

### Newsletter fall 2020

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#### The B.C. Government's Promises to Protect **Old-Growth Forests Disrespect Our Elders**

JOHN VAILLANT AND HARLEY RUSTAD - CONTRIBUTED TO THE GLOBE AND MAIL SEPT. 26, 2020 - MELISSA RENWICK/THE GLOBE AND MAIL

ohn Vaillant is the author of The Golden Spruce and The Jaguar's Children. Harley Rustad is a journalist and author of Big Lonely Doug.

When settlers first arrived in what is now British Columbia, they sincerely believed the forest primeval went on forever. We know now that it doesn't. Look out the window on any commercial flight between Victoria and Fort St. John and you'll see a motheaten patchwork of heavily logged forest, veined with roads and scarred by landslides stretching from the Pacific coast deep into the Interior.

On Sept. 11, the B.C. government released an independent report on the state and management of the province's old-growth forests. Optimistically titled A New Future for Old Forests, with hopeful language such as "paradigm shift" and "actions needed now to prevent irreversible loss," the report appears to herald a turn toward conservation before profit, ecosystems before industry, and Indigenous stewardship.

The government laid out some big numbers to go with these lofty goals: the logging of approximately 350,000 hectares of forest in nine zones will be "deferred," but only for two years. It kicks the can down the road.

As usual, the devil is in the details: Of that amount, less than half is actually old growth, and experts say the vast majority of these deferred areas weren't threatened to begin with. These are just two of several tactics used by government and industry to obfuscate the

issue. Another is lumping high-value, highbiodiversity valley bottom forests - where the biggest, oldest, most valuable trees are found – together with bog and subalpine forests that may qualify as "old growth," but are valueless to the timber industry.

These shell games are played on purpose, and they have worked to the industry's advantage for decades.

Numbers matter, and so do clear, honest definitions. The B.C. government proudly claims that 13.2 million hectares of old-growth forest exists across the province, and boasts that half is off-limits to logging, in parks or other protected areas. But ministry math is a dark art: The shifty baseline they are using represents the amount of old growth that currently remains, not the vast amount that has already fallen to axe and saw, never to return.

According to government data, 140,000 hectares - nearly 200,000 soccer fields - of old-growth forest is felled across B.C. every year. And yet, by the province's calculations, the more old growth that is cut, the greater the "protected" percentage will become, until it equals 100 per cent – because that will be all that's left.

The reality on the ground is bleak – for our ecosystem as well as for the industry. Of the 13.2 million hectares of all kinds of old forest, a separate independent report from April determined that more than 97 per cent of the big, iconic trees we commonly picture when

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#### **EDITORIAL**

ere we are in the seventh month of the covid-19 pause. There have been many tales of hardship, making-do and assisting others. The pandemic forced us to postpone the 2020 AGM, not send paper copies of the spring newsletter and conduct board of director's meetings by Zoom. Add in some smoke, an election or two, protest marches and the Stanley-cup playoffs in the fall and you have a year, which by all measures, has been a truly bizarre one.

However, the OSPS has continued to be busy. We are currently engaged in a campaign to get the word out about some horrendous logging activities on Brent Mountain, supporting the Nature Conservancy of Canada to obtain a couple of parcels of biologically important land in the south Okanagan and in the later stages of rebuilding our website. Directors have been out on investigative trips to sites proposed for our involvement by members and on-line research of at risk and endangered species of flora, fauna and insects in our region.

Of course, all of these activities have been undertaken with the assistance of social distancing and colourful mask protocols. Let's hope that the rest of the fall sees us all in good physical and mental health that allows us all to continue to make the preservation of our ecologically value-laden lands and habitats a priority. We must remember that even while

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#### EDITORIAL continued...

we work at correcting the curves of both the covid-19 infections and economic crisis, the global warming crisis, and all that that entails, is continuing.

Which brings us to the point of this editorial. Everything is connected. There is a large amount of disgruntlement about the devastation of old-growth forest around B.C. Hopefully it is a subject that will be addressed in the provincial election discussion and, if there is one, during the federal one too. But, be that as it may, the old-growth harvest is upon us because much of the other, easier to cut down, timber has been taken. And, wouldn't you know it, the replanted growth cycles ensure by the timber merchants is

longer than was predicted. Oh, and it was often the wrong trees that were planted so that there are no real forests or the forests that did regrow are so non-diverse that that they have become sick, weak and unprofitable. This type of forest is most susceptible to wildfire and windstorms.

In the meantime, the animals and plants that used these forests as habitat have been harassed, hunted and had their reproductive cycles affected so that they are also under siege. More roads bring in more people and ATVs. Does caribou, Big Horn sheep or any one of more than a half-dozen species come to mind. Soon there will be only one non-diverse, one-species-fits-all habitat for the province, or at least the southern interior.

Hydrological evidence tells us that when snow falls on wooded land it takes longer to melt than when it falls on cleared land. The streams and creeks that result from the gradual melt provide habitat for all sorts of creatures. Fast flowing, muddy run-off coming from cleared land does not do this. Instead it tends to come off the mountains all at one time and fills to over-full the lakes. If these lakes, like Okanagan, are not manually adjusted they flood the surrounding shores, and at this point people in communities like Grand Forks lose homes. If there is a human adjustment it can affect the migrating fish stock and the program s that support them. It is all connected. Please join with us to make our stand for more protected areas and the actual preservation of the ones that have been promised.

#### OLD-GROWTH FORESTS continued...

we think of "old growth" have been felled. And if we're talking about the most productive forests, the best of the best, a minuscule 35,000 hectares remain.

It's not just the old growth that's disappearing: Over the past decade, six forestry jobs have been lost in the province every single day. Investment in a transition plan has been called for since the 1980s, and is needed now more than ever – not just to save the last vestiges of intact primeval forest, but to save the jobs.

There are, in fact, two threatened ecosystems here. Both need saving, but to do it, we must move beyond the old battle lines and tired language: Cutting old growth saves jobs! Saving trees will kill the industry! This is a false dichotomy. The industry knows it and our government knows it. Let's be clear: There is no shortage of wood or trees in B.C. There is enough second- and third-growth forest to sustain a disciplined industry for generations.

What's become painfully apparent over the past decade is this is about more than disappearing sawmills, or disappearing caribou habitat. Human beings – our own neighbours – are being driven from their homes by fire and floods in ever-increasing numbers. Intact, biologically diverse forests resist and recover

from these increasingly destructive forces better than clear-cuts and monocrop forest blocks do. Biologists know that age and diversity breed resilience. And we know it, too: Old folks aren't just tough, they are necessary to our survival.

It's worth asking ourselves: In what other industry would we allow 97 per cent of the oldest and best to be taken? For that matter, in what other society would this be allowed? This isn't a gold mine, after all; this is an ecosystem.



The sheep of the Okanagan Similkameen hold a special place in OSPS lore. About 50 years ago one of the first actions of the society was to organize and lobby for a Vasaux Lake protected range for the resident Big Horn Sheep of. This led to today's park.

We've seen where that approach got us with the Atlantic cod. It's happening right now with the Pacific salmon, and it has already happened with original coastal Douglas fir. We have laws protecting particularly large and old fish; we have laws preserving heritage buildings; many First Nations communities in B.C. have closed entirely to protect their elders from COVID-19.

For millennia, the abundance and diversity of coastal and inland forests have fed, clothed, housed and nurtured us. What

remains of these elder forests represents an irreplaceable source of historical knowledge and biological complexity that cannot be measured in dollars, jobs or hectares. Most British Columbians understand that the time for mincing words and playing with numbers is long past. We don't need another false deferment; we need a law from the next B.C. government to protect the fragile remnants of our irreplaceable forest heritage.

Call it the Elders Act.

#### Regenerating dry interior Douglasfir forests proves challenging

special investigation of reforestation in dry interior Douglas-fir (IDF) forests in the B.C. interior has found current efforts may not be leading to future healthy forests, according to a report released on Thursday, Sept. 17, 2020.

"While we found that industry is following legal requirements and is increasingly planting a variety of tree species to regenerate logged areas and promote resiliency, 44 of the 69 sites examined are facing health issues," said Kevin Kriese, board chair, Forest Practices Board. "These sites may not grow to healthy forests in the long term, and that has implications for future timber supply and other values, such as wildlife habitat.

There were a number of reasons for the poor regeneration success, including an overreliance on clearcutting. In this ecosystem, uneven age forests are common and partial cutting systems should be more widely used to mimic natural disturbances and provide the shade and protection regenerating trees require.

"Climate change introduces additional uncertainties for these sites, such as increased drought, fire and forest-health concerns. Many of these sites will likely shift to grassland as the climate changes, and long-term timber production may not be feasible or realistic in the future on all sites."

The investigation found systemic gaps in knowledge and experience required to successfully manage and reforest these complex sites. While best management practice guidelines are available, forest professionals and forest workers did not always follow them. Government recognizes the challenges of reforestation in the dry IDF and continues to improve reforestation guidance. However, voluntary guidance alone is likely not enough. It needs to be accompanied by clear objectives and legal requirements.

"The board recommends that government reassess the long-term reforestation objectives for these ecosystems, and update objectives and standards based on the likely consequences of climate change," Kriese said. "We also encourage training for forest professionals and workers operating in dry IDF ecosystems."

The IDF covers about 5% of the province, in the central Interior from the Kootenays through the Thompson-Okanagan and north to the Cariboo. These ecosystems are ecologically and climatically complex and require very particular silviculture strategies to ensure successful regeneration.

The investigation included sites logged between 2007 and 2017, in the Cariboo-Chilcotin, Cascades, Thompson Rivers and Okanagan-Shuswap Natural Resource Districts.

The Forest Practices Board is B.C.'s independent watchdog for sound forest and range practices, reporting its findings and recommendations directly to the public and government. The board can investigate and report on current forestry and range issues and make recommendations for improvement to practices and legislation.

#### Letter to Peachland

In response to Joanne's article covering last weeks council meeting I would like first of all, to thank Joanne for her coverage of this very pertinent presentation. I would also like to thank the mayor and those councillors who brought up concerns and questions about the proposed logging in our watersheds. Unfortunately, I was unable to attend that meeting but having sat in on past sessions with the same presenters I have a few comments that might add some perspective to the picture.

Let's first examine the wisdom of logging in a community watershed. For many years our watersheds and many others in the province were fully protected from industrial activity, as is Vancouver's watershed to this day. This protection was arbitrarily removed without appropriate legislation, some three decades ago and communities around B.C. have suffered the consequences ever since.

Certainly, economic factors should be considered, but the health and safety of our forests should be paramount, leaving for future generations what we have enjoyed and benefitted from. Managing a community watershed for forest health and safety makes sense and could provide many long-term jobs. Removing vast tracts of forest land as in clear cut logging, has several potentially disastrous side effects. Even aged stands of forest, like those resulting from clear cut logging, are much more prone to catastrophic forest fires.

By removing forest cover from a watershed, water quality and quantity will inevitably be affected. It is also well known that clear cut areas accumulate forty or more percent of snow than

adjacent forested areas. This snow now melts off at considerably higher rates than from treed areas. In a community watershed this can have serious consequences like flooding and loss of water quality resulting in costs to the citizenry.

Now looking at the bigger picture we are compelled by scientific data to recognize that deforestation's is a prime cause of the release of carbon into the atmosphere thus contributing to climate change. Forests, especially old growth forests, sequester carbon at an astonishing rate as well as regulating our climate. Around the planet, we are removing forests at a devastating and unsustainable rate. The end is in sight. The forest industry and it's governmental enablers know the science of climate change but are unwilling or unable to make the necessary changes. It's up to us, the people of this province, to make the change happen and it starts here in our own watersheds.

Thank you for caring.

Joe Klein Peachland

# BC's ministry of forests is actively creating an alternative reality about the impact its policies and actions have on the climate and biodiversity crises.

BY DAVID BROADLAND

'n response to the climate and biodiversity crises, BC's ministry of forests has fallen into a pattern of denialism. We all know what climate denial is: refusing to accept scientifically verifiable evidence. Denialism goes beyond denial. Denialism is the purposeful construction of an alternative version of reality. The ministry of forests, in cooperation with other members of the forest-industrial complex, is creating an alternative reality about the role forest loss plays in these two crises, and an alternative reality about how they should respond. Why? Likely because acknowledging the evidence about how industrial forestry contributes to both crises—and the ministry's lack of an effective response—would result in the loss of social licence to continue doing what they are doing. That would mean reducing the size of the industry and a subsequent loss of revenue that keeps both the ministry and the industry operating. For them, it's a matter of their own survival.

Let me offer a few examples of this pattern of denialism, large and small:

First. BC taxpayers have subsidized the largely unregulated forest industry to the tune of \$1 million a day for the past ten years. Yet the ministry has purposefully hidden this subsidy by never making public a balance sheet that shows its revenues and expenses.

Second. After years of pressure to conserve the remaining 415,000 hectares of productive old-growth forests to protect biodiversity, the ministry announced in September short-term logging deferrals on 352,739 hectares. When examined closely, though, the deferrals only delayed logging on about 32,500 hectares of productive old growth. The ministry knew it was including mostly ice, rock and low productivity old growth and second growth in its deferrals.

Third. For employment statistics about the forest industry, ministry reports defer to an

out-of-date 2016 Council of Forest Industries analysis instead of statistics derived from income tax returns that have been adjusted for the most recent mill closures and curtailments. In effect, the ministry has credited the industry with jobs that don't exist.

Fourth. Chief Forester Diane Nicholls' advisory "Leadership Council" is composed entirely of forest industry insiders.

Fifth. The forests ministry has made no public assessment of the impact of forest management on climate change or biodiversity loss, or how these are playing out in each of its management units, or how it intends to address these issues in a way that would make a substantial difference. The provincial GHG inventory for 2018 shows that forest management contributed 237 megatonnes of CO2-equivalent emissions (emissions from all other sources in BC were 68 megatonnes). BC has 1807 species of plants and animals at risk of extinction.

The ministry's responses to both the climate and biodiversity crises have been shaped by the primary need of an economically marginal industry: to cut down publicly-owned forest at a rate as high as the market can bear, at the lowest cost. That includes using mechanized clearcut logging throughout the province, almost exclusively, and exporting raw logs. Any evidence that's presented that the ministry's policies and practices are making the climate and biodiversity crises worse is met with stony silence, straight-up denial, or fictions about the rosy-green future of mass timber construction and bioenergy.

Below, I explore in detail a single streak of this pattern of denialism.

In a recent story, "Forestry isn't sustainable, folks," I noted that between 2010 and 2019, the forest industry has been logging BC's publicly owned forests at an unsustainable rate. The ministry of forests' own timber supply reviews for 28 Interior timber supply areas determined that the sustainable cut

level is about 12 million cubic metres per year lower than the current allowable annual cut (AAC). I acknowledged that one of the main factors in this imbalance was the loss of stands of Lodgepole Pine to the Mountain Pine Beetle.

The story included the concerns of foresters Anthony Britneff and Martin Watts, who have provided detailed analyses which argue that the determinations of allowable annual cut and mid-term cut by BC's chief forester are deeply flawed and skewed towards overestimating the future availability of wood from forests.

One critical response to this story stood out. Atmo Prasad, who identified himself in a comment on this website as the "former manager for the analysis section of the Forest Analysis & Inventory Branch of the Ministry of Forests," dismissed the highly detailed concerns of Britneff and Watts. He provided no argument or evidence to support his position. He simply asserted, "I am confident that the AAC set for each is sustainable."

In response to my observation of the substantial difference between the current aggregate AAC for timber supply areas and the aggregate of their mid-term cut levels—which Prasad appears to be in part responsible for estimating—he said, "The higher short-term harvest level found in most Interior TSAs is usually composed of wood killed by the mountain pine beetle or by the recent fires. The timber supply in these TSAs is expected to decline to the sustainable level after the salvage of dead timber is over. Construing the current AAC which includes dead wood as unsustainable is just pain [sic] wrong."

I have fact-checked Prasad's contention that the "higher short-term harvest level" in Interior TSAs is "usually" the result of salvage of beetle- or fire-killed wood. Let me give you one example where, on the surface, what Prasad claims is correct. Then I'll show you four examples where Prasad's claim is disproven by the ministry of forests' own data. I

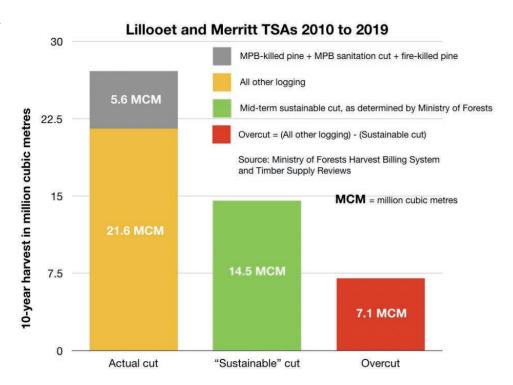
will provide some real-life consequences of timber supply analysts overestimating how much logging can occur. These examples also illustrate the pattern of denialism that appears to be the ministry of forests' default operational setting.

Focus used the ministry of forests' Harvest Billing System to determine the total cut over a 10-year period in 12 of the Interior's 28 timber supply areas. Using that publicly accessible system, we also determined how much dead lodgepole pine was salvaged and how much live lodgepole pine was removed in "sanitation" logging. What's sanitation logging? It's a euphemism for a program to preemptively log healthy lodgepole pine that could be attacked by the Mountain Pine Beetle. The data we downloaded also included fire-killed lodgepole pine. The data allowed us to determine the total volume logged over 10 years, and it provides a good estimate of how much of that was beetle- or fire-killed, and how much was sanitation logging.

Keep in mind, however, the concerns Britneff and Watts have expressed about the the midterm cut level, the volume of logs that can be extracted from the forest on a sustained basis. They have noted that the models used by Prasad's office to predict future growth and yield in BC forests provide inaccurate, overly-optimistic and unreliable estimates. Moreover, the models do not account for climate change. Britneff told Focus, "scientists within the forests ministry have reported and published that our Interior managed forests will most likely experience increased tree mortality, reduced growth and reduced utilization as a result of an increase in forest health issues due to climate change."

So while it can be shown, on paper, that in certain timber supply areas the rate of cut of live, healthy trees over the past ten years has not been above the theoretical rate of mid-term sustainability, there's good reason to doubt the validity of that theoretical level.

The reader may also want to keep in mind that when we use the term "sustainable cut," we are not talking about ecological sustainability. We are using the only metric considered by the ministry of forests—volume of logs cut per year—to determine whether logging can theoretically continue at a certain rate



into the future.

Immediately to the east of the Kamloops TSA is the Okanagan TSA. The diagram below summarizes 10 years of harvesting.

The Okanagan TSA's record swerves even further away from Prasad's account, and the volume of the overcut is 5.4 million cubic metres. That's roughly equivalent to cutting 15,500 hectares beyond what BC timber supply analysts have assessed is theoretically sustainable. Our analysis showed that salvaging of beetle- and fire-killed lodgepole pine, along with pre-emptive logging of live lodgepole pine, amounted to 6 percent of the total cut. The volume of live, healthy lodgepole pine that was pre-emptively logged so that it couldn't be killed by beetles was twice the volume of beetle-killed lodgepole pine.

South of the Kamloops and Okanagan TSAs are the Merritt and Lillooet TSAs, the data for which we grouped together in the diagram below. Again, this summarizes 10 years of harvesting.

In the Lillooet and Merritt timber supply areas, Prasad's assertion again fails. The combined cut of live trees in those two TSAs—and this excludes sanitation logging of live lodgepole pine—reached 150 percent of the mid-term sustainable cut level, resulting in over 20,000 hectares of additional clearcuts

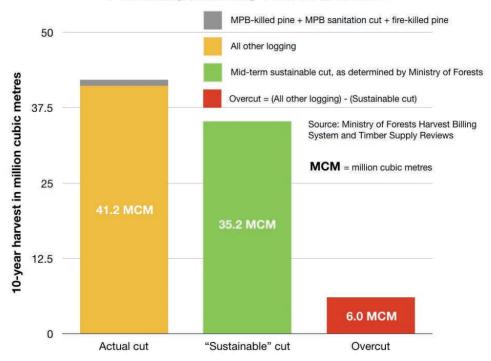
beyond what BC's timber supply analysts deemed was sustainable.

The excessive, unsustainable logging that took place in the Okanagan, Merritt and Lillooet timber supply areas has consequences. If a specific logging practice is problematic, the more logging that employs that practice, the greater the problem that's created. And in mid-September the Forest Practices Board released a special investigation report about one of those specific problems: reforestation. The investigation focussed on plantations in the Kamloops, Okanagan, Merritt and Lillooet TSAs, as well as the Cariboo-Chilcotin Natural Resource District.

The report was politely—but firmly—damning. The board's investigation into the health of plantation regrowth on cutblocks in the Interior Douglas-fir biogeoclimatic zone found that "[64] percent of the cutblocks examined were in poor and marginal condition and licensees may not be creating/regenerating resilient stands, which may have negative implications for future timber and non-timber values."

That finding supports a concern expressed by Britneff and Watts, that computer-modelbased predictions of future growth and yield don't necessarily reflect what's actually happening on the ground. Yes, clearcuts are being replanted, but they are then failing to grow at

#### 7 Kootenay-Boundary TSAs 2010 to 2019



the rate used by BC's timber supply analysts in their determinations of how much cut is—theoretically—sustainable.

Amongst other findings, the investigation found "an over-reliance on clearcutting" in the Interior Douglas-fir zone, and noted that clearcutting "is not appropriate for dry-belt-fir stands, as young trees do not regenerate well without the shade and shelter of over-story trees."

The Forest Practices Board also recommended to the ministry that it "re-assess the long-term reforestation objectives for the dry IDF [zone], and update them based on the likely consequences of climate change." As noted in my earlier story, Britneff and Watts, in their detailed critiques of the timber supply review and allowable annual cut determination processes, have observed that BC's current Chief Forester Diane Nicholls has rejected including the likely consequences of climate change as part of her determinations.

Nicholls wrote, in a 2019 timber supply review for the Lakes TSA, "the potential rate and specific characteristics of climate change in different parts of the province are uncertain. This uncertainty means that it is not possible to confidently predict the specific, quantitative impacts on timber supply."

That position, Watts and Britneff say, throws more doubt on the validity of the timber supply analysts' estimates of future growth and yield. Now the Forest Practices Board has echoed their doubts.

Nicholls' statement is another way of saying, "Since I don't know exactly what the impacts of climate change will be on how trees grow in all of BC, I can't make any changes to our practices anywhere." If the chief forester was intent on responding to the challenges that climate change poses for forests, as is needed, she would never have made such a statement. She has constructed an alternative reality in which "uncertainty" is used as an excuse for not acting. But the uncertainty of the situation requires the exercise of the precautionary principle: Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Cast your gaze now on a constellation of seven timber supply areas in the southeast corner of the province, known to the ministry of forests as the Kootenay-Boundary Natural Resource District. The graph below summarizes 10 years of harvesting there.

Note the small fraction (0.9 million cubic

metres) of logging attributable to Mountain Pine Beetle salvage logging, beetle sanitation logging and fire-killed lodgepole pine salvage. Similar to the case in the Okanagan TSA, the volume of live, healthy lodgepole pine that was logged so that beetles couldn't kill it is greater than the volume of beetle- and fire-killed pine. In this region, though, the difference is more extreme. Five times as much live, healthy lodgepole pine was preemptively logged as there was salvage logging of dead lodgepole pine.

The 6.0-million-cubic-metre overcut required clearcutting of over 17,000 hectares of forest. One of the possible consequences of that overcut is highlighted in a class-action legal suit against the BC government and several forest industry corporations filed in mid-July 2020 by residents of Grand Forks.

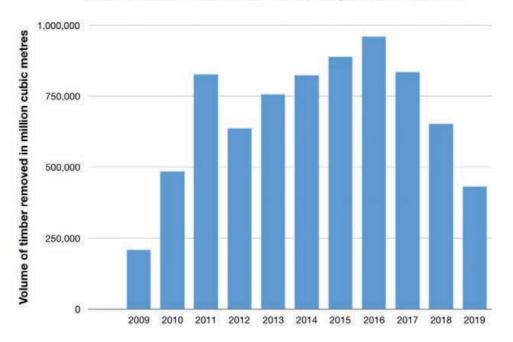
In May 2018, Grand Forks experienced devastating flooding of the Granby and Kettle Rivers. About 3000 homes and businesses had to be evacuated and over 400 homes and dozens of businesses were flooded.

In their statement of claim, the plaintiffs allege that the flooding resulted from excessive runoff caused by logging in the Kettle River watershed, which includes the Granby River. The headwaters of the West Kettle River and the Kettle River are in the Okanagan TSA, mentioned above, where the rate of logging also exceeds the sustainable mid-term rate of cut. The West Kettle, Kettle and Granby flow south through the Boundary TSA.

Specifically, the suit states that the Forest Analyses and Inventory Branch of the ministry of forests overestimated by 20 percent the timber volume in forest stands in the watershed, and this led to an allowable annual cut that was 20 percent too high to be sustainable. The plaintiffs allege that, "This has led to increasing the frequency, duration and magnitude of peak flows. Without sufficient timber regrowth and watershed recovery the result is increased surface runoff, increased sediment transport, increased water quantity and stream channel discharge associated with flooding that caused the major flooding events in the Kettle and Granby river systems resulting in the damages to the Plaintiffs' and Class Members' property."

Focus examined the ministry of forests'

#### Volume of timber removed in Boundary TSA 2009 to 2019



record of harvesting over the last 11 years in Boundary TSA. That record (see below) does show a quick increase in the rate of harvesting in the 10 years leading to the flooding in 2018 (this graph does not include logging in that part of the Okanagan TSA within the Kettle River watershed).

The suit doesn't allege that the ministry of forests failed to consider the likely consequences of climate change, but it could have. Scientists have been reporting for years that a warming planet means rainstorms will drop more water in a given period of time. A search through the Boundary Timber Supply Area's 2011

timber supply review couldn't find a single reference that would suggest the hydrological function of forests—including their ability to keep the forest floor from becoming saturated and their ability to slow down the melting of snow—was given any consideration in determining what level of cut was "sustainable." (Read a comprehensive account of the Grand Forks civil suit by Ben Parfitt here.)

The only certain way to reduce the forest industry's alarming impact on the climate and biodiversity crises is to significantly lower the rate at which the industry is razing publicly owned forests. Yet the working relationship between the ministry of forests and the forest industry is based on maintaining the highest rate of cut, even if that cut exceeds what the ministry has determined can be sustained over time. Unless that is replaced with a relationship in which a robust response to the climate and biodiversity crises is the primary objective, the established pattern of denialism in the ministry will continue, ensuring that both crises will worsen.

David Broadland started writing about forests, the logging industry and the ministry of forests in 1989.

## NOTE FROM THE PAST Ramshackle Property Purchased by RDOS for Rec Use

BY PENTICTON WESTERN NEWS September 13, 2012

Taxpayers now own a ramshackle property attached to the southwest corner of Okanagan Falls Provincial Park. The Regional District of Okanagan-Similkameen announced Wednesday it bought the property at 1295 Green Lake Road for \$175,000, well under the 2012 assessed value of \$229,700.

Tom Siddon, the RDOS director for the area, said it was a court-ordered sale triggered by the death of the owner and subsequent disagreements by the owner's heirs. The property has long been in a "terrible state of desecration," he noted, so when the

opportunity to buy presented itself, he recommended the RDOS do it.

"There are some people in (Okanagan Falls) who might say, 'That's private land, we didn't need to get it.' But on the other hand, once you pass up the opportunity you can't get it back except by paying a lot more money."

Siddon said he expects RDOS staff will begin cleaning up the property this fall by removing some of the junk that's strewn about. It would be fitting to then sell or lease the land to BC Parks to increase the size of the campground, Siddon said, "but other ideas came to the table as well, as to what the community's interest might be."

"It certainly one way or another has to be used for recreational use," Siddon continued, adding it could also be a bargaining chip in separate negotiations with B.C. Parks to have Christie Memorial Park at the south end of Skaha Lake placed under

RDOS control.

Dan Ashton, chair of the RDOS board, said the acquisition on Green Lake Road was "a great purchase for us (and) a great purchase for everybody in the province, we hope."

He said the property ought to be tacked on to the campground "to make a bigger and better park for everybody to utilize. It's an absolutely beautiful spot."

The 25-site, two-hectare campground could probably grow by a handful of spaces with the new addition." BC Parks has a very limited budget for land acquisitions and we rely on strong partner-ships with other levels of government and the community to assist in key acquisitions," spokesperson Suntanu Dalal said via email.

"In this case, BC Parks is exploring mechanisms, such as a lease agreement, that would create a strong partnership with the RDOS to manage this land for park purposes."

#### Brent Mountain Memories

AN O.S.P.S. MEMBER REMEMBERS

y introduction to Brent Mountain was in 2013. I had recently moved to the Okanagan and a dear friend was celebrating her 80th birthday. She could think of no better way to spend her special day than to hike Brent Mountain.

Three of us hiked in slowly, on a glorious late July day, savouring each moment. Through the forested areas, and up higher into the subalpine, stopping frequently to enjoy the beautiful wildflowers along the way

It was like being in another world entirely from the dry dustiness of the Okanagan valley, with its muted greens and greys. On Brent Mountain the sky was an intense blue; the heather a bright pink. Patches of emerald green warned us where the boggy patches were, from the last of the melting snow. In places there were orchids, lilies, fireweed, and so many more colours.

Pikas abounded - calling from rocky outcrops to each other. A red-tailed hawk flew overhead, causing the pikas to scuttle away to the safety of their burrows.

We arrived at the lookout and sat and enjoyed the warmth of the sunshine, while appreciating the view of miles and miles of unspoiled wilderness.

Since then I have been back many times to enjoy Brent Mountain. My friend passed on some 4 years after this trip but often talked about it – her last trip up Brent.

I can only hope that the legacy that is Brent Mountain will remain unspoiled for many years to come, and that when our children and grandchildren hike this mountain in the coming decades that it will remain as pristine as it is now.

Marianne Willis





The view of neighbouring mountains from the top of Brent Mountain shows some of the large logging cut blocks that have become characteristic of the region. We need to ensure that this type of activity does not destroy the slopes of Brent as well.



The OSPS and other nature groups in the Okanagan have been accessing Brent mountain for recreation and study for decades. Here in 1995 a group is enjoying a sunny day at the summit.



We all need to smile sometimes.

# Species At Risk in the South Okanagan of BC

# Red Listed Species (In Peril or Extreme Peril)

4. Activation of the control											
Andean evening-primrose Neoholmgrenia andina Annual Paintbrush Castilleja minor var. exilis Behr's Hairstreak Satyrium behrii Blottched Tiger Salamander Ambystoma mavortium Branched Phacelia Ambystoma mavortium Branched Phacelia Ambystoma mavortium Branched Phacelia Phacelia ramosissima var. ramosiss Dark Saltiflat Tiger Beetle Cicindela parowana Desert Nightsnake Hypsiglena chlorophaea Grand Couleo Owl-clover Orthocarpus barbatus Grand Couleo Owl-clover Orthocarpus barbatus Grand Couleo Owl-clover Orthocarpus barbatus Grand Faele Grause Centrocercus urophasianus Half-moon Hairstreak Satyrium semiluna Idaho blue-eyed grass Sisyrinchium idahoense var. occider Monarch Danaus plexippus Parsinje flowered Buckwheat Eriogonum heracleoides var. leucop Prairie Falcon Falcon Ealco mexicanus Pygmy Short-horned Lizard Antrozous pallidus Prairie Falcon Phrynosoma douglasii Slender Collomia Spalding's milk-vetch Astragalus sclerocarpus Viceroy Limenitis archippus Western Centaury Zeltnera exaltata White Western Groundsel Senecio integerrimus var. ochroleu White-tailed Jackrabbit Lepus townsendii Yellow-breasted Chat Icteria virens Ta	#	English Name	Scientific Name	Lifeform	Presence in Area	Biogeoclimatic Units	Staus / Rankings	BC List	Global	COSEWIC	SARA
Andean evening-primose         Neoholmgrenia andina           Annual Paintbrush         Castilleja minor var. exilis           Behr's Hairstreak         Satyrium behrii           Blotched Tiger Salamander         Ambystoma mavortium           Branched Phacelia         Phacelia ramosissima var. ramosiss           Dark Saltilat Tiger Beetle         Cicindela parowana           Grasto Space Grouse         Cicindela parowana           Grasto Space Sparrow         Ammodramus savannarum           Grasto Space Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Monarch         Danaus plexippus           Monarch         Antrozous pallidus           Pallid Bat         Antrozous pallidus           Pallid Bat         Antrozous pallidus           Prairie Falcon         Phymosoma douglasii           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni <th></th> <th></th> <th></th> <th></th> <th>Yes</th> <th></th> <th>Provincial</th> <th></th> <th></th> <th></th> <th></th>					Yes		Provincial				
Annual Paintbrush         Castilleja minor var. exilis           Behr's Hairstreak         Satyrium behrii           Blotched Tiger Salamander         Ambystoma mavortium           Branched Phacelia         Phacelia ramosissima var. ramosiss           Dark Saltilat Tiger Beetle         Cicindela parowana           Desert Nightsnake         Hypsiglena chlorophaea           Grand Coulee Owl-clover         Orthocarpus barbatus           Grasshopper Sparrow         Ammodramus savannarum           Graster Sage-Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyinchium idahoense var. occiden           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Spalding's milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           White Western Groundsel         Senecio integerrimus var. ochroleu	1	Andean evening-primrose	Neoholmgrenia andina	Plant	٨	BGxh	S1 (2019)	Red	G4 (1986)		
Behr's Hairstreak         Satyrium behrii           Blottched Tiger Salamander         Ambystoma mavortium           Branched Phacelia         Phacelia ramosissima var. ramosiss           Dark Salitlat Tiger Beetle         Cicindela parowana           Desert Nightsnake         Hypsiglena chlorophaea           Grand Coulee Owl-clover         Orthocarpus barbatus           Grand Coulee Owl-clover         Orthocarpus barbatus           Grasshopper Sparrow         Ammodramus savannarum           Graster Sage-Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyrinchium idahoense var. occiden           Monarch         Danaus plexippus           Antrozous pallidus         Pallid Bat           Pallid Bat         Antrozous pallidus           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           Viceroy         Limenitis archippus           White Western Gentaury	2	Annual Paintbrush	Castilleja minor var. exilis	Plant	٨	Bgxh, IDFdm	52 (2015)	Red	G5T5 (1995)		
Biotched Tiger Salamander         Ambystoma mavortium           Branched Phacelia         Phacelia ramosissima var. ramosiss           Dark Saltflat Tiger Beetle         Cicindela parowana           Dassert Nightsnake         Hypsiglena chlorophaea           Grand Coulee Owl-clover         Orthocarpus barbatus           Grasshopper Sparrow         Ammodramus savannarum           Grasshopper Sparrow         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluma           Idaho blue-eyed grass         Sisyrinchium idahoense var. occider           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Pallid Bat         Antrozous pallidus           Parsnip-flowered Buckwheat         Eriogonum heracleoides var. leucop           Prairie Falcon         Falco mexicanus           Slender Collomia         Spaldings           Shalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           Western Centaury         Zeltnera exaltata           Viceroy         Limenitis archippus           White -tailed Jackrabbit         Lepus townsendii           Yellow-brieasted Chat         Icteria virens           Yellow-brieasted Chat         Icteria virens  <	3	Behr's Hairstreak	Satyrium behrii	Butterfly	٨	BG, ESSF, IDF, IMA, MS, PP	S1 (2020)	Red	G5 (2016)	E (2012)	1-E (2003)
Branched Phacelia         Phacelia ramosissima var. ramosiss           Dark Saltflat Tiger Beetle         Cicindela parowana           Desert Nightsnake         Hypsiglena chlorophaea           Grand Coulee Owl-clower         Orthocarpus barbatus           Grasshopper Sparrow         Ammodramus savannarum           Grasshopper Sparrow         Ammodramus savannarum           Grasshopper Sparrow         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyinchium idahoense var. occider           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Pallid Bat         Antrozous pallidus           Pallid Bat         Antrozous pallidus           Pallid Bat         Antrozous pallidus           Prairie Falcon         Falco mexicanus           Slender Collomia         Collomia tenella           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus           White-tailed Jackrabbit         Lepus townsendii           Yellow-brieasted Chat         Icteria virens           To	4	Blotched Tiger Salamander	Ambystoma mavortium	Amphibian	٨	ВG, ІСН, ІDF, РР	S2 (2016)	Red	G5 (2015)	E (2012)	1-E (2018)
Dark Saltflat Tiger Beetle         Cicindela parowana           Desert Nightsnake         Hypsiglena chlorophaea           Grand Coulee Owl-clower         Orthocarpus barbatus           Grasshopper Sparrow         Ammodramus savannarum           Graster Sage-Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyrinchium idahoense var. occider           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Parsnip-flowered Buckwheat         Eriogonum heracleoides var. leucop           Prairie Falcon         Falco mexicanus           Spalding 's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           The Dalles milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus var. ochroleu           White-tailed Jackrabbit         Lepus townsendii           Yellow-briedsted Chat         Icteria virens	2	Branched Phacelia	Phacelia ramosissima var. ramosissima	Plant	٨	Bgxh, IDFxh, Ppxh	S2 (2019)	Red	GS?TNR	E (2005)	1-E (2006)
Desert Nightsnake         Hypsiglena chlorophaea           Grand Coulee Owl-clover         Orthocarpus barbatus           Grashopper Sparrow         Ammodramus savannarum           Greater Sage-Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyrinchium idahoense var. occider           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Parsnip-flowered Buckwheat         Eriogonum heracleoides var. leucor           Prairie Falcon         Falco mexicanus           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           The Dalles milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           White Western Groundsel         Senecio integerrimus var. ochroleu           White Vestern Groundsel         Senecio integerrimus           Yellow-breasted Chat         Icteria virens           Yellow-breasted Chat         Icteria virens	9	Dark Saltflat Tiger Beetle	Cicindela parowana	Beetle	Е	BG, IDF, PP	S1 (2015)	Red	G4 (2016)	E (2009)	1-E (2012)
Grand Coulee Owl-clover         Orthocarpus barbatus           Grasshopper Sparrow         Ammodramus savannarum           Greater Sage-Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyrinchium idahoense var. occider           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Parsnip-flowered Buckwheat         Eriogonum heracleoides var. leucop           Prarife Falcon         Falco mexicanus           Spalding's milk-vetch         Phrynosoma douglasii           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           The Dalles milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus var. ochroleu           White-tailed Jackrabbit         Lepus townsendii           Yellow-bried Cuckoo         Coccyzus americanus           Yellow-breasted Chat         Icteria virens	7	Desert Nightsnake	Hypsiglena chlorophaea	Snake	٨	BG, IDF, PP	S2 (2018)	Red	G5 (2016)	E (2011)	1-E (2003)
Grasshopper Sparrow         Ammodramus savannarum           Greater Sage-Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyrinchium idahoense var. occider           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Parsnip-flowered Buckwheat         Eriogonum heracleoides var. leucop           Prarie Falcon         Falco mexicanus           Prairie Falcon         Falco mexicanus           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           The Dalles milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus var. ochroleuc           White Vestern Groundsel         Lepus townsendii           Yellow-breasted Chat         Icteria virens           To         Icteria virens	∞	Grand Coulee Owl-clover	Orthocarpus barbatus	Plant	Y	Bgxh, IDFxh, Ppxh	S2 (2019)	Red	G2G3 (2008)	E (2005)	1-E (2006)
Greater Sage-Grouse         Centrocercus urophasianus           Half-moon Hairstreak         Satyrium semiluna           Idaho blue-eyed grass         Sisyrinchium idahoense var. occider           Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Parsip-flowered Buckwheat         Eriogonum heracleoides var. leucor           Prairie Falcon         Falco mexicanus           Prairie Falcon         Phrynosoma douglasii           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           The Dalles milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus var. ochroleuc           White-tailed Jackrabbit         Lepus townsendii           Yellow-breasted Chat         Icteria virens	6	Grasshopper Sparrow	Ammodramus savannarum	Bird	٨	ВG, СDF, IDF, РР	S1B (2018)	Red	G5 (2016)		
Half-moon Hairstreak       Satyrium semiluna         Idaho blue-eyed grass       Sisyrinchium idahoense var. occider         Monarch       Danaus plexippus         Pallid Bat       Antrozous pallidus         Parsip-flowered Buckwheat       Eriogonum heracleoides var. leucop         Prairie Falcon       Falco mexicanus         Prairie Falcon       Phrynosona douglasii         Slender Collomia       Collomia tenella         Shading's milk-vetch       Astragalus spaldingii         Swainson's Hawk       Buteo swainsoni         The Dalles milk-vetch       Astragalus sclerocarpus         Viceroy       Limenitis archippus         Western Centaury       Zeltnera exaltata         White Western Groundsel       Senecio integerrimus var. ochroleu         White-tailed Jackrabbit       Lepus townsendii         Yellow-breasted Chat       Icteria virens	10	Greater Sage-Grouse	Centrocercus urophasianus	Bird	3	98	SX (2015)	Red	G3G4 (2016)	XT (2008)	1-XT (2003)
Idaho blue-eyed grass   Sisyrinchium idahoense var. occider     Monarch   Danaus plexippus	11	Half-moon Hairstreak	Satyrium semiluna	Butterfly	٨	BG, ESSF, IDF, IMA, MS, PP	S1 (2020)	Red	G4 (2016)	E (2006)	1-E (2007)
Monarch         Danaus plexippus           Pallid Bat         Antrozous pallidus           Parsnip-flowered Buckwheat         Eriogonum heracleoides var. Jeucop           Prairie Falcon         Falco mexicanus           Pygmy Short-horned Lizard         Phrynosoma douglasii           Slender Collomia         Collomia tenella           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           Viceroy         Limenitis archippus           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus var. ochroleuc           White-tailed Jackrabbit         Lepus townsendii           Yellow-breasted Chat         Icteria virens	12	Idaho blue-eyed grass	Sisyrinchium idahoense var. occidentale	Plant	٨		S1S3 (2015)	Red	(2002)		
Pallid Bat         Antrozous pallidus           Parsnip-flowered Buckwheat         Eriogonum heracleoides var. leucop           Prairie Falcon         Falco mexicanus           Pygmy Short-horned Lizard         Phrynosoma douglasii           Slender Collomia         Collomia tenella           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           The Dalles milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus var. ochroleuc           White-tailed Jackrabbit         Lepus townsendii           Yellow-breasted Chat         Icteria virens           Tor         Icteria virens	13	Monarch	Danaus plexippus	Butterfly	Y	BG, CDF, CWH, ESSF, ICH, IDF, MS, PP	S1?B (2020)	Red	G4 (2015)	E (2016)	1-SC (2003)
Parsinip-flowered Buckwheat         Eriogonum heracleoides var. leucog           Prairie Falcon         Falco mexicanus           Pygmy Short-horned Lizard         Phrynosoma douglasii           Slender Collomia         Collomia tenella           Spalding's milk-vetch         Astragalus spaldingii           Swainson's Hawk         Buteo swainsoni           The Dalles milk-vetch         Astragalus sclerocarpus           Viceroy         Limenitis archippus           Western Centaury         Zeltnera exaltata           White Western Groundsel         Senecio integerrimus var. ochroleu           White-tailed Jackrabbit         Lepus townsendii           Yellow-breasted Chat         Icteria virens           To         To	14	Pallid Bat	Antrozous pallidus	Bat	γ	ВG, РР	S2 (2015)	Red	G4 (2016)	T (2010)	1-T (2003)
Prairie Falcon       Falco mexicanus         Pygmy Short-horned Lizard       Phrynosoma douglasii         Slender Collomia       Collomia tenella         Spalding's milk-vetch       Astragalus spaldingii         Swainson's Hawk       Buteo swainsoni         The Dalles milk-vetch       Astragalus sclerocarpus         Viceroy       Limenitis archippus         Western Centaury       Zeltnera exaltata         White Western Groundsel       Senecio integerrimus var. ochroleu         White-tailed Jackrabbit       Lepus townsendii         Yellow-brilled Cuckoo       Coccyzus americanus         Yellow-breasted Chat       Icteria virens	15	Parsnip-flowered Buckwheat	Eriogonum heracleoides var. leucophaeum	Plant	γ	نے	S1S2	Red	(3004)		
Pygmy Short-horned Lizard       Phrynosoma douglasii         Slender Collomia       Collomia tenella         Spalding's milk-vetch       Astragalus spaldingii         Swainson's Hawk       Buteo swainsoni         The Dalles milk-vetch       Astragalus sclerocarpus         Viceroy       Limenitis archippus         Western Centaury       Zeltnera exaltata         White Western Groundsel       Senecio integerrimus var. ochroleuc         White-tailed Jackrabbit       Lepus townsendii         Yellow-bried Cuckoo       Coccyzus americanus         Yellow-breasted Chat       Icteria virens         To	16	Prairie Falcon	Falco mexicanus	Bird	γ	BG, BWBS, CDF, CWH, ESSF, ICH, IDF, MS, PP, SBS	S1 (2018)	Red	G5 (2016)	NAR (1996)	
Stender Collomia       Collomia tenella         Spalding's milk-vetch       Astragalus spaldingii         Swainson's Hawk       Buteo swainsoni         The Dalles milk-vetch       Astragalus sclerocarpus         Viceroy       Limenitis archippus         Western Centaury       Zeltnera exaltata         White Western Groundsel       Senecio integerrimus var. ochroleuc         White-tailed Jackrabbit       Lepus townsendii         Yellow-bried Cuckoo       Coccyzus americanus         Yellow-breasted Chat       Icteria virens	17	Pygmy Short-horned Lizard	Phrynosoma douglasii	Amphibian	Е		SX (2018)	Red	G5 (2005)	XT (2018)	1-XX (2003)
Spalding's milk-vetch       Astragalus spaldingii         Swainson's Hawk       Buteo swainsoni         The Dalles milk-vetch       Astragalus sclerocarpus         Viceroy       Limenitis archippus         Western Centaury       Zeltnera exaltata         White Western Groundsel       Senecio integerrimus var. ochroleuc         White-tailed Jackrabbit       Lepus townsendii         Yellow-brilled Cuckoo       Coccyzus americanus         Yellow-breasted Chat       Icteria virens	18	Slender Collomia	Collomia tenella	Plant	٨	IDFdk, IDFxh	5152 (2019)	Red	G4? (1987)	E (2003)	1-E (2005)
Swainson's Hawk     Buteo swainsoni       The Dalles milk-vetch     Astragalus sclerocarpus       Viceroy     Limenitis archippus       Western Centaury     Zeltnera exaltata       White Western Groundsel     Senecio integerrimus var. ochroleuc       White-tailed Jackrabbit     Lepus townsendii       Yellow-brilled Cuckoo     Coccyzus americanus       Yellow-breasted Chat     Icteria virens       To	19	Spalding's milk-vetch	Astragalus spaldingii	Plant	Y	BGxh	S1 (2019)	Red	G3G4 (2003)		
The Dalles milk-vetch     Astragalus sclerocarpus       Viceroy     Limenitis archippus       Western Centaury     Zeltnera exaltata       White Western Groundsel     Senecio integerrimus var. ochroleuc       White-tailed Jackrabbit     Lepus townsendii       Yellow-brilled Cuckoo     Coccyzus americanus       Yellow-breasted Chat     Icteria virens       To     To	20	Swainson's Hawk	Buteo swainsoni	Bird	ş	BG, BWBS, CDF, ICH, IDF, MS, PP, SBS	S2B (2015)	Red	G5 (2016)	* insuffic	* insufficient data
Viceroy     Limenitis archippus       Western Centaury     Zeltnera exaltata       White Western Groundsel     Senecio integerrimus var. ochroleuc       White-tailed Jackrabbit     Lepus townsendii       Yellow-billed Cuckoo     Coccyzus americanus       Yellow-breasted Chat     Icteria virens       Total Total Coccycle     Total Virens	21	The Dalles milk-vetch	Astragalus sclerocarpus	Plant	γ	BGxh	S2 (2019)	Red	G5 (2016)		
Western Centaury     Zeltnera exaltata       White Western Groundsel     Senecio integerrimus var. ochroleuc       White-tailed Jackrabbit     Lepus townsendii       Yellow-billed Cuckoo     Coccyzus americanus       Yellow-breasted Chat     Icteria virens       Total Allow Service	22	Viceroy	Limenitis archippus	Butterfly	E	BG, ESSF ,ICH, IDF, MS, PP	SX (2020)	Red	G5 (2016)		
White-Western Groundsel Senecio integerrimus var. ochroleuc White-tailed Jackrabbit Lepus townsendii Yellow-billed Cuckoo Coccyzus americanus Yellow-breasted Chat Icteria virens	23	Western Centaury	Zeltnera exaltata	Plant	٨	BGxh	5152 (2019)	Red	G5 (1983)		
White-tailed Jackrabbit Lepus townsendii Yellow-brilled Cuckoo Coccyzus americanus Yellow-breasted Chat Icteria virens To	24	White Western Groundsel	Senecio integerrimus var. ochroleucus	Plant	E	IDFxh	SH (2018)	Red	(2002)		
Yellow-breasted Chat Cocyzus americanus Yellow-breasted Chat Icteria virens To	25	White-tailed Jackrabbit	Lepus townsendii	Mammal	γ	BG, ESSF, ICH, IDF, IMA, MS, PP	SX (2015)	Red	G5 (2016)		
Yellow-breasted Chat Icteria virens To	26	Yellow-billed Cuckoo	Coccyzus americanus	Bird	E	ВG, СDF, СWH, ІСН, РР	SXB (2015)	Red	G5 (2016)		
Total Counts         E = 6         Y = 19         ? = 2*   Search Criteria:	27	Yellow-breasted Chat	Icteria virens	Bird	?	BG, CDF, CWH, ICH, IDF, PP, SBS	S2B (2018)	Red	G5 (2016)	* insuffic	* insufficient data
Search Criteria:			Total Counts >>	E = 6	Y = 19	.5 = 2*					
					Search Crite	iria:					

Animals OR Plants OR Ecosystem Realm-Groups: Flood Group (F) OR Forest OR Grassland Group (G) OR Hydrogenic Group (H) OR Rock Group (R) OR Subalpine Shrub Group (S) OR Mineral Wetland Group OR Peatland Group OR Estuarine Realm OR Alpine Group (A) OR Beach Group (B)AND BC Conservation Status: Red (Extirpated, Endangered, or Threatened) AND 'Ecosections': Southern Okanagan Basin sort Order: Species Code Ascendin

Citation: B.C. Conservation Data Centre, 2020. BC Species and Ecosystems Explorer. B.C. Minist. of Environ. Victoria, B.C. Available: http://a100.gov.bc.ca/pub/eswp/ (accessed Jul 29,

<sup>3.</sup> This list applies to the very southern end of the Okanagan Valley and is further focused on the triangle formed by Osoyoos in the southeast, Highway 3 over Richter Pass in the north and south to the US border bounded by 2. The data contained in the Results Export in BCSEE are provided under the Open Government License - BC

Key to "Presence in Area" column: (indicates if species might exist within the triangular area bounded by the US border to the south and Highway 3 from Osoyoos to the east and Nighthawk to the west.

BC Red-listed species results for the South Okanagan have been parsed to select for presence in the triangle bounded by the US border in the south AND Highway 3 from Osoyoos to the east and Nighthawk to the west = Yes, N = No, E = No longer exists in BC but used to exist in this area, ? = Not enough information to determine if it could exist in the area

The "Presence in Area" column is populated based upon information researched by Don Guild to 2020-08-06 from: BC Species & Ecosystem Explorer (BC Conservation Data Center), E-Flora E-fauna Acronyms: COSEWIC = Committee on the Status of Endangered Wildlife in Canada, SARA = Species at Risk Act public registry of species Naturalist (Canada), NatureServe Explorer (US), plus numerous Provincial / State species websites and general Jauna / flora websites.

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#### **Campaign for Brent Mountain**

s you are no doubt aware, the OSPS has been monitoring activity on Brent Mountain for decades. In fact, during the Okanagan Shuswap Land Resource Management Planning meetings conducted on one weekend per month in Penticton, Kelowna and Salmon Arm beginning in the fall of 1996 (September) and continuing through to the spring of 2001, Brent Mountain was an important part of the discussion. In the LRMP document, signed during the last meeting on April 11, 2001, it was mutually agreed that a portion of the mountain's high-altitude area would be set aside as a protected zone. Throughout the discussions and the follow-up planning meetings, that ensued for four and a half more years, the intention was to ensure that the ecological resources and values of the area would be preserved in as pristine a state as was possible from that time forward.

Of course, the OSPS also continued to track activity on other parts of Brent Mountain. We have been closely observing the logging activity (largely coming from the western side until recently). The logging has been largely done in clear-cut blocks. One of our reliable observers estimates that many of the clear cuts are 100 hectares, or more, in size. Often large slash piles containing still viable logs and ripped up soil are all that have remained when these clear-cut blocks are abandoned.

A few years back the road cutting and clear cutting was ramped up resulting in large swaths of Brent Mountain being denuded of vegetation and scarred with roads and machine tracks. The logging activities have proceeded to other parts of the mountain and multiple loads of logs are being trucked out each day. (There is a bit of a lol right now but as soon as the ground is frozen we expect the attack to be resumed.) The concern of the OSPS is that soon there will be little value left for the protected area, let alone the mountain.

The OSPS are ready to intervene. Initially, you can assist by forwarding photos and reminiscences of trips that you may have taken up Brent Mountain, to be used in a public relations and education campaign. We have received some materials already. Your history will be combined with maps, areal footage, research and other evidence to make the point that this mountain needs to be valued and maintained. Time is of the essence. Please forward your pictures (with captions if possible) and

short stories to bremmer@mtkobau.bc.ca . Your help will be very valuable and important.



The flora of Brent Mountain does not consist of any one species. Here in a photo from 25 years ago we can see the spring wildflowers in a meadow on the way to the summit.



Taken from the summit of Brent Mountain this photo provides a good view of the forests and meadows of the mountain's slope. Notice the clear cut on the mountain sides opposite to it.