



Photo by NCC

COMPLETING THE PUZZLE: NEXT CREEK WATERSHED

Conserving the Next Creek watershed will safeguard the natural integrity of over 1,100 km² of one of the world's only Inland Temperate Rainforests.

British Columbia's South Selkirk Mountains are a place of significant ecological richness and diversity, where wildlife and natural systems flourish.

Here, grizzly bear, caribou and wolverine have room to roam. Streams born from alpine lakes course through Inland Temperate Rainforest as they race down to meet the deep waters of Kootenay Lake. Fish and amphibians thrive in these waterways, which also supply clean, fresh water for local communities.

A network of public and private conservation lands aims to connect and protect the natural abundance and productive ecosystems found in this mountainous region. Yet in the centre of this network is a privately managed forestry property that poses great risk to the integrity of the overall area if left unprotected.

Next Creek is a 19,500-acre (7,900-hectare) property that extends from Kootenay Lake into the centre of Darkwoods. It is the last, missing piece in a vast conservation landscape puzzle that extends over 1,100 km².

The threat of intensified industrial or recreational activity hanging over this land, makes the conservation of the Next Creek watershed our highest priority in BC.

With your help, Next Creek can remain a wild refuge for the many plants and animals that depend on the ecological health of this mountain range. There won't be a second chance.



Why now?

After a decade of dialogue and negotiation, NCC has secured an exclusive arrangement to purchase the Next Creek property. If we are not successful in raising the necessary funds to make this purchase, these valuable timber lands will go on the public market.

Recently, timber companies have purchased significant private holdings in the Kootenays and pose a serious and immediate threat to any private forested lands coming onto the market. Purchase by a forestry or recreation interest would likely lead to intensified logging or high-impact recreation on these lands, which would compromise the integrity of the entire Darkwoods Conservation Area. These activities would undermine habitats that support at-risk species including caribou, grizzly bear, mountain goat, bull trout, westslope cutthroat trout and whitebark pine, making this property a high priority for conservation.

We have one chance to purchase Next Creek and change the course of its future. NCC has a conditional contract to purchase the property, but we need funding partners to enable the success of this project.

Global significance

This project is of international significance and is a rare opportunity for conservation-minded investors to contribute to direct landscape-level change. Governments, conservation organizations and local communities on both sides of the Canada-U.S. border have invested in safeguarding the ecological integrity of this broad landscape. Next Creek is key to that integrity.

Given the critical state of the trans-boundary South Selkirk herd of mountain caribou, protecting the old-growth forests on Next Creek is vital to the collaborative, international, multi-agency effort to rebuild the caribou population here.

Conserving the Next Creek watershed offers a chance to reverse decades of habitat loss by enacting a substantial restoration plan for heavily logged portions on the property. By extending existing restoration programs currently underway on Darkwoods into these adjacent lands, the net benefit for wildlife and rare plants will be significantly enhanced.

AT A GLANCE

Location: West Kootenay, BC

Nearest town: Creston

Size: 19,500 acres (7,900 hectares)

Habitats: hydro-riparian ecosystems, dry interior cedar-hemlock forest, old-growth inland temperate rainforest

Key species: grizzly bear, wolverine, bull trout, mountain caribou

Threats: unsustainable forestry practices; high-impact recreation

Connectivity: adjacent to a network of provincial and private conservation lands

Core habitat: situated in the heart of essential winter habitat for the endangered South Selkirk mountain caribou herd and within the core range of a threatened population of grizzly bear

Project cost: \$20 million (\$1,026/acre)

KEY SPECIES

These mountains are home to an abundance of rare and iconic Canadian wildlife. They rely on healthy forests, rivers and lakes to survive. So do we.



GRIZZLY BEAR

Ursus arctos

Grizzlies, once seen, are never forgotten. Weighing as much as 800 pounds and standing up to 8 feet tall, the grizzly is a towering symbol of the Canadian wilderness. While technically a carnivore, a grizzly bear gets the majority of its nutrition from plants, especially huckleberries (see page 12). These animals travel widely over the landscape, with home ranges as large as 1,800 km² for males.



WOLVERINE

Gulo gulo

Wolverine are the largest members of the weasel family, though are sometimes known as "skunk-bears." These reclusive, ferocious carnivores travel over vast distances, covering up to 40 km a day while hunting. Wolverine are rarely seen and hard to study, preferring remote areas, far away from humans and their developments.



CARIBOU

Rangifer tarandus, population 1

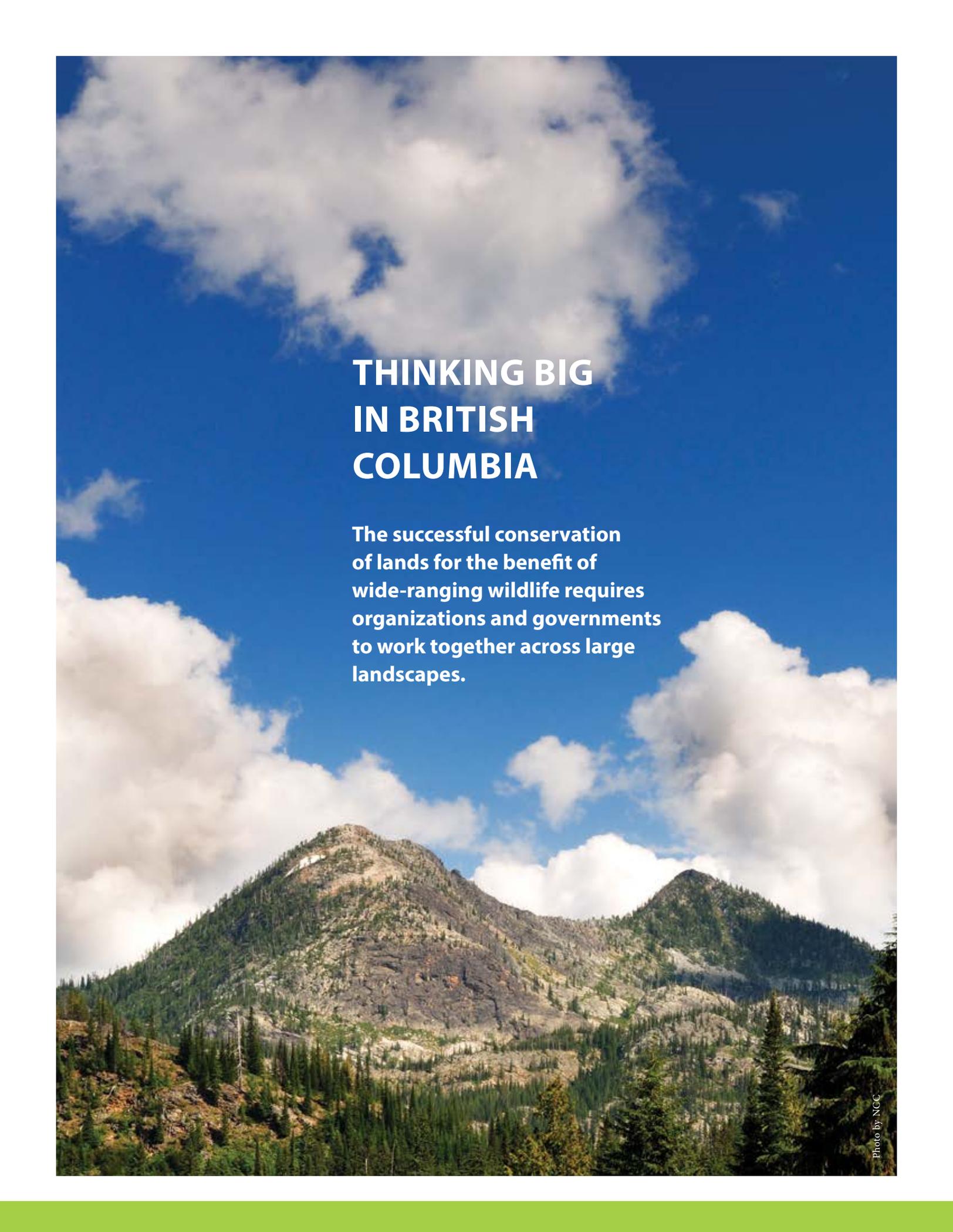
Mountain caribou are distinct from other caribou because of their dependence on high-elevation old growth forests for providing the lichen they survive on in winter. The decline in mountain caribou populations mirrors the decline in the equally rare Inland Temperate Rainforest that they depend on. Darkwoods is the heart of the South Selkirks Mountain Caribou herd's range and offers hope for the eventual recovery of this unique animal.



WESTERN SCREECH-OWL

Megascops kennicottii macfarlanei

A short series of high hoots accelerating through the night like a bouncing ball announces the presence of a western screech-owl. These small, stocky owls nest in tree cavities and, when courting, mating pairs sing duets. The *macfarlanei* subspecies is found in the valleys of BC's southern interior, including on Darkwoods.



THINKING BIG IN BRITISH COLUMBIA

**The successful conservation
of lands for the benefit of
wide-ranging wildlife requires
organizations and governments
to work together across large
landscapes.**

NCC's work in the South Selkirks is anchored by the 136,000-acre (55,000-hectare) Darkwoods Conservation Area, which is a key component in a network of parks, wildlife management areas and conservation lands that encompasses over 1,100 km².

To the southeast of Darkwoods lies NCC's Frog Bear Conservation Corridor and the internationally significant Creston Valley Wildlife Management Area. To the north, Darkwoods is bounded by West Arm Provincial Park, Midge Creek Wildlife Management Area and Provincial Park. This amalgamation of public and private conservation lands provides key habitat for species at risk.

Large, connected conservation-managed landscapes support ecosystem-level resiliency in the face of a changing climate. By encompassing a matrix of habitats – from valley-bottom wetlands to mid-elevation forests to alpine meadows – landscape-scale conservation is essential for supporting a wide range of plants and

animals as they face climate-mediated impacts such as drought and fire.

The snow-capped mountains of Darkwoods and Next Creek feed 17 watersheds and more than 140 alpine lakes. These lands conserve and enhance fish habitat in the Kootenay River system by protecting nine miles of shoreline habitat on Kootenay Lake and multiple spawning streams, including areas used by the federally listed at-risk bull trout.

These mountains are home to 39 confirmed species at risk, and scientists expect to identify more as we continue our research. Of particular concern is the herd of endangered southern mountain caribou, which is critically dependent on Darkwoods for its winter range.

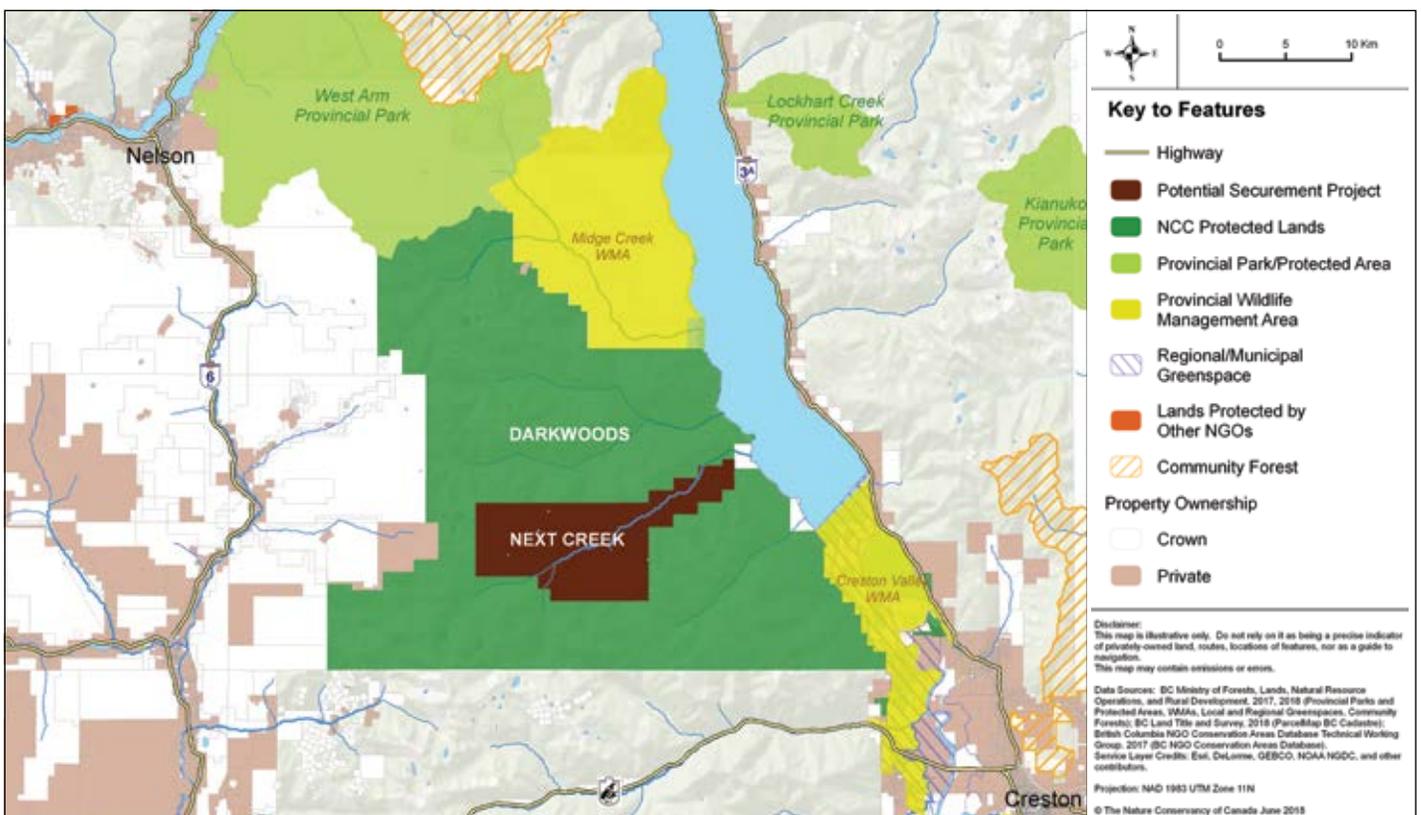
A CONSERVATION OUTCOME

You can help secure a conservation future for Next Creek and for a significant portion of the South Selkirk Mountains.

Our success with this project will benefit not just the plants and animals that live in these mountains, but also the surrounding human communities that rely on intact ecosystems to provide clean water, clean air and climate resilience.

Expanding Darkwoods by 14% with the protection of the Next Creek watershed will create economic benefits through the restoration and land management activities that will be necessary to nurture the land to full ecological health.

This watershed also promises great potential for scientific research into the species and natural processes that will be able to persist here under conservation management. Already on Darkwoods, researchers have identified over 350 plant species, experimented on new ways to rebuild populations of diminishing species and deepened our understanding of core grizzly bear and wolverine habitat needs.



UNIQUE HABITATS: DARKWOODS AND NEXT CREEK

These lands harbour a wide variety of habitats. Ranging from old-growth forests to alpine tundra, and from tumbling creeks to the deep, cold waters of Kootenay Lake, an abundance of plants and animals live here. The conservation status of Darkwoods and the Next Creek watershed is critical to ensuring their long term viability.

This is a living landscape and NCC is committed to managing these lands in such a way that nature's own processes can proceed unhindered and unfettered.

SNOWFORESTS

With almost 70% of its total area covered in forest, trees define Darkwoods. As part of the globally-rare Inland Temperate Rainforest, Darkwoods and the Next Creek watershed are home to some of the highest tree diversity in the province. Western red cedar, western hemlock, western larch, Douglas-fir, western white pine, Engelmann spruce, trembling aspen and paper birch are just some of the many tree species found here.

Unlike the Coastal Temperate Rainforest 400 km to the west, the Inland Temperate Rainforest derives most of its moisture from snow. These highly productive "snowforests" shelter grizzly bear, wolf, wolverine and deer. They provide essential habitat for endangered mountain caribou.

No other interior temperate zone harbours such an abundance of plants and animals. Yet this globally unique

landscape is under tremendous pressure from unsustainable resource extraction and high-impact recreation.

Adding the Next Creek watershed to the Darkwoods Conservation Area is an unmatched opportunity to protect even more of the vanishing Inland Temperate Rainforest, including priceless stands of old-growth snowforest.

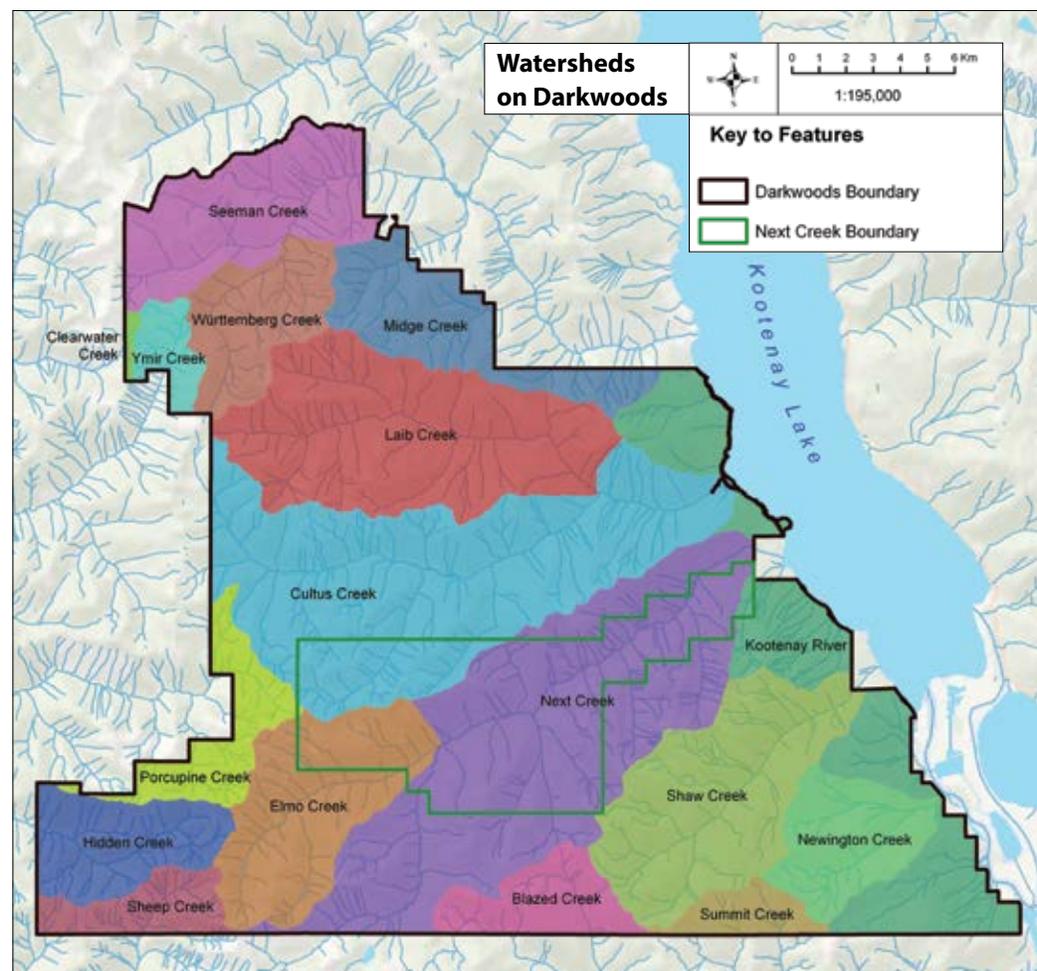
FRESHWATER

Water is the fundamental element to life, and Darkwoods abounds with freshwater. Creeks and streams carve their way through the property's deep valleys. Over 140 lakes, most of them alpine, are found within the Darkwoods boundary. The internationally renowned wetlands of the Creston Valley touch

Darkwood's southern limits, and the cold waters of Kootenay Lake lap at its eastern shores.

Seventeen watersheds wholly or partially flow through Darkwoods. These freshwater systems not only provide sustenance to the forests and animals in the South Selkirks, they also purify the water being used by nearby communities. The Next Creek watershed encompasses a major portion of this landscape, and its health affects the vitality of much of the southern reaches of Darkwoods.

NCC is committed to ensuring that the freshwater resources on Darkwoods and Next Creek are managed so that they provide the greatest benefit for all of the species and communities that depend on them.



Conservation significance of the Nature Conservancy Canada's Darkwoods Conservation Area and local grizzly bear connectivity program

by Michael Proctor, Trans-border Grizzly Bear Project

Grizzly bears are an umbrella species for the Canada-U.S. trans-border area in southeast British Columbia, northern Idaho, northwest Montana and northeast Washington. Individually, they use almost every type of habitat from valley bottom to the alpine and require large home ranges. Populations require large intact ecosystems to persist. Because the populations are fragmented regionally, the region must also act as a functioning meta-population (a population of populations), requiring inter-area movement of animals – connectivity. This multi-scaled paradigm requires a varied array of healthy local habitats, and those habitats must be in good shape throughout the larger region. Maintaining these conditions will benefit many other species and ecosystems.

Grizzly bears are intensely fragmented regionally into several small isolated populations, one of which is in the South Selkirk Mountains, now the southernmost extent of grizzly bear distribution in that area. That population has been threatened in the US and Canada for decades. The Trans-border Grizzly Bear Project (TBGBP) works in cooperation with the U.S. Fish & Wildlife Service to improve the conservation status of grizzly bears over the trans-border region between Missoula, Montana and Revelstoke, BC, researching conservation issues and implementing their solutions. That effort also includes a very successful partnership with the Nature Conservancy of Canada (NCC), an organization that purchases and manages strategic conservation lands for habitat protection and to enhance the region's wildlife connectivity.

In 2008 NCC purchased Darkwoods, a 550 km² conservation property that holds the South Selkirk Mountains' best huckleberry fields – grizzly bears' most important regional food source and that which drives their population productivity. TBGBP research clearly shows that these extensive and protected huckleberry fields contribute to the recovery of this beleaguered population, helping increase their survival, reproduction, and, ultimately, their density and conservation status. Currently NCC is negotiating to purchase the Next Creek property, an entire drainage critically situated in the centre of Darkwoods.

But that is only part of the story. For the South Selkirk grizzly bear population to fully recover it needs to be re-connected (by animal interchange) to adjacent populations – to be a functioning component of the regional meta-population. To help accomplish this, NCC has used connectivity mapping results from the TBGBP to inform their purchase of strategic connectivity conservation lands in the Creston Valley, immediately adjacent to Darkwoods. The Creston Valley is

the best hope for reconnecting the Selkirks to an adjacent healthy grizzly bear population, completing the conservation necessities for that population. Coupled with other connectivity management implemented by the TBGBP, that connectivity is starting to re-establish.

Over the course of 15 years, the region has seen the reversal of what was a declining conservation trend for grizzly bears in the south Selkirk region. These efforts are now becoming a model for science-based conservation action regionally. Human-caused mortality of grizzly bears has declined, their numbers are increasing and inter-population connectivity is re-establishing. NCC has been at the centre of this success story. Their efforts to purchase, and then manage lands for conservation have been, and remain, an integral component of these successes. The cooperation between NCC and research scientists (from the TBGBP) has allowed the use of accurate conservation science to be applied where it will do the most benefit.

The world is struggling with these same issues in ecosystems around the globe; species declines and fragmentation of populations and habitat are almost universal. Large scale connectivity projects are being developed on almost every continent. To date however, science-informed actions, and science-monitored success, are rare. The cooperation between research scientists and NCC in the South Selkirk region has resulted in one of the leading examples of a conservation success story with the recovery and re-establishment of inter-population connectivity. There is still work to be done. As mentioned above, the Next Creek property still needs to be acquired. Other strategic properties regionally still need to be purchased to solidify the long term benefits that we see accruing, but the growing network of this conservation team is still on the job.

DARKWOODS RARE SPECIES LIST

BC Common Name	Scientific Name	BC List	COSEWIC Status	General habitat
American Badger	<i>Taxidea taxus</i>	Red	Endangered	dry openings; lowland
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Red		lakes
Barn Swallow	<i>Hirundo rustica</i>	Blue		open, partly open situations; frequently near water
Blunt-sepaed Starwort	<i>Stellaria obtusa</i>	Blue		meadows; streambanks; montane
Brewer's Monkeyflower	<i>Mimulus breweri</i>	Blue		moist forests; riparian areas
Broad-winged Hawk	<i>Buteo platypterus</i>	Blue		dense broadleaf and mixed forest
Bull Trout	<i>Salvelinus confluentus</i>	Blue		streams
Caribou, Southern Mountain population	<i>Rangifer tarandus pop. 1</i>	Red	Threatened	forest; montane to subalpine
Common Nighthawk	<i>Chordeiles minor</i>		Special Concern	open dry grasslands; hillsides; rocky outcrops
Crested Wood Fern	<i>Dryopteris cristata</i>	Blue		wet swamps; meadows; montane
Dwarf Hesperochiron	<i>Hesperochiron pumilus</i>	Red		meadows; seepage; montane
False-mermaid	<i>Floerkea proserpinacoides</i>	Blue		seepage; montane
Fox Sedge	<i>Carex vulpinoidea</i>	Blue		wetlands; lowland to montane
Giant Helleborine	<i>Epipactis gigantea</i>	Blue	Special Concern	streambanks; wetlands; lowland to montane
Great Blue Heron, <i>herodias</i> subspecies	<i>Ardea herodias herodias</i>	Blue		valley wetlands; riparian forest
Grizzly Bear	<i>Ursus arctos</i>	Blue	Special Concern	all
Kellogg's Knotweed	<i>Polygonum polygaloides ssp. kelloggii</i>	Blue		vernal pools/seasonal seeps
Lace Fern	<i>Cheilanthes gracillima</i>	Blue		rock crevices; lowland to montane
Least Bladdery Milk-vetch	<i>Astragalus microsystemis</i>	Red		grassy slopes; steppe to low montane
Low Groundsmoke	<i>Gayophytum humile</i>	Blue		dry forests
Magnum Mantleslug	<i>Magnipelta mycophaga</i>	Blue	Special Concern	moist forest; sparsely vegetated rock/talus
Montana Lupine	<i>Lupinus arbustus ssp. pseudoparviflorus</i>	Red		moist forests; montane
Mountain Goat	<i>Oreamnos americanus</i>	Blue		alpine; sparsely veg. rock; moist/mesic/dry forest
Mountain Sneezewood	<i>Helenium autumnale var. grandiflorum</i>	Blue		moist streambanks; meadows; lowland to montane
Northern Desert-gold	<i>Linanthus septentrionalis</i>	Blue		meadows; shrublands; sparsely vegetated rock
Nuttall's Waterweed	<i>Elodea nuttallii</i>	Blue		lakes; ponds; streams; lowland to montane

BC Common Name	Scientific Name	BC List	COSEWIC Status	General habitat
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Blue	Special Concern	coniferous forests; shrublands; slide paths; burned forests; wetland edges
One-flower Bleedinghearts	<i>Dicentra uniflora</i>	Blue		alpine; meadow; sparsely vegetated rock
Pale Jumping-slug	<i>Hemphillia camelus</i>	Blue		mesic forest; moist forest
Peregrine Falcon, <i>anatum</i> subspecies	<i>Falco peregrinus anatum</i>	Red	Special Concern	all
Prairie Falcon	<i>Falco mexicanus</i>	Red		all
Prairie Rocket	<i>Erysimum asperum</i>	Red		dry roadsides; rocky areas; montane
Red-tailed Chipmunk, <i>simulans</i> subspecies	<i>Neotamias ruficaudus simulans</i>	Blue		dry forests
Rough-legged Hawk	<i>Buteo lagopus</i>	Blue	Not at Risk	open forests
Rusty Cord-moss	<i>Entosthodon rubiginosus</i>	Red	Special Concern	River banks
Sandberg's Desert-parsley	<i>Lomatium sandbergii</i>	Blue		rocky/sparsely vegetated rock
Scalepod	<i>Idahoia scapigera</i>	Red		seepage to dry; lowland to montane
Spurless Touch-me-not	<i>Impatiens ecalcarata</i>	Blue		moist forest; montane
Sutherland's Larkspur	<i>Delphinium sutherlandii</i>	Blue		dry forest; shrubland; sparsely vegetated rock
Tall Beggarticks	<i>Bidens vulgata</i>	Red		streambanks
Tall Bluebells	<i>Mertensia paniculata</i> var. <i>borealis</i>	Blue		moist sites; montane to subalpine
Three-leaf Bitterroot	<i>Lewisia triphylla</i>	Blue		vernal pools/seasonal seeps
Twelve-spotted Skimmer	<i>Libellula pulchella</i>	Blue		lakes; wetlands
Verticillate-umbel Lovage	<i>Ligusticum verticillatum</i>	Blue		moist areas; montane to subalpine
Western Painted Turtle, Intermountain-Rocky Mountain population	<i>Chrysemys picta</i> pop. 2	Blue	Special Concern	lakes; ponds; streams; lowland to montane
Western Skink	<i>Plestiodon skiltonianus</i>	Blue	Special Concern	dry woodland; grassland; creekbanks; clearings
Western Toad, non-calling population	<i>Anaxyrus boreas</i> pop. 3		Special Concern	wide variety of habitats; desert springs to mountain wetlands
Westslope Cutthroat Trout, Pacific populations	<i>Oncorhynchus clarkii</i> pop. 8	Blue	Special Concern	creeks; streams; rivers; lakes
Whitebark Pine	<i>Pinus albicaulis</i>	Blue	Endangered	high elevation subalpine forests
Wolverine	<i>Gulo gulo</i>	Blue	Special Concern	all



STEWARDSHIP VISION

Acquiring land for conservation is only the first step in securing a conservation future for the plants and animals that rely on it. Your support for Darkwoods and Next Creek will go into so much more than just buying the property. NCC's conservation commitment is to care for the land in perpetuity, intentionally managing the land to enhance the ecological attributes that make it so special.

NCC envisions that five years from now, this project will be recognized around the world as a key component of effective, large landscape conservation through a connected network of private and public conservation lands. The climate resilient landscape will be managed collaboratively by the Province, NCC and other partners to enable natural cycles of fire, carbon and water. Active restoration and management of this large scale conservation network will have enhanced the viability of internationally significant wildlife populations and ecosystems.

Immediate Stewardship Actions: 2019-2024

Goal: *To collaborate with surrounding land owners, particularly the Province of BC, to use scientific models to chart a course for recovery of landscape level systems in the forests and waters of the South Selkirks, and to implement the most urgent actions within the first five years of these plans, with a priority on forest modeling, road deactivation and whitebark pine restoration.*

- Complete a comprehensive forest stand growth computer model and 5 year landscape management plan cooperatively with the Province of BC. The model will “grow” trees and account for natural fire regimes so that managers can identify what areas should be left to grow and which require active management in order to support habitat recovery for caribou, grizzly bears, wolverine and other significant species.
- Complete an ecological baseline for Next Creek, integrated with Darkwoods.
- Work with the Province of BC towards conservation designations that support protection of the Inland Temperate Rainforest on provincial lands in the South Selkirks.
- Rehabilitate 50 km of road and implement access management, primarily to benefit grizzly bear and wolverine.
- Replace three bridges and complete riparian restoration to protect and enhance fish habitat.
- Establish long term water quality monitoring.
- Restore 85 hectares of fire-maintained forests using prescribed mechanical treatments and fire.
- Accelerate old growth characteristics in 440 hectares of forest using ecosystem-based silvicultural practices.

- Restore 50 hectares of whitebark pine habitat through cone collection, planting and mechanical spacing.
- Rehabilitate 800 hectares of forest through climate-adaptive silvicultural techniques.
- Collaborate with researchers and institutions to ensure that the best available science is developed and applied in the South Selkirks.
- Work cooperatively with the Province of BC to manage and mitigate catastrophic forest fire risk.

Long-term Stewardship Actions: 2025-2035

Goal: *To maintain landscape level ecosystem function through research and active management to ensure that all native species are thriving in the South Selkirks.*

- Landscape modeling is updated and a comprehensive assessment of the efficacy of the first generation plan is assessed.
- NCC continues to be an active partner in supporting the Province of BC's assessment of caribou recovery actions in the South Selkirk Mountains.
- NCC continues to implement science-based best management practices to restore and enhance habitats for species at risk in the South Selkirk Mountains.
- Access management, research and monitoring continue in concert with active habitat management where required.



Photo by Steve Ogilvie



Photo by Bates Kirkby

SAVING FOR THE FUTURE

When it comes to conserving Canada's natural habitats, buying land is just the beginning. NCC takes great pride in ensuring that protected properties are monitored and managed so that the conservation values found on our sites

today are maintained or enhanced for the long term.

NCC may direct all or a portion of gifts committed to the Next Creek project to NCC's Stewardship Endowment Fund for British Columbia. Revenue generated by the Stewardship Endowment Fund provides for long-term management on properties across the province, including this Next Creek project.

If a U.S. tax deduction could be more advantageous, NCC works in partnership with a registered U.S. charity, American Friends of the Nature Conservancy of Canada, and we would be pleased to explore options with you.

Securing
Next Creek
will put us over
ONE MILLION
acres in BC!

NATURE CONSERVANCY CANADA

Help us Reach **ONE MILLION Acres** in British Columbia by Earth Day 2020

0, 981, 590

FIND OUT HOW: www.natureconservancy.ca/1millionforbc

CONSERVATION IS IN OUR NATURE.