

THE NORTHERN LINE

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"Behind is a forest that goes to the Arctic...and here we must draw our line."

-Gary Snyder



The Arctic National Wildlife Refuge: Meanings Embodied in America's Last Great Wilderness

by Roger W. Kaye, Wilderness Specialist, US Fish & Wildlife Service

In celebration of the twenty-year anniversary of the signing of the Alaska Lands Act (ANILCA), the Northern Center is featuring this look at wilderness—one of the values that informs and inspires our work to preserve and protect Interior and Arctic Alaska.

In 1953, a feature article appeared in the journal of the Sierra Club extolling the wilderness qualities that two scientists found in a remote corner of Alaska. *Northeast Arctic: The Last Great Wilderness* (Collins and Sumner 1953) began the transformation of this remote, little-known section of the Brooks Range into a place internationally recognized as one of the finest examples of wilderness, the Arctic National Wildlife Refuge.

The authors, National Park Service planner George Collins and biologist Lowell Sumner, recruited Wilderness Society President Olaus Murie and his wife Margaret into an effort to seek permanent protection for the area. Other prominent conservationists soon joined them.

It is noteworthy that their campaign to establish the Arctic Refuge occurred at a pivotal period in American environmental history. The mid-1950s witnessed the beginnings of a new environmentalism, a perspective recognizing a far broader range of landscape values than that of utilitarian conservation.

Two key figures of this emerging paradigm strongly influenced the refuge founders. Robert Marshall's writings about wilderness, and about adventuring in the Central Brooks Range expanded their understanding of the psychological benefits and cultural values one could experience in this landscape. Aldo Leopold had a "profound effect" on the range of scientific, experiential, and symbolic values they perceived wild places to hold. "It was his ideas that we brought with us to Alaska," Collins said.

Through the late 1950s, the founding

conservationists' writings inspired a growing constituency to write, speak and testify for the area's permanent protection. In 1960, the nine-million-acre Arctic Range was finally established. In 1980, the Alaska National Interest Lands Act more than doubled the Range and renamed it the Arctic National Wildlife Refuge.

The Arctic Refuge remains a place "where the wild has not been taken out of the wilderness," an agency brochure advises prospective visitors. "Perhaps more than anywhere in America," it continues, the refuge "is a place where the sense of the unknown, of horizons unexplored, of nameless valleys remains alive" (U.S. Fish and Wildlife Service, undated).

But what constitutes this "sense" of wilderness? The refuge's assemblage of wilderness-dependent wildlife, symbolized by the 120,000-strong herd of free-roaming caribou? The scenery and completeness of the five major ecosystems through which the caribou flow? Partly—but the brochure statement alludes to something beyond, something embodied by these biophysical qualities. It was inspired by what Olaus Murie (1959a) articulated in his congressional testimony, stating:

It is inevitable, if we are to progress as people in the highest sense, that we shall become ever more concerned with the saving of the *intangible resources*, as embodied in this move to establish the Arctic



courtesy of USFWS

One of the intrinsic values is the psychological well-being association with solitude

THE NORTHERN LINE

Environmental News of Arctic and Interior Alaska

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The back page photo of a red fox with "parka" squirrels was taken by Charlie Ott.

Wildlife Range (emphasis added)

Murie readily admitted his inability to define the intangibles that figured so prominently in the establishment of the Arctic Refuge. Since his time, environmental psychologists have labeled them as “psychologically deep,” “subliminal,” “preverbal,” and “archetypal.” Perhaps they are best summarized by Aldo Leopold’s (1966) simple phrase, “Values as yet uncaptured by language” (p.102).

The Wild in Wilderness: at risk?

The hard-to-define character of these qualities challenges wilderness advocates, managers and policy makers who wish to preserve them. But as psychologist Herbert Schroeder (1996) reminds us, their elusive nature is part of their essence and strength—their mystique. Like the wild caribou, the psychological and metaphysical stuff of wildness ought to be left alone, unstudied and unexamined. Indeed, it could be if remoteness would continue to protect this landscape. But even the distant Brooks Range is not far enough from new technologies and public and agency actions that threaten qualities that the founders believed should be timeless.

What would happen to the *essence* of wildness if there were no nameless valleys, no areas free of developments and “rec-



© Debbie Miller

Unnamed mountains line the shores of the Jago River.

reational improvements,” no secret places, no hidden corners along any route, dispelling the *sense* of mystery and the experience of exploration and discovery. And beyond the experiential aspects, how might such changes affect the symbolism this place has come to hold?

Research into the network of wilderness beliefs and attitudes associated with the Arctic Refuge has identified fourteen recurring values or meanings that have led to its emergence as an experiential and symbolic landscape of national significance. Briefly, these meanings can be summarized as:

1. The Arctic Refuge is a place for wildlife, particularly for sensitive species not tolerant of civilization, or not tolerated by civilization;
2. The Arctic Refuge is a place of scenic values;
3. The Arctic Refuge is a place of scientific values;
4. The Arctic Refuge is a setting for wilderness “recreation.”
5. The Arctic Refuge provides a connection to American cultural heritage;
6. The Arctic Refuge is a place of mystery and unknown, a place for exploration and discovery.
7. The Arctic Refuge provides psychological benefits associated with solitude.
8. The Arctic Refuge is a place of wildness, a state where Nature is uncontrolled and free to continue along its evolutionary pathway.
9. The Arctic Refuge provides a connection to the natural world and our species’ evolutionary past.
10. The Arctic Refuge is a place to approach and experience humility.
11. The Arctic Refuge is a place of intrinsic value.
12. The Arctic Refuge is a bequest to the future.
13. The Arctic Refuge is a place of restraint.
14. The Arctic Refuge is a sacred place.

Traditionally, the economic and other benefits of actions that impact wilderness values have been better represented. Needed is a more equitable understanding and consideration of those “intangible resources” Olaus Murie spoke for that may be diminished or lost.

This article was excerpted from the proceedings of the National Wilderness Science Conference, 1999. The complete article with a description of each meaning is available from the Northern Center (907) 452-5021, <info@northern.org>.

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Pogo Mine—Whither The Road?

by Larry Landry, Northern Center Staff

Teck Resources, Inc.—one of the owners of the proposed Pogo gold mine—and the Alaska Department of Natural Resources hosted three meetings during May and June to flesh out the issues surrounding access alternatives to the mine site.

All season road or winter road? A traditional winter ice road is logistically difficult for the mine. It would take roughly a month to lay down the ice after the ground freezes every winter. During warm winters, there is very little time left after freeze-up to haul in the tremendous amount of supplies that the mine needs to keep going throughout the year. The Division of Forestry raised an alternative—the style of roads that they use for logging operations. These roads are built by waiting for the ground to freeze up, blading the vegetation layer to make a flat surface, and then compacting the snow. The key is not to clear the surface all the way down to mineral soil, but to leave as much of the organic mat in place as possible. This keeps the ground insulated in the summer and prevents degradation of permafrost. A full logging truck weighs roughly as much as Pogo's vehicles will, and the Division of Forestry reports that it has enjoyed good success with these roads. They revegetate quickly with grasses after the first season of use, with little evidence of ponding, channeling or other signs of severe permafrost decay. By substantially reducing the annual construction time, this type of road would make winter access a much more viable option for the mine.

We hope to go on a tour with the Division of Forestry later this summer to learn more about these roads.

Given the high volume of traffic that would be using the road each winter and repeated use of the same corridor over a period of 12 or more years, it is safe to say that some scarring of the terrain is likely if such roads are used.

Access issues so often become thorny and divisive. The mine's responsiveness has opened the door to an amicable resolution—a welcome change and a positive roadmap for the future. While there is a long way to go, Teck Resources deserves our kudos for the steps they have taken to date.

However, we believe that with proper management, these impacts can be minimized and that they would be minor in comparison to the impacts of an all season road. For these reasons, we are encouraging the mine to use winter road access, augmented with aerial freight in the summer.

Regarding an all-season road, Teck has responded to the Northern Center and the Goodpaster River property owners' concerns about the impacts that a permanent road would have on the wildlife and wilderness values of the Goodpaster River drainage and adjoining high country. In a report it published before the meetings, the company stated that if it does choose to use an all season road, its preferred option would be to operate it as a private road during the life of the mine and to remove it when

mining is completed. To guarantee such removal, the mine has further publicly stated that it would place a bond for the full cost of reclaiming the road in the Northern Center and the Goodpaster Property Owner Association's name. This is a big step, and highlights the virtues of sitting down and attempting to work things

out cooperatively. Access issues so often become thorny and divisive. Teck's responsiveness has opened the door to an amicable resolution—a welcome change and a positive roadmap for the future. While there is still a long way to go, Teck Resources deserves our kudos for the steps they have taken to date. We are hopeful that this spirit of cooperation can continue to bear fruit and help us to find a way to let this mine move ahead without the long term detriment that would accompany a permanent road.

The Department of Natural Resources is resistant to the concept of removing resource development roads. Additionally the agency does not want to bind the future by making a commitment today, and doesn't believe that it could legally do so even if it wanted to. More legal analysis of these questions is needed. We are presently working with attorneys at Trustees for Alaska to seek an ironclad mechanism to assure that an all season road would be removed. Given Alaska's political climate, we must recognize that removing an all-season road in Interior Alaska would not be an easy feat, which is a major reason why we favor winter road access.

These issues will be with us for some time. The mine plans to submit a permit application to the state in August, and to begin an Environmental Impact Statement in October. We'll keep you posted.



A logging road up Shaw Creek that may be an access route for the Pogo Mine.

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Forest Facts—Non-Timber Uses of the Forest

by Nancy Fresco

The rolling hills and lowlands of Interior Alaska's boreal forest ecosystem are adorned with slender black spruce, taller white spruce, white-trunked paper birch, gray-barked aspens with fluttering leaves, shrubby willows and alders, and the occasional other woody species. But this is only the barest beginning of what the boreal forest entails; there is far more to the forest than its trees. Likewise, humans are dependent on the forest itself, and not just the timber or pulpwood that can be obtained from it.

The Alaskan boreal ecosystem also includes the species in the understory, in natural clearings, in old fire-scars and in areas of partial regrowth. Purple fireweed, beds of moss, and rich patches of wild cranberries and blueberries are part of the forest. So are the many species of fungi, birds, mammals, insects, and other invertebrates that inhabit the soil, the muddy pools of the muskeg, and the trees themselves. Such aspects of the ecosystem have always been of interest to biologists and ecologists—but in recent years, economists and even sociologists have started paying closer attention to the non-timber values of forests.

How can we place value on a forest? It's not an easy task, when so many of the forest's assets cannot easily be placed on a consistent or meaningful commercial scale—values such as habitat protection, watershed protection, viewshed, tranquility, oxygen production, recreation, and wildlife viewing. Non-timber values usually refer to attributes of direct or indirect value to humans, and can include both extractive and non-extractive uses. For example, cross-country skiing, bird-watching, photography, or picnicking are non-extractive. Hunting, fishing, or gathering berries, mushrooms, tree bark or wild herbs are extractive uses, and the rewards of such efforts are often referred to as non-timber products.

It is generally easier to place concrete economic values on non-timber products than on non-extractive uses, except in cases where money is directly exchanged, as in fee-collection for recreation and tourism. For the most part, such "passive" uses are devalued in the face of economic arguments for logging. Adding to the confusion, logging—or the road-building that facilitates it—is often subsidized. Thus, increasingly, forest

conservationists have turned to non-timber forest products to help explain how economic value can be obtained from a functionally intact forest. These forest products can include foods, medicines, fuels and raw materials. In the boreal forests of Alaska, traditional Native uses point to some of the products of the forests.

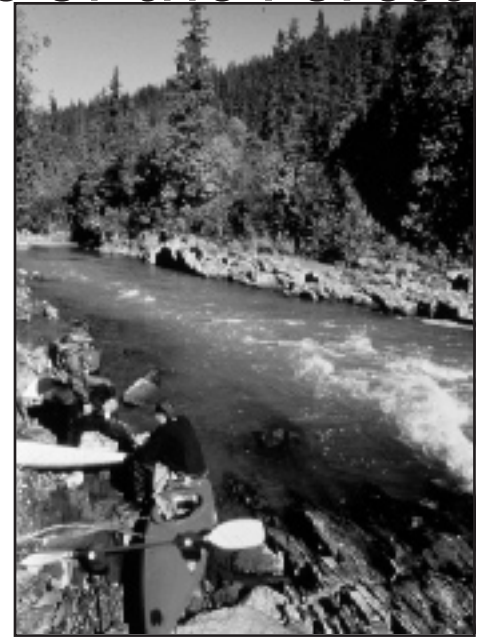
The importance of non-timber products first began to gain credence in reference to the world's tropical forests, where slash-and-burn agriculture has decimated millions of acres. Admittedly, the boreal forest does not harbor the astonishingly large number of different species found in lower latitudes. However, Alaska's boreal is rich with life, and has higher densities of large game and edible fish than many warmer regions. The area has a strong tradition of forest uses, including some of those outlined below.

Gathering: This includes plant materials for food or other uses. Mushrooms, young spring greens, cranberries, blueberries, raspberries, salmonberries, bunchberries, birch syrup, birch bark and reeds (for baskets) are some important examples.

Hunting and trapping: This includes both large and small game, hunted or trapped for food or for skins. Game species of the boreal forest include moose, caribou, Dall sheep, bear, wolf, snowshoe hare, beaver, coyote, lynx, martin, muskrat, marmot, mink, weasel, land otter, fox, squirrel, and various bird species such as grouse, ptarmigan, ducks, and geese. Most hunts are regulated by the state Department of Fish and Game.

Fishing: Fishing is classified as subsistence, sport fishing or commercial. Salmon fishing is of particular importance—coho, Chinook, sockeye, chum and pink are the five varieties found in Alaska's rivers and streams. Forest practices along the banks of salmon-spawning streams can affect erosion, siltation, large woody debris deposition and water temperature, and can thus affect the fish. Other species in Interior Alaska include sheefish, Arctic grayling, northern pike, burbot, rainbow trout, Dolly Varden, lake trout, whitefish and Arctic char.

Tourism: Forest tourism includes all of the categories listed under recreation, plus guided nature walks and boat tours. Tourism is a growing source of revenue in Interior Alaska. Many of the travelers



©NAEC File Photo

Kayaking is one non-timber use of the boreal forest.

who visit Denali National Park continue to Fairbanks or points further north. In addition to those who are interested in hunting and fishing, an increasing number can be categorized as eco-tourists, with an interest in local wildlife and ecology.

Recreation: Recreation can include bird watching, boating, hiking, skiing, and mushing. Four-wheelers and snowmachines can be included in this category, although in some cases their use is controversial or non-compatible with other uses. At some point or another, almost every resident of the Interior takes part in one or more of these forest activities.

Other non-extractive uses: Of all the non-timber values of a forest, watershed protection, habitat protection and aesthetics can be the hardest to value economically. This is not to say that they have no economic impact; a healthy aquifer, clean air, beautiful views and plentiful wildlife have profound effects on property values and on the amount of money people are willing to spend to visit a place. Unfortunately, such indirect benefits are often externalities—unaccounted by those who make choices about development and land use. For this reason, in the boreal forest and elsewhere, short-term profits and jobs from logging and mining are often given precedence over uses that might in the long run end up being more lucrative—not to mention more environmentally friendly.

Spotlight on the National Petroleum Reserve in Alaska: The Teshekpuk Lake Area

by Deb Moore

The following is the second in a series of articles focusing on a specific area within the National Petroleum Reserve and on the wildlife and natural values, which make that region unique and valuable.

Second only in familiarity to the Colville River, the Teshekpuk Lake area in the northeast corner of the National Petroleum Reserve in Alaska is well known for its tremendous value for the geese that concentrate there in great numbers. The Teshekpuk Lake area is part of a vast network of coastal lagoons, deep water lakes, wet sedge grass meadows, beaded streams & river deltas that cover almost one third of the 23.5 million acre Reserve. Thousands of freshwater lakes cover more than half of the coastal plain. These extensive wetlands are primarily vegetated by sedges, cotton grass, and mosses as well as lousewort, buttercup, and heather which provide sustenance and habitat to a wide variety of wildlife including waterfowl, shorebirds, and caribou.

The Teshekpuk Lake area supports the highest density of nesting waterfowl and shorebirds in the Reserve. No other area of the arctic coastal plain offers the extensive, nutrient

enriched, meadow-like habitats able to support large numbers of waterfowl while also providing deep, open lakes for security from predators when molting. The Teshekpuk Lake area sustains the largest goose molting concentration in the Arctic – with up to 60,000 geese (including the lesser snow goose, Canada and white-fronted goose and up to 20% of the entire Pacific black brant population) congregating at once. The coastal plain of the Reserve, including the Teshekpuk Lake area, is the primary arctic habitat for threatened spectacled eiders and also supports the entire breeding population of Stellar's eider.

Two distinct caribou herds make use of the National Petroleum Reserve in Alaska: the 450,000 member Western Arctic caribou herd which calves in the Utukok Uplands in the southwestern corner of the Reserve and the resident 21,000 member Teshekpuk caribou herd which calves along the southwestern shore of Teshekpuk Lake. The Teshekpuk herd mingles with the Western Arctic herd dur-



© Pamela A. Miller

The coastal plain of the Reserve is the primary arctic habitat for threatened spectacled eiders.

ing the summer but remains in the general vicinity of Teshekpuk Lake throughout the year.

The dominant mammal on the coastal plain of the Reserve is the lemming. The extreme fluctuation in their population is due primarily to their overgrazing and subsequent destruction of their habitat. These fluctuations are responsible for population fluctuations of predators such as jaegers, short-eared and snowy owls, and the arctic fox that concentrate in areas of high lemming population.

Boreal Shorts

by Nancy Fresco

People and the Forest

On Saturday May 13th, the Northern Center took part in a community event entitled "People and the Forest: What's happening in our back yard." Sponsored by the newly formed Northern Forest Network, the event tried to balance input from forest users and enthusiasts of all kinds—from University of Alaska professors to second-graders, from forest industry to forest ecology. The purpose of the event was to encourage communication, facilitate information exchange and strengthen community partnerships.

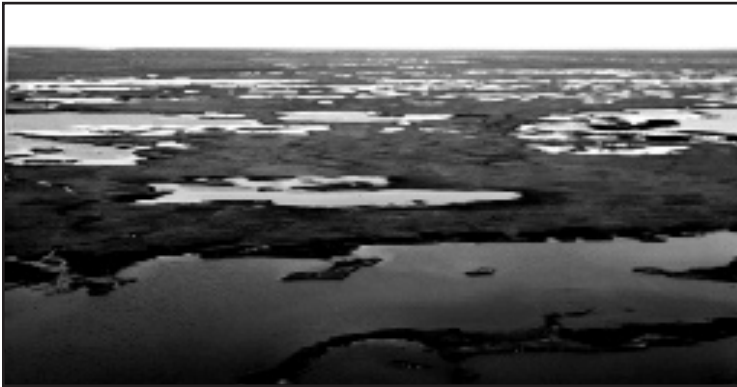


The event kicked off with a pancake breakfast, featuring fresh birch syrup from the Boreal Forest Council's annual sugaring project. Participants were then free to examine the various booths and displays. Want to learn history by looking at tree rings? Have questions about how hydrologic cycles affect boreal forest ecosystems? Want to know how chopsticks are made? All this and more could be discovered in displays filling the large conference room at the Chena River Convention Center.

The children's projects were particularly

inspiring, including a thorough investigation of Noyes Slough by students from Anne Wien Elementary School. The kids have learned about biology, hydrology, history and community dynamics from their studies and cleanup efforts. Their work, which won a 2000 International Schools Cyberfair Award, can be found on the web at <<http://www.northstar.k12.ak.us/schools/awe/noyes/noyesmain.html>>.

Throughout the day, speakers gave half-hour talks on various forest related issues. Topics included ecosystem management, forest stewardship, Creamer's Field management, long-term ecological research and local woodworking.



©NAEC File Photo

The Teshekpuk Lake area is part of a vast network of coastal lagoons, deep water lakes, wet sedge grass meadows, beaded streams & river deltas.

The Inupiat Eskimos, the principal Natives in the Reserve, are primarily a marine-based people whose subsistence lifestyle has been interwoven with a more modern, oil-development based economy. While marine mammals and fish are the chief sources of subsistence for the Inupiat, the inland fisheries and wildlife resources of the Reserve are a valuable part of the diet for nearby villages. The Teshekpuk Lake area is of particular importance to the Inupiat and has long been the site of many fishing and hunting camps.

Within the vast mosaic of wetlands south of Teshekpuk Lake lie the Pik Dunes. These dunes form a basin containing five lakes and are unique because they are still exposed and active within a larger dune system that has been stabilized and vegetated for at least several thousand years. Pik Dunes provides important insect-relief habitat for Teshekpuk caribou herd as well as for migratory Western Arctic caribou herd members. These dunes also provide vital habitat for several uncommon plant species as well as data essential to understanding major climatic fluctuations over the last 12,000 years.

In 1977, three "Special Areas" were identified by the Interior Department. They contained significant natural values where "maximum protection" was required: Colville River, Teshekpuk Lake, and Utukok Uplands. The 1.7 million-acre Teshekpuk Lake Special Area was identified and designated in recognition of its importance to nesting and molting waterfowl as well as to those gathering in anticipation of migration.

The northeastern corner of the National Petroleum Reserve has the highest potential for oil and gas resources in the entire Reserve. In 1998, the current Secretary of the Interior made available 4.6 million acres of the northeast corner for leasing to oil development. However, in part due to pressure from the Inupiat and environmental communities, he ordered the Bureau of Land Management to develop a compromise, which would protect most

of the important goose and caribou habitat as well as the subsistence resources, which are vital to the Eskimo community. This compromise included designating some areas as completely unavailable for leasing and placing strict restrictions on oil and gas surface occupancy in other areas. This compromise also added the 16,500 acres of Pik Dunes to the existing Teshekpuk Lake Special Area. However, oil and gas leasing and exploration were permitted within a significant portion of the original Teshekpuk Lake Special Area.

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Boreal Shorts

by Nancy Fresco

Rethinking



The world's boreal forests provide 60% of the international supply of industrial logs, and much of this wood is used to supply the world's rapidly growing demand for paper and paperboard. The market for pulpwood for paper production has increased five-fold since 1960, and this trend is predicted to continue. Currently, one quarter of the world's population is using three quarters of all the paper and paperboard produced globally. Predictably, as Americans we're part of that quarter.

It is almost impossible to protect our supply of wood—our forests—without paying attention to demand side of the economic equation. We all use paper, and we are likely to continue to do so. We've all heard the mantra "reduce, reuse, recycle," but are we doing it? The evidence says that we are, but not nearly enough.

If you're a member of the Northern Center, you're probably already making an attempt at grassroots-level conservation. But it still pays to take a moment, and before hitting "print," ask the following questions.

Do I really need a hard copy of this?

Do I really need so MANY hard copies?

Can they be double-sided, or printed onto paper that's already used on the other side?

Can they be printed or copied onto paper that is made from recycled fibers?

Can they be recycled rather than dumped in the garbage?

Is there a way that I can make it easier or more obvious for other people to do the same?

Just think—if we halve the amount that we print, use both sides of each page, and use only 50% or more post-consumer recycled paper, then we have reduced our paper use to less than 13% of what we might have consumed. Using the recycling bin is the link that completes the circuit.

Prince William Sound on the Brink of Change:

For those who know it, Prince William Sound is a natural treasure. Dripping hemlock forests stand at the edge of quiet coves; fishing boats and Orcas sail through silken waters, hidden by trailing fog; brown and black bears wait at the edge of clear streams alive with the splash of spawning salmon. In the background, the silver Chugach Range, presides over myriad islands, bays, and ancient forest galleries.

None of this is news to the many Alaskans and visitors who spend time in the Sound. What may come as a surprise is the magnitude of change proposed for Prince William Sound, due in part to development pressures and opening of the new Whittier Road in the west, and in part to the Chugach Forest Management Plan Revision (MPR) currently under way.

The Chugach National Forest encompasses thousands of square miles of coastal and mountainous terrain from the Kenai Peninsula eastward beyond the Copper River Delta, including the majority of land in and bordering Prince William Sound. Since much of the Chugach Forest has been under de facto wilderness management until now, there has been a very limited amount of commercial development. With new development plans on the horizon, it is imperative to convince the Forest Service that it is in the public interest to protect the Chugach's existing

wilderness qualities for the long term.

The Forest Service has issued a pre-draft working copy of their management plan's "preferred alternative;" the actual draft environmental impact statement should come out in August, and will be finalized after about 100 days of public comment. The result of over three years of public, agency and municipal input, the current document describes a complex mosaic of different land management "prescriptions" ranging from "primitive" to "resource development." On the whole, there is much to be commended in the document, but there is also considerable room for improvement from a conservation standpoint. As the plan stands now, it represents a much lower wilderness acreage than that hoped for by those who sought improvements to the 1984 plan; in this age of dwindling wild lands, we should be very critical of loss of wilderness on our most special public lands! Here are some of the most pressing concerns.

- Many interior Alaskans use Prince William Sound extensively but were passed over during the preliminary scoping meetings. In fact, many users are still unaware that the Forest Service's management style is about to change many parts of the Chugach.
- Tourism is sustainable only if the natural resources that make the Sound attractive in the first place

aren't incrementally degraded over time. Forest Plans are generally revised every decade, or so, and this plan opens far too much area to commercial and recreational development—especially helicopter-tourism—far too quickly. One of the greatest threats to wilderness and to the remote quality now found throughout most of the Chugach is the expansion of "industrial" tourism, including construction of high-volume lodges, tour-boat landings and associated on-shore activities, and helicopter tourism including helicopter flight-seeing, heli-skiing and heli-hiking, and construction of "wilderness" lodges accessed only by helicopter. Helicopters are extremely noisy, and are audible far beyond their actual path and landing areas, and they can have negative impacts on wildlife. The Forest Service should assess the regional availability of both motorized and non-motorized recreation areas—including nearby state lands—before even considering opening more public lands to helicopter and other motorized use.

Specific Area Concerns:

The Forest Service should be commended for recommending as wilderness the northern Sound (Port Wells east to Columbia Bay) and the southwestern corner (Port Nellie Juan south to Port Bainbridge). The Naked Island group, Eleanor and Ingot are also recommended wilderness.

Knight Island—one of the Sound's scenic and biological crown jewels—contains highly mineralized areas, and no part has been recommended for wilderness designation although the western half, as well as the northern parts are certainly worthy of protection and would not conflict with current mining interests.

Montague Island, the most remote and largest island in the Sound, is entirely open to conditional motorized use and some development. Indeed, there is essentially no wilderness recommended for the entire eastern half of Prince Wil-



© Jon Miller

The silver Chugach Range presides over myriad islands and bays in western Prince William Sound.

Take Action!

1. Write a letter (second best, send an e-mail) to the district ranger responsible for the areas you are most concerned about (listed below), and send copies to the Forest Supervisor, Dave Gibbons. (A separate copy sent to the Northern Center would be helpful, as well, to help the conservation community keep track of popular sentiment). If you have specific concerns, call the appropriate district ranger and speak with them directly. It can make a difference!



© Jon Miller

A kayaker paddles toward Knight Island.

liam Sound; this serious shortcoming could be relieved to some extent if at least the northern half of Montague was designated wilderness. Also, **Port Gravina**, with its dramatic mountain-ringed bays, offers a good option for a small wilderness area here on the east side of Prince William Sound.

Valdez Arm, Jack Bay and Sawmill Bay, popular recreation areas that form an impressive viewshed for visitors entering Prince William Sound from Valdez will be opened to recreational helicopter use if the many boaters, fishermen, hunters and paddlers who use this area don't speak up! It's important for the Forest Service to hear that the public values having wild, un-"improved," quiet places to go within easy traveling distance from towns.

Beyond Prince William Sound proper, the plan does not protect important wildlife habitat and recreation areas adequately. Conservationists made a concerted effort to have much of the unique and highly productive coastal wetland complex of the Copper River Delta designated as wilderness. After initial support for the idea, the Forest Service chose at the last minute to open the entire delta region to motorized use; this omission should draw national attention, and conservation-minded Alaskans ought to be among the first to call the District Ranger, Cal Baker, on this.

On the **Kenai Peninsula** no wilderness areas have been set aside, though there is strong local support for wilderness, and virtually the entire area is open to heli-skiing. Critical habitat proposed for "brown bear core area" management does not protect bears or their habitat nearly as well as wilderness would.

2. General and philosophical comments are useful, but highly specific comments (i.e., specific recommendations about which management prescription you want to see and where, and how you personally use and area) are far more likely to have an effect.
3. Current revision information, including detailed maps, can be found on the web at <<http://www.fs.fed.us/r10/chugach/revision/>>. If you have problems with this site or other questions, the Chugach Forest information number is (907) 271-2500, and the staff is very helpful. The documents can also be found at the Northern Center's office in Fairbanks—please stop by to peruse them.

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Opposed to increased oil drilling?
Don't want to see more power lines?
Want to breathe cleaner air?
Like to save money?

Save Energy!

Golden Valley Electric Association's three new pilot programs make it easy for you to save energy. For interested homeowners, an energy specialist will come to your abode and install energy saving devices at no extra cost. GVEA also provides rebates to builders and businesses that use energy efficient ways of getting their electricity.

To find out more details about the Home\$ense, Builder\$ense, and Business\$ense programs go to GVEA's website at <<http://www.gvea.com>> or call (907) 452-1151.

Springtime in the Arctic Refuge

By Deb Moore



courtesy of Deb Moore

Coastal plain of the Arctic Refuge: scouting the first fork of the Hulahula River.

Spring is a time of awakening across the earth, but nowhere is it more intense and accelerated than in the arctic. A mere two days can be the difference between an impassable expanse of ice and a navigable river. They can also be the difference between the uniform brown and green of early season tundra and the brilliant wash of white, yellow and purple flowers of full-blown spring.

But springtime in the arctic can also play interesting tricks with time. Take, for instance, traveling down the Hulahula River in the Arctic National Wildlife Refuge from high in the mountains of the Brooks Range out through the delta and lagoons to Arey Island in the Beaufort Sea. This June, as my companions and I journeyed for eleven days along this fast-flowing thoroughfare, we traveled backwards in time and temperature – ending significantly earlier in the spring season than we had begun.

Seasons weren't the only things that changed over the miles. The 90-mile paddle also brought about shifts in wildlife, vegetation and terrain.

Visible at times during our trek, Mt. Michelson and the glacial-capped Mt. Chamberlain still wore their white winter blankets. However, closer to the Hulahula, the 3,000 – 5,000 foot peaks had shed their winter clothing for the season – opting for barren shale on the high

ridges. Lower on these mountains and along the river's edge, the warm sun had awakened a host of hardy, fast growing flowers and plants. White mountain avens and windflowers predominated with occasional patches of pink and purple louseworts, oxytropes and saxifrages and the saffron-colored glacial avens.

The most abundant animal inhabitants found in the mountains, the Dall sheep, nonchalantly perch on steep, rocky slopes that even the hardest hiker would prudently avoid. Closer to the river, less acrobatic mountain dwellers are present including wolves, grizzlies and moose as well as the ever-popular ground squirrel. Overhead, peregrine falcons nest in the cliff faces carved out by the rushing waters.

In June, the sun never sets in the Arctic Refuge although it may occasionally disappear behind the slopes—causing a sudden and distinct drop in temperature. However, it inevitably reappears at each break to bathe the mountains and river in a beautiful golden evening glow. Farther out in the foothills and along the coastal plain, the sun circles endlessly overhead, changing only slightly in angle above the earth throughout the day and night.

The waters of the upper Hulahula move swiftly and surely down toward the coast, bending in sharp S-curves that cause occasional heart palpitations amongst the brave few who travel its waters. At times

smooth, the water is more frequently churned up by large boulders to navigate around, roller coaster waves to simply ride and rock gardens, which create shallow areas through which boats must be dragged or spun off.

At various places along the upper river, the river traverses through canyons of ice up to ten feet high. The sounds of ice breaking and falling into the water can be heard repeatedly and a myriad of meltwater waterfalls pour off these walls into the river.

As the water rushes northward, the surrounding land begins to mellow into rolling foothills. Rocky slopes give way to miles of marsh, hummocks, and tussocks. The occasional glassy lake hidden within these foothills provides a safe haven for many nesting birds such as oldsquaws, swans, sandpipers and mergansers.

The foothills along the Hulahula appear to be a few days behind the mountains in terms of vegetation. Although the mountain avens and windflowers have begun to bloom, the mountain hillsides are not yet awash in pinks, purples and yellows. Leaves on the arctic willow and birch have just opened and are beginning to expand to greet the sun.

Animal life in foothills has changed as well. Gone are the Dall sheep and peregrine falcons, which depend on the steep rocky slopes for survival. Instead an occasional caribou will share the rolling hills with the ever-present grizzlies and arctic ground squirrels. In addition, shorebirds and waterfowl become frequent residents.

Moving northward, the land continues its transition from the soft foothills into the flat and continuous coastal plain—broken only occasionally by rising sand dunes. Here the temperature is significantly cooler and the spring season has barely begun. Willows are just beginning to bud, their leaves not yet formed. The evergreen leaves of the mountain avens cover the land, however; their flowers are yet to be seen.

In most years, the coastal plain of the Arctic Refuge is the calving grounds for the 130,000 animal Porcupine caribou herd which travels from Canada each year to raise their young on the lush vegetation of Alaska's Arctic. However, this year's late breakup prohibited such travel, leaving the caribou to calve in the less congenial conditions of western Canada. For the time being, the domi-

nant wildlife species on the plain seem to be the ptarmigan and muskoxen—two year long residents whose travel plans aren't dependent on weather and snow depth. Grizzly bears, which generally head to higher ground during the spring and summer months, are still wandering the coastal plain.

With the flattening of the land, so too comes the flattening of the river. Gone are the rushing rapids and sharp curves. In their place, the river braids out into many channels with rapidly changing water levels. Rocks within the waters have now been replaced with deep mud, which clings tenaciously to the boats and is hard to dislodge in the slow moving current. Here the bitter wind flowing off the sea ice appears to negate any benefit derived from the current—making forward progress a labor-intensive process.

About a half mile from the edge of the coastal plain, Arey Island acts as a barrier to the Beaufort Sea, thus creating a brackish water lagoon. Arey Island is a quarter mile wide, several miles long, completely flat pea gravel island which provides vital nesting habitat for many rare and threatened bird species such as eiders, yellow-billed and Arctic loons and black brants as well as for oldsquaws and Arctic terns. Although the island

itself is free from snow, it has probably only been clear for the last day or two. The pack ice from the Beaufort Sea still clings to the northern side of the island and free floating ice still travels around in the lagoon. No vegetation has yet to show its face in the bitter wind of early spring in the island.

Looking southward, the mountains where our journey began are visible across the glorious expanse of coastal plain. The

changes in season, terrain and wildlife that we have experienced are laid out before our eyes. In addition, we begin to realize that except for an occasional overhead plane and two unoccupied Inupiat fishing camps we have not encountered any human activity or development anywhere along the river. Wilderness and wildlife predominate in this world. May it ever be so.



courtesy of Deb Moore

Deb's raft runs the lower canyon on the Hulahula River.

Cross-Country Arctic Quest Concludes in DC

by Deb Moore

Last February, Jeff Barrie, the producer and director of the documentary *Arctic Quest: Our Search For Truth* embarked on a 4,500-mile cross-country bike tour to promote wilderness protection for the Arctic National Wildlife Refuge. This tour was sponsored by the Northern Alaska Environmental Center and funded in part by the Brainerd Foundation and the Alaska Conservation Foundation.

Four months later on June 14, pedaling with only one leg but determined to finish the journey, Jeff victoriously arrived in Washington, D.C.

During his epic journey, Jeff showed his documentary over 50 times to such diverse audiences as high school and college students, church groups,

Rotary Clubs and elementary school kids. All told, over 2,000 people watched the film and listened as Jeff and his traveling companion, Alex Tapia, talked about the threats posed by oil development to the coastal plain of the Arctic Refuge. Millions more saw them on TV, heard them on the radio and read about them in newspapers across America. Following each film screening, Jeff & Alex collected letters from participants urging their senators and representatives to pass legislation to permanently protect this essential wilderness. They collected over 1,500 letters and presented them to their respective recipients during a press conference on Capital Hill.

Cycling across the United States took a physical toll on Jeff. Midway through the journey, Jeff's knee developed an overuse injury. Jeff gamely pressed

on until Chattanooga when his knee finally gave out. However, determined to finish out the journey, Jeff proceeded to travel the last 1,000 miles (including 400 miles across the Appalachian Mountains) by pedaling with one foot.

While Jeff and Alex's cross-country quest may be over, their involvement in protecting the Refuge is not. They'll keep traveling and showing the film as long as people continue to show interest. Additional screenings can be arranged just by contacting Jeff at

<arcticquest@shoutmail.com>.

You can also revisit their journey by visiting their web site at

<<http://www.arcticquest.org>>.



From the Woodpile. . .

by Ginny Hill Wood,
Northern Center founding member
and regular columnist

Access or Excess?

Four years ago I was appointed to the Governor's Statewide TRAAK Board. I'm now serving out my second term, and I am beginning to wonder if I'm becoming a traitor to the cause.

The acronym TRAAK stands for "Trails and Recreational Access for Alaska." We serve under the direction and tutelage of the Department of Transportation, and the Department of Natural Resources—Division of Parks and Outdoor Recreation. Our major mandates are to review and comment on applications from the public for funding for outdoor

recreation facilities, which run the gamut from pullouts, privies, and picnic sites along highways to trail heads and trail routes for hikers, bicyclists, dog mushers, and equestrians, as well as for off road motorized use, not only in urban areas of the state, but also in "The Bush."

However, like most State and Federal citizen advisory boards, TRAAK can only recommend and advise, not legislate. Resolutions from our board can be (and quite often are) ignored or disapproved at "the top." Probably our major accomplishment has been as catalysts for getting the various

land managers to talk to each other instead of holding their agency cards pretty close to their bureaucratic chests; and to function as a 'second opinion' in the cross-fertilization of ideas and solutions in matters of recreational access on public lands.

When we gathered for our first quarterly meeting, we were fired up by an illusion that we would spend most of our efforts creating a comprehensive statewide trail system for Alaska, such as exists in so many European countries, that would get more people out of their cars and into our natural wonders for body and soul rejuvenation.

Instead our exhaustingly over-crowded agenda deals mostly with conflicts and problems of land ownership and jurisdiction—private, Native, and governmental. Maybe this is the curse and the salvation of our democratic process as opposed to an authoritarian dictatorship. It is

Boreal Shorts

by Nancy Fresco

Circumpolar Boreal Forest

Alaska is the only state in the US with a boreal forest ecosystem, but our northern interior forests are part of a much larger whole. The boreal forest covers large areas of Canada, northern Europe and Russia. The Northern Center receives news and exchanges ideas with the Boreal Forest Network, which is based in North America and the Taiga Rescue Network, which is a worldwide organization. Recent news from around the world includes:

Quebec, Canada—The 12,000 Crees of northern Quebec are once again locked in a struggle with federal and provincial government over the use of their ancestral lands. They have sent a delegation to Atlanta to ask Home Depot to boycott lumber from Cree lands. Home Depot, the world's largest lumber retailer, has recently announced that beginning in 2002, it will buy only lumber harvested by sustainable forestry operations. According to the Crees, Quebec's practices are irreversibly



damaging to hunting, fishing and trapping resources.

Russia—New Russian President Vladimir Putin has completely abolished both the State Committee on Ecology and the Federal Forest Service, effectively doing away with the only government agencies that had any regulatory power over environmental protection and logging. The responsibilities of these two agencies have been handed over to the Ministry of Natural Resources, an agency that has facilitated rapid exploitation of the country's oil, gas and minerals.

United Kingdom—Due to pressure applied by environmentalists via parliament, the British newspaper industry has agreed to produce paper that is made from at least 70% recycled fibers by 2005.

Sweden—A Swedish Forest Service survey released in April claims that the amount of old-growth forests, deciduous tress and old and dead trees will increase during the next 100 years, provided forestry is conducted in the same way as in the 90's. However,

activists still decry logging in some old-growth regions, call for ecologically and socially sustainable use of all state forests, and point out that forestry operations damage more than half of the archeological sites in the Swedish forests.

Finland—There are fewer old-growth forests in Finland than previously believed. Olli Turunen, former chairman of the Finnish Nature League, has prepared a map in which he has marked almost all of Finland's old-growth forests, a total of about 800,000 - 900,000 hectares (2 million acres). Earlier figures had estimates of over one million hectares. Some of the most important forests are not protected.

The Taiga Rescue Network <<http://www.snf.se/TRN/index.shtml>> recently released a new publication entitled "The Last of the Last" that contains maps of remaining old-growth forests of boreal Europe; including Norway, Sweden, Finland and North-west Russia. You can download the report and maps at: <http://www.snf.se/TRN/old_growth/last.shtml>.

frustratingly fumbling, exasperatingly slow and often discouragingly inept. But this process also is a barrier to doing the wrong thing too fast—the checks and balances we learn about in high school civics.

My personal “zerissenheit” (‘torn-to-pieces-hood’) is that I am beginning to believe that “access” is the problem, not the solution to a soul-satisfying outdoor recreational experience nowadays. There are too many of us on our highways, our byways, and even in our “out-back” in Alaska. And too much of our seeking “to get away from it all” is done in noisy, polluting, habitat-destroying internal combustion machines simply by pushing a throttle, which engenders the very emotion we seek to evade—road rage not merely on land but on our waterways and airways.

In the summer time, multi-thousand passenger cruise ships discharge their ‘cargo’ that swarms ashore in communities with far less population than the ships’ passenger lists. Personal jet-skis roar around on lakes and rivers, and deafening air-boats take nature tours across wet tundra. What next? Personal hovercraft?

Then there is the statewide and national outcry from the millions of snow machine operators, four-wheelers, and dune buggy enthusiasts (backed by the billion-dollar-industries that manufacture and sell these motorized means of recreational access) protesting any infringement on their rights to roar around anywhere in any manner over National Parks, National Forests, and designated Wilderness and wild lands.

Their war cry is: “We demand unlimited access with minimum restrictions!” Snowscapes unblemished by snow machine’s “high marking” tracks are fast becoming a rarity in snow country, as well as fresh air and quiet.

Helicopters shatter the serenity of the backcountry on

tours of glaciers outside of Juneau, and even in Denali National Park. The National Park Service has no jurisdiction over Park airspace.

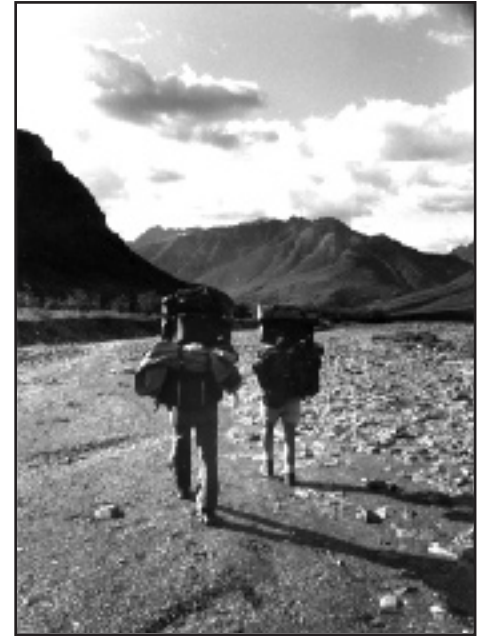
Recently I drove to Homer, my first visit there in 20 years. Again I was impressed with the magnitude, diversity and awesome beauty of our state. But I was horrified by what we are doing to it in the name of “access.”

And I never thought I’d be relegated to the “slow lane” on our highways because my 60 mph speed would hold up traffic!

In the Healy Canyon, bulldozers were tearing up the landscape along-side Kingfisher Creek at the entrance to Denali National Park, building a switch back roadway up the steep slopes to provide access to land on a bench east of the Parks Highway, where another 250-bed tourist hotel will be built.

The management and the guests will demand bus access on the Denali park road, which is already maxed-out with private and public tour busses.

Along the beautiful Kenai River every pullout was crammed with RVs, half of them the size of Greyhound buses, while along the river bank, shoulder to shoulder, stood masses of folk indulging in “combat fishing.” Few family outings nowadays seem to be done with tents and cooking over a campfire. RV’s on the Homer Spit were packed in as close together as in a mall parking lot. Where are the old backwoods woodcraft skills in all this sardine-like recreation? Maybe



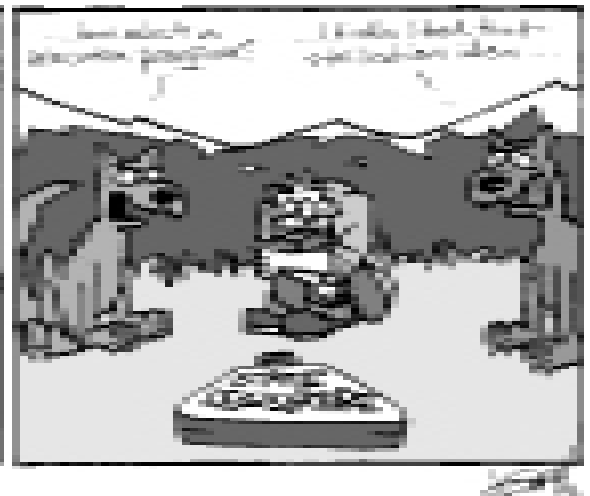
©NAEC File Photo

Backpackers enjoy the quiet beauty of a roadless wilderness.

they’re practiced by virtual reality on the TV in RVs in the evening?

At the Nature Conservancy board meeting in Homer the prediction was made that “70% of the large ranches in the West will change ownership in the next five to seven years.” Most of these ranches will be bought up by land speculators and chopped up into subdivisions or 30-acre ranchettes, thus fracturing the intact ecosystems now existing there. Goodbye to the Wild in the West!

It hasn’t taken the human race very long to use up a continent, has it? “If you build it (access), they will come.”



Community Turns Out for 30th Earth Day

By Amy Turner

If you drove by Anne Wien Elementary School on April 22, 2000, you might have seen some unusual sights. In front of the school, tires were being filled with air, families were having their pictures taken with a digital camera, and groups of children were running around participating in scavenger hunts and games. Inside the school, healthy food, live music, crafts and community information filled the hallways. Camp Habitat's Earth Day event raised \$1,500 for scholarships and Junior Counselor stipends for camp this year. More importantly however, April 22 was a day that many groups throughout the community came together to celebrate and educate the Fairbanks community about what they can do for Earth. The community groups attending were: ABR Inc., Arctic Audubon, Alaska Bird Observatory, Friends of Creamer's Field, Interior Land Trust, Noyes Slough Action Committee, Our Village Preschool, Fairbanks Soil and Water Conservation District, Integrating School of Shiatsu, and the Northern Alaska Environmental Cen-

ter. For the adults we also hosted a silent auction with oodles of items to bid on. Earth Day serves as an excellent opportunity for our community to reflect on our contribution and costs on this planet, and to celebrate that we live in such a majestic place as Alaska. Thank you to all the volunteers who made it such a successful day. Next year promises to be even bigger and better, we hope to see you there!



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Mark Ross as the Once-ler in his interpretation of *The Lorax*.

Pumping up for the Ref-

On a beautiful spring day last April, Fairbanks joined the rest of the nation, as well as 141 other countries, in celebrating the 30th anniversary of Earth Day. Several hundred Fairbanksans attended slide shows and a documentary film premiere on the Arctic Refuge, participated in Camp Habitat's community event, and, of course, had their tires inflated.

Had their tires inflated? Yes! On two separate occasions this spring, the Northern Alaska Environmental Center set up tire-inflating stations in Fairbanks where commuters could get a free tire pressure check and have their tires inflated by Northern Center volunteers. These stations were a great success!

But why would we do such a crazy thing? Because inflating your car or truck tires is a very simple way to help conserve energy and protect the Earth. Anyone who has ever tried to ride a bike with underinflated tires knows that there is greater resistance against the road surface and it takes a lot more energy to move your bike. Bringing them up to proper pressure decreases that resistance and is a lot easier on your legs. The same applies to cars—according to the American Tire Institute, if all Americans drove with their tires at the proper pressure, we could save over 2 billion gallons of gasoline (or 105 million barrels of oil) each year!

In addition, the American Petroleum Institute (API) claims the coastal plain of the Arctic National Wildlife Refuge in Alaska could potentially produce 290,000 barrels of oil per day or 105.9 million barrels of oil per year—the same amount of oil Americans could save in one year by properly inflating our tires. Funny how the Alaska Congressional Delegation didn't recommend such easy conservation methods instead of demanding access to the Refuge for oil development....

Boreal Shorts

by Nancy Fresco



Take Action for the Tongass National Forest

With guidance from President Clinton, the Forest Service is developing a new policy on when, where and how it should build new roads in National Forests. The plan has the potential to grant full protection to roadless areas—regions of 5,000 or more acres that are currently wild and undisturbed. Unfortunately, the Forest Service draft plan has two loopholes.

First, it excludes the Tongass National Forest which is not only the nation's largest National Forest; it's also the heart of the world's largest remaining expanse of coastal temperate rainforest. Today, even with new management in place, most Tongass logging will still take place in remote old-growth wildlands, and efforts to increase cut levels are underway.

Second the draft policy only prohibits new road construction; it does not stop helicopter logging, mining or other exploitation.

Your written comments supporting inclusion of the Tongass and a ban on logging could help persuade President Clinton to improve the Forest Service proposal and protect Alaska's wild forests—but we need to act quickly.

The comment deadline is July 17th.

Send your comments by fax: (877)703-2494

e-mail: <roadlessdeis@fs.fed.us>

or phone the President: 1-800-663-9566.

Campers Migrate Back to Creamer's Field

By Amy Turner

Now that the birds and the leaves have returned to Creamer's Field, another species is enthusiastically migrating towards College Road—Camp Habitat campers. We are in the midst of our tenth, exciting year of Camp Habitat!

June started off with Nature Sprouts, our four and five year old programs. Children learned about the insects, animals and plants of Creamer's Field through games, songs and activities. Sprouts hiked to places unknown, chronicling their learning in journals. The Nature Sprouts celebrated the end of their five, half-day sessions with a garbage parade.

Our older campers start in July with a more intense focus on Alaskan habitats. These campers age six through nine learn about their habitat through fun activities, guest speakers and hands-on adventure. The rugged Refuge Adventurers and Nature Detectives hike to far reaches of Creamer's Field in rain or shine. The eight and nine year old campers will attend a one-night campout in the Chena River Recreation Area.

Earthworks allows ten and eleven year olds to investigate the sources and uses

Nature Sprouts I march in their recycled garbage parade.

of sustainable energy, such as solar, wind, and water power. It also serves as an introduction to minimum impact camping, with a three-day trip to the Chena River Recreation Area. Campers develop and complete science projects, and guided solo journal time helps them discover the world around them.

Introduction to Backpacking takes the minimum impact camping

learning to a higher level. Ten through twelve year olds will be hiking up the Granite Tors trail with fully loaded packs for a two night, three-day excursion. Campers will be instructed in basic wilderness backpacking (how to use a backpacking stove, how to appropriately pack your backpack, first aid, etc.).

Thanks to the hard work of Jen Steitz, grants from the Master Gardener's Association and Soil and Water Conservation District will give all the campers the opportunity to participate in the planting and maintaining of the Creamer's Field Historic Garden. Children will get an opportunity to learn about Heirloom varieties of seeds that the Creamers planted on their farm, and how our climate is unique and challenging for crops.

Our tenth anniversary should be an exciting year of new activities. We hope to see all our campers again next summer!



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Updates!

1. Weekly garden activity sessions are being organized for any Camp Habitat youth interested in continuing to spend time in the garden during the growing season. Parents are welcome to attend and provide support. Contact Jen Steitz 479-4586 or <mtavens@hotmail.com> for more info.

2. A Community Garden Day has tentatively been scheduled for August 6 at the Creamer's historical garden, to celebrate children's efforts in the garden, and also to recognize the role of the greater Fairbanks community in graciously supporting the Camp Habitat Youth Garden Project. Games, music for children and adults, a Garden Harvest Potluck and more! Please stay in touch with Jen Steitz 479-4586 or <mtavens@hotmail.com> or Amy Turner (452-5021) for more details.

Shifts in Staffing, and Intern Additions

Mara Bacsujlaky—Mining and Water Quality Campaign Coordinator

Mara Bacsujlaky is the new Mining and Water Quality Campaign Coordinator. In addition to designing and implementing the program at the Northern Center, she continues her work as Executive Director of Neighborhood Mine Watch, a community grassroots group she co-founded a year ago.

A geologist, Mara has worked in the environmental and mineral exploration fields. From 1995 to 1997, employed by LaTeko Resources (former owner of the Ryan Lode) she was Project Geologist for several grassroots gold exploration projects in the Fairbanks and Circle Mining Districts. This position not only gave her experience in project management, budget development and employee supervision, but it also gave her valuable insights into the operations of mining companies. Additionally, through her professional work, she has acquired knowledge of environmental and mining regulations,

and has established a number of contacts in both state and federal agencies. Currently she is the Alaska representative on the Western Mining Activist Network Steering Committee, a member of the Fairbanks North Star Borough Trails Advisory Commission and a member of the Mineral Policy Center's Mining in the Media Steering Committee.

Mara received her Bachelors of Arts in Geology from the University of Pennsylvania, Philadelphia, PA. In 1998, she enrolled in the Natural Resources Management Masters program at the University of Alaska, Fairbanks. Her graduate work, now put on indefinite hold while she tackles mining issues, focused on resource policy and environmental mediation. Her decision to become involved in the environmental and community issues surrounding current and proposed mineral projects arose from her experience in the gold industry, and from observations

of the increasing activity of multinationals in Alaskan mineral exploration and development.

Initially, at the Center, Mara will concentrate on developing programs for the three largest mineral projects in Interior and Arctic Alaska: Pogo, Red Dog, and the Fort Knox Regional Mill and Multiple Open Pit Mine Plan. She is also working closely with both state and national groups, among them the Alaska Conservation Foundation, the Center for Science in Public Participation, Trustees for Alaska, Alaska Community Action on Toxics and the Western Mining Action Project, to develop long-range planning and strategy for mining campaigns, and to address potential regulatory reform in the state.



Northern Center staff and interns in front of our office at 218 Driveway Street. From left to right back row: Sophie Sampson, Cathy Coletti, Beth Caissie, Mara Bacsujlaky, Amy Turner. Front row: Allaire Diamond, John Hsu, Larry Landry, Nancy Fresco, Deb Moore, Arthur Hussey, and Vera Sampson. Furry friends: Nina and Comet.

Allaire Diamond—Forestry/Education Intern

This summer I'm having an adventure. I originally planned to come to Alaska to take a course with the National Outdoor Leadership School in late July, and then decided to extend my trip by working part time at the Northern Center and part time at the University of Alaska. I'm living in a cabin in the boreal forest, hauling water from Fox spring, growing radishes, lettuce, turnips, and rosemary, playing my flute on alpine ridges, and biking at midnight. It's great!

I'm going into my senior year at Wellesley College in Wellesley, Massachusetts, with a self-designed major called Environmental Ethics and a minor in Biology. I live in Springfield, Vermont, much smaller than Alaska but an equally wonderful place. Everything here is so big, and my work at the Northern Center is helping to ground me in a vibrant part of the Fairbanks community. I'm working with Nancy Fresco and

Amy Turner, developing educational resources to help kids think about forest management issues and the different ways of dealing with conflicting interests. I'll also be designing the Northern Center's booth at the Tanana Valley State Fair and working at Camp Habitat. It's exciting to talk to people with so many different perspectives on land issues, to listen to their stories and try to understand where they are coming from. The issues and ecosystems are so complex and many-faceted, that there are no simple answers. What I want to do at the Northern Center is try and give students and fair-goers a framework for looking at the tangled world around them, and the myriad ways people deal with that world. I want to present issues and ways of thinking about them in an accessible and attractive way. I look forward to my work here with the farthest-north environmental organization.

John Hsu—Mining and Water Quality Intern

An Environmental Science & Public Policy student at Harvard University, John is extremely excited to be working as the Mining and Water Quality intern for the Northern Center this summer. Besides enjoying the outdoors, John spends his free time at school involved with various campus organizations. An avid photographer, John is a sports photography editor for the school newspaper and also a photographer for the school yearbook. He teaches about nature to 2nd and 3rd graders and is working with others to create an environmental science curriculum for 5th and 6th graders at a local elementary school. John also enjoys playing intramural sports during the school year, singing in a choir, and volunteering his time at a batterer's intervention program.

Looking for a change of venue for the summer, John is fulfilling his summer dreams by working in and enjoying Alaska as he spends his days helping Mara Bacsujlaky with many of the various mining issues in need of attention in Alaska and his evenings hiking, playing volleyball, or volunteering at the Fairbanks Hospital. The most striking thing so far for John (besides the 24 hours of daylight and lack of vegetables in his diet) has been the amazing hospitality of his

coworkers who, in addition to having housed, fed, and provided transportation for him, have also become great role models and friends. After this unique summer experience, John is confident that he will return to face his second year college with 8 weeks of experiences that will have given him a larger and deeper perspective of the world around him, a better understanding of himself, and many mosquito bites.

Sophie Sampson—Run for the Refuge Intern

In my regular life I live in central London and study fashion and textiles at Ravensbourne College, supporting myself by working in expensive stores selling rich people things they don't really need. Coming here is something of an antidote. While my environmental experience is limited to small things like helping to set up a recycling scheme for my apartment block, I bring openness to learning and enthusiasm. I am following my mother to Alaska to fill my soul with wilderness and hopefully help preserve it here for future generations.

I spent my childhood in the rural north of England, and when I went away to school I developed a passion for long distance hiking, spending many of my

Cathy Coletti—Communications Intern

There is a duffel bag in the darkest corner of my closet filled with journals that span more than 10 years. From the first awkward scrawls of a third grader just learning cursive writing to the insecurities of a junior high school student to a young woman in college, there has been one dream: to go to Alaska.

As a Rhode Island native, I grew up far away from the land of my dreams, but kept a close watch on its happenings. I became enraged when I found out about the Exxon Valdez oil spill. Even then, modern society's destruction of our natural wonders seemed inherently wrong. Soon after, my best friend and I started planning our Alaskan trip. We collected brochures and saved our change in plastic orange juice containers.

Now, 13 years later, I am here to speak in the land's defense. This spring, as a graduating senior at the University of New Hampshire, I could think of nothing else that I'd rather do than travel to Alaska and help protect the remaining wilderness of the state. As the communications intern at the Northern Center, I hope to learn as well as contribute. My twin passions since childhood, writing and Alaska, have finally combined to create a niche for me in post-grad life.

weekends hiking and camping on Dartmoor. In previous episodes of my life I have studied Medieval History, worked selling things as diverse as cutlery and telephones, and traveled as extensively as possible, favorites so far being Iceland and outback Australia.

My journey to Fairbanks has already shown me some of the natural beauty of this corner of the world. I came up the Marine Highway to Skagway during three days of glorious sunshine, seeing whales and bald eagles for the first time, then took the long way home, driving and camping via Kluane and Dawson City, experiencing torrential rain, blood-thirsty insects, and all the natural wonders of northwest Canada.

Thanks to our Great Volunteers!

We could never do it without our many dedicated volunteers.

Thanks to the following individuals for making our lives so much easier:

First of all thanks to Natalie Cornforth, Garnett Pessel, and Sandra Sedwart who mailed the last Northern Line with the help of student volunteers Seth Adams and Chelsea Wilkes, on March 17th. You did a hard 2 ½ hours work and we thank you.

Chelsea Wilkes came in over a period of several weeks to do a school project, and made a good start to cataloguing the office's collection of EIS's, which also provided her with an interesting introduction to environmental activism as she read and handled these basic textbooks of our trade. Seth Adams, in another school project, also helped with cataloguing, with a few small separate mailings, and with Earth Day. And Elizabeth McDowell, who also came in to so some hours, did a bit more cataloguing, and all sorts of useful little jobs around the office. Thank you all of you—you brightened our lives and helped expand our work.

Thanks to our four fabulous summer interns, Catherine Coletti, Allaire Diamond, John Hsu, and Sophie Sampson. All four are volunteering their time and their skills this summer to help the Northern Center expand its activities beyond the areas its small staff can manage in each 24 hour day.

For the National Day of Action on March 24, when Deb Moore was raising awareness of measures to reduce our need for Arctic Slope oil, a number of people and businesses helped with tire inflation: Kevin Ewing, Debbie Miller, & Dave Shaw at Beaver Sports, Rich Ackerman, Seth Adams, Todd Burnside & Sylvia Ward at All Weather Sports, and Ross Coen and Sarah Thornton at Apocalypse Design, while Jim Chumbley, Celia Hunter, & Dorothy and Lane Thompson helped at Delegates meetings.

Thank you to Christy Conway and Michelle Peschke who came into the office to answer the phone, write thank you notes, and enter camp information and members into our database during high volume times in the office.

Camp Habitat would like to thank the many volunteers who organized activities, staffed booths, and cooked for the Thirtieth Anniversary of Earth Day: Lizanne Hanson, Susan Grace, Nancy Wood, Gail Mayo, David Shaw, Tarika Lea, Mark Ross, John Carlson, Jeanny Ringstad, Cindy Adams, Linda Benson, April Crosby, Beth Caissie, Cindy Fabbri, Michelle Peschke, and all the other countless faces who showed up to help.

Linda and John Benson, and Dave Shaw put in a huge effort to help Amy and Beth move their office into the back—thank you!

Camp Habitat would also like to thank the following people for helping with our Nature Sprouts sessions: Mark Ross, Susan Grace, Margaret Eagleton, Allaire Diamond, John Hsu, and Nancy Fresco.

During Earth Week, Deb organized a series of events. Sara Callaghan, Faith Gemmel, & Jack Schmidt gave slide shows, Faith Gemmel & Monique Musick organized the local premier for the film *Arctic Quest*, Todd Burnside & Mary Shields made posters, and Jessamine Amason, Sara Callaghan, Tera Fallatt, & Adam Liljeblad inflated tires and promoted the advantages of economical driving at UAF, as Seth Adams, Todd Burnside, Richard Fineberg, Larry Paquin, Sarah Thornton, Ron Tinsley, and Phil Wildfang puffed up tires and spoke to people at Beaver Sports again, while John Lyle, Mary Shields, and Brendan and Julie Raymond-Yakoubian did the honors with the air compressor and the leaflets at Anne Wein School where the Earth Day Celebrations were held. Our thanks to all of you for helping to make this such a noteworthy event that reached so many new people in our community.

RUN FOR THE REFUGE

Sunday 20th August

Free T-shirts ~ Bandanas ~ Food ~ Music

Come and run or walk
6 or 10k at UAF
Bring kids and dogs
Listen to guest speakers
Find out ways you can help
Race entry \$10 adult, \$5
child

A day of support for the Arctic National Wildlife Refuge

For more information or to register, drop in
or contact us at the Northern Center
218 Driveway, Fairbanks AK 99701,
(907)452-5021, <run4refuge@hotmail.com>
If you would prefer to volunteer for the day,
contact Sophie at the Northern Center

Welcome to Our New Members.

... and welcome back to old friends. Thank you for supporting the Northern Center!

IN ALASKA:

Christy Conway, Fairbanks
Helen Behan, Fairbanks
Ascenath Helmericks, Prudhoe Bay
Kate Ripley, Two Rivers
Amy Turner, Fairbanks
Patrick Honea, Fairbanks
Richard Hansen, Fairbanks
Susan Deyoe, Denali National Park
Brendan P Babb, Fairbanks
Julie Shalvoy, Fairbanks
Tanya Kimball, Fairbanks
Sarah Madsen, Fairbanks
Rise Roy, Fairbanks
Sheli Hajdukovich, Fairbanks
Joyce Gavora, Fairbanks
Sarah Garland & Ron Barry,
Fairbanks
Leisa Mollett & Mitch Knobbe,
Fairbanks
Kate Pendleton, Fairbanks
Terry & Ray Halderman, Fairbanks
Terri Raudenbush, Fairbanks
Cathy & Rod Crew, Fairbanks
Barbara & Peter Boyle, Fairbanks
Christine Betz Hall, Fairbanks
Kathleen Fillingim, Ester
Charis Harris, Fairbanks
Melanie Desmond, Fairbanks
Libby Burgess, Ester
George Gross, Fairbanks

Ricki Ott & Danny Carpenter,
Cordova

Marin Kuizenga, Fairbanks
Nancy Wood, Ester

OUT OF ALASKA:

Phil Alonzo, Gansevoort NY
Tom Barrie, Boring OR
Allen Bartell, Trinity TX
Joe & Lorraine Bates, Hayden Lake
Idaho
Pixie Beery-Polglase, Venice CA
Lois Bernbeck, Middleton WI
Douglas Bingham, Edmonton,
Alberta Canada
Richard Binzer, Loveland OH
Hugh Blair, Blue Bell PA
Ruth Ann Blum, Cincinnati OH
Howie Breinan, Hebron CT
Sue Breiner, Cincinnati OH
Tom Cory, Santa Rosa CA
Kenneth Dawm & Kristen Simpson,
Orono ME
Patrick Dobey, Colorado Springs
CO
John & Deborah Faragallah, AE
APO
Russell Heath, Orono ME
Andrea Herrmann, Little Rock AR
Doug LaFollette, Madison WI
Robert McDonald, Flagstaff AZ
Andrew L Middleton, Brooklyn NY
Albert Miller, Cincinnati OH

Carol Miseulio, Growing the Seeds,
Trinity TX

Gerald Peach, Oregon OH
SL Pietruszynski, Raleigh NC
Pratt Rimmel, Little Rock AR
Jim Schweithelm & Linda Di Sante,
Burlington VT
Ruth Shaw, Orange MA
David Sielaff, Seattle WA
Anthony Sisto & Deanne L. Adams,
San Francisco CA
Allen Tabe, Cincinnati OH
Michael Vogel, San Francisco CA
Cindy Vonhalle, Joshua Tree CA

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Conservation Abstracts

by Florence Collins, member

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RED DOG ZINC MINE in northwest Alaska wants to expand its port on the Chukchi Sea, but this is opposed by the village of Kivalina, who says it would disturb sea mammals and hurt subsistence hunting, as noise from construction, ocean-going ships, etc., will change migration routes and feeding grounds. NANA, the native regional corporation and the mining company, say studies should be made to decide if the fears are justified. The Army Corps of Engineers has begun study of a proposal to dredge a 50-foot-deep channel in the Chukchi Sea, with a conveyor system "2 or 3 miles out to sea" to load ore directly onto ships. *FDNM*, April 27, 2000, p. A-5.

GOV. KNOWLES VETOED THE UNIVERSITY LAND GRAB BILL, SB7, which would give the University of Alaska 250,000 acres of land, but the legislature voted 41 to 19 to override. The state attorney says that because it is an appropriations bill, 45 votes are needed for override; the legislature disagreed, and the Legislative Council, acting for the legislature, sued the Governor on June 28, 2000. The University says it will "leave litigation to the politicians." *Fairbanks Daily News Miner*, June 11, 2000, p D-1.

DENALI NATIONAL PARK has banned snow machines from the 2-million-acre "core," (the old Mt. McKinley National Park), according to regulations published June 12, 2000 (to be effective 30 days later). The prohibition does not "affect sport or subsistence activities on lands where they are currently permitted"; the regulations "re-establish the historical public use restrictions on this, Katmai, and Glacier Bay National Parks which, prior to ANILCA, were essentially closed to motorized access." Public comments nation-wide were 97% in favor of the regulations, 92% of Alaskans' comments were also in favor. *Denali Dispatch*, Spring, 2000, p. 3; National Park Service News Release, June 8, 2000.

THE ALYESKA PIPELINE SHIFT of 21 inches that happened "shortly after an April 17th re-start" was undetected until routine maintenance on May 15th showed 7 anchor assemblies had tripped. Gas in the line had been compressed and generated pressure enough to shear off steel bolts along a mile of the pipeline. The "support system" worked and no damage was done, but increased surveillance is being done to prevent a recurrence. *FDNM*, June 21, 2000, p B-1, B-2.

NATIONAL PARK SERVICE and the U. S. Fish and Wildlife Service have recommended the lower 99 miles of the Sheenjek River, which is in the Yukon Flats National Wildlife Refuge, for Wild and Scenic River status; the rest of the upper river is in the Arctic National Wildlife Refuge. Congress will make the final decision. *U. S. Department of the Interior Record of Decision*, May 3, 2000, p. 1-8.

A 100-HORSEPOWER PERSONAL WATERCRAFT (PWC) emits as much pollution in 2 hours as a 1998 car does in 139,000 miles. *National Park Lines*, 2000-24, June 19, 2000; No. 25, June 23, 2000.

DESTRUCTION OF THE FOUR DAMS on the lower Snake River that impede salmon was approved by a 3 to 1 vote at a public hearing in Boise, ID. *The Planet*, April 2, 2000.

FEAR OF TOXINS is keeping many Natives from eating traditional foods; they "have been seeing more tumors, lesions, spots and sores appearing on land and sea animals..." Marine animals have "elevated" levels of pollutants, and high levels of DDT occur in breast milk of Russian mothers in Arctic regions (and in salmon). *FDNM*, May 3, 2000, p. A-3.

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