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FLOATING THROUGH THE
NATION'S BIGGEST AND MOST
ENDANGERED WILD PLACE.



by **Molly Loomis**
photographs by
Patrick J. Endres



I HEAR THE BLEATING

as our raft rounds a long lazy bend in the Utukok River. The distressed, desperate call comes from a baby caribou stranded on a small rock island midstream. Seated next to me is Joel Berger, a wildlife biologist. He estimates the calf is three days old. The cloudless sky is busy with ravens soaring in concentric circles. A sign of carrion. On the far bank we spot the white rump of a caribou cow racing through the tundra. And then another. Berger guesses a calf has been killed and a predator has separated the bleating calf from its mom. To distract the unseen predator, the cows spring up and down in the willows like Whack-A-Moles. I fight back a wild urge to save the calf, to smuggle it out on the raft. Finally, guided by instinct to survive, the calf quiets itself and curls up, camouflaged in the tawny cobbles. We float on.

Four days earlier a bush pilot dropped our crew on a remote landing strip alongside the Utukok River in Alaska's controversial National Petroleum Reserve (NPR-A). I've come to the Utukok with a team of wildlife biologists from the Wildlife Conservation Society (WCS). The goal? A 10-day rafting expedition involving field observations and information gathering for future studies.

Situated high above the Arctic Circle and void of access roads, the NPR-A is as remote as it gets. As a result, few Americans are familiar with the landscape despite its unique attributes including massive oil, gas, and coal reserves, plus the largest tract of undeveloped land in the United States. The 23 million acres, an area approximately the size of Maine, is critical refuge for an international cast of migratory birds; the country's largest caribou herd; our highest concentration of brown bears; and what may be North America's greatest population of wolverines. Nearly 40 native villages along the periphery rely on the NPR-A's bounty for subsistence. The native people harvest caribou from four herds and hunt waterfowl, fish, and sea mammals in the Beaufort and Chuckchi seas.

OK, that's the idyllic part. If you've watched a nature show in the past 30 years you know what's coming next. With our demand for oil, and climate change already radically altering the Arctic, it's uncertain how long this land of plenty will keep providing for humans and animals alike.

Perhaps because of its name "Petroleum Reserve," the NPR-A has long lived in the shadow of the smaller Arctic National Wildlife Refuge (ANWR), 100 miles to the east. Before I went, I too imagined a wasteland of drill rigs standing guard over mosquito-infested tundra. The majority of ANWR, managed by the U.S. Fish & Wildlife Service for habitat conservation, is closed to drilling. But because the NPR-A falls under the jurisdiction of the Bureau of Land Management, habitat and wildlife conservation must be balanced with energy development. Finding a middle ground is not easy, all the more so due to limited environmental science-based data on the NPR-A and scant funding available to further research. Even the native Alaskans who live on the NPR-A's edges are divided over protecting their long-term subsistence resources or capitalizing on the short-term benefits of extraction. Alaska's state legislature, meanwhile, seems intent on maximizing the energy.

"Decisions are being made that could affect the long-term health of this area without science even knowing much about it," says Jodi Hilty, Director of North American Programs for the WCS. A member of our raft party, Hilty is a former ultrarunner with a low-key demeanor. She tells me that with the exception of Teshekpuk Lake, a migratory bird haven in the NPR-A's north, very little work has occurred here that goes beyond aerial surveys or summaries of existing data. "Yellowstone may see 300 to 400 research projects a year," says Berger, who keeps a picture in his wallet of his current Arctic study animal, the musk oxen. "The NPR-A—an area approximately 10 times the size of Yellowstone—may have a half dozen projects. We run a huge risk because of the lack of knowledge."



Opening page: Caribou antlers rest on the summer tundra along Archimedes Ridge in the Utukok Uplands. The Trans-Alaska oil pipeline on the south side of Atigun pass in the Brooks Range.

Opposite: The party floats the Utukok River, located north of the Arctic Circle in Alaska's National Petroleum Reserve.

This page: The Western Arctic Caribou Herd migrating in the Utukok Uplands. And the Utukok River, a small feature in the wilderness of the NPR-A's 23 million acres.



THE NPR-A FALLS UNDER BLM
MANAGEMENT, MAKING IT AN
EASY DIVERSIONARY SACRIFICE.





Geological formations along Archimedes Ridge. The largest coal seam in North America lies under the tundra pictured here.

Conservationists have confided in me that there is some reluctance within their organizations to give too much attention to NPR-A. The fear is that raising a fuss will divert attention and funding from the fight to protect ANWR. The fact that the NPR-A falls under BLM management makes it easier to cast off as a diversionary sacrifice. Still, the Reserve was designated in 1923, when the importance of maintaining large, contiguous ecosystems was not yet understood. Now it's lacking protection commensurate with its ecological value. And government decision makers may be too distracted by the short-term benefits of development to care.

Passing another slow bend in the river, we beach the rafts to make camp. We set about pitching tents until someone hollers. On a distant hill a herd of caribou is on the move. Hundreds of animals file down into the river, then back up to a green lawn of tundra. Visually it's as if they've opened a new tributary. Minutes later, the flood trickles to a halt and the caribou bed down.

As I unstuff my sleeping bag, a plover, all black feathers but for a white headband and yellow and white wing specks, scurries back and forth. Slightly smaller than a tern, the plover winters in South America before migrating to these Arctic breeding grounds. I take a step forward, and its left wing flattens into a dislocated contortion. Steve Zack, a biologist who has spent a decade studying migratory birds, turns from his tent to explain that the broken wing display is intended to lure predators away from chicks.

In the fading light, two animals move across a bench at the southern end of the valley. Initially, we dismiss them as caribou. But then we realize these are wolves, padding from the same area where we saw the stranded calf.

"That's it! That's it right there!" says Zack, one hand glued to his binoculars, the other fist pumping in the air. "This is as it should be—that's evolution in action." Zack shares his theory that the wolves attracted the ravens and upset the frantic caribou. The three lone caribou, separated from the mass migration of cows and calves, were seeking higher ground to escape the summer onslaught of mosquitoes. "I don't see events like these in my everyday life," Zack says later. "But my life is in these places."

On the sixth morning, we head up Archimedes Ridge, hiking in marshmallow-soft tundra. We pause to investigate the matrix of plants. It's a Thumbelina-sized labyrinth of moss, lichens, and delicate wildflowers. A ptarmigan's nest stops us—a delicate wreath holding speckled eggs left to incubate in the warmth of the solstice.

The emerald bluffs that line our quiet, meandering passage down the Utukok lack couloirs, crevasses, or crags for my eyes and ambition to get hung up on. Because there is no one focal point, it's easier to take in the entirety of the landscape, exposing the land's contours and wrinkles.

On our turbulent bush flight from the village of Koztebue to the river, I saw no evidence of humans for an hour and a half. Just caribou and musk oxen reduced to dots on the landscape. The river winds through the Utukok Uplands, the calving grounds of the 300,000 caribou that make up the Western Arctic Herd. Few places remain in the world where animals roam free on such an immense, extended scale. Zack calls the landscape "close to whole."

Higher up on Archimedes Ridge we find chunks of raw coal, part of North America's largest seam. The carbon-based fuel at our feet is just a few bits of the NPR-A's estimated 3.5 trillion tons of bituminous coal, nearly 10 percent of the world's total. Although coal extraction would take an act of Congress, it's a stark reminder that the wildlife is merely an attraction to some. Besides the coal, there's an estimated 17.55 trillion cubic feet of natural gas, and 604 million barrels of oil here. The word "reserve" means the fuels were put away for future use. But it's a bounty that energy developers are interested in cashing in on.

As the days pass, we graduate from polite conversation to planning meals—with group members playing the part of central protein. As the youngest, I will be cooked as veal cutlet. I am to stop paddling to avoid any chewy gain in muscle mass. We'll have to employ a slow cooker on Berger, who is more bone than fat from his decades in the field. Somehow most of the women have been lumped together on a boat with Zack, who dubs the experience "Steel Magnolia hell." We cackle and gossip our way downstream. White snarls of caribou hair line the riverbank. Entering a small canyon thick with willows and alders, Hilty cocks her head to listen to birdsong. "I think that's a robin," she says with a puzzled look. Robins range from Central Mexico to the edge of the boreal forest, which peters out near the Arctic Circle. But we're nearly 200 miles north of the Arctic Circle.

Zack scans the brush with his binoculars. "That's a fucking robin!" He doesn't suffer from Birder's Tourette Syndrome. His language aligns with the severity of the situation. This is no lone bird blown north on a gale. We identify at least a dozen robins singing away in the alders.

There are other indicators of rising temperatures in the Arctic. In the last decade, thunderstorms went from rare phenomenon to routine occurrence. Lightning borne wildfires have transformed the soil into habitat for shrubby vegetation like alders. I feel a twinge of guilt as we chip ice out of the permafrost for "Pleistini-itis," scientist humor and alcoholic homage to the Pleistocene era, when woolly mammoths crossed the Bering Land Bridge approximately 12,000 years ago. The permafrost is also under assault from increasing temperatures, leading to massive erosion and the release of additional carbon dioxide and methane into the atmosphere.

As the Arctic warms at a rate double the global average, Hilty explains that even the most baseline science is critical. Without it, it's difficult for scientists and land managers to determine what changes could be related to human influence, or how to address them. Hilty tells me the accepted strategy for dealing with such uncertainties is the protection of large, intact areas. Conservation is all the more relevant in the Arctic, where many of the animals are migratory. But the science conflicts with the BLM's other task: development.

This past February, outgoing Secretary of the Interior Ken Salazar signed a new management plan for the NPR-A. It designates almost half of the Reserve as "Special Areas" closed to development, including the Utukok Uplands. It was seen as a victory for the conservation community—formal protection for land previously susceptible to the whims of the executive branch.

Today, ConocoPhillips is moving forward on the first commercial well ever developed inside the NPR-A. The project calls for a bridge and a pipeline across the Colville River, which will facilitate access into the NPR-A and link to the road to Prudhoe Bay. For decades, the NPR-A's remoteness made development cost prohibitive. Drilling is still expensive, but the infrastructure will make further development easier. Although it would require additional studies and approvals, the NPR-A's new management plan also allows for a pipeline stretching all the way to the Trans-Alaska pipeline. Even with the added protections, the NPR-A could someday host 11 million acres of energy development, an area nearly the size of New Hampshire and New Jersey combined. Native Alaskans from the village of Nisquit recently filed suit against ConocoPhillips, claiming the bridge will be detrimental to subsistence hunting and fishing.

We float to the end of our trip, and I pass the short, dusky nights lying awake in my sleeping bag while long violet shadows stretch across the rocky beaches. Mosquitoes buzz. The citrusy smell of lupine rests heavy on the air. I think of the caribou calf bleating on the island. Was there a soft nature film ending, the cow and calf reunited and safely in the herd resting on the nearby hillside? Or did the wolves sniff out their prey? Ravens circling in the midnight sun. **m**



From top left: A grizzly bear in the midnight sun along Archimede Ridge. A Coyote Air de Havilland Beaver bush plane takes to air-space shared by migratory birds. Close encounters with the state bird, the mighty mosquito. A tent dots an expanse of tundra populated by wildflowers in the Utukok Uplands.

