

# NATIONAL PARKS *Magazine*



Seneca Rocks, in the new Seneca Rocks-Spruce Knob  
National Recreation Area, West Virginia

*December 1966*

# *An Olden Tranquillity*

## *An Editorial*

COLONIAL WILLIAMSBURG SHONE spic and span in the chilly autumn sunlight.

Our kindly and competent guide took us to the street corner where the little buses stop.

We stepped aboard, no charge, and found plenty of seats. From time to time, as the bus glided on, the recorded-announcement system, with excellent acoustics, commented briefly on main points of interest.

At several of the 15 stops we dismounted, with ample time for a leisurely inspection of special exhibits in old buildings.

Some 98% of all tourists coming to Williamsburg by private automobile, said our guide, leave their cars at the parking lot at the visitor center and take the small buses, without charge, around the historical city. They are free to use their own cars but they prefer public transportation; in this way they get a driver, the announcements, and guides at the stops; they have no parking problems, and they cannot get lost; they can relax and enjoy the ride and the walks.

The small bus system now handles about 1,000,000 visitors a year. It uses 15 small buses which run every two and a half minutes during the crowded season. The expense budget is about \$135,000 a year, doubtless much less than could easily be spent in handling traffic jams.

The streets of the restored central town are closed to automobiles, including buses, during daylight hours in the vacation season. The buses, and private cars, if they choose, circumnavigate the central town. Pedestrians walk peacefully through the streets; it is hard to tell where the sidewalks end and the streets begin.

There is a leisurely atmosphere in Colonial Williamsburg. Pedestrians, not the compulsive traffic, set the pace. There is time to stop and see the historical exhibits, and to consider the

architecture of the old houses, and the newly rebuilt structures, shaped from old plans.

We had a sense of something pleasantly missing, and realized that there are no telephone and power lines, telephone poles, transformer boxes, and other ugly paraphernalia of overhead energy and communication in Williamsburg. The lines are buried underground. One realizes that human settlements were very different in the old days, and in some ways much more pleasant.

The town is an excellent example of early community planning. The founders enforced acreage limitations, requiring ample green space. You get a sense of luxury in spaciousness in Williamsburg, a suggestion of a time when the entire continent was ample in space. Perhaps you also get a faint intimation of the earthly Garden we could cultivate again if world population can be stabilized and reduced.

We think of the minibuses in downtown Washington, of the electric minitrains at the Mall which the taxidriers dislike so much, but of which the public obviously approves. There is a quiet revolution beginning throughout America against human submergence under the automobile traffic.

The revolution might just as well get started in the big national parks. We think of the auto jams in Yellowstone, and the notions the National Park Service has of building new highways in Yellowstone to facilitate the flow of the traffic. The Service has already developed a street plan for Great Smoky Mountains National Park. Why not one for Yellowstone? But why not public transportation instead, eliminating the parking lots, cutting the traffic, reducing atmospheric pollution.

And why not minibuses or minitrains for Grants Grove and Giant Forest in Sequoia National Park? We see no reason why visitors should behave any differently there than they do

at Colonial Williamsburg, nor why they would not express their free preference for guides, announcers, comfortable free transportation, and relief from their cramped confinement in their tiresome family cars.

In any case, if the National Park Service is to be true to the obligations imposed on it by the National Park Service Act and the various laws establishing the individual national parks, which require it to protect the parks against impairment, speedy progress must shortly be made toward the establishment of sensible transportation systems in the parks.

Such systems might well begin with local operations in points of principal interest where the crowds and the traffic tend to gather, but they may also have their place in main-stem transportation into the parks. Privately operated vacation resorts outside the public lands should be the departure points for the trunkline transportation. The lodges which now exist in some parks, visitor centers, or reception centers close to the parks, might be the take-off bases for shorter local public-conveyance routes.

When one reflects on the indignities and stupidities of the modern traffic jam, and considers that after all we may nonetheless possess a measure of intelligence as a species, one concludes that firm measures may yet be taken against these evil abuses of the private automobile.

The National Park Service says that the parks are for people, and we agree. The parks, so says the law, are to be preserved in natural condition, unimpaired, for enjoyment by people by methods compatible with protection. The problem of the traffic is a question of protecting both people and parks against the traffic. We think things ought to get going along the public transportation line before the urbanization of the parks begins to be both tragic and absurd. —A.W.S.



# NATIONAL PARKS Magazine

OFFICIAL PUBLICATION OF THE NATIONAL PARKS ASSOCIATION

VOLUME 40

DECEMBER 1966

NUMBER 231

## Officers of the Association

ANTHONY WAYNE SMITH, President and General Counsel  
 CLARENCE COTTAM, Chairman, Board of Trustees and Executive Committee  
 LAWRENCE C. MERRIAM, JR., Vice-Chairman, Board of Trustees and Executive Committee  
 JOHN H. COVER, Secretary, Member of Executive Committee  
 DONALD A. McCORMACK, Treasurer, Member of Executive Committee  
 WILLARD E. BROWN, Member of Executive Committee  
 SPENCER M. SMITH, JR., Member of Executive Committee  
 MICHAEL STRAIGHT, Member of Executive Committee

## Staff

PAUL M. TILDEN, Assistant to the President and Editor  
 RALPH H. DWAN, Counsel  
 KATHARINE W. BRYAN, Business Manager

## Board of Trustees

DURWARD L. ALLEN, Lafayette, Indiana  
 HERBERT L. ALLEY, Tavernier, Florida  
 RICHARD C. BRADLEY, Colorado Springs, Colorado  
 GEORGE E. BREWER, JR., New York, New York  
 WILLARD E. BROWN, Washington, D.C.  
 CARL W. BUCHHEISTER, New York, New York  
 MRS. RICHARD E. BYRD, Bettyville, Va.  
 JAMES C. CHARLESWORTH, Philadelphia, Pa.  
 GRANT CONWAY, Brookmont, Maryland  
 ROBERT C. COOK, Washington, D.C.  
 HAROLD J. COOLIDGE, Washington, D.C.  
 CLARENCE COTTAM, Sinton, Texas  
 JOHN H. COVER, Yellow Springs, Ohio  
 MRS. RALPH H. DONNELLY, Hancock, Maryland  
 NEWTON B. DRURY, Berkeley, California  
 JOSHUA EVANS, JR., Washington, D.C.  
 IRA N. GABRIELSON, Washington, D.C.  
 PATRICK D. GOLDSWORTHY, Seattle, Washington  
 LEONARD HALL, Calcedonia, Missouri  
 WELDON F. HEALD, Tucson, Arizona  
 MICHAEL HUDOBA, Washington, D.C.  
 HARRY G. M. JOYSON, Bridgewater, Virginia  
 DARWIN LAMBERT, Luray, Virginia  
 MRS. CAZENOVE LEE, Washington, D.C.  
 MARTIN LITTON, Menlo Park, California  
 FRANK E. MASLAND, JR., Carlisle, Pennsylvania  
 GRANT MCCONNELL, Chicago, Illinois  
 DONALD E. McCORMACK, Washington, D.C.  
 IAN L. McHARG, Philadelphia, Pennsylvania  
 LAWRENCE C. MERRIAM, JR., St. Paul, Minn.  
 M. GRAHAM NETTING, Pittsburgh, Pennsylvania  
 CHARLTON OGBURN, JR., Oakton, Virginia  
 JOHN OSSEWARD, Seattle, Washington  
 HARRY ROBERT PAGE, Arlington, Virginia  
 RICHARD H. PORCHI, Pelham, New York  
 SPENCER M. SMITH, JR., Arlington, Virginia  
 MICHAEL STRAIGHT, Alexandria, Virginia  
 WILLIAM H. WILCOX, Philadelphia, Pa.  
 FRANCIS A. YOUNG, Washington, D.C.

An Olden Tranquillity	2
The Appalachian Trail	Stanley A. Murray 4
Spruce Knob-Seneca Rocks National Recreation Area	Robert C. Byrd 8
Cape Cod Seashore's White Cedar Swamp	Charles R. Koehler 11
A Wilderness Plan for Lassen Volcanic National Park and Surrounding Region	A. W. Smith and W. J. Hart 12
News and Commentary	18
Reviews	21
Index to the 1966 Magazines	22

*Front cover photograph courtesy U. S. Forest Service*

National recreation areas are thought of by both the National Park Service and the U. S. Forest Service as parcels of land having sufficient size and sufficient outdoor recreational opportunities to satisfy the otherwise unfulfilled needs of a substantial regional population, so that the criteria for a given area may vary with the nature of a terrain and the density of human numbers in the immediate region. Spruce Knob-Seneca Rocks National Recreation Area, in the Monongahela National Forest of West Virginia, was the first such official area to come under exclusive jurisdiction of the Forest Service, having been authorized in September of 1965. Since then the Service has acquired an additional area, Mount Rogers, in Virginia's Jefferson National Forest; it is also one of the three Government agencies jointly operating the Whiskeytown-Shasta-Trinity Area in California.

## The Association and the Magazine

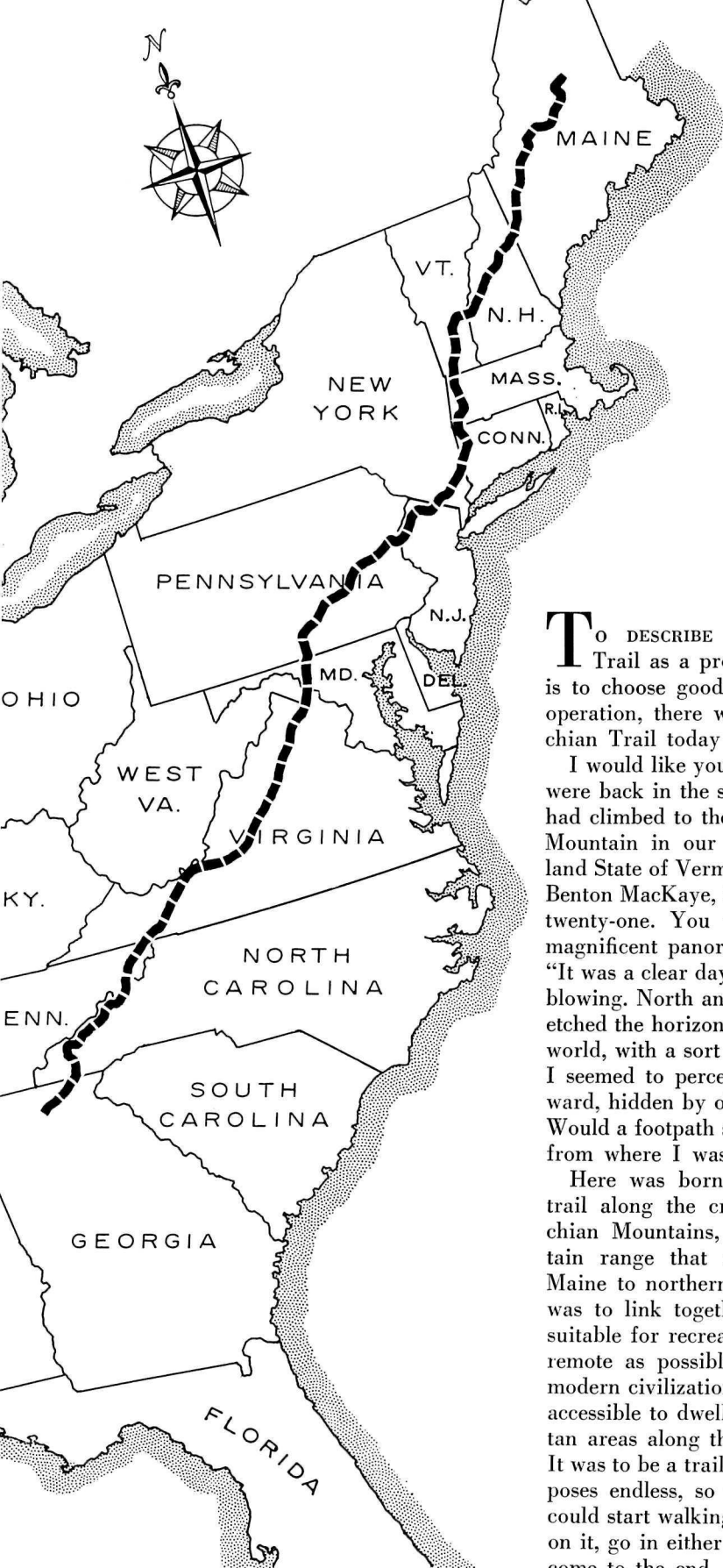
The National Parks Association is a completely independent, private, non-profit, public-service organization, educational and scientific in character, with over 32,000 members throughout the United States and abroad. It was established in 1919 by Stephen T. Mather, the first Director of the National Park Service. It publishes the monthly *National Parks Magazine*, received by all members.

The responsibilities of the Association relate primarily to the protection of the great national parks and monuments of America, in which it endeavors to cooperate with the Service, while functioning also as a constructive critic; and secondarily to the protection and restoration of the natural environment generally.

Dues are \$6.50 annual, \$10.50 supporting, \$20 sustaining, \$35 contributing, \$200 life with no further dues, and \$1000 patron with no further dues. Contributions and bequests are also needed. Dues in excess of \$6.50 and contributions are deductible for Federal taxable income, and gifts and bequests are deductible for Federal gift and estate tax purposes. As an organization receiving such gifts, the Association is precluded by law and regulations from advocating or opposing legislation to any substantial extent; insofar as our authors may touch on legislation, they write as individuals.

Membership in the Association carries with it subscription to *National Parks Magazine*. School and library subscriptions are \$5 a year; individual copies 50 cents. Letters and contributed manuscripts and photographs should be addressed to the Editor at Association headquarters. The Association is not responsible for loss or injury to manuscripts and photographs in transit. Return postage should accompany contributions. Copyright, 1966, by the National Parks Association. Title Registered U.S. Patent Office. Indexed in the *Reader's Guide to Periodical Literature*. Printed in the U.S.A. Second-class postage paid at Washington, D. C.

NATIONAL PARKS ASSOCIATION, 1300 NEW HAMPSHIRE AVENUE, N. W., WASHINGTON, D. C. 20036



# The Appalachian Trail

**T**O DESCRIBE THE APPALACHIAN Trail as a product of cooperation is to choose good words. Without cooperation, there would be no Appalachian Trail today as we know it.

I would like you to imagine that you were back in the summer of 1900, and had climbed to the summit of Stratton Mountain in our northern New England State of Vermont with your friend Benton MacKaye, then a young man of twenty-one. You would have seen a magnificent panorama. MacKaye said, "It was a clear day, with a brisk breeze blowing. North and south, sharp peaks etched the horizon. I felt as if atop the world, with a sort of planetary feeling. I seemed to perceive peaks far southward, hidden by old Earth's curvature. Would a footpath some day reach them from where I was then perched?"

Here was born the idea of a foot trail along the crests of the Appalachian Mountains, our Eastern mountain range that runs from northern Maine to northern Georgia. This trail was to link together wilderness areas suitable for recreation. It was to be as remote as possible from the signs of modern civilization, and yet be readily accessible to dwellers in the metropolitan areas along the Atlantic seaboard. It was to be a trail for all practical purposes endless, so that the usual hiker could start walking at almost any point on it, go in either direction, and never come to the end.

When the Trail was finally completed it reached 2000 miles in length, running from the glaciated peaks of Maine to the surprisingly rugged

mountains of Georgia. It is now the longest continuous marked foot trail in the United States, and probably in the world. In its course it passes through fourteen States, eight national forests, and two national parks. Sections of it are hiked each year by an estimated 200,000 persons from all over the United States, and there are visitors each year from many other countries.

## Nature of the Trail

The chief characteristics of the Trail are its long length and many access points, its relatively narrow width (about 4 feet), its continuous marking (6-inch x 2-inch white-painted "blazes"), its occasional primitive shelters for use by individuals or small groups, its wilderness environment that enables the hiker to feel in intimate association with nature, and the separation of the Trail from other developments by as much distance as possible—the quality we call remoteness.

Let us now see how this Trail was built and how cooperation among Federal, State, municipal, and private organizations not only helped to bring the Trail to completion, but also played a very important part in its continued maintenance and protection.

We have seen how the idea of the Appalachian Trail came from one man, Benton MacKaye. Throughout the Trail's development there have been dedicated private citizens who have worked long and hard to vitalize and coordinate the whole project. These persons have inspired the cooperation of the many agencies, private

*Over a 2000-mile course from Mount Katahdin in Maine to north Georgia's Springer Mountain the Appalachian Trail leads hikers through 8 national forests and 2 national parks.*



By Stanley A. Murray



*Courtesy Appalachian Trail Conference*

*Northern terminus of the Appalachian Trail is ice-sculptured Mount Katahdin in the heart of Maine's magnificent Baxter State Park.*

organizations, and others necessary to complete the Trail. Probably it was good that these persons were private citizens, as they could more easily cross the jurisdictional boundaries of government agencies.

In 1921 MacKaye published an article entitled "The Appalachian Trail, a Project in Regional Planning," and he began to organize volunteer workers in several cities to start laying out a route and clearing the Trail. The first section cleared especially for the Appalachian Trail was in the Palisades Interstate Park in New York State, started in 1922 and completed in 1923. This required, of course, the cooperation of the interstate park authorities. Thereafter much of the Trail was laid across private lands, some owned by individuals and some by corporations such as lumber and paper companies. The groups building the Trail had no money to purchase land, so they simply asked permission. Frequently these permissions were verbal. The owner was asked, "Can we put the Trail across your land?" He might reply, "What are you going to do on it?" "Walk." "Go right ahead—just don't cut any big trees." Today nearly 900 miles of Trail are still across private land.

By 1926 the early planners and volunteer workers were making real progress, and sections were cleared and marked in Pennsylvania, Massachusetts, and northern Virginia. In the South it was agreed by all, including public officials, that the Trail should go through Shenandoah National Park

and Great Smoky Mountains National Park. As maps were studied and the route planned through North Carolina, Tennessee, and southwest Virginia, it became apparent that the Trail would pass through our national forests for long distances. The Forest Service cooperated at once, and in fact, portions of Forest Service trails that had been completed were designated as sections of the Appalachian Trail. The Forest Supervisor of the former Natural Bridge National Forest suggested the route in central Virginia as far south as the Peaks of Otter. Personnel of other public agencies also began to cooperate. From the Peaks of Otter to New River a route was outlined by the County Agent for Floyd County, Virginia. In Georgia an assistant state forester helped to choose the southern end of the Trail.

In the north, a partial list of organizations and agencies cooperating to build the Trail would include the Connecticut Forest and Park Association, the Pennsylvania Department of Forests and Waters, the Maine State Forest Service, and many volunteer trail and hiking clubs.

#### Completing the Last Section

The Trail in Maine proved difficult. Between Mt. Katahdin and the New Hampshire line there were about 280 miles of complete wilderness. In 1933 and 1934 volunteer workers got busy—some of them almost singlehanded—and cut sections of the Trail. Then, in 1935, the Maine Trail was made a project of the CCC (the Civilian Con-

servation Corps, established under President Roosevelt, which at its peak employed 500,000 young men in work such as reforestation and flood control). The last section of the entire Trail was completed on August 15, 1937, on Sugarloaf Mountain in Maine.

As sections were completed, arrangements had to be made for their maintenance; that is, removal of trees that blow down during winter months and seedlings that grow up during spring and summer. If this work were not done systematically, the Trail would soon disappear. The Appalachian Trail Conference was first formed in 1925 to coordinate all efforts and keep the work moving. As sections were completed, they were assigned to a Trail club for continued maintenance. (A Trail club is a group of persons, usually living in or near one city, that has organized for the purpose of group hiking, Trail work, or both. In most cases, members work voluntarily and without pay; in fact, they usually pay annual dues to the club for the privilege of belonging.)

In many instances a section of Trail is assigned jointly to a Trail club and a government agency. Usually the government owns part or all of the land, and does a large part of the Trail clearing. The Trail club does the rest of the clearing and usually all of the marking. In these cases of joint responsibility, the Trail club and the government agency divide the work between them. Close cooperation is needed to avoid overlapping, inadequate coverage, or misunderstanding. It is common for the Trail club and the agency to meet each

year and discuss Trail conditions.

Aside from coordinating the maintenance, preservation, and general welfare of the Trail, the Appalachian Trail Conference publishes guidebooks (the entire Trail is covered by a set of nine books), the magazine *Appalachian Trailway News*, and other user information.

Even with the 2000 miles of Trail completed and assigned for maintenance, the biggest problem facing the Appalachian Trail Conference was still unsolved. This was the problem of protecting a continuous right-of-way across the multiplicity of ownerships and preserving the environment (adjoining lands) in wilderness or semi-wild condition. This has become an increasingly serious problem because there are many other uses to which the land could be put. Even as early as 1928, Trail location was difficult in New York State between the Hudson River and the Connecticut state line, and abandoned roads had to be used for part of the route.

The solution to this problem involved

further cooperation of various government agencies and private groups. Very soon after the Trail was completed, the Conference leaders recognized that means would have to be taken to protect it. In 1938 the National Park Service and the U.S. Forest Service signed an agreement that was to be very important to the preservation of the Trail. Wherever the Trail crosses land under their jurisdiction, the two Services agreed to designate a zone extending for at least one mile on each side of the Trail, except where it descends into the main valleys. This zone is called the Appalachian Trailway. Within it there are to be no new paralleling roads for public transportation and no developments incompatible with the Trail. Within 200 feet of the Trail there is no cutting for timber production. The Services also agreed to relocate those portions lying closer than one mile to a paralleling road. To the extent that funds are available, the agencies agreed to maintain sections on their lands, develop simple shelters, and gradually

extend their land ownerships along the Trail. Thirteen of the fourteen States signed similar agreements, but with a minimum trailway width of a quarter-mile on each side of the Trail.

In northern New England the Trail clubs keep in touch with the paper companies as necessary to keep these companies aware of the objectives of the Trail. Almost without exception, companies have been cooperative in permitting the Trail to cross their lands and in protecting the Trail. They have recognized that the presence of the Trail does not materially interfere with their business operations. Similarly, Trail users find that in the north woods cutting does not interfere with the enjoyment of a wilderness experience, provided the cutting is not done too close to the Trail. This is an excellent example of how cooperation among private organizations has been of very great benefit to an outdoor recreation project used by people of the entire country.

In the last few years, the problem of keeping a wilderness trail remote from other activities has grown more difficult. We have seen more real estate development, ski runs, government installations for aircraft control, high-voltage power transmission lines, and roads. The power of the bulldozer and the popularity of summer homes in the mountains have not been the friends of the Trail.

#### Closer Control Needed

The only possible answer seems to be in public control of an increasing percentage of the Trail lands, in combination with voluntary agreements with individuals or corporate landowners. The right of the hiker to enter the property and follow the Trail needs to be guaranteed; also the use of the lands on both sides of the Trail needs to be restricted to protect the environment.

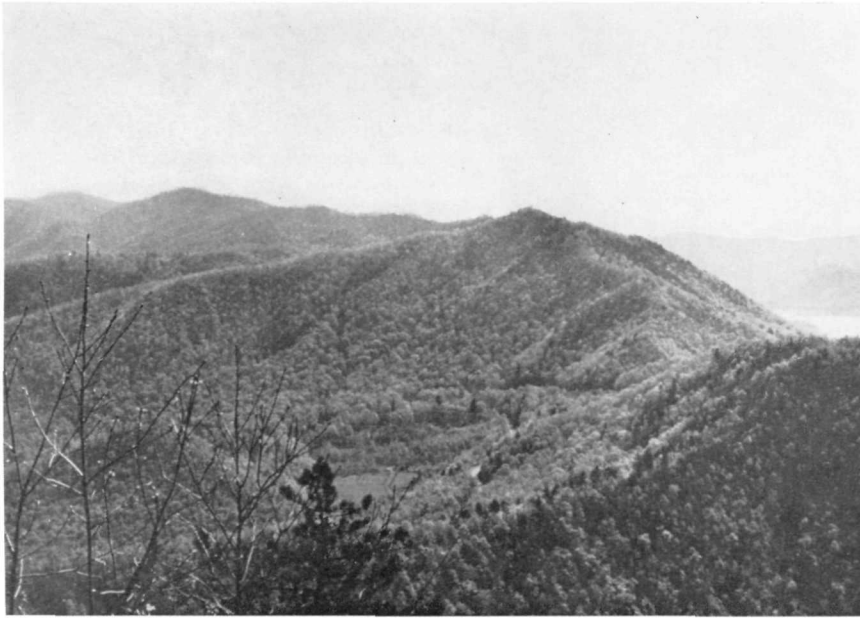
We have seen some progress. In 1964 Congress passed the Land and Water Conservation Fund Act. This Act provides money to Federal agencies, States, and local communities for the acquisition of lands for recreation purposes. Each State is required to submit a comprehensive statewide outdoor recreation plan. Some of these plans have been completed, and usually these state that the Appalachian Trail should be protected.

Recently, conservation-minded mem-

*On the barren summits of New Hampshire's White Mountain Range the cairn replaces the Appalachian Trail's ordinary route mark, a two-by-six-inch tree-blaze painted white. In the view below two hikers look east from the edge of Tuckerman's Ravine on Mount Washington. Lower ranges in the background roll away toward the Maine border.*

*New Hampshire Planning & Development Commission: A. N. Bouchard*





Photograph courtesy Walter Boardman

*As the Trail courses south the character of mountains and plant cover undergoes a subtle change. In the picture above, taken on the Trail in the Great Smokies on the North Carolina-Tennessee border, hazy ridges support a rich mixture of northern and southern hardwoods. In cool, moist ravines the Canada hemlock flourishes, while at higher elevations the hardwood growth gives way to red spruce.*

bers of Congress have been concerned over the future of the Appalachian Trail, and have introduced measures that would establish permanent protection for the Trail. One such proposal defines the Trail and enough land on both sides to protect it as "The Appalachian Trailway"; encourages state acquisition of lands along the Trail; provides for Federal acquisition of lands from willing sellers; encourages use of agreements with private landowners for the voluntary protection of the Trail; and lays out guidelines for the administration of this trailway.

Another proposal is more comprehensive. It would establish a nationwide system of trails in the United States. One type of trail included is the "national scenic trail", which is a trail at least 500 miles long, having natural, scenic, or historic qualities that give the trail recreation use-potential of national significance. The Appalachian Trail would be the first to be designated as a national scenic trail. Provisions for Trail protection and administration are similar to those of the first mentioned proposal, except that when a State fails to take the necessary steps to protect the Trail, and when control of Trail values by negotiation with private landowners

fails, the Department of Interior may simply acquire the necessary land.

I will summarize by looking at the organizations cooperating in Virginia. The length of Trail in this State is 462 miles, including the short sections bordering on West Virginia. There are six private Trail clubs that share the responsibility for the marking of the entire length through Virginia, and that do a portion of the clearing. The two largest clubs are the Potomac Appalachian Trail Club of Washington, D.C. and the Roanoke Appalachian Trail Club in Roanoke, which between them account for over 300 miles of the Trail in Virginia. Maintenance is also shared by Shenandoah National Park, George Washington National Forest, Jefferson National Forest, and Blue Ridge Parkway. Part of the Trail passes over prop-

---

**Mr. Murray is chairman of the Appalachian Trail Conference and a resident of Kingsport, Tennessee. This article presents in slightly edited form the text of his recent address to participants of the University of Michigan-National Park Service Short Course in Administration of National Parks and Equivalent Reserves, in Roanoke, Virginia.**

---

erty of the City of Roanoke, which has granted permission for the construction of an overnight shelter on its property.

The Park Service, the Forest Service, and the Commonwealth of Virginia have all been parties to Appalachian Trailway agreements since 1939. Virginia's report summarizing its initial studies under the Land and Water Conservation Fund Act states that the Appalachian Trail should be considered a valuable outdoor recreation project for the allocation of outdoor recreation funds in Virginia. In March of this year Virginia State Senator Hopkins and eight other senators introduced a resolution in the Virginia State Legislature providing for a study of methods for protection and preservation of the Appalachian Trail in Virginia. (The Trail still has problems in Virginia, such as at the crossing of the valley in lower Botetourt County just above Roanoke. Here a growing complex of interstate highways and housing developments threatens to choke off the Trail. A new protected route needs to be found.)

#### A General Formula

We emerge then, with some of the philosophy of the "long trail". Basically the formula is simple. You start with a geological feature, such as a mountain range, that is not too highly developed yet close enough to the people that will use it. You clear a trail along it for recreational use, and mark the route with some standard marking. You build simple overnight shelters close to a supply of good, natural drinking water, and protect the land nearby so that you can keep the kind of trail you want. You tell the people about it and give them a guidebook to help them plan a safe and comfortable journey. The area encompassing a long trail may be too long and narrow to be managed efficiently by one single organization or agency, and a cooperative program of many groups may be needed.

In the eastern United States this formula has been followed; the Appalachian Trail was created. The Trail has perhaps best been poetically described by Harold Allen: remote for detachment, narrow for chosen company, winding for leisure, lonely for contemplation, the Trail leads not merely north and south, but upward to the body, mind, and soul of man. ■

In the Monongahela National Forest of  
West Virginia's High Appalachians lies the new

# Spruce Knob-Seneca Rocks National Recreation Area

By Robert C. Byrd  
United States Senator, West Virginia

**I**F YOU LIVE IN A CITY WHERE THE stars try to twinkle through a haze of smog, let me invite you to enjoy the crystal air that blankets the new Spruce Knob-Seneca Rocks National Recreation Area of West Virginia. At night you will almost feel able to reach out and touch a star from an elevation of nearly 5000 feet, the highest point in West Virginia.

During the day, activities for the

work-weary man and his family will range from swimming, fishing, canoeing, hiking, and sight-seeing to "just plain relaxing" among some of the finest scenery of the American East.

The new 100,000-acre Spruce Knob-Seneca Rocks National Recreation Area sprawls in two units over a large section of the Monongahela National Forest, as shown in the map on page 10, representing an innovation by the Fed-

eral Government in providing much-needed recreational sites for the nation's ever-increasing urban population. The area was created in 1965 as the first of its category to be established entirely within a national forest.

With the land already owned by the Government, designation of the scenic and historic sections of the forest as a national recreation area allows the U.S. Forest Service to proceed with a development plan for visitor facilities within the rules for good conservation of natural resources.

The potential of a recreation plan within a national forest was the principal reason why I worked for the project in Congress for many years, succeeding last year as legislation which I had introduced into the Senate was adopted by both houses of Congress and signed into law by President Johnson.

The new recreation area is only three or four hours from the nation's capital at a safe driving speed, and it has been estimated that some 65 million people live within a radius of 350 miles—more than a third of the nation's population today. It is believed that at least a million tourists will visit the area annually within the next few years, and that ultimately some 5 million a year will enjoy its relaxing qualities.

I believe that Spruce Knob-Seneca

*On the way to the summit of Spruce Knob, highest peak in West Virginia at 4860 feet, a family of hikers finds the trail lined with the tree that named the mountain—the red spruce.*

Photographs courtesy U. S. Forest Service





Rocks will complement rather than compete with the national parks of the country, and that all the variously designated areas will offer recreation and scenic beauty in a program designed to perpetuate wide-open space atmosphere for a growing number of Americans that the Government would like to see vacationing at home.

Let me talk about some of the attractions. In the new recreation area you can literally sit atop the Appalachian world of West Virginia—on Spruce Knob, at an elevation of 4860 feet. Looking into the distance there are five other high mountain peaks which burst with color during the fall season—Fore Knobs, North Fork Mountain, Shenandoah Mountain, Massanutten Mountain and Blue Ridge Mountain.

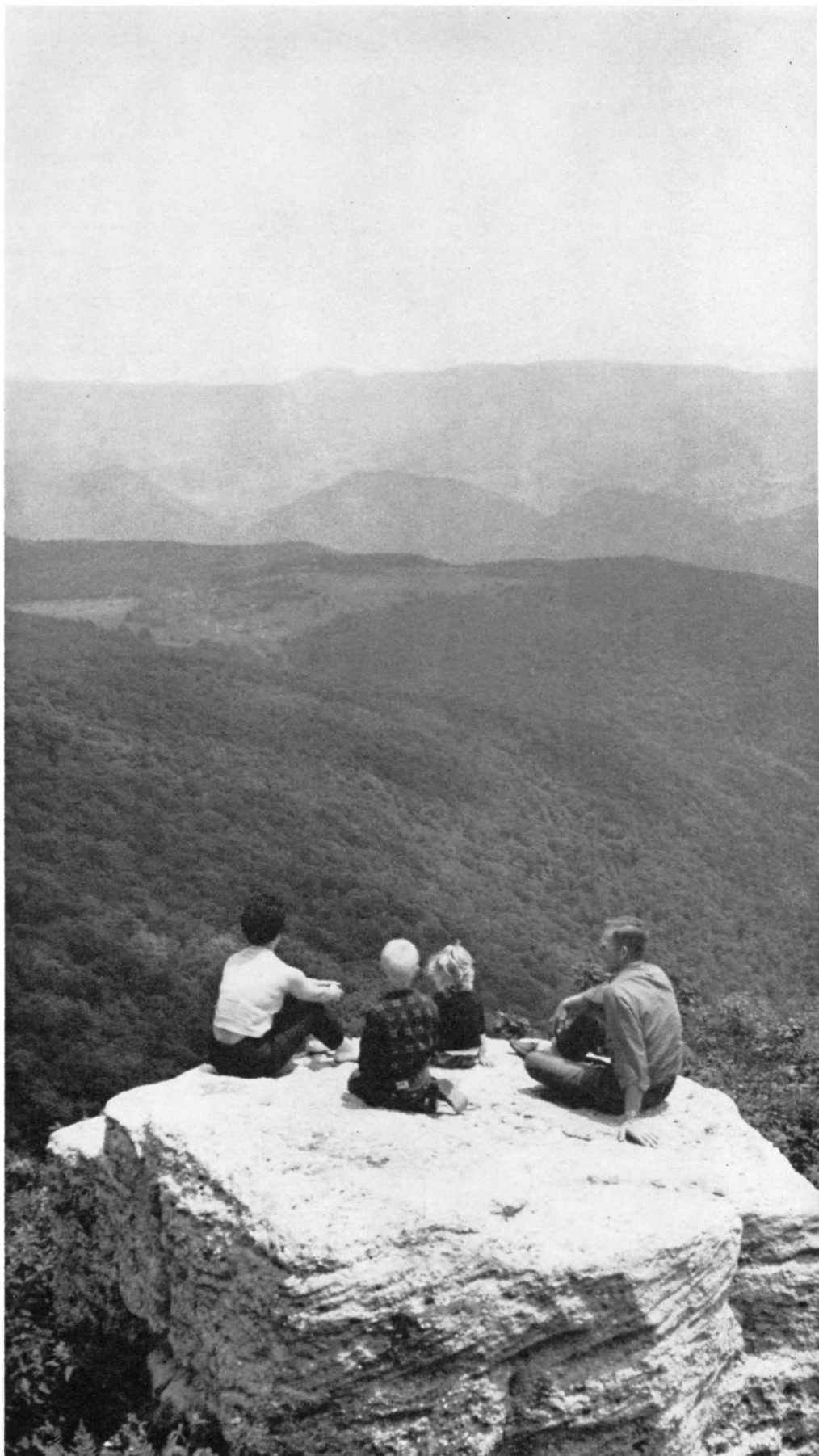
#### History in Stone

If you enjoy reading the history of a land on the face of its rocks, what more imaginative setting could you find than the famed Seneca Rocks? Rising some 1000 feet above a branch of the Potomac River, these rocks, which are pictured on the front cover of this magazine, are considered one of the most spectacular and interesting natural features east of the Mississippi. History tells us that they were a principal shelter for the Seneca Indians of the area. They are sometimes compared in appearance to a ruined castle; but they have the geological history of the land indelibly described on their face.

You will find company along the scenic trails of the new area. Gray squirrels and cottontail rabbits abound, greeting visitors with their light-hearted antics. Quail, wild turkey and ruffed grouse make their homes among the trees and along the water's edge; and you will no doubt see a white-tailed deer every now and then. An occasional black bear may be encountered in the higher elevations of the recreation area.

Spruce Knob-Seneca Rocks has a typical central Appalachian diversity of floral wealth. For example, in the little biological enclave on Spruce Knob which is called "Hermit Island" a botanist, visiting the locality in 1933,

*The hiking party pauses at the Spruce Knob-Seneca Rocks Overlook, not far from Spruce Knob, for rest and a grand view of the Appalachian valley-and-ridge country to the east.*



counted a total of 283 species of plants. The tall stems of the Appalachian trees bring a bit of Canada to West Virginia at the higher elevations—red spruce, for the most part—with the usual mixture of hardwoods at lower levels. Some 30 airline miles south of the area's two units, but still within the Monongahela National Forest, natural-history oriented visitors will find an additional attraction, the Forest Service's 750-acre Cranberry Glades Botanical Area, a high-altitude, boggy terrain that has served as a natural refuge since many northern plants and animals were left "stranded" by a warm- ing climate at the close of the most

recent Ice Age. A visitor information station is under construction at this scientific site to explain its significance. (It may be of interest to note that, in West Virginia, a "glade" is an open bog or expanse of peatland.)

Several tributaries of the Potomac—a river that has played a large role in the history of the country—add enjoyment to the national recreation area. These are the Potomac's South Branch and the North and South Forks of the South Branch, which criss-cross the region's valleys and are fed by dozens of clear, cold streams flowing from forested watersheds. As it wends its way between the rocky cliffs of its

gorge, the South Fork creates some of the most spectacular fishing water and scenic beauty to be found anywhere in the eastern United States. The South Branch is widely known among enthusiasts for its fishing and white-water canoeing.

Among many other attractions of the recreation area are the Seneca Caverns, a series of subterranean rooms located only a few miles from the highest peak in the State and containing such named sights as the Statue of Liberty, Niagara Falls and the Metropolitan Opera; Smoke Hole Cave, located on a mountain top, a maze of corridors and side rooms which were once used by the Indians; and Big Cave, in which Confederate soldiers prepared gunpowder more than a hundred years ago.

In addition to the scenic and historic interests of the new national recreation area, I believe that this area stands as a monument to the nation's growing respect for nature and to its efforts to preserve at least some of its natural treasures.

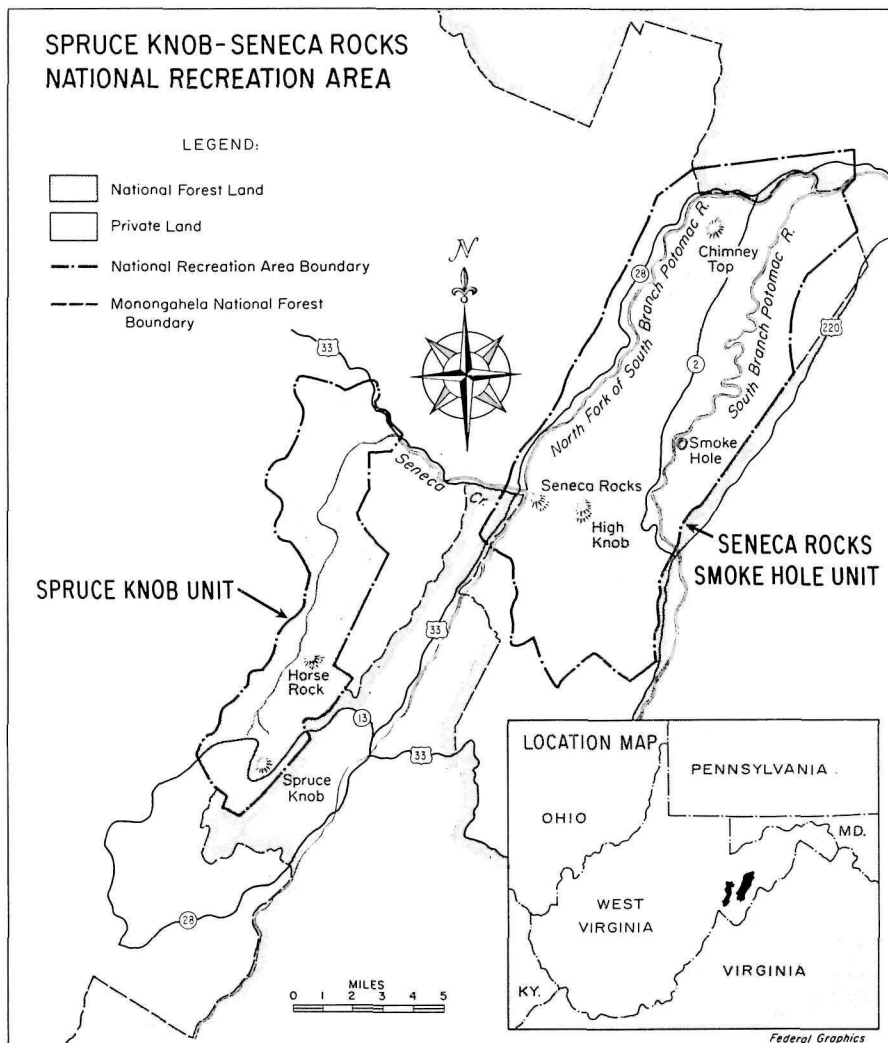
#### Up From the Ruins

The Monongahela National Forest is sometimes called West Virginia's "do-it-yourself" forest, because it has been literally created from the ashes of a burned-out terrain. In the early part of this century, the primeval trees of these mountains were cut without thought of replacement and the needs of the future. Timber was stripped off recklessly to feed hungry mills, and in conjunction with that devastation great sod areas were plowed up to grow food for loggers and millhands.

Then fires swept the cut-over lands, destroying forest remainders as well. So complete was the destruction that the area was once called the "Monongahela National Burn." Floods were spawned on denuded slopes to roll into the valleys with tragic regularity. The location of many farms on steep slopes, with their thin soil, added to the ruin of the land.

During the past 50 years the Federal Government has purchased and restored more than 800,000 acres of lands in West Virginia, and it is in this area that Chief Edward P. Cliff of the United States Forest Service will develop the new Spruce Knob-Seneca Rocks National Recreation Area. ■

*The Spruce Knob-Seneca Rocks National Recreation Area, authorized in 1965, will consist of two units almost entirely in the Monongahela National Forest in West Virginia. Some lands will be purchased and added to the national forest, and in other cases the Forest Service will negotiate easements with private landowners continuing present use-patterns but protecting the recreation interest. Stippling on map indicates the extent of Federal land ownership as of the date of area authorization.*



*Not far from National Park Service headquarters in the recently dedicated Cape Cod National Seashore of Massachusetts there is a hidden swamp containing a stand of white cedar, a tree not ordinarily found in close proximity to salt water. The Service has constructed a trail through the swamp, elevated in part, and conducts a regular schedule of guided walks.*

*Photograph by the author*



## Cape Cod Seashore's White Cedar Swamp

By Charles R. Koehler

AS THE RELATIVELY NEW CAPE Cod National Seashore in Massachusetts is slowly filled out to its eventual maximum size, visitors are finding that there is much more to the seashore than the expected sea-and-sand terrain. This national reservation possesses, among many other natural history points of interest, some unusual botanical situations.

One of these is an Atlantic white cedar swamp, located not far from National Park Service headquarters at Wellfleet. It is unusual to find a white cedar swamp near salt water, the most extensive in the United States being in the Middle West near the fresh water of the Great Lakes. The swamp at Cape Cod is so completely hidden from the view of the casual visitor that one is not aware of its existence until he is literally within it. The trail through the swamp is so

arranged that one may hike it alone or, for an informative lecture, take one of the regularly scheduled guided walks.

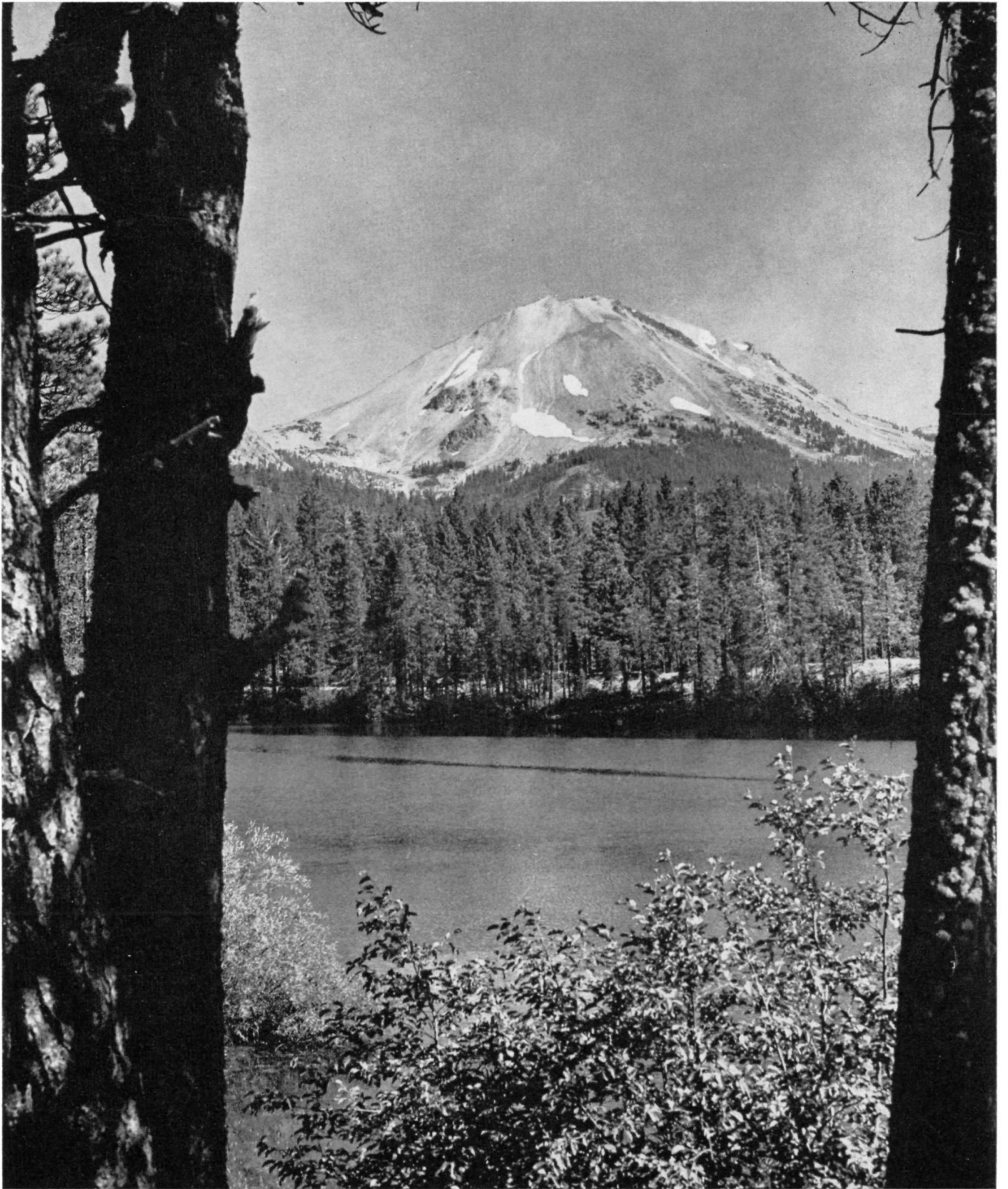
The Atlantic white cedar swamp trip, one of a number of walks that have already been initiated in the seashore, consists of a clearly marked trail that begins at an easily accessible parking area, crosses a large dwarf forest of gnarled oaks and pines stunted by exposure to the winds of the North Atlantic, and slowly, almost imperceptibly, dips inward and downward into a hidden little valley which contains the beautiful swamp.

In the white cedar swamp the trail is raised on a solidly-planked walk, which has several platform-like enlargements where the Park Service guide may gather his tour group to point out particularly interesting features. Surrounded by the towering

cedars of the swamp, one may feel that the charm and isolation of this hidden work of nature are the more remarkable upon reflection that in one direction lies the mighty Atlantic and in another the heavily traveled Route 6 down the Cape to Provincetown. Neither the Atlantic nor the road is a mile from the center of the swamp itself; but neither is seen or heard.

This fascinating trail is but one of a number which have been opened to the public already—a trail system that includes bicycle paths for those inclined toward this healthful form of outdoor locomotion. All the trails will be marked so that the visitor can hike them alone if he so desires; markers will eventually be placed on all of them to indicate interesting historical features as well as examples of the many kinds of plants indigenous to the new seashore. ■





*Photograph courtesy Southern Pacific Company*

*Mount Lassen, in northeastern California, is one of the links in the great chain of volcanos—many of them active—which nearly circumscribes the Pacific Ocean in a so-called “ring of fire.” In May 1914 the mountain became volcanically active and continued so for more than a year and a half. In the autumn of 1916 Mount Lassen, with its many adjacent subsidiary volcanic features such as boiling springs and steam and gas vents, and some 150 square miles of surrounding forest lands were established as one of the units in the nation’s wilderness park system.*



*Photograph shows an eruption of Mount Lassen during its closing stages of volcanic activity in latter part of 1915.*

*National Park Service*



## A Wilderness Plan for Lassen Volcanic National Park and the Surrounding Region

Anthony Wayne Smith and William J. Hart

**E**XTENSIVE ACTIVE HYDROTHERMAL areas, part of recent volcanic activity, highlight the remarkable natural and cultural features of Lassen Volcanic National Park. Nearly all the components of earth science are present. In addition the landscape, its origins, vegetative cover, and the species composition of the wildlife population are representative of the Southern Cascades. There is a direct relation to the broad lava plains of the Modoc Plateau and northern Nevada.

Numerous small, clear lakes—many of high geologic interest—dot the

landscape. Vegetation is typical of upper and lower montane associations in the California Pine Region. The lower montane forest, dominated by ponderosa pine, is characteristically open; upper montane forests are dense with chaparral forming a major component of the understory. Such forest land has extremely high capability to support a variety of recreation activities.

Historic values are also high, but not different from those found in the surrounding region.

Thus the significance of Lassen Volcanic National Park that cannot be

matched elsewhere in the region is the opportunity to further investigate and make understandable to all citizens the natural and cultural history of a remarkable physiographic region. The potential of the park for this purpose can best be realized by managing the resources for wilderness.

The National Parks Association proposes the following:

- 1) A Wilderness Plan for Lassen Volcanic National Park;
- 2) A Regional Plan for a broad area around the National Park.

The relevance of the proceeding to

consider wilderness proposals for Lassen Volcanic National Park extends beyond this single unit of the national park system. The principles and concepts finally enunciated for this great park will perform apply throughout the system.

There is little question that a more numerous and affluent society is placing enormous visitation pressure on all natural reserves. While national parks and monuments are for people, they were created by the people—as reflected by the National Park Service Act and related statutes—primarily to preserve the plants, animals, water, rocks, mountains, and scenery for their esthetic, scientific, and cultural values. In short, protection is primary and visitation must be compatible with that objective.

Given present-day American society,

such protection cannot be accorded if park and monument planning is carried on within the narrow confines of the park or monument itself. Planning must be extended to very large regions around each unit. In this way visitation and participation in various kinds of recreation activities can be distributed throughout the region instead of being concentrated within the park or monument.

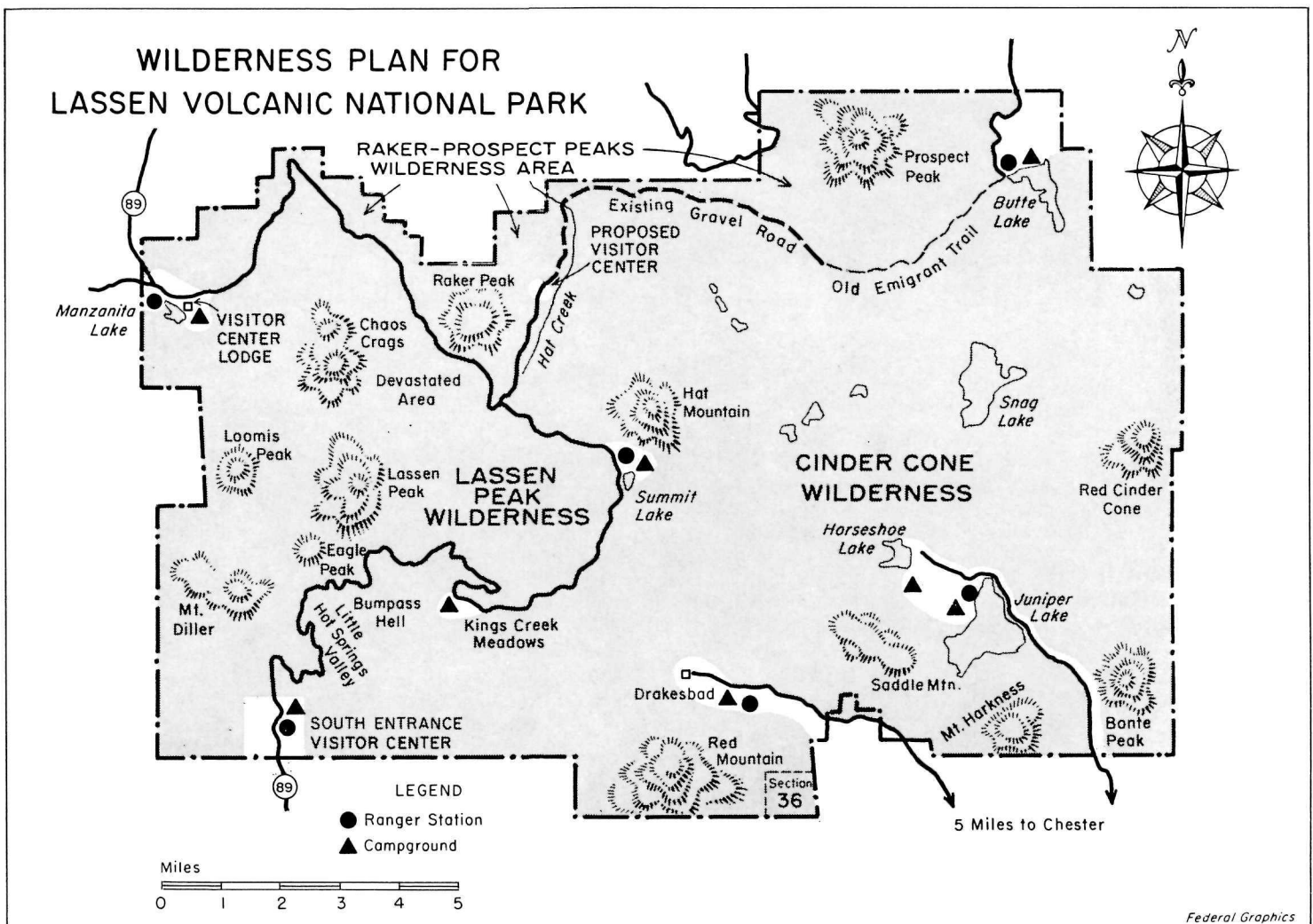
This broad distribution of visitation must be the fundamental principle of park and monument planning if the visitors are to enjoy the features for which the parks and monuments were established and if the units are to be protected against overwhelming crowding and traffic.

The regional planning approach, intended to distribute visitation over wide areas in accord with the capabil-

ities and management objectives of different land areas, is the only solution to the problem of crowding in parks.

The primary objective of management for Lassen Volcanic National Park, considered in the context of a regional approach, ought to be to reserve as large an area as possible in wilderness status. There is more than adequate room in the extensive region surrounding the park, as well as abundant outdoor recreation facilities provided by the Federal, state, and local levels of government and by private individuals and organizations, to accommodate persons coming to the region seeking varied, active, interesting outdoor release from their work-a-day life.

We believe Lassen Volcanic National Park would be categorized as a “nat-



ural" area according to the criteria described in the Secretary of the Interior's memorandum of July 10, 1964. In other words, the inclusion of the area in the national park system is based upon the public judgment—expressed by the Congress—that the natural phenomena are unique and must be given primary consideration by the National Park Service.

#### NPA Recommendations

We propose the expansion of the two wilderness areas suggested by the Service to the dimensions shown on Plate 1, page 14.

This is consistent with our belief that wilderness, as a clear statement of management objectives, should begin at the edge of the road and should extend as far as those objectives prevail. The only exceptions to a blanket wilderness classification for this natural park are:

- 1) A 640-acre area at the south gate for winter sports, interpretation, and trail-head use;
- 2) A tract around Manzanita Lake for interpretive, overnight, and administrative use, and another at Butte Lake;
- 3) An area between Juniper Lake and Horseshoe Lake for overnight and administrative use;
- 4) A series of exclusions at Drakesbad for overnight and administrative use;
- 5) An interpretive area on the Applegate Cutoff emigrant trail;
- 6) An administrative-interpretive area at Summit Lake.

Improved quality of the line of visitor flow down Hat Creek to interpretive facilities on the Applegate Trail and expansion of other interpretive facilities are the only investments recommended in the park. Overnight facilities should not be expanded.

The interpretive areas ought to be devoted exclusively to educational purposes. The area should be developed to educate a flow of visitors to the natural and cultural values of the park, but ought not serve accumulations of visitors in private automobiles bent on a wide array of recreation activities.

These recommendations would result in wilderness objectives being set for well over 100,000 acres within the park.

Private interests have made futile

attempts to develop geothermal power sources in Section 36, Township 30 North, Range 5 East. The United States should move aggressively to acquire fee simple title to this land so that it can be afforded the same wilderness protection as other land within the park.

The United States should also revoke the entry privileges afforded to the U. S. Bureau of Reclamation to enter and perform certain work within the national park.

It is further recommended that the U. S. Forest Service examine the boundaries of the Caribou Peak Wild Area in line with the needs of wilderness management in the national park. Minor adjustments in the north and south boundaries of the wild area to make the whole east boundary of the national park contiguous with a national forest wilderness area would be advantageous.

Equally important will be the assignment of management objectives to other national forest land adjacent to the park wilderness areas. We contend that Forest Service management plans for all timber-harvest areas should take cognizance of wilderness areas—regardless of administrative jurisdiction—by such devices as more intensive, short cycle, selection harvesting and careful integration of necessary logging and protection roads with the need to disperse wilderness-type use in the "back country". In the Lassen area, roads built to serve an ecologically sound harvesting system will be permanent. Following widely known techniques to minimize soil and water movement, such roads could provide for access to camping spots which in turn would be jumping-off points for the back country or wilderness, or both.

#### Analysis of Visitation

Several students of recreation-tourism have suggested several groupings of people seeking recreation. One division is according to the relation of visitors' residence to any recreation region. These are: those who reside in or immediately adjacent to the recreation destination, and who generally tend to participate in one recreation activity per day's trip; visitors originating within four or five hours' driving time of the recreation destination, who

usually make a prior decision as to the places they will stay and what they will do; people residing a great distance away, who may spend from one or two nights to several weeks at the same place. Persons within each of these very general groupings may have different behavior patterns in different seasons.

Marked changes in altitude throughout the region surrounding Lassen Volcanic National Park help explain the patterns of visitation to the region and the opportunities as well as the limits of the dispersal region. Lassen Volcanic is mountainous, and visitors choose the region in the summer in preference to the warmer valley and plains nearby. Conversely, the high plains are most pleasant in spring and fall.

While it is not the purpose of the National Parks Association to conduct a detailed analysis of visitor participation habits, a few general observations are in order. 1) Lassen receives a substantial amount of visitation from the fast growing communities in Western Nevada, i.e., Reno-Carson City, because the Sierra spots close by are so heavily visited by people from central California that the local residents opt to travel two hours on nearly level highways to reach a place more congenial to their tastes. 2) Regional visitation from the Central Valley of California may increase, but this is uncertain due to the considerable expansion of facility supply in the area—Whiskeytown-Shasta-Trinity National Recreation Area and Oroville State Recreation Area, to cite two. 3) Some long-distance, short-stay visitation can be expected simply because Lassen Volcanic is a national park. 4) Winter visitation can be expected for the identical reason. 4) Winter visitation (which bears on the issue of seasonality) is likely to be light as long as intensively developed winter sports areas with superior communications lie between the major urban centers and this region.

Given these patterns and an expressed desire by the people of Lassen and Plumas Counties to expand and diversify economic activity, a regional system of recreation opportunities must be designed which matches resources capability against social objectives.



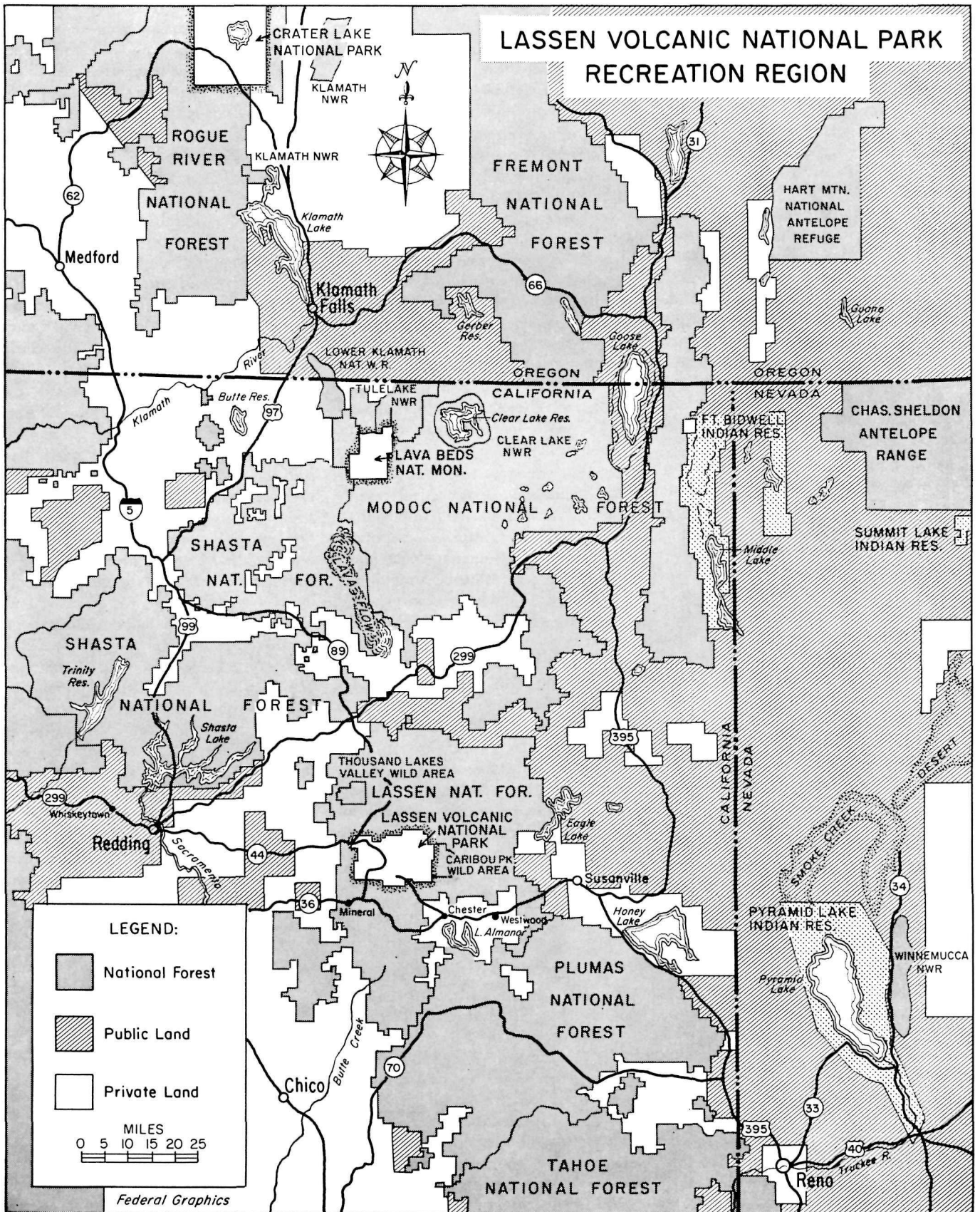


PLATE 2



The map of the Lassen Volcanic National Park Recreation Region (Plate II, page 16) illustrates an amazing variety of publicly owned lands within a few hours' driving time of the national park. One national park, one national recreation area, one national monument, seven national forests, two large national wildlife refuges, one national game range, several Indian reservations, extensive areas of solidly-blocked public domain extending to the east, three state parks, a new state recreation area and a number of private camps and resorts are presently available. Many of these national, state, and private features could stimulate a visitor decision to visit the region.

Even considering Lassen Volcanic National Park in terms of a single destination focus, there are alternative outdoor recreation capacities close at hand to accommodate those who have come to enjoy an outdoor experience and absorb the unique story of the region as preserved in the national park. The park is bordered by Lassen National Forest. The national forest, Lake Almanor and the town of Chester, the towns of Mineral and Westwood, and at least four resorts can be included as part of the destination sub-region.

From these accommodations which meet a range of tastes, visitation to the national park could proceed by private or public vehicles to the visitor centers at the entrance points or to certain trail-head camping areas. The visitor centers would be devoted to the advance of scientific knowledge in the park and the display and explanation of that knowledge to the visiting public. Specially designed vehicles could leave the visitor centers to serve the convenience of visitors. These vehicles, operating on frequent schedules, would make stops at the heads of the foot-trail system leading into the wilderness areas, and at points of great interpretive value.

There is no physical reason why one or more complete resort complexes cannot be established within the destination region—especially near established communities such as Chester, Mineral, Westwood, or even Susanville. In such locations the attraction of shopping centers, golf courses, swimming pools, movie theaters, facilities

for dancing and crafts, and other modern conveniences would tend to draw in any vacationers who might be expected to make Lassen Volcanic National Park one of their stops—but they would do so without danger of serious overcrowding or impairment of the wilderness environment.

The development of resorts offering a full recreation package should be part of carefully planned regional development programs. These programs should be based on full knowledge of interactions between public policies and actions and the feasibility of investment in the private sector; the relation of esthetically pleasing communities to the success of all enterprises catering to visitors to the recreation region; and an understanding of which public and private actions are likely to have the most pervasive effect on the local economy.

If a regional dispersal plan is to be effective, some form of referral service to alert all visitors to the region of the nature, location, and availability of resort and campground accommodations will be necessary. This destination region could well be served by such facilities located on California State

Routes 36 and 44 near the boundaries of Lassen National Forest. The stations should be clearly signed to show that the operation is provided through cooperative action by the U.S. Forest Service, National Park Service, State of California and the other public or private agencies which actively participate. Using radio communications, such stations can disseminate accurate information about accommodations and make reservations. Research has shown that, given more complete knowledge, users will tend to disperse themselves over a wide area. The stations would also make a major contribution to the total enjoyment of a visit to the region.

This proposal illustrates an alternative approach to the planning of a national park or monument unit. It first of all focuses on a primary management objective for the park or monument. It is then possible to relate that management objective to the characteristics of the land and resource patterns in the surrounding region, to the nature and magnitude of the present and anticipated visitation to the region, and to the economic development objectives of the residents of the region. ■

*Below, Chaos Crags and dwarf forest in Lassen Volcanic Park. Some of these trees are very old, but have been stunted by the deficiencies of a thin volcanic soil cover.*

*National Park Service: Henry C. Lind*



# News and Commentary

## **The Park System Expands**

It is a pleasure to report in this issue on three major additions to the national park system which were authorized during the closing days of the 89th Congress.

First of these was the Guadalupe Mountains National Park in the Guadalupe Range of trans-Pecos Texas, some 77,500 acres in Culberson and Hudspeth counties, whose natural phenomena and human history were examined in the September, 1965, Magazine by conservation writer Weldon F. Heald. Save for the deletion of two sections of land in the southwestern corner of the park and some minor boundary adjustments here and there, the map of the proposed park appearing with Heald's article is as valid today as when printed; members who saved their magazines for 1965 may wish to review their new park.

While the park has been authorized, its actual establishment will be contingent on donation by Texas, and sale or donation by other owners, of rights and interests in minerals underlying park lands. Since it has been asserted by some, and denied by others (including the Interior Department) that there may be important gas and oil deposits under the park, the organic act for Guadalupe Mountains contains some rather unusual language designed to deal as well as possible with the mineral rights problem; and further with the management of the park in time of national emergency or the event that the park is no longer used for national park purposes. The occasionally mentioned "scenic parkway" connecting Guadalupe Mountains Park

with Carlsbad Caverns Park in neighboring New Mexico was not mentioned in the organic act for Guadalupe Mountains.

Signed into law by the President on November 5 was the Act creating the Indiana Dunes National Lakeshore, a long-proposed preservation that has grown progressively smaller with the passing years despite the objections of many conservationists and the tireless efforts of Senator Paul H. Douglas of Illinois. As the lakeshore stands it will cover 6539 acres of dune and marsh on Indiana's Lake Michigan shore; provision is made for addition to the lakeshore of 2181-acre Indiana Dunes State Park should the State see fit to make the donation. The general history and natural features of the Dunes lakeshore area were presented in the Magazine for July, 1965, by author Frederic Sicher; but in reviewing that issue members should bear in mind that the map is no longer valid. A new map will appear in an issue of the Magazine of the near future.

Also recently authorized for establishment was the Pictured Rocks National Lakeshore of some 65,000 acres in the Upper Peninsula of Michigan along the south shore of Lake Superior, a scenic reserve of the first magnitude. This new acquisition was thoroughly described by Henry A. Raup in the issue of February, 1965; the map that accompanied this article is still valid.

## **Washakie Wilderness Hearing**

The U. S. Forest Service has recently given public notice, by way of the *Federal Register*, that it will hold a public

hearing December 8 on its proposal for a Washakie Wilderness in the Shoshone National Forest of Wyoming.

The hearing will begin at 9 a.m. in Eagle's Hall, 404 East Fremont Street, Riverton, Wyoming. The Service's proposal will recommend that some 196,126 acres within and contiguous to the Stratified Primitive Area, plus the existing 483,130-acre South Absaroka Wilderness, be combined to form the Washakie Wilderness.

Persons wishing to testify at the hearing may obtain printed information and a map covering the proposal from the Forest Supervisor, Shoshone National Forest, 1731 Sheridan Avenue, Cody, Wyoming 82414; or from the Regional Forester, Building 85, Denver, Colorado 80225. Those wishing to submit views on the boundaries of the proposed new Wilderness, but who are unable to attend the hearing, may submit testimony in written form to the Regional Forester at Denver; if the testimony arrives at the Regional Forester's office by January 8, 1967, it will be included in the official record of the hearing.

## **New Thinking Needed in River Basin Planning**

The National Academy of Sciences-National Research Council's Committee on Water has recently pointed up the need for exploration of alternatives in river-basin developments like those proposed for the Colorado and the Potomac.

The Committee, chaired by Professor Gilbert F. White of the University of Chicago, recommends a broader-based approach to water-supply planning. In particular, the Committee was critical of the Inter-Agency Task Force on the Potomac, which, it said, issued a report "... without benefit of public discussion of its recommendations for extensive commitment of resources, or evidence that alternatives had been considered in the light of long-range objectives and possibilities." The Committee also said that "On the Colorado River and elsewhere in the Nation, technological improvement in the production of power may affect both the value of hydroelectric power and the alternative value of power generated from coal or atomic fuels . . . As the significance of hydroelectric power changes, this in turn may affect markedly the evaluation of the costs of developing the river for other uses."

The panel felt that the rigidity of the missions of agencies proposing river-basin development may interfere with the breadth of their appraisals; in other words, that engineering agencies may not always make good planning agencies.

## **A Citizen's Voice in Government**

Organizations like the National Parks Association, which enjoy special privileges of tax exemption, may not advocate or oppose legislation to any substantial extent.

Individual citizens of a democracy, however, enjoy the right and share the responsibility of participating in the legislative process. One of the ways citizens of a democracy can take part in their government is by keeping in touch with their representatives in the legislature; by writing, telegraphing, or telephoning their views; by visiting and talking with their representatives in the national capital, or in the home town between sessions. Every American has two senators and one congressman with whom he may keep contact in this manner.

The best manual of information for such purposes is the official *Congressional Directory*, which can be bought through the Government Printing Office, Washington 25, D.C., at the price of \$2.25. It tells you who your senators and congressmen are, and lists the membership of the various Congressional committees. It also gives full information on the personnel of the various executive bureaus of the government.

The Committee thought, for example, that it might be difficult for the Bureau of Reclamation "to be objective about irrigation either as an aspect of agricultural policy or as a justification for consumptive use of water." Many conservationists have entertained that particular notion for some time, it might be pointed out.

### **Endangered Species & Man**

San Diego was the setting for a three-day conference of wildlife specialists composed of two general groups who have not always been in ideological agreement, zoo people and conservation people. The conference was primarily concerned with the ever-increasing number of animal species which are prospective candidates for extermination. One member of the conference suggested that "what is needed is a contemporary Noah's Ark to save wildlife from the predatory incursions of man." A great number of endangered species of animals and birds came under discussion—such animals as the Arabian oryx, the Tasmanian thylacine and the European bison, to name three. Human population was cited as the greatest threat to wildlife, however, and it was suggested that "every effort be made to preserve animals and birds until all humanity recognizes the right of wildlife to live alongside man."

### **A Maryland Audubon Society**

Recently announced is the formation of the Maryland Audubon Society, a branch of the National Audubon Society, conservation organization with headquarters in New York City. The organization will, as a unit of the national organization, concern itself with the welfare of wild birds and with conservation matters in general. Additional information concerning the new branch of the Society may be obtained from: Maryland Audubon Society, c/o William H. Rodeffer, Allendar Road, Box 805, White Marsh, Maryland 21162.

### **Waste Water Renovation**

What could be a more common sense approach to making use of waste water than allowing nature herself to purify it? The Waste Water Renovation and Conservation Research Project, begun at Pennsylvania State University in 1961, was designed to experiment with this "common sense" idea, and has met with extremely good results.

The sewage treatment plant in the University community was dumping 3.5 million gallons of effluent, which was "95% pure" but rich in plant nutrients, daily into a small watercourse called Spring Creek. Scientists and engineers,

faced with the growing pollution of the creek, and interested in possible ways to help conserve water, devised a plan whereby sewage effluent could be sprayed on field crops and wooded areas, so that the water would be beneficial to plants and at the same time totally cleaned in nature's plant-soil-rock filter.

Results from the first three years of operation have been excellent. Continuous monitoring of the water supplies within a ten-mile area have shown that water is reaching the ground water reservoir in a state that is of a better quality than that required for drinking by the U.S. Public Health Service standards. No adverse effects have been found on wildlife—birds, mammals, or insects—in the area since the beginning of the project. Crops and trees in the agronomy and forestry test areas have shown remarkable growth compared to those in adjacent areas as a result of the effluent, so rich in nutrients.

Several variables influence the adoption of this method, among them: a geology-soil complex which will permit effective filtration; and sufficient land for disposal. The basic techniques developed on the project have already been adopted by some communities and by several American industries. This seems to be one of the most efficient ways to deal with waste water, in that it provides for crop and forest irrigation, thereby helping to conserve the regional fresh water supply while simultaneously serving to keep natural waterways free from pollution.

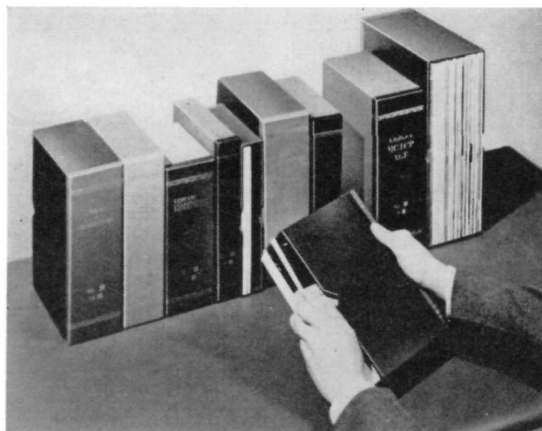
### **Air Pollution Conference**

John W. Gardner, Secretary of the Department of Health, Education and Welfare, has called a National Conference on Air Pollution for December 12-14 at the Sheraton-Park Hotel in Washington, D.C. At the Conference, representatives of business, labor, civic organizations, and all levels of government will examine the current position of air pollution control; Conference planning will be done by the Public Health Service's Division of Air Pollution. Complete information on the Conference may be secured from: Executive Secretary, National Conference on Air Pollution, Public Health Service, U.S. Department of Health, Education, and Welfare, Washington, D.C. 20201.

### **Everglades & Dollars**

The economics involved in the need for solution of Everglades Park water problems seldom appear in public print, although there is an undercurrent of hostility to the park, in some quarters in South Florida, on the grounds that park lands ought to be put to more "productive" use. *National Parks Magazine* has published material in past issues refuting this notion; Dr. C. P. Idyll's discussion of the value of the shrimp industry to the Florida economy, for example, which appeared in the October, 1965 Magazine, and which canvassed the economics of the park-spawned Florida shrimp.

(continued on page 20)



NOW your journals can become an attractive permanent part of your library. The famous Jesse Jones volume files are especially designed to keep your copies of *National Parks Magazine* orderly and readily accessible for reference. The binder (being held in photo above) is gray with an imprinted green spine; it costs only \$2.00 postpaid, and you can secure it from the National Parks Association, 1300 New Hampshire Avenue, N.W., Washington, D.C. 20036.



## CRUISE INLAND FLORIDA



Six  
Idyllic  
Days

Relax on the *Lazy Bones* plus airboat and swamp buggy jaunts in Everglades country. \$139 complete. Jan. 30 thru April. Featured on Jack Douglas TV series. For brochure, reservations, write . . .

Capt. Stan Maurer

### SHANTY BOAT CRUISES

Box 2166A, Fort Myers, Florida

## CALVERT SCHOOL



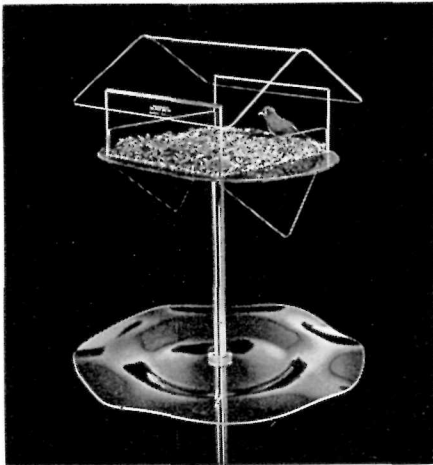
### THE SCHOOL THAT COMES TO YOU

If you live in an isolated area, Calvert approved home-study courses can provide, by mail, a sound education for your child. Helpful step-by-step instructions. Kindergarten through 8th grade. Children may start any time, transfer easily to other schools. More than 100,000 children have used Calvert courses. Often used to enrich the educational experience of the above-average child. Also ideal for use in foreign countries. 61st year. Non-profit.

Write for catalog.

39 E. Tuscany Rd., Baltimore, Md. 21210

## "IT'S A DILLEY"



SEE-THRU • YEAR-ROUND • WEATHER-SQUIRREL-PROOF

Prestige *Feed-O-Ramas* are landmarks for hungry birds—happy folks—coast to coast. Daily pleasing many readers of this magazine. Not in stores. Like our free Natural Color literature? Write to: The Dilley Mfg. Co., 1650 Doan Avenue, Cleveland 12, Ohio.

The Tropical Audubon Society, based in Miami, has recently reported in its *Bulletin* some figures that ought to be considered by people who measure national parks in terms of dollars. "Visitors to Everglades National Park spend an average of \$26,000 every day in South Florida. Park Superintendent Roger Allin has informed us that an average of 2,600 persons per day visited Everglades National Park last year. Mr. Allin said each of these visitors spent an average of \$10 or \$15 a day in nearby communities such as Homestead and Florida City.

"Mr. Allin conservatively estimated that Everglades National Park is worth six or seven million dollars a year to the economy of South Florida. But figures compiled by the U.S. Commerce Department show that just 24 visitors per day to a national recreation area provide economic benefit to nearby communities that is the equivalent of an industry with an annual payroll of \$100,000. This means that the 2,600 daily visitors to Everglades National Park have a 10 million dollar annual impact on the economy of this region . . . generating as much spending as 100 industries in the \$100,000 annual payroll category."

### Park and Site Proposals

At a recent meeting of the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments—the Interior Secretary's park system advisory group of 11 persons especially knowledgeable in the field of natural and historic preservation—it was recommended that Glacier Bay National Monument on the southeast coast of Alaska be reclassified to the status of national park, with the omission of present provisions for mining in the preserve. "Mining is incompatible with the purposes of a national park", the Board said. The Board also recommended the enlargement of the existing Channel Islands National Monument by addition of the islands of San Miguel, Santa Cruz, and Santa Roas, and its reclassification as the Channel Islands National Park. Further, the Board recommended establishment of a national seashore on Cumberland Island, one of the Sea Islands off the coast of Georgia, and endorsed a Potomac Valley Park along the Potomac River in Maryland, Virginia, and West Virginia as a "pilot project in the conservation of our major rivers".

Eleven sites in 10 states were judged by the Board as being of such outstanding interest to warrant inclusion in the National Registry of Natural Landmarks, natural history counterpart of the older Registry of Historic Landmarks. The sites are: Sand Hills, Imperial Country, California, 15 miles west of Yuma Arizona;

Lost Creek Scenic Area in the Tarryall Mountain Range, Park County, Colorado, about 40 miles southwest of Denver; Wakulla Springs, Wakulla County, Florida, 15 miles south of Tallahassee; Big Cypress Area, Collier County, Florida; Bird Haven, Richland County, Illinois, two miles north of Olney; Ohio Coral Reef (Falls of the Ohio), in the Ohio River between the cities of Clarksville-Jeffersonville, Indiana, and Louisville, Kentucky; Chestnut Oak Disjunct, Calhoun County, Mississippi, 16 miles north of Bruce; Hell Creek Fossil Area, Garfield County, Montana, about 16 miles north of Jordan; Santa Ana National Wildlife Refuge, Hidalgo County, Texas, seven miles south of Alamo on the Texas-Mexico border in a bend of the Rio Grande; Joshua Tree Natural Area, Washington County, Utah, about 10 miles southwest of St. George; and Water-pocket Fold, Garfield County, Utah.

### Monomoy Refuge Hearing

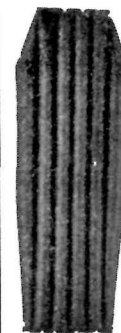
The Fish and Wildlife Service has scheduled a public hearing for January 11, 1967, on its proposal to continue management of the Monomoy Island portion of Monomoy National Wildlife Refuge on Cape Cod in Massachusetts as a wild area. The hearing will commence at 9 a.m. at the Chatham Fire Station Hearing Room.

Monomoy Island is one of the outstanding shore-bird and waterfowl protection areas of the East Coast, and without doubt most conservationists will concur heartily in the Service's proposal for continuing the island in its present management status with the added protection of legal Wilderness.

Questions about the Service's wilderness proposal for Monomoy may be directed to: Refuge Manager, Great Meadows National Wildlife Refuge, 110 Great Road, Bedford, Massachusetts 01730.

## SLUMBER MATTRESS

FOR CAMPING AND FISHING TRIPS!



Perfect for station wagons and Civil Defense sleeping quarters.

Full size air mattress built to military specifications. Packs small, easy to carry, blows up big and is unusually comfortable. Inflates to 24" x 74"—fits all sleeping bags. Weight only approximately 3 lbs.! Extremely durable—Highly abrasive resistant Du Pont Nylon fabric is double rubber coated for perfect air seal. Six separate air compartments for firm—even support. Easily inflated with pump or mouth. Large valve provides for rapid deflation.

Brand new—low price due to minor imperfections repaired and pressure tested by factory. **\$4.95** each PP 2 for \$9.00

RUBBER FABRICATORS, INC.  
GRANTSVILLE WEST VIRGINIA 26147



## Reviews

THE IMPACT OF THE PROPOSED REDWOOD NATIONAL PARK ON THE ECONOMY OF DEL NORTE COUNTY. By Arthur D. Little, Inc., Washington, D. C. 1966. 163 pages. (Summary of report available on request from National Park Service, Washington, D. C.)

The Department of the Interior assigned to the Arthur D. Little consultants the task of estimating the changes in the economy of Del Norte County in the northwest corner of California, with contrasting assumptions: the establishment of a national park, and the continuation of economic development without a park. A short period, to 1973, and a long period, ending in 1983, were specified as time goals within which to measure potential developments.

The choice by the Department of the single county is related, of course, to the plans of the National Park Service for park location and dimensions, and not to the larger park area recommended by the National Parks Association and other conservation and nature groups. The county studied is north of Humboldt County, in which the Department proposes acquiring for its park "a relatively small, detached Tall Trees Unit".

In the short-time period, 1966-1973, the report estimates 250 more jobs without a park than with a park. By 1983, the job advantage of a park over no park is 1,670. In aggregate income to the economy the initial effect of the park during the period of adjustment will tend toward a loss of several millions of dollars; but after completion of the adjustment the park will produce an increase over the alternative continuance of a non-park economy. In general, it is concluded that "the national park occasions more employment and more income" within a few years after establishment.

Also considered under the two working assumptions of a park and no park is the future of public revenues. It is found that more than 70% of the total land area is currently publicly owned; that there is a "commensurate flow of compensating governmental aid", about 62% at present. Lands considered for public park acquisition support at present 11.5% of the total locally secured property taxes, or 3% of total available financing and taxes. In the period of transition it would be possible to compensate the local government for tax losses accruing from acquisition of taxable real property; several devices are discussed.

The Little report compares economic relations of Del Norte County and other

portions of California, and delves into other economic potentials including retail sales and hotel-motel income, all of which are expected to increase markedly with the establishment of a park and the influx of visitors. Of course, the consultants have been dependent upon earnings, employment, wage rates, income, and other data assembled by various government agencies, as well as special records of park patronage provided by the Department. These have been projected to the dates selected for comparisons, and fed into computers to derive interrelations and series aggregates.

From available data and the response to questionnaires, the status of the private "redwood industry" has been evaluated. "Employment can be increased substantially without increasing the cut of timber, by diversification into production of mill work, laminated products, prefabricated housing, furniture, board products, pulp and paper, molded pulp products, etc." Of the 17 forest product plants in the county, 10 are sawmills, 5 plywood and veneer plants, one a planing mill, and one a particle board plant. Only the particle board plant uses mill waste; some plywood and sawmills produce pulp chips which are shipped to the two pulp mills of Humboldt County. The sawmills cut Douglas fir and redwood, the plywood mills peel Douglas fir only. Declines in the supplies of old growth redwood and in the availability of Douglas fir peeler logs are the principal causes of the decline in employment. The most important aspect of the industry is that prime old-growth redwood logs will soon be exhausted at current cutting rates.

In planning the study, the Little group set up seven propositions, or assumptions for testing. These ranged from an assumption of an unlimited wood supply for industry, a sustained yield basis, and an accelerated cutting rate to eliminate all production in 20 years, each without a park, to an enlarged park, and an established park by 1968, with a reduction of 10% timber supply.

Among econometric methods used in the analysis are linear multiple regression and a multiplier model encompassing 14 economic sectors. The methodology is presented fully in four comprehensive appendices.

In Appendix E there is an evaluation of the possible harmful effects of the wood pulp, and chemical wood processing plants planned as part of the Miller Redwood Company's development complex. Chemical fiber, and air pollution aspects were studied. It is reported that the mechanical processing control proposed by the Miller company would tend

to minimize the dangers, but the proposed cutting rate equals three times the replacement rate. However, the implications of the rapid changes in the redwood industry toward concentration upon pulp and wood-processing extend to the whole industry with emphasis upon rapid rates of cutting.

—John H. Cover, *Economist*

THE WINTER BEACH. By Charlton Ogburn, Jr. William Morrow & Company, Inc., New York. 1966. 321 pages, with maps and line drawings. \$6.95.

It sounded like a sure-fire idea, this one that came to Ogburn. Millions of Americans who have basked upon our white soothing beaches in the vacationing sun must have asked of themselves, "I wonder what this place is like in Winter?" But, as every professional writer knows, such alluring notions have a way of turning sour. And if Ogburn's design had been achieved in the restricted way suggested by the title, it could have been

(Continued on page 22)

---

### CLASSIFIED ADVERTISING

20¢ per word—minimum \$3. Payment must be enclosed with all orders.

ADVENTURE BOATING EXPEDITIONS Colorado River through Grand Canyon. Small groups only, an incomparable wilderness experience. Information regarding 1967 Expeditions from: Gaylord Staveley, Mexican Hat, Utah.

Collapsible FARM-POND-FISH-TRAPS: Animal traps. POSTPAID. All caught uninjured. Free information. SHAWNEE, 3934F Buena Vista, Dallas 4, Texas.

ENJOY Backpack Camping. Free booklet tells how. Gerry, Dept. 16, Boulder, Colorado 80302.

INTERESTED IN A CHALLENGING and rewarding summer experience? Nature counselor wanted at CAMP RISING SUN, a unique scholarship camp for outstanding American and foreign boys (aged 15-17), and located in the Hudson River Valley at Rhinebeck, New York. Entering our 38th season, we shall have about sixty selected campers from all sections of the United States as well as from Africa, Asia, Europe and Latin America. Excellent opportunity to work closely with this small chosen group of boys. A mutually convenient interview can be arranged. Write or phone THE LOUIS AUGUST JONAS FOUNDATION, INC., P.O. Drawer 33, Walden, New York 12586; Telephone 914-722-1500.

NATIONAL PARKS—SUMMER JOBS. A complete book—all about jobs. 29 Parks, Maps, Illustrations, exclusive information. Recognized most informative and reliable. Save 25% order from publisher. \$2.95. O'Hara/Falk, Box 1188, Monterey, California 93940.

PERSONALIZED PRINTING. 1000 Name, Address Labels, \$1.00; Pocket Rubber Stamp, \$1.00; 50 Parcel Post Labels, \$1.00; 100 Post Cards, \$1.25. (Three Lines Only.) Postpaid. BEDARD PUBLICATIONS, Box 5215-NP, Detroit, Michigan 48236.

thin, perhaps a bit dull; possibly both. Fortunately the author went far afield from the merely physical contact with nature; he carried in his camping bus a treasury of long hoarded thoughts about nature, men and human behavior, and made the winter beaches catalyze it. The result is a book of extraordinary philosophical truth and charm; quite the best piece of writing and thinking that has fallen to this reviewer in many a year. Nobody can predict whether any book will "live" or not. This one has the strong suggestion of durability.

There will be an inevitable comparison with Thoreau, and it will not be to Ogburn's disadvantage. But the fact is that, aside from his acute visual and other sensuous perception and a stoutly independent spirit, there is not much likeness between these two naturalists and philosophers. Robert Louis Stevenson's classic description-by-negation of Thoreau comes to mind: "He was not easy, not ample, not urbane". Precisely, then, this visitor to the winter beach has ease, amplitude, and urbanity. Consider just the visit Ogburn made to Provincetown on Cape Cod, in the out-of-season, when most of the tourist traps were shuttered dismal dumps, their gone-to-Florida hucksters awaiting the return of the sun and a new crop of the naive. Thoreau would have fled the scene as though it were small-pox. The sound of the juke-box from the nearby drugstore would have made him ill. Not so with Ogburn. He does not like these devices, but he will not rage. He prefers Nauset sands: even though a snowstorm descends he will retreat to his bus and ruminate tranquilly.

You know what this author is about when you read, early in his book, a quotation from old Sir Thomas Browne. It is the key to the book, really.

"The Wisdom of God receives small honour from those vulgar Heads that

rudely stare about, and with a gross rusticity admire His works: those highly magnifie Him whose judicious inquiry into His acts, and deliberate research into His Creatures, returne the duty of a devout and learned admiration".

Sir Thomas, by "vulgar Heads", was not referring to morons or clowns; he had reference to a majority of people who are content to use the outward eye and go no farther. It is the frailty of those who are discussing Beauty, currently, as though the esthetics were all and sufficient. Beauty as apprehended by the senses is primary and important, as the alphabet is to communication; but the greater beauties lie behind. Ogburn seeks these, and projects them in skillful writing.

He has a quarrel with God, so sincere that God would probably not object, about what so generous a spirit as Albert Schweitzer called "the incomprehensible horror of existence", unearned sufferings of the human being and the stark and merciless feeding of life upon life. Indeed, he has a dialogue with God (or Zeus) concerning this point, in which Ogburn does not get the better of it, but at least handles his case like a good attorney. It is the story of Job in another form. Why can the wicked prosper, and the good man be anhungered? You cannot win; you can only await enlightenment at some future time.

If you wish to make the acquaintance of a salty, ripe and entertaining intelligence, this volume is your opportunity.

—Freeman Tilden

GEOLOGY ILLUSTRATED. By John S. Shelton. W. H. Freeman & Co., 660 Market Street, San Francisco, California 94104. 1966. 434 pages, profusely illustrated. \$10.00.

Among the torrents of books currently pouring from our publishers, a small number of publications has its roots either in general geology or in one of its

facets—mineralogy, for example. Not considering textbooks, this small percentage easily divides into two categories: the picture book, frankly keyed to the attraction of color and the less gaudy but ordinarily more substantial work aimed at the American already possessed of a curiosity toward natural history; that person who might want a more detailed acquaintance with the life story of at least the outer part of his rocky space-plateform—the way in which it has been built, destroyed and rebuilt endlessly.

John S. Shelton has taken aim at this small audience with *Geology Illustrated*, and in so doing has gathered between two covers the finest selection of black-and-white aerial geological photographs that has ever appeared, to the knowledge of the reviewer; aerial views are, for the most part, the result of the author's own skill with the camera. It might be worth pointing out here that *Geology Illustrated* is a work that could have been completely destroyed by the use of color.

Shelton has clothed the photography with a text done in good, plain English keyed closely to the pictures, which were printed, as was the text, by the photo-offset method. Bookstock used for the interior has done nothing to flatter the razor-sharp quality of the original prints; one need only compare interior halftone work with the Arizona Meteor Crater photograph on the slick-paper bookjacket to understand the extent of affront to the author's camera work, as well as to that of other contributors.

The author presents a perhaps unconscious argument for protection of the remaining unflooded reaches of the Grand Canyon of the Colorado River: he devotes not less than 40 pages of text and picture to an analysis of the geologic history of the rocks exposed in that natural-history treasurehouse.

—P.M.T.

## Index to NATIONAL PARKS MAGAZINE for 1966; Volume 40, Numbers 220-231

### Articles Appearing in the Magazines for 1966

- |  |   |   |
|--|---|---|
| Ancient Bristlecone Pine Forest, The; Cermack, Robert W.; July, 4-8                            | Egg Island Adventure; Stopplet, John J.; Mar., 9-12                                       | Nahuel Huapi: Tiger Island of Argentina; Wilhelm, Eugene J., Jr.; Mar., 14-17   |
| Animal Release in Everglades National Park; Zimmer, Gale K.; Aug. 22-23                        | Elephant Tree, The; Oldendorph, O. F.; May, 11-12   | Needed: A Long-Range Program for the American Chestnut; Mar., 4-8   |
| Appalachian Trail, The; Murray, Stanley A.; Dec., 4-7  | Experts Look at Water in the National Parks, The; Schneider, William J.; Aug., 20-21      | Over the Years with Great Basin Park; Lambert, Darwin; June, 12-16  |
| Beaver Returns to Maine; Geagan, Bill; Jan., 12-15   | Fort Ross; Castagna, Mary; Jan., 15   | Parks—or More People; Draper, William H., Jr.; April, 10-13   |
| Big Bend and the Botanist; Gamer, Eleanor E.; April, 14-17                                     | Has the Polar Bear a Future?; Mar., 13  | Path Through The Mist Forest; Mellinger, Marie B.; May, 21-22   |
| Birth and Death of a Pond; Meacham, C. Parker; July, 14-18                                     | Hike to Lost Lake; Ronshausen, E. J.; July, 9   | Pecos National Monument; Dodge, Natt N.; Nov., 14-16  |
| Cape Cod Seashore's White Cedar Swamp; Koehler, Charles R.; Dec., 11                           | Humans, Plants and Animals in Florida's Fahkahatchee Strand; Finn, Melvin A.; July, 10-13 | Perspective of the Smithsonian Program in Ecology; Ripley, S. Dillon; Oct., 10-13   |
| Cougar in Our National Parks and Monuments, The; Weddle, Ferris; May, 4-7                      | Huston Thompson: A Memoir; Albright, Horace M.; June, 22                                  | Pesticide Program in Grand Teton Park; Murie, Adolph; June, 17-19   |
| Don't Tame the Wild-Flowing Feather; Anderson, Dewey; May, 18-20                               | Katmai National Monument; Coe, Darrell L.; June, 4-9                                      | Petrified Forest National Park; Jan., 4-7   |
| Ecological Research in Everglades Park; Koli-pinski, Milton C., & Higer, Aaron L.; Oct., 14-17 | Monument Valley: A Navajo Tribal Park; Oldendorph, O. F.; Aug., 4-8                       | Plant Formations in the Natural History Interpretation of Southwestern Desert Region; Gehlbach, Frederick R.; Jan., 16-18 |
|  | Mountain of the Stone Fishes; Stucker, Gilbert F.; Sept., 4-9                             | Pollution of Man's Environment, The; Fosdick, Ellery R.; Sept., 16-19   |

- Raising the Sights for the Redwoods: A Big National Park and a National Forest; Smith, Anthony Wayne; Nov., 17-19  
 Report on Present Status of a New Simple Low-Cost Coal Sewage Treatment; Fosdick, Ellery R.; April, 18-19  
 Rock Gardens of the Wilderness; Morton, Frances; May, 17  
 Salmon: River of No Return; Rahm, Neal M.; May, 8-10  
 Shasta: Teepee of the Great Spirit; Heald, Weldon F.; Feb., 15-17  
 Ski-Touring the National Parks and Forests; Ouellette, Cecil M.; Jan., 8-11  
 Sleeping Bear Dunes National Lakeshore; Raup, Henry A.; Feb., 10-14  
 Some Observations on Strutting Sage Grouse; Gabriel, Bill; Oct., 18-19  
 Sonoran Desert National Park; Heald, Weldon F.; April, 4-9  
 Sounds of a River (Little Tennessee); Hultquist, Kay Bacon; Aug., 9-12  
 Spruce Knob-Seneca Rocks Recreation Area; Byrd, Robert C.; Dec., 8-10  
 Unseen World of Kentucky's Mammoth Cave; Speiser, Jean; Feb., 4-9  
 Waterhole Photography; Beatie, David; June, 10-11  
 Wetlands: Stepchild of Land Use; Ashbrook, Frank G.; Aug., 17-19  
 Wilderness Plan for Craters of the Moon National Monument and Surrounding Region; Smith, Anthony Wayne & Hart, William J.; Nov., 4-9  
 Wilderness Plan for Lassen Volcanic National Park and Surrounding Region; Smith, Anthony Wayne & Hart, William J.; Dec., 12-17  
 Wildlife and the Tsetse Fly in Rhodesia; Mossman, Archie S.; Sept., 10-15  
 Wolf, The; Aulerich, Richard J.; Nov. 10-13  
 Yosemite of the Kings River; Rose, Robert H.; Oct., 4-9

### Editorials Appearing in the Magazines for 1966

- An Abundance of Alternatives (Bridge and Marble Canyon Dams); July  
 An Olden Tranquillity; Dec.  
 Hunting and Airports in Parks; May  
 Issues on the Potomac; Oct.  
 Hands Off Olympic Park!; Nov.  
 Looking Forward; Jan.  
 North Cascades; April  
 Oil Shale and the Public Lands; Aug.  
 Parks on Paper?; Mar.  
 Potomac Tragedy; Feb.  
 Trail and Campfire Country (Great Smoky Mountain Wilderness); Sept.  
 Why Not Plan Big? (Great Smokies regional planning); June

### Topics of Special Interest in the Magazines for 1966

#### National Parks Association; National Parks, Monuments, Lakeshores, Historic Landmarks, Forests

- National Parks Association:  
 Annual Meeting; July, 21  
 C&O Canal hunting protested; May, 24; June, 20; Aug., 25  
 Craters of the Moon Wilderness Plan; Nov., 4-9  
 Everglades salting protection urged; July, 19  
 Great Smokies Wilderness statement; Aug., insert  
 Indiana Dunes views; May, 23  
 Lassen Volcanic Wilderness Plan; Dec., 12-17  
 New York Honorary Committee; Jan., 1; June, 1  
 Redwoods National Park Proposal; Nov., 17-19  
 Report of President to Trustees; May, insert  
 Thompson, Huston, (trustee); June, 22  
 Wilderness Areas statement; May, 23  
 National Forests:  
 Inyo; July; 4-8  
 National Historic Landmarks:  
 Fort Ross; Jan., 15  
 National Lakeshores:  
 Sleeping Bear Dunes; Feb., 10-14  
 National Monuments:  
 Craters of the Moon; Nov., 4-9  
 Katmai; June, 4-9  
 Pecos; Nov., 14-16  
 National Parks:  
 Big Bend; April, 14-17  
 Everglades; July 10-13; animal release in; Aug., 22-23; ecological research in; Oct., 14-17  
 Great Basin; June 12-16  
 Great Smoky Mountains; May, 21-22; editorial; Sept.  
 Grand Canyon (dams); editorial; July  
 Grand Teton; June, 17-19  
 Kings Canyon; Oct., 4-9  
 Lassen Volcanic, wilderness plan; Dec., 12-17  
 Mammoth Cave; Feb., 4-9  
 Petrified Forest; Jan., 4-7  
 Water in parks; Aug., 20-21  
 National Seashores:  
 Cape Cod Seashore's White Cedar Swamp; Dec., 11

### Authors and Reviewers Appearing in the Magazines for 1966

- Albright, Horace M.; June, 22  
 Anderson, Dewey; May, 18-20  
 Ashbrook, Frank G.; Aug., 17-19  
 Aulerich, Richard J.; Nov., 10-13  
 Beatie, David; June, 10-11  
 Byrd, Robert C.; Dec., 8-10  
 Castagna, Mary; Jan., 15  
 Cermack, Robert W.; July, 4-8  
 Coe, Darrell L.; June, 4-9  
 Cover, John H.; Dec., 21  
 Dodge, Natt N.; Nov., 14-16  
 Draper, William H., Jr.; April, 10-13  
 Finn, Melvin A.; July, 10-13  
 Fosdick, Ellery R.; April, 18-19; Sept., 16-19; Oct., 23  
 Gabriel, Bill; Oct., 18-19  
 Gamer, Eleanor E.; April, 14-17  
 Geagan, Bill; Jan., 12-15  
 Gehlbach, Frederick R.; Jan., 16-18  
 Hall, E. Raymond; Nov. 23  
 Hart, William J.; April, 23; Nov., 4-9; Dec., 12-17  
 Heald, Weldon F.; Feb., 15-17; April, 4-9  
 Higer, Aaron L.; Oct., 14-17  
 Hultquist, Kay Bacon; Aug., 9-12  
 Koehler, Charles R.; Dec., 11  
 Kolipinski, Milton C.; Oct. 14-17  
 Lambert, Darwin; June, 12-16  
 Leisure, George S.; Mar., 18  
 Long, Paul F.; Feb., 18  
 Meacham, C. Parker; July, 14-18  
 Mellinger, Marie B.; May, 21-22  
 Morton, Frances; May, 17  
 Mossman, Archie S.; Sept., 10-15  
 Murie, Adolph; June, 17-19  
 Murray, Stanley A.; Dec., 4-7  
 Ogburn, Charlton, Jr.; Sept., 23  
 Oldendorph, O. F.; May, 11-12; Aug., 4-8  
 Ouellette, Cecil M.; Jan., 8-11  
 Packard, Fred M.; Mar., 23  
 Rahm, Neal M.; May, 8-10  
 Raup, Henry A.; Feb., 10-14  
 Ripley, S. Dillon; Oct., 10-13  
 Ronshausen, E. J.; July, 9  
 Rose, Robert H.; Oct., 4-9  
 Schneider, William J.; Aug., 20-21  
 Smith, Anthony Wayne; May, I-IV; Nov., 4-9; Nov., 17-19; Dec., 12-17  
 Smith, Philip M.; July, 23  
 Speiser, Jean; Feb., 4-9  
 Stophlet, John J.; Mar., 9-12  
 Stucker, Gilbert F.; Sept., 4-9  
 Tilden, Freeman; Feb., 23; Mar., 23; Dec., 21-22  
 Weddle, Ferris; May, 4-7  
 Wilhelm, Eugene J., Jr.; Mar., 14-17  
 Zimmer, Gale K.; Aug., 22-23

### Titles of Books Reviewed in the Magazines for 1966

- Alaska Earthquake, March 27, 1964: Effects on Communities, The; (Hansen, W. R.); Aug., 27  
 Appalachians, The; (Brooks, M.); Sept., 23  
 Bird Watcher's America; (Ed. by Pettingill, O. S., Jr.); Mar., 23  
 Birds Around the World: A Geographical Look at Evolution and Birds; (Amadon, D.); May, 27  
 Birds of Zion National Park and Vicinity; (Wauer, R. H., & Carter, D. L.); Feb., 23  
 Black Canyon of the Gunnison: Today and Yesterday, The; (Hansen, W. R.); Feb., 23  
 Building in the Peak (Peak Park Planning Board); April, 22  
 California Condor: Vanishing American; (Smith, D., & Easton, R.); Sept., 23  
 Complete Guide to Family Camping; (Riviere, B.); Aug., 27  
 Custer Wolf: Biography of an American Renegade, The; (Caras, R.); April, 23  
 Depths of the Earth: Caves and Cavers of the U.S.; (Halliday, W. R.); July, 23  
 Direct Use of the Sun's Energy; (Daniels, F.); Oct., 23  
 Ferns and Fern Allies of California; (Grilles, S. J.); Oct., 23  
 Free for the Eating; (Angier, B.); Aug., 27  
 Geology Illustrated; (Shelton, John S.); Dec., 22  
 Geology of Mt. Rainier National Park, Washington; (Fiske, R. S., Hopson, C. A., & Waters, A. C.); Jan., 23  
 Glacial Reconnaissance of Sequoia National Park; (Matthes, F. E.); Jan., 23  
 Impact of the Proposed Redwood National Park on the Economy of Del Norte County. (Arthur D. Little, Inc.); Dec., 21  
 Inland Sea, The; (Hunt, M. N.); Jan., 23  
 Introduction to the Natural History of Southern California; (Jaeger, E. C., & Smith, A. C.); Oct., 23  
 Man, Culture and Animals; (Leeds, A. & Vayda, A. P.); Jan., 23  
 Marine Mammals of California; (Daugherty, A. E.); May, 27  
 National Parks of New Zealand; (Government Printer, Wellington, N.Z.); Feb., 23  
 National Parks of the West; (Editors of Sunset Books); Mar., 23  
 Native Shrubs of Southern California; (Raven, P. H.); Oct., 23  
 Native Trees of Southern California; (Peterson, P. V.); Oct., 23  
 Wapiti Wilderness; (Murie, M., & Murie, O.); May, 27  
 Wilderness Bill of Rights, A; (Douglas, W. O.); Mar., 18  
 Wolves of Isle Royale; (Mech, L. David); Nov., 23  
 World of Coral, The; (Silverberg, R.); Mar., 23  
 World of Great Horned Owl, The; (Austing, G. R. & Holt, J. B.); Aug., 27





*Photograph courtesy Charles J. Ott*

*A Canada lynx pads across snow-covered road in Mount McKinley National Park, Alaska.*

**F**OR MANY YEARS the National Parks Association has taken a deep interest in the preservation and protection of native species of mammals; in general, those not presently endangered, or which are thought of as occupying the Fish and Wildlife Service's category of "status unknown" (like the Canada lynx shown above), and in particular those currently classified as rare or endangered. Thus, during recent months the Association has reported, by way of the pages of *National Parks Magazine*, on the condition of mammals like the wolf, the tule elk, the cougar and the Kaibab squirrel, with recommendations as to what might be done to improve their positions.

YOU CAN ASSIST the National Parks Association in this phase of its protective work in any of a number of ways: by contributing to the general funds of the Association over and above regular dues; by renewing your membership promptly; by helping to secure new Association members; or perhaps by remembering the Association in your will. All dues over and above basic annual dues, and all contributions, are deductible for Federal income taxation; gifts and bequests are deductible for Federal gift and estate tax purposes.

#### **National Parks Association**

1300 New Hampshire Avenue, N.W.

Washington, D.C. 20036