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THE LAST GREAT MOUNTAIN ECOSYSTEM

It spans two countries, has the Rocky Mountains for a spine, and is the only land wild enough for wolves and wolverines--reason enough to protect this place and the critters that depend on it for survival.

A World Wildlife Study in 1991 estimated that a grizzly population of 390 bears requires an area more than nine times the size of Yellowstone National Park to stay healthy. Never mind the lynx, cougars, wolves, and other four-legged symbols of the wild that also need their fair share of similarly rugged, unpeopled terrain to thrive.

So in today's world, where politics and development pressures make such a massive preservationist effort next to impossible, does wildlife stand a chance? Yes, says Harvey Locke, a Calgary, Alberta, lawyer and conservationist now based in Boston. "Setting aside a gigantic park nine times the size of Yellowstone is not only unrealistic, but unnecessary," he says. Instead, all we need do is link already-existing national parks and wilderness areas in the mountainous West with protected corridors of land. As outlined in his 1993 Yellowstone To Yukon Conservation Initiative, the Y2Y study area would stretch from the southern edge of grizzly country in Wyoming's Yellowstone National Park, along the Rocky Mountains, and on to the northern end of the Mackenzie Mountains in the Yukon Territory.

Y2Y involves varying degrees of land protection. The traditional means--in this case, the U.S. and Canadian governments acquiring land and declaring it wilderness or a national park--is only part of the plan. Y2Y staffers are investigating such measures as building underpasses and overpasses, so wildlife can cross highways, and meeting with private property owners about conservation easements. The plan also takes into consideration the needs of loggers, miners, land managers and hikers, as well as the moose and grizz.

Both the U.S. and Canadian Park Services have made Y2Y a priority in land management planning. For the next 2 years, park researchers will join other scientists in gathering information about the Rockies ecosystem, studying issues like predator movement patterns and natural history, as well as human attitudes toward wildlife. In the end, the data will be used to pinpoint the best corridors, or genetic highways, for wildlife to travel between conserved areas. As even more information becomes available, the basic study area outlined on the map on the following pages may expand and contract.

Until then, one thing is certain: This is some of the most spectacular country in North America, as Karsten Heuer found. Use the map to understand the issues that triggered his incredible trek, then go sample a piece of the Y2Y world. It's the best way to see what's at stake and to take action before it's too late.

Do Your Part

The United Nations' International Union for the Conservation of Nature has deemed Y2Y one of the leading conservation efforts in the world. The initiative also has the support of over 230 wildlife

scientists, resource economists, and conservation groups in both the United States and Canada, many hailing this as the conservation model of the future. Here's how you, too, can jump on the bandwagon.

Yellowstone To Yukon Conservation Initiative: With so many organizations and individuals involved, your best bet is to consult the Y2Y Web site (www.rockies.ca/y2y/) for participants. Or call the Y2Y office to find out how you can help. Contact: Y2Y Conservation Initiative Outreach, 710 9th St., Studio B, Canmore, AB, Canada T1W 2V7; (403) 609-2666; y2yPeter@telusplanet.net.

American Wildlands: This nonprofit group has employed scientists to identify and create maps of the corridors that wildlife will most successfully follow to find food, mates, and shelter. Volunteers are now needed to hike the corridors and assess the animal and human state of affairs. Contact: American Wildlands, 40 E. Main #2, Bozeman, MT 59715; (406) 5868175; www.wildlands.org; kdavitt@wildlands.org.

Eagle watching: Biannually, biologist Peter Sherrington assesses golden eagle migrations from key points within the Y2Y study area, and he's always looking for more eyes to count wings on the wind in spring and fall. At one sight, 849 golden eagles were viewed in a single day. Contact: Peter Sherrington at (403) 932-5183.

[The Human Impact](#)

Two-leggeds have occupied this region since the Ice Age, and our influence both good and bad--has had a massive effect on the land.

- People: Montana, Wyoming, and Idaho saw a 7 percent growth in population in the '80s. That rate jumped to 14 percent in the '90s.
- Development: More than 423,100 miles of roads, railways, seismic lines, and pipelines currently crisscross the Y2Y region, enough to circle the globe 16.8 times.
- Watersheds: Of 320 watersheds in the region, only 28 remain roadless.
- Oil and gas: An estimated 51,000 wells have been drilled in the Y2Y study area, each requiring an average of 4 miles of seismic lines and 2 miles of road.
- Livestock: In 1996, some 1.5 million animals grazed in the Y2Y region, including 1.2 million cattle, 41,000 horses, and 174,000 sheep.
- Recreation and tourism: Canadian national parks usage increased 96 percent since 1988, while usage in U.S. national parks increased 12 percent.

[Home On The Range](#)

A singular female gray wolf named Pluie is often given credit for being the impetus behind Y2Y. After being radio collared in 1991, Pluie's movements were recorded over the following 2 years. Researchers were amazed to find she traveled a range almost twice the size of Switzerland (see the purple area above). Her dramatic movements led scientists to question current conservation logic and to develop new models of wildlife preservation. Unfortunately, in 1995 Pluie, her mate, and one pup were legally shot in British Columbia. By then, she'd successfully raised two litters of pups and awareness of wolf activity. A satellite-tracked wolf named Nakoda has since taken Pluie's place. To follow her movements, check www.rockies.ca/y2y/.

[Faithful Companions](#)

During a 2,200-mile trek that included wicked weather, rough terrain, and random wildlife sightings, Karsten Heuer had one constant: his dog Webster: The 7-year-old border collie was rescued as a stray from the Banff, Alberta, dog pound in 1994. Webster (aka Web "Star") traveled all but 350 miles of the trek, carrying up to 15 pounds of dog food and a small first-aid kit of bandages for his paws and antibiotics for infections. During the course of the mountainous journey, he fared remarkably well: one cut toe pad, two bouts of diarrhea, and one uncomfortable tangle with a porcupine.

[A Rock History](#)

- **1500s** European begin trapping in Canada
- **1741** French fur traders report on discovering the Rockies range
- **1793** Alexander Mackenzie discovers an east-to-west route across Canada to the Pacific Ocean

- **1805** Lewis and Clark catch their first glimpse of the Rocky Mountains
- **1824** A passage through the Rockies is discovered at South Pass, Wyoming
- **1830s** Beaver trapping extends to the western Rockies
- **1850s** Grizzly population begins to decline
- **1860s** Hudson's Bay Company harvests trumpeter swans for clothing, beginning the population decline
- **1867** Gold is discovered in Wyoming
- **1868** Shoshoni and Arapaho Indians are relocated to reserves (reservations)
- **1870** Logging begins in the southern Y2Y region
- **1872** Yellowstone becomes the world's first national park
- **1890** Oil and gas extraction begin
- **1911** Grizzly population hits an all-time low in Bow Valley, Banff National Park
- **1933** Only 69 trumpeter swans are left in the Lower 48; all are in Yellowstone
- **1940** Grizzlies in Bow Valley bounce back
- **1950** Trumpeter swan numbers reach 600 due to the establishment of Red Rock Lakes National Wildlife Refuge, Montana
- **1960** Grizzlies frequent dumps in Lake Louise as a major food source
- **1984** Trumpeter swan no longer in danger of extinction
- **1993** Alberta conservationist Harvey Locke conceives Yellowstone To Yukon Conservation Initiative
- **1998** Karsten Heuer begins to hike the length of the Y2Y study area
- 2000: ?

Y2Y By The Numbers

Total study area: 460,000 square miles

Length of the corridor: 1,990 miles

Oceanic watersheds: 3

Mountain chains: 6

Native tribes associated with the area: 31

Percent forested: 59

Percent used for agriculture: 2.6

Percent used for grazing: 7.5

Their Last Stronghold

The Yellowstone To Yukon study area is full of wildlife, from ground squirrels to blue jays to caribou. Below are a few of the many animals dependent upon this region for their continued survival, their prior habitat having been lost to human encroachment and development.

GRIZZLY BEAR (*Ursus arctos*)

Habitat: Open areas, such as alpine tundra and meadows, high mountains, subalpine forest, and coastlines.

Range: 10,000 to 27,000 square miles per adult.

Facts: Mating occurs in June, but the embryo won't develop until fall when the bear's body determines if she's stored enough fat to support herself and a cub. If she hasn't, the embryo is reabsorbed by the body. A grizzly's diet includes 200 species of plants, plus fungi, moss, moose, elk, ground squirrels, fish, and Insect larvae.

Why grizz need Y2Y: The proposed undisturbed corridors would connect isolated populations of

grizzlies, reducing interbreeding and promoting reproduction to eliminate their threatened status.

GRAY (TIMBER) WOLF (*Canis lupus*)

Habitat: Just about anywhere.

Range: 380 to 1,540 square miles per pack

Facts: The average pack has about 7 wolves and can cover more than 30 miles in a single winter day. One pack of wolves eats about 35 elk per year.

Why wolves need Y2Y: The large tracts of land allow wolves to maintain healthy packs by providing large ungulates for food and unroaded areas for travel and breeding.

GOLDEN EAGLE (*Aquila chrysaetos*)

Habitat: Open expanses of alpine and Arctic tundra, grasslands, badlands, and deserts.

Range: Most are sedentary, but the Arctic and subarctic populations migrate 3,000 miles along the Rockies between summer and winter grounds.

Facts: Golden eagles will take prey many times their size and have been seen attacking injured deer, pronghorn antelope, foxes, and coyotes. The spread of an eagle claw can be roughly 9 inches, or about the same as a man's hand.

Why eagles need Y2Y: Each year, more than 10,000 golden eagles migrate from Wyoming to the Arctic, following a route along the ridges of the Rockies.

BULL TROUT (*Salvelinus confluentus*)

Habitat: Cold, clear water.

Facts: Its long, flat head; white leading edge on fins; and clear dorsal (top) fin distinguished the bull trout as a unique species in 1978. Before then, it was classified as a Dolly Varden. Interbreeding with brook trout produces sterile offspring.

Why trout need Y2Y: Some streams in the Y2Y haven't been dammed, silted by agricultural erosion, or stocked with competing nonnative trout, providing the perfect habitat for the recovering bull trout.

TRUMPETER SWAN (*Cygnus buccinator*)

Habitat: Slow-moving water in wetlands, sloughs, and tidal estuaries, and open wooded areas and prairies.

Facts: An adult eats about 10 pounds of grass a day. Pairs mate for life.

Why swans need Y2Y: In 1933, only 69 trumpeter swans remained, all within the Y2Y area. They've since bounced back, but need the pristine wetlands to continue breeding and repopulating.

WOLVERINE (*Gulo gulo*)

Habitat: High altitudes such as tundra, taiga, and treeline: open plains in remote areas away from humans and development.

Range: 115 to 770 square miles per adult.

Facts: Although the wolverine is powerful enough to pull down and kill a caribou, it would rather wander for miles in search of carrion and will rob wolves of ungulate carcassers.

Why wolverine need Y2Y: The large, roadless areas populated with other carnivores will help wolverines survive; wolverines eat leftover carcasses, breed in undisturbed regions, and refuse to cross roads.

[A Y2Y Sampler](#)

Some prime wildlife habitat has already been protected, and it makes for great hiking. Here are a few sanctuaries for both man and beast, where you can see for yourself why land conservation is so vital.

(1) Grand Teton National Park, Wyoming. You can see nesting eagles and trumpeter swans above the Snake River while you're driving along Jackson Hole Highway through the park. But to stride through the land of the great bear, catch a canoe across Jackson Lake at the Lizard Creek Campground, then hike the Webb Canyon/Owl Creek Trails loop or the one-way Berry Creek Trail. You're sure to see more eagles during the hike. On September evenings, listen for the eerie call of bull elk in rut. Grand Teton National Park, P.O. Drawer 170. Moose, WY 83012; (307) 739-3300; www.nps.gov/grte/.

(2) Yellowstone National Park, Wyoming/Montana. There are plenty of trails where you can experience wildlife in Yellowstone, but to hike with mountain lions, eagles, and elk, take the Yellowstone River Trail. Begin at the Hellroaring trailhead on Tower-Mammoth Road, then hike 19 miles on the Yellowstone River Trail as it parallels the river and weaves through Black Canyon. The trail ends in Gardiner, Montana, just north of Yellowstone River Bridge. Yellowstone National Park, P.O. Box 168, Yellowstone National Park, WY 82190-0168; (307) 344-7381; www.nps.gov/yell/home.htm. (See "Life Amid The Ghost Trees," April 1998, for more Yellowstone hikes.)

(3) Glacier National Park, Montana. Glacier is crawling with grizzlies, elk, mountain goats, bighorn sheep, and cougars. Nocturnal hikers may even catch a glimpse of the elusive wolverine. Any trail to the interior is excellent, but hiking the 5 miles to Grinnell Glacier on the east side is an excellent introduction to the park's namesake ice formations. After standing in awe of the glacier, continue on past Upper Grinnell Lake to the Continental Divide Trail. From there, you can head in just about any direction into the park. Glacier National Park, P.O. Box 428. West Glacier, MT 59936; (406) 888-7800; www.nps.gov/glac.

(4) Banff National Park, Alberta. Although less scenic than the glaciated main ranges of the park, the seldom-visited Front Ranges offer the experienced backpacker a remote wilderness experience rich in wildlife encounters. Valleys like the Clearwater, Panther, Cascade, and Red Deer harbor open grassy slope, and a mild climate elk, sheep, goats, and wolves prefer. A good gateway into the area is Dormer Pass, a 2-day, 18-mile trek from the trailhead outside the town of Banff. From there, a number of loops can be made, ranging anywhere from 6 to 20 days. Rivers are unbridged, trails are faint in sections, and you're bound to encounter grizzlies. Banff National Park, Box 900, Banff, AB, Canada T0L 0C0; (403) 762-1550; www.worldweb.com/ParksCanada-Banff.

(5) Jasper National Park, Alberta. For a great 5-day, 50-mile loop, link the spectacular Columbia Icefields with the dry pine forests and grassy meadows of the Front Ranges via the Brazeau Lake, Poboktan Pass, and Jonas Pass Trails. You'll hike along many a high alpine pass, where chances are good you'll spot some of Jasper's elusive mountain caribou. Jasper National Park, P.O. Box 10, Jasper, AB, Canada T0E 1E0; (780) 852-6176; www.worldweb.com/ParksCanada-Jasper

(6) Northern Rockies, British Columbia. Only adventurers need apply for a trip through the Prophet, Muskwa, Kwadacha, Tuchodi, and Gataga river valleys. Encompassing a vast roadless area, there's little information available, and you must get there by bushplane. The reward is tenfold: stone's sheep, wolverines, wolves, and bears for the viewing, all in a remote and breathtaking setting. Newly protected areas like the Northern Rockies Park fall under the jurisdiction of British Columbia Provincial Parks and lack official trail systems or any visitor infrastructure. Come prepared with detailed maps, a healthy appetite for bushwhacking and swimming rivers, and a detailed itinerary to leave with your pilot. BC Parks, Peace Liard District, Room 150, 10003 110th Ave., Fort St. John, BC Canada V1J 6M7; (250) 787-3407.

[Karsten's Hike By The Numbers](#)

Miles hiked: 2,200

Days on the trail: 188

Days hiked on private land: 10

Days hiked on multiple-use land: 91

Days hiked in wilderness: 87

Gizzly bears encountered: 15

Black bears: 19

Wolverines: 2

Wolves: 20

Mackenzie Lowlands

Just 20 feet above sea level, this area near Fort Good Hope is the lowest point of the Y2Y corridor.

Liard River

The end of the Rocky Mountains.

Mt. Robson

The highest peak in the Canadian portion of Y2Y, and the greatest elevation gain (9,740feet) in the Rockies.

Snow Dome

From atop this hydrological apex in the Columbia Icefields, water can flow to the Pacific, Atlantic, or Arctic Oceans.

Columbia Icefields

The largest glacier in the Rockies, protected within the confines of Jasper National Park.

Gannet Peak

This 13,804-foot peak in the Wind River range is the highest in the Y2Y corridor.

Bridger Wilderness Area

Touch the rock here and you're encountering something ancient: 3.6-billion-year-old igneous rock, the oldest in the United States.

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By Susan Newquist, Associate Editor

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