

BOW VALLEY NATURALISTS
NEWSLETTER, SPRING 2007
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OUTINGS

MAY SPECIES COUNT
Saturday and Sunday, May 26 & 27

The May Species Count, a province-wide event co-ordinated by the Federation of Alberta Naturalists will be held on **May 26 in the Mount Yamnuska area** and on the **27th in the Banff-Canmore area**. We will record species in flower and birds seen and/or heard. It's a wonderful time of year to experience the bird sounds and find early flowering plants in the Bow Valley.

Last year, in the **Yamnuska**, we reported 100 species of plants in flower compared to 101 in 2005. **Banff** had 109 species, 116 in 2005, and **Canmore** had 71 species, 54 species in 2005. Over 20 people participated despite the inclement weather; it rained most of the day in the Yamnuska.

The bird numbers compared to the previous year:
Yamnuska: 69 species (61 in 2005).
Banff: 108 species, (80 in 2005).

For more information and to find out how to participate contact:
Diane & Mike McIvor at 762-4160
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EVENTS

Banff National Park
2007 Research Updates Speaker Series

Thursday, May 24, 7 – 9 pm
Whyte Museum

- “Mercury in Canadian Rocky Mountain Lakes” *Erin Kelly*
- “Professional Curiosity: A Day in the Life of Banff Archaeologist” *Gwyn Langemann*

Event is free! Call 762-1464 for more information.

ISSUES

Wanted: Moose, Alive not Dead

Mike McIvor

Imagine seeing a moose in Moose Meadows. It was a common sight 3 or 4 decades ago - one winter day Diane and I watched 7 bulls of varying size walking single file through the willows and dwarf birch west of Johnston Creek - but a rare experience in recent times. Until this year.

In January, people were reporting with excitement their observations of as many as 4 animals, seeming to derive great satisfaction from the realization that the place - Moose Meadows - finally was living up to its name again. In fact when Michael Shuster and Shelley Mardiros told me about another of their moose sightings in February, they didn't even bother to say where it occurred. Stupidly, I asked; they just stared at me until I arrived at the obvious conclusion: Where else?



Moose at Moose Meadows
M. Shuster

photo:

Where else indeed. One obvious place is in the Vermilion and Kootenay River valleys of Kootenay National Park, vital components of the regional landscapes. The activity in Moose Meadows made me think more about this species and ponder its prospects in the long term in this part of the the Rockies. We know that one of the factors leading to the dramatic population decline in the Bow Valley was mortality on the Trans Canada Highway (TCH) and Canadian Pacific Railway, as traffic speed and volume increased. Moose will continue to be vulnerable on the railway where the tracks traverse some of the best habitat in the park, but there have been, and will be, far fewer road kills on the TCH where it is twinned and fenced.

What about Highway 93 South, known as the Kootenay Parkway where it runs from Castle Junction to Radium, B.C.? Is highway mortality a problem in Banff's neighbouring park, with its important ecological connection to the Bow Valley through the continental divide at low elevation Vermilion Pass?

Late last summer, Diane and I drove past the site of a collision where a van, its passengers shaken but unhurt, had killed a moose not far from the Vista/Arnica Lakes trailhead.

Two years earlier, we saw a dead female moose near Marble

Canyon, lying within sight of a highway sign warning drivers to be alert for wildlife. We asked Parks Canada for the numbers.



Dead moose, Kootenay National Park
photo: D. McIvor

This is what we learned: In Kootenay, from 1981 to 2006 Highway 93S claimed **95** moose. You can add another **6** for the short section in Banff. (Another statistic from Kootenay covering all species of large mammals shows that along this 94 km. stretch of road, from 1982-2001, **880 animals were killed by vehicles.**) In 2004, the year after the big fires in Kootenay, **14** moose died on the highway. The following year, only **2** were killed, suggesting either that moose and drivers both were better behaved, or that there were not many moose left as potential victims. Last year, **6** died in Kootenay and **1** in Banff.

If there is any good news related to this litany of road kill it is that Parks Canada is well aware of the magnitude of the problem and will be giving serious consideration to possible solutions. At 2 separate meetings I attended during the winter, participants were informed that Parks Canada will conduct a wildlife mortality mitigation feasibility study for 93S.

But finding solutions will be no easy task. The Kootenay Parkway does not have anything like the profile, or economic impact of the TCH. With no major upgrading on the horizon, mitigations must be found in the absence of the kind of capital spending associated with large-scale construction projects such as twinning. Parks Canada will have to examine a range of possibilities from actual physical works, perhaps such as limited but strategically placed fencing at critical crossing areas, techniques for traffic control and calming, enforcement, and driver education through public communications.

Compounding the challenges is the current rapid growth of communities such as Radium and Invermere in the Columbia Valley, much of it spawned by the Alberta boom. Every weekend, increasing numbers of campers, boaters, dirt-bikers, and second-home owners travel back and forth across the mountains. And most of them are in a big, big hurry. No time to slow for scenery or wildlife. You see one bear on an avalanche slope or a mountain goat at Mt. Wardle, you've seen'em all. The national parks are irrelevant except as time consuming obstacles. I wish I could be more optimistic about the potential to convince many members of our speed-addicted society, they should back off the accelerator in the interests of moose, other wildlife, or even their own safety.

A cautionary tale appears in an article recently published in the journal *Wildlife Afield* (M.J. Preston, L. Halverson, and G. Hesse, Vol. 3 No.1). Parks Canada and B.C. government officials were trying to bring attention to the significant mortality of bighorn

sheep on Mile Hill - the first, short, steep section of highway heading south from Radium towards Lake Windermere. The B.C. Ministry of Water, Land and Air Protection commissioned a study in 2005. In April of that year a Highway Wildlife Awareness Event was held; it included a census of 235 drivers and passengers to gauge reaction to the idea of a reduction in the posted speed limit for this short stretch of road in order to protect the bighorns. A whopping **18.8%** of respondents supported the proposal! In other words, over **80%** of the people questioned indicated they were not interested in adding a few seconds to their trip by slowing down for wildlife. Where organizers had erected major flagging displays to bring attention to particular kill zones, drivers did reduce speed, but only to the posted limit of 90 km./hr. The likelihood of persuading high-flying drivers on the Kootenay Parkway to voluntarily reduce speed, seems utterly remote. Bring on the RCMP I say. Hit them hard and hit them often!

As always though, there is reason to hope for positive change - hope not deterred by horrendous wildlife mortality statistics, or the driving behaviour of many of our fellow citizens, but inspired by the magnificence of these mountains, these national parks, and the other species that inhabit them. Any degree of struggle on their behalf is worthwhile. Send a note to superintendents Roulet and Perkins. Encourage Parks Canada to get cracking on the 93S wildlife mortality feasibility study. Push for early trial of a variety of tools and techniques. And let's all drive responsibly ourselves.

Plugging the Supply to the World's Largest Bird Feeder

Mike McIvor

Life may get tougher in the next few years for some of our winter birds that frequent the CPR tracks, feeding on the abundance of grain that leaks or spills from railway cars. On the other hand, maybe fewer large mammals, including grizzly bears, also attracted by the trail of concentrated nourishment, will be involved in losing confrontations with locomotives. This could be the result of a very long overdue but nevertheless welcome announcement by CP Rail and the federal government that \$20 million will be spent to upgrade equipment on federally owned grain cars in order to prevent their contents from littering the tracks.

Neither the corporation nor the government will ever admit to this, but much of the credit for action being taken now must go to Jim Pissot of Defenders of Wildlife, Canada. Jim tackled this issue with ferocity and persistence; he raised some hackles where they needed to be raised through a powerful mix of criticism, public education, and media exposure. And he isn't finished. Grain on the tracks is only part of the problem; he acknowledged the announced program as a good step, but far from the last one.

A close friend of Jim's, Brock Evans, who is prominent in the American conservation movement, is well known for his statement that success in any such battle rests only with "*Constant pressure, Constantly applied*". Jim is a veteran campaigner who adheres to this principle and has just confirmed its validity.

From all of us in BVN, cheers and much appreciation to Jim. We don't need to tell him to keep up the good fight because that is how he lives.

Bow Valley Happenings

Bee Concerns

Brenda Lepitzki

Our first bee sighting of the year was a new species to us. Never before had we noticed bees visiting pussy willows that had just burst into flower. We probably simply hadn't taken time to look at the willow branches closely enough. Luckily no one had picked the bunch we were examining when numerous tiny grey and silver hairy bees appeared in the first warmth of the sunny morning. Bees, both solitary and colonial, are important pollinators of flowering bushes, trees, and plants. They are said to perform an "ecosystem service" by ensuring the food system which humans and other organisms rely on for our survival.

Of concern are the problems bees have faced in the last few years, from parasitic mites and a catastrophe known as "Colony Collapse Disorder" of unknown cause(s). Although in the news for affecting colonial honey bees, should these problems spread to native bees, the ecosystem could be in real trouble. Can you imagine the disappearance of the wonderful meadows of alpine flowers and the cascading effect through the ecosystem? While there doesn't seem much that we can do in the National Park, (these parasites and diseases so far seem to be connected to the bees working in agricultural industry), you can support local native bees by eradicating non-native weed plants, allowing native plants to thrive, and eliminating your use of pesticides.

The little creatures of this world really run the ecosystems on which our survival depends, and as a possible refuge for bees from threats of the commercial agricultural world around us, the national parks are important to the planet.

Spring at the Springs

Brenda Lepitzki

Following more than ten years of research with at least monthly, often more frequent, visits to Banff's thermal springs, we've been fortunate to come to know these areas intimately. Cycles of weather and life occur in the thermal springs, just as they do in the temperate terrestrial environment, although on a somewhat different schedule.

In spite of deep banks of snow even in March, the tenacious plants along the banks of the warm water springs present some of the earliest signs of spring. Dandelions flower as early as late March and the delicate blue violets begin flowering in mid April.

However, increasing air temperature makes spring a more difficult time for the warm water algae and bacteria. Melting snow and rainfall disrupt the flow rate, nutrient levels, chemical composition, and dissolved solids, which in turn cause changes and die-offs in the microbial community. By the time the terrestrial world is lush with green grasses and flowering plants, the thermal springs are looking terrible. With a return to more stable conditions, the thermal spring community begins to bounce back, well after the flush of spring on land has passed.

By late autumn, when the grasses have dried and the leaves are falling, the thermal spring community is coming into top form, and the waters emanate brilliant shades of green, yellow, white, and purple from the various algae and bacteria.

If spring is your favourite season, you will probably be walking the

trails around the Cave and Basin thermal springs looking for tiny orchids and other wildflowers which will be blooming in upcoming weeks. Don't forget, though, to extend your enjoyment of the season by observing the wonderful warm water algal and bacterial community.

Non-Solitary Solitaires

The same day (May 5) the McIvors saw more than a dozen Townsend's Solitaires on the move through Kootenay National Park, Shelley Mardiros and Michael Shuster saw at least 40 moving in groups along the edge of the Bow Valley Parkway in Banff. Some will stay to breed. Listen for their single call notes and their long, sweet song.



Townsend's Solitaire.

photo: M. Shuster

New Species for Banff National Park



Ross's Goose

photo: M. Shuster

This white goose spent several days in the vicinity of the Banff Recreation Grounds in early May, and was identified by Jason Rogers as a Ross's Goose. According to Jason, who has been doing extensive research on the occurrence of birds in Banff and Jasper National Parks, this is the first time this species has been recorded in Banff.

IF IT ISN'T ONE HERBIVORE, IT'S ANOTHER!

Peter Duck

It's frustrating when all the management and media attention focuses on one charismatic species like elk. What about the real undercurrent of serious interactions between Banff residents and the ecosystem?

When we moved to Upper Middle Springs a few years ago I was excited about being able to have a garden of native species. Visions of fireweed, paintbrush and shrubbery full of seasonal bird life danced in my head. Among some native seedlings spread over the back 40 was one of my favourite plants - a tiny Rock Willow (*Salix vestita*). I carefully placed this specimen in the protection of a leaning stump left over from the big blow down event a few years ago.



Bark scraped off the stems of Dorothy Carleton's hedge by wintering voles. Photo: P. Duck

Of course one can expect the elk and deer are going to eat anything that sticks its green appendages above the earth. But with the reduction of elk numbers a few years ago there was hope. And besides, most of the things we had planted were hidden under the snow away from searching ungulate eyes much of the year. This little willow made it through two years with small but encouraging growth as it adjusted to its new site hidden from the elk.

Then disaster! The herbivores struck. But not the one I had expected. Last spring I went to see how the Rock Willow had made it through the winter. Not a stem, bud, or leaf left standing. It wasn't gone. It was all there in neat little pieces precisely clipped and stacked next to a new hole leading under the stump. The vole I had spent the winter watching from the kitchen window pop in and out of the snow had been busy taking care of business the elk couldn't reach.

It seems I am not alone in my frustration with these tiny herbivores. Dorothy Carleton's hedge was starting to show some nice growth with low elk numbers in town in recent years. However, last Saturday she showed me where the voles had been having a fine party this winter under the snow. They have stripped bark off the main stems along the base of the hedge for several metres. Dorothy explained that she had never seen that happen before.

Frustrating, yes. But deep inside I take great pleasure in having the opportunity to be frustrated by natural processes. And maybe, the healthy population of voles is the reason that for so many years I have had the pleasure of listening to the Middle Springs Barred

Owl on my late evening dog walking prowls. I guess you just have to sit back and take nature as it comes.

A Lodgepole Pine in My Path

Colleen Campbell

Lodgepole pines grow easily on our Rocky Mountain slopes. They are Alberta's 'official tree, and the species responsible for the subtle clouds of yellow pollen we see drifting on spring breezes and floating on lakes and ponds. Lodgepole pine is also one of the first tree species to grow up in a newly burned area of forest. The heat of a forest fire will cause the cones on affected pines to burst open, scattering their seeds to germinate in the newly enriched soils left in a forest burn. A Lodgepole germinated during the fire-clearing that facilitated surveying for the CPR tracks is now 'geriatric', and susceptible to disease and insect infestation (e.g. mountain pine beetle).

I became interested in the life of a Lodgepole, and by analogy, other tree species, when I started monitoring an experimental wildlife exclusion fence. During the fence construction, some trees were removed, and some were simply knocked over. One Lodgepole was left strategically to mask my trail. Each traverse of the fence requires me to step over the tree. The fence was built in late summer and it was not until the following spring that I realized the tree, lying on the ground for eight months, was dying with reluctant grace. The needles were still green, slowly changing colour from the trunk towards the ends of the branches, as the season passed. The cones, too, changed from hard tight immature cones, opening slowly as the season passed, presumably dropping their seeds onto the ground under the dying branches. When the snow covered the trail last fall, the ends of the branches were still green and the tree had lain there for 15 months.

This tree in my path has contributed to my respect for and interest in trees. Generally they are much longer-lived than humans, and contribute to the health of land and air persistently, even with roots exposed to the vagaries of weather. Contemplating the life of a tree can be humbling.

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