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This past summer butterflies were caught our attention. But moths, especially those that are active in daylight, can also be eye-catching. Some images of moths commonly seen in our area, including this Police Car Moth (*Gnophaela vermiculata*), are provided in a brief gallery below. *P. Duck Photo.*

MEMBERS ARE READING, WATCHING, AND LISTENING

SHARE NATURE RESPONSIBLY

WHO DO YOU CALL WHEN THINGS ARE AMISS?

CONTACTS – We Know Who to Call

Please let managers know you want protection for ecosystems. Call them, write them a letter, or drop a note to journalists. If you need help finding contact information, drop us a note and we will help you send a message to the appropriate desk.

ECOSYSTEM EDUCATION & ADVOCACY

1967-2023

BOWVALLEYNATURALISTS.ORG

PROGRAMS AND EVENTS

BVN presents programs on natural history and ecosystem management issues. Mark your calendar for 7:30 pm on the fourth Tuesday of every month from October to April, except for December when our programming is replaced by the annual Christmas Bird Count and potluck supper, where you are also welcome. Video recordings of past programs are available on our [Public Programs](#) web page.

We are endeavouring to offer our usual schedule of programs. Please be sure you are registered for our updates to receive notifications of programming information and to register for any online presentations.



Tuesday, October 24, 2023 - Catharine Robb Building, 7:30 pm
Wonders of the Night Sky with Doug Saul

It's stargazing season! With longer hours of darkness and generally clearer skies, star parties are happening all across Alberta this time of year. The Bow Valley Naturalists are thrilled to welcome Doug Saul as he presents Wonders of the Night Sky. We'll learn about the star above us in the night sky and how to locate and identify a few of the Solar System and the Milky Way's phenomena that are our cosmic sisters and brothers.

Tuesday, November 28, 2023 - Catharine Robb Building, 7:30 pm
Beating a Sustainable Retreat: Degrowth or Collapse? *Andrew Nikiforuk*

This year's annual Bob and Mary Smith commemorative lecture, in collaboration with the Whyte Museum of the Rockies, will be on Tuesday, November 28 at the Catherine Robb Building in Banff. Many environmentalists regard climate disorder as humanity's core problem. They believe a rapid energy transition, dependent on the high-volume mining of rare earth minerals, is the best way forward. But a growing number of experts have questioned this so-called green path and its technological optimism given mineral and water constraints and rampant political disintegration. The critics regard the growing climate disorder as just one of nearly a dozen physical symptoms of overshoot: the overconsumption of materials and energy by 8 billion people (relentless growth) on a finite planet. To avoid a chaotic collapse, they advocate for a rapid reduction in energy consumption by 40 percent, a re-localization of economies and an end to growth.

[Read about Andrew Nikiforuk here.](#)

NEWS AND ISSUES

Banff Community Plan

Bow Valley Naturalists, along with other non-profit organizations, attended a presentation and discussion hosted by the Town of Banff in mid-summer. This has led BVN to begin preparing a written submission to be presented to the Community Plan Steering Committee in late fall. The Town has been accommodating a longer schedule for the Community Plan process, for which we are grateful. Jess Harding, one of BVN's directors, has been committing lots of his valuable time and expertise as the environmental representative on this committee. This process will guide the many ways this community affects nature in and adjacent to the townsite. Please share your thoughts with us on how the Community Plan can better reflect the need to maintain a healthy national park ecosystem in the face of many stressors caused by human

developments and activities. You can find more about the Community Plan process and supporting documents on the [Town of Banff website](#).

Growth Is Finally Emerging As The Real Issue

BVN has been making the case that, in spite of the limits intended to manage growth in Banff National Park, growth continues to create stress on ecosystems and an alternate economic model is required, especially if a town like Banff is to be a so-called model national park town. Words like sustainability can show significant plasticity of meaning in a constantly growing community as politicians at all levels of government speak of growth at the same time as environmental and social sustainability. The race for new silver-bullet sustainable technologies can be a Faustian bargain as we rush to replace one set of negative environmental impacts and social effects with others. For example, what is happening in the Ring-of-Fire region of Ontario seems to be a race for sustainable technology. But the race to compete with China as a source for that technology is also a race for its environmental impacts. It is now recognized as a growth-fueled rush to establish mineral mines on the scale oil sands mines in the middle of the wilderness of northern Ontario. Just as we built a four-lane highway to Fort MacMurray and gutted that landscape for oil, we are now building massive mines and road projects that penetrate the wilderness wetlands of the Hudson's Bay lowlands and their indigenous cultures.

In a valley ecosystem with obvious ecological and spatial limits, the paradigm of unlimited growth and associated demand for technology must constantly be challenged and not window-dressed with superficial concepts sustainability. When we locally embrace technologies such as computers, smart phones and TV's, e-bikes and solar panels, and even wind turbines (the list goes on), we must place them in the context of this rush for growth and the cumulative effects it has on the planet's ecosystems. What is a model national park town's role in taking responsibility for these impacts? Here is a brief list of readings to help you ponder this complicated question and send some messages to your political leaders and government administrations.

- Ecological Economics: [Doughnuts And Growth In The Bow Valley](#) BVN Newsletter Spring 2021.
- [Reconsidering Growth](#) by Philip Meintzer.
- All [Planetary Boundaries Mapped Out for the First Time](#) - Six of Nine Crossed - Stockholm Resilience Centre.
- Growth and [The Rising Chorus of Renewable Energy Skeptics](#) by Andrew Nikiforuk. *(Please our special fall program above.)*
- [Everything you need to know about the push to mine Ontario's Ring of Fire](#) by Emma McIntosh.

Calgary to Banff Hydrogen Train - A Sustainability Bubble?

BVN supports more energy efficient public transport to and within the Bow Valley. The current growing success of flexible destination bus options is very encouraging. However, we are ever wary of sustainability glitter, especially where leading-edge technology is promoted for critical public infrastructure. Aside from the many environmental issues raised by increasing rail traffic and infrastructure in the Calgary-Banff Corridor and the demand for consumption of significant public funds for feasibility studies, increased rail and especially hydrogen-fueled rail travel is cause for concern. No doubt hydrogen fuel will likely find its place in the sustainability toolbox, but as we learn more about hydrogen fuel there is a growing body of understanding that indicates it is not well suited to transportation.

Our transportation issues in the Bow valley are real time and complex. The public transit solution should stick to proven solutions for which the life-cycle sustainability is well understood. If you are interested in the discussion of hydrogen as a suitable technology, we offer this article which seems to dull some of the glitter on hydrogen-fueled trains as a sustainability silver bullet speeding between Calgary and Banff.

“The worry is that, along the way, we are going to waste huge amounts of money on the wrong use cases for hydrogen and the wrong infrastructure in the wrong places. Worse than wasting money, we will also be wasting time – and that is the one thing we don’t have. Let’s be smart.”

The Unbearable Lightness of Hydrogen, Michael Liebreich

Canmore’s Loses Appeal of Mega Development– What Have Valley Ecosystems Lost?

The Alberta court of appeal has upheld the Land and Property Right Tribunal ruling that does not recognize the Town of Canmore’s rejection of a development accommodating in excess of 10,000 more people in a continentally significant wildlife corridor between Banff National Park and Kananaskis Country. The Town of Canmore will not be pursuing the issue further and will be adopting the Area Structure Plans as originally presented to Council. This ruling is a setback on many fronts: the continentally significant wildlife corridor, forest fire risk, climate change emissions, affordability, undermining risk, traffic congestion, and the very character of our community.



Protester greeted the Premier of Alberta as she arrived to speak to the Bow Valley Builders and Developer’s Association event in Canmore. K. Heurer photo.

[The details of the ruling may be found here.](#)

But more importantly, this decision is not democratic. How can the opinion of a quasi-judicial and appointed body (the Land and Property Rights Tribunal) overrule the decision of a democratically elected entity (Canmore Town Council)?

Recent research on radio-collared grizzly bears and wolves shows this is the last low-elevation wildlife corridor between Kananaskis Country and Banff National Park. Longtime Canmore resident and wildlife biologist Karsten Heurer states “Many locals are furious! Our community values wildlife-human coexistence. You mess this area up and you forever mess up two of the world’s most celebrated protected areas. What the court of appeal decision basically says is the opinion of an appointed, quasi-judicial body, like the Land and Property Rights Tribunal, trumps the decision of a democratically elected government, like Canmore Town Council. That just doesn’t seem right.”

There was an unprecedented show of opposition to this development through a seven-day public hearing in 2021. Bow Valley Engage is now looking into what legal and citizen action levers can be pulled to stop this mega development from changing the Bow Valley forever.

Read [Devon Earl’s Comments](#) in Alberta Wilderness Association’s Wildlands Advocate.

Visit the [Canadian Parks And Wilderness Association’s](#) news page to place this development in the context of other cumulative threats to Southern Alberta ecosystems.

Irrigation Versus Prairie Ecosystems (What Happens to What's Left of Our Mountain Water?)
With Information Contributed by Cheryl Bradley, Southern Alberta Group for The Environment (SAGE)

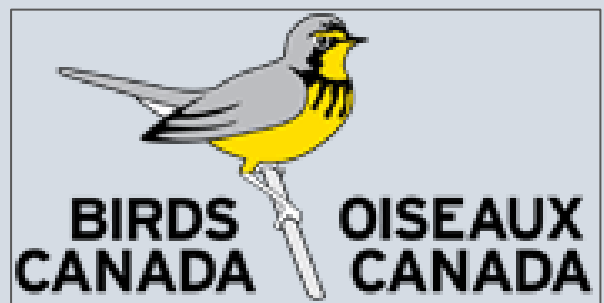
BVN continues to participate in efforts to bring science to plans for Alberta's largest irrigation expansion in a time of dwindling water supply. Silence from proponents of irrigation expansion has been deafening. Cheryl suspects this is partly due to the declaration of Stage 4 drought throughout southern Alberta this summer. Below average mountain runoff (March to October) resulted in low reservoir levels and water shortage advisories for several river reaches. The South Saskatchewan River at Medicine Hat was at minimum flow, based on instream flow objectives, since early June as has the Bow River below Bassano and the Oldman River near Lethbridge. Red Deer River near Bindloss is well below normal flow range as well. It is unlikely that these rivers can support further water withdrawals while maintaining healthy river ecosystems. Yet, irrigation districts, with support from all levels of government, continue to plan for greater water extraction. This seems to be in contradiction to arguments for river ecosystem health being made by governments in the renegotiation of the Columbia River Treaty in British Columbia. We encourage readers to visit the [SAGE](#) website for a list of articles and the hard work being done to get government and irrigation districts to respect river ecosystems.

Additional reading and listening:

- Government of Alberta [Drought Alberta](#) website.
- Visit the [SAGE website](#) for a list of articles.
- [Lorne Fitch](#) has written a number of articles on this topic and has presented to BVN.
- Listen to a CBC podcast about [Columbia River Treaty Negotiations](#).
- Canary in the Icefield: Dramatic [loss of fossil water](#) for irrigation from rivers in the Canadian Rockies.

Donations – Thanks!

BVN is grateful for the numerous donations that allow us to do the things we do. Funds we receive pay for ongoing administrative expenses such as web site subscription, support for our program series expenses, and MAPS operational expenses. These donations also allow us to pool funds to support other researchers and organizations. Recent initiatives we have supported include Ecojustice, Birds Canada, Friends of Jasper, Canadian Lyme Disease Foundation, Wildlife Conservation Society of Canada, and the Alberta Native Bee Council.



Click the image to see the work done by Birds Canada which includes administering the Annual [Christmas Bird Count](#).

All BVN's administrative tasks including Board activities and preparing the newsletter, are done by volunteers. Please use the donation button at the bottom of our web pages if you wish to support the work we do.

OF WILD THINGS

White Pine Resistance to Blister Rust

Blister rust is an organism introduced to North America. It kills Limber (*Pinus flexilis*) and Whitebark pines (*Pinus albicaulis*). This has led to research and initiatives to try and save these trees that are connected to so many other elements in our mountain and foothills ecosystems. Often, when invasive organisms invade an area, it is hoped that some portion of the affected population is resistant to the effects of the invasive species. Seven years of research now shows that Alberta populations of Limber Pine do indeed include individuals that are resistant to the effects of blister rust. The recent issue of [Bugs and Diseases](#) includes an interesting article which reports this research. Let's hope a similar story emerges for whirling disease that is starting to affect our native trout populations.

Footprints and The Ice-Free Corridor

For many years archeologists have discussed how North America was occupied by peoples migrating from eastern Siberia to North America. The discussion revolves around two travel routes. The continents earliest human colonizers may have moved down the west coast along shorelines exposed by lower sea levels immediately before the melting of the last advance of the Pleistocene Ice Age. Or they may have passed through an ice-free corridor between the waning mountain ice sheets flowing east out of the foothills of the Canadian Rockies and the continental ice sheets pressing southwestward from the continental interior. The Vermilion Lakes and Minnewanka archeological sites in Banff National Park, dated to around 13,000 calendar years ago, have contributed to these discussions. Such early evidence of human activity this far north area has been suggested as evidence that the ice-free corridor was used. The recent dating of fossilized footprints from White Sand National Park in the U.S. and more accurate dating of the openings in the ice-free corridor are now providing some fascinating evidence which tends to lean strongly toward coastal route while eliminating the ice-free corridor as a possibility.

Jeffrey et al 2023. *Independent Age Estimates Resolve The Controversy Of Ancient Human Footprints At White Sands*. Science. Vol 382, Issue 6666 pp. 73-75.

[Subscription required for full article but editors Summary and Abstract is available online.](#)

Clark J. et al. 2022. *The Age of the Opening of the Ice-Free Corridor and Implications for the Peopling of the Americas*. Proceedings of the National Academy of Sciences, 119 (14) e2118558119. [The full article is available here.](#)

2023 MAPS Summary

Cyndi Smith

On July 27th I was operating our MAPS (Monitoring Avian Productivity and Survivorship) station in Waterton Lakes National Park, Alberta. We were capturing quite a few Cedar Waxwings (*Bombycilla cedrorum*), which are one of the latest-breeding birds in North America, the evolutionary result of their reliance on summer-ripening fruits. A number of females had brood patches, and as I released one female, I mentioned to our volunteers that "I think she's about to lay an egg" because she had a distended lower abdomen. Before processing the next bird, I went to turn her cotton bag inside out for cleaning, and felt a lump ... she had laid an egg while waiting in the bag for me to take her scientific



“vitals”! Fortunately, it was not broken. I am 100% certain that this photograph is of the egg of a Cedar Waxwing. (C. Smith photos)

This season at the Ranger Creek MAPS site in Banff National Park was our third highest year in terms of overall capture rates. On average, 53 birds were handled each session of 40 species. This was accomplished through a total of 255 hours of volunteer time.

Past Ranger Creek MAPS [reports are posted here](#).

I recommend reading *Flightpaths: How a Passionate and Quirky Group Of Pioneering Scientists Solve the Mystery of Bird Migration* by Rebecca Heisman. This is a deep dive into how scientists of every ilk contributed to understanding the complexity, extent and importance of bird migrations. The science and the lore are joined in this compelling narrative. This is a complicated story, an interesting book and adds to our appreciation of the lives of the birds we handle in our MAPS project.



(BVN President's Note: Thanks to the hard work and commitment of Cyndi and her loyal band of volunteers!)

48th Annual Christmas Bird Count

The Annual Christmas Bird Count will be held on Saturday December 16, 2023. Join us for the count and a potluck supper after which the day's observations will be tallied with the usual bird count humour. Be sure you are [registered for BVN updates](#) to receive further details.

Return of the Beetles?

Mountain Pine Beetles (*Dendroctonus ponderosae*) continue to be active in the Bow Valley. As we enter an El Niño weather cycle it will be interesting watch how the local population of Mountain Pine Beetle responds. El Niño typically leads to warmer fall and winter temperatures and other environmental conditions, such as drought, that favour beetle survival and population outbreaks. These conditions can lead to stressed trees that are less able to defend themselves against beetles. If a renewed outbreak develops momentum, the forests of the Bow Valley could take on a very different look. In the photo at right, Naia Noyes-West of BVN and Louis Price, Alberta Forest Health Officer, examine a Pine Beetle (*Dendroctonus ponderosae*) monitoring trap near Canmore. BVN has been helping monitor beetle traps in the Canmore area for several years.



Some Common Moths

The past warm dry summer provided lots of opportunity to for us to watch butterflies and diurnal moths flitting about us. Moths do not usually get our attention but they can be as beautiful as butterflies. On the page below are three species common in our area that might have favoured you with their presence as you hiked or lounged about in town this summer. Watch for them next season! *(Our apologies for the images of moths on non-native flowers but that is where they posed.)*



Police Car Moth (*Gnophaela vermiculata*) on non-native Oxeye Daisy (*Leucanthemum vulgare*). See the additional image on the title page. *P. Duck Photo*

Herald Moth (*Scoliopteryx libatrix*) taking a rest on a residential back deck. *P. Duck Photo*



Alfalfa Looper (*Autographa californica*) on a domestic sunflower (*Helianthus sp.*) in Banff. These moths were abundant in the subalpine and alpine flower meadows this year, constantly flitting about, making colourful scenes full of motion. *P. Duck Photo*

MEMBERS READ, WATCH, AND LISTEN

BOOKS

Colleen Campbell (with contributions from friends) has assembled these readings about the planet for darkening evenings or winter days in a sunny window. Many of these stories are directly related local stories and issues that also play out in wider world. If you have recommendations, fiction or non-fiction, that share science or perspectives of our natural world (see this section in previous BVN Newsletters) send them along with author, title, year of publication and a sentence about what makes the suggestion interesting to you.

Are We Smart Enough to Know How Smart Animals Are?, Frans de Waal 2017.

This renowned behavioural ecologist explores the oddities and complexities of animal cognition, showing how smart they really are and how humans have consistently underestimated their abilities.

Eight Bears: Mythic Past and Imperiled Future, Gloria Dickie 2023.

The current status of the eight extant species of bear is positioned against the very likely pending impacts of climate change.

Wild New World: The Epic Story of Animals and People in the Americas, Dan Flores 2022.

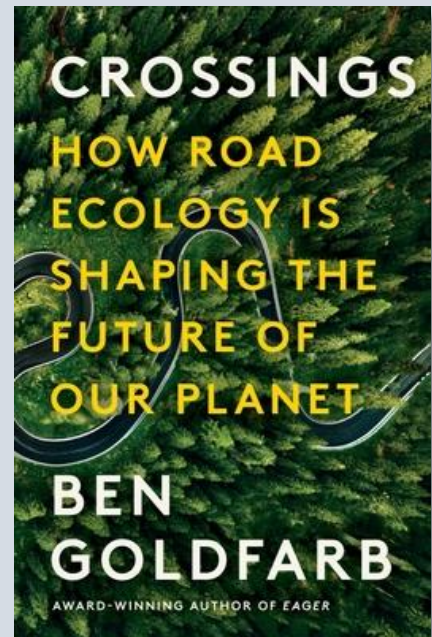
A deep-time history of animals and humans in North America by the author of another excellent book, Coyote America: A Natural and Supernatural History.

The Earth Transformed: An Untold Story, Peter Frankopan 2023.

This initially daunting 700 pages can be absorbed a chapter at a time, learning about the history of our planet. Much of it would be challenging for the forms of life we know. Peter Frankopan can be found on the internet, as well, in several informing interviews.

Crossings: How Road Ecology is Shaping the Future of our Planet, Ben Goldfarb, 2023.

We drive without ever thinking about the impact of roads on other beings. Goldfarb investigates the history and the development of roads and the developing awareness of how they interrupt lives: humans, plants and wildlife of every ilk.



Silent Earth: Averting the Insect Apocalypse, Dave Goulson 2021.

An award-winning entomologist and conservationist, drawing on 30 years of research, examines the evidence of an alarming drop in insect numbers around the world, possibly causing ecological disaster.

Otherlands: Journeys in Earth's Extinct Ecosystems, Thomas Halliday 2022.

This book causes one to imagine what earth looked like in deep time and provides a refreshing perspective on our current conditions.

Green Lies: How the Environmental Movement Lost Its Way and What We Can Do About It, Derrick Jensen and Lierre Keith 2021. How much of the environmental movement has been transformed from being about saving wild places and wild nature into being about powering the industrial economy, turning it into a lobbying arm for technologies: "technology will stop global warming" or that "technology will save the planet."

Under a White Sky: The nature of the Future, Elizabeth Kolbert 2021.

In a follow-up to *Sixth Extinction*, Elizabeth Kolbert investigates the immense challenges humanity faces as we scramble to reverse, in a matter of decades, the effects we've had on the atmosphere, the oceans, the world's forests and rivers.

Wild Souls: Freedom and Flourishing in the Non-Human World, Emma Marris 2021.

The booming human population dominating a finite planet stimulates scientific complexities and moral dilemmas. When is it right to capture or feed wild animals for the good of their species? How do we balance the rights of introduced species with those already established within an ecosystem? Are any animals truly wild on a planet that humans have so thoroughly changed?

Oldman's River: New and Collected Poems, Sid Marty 2023.

Those new to, or fans of, Sid Marty's writing will find pleasure with this book, lingering with familiar and new poetry during the dark evenings of winter. Poetry can be a shared pleasure, read out loud to others. Visit Sid Marty's [website](#).

Not on My Watch: How a Renegade Whale Biologist Took on Governments and Industry to Save Wild Salmon, Alexandra Morton 2022.

Following Orcas led Alexandra Morton to discover how much the wild salmon need help to survive. Her life has been devoted to understanding and protecting salmon, invoking science, politics, jurisprudence, community and economics to champion the importance of salmon ecologically and culturally. Also, check out [The Salmon People](#) podcast series, in which Morton features prominently.

Tamed: 10 Species That Changed our World, Alice Roberts 2017.

The story of how dogs, horses, cattle, apples, rice and other species were domesticated proves an excellent perspective on deep human history.

Dark Days at Noon: The Future of Fire, Ed Strusik 2022.

Dark Days at Noon tells a history of fire in North America, starting before European contact. It also makes it clear that we need to change how we do things — how we use fire and how we re-forest, how we build and how we understand our environments.

Fire Weather: The Making of the Beast, John Vaillant 2023.

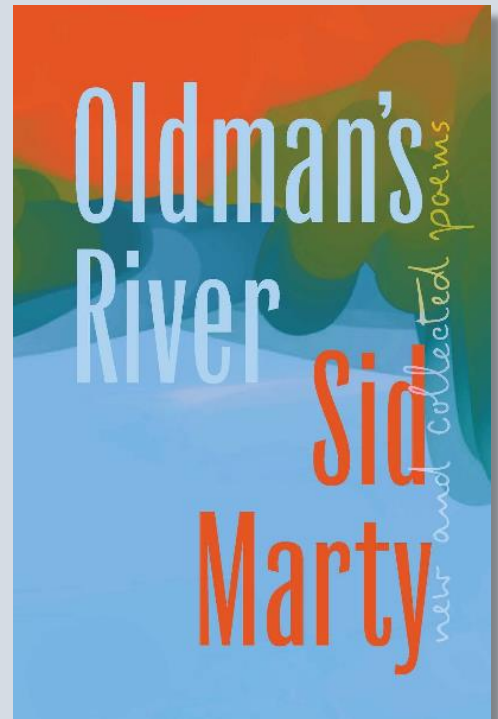
Vaillant takes us into deep history and our very long relationships with fire. He echoes fire ecologist Stephen J. Pyne (*Vestal Fire* / 1997) who wrote about how fire shaped human civilization and culture. Vaillant, ties the story of fire into economics and industry and, importantly, climate change.

Urban Jungle: Wilding the City, Ben Wilson 2023.

Other life has always shared our settlements. And many species are “wildly” successful living amongst human activities. Wilson is encouraging us to find some sort of equilibrium with the animals that share our cities — to ensure the persistence of biodiversity and for the health of the planet.

An Immense World: How Animal Senses Reveal the Hidden Realms Around Us, Ed Yong 2022.

Science journalist Ed Yong coaxes us beyond the confines of our own senses, allowing us to begin to perceive the skeins of scent, waves of electromagnetism and pulses of pressure that surround us.



RESPONSIBLE NATURE WATCHING

BVN cautions all readers to not use publicly accessible social media style applications to post the locations of sensitive natural features, plants or wildlife that will attract people to that location. It's good to know nature is out there but in these days of social media such sharing of sensitive information will put the nature we love at risk of being loved too much.

WHO DO YOU CALL?

You may come across situations or observations that you want to tell the authorities about. We recommend you have these phone numbers handy. Remember, cell phone coverage is spotty in the mountains so take notes if you need to move on to make a call.

For Emergencies such as Ambulance, Fire Department, Police (RCMP): 911

Banff Dispatch: 403-762-4506 for Park-related emergency only (avalanche, forest fire, mountain rescue, etc.)

Banff Park Non-emergency: 403-762-1470, (bear or large carnivore sightings, human-wildlife conflicts, injured animal, illegal park activities such as fire, feeding wildlife, camping, drones etc.)

Kananaskis: Call 310-5263 for bear, cougar and problem wildlife sightings, illegal activities or to help report damage to public land, noise complaints and general land-related inquiries and information requests. To report a poacher, call 1-800-642-3800 or fill out an [on-line report](#). If you wish to remain anonymous while reporting a crime, phone 1-800-222-TIPS (8477).