

National Parks & Conservation Magazine

The Environmental Journal

January 1976

The Love of the Land

WINTER LIES once more upon the open fields and forests of the North, upon the close-drawn towns, the gargantuan, crowded cities. Snow holds the countryside, by day a flashing mirror for the sun, by night a chill reflection of the stars. The winds that course across the Appalachians, Alps, Caucasus, Himalayas, Rockies may bear refreshing sleep for hibernating creatures, as for sheltered men, or death for the unfortunate and unwary.

Here in our easier Piedmont, gentler ridges, all the seasons turn with lighter touch. The junco and chickadee make gay small talk in snowy shrub and tree, flash petticoats of white by woodland trails. The great horned owl pours out his long lament through distances that only mountains know.

The streams lie frozen, silent under ice. Beneath their glaze, a waiting life dreams on. Tomorrow, springtime comes: the choruses of frogs, the rainbow floods of birds, the flowers; and with maturing summer, cricket, locust, butterfly. But now the fur-clad creatures of the earth stay close to burrows: possum and raccoon, the rabbits, the pursuing fox.

TWO CENTURIES gone this year, our love of country spoke, our forebears broke the ties that held across the seas. More doubtful now of purpose, we shall mount the celebrations nonetheless, to mark the great occasion. Looking backward, in this year assigned to memory, we find perchance a clue, a hint or two, to speak the causes of our discontent.

Within the older love of country lay a love of countryside, a dedication to the land. Losing the love of land we risk the loss of nationhood itself. The greening fields, the rolling hills and forests of the pristine earth they loved, lay richly in the hearts of all those early patriots who shouldered muskets in the rebel armies of the days we now acclaim. They knew their steeped villages, their land, as intimately as heartbeat, fought for home and church—for Liberty indeed—but yet community and Liberty upon the Land. My Land; indeed, my Country: interchange the names; who speaks his love of Country speaks his love of the Land.

WHAT THEN the tasks a patriot assumes for love of the Land? Concern most surely for the generous fields, the meadows and the pastures, lush in springtime, grain fields green all winter and into the new, young year; tawny, ripening in summer. These fields, these lands here in America, must feed America and millions of people overseas throughout the Century of Famine which lies ahead. Tough land-use planning must protect them firmly against the deadly urban sprawl, against predacious subdividers and developers.

But not from subdivision only, but from poison. We drench our soils persistently in herbicides, insecticides, fungicides, rodenticides, and overload them with fertilizers. The soils themselves resist; the life of the fields, the moles, voles, meadow mice, sustaining chains of owl and eagle, bobcat and coyote, atrophies and dies; the lowly creatures of the earth, bacteria, fungi, nourishers of roots, are blotted out. A patriot's love of the Land would turn this tide of death, reverse it now.

ABOVE THE farmlands rise the verdured hills. Some progress has been made in recent months to stem the rampant clearing of the woods, the forests, all the timbered slopes. An earlier time sustained a leadership among us for the careful husbandry of woods, not robbery. We visualize a careful harvest constantly which need not break the canopy, protecting watercourses, soils, the sylvan havens for humanity, majestic scenery. We could foretell the bounty feeding mills of widely varied product, offering work, sustaining compact towns, foundations for a stable way of human life.

Within the fields and forests, earliest habitation of our kind, our boon companions dwell. The doorstep animals, the dogs and cats, the others we brought toward us, animals of barns and pastures, pigs, cows, and horses, are but part of that great wealth of fellow-life which shares the fertile globe with us; and much of our enjoyment of our lives (though we forget it in the cities) has turned upon our dealings with these creatures. The urban visitor to autumn hills beholds the white-tailed deer in rapt surprise; the sturdier adventurer still

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weathered american chestnut trunk
jack jeffers photograph

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FRONT COVER Sunset in Mesquite Flat, Death Valley National Monument, by Yoshikazu Shirakawa

BACK COVER Mining in Death Valley, by Mary Ann Erickson

Our covers this month represent two aspects of reality in Death Valley National Monument today—awesome grandeur, and devastation by mining. (See pages 4 and 18.) The front cover is reprinted from *Eternal America*, a large art-format book of stunning photographs of many of America's national parks by world famous Yoshikazu Shirakawa recently published by Kodansha International. Nature and the human spirit is the theme of Shirakawa's lifework. America became the subject of his work because of the efforts made here to preserve the land and to pass it on to future generations. Shirakawa says that he seeks "to introduce to the world the not yet unraveled mysteries of nature. If through my photographs people were to rediscover this earth of ours, my joy could know no bounds."

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The Battle for DEATH VALLEY

Death Valley National Monument
must be protected from mining

by ALAN CRANSTON

The view from Zabriskie Point moved a pioneer to write that he had "just seen all of God's creation" from one place.



ED COOPER

IT WAS EARLY morning in Death Valley, barely sunup, and already the fierce desert heat had pushed the temperature over one hundred degrees. Khaki-clad mining engineers parked their trucks at Zabriskie Point scenic overlook beside California Highway 190 and began unloading wooden claim stakes. The men were employees of Tenneco, a Texas-based conglomerate. Before their work was done that morning, events were set in motion that would culminate in a national debate over the uses and abuses of our national parks.

The National Park Service, which supervises Death Valley National Monument, denied a Tenneco request to drive a jeep to the claim sites. So the men had to walk, carrying the orange-tipped claim stakes on their backs. They picked their way down the steep, yellow shale slopes to the public hiking trail that winds through Gower Gulch. After about one mile in the mounting desert heat, the Tenneco men began posting the stakes at fifty-foot intervals, eventually laying claim to forty-four new borate mining sites in direct line-of-sight with Zabriskie Point.

The Park Service was horrified. The rangers had watched with growing alarm over the last five years as open-pit mining for borates and talc had destroyed hundreds of acres of the national monument. The Tenneco claims in Gower Gulch were the last straw.

It was the view from Zabriskie Point, more than one hundred years ago, that had moved pioneer William Manly to write that he had "just seen all of God's creation" from one place. Every year now, hundreds of thousands of visitors see what Manly saw, just the way he saw it. With a slight turn to the south, visitors can gaze in reverence while the slanting rays of early morning and late afternoon sun create an awesome display of color and shadow on the convoluted landscape of Gower Gulch. The decisive showdown between park partisans and strip miners would come here.

IN THE PAST, lands have been placed off-limits to mining in the monument in order to build campgrounds, develop water supply, or preserve historic or archeological sites. This time the Park Service asked for departmental authority to withdraw areas near Zabriskie Point and Gower Gulch from mineral entry in order to preserve their scenic and recreational value. The NPS director argued that roadbuilding and drilling associated with mining claims would jeopardize a Park Service proposal pending in Congress to designate a Death Valley wilderness area.

The reply from the head office sent shock waves through the environmental movement. Michele B. Metrisko, associate solicitor for the Interior Department, said the government's authority in Death Valley "does not include withdrawal of monument lands for the purpose of scenic preservation." Such a withdrawal, she added, would be in "direct contravention of an express congressional intent."

Indeed, Congress did specifically open Death Valley to mining on June 13, 1933, four months after the area became a national monument during the last days of the Hoover administration. In its rationale, Congress then said, "it would be unfortunate if the prospector who had been responsible for building up the romance and mystery of Death Valley were not allowed to prospect and operate in the future as he has in the past." Harold Ickes, who had just been named Secretary of the Interior in Franklin Roosevelt's first administration (quoting a statement by National Park Service director Horace M. Albright) assured Congress that "in recommending the establishment of this area as a national monument . . . it was not the desire to prevent prospecting and mining within the area, as such activities would in no way interfere with the preservation of the characteristics of the area."

It is true that prospecting for gold, silver, and later borax—"the white gold of the desert"—is per-

manently linked in fact and popular fancy with the lore of Death Valley. Actually, the twenty-mule teams hauled borax over the grueling 250-mile trek to Mojave, California, for only six years from 1883 to 1889. But it is an enduring Old West image, made more so in later years by the radio and television program "Death Valley Days," which was sponsored by U.S. Borax. C. B. Zabriskie was a president of that company. Harry P. Gower was its mine superintendent in Death Valley for fifty years.

More ironic still, the first director of the National Park Service, Stephen Mather, was a wealthy westerner whose family fortune was made by mining borax in Death Valley before he entered government service. A former advertising executive for Pacific Coast Borax Company, Stephen Mather coined the trademark "20 Mule Team Borax" that its successor company uses to this day. The second director of the NPS was Horace Albright, whose term covered the period when Death Valley became a national monument and was subsequently reopened to mining. Albright later left government service to take an executive position with U.S. Potash Co., later merged with Pacific Coast Borax to become U.S. Borax.

But for all the romance of the mines and the mule teams, one fact is perfectly clear: the grizzled pick-and-shovel prospector of old is a far cry from the massive earth-destroying strip mine operations going on today inside Death Valley National Monument. It is highly unlikely that anyone in Congress or the Administration in 1933 could have foreseen the present consequences of the legal loophole that they had hoped to leave open for the "colorful miner."

All of the ballyhooed search for lost El Dorados and easy wealth netted only about \$2 million between the 1880s and 1940. During World War II talc mines were opened in the monument to meet special military demands. The mines were underground and made

little impact on the surface. Still, no more than \$1.5 million worth of minerals was taken out in any one year between 1940 and 1970. Then in 1971 strip mining began for both borates and talc. The Park Service estimates that \$12 million in those two minerals were stripped out of the monument in 1975, and Tenneco has told stockholders that it will increase its Death Valley operations by 50 percent over the next four years.

BORATES are used principally in making glass, especially structural glass and insulation fiberglass. There are many lesser uses for borates in detergents, vitreous enamels, pharmaceuticals, and herbicides. Talc from Death Valley is used in paints and ceramics. Although talc is a common mineral, the only sizable reserves of borate found so far in the United States are in southern California and Nevada. But borate deposits at Boron and Searles Lake in California make Death Valley borate deposits small by comparison.

About 75 percent of the annual U.S. borate production is done at the U.S. Borax mine at Boron, about 110 miles southwest of the national monument. The reserves there are variously estimated at between forty and two hundred years at current production levels. Because of that comfortable supply, for more than fifty years U.S. Borax has not mined on its lands in Death Valley. The company holds extensive mining claims there, however, especially in the fifteen-mile borate-rich zone that includes the most popular scenic areas. Company officials are fighting hard to hang onto those claims as a potential source of borates "if and when we need them," according to one corporation spokesman.

Tenneco is the only company currently mining borate in Death Valley. Its Boraxo Pit, located about eight miles southeast of Zabriskie Point, gives some perspective to the scale of open-pit mining. The pit was begun in 1971. Today it is 3,000 feet long and 1,000 feet wide at the widest point. It has



Tenneco's giant Boraxo Pit (left and above) in Death Valley National Monument gives an idea of the scale of these mining operations. Now it is 3,000 feet long and 1,000 feet wide

at the widest point. Each bank is 40 feet high. The open-pit borate mine is now 240 feet deep, and it will go down yet another 180 feet later this year. The aerial view below taken just outside the monument shows the extensive damage that mineral exploration causes. This grid of roads was built for the purpose of test drillings and will not disappear for centuries—if it ever does.



been dug to a depth of 240 feet and will go down another 180 feet before the depth makes mining unfeasible, later this year. Waste dumps from the Boraxo Pit are 150 feet high and clearly visible from the heavily traveled road to Dante's View overlook. The "life span" of such a pit is about five years. Once exhausted, it is abandoned and a new pit is begun. Tenneco has already started on the Sigma Pit in the same general vicinity. The 180,000 tons of borate taken out of Death Valley each year amounts to less than 10 percent of total domestic production of that mineral.

In the early 1970s talc producers also found surface mining quicker and more economical in the short run than the old underground methods. Seven open-pit talc mines are now operated in the southern end of the monument by Johns-Manville Corp., Pfizer Inc., and Cypress Industrial Minerals Company. Talc mining is particularly destructive to the visual integrity of the valley because of the stark whiteness of the waste dumps and stockpiles, which stand out vividly against the darker rock background.

Competition for Death Valley minerals is often cutthroat. Environmentalists weren't the only ones taken aback when Tenneco staked its forty-four controversial claims in Gower Gulch. U.S. Borax was also surprised, because that company had owned the land for several generations. Tenneco maintains that there is a flaw in U.S. Borax's title to the property and that the borates under the surface are still up for grabs. One Tenneco spokesman even suggested that his company had staked claims on top of U.S. Borax land in Gower Gulch in order to clarify ownership and protect the scenery from exploitation by an unidentified third party.

THE FEVER PITCH of strip mining and claim staking goes on in the national monument. About two hundred new mining claims—ranging from 20 to 160 acres each—are filed each year in



DAN PERRY

Death Valley. Active interest is maintained in 1,827 claims covering more than 36,000 acres, according to the Park Service. The cumulative effect on the fragile desert ecosystem is probably equivalent to the scarring done by the giant corporate open pits, inasmuch as each claim must be worked every year to remain valid.

Death Valley is indeed fragile, though it is hard to think of fragility in an area so vast and seemingly impenetrable. It is the hottest, driest, lowest place in the Western Hemisphere. For thousands of years the forbidding landscape has stayed the hand of man. Massive faulting in prehistoric times thrust the Panamints and Amargosa mountain ranges skyward, letting the land between fall away to a hole in the earth. A ninety-mile-long lake dried up after the most recent Ice Age, leaving the marks of the descending water levels 20,000 years old still visible on Shoreline Buttes. The tortured landscape left behind inspired pioneers to create a whole lexicon of despair:

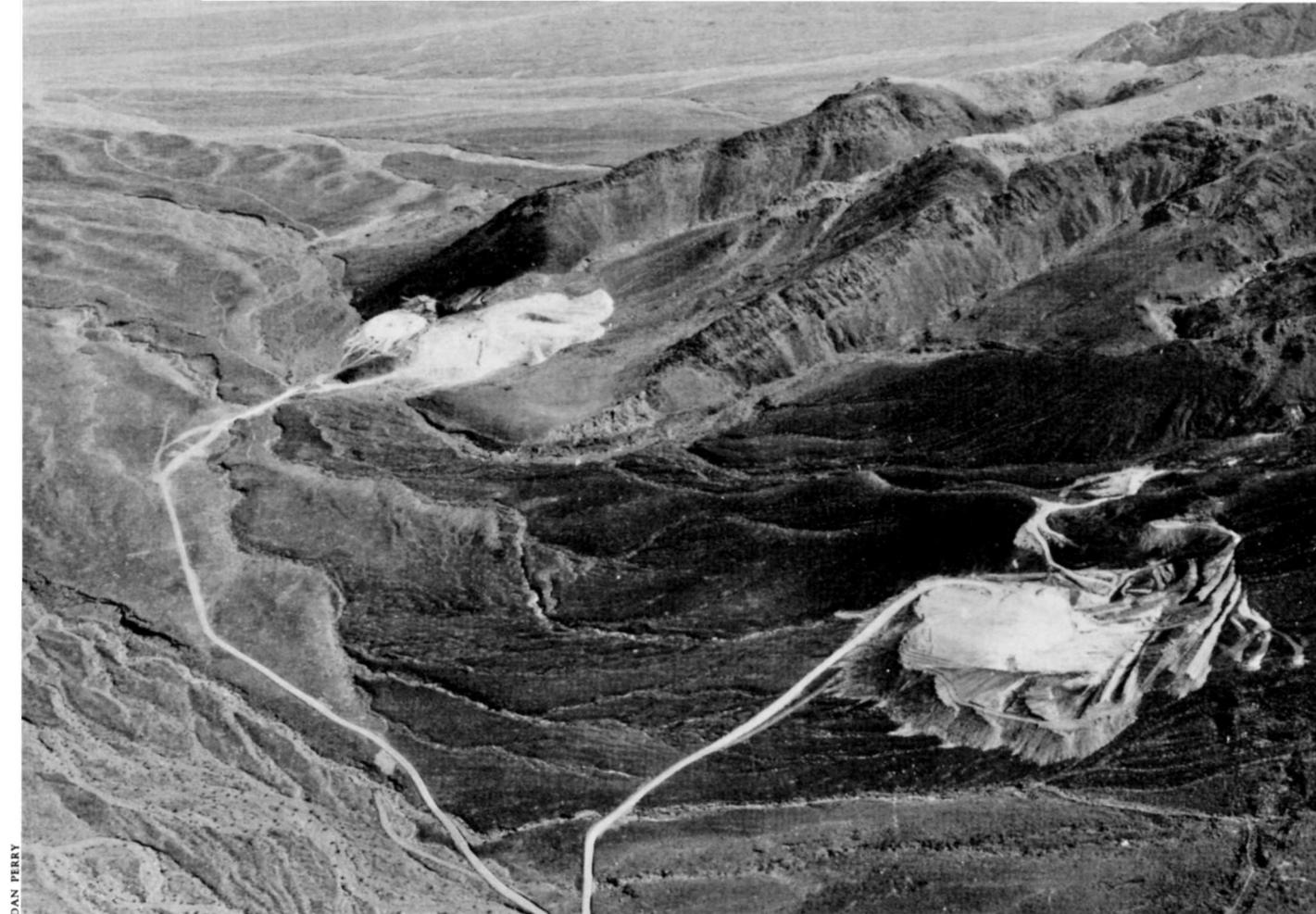
Coffin Canyon, Funeral Mountains, Devil's Golf Course, Poison Spring, and Suicide Pass. It is still possible to stand alone in some parts of Death Valley and imagine what our world looked like before man appeared—a world inhospitable to life as we know it.

Once scarred, the desert is slow to heal itself. There is no salving annual blanket of falling leaves. Yearly rainfall is often less than one and a half inches, and potential evaporation is one hundred times that amount. Trails left by wild burros leave their imprint for decades. A crude, manmade road will last centuries. The activities of a human lifetime measure a split second in the geologic time of Death Valley, but the results of what we do will last forever.

On September 10, 1975, months after mining engineers had carried claim stakes into lower Gower Gulch, the public became aware of what was going on. The *Washington* (D.C.) *Star* reported that widespread strip mining was due to begin in some of the most scenic

areas of the national monument because of recent rulings by the Department of the Interior. The story was picked up by other papers and by the national television networks. The mail from my California constituents began to pour in to my Washington office. Within three weeks, three bills were introduced in Congress to curtail mining in Death Valley, and the subject was raised in at least four committee sessions in the House and Senate—including in the Senate hearings on the confirmation of Thomas Kleppe to be Secretary of the Interior.

Another significant development was noted. On September 30, less than three weeks after the first article appeared, a member of my staff, flying low over Gower Gulch in a small aircraft, verified that the last Tenneco claim stake had been removed from the Zabriskie-Gower Gulch area. Public outcry had forced the corporate retreat—at least for the present. But the area can be staked again—and legally—tomorrow, or whenever the public



DAN PERRY

Opposite, a mountain in Death Valley National Monument is being leveled for its talc deposits. Above, two more talc mines in the monument. Talc is very white, so the mines are visible at great distances.

is no longer aroused. That message was made clear by the Interior solicitor's opinion. That is why I believe a change in the law is essential if this unique resource is going to be protected for the future.

I originally considered a special Death Valley bill, but instead joined other Senators on a bill (S 2371) to forbid mining in Death Valley and five other units of the National Park System. The bill, which was introduced by Senator Lee Metcalf of Montana, would take two important steps with regard to Death Valley. First it would repeal the 1933 law that opens the national monument to mining. That action would effectively end the issuance of any new claims and would strengthen the authority of

the government to withdraw specific lands within the monument in order to protect their scenic values. Secondly—and I think this is most important—the Metcalf bill places an immediate three-year moratorium on mining on existing claims. During that three years the government would study whether it should acquire the land outright in the public interest.

Interior committee hearings were held on S 2371 on October 7, 1975. The testimony of several witnesses pointed out the basic contradiction posed by mining inside a national monument. Congress made its intent clear enough in 1916 when it passed the legislation creating the National Park System, declaring: "The fundamental purpose of the said parks and monuments . . . is to conserve the scenery and natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations."

Congress must make it clear now and for the future that the federal government does have the right—and indeed the duty—to protect Death Valley and other units of the National Park System from mining or any other activity that diminishes the quality of the environment within them. Because of the special history and colorful lore of the lone prospector and his burro, Death Valley has remained open to mineral entry. But that open door has allowed bulldozers, hydraulic trucks, and other heavy equipment of the modern strip miner to pass through.

That door must now be closed in the public interest. ■

Alan Cranston, U.S. Senator from California, has fought for federal protection of many California forests, wildlife, and coastal areas. In addition to his efforts to save Death Valley monument, Senator Cranston is author of legislation to create a California Desert National Conservation Area covering 16 million acres of desert land in the southern half of the state.

HISTORY as PART OF NATURE

The bicentennial year will show that, as man belongs to nature, so our historical parks belong in the National Park System.

IN 1930, sparked by the approach of a different bicentennial—that of the birth of George Washington—the National Park Service reached for and received from Congress its first directly defined responsibility for our heritage of history. Since the establishment of George Washington's Birthplace National Monument (Wakefield in Virginia), the National Park System's historical areas have multiplied until they outnumber the natural areas for which the System was set up. Many conservationists, though favoring historical preservation, have worried that its assignment to the Park Service might dilute the agency's dedication to nature.

This year, with so many units of the Park System heavily involved in celebrating our bicentennial of independence, the worry could be sharper than ever. But it isn't. Fresh thinking intervenes. There's a bright hope that our bicentennial year will clarify both the Service's and the public's understanding of the Park System's fundamental purpose, a purpose meshing with new growth in the heart of civilization. This hope rises from recognition that mankind lives inside nature, in essential interrelationship with plant and animal life and the whole planet. The Park Service spreads such recognition, furthering through environmental interpretation the kind of realism needed to round out old-style nature-romanticism. The interpreters speak of the web of life, of mankind as part of nature. Many people already feel that if mankind is part of nature, so is history, the story of mankind.

The meaning builds as we look at Wakefield. Here, not far from the Potomac's mouth, George Wash-

ington's great-grandfather settled. The place is historic not only because our first president was born there but, even more deeply, also because the land and the structures tell the story of people working with nature to make a living and possibly a fortune. Written records correlated with clues on the land suggest how wild nature influenced the settlers and how the settlers affected nature.

If we shift the spotlight to a natural area like Yellowstone National Park, we may seem at first to see a wild vastness unrelated to history. On second glance we take note of roads, campgrounds, picnic areas, and concessions. On third glance, we perceive more meaning yet: that even the natural nineteenth-twentieths of Yellowstone is as it is today not only because of nature but also because of history, because men launched here a basic change in earth-man relationships. We think of "National Park" Langford, F. V. Hayden, artist Thomas Moran, photographer William Jackson, and of an 1872 act of Congress giving birth to the national park idea that has spread worldwide. (See *National Parks & Conservation Magazine*, March 1972, p. 4; July 1972, p. 11.)

Yet the goal of saving the most meaningful of American historical areas was not clearly perceived at the turn of the century, an era when the prevailing attitude was to save primitive areas with scenic grandeur and recreational value. Soon, however, prehistory sneaked in with the establishment of Mesa Verde National Park in 1906. Though mesa and canyons are impressive, the cliff settlement gives the area national park stature. The gap between nonhuman nature and pre-Columbian Indian nature had

thus been leaped, and other land-recorded episodes of the human story were soon set aside as national monuments under the Antiquities Act of 1906.

Few if any conservationists took issue with the additions to the Park System of areas that recorded the complex pre-Columbian culture. The big leap that many conservationists had to make was between the "primitive" and the "civilized" historical areas.

Stephen Mather and Horace Albright, put in charge of the parks in 1915, worked for nearly two decades toward adequate representation of our historical heritage in the Park System along with our heritage of scenic grandeur. Only in 1933 did solid success come. On June 10 of that year President Franklin D. Roosevelt transferred from the War Department to the National Park Service dozens of historical areas, including ten battlefield sites, ten national monuments, eleven national cemeteries, and eleven national military parks. The Service became *the* agency responsible for "historic and archeological sites and structures throughout the United States."

The Park System had become a mosaic of the American heritage, both historical and natural. More historic areas were added at intervals, and the Park Service was soon employing as many archeologists and historians as naturalists. By 1971, when the Voyageurs area of Minnesota was authorized as a full-fledged national park featuring history, two-thirds of the Park System's 280 units were historical, though natural areas retained—and still retain—a big lead in total acreage. Yet only now, as we celebrate our bicentennial of independence in an era of growing en-

by DARWIN LAMBERT

vironmental consciousness, is the full measure of the Park System's validity becoming evident.

AS A PEOPLE we *are* our natural and historic heritage. Wakefield shows roots twining earth and sending up a young trunk of the American tree. Yellowstone shows other roots in nature and a branch of history with many twigs—national parks spread planewide. Mesa Verde and other archeological areas exhibit long-ago roots in rock and soil, and branches with early flowerings and seedings contributing to what we are as a land and a people, helping us to find ourselves. Today we visit the great Cliff Palace at Mesa Verde and ask how people could possibly have survived here, how they got food and water, how they related physically and emotionally to these manifestations of nature that look so forbidding to us yet nurtured many generations of those who lived in these cliffs. We come away impressed not only with American diversity and the versatility of mankind but with the often hidden potential of earth for feeding and sheltering our bodies, for stimulating the human spirit.

Focus on any area of our National Park System, whether labeled natural, recreational, or historic. The meaning of Voyageurs National Park flows from a unique blend of wild forests, lakes, and streams with the canoeing enterprise of exploration and trade between Europeans and Indians. Consider the City of Refuge National Historical Park, Hawaii. Its great mortar-free wall was man-built with the cooled lava with which nature had built the island. The place was long ago and still is a sanctuary in which sea and land,

fish and plants, culture and history are interwoven. It speaks of birth, of sustenance and protection, of a way of life harmonizing man and nature, even including strict rules of conservation.

Somewhat as do the wooden gods at City of Refuge, the totem poles of Sitka National Monument, Alaska, earth-based and towering skyward, concentrate the human spirit. They celebrate the deep identity of human nature and wild nature, seen with the aid of a totem carved in the shape of an animal felt to be related by blood to a human clan. The carvings intertwine or alternate human and wild forms and faces, and thus tell stories summarizing reality.

The Sitka monument is the site of a battle in which Russians, our "civilized" forerunners in Alaska, defeated Tlingit Indians. Thus it helps clarify what may be the most puzzling history-nature question—how battles and wars, largely confined to the human species, though not unknown among other social species (ants, for example), can be understood as part of nature. Though most of us easily see the Tlingits and all their ways as natural, what about the Russians? Once a gnawing problem in many minds, doubts of the kinship of civilized people with the rest of nature have generally dissolved in science that proves nature to be universewide and all-pervading. Current ecology demonstrates that all essentials of life, human or otherwise, are related to each other. Potential for conflict, as for cooperation, rises from biological tendencies and develops in history.

Those Russians of 1804, conceived and born no differently from Tlingits, breathing nature's air, eating nature's nutrients, came

SITKA TOTEM POLE, PHOTO BY NATIONAL PARK SERVICE



here on nature's ocean in ships made of nature's wood, propelled by nature's wind, attracted by the prospects of wealth from nature's furs. They were armed, as were the Tlingits, with weapons compounded of earth's materials, different though their form and functioning. The totem pole makers have helped our understanding to penetrate; they put battles into their nature-history art and were soon adding the white man, including a top-hatted Lincoln.

WE ARE NOW celebrating a crucial element of our heritage, the American Revolution, remembering such national historical parks as Minute Man (Lexington and Concord, Massachusetts), Morristown (General Washington's headquarters in New Jersey), Saratoga (battlefield in New York), and Colonial (victory at Yorktown, Virginia). These historic areas remind us that much of our strength and skill grew from nature in America and, further, that glory is not the whole story. Though nature tends through time to hide the marks of history, park officials should take care not to be accessories in camouflaging graves or pockmarked ground or ruins of burned or blasted structures.

Human casualties of the Civil War's Manassas battles alone reached the awful total of 29,000. And wars, both munition supply and resulting destruction, cut heavily too into already limited natural resources. In Shenandoah Valley during just one week Sheridan's forces burned or otherwise ruined more than 2,000 barns, 120 mills, 50,000 tons of hay, 600,000 bushels of grain, 50,000 livestock, 800 barrels of flour, plus homes, bridges, fences, wagons, and other equipment and supplies. Soil erosion accelerated, and this loss was irreplaceable. Much hasty rebuilding and resupplying were necessary for the survival of Shenandoah people. Among consequences of the resulting strain on the region's timber is the near-absence of trees more than a century old in the 300 square miles now making up Shenandoah National Park.

SO MILITARY history links with nature. But what of the other main kind of history (as history is usually rated before we recognize the more lasting significance of basic changes in earth-man relationships)—the political-governmental? How, say, does Independence National Historical Park fit in? Here are the opening words of our Declaration of Independence:

When, in the Course of human events, it becomes necessary for one people to dissolve the political bonds which have connected them with another, and to assume among the powers of earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them. . . .

Laws of Nature and of Nature's God? Yes. So wrote Thomas Jefferson, now being widely appreciated as an integrator of human history with natural history. Because of the nature of nature—

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.

So declared our Continental Congress in 1776. Much has been written, and much more could be written, of the insight and man-earth interpretation springing from these immortal words.

So it goes throughout the park system. Walk the old towpath of Chesapeake & Ohio Canal anywhere between Washington, D.C., and Cumberland, Maryland, and it will carry you simultaneously into history and into nature. Visit Hopewell Village, Pennsylvania, and it will show you how history was made by making iron from nature's earth. Visit Salem Maritime, Massachusetts, and learn how Americans made history from nature's oceans. Visit Homestead National Monument, Nebraska, and see how history grew in nature's soil.

Consider Golden Spike, Utah—how the transcontinental railroad, essentially metal spiked to wooden ties, grew from the ores and forests of the American earth and how the railroad, in turn, affected nature in America. Consider George Washington Carver National Monu-

ment, Missouri, focusing on a black agricultural chemist who won international renown for discovering better ways of cooperating with soil and vegetation for the long-range advantage of both nature and humanity. Consider Lake Mead National Recreation Area, where history was made as Hoover Dam and a vast lake in the desert; whether the gains prove to outweigh the losses or not, the situation is a significant melding of history and nature. Think of Great Smoky Mountains and Shenandoah national parks where history was made by letting nature restore splendid forests to hundreds of square miles of man-exploited land, an intentional move unique on such a scale.

JOHN MUIR was right: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Every Park System unit and the Park Service's current program of "living history" are hitched, even if but half-visibly thus far, to our social, political, psychological, and environmental achievements, crises, and opportunities. Yet the recognition and use of interrelationships—whether by the Park Service for master-planning of management and interpretation or by the public for enhanced enjoyment and understanding of our heritage and of ourselves—does not repeal the priorities demanded by the uniqueness of each Park System unit. Protection remains basic. In some places the historic landmarks have priority to be saved unimpaired; in others, the natural ecosystem.

Our National Park System is not a chaotic mishmash; it's an interlocking pattern, a living mosaic, an earth-man picture. Fully and truly interpreted and understood, it simultaneously preserves natural life and the human spirit. It thus contributes to the shaping of humanity's future. ■

Darwin Lambert is internationally known for his multidisciplinary writings about people-and-nature relations. One of his books featuring history is *Herbert Hoover's Hideaway*.

Hernando De Soto and the Golden Pole

De Soto National Memorial in Florida marks the beginning of the first successful European penetration of the interior wilderness of North America

He who would see the New World,
The Golden Pole, the second,
Other seas, other lands,
Achievements great, and wars,
And such things attempted
As alarm and give pleasure,
Strike terror and lend delight,—
Read of the author this pleasing story. . . .
—Fernando da Silvera, 1557*

DE SOTO National Memorial, near Bradenton on the Gulf Coast of Florida, commemorates the spot where in May 1539, nearly a century before the first English settlement in the New World, Spanish *conquistador* Hernando De Soto landed his expedition to search for gold in North America. Exhibits and an audiovisual program at the visitor center introduce the viewer to De Soto, his world, and his achievements. A nature trail provides a glimpse of the kind of landscape through which he and his men marched, and markers indicate some of the plants they may have used for food. But to conjure up his cavalcade—the men and animals, the arms and equipment; to

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 our rich American historic heritage, are represented in the National Park System.

*Epigram to the "Narratives of the Career of Hernando De Soto in the Conquest of Florida as told by a Knight of Elvas."



The discovery of the Mississippi by De Soto and his followers, May 1541.

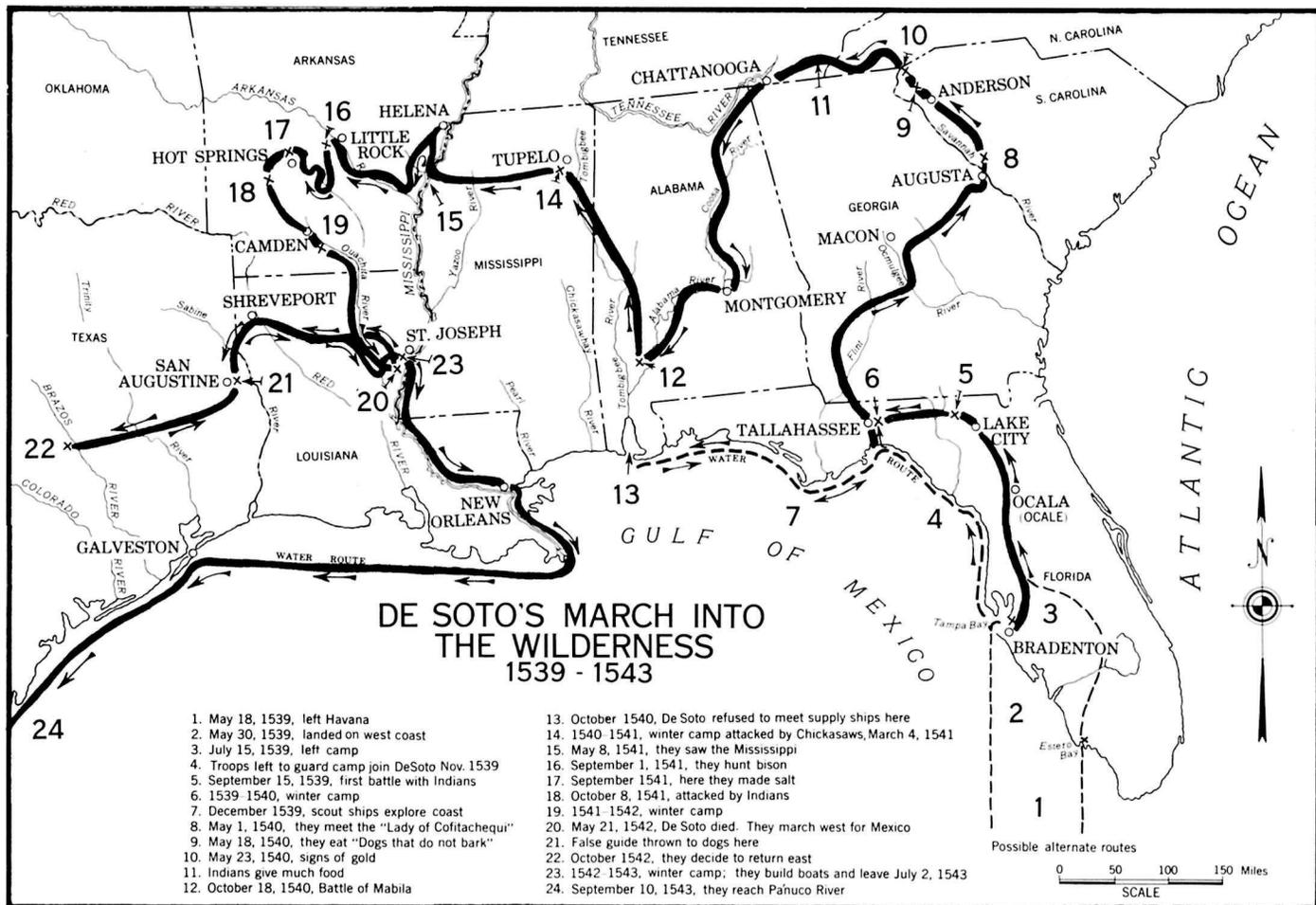
breathe life into the terse accounts of his journey; above all, to share the dream of De Soto—this requires a leap of the imagination.

ON A warm spring day in 1539, a small fleet of sailing vessels lay peacefully at anchor off the west coast of Florida, somewhere south of Tampa Bay. But nearby the sandy shore had erupted in a scene of tumultuous activity. Shouts and curses mingled with the thud of hooves and the snorts of terrified horses; the grunting and squealing of pigs and the excited barking of dogs punctuated the clank and clang of tools and weapons. Hundreds of men toiled in the sun, unloading a motley cargo. Others calmed plunging horses, chased fleeing pigs, or found shade and water for His Excellency's prize hunting dogs. Six hundred men, their supplies, and equipment needed shelter; more than two hundred horses had to be tethered and watered; men and beasts had to be fed; and a sharp lookout needed to be kept for hostile na-

tives. Through the uproar rose the measured chanting of priests giving thanks for a safe journey, while overhead fluttered the twin banners of the Empire and the Church of Spain.

At the eye of this tornado of activity strode the fierce, determined figure of Hernando De Soto, Spanish *conquistador*. De Soto had staked his fortune and a reputation gained as Pizarro's lieutenant in Peru, on finding the fabled Seven Cities of Gold—somewhere in the wilderness of the land that his countryman, Ponce de Leon, had named Florida.

THE Seven Cities of Gold! The Golden Pole! El Dorado! The dream of countless treasure to be had for the taking was never more vivid and alive than in the minds of the Spanish explorers of the sixteenth century. Lured by this dream, these daring and determined men set out in tiny ships to cross uncharted seas; to march through trackless wilderness; to endure years of hardship, privation,



and danger in the hope that one day they would find fortune, fame, and power. And, incredibly, for many of them the dream came true.

Within fifty years of the first voyage of Columbus, the hitherto unknown, fantastically wealthy, and highly sophisticated kingdoms of the Aztecs, the Incas, and the Mayas had fallen to the rapacity of the Spanish *conquistadores*. By 1540 most of what we now know as Central and South America was subject to the flag of Spain and administered by Spanish governors and garrisons. The intervening sea, patrolled by Spanish galleons, was known as the Spanish Main; and across it heavily laden ships carried home to Spain the plunder that was to enrich the land of Ferdinand and Isabella fifteenfold in the first decades of the sixteenth century.

Yet, like many other great discoveries, the amazing success of this treasure hunt had come about by accident. Those explorers from Columbus on who mapped the

coastlines of South, Central, and North America and the islands of the Caribbean were all looking for a shorter and safer route to the riches and treasure of the East—the silks and spices of China and India. The unexpected land barrier of the Western Hemisphere led to years of exploration as ways to bypass it were sought. Of those who tried, the Spanish were the only explorers to stumble onto vast riches in the course of this effort. In the years 1519–1521 Hernando Cortes conquered the empire of the Aztecs in Mexico; ten years later Francisco Pizarro vanquished and looted the Incas in Peru. By the end of the century all of Central and South America was subject to a colonial system that was to endure long after England's defeat of the Spanish Armada in 1588 signaled the end of Spanish preeminence in Europe.

While Cortes and Pizarro were marching overland in Mexico and Peru, other Spanish adventurers

pushed into the Caribbean searching the islands for gold and always seeking the elusive passage to India. These *adelantados*, or advance men, were granted special exploration permits by their Spanish rulers but had to finance their own expeditions. If they were successful, they could reimburse themselves by exploiting the territory, treasure, and manpower they had seized. In the hope of finding wealth in the north equal to that discovered by their compatriots in the south, they felt their way along the coasts and around islands and peninsulas, exploring and subduing as they went.

OF THE *adelantados* who struggled through the marshy lowlands of Florida, the territory that then included the entire southeastern United States, in search of fame and fortune, perhaps none undertook his mission with greater ambition and determination and none died with a greater sense of

failure and frustration than did Hernando De Soto. An experienced *conquistador*, De Soto, though by all accounts harsh and cruel, was a brave and skillful leader. Four *adelantados* had preceded him in Florida and three were to come after him, but none was to push so far or to explore so much of this hitherto unknown region as he.

For more than four thousand miles De Soto rode at the head of a straggling cavalcade, urging on his men in the face of cold, hunger, privation, and death at the hands of hostile Indians. From Florida he pressed north through Georgia, South Carolina, and North Carolina, west across Tennessee and Alabama, to the Mississippi River and beyond into Texas. With him marched six hundred men, including cavalry fitted out with armor, swords, and lances and mounted on more than two hundred horses; foot soldiers with helmets and breastplates glittering in the sun; crossbowmen, whose modern weapons were to be no match for the bows and arrows of the Cherokee in forest fighting; priests with their robes and regalia; a pack of hunting dogs; a herd of swine that multiplied during the march (De Soto's share at his death numbered seven hundred head); blacksmiths to repair weapons, forge chains, and make nails; carpenters; black slaves from the Caribbean islands and Indian bearers to carry equipment and supplies; and Indian women, the "gifts" of friendly or fearful chieftains.

During the four years of their journey, each meal was either foraged from the land in the form of game, berries, nuts, roots, and greens or pillaged from Indian villages, or, occasionally, provided by friendly (or politic) chieftains who welcomed the travelers with gifts of food. Each river necessitated a pause while carpenters built boats for the crossing and then disassembled them on the farther bank. Each winter meant several months delay in camp, waiting out the weather while repairing weapons, making and mending clothes, healing wounds, and growing thin on short rations. Each Indian tribe encountered could mean food,

women, and succor—or battle, disablement, and death. The men had to be ever alert for ambush and attack.

The Portuguese "Knight of Elvas" who accompanied De Soto later published (in 1557) an account of the expedition, which describes the villages and culture of the Indian tribes—Seminole, Cherokee, Cheraw, Chickasaw, and Creek—that dominated the southeastern coast and the Appalachian highlands in De Soto's time. Obviously, the simple villages of these tribes could not compare with the magnificent cities of the Incas whose golden treasures De Soto had plundered in Peru. On he pressed, following the rumors of gold with which the chiefs, anxious to speed the dangerous visitors on their way, encouraged him.

After three years of trekking, in May 1541 De Soto and his men reached the "Great River," the Mississippi, becoming the first Europeans to see its broad expanse. The Knight of Elvas described the flotilla sent by an Indian chief from the west bank to greet De Soto and his party:

The next day the Cacique arrived, with two hundred canoes filled with men, having weapons. They were painted with ocre, wearing great bunches of white and other plumes of many colors, having feathered shields in their hands, with which they sheltered the oarsmen on either side, the warriors standing erect from bow to stern, holding bows and arrows. The barge in which the Cacique came had an awning at the poop, under which he sat; and the like had the barges of the other chiefs; and there, from under the canopy, where the chief man was, the course was directed and orders issued to the rest. . . . These were fine-looking men, very large and well formed; and what with the awnings, the plumes, and the shields, the pennons and the number of people in the fleet, it appeared like a famous armada of galleys.

The ceremonials of meeting over, the Spaniards crossed the river and struggled westward as far as the territory now called Texas, but the harsh realities of another winter encampment brought them back to the "Great River" in May of the following year. Their intention was to send a party downriver for supplies; but before the expedition could set out, De Soto, spent

from his exertions, disillusioned by his failure to find gold, and ill with fever, died on May 21, 1542, four years after his landing in Florida. Fearful that the Indians would discover that De Soto had been mortal and not a god, his companions sank his body in the river he had discovered and returned to Mexico, never to see Florida again.

NORTH AMERICA had proved a disappointment. The fabled Seven Cities of Gold had turned out to be just that—a fable. The rich land, full of game and ideally suited to agriculture, had no appeal to men interested only in quick exploitation rather than settlement; and the Indians of the Southeast—sturdy, independent, and warlike—stubbornly resisted both slavery and conversion to Christianity. So, in spite of wide-ranging exploration and some attempt at religious conversion, the Spanish relegated Florida to the role of northernmost outpost of empire, a necessary stronghold for the defense of the sea lanes of the Spanish Main and a bulwark against the southward incursions of the French and the English to the north.

For this reason St. Augustine was established as a Spanish settlement in 1565, and a series of fortifications was constructed along the coast. One of these surviving fortifications, Fort Matanzas, and a more elaborate fort, Castillo de San Marcos built in 1696, both survive today near St. Augustine as national monuments.

For some two hundred years Spain dominated the Southeast. Although Hernando De Soto did not find the gold he sought, he found a treasure far richer—but did not appreciate it. Through his daring and determination most of the southeastern portion of the new land, including the mighty Mississippi River, were added to the map of the sixteenth century world and, for better or worse, opened to exploration and development. His footsteps are still marked by the towns and counties across the United States that bear his name, and by the national memorial that honors his accomplishment. ■

HAWAII'S NEW HONEYCREEPER

The fate of a newly discovered species of Hawaiian honeycreeper depends on the preservation of its habitat

by DAVID R. ZIMMERMAN



A SELF-CONFIDENT young woman of twenty-two, a college senior at the University of Hawaii in Honolulu, did something that any veteran natural scientist might envy. She and a fellow student discovered and named a new genus of bird.

Their achievement is all the more startling because ornithologists believe few birds remain to be discovered anywhere in the world. In fact, few new species of birds have been named in the past decade; and in Hawaii, the previous new bird—a mere subspecies—was discovered in 1923.

Codiscoverers of the new bird are Tonnie Casey and her college classmate James Jacobi, who was age twenty-five at the time. They enter the ornithologic annals as finders and namers of *Melamprosops phaesoma*, a new member of the family Drepanididae, the Hawaiian honeycreepers. As is customary for Hawaiian birds, its popular name is in the language of the ancient Hawaiians. It is *po'o uli*, which means "black head."

One University of Hawaii faculty member has commented, perhaps enviously, that finding the new bird was a matter of luck. If so, Miss Casey's must be the luck of the deserving, for a special academic background and extraordinary effort went into the find. She and Mr. Jacobi discovered the bird high on a wild mountainside

where few humans had ever been.

Their saga started in 1972 when several students, led by meteorologist John Kjargaard, received a grant of \$16,000 from the National Science Foundation's (NSF) Student Originated Studies Program (SOS). The purpose of the grant was to study the ecology of the Waihoi Valley on Maui. This valley runs down the steep slopes of Haleakala volcano. The area is so remote that a day-long hike across the lava and shifting sands of the volcano's crater as well as a climb of fifteen hundred feet to the crater rim and a descent of a mile or more across wet grasslands and very wet, dense forest are needed to reach it.

MISS CASEY says she was invited to join the expedition because she then was the only university undergraduate with a bent for birds. Although her undergraduate major was animal husbandry, birds had been her passionate interest since she was twelve years old. Most of Hawaii's native birds are extinct or threatened, so Miss Casey eagerly accepted the invitation to join her fellow students in exploring the uplands of Maui, where remnants of native plant and bird populations were known to survive. They spent the summer of 1972 at moderate elevations and produced an inch-thick scientific report to justify their grant.

"One day," Miss Casey says, "John Kjargaard and I did an insane thing. We hiked up a river bed. It took us three days—it was a horrible, miserable place. It was cold. We had no food. But we saw a lot of things that were unbelievable. Like greenswords, a plant that was thought to be extinct. We saw thousands of them. Also a bird, the *akepa*, a honeycreeper, which hadn't been seen since 1950."

Intrigued, the students decided to study this higher, more difficult and inaccessible area in depth, so they requested a new SOS grant. At least one of their faculty advisors at the university disapproved, saying, according to Miss Casey, that their first year's data were poor. But NSF sided with the students and awarded them the grant.

The study area lies within the Hana and Koolau Forest Reserves. Miss Casey says: "It rains there all the time—hundreds of inches each year. And it's always windy. Socked in by fog, and cold. At night, the rainwater freezes." A waterproof shelter was lifted in by helicopter, and camp was set up at an altitude of 7,100 feet.

The terrain is steeply sloped and treacherous. Three-hundred-foot-deep gullies run up and down the mountain, frustrating lateral travel. As a result, explorations must be conducted along the gullies.

The trip to the rain forest was

extraordinarily rewarding with a bonanza of birds, most of them Hawaiian honeycreepers, a fascinating and tragic family of birds. The honeycreepers are the only family of birds that occurs only in Hawaii. Many species of them have hollow, tubular tongues that are adapted to sucking nectar from flowers. These birds are colorful, and vary widely in plumage, bill shape, and living habits.

The Hawaiian honeycreepers have been more gravely hurt by man than any comparable family of birds. One-quarter of the species of honeycreeper is extinct; most of the species that survive are rare or endangered. The principal cause of their downfall is believed to have been bird malaria; a lethal virus, bird pox; and the fatal connection, a bird-biting mosquito—all brought to Hawaii recently by man. The mosquitoes are believed to have transmitted bird malaria and bird pox to Hawaiian honeycreepers living in the insects' lowland range of up to three thousand feet in elevation. Thus, the higher mountains, like Haleakala, are the honeycreepers' last refuge.

"We figured and we hoped that we'd see rare birds up there," Miss Casey says. "And we did. Like the crested honeycreeper! It was supposed to be the rarest mountain bird. But it was numerous." As were other rare honeycreepers.

But the big find came on July 27, 1973. Most treks had been upward from the base camp. That day, biologist Jacobi, who was studying the extent to which introduced rats had attained the high mountain reaches, walked downward instead. In a group of other honeycreepers, he saw one that was strikingly different—brown and black in color—that he had never seen before. He told Miss Casey about it that evening.

The next morning she retraced his steps and located it—a brownish-olive bird the size of an English sparrow, with a striking black face mask.

"We suspected that it was new," Miss Casey explains, "but we weren't sure because of all the birds that humans have introduced

to Hawaii from Africa, Indo-China—this might have been one of them."

A photo was sent to Hawaii's foremost ornithologist Dr. Andrew Berger, of the University of Hawaii. He replied that he had never seen anything like it.

The bird was highly cooperative and trusting and would fly close to inspect Miss Casey and Mr. Jacobi when they stood under its foraging tree and made chipping sounds to attract it.

They found five pairs of the new bird. They thought it was an Hawaiian honeycreeper. But no known bird in that family had either a brown body or a black face mask.

The next step was to contact Dr. Dean Amadon, director emeritus of the Department of Ornithology at the American Museum of Natural History in New York City and an expert on Hawaiian honeycreepers. He too felt that what the students were seeing might be an exotic species, so two specimens were collected (shot) and delivered to him for detailed study.

A collateral study was made of the birds' tongues by Dr. Walter Bock, a biologist at Columbia University in Manhattan and an expert on the muscle structure of birds' tongues. He found that the specimens' tongues, although not tubular, were trough-shaped, indicating that they had evolved from Hawaiian honeycreeper forebears.

Dr. Bock and Dr. Amadon agreed that the bird was indeed a Hawaiian honeycreeper. Dr. Amadon went further. Because the bird was so different from others in the family, it would have to be listed not only as a new species but, more dramatically, as a new genus. This decision greatly enhanced the value of the find.

It remained for Miss Casey and Mr. Jacobi to divide the credit for the discovery and to name and describe the new bird in a scientific publication or record—no easy tasks. The two students decided that Mr. Jacobi, who first saw the bird, and Miss Casey, who has studied it, would be listed as co-discoverers.

They could have named the bird for themselves, for the place where they found it, or for some intrinsic trait. After consulting Latin scholars and their own poetic sensibilities, they bestowed upon the bird the name *Melamprosops*, black-faced, as its genus name, and *phaesoma*, brown-bodied, as its species designation. Miss Casey says proudly, "The names roll off your tongue in just the right sort of way." ■

David Zimmerman works as a freelance magazine and book writer specializing in medicine and natural science, especially ornithology. His new book, *To Save A Bird in Peril*, about management of endangered birds, was published late in 1975 by Coward, McCann.

Editor's Note

PROTECT THE PO'O ULU

Po'o uli has very recently been added to the Department of the Interior's Endangered Species List. The area where this bird was discovered lies within the Hana and Koolau forest reserves, also the home of several other rare species of birds and plants. This area is under the jurisdiction of the state of Hawaii and is adjacent to Kipahulu Valley, which was acquired from the state and several major landholders by the Nature Conservancy, and then turned over to the National Park Service for inclusion in Haleakala National Park. The Park Service has closed Kipahulu Valley to the public because isolation is the only way to preserve the rare plant life and bird life found there. Although the area where the *po'o uli* was first sighted is remote and inhospitable, the state of Hawaii has a poor track record for preservation of habitat for endangered species. Therefore, only federal protection can fully ensure the preservation of the *po'o uli*. Acquisition of this section of the Hana and Koolau forest reserves by the National Park Service for inclusion in Haleakala National Park would accomplish this goal.

THE MINING OF AMERICA'S PARKS

THERE is not a park in this country set aside in this way that you cannot go into for mining purposes," an Oregon congressman mistakenly remarked in 1902 when a bill to establish Crater Lake National Park, our sixth national park, was under consideration. He was in error because all national parks to date—Yellowstone, Sequoia, Yosemite, General Grant (now Kings Canyon), and Mount Rainier—had been established without provision for mining. But his mistake resulted in the inclusion of a provision in the law allowing mining activities in a national park for the first time, despite the fact that there was no evidence of mineralization inside Crater Lake park. Even worse, it helped lead to situations permitting mining and mineral entry in five other spectacular areas of the National Park System subsequently established—Death Valley National Monument, California and Nevada; Glacier Bay National Monument, Alaska; Mount McKinley National Park, Alaska; Organ Pipe Cactus National Monument, Arizona; and Coronado National Memorial, Arizona.

Today, although there has been no extensive mining at Crater Lake, several of the other areas such as Death Valley face grave threats to their scenery, vegetation, and wildlife. This situation directly conflicts with the purpose for which national parks, which comprise only 2 percent of our nation's lands, were established—preservation. Many American people now find mining of any sort in any unit of the National Park System totally abhorrent, and the committees of Congress have begun to address serious attention to rectifying this intolerable situation.

BACK in 1933, then National Park Service Director Horace M. Albright, commenting on addition of Death Valley National Monument to the Park System, stated: "In recommending the establishment of this area as a national monument . . . it was not

the desire to prevent prospecting and mining within the area, as such activities would in no way interfere with the preservation of the characteristics of the area sought to be preserved. In fact, the picturesque miner is one of the characteristics which give the area the color of the early pioneer days. . . ."

However, gigantic earth-destroying machines have long replaced the picturesque miner and his burro in Death Valley, and they wreak destruction on a scale too massive for legislators in earlier years to have imagined possible. Today huge open-pit mines for talc and borates scar the landscape. Furthermore, in this national monument at least 1,827 claims covering more than 36,000 acres have been staked.

When the Tenneco conglomerate recently staked forty-four claims in Gower Gulch in direct view of Zabriskie Point, one of the most popular areas of the monument, Park Service Director Gary Everhardt requested that the Secretary of the Interior withdraw the Gower Gulch and Zabriskie Point area from mineral entry. In July 1975 Everhardt said the withdrawal was essential to "protect one of the Death Valley's, and the nation's, most spectacular and scenic areas" from "possible destruction." Public outcry forced Tenneco to remove its claim stakes at Gower Gulch, but the company continues mining elsewhere; moreover, due to an unfortunate ruling issued later in July by Michele B. Metrisko, an associate solicitor for the Department of the Interior, the Gower Gulch claims and others could be legally staked at any time.

Metrisko based her opinion on Congress' "express intent" in 1933 when it opened the monument to mining. She stated: "The Secretary [of Interior] has the authority to withdraw Death Valley National Monument from mining location, but this authority is limited to withdrawal for campgrounds, housing, water supply, historic sites, archeological sites, and paleontological sites. . . . It is our view that the Secre-

tary's authority does not include withdrawal of monument lands for the purpose of scenic preservation."

However, the act permitting mineral entry in Death Valley National Monument gave the Secretary of the Interior authority to *regulate* mining there. This provision should be interpreted broadly in light of the 1916 act that established the National Park Service as conferring authority to withdraw from mining parts of the monument for scenic preservation. The NPS act stated in part, "The Service thus established shall promote and regulate the use of the Federal Areas known as the National Parks, Monuments and Reservations hereinafter specified by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in *such manner and by such means as will leave them unimpaired for the enjoyment of future generations.*" [Italics added.] No one could argue convincingly that the Boraxo Pit of the Tenneco Corporation in Death Valley, which is 240 feet deep and 3,000 feet long, does not seriously impair the scenic resources of this park for the enjoyment of any of the more than 700,000 people who visit there each year. (See page 4 of this month's Magazine for a full-length article on Death Valley mining.)

THE STORY of the opening of Glacier Bay National Monument in Alaska to mining also unfolds in the depths of the Great Depression. The year 1936 marked eleven years after the inclusion in the Park System of this land of active glaciers, alpine meadows, lush rain forests, and a wealth of flora and fauna. But many people saw Alaska only in the context of new jobs and new riches. Novelist Rex Beach said the monument "serves no purpose but to lock up potential

wealth and retard development," and some influential people agreed.

Congress was influenced by this attitude; and, despite a flood of protests, that year it hastily declared the area open to prospecting and mining, claiming that "the working of the mineral lands within the boundaries of the monument under proper restriction and regulation will in nowise impair the natural beauties of the monument or make the monument less attractive to visitors." The National Parks Association (now NPCA) said that with respect to Glacier Bay Congress had overridden the established policy of the government not to allow mining in parks and that "a precedent

has been established fraught with danger to each and every primeval reservation under the control of the Park Service. If in one, why not in all?"

As with Death Valley, the Park Service has authority to withdraw Glacier Bay from mining and mineral entry. This is particularly important to do so now because the federal government has begun a mineral survey of lands within the monument, and there is great reason to fear that leaks of mineral discoveries produced by this survey will prod mining prospectors to file extensive claims throughout the monument.

At present, the Newmont Mining Corporation holds extensive claims

within the monument, particularly in the area of Brady Glacier. (See May 1975 Magazine.) The proposed mineral extraction of reportedly extensive nickel and copper deposits there would require development of a townsite at Dixon Harbor within the monument on the Pacific coast, a five-mile access railroad through virgin coastal regions, and a 16,000-foot tunnel under 600 feet of glacial ice to reach the ore. In addition, a processing plant, waste dumps, tailing storage, shops, and other ancillary facilities would be built near the tunnel entrance and a power plant and dock facilities in Dixon Harbor. Substantial nickel deposits exist elsewhere. Despite Newmont's claims that "Brady Glacier may not become an economic and mineable ore body for many years to come," NPCA's position is that this magnificent congregation of glaciers, rocky coasts, and plant and animal life should *never* be subjected to the ravages of mining for the corporate profit of Newmont or any other company.

ALTHOUGH gold prospecting in one form or another has gone on in Mount McKinley National Park since its inception in 1917 when Congress declared that mining was the "chief industry" of Alaska, serious mining operations in the park (for cinnabar, stibnite, antimony, and mercury) did not begin until the early 1970s. Although the mining operations themselves are not extensive, the miners continue to devastate significant portions of the park by unnecessarily and illegally cutting timber and clearing new bulldozer roads as they go from place to place in the park, contrary to Park Service stipulations. (See November 1970 Magazine.) This vandalism of the park, in addition to the damage caused by actual mining operations, has threatened wildlife and impaired visitors' park experiences. The recent discovery of a large limestone deposit within the park could lead to early efforts to extract this material for chemical and industrial purposes unless the park is closed to future entry for mineral application.

IN 1941, with U.S. entry into World War II imminent, President Franklin D. Roosevelt and the Congress opened Organ Pipe Cactus National



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Monument to mining under the mistaken belief that large copper deposits nearby indicated that more copper could be found inside the monument.

Today, Knox-Arizona Corporation has claims to about 20,000 acres in the Copper Mountain area of the monument and recently began deep core drilling operations. However, the first of its three proposed drill holes, completed to a depth of nearly 3,000 feet in October 1975, produced no sign of copper or other mineralization.

In addition, several "recreational" miners, who apparently like to hear dynamite explode and hope to strike it rich, have located scattered claims in various portions of the monument. Other corporations such as Kaiser Gypsum, Deniza Mining Corporation, and the Phelps-Dodge Corporation have located claims in Organ Pipe monument totaling more than 33,000 acres.

Organ Pipe Cactus National Monument was established in 1937 to preserve the largest concentration of the organ pipe cactus in the United States as well as several other rare species of cactus and associated forms of plant and animal life, especially desert bighorn sheep. In 1941 this Association maintained that the move to allow mining in Organ Pipe monument "is an indefensible attempt to allow commercial utilization of natural resources in an area originally set aside for complete preservation as a national monument." Today we stand by that position. (See December 1975 Magazine.)

At the same time, with the establishment of the Coronado National Memorial—carved out of Coronado National Forest in southern Arizona—provision was included in the act establishing the memorial for not only continuing valid existing rights, but also specifically permitting grazing, prospecting, and mining under regulations substantially similar to those in effect under national forest management.

RECENTLY, in response to publicity about the threat of mining in national parks generated by Tenneco's activities in Gower Gulch in Death Valley National Monument and by the ruling of the Interior Department's lawyer that the government could not

legally stop this action, several Congressmen introduced bills to try to stop the destruction of mining in all national parks.

NPCA has testified upon invitation in both the House and the Senate in support of legislation that not only would prevent future claims from being filed in these parks by repealing the laws that permitted mining in them in the first place, but also would impose a three- to five-year moratorium on *any* mining operations in the parks. The latter provision would give the Interior Department time to determine the validity of existing claims, to close down mining operations where invalid claims exist, and to assess the value of existing valid claims that would have to be bought by the federal government if these operations were to be stopped. NPCA also testified that, as a matter of policy, plans should be formulated and authority granted for the outright purchase of all existing mining claims in the parks. NPCA and other conservation organizations have presented a virtually united front in urging that mining activities no longer be permitted in national parks.

Unfortunately, however, the Administration's position is to support only the removal from *future* mineral entry in the parks by repeal of the laws opening five of the six areas in question to mining. If Congress adopts the Administration's proposals, Glacier Bay National Monument will remain totally open to mining operations unaltered from present conditions. Because the bulk of mining operations in Death Valley are on valid existing claims, all of these activities would continue also. In fact, the destruction would increase, because valid claims have been patented by several corporations on lands in the monument that have never been mined but, under the Administration's proposals, could be mined at any future point.

In addition to the areas addressed in the legislation, most national recreation areas and several other national parks either are or have been open to mining activities in the past. Only recently, several mineral leases were obtained by the Exxon Corporation for uranium exploration in Lake Meade National Recreation Area without the Park Service having prepared environ-

mental impact statements on the project. A prospector in Capitol Reef National Park recently began strip mining for ripple rock, an unusual sandstone formation laid down more than 200 million years ago, with his back-hoe and front-end loader, despite vigorous protests by the National Park Service. His inholding is within view of a visitor's center.

NPCA and some members of Congress have claimed that the Interior Department could more vigorously assert its legal authority to withdraw areas of the National Park System from mining in order to protect scenic values and the resources for which these areas were set aside. In a recent letter to the Department of the Interior, Congressman William S. Moorhead, Chairman of the Subcommittee on Conservation, Energy, and Natural Resources of the Government Operations Committee, took strong issue with the Associate Interior Solicitor's opinion that the Secretary has no legal right to withdraw from mining certain areas for scenic preservation. Chairman Moorhead indicated that a review of the legal precedents upon which that position was based leads to the opposite conclusion—that the Department of the Interior now *has the authority* to withdraw national parks and monuments from mining. NPCA has reached a similar conclusion and has urged that the areas of the National Park System be withdrawn administratively.

NPCA members who believe that mining activities are incompatible within units of the National Park System may write to President Ford and to Secretary of the Interior Thomas S. Kleppe urging that the Administration interpret the laws governing mining and mineral entry in the National Park System to permit withdrawal of portions of any area for scenic preservation.

Hon. Gerald R. Ford
The President
The White House
Washington, D.C. 20500

Hon. Thomas S. Kleppe
Secretary of the Interior
Department of the Interior
Washington, D.C. 20240

NPCA at work

A recent NPCA survey shows that our National Park System is deteriorating due to inadequate numbers of personnel and lack of funds. Nevertheless, the President's Office of Management and Budget (OMB), which maintains direct control over the personnel ceilings and budget for the Park Service, seems to believe that numerous, severe problems caused by the low priority that the Administration budget gives to park resources can be solved by greater "management efficiency."

In efforts to improve the OMB policies and processes with regard to the National Park Service, NPCA has continuously stressed the need for open budgetary procedures and has protested the low personnel ceilings that OMB imposes on the Park Service.

OMB responded several months ago by inviting NPCA to provide information on particular areas or units within the National Park System where lack of enough personnel has impinged on visitor enjoyment or resource management.

NPCA then conducted an extensive survey of NPCA correspondents, national park superintendents, NPCA trustees, and other informed citizens. The survey questionnaire elicited detailed information on park conditions, especially problems caused by lack of staff or funds, or both.

The volume of response was gratifying and the answers very informative. Answers were compiled and analyzed, and they revealed the seriousness of the situation in national parks in countless ways.

Backcountry patrols and staff for interpretation, law enforcement, and maintenance have been cut back or, in some cases, are nonexistent in many park areas. Historic structures, buildings, roads, sanitary facilities, bridges, and trails deteriorate—sometimes beyond repair. Archaeological relics are vandalized. Funds for research, planning, and public transit in many cases simply are not forthcoming. The safety, education, and health of visitors are thus impaired, and wildlife and

other park resources are left without protection.

For instance, poaching of the Alaskan brown bear is a severe problem in Katmai National Monument, but there are insufficient numbers of personnel to patrol the 2.7-million-acre monument.

Due to lack of staff, campgrounds at Shenandoah National Park in Virginia must close early in the season; and water and sewage systems in the park,



JUNE HILDEBRAND

due to lack of funds, generally do not meet EPA and U.S. Public Health Service standards.

Mammoth Cave National Park in Kentucky is one of many other understaffed parks despite the fact that major incidences of crime, vandalism, traffic violations, and poaching in that park require 24-hour patrols by rangers.

At Arches National Park, Utah, there is *no* staff to carry out backcountry patrols and no full-time interpreter. Everglades National Park's mass transit vehicles are overflowing, but funds for maintaining and adding to service are not available.

A severe systemwide problem of insufficient numbers of personnel for land acquisition is exemplified by the

situation in new park areas such as Big Thicket and Big Cypress national preserves (in Texas and Florida, respectively). The National Park Service's lack of personnel has greatly slowed the process of acquiring these areas, and has forced it to contract with the Corps of Engineers for land acquisition functions. Meanwhile, activities by private land owners continue to threaten the Big Thicket and other areas.

NPCA President A. W. Smith and members of the staff presented the findings to James L. Mitchell, Associate Director of the Office of Management and Budget, during an October meeting at OMB.

Mr. Mitchell responded that although the problems were indeed serious, he felt they could be solved largely by "prioritization and systematization" of the Park Service's planning procedures and personnel assignments, and by striving for greater "management efficiency."

Undoubtedly in any organization as large as the Park Service there is always room for bureaucratic improvements. However, based on the survey results, NPCA feels that increasing the personnel and funds available for operation of the Park System is essential to deal with the immense problems now facing the national parks.

At press time, the House Government Operations Committee, in response to NPCA's survey, had scheduled oversight hearings on these issues for December 4, 1975.

NPCA members who wish to share their concern about the future of the national parks should write:

Mr. James L. Mitchell
Associate Director
Office of Management and Budget
Old Executive Office Building
Washington, D.C. 20503

The future of Fire Island National Seashore, New York—a topic that drew hundreds of people to a public hearing in that state last year—was examined recently at congressional hearings. An invitation from the Senate Interior Subcommittee on Parks and Recreation offered NPCA an opportunity to present its comments on the recently released draft master plan for the seashore.

Although the subcommittee scheduled the hearings to consider S 867, a bill introduced by Senator Jacob Javits to increase the authorization for the national seashore from \$16 to \$26 million, the scope of the hearings broadened to include the oversight responsibilities of the subcommittee concerning administration and management of National Park Service areas.

The current draft master plan for Fire Island includes plans for fairly intensive development of the 8-mile natural area of the seashore. These plans are contrary to the stipulations of Public Law 88-587, which established the Fire Island National Seashore on September 11, 1964. The Act states that "No development or plan for the convenience of visitors shall be undertaken therein which would be incompatible with the preservation of the flora and fauna or the geographic conditions now prevailing, and every effort shall be exerted to maintain and preserve this section of the seashore . . . in as nearly [its] present state and condition as possible."

As a result of intense public opposi-

tion to the initial draft master plan, the Park Service has indicated that it will prepare a second draft before implementation of any of these plans. NPCA has stated its strong opposition to construction of any Park Service facilities in this natural area.

A water line crossing Cape Hatteras National Seashore in North Carolina has been given a conditional stamp of approval by the National Park Service (NPS), which did not issue an environmental impact statement on the pipeline.

Cape Hatteras Water Association (CHWA) had applied for a special use permit for a line crossing 2.5 miles of national seashore land to connect the well fields of the town of Buxton to the town of Avon, a privately owned enclave within the NPS area. NPCA then urged the Park Service to deny the permit based on indications, confirmed by an NPS environmental assessment, that the water line would induce development of hundreds of new second homes on the beach within the enclave. NPCA charged that the seashore

environment already has suffered severely due to an existing subdivision, Hatteras Colony. (See November 1975 issue, page 26.)

On the grounds that the water system would benefit the park by providing a safer water supply to the concessioner and by increasing the standard of fire protection, the Park Service agreed to the special use permit. However, even though NPS was under a great deal of political pressure from the state of North Carolina to grant the permit, the Service placed conditions on the permit that, if properly enforced, should minimize the adverse impacts of the project.

NPS has offered CHWA the permit subject to the condition that the use of water transmitted through the water line be limited to existing structures or structures now under construction in Avon Village. It further stipulates that supplying water to any user other than an existing structure or structures presently under construction would be a breach of the permit that would result in automatic termination. However, under certain conditions this

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limitation could be removed by the Secretary of the Interior if a proper and effective sewage treatment and disposal system is installed to service Avon Village that will ensure protection of the resources of Cape Hatteras National Seashore, and if a proper and effective land use plan is developed and made binding on any new development within Avon Village that will ensure protection of Cape Hatteras and the public enjoyment of the area.

NPCA has told Park Service officials that it is extremely unfortunate that NPS did not prepare an environmental impact statement on this project even if the Park Service issued a conditional special use permit thereafter. The facts and adverse impacts that would be revealed by an environmental impact statement could be used by NPS to substantiate limitations and conditions of the permit if such are challenged in the future by local water users or state interests. Without these facts, the Park Service might be more easily forced to give in and relax the conditions of its permit, and Cape Hatteras would be threatened by the sprawl of subdivisions across its sandflats.

NPCA inquiries about advertising by National Park Concessions, Inc., recently prompted the Southeast Regional Office of the National Park Service to ask Garner Hanson, president and general manager of the concessions firm, to assure that future ads do not refer to "party type," convention, or other activities inappropriate in a national park—in this case, the Mammoth Cave Hotel in Mammoth Cave National Park, Kentucky.

NPCA had protested ads that appeared during the summer season and promoted large group activities at the hotel. Robert Stanton, Acting Regional Director, confirmed that "the ad appearing in the Park City Rodeo program was an error—a 'winter type' ad was published during the summer season. The second ad . . . was a duplication of this error."

The Park Service expressed displeasure to National Parks Concessions about the ads and told NPCA that, "Although the original ad was placed for a worthy [local civic] cause, the fact is that the wording was inappropriate. We believe, however, that

National Park Concessions, Inc., is positively committed to the policies of the Service."

The National Park Service is moving toward a policy of discouraging—if not prohibiting—convention-type business in the parks, at least during summer visitation periods. NPCA maintains that large parties, banquets, and the like are inappropriate for the natural areas and have adverse impacts on national park resources.

In response to a court suit by NPCA and others, ERDA (the Energy Research and Development Administration) has issued a draft environmental impact statement (DEIS) on the effects of the U.S. nuclear export program.

Despite safety and environmental risks of nuclear fission power and increasing evidence of the problems that can be encountered in helping to supply more countries with the nuclear capability that could be used to produce nuclear weapons, various federal activities and agreements with foreign countries concerning nuclear equipment, fuels, and services continue.

Represented by Eldon Greenberg of Washington's Center for Law and Social Policy, NPCA and several other environmental groups have submitted comments on the DEIS, which we consider "an effort to rationalize and justify a decision already made to continue U.S. nuclear power export activities under essentially existing conditions." As Greenberg states, "Assumed benefits of export activities are trumpeted loudly, serious risks are understated, reasonable alternatives are cursorily dismissed, and responsible criticism is ignored. The result is a document almost wholly lacking in objective and comprehensive analysis. . . ." This lack of objectivity is underscored by the fact that ERDA failed to cite the report of its own consultants, Richard J. Barber Associates, which concluded that "[I]ndiscriminate promotion of nuclear power exports to LDCs [lesser-developed countries] appears unwise at this time."

Our specific criticisms of the DEIS include:

- The fundamental defect of the DEIS is that it limits its scope to "potential environmental impacts on the United States and high seas from U.S. nuclear power export activities con-

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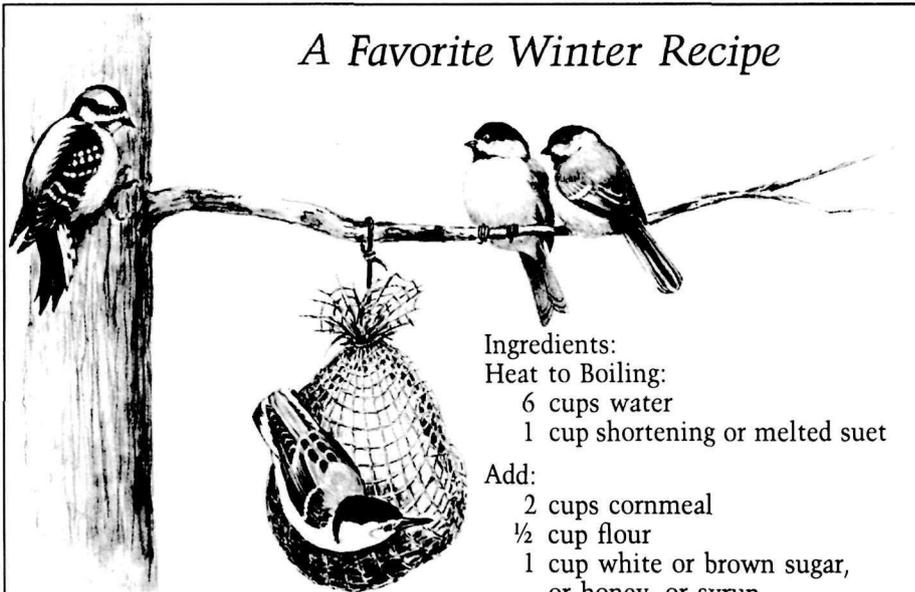
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½ cup flour
1 cup white or brown sugar,
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Mix and bring to boil. Cover and turn off heat. Finally, add whatever extras in the way of seeds, raisins, nutmeats, peanut butter, or other tidbits may seem appropriate. Pour into pans and chill before placing at feeders.

"A Sweet-tasting Mixture with Wide Appeal" recipe and the drawing by Matthew Kalmenoff from *A Complete Guide to Bird-Feeding* by John V. Dennis, published by Alfred A. Knopf, New York; \$10.00. Copyright © John V. Dennis 1975.

ducted within the United States [and] on the high seas." This results in the exclusion of all impacts associated with the construction and operation of nuclear facilities outside the United States; that is, *all* impacts related to power production, reprocessing of spent fuels, management of high-level radioactive wastes, and transport between segments of the fuel cycle—even those impacts that may be felt in the United States. It results in the absence of any discussion of the cumulative, worldwide impacts associated with the development of the international nuclear power fuel cycle.

- For instance, the DEIS contains virtually no information with regard to the environmental impacts of reprocessing and waste storage, either in individual countries or on a worldwide cumulative basis, despite the fact that no general solution for the isolation of long-lived radioactive wastes from the biosphere is yet in hand and these wastes would still pose a danger for thousands of years.

- The DEIS is woefully lacking in information that would permit a meaningful overall assessment of U.S.

nuclear export activities. ERDA seems primarily concerned with the dollar value of such activities, while incomplete or incomprehensible information is presented concerning such matters as licenses issued for export of enriched fuel, licenses issued for export of nuclear power plant equipment, nuclear fuel reprocessing facilities outside the United States, and so forth. Its treatment of the projected future growth of nuclear power is also defective.

National and international regulatory structures are not adequately examined, even though they have profound implications for the safe operation of nuclear facilities. Indeed, consultants for ERDA itself said in the Barber Report, "The U.S. experience points out the difficulty of enforcing safety standards. For example, in fiscal year 1974, the AEC found a total of 3,333 safety violations in 1,288 of 3,047 facilities inspected—and at the same time was under considerable attack for lax enforcement. Given severe resource limitations, one must question whether lesser developed countries can consistently give enforcement of safety regulations the level of prior-

ity *vis-a-vis* other national programs necessary for an equivalent level of attention to the problem."

- The DEIS deals with international safeguards and physical security requirements in an abstract and incomplete manner, despite the possibility of further nuclear weapons proliferation and greater risks of terrorist acts.

- The limited scope of the DEIS carries over to its treatment of alternatives. Alternatives designed to eliminate or reduce environmental, health, and safety risks are completely ignored. In its discussion of alternatives the DEIS does not even allude to the possibility of multilateral ownership of enrichment and reprocessing facilities.

The comments of NPCA and other groups discussed how consideration should be given to various alternatives involving the reduction or termination of export activities coupled with promotion of more desirable and/or appropriate energy sources and to alternatives involving changes in both national and international control conditions. We urged the adoption of an export policy that would make the promotion of nuclear power "subservient to the promotion of sensible total energy policies and programs."

Our statement concluded that a new DEIS is required, and warned that "ERDA has an immense responsibility to ensure that we do not fail in making decisions which may be critical for the future of mankind."

One less Soviet whaling fleet will sail to the Antarctic in search of whales this year, but based on past tragedies conservationists are concerned about the possibility that vessels and equipment now being retired from Soviet whaling could be sold or transferred to other nations for whaling.

The Union of Soviet Socialist Republics announced the fleet reductions at the opening of the International Whaling Commission (IWC) meeting in London last June, at which IWC members, compromising with Japanese and Soviet whaling interests, agreed to a new kill quota of 32,578 great whales. (This quota represents a reduction of only some 23 percent over the previous year's level and conflicts with scientific evidence on the serious depletion of whale populations.)

NPCA and twenty-two other con-

ervation-oriented groups recently contacted the Soviet Ambassador to the United States, Anatoly F. Dobrynin, to repeat our standing request that all whaling by the Soviet Union be stopped and to ask that excess explosive harpoons be destroyed and vessels retired from whaling be dismantled or converted to other uses. The organizations pointed out that quota reductions by the IWC will be meaningless if excess whaling equipment goes to non-IWC nations that are not bound in any way to observe these quotas: for example, the Somali Republic, Guinea, Peru, Chile, and others.

The history of the decline of the great whales has been closely associated with the transfer of vessels and equipment from one country to another. Japan owns whaling companies and sails whaling fleets under the flags of non-IWC nations such as Peru and Chile, which set their own quotas and pursue a target-of-advantage philosophy—killing any whale that dares show itself—at times killing seriously endangered ones, such as blue whales.

When Prime Minister Takeo Miki of Japan visited Washington, D.C., in the autumn of 1975, conservationists petitioned him to end whaling by Japan and requested assurances that excess whaling equipment would not be sold or transferred for further whaling. Japan did not drop any fleets from this year's whaling voyages to the Antarctic, even though it has promised to abide by the quota.

In urging Mr. Dobrynin for an affirmative response concerning the disposal of excess Soviet whaling equipment, NPCA and the other groups remarked that "We would deeply appreciate a favorable decision by your country. Your leadership in banning the killing of dolphins and polar bears suggests that similar leadership may be applied to save the declining populations of the great whales."

NPCA lacks faith in the ability of the IWC to deal with the plight of the great whales; and we continue to press for a ten-year moratorium on all whaling, which is essential to pull the great whales back from the brink of extinction. NPCA supports a boycott of Japanese and Soviet goods as a means of pressuring these nations into taking significant steps to save the whales.

news notes

Public involvement in planning for the future of Yosemite National Park, California, is now in its second phase with distribution of workbooks to the more than 19,000 people who participated in the first or public workshop phase of planning and to others.

The workbooks include four planning alternatives for future management of Yosemite, covering the range of views expressed at workshops. Respondents are asked to select or assemble the alternative they prefer and return it to the master plan team by January 16. After considering public response the team will fashion an environmental assessment and draft master plan. To obtain a workbook, write *immediately* to Yosemite Planning Team, NPS, c/o Golden Gate NRA, Fort Mason, San Francisco, California 94123. See "Help Plan Yosemite's Future," June 1975.

Approving the sale of 1.25 million acres of oil leases near the Channel Islands off the southern California coast was one of Thomas S. Kleppe's first major decisions as the new Secretary of the Interior.

Conservationists fear the leasing will mean disaster for the fascinating array of marine mammals, sea birds, plants, and sea life harbored by the islands, two of which—Anacapa and Santa Barbara islands—form Channel Islands National Monument. Santa Cruz, Santa Rosa, and San Miguel islands are under consideration for inclusion in that National Park System unit, and the Park Service had objected to the oil and gas leasing program partly on that basis.

In a decision meeting on October 31, 1975, Kleppe approved sale of most of the 1.6 million acres of leases under consideration, but excluded .35 million acres of the leases from sale (see map). At press time, the sale was scheduled for December 11, 1975.

The abundant flora and fauna of these islands are varied and—as in the case of the rare island fox—often fascinatingly different from those on the mainland. Anacapa and Santa Barbara islands are characterized by high sea cliffs, wild flowers, and sea birds. Cali-

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fornia's only remaining nesting colony of the endangered California brown pelican is on Anacapa, an island consisting of three small ridges of land joined by shallow reefs. Santa Barbara Island harbors large rookeries of sea lions, and the islands host sea otters, sea elephants, and the rare Guadalupe fur seal.

The northern Channel Islands include more than 220 species of birds, more than 800 varieties of plants, and archaeological and paleontological values. Santa Cruz and Santa Rosa are luxuriant with plant life and the latter is surrounded by kelp beds important to a variety of sea life. San Miguel harbors one of the largest known colonies of sea elephants as well as thousands of sea lions and other pinnipeds, bird rookeries, and several pairs of nesting eagles.

Although wildlife and other resources of the other Channel Islands—Santa Catalina, San Clemente, and San Nicolas—have already suffered from developments and utilization as a U.S.

Navy target range, they are still used by hundreds of marine mammals.

Operations in the leasing area east of Santa Catalina Island (especially Anaheim Bay) would threaten three endangered species of birds—the light-footed clapper rail, California least tern, and Belding's savannah sparrow.

In granting the leases, the Interior Department notes that it placed some stipulations on lease operations in the area of estuaries in the San Pedro Bay, and in the area of San Miguel, Santa Rosa, Santa Cruz, and Santa Barbara islands. In order to control oil spills, oil containment equipment must be maintained on each platform. The equipment should represent the "best available technology" or "similar safeguards . . . as approved by the [USGS] supervisor." The regulations also provide a federal buffer zone of three-quarters of a mile around state waters.

However, these stipulations—and even the elimination from sale of tracts south of San Miguel Island and those in Santa Monica Bay—must be consid-

ered in light of the probable effects of the leasing operations and associated developments on air and water quality and flora and fauna.

As pointed out by the Bureau of Land Management environmental impact statement on the project, the impacts of the leasing program will be region-wide. For instance, a single major oil spill can create a 500-square-mile slick. The BLM admits that impacts resulting from accidental oil spills are "inevitable" and statistically "unavoidable." Millions of gallons of oil can be expected to spill into Channel Islands waters during the forty- to sixty-year life of the program. There would be serious impacts on marine ecosystems and some endemic species might become extinct. (See the October 1975 Magazine for more information on the Channel Islands.) The state of California is considering filing suit over the leasing program.

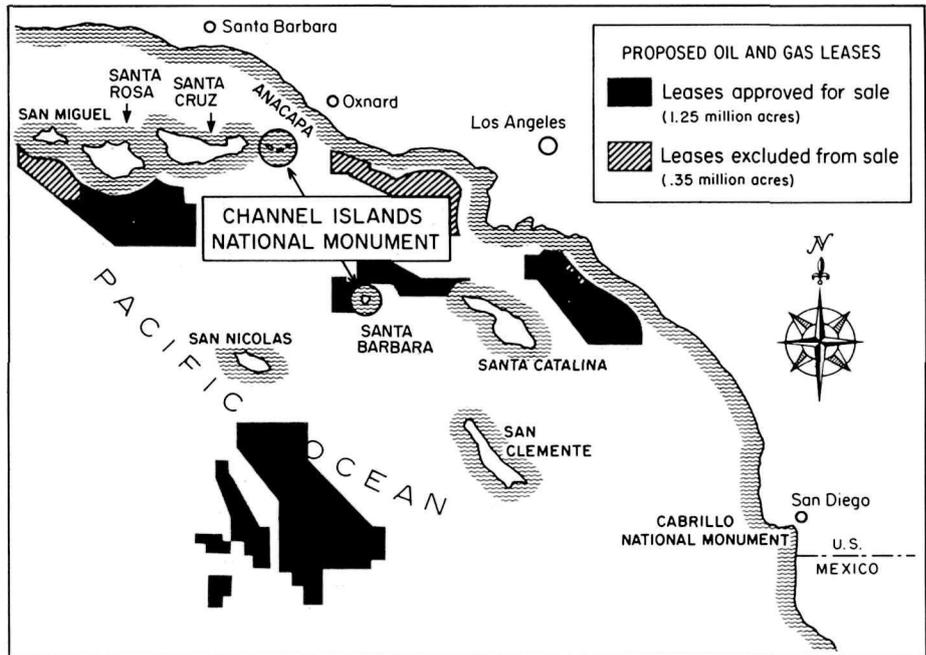
The Administration also took steps recently toward future sale of leases off the shores of Alaska and off the Atlantic Coast. It authorized oil companies to drill two test wells off the Atlantic Coast—one 75 miles from Cape Cod National Seashore, Massachusetts, and one eighty miles east of Atlantic City, New Jersey.

"Even during a time of recession, high unemployment, and rising fuel costs, the public does not voice a readiness to cut back on environmental control programs to solve economic and energy problems," according to Opinion Research Corporation of Princeton, New Jersey.

In fact, recent studies show that six people in ten say that it is more important to pay the price necessary to protect the environment. ORC has reached the following conclusions in its study of "Public Attitudes Toward Environmental Tradeoffs," based on telephone interviews with a national probability sample of 1,222 adults.

Given a choice, most people indicate that they believe it is more important to pay the costs involved in protecting the environment than to keep prices and taxes down and run the risk of more pollution.

While younger people, the better educated, and environmentalists display the most support for this point of view, it is also held by a majority of



The Channel Islands off the southern California coast, which are in the first target area of the Ford Administration's plans to accelerate offshore oil development into new areas, include two islands that are part of the National Park System—Anacapa Island and Santa Barbara Island. In addition, Santa Cruz, San Miguel, and Santa Rosa islands have been proposed for addition to the national monument. The development will threaten marine mammals, birds including the endangered California brown pelican, remarkable flora, and a panoply of fascinating sea creatures. As shown above, all the Santa Monica Bay tracts, eighteen tracts south of San Miguel, and a few others have been eliminated. Parts of a few buffer zone tracts were also eliminated. However, most tracts proposed for the oil and gas lease sale were approved by Secretary of the Interior Thomas S. Kleppe.

those in almost all key subgroups of the population.

Acceptance of the concept of paying for pollution control may be explained, to a great extent, by the fact that an overwhelming number of people believe we are paying now for the pollution caused in the past. In addition, nine out of ten people say they believe that, if we don't start cleaning up the environment now, it will cost us more money in the long run.

A plurality of people (48 percent vs. 38 percent) think that it is more important to have pollution control devices on cars than it is to keep the price of automobiles lower by eliminating such devices.

This view is particularly strong among women, younger people, and the better educated, as well as those in the East and the West.

People are sharply divided over whether it is more important to have strip mining regulations to protect the environment or to keep the price of coal, and thus the price of electricity, lower.

Those most in support of strip mining regulations are the younger people, the better educated, those in upper income brackets, and environmental activists. A plurality of those in the East and the West also think such regulations have more importance than lower electric rates.

Overall, people are also sharply divided over whether cleaning up the environment is important enough to take precedence, if it means closing down some old plants and causing some unemployment.

However, most people, in all walks of life, agree that it is necessary to maintain a balance between environmental protection and full employment.

In sum, business seems to have little recourse but to learn to cope with and even capitalize on, if at all possible in the long run, the transformation of environmental protection into a popular, institutionalized movement that shows little sign of abating, even during a period of economic stress.

In recent actions concerning endangered species, the American crocodile and six other animals from the United States and Mexico have been listed for protection under the Endangered Spe-

cies Act of 1973, while the alligator has been removed from the endangered species list in three parishes of Louisiana where its populations reportedly have achieved a healthy balance.

This past autumn the U.S. Fish & Wildlife Service (FWS) published a final rulemaking listing the American crocodile (the rarest reptile in the United States), the Cedros Island mule deer, the peninsular pronghorn antelope, the Hawaii creeper, the Scioto madtom fish, and the po'o uli as endangered species and listing the bayou darter and the Newell's Manx shearwater as threatened species. The snail darter, a small fish just discovered in Tennessee, also was given endangered status recently.

FWS proposes six California butterflies and the Red Hills salamander of Alabama for listing as endangered.

Saratoga National Historical Park in Stillwater, New York, commemorates the Battle of Saratoga in 1777, considered a turning point in the American Revolution. The Nature Conservancy recently purchased a 147-acre tract next to the park, which will be transferred to the Park Service in time for the Bicentennial as a gift to the American people. The purchase of this historically significant property unifies the battleground area and further ensures the protection of the park's ecosystem. The former owner of the property, Glenn F. Larson, sold the land to the Conservancy below fair market value in the interest of preserving the land's historical and ecological value.

Snowmobiling is no longer permitted in Glacier National Park, Montana, superintendent Phillip Iversen recently announced.

Iversen reported strong public opposition to continuance of the sport within the park due to noise, esthetic considerations, and effects on wildlife. He explained that park officials have been concerned about wildlife because snowmobiles have operated in the valleys, where the animals are under stress during the winter.

Snowmobiling has dropped off considerably during the past four years at Glacier National Park, while ski tourists and snowshoers increasingly look to this and other parks for a pristine winter environment, Iversen said.

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reader comment

To 'Keep Little Children Warm'

I was appalled at the bias of the article on page 20 of the September 1975 issue of *National Parks and Conservation Magazine* ["Triple Jeopardy at Glacier National Park"]. . . .

I am a staunch conservationist and believe that we must keep our national parks in good condition, but there is a corollary to every proposition, and I think that in this case it should be "unless we are endangering the human population." I think it all boils down to the question of whether we should sit tight lipped and be uptight when the question of debatable damage to the "biosphere" might occur, or whether we should take steps to help augment exploration and development of coal and gas, so that little children can be kept warm, so that their parents can get to work, and that food can be shipped to them.

I do not think that it is the role of our national parks, and of the National Parks and Conservation Association to shackle or attempt to shackle all development of the kind proposed. Trees can be grown again, grass resown, and polluted (?) streams cleansed but once a human life is lost through starvation or made miserable through malnutrition irreparable damage is done.

As far as exploration is concerned where would this country be if the early and later explorers were given a flat no-no and told that they could not endanger the forests and rivers and wildlife by going into the wilderness?

Let us be true American Citizens, let us celebrate our bi-centennial by promoting rather than forbidding those activities which contribute to human life and comfort.

As far as exploration goes, that cannot harm the wilderness or the national parks, and if development occurs that can be controlled by antipollution devices, strict supervision and cooperation.

I read an article in a recent issue of *Northern Miner*, which I sent to Curt Berklund [BLM director], that many of the proposed nuclear fission plants have had to be abandoned, and plans discarded for the present because of

lack of funds, and astronomical rises in price. . . .

Also you may recall the damage done by the earthquake in Yellowstone National Park, a few years ago. It would take an army with atom bombs to equal that destruction, and I don't think that any exploration could ever equal that disaster.

*Mrs. Elsie S. Matthews
Bartlesville, Oklahoma
Johnny Horizon Representative
Washington County, Oklahoma
Chairman, Conservation of
Recreational Lands
Rocky Mt. Fed. Min. Soc. Inc.*

On "Grizzly at Bay"

I was sweet and sour on your November 1975 issue. Gene Albert's article ["Glacier: Beleaguered Park of 1975"] was excellent. However, I was sad to see some parts of the grizzly piece. ["Grizzly at Bay," by Stephen R. Seater.]

I doubt there are many people more concerned about grizzlies than I am. That's why it's so distressing to see how the controversy is going. The grizzly is in trouble, no doubt. But I truly don't believe we should place so

much emphasis on hunting. I agree hunting can have an impact—especially when a new area is opened by the Forest Service [FS] for logging. With easy access, hunters may exert too much pressure on local bear populations.

It doesn't bother me that so many people are against hunting. What bothers me is that they tend to think it's the major or even the *only* problem the great bear faces. Hunting has nearly ended now, and I suppose it will end completely in a few years if pressure continues. If this happens, how many people will say, in effect, "Well, we saved the grizzly"?

Your article was bad in the sense that it placed high priority on stopping hunting to save the grizzly, while at the same time giving the back seat to impacts like those discussed in Gene Albert's article.

The best thing bear-lovers could do for the grizzly right now is convince the FS to put the bear first in land-use decisions and refuse the gas leasing, deny Ski Yellowstone, stop sheep grazing, prevent geothermal development all around Yellowstone Park, quit giving permits for new tourist roads and

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power lines through grizzly habitat, start pushing for wilderness designation of [proposed] the Great Bear [Wilderness Area] and about twenty other vital areas and keep close rein on the loggers.

Although many factors come into play, the real key to the silvertip's salvation lies in the hands of the FS. For instance, why aren't we urging the FS to help expand grizzly populations by transplanting the bear into traditional habitat where the species has been exterminated?

The second priority should go to the right kind of public education (your article was only partly right). Many people fear and hate grizzlies. I could find quite a few around here who think exterminating all grizzlies is a great idea. But none of them are grizzly hunters.

To make this short, you may be hurting the grizzly's chances by turning everyone on to banning hunting and letting the real issues of habitat deterioration on public land and public intolerance drown out in the uproar. . . .

Bill Schneider

Helena, Montana

The Forgotten Crisis

Congratulations on the fantastic article, "Population: The Forgotten Crisis," in the September [1975] issue, *National Parks & Conservation Magazine*.

People need to stop waiting for God to solve it. (He doesn't blow your nose or fix your flat tires, does He?) And until the populace raises a clamor and a lot of money for more family planning, the politicians are not going to do much either.

It isn't more leadership we need, but millions more dollars in individual efforts.

And we need to talk PRICE. Dr. R. S. Mulliken has suggested between \$20 and \$50 billion a year worldwide (*Bulletin of the Atomic Scientists*, January 1974). In other words, $\frac{1}{10}$ to $\frac{1}{8}$ of the global military madness.

Mrs. Mack Tyner, Jr.

Gainesville, Florida

P.S. Dr. John Robbins, executive director of Planned Parenthood/World Population, estimates that in 1971 we spent under \$4 billion worldwide on population problems.

conservation docket

Action on one bill and introduction of the following bills before Congress may be of interest to NPCA members. Descriptions include those who introduced the bills and committees to which they were referred.

Volunteers in the Parks: Signed by President Ford on November 13, 1975. PL 94-128 increases from \$100,000 to \$250,000 the per annum authorization for the Volunteers in the Parks program.

New River: S 2577 and HR 10448—To designate the New River a Wild and Scenic River subject to local and state government action to protect the area by means of zoning and other land use regulation methods. Senators Jackson and Fannin (by request of the Administration) and Rep. Keith G. Sebelius (R-Kans.). Interior.

Big Thicket: S 2501—To amend the Act establishing the Big Thicket National Preserve by providing for the acquisition of land within the borders of the preserve. Big Thicket has been threatened by development because the original Act did not provide means for land acquisition. Sen. Lloyd Bentsen (D-Texas). Interior.

Rangelands Rehabilitation: S 2555—To authorize funds and establish a program to identify and correct deficiencies in rangelands and to restore them to a condition of full use. Sen. Floyd K. Haskell (D-Colo.). Interior.

Nantucket Sound Islands: HR 10307—To establish the Nantucket Sound Islands Trust, a cooperative effort of the federal, state, and local governments to protect and preserve the natural, historic, and cultural values of the islands. Rep. Gerry E. Studds (D-Mass.). Interior.

Young Adult Conservation Corps: HR 10600 and S 2630—To amend the Youth Conservation Corps Act by adding a program for young adults over eighteen and under twenty-four years of age. Rep. Lloyd Meeds (D-Wash.). House Committee on Education and Labor. Sen. Henry M. Jackson (D-Wash.). Senate Interior.

Daniel Boone Trail: HR 10280—To authorize a study to determine the feasibility and desirability of designating

a Daniel Boone National Scenic Trail from Statesville, North Carolina, to Fort Boonesborough State Park, Kentucky. Rep. Roy A. Taylor (D-N.C.). Interior.

Golden Gate: HR 10398—To enlarge the Golden Gate National Recreation Area in California by adding adjoining land. Rep. John L. Burton (D-Calif.). HR 10447—To authorize a study of such a proposal to be completed in no more than two years. Rep. Leo J. Ryan (D-Calif.). Both: Interior.

Boundary Waters: HR 10247—To create the Boundary Waters National Recreation Area and Boundary Waters Wilderness from the Boundary Waters Canoe Area. Sponsors hope wilderness designation will facilitate protection of streams and banks within the area. Rep. James L. Oberstar (D-Minn.). Interior and Agriculture.

Endangered Species: HR 10229—To amend the Endangered Species Act to permit the Secretary of the Interior to act more quickly to protect endangered species. It would also give him power to grant exemptions for future commerce in live animals and plants and the parts or products of dead ones present in the United States before December 28, 1973. Rep. Leonore Sullivan (R-Md.). Merchant Marine and Fisheries.

Seaton Sanctuary: S 2542—To replace the Arctic National Wildlife Range with the Fred Seaton National Wildlife Sanctuary. Sen. Ted Stevens (R-Ala.). Interior.

Park Permits: HR 10499—To provide for special annual permits for handicapped persons for entrance to national parks and other public lands and facilities. Permits would cost 50 percent of the normal price. The program would work in much the same way as the "Golden-age Permit" program. Rep. George E. Shipley (D-Ill.). Interior.

PCB's HR 10513—To prohibit the manufacture or importation for introduction into commerce of polychlorinated biphenyls, a class of pesticides shown to be dangerous to humans. Rep. Les Aspin (D-Wisc.). Commerce.

Florida Trail: S 2486—To mandate a study of the feasibility of establishing a 1,300-mile National Scenic Trail from Everglades National Park to Black Water River State Forest. Sen. Lawton (D-Fla.). Interior.

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Continued from page 2

meets the elk, the moose, the grizzly bear in distant wilderness. Yet Asian lion dwindles in the Gir; the elephant falls before the newest hordes of ivory hunters; the jaguar retreats, from spreading settlements draws back, toward vanishing jungle hideouts. This tide may also turn, the richness of the wildlife of the world be saved for all. All this rests heavily upon our love of the Land.

THE PLANTS as well must have our strong defense. Close-linked with famine is the plight of native grains and grasses around the world. Invented grains with problems manifest replace the stable species, varying widely, that once gave surety in times of drought or flood, or years of blight or locust, of survival. Restocking, plantations, seed banks: vigorous measures must be taken soon to right the technological mistakes which here, as in so many places, wreck our days. And cacti, orchids, ferns retreat and disappear; wild flowers of stream bank, woodland, roadside vanish before collectors, builders, pavers, sprayers of roadbanks. Our love of Land bespeaks our love of plants; known now as sensory beings, however distant, like ourselves: givers of oxygen, the air we breathe; whisperers in wind; artists of bright color in their blooms; hospitable to bees. This verdure warms the love of the Land, lies deep within the ancestral heart of man.

THE WATERS upon the face of the earth, and beneath the earth, receive our love of the Land. The fresh waters of the streams and springs of the new continent when the Europeans arrived, as they were known to the Red Men, the memory of these is even yet a part of our heritage; we have embarked in recent years on an effort to restore them; the persons who launched these efforts should be honored among us; the best honor would be the achievement of the goals they have sought. The measures so recently undertaken to end the pollution of our rivers, estuaries, lakes must be strengthened, not allowed to lapse. The poisoning by acids, insecticides, overdoses of fertilizer, industrial chemicals must end. The mania for big dams for power, uneconomic irrigation, bad flood-management, duplicating transportation may be ebbing; speed its demise! The wetlands are vital: coastal zone management, a cessation of drainage everywhere, and of the absurd-

ity and abomination of channelization (meandering streams forced into ditches, their marshes and all the life within them destroyed), these are some of the practical measures for protection. We take them for love of the Land.

IN THE NAME of a mythic self-sufficiency in energy this nation has now launched a colossal program to rip up vast regions of the land in which it lives, its very habitation. We cut our own ground out from under our feet; yet not we, not all of us, nor most of us. The cries of agony can be heard from every quarter: from the first Americans of Montana whose wells and rivers will be stolen for use in distant power plants; from ranchers in Wyoming whose grasslands are to be seized and converted to spoil banks; from dwellers in the hollows of West Virginia, whose poverty is now to be compounded by dispossession and despoliation. While power from sun and wind go unexplored by agencies entrusted with responsibility, and by the corporations which as matters go make these decisions, we see our native land condemned to mayhem in this manner. Meanwhile the winds that cross the continent, that course the Rockies, Prairies, Appalachia, are once again condemned to carry a burden of filth, and we to live beneath it. The love of the Land, our proper respect for ourselves, and of the Community of Life of which we are a part, command a change.

RESPECT FOR ourselves condemns the urban racket. The quest for ourselves demands the rural solitudes, great spaces, fit for men. Within each person lies a far retreat which can be found in city streets, in corners of the boxes that we build for work and leisure in Metropolis; such is the ultimate strength of human integration. And in the countryside we have no guarantee: for spite and bigotry can spoil the towns, can run like forest fire through close communities. And yet against the background of the stars, against the vista of the distant hills, our spirits prosper best. Curbing our numbers, checking excessive immigration, using our administrative talents, participating in decisions of agency and corporation, we may nourish once again a culture close to Nature. The work is for artists, poets, men of science, managers; for elders, and for children; done for the love of the Land.

—Anthony Wayne Smith



Legal mining operations inside some of our great national parks and monuments are damaging them. No mining company's profit is worth the sacrifice of even one square foot of our cherished parks, monuments, and historic sites. NPCA is fighting to have mining banned permanently from the National Park System. But to succeed we urgently need your support. Please send your tax-deductible contribution today.

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