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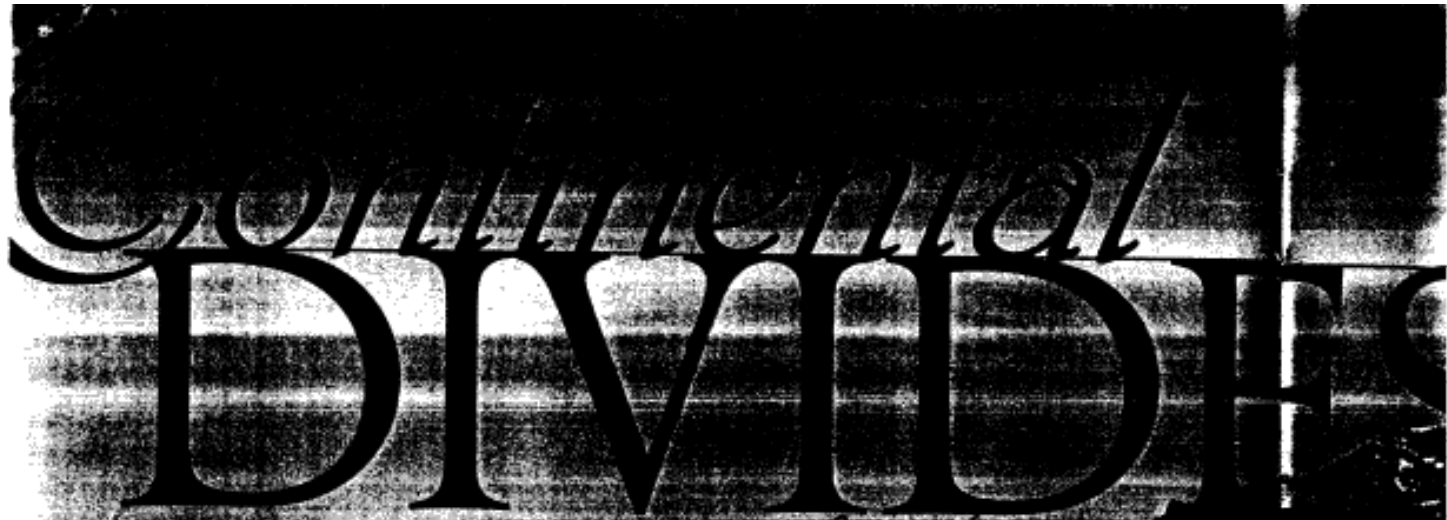
The Nature Conservancy
International Headquarters
4245 North Fairfax Drive

Suite 100

Arlington, VA

22203-1606

www.tnc.org/koa



Continental DIVIDES

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The wall of mountains rises jagged and brooding above the high plains. North and south, as far as the eye can see, the wall continues, broken only by violet September storm clouds chasing sunshine across the peaks. The cusp where Great Plains slams into Rockies ranks as one of the most spectacular natural divides in North America. Yet it feels like the brink of something more—a visceral reaction perhaps to the formidable concentration of grizzly bears that lies beyond. For the Rocky Mountain Front marks the easternmost edge of a wilderness still functioning, of a rare land still supporting all its native predators.

by *Martha Hodgkins Green*

If not for Chief Mountain, which straddles the line, you might not know where Canada begins and the United States leaves off. And so it is for bears, to whom the international boundary means nothing. For thousands of years, they've traveled the mountainous "miistakis"—the backbone of the world to the Blackfoot people. Young bears, in need of independent turf, cross valleys for more promising range among tender aspen; grizzly sows, with cubs in tow, follow the fingers of streams from alpine meadows onto the plains, where summer berries are thick.

Yet not all of their movements are as free as they once were here in the Crown of the Continent, so called because three mighty rivers—the Missouri, Columbia and Saskatchewan—spring to life and flow to the far reaches of North America. Humans throw obstacles in the paths of wildlife with their "increasing infiltration into the northern Rockies," says Ted Smith, executive director of the Boston-based Henry P. Kendall Foundation, a conservation funder in the region. Smith and many conservationists, who are watching the bears closely as bellwethers of ecological change, are concerned about the divides, or habitat fracture zones, created by recreational development. More vacation homes and ski areas beget bigger,

better roads, which beget more visitor services along them. "And it won't surprise you," says Smith, "they're in the valley bottoms, same as the bears."

The favored passageways and habitats of people and wildlife alike, the valleys and river corridors of this region stretching from southern Alberta and British Columbia south into Montana are largely in private ownership. Private lands account for only 15 percent of the region and mistakenly may be dismissed as inconsequential, with so much public land dominating the Crown of the Continent. But the crown's loose gems—the privately owned low-elevation zones where development inhibits wildlife movement—threaten to topple one of the world's great wild kingdoms.

For the grizzly bear populations along the U.S.-Canada border, "the biggest threat is on private land," says Chris Servheen, coordinator of the U.S. Fish and Wildlife Service's Grizzly Bear Recovery Team. "There's more conflict [between bears and humans], more habitat loss." Grizzlies don't typically travel in straight lines or migrate through corridors. They maintain what biologists call home ranges—overlapping territories, some as big as 250 square miles for males. Picture these rough circles spilling

◀ Crossing to safety? Grizzlies make their way across a highway in the Canadian Rockies, where divides like this on both sides of the border threaten to isolate grizzly populations. ↑ Where prairie meets mountains along the Rocky Mountain Front, watercourses nurture thickets of service berries and ▶ choke cherries—prime grizzly forage.



"NEVER HAVE THE FUTURES OF RANCHERS AND BEA

over the straight lines so often drawn around national forests and parks, and you have a diagram for conflict. That's why today conservation biologists such as Servheen stress the importance of preserving linkage zones, or the connectivity of unfractured habitat.

Five populations of grizzlies persist in the United States. Of these, four are found along the U.S.-Canada border. As Reed Noss of the Conservation Biology Institute notes, "All populations are already fragmented to a great degree." He, like others, believes further fragmentation will increase the chances that isolated populations will go extinct, as many have warned might happen with the islandlike Yellowstone population.

Connectivity lies at the core of current conservation efforts in the region, one of the more high profile of those being the Yellowstone to Yukon Conservation Initiative (Y2Y), which seeks to reconnect tracts of wilderness and wildlife habitat from Wyoming to Canada's Yukon. Connectivity is the reason that the Kendall Founda-



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tion supports both Y2Y and The Nature Conservancy's work in the region. "This is a confederation that isn't in lockstep, and it doesn't have to be," says Kendall's Ted Smith, who gets fired up talking about erasing geopolitical lines in favor of nature's borders. But what's common to both of these efforts, he says, is their reliance on conservation biology to design strategies, and "people looking at landscape conservation in ways they haven't before." Smith believes the Crown of the Continent is worth the multiple conservation approaches, worth the multimillion-dollar price tag, worth the same attention and resources devoted to other international treasures, such as the Everglades. Simply, one of the world's great intact wildernesses is at risk.

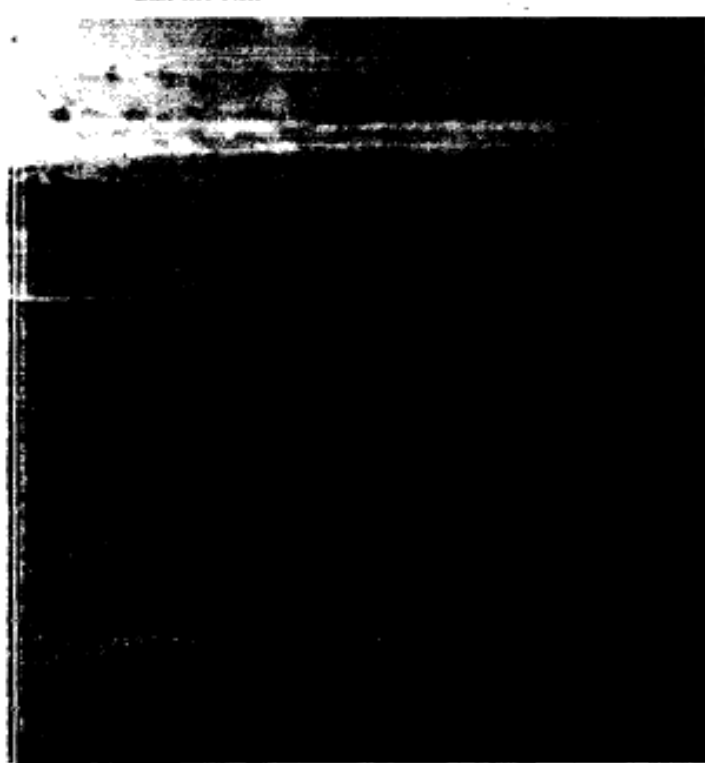
Larry Simpson sees that risk clearly. A native of southern Alberta, he's watched Calgary burgeon from a cow town of 100,000 people into a sprawling metropolis of 820,000 and counting. "Private landscapes are the most rapidly changing out here," says Simpson, head of the Nature Conservancy of Canada's (NCC) Alberta chapter. Driving southwest from Calgary through rolling ranchland toward the eastern wall of the Rockies, he fords a willow-lined river that may soon be spanned by a highway bridge. The thoroughfare would transform Black Diamond, a tiny ranching town, into a bedroom community of commuters. "The land can recover from almost anything but concrete," he says soberly.

Black Diamond, a few miles out from the Rocky Mountain Front, marks the northern extent of the project area defined by NCC and its partner to the south, The Nature Conservancy's Montana chapter. Separate organizations, the partners share a specialty: private lands protection. In the Crown of the Continent system, the partners consequently have set their sights on the linkage zones and low-elevation habitats—the primarily private lands—that bind and buffer the mountainous ecosystem.

An hour south of Black Diamond lies one of the most critical of those linkage zones, an area that Simpson says is "hanging on by a thread." Crowsnest Pass is a narrow valley snaking east-west across the Continental Divide. It's the hourglass waist of Rocky Mountains through which north-south wildlife travelers must pass. Its thickly forested slopes of aspen and fir offer summer forage for grizzlies and winter range for elk.

Like a handful of other glaciated valleys cutting through the Canadian Rockies, the Crowsnest is also vital to the movement of people. A two-lane highway—Route 3—winds through the pass, transporting west-slope timber to east-slope mills, yet also carrying Calgarians to the expanding ski resort of Fernie. You're still more likely to see barns than houses along the roadside, but that's changing. According to Simpson, Crowsnest Pass is fast becoming one of Canada's top recreation spots. There is

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ALONG THE ROCKY MOUNTAIN FRONT BEEN MORE CLOSELY TIED."

talk of "twinning" the highway to four lanes, and former mining communities at the pass's eastern portal are sprouting subdivisions along the Crowsnest River. And as more people discover that river's fishing charms and nearby rock-climbing thrills, some worry that Crowsnest Pass could become the next Canmore, and Route 3 the next Trans-Canada Highway.

Canmore hovers at Banff National Park's eastern gateway, a blossoming resort town of coffee bars, outdoor stores and vacation homes. Cutting through Banff is the heavily trafficked Trans-Canada Highway, recently

valleys. For grizzlies, he says, "the most important consideration in the short term is providing connections for different demographic areas." For instance, if the southern Alberta population were in decline, it could then be "rescued" by other populations in the Crown of the Continent system, provided the linkages are still working.

And so the pressure is on Crowsnest Pass, a natural divide that could become a painfully unnatural one. "Route 3 is a dangerous fracture zone," warns grizzly recovery expert Chris Servheen. "It will probably fracture the U.S. population [of grizzlies] if something isn't done."

With guidance from Albertan biologists, who have identified the most critical bear linkage zones in Crowsnest Pass based on radio-collared grizzly movement, NCC purchased 345 acres slated for subdivision. Before the transaction was final, NCC and partners sought the blessing of the local governing council, testing what may turn out to be a major conservation push to protect Crowsnest linkage areas through purchase and easement. Community sentiment hints at support: In a recent survey of Crowsnest residents, 82 percent of respondents said that critical wildlife should be protected.

Randy Gray, a Great Falls, Montana, attorney and member of

The Nature Conservancy's Montana board, sums up the situation succinctly: "Canada's problem is the U.S.'s problem if the Crowsnest is cut off." The largest and healthiest grizzly population remaining in the lower 48 will be in jeopardy. Contained in this statement is the rationale for the unprecedented cross-border collaboration between The Nature Conservancy and NCC.

The Crowsnest crucible is also igniting strategies farther south, where other passageways could in time fragment the system. Jamie Williams, the Conservancy's Montana director, says that until now he's undervalued the importance of Route 2, tracing the southern perimeter of Glacier National Park, and Highway 200, running through the upper Blackfoot Valley. His program in the past focused on areas of high biological value rather than on the value of connectivity. "But prime habitat areas alone aren't enough for grizzly protection," says Williams. "We've got to include the linkage zones."

On the west side of the Continental Divide, the North Fork Flathead Valley fulfills both criteria. Sandwiched

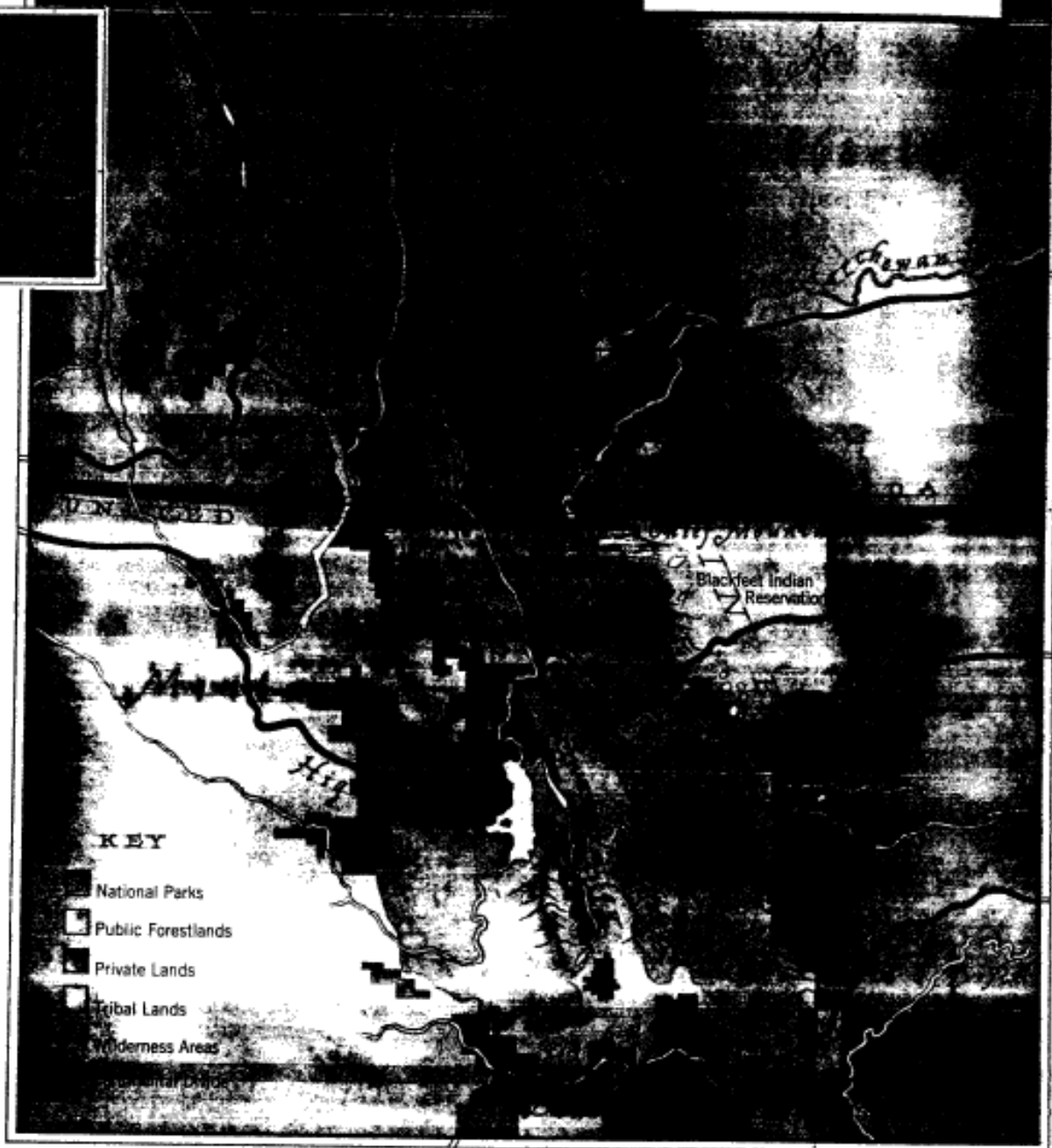


Divided we fall: Recreational development in Canada's Crowsnest Pass could fracture a vital wildlife linkage zone—and cut off U.S. grizzly populations from their northern relatives.

twinning. Because of the high incidence of cars and buses colliding with elk and other animals, the highway was fenced in, and the animals out. Two wildlife overpasses are intended to funnel animal movement, but some say they're acting more like filters, with only the occasional animal braving to cross.

According to conservation biologist Reed Noss, the overpasses are not working, especially for grizzlies and wolves. Noss is one of the lead researchers on the Rocky Mountain Carnivore Project, a habitat-suitability mapping effort aimed at reducing conflicts between carnivores and humans. (The map's end users will be highway authorities, public agencies, the timber and oil industries, land-use planners and conservation groups such as The Nature Conservancy and the World Wildlife Fund, which are funding the project.) Noss and many of his colleagues believe that the Banff highway corridor has severed the northern Rockies with regard to the movement of certain carnivores and ungulates. And it's a scenario, they warn, that should be avoided at Crowsnest Pass and other key

The CROWN — of the — CONTINENT





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With private lands most at risk along the Rocky Mountain Front, keeping the landscape intact comes down to individual decisions. Near Choteau, Montana (top), the Dellwos placed a conservation easement on their ranch. On the Blackfeet Indian Reservation, Eloise Cobell has joined with The Nature Conservancy to launch a tribal land trust.

between Glacier and the Flathead National Forest, the narrow valley is one of the most important sources of grizzlies and wolves in the Rockies. Yet biologists worry it could become a "sink"—a loss area—if animal movement is thwarted by the development that is suddenly cropping up in the privately owned river corridor. Similar divides are forming in the Swan Valley of Montana and the Elk

Valley of British Columbia, where thin threads of private land could unravel the wild network.

In the rain shadow of the Rocky Mountain Front, where as little as 14 inches of rain a year sprinkle the windswept Montana prairies, water is the mainstay. Follow streams out onto the plains, and you'll find ranches and towns—and bears. And along these watercourses might form the divides that could fracture a relict landscape.

The Rocky Mountain Front is the last place in the world where grizzlies still venture onto the prairies, as they did when Lewis and Clark tangled with a few goliaths miles out on the Great Plains. A half century ago, these altitudinal migrants did a lot less venturing on the Front, as most bears found on private land were shot. But they've begun to return. "Between people and bears in Montana, the climate is a lot better now than it was 25 years ago," says grizzly expert Chuck Jonkel.

"When you live here, that's just the thing you do," says Anne Dellwo, when asked if she ever gets used to having bears on her property. With her husband, Larry, and her sons, Joe and Duke, she ranches northwest of Choteau, Montana, on land that's been in the Dellwo family for 100 years. The foot of the mountains is prime grizzly habitat, given Blackleaf Creek coursing through their property. Anne likes to tell the story about the frosty nose print one curious grizzly left on her bedroom window.

Yet it's not the bears that worry the Dellwos; it's the plight facing ranchers these days, with bad economic times forcing some to subdivide land to survive. The Dellwos considered this, going so far as to put up parcels for sale, reluctantly, before learning that The Nature Conservancy sought to protect ranchland along the Front. Two years ago, the Dellwos sold part of their land to the Conservancy and placed a conservation easement on the remainder. They still run cattle, and today their operation is more financially stable.

For more than a decade, obtaining easements on private property up and down the Front, especially along the rivers prized by both bears and people, has been strategy number-one for Dave Carr, director of the Conservancy's Rocky Mountain Front project. It began as a way to expand and buffer the Conservancy's Pine Butte Swamp Preserve, one of the most grizzly-frequented riparian areas along the Front. But Carr says the strategy, which has since protected 32,000 acres of ranchland and prime grizzly habitat on the Front, has been given added urgency by the increasing demand for second homes in Montana. And as the cost of land rises with each new subdivision, so its suitability for grizzlies declines.

"Take three or four 10,000-acre ranches, and sell off a thousand acres here and there, build some houses," says Carr. "This doesn't seem bad in an East Coast context. But then consider that the home range for a sow grizzly can go upward of 100 square miles. More home sites lead to

more conflict." By conflict, he means bears shot and relocated, which is happening with increasing frequency on the west side of the Continental Divide, where subdivisions and development are spreading through the valleys.

"Never have the futures of ranchers and bears along the Rocky Mountain Front been more closely tied," says NCC's Larry Simpson. If ranching goes, he and many others believe, so go the bears.

For his part, Simpson has been working with Canadian ranchers on the east side of Waterton Lakes National Park, acquiring easements to date on 10,000 acres of land, amazingly unfragmented for being as close as it is to a national park entrance. Simpson aims to protect another 25,000 acres of private land as a buffer to the park.

Between the Canadian border and Choteau, land ownership and conservation strategies become a bit more complex out on the Blackfeet Indian Reservation. Its vast stream-fed prairies—swathed in stands of aspen, pocked with ponds—offer perhaps the best grizzly habitat along the Rocky Mountain Front. The reservation is a 1.5-million-acre patchwork of tribal land, private land and land held in trust by the Bureau of Indian Affairs.

The destiny of private inholdings concerns Eloise Cobell, chair and founder of the Blackfeet National Bank, the first tribally operated national bank chartered on a reservation. Cobell is hoping that another first—a new tribal land trust launched with assistance from The Nature Conservancy—will help protect private inholdings from development and sale to outsiders. "People here are asset-rich, but doors don't open for them," says Cobell. The land trust offers an open door, and its easements will help preserve the proud notion of "one nation" on Blackfeet land.

The specter of fragmenting landscapes on the reservation, which borders the east side of Glacier National Park, is very real considering the million people who pass through here each year. Cobell and Williams would like to harness those numbers as an engine for economic and ecological good on the depressed reservation, spurred by the recognition that tourism—unplanned and unchecked—could deeply divide the reservation, and the Blackfeet from their culture.

Atop a butte on the Rocky Mountain Front, with hardly a sign of people in

sight, watching the alpenglow of the autumnal equinox—another divide—one finds the irony striking. Nature's divides here are so dramatic—plains to mountains, snowy summits to green valleys—while the human-made ones are subtle. For now. But these are the divides that matter in the Crown of the Continent, and the connections across these chasms are the last, best hope for a wild future. ■

MARTHA HODGKINS GREEN is senior editor of *Nature Conservancy*.

Protecting private lands that buffer and bind the Crown of the Continent's gems, such as Glacier National Park, is the focus for The Nature Conservancy and the Nature Conservancy of Canada.

