

Valhalla Wilderness Society

P.O. Box 329, New Denver, British Columbia, V0G 1S0
Phone: 250-358-2333; Fax: 358-2748; vws@vws.org; www.vws.org

Newsletter No. 61

December 2018

FOREST PRESERVATION CRUCIAL TO LIMITING CLIMATE CHANGE

Dear Members and Supporters,

Our team at VWS cannot thank you enough for standing with us in our fight to protect BC's wilderness and the incredible wildlife that inhabit it. This year brought exciting progress to our cause, as we studied a hidden gem of the Interior Wetbelt — an area of phenomenal biodiversity that we'll soon be revealing as a new park proposal of the inland rainforest.

Unfortunately, while our projects flourished, BC was burning. The last two BC fire seasons were each the worst ever. Many of us breathed smoke for several months. Fire fighters could not keep up with the fires. Scientists assured us that climate change has increased the frequency, severity and duration of fires.

This is not a time to avert our eyes from the shockingly tragic events in California, where over 80 people have died and hundreds more are missing ... not a time to tell ourselves that the hurricanes down south have nothing to do with us. Hundreds of thousands of people have been evacuated this year in the US alone; thousands have lost their homes. Many have lost their lives.

In October the U.N. released a report from leading climate scientists. They say *we have only 12 years to cut carbon pollution enough to avoid climate catastrophe*. They have adopted a target of 1.5 C for limiting temperature increase on the planet, and warn that even one-half degree over that would make a profound difference in the severity of drought, floods, extreme heat and poverty for hundreds of millions of people. *Yet a new scientific study found that the climate policies of Canada, China and Russia would drive the world above a catastrophic 5C of warming by the end of the century.*

Little wonder the U.N. report said that "Urgent and unprecedented changes are needed", but our politicians are willfully deaf. Canada announced a new carbon tax, yet the government remains determined to increase the flow of tar sands oil by building new pipelines, despite the desperate pleas of scientists to leave the oil in the ground. It outright bought Kinder Morgan's Trans Mountain pipeline, and has

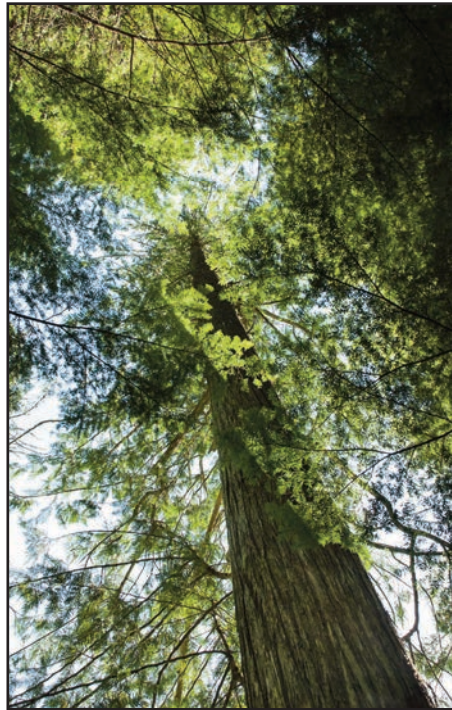
vowed to carry on with an expansion that will triple its oil carrying capacity, once conditions imposed by a court have been met. A court decision has temporarily halted the XL pipeline to Texas, but our federal government laments that jobs are being lost. If the jobs end up burning people's houses down, melting Arctic ice, flooding coastal cities and costing billions of dollars in disaster relief, is that a smart priority?

BC's 2007 target for reducing carbon pollution by 33% by 2020 was a spectacular failure, so it has now made new promises. But the approval of a huge new liquified natural gas facility in Kitimat, with a pipeline to supply it, will increase carbon pollution rather than reducing it.

Recently 40 scientists from five countries released a statement saying that "forests are currently the only proven means of removing and storing atmospheric CO₂ at a scale that can meaningfully contribute to achieving carbon balance." Forests remove about 28% of the carbon put into the atmosphere by humans. Cutting them not only loses their removal of carbon from the air, but also releases the carbon they have stored for decades into the atmosphere. There is more information on the back page, and also at <http://www.climateandlandusealliance.org/scientists-statement/>.

Scientific studies have shown that forests continue storing carbon as they age. BC's old-growth coastal and interior rainforests are said to be amongst the highest carbon-storing forests on the planet. They can store over 1,000 tonnes of carbon per hectare. The reduced rate of logging due to protecting the Great Bear Rainforest on the coast has been calculated to reduce carbon emissions by 600,000 tonnes a year.

About 33% of the Great Bear Rainforest has been fully protected, yet in the Interior Wetbelt area of BC only 17% has been protected, unsustainable logging goes on and politicians fiddle as the world burns. VWS is working to increase that percentage with new parks in the Interior. To see what VWS has been doing about the dual crises of climate change and species loss, read further.



Anne Sherrod

Lungs of the planet: Old-growth forest stores carbon for hundreds of years.

MOUNTAIN CARIBOU: CANADA DECLARES IMMINENT THREAT TO RECOVERY

This year scientists warned that the loss of biodiversity threatens the survival of humanity. The death of the last male northern white rhinoceros was solemnly reported in major media. Unfortunately it is comfortable to think of the extinction of large mammals as happening “over there”, in countries too poor to protect their wildlife. But this year Canada’s Minister of Environment and Climate Change declared BC’s mountain caribou is facing imminent threats to its recovery. It declined precipitously while BC officials touted the effectiveness of BC’s recovery plan, and while a federal *Species at Risk Act (SARA)* was in place. Now that the truth has been acknowledged, can the caribou — and the credibility of the SARA — be restored?



VWS Petitions Federal Government Under SARA

While last year’s newsletter went to press, former Environment Canada biologist Dr. Lee Harding was working feverishly to whip into shape VWS’s 60+ page petition to the federal Minister of Environment and Climate Change. Four different parties filed petitions, but VWS’s was the only one that covered all the herds. We had to prove to the Minister that the risk of extinction for mountain caribou was an emergency which, under the federal *Species at Risk Act (SARA)*, legally required her to recommend that Cabinet issue an emergency order to force BC to protect caribou habitat. Lawyer Calvin Sandborn, head of the University of Victoria’s Environmental Law Centre, fired the petition off to the federal government on Dec. 14.

New Federal-Provincial Agreement Expected

Some time ago the authority for managing BC’s wildlife was transferred from the Ministry of Environment to the Ministry of Forests, Lands, Natural Resource Operations & Rural Development (FLNRORD). Since then the Ministry that gets its revenue from signing logging permits has been in charge of saving mountain caribou that are dependent on old-growth forest.

In late 2017 the two governments issued a draft bilateral agreement that was representative of caribou negotiation under FLNRORD: BC agreed to protect only high elevation habitat with no tenures. Almost all provincial land has tenures, so the draft was widely denounced by the environmental community. VWS’s January submission can be found on our website. The revised Agreement is expected soon.

Call for a Moratorium on Habitat Destruction

Through March and April VWS networked with a number of other environmental groups on strategy. Yellowstone to Yukon organized a joint letter to the federal and provincial governments, calling for an immediate moratorium on destroying the habitat or displacing the caribou from it. It was signed by 11 groups, including VWS.

One Step Forward

On May 4, in response to the four petitions, the federal Minister of Environment and Climate Change issued a determi-

nation of “imminent threat to recovery” for all the herds of the South Peace and Interior Wetbelt.

We are sorry to report that, as of the writing of this newsletter, the result of the Minister’s determination has been a morass of talk, paper, and conference calls to entertain “stakeholders”. There has been no order from the federal Cabinet and no moratorium while the logging of caribou habitat continues.

BC Has Yet Another Caribou Recovery Plan

BC appears to have headed off federal action by repackaging its old caribou recovery plan into a new “Made in BC” plan. “Made in BC” is timber industry jargon for “we’re not going to let the federal government tell us what to do.”

In June two caribou biologists who were advisors to the federal government’s mountain caribou recovery strategy sent a scathing letter to FLNRORD, saying that the “Made in BC” plan showed “lack of acknowledgement of the problem”, “lack of acknowledgement of the accumulated body of research”, “overemphasis of recovery actions to date”, “lack of solutions”, “inadequate attention to BC’s obligation to protect critical habitat under SARA”, and “lack of transparency” on its intention to jettison some herds. The letter slams the report for calling predation the primary cause of the caribou decline with little discussion of the real primary cause, industrial destruction of habitat.

The federal and BC governments have outlined multiple processes of “consultation” of “stakeholders” (including logging companies, snowmobile clubs and heli-skiing companies as well as guide-outfitters and First Nations) for the new plan that could defer implementation for a long time to come. Unlike the South Peace, the Interior Wetbelt had years of consultation on the first recovery plan — about five years, *all the while the animals’ habitat was relentlessly logged*. Our petitions didn’t ask for more consultation, we urged emergency action to expand habitat protection.

As we write, the BC government just captured the last six animals in the two most southern herds and shipped them north to the maternity pen near Revelstoke. Will the Central Selkirk herd be next?

SELKIRK PARK PROPOSAL CAMPAIGN: IN THE FIELD AND ON THE ROAD

BC Timber Sales is Logging Mountain Caribou Habitat

VWS's Selkirk Mountain Caribou Park Proposal was named for its resident Central Selkirk herd. At the time the park was proposed, it had 98 caribou. Today it has only 30. Since BC's mountain caribou recovery plan came into effect in 2008, four herds surrounding the Central Selkirk herd have been wiped out by logging, snowmobiling and heli-skiing.

This year the federal government recognized the Central Selkirk herd as one of ten mountain caribou herds whose recovery is especially threatened. Then why is BC Timber Sales (BCTS) still logging its habitat, and planning to log much more?

BC's current recovery plan provides some partial habitat protection through Ungulate Winter Range (UWR) designation for the Central Selkirk herd, with some low- and mid-elevation forest; but not enough. VWS included some extra areas in its park proposal, which the federal government later designated "Critical Matrix": habitat used by caribou on their yearly migrations. But the federal government has been vague on whether Matrix should be logged. BC insists it can be logged and does not yet recognize the federal plan. Our field work indicates that logging of matrix habitat is occur-

ring at many places in the Central Selkirk and Columbia Forest Districts.

BCTS, owned by government, holds the tenure on many of these areas and the government could protect them at the stroke of a pen, but instead BCTS began logging in our park proposal two years ago. In March Director Craig Pettitt reviewed BCTS' 2018 logging plans, and discovered 14 proposed cutblocks on federal Critical Matrix caribou habitat, of which ten are in the habitat of the Central Selkirk herd.

In spring Pettitt discovered caribou tracks next to several of the planned cutblocks on the east side of Trout Lake. They are currently being clearcut under the direction of BCTS, within

¾ km of the provincially designated Ungulate Winter Range. This area had been clearcut before, and was already 25 years along in habitat recovery. Now it has been set back to zero.

A proposed "new" BC recovery plan attempts to minimize the use of low-elevation forest by this herd, which of course justifies logging it. Wolves are made out to be the primary cause of the decline to justify a wolf slaughter in the C. Selkirk herd area. Yet it's logging that brings the wolves. The whole point of federal Critical Matrix habitat was to keep it unlogged in order to help keep wolves and other large predators from having ease of access to caribou core areas.



This photo shows the remains of an old growth forest identified as Critical Matrix caribou habitat on west side of Trout Lake. [Photo: Craig Pettitt]

FILM TOUR BRINGS FLOOD OF PUBLIC SUPPORT

This year, Director Craig Pettitt and biologist Amber Peters brought Damien Gillis' film *Primeval: Enter the Incomapleux* to audiences around BC. The film was released online this spring, allowing viewers worldwide to experience the jewel of Valhalla's Selkirk Mountain Caribou Park proposal and its 1,800 year old trees on the big screen. The online film release was promoted with radio interviews, newspaper press releases, and posters distributed around southern BC. So far, the film has been viewed 45,000 times online and has helped generate over 40,000 petition signatures.

At each screening, Pettitt opens with a presentation on VWS's research in the inland rainforest region, and the whole Selkirk park proposal, which is also critical for grizzly

bears as well as mountain caribou. The presentation has shocked viewers previously unaware of the mismanagement of wildlife taking place in BC.

Notable venues this year included Smithers, the Festival of BC Film in Maple Ridge, the World Community Film Festival in Kelowna, UBC Okanagan, and the Oyama Traditional School to present the cause to 150 students. The children were moved by the film, and were left with an eye-opening message of the need for stewardship and advocacy for British Columbia's wildlife. A passionate supporter, Theresa Hart, also hosted a screening in Nelson, BC. Over 100 people attended.

INLAND RAINFOREST DISCOVERY LEADS TO NEW PARK PROPOSAL

Finding an Ecological Rarity: A Hidden Unroaded Interior Rainforest Valley

In 2017 Dr. Toby Spribille used satellite imagery analysis to search for intact old-growth inland rainforests in the West Kootenay and Columbia regions. Satellite imagery showed a mosaic of diverse ecosystems blended together, including many wetlands interspersed between tracts of rare inland temperate rainforest. Spribille mapped key locations in hopes to access and survey them on the ground.

The study led VWS to a pristine rainforest valley, not far from the Incomappleux, where no signs of recent human activity or records of previous scientific study had been found. Upon initial reconnaissance in October 2017, Toby, graduate student Gulnara Tagirdzhanova, and VWS biologist Amber Peters discovered a vast and ancient world of primeval cedar trees and rare lichen species. After just one visit, they knew this hidden gem of wilderness was worth fighting for. The extraordinary intactness of the valley with its abundance of rainforest attributes warranted further research, so over the winter of 2017/2018, VWS planned an expedition to uncover the mystery of this rare and ancient ecosystem before revealing its significance in a new park proposal.

Preparation and Support for the Project

This year, with the generous funding from Patagonia, the McLean Foundation, and other donors, the first ever ecological inventories of the newly discovered temperate rainforest valley and an adjacent smaller valley, were undertaken. With the assistance of Valhalla director Craig Pettitt, biologist Amber Peters, and Ph.D. candidate Antoine Simon, biologists Toby Spribille, Curtis Björk, Wayne McCrory, and Tyson Ehlers embarked on multiple adventures of exploratory reconnaissance, species identification, and habitat assessment during the summer and fall of 2018. Photographer Douglas Noble and two experienced backcountry helpers, Josh Henschell and Rob Martin, were able to assist with some of the inventories.

Exploratory Research & First-Ever Species Surveys

On the ground, the team confirmed an ecosystem mosaic shaped by numerous natural disturbances including wildfires, huge rockfalls, debris torrents and avalanches, creating a stunning diversity of habitat types.

Traversing the jungle-like terrain proved more challenging than expected, with high creek water levels, boulder slides and dense avalanche chutes slowing the team in their relentless treks to the areas of species richness. Because of the rugged terrain, the initial exploration team travelled only about three kilometers into the valley.

Regardless, the researchers were thrilled with their initial findings, noting a lichen-productive alder swamp and an extensive marsh unlike any other ecological community recorded in this region or on the CDC ecosystems data base.

Biologist Wayne McCrory notes this mixture of habitat types as very valuable to some species, especially sensitive amphibians that spend part of their lifecycle in wetland habitats before migrating to forested habitats.

The initial trip in June yielded hundreds of photos documenting the significance and beauty of the valley, as well as an impressive list of rare and threatened lichen species, with some exciting finds that have only a few known occurrences in the Interior Wetbelt. The team also explored a smaller adjacent valley that Dr. Spribille deemed worthy of study due to its intact forest contiguous with the main valley. This intact valley marks the boundary before a vast stretch of clearcut logging that has utterly destroyed the surrounding region, making it a good candidate for inclusion in a new park proposal.

Making it over the mountainside, they were pleased to find a stunning ancient forest with a soft moss and fern understory, and a creek that channelled extensively into slow trickling streams – an ecological assembly entirely unique to the neighboring valley. In addition to gargantuan cedars over 3 meters in diameter, the researchers found a unique forest type called an “elfin” forest. This stretch of forest, dominated by very old Western Hemlock, has remained dwarf-sized due to unfavorable growing conditions. The most extensive tract of elfin forest was also the site of a federally listed threatened lichen species, *Lobaria retigera*.

Though only scratching the surface of the newly discovered wilderness, Spribille and Björk have already found extraordinary biodiversity likened to the ancient forests of the Incomappleux and Robson Valleys.



Top: An aerial view of a portion of the expansive valley. Bottom: Biologists Amber Peters, Curtis Björk, and Toby Spribille preparing to enter the valley. [Photos: Douglas Noble]

INLAND RAINFOREST DISCOVERY LEADS TO NEW PARK PROPOSAL

Lichen diversity is an indicator of true inland temperate rainforest. Unlike the drier old-growth cedar-hemlock forests in this region, hundreds of species of rainforest-indicating lichens, including some rare and new to science, are expected to be found in this newly discovered wilderness. This exceptional biodiversity matches that of the Incomappleux and Robson Valleys and the Quesnel Lake rainforest – the three most intact inland rainforest sites found to date. Each of these myriad species contributes different ecosystem functions including nitrogen fixation. Though little is known about the value of the biochemical contribution these lichens make to the ecosystem as a whole, it is known that many animals rely on lichens as a food source.

Spribille and Björk have provided an extensive preliminary inventory of plant and lichen species in the newly explored rainforest valleys, noting an abnormal abundance of *Sphaerophorus* lichens that thrive in consistently wet and drought-tolerant ecosystems. Protecting these resilient and biodiverse ecosystems will prove to be more important as climate change and resource mismanagement opens the landscape to further drying and loss of species.

On just a single trip into each valley, Björk identified a total of 368 species, including 49 species of mosses, 101 species of lichens and 183 species of plants. Four blue- and one red-listed species of mostly lichens were identified, while Spribille is still working through the results of his lichen inventory, which will require more time to identify.

In July-two intrepid wilderness explorers, Douglas Noblet and Josh Henschell from Search and Rescue, set out on a mission to photo-document the further reaches of the valley's old-growth, while Craig Pettitt and Amber Peters set up trail cameras on high-use game trails. Noblet and Henschell bushwhacked through a dense elderberry avalanche chute to make their way deeper in the valley. They eventually came upon a gorgeous waterfall supplying glacial-blue waters to a tributary of the main creek channel, and returned with photos of giant cedars, 10-foot tall devils club, and a forest of cottonwood trees which are known to harbour high levels of biodiversity.

Though rugged terrain has prevented a thorough wildlife survey, biologist Wayne McCrory completed a pre-

liminary survey this year, making note of many valuable bear and ungulate foods and excavated cedar dens of black bears and smaller wildlife. Trail camera footage has shown moose, black bears, a marten or fisher, as well as footage of what appeared to be a wildcat in the valley. VWS has documented pikas, a western toad and a Pacific chorus frog as well as signs of elk and grizzly bears, suggesting that further analysis would lead to greater findings in this expansive wilderness where wildlife has sought refuge from the nearby flooded Columbia reservoir and massive clearcut valleys elsewhere.

After leaving the valley, McCrory alerted mycologist Tyson Ehlers to the abundance of macrofungi he observed during his survey. In October Ehlers rushed to record the incomprehensible diversity of fungi, documenting 120 species in only one day, including some rare and old-growth dependent species.

In the final excursion of the season, low creek levels allowed Spribille and PhD candidate Antoine Simon to travel along exposed gravel bars to a previously unexplored tract of old growth. Here they discovered large colonies of a rare old-growth dependent lichen species - a significant finding that is telling of the biodiversity importance of this ecosystem.



[Photo: Douglas Noblet]

Plans for the Future

VWS is now in the process of drafting up the boundaries of a new park proposal document to be released in the new year. Next year goals are set to complete VWS's ecological surveys, but the inventories and photo documentation so far are strong evidence that this wilderness is a high priority for protection, along with the very few other Inland Temperate Rainforest biodiversity hotspots. VWS will be revealing its name, and will eventually present government with a portfolio of three proposals to protect high biodiversity old-growth Inland Temperate Rainforest, including the Quesnel Lake Wilderness and Selkirk Mountain Caribou Park proposals.

With logging trucks plowing through nearby valleys, Valhalla fears this precious remnant wilderness could be lost without anyone knowing what true value it holds. After 16 years of searching for intact, low elevation, ancient inland rainforests, the Incomappleux was still the one lone survivor, left over from a world that was lost forever. This newly discovered rainforest valley has brought hope that a legacy of the quickly-disappearing Inland Temperate Rainforest may be left for the health of our planet and for future generations.

VWS CONTINUES WITH WESTERN TOAD RESEARCH AND CONSERVATION

Amphibians are declining all over the world, adding to concern about the growing loss of small species that support the food webs of whole ecosystems. The Western Toad has disappeared from much of its range in the US; it is listed as a Species of Concern by COSEWIC and under Canada's Species at Risk Act, due to population declines and extirpations in the southern part of its range in BC. The major causes are believed to be habitat loss, especially through logging, roads, and the destruction of wetlands, as well as highway mortality, agricultural pollution and disease.

Despite the declines in some parts of BC, the West Kootenays still has a provincially significant population of Western Toads. Summit Lake, Fish-Bear Lakes and Beaver Lake have now become important focal areas for research and conservation efforts, and VWS is making an important contribution.

Toads, which mostly live on land, have three annual migrations: adults migrate on warm, spring nights to their natal lake to breed and then, after breeding, undergo a second migration back to surrounding mountain habitats. In late summer hundreds of thousands of baby toads (toadlets) metamorphose to land from their water-based tadpole world and then migrate to the mountains for hibernation. Unlike their parents, toadlets migrate during the day and in these early abundant stages provide a rich food resource for all kinds of other critters including fish, birds, snakes, and frogs.

Fish-Bear Lakes: Record Number of Toadlets Used the Safe Highway Crossing but Logging and Planned Development on Private Land Poses a New Threat.

In 2018 VWS continued Year 4 of their 5-year flagship Western Toad highway mortality mitigation study at Fish-Bear Lakes. We continued to map the hotspots where adult toads cross the main highway during the breeding season, with many killed by traffic. This is helping us to identify where toad tunnels can be installed under the highway, with directional fencing; work which we plan to commence next year.

Toad researcher Cindy Walker coordinated the many volunteers who are part of our VWS "toad ambassador" program. Between 2015-2018, volunteers and researchers helped 1600 adult toads across the highway at night. Senior project

biologist Marcy Mahr organized a short documentary, *Toad Angels*, that featured the work of the volunteers (<http://www.vws.org/projects/working-to-serve-endangered-western-toads-in-west-kootenay>). In September, Marcy also presented our research results at a provincial herpetological workshop in Kamloops.

In 2018, our newly designed and more permanent diversion fence through the Fish Lake rest area saved tens of thousands of migrating toadlets from trying to cross the highway and being killed by high levels of tourism traffic. The toadlets migrate after summer rains, and during the first wave it was estimated that 18,000 toadlets migrated along the new fence in one day. The fence was left up until the middle of October, as there is also a steady "trickle" migration of toadlets that hatch late.

We estimate upwards of 1,000 people stopped at Fish Lake to read our interpretive sign and information brochure and be able to observe first-hand the baby toads migrating eastward along the new fence that was made out of green plastic pipe. Numerous visitors expressed overwhelming support for the project.



Toad researcher Cindy Walker at work with the new permanent toadlet migration fence through the Fish Lake rest stop.



Baby toads following their inner compasses as they migrate eastward to the safe crossing toadlet bridge under the highway.

VWS field staff also work closely with adjacent landowners and the managers of the Kaslo-Sandon Rail-Trail through the Fish-Bear Lake mountain pass. In 2016 we attempted to purchase through our sister organization, the Valhalla Foundation, the 90-acres of private land that adjoins the north side of Fish Lake, since the majority of adult toadlets migrate through the property and many appear to live on the land. Unfortunately the original owners wanted too high a price and this year the land was purchased and logged by (continued on pg 7)

VWS CONTINUES WITH WESTERN TOAD RESEARCH AND CONSERVATION

a private developer with plans for a campground. This will complicate our efforts next year to have several toad tunnel crossings built. We will attempt to work with the new owner.

Many thanks to our many volunteers for helping so many toads safely across the highway. Our funding supporters are also thanked including Columbia Basin Trust, Kootenay Lake Local Conservation Fund, Regional District of Central Kootenay Area "D", Yellowstone to Yukon Conservation Initiative, Ann and Gordon Getty Foundation, Craighead Institute and others. This project was carried out in 2018 with the indispensable work of photographer Isaac Carter and dedicated toad researchers Marcy Mahr, Cindy Walker, Claire de la Salle and Wayne McCrory.

VWS Proposed Summit Lake Toad Park Threatened by a New Provincially Approved ATV Trail.

Clearcut logging and the approval of a provincially designated ATV trail through core terrestrial habitats of the provincially significant Western Toad population at Summit Lake, on top of a \$3/4 million dollar toad research and toad tunnel infrastructure project, is a prime example of the pitfalls of the transfer of the former Ministries of Environment and Parks mandate to the Ministry of Forests and Natural Resources Operations & Rural Development (MFLNRORD). This was done by the former provincial government but is continuing full bore under the new one at great expense to the needs of society to fully protect species at risk. Instead we now have the pro-logging MFLNRORD in charge of protecting species at risk.

As we noted in last year's newsletter, for a number of years, conservationists, biologists, and local residents have attempted to expand the Summit Lake Provincial Park and Section 16 Goal 2 park reserve to protect core terrestrial habitat of the Western Toad. This would mean full protection of an area 2 km around Summit Lake where it is estimated the majority of toads live out their life cycles. A smaller park expansion proposal by the government has been on the books for a long time and the boundaries were drawn before the major toad study at Summit Lake that allowed VWS to propose a larger toad park.

In 2017, as a result of a public outcry over MFLNRORD-approved logging by the Nakusp and Area Community Forest (NACFOR), the Ministry implemented a two-year study moratorium in a 500m zone around Summit Lake, but still allowed logging within the moratorium area. MFLNRORD's 2017 Toad Management Strategy document for Summit Lake is basically a plan for logging. There is no mention of expanding the provincial park even though BC's first toad park would only amount to 649 ha of NACFOR's cutting area, and this could easily be made up by the province from elsewhere in the huge Arrow Timber Supply Area.

Now MFLNRORD has also approved through its sub agency Recreation Sites and Trails BC (RSTBC) a designated multi-use ATV Summit-Lake trail

route through the proposed Summit Lake park expansion area. According to herpetologist Jakob Dulisse, there was no consultation with the Summit Lake Toad Project research team. This August-October volunteers photo-documented thousands of toadlets migrating across a four km section of this road-trail designated by RSTBC for ATVs. Another part of the ATV route has already been built at the Summit Lake ski hill even though government biologists at the



Metamorphosing black tadpoles in water lining the shore along with pre-migration toadlets staging on the beach at Fish Lake rest stop. The toadlets are waiting for a summer rain storm to dampen the ground so they can migrate. They are very sensitive and breathe through their skin. Toad life stages, including winter hibernation, are a miracle of evolution.

time did not approve. Although seasonal closures for ATVs at Summit Lake are part of the overall RSTBC plan, there is virtually no compliance and enforcement to ensure this will work. At Slocan Lake, this same RSTBC-approved ATV route poses a serious threat where it crosses a steep, unstable hillside just above the Valhalla Foundation's recently purchased Snk'mip Marsh Sanctuary. All of this government-approved clearcut logging and approved ATV route was done without any environmental impact studies.

With foresters in charge of MFLNRORD given executive powers over resource management in BC it is small wonder that our list of endangered species keeps growing. There are no signs that the new BC government is willing to reinstate the executive responsibilities of the Ministry of Environment and Parks.

ADIOS CHARLIE: A TRIBUTE TO CHARLIE RUSSELL - A GREAT FRIEND OF THE BEARS

Noted naturalist, author and champion of bear conservation Charlie Russell passed away in May 2018 at age 76 from complications from a previous injury from one of the crashes of his Ultralight that Charlie used for much of his bear conservation work. VWS Director Wayne McCrory paid high tribute to Charlie and his bear conservation work at the memorial held in September at the family ranch near Waterton. This included the long conservation association between the Russell family and the Valhalla Society that has spanned decades.

In the early days of the Society's efforts to save the Valhalla Range as a park, Charlie's dad Andy Russell, a famous filmmaker and author of *Grizzly Country*, introduced Colleen McCrory and the Valhalla slide show in Calgary. VWS was also helpful at a hard, personal time in Charlie's life by providing a transition from him managing a cattle ranch in Alberta to coastal bear conservation by hiring him to help guide our grizzly bear conservation tours to save the Khutzeymateen Valley on the BC north coast. During this time, VWS also got Charlie involved in their spirit bear campaign on the central coast where he joined Jeff and Sue Turner in making the landmark BBC documentary on spirit bears. Charlie, a gifted photographer/writer like his dad, then wrote a popular book on spirit bears and made many public presentations that, with the BBC film, contributed greatly to VWS's spirit bear campaign and the province eventually setting aside large protected areas for the spirit bear.

It was while working on the spirit bear film that Charlie built an ultra-lite plane in the living room of the family ranch house that could land on water or in a field, and this helped with much of his bear photography and conservation work. His surviving numerous hair-raising crashes and complex landings contributed to his notoriety. He was truly a survivor including him and his son barely escaping a predaceous-type black bear attack on their ranch. Charlie's enthusiasm for a closer understanding on how we can better coexist with bears eventually took him to live seasonally for 11 years on a bear reserve in Kamchatka Russia. He bought orphan cubs from zoos, raised them as their parent, eventually releasing them in the wilds; this led to two more books and being featured in several major film documentaries for which he became acclaimed.

Charlie also spoke out for decades against the BC and Alberta grizzly bear trophy hunts. Although we did not always agree with Charlie's close "touching" relationship with a young Khutzeymateen grizzly called "Lucy" and a spirit bear in our VWS coastal campaigns, we nonetheless honour and celebrate a life well lived on its own terms. Char-

lie bequeathed for the conservation of grizzly bears the land he owned in the foothills as part of the Waterton Biosphere Reserve that he, Dr. Stephen Herrero and others helped found. The bear world will be poorer without Charlie's gentle and passionate voice. As a colleague recently said: "when you think of Charlie, look up high in the sky at night towards *Ursus Major*".



[Photo: Maureen Enns]

CHILCOTIN WILD HORSE AND WOLF RESEARCH: HORSES IMPOR- TANT PART OF WOLVES DIET, CAT- TLE AND MOOSE NOT.

In 2018 VWS completed collection of wild horse hair from horse trails and bedding areas across the Chilcotin. The hair will be used for VWS's final DNA and genome study to be completed in 2019 that may show the horses survived since the last Ice Age. Stay tuned. Since 2012 VWS has supported Sadie Parr's wolf diet study and Rancher education program in the Nemiah Valley and adjacent Eagle Lake Henry Cayuse wild horse reserve. Both areas have free-ranging horses and some domestic cattle. Wolves are shot, trapped, and snared indiscriminately by both indigenous and non-native residents in both study areas, partly due to claims of predation on moose and cows. Sadie's recently completed study found moose and cattle formed a small part of the wolves diet but horses formed an important component, especially wild horses on the horse preserve. For more information visit <https://www.wolfawareness.org/publications>

Renowned bear scientist and great VWS supporter Dr. Stephen Herrero wins Distinguished Service Award

Dr. Stephen Herrero, well-known Author of *Bear Attacks: Their Causes and Avoidance* has won the prestigious Distinguished Service Award from the International Association of Bear Research and Management (IBA), an organization he helped form. This award acknowledges scientists who have made outstanding contributions to the IBA's mission to promote science-based conservation of the world's eight bear species. Steve is best acclaimed world-wide for his bear attack book and his published research on the causative factors involving injurious and non-injurious bear-human encounters. He and his graduate students also developed a method to assess and reduce the risk of bear encounters at trails and campgrounds that have now been applied to many of our provincial and national parks. Steve's



Dr. Herrero on the first scientific bear expedition to save the Khutzeymateen Valley in 1987 [Photo: Wayne McCrory].

applied research in bear risk management has contributed to saving numerous lives and “making parks safer for people and better for bears”. A long-time Valhalla Society member and supporter, Steve, along with VWS biologist Wayne McCrory and provincial biologist Ralph Archibald, was part of the first scientific expedition into the Khutzeymateen Valley in 1987 that identified its high grizzly bear conservation values. We all felt we had discovered a true “bear heaven”. Steve then put together a slide show advocating for its protection which launched the eight-year campaign that eventually saw the Khutzeymateen becoming Canada's first grizzly bear sanctuary. Steve was also one of the VWS scientific advisors for the successful spirit bear campaign. Congratulations Steve and thanks from all of us at VWS!

A Budding Year of Devotion to a Lifelong Conservation Legacy

by Amber Peters

Growing up on the coast, I was haunted by the ghostly atmosphere of the remnant ecosystems surrounding me. I watched forests disappear until I had just a few old cedars to play in. Not knowing exactly what I longed for, I set out on a journey seeking refuge from the effects of industrialization on my soul.



When I found the Kootenays it was like returning home to a time before the devastation occurred. I was completely enthralled with the colorful diversity of fungi, the wild mountains, and the natural hot springs. I needed to stay, and to touch deeply its essence. I could have furthered my education, but what good is this education when our knowledge is being bulldozed and clearcut? When we learn what causes the caribou decline, then continue on business as usual? When contemplating the reasons for this extinction crisis while destroying a soccer field of old growth every hour is just a waste of human energy? No, I didn't need more education; I needed to get my hands dirty.

Boy did I underestimate just how dirty my hands were about to get. When I met Anne and Craig at a screening of

Primeval, I knew I had found my people. They had already put in decades of legwork that I thought I would have to navigate on my own. Here it was. The fire was lit. All I had to do was run with the torch.

One evening, I camped near a valley of true untouched wilderness, preparing to enter for research in the morning. I sat alone in the full moon light, and

the cry of wolves echoed by surrounding highway noise cut deeply in my psyche. I felt their pain of being cornered by human encroachment, and I realized that nothing matters but this; protecting that which remains.

That night by the fire I remembered the day a lone grey wolf appeared to Craig and I. We looked at each other for a brief moment before it disappeared, and I felt I had been given a great gift. I felt that way when dipping in the glacial-cold creek and making tea from thimbleberry leaves, when making the old growth moss my bed, and finding shelter from a thunderstorm under the giant canopy of ancient cedars. I found that Mother Nature provides everything I need, and that I simply must learn to work with the gifts she has given me.

PLEASE HELP US SAVE OLD-GROWTH FORESTS

“Maintaining and, where possible, restoring the integrity of dwindling intact forests is an urgent priority for current global efforts to halt the ongoing biodiversity crisis, slow rapid climate change and achieve sustainability goals”— 28 scientists, (Watson, et al, 2018).

In 2018 the World Wildlife Fund reported that 60% of animal populations have been wiped out since 1970. BC is in danger of losing large, iconic wildlife species such as mountain caribou and orcas; but scientists also warn that the biggest impact will be from the loss of small species such as insects, fish, amphibian, snails, lichens and microscopic organisms, which are the foundation of whole food webs. These losses threaten the collapse of ecosystems.

Standing against these recognitions is a political system addicted to, and solely fixated on, the continual expansion of industries that ransack natural resources. This system increasingly armours itself against scientific evidence of the harm it is doing, often by climate change denial or misleading claims.

Take, for instance, the claim that wood products, when used in long-lasting construction such as homes, are good carbon storage that benefits the climate. Based on this claim, the BC wood products industry, under the slogan “Tackle Climate Change — Build with Wood”, has been marketing internationally the use of BC wood to build high-rise buildings, even skyscrapers. This has the support of both BC and Canadian governments, and has fueled growth in the forest industry, with even universities acquiring wood high-rises to embellish their “green” image.

Unfortunately, the carbon accounting for this claim has been pronounced as “overestimated by at least an order of

magnitude” in a new research report from the University of Oregon (Law, et al, 2018). The researchers found that the most immediate and effective way to manage forests to moderate climate change is first to increase protection, and secondly to dramatically reduce the rate of logging.

The 40 scientists cited on our front page went to press because they believed the role of forests was receiving too little attention. They said **“The world’s forests contain more carbon than exploitable oil, gas, and coal deposits, hence avoiding forest carbon emissions is just as urgent as halting fossil fuel use.”**

The cost of inaction? A report by 13 federal US agencies has just projected that climate disasters could wipe 10% off the US economy by the end of the century, including \$141 billion from heat-related deaths, \$118 billion from sea-level rise, and \$32 billion from infrastructure damage.

Forest protection for carbon storage would also protect wildlife habitats and biodiversity. The world-famous biodiversity scientist, Edward O. Wilson, has started the Half-Earth Project, advocating full protection of one-half of the planet, and urging biologists to get “boots on the ground” to determine the highest biodiversity ecosystems for protection.

VWS has had boots on the ground for over 40 years, determining the highest biodiversity forests on the coast and in the Inland Temperate Rainforest. VWS’s campaign to protect the Selkirk Mountain Caribou Park Proposal is at its peak, with screenings of the video, *Primeval: Enter the Incomapleux*, being in numerous communities around the province. You can see the video at <http://www.vws.org> and add your letters to the flood of public support.



Craig Pettit

Duncan River old-growth in the Selkirk Mountain Caribou Park Proposal: In the mysterious harmonies of nature, what is crucial for the survival of species is also thrilling to the human spirit.

Scientists around the world are pushing like never before to break down the locked door of climate change denial. Your voices, your protests against the endangerment of lives and species, can help push, and also help VWS’s campaign for parks to protect old-growth forest. In the end, what we truly love, we defend. And when we join whatever contributions we can make — whether donations, or letters, or volunteering, or attending rallies — we magnify the power we have as individuals by many times. VWS recommends asking for a dramatic increase in the full protection of old-growth Inland Temperate Rainforest. Key addresses:

The Hon. Doug Donaldson / Minister of Forests, Lands, Natural Resource Operations & Rural Development / PO Box 9049 Stn Prov Govt / Victoria, BC V8W 9E2 / Fax: 250 387-1040 / E-mail: FLNRORD.Minister@gov.bc.ca.

The Hon. George Heyman / Minister of Environment and Climate Change Strategy / PO Box 9047 Stn Prov Govt / Victoria, BC V8W 9E2 / Fax: 250 387-1356 / E-mail: ENV.Minister@gov.bc.ca

**Thank you for your support over the years,
your donations are what keep us going!**