brenda Lepitzki

Did you see them? This was the best summer for mushrooms in the mountains and eastern slopes for a decade or more. Mushroom spotting became a popular activity on our outings. What a variety of colours, shapes, and sizes! We found that field guides helped identify some mushrooms we were seeing everywhere, but there's no substitute for experience and learning from an expert. We were lucky enough late this summer to take part in a mushroom field trip given by Dr. Suzanne Visser, a fungal ecologist from the University of Calgary. Along with classification and tips for identification, she took us into the fascinating world of mushroom ecology.

A mushroom is the fruiting body of a fungus growing underground or in organic matter. Mushrooms grow out and up to better spread the spores and further the species. The majority of fungi are not even visible without a microscope, so mushrooms are considered macroscopic fungi.

Fungi do not have chlorophyll and do not produce their own food, but rely on organic material in their environment for nutrition. They do this in one of three ways. Some fungi are parasitic, attacking living plants or animals to feed at the expense of the host. Others are saprophytes, feeding on and decomposing dead organic matter such as dead wood, dung, and leaf litter. They hasten the slow process of decomposition in our northern climate. The mycorrhizal fungi live symbiotically with trees, shrubs, or herbs. The underground fungal threads form a network, or mycelium, which extracts nutrients from plant roots and in turn provide the plants with minerals, trace elements, and water. Most forest plants in our area rely on this symbiosis for survival on poor soils.

Some kinds of fungi produce mushrooms yearly, but some produce mushrooms only rarely; and different species fruit at different times. Some species are cosmopolitan, and some will grow only near or on a certain plant species. Even in an area as small as two

square metres there can be a diversity of twenty or more fungal species. The number and variety of mushrooms seen this summer and fall are a result of the complex interplay of moisture, temperature, and mushroom ecology. Conditions were just right for a spectacular show.

Soil or air pollution as well as global warming can affect both mushroom and plant communities. Nutrient exchange or decomposition can be altered, resulting in the disappearance or an increase of certain species, so fungi can indicate larger environmental changes. It is awe inspiring to realize something so large as a douglas fir relies for its survival on an invisible, exquisite relationship with tiny fungal threads in the soil, which sometimes produce mushrooms to continue the relationship into the future.

One final but very important piece of information came out of Dr. Visser's presentation, regarding the popular topic of mushroom edibility. The fact is, most mushrooms are inedible to humans. Even for the few considered edible, one must be 100% sure of its identity and even then people can have severe reactions. Of course, especially in the national park we should recognize the fact that these fungi play an important role in forest ecology, and that picking is not allowed in order to protect these natural relationships and ensure their continuation. And by not disturbing mushrooms we are making it possible for other people on the trails to have the joy and wonder of discovering another fascinating part of this wilderness.



Collared earthstar(*Geastrum triplex*) photo: D. McIvor

Middle Springs-Valleyview Natural Area Trail Project

by Heather Dempsey

In early September, volunteers worked over two weekends to create bridges and walkways in the wetlands between Mountain Avenue and Valleyview townhouses. This was the major part of a volunteer project undertaken by the Bow Valley Naturalists with assistance from Parks Canada and local residents.

The project's goals are to protect the sensitive wet areas by installing basic boardwalk structures and using natural on site materials to direct pedestrian traffic to reduce trail proliferation, and to engage the local

community in natural area protection through participation in trail management and education.

The Details:

- \$9000 raised through local grants and donations; all spent on cedar materials for trail work.
- 3 bridges, spanning 60 feet over open water built in the most sensitive parts of the wetlands below Mountain Avenue.
- 150 feet of raised walkway snaking through boggy section beyond existing boardwalk towards the forest.
- Several extraneous trails blocked and signed.
- Hundreds of volunteer hours spent.

Who Did The Work?

Over 20 volunteers pitched in from the Bow Valley Naturalists, residents of Valleyview and Middle Springs neighbourhoods (including 2 kids and a guest from Germany), as well as help from the Town of Banff, and many Parks Canada staff. This project could not have happened without help from Don Gorrie, Doug Machuk and Highways staff.

Many thanks to our generous funders: TelusPages, Alberta Ecotrust and the Banff Community Foundation.

What's Next?

- 500 flyers delivered door to door in Valleyview, Middle Springs and Park/ Rainbow Avenue neighbourhoods.
- Slide show at an upcoming Bow Valley Naturalist public meeting.
- 2 trailhead signs to be designed and installed.
- Install 1 doggie bag dispenser (provided by the Town of Banff) at key trailhead.
- Reports to funders.
- Local stewards informally monitor area.

Editor's Note

Heather has been far too modest by not mentioning her own role in this project. Whether wearing her Parks Canada Communications Officer's hat or her BVN member's hat she put in a huge amount of time and effort. Other people contributed in a variety of ways, but Heather deserves the mountain lion's share of the credit for moving everything and everyone involved towards a successful conclusion.

Wetland Words

by Brenda Lepitzki

The recent trail work near Banff's Valleyview housing area precipitated quite a discussion around what to call the stream of water and the surrounding wetland habitat there. Should we call it a bog? It doesn't look quite like a swamp. Hmmm. It seems there is a general dearth of knowledge about the types of wetlands and their defining features, so here's a brief overview.

Not including springs, there are two main types of wetlands in the province of Alberta, peatlands and non-peatlands. Peat is the deep, yearly accumulation of decomposed sedges, rushes, grasses, and mosses. Most of the total wetland area in Alberta is peatland. "Muskeg" refers to peatlands. The two types of peatlands are bogs and fens. Bogs form in cool, wet areas with poor drainage, and the water in a bog comes from rain and snow. Almost none of the water in a bog is groundwater. As a result, there are very few nutrients in a bog, very low oxygen levels, and the water is strongly acidic. The plants and trees growing in a bog are adapted to those

harsher conditions. Bogs are mostly vegetated by sedges and mosses, a few types of low growing shrubs, and in Banff white spruce trees.

Fens are supplied primarily by groundwater; they have more nutrients and less acidic water. Marl forms when calcium from water flowing into a fen is deposited in the bottom sediments. A fen may look a lot like a bog, with mosses, sedges, grasses, some herbs, flowers, shrubs, tamarack and spruce, but it will be distinguished easily when you know the water source and the water chemistry.

Swamps are non-peat wetlands which are forested, and flood seasonally with standing or slow-moving water. Usually they are dominated by trees, both deciduous and coniferous, and shrubs. Tall shrubs like willows, dogwood, and alder can form thicket swamps. There is little build-up of decomposing sedges, grasses or mosses.

Marshes or sloughs form in depressions where water moves through channels and forms standing pools. Potholes are small marshes in the rolling prairies. Marshes are full of emergent plants like cattails, rushes, reeds, and sedges.

Of course, as with anything in the real world, some wetlands defy strict classification. Which is why what I thought should have been named the Valleyview Marl Seep, is now officially the **Valleyview-Middle Springs Natural Area**. Oh well, so long as we all can appreciate our local wetlands, I don't mind what we call them!

The Ya Ha Tinda Elk project

I thought I'd notify those of you who expressed interest in the project and our website over time about some new additions to the website. I've added photos from the field page that will be periodically updated, as well as quarterly updates for the first 2 quarters of 2004. I will be providing quarterly updates this year instead of one large progress report at the end of December with the aim of streamlining reporting and providing timely updates.

I hope you continue to find our website a source of useful information about our research project. I look forward to hearing any comments or questions you might have.

The website link is:

<http://ursus.biology.ualberta.ca/yhtelkwolfproject/>

Mark Hebblewhite

In case you were wondering, here's what was said in the recent federal governments Throne Speech on October 5:

OUR ENVIRONMENT

Our quality of life today, and the legacy we bequeath to future generations, demands fundamental change in the way in which we think about the environment.

The Government will work with its partners to build sustainable development systematically into decision making.

As the ethic and imperative of sustainability take deeper root worldwide, human ingenuity will turn increasingly to ways to produce and use energy more cleanly and efficiently; to eliminate toxins from our air, water and soil; and to build more sustainable communities. Here lie great new opportunities for the world economy. Canada's entrepreneurs must aim to be at the leading edge.

To that end, the Government will work with the private sector to improve the commercialization of the best new environmental technologies. Major investments funded out of the proceeds of the sale of the Government's Petro-Canada shares will support their development and deployment.

The Government will work to get its own house in order. It will consolidate federal environmental assessments and will work with the provinces and territories toward a unified and more effective assessment process for Canada. By 2006, the Government will implement a new Green Procurement Policy to govern its purchases. It will also introduce legislation that will strengthen the focus on the ecological integrity of Canada's national parks.

Nowhere are the challenges and opportunities of sustainability more evident than in the way in which we use and produce energy. The Government will place increased focus on energy efficiency and energy research and development. It will engage stakeholders in developing comprehensive approaches to encourage increased production and use of clean, renewable energy and to promote greater energy efficiency. This will build on efforts already underway, including support for wind-power production in Canada, stimulated by a quadrupling of the Wind Power Production Incentive.

The Government reiterates that it will respect its commitment to the Kyoto Accord on climate change in a way that produces long-term and enduring results while maintaining a strong and growing economy. It will do so by refining and implementing an equitable national plan, in partnership with provincial and territorial governments and other stakeholders.

As the Government builds a sustainable society at home, it will continue to pursue multilateral and bilateral approaches to what are ultimately global challenges. For example, it will work with the United States and agencies like the International Joint Commission on issues such as clean air, clean water and invasive species. In 2005, the Government will bring forward the next generation of its Great Lakes and St. Lawrence programs, underscoring its commitment to protect and preserve these internationally significant shared ecosystems.

The Government will also move forward on its Oceans Action Plan by maximizing the use and development of oceans technology, establishing a network of marine protected areas, implementing integrated management plans, and enhancing the enforcement of rules governing oceans and fisheries, including rules governing straddling stocks.

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