

# National Parks & Conservation Magazine

The Environmental Journal

April 1980



# Ecological Forestry

**A**LL DEFINITIONS of forestry include the ideas of managing the forest resource for material and other values on a sustained basis. Such management is considered an art, a science, and the practice of a profession. Properly conceived, the practice of forestry always involves the knowledge and use of ecological principles, so in that sense the term "ecological forestry" is redundant. Yet it has great value for emphasis on the kind of forestry being practiced and for the objectives of management. The term forestry alone is too often construed as exploitation of forests for timber products and without due regard for environmental values and soil-site-water conservation in the long run.

Ecological forestry, then, harmonizes with the ecological requirements of the forest being managed. The silvicultural practices used go

in the same direction; they tend to emulate nature except on a shorter time scale. We do not wait for large trees to die so that space for new regeneration will be provided; we cut and use them before growth slows down too much. This point is called economic maturity and varies with the species, the site quality, and the wood product being produced. Sometimes appropriate trees should be left far beyond this point for wildlife or esthetic values. We do not wait for crowded trees to die, but thin them for useful products. For species that require moderate light to regenerate, we do not cut single large trees but cut enough to make an opening with sufficient light for development of regeneration. This is group selection. For some species in pure stands that require nearly full sunlight such as aspen or cottonwood, small clear-

cuts would be required. We also carefully consider site quality at each point of decision; this may easily vary by 100 percent from acre to acre. In these ways we follow the ecological requirements and constraints of the particular stand of trees. This is "ecological forestry" or just plain old conservative silviculture.

The forests developed in this way are similar to the forests of the region and the particular soil-site conditions present. This promotes stability, enhances diversity, and maintains the general health of the ecosystem. There need be no sacrifice in the total mass of wood produced; but the form, character, density, and species of wood may be different than, for example, a plantation monoculture. Practices like complete stand conversion and drastic changing of stand structure and

*Continued on page 31*



*Anthony Wayne Smith*

## **Anthony Wayne Smith,**

for nearly twenty-two years President and General Counsel of NPCA, and its principal editorial commentator, has resigned as of March 31, 1980, to engage in the independent practice of environmental law in Washington and New York, with offices at 1330 New Hampshire Avenue, N.W., Washington, D.C.. The Board of Trustees of the Association, in recognition of Mr. Smith's many years of service to the Association and his accomplishments in the conservation field, has conferred upon him the honorary title of Special Counsel.

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# National Parks & Conservation Magazine

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COVERS Life on the tallgrass prairie, by Patricia Duncan  
Front: butterfly weed; back: cock prairie chicken

*The butterfly weed's vivid orange is just one of the many colors that swath the prairie when its more than 300 species of wildflowers bloom. Spring is marked by the booming call of prairie chickens, which perform their mating dances on the same "booming" grounds year after year. Because the tallgrass remains unprotected, its plants and wildlife are threatened by steadily shrinking habitat. (See page 4.)*

**Eugenia Horstman Connally, Editor**  
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# How long the tallgrass . . . ?

by STEVEN JAY PARCELLS



PATRICIA DUNCAN

**A**T FIRST the white man came in trickles to the tallgrass prairie. Most of the early pioneers were merely passing through. Accustomed to the forested lands of Europe and the Atlantic shore, fearful of what they called the Great American Desert, and wary of territory still controlled by Indians, they sought instead the well-wooded, well-watered land of California and Oregon.

Before settlement reached the prairie in the 1850s, the tallgrass—some of which towered higher than a mounted rider's head—covered a quarter of a billion acres of central North America. Along the 98th meridian, north to Canada and south to Texas, from Indiana to the Flint Hills of Kansas, stretched this vast expanse of grass and wildflowers, inhabited by bison and elk, wolf and cougar, prairie chicken and meadowlark—and the Indians of the plains.

Gradually, as buffalo hunters destroyed the Indians' sustenance and the tribes were inexorably pushed from their land, railroads from the East and cattlemen from Texas advanced into the tallgrass region. But not until the development of a steel plow capable of turning over the deep, thick network of roots and soil that made up the prairie sod, did the American pioneer become a prairie farmer. Other inventions such as Cyrus McCormick's mechanical reaper, Marsh's harvester, and Appleby's self-knotting binder also aided the homesteader's advance westward and the accompanying change from bluestem grass to corn and wheat.

**T**ODAY LESS than 1 percent of that vast sea of grass remains. What was once primeval prairie is now home to twenty-five million people and to cities like St. Louis, St. Paul, Topeka, Kansas City, Des Moines, and Chicago.

The only sizable tract of tallgrass left in the United States is a narrow strip about fifty miles wide in the Flint Hills of Kansas and the Osage Hills of northern Oklahoma—a unique island amidst the surrounding farmland.

Although these hills have been heavily grazed by cattle and altered by human development, the essential ecosystem dependent on the root system of the tallgrasses has survived. Because the shallow soil and the prevalence of flint outcroppings have made plowing unpopular if not downright impossible, we can still see here virgin tallgrass prairie—awe-inspiring in its vastness, its serene vistas, and its changing colors and shadows.

And despite the changes wrought by people in the past hundred years, plant and animal life on the prairie is still incredibly abundant and diverse. Among the wildlife nurtured by the tallgrass are more than three hundred species of birds, ranging from the tiny dickcissel to the prairie falcon. Thousands more birds pause here during their annual migrations.

Although bison and elk no longer range freely over the prairie, the grasses are still home to white-tailed deer, pronghorn antelopes, coyotes, and more than sixty other species of small mammals. In spring and summer

thousands of insects zip and buzz amidst the prairie's hundreds of species of forbs and grasses, and everywhere butterflies float above panoplies of red, yellow, pink, blue, and white blossoms as successions of wildflowers come into bloom. Above them all the tallgrasses—big bluestem, Indian grass, prairie cordgrass, switchgrass, and Eastern gamagrass—bend and sway in the wind.

Before it disappears forever, friends of the tallgrass are now seeking a new means—a national reserve—to preserve the last remnant of the prairie in Kansas and Oklahoma.

**H**ERETOFORE, a major obstacle to the preservation of the prairie as a national park or preserve has been the fact that nearly all sites suitable for inclusion are privately owned. Thus, proposals for such a reserve in the Flint and Osage hills have met with opposition from fourth- and fifth-generation landowners who are wealthy, often politically powerful, and above all, steeped in the traditions of the sturdy, hardworking, self-made cattleman.

Many ranchers perceive the establishment of a national reserve in their midst as an unwarranted federal intervention in their affairs and a threat to their independent way of life. Such views are shared by much of the agricultural community of Kansas and Oklahoma and are reflected in the anti-federal sentiment being expressed in both state legislatures and in certain quarters of the U.S. Congress.

Ranchers and other opponents of a tallgrass prairie reserve seem to be resisting primarily the image and power of the federal government, which has alienated them historically, politically, and economically in various significant ways. In defense of their antagonism they point to the misapplication of eastern water rights concepts to the more arid West; the inadequacy of the Homestead Act to meet the needs of a cattle-ranching economy; the disregard for western concerns in the application of federal monetary policies; and what the ranchers consider to be ill-advised management of grasslands on the part of both the Forest Service and the Bureau of Land Management. Unfortunately for the proposed prairie reserve, the Park Service has often been tarred with the brush meant for these other agencies.

The opponents of the reserve take the position that ranching is not inconsistent with preservation. Many also think that an acceptable substitute for a national reserve would be a prairie parkway with overlooks at appropriate scenic high points.

Supporters of the reserve agree that this would be an excellent idea. They even agree that most successful ranchers are conservationists. They point out, however, that preserving the unplowed prairie is not the same thing as preserving a complete ecosystem. They maintain that a well-planned reserve could fit in with the lifestyle, landscape, and economy of the region.

Supporters of the reserve also contend that the tallgrass is already being altered by increasing develop-



PHOTOS BY RON KLATASKE

ment and changing land management practices. They point out that this part of the prairie has only retained its virgin character because it has never been plowed, it has not been overgrazed, and it has been burned regularly to ensure healthy regeneration of the grasses and the elimination of seedling trees and shrubs.

Traditionally, steers were put to grass in the summer and sent to feed lots to fatten in the fall. The grass died back in the winter and was burned off in the spring. In recent years, however, there has been a trend to year-round grazing in the Flint Hills area that has disrupted traditional fire management practices. As a result, volunteer woody plants invade the pastures, ranchers use herbicides to control them, and native species of plants are destroyed in the process.

Because native bluestem grass loses its nutrients and becomes reedy in the fall, it is a poor year-round grass. Thus some ranchers who have adopted year-round grazing have been tempted to plow and replace it with nonnative species of grass that winter well.

In addition to these changing ranching practices, progress—in the form of highways, urban sprawl, dams, powerlines, and pipelines—is also encroaching on the prairie. In 1975, for instance, the Kansas Light and Power Company appropriated twenty square miles in Pottawatomie County for its Jeffrie Energy Center, transforming prairie into sites for power plants, reservoirs, and coal storage.

Similar energy developments that will adversely affect

the prairie include the Wolf Creek nuclear power plant near Burlington, Kansas, the proposed Wyoming-to-Arkansas coal-slurry pipeline, and the Shidler Dam and Reservoir in Oklahoma.

Ironically enough, landowners who have successfully blocked a prairie park have not succeeded in preventing these far more corrosive developments.

**F**OR HALF A CENTURY, efforts to preserve at least some portion of the remaining virgin prairie have consistently met with defeat. It is hoped, however, that the most recent legislation being considered for this purpose, the Tallgrass Prairie National Reserve Bill, HR 5592, sponsored by representatives Larry Winn (R) of Kansas and Morris Udall (D) of Arizona, will lessen this traditional distrust and hostility toward federal stewardship. More site-specific, more reasoned, and more responsive to the concerns of the ranching community than previous proposals, the bill seeks to preserve a segment of tallgrass prairie with a minimum of disruption to local landowners.

Three areas—called “Special Conservation Areas,” or SCAs—where land for a national reserve could be acquired are designated by the bill. Two of these SCAs—the Waubaunsee and South Chase sites—are in Kansas, and one straddles the Kansas-Oklahoma border but falls mainly in Osage County, Oklahoma. A prairie parkway would connect the three sites, making use of existing roads and traversing the most scenic parts of the

Flint and Osage hills between Marysville, Kansas, and Pawhuska, Oklahoma.

The proposed reserve would not interfere with established ranching and farming practices, which, in fact, the bill declares to be compatible with the Special Conservation Areas. Land in the three SCAs would be purchased by the Department of the Interior on a *willing seller/willing buyer* basis, including a provision whereby, if land in any of the areas comes on the open market, the Interior Department would have the right of first refusal at the owner's price. If the government declines the offer, the owner is free to sell to any other buyer at the same price. Transfer of land by gift or sale within a family is exempt from the right of first refusal provision. Such land could remain in the same family's ownership permanently.

The bill provides for acquisition of private land without the consent of the owner—condemnation—*only* in cases in which land in a Special Conservation Area is being used in a manner—such as plowing, quarrying, or subdividing—“substantially detrimental” to the purposes of the area.

Whenever the Secretary of the Interior has acquired enough contiguous parcels of land to constitute a manageable unit, he will establish a national park or preserve by designating it and publishing its boundaries in the Federal Register.

In order to prevent honkytonk development next to reserve areas or along the prairie parkway, easements

could be obtained from willing sellers. In effect, the government would be paying landowners in easement areas to agree to continue their present uses of the land.

Both parkland and easements would be purchased with royalty payments to the U.S. Treasury generated by the exploitation of offshore oil deposits by private oil companies. Under the provisions of the Land and Water Conservation Act certain of these proceeds are set aside annually for the acquisition of land for parks, refuges, and forests. HR 5592 calls for a small portion of these funds—\$10 million per year—to be earmarked for the purchase of tallgrass prairie land and easements as needed.

Under the provisions of HR 5592, local communities may benefit economically from association with what will eventually be a park unit, but will not suffer any loss of property tax revenues before the park is established. The transition process will be eased by a provision in the bill that provides for federal payments in lieu of taxes to states, counties, cities, and smaller local jurisdictions equivalent to local taxes on similar land.

**T**HE CARTER Administration, the National Park Service, the House Committee on Interior and Insular Affairs, and nearly every conservation organization in the United States have given the establishment of a tallgrass prairie reserve a high priority—if not the highest—for action in the 96th Congress after passage of the Alaska lands bill.

**“No living man will see the long-grass prairie, where a sea of prairie flowers lapped at the stirrups of the pioneer.”**

**—Aldo Leopold**

Because past efforts in behalf of the tallgrass have met with stiff opposition from ranchers not only in the Flint and Osage hills, but throughout the states of Kansas and Oklahoma as well, proponents of a prairie reserve, including NPCA, are now working hard to gain local support by emphasizing the common environmental values and goals they share with local residents and ranchers.

**T**IME IS running out for the tallgrass prairie. For too long we have been blind to its subtle pastoral beauty. In creating our National Park System we have concentrated on preserving spectacular natural scenery like that of Yosemite and Yellowstone and, by overlooking the possibilities of more representative areas, have left serious gaps in the Park System—the most significant gap being the tallgrass.

Here the web of life is complex and more hidden—a unique ecosystem still amazingly diverse and alive. Here the earth with its undulating sea of tallgrass and wildflowers glows with rich hues unimaginable in the somber forests of the East and West and harbors literally thousands of species of living things, many of which are found nowhere else. Rich in pioneer history, at one time the largest natural ecosystem in the United States, the tallgrass prairie has long since become far more than a stopover on the way West. Perhaps now we will recognize its special beauty at last. ■

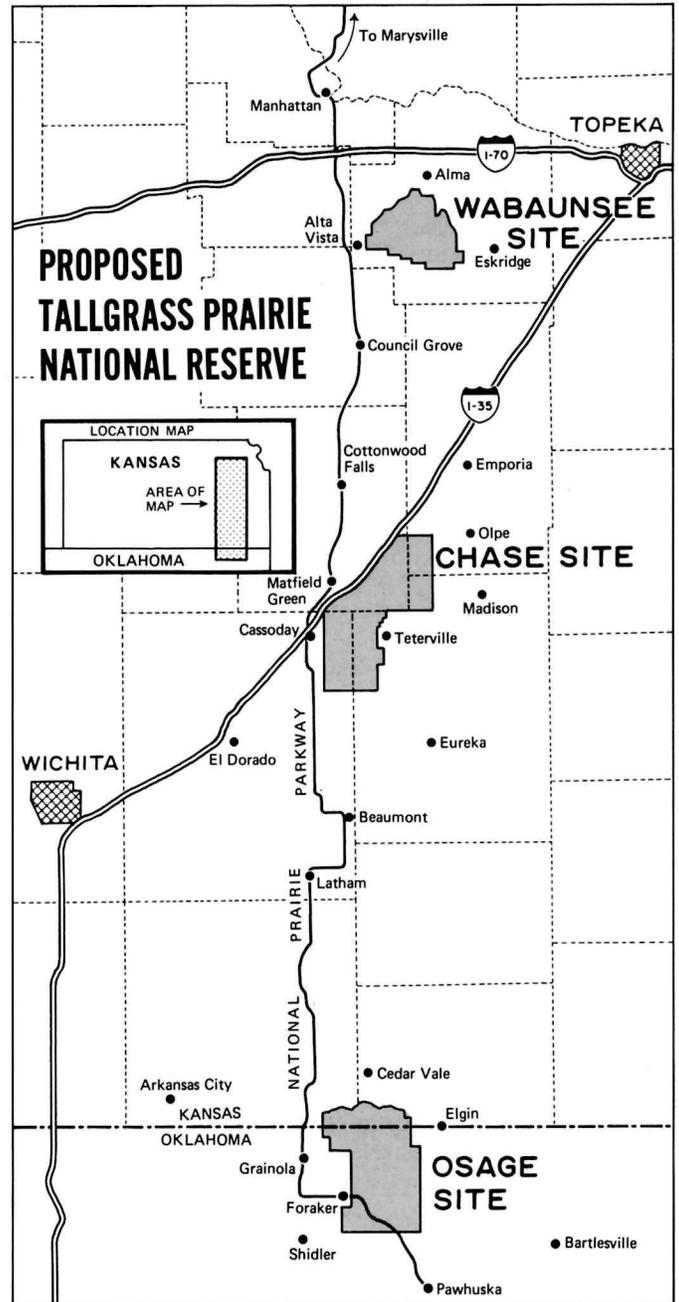
*Message to members*

**SAVE THE TALLGRASS**

For the first time in decades, legislation to protect the Tallgrass prairie has a fighting chance in this Congress because of the introduction of the idea of creating a national reserve instead of the traditional national park. “The change in concept has opened the door,” T. Destry Jarvis of NPCA was quoted in a recent *Christian Science Monitor* article. “The other approach got nowhere. But this one recognizes that the majority of farmers and ranchers do care about the land and are good stewards.” At the suggestion of Oklahoma Senator David Boren, Jarvis recently met with some of the ranchers in that state to explain the national reserve concept.

The ranchers reasserted that because good conservation practices are part of good range management, federal intervention should not be necessary. They indicated, however, that they would support federal action if an area was threatened. They were also receptive to NPS involvement if the primary focus were on public education and interpretation.

The meeting laid a firm foundation for cooperation in designing a protective plan for the tallgrass prairie. NPCA will continue to be a leader among national organizations in efforts to pass tallgrass legislation. Members can help by urging their representatives to cosponsor HR 5592 and by calling for early consideration and enactment of the bill.



**Steve Parcells first envisioned a prairie park in 1973 while watching the migration of wildebeest across Africa's Serengeti Plain. Since then he has been a Peace Corps volunteer in Brazil, tagged elephant seals in California, censused sea birds in British Columbia, and earned a graduate degree in resource management from the University of Michigan. He is now a lobbyist with Save the Tallgrass Prairie, Inc., and the Prairie Coalition.**



**Cries of "states' rights" are being used in the thinly veiled attempt to open up the public lands to special interest exploitation**

by **CECIL D. ANDRUS**

## The Attack on Federal Lands

**P**ROPOSERS of the so-called Sagebrush Rebellion, seeking wide popular support, argue that the federal government is trying to "lock up" hundreds of millions of acres in the West.

Quite the contrary, for it is federal policy which has kept these hundreds of millions of acres available for public access, for numerous types of economic development, and for the conservation of a rich land heritage now shared by all Americans.

The main target of the Sagebrush Rebellion is some 174 million acres in the 11 Western states and additional millions in Alaska under jurisdiction of the Bureau of Land Management (BLM), an agency of the Interior Department.

Proponents of the Sagebrush Rebellion advocate shifting jurisdiction over the public land, from the federal to the state governments.

They claim they are striking a blow for states' rights and equality. They say the federal government

should "give back" the land to the states.

What they conveniently overlook is the fact that the federal lands never did belong to the Western states, which upon entering the Union, signed irrevocable agreements disclaiming all right and title to federal public lands within their borders. There was good reason for this. The public domain lands of the West were acquired by the national government through purchase and warfare, at the expense of all Americans living at that time. Now, Nevada is seeking to reverse a consistent line of judicial decisions stretching back more than a century. This would unravel past land transactions, and possibly cast a legal cloud over not just BLM lands, but also national forests, national parks and monuments, national wildlife refuges, military installations and test sites, and even Indian reservations.

The result would be a thoroughly chaotic legal, economic, and re-

source management situation for all the Western states. It would hobble our national energy efforts and obliterate essential environmental programs. In short, it would be a disaster not only for the Western states but for all of our citizens from Maine to Hawaii who have a stake in the public lands and their resources.

**T**HESE public lands contain more than half of our total Western coal reserves, more than three-quarters of our oil shale, more than three-quarters of our known offshore oil and gas reserves, and much of our geothermal energy potential. Moreover, they make significant contributions to meeting the nation's needs for food and fiber, hard rock minerals, building materials and outdoor recreation of all kinds. They embrace scenic, wilderness, historic and archeological resources of immeasurable value.

Deciding how we should use and conserve the resources of these pub-

lic lands is a major item on our national agenda. Open discussions and extensive debate over management of these lands are healthy and constructive for the West and for the nation.

It is unfortunate that the side-show being staged by advocates of the Sagebrush Rebellion diverts attention from the central issues. Cries of "states' rights" and "equality" are being used in the thinly veiled attempt to open up the public lands to questionable development and to other special interest exploitation, to the detriment of the land and its resources. Speculators believe that if they can pry the land loose from federal jurisdiction, they will have an easy time carving it up. This would be the ultimate "lockup" of the land.

There is understandable frustration over past mismanagement of some federal lands. There is concern on the part of the long-time users of federal lands who find they are now forced to compete and to share with other interests, and who find they no longer have *carte blanche* on the federal lands. There are those who resent recent requirements that they pay fair market value for use of federal resources.

Some astute front-line correspondents—respected Western journalists—see the Sagebrush Rebellion as a revolt against a series of land management laws culminating in the Federal Land Policy and Management Act of 1976 (FLPMA).

Contrary to the rhetoric of some of the leaders of the Sagebrush Rebellion, these laws were not perpetrated upon the West by some distant and oppressive landlord. They were the result of a steady evolution of attitudes and values about the resources of the public lands and were shaped—and largely drafted—by Westerners in Congress, in major interest groups, and in such panels as the Public Land Law Review Commission (13 of 19 members from Western states).

In FLPMA, it was recognized that national policy is to conserve the public lands rather than to dispose of them. By acknowledging this

policy which has been in effect for decades, Congress upset those people who oppose the concept of federal public lands and those who seek special advantage by carving up the Western landscape.

Congress also faced these realities:

Population and economic growth, including increasing demands for energy and minerals, are putting tremendous new pressures on the public lands.

BLM, working with state and local officials and interests, must actively manage the land.

While much of the land can and should be open to multiple uses, not all land can be open to all uses.

Some land must be left in its natural state, not simply to mollify backpackers, but to protect the remaining clear air and water that is essential to the West—which, despite its great acreage, is largely arid and deceptively vulnerable.

The federal policy, mandated by law, is to work closely with the states and local citizens; to see that the land and resources are shared fairly by competing users; and to balance out the need for economic development and recreational use with the need for conservations.

If federal lands were turned over to the states, some curious results would ensue.

There are institutional barriers to balanced management of public lands by the states. In Idaho, for example, the state constitution says state lands must be managed for the highest return to the school endowment fund. If they followed that to the letter, as the State Land Board must do, it would mean a lot of those lands would be sold, or leased for single-purpose harvest—either timber or mineral.

There are economic barriers to balanced state management of public lands. It is extremely doubtful that the state governments could appropriate the large sums necessary for proper management, especially in view of the recent tax revolts in several states. Some states could do an adequate job, perhaps, but others would not be able to handle it, and the resources would suffer.

**A**S A FORMER Western governor, I can also testify that there are political barriers in balanced management of public lands by states. Economic pressure groups would put overwhelming, sometimes irresistible pressure on elected officials to sell off the lands for single-purpose use.

Federal law provides means for transferring public lands to states where it is essential to expansion and development of an area, but this process is based on community need, not the desire of speculators to make a killing.

Clearly, continued federal management of the public lands is in the best interests of the West and all Americans.

It means that Westerners and visitors from everywhere will continue to have access to the public lands, with a minimum of fencing and "KEEP OUT" signs. People in the Western states will maintain a strong voice in how the public lands and resources are managed.

The scenic and wildlife values and air and watersheds will continue to be protected. Federal management means improved range management, payments in lieu of taxes to counties, and many other fiscal benefits to Westerners.

Continued federal management will maintain the land heritage of all Americans. It means that the energy and other resources on the public lands will be developed when and where needed, that speculators will not be allowed to buy up land and then sit on resources in hopes of driving up prices. It means that where public lands resources are used, the taxpayers will receive a fair price for their property.

Transferring public land to state control would end or weaken most of these benefits. Allowing the large tracts to pass in the hands of speculators would be the ultimate in a "lockup" of our land. ■

**Cecil D. Andrus is Secretary of the Interior. This commentary was reprinted with permission of *The Wall Street Journal* © 1980 Dow Jones & Company, Inc. All Rights Reserved.**



*Cactus rustling is a major problem in some states. National parks and other public lands also suffer deprecations.*

# The international trade in plants is still unregulated

**U.S. efforts to protect its endangered plants are still largely ineffectual**

by **FAITH THOMPSON CAMPBELL & JAN TARR**

**T**HE INTERNATIONAL trade in wild plants is large and growing. The United States is a major participant in that trade, both as a consumer of foreign species of cacti, orchids, cycads, and other wild plants, and as a supplier to foreign markets of our own cacti, orchids, and carnivorous plants. We also reexport plants first imported into the United States from foreign countries.

During the period from October 1977 through September 1978, the United States imported 6,850,000 cacti and succulents from more than fifty countries, as well as 234,000 orchids and an unknown number of other plants. Although no definitive data on exports of plants from the United States are available, the trade is voluminous.

The impact of this trade on affected species of plants and their ecosystems is severe. One expert estimates that each year as many as ten species of cacti with restricted ranges and specialized habitat may be extirpated. These extinctions cause both a loss of genetic diversity

in plants and as yet undetermined repercussions for dependent species of animals.

Unfortunately, until recently the detrimental impacts of the trade in wild plants have received little attention. As a recent analysis by Jan Tarr of the available data on the trade in cacti and succulents shows, programs established to conserve wild plants and to regulate trade in them have been allowed to languish without adequate implementation.

**T**HE MOST IMPORTANT mechanism for controlling international trade in plants is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Negotiated in 1973 under U.S. leadership, CITES has now been ratified by fifty-eight nations. These nations have agreed to regulate trade in the species of plants and animals listed on any one of three appendices, each of which offers a different degree of protection. Appendix I lists species currently threatened with

extinction; Appendix II contains species which may become threatened with extinction, or which may be confused with endangered or threatened species; and Appendix III lists species protected by individual nations seeking international assistance in restricting their exploitation:

Because of the threat posed to many species of cacti by the collecting pressure, and the difficulty of distinguishing some species, the entire cactus family has been placed on Appendix II of CITES. Commercial trade is allowed in these species, but only at a level that will not be detrimental to the survival of the species; this is effected by mandatory export permits.

In the United States, CITES is implemented by means of the Endangered Species Act, which also regulates interstate and international trade in species listed under that Act as endangered or threatened. The U.S. Fish and Wildlife Service (FWS) serves as both the scientific authority and the management authority under CITES; it also issues separate permits for those species listed under the Endangered Species Act.

**U**NFORTUNATELY the Service's record in the regulation of trade in plants is dismal. It has neither pressed other agencies for effective enforcement nor taken any such actions on its own. Furthermore, its Wildlife Permit Office (WPO), which carries out most of the daily responsibilities of the management authority, waited a year before acting on a proposal by the formerly autonomous scientific authority to place seven cacti on the more protective Appendix I. As a result of this inaction, some of these species of cacti may now be extinct in the wild.

The actual enforcement of plant import and export regulations is the responsibility of the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture, which already inspects

shipments of plants for disease and insect pests. Because of lack of funding, however, APHIS failed to take any enforcement action until July 1978, four and one-half years after the Endangered Species Act was passed. At that time APHIS began requiring permits for imported plants, but it made no effort to control plants being exported from the United States.

Completion of an analysis of trade data for cacti and succulents now permits a more definitive evaluation of the trade in plants and the effectiveness of the present regulatory program. Jan Tarr examined monthly summaries of imports compiled by APHIS from records of phytosanitary inspections carried out at its fourteen inspection stations. She compared these data to CITES import documents collected by the WPO. The period of study was October 1977 through May 1979. Thus, it includes equal periods preceding and following APHIS' initiation of enforcement efforts in July 1978. She also examined CITES export documents issued by WPO. Because there is no requirement that *outgoing* shipments undergo U.S. phytosanitary inspections and because few CITES parties yet report accurate plant trade statistics, however, she was unable to compare the WPO export data with data from other sources.

The APHIS data shed valuable light on the volume of the trade in endangered plants and the countries involved. During the twenty-month study period, more than 11 million cacti and succulents from more than sixty countries were imported into the United States. Although 47 percent of the exporting countries were CITES parties as of July 1979, the largest number of plants came from three non-CITES countries: Japan, Mexico, and the Dominican Republic.

Because all cacti and many succulents are listed on Appendix II of CITES, import data from APHIS and WPO should be roughly comparable. Total imports recorded by

APHIS, however, exceed those documented by WPO by more than eleven times. In the pre-enforcement period, less than one-half of 1 percent of imports had CITES documentation. Since July 1978, when enforcement began, this figure has increased to about 20 percent. Similarly, APHIS reports more than twice as many countries exporting to the U.S. as does WPO. Before enforcement, APHIS recorded imports of plants from fifty-six countries; WPO, from ten. After enforcement, APHIS recorded such imports from fifty countries, WPO from twenty-one.

**T**HERE ARE SEVERAL possible explanations for the persistence of these discrepancies. The most alarming explanation would be that APHIS officers fail to detect or to detain large numbers of shipments that lack proper documents. A second explanation would be that the documents are collected but somehow fail to reach WPO. A third may be that cacti are entering the country under one of two exemptions provided for by CITES and that the exempting documents are not being sent to WPO.

The first such exemption applies to plants that have been artificially propagated—that is, grown in nurseries. CITES requires that such plants be accompanied by a certificate issued by the management authority of the exporting country. WPO has requested that copies of such certificates accompanying imports be sent to it, but APHIS administrators say that they are unaware of this request. It is essential that APHIS begin sending the certificates to WPO.

The second exemption applies to the personal property of permanent residents. APHIS allows free entry of Appendix II plants that are contained in accompanying personal baggage, were taken from the wild in a non-CITES country, and are not being imported for commercial purposes. A number of Latin American countries, including Mexico,

are not parties to CITES. Consequently, significant numbers of cacti from these countries are probably entering the United States under this exemption. APHIS should compile data on such plants by species and country of origin and make it available to WPO.

Collection and analysis of data on shipments of plants exempted from CITES are crucial in order to determine the effectiveness of the enforcement program. First, such analysis should help reconcile the widely disparate APHIS and WPO import figures. Second, it should help us determine the extent to which dealers may be taking advantage of these exemptions or otherwise evading CITES trade restrictions. For example, until APHIS can train inspectors to distinguish field-collected cacti from nursery-grown cacti, the FWS should utilize trade statistics and information on trade practices to detect plants falsely declared to be artificially propagated. Few of the slow-growing species such as barrel cactus are propagated, nor are there many nurseries in the Latin American countries. Similarly, a careful comparison with dealers' records and catalogs of the number and species of plants imported as personal effects and the importers involved could reveal any patterns of apparent misrepresentation as "personal effects" of plants intended for commercial sale.

The need for better data collection and analysis is, unfortunately, not limited to those shipments for which exemptions are claimed. Few shippers or foreign management authorities identify plants as to species. Some permits provide only genus or family; others lump cacti with succulents, euphorbs, or even orchids. Sometimes only the weight or number of boxes in a shipment is given rather than the number of plants. Such practices make it impossible to compile meaningful trade statistics. CITES parties met recently in an attempt to standardize permits, but the process will be slow.

**Discrepancies in data on imported plants from the Fish & Wildlife Service (FWS) and from the Animal and Plant Health Inspection Service (APHIS) during October 1977 to May 1979**

Country of origin	Through July 1978		After July 1978	
	FWS	APHIS	FWS	APHIS
Australia	191	3,025	20	380
Bolivia	320	128	21 cartons plus 25	1,018
Brazil	1 shipment	382,057	30 shipments + 10,000	486,819
Canada	0	0	157,062	0
Cayman Islands	0	24	200	3
Chile	No date given	871	No date given	0
Colombia	No date given	0	No date given	27
Czechoslovakia	0	25	1 shipment	169
Dominican Republic	500	430,680	410,622	468,785
England	27	3,218	82	5,044
Guatemala	2,750	9,966	2 shipments	18,516
Honduras	0	32,577	1 shipment + 2,979	26,568
Jamaica	0	252	2 cartons	17,120
Japan	0	2,542,291	125,470	2,637,516
Malagasy	0	0	110	30
Mexico	0	1,555,055	247,300 + unknown no.	643,967
Panama	0	180	13	16
Peru	20 kilos	2,760	2,200	3,237
S. Africa	161	80,825	5,736	62,362
Surinam	0	1,832	120 boxes	3,985
W. Germany	0	150,000	3,270	556,815

NOTE: Although presumably both FWS and APHIS would inspect the same shipments of plants imported from abroad, the data these services kept during the same period of time differ greatly. Periods of data collection evaluated were October 1977 through July 1978 and August 1978 to May 1979. Enforcement of the Convention on International Trade in Endangered Species (CITES) by APHIS began during July 1978, but discrepancies persisted in the numbers of imports reported by the two services.



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The Fish & Wildlife Service is responsible for designating rescue centers to care for plants seized because of improper documentation, but it is difficult to find institutions willing to assume this task. Both the FWS and the Animal and Plant Health Inspection Service have sought to make informal arrangements with a number of botanical gardens with little success. Meanwhile, confiscated plants die for lack of care.

APHIS should refuse entry to plants which are not identified by species on the CITES permit. Requiring complete identification will discourage some cheating, will allow for later prosecution for making fraudulent statements to the government, and will aid APHIS officers in learning to recognize traded species.

**T**HE UNITED STATES is a major supplier of plants, including cacti, to the world market. Unfortunately, because data on U.S. exports are extremely sketchy, discussion of the export trade must be based largely on the views of scientists and others familiar with the trade.

WPO reports that it issued export permits for 5,000 cacti in 1978; our data show another 4,000 cacti exported in the first five months of

1979. Actual exports were probably far greater. In 1976, for example, Great Britain alone imported 15,000 cacti from the United States.

The vast majority of documented U.S. exports of cacti were plants declared to be artificially propagated. These included large numbers of three species, *Astrophytum capricorne*, *Lemaireocereus pruinosus*, and *Leuchtenbergia principis*. The first two are widely propagated; the third is sometimes propagated, but it is also dug from the Chihuahuan Desert in Mexico. Other species approved for export as artificially propagated include four considered by the Smithsonian Institution to be endangered or threatened.

During the period under study, the scientific authority approved the export of only two shipments of wild-dug cacti, totaling 135 plants. Included were 100 *Ferocactus*

*wislizenii*, 30 *Opuntia phaeacantha* var. *discata*, and one each of *Cereus giganteus*, *Coryphantha scheeri*, *Lophocereus schotii*, *Opuntia fragilis*, and *Echinocactus horizonthalonius*. One variety of this latter species, *E. H.* var. *nicholii*, was listed as endangered in the Fall of 1979; its total population has been estimated to be little more than 1,000 plants. We cannot know whether the exported plants was of this extremely rare type, or of a more plentiful variety.

Because there is no effective regulation of exports of plants at present, there is little incentive for dealers to apply for permits or certificates. In order to foster better compliance, the FWS as management authority, should request other CITES parties to refuse entry to plants exported from the U.S. without proper documents.

Furthermore, the FWS should in-

stitute a system to check whether plants claimed to be artificially propagated are actually nursery-grown. WPO, which issues exemption certificates for these plants, only occasionally checks with the state of origin to see whether the dealer may have violated its laws. WPO does not routinely consult with botanists either inside or outside the FWS as to which species are widely propagated. Nor does it compare applications for exemption certificates with dealers' catalogs to determine which ones advertise field-collected plants and which advertise cultivated plants. To discourage cheating, FWS should begin immediately to spot check such applications.

The need for such checking is obvious from the known extent of cactus collecting. Cactus "rustling" is a major problem in those states with laws to protect plants—Arizona, California, Nevada, and New Mexico. Public lands and national parks also suffer depredations. Collecting is probably even more extensive in areas such as Texas and Mexico, where there are fewer legal complications. Knowledgeable sources report that as many as 50,000 rainbow cacti (*Echinocereus* spp.) are removed from Texas each month.

Collectors also take rare species. One expert found that from 1975 to 1976, 23 percent of the species of cacti and other succulents considered by the Smithsonian Institution to be threatened or endangered were being advertised for sale by dealers. He believed that the majority had been field-collected. An unknown number of these plants are exported to cactus fanciers willing to pay high prices. Some foreign collectors are reportedly paying \$40 per foot for saguaro cacti and as much as \$300 for specimens of the genus *Pediocactus*.

**I**NTERNATIONAL trade in plants is a sophisticated and profitable business. To bring it under control, APHIS and FWS must establish a comprehensive regulatory program incorporating coordi-

nated enforcement efforts, designation of ports through which plants may be exported or imported, and licensing of plant dealers.

The need for coordination has been apparent since CITES came into force, but until recently little has been done to achieve it. In April 1979, in response to a letter from concerned conservationists, President Carter directed the FWS, APHIS, the Customs Service, and the Justice Department to improve coordination of CITES enforcement. In his August 1979 Environmental Message, the President instructed the Department of Agriculture to hire special investigators and to chair a task force to resolve problems plaguing such enforcement. These increased efforts should result in better coordination with Customs in detecting illegal shipments of plants and with Justice in investigating and prosecuting suspected violations.

The task force may also finally clarify the respective responsibilities of APHIS and FWS in designating ports and licensing plant dealers. The designation of ports will limit the number of trained inspectors necessary to implement the program. Dealer licensing will provide access to their records, useful in discouraging and detecting violations.

Coordination of closely related programs is a problem not only among agencies, but within them as well. APHIS, for example, has resisted suggestions that it integrate its CITES program with its plant health inspection program.

The primary reason for APHIS' long delay in instituting a comprehensive program to regulate trade in plants has been its reluctance to move ahead without first obtaining funding to hire trained inspectors. In past years, requests for funding have been turned down, either by higher officials in the Department of Agriculture or by the Office of Management and Budget. The new interest in trade in plants expressed by the conservation community, the President, and the Congress, however, has now resulted in at least a minimum amount of fund-

ing being budgeted for Fiscal Year 1981.

In anticipation of this money becoming available in October 1980 APHIS and FWS should immediately begin to designate ports and to license dealers. They should also improve procedures for handling control data. By starting now they will be ready to implement an effective program when the additional inspectors begin work in October.

However imperfect the program to regulate trade in plants may be at present, the fact that it exists does deter some of the harmful traffic. In the hope that it can be improved over time, we must begin at once to build the best program that circumstances and funding will allow. ■

**Dr. Faith Campbell is a specialist in wildlife conservation for the International Project of the Natural Resources Defense Council. She has worked for improved implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, especially with regard to endangered plants, for the past three years.**

**Jan Tarr received a B.S. in botany from the University of Oklahoma and completed this research at the National Wildlife Federation under a grant from the Noyes Foundation. She is currently a graduate student in Land Resources at the University of Wisconsin in Madison.**

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#### Message to Members

##### HELP STOP ILLEGAL TRADE

Members concerned about the impact on endangered species of the international trade in plants can support the aims of CITES by urging their congressmen and senators to support appropriations for the APHIS program to regulate trade in plants; by not digging up wild plants either in the United States or abroad; by obtaining the required permits for the import or export of plants listed by CITES or the U.S. List of Endangered Species; and by questioning dealers about the sources of their plants and refusing to buy any that are not nursery-grown.

## The Skagit River's wild valleys may be drowned for a few kilowatts of electricity

by JOSEPH W. MILLER

# Stranglehold on the Skagit

**F**ROM ITS SOURCE in the perennial snowfields of British Columbia's Manning Provincial Park, the Skagit River flows south across the border into Washington State. Recruiting strength from the many glaciers of the North Cascade Range, the river carries a volume of water second only to that of the mighty Columbia among all American Pacific coastal streams, when it finally flows into Puget Sound.

The broad expanses of its lower valley and tidal flats were once thickly populated by Indians of the various Coast Salish tribes who relied on the abundant shellfish and waterfowl and the incredible numbers of salmon and steelhead that yearly entered the Skagit to spawn. In the nineteenth century, many white settlers were attracted by the deep and fertile soils of the lower Skagit Valley, which was quickly taken up by donation claims and homesteads.

The upper Skagit Valley, however, did not yield easily to settlement. Above the present small town of Marblemount the valley walls narrowed, and the river became a roaring whitewater stream. Only a few hardy trappers and optimistic prospectors followed the faint Indian trails to explore the river's upper reaches. The ruggedness of the terrain kept out the logging that so quickly despoiled most wilderness valleys of Washington State.

**M**OST OF THE upper Skagit was still completely pristine when, early in this century, hydroelectric engineers of the City of Seattle's Lighting Department cast covetous eyes on its narrow gorges and sharp drops in elevation. Long before the rise of environmental consciousness, in the days when to most northwesterners the wilderness was still an adversary, Seattle City Light began to change the character of the Skagit. One of the tallest concrete dams of the period was constructed in the narrow slot canyon at Diablo, creating a small reservoir that flooded out the lower reaches of Thunder Creek. Below this dam a smaller structure, Gorge Dam, was built to permit piping the entire flow of the Skagit through a tunnel to the powerhouse at Newhalem, the utility's "company town." Thus except

at extreme high water, several miles of whitewater stream vanished into a tube.

Using a combination of shrewd public relations, low rates, and aggressive sales promotion, Seattle City Light created a per capita demand for its product far in excess of that in other parts of the country. To satisfy this escalating demand, the utility began to build the Ross Dam—capstone of its Skagit project—in the years just before World War II.

A far more ambitious project than the two earlier dams, the Ross Dam was designed to wreak much greater havoc on the Skagit Valley. Not only would Ross flood the remaining fifteen miles of wild river above Diablo reservoir and below the Canadian border; but when its third and final stage was completed, its reservoir would extend nine miles into British Columbia and flood about 5,000 acres of the broad, flat-floored Canadian Skagit Valley as well.

No objections were raised to drowning the American wilderness, and the Federal Power Commission (FPC) of the day readily granted approval for construction of the dam, on which work began in 1937. Because Canadian land was also involved, however, the Boundary Waters Treaty of 1909 required that the International Joint Commission (IJC)—the regulatory body set up to rule on projects affecting waters crossing the border—approve the project as well. The Commission held a brief hearing in Seattle in 1941.

Not only was the Canadian Skagit then a little known and largely inaccessible area, but it was wartime. Only one Canadian—a fish and wildlife official—attended the hearing. The next year the IJC approved City Light's application with the proviso that Seattle make a binding agreement with British Columbia and give the province adequate compensation for the flooding.

During the war years construction of the dam proceeded; by 1949 it had reached its present elevation of 540 feet above base level. In the rush to provide power for Seattle's booming aircraft industry, Ross' reservoir was filled before much of the standing timber in the Skagit Valley could be felled and brought out. The wilderness valley reputed by many to be the most beautiful in Washington died as the muddy waters crept northward. In 1954—with as yet no agreement with British Columbia—water backed up a mile across the border and flooded 500 acres of Canadian land.

**I**N THE YEARS following World War II a new generation of outdoor enthusiasts and conservationists emerged in the Pacific Northwest. Although many of them knew nothing of the beauties of the now drowned Skagit Valley, they soon got to know the cathedral-like cedar groves and quiet beaver ponds in Big Beaver Valley and the brawling torrents of Thunder Creek Valley. Few of them suspected as they hiked along these Skagit tributaries that the engineers and power peddlers of Seattle City Light had plans for the destruction of these valleys, too—plans dating back almost half a century.

After a decade-long struggle led by the North Cas-

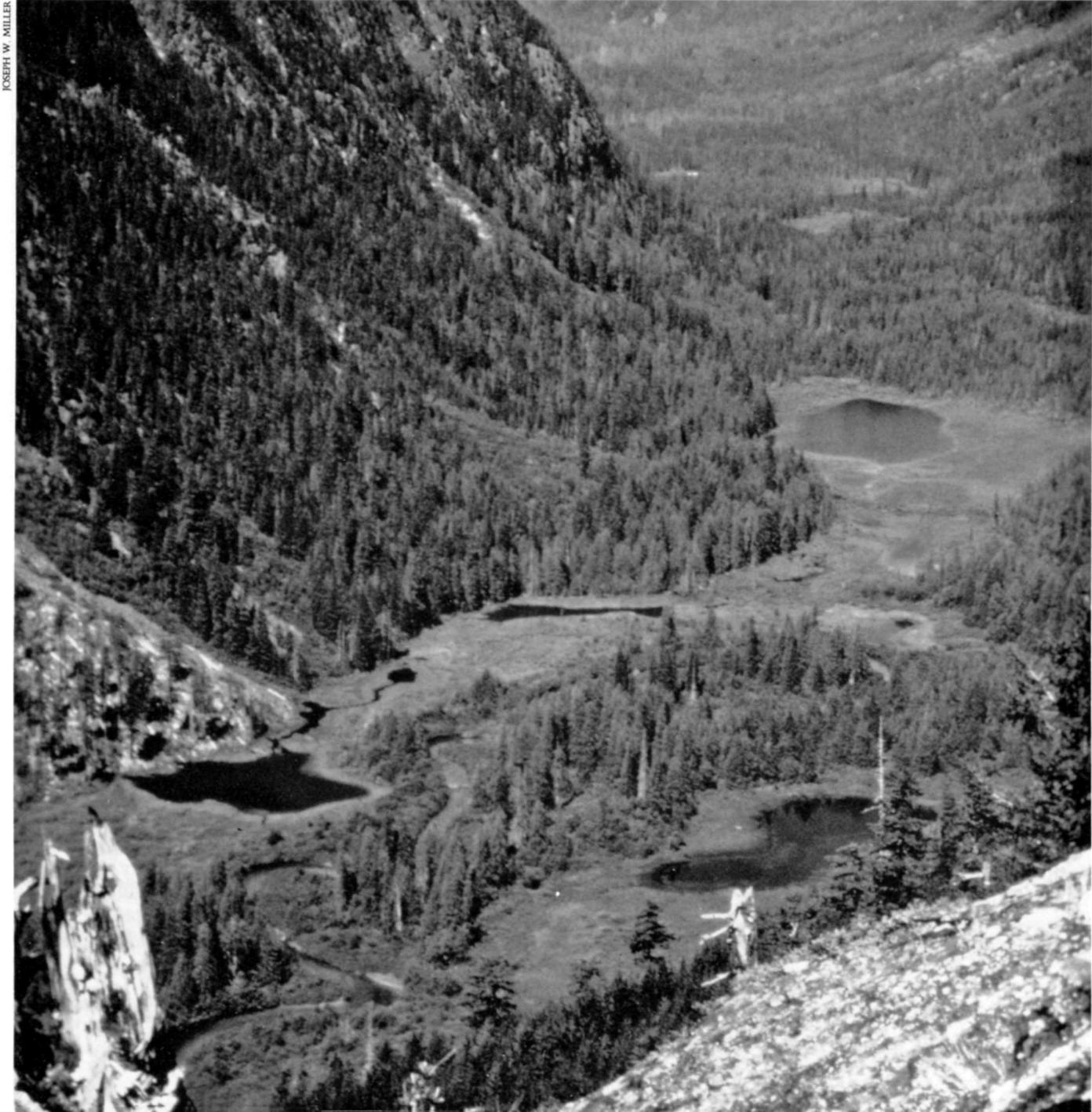
ades Conservation Council, North Cascades National Park was established by Congress in 1968. But pressure from Seattle City Light had transformed the original concept of a single-unit park into a two-unit park separated by Ross Lake National Recreation Area encompassing the Ross Dam project. The recreation area—being less protective than the national park—included, at City Light's behest, proposed deep extensions up Big Beaver and Thunder Creek valleys. This was the first intimation local environmentalists had of City Light's future plans for the area, and they vowed to fight to prevent the loss of these valleys.

Meanwhile, quiet negotiations between Seattle City Light and the government of British Columbia had resulted in agreement to permit the flooding of some 5,200 acres in the Canadian Skagit for an annual rental

of \$34,566—about \$6.60 an acre per year. No word of this witless bargain leaked out to the Canadian public until 1969 when Seattle City Light announced it was ready to go ahead with the next step in its plan for the Skagit—the construction of the third and final stage of Ross Dam—High Ross Dam.

Since the completion of the second stage of Ross Dam in 1949, increasing numbers of people had visited Big Beaver Valley and the Canadian Skagit—the areas that would be most affected by the high dam. The Canadian Skagit's wide, flat-bottomed valley—a U-shaped glacial trough 12 miles long and 1½ miles wide—is a rarity in lower mainland British Columbia. Residents of crowded metropolitan Vancouver were attracted by its warm and sunny summer climate and abundant opportunities for camping and other family recreation. Fishermen had

*Raising the level of the Ross Dam would flood the lower five miles of Big Beaver Valley in Ross Lake Recreation Area.*



JOSEPH W. MILLER

discovered that the gravel bars and deep pools of the Canadian Skagit offered the finest fly-fishing in Southern British Columbia.

The valley is home to abundant wildlife. A large deer herd depends on it for winter and spring range; cougar, bear, beaver, and mink are common. The list of summer resident and transient birds of the valley is unusually lengthy. Both hunters and wildlife observers find the valley ideally suited to the pursuit of their respective sports, and kayakers and canoeists declare the river to be one of the finest whitewater streams in the Northwest.

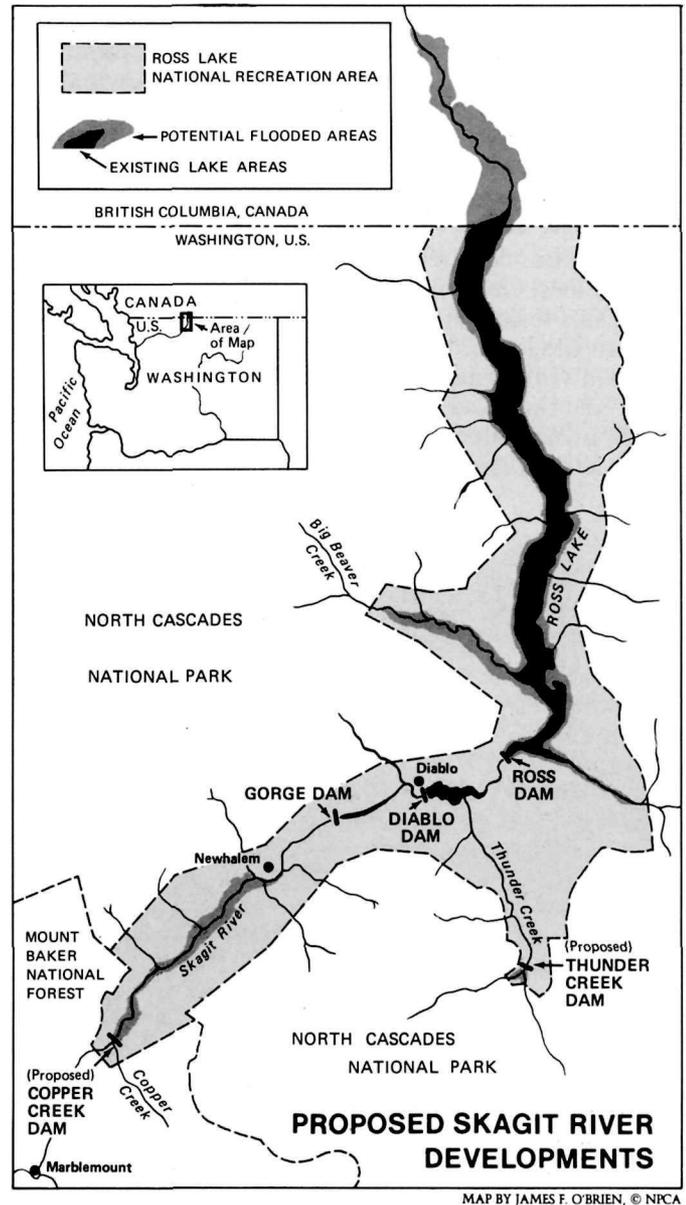
The Federation of British Columbia Naturalists had made numerous field trips to the Canadian-Skagit and found the valley to contain some unusual species of flora. A disjunct population of the Washington's state flower—red rhododendron (*Rhododendron macrophyllum*), whose origin is completely inexplicable to students of plant geography—grows in the Canadian Skagit, as does the northwesternmost stand of giant ponderosa pine on the continent. Indeed, the whole valley is a marked ecotone or overlap zone between the flora of the wet coastal regions and the dry interior.

**B**IG BEAVER VALLEY is a flat-floored glacial trough like the Canadian Skagit and unlike most other valleys in North Cascades National Park. When other valleys were being deepened by post-glacial gorge-cutting, an intrusion of harder rock at the mouth of Big Beaver resisted both the grinding of glaciers and stream erosion. After the last glacier withdrew, Big Beaver Creek occupied a hanging valley high on the walls of the Skagit River canyon. Before Ross Dam drowned the canyon and brought the reservoir level just to the mouth of Big Beaver Valley, the creek descended in a spectacular series of falls and cascades to the Skagit—300 feet below.

Big Beaver Valley is a major part of the scenic trail crossing the Picket Range in the north unit of the park—one of the most spectacular wilderness trail trips in America. High Ross Dam would flood the lower five miles of the valley and six miles of the trail, creating an arm of Ross Reservoir during part of the summer and hundreds of acres of mudflats the rest of the year.

The lower five miles of Big Beaver Valley contain the major portion of its best known natural feature—the groves of giant western redcedar trees. Here numerous small lakes, beaver ponds, open meadows, and sphagnum bogs provide habitat for beaver, deer, bear, raccoon, mink, and smaller mammals as well as many birds and the rarer cougar and river otter. As in the Canadian Skagit, the valley's varied plant life ranges from species of the wet coast to those of the dry country east of the Cascade crest. Flooding the lower valley would destroy most of the cedar stands and a large proportion of the valley's wildlife habitat.

**F**ACED WITH potential environmental losses such as these, conservationists on both sides of the border embarked on a struggle that has already lasted a dec-



ade. Canadians formed the ROSS—Run Out Skagit Spoilers—Committee consisting of representatives of virtually every outdoor and conservation organization in British Columbia. In Washington the North Cascades Conservation Council, fresh from its victory in establishing the North Cascades National Park Complex, assumed the arduous and costly task of protecting the new park from a disastrous flooding.

In a series of inconclusive hearings held from 1969 through 1972, first before the Seattle City Council, then before the Washington Ecological Commission, and finally before the International Joint Commission in both Washington State and British Columbia, the two organizations and their legal counsel doggedly opposed High Ross Dam. Both environmentalists and dam builders have used the IJC report—described as a brilliant piece of double-speak—to support their opposing stands.

At last, in the spring of 1974 the long-awaited Federal

Power Commission hearings began. Held in Washington, D.C., and Bellingham and Seattle, Washington, over a period of nearly a year, the sixty-eight days of hearings consumed vast amounts of money and produced 10,000 pages of hearing record. In the course of the hearings, the North Cascades Conservation Council and its tax-deductible financial arm, the North Cascades Foundation, spent more than \$62,000 of hard-to-come-by funds. In contrast, Seattle City Light, having free access to the income from its rate-payers' power and light bills, confessed to spending \$4 million during the same hearings.

The hearing examiner, who never seemed to grasp the concept of wilderness recreation, ruled in favor of Seattle City Light in February 1976. On July 5, 1977, the full Federal Power Commission approved Seattle City Light's application to raise Ross Dam. On September 27, 1978, the North Cascades Conservation Council filed a petition for review in the District of Columbia Circuit Court of Appeals. The Council was joined by the ROSS Committee, which also filed an appeal.

A new ally of the American and Canadian conservationists joined the fray at this time. A coalition of affected Indian tribes—the Swinomish Tribal Community, the Sauk-Suiattle Tribe and the Upper Skagit Tribe—filed a similar petition for review to protect their treaty rights in the Skagit fisheries.

At the appeals hearing on November 19, 1979, counsel for the American and Canadian intervenors argued that the FPC (now reorganized as the Federal Energy Regulatory Commission) had failed to prepare an adequate environmental impact statement, particularly with regard to environmental consequences in Canada. Counsel for the Indians focused on their tribal treaty rights to take fish and the adverse effects that raising the dam would have on downstream flows. The issues presented in the appeal, especially those of international law and international resource use, could become landmarks in environmental law. A decision will probably not come from the court before mid-1980.

Meanwhile, serious negotiations are under way between the City of Seattle and the Province of British Columbia regarding the possibility of the province's furnishing Seattle an increment of energy at cost in return for an agreement not to raise the dam. Although the energy offered would be less than that to be generated by High Ross Dam, the cost to the city would be only one-third as much per megawatt. Considering the rapidly escalating costs of raising Ross Dam an additional 122½ feet (currently estimated at \$120 million—up from \$40 million in 1969), the offer seems like a bargain.

While the mills of the law grind slowly away, the giant cedars of Big Beaver, the rhododendron stands of the Canadian Skagit, and the myriad wildlife populations of both valleys remain safe.

**T**HE ENGINEERS at Seattle City Light are energetic fellows, however, and they manage to keep planning other "good" things for the Skagit while wait-

ing for a decision on High Ross Dam. Just recently for example, their proposal to build an access road from the North Cascades Highway to the top of Ross Dam was turned down by the National Park Service pending the resolution of all legal questions.

They have revived the incredible Thunder Creek Diversion Project, which calls for the construction of a dam at the mouth of McAllister Creek up Thunder Creek Valley. The dam would raise the level of Thunder Creek so that the entire stream could be directed through a tunnel to be drilled under Ruby Mountain and flow into Ross Reservoir instead of into the lower Diablo Reservoir, thereby generating a few more megawatts of power.

The effects on Thunder Creek Valley would, of course, be drastic. The lower portion of the valley—adjoining as it does the large Colonial Creek Campground on the North Cascades Highway—receives the heaviest trail use of any area in the park. The valley's lowland forest of great cedar, hemlock, and Douglas-fir trees, through which the trail now passes, would suffer if the river is dried up. The roar of Thunder Creek would be silenced. The rare harlequin ducks that breed there would be deprived of habitat. Road access to the dam would completely destroy the wilderness quality of one of the park's major wilderness traverses—the circle trip over Park Creek and Cascade Passes.

Not content with Thunder Creek, the busy beavers of Seattle City Light are planning yet another hydroelectric project downstream from Newhalem. The proposed Copper Creek Dam—a 180-foot-high rockfill dam—would back the Skagit River up for 10 miles to an existing powerhouse at Newhalem. An environmental assessment of this project prepared for City Light discloses that 10 miles of whitewater stream now heavily used by kayakers and operators of commercial raft trips would be lost along with a substantial amount of spawning ground for salmon and steelhead. Reduction in the number of spawned-out salmon carcasses would also reduce the food supply of wintering bald eagles in the downstream Skagit River Bald Eagle Natural Area.

Major opposition to the project can be expected from the coalition of Indian tribes that have treaty fishing rights on the Skagit, as well as from local valley residents, many of whom are concerned about the safety of the dam or believe the project is not consistent with the National Wild and Scenic River status given the downstream Skagit. Additional studies are currently being conducted on geological hazards, effects on bald eagles, and Native American treaty rights.

Nevertheless, sometime in 1980 the City of Seattle will decide whether to drown this portion of the Skagit, too. It's a hard thing, being a wild river in Washington State in these troubled times! ■

**A resident of Bellevue, Washington, and a devoted friend of the Skagit, Joseph W. Miller is a member of the Board and Treasurer of the North Cascades Conservation Council. Since 1969 he and his wife Margaret have worked as volunteer research biologists for North Cascades National Park.**

Cultural traditions are alive and well along the Blue Ridge Parkway

## Folklife today on the Blue Ridge Parkway

by ALAN JABBOUR

**M**ANY AMERICANS think of the National Park Service principally as the custodian of our nation's most striking and important natural sites. But the Park Service has for many years also been a major custodian and interpreter of our nation's culture and history. Not only does it manage sites like the national battlefields and national historical parks, but it has preserved and interpreted important cultural aspects of the nature-oriented "great parks" themselves. Indeed, the folk cultural traditions associated with the land comprising present-day parks have provided a subject for presentation and interpretation in the National Park System for many years.

It was therefore welcome but not surprising that the National Park Service and the American Folklife Center at the Library of Congress should cooperate in conducting a folklife project with the goals of examining and documenting the folk cultural traditions in and around a national park, and in reflecting on the implications of those traditions for park planning and programming. Together we selected the Blue Ridge Parkway as a site for concerted field research during the summer of 1978.

The Parkway covers more ground than a small team of cultural specialists could manage in a single project. Our work was limited to a hundred-mile stretch of

the Parkway along the Virginia/North Carolina border. In this area the team talked with hundreds of people—with many of them at length. They made tape recordings of conversations; story-telling; family histories; descriptions of activities like cooking, canning, and sawmilling; musical performances; church services; and fox hunts. They took photographs of houses, people, crops, home interiors, baptisms, and dances. Out of these efforts emerged a portrait of the area, not as a remote back country with quaint customs, but as a varied and dynamic region, deeply traditional and simultaneously "modern" in a configuration of customary life and expression that has evolved by selective choice.

**M**OST of the 469 miles of the Blue Ridge Parkway present the beauties of mountains and forests to the driver's view. The verdant trees and undergrowth of the eastern woodlands alternate with vistas of broad valleys and distant mountains. But if nature lays first claim to our eyes, the evidence of human culture is nonetheless present throughout the drive. And in one stretch of the Parkway, spanning southwestern Virginia and northwestern North Carolina, the traditional culture of the region is particularly visible to the Parkway traveler. Here the land and the people seem inseparable.



DANCING AT MABRY MILL, BY TERRY EILER, AMERICAN FOLKLIFE CENTER

Driving southwest from Roanoke along the Parkway, one climbs Bent Mountain and, beyond its summit, encounters a broad, high plateau stretching away from the Blue Ridge to the southwest. Along this plateau lie green valleys, woodsy knolls, and small farms and rural settlements. In the summer one sees hay, corn, and the hazy blue of cabbage fields. The wooden constructions of rural life obtrude gracefully upon the Parkway itself—pastures fences, outbuildings, and weathered or white-painted homes and stores. Local access roads connect to the Parkway, and the traveler suddenly shares the road with pickup trucks and other evidences that the Parkway serves here as a local thoroughfare.

Throughout the region, on either side of the Blue Ridge, the dominant culture is Anglo-American, with connections running north into Pennsylvania and east into the southern Piedmont. Here and there strands of German-American life are still distinguishable—an Anglicized German name on a mailbox, a German place-name, a Church of the Brethren. Afro-American communities also dot the landscape on both sides of the Ridge.

As the Parkway crosses into North Carolina, the landscape begins gradually to change. The plateau continues, studded with country Baptist churches, pastures, and plots of burley tobacco. But now

the Parkway enters wooded terrain that shuts out the nearby presence of local life. The Piedmont valley, with its farms and bright-leaf tobacco plots, is farther off in the haze. The evidences of regional life and work are less frequent as the plateau falls away to a more distant valley on the right. Beyond Mulberry Gap, with its cluster of mountain homes on either side of the Ridge, nature again seems to gain the upper hand along the Parkway.

**F**ROM a Parkway perspective, local and regional culture is an important aspect of interpreting this section of the Blue Ridge. Visitor sites such as Mabry Mill, a restored mill near Meadows of Dan, emphasize local traditions. Signs at scenic overlooks mention local cultural practices in the context of the natural environment. Campfire programs regularly feature such subjects as "mountain women," "the groundhog" (in nature, song, and frying pan), or "moonshining." Yet as our team moved off the Parkway and into the surrounding communities, the focus quickly changed. What from the perspective of a Parkway traveler seemed faraway and quaint, covered over by the patina of history, became close and vibrant, part and parcel of the everyday life of the region. Thus it was that what I shall call the "presentness" of folklife in the area became

a major theme of our reflections. Let me give you an example. Food drying is popular in the Blue Ridge not only because of economic necessity but because the people of the region relish the taste of home-dried foods. Most in evidence were dried apples and dried string beans, or "leather britches." Our taped interviews include sentiments extolling dried foods or offering discriminating comments about their proper traditional preparation and use. For example, Clinton Iroler of Carroll County, Virginia, said, "I just can't eat leather britches unless there's snow on the ground."

Sheds used to dry beans, peaches, apples, and pumpkins once dotted the Blue Ridge. Apples sliced into rings and strung onto long poles were dried in a few days by a fire underneath the shed. Today, some residents dry foods on racks built over their modern furnaces, use specially constructed metal tables in their back yards, or recycle window screens or rat wire for outdoor drying. Leather britches are still threaded on a heavy string with a darning needle and hung or draped just about everywhere inside or out.

Perhaps the most innovative drying device encountered by the team is the automobile. Beans or thinly sliced apple wedges arranged on dashboards or rear shelves dry in the sun through the windows of cars parked at home, at a shopping center, or in a factory parking lot.



BEANS DRYING, BY TERRY EILER, AMERICAN FOLKLIFE CENTER



BEANS DRYING IN AUTO, BY TERRY EILER, AMERICAN FOLKLIFE CENTER



ADMIRING A FOXHOUND, BY TERRY EILER, AMERICAN FOLKLIFE CENTER

Thus the taste for dried foods and the tradition of home-drying live on with undiminished vigor in the Blue Ridge; only the particular drying devices have changed, from drying shed to drying Chevy.

For another instance of the "presentness" of folklife, the Parkway brochure describes the scenic overlook called "Fox Hunters Paradise," in North Carolina near the Virginia border, as a stopping place with a "10-minute trail to Paradise, where old-time hunters listened to the baying of their hounds in the valley below." Historically and ethnographically this is correct, but our field team soon discovered that fox hunting is not confined to the romantic mists of the past along the Blue Ridge. Team members interviewed fox hunters and recorded and photographed neighborhood hunts and one major regional hunt in Carroll County that drew men and their hounds from all over the upper South.

The fox hunting along this stretch of the Blue Ridge is akin to, yet distinct from, the sort of fox hunting associated with horses, formal riding attire, and grand estates in Virginia. Here the pickup truck replaces the horse, and the attire is normal local garb. But the fundamental cultural values are much the same, involving the domestic pleasures of raising the fox hounds; the social pleasures of leisure and conversation before, during, and after the hunt; the aural pleasure of listening to and appraising the baying of the hounds; and the philosophical pleasure of contemplating the eternal pursuit of the eternally elusive fox.

Our interviews with the fox hunters dwelt not only upon the custom's history—"Older than Christianity!" one devotee told me—but upon its present practice and attendant problems. Many of them were agitated about the rising value of fox furs and the accompanying rise of trapping activities that threaten the fox population. Fox hunters only rarely catch a fox, and they let it go when they do. The fervor of their solicitude, including letters to state legislators on behalf of preserv-

ing the fox and its habitat, made us wonder whether differences of upbringing and cultural background would forever prevent urbane conservationists from making common cause with these, their grassroots counterparts.

My final example of the "presentness" of folk culture involves the Parkway itself. Somehow, sometime over the past few years local people from around Meadows of Dan, Virginia, began coming to Mabry Mill on the Parkway to make music, dance, and socialize on Sunday afternoons. The music is homegrown; the dancing is in local folk idioms; but most striking is the true folk quality of the occasion itself. One hears much of "folk festivals" about the country, but this is a folk festival in the best sense of the phrase—a celebration of, by, and for the people who celebrate.

Though the dance musicale at Mabry Mill is quintessentially local—or perhaps because of it—visitors are welcome, and Parkway tourists find themselves unexpectedly presented with an unparalleled opportunity to witness and share in the traditional art and culture of the region. It is hard to imagine an interpretive program of more vitality and lasting educational value than this event, which arose, untutored and unheralded, from the very people whose life and customs the park seeks to interpret to the nation.

These examples all point to the "presentness" of folk tradition. Far from being "history," in the sense of standing at a distance from the present day, tradition in the Blue Ridge welds the past to the present and provides the means for a vibrant and creative modernity.

**A** SECOND major theme for reflection arising from the experience of the project is the variety of the folk traditions that form the cultural currency of the Blue Ridge. Americans who see their own life as richly complex, characterized by a variety of cultural options and intersecting networks, nevertheless assume that life in an area like the Blue Ridge is somehow simple, uni-

form, and culturally homogeneous. Here, we imagine, are some "pure folk communities," if they exist anywhere at all in the United States.

This assumption, however, is incorrect. Far from being an eddy of simplicity in the torrent of our larger civilization, these people's lives are a microcosm of that complex civilization. For example, one Sunday we attended services at a Primitive Baptist Church. Later that week we lunched with the preacher and learned that he and his wife do a weekly radio broadcast on a local station, that he is an avid fox hunter and secretary of the fox hunter's association, and that he is an insurance salesman. Like us, he lives in a world of many cultural options, elaborate social networks, and diverse traditions and experiences.

**T**HE PORTRAIT of the Blue Ridge with which we emerged thus emphasizes not only the presentness of its folk culture but the variety and complexity of that culture. The formidable task it calls for, not only in national parks but elsewhere in public life, is to acknowledge and present traditional cultures in a way that highlights their distinctiveness yet demonstrates that the distinctiveness is alive and well (not buried in the past) and rich and complex (not simple and homogeneous). Luckily, if the example of the Sunday afternoon dance musicale at Mabry Mill can be relied upon, the people who keep that rich distinctiveness alive stand ready to help us in our interpretation. ■

**Alan Jabbour is director of the American Folklife Center at the Library of Congress. Gerri Johnson, a member of the team of folklorists and photographers who participated in the Blue Ridge Parkway Folklife Project, contributed to this article. The center is preparing a lengthy photo essay and a double-LP record album documenting the traditional culture of the region. For further information write the American Folklife Center, Library of Congress, Washington, D.C. 20540.**

## Coronado's festival of cultures: An international celebration

by Thomas E. White  
Interpretive Specialist  
Southern Arizona Group  
National Park Service

ONCE A YEAR, a normally quiet mountain canyon in southeastern Arizona vibrates with happy, excited voices—in Spanish, Yaqui, and Apache as well as English; and the canyon rings with festive music from the lively staccato of Mariachi bands to the steady resonant beat of Indian dance music. The event is the Annual International Historical Pageant at Coronado National Memorial, located 110 miles southwest of Tucson on our international border with Mexico.

About 30 years ago, Congress authorized Coronado National Memorial for two basic reasons, each equally as important as the other. First it commemorates a key historical event—the 1540 expedition led by Francisco Vasquez de Coronado in search of the fabled Seven Cities of Cibola. It marked the first major exploration of what is now the American Southwest by Europeans. Two years of exhausting search failed to locate the elusive cities; yet they left a more lasting legacy—the beginning of the infusion of the rich, vibrant Hispanic culture into our American life styles. That in turn ushered in the second reason for establishment—to memorialize the ties binding our country to Mexico and Spain and strengthen international friendships and cultural understandings.

Seven years ago, as an outgrowth of a successful arts festival marking the 1972 National Parks Centennial, the National Park Service held the first of a series of annual international pageants to promote and strengthen international and intercultural ties and friendships.

To enjoy this delightful event, come join us for the eighth annual pageant on Sunday, April 20, from 11 am to 5 pm. Participants and spectators alike from both sides of the border contribute greatly to the vibrancy, color, and meaningfulness of this festival.

Scheduled stage performances begin with a Mariachi band, Mariachi Juvenil of Tucson. Mariachi music dates to the days of Emperor Maximillian and derives its name from the French word for "marriage." Thus it is a most fitting opening for the festival, because the essence of this pageant is the celebration of the "marriage" or blending of our international cultures.

In a word, variety describes the treat in store for the 5,000 persons expected to attend. The program includes historical drama of the Coronado trek; Apache Crown Dancers, Yaqui Deer Dancers, and the Ballet Folklorico



*The Ballet Folklorico de Tucson will perform again.*

de Tucson from north of the border; and the Rondalla strings, artistic selections by high school students from Cananea, and a solo harpist from south of the border. Through it all, audiences will be kept well informed by the pageant's fluently bilingual Master of Ceremonies, Dr. Jim Officer.

Yet the pageant is more than on-stage performances. Without the many activities running concurrently through the day, the pageant would not be complete. Arts and crafts demonstrations, the Arizona State Museum's bilingual puppet show, and the Papago, Apache, and Mexican camps allow you to more actively participate.

To reach the pageant from Tucson, travel east on Arizona 90 (49 miles), then south via Arizona 90 and 92 through Sierra Vista (45 miles) and turn onto Montezuma Canyon Road. Then travel west for 3 miles, park, and ride the free shuttle buses to the pageant site. Some food service, such as Indian fried bread, tacos, soft drinks, and coffee, as well as full-access restroom facilities are available on-site.

## New American Heritage Alliance bolstering legislation

NPCA has taken a leading role in creating and organizing the American Heritage Alliance, a coalition of national conservation and historic preservation organizations working together to facilitate passage of a National Heritage Policy Act.

After several years, discussion among Carter Administration officials, conservation and historic preservation organizations, and others, general agreement was reached that a strong National Heritage Program is needed to ensure

that natural and cultural resources of local, state, and national significance are systematically identified and protected.

The Carter Administration has proposed a National Heritage Policy Act to authorize such a Heritage Program, and the Alliance has been working to improve and strengthen it. The program is designed in part to revise and expand the existing natural and historic landmark programs.

At press time, The Nature Conser-

vancy and Sierra Club, along with NPCA, formed the core of the Alliance, although the Alliance was expected to include a wide variety of national, state, and local groups by publication time in April.

A Heritage bill sponsored by the Administration had been introduced in the Senate (S 1842) and seemed likely to be introduced in the House soon. Hearings on the legislation are slated for this month in both the House and the Senate. ■

## Concessioners try to get Park Service director fired

Recently House Interior Committee chairman Rep. Morris Udall (D-Ariz.) publicly called on Interior Secretary Cecil Andrus to fire NPS Director William Whalen because Udall was "outraged" at a speech Whalen made to the Conference of National Park Concessioners in October 1979. NPCA, the National Wildlife Federation, National Audubon Society, Izaak Walton League, and others have defended Whalen. These organizations warned Andrus that the chairman's letter "represents yet another in a long series of attempts by the leaders of the Conference of National Park Concessioners to cripple the ability of the National Park Service to carry out its statutory mandates."

NPCA said that Whalen is under attack by some of the commercial enter-

prises that operate concessions in the parks because under his direction the Park Service has instituted several "long overdue reforms" that concessioners have resisted strenuously—a new standard concession contract, requirement for annual evaluations of concessioners' performance, a tougher enforcement of safety and health codes, and an end to interpreting the law to facilitate sweetheart contracts.

Whalen's speech to the Conference of National Park Concessioners was a frank description of Administration plans to strengthen public control over these operations within our national parks. NPCA has long criticized operations by a number of commercial conglomerates that have dictated policy about national park matters to the National Park Service. Whalen's speech

was attacked in the letter as "extremely arrogant," and he was accused of "persistent discourtesy to the public and an antibusiness attitude that has driven many small businessmen away from national park concessions." In fact, certain parts of the Concessions Policy Act work against small business and for the conglomerates, as revealed in a 1976 joint report of the House Small Business and Government Operations committees.

A contract to provide services to the public in a unit of the National Park System carries with it an obligation to uphold the mandate of the Park System, but some concessioners have placed their own commercial profit over the protection of the resources that the parks were established to maintain. ■

## Bandelier burros endanger native species of wildlife



PRONGHORN ANTELOPE

For two months in 1977, 150 persons attempted to trap burros in the rugged canyonlands of Bandelier National Monument in New Mexico, but only nine were captured at an estimated expense of 300 hours of staff time per animal. This January, following three more years of scientific study as well as attempts at trapping, the NPS announced its conclusion that shooting is the preferred method for controlling the monument's rapidly expanding population of these feral animals.

According to an environmental assessment released at that time, scientists have found that areas frequented by the burro support significantly

fewer native birds and small mammals than nonburro areas. By ripping out vegetation by the roots, burros have destroyed a substantial amount of the bushes and grasses that serve as habitat for a wide variety of native species including pronghorn antelopes (pictured) and mountain sheep.

Furthermore, the burro's habit of trailing—travelling in single-file formation—has laced the monument with hard-packed trails that easily form erosive gullies during rainstorms.

NPCA supports the decision to halt the destruction by feral burros in Bandelier. It is unfortunate that shooting is

*Continued on page 26*

# 1980: A good year for barrier islands?



A new Department of Interior report discloses a vicious cycle in which millions of dollars in taxpayers' money are being wasted by promoting development on unstable barrier islands.

Then—when erosion and storms take their toll—federal disaster aid reopens the same vulnerable locations to more development. Public safety, the federal treasury, and the balance of nature are repeatedly exposed to new risks. So it is not surprising that during this Year of the Coast, proposed legislation to protect undeveloped areas as Barrier Island National Parks stands a good chance of consideration this spring.

The Interior Department report is a draft environmental impact statement prepared in response to the President's call for a plan to protect the nation's barrier islands—a series of slender elongated landforms strung like a necklace parallel to the East Coast and Gulf Coast where they form a buffer between the coastline and the sea. Some 295 of these barrier islands lie off the Atlantic and Gulf coasts. About two-thirds of them have been altered by man—some into heavily developed commercial centers like Miami Beach and Atlantic City. Others are wild or relatively undeveloped areas such as Assateague, Cumberland, Cape Cod, and other national seashores. Many unspoiled islands lack protection.

All these barrier islands are characterized by unconsolidated, unstable sand foundations, making them vulnerable to devastating hurricanes and storms. Thus, buildings not destroyed during storms must contend with shifting shorelines and erosion.

Nevertheless, the draft statement reports, in the past few decades, development on these islands has accelerated rapidly endangering public safety: "A long, uncharacteristic period of low storm activity (especially hurricanes along the southeast Atlantic Coast) has caused tremendous demands to be placed on the islands for development of primary and secondary home sites and recreational resort areas. As a con-

sequence, the barrier islands are urbanizing at a rate twice that of the nation as a whole." *The Boston Globe* observes that in March 1962, an Atlantic storm of less than hurricane force killed thirty-two people and caused \$500 million damage and that, since then within this storm zone, the population has tripled and investments have increased tenfold."

Of the 1.6 million acres on these islands, more than 243,000 acres have already been developed and another 739,000 acres are unprotected from future development. The development can be largely attributed to federal grant, loan, permit, or construction programs. Such programs include EPA grant projects, which facilitate water and sewage systems on the islands; the Department of Transportation Bridge and Highway Construction Program, which provides access to the islands; the Small Business Administration and Economic Development Administration grant programs, which help businesses establish themselves on barrier islands; and the Coastal Dredging and Shoreline Protection Program of the Corps of Engineers, which pumps money into fighting nature through artificial shoreline maintenance, navigational dredging, and beach restoration. In a recent three-year period such development-oriented programs spent

nearly half a billion taxpayer dollars on barrier island projects with an additional \$400 million paid out for flood-insurance claims, including Alabama's resort island of Dauphin, which Hurricane Frederic reduced to rubble this past September. Plans to spend \$30 to \$40 million just to rebuild the bridge to the island are gaining ground. The Corps is rebuilding the Miami Beach oceanfront at a cost of \$65 million even though it is expected to wash away in the first big storm.

The Department of Interior draft environmental impact statement supports revision of these various federal policies that stimulate development, but some changes will require legislation.

Accordingly, House park subcommittee chairman Phillip Burton has introduced a bill that will end federal subsidies such as bridge and highway grants, Farmers Home Administration grants, and other incentives for development in presently undeveloped barrier island areas.

His bill, HR 5981, would protect many undeveloped barrier islands and major undeveloped portions of others by establishing them as units of the National Park System. Appropriations for acquiring land and interests in land on these islands would come out of the Land and Water Conservation Fund, which comes largely from Outer Continental Shelf oil leasing revenues.

Burton says the costs to the taxpayer of current federal development subsidies and relief programs for the islands are probably "far in excess of the costs to purchase and preserve the remaining undeveloped islands."

HR 5981 already had two dozen cosponsors at press time, and action is expected in the spring and summer.

**You can help:** Urge your representatives and senators to support and cosponsor HR 5981 to protect the undeveloped barrier islands. Stress the need to stop wasting taxpayer dollars by subsidizing development on unstable barrier islands. ■



ASSATEAGUE BY RICHARD FREAK, NIS



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## NPCA at work

### Bandelier—from page 24

the only effective recourse that the Park Service has for controlling the population, but the first obligation is to protect the natural resources of Bandelier such as native species. ■

### Humane predator program

Interior Secretary Cecil Andrus is under fierce attack by the livestock industry for his bold decision this past fall to restructure the federal predator control program.

Following a twenty-one month review of the federal program, Andrus declared, "Interior's Animal Damage Control Program will recognize the importance of predators to natural ecosystems, will strive to reduce conflicts between predators and livestock as far as possible, will direct lethal controls at offending animals, not the species as a whole, will prohibit the routine use of poisons on public lands... and will maintain public land use and wildlife resource values as a public trust."

Andrus has ordered that the program, which traditionally slaughtered tens of thousands of coyotes annually, "must stop relying upon old methods which have proven ineffective or are too environmentally hazardous."

The new policy will emphasize research on nonlethal control methods such as scare devices, aversive agents, fencing, and husbandry methods. Specifically, the Secretary recommended that denning (the practice of burning or shooting coyote pups in their dens) be dropped and that stricter controls be placed on trapping and aerial hunting.

Furthermore, in defiance of the demands of the livestock industry, which wanted to resume using the pesticide called Compound 1080, Andrus recommended a ban on any further research on the toxicant. Once widely used, Compound 1080 was banned in the early 1970s after it was found that its toxicity is long-lasting and a threat to nontarget scavenger species.

Western livestock owners, fearing that the Secretary's attempts to modernize the ADC program will lead to decimation of their livestock, have been exerting extreme pressure on Congress for relief. At press time, oversight hearings on the Secretary's recommendations were scheduled for the

Senate and similar hearings were planned in the House. NPCA, which has been working with other conservation organizations to promote humane and nonlethal predator control, applauds the recommendations.

**You can help:** Write your representatives and senators, urging them to support the progressive approach to federal predator control contained in Andrus' recommendations. ■

### Tahoe breaking point

With Lake Tahoe's water quality, air quality, and land carrying capacity all documented to have been "strained to the breaking point" by a recent report, legislation has been introduced to create a national scenic area to protect the Tahoe Basin.

This past summer, the U.S. Forest Service declared that Lake Tahoe's environmental problems are at the "crisis stage." This finding was just reiterated in an exhaustive new environmental assessment by the Western Federal Regional Council.

Surrounded by the high peaks of the Sierra Nevada mountains on the California-Nevada border, Lake Tahoe is the largest U.S. mountain lake and one of the clearest in all the world. It was once famous mainly for its exceptionally deep and blue waters and clean, pine-scented air. Now it is equally known for the unseemly casinos and commercial developments that have sprung up along its shores. In recent years as many as a quarter of a million people have jammed the area on summer days. Most come to play blackjack or slot machines rather than to boat or to swim.

The environmental assessment notes that urban development has accelerated 78 percent since 1970, causing the population to multiply to more than sixteen times what it was twenty-five years ago.

Congestion from autos streaming to the resort developments and businesses is so extreme that carbon monoxide levels are high, smog is serious, and the basin's susceptibility to air inversions is the highest in California. The additions of nutrients and sediments entering the lake spawned a 150

*Continued on page 28*

## -Alaska Bulletin-

Following an unexpected late-night maneuver by Alaska's senators that shelved the Alaska wilderness bill at least until July, at press time Secretary of Interior Cecil Andrus had just announced he had signed orders withdrawing 40 million acres of public land in Alaska for management as wildlife refuges and natural resource areas. The orders create permanent refuges unless revoked by a concurrent resolution of Congress.

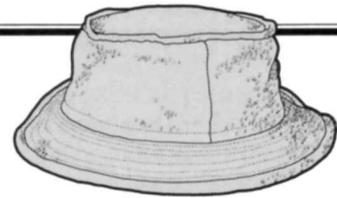
The lands currently are in protected status under withdrawals scheduled to expire in 1981, but Andrus said the extensions are necessary because of uncertainty about when Congress will finally resolve the issue. He still hopes they will act this year, but he is concerned that the time agreement delaying Senate consideration of the bill at least until July "will lead to a stalemate in the closing days of the 96th Congress, just as happened to its predecessor in 1978."

After Senators Ted Stevens and Mike

Gravel of Alaska obtained the delay in February, Gravel said, "Never in my wildest dreams did I think we could hold out until late summer or fall. . . . If everything goes to hell in a handbasket, we could probably stop a bill coming out of conference at the end of the session, but we would not be able to stop it now."

Andrus said that people upset about the delay "will have to address their cards and letters to Alaska's senators."

More importantly, write your senators—and if possible visit them also—to urge that they ask Senate leaders not to wait until July to schedule the Alaska lands bill. Call the Alaska Coalition Hotline at 202-547-5550 for an update. Next month's Magazine will feature details on the twelve wildlife refuges and four natural resource areas, which protect areas used by millions of migratory birds from around the globe and major portions of our nation's caribou, polar bear, and other wildlife.



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**Couldn't there be a program of BONDS FOR PARKS** in addition to the Golden Eagle passport and various entrance and use fees? I would willingly purchase specific bonds to assist operation, maintenance, and expansion of our park system, as I have been buying the new energy bonds. I want my money to go into the parks. Like the regular bonds, these would be exempt from state and local taxes, and federal tax on these Parks Bonds would be set aside totally for the parks. I think there would be a lot of interest and support for this.—*Michael Lauver, Crosby, Minnesota*

**Commercial fisherman say they have "rights" in the Everglades** over the rights of the endangered American crocodile?—Hogwash. I'm rooting for the crocs. I heartily support the Park Service in its recent decision to ban access to crocodile nesting areas. The rest of the bay is also critical habitat for the crocs, which can get caught in the fishing nets and lines. What's more, fish populations in Florida Bay have declined as a result of a lessening of freshwater flow into the bay. So the Park Service is right to bring a halt to commercial fishing in the bay, but this activity should be stopped immediately instead of waiting for a five-year phase-out.—*William A. Black, Orlando, Florida*

**When Horace Albright celebrated** his ninetieth birthday on January 6, he received greetings from around the nation. Just a few months previously, the Horace Albright Visitor Center was dedicated at Yellowstone. The dedication ceremony honored Mr. Albright—one of the founders of the park system, former Yellowstone superintendent and NPS director, and one of the greatest protectors of the parks ever—with a full color guard from Fort Laramie, bagpipes, and a host of special guests. Although Mr. Albright was unable to attend the ceremony, he was there in spirit and maintains an ever-vigilant interest in park issues.—*Naomi Hunt, Editor, National Park COURIER*

**Australia, which plans to establish the world's largest environment park,** will play host to the Second World Wilderness Congress from June 9-13, 1980, in Cairns. The congress will provide a platform for statesmen, scien-

tists, artists, poets, and indigenous peoples from around the world. Cairns is the gateway city to the tropical northern reaches of the Great Barrier Reef—which is one of the wonders of the world and includes the natural aquarium of Green Island—and to the Outback of the Cape York Peninsula. Cape York is a vast area ranging from open scrub country to coastal rainforests, swamps, and mangroves. The Queensland government has been gradually acquiring land in Cape York as part of the largest wilderness ever proposed in the world—an area almost the size of England and Scotland. Seven island national parks and nine mainland parks have been declared. The congress aims to stimulate worldwide understanding of the need for preserving our remaining wilderness areas. For more information, write the Secretariat, Second World Wilderness Congress, P.O. Box 823, Cairns 4870, Queensland, Australia, Tel. (070)-51-5640; or Fun Safaris, Inc., P.O. Box 178, Bloomington, Illinois 60108 (800-323-8020).—*Australian Information Service* ■

**Have an idea for P.S. on parks?**

Send it to P.S.—Editorial Department, NPCA, 1701-18th Street, N.W., Washington, D.C. 20009. ■

*The koala will be one of many species considered at the Second World Wilderness Congress in Australia in June.*



KOALAS, AUSTRALIAN TOURIST COMMISSION

**Tahoe—from page 26**

percent increase in algae concentrations between 1969 to 1975 alone, as well as an unnatural proliferation of microscopic life. Accordingly, Lake Tahoe's famed clarity suffered. In addition, wildlife areas—such as a third of the basin's marsh habitat—have been the very sites favored for development.

Past efforts to protect the lake—notably the Tahoe Regional Planning Agency (TRPA)—have been unsuccessful. The TRPA, made up of state and local representatives, has failed after more than a decade of existence to set up effective controls over land use or highway and commercial construction. In fact, the agency has even approved projects leading to an escalation in development. Unfortunately, special interests, particularly casino owners and developers, have overridden the interests of the general public. Nevada and California have been unable to agree on how to protect the area.

Rep. Vic Fazio (D-Calif.) has introduced HR 6338, a bill to make the Tahoe Basin a national scenic area in order to provide a needed measure of federal control in the area.

Unfortunately, in the past the federal government has had conflicting policies in relation to Tahoe. "Not only is the federal government promoting growth," Fazio says, "it is at the same time spending [millions] to mitigate it."

Not only are the taxpayers' dollars involved, but their land is at stake as well. About 71 percent of the basin is owned by the public—most of it under Forest Service jurisdiction.

Fazio's bill would give the Forest Service two years to formulate a scenic area plan defining the steps needed to prevent further degradation in the basin and would freeze all "significant development" in the area during preparation of the plan. The plan would include zoning and land use standards for privately owned property within the scenic area, guidelines specifying peak and average population densities, and an identification of property that should be acquired.

Once the plan is adopted, local governments would have one year to bring their own ordinances and policies

into compliance. Where development is determined to be harmful, the Forest Service would have authority to condemn and purchase property.

Fazio says in summary, "The basic threat to the lake is political. It is inordinate power enjoyed by a small number of people with economic interest in the Basin. . . . People who want to preserve the lake live all over this nation."

**You can help:** Write your representatives and senators to urge them to stop the destruction of the national treasure of Lake Tahoe by cosponsoring and supporting HR 6338. ■

## Another look at landmarks

The Heritage Conservation and Recreation Service (HCRS) recently adopted measures to eliminate the huge backlog of potential National Natural Landmarks needing evaluation.

In an article appearing in the Maga-

zine in March, Chris Delaporte, HCRS Director, said the measures were prompted in part by the explicit concern NPCA expressed a year ago about the backlog of some 1,800 sites.

NPCA welcomed the initial steps to alleviate the backlog but has requested several changes in the interim regulations HCRS has proposed for studying, designating, registering, and monitoring the National Natural Landmarks. First, we urged that a phrase other than "National Significance" be used to describe the standard for evaluating sites for natural landmark status. The term "National Significance" has long been used by the National Park Service in another context, and this dual definition could only lead to confusion. Moreover, NPCA emphasized that criteria for including areas in the park system must continue to be determined exclusively by the Park Service. This Association also recommended steps to strengthen public notification procedures.

NPCA observed that even after natural landmarks are established, both the existing and proposed regulations concerning protecting them are ineffectual. We suggested that in the future the Secretary of the Interior should consult with secretaries of other land-managing departments, requesting that through *interagency* agreement federal agencies under their jurisdiction take responsible measures to protect the landmarks they manage.

In separate action, NPCA requested that Delaporte clarify a large discrepancy between the Secretary of Interior's latest report to Congress on threatened natural landmarks, and a report on mining threats to natural landmarks completed by the Advisory Council on Historic Preservation. The latter includes ninety-three natural landmarks with identified or potential threats from surface mining activity, whereas only forty-six are considered threatened at all in the secretary's report, and only seven of those by mining. ■

## classifieds

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### Corps recreational lands

The article by William J. Hart in the January issue entitled "Corps lands: Is anybody minding the store?" was of particular interest. I have assisted the Corps on numerous occasions in matters concerning recreation and resource management. . . . I have found the majority of Corps personnel to be vitally concerned with the lack of authority to actively manage the resources under their control to maximize recreation and other resource use values. . . . I echo Mr. Hart's recommendation that NPCA members should encourage Congress to clarify the Corps mandate for recreation and resource management. One positive step would be to repeal that part of PL 89-72 (Federal Water Projects Recreation Act of 1965) which requires the Corps to secure a cost-sharing partner for all recreation development. Another step would be to protect Corps rangers as federal officers under Title 18 and extend full law enforcement authority to them. . . .

We, in NPCA, can assist the Corps at the national, division, and district levels to initiate and/or maintain quality recreation and resource management services. The Corps will welcome the support and assistance. (This will also make it easier for us to work with the Corps to eliminate projects of dubious value.)

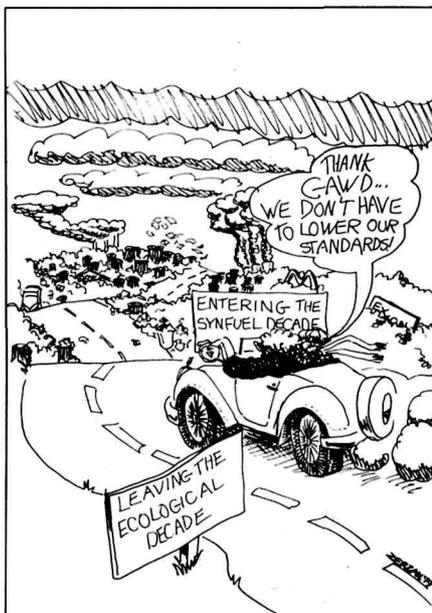
*J. W. Shiner, Ph.D.  
Slippery Rock, PA  
Department of Parks & Recreation  
Slippery Rock State College*

I heartily agree with Bill Hart that all national park users should care whether Army Corps water resource lands are well managed. They may not be the "crown jewels" national parks are, but many of them are very special and are admirably suited for recreational purposes. People have diverse needs. Sometimes a candlelit gourmet meal fills the need, other times we're happy with a fast food stop. Sometimes we want to appreciate the glories of our national parks, but many times we just want to play or relax in a scenic spot. And every recreation day spent in a facility outside a national park decreases pressure on our over-crowded units of the park system.

I see no need to dam any more wild rivers or flood any more farm land but I feel strong action should be taken to ensure that existing Corps lands be managed for maximum recreational and natural resource use for the public that pays for them. If they can be turned over to state or local governments to be used in this way, fine, but I would not like to see public lands turned over to be exploited by private developers. Facilities need not be elaborate or expensive to be appreciated by the public. In many cases cooperative agreements could be made with local civic organizations such as the Jaycees, Boy Scouts, or other youth groups to help with the maintenance of these public places.

My family has enjoyed Corps areas in Missouri, California, and South Dakota. Last April my husband and I camped on a high bluff with a spectacular view of Dardenelle Lake in western Arkansas (Horsehead Camp). We heard chuck-will-widows and poor-wills and saw a summer tanager as well as familiar birds we see at home. Other people were camping, fishing, and boating down below. This was among the nicest camping places of our six-week trip west, or any other camping trip.

*Eileen Lambert  
Luray, Virginia*



ECONOMICS, NORTHEAST ENVIRONMENTAL CENTER

### Acid rain & the parks

Thank you for NPCA's part in making the recent acid rain conference possible. [See January 1980 issue.]

From one who is on the front line at the state level in Pennsylvania, it is important for all environmental groups and interested conservationists to work together on this most critical and difficult environmental problem.

Pennsylvania is in the eye of the acid rain storm as we are recording some of the lowest pH readings anywhere in the world. In Allegheny National Forest (downwind from Cleveland, Ohio), a rainfall sample was measured and found to be 2.32 in 1978. Pennsylvania remains committed to achieving the goals of the Clean Air Act. Yet continuing Commonwealth efforts seem to be ending in frustration because to our west, scofflaws are making a mockery of the whole process. As a result, our industries are in a competitively disadvantaged position, our citizens are not receiving the air quality improvements they are paying for, and now—thanks to tall stacks—we are getting pickled.

I commend your magazine for publicizing the acid rain problem and as one who lives within a few miles of Gettysburg I appreciate the many great challenges facing the National Parks & Conservation Association.

Again thanks for your extensive work.

*Larry J. Schweiger, Executive Secretary  
Joint Legislative Air & Water  
Pollution Control & Conservation  
Comm.  
Commonwealth of Pennsylvania*

I was just re-reading the October 1977 issue of *National Parks & Conservation Magazine* and came across the article on the Atikokan Generating Station scheduled to spew its pollution across the Quetico-Superior area parks.

In 1974 I canoe-packed through Killarney Provincial Park, which is fifty miles south of Sudbury. The lakes were beautiful in a way because they were clear, but they were tragic. No life, plant nor animal, existed in them.

Keep up the good work.

*Calvin W. Fox, Jr.  
Reinholds, Pennsylvania*

*Continued from page 2*

species composition away from the ecological norm may be justified under some special conditions, but it is not ecological forestry.

**T**HERE ARE other words that serve as useful qualifiers of forestry. "Environmental forestry" stresses practices to enhance values of the forest environment such as recreation, wildlife, and water as well as timber; and especially the protection of the forest ecosystem and its productivity. But the application of ecological principles is also necessary for the practices of "environmental forestry" where integrated multiple values are produced on the same area for both present and future uses.

The forest resource is unique. It is renewable, a long period of time is required for development and maturity, and it provides many uses. Forestry is not a branch of agriculture; the resource is not man-made; it requires a special and distinct approach based on ecological principles and the concept of many uses. Forests are habitats for wildlife, environments for recreation and esthetics, regulators and providers of pure water, and producers of timber supplies. If these are the objectives of forest management over the long term, "ecological forestry" is the way it must be done. Someday, perhaps, it will be unnecessary to use qualifiers before the word "forestry."

The concept of ecological forestry is also applicable for wilderness and other nontimber forest management. Forest management does not always refer to producing some timber products. Wilderness is not a single-use resource as stated by opponents but is valuable for wildlife habitat, watershed protection, recreation, scientific study, and testimony to man's attitude toward the Earth which supports him. Ideally, wilderness should be acted upon only by the forces of nature. Yet, to enjoy and use wilderness, people must visit, penetrate, it. Unless this is carefully managed, damage to the wilderness ecosystem will result. Such management is, or should be, included in the profession of for-

estry and requires a thorough knowledge of forest ecology. How, and how much, can we use a wilderness without destroying it? What measures are required? How does the nature of wilderness vary with climate and soil-site? Answering these questions requires a high order of ecological forestry.

**I**N THIS COUNTRY TODAY powerful forces are working against the widespread use of conservative ecological forestry. Foremost among these is the trend toward "tree farming," or treating forestry as a branch of agriculture. This may involve planting, cultivation, fertilization, herbicides, pesticides, and monocultures, with trees harvested like corn. It also involves "superior" seed that may, in the long run, reduce genetic diversity. On suitable sites and for certain wood products in short supply some or all of these measures may be justified, but this can be pushed too far—sometimes on the wrong sites and for narrow objectives. Forests and forest lands are a natural and extremely fragile and diversified resource. Agricultural crops are man-made. Both need the application of science for management, but forestry requires an entirely different approach. It must operate on its own, independent of agricultural philosophy.

**A** NUMBER of things are required before "ecological forestry" can have widespread application in this country. We must first determine to carry out site-specific planning and understand that foresters are first of all "men of the woods." Trees grow in certain spots; they do not move around. Individual forest stands are fixed to and related to certain climatic and soil-site conditions. The present top-down planning of the Forest Service, for example, can lead and has led to serious mistakes on the ground where the trees are growing. Ideally, the forester on the ground should make the silvicultural and management decisions but within a broad framework of multiple objectives.

Along with planning from the

ground up we must learn how to fairly evaluate the long-term multiple benefits from the forest resources. Present cost-benefit analyses are too heavily weighted toward the short-term dollar returns from timber products. For example, the eastern national forests have more social value for recreation, wildlife, and water than for timber, yet current plans are calling for the dominant use of clearcutting, more favorable for quick timber profits, rather than the more conservative and ecologically harmonious group selection combined with improvement cuttings and thinnings.

Ecological forestry is even more important for the millions of small woodland owners in America who are usually more interested in environmental values combined with timber than timber alone. The forestry profession has not made it sufficiently clear to them that good silvicultural practice (application of ecology) can provide all the forest values and preserve the forest as well.

I have said elsewhere that forestry is "maintaining the integrity of the *working* forest ecosystem." Ecological forestry will do this. (So will just plain "forestry" if properly understood and practiced.) So we work for a healthy land and healthy and undiminished forest resources to provide the material and spiritual needs of both the present and the unborn future users. We cannot do this by tree farms and agricultural methods alone. We do it by the application of ecological principles to the vast and diverse array of the world's forests and potential forest land. We do it with the recognition that forests are essential not only for people's wants and needs but also to the very life of planet Earth as expressed by the preservation of the soil mantle, fertility, vegetation, fresh pure water, and even the benign climate and the carbon dioxide balance. Use of the term "ecological forestry" may help remind us of our love for and responsibility to Mother Earth. This is surely a concern of members of the National Parks and Conservation Association.

—Leon S. Minckler

For more than sixty years NPCA has been working to expand the National Park System by adding qualified new areas deserving of preservation—and to protect them once they are added. You can help, too. Send \$1.50 for NPCA's *Citizens' Action Guide to the National Park System*. It will tell you how to influence public opinion, work with the Park Service, and coordinate with NPCA. Also, please send your tax deductible contribution today to help your Association continue its important work.

**NATIONAL PARKS & CONSERVATION ASSOCIATION**

