

**BOW VALLEY NATURALISTS
NEWSLETTER, SPRING 2010**

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Clematis and Osprey seen on the count last year.

Photo: McIvors

OUTINGS

MAY SPECIES COUNT

Saturday, May 29

The May Species Count, a province-wide event coordinated by the Federation of Alberta Naturalists is an annual survey of species of birds and plants in flower made at various locations throughout Alberta. The aim of the May Species Count is to record accurately and in a standard way what species are in flower, using phenology codes, for the purpose of scientific comparison from year to year. For birds it is a way of tracking the occurrence of species that are residents or as migrants are passing through or have arrived at their breeding destination. The challenge is for participants to improve their level of knowledge and broaden their coverage of localities making both as complete and consistent as possible so that variations in the number of species in flower from year to year reflect only local and regional weather differences (e.g. early and late springs). The bird tally, like other surveys such as the North American-wide Christmas Bird Count can indicate a decline in species, an increase in numbers, or changes in migration patterns. The count is always held on the last complete weekend in May. The Bow Valley Naturalists have been conducting the May Species Count since its inception in 1976 in the Yamnuska, Banff, and Canmore areas. **This year the Yamnuska count will be held on May 29th.** Regrettably the **Banff-Canmore** count will not be done in any formal way this year unless new volunteers take over the organizing and compiling. No matter what, we strongly encourage people to spend this day outside, enjoying the diversity of life in this wonderful place we call home and making an effort to learn more about it.

Compared to 2008, the numbers reported last year were higher for flowering plants. The bird count was higher for the Yamnuska with a lower number in Banff.

Flowering plants reported:

Yamnuska: 71 species in 2009 compared to 53 in 2008.

Banff: 79 species in 2009 compared to 66 in 2008.

The bird numbers:

Yamnuska: 71 species in 2009, 61 in 2008.

Banff: 85 species in 2009, 98 in 2008.

For more information and to find out how to participate contact:

Diane & Mike McIvor at 762-4160

Bob Smith at 678-4720

**Banff Community Bird Walks
2010 Spring Migration Series**

The Banff Community bird walks are guided by volunteers and are free of charge. Everyone is welcome. The meeting place is at the corner of Sundance Road and Cave Avenue by the Recreational Grounds.

Here is the schedule:

- **Monday May 17 – 7:50 am**
- **Monday May 24 – 9:00 am (notice late start)**
- **Monday May 31 – 7:50 am**
- **Monday June 7 – 7:50 am**

For more information contact: Tomo Fujimori at
banffcommunitybirdwalk@hotmail.com

EVENTS

**Banff National Park
2010 Research Updates Speaker Series
at the Whyte Museum**

Thursday, May 20, 7 – 9 pm

- **Groundwater – The Natural Water Reservoir: Findings of Lake O'Hara Study**
Masaki Hayashi

* **Plus** premiere of 2 short videos on Banff's thermal springs

Thursday, May 27, 7 – 9 pm

- **Bear and Ungulate Mortality – Relative to Abundance Along the Canadian Pacific Railway**
Ben Dorsey
- **Rock snot: A Blooming Tale of Algae in Mountain Parks**
Garry Scrimgeour

Events are free! Call 762-1464 for more information or email Heather.Dempsey@pc.gc.ca

BioBlitz - Celebrating Biodiversity

May 22, 2010 is the International Year of Biodiversity Day. To celebrate the incredible number of plants and animals around us, Banff National Park has partnered with the Robert Bateman Get to Know Program to hold the first-ever Get to Know Bioblitz on May 22nd, 2010. A traditional Bioblitz is a species count that documents biodiversity in a natural area while allowing participants to develop a deeper understanding of the local environment. The Banff Get to Know Bioblitz will be a variety of family-friendly events hosted by Parks Canada and the Friends of Banff that will use natural history, exploration and the creative arts to help young people develop their understanding and appreciate of nature.

SCHEDULE OF FREE EVENTS

8 a.m. – 9:30 a.m. Cave and Basin NHS: Early Morning Bird and Nature Photography Walk.

10 a.m. to noon, Vermilion Lakes: Stroll to Banff National Park's local oasis for birds and other animals. Meet in front of the Park Museum.

Noon - 4 p.m., Park Museum NHS:

- Noon – 4 pm Wildlife Scavenger Hunt
- noon – 2 p.m.: Sketching with Sachi; rent a Discovery Pack
- 2 – 4 p.m. draw animal cartoons with Stefanie

2 – 4 p.m. Johnson Lake: Park staff and volunteers will introduce you to some of the local wildflowers.

All Day: Pick up wildlife checklists and a Get to Know Field Journal with artwork by Robert Bateman at the events, or at the Park Information Centre, 224 Banff Avenue. Log into the Get to Know website and submit your photos of the day and your artwork.

<http://www.gettoknow.ca/events/bioblitz/>



“Caring for this planet begins with getting to know our neighbours of other species.” **Robert Bateman**

For more information, call 403-762-1464

M.A.P.S. Anyone?

BVN is pleased to continue to coordinate the MAPS project this year. We are entering our 12th year of this essential project to monitor avian productivity and survivorship in Banff National Park over time. In recent years we have gone from struggling to get any volunteer help to having a bit of a crowd at the site some days with the opportunities to learn and practice skills becoming diffused. In addition, habitat changes have led to less bird activity at the site reducing the need for the levels of



Licensed bird bander Greg Meyer shared the delight of nature with visitors to the Ranger Creek MAPS site in 2009. Photo: P. Duck

volunteer support required in the past. We still need some help but in the interest of reducing disturbance at the site we will to control the number of people on site at any one time this year. If you are interested in helping out or visiting us please drop me a note so we can plan the summer. Preference will be given to those who can arrive very early and set up nets in the wee dark hours to be ready for the scheduled net opening time. Please send emails of interest to Peter.Duck@Shaw.ca

Treasurer's Report

Shelley Mardiros

I am happy to announce that Bow Valley Naturalists has been awarded a grant of **\$2834** by Alberta's Community Spirit Program. The province matched – at a rate of 90% – the generous donations that our members made in 2008. The Community Spirit Program continues this year, with the donations BVN received in 2009 (a total of \$4577) eligible for matching at an as yet undetermined rate.

BVN's "Bow Valley Fund", which was started in 2008 [see Winter 2009 newsletter], now stands at nearly \$9500. The board is exploring projects which will support, enhance, investigate or celebrate the biodiversity of our special landscape. I'd like to take this opportunity to thank our many donors who provide financial support to Bow Valley Naturalists, whether by tossing a few loonies into the donation bucket at the conclusion of our monthly presentations, by giving an extra \$5 or \$20 or \$100 when paying their annual membership dues, or by sending us cheques – as three recent donors have done – for \$500, \$1000, and even \$2000! These contributions let us pay for our hall rental, speaker expenses,

website costs and rare capital outlays (such as the LCD projector), or support special projects like the Bow Valley Fund. Our continuing “low, low annual fee of \$5” pays for the newsletter printing and postage.

BVN’s volunteers carry on the daily business of BVN: organizing events; producing the newsletter; participating in committees, public hearings, and environmental assessment processes; analyzing legislation and policy; sponsoring and manning the MAPS (Monitoring Avian Productivity and Survivorship) station at Ranger Creek each summer and the Christmas Bird Count each winter. This volunteer contribution maximizes the value of monetary donations to BVN.

What the HELS

Mike McIvor

Upper subalpine and alpine habitats in the rugged landscapes of the Canadian Rocky Mountains occur in patches separated by complex topography. Species that depend on these habitats are similarly distributed in what are known as metapopulations. Researchers believe that connectivity through exchange of individuals among these metapopulations, both a means of maintaining genetic diversity and of ensuring re-colonization following local extinctions, is essential to the long-term survival of these species.

High elevation localized species (HELS) is a concept developed by Dr. Tony Clevenger to identify a suite of species that live in these circumstances. Some examples of HELS he has selected are mountain goats, bighorn sheep, hoary marmots, and pikas. For many years, Clevenger has been in the forefront of scientific efforts to understand the effects on connectivity for wildlife caused by transportation infrastructure such as the Trans Canada Highway. But to date, none of the HELS have been the subjects of TCH related monitoring. Now he and Alan Dibb, wildlife specialist for the Kootenay, Yoho, Lake Louise Field Unit of Parks Canada are considering ways to evaluate the status of some HELS – including genetic analysis – in the design for monitoring Phase IIIB of the TCH to determine impacts as well as the effectiveness of mitigations in maintaining or improving connectivity. Obviously, human-constructed barriers to movement have the potential to add significantly to the effects of natural fragmentation created by mountain landscapes. If at least some HELS become part of a long-term monitoring project it will be very interesting to view the results.

When Diane and I heard about Tony’s pitch for HELS we were instantly intrigued; almost immediately we began thinking of other species that would fit in this category: trees such as subalpine (Lyal’s) larch and whitebark pine, some of the wildflowers decorating the high meadows and scree slopes that are restricted in their distribution; white-tailed ptarmigan; and insects including several species of butterfly that are confined to relatively narrow, disjointed bands of habitat near or above timberline.

Of course, when we think about the future of these species – we used to simply assume they were safe because it seemed most of the habitat change and disruption was taking place in the valley bottoms – the tip of the melting iceberg is global warming. What will happen if tree line moves significantly uphill? Will the widespread forests of Engelman spruce and subalpine fir squeeze out the larch and whitebark pine? Will those glorious, open, flower-filled meadows become overgrown by trees? Will some of our favourite wildlife quietly disappear?



Larches on the Edge: above Moraine Lak photo: M.McIvor

In the decades to come it seems likely there will be dramatic changes in the big country of the Rockies. Some we may perceive initially in aesthetic terms although at the moment we certainly don’t want to imagine shrinking meadows, dry tarns, and September without larch gold. But in ecological terms, HELS live with limited options. It’s time we learn more about them and find ways to ensure their options remain viable.

So when you hit the high trails this summer, keep an eye – and ear – open for HELS. And keep track of your observations. We’ll be interested to know what you saw/heard and where.

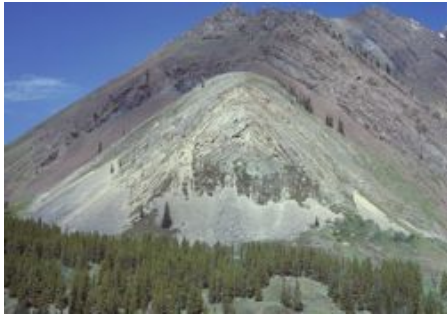
Rundle Rock

Peter Duck

We are familiar with the “Rundle Rock” that faces fire places, buildings, walls and is even used as sidewalk stones throughout the Canadian Rockies. It is likely called Rundle Rock because it was probably first quarried from the banks of the Spray River at the base of Mount Rundle although most of this rock formation lies on the Sulphur Mountain side of the Spray River Valley at that location.

This stone was used to cover the Canadian Pacific Railway’s Banff Springs Hotel in the early 1900s. Of course, as any locals who cast their eyes Rundleward will know, the colour of this stone is a far hue from the light gray limestone we see on Mount Rundle. In fact, Rundle rock is mostly dark siltstone. To a rock hound that means it is made of silt-sized particles – equal to or less than 0.06 millimetres across.

The skin of this dark grey stone turns a very chocolate brown if it is exposed to the weather for more than 30 years. This change means that in the mountain landscape this rock formation is very easy to identify as a thick band of chocolate brown layers. No other formation in the Front Ranges of the Canadian Rockies is this thick and has such a distinctly uniform brown colour. Those who paid top dollar to have this fresh dark grey stone landscaped into their gardens had better plan for having brown rockwork in the end. Because this rock lies in relatively thin layers it erodes easily and so typically dominates valley floors of the Front Ranges rather than the ridge tops. Locally it is can be seen where a river has cut through its layers as is the case at Bow Falls or where the upper legs of the Norquay Road have been cut through the heart of this formation. Another favourite “exposure” is the Bow River Bridge in Banff. Press your nose to the flat stones on the top of the bridge wall and you will be treated to a wonder of evidence of lives long ago finished as you observe casts of fin marks of fish and burrows of worms that wriggled their way through early Mesozoic muds about 245 million years ago.



The Sulphur Mountain Formation is folded like a blanket here to form a rare ridgetop in the Front Ranges. The colours clearly show how this chocolate brown formation marks a sudden change in the sequence of rock layers to siltstones from earlier (lower) layers dominated by light grey limestones.

What's New in the Corridor

Peter Duck

The wildlife corridor on the west end of Banff Townsite continues to be an exciting back yard. Last fall the corridor fence was finally repaired after the damage caused by falling trees in the storm of '03. This storm was actually a blessing since it meant that wildlife could cross a fence that was really only intended to manage human movements. Unfortunately, it turned out that it served as a barrier to wildlife like young elk calves struggling to keep up with longer legged cows who simply jump over the low fence. The fence was also observed to deflect wildlife such as bears to the Cave and Basin parking lot area or on to Mountain Avenue at the blind corner around the Valleyview–Middle Springs Natural area. When wind-blown trees flattened several areas of the fence wildlife could then easily cross the fence almost anywhere they wished for



New Gap in the Middle Springs fence. Limbo anyone?



several years. The fence has now been repaired and restored to its original height. This winter wolf tracks were observed traveling on the town side of the fence as they traveled up from the Cave and Basin. With the repaired fence in place it seems they made an about-face when the fence pinched their movement too close to the houses on Middle Springs Drive. Since then Parks Canada has included several “gaps” that will allow some animals to cross the fence. It would have been preferable to create an opening without the top rail but let’s wait and see how this works. Perhaps elk can learn to limbo!

By late April the first Venus Slipper orchids (*Calypso bulbosa*) were spreading their leaves in the corridor and a few of the spears that bear the nascent flowers were also making their early way through the duff. It is interesting how early these leaves and shoots appear and how many of them remain in this artificially cleared fire break. It was my assumption that the clearing of the tree canopy and fuels on the forest floor would alter the habitat enough to discourage these plants that I usually associate with more shaded locations. But not so it seems. Last spring I counted 1600 blooms on the slopes below the Middle Springs Drive cul-de-sac. These were all blooming within a two week period and apparently doing fine in the brighter and drier habitat. Do these orchids have “good” years and not-so-good years like many other plants? We’ll just have to continue evening strolls this spring to enjoy sunset in the corridor and find out.

ISSUES

Mountain National Parks Management Plans Review

Apparently the revised Management Plans for the Mountain National Parks are in the office of Environment Canada Minister Jim Prentice awaiting completion and tabling in Parliament. This is expected to occur sometime in June.

We understand the draft plans provoked considerable public response with much of it highly critical of the change in direction and style proposed by senior park managers. Whether those same managers chose to listen to the Canadian public will become clear once the completed documents are available. We are hoping for the best but unfortunately, expecting something much less.

We’ll notify our members when the plans have been posted on the Parks Canada website. We encourage everyone to read them and if they provoke a reaction, either positive or negative or both, we suggest letters be sent to the Minister, the CEO of Parks Canada, and park superintendents.

The Changing Face of Parks Canada

Mike McIvor

In recent months it has become all too apparent that Parks Canada is being re-shaped by senior management to more closely align with the ideas and values of its “partners” in the tourism industry. I was aware the Agency had engaged in a “branding” exercise – perhaps not wanting to be left behind by Banff-Lake Louise Tourism that had gone through its own “re-branding” not long ago. And some of the language in the draft park management plans

certainly offered hints that this organization with regulatory authority was in thrall to the industry it was supposed to regulate. But it was at a meeting several months ago that I realized the shift in direction was real and drastic. Participants in the meeting were informed by one Parks Canada representative that while the Science Manager for the Banff Field Unit had retired, there was no intention to fill this position. On the other hand, said the next Parks Canada person to speak, they were in the process of hiring 2 Product Development Officers and 1 Promotions Specialist.

I doubt if most Canadians would believe these roles are required to address the most serious deficiencies in the management of Banff National Park but clearly senior managers feel they are essential elements in the new Parks Canada. If you are not comfortable with the new direction or if you thoroughly dislike it, be sure to inform the Minister and Parks Canada's CEO.

Another Banff Species on the Endangered Species List

Dr. Dwayne Lepitzki, Ph.D.
Member, COSEWIC

Move over Banff Springs Snail. There is another species on the Canadian Endangered Species List that calls Banff home. And this one, similar to the Banff Springs Snail, does not have fur, fangs, talons, or legs but it does have scales – at least on its cones!

When the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) met in Victoria over the last week of April, 51 plant and animal species were assessed or reassessed for their probability of going extinct. The group of scientists concluded that the Whitebark Pine (*Pinus albicaulis*), a species confined to high elevations in the Rocky and Coast Mountains of Alberta and British Columbia, joined 261 other species COSEWIC has assessed as Endangered. Endangered means the species faces imminent extirpation (gone from Canada) or extinction (gone forever).

Up until now, the Banff Springs Snail was the only species that lives in Banff National Park to have the ignominy of being Endangered although the Banff Longnose Dace, a minnow-like fish that was confined to the thermal springs at the Cave and Basin is officially Extinct. Other COSEWIC listed species that live in Banff such as the Southern Mountain population of Woodland Caribou and the Alberta population of Westslope Cutthroat Trout (both Threatened – although the Banff population of caribou is now extirpated) or Wolverine and Grizzly Bear (both Special Concern) are in lower risk categories. So far, COSEWIC has assessed 615 Canadian wildlife species as either already gone from the earth or being at risk of going extinct. Another 166 wildlife species have been determined to be Not at Risk of going extinct and too few data existed on another 46 to determine their level of extinction risk.

While the principal threat to the Whitebark Pine is an infectious, invasive fungus called Blister Rust, the cumulative effects of climate change, Mountain Pine Beetle infestations, and fire suppression have yielded an ongoing population decline of 70% for the pine. Because the trees already live at high elevations, there is no room for them to move up the mountain when climate change occurs. Blister Rust has been called the most destructive disease of five-needle or white pines in North America. It originates from Asia, but was introduced into Europe in the 18th century and was then transferred to North America in the 1900s. By the 1950s it

had spread to most of the commercial pine regions on the continent.

Now that Whitebark Pine has been assessed as Endangered by COSEWIC, the fate of the species rests with the federal government. After the latest list of COSEWIC assessed species is given to the Minister of the Environment in the August 2010 Annual Report of COSEWIC, the long road to listing under the *Species At Risk Act* (SARA) begins. Most likely the public will be consulted in the next year or so for comments regarding the implications of listing the pine under SARA. If the species is listed under SARA, the clock continues to tick as a Recovery Strategy is required within one year for Endangered species and within two years for Threatened species. Given the rapidity which the threats can spread and act, let's hope there is enough time left.

For the official press release and full description of which species were assessed and the reasons they were assigned to the various risk categories visit <http://www.cosewic.gc.ca>. For an article with pictures about the special relationship between the white pines and Clarke's Nutcrackers, see the Fall 2007 BVN newsletter.



Dr. Diana Tomback (l) and Dr. Lyn Resler © checking out krummholz WBP on a ridge near Storm Mountain, when they were running a pilot year of data collection studying the importance of WBP at treeline, and what impacts blister rust might have on "island" formation. Photo: Cyndi Smith

International Year of Biodiversity

Mike McIvor

The Canadian Environmental Network is being very active in marking this international event. According to the material on its website www.cen-rce.org/eng/caucuses/biodiversity the theme for 2010 is Biodiversity for Development and Poverty Alleviation. This illustrates how some very powerful motives for protecting biodiversity focus strictly on the potential for other organisms to be useful to humans. And in many nations where biodiversity is most rich, the people are among the most poor. So this pragmatic approach must be seen as essential. But in Canada it could be argued that we also have the "luxury" to appreciate and celebrate biodiversity for its intrinsic value. Without denying the importance of those other considerations we should be able to explore, learn about, and exult in the magnificence and variety of life around us. Let's make this an everyday, every year occasion.

Manifestations of Coyote

Colleen Campbell

In contemporary lore coyotes are generally misunderstood, often reviled and persecuted; simultaneously they are upheld as icons by the occasional few who have taken time to observe and try to comprehend the little dog. They also have a complex, puzzling and thoroughly intriguing mythic stature for many historic indigenous North American cultures.

In North American native mythology, there are several trickster figures; in some areas, *spider*, *rabbit* and *raven* are well known, but the most prominent and perplexing is *coyote*. Trickster stories are complicated, often wicked, always instructional. Ultimately, tricksters are teachers, though the lessons are usually inferred and subtle, sometimes only slowly revealed over long passages of time. Occasionally trickster tales are intended as accounts of the ever-changing context in which we all live; occasionally they offer a nicely completed story with a satisfying conclusion.

Trickster and animal stories are meant for all ages. They have long oral traditions. The written forms are recent and sometimes quixotic, with no final or definitive versions. Similar stories are related in many places, often with differing conditional requirements governing the telling and different structural idiosyncrasies, dependant on the context for the telling of the story — what prompts the story, the time of year, the teller, the audience and many other conditions may influence the form and trajectory of a particular story.

To frame a context for thinking about them, consider that Trickster figures belong to a race of mythic beings that pre-date humans and are credited with creation — of the world, human and all other life and culture. Tricksters are not limited in character — in fact, part of the complexity of any trickster figure (Blue Jay, Frog, Spider, Hare and Raven included) is, at least, partly due to the contrasting qualities that any can exhibit within even short narrative episodes: courageous or cowardly, kindly or demonic, wise or buffoonish, innovative or conservative and predictable.

In stories of *coyote* as trickster, coyote is often referred to as *Old Man Coyote*. *Old Man Coyote*, the creator, predates both humans and the little grey dog now known as coyote. All the *first peoples* were eventually transformed into the animals that carry their names, but in their original forms, they were gods. And thus, *Old Man Coyote's* complexity of character and behaviour as a god was ultimately bequeathed to his biologic offspring, *canis latrans*. It is common that exploring either *Old Man Coyote* through cultural and anthropological studies or *canis latrans* through natural history or biology will take one into direct contact with the coyote's other manifestation. The two are inextricably linked.

Old man Coyote is the versatile protagonist, convincing in an amazing range of stories: comedy and tragedy, historic sagas, legal stories, religious parables and musicals. His roles involve magic, the sacred, pornography, apparent idiocy, arrogance, drama, shape-shifting, cheating, and even when he is a 'walk-on', a wag in someone else's story, he is adept at up-staging the star with only a wink or one a single comment. The diminutive physical stature of *canis latrans* belies mythic presence of *Old Man Coyote* in the narratives in which he appears. *Coyote* is a consummate trickster figure.



Coyote, Before He Learned to Fly 22" x 30", mixed media.
Colleen Campbell

Coyote's pelt, in the long ago, was a beautiful blue. This drawing is about how he became the gray dog we all recognize.

There are many stories about coyote flying with different birds, usually jays, crows or ravens. In one story, Coyote negotiates with Raven to teach him to fly. His promise to Raven is that he will keep his eyes closed as long as he is aloft. Naturally, Coyote was lying. He just can't help himself. He opened his eyes to see what the world looked like from the sky and, having broken his promise to Raven who has a few powers of his own, Coyote fell into the water below and had to swim to shore. After trotting away from the water's edge, he rolled in the sand to dry off and became the sandy gray dog of the prairies. Now, his beautiful blue pelt is only told about in stories.

Sometimes while watching a coyote hunt, I imagine it with a slivery blue pelt and think of this story. I cannot remember where or when I learned it.

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