AMERICAN FORESTS

PRESCRIBED FIRE:

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BEFORE THE MAST:

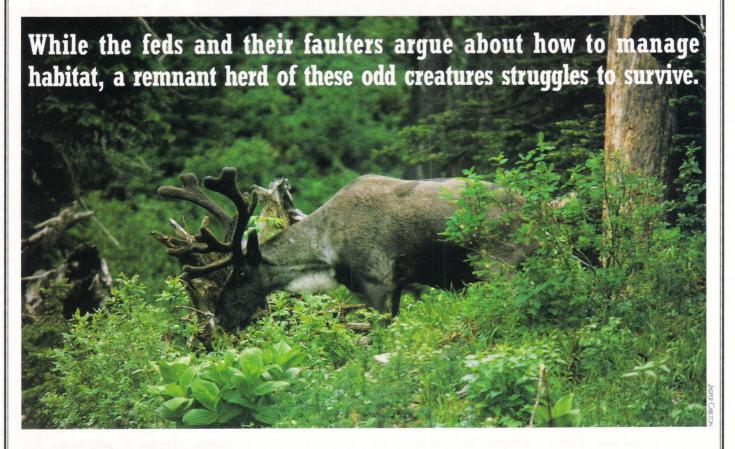
The Search For A Very Special Pine

WOODLOT OWNERS:

A Way To Soften Tax-Code Tyranny?



Caribou and You By DAVID LEE



WOODLAND CARIBOU nibbles lichen from the branch of an ancient Douglas-fir, its hooves making wide craters in the snow. Only 50 of its kind roam the old-growth forests of Idaho's Selkirk Mountains, the last remnants of a U.S. population hit hard by human encroachment. Depending on how state and federal agencies manage old forests, the future of woodland caribou and the entire ecosystem may be in question.

Woodland caribou once roamed the forests of every Canadian border state, but today they occupy only

Caribou and You

"Caribou habitat needs to be actively managed because it could be lost as stands age and die."

—BIOLOGIST SANDRA JACOBSON

"There is nothing you can do to improve caribou habitat by logging." —RESEARCHER ERIC ROMINGER

a tiny portion of their original range. Logging, commercial hunting, forest fires, and a nasty parasite called brainworm combined to drive the animal toward extinction. Except for a small herd in the Selkirks and a few stragglers in Montana and Maine, woodland caribou have vanished from the Lower 48 states (some 5,000 still exist in British Columbia). The Selkirk caribou were listed as an endangered species in 1983, and the U.S. Fish & Wildlife Service soon thereafter made plans to

save the herd.

Deep in the Selkirk Mountains, Lydia Allen Johnson holds the antenna of a radio-tracking device and listens intently to signals that will lead her to a collared caribou. A U.S. Forest Service biologist, Allen Johnson has for the past eight years been following animals transplanted to the Selkirks. Between 1987 and 1990, biologists flew 60 caribou from Canada to northern Idaho. A few animals died during the transplant, and the subsequent high mortality rate has kept the population at dangerously low levels. According to a February 1994 report by the Idaho Department of Fish and Game, only eight individuals of the 60 transplanted animals were confirmed alive. Thirtyseven of the transplant group are dead-some were shot by poachers, others were killed by

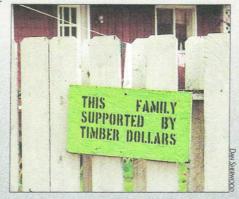
DAVID LEE of East Glacier, Montana, is a freelance author specializing in natural-resource subjects.

Town Talk in Caribou Country

Conversation stops and the air becomes tense in a small cafe in Bonners Ferry, Idaho. State biologist Wayne Wakkinen has just mentioned "endangered species."

"There is definitely some local opposition" to the conservation of threatened wildlife, he says. With two lumber mills and a

population of just over 2,000, the community's e c o n o m y depends heavily on the timber industry. Dayglo signs proclaiming "THIS FAMILY SUPPORTED BY TIMBER D O L L A R S" adorn many a home. In other



parts of the Pacific Northwest, protection of endangered spotted owls and the region's last old-growth forests has sparked heated battles between the timber industry and environmentalists. The owls don't inhabit northern Idaho, but a similar controversy over endangered woodland caribou may be on the horizon.

For now, local industry officials say woodland caribou haven't cost them jobs or reduced timber supplies, but U.S. Forest Service restrictions on logging in woodland caribou habitat are "another hurdle we have to jump over," says Chuck Roady, resource manager at one of the local mills.

Wildlife activist Jasper Carlton sees an "unavoidable" need for Bonners Fenry and dozens of other small logging towns in northern Idaho to shift their economies away from large-scale timber harvesting and toward land restoration, tourism, and value-added wood products.—DAVID LEE

mountain lions and bears, and some deaths remain a mystery. The fate of an additional 15 of the original 60 animals is unknown because their radio collars failed or fell off.

David Tallmon, a University of Montana researcher, used caribou-mortality data to model the current status of the Selkirk Mountain herd. In his September 1994 report, Tallmon warns: "Results from this model . . . indicate this population is in extreme danger of extinction within the next 50 years."

South of the Selkirk

Mountains, Eric Rominger's woodland caribou are munching on lichen at a Washington State facility. Rominger is using tame caribou to study details of their winter feeding habits. He bottle-raised his herd of eight, and they readily follow him out of the corral into the nearby hills. With inquisitive eyes and a wry "smile," the lanky animals look almost comical as they bound down the trail.

The image of caribou strolling through a mountain forest clashes with the more commonly held notion of these ungulates thundering across the open tundra of the far north. But unlike their barren-ground relatives, woodland caribou live in small groups of 10 or less and do not migrate in large herds over long distances. Instead, they move seasonally up and down mountain slopes. Woodland caribou occupy unusually large home rangesabout 50 square miles per individual. Rominger and other scientists think such low densities help caribou avoid predators and prevent overexploitation of lichen, their sole source of winter food.

Woodland caribou rely on this odd association of algae and fungus to provide them with enough energy to make it through the long winter. Still, they lose somewhere between 20 and 40 percent of their body weight during the hard months. When deep snow forces deer, elk, and moose to lower ground, large hooves enable the caribou to walk on crusted snow and feed on lichen they

Caribou and You

Do You Care?

Most U.S. woodland caribou live in Idaho, one of the wildest states in the nation. Most of us humans live in cities and towns far removed from those endangered animals. Few of us will ever see a woodland caribou. Does it really make a difference whether this remnant population survives? Who cares? Do you?

The nature of environmentalism/conservation is changing in this country. The frenzy of the James Watt era and the ardor of the Green Age of the 1980s and early '90s are cooling, and our environmental consciousness seems to be evolving into something more pragmatic, more science-based, more thoughtful.

What might this attitudinal change mean for wildlife like the woodland caribou? Are you less concerned about these 50 animals than you might have been five years ago? What does their fate mean to you where you live, far removed from those Idaho forests that are checkerboarded today with clearcuts made because we humans demand affordable wood for our homes, among other reasons?

American Forests—the organization and its magazine—are evolving too, and as we chart our future course, we welcome and value the input of our reader/members. Do you care? Why? If we get enough good responses, we will publish them in these pages.—BILL ROONEY

find in older spruce, hemlock, fir, and cedar trees. When spring comes, they descend to forest openings to feed on proteinrich grasses and greens. Summer finds them back at high altitudes, taking advantage of cool temperatures and more green plants. In the fall, caribou migrate downslope to wait for winter in sheltered forests. As soon as the snow hardens, they ascend again to feed on nutrient-rich lichen.

This seasonal migration pattern creates unique challenges for agencies whose mandate is to manage what's left of

caribou habitat. On the U.S. side of the border, fire and logging have fragmented much of the Selkirk Mountains' oldgrowth forests, leaving little habitat for caribou, grizzly bears, and a host of other forest mammals. Only a small portion of the U.S. Selkirks are officially protected as wilderness areas, while logging continues on much public and private land.

From the air, much of the Selkirk Mountains looks like a patchwork quilt of huge clearcuts, and woodland caribou are but one species imperiled by the loss of oldgrowth forests here. The ecosystem is incredibly rich in biodiversity—one of the last wild places in the U.S. with a full complement of species such as wolves, grizzlies, pine martins, lynx, northern goshawks, and countless "lower" plants and animals that depend on shrinking blocks of ancient for-

Most of the remaining old-growth south of the border is controlled by the USDA Forest Service (USFS) and the Idaho Department of Lands (IDL). The USFS uses management standards written back in 1987 to "guide the preparation of silvicultural prescription necessary to provide the seasonal habitat within identified caribou habitat." The guidelines list forest characteristics of each seasonal habitat, and recommend clearcutting ("regeneration harvesting") in some situations. Forest Service biologist Allen Johnson says the '87 guidelines were written to manage caribou habitat within a "recovery zone" that includes the entire Selkirk Mountains range. She is helping update the agency's management strategy, portions of which she says are too vague and "not really based on caribou biology."

To help land-management agencies maintain habitat, Allen Johnson created a model to help predict the suitability of forest areas as present or future caribou range. She says the model is a "useful management tool" that will enable land managers on both sides of the border to rate habitat and plan forestry activities. "The model has given us a better starting point to see what we've got out there," she explains.

Everyone seems to agree that the caribou need help, but opinions about how to provide it differ greatly. Agency biologists say logging is necessary to increase the herd and create future habitat. "Caribou habitat needs to be actively managed because it could be lost as stands age and die," says Forest Service biologist Sandra Jacobson. Insect damage and fire can also destroy habitat, she says, so agencies must use a number of techniques to maintain it, including controlled burning, thinning, and logging. But Jacobson admits that information on how to manage caribou habitat is lacking, and agency biologists have stated consistently in timber-sale proposals that logging will have "no effect on caribou or its habitat."

"Many people have the impression that if you don't touch the forest, it will be okay [for caribou and other animals]," she adds. "But that's not the case anymore." Because of noxious

weeds, human development, and fire suppression, Jacobson says, forests need to be actively managed to protect wildlife habitat.

"Logging and maintaining caribou habitat are not mutually exclusive," adds Idaho state game biologist Wayne Wakkinen. Some forms of logging promote lichen growth, he explains, and thus increase the caribou's food supply. "But there is a fine line between improving habitat and making it worse."

Some independent biologists and environmentalists think good management means leaving caribou forests alone. "There is nothing you can do to improve caribou habitat by logging," says Eric Rominger. Large gaps in our knowledge of caribou biology and lichen availability persist, he says, adding, "It amazes me [agencies] continue logging in caribou habitat when they don't have the answers."

"The Bonners Ferry Ranger district, from a wildlife perspective, is probably one of the most overcut and mismanaged districts in the entire National Forest System," says Jasper Carlton, director of the Biodiversity Legal Foundation. By cutting trees in old-growth forests, federal and state agencies have "failed to integrate the needs continued on page 63

To Take Up the Torch

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agencies in proportion to their land base within a given state. A unitary appropriation should also provide matching funds for states to carry out prescribed fire on state land. And there is no reason similar matching incentives should not be extended to the

owners of noncommercial private land, a concept that is already used by the Department of Agriculture in other forestry programs.

A comprehensive movement that puts prescribed fire back onto the landscape, that

increases the health and productivity of the land, and that reduces the risks and destruction of wildfires that do occur would be a lasting memorial to the brave firefighters who lost their lives during the summer of 1994. AF

Caribou and You

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of woodland caribou and all sensitive, threatened, and endangered species in the ecosystem," he adds. Carlton's group is suing the Fish & Wildlife Service for its failure to declare most of the areas used by woodland caribou as "critical habitat," a designation that would give large areas protection from logging and other disruptive activities.

Long-term protection of the woodland caribou's Selkirk ecosystem requires a conservative approach, says Rominger. "It's a case of maintaining old forests, reducing poaching, and gaining a better understanding of the caribou's habitat needs." Jacobson says the Forest Service is adopting an "ecosystem management" approach and placing more emphasis on protecting threat-

ened and endangered species. She says the agency is now using the results of recent studies and new technology "to plan on the ground management" for caribou and the ecosystem. "The most exciting thing to me is that we can now figure out the existing condition of caribou habitat for the entire Selkirk ecosystem." After identifying caribou habitat, the next step will be to decide how to manage it over space and time, adds Jacobson.

In its March 1994 recovery plan for the Selkirk caribou, the USFWS states, "We cannot afford additional habitat losses. . Activities that may adversely affect caribou and/or their habitat should not be permitted." The plan's goal is "to maintain an increasing population," and to secure and

enhance at least 443,000 acres (about 692 square miles) of habitat to support a self-sustaining caribou population.

The document recommends another round of transplanting caribou from Canada to populate the forests of northeastern Washington. Carlton has no doubt the transplant would be successful if the caribous' stomping grounds were well protected. Preserving habitat, he says, is the key to success. "We have the technology to reintroduce caribou . . . the question is, will we take care of the old-growth forests and manage them so the caribou and other species can prosper?" AF

Restaking the Claim

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He told *American Forests* that the Forest Service planted the Carson City bombs, but offered no evidence.

"They want to make us look stupid, but we got some pretty good publicity out of it," Carver reported.

The Forest Service—adopting a non-confrontational mode, though it fervently hoped to defuse a potential time-bomb out West—has filed suit to get a fresh legal opinion on just who owns our national forests, quoting chapter and verse on federal statutes already in place. And though several small Nevada newspapers are carrying the home-rule banner, larger metropolitan dailies are treading lightly or calling for a return to reason.

"For the Nye County commissioners to seize a national forest makes as much sense as having the city of New York seize the Statue of Liberty," the Seattle Post-Intelligencer recently editorialized.

Meanwhile, most Forest Service employees out West aren't carrying sidearms, as they might have in decades past, but rather wallet-size "crisis cards" telling them what to do if they're arrested by local authorities. Threatening, resisting, or interfering with a Forest Service employee is a federal crime, the card tells them summarily. The FBI will investigate.

Following the catastrophic bombing assault on lives and federal property in Oklahoma in mid-April, it's a good bet that any threats or gestures portending violence—bulldozers included—will be dealt with considerably more resolutely than in the past. And that kind of law enforcement may require a lot more than an instruction card in a federal employee's hip pocket.

card in a federal employee's hip pocket.

In Alaska, those "banished" youths, who have been living in two spartan, separated cabins on Tongass National Forest, are apparently now being used in support of larger causes: to test Tlingit native claims of primordial land use, and thus ownership, in Southeast Alaska.

"Our fathers and forefathers...have

lived on and occupied Kuiu Island until the memory of man runneth not to the contrary," a tribal judge is reported as saying.

The boys' use of firearms and occupancy of land without a Forest Service permit seriously concern the Forest Service, which has been working for years to build good relations with local native tribes. A number of such groups received large tracts under the Alaska Native Claims Settlement Act of 1971.

A hoped-for solution: The banished boys quietly move to another area outside national-forest boundaries to serve out their banishment.

As for the river blasters in Arizona, their case is simpler: The "Quartzite Eight" were summarily arrested and have pleaded guilty to felony charges of destroying government property. The "powder man" was fined \$15,000 this spring and is now serving a year in the clink. AF