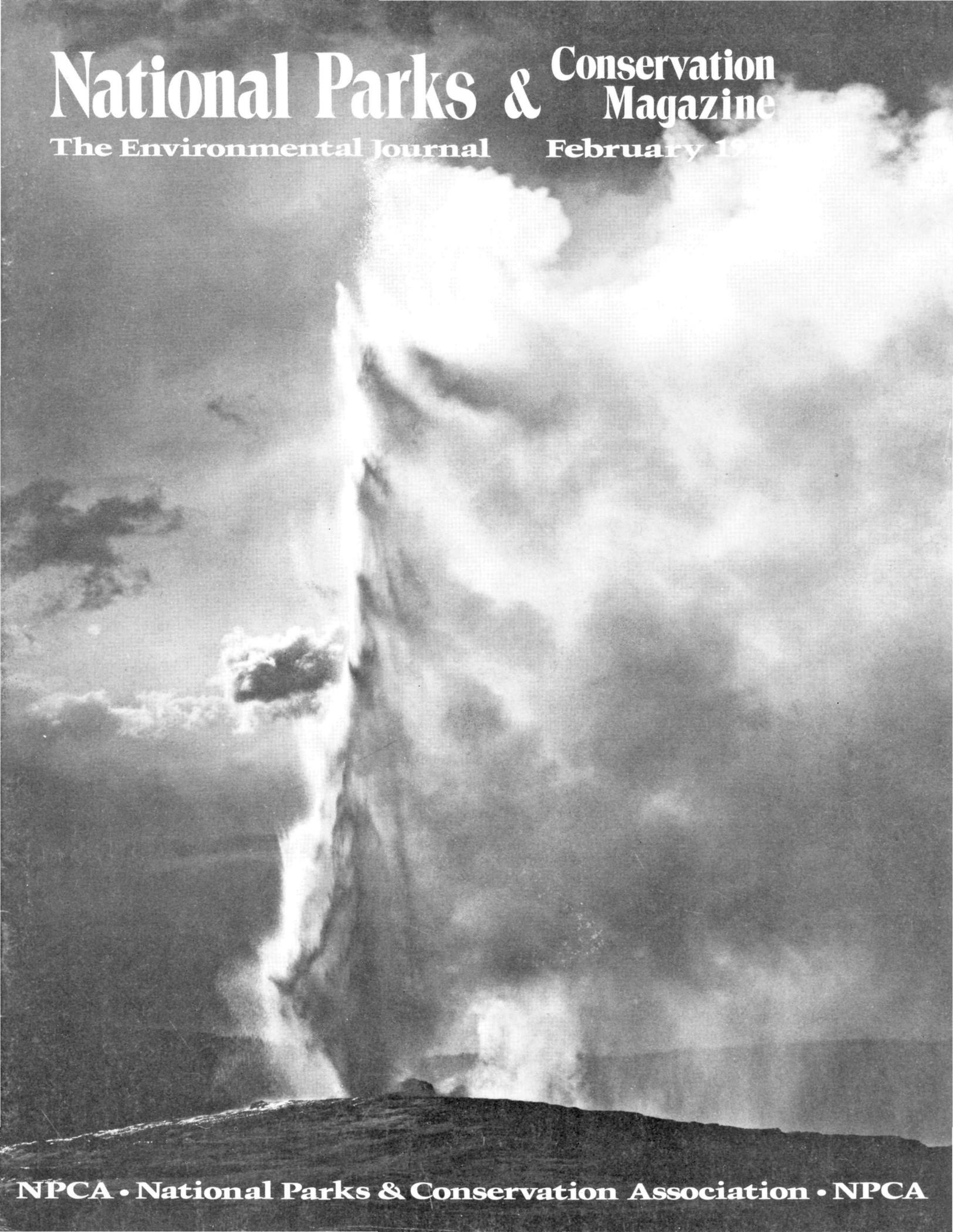


# National Parks & Conservation Magazine

The Environmental Journal

February 1981



**NPCA • National Parks & Conservation Association • NPCA**

# The Degradation of the National Parks

**O**NE OF THE GREATEST achievements of the American people has been the establishment and the preservation of the National Park System. The beauty of the parks is a symbol of the high civilization we would like to create. The protection of the parks, with the wealth of wildlife, vegetation, and archaeological and historical treasures they contain, is a token of our understanding of our inseparable relation to surrounding nature and society. Our example has been followed by one nation after another all over the world.

Above all in the Bicentennial year we should be celebrating these achievements. And yet precisely at this moment, myopic budgetary policies threaten everything we have labored to preserve. In recent testimony submitted on invitation to the House Subcommittee on Conservation, Energy, and Natural Resources, we outlined the situation revealed by an NPCA survey. The testimony follows:

The NPCA has been deeply concerned for several years with what we recognize as the serious deterioration of the resources, property, and administration of the National Park System as the result of personnel ceilings and budgetary restrictions imposed by the Office of Management and Budget. We have conferred with officials of the OMB, of the Department of the Interior, and of the National Park Service on these problems on a number of occasions during the past year and a half or more, and I would like to review the import of these conferences with the Subcommittee shortly; for the moment I would like to focus on the specific problems in the parks.

With a view to providing the OMB, Interior, and the Service with precise information to support our criticisms, we undertook a field survey directed toward our own trustees, many of whom are closely in touch with the problems of specific parks; our field correspondents, of which we have quite a number located throughout all 50 states and abroad; and the superintendents of the National Park System. The Associate Director authorized the superintendents to cooperate. We called this undertaking the "NPCA Park Resource Survey." . . .

The response was overwhelming. A very large volume of replies was received which contained a great deal of relevant information. . . . In our opinion, the Survey reveals a grave situation in the National Park System and shows that this

invaluable national heritage is deteriorating rapidly. [See page 11 for the first half of the Survey.]

First of all, there has been a callous disregard for the safety and comfort of the people who visit the parks. As you point out in your invitation to me, visitation now exceeds 240 million visitor days a year. That figure shows how great the interest of the American people is in the parks, and how much they enjoy getting out into the open country the parks provide.

But when they get there, they now encounter deteriorating roads, dilapidated buildings, inadequate sanitary facilities, poorly maintained trails, bad management of traffic, inadequate information about the parks and even about safety problems, vandalism, crime, and inadequate police protection.

We think that protection for the people who visit the parks and proper service to their interests and needs come first in park management, and we are satisfied from the information now available to us that such protection and services are not being provided by the National Park Service on anything like an adequate basis by reason of the personnel ceilings and budgetary restrictions which have been imposed on the Service by the OMB.

After the people, you come to the property. The NPS has the responsibility for the maintenance of the publicly owned facilities in the parks; that is, the service buildings, the roads, the trails, and the like. This is public property in a very elemental sense of the word; you would think that an agency charged with management would see to it that the public property is managed properly; you would think that an agency charged with budgetary responsibility would see to it that the necessary personnel and funds were budgeted for the protection of the property. But our studies show quite definitely that this is not the case, and that the facilities in the parks have been running down badly, and may in many cases be coming close to the point of no return.

After the people and the property, but even more important than the property in terms of facilities, comes the natural resource itself. The National Park Service Act of 1916 charges the Service with the preservation of natural conditions in the parks; that means the wildlife, the forests, the rivers, and the scenery. The enjoyment of this resource by the public is to be within the limits required for preservation. The national parks are in reality wildlife refuges of great importance. Much of the endangered wildlife of America is preserved mainly or only in the national parks. The parks also provide the main protection for the dwindling virgin forests of the continent. They include magnificent archaeological and historic treasures which are now being vandalized by reason of inadequate protection. The NPS, and most certainly the OMB, have trustee responsibility to the American people for the preservation of these resources.

*Continued on page 31*

# National Parks & Conservation Magazine

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- 2 The Degradation of the National Parks  
4 Florissant's Petrified Landscape  
by Jeffrey S. Wallner  
8 Coronado and the Seven Cities of Gold  
11 Shortchanging the National Park System:  
Natural Areas  
17 Condor: A Doomed Species?  
by Sanford R. Wilbur  
20 NPCA at Work  
28 News Notes  
29 Conservation Docket

FRONT COVER Old Faithful, in Yellowstone National Park,  
by Ed Cooper

BACK COVER The Three Gossips, in Arches National Park,  
by Ed Cooper

*Budget cuts and personnel ceilings are adversely affecting the entire National Park System. In Yellowstone these limitations prevent adequate maintenance, concession management, and visitor services. Arches does not have enough manpower for backcountry patrols, law enforcement, interpretation, preparation of the park master plan, or even entrance fee collection for a full season. (See pages 2, 11, 20.)*

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# Florissant's PETRIFIED LANDSCAPE

From long-buried fossils our imagination recreates a Colorado landscape of 35 million years ago

by JEFFREY S. WALLNER

**P**ERHAPS the finest achievement of the human mind is its capacity to recreate scenes that it has not experienced in its own limited existence. In the grips of his imagination man can reach back not only into his own past but through the millennia that have passed in the long life of our planet. Although such a backward glance cannot always be accurate, the insight it gives to a former reality can move our hearts and affect the way in which we shape the present and future.

Today the dry rangeland of Florissant Fossil Beds National Monument in central Colorado spreads out to the foothills of the surrounding mountains. These hills are often topped by rocky domes that gleam in the glaring sunlight of the pure, thin air of the Rocky Mountains. One of these domes, south of the monument, is fittingly named Sheep Rock—a rounded mass of white fleece set against the sky like a summer cloud. Down the slopes of these hills spread open forests of ponderosa pine, which grows as a mid-sized tree here where the dry climate and thin soil prevent the species from fulfilling the promise of its name. In fact, the overall impression, even in the spring, is of dryness. There are no gurgling streams, no rippling lakes. Clouds develop on

warm afternoons, but the monument roads are usually dusty.

Some of the pines attempt to encroach on the range, but they are discouraged by grazing cattle and the men who own them. The cattle are joined by a few avian residents—hawks that sit on fence posts watching for the movement of a field mouse in the grass; ravens circling around the crags; jays, flickers, and magpies winging through the pine woods and along the meadow edges. Occasionally an eagle soars over the valley, his eyes on a farther range and higher summit. It is a land of sombre beauty even in bright sun. Dark forests, dry fields, and dusty roads give no hint at the past landscape.

Evidences of what once was lie beneath the fields and roads, preserved in the light shales of the fossil beds. The evidence is of two types—one minute, the other gigantic. Tiny fossils of insects, vegetative fragments, and animal remains are found as carbonaceous films in the bedding planes of the rock strata. Some of these fossils must be studied with a microscope. At the other extreme are petrified stumps and trunks of huge sequoia trees that once grew here. With these links to the past, man's mind can begin to fill in the gaps that will transform the present landscape to that seen by, say, a butter-



fly of the Oligocene, thirty-five million years ago—long before man walked the earth.

**A**LL of today's features, including the mountain ranges, were then in the first processes of birth. The area had only recently emerged from a great inland sea that covered an area roughly equal to the Rocky Mountain province. In place of the dry grasslands was a shallow lake that followed the general contour of the present valley. Narrow arms of this lake reached out into the low hills that preceded the spectacular uplift of the land.

Deep forests surrounded the lake—forests with tremendous trees that recalled the distant age of the dinosaurs long before. Small

mammals stepped softly over the forest floor, finches flew through the trees, and plovers left their tracks in the sand along narrow beaches. The waters of the lake were calm and dark, like the tannin waters of our eastern swamps, harboring little fish life. A few small clams and snails found a place in the warm waters, but it was chiefly a world of insects. Dragonflies, beetles, aphids, crane flies, butterflies—more than a thousand species of insects—thived in the incubating waters of the lake and on the luxuriant vegetation of its shore.

There is no present-day parallel to the great sequoia forests of the Oligocene epoch. It would be wrong to picture the scattered groves of the Sierra, or even the

thick redwood forests of the Pacific coast. The closest comparison would be with our southern swamps of bald cypress, a close relative of the sequoias. The visitor should imagine himself in a flat-bottomed boat, poling along an uneven shoreline overgrown with rushes and cattails, full of the buzzings, flutterings, and clatterings of the myriad insects. Dragonflies fly their mating ways over the still waters, the female dimpling the water where she pauses to drop her eggs. Mosquito larvae float at the surface, ready to hatch into adults.

The forest margin is dark with the shadows of cinnamon-barked trees that contrast with the green background. These trees tower two hundred feet or more from the very

edge of the lake, their great limbs spreading out over the water. Beneath the sequoias grow smaller trees—pines and hardwoods, cypresses, ferns, rosebushes, and other shrubs where the mammals and birds find food and sanctuary. Here and there a solitary tree trunk stands rotting in the water where it was drowned years before. In other places three or more of the giants are clustered around the decayed stump of a parent tree that fell a thousand years earlier.

**I**N THE ROCKS below the stumps today one can find the remains of leaves, bark fragments, cones, and seeds of the sequoias. But to study the seeds, a magnifying glass is needed. One of those seeds fluttered to the rich, damp,

warm earth in those earlier times. It was lucky to have reached open ground where vines and shrubs could not smother it. Nestled snugly in the ground, the wonder of life stirred and set in motion the interplay of chemicals within itself and within the soil that constitutes growth. Drawing on the life that had gone before it, the seed sent out tentacles of its own being; roots reached down while its main bulk developed into a thick stem. It emerged from the earth, basking in sunlight several hours each day. In a slow upward dance that was too effortless to be called a struggle, the stem grew outward reaching for the sky and light. One year a drought turned timber to tinder, and a fire raged around its base. But by that time the stem had grown a thick, resistant bark, and the fire left it scarred but thriving. It grew 100 feet, 125, 175, on to 225 feet high. From a miniscule seed it had become one of the most massive living objects in the world, apparently indestructible.

The tree rose majestically above flood and fire that would have been disastrous to it when it was only a seedling. But something else was growing from the earth a few miles to the west, near the present town of Guffey—a force that would come and go swiftly, but would at last prove the end of the tree. It began as rumblings and tremors that raised waves on the surface of the lake, followed by violent earthquakes and the opening of great fissures in the earth. Then molten rock began to pour forth in spurts, followed by long periods of quiescence as pressure and mineral worked against each other. When the pressure could no longer be contained, the molten material burst forth in a volcanic eruption that sent clouds of smoke and ash riding a shock wave toward the nearby lake. This shock tore off the trunk of the tree and sent it crashing to the steaming ground where it lay beside its useless stump as the volcanic ash sifted down around it out of the stifling sky.



*Fossil sequoia stump*

Successive eruptions covered the land with layer upon layer of ash, and the skeletons of dead trees stood above the suddenly created wasteland.

In the same way both the insects that flew over the lake and their larvae in the water were caught in the storm of cinders and were buried in the ashes as they settled to the bottom of the lake. Eventually most of the life forms were captured in the volcanic deposits that filled the valley. Then the face of the land changed. The lake dried up. The vegetation first withered in the fresh landscape, then grew lush in the nutrient soil, and finally became sparse as aridity followed the uplift of mountains.

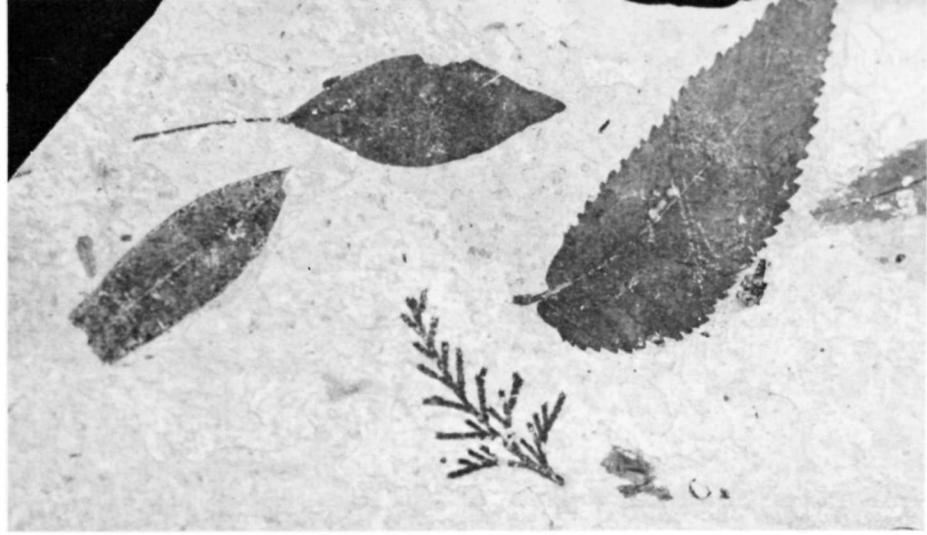
Under the ground far more amazing changes took place. Gradually the deposits were soaked with water that dissolved silica from the ash and percolated it through the rotting wood. Here the silica solution penetrated the cells of the tree and was captured and crystallized, preserving the structure of the tree as petrified wood.

These stumps are unmistakable now—some of them rising from the ground in groups of three, just as they grew, with their long supporting roots arching out from the base. The texture of the bark is as it was in life, and the light brown color of the stone completes the illusion of living wood. One of these giant stumps measures seventy-four feet in circumference, the largest specimen of its kind. In many places the ground is strewn with small pieces of petrified wood, as if someone had opened a mill and the chips had turned to stone where they fell.

**T**HE INSECTS and plant remains were preserved in a different way. These remains were captured between the layers of ash; there, with the weight of the strata and the pressure of millions of years, they decayed and left inside the newly formed shales a carbon film perfectly preserving the details of the living animal. Butterflies have been found with spots still on their wings; rosebuds and



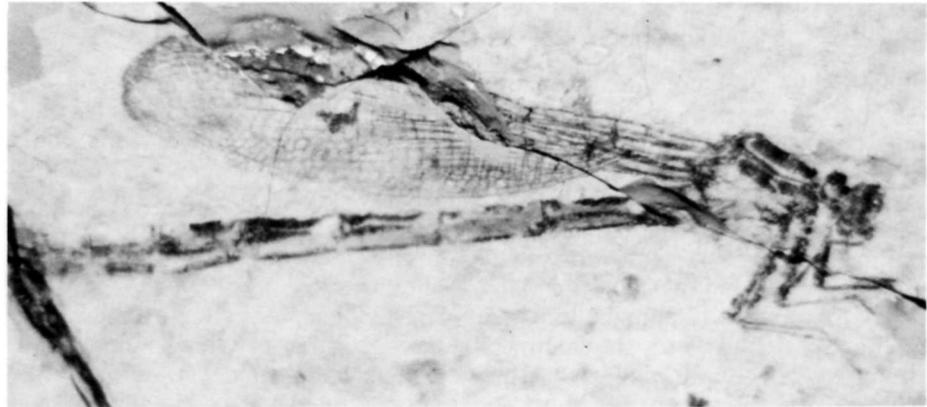
Fossil bee,  $\times 3\frac{3}{4}$



Fossil leaves,  $\times \frac{3}{4}$



Fossil beech leaf,  $\times 3\frac{3}{4}$



Fossil dragonfly,  $\times 3\frac{3}{4}$

petals are delicately preserved as if pressed in a book as memories of a cherished garden. The legs of mosquitoes and the bodies of lice are still visible after millions of years. Some of the species have been determined by counting the number of facets in their eyes! When the noted naturalist Edwin Way Teale unearthed an ancient insect, he mused, ". . . it had remained unchanged through millenniums and eras, ages and epochs. And now, at last, on this late-summer day of sunshine, we had split open two sheets of shale and the crane fly within had returned once more to the world of light."

**F**LORISSANT Fossil Beds National Monument was established in 1969 to preserve this outstanding representation of the Oligocene Epoch. The Ute Indians who hunted in the area knew of its wonders and directed pioneers to the valley of the stone trees. In the early 1870s a group of government geologists investigated the depos-

its, followed closely by Doctor Samuel Scudder who excavated and identified 1,144 species of insects. At that time it was felt that scientific interest in the Florissant fossils was over. But an English entomologist, T. D. A. Cockerell, who had come to the Colorado mountains for relief from tuberculosis, visited the fossil beds and realized that the sources of information within the rich ground were unlimited. He made new discoveries including a tse-tse fly and the first fossil butterfly.

In spite of the scientific importance of the fossil beds the land had remained in private ownership through the years. The stands of sequoia stumps were exploited by private owners who allowed visitors to dig and remove any fossils they found. These enterprises have now passed out of existence, and the National Park Service has begun to preserve the fossil beds for the enjoyment and education of all the people. When land purchase is completed in the near future, implementation of a Park Service

master plan for the monument will develop its resources in keeping with the highest scientific standards.

The true wonder of this ancient landscape lies in the continuity of life that it represents. As the visitor walks among the petrified trees, or when he bends to examine the rock that emerged from an ancient volcano, he can feel *in touch* with what has gone before. By exercising his imagination, he can visualize not only the present but the past and the future. In spite of time; in spite of climatic changes, volcanic uplift, and destruction; in spite of drifting continents and ebbing and flowing seas; in the face of all the changes of the dynamic earth force, life still clings to the thin mantle of soil—ever-continuing, ever-changing. ■

**Jeffrey S. Wallner has traveled extensively in the National Park System. Having studied geology, he most enjoys the parks and monuments that reveal earth history, such as Florissant Fossil Beds National Monument.**

# CORONADO

## and the Seven Cities of Gold

Francisco Vázquez de Coronado's search for riches led to the settlement of the American Southwest

**T**HE SECOND major penetration by the Spanish of the present United States occurred in the Southwest. There, in an arid and inhospitable land, Spanish dreams of treasure became nightmares. But before the reality were the myths. After Cortés' conquest of the rich Aztec Empire and Pizarro's looting of Inca wealth in Peru, the Spanish dreamed of greater riches to be found to the north of Old Mexico. Myth-makers and dreamers began to spin wild fabrications. Their fantasies were given a touch of reality by the reports of a party of three men led by Cabeza de Vaca—sole survivors of the shipwrecked Narváez expedition to Florida—which arrived in present Mexico eight years later after an amazing cross-country trek from the gulf coast of Texas. Thus a tenuous thread from Florida stimulated the northward march of conquistadors into the unknown lands of New Mexico.

When De Vaca, the other two Spaniards, and the Negro slave Estévan sought to escape in 1534 after five years of captivity among Indians, they were somewhere inland in present-day Texas. Traveling sometimes alone, but more often with roving bands of Indians, they wandered south and west for

This series of Bicentennial articles will trace some of the events and diverse cultural influences that forged the distinctive character of our nation—and, as elements of our rich American historic heritage, are represented in the National Park System.

hundreds of miles, into Mexico. In June 1536 they stumbled across a party of Spaniards, who could hardly believe that the starving, nearly naked "savages" who rushed sobbing up to them were really aristocratic hidalgos and their slave.

De Vaca told tales of the fabled Seven Cities of Gold, where there were streets lined with goldsmiths' shops, houses of many stories, and doorways studded with emeralds and turquoises. However, he made it plain that they had not seen these fabulous cities—only heard of them from the Indians. Their report spread like wildfire, and the Spanish Viceroy dispatched the slave Estévan with Fray Marcos de Niza, a Franciscan friar, to reconnoiter the area. In 1539 these two and several Indian guides traveled north through present eastern Arizona. Nearing the Zuñi pueblos at the Arizona-New Mexico border, Fray Marcos sent Estévan ahead with some of the Indian guides. When the Zuñis killed the Negro, the friar hastily retreated. He reported to the Viceroy that he had seen one of the Seven Cities of Cibola, which was more impressive than Montezuma's capital itself. From a distance the sun-baked walls of the pueblo may indeed have glittered like gold.

Therefore, a grand expedition was assembled, headed by Francisco Vázquez de Coronado and accompanied by Fray Marcos. In February 1540, about 250 mounted Spanish troops, nearly 100 foot-



men, several hundred friendly Indians, four priests, remudas of extra horses, and herds of cattle, sheep, and swine started out. At Culiacan the impatient Coronado rushed ahead with 100 mounted men, leaving the slow-moving main body to follow. When he came upon the Zuñi pueblo of Hawikuh, he suffered a jolting disappointment. It was not a magnificent city surrounded by gold-crusted walls ornamented with jewels, but a motley rock-and-clay pueblo. Furthermore, its Indian inhabitants were defiant. But the Spaniards overcame them, occupied the village, and sent for the main army.

Fray Marcos shamefacedly returned to Mexico City, but Coronado determined to pursue the search. During the summer of 1540 a lieutenant, Pedro de Tovar, led a side expedition to Hopi villages in northeastern Arizona. López de Cárdenas explored as far west as the awesome walls of the Grand Canyon of the Colorado, becoming the first European to view the

magnificent canyon. Another small expedition under Hernando de Alvarado followed Indian guides northeast to Taos and Pecos pueblos. Meanwhile, Coronado shifted his headquarters eastward to the pueblo of Tiguex on the Rio Grande, a few miles north of the site of Albuquerque. Heavy fighting ensued with the Indians, who finally surrendered.

From an Indian the Spaniards called the Turk, "because he looked like one," Coronado heard marvelous tales of the rich land of Quivira farther east. In the spring of 1541, the entire army, with renewed hope, marched eastward under the Turk's guidance. In truth, the Indian was a Plains Indian, seeking to escape from captivity among the Pueblo Indians. But he easily duped the Spaniards, who so avidly sought gold and conquest. Somewhere along the eastern edge of the Texas high plains, Coronado sent the main army back to Tiguex. With a small detachment he trekked toward the northeast into present Oklahoma

and Kansas, which failed to yield the riches the Spanish sought. At last the Turk confessed his duplicity, and the Spanish garroted him. At the very time that Coronado was in Kansas, the De Soto expedition from Florida was probably only a few hundred miles to the southeast.

Frustrated at finding no wealth in Kansas, Coronado returned to Tiguex, where they spent a dreary winter before dragging themselves back to Mexico City. For about forty years, New Spain's interest in the north country waned.

**T**HEN IN 1598 Juan de Oñate colonized New Mexico along the Rio Grande because of the lingering suspicion that the fabled land of Quivira might be real, and because of persistent rumors of mineral wealth in the mountains. Franciscan friars scattered to the pueblos to convert the Indians, and by the second decade of the seventeenth century, perhaps twenty priests were serving some 30,000 converts in more than forty small

churches in the upper Rio Grande area. Other expeditions set out, but they found no gold or silver.

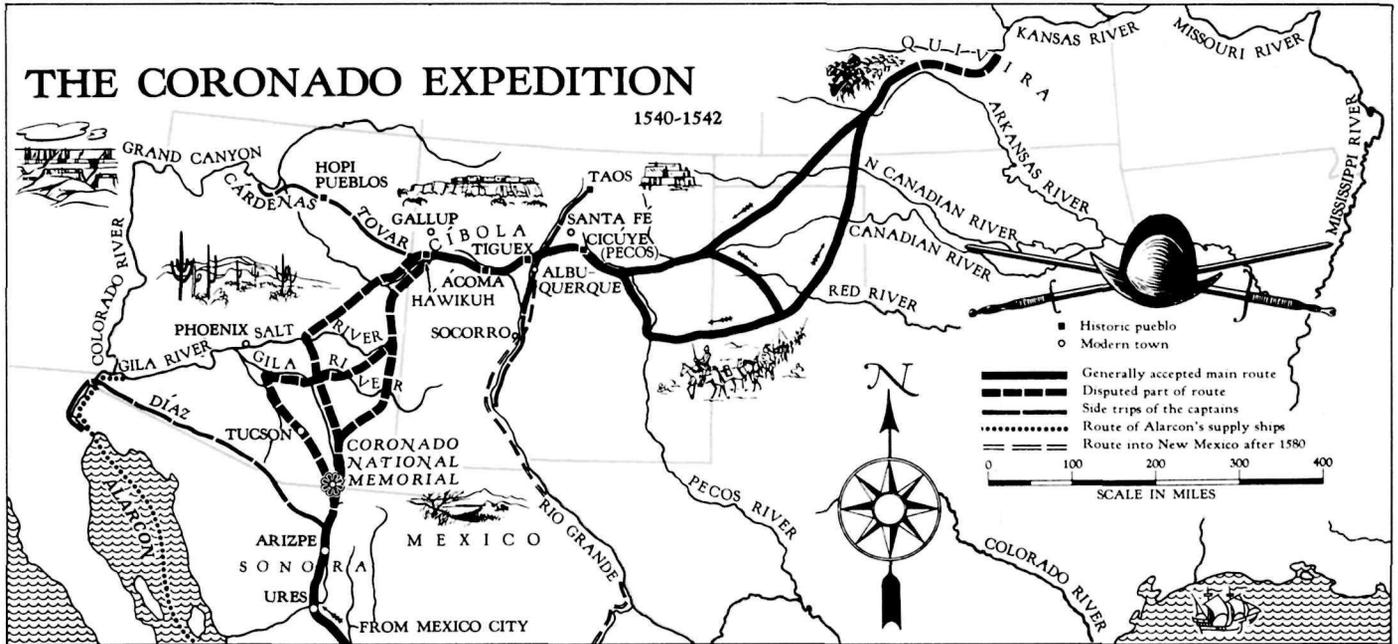
Santa Fe was established as the capital in 1610, and New Mexico settled quickly into an isolation and pastoral lethargy that was to be its chief characteristic for the next two centuries. The small number of Spanish settlers and soldiers—competing with the clergy—exacted burdensome tributes and forced labor from the Indians in an attempt to derive a livelihood. The clergy and civil leaders clashed on many other issues, and civil-military discord seriously weakened the small colony.

Finally, in 1680 the Indians rebelled against brutal treatment. They killed more than four hundred Spaniards and drove the rest into Mexico. Twelve years later Spain sent a strong force up the Rio Grande to reestablish dominion over the province. For the next six years sporadic rebellions burst out in the pueblos before complete and lasting Spanish authority was finally reinstated.

The history of the province from the time of the reconquest until the newly independent Mexico took it over in 1821 is a record of the ebb and flow of missionary activity in the Indian pueblos; civil-military-religious clashes; the slow spread of ranchos and haciendas into the plateaus away from the rivers; the coming and going of a long line of royal Governors; the building of little villages along the rivers and in the valleys; frequent warfare with the Apaches, Navajos, and Comanches; occasional explorations into the vast, unknown regions surrounding the upper Rio Grande; and, finally, visits by French fur traders from the north.

The expeditions of Fray Marcos, Coronado, and Oñate had merely passed through Pimería Alta—northern Sonora, which included Arizona south of the Gila River—but the Jesuit Father Eusebio Francisco Kino thoroughly explored it, beginning in 1687. He visited the Indians; stopped at the future sites of the Tumacacori, San Xavier, and Guevavi missions; established Indian rancherías to support envi-

CORONADO'S MARCH—COLORADO, BY FREDERIC REMINGTON. LIBRARY OF CONGRESS COLLECTION



sioned missions; and wandered north to the ruins of Casa Grande on the Gila River. Eventually he returned to Southern Pimería Alta, from where he directed activities until his death in 1711. Others carried on his work.

Few Spaniards settled in Arizona; but in 1752 Spain founded a presidio at Tubac to protect them from Indian attacks, and padres built a mission three miles away at the village of San Jose de Tumacacori. To better cope with Apache depredations, in 1776 the Spanish authorities moved the presidio to the site of Tucson.

In the 1790s, in addition to the few hundred missionaries and settlers in present Arizona, about 20,000 Hispanic people were living in New Mexico in scores of isolated estates and hamlets scattered along the upper Rio Grande. Their quiet, near-indolent retirement was rudely shattered by the appearance of the Americans on the northern frontier just after the turn of the century. But Spain lacked the power or the energy to push back the tide. After Mexico gained her independence in 1821, together with the Spanish possessions in the present United States, she opened the province to the Yankees, who gained a major inroad into the Southwest via the Santa Fe Trail.

**M**ANY REMINDERS of the era of Spanish exploration and influence remain today, as well as reminders of the pre-Columbian Indian culture. Coronado National Memorial on the Arizona-Mexico border affords a sweeping view of the valley by which the Coronado expedition entered the present United States. Pecos National Monument and the Indian pueblos of Hawikuh, Taos, and Acoma—all national historic sites—reveal the Indian culture as well as tell the story of Spanish conquest and dominance and Indian revolt and bravery. Gran Quivira National Monument, New Mexico, protects the site of ancient Indian house mounds and a seventeenth century Spanish mission. Tumacacori National Monument in southern Arizona preserves the old mission near the site first visited by Father Kino in 1691. And El Morro National Monument, New Mexico, contains "Inscription Rock," a sandstone bluff on which seventeenth century Spanish explorers (including Oñate) and nineteenth century American emigrants and settlers alike carved hundreds of inscriptions to record their passing. As Southwest anthropologist Edward Spicer noted, "Indians have . . . regularly poured the old wine of their way of life into the new bot-

tles of the material trappings of Spanish and Anglo civilizations." Indian, Spanish, and Anglo cultures forged the unique character of our American Southwest.

**C**ORONADO RETURNED to Mexico from his explorations disappointed. But fifty years after the expedition, its chronicler, Casteneda, wrote:

"I always notice, and it is a fact, that often when we have something valuable in our possession and handle it freely, we do not value or appreciate it as highly as we would if we realized how much we would miss it if we were to lose it. . . . This, it seems to me, happened to all or most of those who went on the expedition that Francisco Vázquez de Coronado led in search of the Seven Cities, in the year of our Savior, Jesus Christ, 1540. For although they did not obtain the riches of which they had been told, they found a place in which to search for them and the beginning of a good land to settle in and from which to proceed." ■

This article is adapted from *The National Survey of Historic Sites and Buildings, Volume V, Explorers and Settlers*. National Park Service, U.S. Government Printing Office, Washington, D.C. \$7.60. Stock 2405-0006.

# SHORTCHANGING THE NATIONAL PARK SYSTEM: Natural Areas

## Summary of NPCA Park Resource Survey of National Park Service budgetary and manpower deficiencies

FOR NEARLY THREE YEARS NPCA has been protesting the budgetary restrictions and low personnel ceilings that the President's Office of Management and Budget (OMB) imposes on the natural resource agencies. After several meetings with NPCA during this time, OMB invited the Association in August 1975 to provide information on specific units within the National Park System where lack of enough funds or personnel has impinged on visitor enjoyment or resource management.

Consequently, NPCA conducted an extensive field survey of its trustees and correspondents and of national park superintendents and other informed citizens. The summary of the survey findings for natural areas printed here is a representative sample of the replies received and does not attempt to be comprehensive for the entire National Park System. A summary of the findings from historic and recreation areas will follow in the March 1976 issue. This information was presented in December 1975 in somewhat different form with testimony on invitation at a congressional oversight hearing called to investigate OMB's imposition of low personnel ceilings on the National Park Service.

**Acadia National Park, Maine.** Despite heavy visitation resulting in overcrowding of park areas accessible to the public, NPS has been unable, because of insufficient funds and staff, to either disperse visitors over a larger area of the park by opening other backcountry camps and trails, or to fully protect either the park resource or the park visitors. On the Schoodic section, vista clearing operations on turnouts and scenic overlooks has in some cases been neglected for as long as ten years. Despite annual visitation of 300,000 in this section, only one park ranger is available. Nearly 75 percent of park maintenance funds is provided by the state through unemployment funds and a program for college students seeking employment in their field of study. Nevertheless, maintenance standards in the park are well below optimum. The natural history interpretation program is severely curtailed by staff constraints with the result that only one ranger was available part time during the month of Sep-

tember 1975 for more than 30,000 visitors. The park master plan has been slowed for more than two and a half years by lack of sufficient staff.

**Arches National Park, Utah.** Maintenance and cleanup suffer from lack of staff and funds. There is *no* manpower to carry out backcountry patrols, which should be done three times per week in this park. There are not enough personnel to staff entrance fee collection stations for the full prime visitor season; it can now be done only from May to September rather than from April to October as should be done. Law enforcement staff is minimal even during the busy season. Preparation of the park master plan is far behind schedule due to lack of staff. The park has no full-time interpreter.

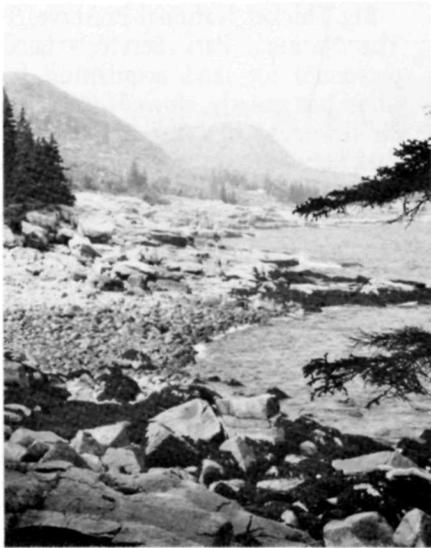
**Badlands National Monument, S.D.** All park buildings are in a poor state of repair. Campgrounds and roads have deteriorated considerably. Staff is generally insufficient to patrol remote areas of the monument.

**Big Thicket National Preserve, Tex.** The National Park Service's lack of personnel for land acquisition functions has greatly slowed acquisitions for this new area and has forced the Park Service to contract with the Corps of Engineers for the land acquisition function. In the meantime, severe damage is being done to the park resource by continued timber cutting by private landowners and private logging companies. Personnel consists of half a dozen people working out of a trailer trying to manage 85,550 acres of scattered units covering some 3,500 square miles of land. This preserve needs high priority for personnel and budget, or it will die on the spot.

**Canyonlands National Park, Utah.** Maintenance of buildings, grounds, and visitor facilities suffers from lack of funds and staff. Roads are poorly maintained. The park lacks even temporary personnel for trail maintenance. Protection of public health; campground and backcountry patrols; and park interpretation programs suffer from lack of funds and are not up to standard. After fourteen years two major development areas of the park still have only "temporary" facilities for visitors, due to lack of construction money.

**Capitol Reef National Park, Utah.** Insufficient budget resources have restricted interpretation, resource management, maintenance, and administration of the area. Several historical structures are in danger of collapse and decay. Roads are maintained on an emergency basis only. There is only one naturalist on the permanent staff for nearly ¼ million acres. Public health and visitor protection are not being adequately provided for. Park interpretive programs (i.e. movie and publications) are out of date but cannot be updated for lack of funds. Contracts let for master planning and environmental statements produced finished products that were unacceptable and unusable; NPS employees, had they been available, could have done a proper job at less cost to the government.

**Carlsbad Caverns National Park, N.M.** Insufficient manpower has been responsible for a less than acceptable level of protection of the fragile, irreplaceable cavern resource. Permanent staffing in the Visitors Services and Cavern Protection Division dropped



*In the Schoodic section at Acadia one ranger serves some 300,000 visitors.*

from 23 in 1963 to 11 as of June 1975, but during this same period visitor travel to the park increased from 586,000 to more than 800,000 annually, or a 46 percent increase. Surface nature walks and primitive cave tours have been greatly reduced and may have to be eliminated in 1976 due to lack of personnel. Backcountry trails have deteriorated from lack of maintenance to a point that they are open only to very experienced hikers and horsemen. Serious damage to park structures is likely unless funds are made available for roof repair and replacement.

**Cedar Breaks National Monument, Utah.** The park interpretation program is being handled by two volunteers from the Student Conservation Association, rather than by seasonal or permanent Park Service interpreters.

*Badlands National Monument has insufficient staff to patrol remote areas.*



Restrooms are substandard and do not provide an adequate level of protection for public health.

**Channel Islands National Monument, Calif.** Personnel restrictions have prevented location of staff on either of the two islands comprising the monument; consequently, the islands have not been adequately managed or protected, and visitors services have been minimal or nonexistent. Lack of building maintenance on the islands has resulted in cracked windows, neglected paint jobs, outdated electrical systems—in general, run-down buildings. Due to lack of personnel maintenance of administrative facilities such as boats can presently be provided only when the equipment becomes dangerous or practically inoperative. The monument's interpretation program is often unable to provide rangers for groups that want talks or tours. The park master plan team organized last year was disbanded for lack of funds.

**Colorado National Monument, Colo.** Paved roads in this area have deteriorated to a system of patches due to lack of funds, with no alternative in sight other than to apply patch after patch. Personnel have been unavailable for routine trail maintenance for the past several years. Seasonal personnel restrictions mandate a heavy reliance on "devices" rather than personnel presentations in the interpretive program. Costs from vandalism are increasing due to lack of enough law enforcement personnel during spring and fall seasons.

**Crater Lake National Park, Oreg.** The near catastrophe at Crater Lake during the summer of 1975 resulting from a contaminated water supply was largely the result of budgetary cutbacks that had delayed overhauling of the sewerage and water supply systems, which has been needed for years. Protection of the park resource and of public health has suffered from lack of adequate funding.

**Death Valley National Monument, Calif.** The serious threat of continued extensive strip mining for talc and borates will continue unimpeded unless funds for purchase of these mineral rights are made available. The Furnace Creek campground area is extremely overcrowded and deteriorating physically, with park personnel, due to inadequate funding, unable to control the deterioration. Periodic washouts of

roads take years to repair because of insufficient manpower and inadequate funding. No funds have been available for mass transit facilities for visitors, although greatly needed. The Park Service needs greatly increased funds to adequately cope with the feral burro problem, which causes severe destruction in large areas of the monument. Funds for basic research in this area have been lacking for many years.

**Devil's Tower National Monument, Wyo.** The visitor center built in 1938



*Capitol Reef National Park has only one naturalist for ¼ million acres.*

is in urgent need of repair and rehabilitation. The last construction in the monument took place in fiscal year 1961. The master plan for the monument has not been updated since 1958. Maintenance programs generally for buildings, campgrounds, lawns, roads, and trails are operating at about 70 percent of the National Park Service standard.

**Everglades National Park, Fla.** In midsummer (even though not the best time of year to visit this park) the park's mass transit vehicles are too crowded; more are needed. Due to not enough law enforcement personnel some areas have suffered abuses from illegal off-road vehicle activity. Planned installation of new backcountry camping sites has been halted because of lack of funds and insufficient personnel for servicing, maintaining, and patrolling them; this results in overcrowding and destruction on established sites. Interpretive programs have been set back severely. Maintenance of buildings has gone unattended, and these facilities have suffered as a result. Certain free tram rides in the park will be cut back or stopped,

as in Shark Valley, due to lack of funds. Only 83 of 104 permanent positions are filled. The park has abolished three permanent positions to provide permanent staffing in other areas of the park system, and has relinquished \$22,800 for redirection. In addition, \$26,700 has been generated for redirection by curtailing existing seasonal and temporary personnel services, support costs, and travel programs. If the \$49,500, three permanent positions, and 2.3 man-years of seasonal employment are actually taken from the park, there is serious question whether the park can operate for the remainder of the fiscal year at even minimum standards.

**Glacier National Park, Mont.** In 1963 this park provided its scenic wonders to 800,000 visitors with 72 permanent and 291 seasonal employees. By 1975, with visitation at 1.6 million, permanent staff had been cut to 56 and seasonals to 273. The seriousness of these personnel cutbacks is compounded by the addition of many necessary tasks such as fee collection in more than twelve campgrounds, preparation of environmental impact statements with the need for public involvement

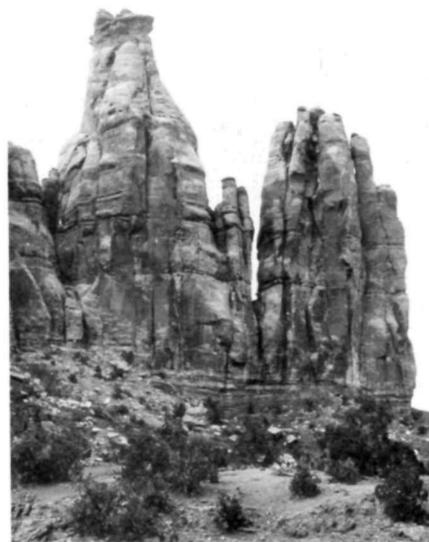


*At Cedar Breaks volunteers not NPS employees handle interpretation.*

and thus public meetings, backcountry and wilderness management and new park personnel programs. Park maintenance buildings and living quarters (some constructed twenty to fifty years ago) are not even being maintained at the standards existing at the time of their construction. Historic structures are not being adequately preserved, and roads are deteriorating. Trails also are deteriorating rapidly with about 20 percent of the 1,000 miles of trails ex-

isting several years ago no longer receiving any maintenance at all. Manpower available for visitor protection and public health programs and for backcountry and campground patrols has declined as visitation has increased, resulting in inadequate protection of both the visitor and the resource. Lack of sufficient personnel for concession management has resulted in a decline in service but a rise in prices. A park spokesman states, "Morale has been going downhill for three years and getting worse. Manpower and budget restraints have passed the breaking point with no hope of future relief. Other land management agencies, especially BLM, seem to be the new stars."

**Grand Canyon National Park, Ariz.** Permanent Park Service staff at Grand Canyon National Park is more than one hundred man-years below the level that NPS has determined to be necessary for full and complete administration of this world-acclaimed park. Personnel ceilings have resulted in contracting out as much as 40 percent of building and road maintenance with a resultant increase in expenditures for this purpose. But even with the contracting that is done, only one-half the manpower and money needed to meet park standards for building maintenance is available. Due to a severe lack of funds and other higher priorities, many miles of trails receive no maintenance even when emergency situations exist. Park officials estimate that the catch-up maintenance, especially on roads and trails, which will be necessary in Grand Canyon park could result in a doubling to quadrupling of costs over preventive maintenance programs. Law enforcement, visitor protection, and public health services only approach adequacy in the developed areas of the park during the period of extremely high summer visitation. These services are poor in areas of low visitor density or in off-peak seasons. The concessions management operation is severely understaffed. Only one full-time concession specialist and one part-time sanitarian are available, whereas a doubling of this staff is essential. Concerning the concessioner, Fred Harvey, Inc., one frequent park visitor remarked, "Grand Canyon suffers from almost complete autonomy of the concessioner. Long waits for dinner may be spent. Complaints



*No one is available to maintain trails at Colorado National Monument.*

about food or service, no matter how courteous, are regarded with aloof unconcern. Writing to the National Park Service about these matters may obtain a reply expressing general or complete satisfaction with the concessioner. Whatever the NPS office may say, they give their concessioners almost complete sway. The souvenir shops are universally shoddy monuments to poor taste and irrelevance."

**Great Smoky Mountains National Park, N.C. and Tenn.** Perhaps the most heavily used park in the system, the park generally and the backcountry in particular suffer from overuse. This problem is exacerbated by a serious lack of law enforcement and backcountry patrol by park rangers due to lack of personnel. Maintenance of facilities including trails suffers from

*Crater Lake suffered contaminated drinking water because of budget cuts.*





*Free tram rides at Everglades may be eliminated due to lack of funds.*

lack of personnel to perform necessary functions. Poor trail maintenance not only increases difficulties and hazards for the visitor but also results in increased erosion; thus the resource suffers from lack of funds.

**Guadalupe Mountains National Park, Tex.** As a new park, authorized in 1966 and established in 1972, Guadalupe Mountains has never operated with anything but old, temporary facilities with a skeleton staff of four permanent employees and eight to fifteen temporary employees to manage more than 81,000 acres. All four of the National Register historical structures are suffering from lack of repair and stabilization due to lack of funding. Standardized visitor interpretation is nonexistent. There are *no* park interpreter, summer assistants, office space,

*Maintenance, visitor services, and protection are poor at Glacier park.*



or interpretive equipment budget. Often the park must request staff assistance from Carlsbad Caverns National Park to meet special use of interpretive needs, which in turn results in limitation of Carlsbad Caverns operations.

**Katmai National Monument, Alaska.** Poaching of the Alaskan brown bear in Katmai is a severe problem that the Park Service is unable to adequately address due to insufficient personnel to adequately cover the 2.7 million acres of the monument. A small wildlife patrol plane is needed, but funds are not available.

**Lassen Volcanic National Park, Calif.** Discovery of a geological fault in the park which could result in a severe landslide resulted in the closure of the park facilities in the lower, more developed and popular areas of the park. However, it seems that the reason for this closure may be financial as much as concern for the safety and health of the visitors. No attempt has been made to replace closed facilities with anything comparable in what is supposed to be a safe area.

**Lava Beds National Monument, Calif.** The monument lacks the funds for major maintenance projects such as seal-coat of roads, replacement of pumps, and rehabilitation of radios and power lines.

**Lehman Caves National Monument, Nev.** Insufficient levels of personnel have resulted in increased vandalism to cave formations and in reduced visitor enjoyment and longer waits between tours. The monument is closed to the public at night, and no visitor fee collection can be conducted in the wintertime due to insufficient personnel.

**Mammoth Cave National Park, Ky.** Interpretive quality and cave resource protection fall far short of satisfaction due to high visitor-to-interpreter ratio. Year-round wildlife poaching is not controlled. Funds are insufficient to establish an immediate program of road maintenance. Cave tour parties are too large to permit a quality park experience. The law enforcement staff is insufficient to provide the necessary resource and visitor protection. The problem is further complicated by the existence of a 214-man Job Corps center, a 30-man Youth Conservation Corps camp, a campground, and two major concession operations in the

park. The park has experienced major incidences of crime, vandalism, traffic violations, and poaching requiring twenty-four-hour patrols by rangers. The park has no financial program for the preservation of its historical properties. The park lacks a full-time research management ecologist to handle the research program. The available staff man-hours are insufficient for adequate administration of the concession contract.

**Mount McKinley National Park, Alaska.** After the McKinley lodge partially burned in 1972, railroad cars were moved in to serve as visitor accommodations. Thus, visitors stay in a room the size of a double bed, with two single bunks, nonopening windows, and a very inadequate heating system—renting for \$21. Inadequate funding has prevented the park from completing plans for restoration of the McKinley lodge. Insufficient numbers of park personnel for campground patrols have resulted in severe damage to the park resources, particularly at Riley Creek campground at Mt. McKinley's entrance, where the forest is being stripped bare for use as firewood,



*Katmai has no funds for a patrol plane to control poaching in the monument.*

with green trees being cut in some cases. Inadequate funding and insufficient personnel have prevented necessary road maintenance; bus accidents have occurred as a result.

**Mount Rainier National Park, Wash.** Personnel limitations and shortage of funds have caused a lack of most maintenance operations including reroofing, painting, table and fireplace replacement in campgrounds, relocation of backcountry campsites, and

restoration of damaged sites. The lack of funds has deferred needed repairs to wastewater treatment facilities to meet EPA standards. Current funding for law enforcement does not permit twenty-four-hours-a-day patrol and radio dispatch, which are needed especially during the peak visitor season. Professional expertise is needed in the field of concession management to provide competent review, oversight, and enforcement of concession man-



*Mammoth Cave has inadequate funds for law enforcement and protection.*

agement policies, a lack of which often results in inadequate visitor services and abuse of the park resource. The park is operating with permanent personnel vacancies, which result in failure to meet the minimum standards for this unit of the park system. Due to restrictions of personnel, entrance fees are collected for shorter hours and fewer weeks during the peak visitor season. Consequently less money is collected.

**Rocky Mountain National Park, Colo.** Backcountry use more than quadrupled between 1964 and 1974; yet, during this time, two permanent park ranger positions were abolished due to personnel ceilings and lack of adequate funding. As a result, thefts and other violations have increased substantially. The GS-11 management assistant position was abolished, resulting in inadequate attention to land acquisition, public relations, and concession management. The position of park ranger responsible for the wildlife management program was also abolished, resulting in curtailment of the winter elk trapping and tagging operations for several years. Another

park range position was abolished, resulting in curtailment of both winter and summer patrol activity with a consequent increase in vandalism in the campgrounds at the Green River Ranger Station and the West Unit visitor center. During 1974 the Volunteers in Parks program and the student assistant program contributed 3,884 man-hours of voluntary time in manning the information desk 24 hours per week and assisting in the dispatch office 16 hours per week. This assistance augmented the services of paid park employees and significantly helped to make up these vital visitor service functions, which could no longer be provided because of lack of funds. However, because of restrictions on the use of these volunteers, they could not perform at the same standard as employees of the Park Service. In 1971 the park road crew had twelve temporary employees; in 1974, only nine. Lack of funds for road maintenance has resulted in a loss of tremendous investment. No chip and seal on the park roads has been done since 1971. In 1974, lack of sufficient personnel resulted in the inability to open old Fall River road to park visitors by plowing; the road was not open until the snow had melted. The positions of civil engineer and landscape architect have also been abolished, with professional services provided by these positions falling under the responsibilities of the chief of maintenance with an adverse effect on the whole maintenance operation. Garbage cans can now be collected only three times a week rather than seven days a week as was done previously, resulting in overflowing cans and scattering by animals.

**Shenandoah National Park, Va.** There is a lack of enough personnel and funds to properly manage, operate, and maintain the park in accordance with published National Park Service standards. Resources available in FY 1975 provide for 50 man-years of permanent positions and 89 man-years of other-than-permanent positions with funds totaling \$2,493,500, whereas to meet standards 128 man-years of permanent personnel and 132 man-years of other-than-permanent personnel with funds totaling \$4,304,690 are needed. Most buildings are thirty-five years old or older and continue to require an increasing amount of repair, which cannot be done with funds



*Personnel vacancies at Mount Rainier result in inadequate visitor services.*

available. Rotting timbers and sidings, failing electrical apparatus, and deteriorating roofs continue to be the major building problems. Because of the lack of maintenance in some of the campgrounds the groundcover has almost vanished and now requires major work to reestablish the eroded material, but there are not enough personnel to do this work. Funds normally used for trail maintenance have been diverted to higher priority items with the result that many backcountry trails are now unsafe. The park is unable to meet any of the requirements established by EPA and the Public Health Service for visitor health and safety. Only a few of the water systems employ a disinfection apparatus; more are required to ensure public protection, but the park does not have the money to purchase and

*Theft and vandalism have increased at Rocky Mountain National Park.*



operate these units. The sewage systems do not comply with EPA standards because of lack of personnel and funds. Few septic tanks are ever pumped, and some are full of sludge and cannot provide the limited treatment normally expected. Due to personnel limitations, one visitor center, Dickey Ridge, will be closed for the winter season, and evening programs and walks have been placed on a much limited schedule during the spring and fall seasons. Present staffing and funding restrictions limit patrols to areas of heavy use in the summer months and weekends in the off-season. Little-used areas are patrolled infrequently or not at all. Use of backcountry is increasing more rapidly than overall visitation. No hunting patrols to prevent poaching are carried out during the hunting season. Campgrounds are closed for the season early and opened late the next season for lack of staff to operate them. Law enforcement patrol coverage is normally only sixteen hours per day with a resulting increase in vandalism during the other hours. Comprehensive concession management is not possible at present staffing levels.

**Timpanogos Cave National Monument, Utah.** Maintenance is severely curtailed. Trash pickup schedules have been reduced; lawns are mowed and trimmed less frequently; roadsides are not cleaned, mowed, or stabilized as frequently as needed; picnic tables are refinished less often; replacement of worn-out fireplaces is not done on a current basis. Foot patrols have been severely cut back, increasing the potential for fire, safety hazards, and vandalism. The number of law enforcement patrols has been reduced in an area subject to vandalism. Funds are not available for badly needed cave research to establish carrying capacities, methods of cleaning information, and environment damage to cave life.

**Virgin Islands National Park, V.I.** Beach maintenance has been a constant high-priority job for such heavily used areas as Trunk Bay. Daily attention is needed, but only three days a week are available presently due to insufficient manpower. Most park buildings have had little maintenance—even painting—in some cases for as far back as ten years. Funds are not available for stabilization or restoration of historic structures. Visitor

protection and public health program positions are filled by seasonal and subject-to-furlough personnel, whereas full-time trained personnel are needed for these vital functions. The interpretation program is heavily oversubscribed, resulting in a very unfavorable interpreter/visitor ratio. Consequently, the park visitor receives an unsatisfactory experience.

**Voyageurs National Park, Minn.** Although authorized in 1971, Voyageurs has only three to five permanent personnel and has received limited funding for land acquisition. Interpretation programs are virtually nonexistent. Staff for patrols throughout the park are particularly critical because of repeated threats by some local citizens to continue hunting and driving their off-road vehicles throughout the park area.

**Yellowstone National Park, Wyo., Mont., and Idaho.** Insufficient staff and funding have prevented the establishment of a cyclic rehabilitation program for campgrounds, buildings, historic structures, and roads, resulting in gradual deterioration, which, though not attracting immediate attention, ultimately results in higher replacement costs. Only twelve employees are available to maintain more than 1,000 miles of trails; that number is sufficient only for removing blowdowns blocking trails rather than other essential work such as drainage repair. The park's modern sewage disposal system requires more highly trained personnel for operation than heretofore required. Concession management in the canyon and village area has been reported as extremely poor in 1975. Old Faithful Inn, important both as a historic property and for current visitor accommodations, is in a dire state of disrepair. Campgrounds are often closed in the fall before the visitation drops off, because seasonal employees are released on a predetermined time schedule. Many essential jobs are filled by less than full-time employees.

**Yosemite National Park, Calif.** Campgrounds are in a major state of disrepair in some areas of the park due to insufficient personnel. The campground at Tuolumne Meadows needs to be completely renovated after years of heavy use. The bridge on the John Muir Trail over the Dana Fork of the Tuolumne River is in an extremely dangerous condition of disrepair. Be-

cause it is adjacent to a main road, it gets heavy use including use by children and elderly people. Although its unsafe condition warrants immediate replacement on an emergency basis, inadequate funding is available. Insufficient backcountry patrol staff enables inexperienced backpackers to build campfires in new areas and to put up tents in fragile meadows.

**Zion National Park, Utah.** Permanent employee positions allocated to this park total twenty-eight. However, additional permanent personnel are needed for interpretation, maintenance, and protection; and additional seasonal personnel are needed for visitor protection, fee collection, and interpretation if programs are to operate at standard. The Kolob Terrace Road requires considerable maintenance at present, but funding is not available. In recent years the trail system has received less and less attention, particularly in the backcountry areas of the park. The water and sewage systems for the most part are between thirty and forty years old and will require considerable upgrading in the near future if they are to meet acceptable public health standards and if a repeat of the public health crisis at Crater Lake during the summer of 1975 is to be avoided in Zion. Backcountry patrol has suffered immensely in recent years, because it is one of the first items cut if personnel are required for other duties. Fee collection stations are not currently operated on a twenty-four-hour basis due to lack of manpower. Around-the-clock station operation not only would provide considerable additional revenue but would improve law enforcement and general park protection because of greater control over visitors entering and leaving the park. In recent years the park has experienced an increase in enforcement actions and investigation of crimes against visitors and park property, which warrants an increase in personnel for visitor protection and campground patrols.

*To be continued next month with information on historic and recreation areas.*

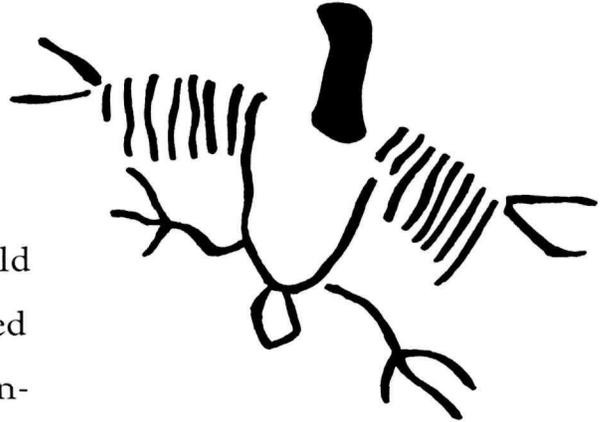
*Note: Any reader with additional information on these or other park areas should send it to T. Destry Jarvis, National Parks & Conservation Association, 1701 18th Street, NW, Washington, D.C. 20009.*



# CONDOR

## A Doomed Species?

The California condor, an inspiration for age-old symbols of immortal power, has been reduced to a population of only about fifty birds. Scientists hope concerted efforts will save the species from extinction.



by SANFORD R. WILBUR

**A**S LONG AGO as 1890, one observer labeled the California condor "a doomed bird," and predicted its imminent demise. Eighty-six years later, the condor (a representative of the New World vultures, family Cathartidae) still hangs on, apparently defying all prophecies of doom. Yet things are not always as they seem; and despite its long, tenacious cling to life, the fate of the California condor, which has survived since Pleistocene times, may be sealed within the twentieth century.

**B**ECAUSE of its wingspread of nine feet, its effortless soaring flight, and its identification with some of the wildest mountain areas of the Pacific Coast, the condor has long been a favorite of conservationists and other outdoor people. This interest is somewhat surprising, because the carrion-eating vultures are usually either ignored or looked on with considerable distaste. Several factors have combined to elevate the condor's social status well above that of its smaller vulture cousins. In addition to its rarity, its large size, and its magnificence in flight, the condor is surrounded by somewhat mystical folklore. This bird is a

link with both prehistoric times and with earlier years in American history. The condor's relatives and ancestors inhabited this planet with saber-toothed tigers and mastodons, as well as man. California's Indian tribes revered the condor, or moloku as it was generally called; and the bird figured prominently in legends, dances, and religious ceremonies. White explorers and settlers were amazed by the huge dark birds, and sometimes feared them.

**F**AME, however, is sometimes a mixed blessing, and the reverence bestowed upon a creature is not always universal. Herein lies the condor's problems.

Although the species was never abundant, the California condor once occurred all along the Pacific coast from southern British Columbia south into Baja California. Now it is found only in central California, and the total population may include only fifty birds. Although many factors combined to reduce the population, direct persecution was apparently the major one. The California condor is one of the largest birds on earth. Its large size attracted attention, and condors were sometimes shot for

The sketch of a Chumash painting of a California condor was drawn by Campbell Grant from a photograph by Robert Easton. The painting was executed in red and white on a sandstone cave in the San Rafael range, Santa Barbara County, California.

the sole purpose of measuring their wingspread, or so that the shooter could get a closer look at one of them. Some may have been killed because they were suspected livestock predators, even though the California condor has never been known to attack live prey, or because they were thought to spread disease. Others were collected as specimens for museums around the world. Between 1880 and 1920, 148 condors are known to have been lost for various reasons, most of them man-related. In a single two-year period (1897 and 1898) at least 22 condors died. (These figures are for *known* losses. It is likely that during the same periods, many others died of old age, accidents, and unreported man-caused incidents.)

**I**F YOU COMPARE the number of ducks, geese, or quail shot in a single day of current legal hunting seasons with the magnitude of condor losses reported above, you might come to the conclusion that condor losses were

unimportant to the survival of the species. If condors had the habits of quail or the reproductive characteristics of ducks, you would be correct. Unfortunately, they do not, which fact now causes the condor's most serious problem. Consider that condors do not breed until at least six years of age (and probably not regularly until eight or ten years of age), that they lay only one egg per nesting attempt, that they often do not nest every year, and that the condor egg takes approximately fifty days to hatch. A quail may nest during its second year of life, can lay fifteen or more eggs per clutch and, should its first nest fail, may lay a second clutch of eggs the same season. A pair of condors must live ten or fifteen years before they can hope to replace themselves in the population (i.e., raise two young); quail can do so the first year.

Under natural conditions, the condor's extremely low reproduc-

tive rate was not a liability. With no regular enemies and with an average life span of twenty years or more, the individual condor had a long time to make its small contribution to population stability. The known mortality from shooting and other man-related losses in the nineteenth and early twentieth centuries was a major blow to the condor, because it far exceeded the replacement capabilities of the species. The effect was so pronounced that the condor population has not been able to recover.

Major mortality is a thing of the past. Education and improved legal protection have helped considerably in curtailing losses. Unfortunately, other factors more difficult to diagnose and control now operate against the condor. In recent years, reproduction has declined to the point that, were it not for an extremely low death rate, condor numbers would be rapidly decreasing. Only about a dozen

condors hatched in the past seven years, and the population shows signs of having decreased by perhaps five birds in that time. We can expect to see further declines if reproduction continues to yield two young or less per year.

**K**NOWING that low reproduction is the condor's main problem is important, but being able to do something about it is much more important. So far, we have not definitely pinpointed the cause of decreased breeding. We know that changes in land use near condor nesting areas have resulted in decreased food for condors. Because diminished food supply and decreased reproduction often go hand-in-hand, we have initiated a small-scale supplemental feeding program for the birds, hoping that a regular supply of animal carcasses within a few miles of nest sites will encourage more pairs to nest. We also know that rising



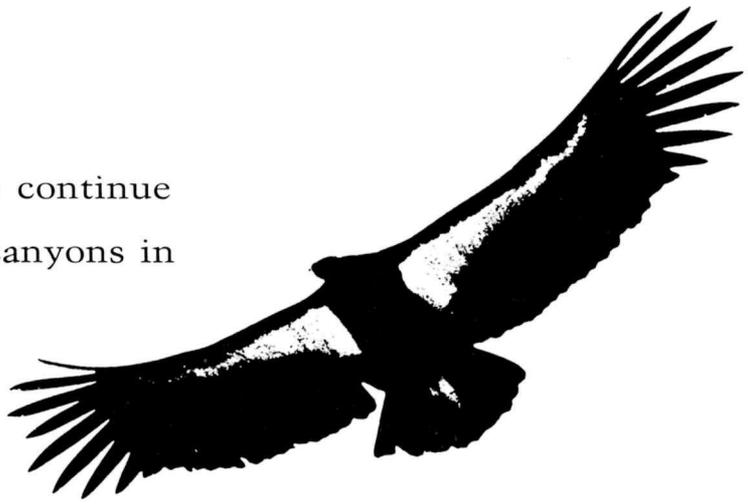
THIS PHOTOGRAPH AND CONDOR IN FLIGHT, OPPOSITE PAGE, BY F.C. SIBLEY, FISH AND WILDLIFE SERVICE

*Two California condors (left) spread their wings in a sunning posture at Sespe Condor Sanctuary in California. These two birds are among the last fifty California condors in existence, a species that has survived since Pleistocene times. Hunting, loss of habitat, and finally the bird's reproductive characteristics have contributed to the species' decline. Fortunately, efforts to save the condor have been strong on the federal, state, and local levels, so hope exists that the bird may still be saved.*

CARL B. KOFORD, FISH AND WILDLIFE SERVICE



Will the shadows of soaring condors continue to flow over California's ridges and canyons in years to come?



levels of disturbance around the nesting areas (from expanding oil operations, low-level aircraft flights, and increased recreation) have potential for disrupting nesting, so a major effort is being made to curtail these disturbances.

For example, the U.S. Forest Service does not permit motorized activity within one and a half miles of condor nesting sites. This restriction was challenged by the U.S. Royalties Oil Corporation, but during the summer of 1975 a U.S. District Court upheld the government agency's management policy.

In other action to support preservation of the condor, a California state law was passed in 1973 to prohibit low-level aircraft flight over the Sespe Condor Sanctuary. Additionally, the Forest Service has closed or relocated a number of roads, trails, and campsites that constituted real or potential interferences with condor nesting.

Although environmental pollutants are not as likely to influence condor reproduction as they might some other species (because of the low levels of these contaminants in their food supply), we are investigating possible sources of chemical contamination.

Continued research may uncover other problems and suggest new preservation techniques. Unfortunately, time is running out for the condor. If the species is to survive the twentieth century, research and conservation programs must be accelerated now. To help accomplish these needs, representatives from the U.S. Fish and Wildlife Service, U.S. Forest Serv-

ice, U.S. Bureau of Land Management, California Department of Fish and Game, and the National Audubon Society recently prepared and implemented a "condor recovery plan." This plan outlines a total program for condor preservation and management, assigns responsibilities and priorities, and provides an orderly timetable for getting necessary work done. Its chief value over earlier plans is that it treats all needs, rather than approaching the problems piecemeal. Earlier preservation attempts have been important—except for them, the condor would probably be extinct now—but obviously they were not enough.

The most urgent need in the preservation of the condor is to increase the number of young birds raised each year, while keeping every condor alive as long as possible. Actions proposed in the recovery plan to meet this need are categorized as maintaining nesting, roosting, and feeding conditions, and protecting condors from harm.

All nest sites and many condor roosts are on public lands, where much has already been done to preserve them and prevent harmful change. The plan proposes additional restrictions on mining and other commercial activities needed to protect condor habitat. (Several key parcels have been acquired recently, the result of cooperation between the Forest Service and the National Audubon Society.)

In addition to placement of supplemental food near nesting areas, the recovery plan recommends purchase or other preservation of

important feeding range. To supplement existing state and federal laws protecting the condor, a comprehensive program of education and law enforcement is outlined. Finally, research into less orthodox preservation techniques, perhaps including captive propagation or development of auxiliary nest sites, is advised in case conventional measures fail.

In December 1975 the Fish and Wildlife Service issued a proposed rulemaking that, if adopted, would list the known critical habitat of the California condor and five other endangered species for protection by the federal government.

**C**AN THE CONDOR be saved? At this point, we don't know. The species is certainly more endangered than ever before; thus the situation is extremely critical. On the other hand, the desire to save the condor is great, and the current level of cooperation among state, federal, and private organizations is high, perhaps as high as for conservation of any other species of wildlife. If the population still has the capability for sustaining itself, then we can be at least cautiously optimistic that the shadows of soaring condors will still flow over California's ridges and canyons for yet a few more years. ■

**Sanford R. Wilbur is a wildlife research biologist with the U.S. Fish and Wildlife Service's Patuxent Wildlife Research Center. He has been studying the California condor and other endangered wildlife in California since 1969.**

# NPCA at work

The NPCA Board of Trustees recently elected a new chairman upon the retirement from the Board of Dr. Spencer M. Smith, Jr., who was awarded a Conservation Service Citation for his long and distinguished service to the Association. Mr. Gilbert F. Stucker of the American Museum of Natural History, who has been an NPCA trustee since 1969 and most recently served as vice-chairman of the Board and Executive Committee, was unanimously elected chairman on November 14, 1975.

Mr. Stucker explains his involvement in NPCA in this way: "In this role [of trustee], I have felt a part of one of the great spiritual impulses of history and the most significant development of our times—the coming of age of the conservation movement. While my primary concern lies in natural area preservation, particularly as it has to do with the National Park System, I realize that our purposes in this or any other field of environmental endeavor are doomed to ultimate failure unless we incorporate into the foundations of our human morality a conservation ethic—a system of belief and a code of conduct—that will help guide not only the relations of men with men, but of men with all of the myriad aspects of the environment. As NPCA representative to the United Nations, along with my fellow Trustee, Dr. A. Jerene Robbins, it has helped me to understand that ours is an undertaking of global, biospheric dimensions.

"A feeling for the natural landscape has influenced me acutely since early childhood, but active participation in environmental issues did not occur until the 1950s. It was then that I joined in the unsuccessful effort to block construction of the aerial tramway on the flanks of Mt. San Jacinto in southern California. During this general period, I found myself in the National Park Service, on ranger duty. I became involved in the Echo Park Dam controversy at Dinosaur National Monument in Utah, a violent and protracted struggle in which the forces of

conservation and an aroused public met head-on with uncontrolled resource exploitation. This led, following my NPS service, to other involvements, such as the NPS plan for a Lewis and Clark National Wilderness Waterway on the upper Missouri River in Montana, which required strong opposition to the dam-building designs of the Army Corps of Engineers, and the



*Gilbert F. Stucker, new Chairman of the NPCA Board of Trustees, confers with staff member Destry Jarvis.*

establishment of Florissant Fossil Beds National Monument in Colorado and Fossil Butte National Monument in Wyoming.

"Vertebrate paleontology (the science of prehistoric life) has been my other endeavor. In this, I have worked principally for the American Museum of Natural History in field and laboratory; headed several expeditions, three of them to British Columbia under the joint auspices of the American Museum of Natural History and the National Museum of Canada, and the Royal Ontario Museum; participated as a member of a team of National Park Service experts in the uncovering of the celebrated fossil quarry at Dinosaur National Monument; collected for

many years in the ancient sea beds of Wyoming."

Free-lance writing has also engaged much of Mr. Stucker's time. (See "Shores of the Apostles," July 1974.)

The officers and trustees of NPCA commend Dr. Spencer Smith for his services to the Association as a member of the Board of Trustees from 1956 to 1975, of the Executive Committee from 1957 to 1960 and 1963 to 1975, as Vice-President from 1957 to 1960, Acting President in May and June 1960, and Chairman of the Board of Trustees and Executive Committee from 1973 to November 1975. The citation, presented on November 14, 1975, noted that Dr. Smith "made invaluable contributions during this entire time to the formulation of park and conservation policy, to the administrative and financial work of the Association, and to the growth of the conservation and environmental movement of America."

Dr. Smith has served as consultant to industry and government in the fields of natural resources and small business and has taught economics and statistics at several universities. From 1954 to 1975 he served as Secretary and Economist to the Citizens Committee on Natural Resources. He recently joined the staff of Speaker of the House of Representatives Carl Albert.

As a result of facts revealed by the NPCA Park Resource Survey conducted in September and October of 1975, the House Subcommittee on Conservation, Energy, and Natural Resources of the Government Operations Committee called a hearing in December 1975 to examine the National Park Service personnel ceilings and their effects on national parks. Subcommittee chairman William S. Moorhead (D-Pa.) invited NPCA President A. W. Smith to testify as the lead witness on the comprehensive nationwide survey conducted among NPCA's trustees, correspondents, and national park superintendents.

President Smith reported in detail on NPCA's several meetings with officials of the President's Office of Management and Budget (OMB) concerning deterioration of the National Park System as a result of personnel ceilings and limitations placed on the Park Service by the OMB (see page 2), and

he reported the results of NPCA's survey (see page 11 for more details).

After Mr. Smith's presentation a panel of park superintendents consisting of Boyd Evison, Great Smoky Mountains National Park; William R. Failor, Chesapeake and Ohio Canal National Historical Park; Roger Contor, Rocky Mountain National Park; and Director Manus Fish of the National Capital Parks, described the adverse impact that personnel ceilings have had on park resources and visitor experiences in their parks.

Superintendent Evison pointed out that at Great Smoky—the most heavily visited of all national parks—visitation over the past five years has increased by nearly 1 million to more than 8 million visitors in 1975, but during the same period fourteen permanent positions have been eliminated. Aside from wage increases and inflationary increases in supplies and equipment, the park has had an increase of only \$126,000 in annual operating funds during the same period. Consequently, serious deficiencies in maintenance of facilities and visitor services, deterioration of trails, and increased traffic problems and vandalism have resulted. Another serious problem is the lack of enough personnel to control poaching or to control the European wild pig, which has spread into the park from hunting preserves in Tennessee and does extensive damage to vegetation.

Superintendent Failor said that although the use of the C&O Canal will increase greatly during the Bicentennial year, the NPS will have insufficient manpower to manage, interpret, or protect the park resource during this period. Restoration of the park's historic aqueducts, culverts, locks, and lockhouses and maintenance of the 184-mile-long towpath have often gone unattended for lack of personnel.

Concerning the units of National Capital Parks (NCP), Director Fish pointed out that although many new facilities and programs in NCP have been authorized for the Bicentennial celebration, the operating increases allowed have been insufficient to operate these areas, and the personnel ceilings have imposed an even greater restriction. Director Fish's statement also revealed the extent to which the budget is cut from the time the park supervisor submits his budgetary needs until the President's budget is submitted to the Congress. For FY 1976, the National Capital Parks requested operating increases totaling \$26 million above the FY 1975 level. These requested increases were prepared without constraint by the individual parks that comprise the National Capital Parks and therefore represent the total needs as seen by the individual parks. But before submission of the Department of the Interior's budget to the

Office of Management and Budget, Interior's departmental budget office slashed the requested NCP budget increase to \$6 million; and by the time the OMB prepared the President's budget request to Congress, the increase for NCP had been cut further to only \$2.7 million. This example demonstrates how Congress can be unaware of the Park System's real needs.

Roger Contor pointed out that over the past ten years visitation at Rocky Mountain National Park has increased 77 percent to 2.9 million and backcountry use has increased 730 percent. Superintendent Contor said, "While Rocky Mountain National Park has never been funded or staffed to meet published National Park Service standards, the discrepancy between actual and desired standards has increased rapidly in the past few years." With fewer personnel to operate the park and with greater numbers of visitors each year, violations of park regulations have increased nearly 300 percent. Many ranger stations are no longer manned year-round, wildlife management programs have been seriously curtailed, the park's museum collection has been neglected, and many valuable artifacts could be deteriorating from lack of care because a permanent museum aide position was abolished.

Following the panel, NPS Director Gary Everhardt presented a statement for the Interior Department that had been approved by the OMB.

At press time the subcommittee had scheduled the hearings for continuation in January, and made plans to invite the Secretary of the Interior, Interior budget officers, and OMB officials to explain how this situation came about and what they plan to do to rectify it.

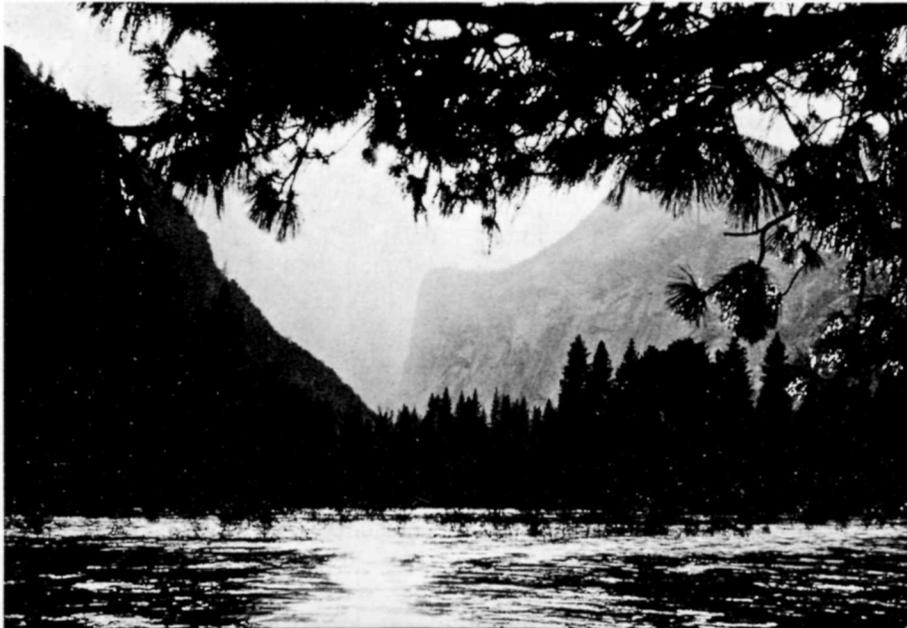
**At Montana hearings on plans for a huge Canadian strip mine near Glacier National Park, Montana, NPCA voiced firm opposition to the project, and called for immediate negotiations with Canada and a moratorium on further development and exploration at the site.**

Rio Algom Ltd., a Toronto-based consortium, proposes to level two small mountains at Cabin Creek in British Columbia in order to extract millions of tons of coal. In so doing,



PHOTOS BY SHIRLEY STREET

*As a result of the shocking facts revealed by a recent NPCA survey, the House Subcommittee on Conservation, Energy, and Natural Resources began oversight hearings in December 1975 to investigate the adverse impacts of personnel ceilings and budgetary limitations imposed on the Park Service by OMB. NPCA President A. W. Smith (left) was the lead witness, followed by park superintendents (left to right) Manus Fish, National Capital Parks director; William Failor, Chesapeake and Ohio Canal National Historical Park; Boyd Evison, Great Smoky Mountains National Park; and Roger Contor, Rocky Mountain National Park.*



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the open-pit strip mining would seriously pollute the North Fork of the Flathead River, which forms the western boundary of the national park in Montana. (See November 1975 issue.)

The U.S. State Department and the Lieutenant Governor's Office of the State of Montana jointly sponsored a December 2 public hearing in Kalispell, Montana, on the controversial strip mine proposal. NPCA spokesman Destry Jarvis was among thirty public witnesses who presented statements opposing the Cabin Creek project, following brief presentations by a panel of state and federal government representatives. Those representatives included Bill Christiansen, the Lieutenant Governor of Montana; Louis Janowski, a spokesman for the U.S. State Department; Phillip Iversen, superintendent of Glacier National Park; and Gary Wicks, executive director of the Montana Department of Natural Resources.

Janowski, representing Deputy Assistant Secretary of State Richard Vine, read diplomatic notes between the United States and Canada to an audience of nearly 500, mostly Montanans. The exchange of notes between the United States and Canada offered assurances that the Canadian government would uphold its responsibilities under the 1909 Boundary Waters Treaty, which called on both countries to prohibit transboundary pollution of waters. Janowski further announced that the State Department would hold consultations with the Canadians in mid-January 1976 to discuss the mechanisms by which transboundary pollution from the Cabin Creek mine would be made "environmentally acceptable."

However, the Montanans' lack of confidence in the mining project was intensified by the forceful statement of Bill Ottway, director of the British Columbia Wildlife Federation, who assured all those present that neither the existing British Columbia provincial laws and regulations nor those of the central government of Canada would in any way prohibit or inhibit transboundary pollution from the Cabin Creek mine.

Glacier Park superintendent Iversen reminded the audience that in 1932 the Canadian and the U.S. governments established the Waterton-Glacier In-

ternational Peace Park spanning the U.S.-Canadian border. Iversen emphasized that this action "gave special stature and cognizance to this area by the people of both countries and was the first such action in the world. In addition, in 1974 UNESCO, the United Nations Educational, Scientific, and Cultural Organization, designated Glacier National Park as a World Biosphere Reserve." Iversen went on to say that the "riparian area is the heart, the indispensable ingredient, of critical habitat to a significant and complex wildlife ecosystem." This ecosystem, he noted, provides habitat for the Northern Rocky Mountain timber wolf, the grizzly bear, and the native cutthroat and Dolly Varden trout. "If the integrity of Glacier National Park is to be preserved," he said, "then the only changes that it can be allowed to experience are those that result from the very processes that created it—the natural processes. To accept less would be to compromise, indeed sacrifice—the very standards we of the National Park Service are sworn to uphold in the name of this and future generations. To accept less would be to subvert the mandate of Congress, to erode the qualities of a World Biosphere Reserve and to abuse the spirit of this international memorial to peace and good will."

NPCA stated that its goals are to ensure zero pollution of the North Fork of the Flathead; to accept no energy and environmental trade-offs in negotiations centering around the Cabin Creek project; to seek immediate referral of the matter to the International Joint Commission, which was set up under the International Boundary Waters Treaty to independently study and recommend solutions to such transboundary pollution problems; and to seek an immediate moratorium on development and further exploration in the Cabin Creek area until negotiations on the problem are settled. These are also the goals of the Flathead Coalition, a citizens' group organized to fight the mine at Cabin Creek; NPCA is a member of the coalition.

NPCA further reminded the officials that all the U.S. interests in this region must be protected from any pollution. Resources include not only the park and the river, but also national forest lands, Flathead Lake, wildlife, de facto

and designated wilderness areas, and the pristine water and air of the area.

Whatever happens with regard to Cabin Creek, NPCA said, it must be remembered that the matter concerns a national park, a national forest, and a proposed national wild and scenic river. Thus, the project takes on the dimensions of a *national* issue.

Despite the unanimous opposition of citizens present at the hearing to the Cabin Creek project, State Department spokesmen present would make no further commitments in this matter than to enter into negotiations with the Canadians in order to seek full implementation of the International Boundary Waters Treaty.

**Despite recent nationwide protests over mining in NPS units,** the National Park Service recently granted Exxon Corporation permission to explore for uranium on corporation lease holdings within Lake Mead National Recreation Area near Grand Canyon National Park in Arizona.

The three mineral lease areas in which Exxon proposes mining exploration activities, located in the Whitmore and Parashant Canyon areas of the National Park System unit, total 1,560 acres. The Park Service gave the approval even though all the lease sites are included in the area that has been proposed for inclusion in an expanded Grand Canyon National Park and the sites are currently under study for such purposes. In addition, the areas have been proposed for inclusion in the National Wilderness Preservation System.

The National Park Service's environmental assessment for the mineral exploration plan, prepared by Lake Mead superintendent William J. Briggie, concluded that the assessment process did not indicate that the proposed exploration would have a significant environmental impact. Consequently, NPS says it will not prepare an environmental impact statement.

NPCA has protested to the Park Service about the approval of the mineral exploration plan, the inadequacy of the environmental assessment, and the consequent failure to comply with the National Environmental Policy Act by preparing an environmental impact statement on the project.

Because the lease areas in question are under study both for wilderness

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designation and for inclusion in the Grand Canyon National Park, NPCA asserts that Exxon's proposal at least should have been subjected to a full NEPA review with adequate public comment.

NPCA members may write to express their views on this matter to:  
Hon. Gary E. Everhardt  
Director  
National Park Service  
Washington, D.C. 20240

**The best approach to protecting Redwood National Park** from the effects of destructive clearcutting on adjoining private lands is acquisition by the National Park Service of managerial interests, NPCA contends. By a declaration in taking, the Park Service should acquire from timber companies such managerial interests as may be necessary to require timber harvesting practices (involving selective cutting) that would have the minimal environmental impact on the park.

NPCA provided support for its contention at recent hearings before the California Board of Forestry in Sacramento, in a Washington, D.C., conference with Department of Interior officials, and in comments on an environmental assessment submitted to the NPS Western Regional Office.

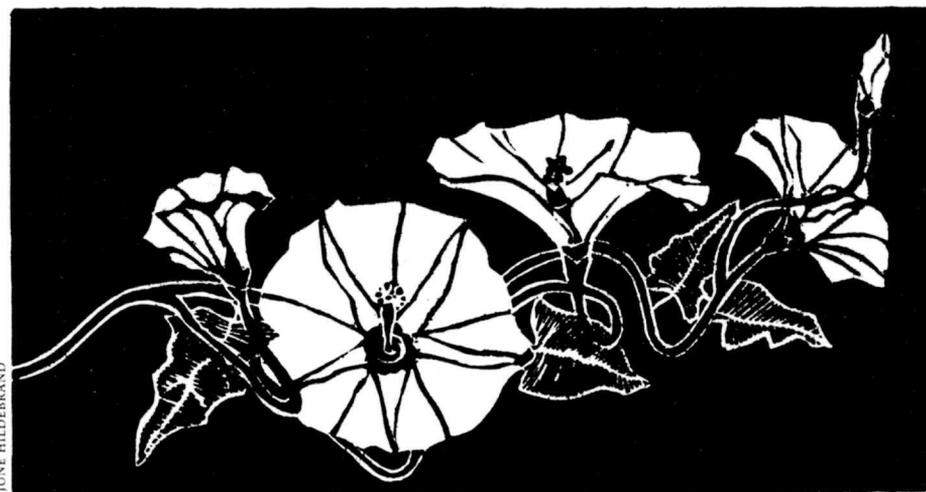
Clearcutting of private lands adjacent to the national park, in particular in the Redwood Creek area, has advanced ominously closer to the park each year—sometimes right up to the boundary. In the Redwood Creek watershed only a narrow corridor of land is within park boundaries. Here the park includes the world's tallest recorded tree. Upstream and on tributaries, the timber companies have been harvesting old growth redwoods almost completely by the method of clearcutting in huge patches combined with tractor logging. Redwood Creek and its tributaries and the park's redwoods are thus endangered. Streambeds are increasingly raised by deposits of sediment, which can reduce oxygen and kill aquatic organisms, and are choked by logging debris. In areas where this occurs, coarse organic debris, thick deposits of gravel, and undercutting of banks are killing redwood trees in the park.

The National Park Service has been involved in two proceedings in Cali-

fornia: NPS testified before the California Board of Forestry in respect to new state regulations under the California Forest Practices Act. In addition, the Park Service must comply with a July 1975 court order to fulfill its obligation to protect the park from damage caused by the logging. The court ruled that the Park Service had failed to properly exercise its mandate to protect the park. (See September 1975 News Notes.) The Park Service subsequently asked for an eighteen-month moratorium on logging in large sections of the Redwood Creek Basin, but so far timber companies decline to

at the bend in Devils Creek (a major tributary of Redwood Creek), had run sparkling clear until forest practices turned the creek a coffee color. NPCA submitted water samples, maps, and field notes to show that state water quality and fish and game laws and the Forest Practices Act itself had been violated. It is time that industry bear the costs of rehabilitating the Redwood Creek drainage, NPCA maintained.

At this hearing, in a subsequent conference between NPCA President A. W. Smith and NPS Associate Director Dr. Richard C. Curry and associates, and in comments on the NPS



comply. NPS has issued an environmental assessment of management alternatives for Redwood Creek.

The timber companies fail to admit the significance of their harvesting practices in the vicinity of the park and often point out that some landslides and hillside erosion are natural in the region. In testimony before the California Board of Forestry, NPCA pointed out that it does not take much thinking to realize that this is a moot point, and that logging and roadbuilding by upslope landowners are definitely affecting Redwood National Park and are in fact the real threat to the park.

In November 1975 NPCA, represented by Mr. Randall Stemler of Blue Lake, California, a forestry and parks specialist, and the National Park Service both maintained before the state board of forestry that forest practice rules for the Coast Forest District are inadequate to protect park resources.

As evidence, Mr. Stemler pointed to a recent catastrophe at Virgin Creek. This creek, which drains a watershed

environmental assessment, NPCA supported acquisition of managerial interests in all upslope lands above the park. This would enable the Park Service to specify types of timber harvesting practices, requiring selective cutting rather than clearcutting and no cutting in particularly fragile areas.

NPCA stated that the Park Service should be following a policy of taking managerial interests by declaration (which would cost little or nothing) instead of paying out millions of dollars (which are not likely to be forthcoming) to acquire land, or very large amounts in leases or as compensation to timber companies for moratoriums.

Moreover, in NPCA's view, timber owners would profit, not lose, in the long run by ecological operations. Over a rotation period of 80 or 100 years, redwoods timberlands would probably return as much for their owners if cut by selection methods as they would if clearcut. (Clearcutting yields high profits in the short run, but the forests require a long recovery period, and re-

covery may never occur.) NPCA recommended that the federal government immediately undertake a high-precision cost-accounting analysis of the business profitability of the two systems of cutting.

**NPCA's long-standing lawsuit on concession operations** in the National Park System, seeking disclosure of financial and other information given by concessioners to the Park Service, received an unfavorable ruling in October 1975 from a U.S. District Court judge in Washington, D.C. Judge Oliver Gasch denied disclosure of the information that NPCA seeks on the grounds that it would cause substantial harm to the competitive positions of the companies from whom the information was obtained. In December 1975, NPCA filed an appeal before the U.S. Circuit Court of Appeals.

Since September of 1971, NPCA and its attorneys at the Institute for Public Interest Representation of the Georgetown University Law Center have been seeking disclosure by the Park Service of financial data concerning seven concessioner companies that provide visitor facilities and accommodations in twelve units of the National Park System. NPCA is seeking public access to the records under the Freedom of Information Act, maintaining that the concessioners would not incur substantial competitive harm because they presently operate without real competition inside the parks.

At present, these concessioners operate as virtual monopolies within the parks, with practically guaranteed renewal of their contracts and exclusive rights to serve park patrons. The operations are subsidized by federal funds, and concessioners have developed a possessory interest in the facilities that they operate for the public. The possessory interest means the federal government would be required to pay a concessioner in order to terminate the concessioner's operations.

NPCA has objected that these monopolies operate with virtually no public accountability on the part of the concessioner and his visitor services. In numerous cases, a concessioner charges exorbitant prices and then renders poor services. Public disclosure of the concessioners' financial data should theoretically provide for better

services to the public by facilitating public scrutiny of concession operations and by leading to a healthy degree of competition at contract renewal time.

The recent appeal marks the second time that NPCA has appealed this matter to a higher court. Judge Gasch ruled against NPCA in December of 1972. Following a February 1973 appeal of that decision, the appeals court decided in NPCA's favor in August 1974, remanding the case to the district court for further consideration. At press time no action had been taken on NPCA's recent appeal of the October 1975 decision.

**Consider that there are more than 300 private concessioners** operating visitor services in park units throughout the National Park System and that, by contrast, the entire concessions staff of the National Park Service consists of 30 persons. Add to those facts the recent but ever-increasing tendency for large conglomerates to run park concessions, and the likelihood of continued multifold increases in visitation throughout the system. One must conclude, NPCA testified at recent congressional hearings, that concession operations almost certainly will continue to be the conspicuous battlegrounds for the controversy between the need to preserve national park resources and the movement for expanded commercial use of national parks.

NPCA presented the testimony on national park concessions operations in response to an invitation from the Subcommittee on the Interior of the House Appropriations Committee.

Corporations often run facilities in more than one park, and the park concession operations are sometimes only a minor part of their business interests. As a result, NPCA pointed out, business goals of seeking the maximum profit have penetrated the National Park Service planning process, and have led to the promotion of national parks as amusement parks rather than areas to be preserved.

NPCA reiterated that, by law, in the great national wilderness parks—the natural areas of the National Park System—preservation of natural resources must take precedence over all other uses. By comparison, other public

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lands—*recreation areas* of the National Park System and the National Forest System, for instance—are set up for a variety of uses.

Among the corporate groups operating concessions in the National Park System are the Music Corporation of America (MCA), which runs the Yosemite Park and Curry Company operations in Yosemite National Park; the AMFAC Corporation, which owns the Fred Harvey Company in Grand Canyon National Park; TWA Airlines, which operates TWA Services, Inc., in Bryce Canyon and Zion national parks; National Park Concessions, Inc., which operates the concessions in Mammoth Cave, Isle Royale, Olympic, and Big Bend national parks and on the Blue Ridge Parkway; Government Services, Inc., which operates concessions in the National Capital Parks, Sequoia—Kings Canyon and Mount Rainier national parks; and ARA Skyline Services, which operates the lodge concessions in Shenandoah National Park.

A large percentage of problems concerning park concessions operations occurs in parks such as these in which the corporate giants operate, NPCA pointed out. One current example is the TWA-generated opposition to phasing out overnight lodging in Zion and Bryce Canyon national parks.

Unfortunately, the Park Service

lacks adequate statutory authority, regulations, guidelines, staff, and funding to properly control the concessions. The Interior Department concession task force and a July 1975 GAO report on needed improvements in administration of concession operations have offered a number of affirmative recommendations. Still forthcoming are the Park Service's own concessions handbook and new regulations relating to contracting, comparability of rates, franchise fees, and other technical matters.

Key NPCA recommendations for changes in concessions management focused on these aspects of concessions:

- *Possessory interest in concession facilities:* Presently, concessioners, upon making improvements to facilities that they operate, retain an interest in those improvements requiring compensation from the federal government if such are terminated. This discourages the Park Service from terminating certain concession contracts or from buying out an operation involving large capital investments, even if the concessioner is performing unsatisfactorily.

- *Preferential renewal of concession contracts:* Problems caused by possessory interests are compounded by the Park Service's preference for one concessioner per park and by statutory

requirements for preference to existing concessioners at contract renewal time. These factors, along with the lengthy terms of contracts, discourage competition and accountability. NPCA testified that the concession contract renewal process should include not only a searching review of past performance, but also a close scrutiny of the future necessity for the services that the concession provides.

- *Conglomerates and big business in the parks:* Conglomerates wield considerable political influence and can assert such to the detriment of the park. The tendency in recent years to open parks to large group activities may be directly attributable to corporate presence in the parks. The GAO report reveals that during 1974 a total of 143 large groups were accommodated in seven park areas, and that 53 of these gatherings were held during the peak visitor season.

NPCA stated that conventions and other activities not related to the purposes of the national parks should be totally banned during the peak visitor season. At other times they should be permitted only after a determination by the Park Service that these activities will not adversely affect park resources.

- *Staff and funding for concessions management:* Under current NPS funding and staffing levels, NPCA testified, the Park Service is incapable of compiling and analyzing sufficient data on concession operations to make an adequate determination of satisfactory performance by concessioners or to assure compliance with NPS regulations on a day-to-day basis.

- *Public disclosure/access to information on concession operations:* Organizations such as NPCA stand ready to assist the Park Service, but they are inhibited by the NPS policy of prohibiting disclosure of financial records of concessioners.

In summary, NPCA asserted that vast changes in management of concessions within the National Park System are essential if the public interest is to be defended and the parks preserved for future generations. As one solution to the complex problem of concessions management, NPCA advocates locating all major facilities outside a park wherever possible, under agreements in which the Park

### A CITIZEN'S VOICE IN GOVERNMENT

Organizations like the National Parks and Conservation 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 at state and federal levels 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 in contact in this manner.

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Service allows the concessioner to provide not only all visitor accommodations and facilities, but also public transit into and within the park.

**Commending Zion National Park** superintendent Robert C. Heyder and the park's planning team on an "exceptionally fine" draft master plan, NPCA recently supported the proposed elimination of overnight concession operations within the Utah park. This plan could set a precedent for making other national park units day-use areas only and thus helping to minimize over-



CAROL SNOW

crowding and overuse of these scenic areas.

The cabins and associated paved parking lots, manicured lawns, and swimming pool at Zion are incompatible with the park's purpose—preserving natural resources.

Commenting on the visual intrusion the facilities represent, NPCA pointed to figures in the park's draft master plan and draft environmental impact statement showing that TWA Services, Incorporated, which operates the cabins, accommodates only a tiny percentage of park visitors. Moreover, elimination of overnight concession services from within the park should stimulate provision for more such accommodations in communities surrounding Zion.

NPCA also commended the Zion master plan's proposal for expansion of interpretive and educational operations within the park, but requested that the final master plan provide more details on proposed improvements in interpretive programs.

NPCA assured park officials that we are well aware that financial and personnel restrictions are having a detri-

mental impact on Zion and other park units and that, in particular, there is a great need for historic and archaeological research on a parkwide basis if the Zion interpretive program is to function properly.

In relation to NPCA's long-standing commitment to the provision of adequate mass transit within and into units of the National Park System, this Association commented that free and frequent buses or other transit vehicles, used in conjunction with the Zion interpretive program, would greatly aid that program as well as protect park resources from overuse. The Park Service must make every effort to ensure that the proposed new visitor contact center at Taylor Creek does not impinge on park resources.

Endorsing proposals to accelerate the park's wildlife program, NPCA noted that the plan properly gives high priority to reestablishment in the park of native Nelson bighorn sheep and Gambel quail.

Despite the excellent draft master plan, at press time the Park Service in Washington, D.C., caving in to local pressure generated by the concessioner (TWA Services, Inc.), announced that it would extend the contract for concession operations in Zion.

**The U.S. Army Corps of Engineers has been forced by a court order** to publish regulations for a permit program to regulate the disposal of dredged or fill materials in the nation's waters—including marshes, wetlands, streams, and rivers as mandated by Section 404 of the Federal Water Pollution Control Act Amendments of 1972. Before the court decision, the Corps had proposed regulations to deal only with the traditional "navigable waters," thus excluding a major portion of coastal wetlands and almost all freshwater wetlands. After being forced to publish new regulations, the Corps issued a press release intended to scare farmers and ranchers into believing that the regulations would adversely affect their livelihood. The release said that the new program would require permits for a farmer to plow his field or a rancher to enlarge his stock pond—both of which are untrue.

The Corps scheduled a series of hearings around the country and asked for written comments. Urged by the

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false fears instilled in them by the Corps of Engineers and the Department of Agriculture, many farmers and ranchers testified at the hearings or wrote letters opposing the proposed regulations. They were joined by a great many developers eyeing marshes and wetlands. However, a recent last-ditch letter-writing effort by environmentalists around the country, including many members of NPCA, may have been enough to save the regulations. It certainly indicated to Congress and the Corps that there is a real concern for our wetlands among America's people.

**Assuring the future protection of Glen Echo Park** in Maryland as a National Park System unit, in late 1975—under pressure—the President's Office of Management (OMB) agreed to the transfer of the land to the National Park Service.

Glen Echo, a thriving center for the participatory arts located on the Potomac River, has been a part of the NPS National Capital Parks program since 1969, when the federal government rescued it from commercial development. However, the land was put in the temporary custody of the General Services Administration, and OMB never approved its transfer to the Park Service. Instead, in July 1975, OMB proposed transferring the area to state or county agencies and relocating the famous Glen Echo carousel to another NPS unit. (The town of Glen Echo had raised \$80,000 in order to buy the carousel and donate it to NPS.)

After protests by Maryland Representative Gilbert Gude, NPCA members, and many other citizens, OMB agreed to turn over the land to the National Park Service.

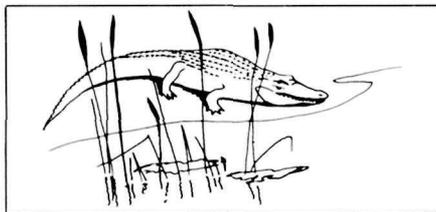
Many residents and visitors to the Washington, D.C., metropolitan area are enthusiastic about the NPS program offerings at Glen Echo, which include photography, painting, sculpture, pottery, and special events. (See September 1974 issue.)

On the same site as the park at Glen Echo is the building that served as headquarters for Clara Barton, founder of the American Red Cross. A private owner donated the Clara Barton House to the Park Service in April 1975, and the building is an official national historic site.

## news notes

**Unbelievable devastation continues in the Big Thicket** National Preserve, Texas. Although Congress designated the area for protection in the National Park System in 1974, the government has not yet purchased land from private owners. The Big Thicket Association (BTA), a citizens' group working to save this unique "botanical crossroads," estimates that more than 3,588 acres of the 84,550-acre preserve have been logged since January 1, 1974. Timber rights have been sold and cutting deadlines are pending on at least 2,562 additional acres.

The BTA is calling for immediate transfer of ownership of all preserve lands to the Park Service.



Congress recently passed an appropriation of \$3.1 million for Big Thicket. After expenses, the BTA estimates that there *might* be enough money left for purchase of the Hickory Creek Savannah Unit of the preserve. This unit contains 668 acres, 445 of which have been cut and brush-hogged for a subdivision. Legislation authorizing the preserve called for \$63 million over a five-year period.

**A huge earthquake struck Hawaii Volcanoes National Park** on November 29, 1975, killing at least one person and devastating property at the national park and nearby communities. The second quake of the day was the largest on the Big Island since 1868.

A tragedy occurred at Halape, a remote shelter maintained by the park along the Ka'u coastline. Dr. James A. Michel of Hilo was killed, another person was still missing after a search, and several others were injured when the beach subsided some six feet into the water and was inundated by a tidal wave after the quake. This tsunami, or tidal wave resulting from an earthquake, was unusual for Hawaii, because the only other locally generated

tsunami on record occurred following the 1868 earthquake.

A Park Service spokesman explained that the epicenter of the recent earthquake occurred close to shore, and the resulting "instant tsunami" left insufficient time for warning.

The park suffered millions of dollars of damage to roads, hiking trails, visitor overlooks, and other attractions. Crater Rim Drive, which circles Kilauea Volcano's summit caldera, incurred major cracks. The popular crater rim hiking trail fell into the caldera. Thurson Lava Tube, one of the most visited attractions, suffered major damage; a rock slide deposited tons of boulders at the entrance to the cave. At press time, Crater Rim Drive and other areas had been reopened to visitors, but some major areas of the park were still closed off.

**Mining production doubled in Death Valley National Monument**, California, between August and late 1975, the Park Service reported. The NPS Western Regional Advisory Committee responded on December 6 with a resolution expressing grave concern about an apparent "race by the mining industry to take over and strip or open pit mine large areas in the most scenic portions of the national monument before the government can act."

**A recently released GAO report is highly critical** of unauthorized cost inflation on reclamation projects. In late November Rep. William S. Moorhead (D-Pa.), Chairman of the Conservation, Energy, and Natural Resources Subcommittee of the House Committee on Government Operations, released the report, prepared for the subcommittee by the GAO (General Accounting Office), which shows that many water projects constructed by the Bureau of Reclamation greatly exceed cost ceilings authorized by Congress.

Moorhead said, "The findings of this report are truly astounding. Cost ceilings for water resource projects which had been clearly set by the Congress in legislation have been systematically boosted through artificial devices and evasions. It is a multimillion dollar 'flim-flam' perpetrated on the Congress and the public."

Congress usually establishes in legislation for a Bureau of Reclamation

construction project the maximum funds that may be used without additional justification to or authorization by the Congress.

Such legislation usually contains a provision allowing for normal fluctuations in construction costs including increases in costs due to inflation.

According to the GAO report, the Bureau of Reclamation has evaded the congressionally imposed cost ceilings by continuing to carry on its cost index, for inflation purposes, costs that were incurred and satisfied as long ago as 1962.

For instance, the GAO determined that the Garrison Diversion Project alone, an irrigation project in North Dakota, would be \$40 million over its authorized cost ceiling.

Testifying before the subcommittee in December concerning the GAO report, the Bureau of Reclamation did not agree with all findings but admitted more oversight is necessary and agreed to recompute by January 31, 1976, authorized cost ceilings and estimated costs for all its projects, using GAO-recommended procedures.

## conservation docket

### Bill Passed

**Pesticides:** PL 94-140—The President has signed into law PL 94-140, an extension of and amendments to the Federal Insecticide, Fungicide, and Rodenticide Act. The law extends the authority of the Environmental Protection Agency to regulate pesticides through April 1, 1977. Changes in the 1972 Act include: 1) EPA must notify the Department of Agriculture and the Scientific Advisory Panel and must submit an "agricultural economic impact statement" at least sixty days before it issues a notice to change or cancel the classification of a pesticide, except when the agency must suspend registration of a pesticide as an "imminent hazard to human health." 2) EPA must notify the House and Senate agriculture committees and the Agriculture Department before publishing pesticide regulations. 3) EPA may re-

quire pesticide applicators to take a training program before using "restricted use" pesticides, but may not require them to take a certification exam. States may set up their own certification programs or the applicator may certify himself. 4) Pesticide registration and other programs are delayed for another year. 5) Researchers can be given experimental-use permits for canceled pesticides.

### Bills to Watch

(Committees are indicated following sponsor's name.)

**Mining in the parks:** S 2371—To prohibit future mineral entry in six units of the National Park System where such is now permitted and to impose a three-year moratorium on surface disturbance activities. The areas are: Death Valley National Monument, California and Nevada; Glacier Bay National Monument, Alaska; Organ Pipe Cactus National Monument, Arizona; Mount McKinley National Park, Alaska; Coronado National Memorial, Arizona; and Crater Lake National Park, Oregon. The Senate Interior Committee reported out S

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2371 on December 12, 1975. Sen. Lee Metcalf (D-Mont.). Interior.

**Nantucket Sound Islands National Trust:** S 67—To provide for a coordinated federal, state, and local program for the preservation and protection of the Elizabeth Islands and five other islands in Nantucket Sound. No direct vehicular access would be permitted. No Man's Land Island would become a part of the National Wildlife Refuge System, and the others would be protected by means of appointed commissions. The islands would operate under a trust fund of \$5 million. The bill has passed the Senate and the House hopes to begin action on S 67 or its companion bill, HR 10307, as soon as possible. Sen. Edward M. Kennedy (D-Mass.) and Rep. Gerry E. Studds (D-Mass.). Interior.

**Coal slurry pipelines:** HR 1863—To grant the right of eminent domain to coal slurry pipelines in obtaining rights-of-way across private lands. The

pipelines would be used to transport a mixture of pulverized coal and water from coal mining areas to coal consumers, and would require huge amounts of water. One proposed pipeline would require 6.5 billion gallons per year. Water would be drawn from the Madison formation, an underground reservoir that spreads from Wyoming's Big Horn Mountains to the Black Hills of South Dakota. In this case, the coal slurry would be fed into Arkansas. A U.S. Geological Survey study has shown that surface water in the area of the Madison formation would be drawn down about one foot. The affected area includes Wind Caves National Park, South Dakota, two national monuments, and two national forests. The alternative to the pipeline is railroad transportation. The committee may follow up previous hearings on this bill with further action in February. Rep. James R. Jones (D-Okla.). Interior.

## New Bills

**Flathead River:** HR 10747—To make portions of the Flathead River a component of the National Wild and Scenic Rivers System. The Interior and Agriculture departments would administer different portions. The river is in danger of pollution from proposed oil and gas leasing in Montana and proposed strip mining in Canada. Rep. Max Baucus (D-Mont.). Interior.

**Southwest historical and scenic areas:** HR 10966—To add the Dominguez Escalante Trail to the National Trails System. The trail follows the 2,000-mile-long route of a 1776 expedition led by Fathers Francisco Atanasio Dominguez and Silvestre Velez de Escalante through New Mexico, Colorado, Utah, and Arizona. HR 10967—To protect the Dolores River, one of the rivers they explored, as a component of the National Wild and Scenic Rivers System. Both by Rep. Allan T. Howe (D-Utah). Interior.

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*Continued from page 2*

Those responsibilities are not being discharged at present, because the OMB has been garroting the Service with its restrictions.

We have pointed out to the OMB that no economies can be effected by curtailing funds for maintenance and repair to the point where buildings, roads, sanitary facilities, and the like deteriorate beyond repair; and yet that is precisely what is happening.

The failure of maintenance and management with respect to visitors and property is manifest in connection with: (1) park buildings; (2) park roads; (3) park bridges; (4) park trails; (5) sanitary facilities; (6) historic and archaeological structures (vandalism, stabilization, restoration); (7) historic and archaeological relics (vandalism, preservation); (8) wildlife management (poaching and visitor safety); (9) interpretation (including safety); (10) patrol (crime, vandalism); (11) campsite maintenance; (12) public transit; (13) planning; (14) research; (15) acquisition.

The shortsighted policy which has been followed in the establishment of personnel ceilings at too low a level has resulted in contracting out much of the work which ought to be done with Service personnel. The result has been an expenditure of \$15 million for contract work which could have been done for \$11 million, and done better, by Service personnel. . . .

Fourteen new units were added to the System during the last three years by congressional mandate. These mandates authorized the necessary acquisition of land. The Service has not had the personnel required to handle these acquisitions. Teams have been assembled which have depleted personnel from other units. In at least two instances the Service has been compelled to borrow from the Army Engineers. No doubt this is helpful to the Army Engineers, because they can maintain personnel on permanent staff which might otherwise be seasonal; but the same would be true of Park Service personnel. Obviously the interagency assignment of personnel saves the government no money; it reflects a desire to be helpful to the Army Engineers in preference to the National Park Service.

. . . We met with Associate Director James L. Mitchell of the OMB on these questions on October 21, 1975. We reported to him the results of our survey along the same general lines of this present statement to you. . . . We received no assurances that any of the problems we described would be corrected. It was explained to us that the OMB was concerned with overall questions of priority; one would have assumed that this would be the case, and indeed that concern would seem to be the proper responsibility of the OMB. It was precisely because we wished to indicate the need for higher priorities in National Park Service personnel and budgetary matters that we had made these representations to the OMB.

At this point I should take a step backward in the history of our negotiations with the OMB to a meeting with the then Associate Director of the OMB, Frank G. Zarb, on May 22, 1974. . . . The gist . . . was that the budgeting process should be opened up to the light of day. We proposed a number of steps by which that might be accomplished. During that meeting and in many negotiations thereafter we were told repeatedly that the OMB did not impose personnel ceilings or budgetary restrictions on the NPS but that these

ceilings and restrictions were imposed by the Department of the Interior from within the limits of departmental ceilings and budgetary restrictions, the latter being developed by negotiation between the OMB and the Department. In other words, if the National Park Service was being cut down, it was the fault of the Department, not the OMB.

We were well aware, however, that the truth was otherwise. In fact I would say that it is a matter of common knowledge that the truth is otherwise. The fact is that the OMB maintains direct communication with the NPS in respect to ceilings and budget. We are satisfied that the OMB does in fact tell the NPS that it may not request more than certain personnel and budgetary ceilings from the Budget Officer of the Department of the Interior. . . .

In our conference memorandum for the discussion with Mr. Zarb, we urged a procedure whereby open meetings would be held at the agency level on budget and personnel matters each year at around April 1, at the departmental level around July 1, and at the OMB level around October 1, looking toward the development of recommendations by the OMB to the President by around January 1 for the ensuing fiscal year's budget. These meetings, which were not thought of as formal hearings, would be the occasion to provide the interested and responsible public with the budgetary proposals for the year ahead. We are forced at present to develop such recommendations as may be desired by making use of the current budget and guessing at what may be planned for the future. We cannot deal with the current budget until it has been submitted to Congress and the responsible committees, and by that time things are pretty well frozen. These recommendations for open budgeting have apparently never been seriously considered. . . .

Quite frankly, we think that the solution to these problems lies with Congress, rather than the Executive Branch. These oversight hearings are in themselves a very encouraging indication of the growing interest being taken by Congress in budgetary matters. Mr. Fascell's introduction of legislation intended to get more light on the operations of the Executive Branch agencies generally is another hopeful sign of similar interest. The new congressional budgeting procedures and budgeting committees will be of vital importance. To the extent that the authorizing committees and appropriation committees find it possible to look at the serious mismanagement of public responsibility of the kind which has been occurring in the National Park System, they will be discharging a vital responsibility to the nation.

We in the NPCA are not reckless spenders. What we are looking for is a better allocation of personnel and a reasonable expansion where necessary to discharge public responsibilities and protect people and property. There are plenty of ways in which savings can be effectuated in respect to the national budget as a whole; specifically, from our point of view, by cutting down on big roads, big dams, and costly overruns in military expenditures. We might discuss other similar savings; but the point is that prudent but adequate budgeting for the National Park Service, a relatively small agency and program, would impose no great burden on the public treasury. . . .

An invaluable natural resource is being destroyed by deliberate neglect. We appeal to you to help us stop the destruction.

—Anthony Wayne Smith



#### **AFFECT THE FUTURE AS WELL AS THE PRESENT . . .**

In recent years NPCA has been protesting low personnel ceilings and budgetary restrictions imposed on the National Park Service that prevent it from doing its job properly. Several months ago NPCA conducted an extensive survey that reveals the shocking extent to which the National Park System is deteriorating because of these limitations.

Research such as this survey requires continuing gen-

erous support by our members. Among the various kinds of support is bequest giving, which offers a rare opportunity to affect the future as well as the present.

Bequests can be made in many ways, such as gifts of money, property, and stocks; and all have tax benefits for you. Send for our complimentary brochure containing important bequest facts—and help ensure our work in the future.

**NATIONAL PARKS & CONSERVATION ASSOCIATION**  
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